Born to Live and Living to Learn: Autobiography Of a Farm Boy, Soldier, Parent and Educator

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From civilian life to soldier. Second Lieutenant, Robert H. Foote
Upon graduation from Officer Candidate School, 1943.

Summer, 2003
Dedication

Dedicated to my parents, my family, and thousands of other people, creatures and events that have touched and helped to shape a farm boy, soldier, parent, researcher and teacher, as this Foote journeyed along the path of life.
Preface

Several people have encouraged me to record my experiences and thoughts. It is relatively easy to do the former. It is more difficult to express the latter appropriately in selected words because the words chosen relate to my experience, and may not have the same implications for others who naturally perceive life somewhat differently.

So why have I undertaken the task of writing this autobiography as my life has interacted with family, friends, colleagues, and others? First it is an attempt to become more aware of how events in my lifetime shaped me as an individual, and how the shaped individual responded to the times. It is an educational experience, and education has been and is a driving force in my life.

Second, recording some of the family story may be of interest and value to the living generations of the extended family. A century ago most families, including ours, resided for generations on a small circumscribed area of the globe where intergenerational sharing of life's experiences was an everyday affair. With the unprecedented acceleration of mobility in the past century the associated scattering of family members has resulted in a major loss of this sharing. To some extent we are strangers in the same biological family. If we don't have an intimate family to share our joys and problems with, then who fills that need? God?

Third, historians may find this story of value as they reflect on other stories with their collective similarities, but individual uniqueness. For those interested in war-related events, I was one of the few Caucasian officers to have the privilege of serving with the all Japanese-American soldier unit, the 442nd Regimental Combat Team, in World War II. This unit has been officially recognized by the War Department as the most distinguished army unit in the history of the United States. I survived and I have kept the faith with the survivors of this unit for the subsequent 60 years.

For those interested in Cornell's contribution to animal science, basic and applied, our team was the first to work with DNA in an attempt to transfer genes from one animal to another. Our work in developing the technology for artificial breeding of cattle laid the foundation for most of the worldwide use of artificial insemination in cattle today. Our research produced leaders in the embryo transfer industry and in cloning.

My account reflects the life of a boy whose heart never left the farm. I have had a wonderful career that I do not regret in the least, but memories of my youth still cause me to refer to home as the home where I was born. I wake up in the morning with the cows. The weather report not only indicates what I should wear that day, but also raises questions in my mind such as: "Will this delay planting corn? Is the grass ready to cut? Will this be a good hayday? Will the strawberries ripen well or get moldy? How high is the water table?"

Then there is the balm of Gilead, my hometown. For those who never experienced the balm of Gilead, see my mom's poem attached, published in her 81st year.

In contrast, there were the crushing and crashing days of World War II. My fortunate postwar career took me on journeys of mindful exploration in the
search for understanding. I was extremely fortunate to have great teachers who shared their expert knowledge of how animals functioned (physiology), how they were nurtured (nutrition), what controlled body form and function (genetics and the discovery of DNA), and how evolution and selection (animal breeding) changed surviving forms of life. Like the rainbow, so beautiful to behold, life moves forward, as we gather knowledge, recognizing that while moving ever forward one will never reach the pots full of knowledge at the ends of the rainbow.

The book is an unedited collection of reflections, as I remember them. They are aided by notes and an occasional diary kept by my first wife, Ruthie, plus Christmas letters. Not all of the experiences are dated accurately, but what is important is to note that they occurred and to recognize that experiences do impact one's behavior and life.

Later sections, relating to my professional journey at Cornell, are well annotated. These are based on multiple files of material accumulated during 57 years of teaching, research and public service at Cornell University. Many details are in a separate archival type of volume which serves as an appendix to this book. In addition, selected original records have been catalogued, boxed, and sent to the Cornell Archives.

Keeping most of the detailed documents separate has made it possible to write my life story more as a narrative rather than as a historical document. However, some of my reflections on the 57 years at Cornell require substantiation. There were numerous changes. The 1960s were times of great turmoil, and the author was on committees dealing with student unrest. In these cases copies of original letters and documents have been included.

The text has not been edited for literary quality as carefully as my scientific papers. This becomes more tedious and difficult as one enters the twilight zone of life. However, I believe that the text is accurate, and I hope that where there was controversy the reader will accept my attempt to tell the story as I believe that it occurred. I apologize for any errors that may have crept in.

IS THERE NO BALM IN GILEAD?

Jeremiah 8:22

---------------
In the cool of the early morning,
With its cleanly scented air,
When the birds, their matins sounding,
Call mankind to praise and prayer;
When the sun the east illumines
With a glory no words can tell,
And the blue of heaven deepens,
Comes assurance, “All is well.”

When the toil of the day is over,
And the weary sigh for rest,
There is peace on Gilead's hilltop
As the sun sets in the west.
Panorama of wondrous beauty—
It proclaims the Creator's art.
And affirms there's balm in Gilead
For the worn and weary heart.

By Annie Hutchinson Foote
from In Gilead published by
the author in 1970.
Acknowledgments

Thanks go to all my family and friends who have helped me to make it through the first 80 years. My wife, Barbara, is a positive spirit who encourages me to continue to keep going full tilt, even though I don’t have a tilting ground. Special thanks to Eric Clay, Rebecca James, and others in Eric’s writing group who provided both challenges and helpful suggestions. Elisa Van Amburgh provided endless help in transforming paper revisions into an electronic text.
# Born to Live and Living to Learn: Autobiography of a Farm Boy, Soldier, Parent and Educator (Abridged Edition)

*Robert H. Foote*

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CHAPTER 1A

*In the Beginning: The Ancestral Foote Tree*

"In the beginning God created heaven and earth" (Genesis 1:1). Today we have much more evidence concerning the formation of the universe than did the writers of Genesis, but much remains a mystery.

No one knows exactly where each of us came from over millennia of time. The anthropologists, aided by the molecular studies of mitochondrial DNA passed on through the cytoplasm of the mother’s egg (as compared with the nucleus where most of our genetic material is found), are piecing together fragments of the evolution of modern *Homo sapiens*. It is clear that we all are closely related, but different. There is great strength in combining diversity with commonality as we ponder the meaning of life.

To provide a clue of where Robert Hutchinson Foote came from a bit of didactic information of names and dates is listed first. This simple genealogic tree may be helpful as the story moves along the meandering stream of life like the stream crossing the meadow into which this barefoot boy waded to sooth his bare feet on the home farm. Several volumes of Foote genealogy have been prepared over the past hundred years after scrutinizing multiple sources of information. In England records show that John Foote (born about 1501) had a son Robert (born about 1523). He had a son Robert (born about 1553), and it was his son Nathaniel who came to what became the USA. He was baptized in Colchester, England in a church built in the 12th century. My wife and I were there in June, 1986. Briefly my known line of descent in the U.S. is as follows:

1. Nathaniel Foote born about 1593 (England).
2. Nathaniel Foote born about 1619.
7. Erastus Foote born 1791.
8. Albert Foote born 1821.

My dad (Robert E. Foote) married my mother, Annie Lovina Hutchinson on August 20, 1913. I was the last of four children in our family with Lovina, Edward, and Marjorie born July 5, 1914, June 25, 1916, and February 25, 1918, respectively.

The Ancestral Hutchinson Tree

In the preceding section it is noted that my mother was Annie Hutchinson Foote. So the detectives among the readers will have figured out where my middle name came from. Also, the H in one of my son’s name stands for Hutchinson.

The Hutchinson family has been in the USA for a long time, as well as the Holbrooks, Brooks, Posts, Roots, Porters, Phelps, and others whose names on the female side are not fully traced in the detailed genealogies compiled and checked over many years by my first wife, Ruth. She spent many hours in the Library of Congress in Washington, D.C. when I was involved with NIH. There are many similar names in the Foote and Hutchinson genealogies. Often it is clear that cousins married in the early days of this country. Choices were limited.

The line of descent on my mother’s side is as follows:
1. Ralph Hutchinson, born about 1630.
2. John Hutchinson, born about 1658.
5. John Hutchinson, born 1759.
8. Annie Lovina Hutchinson, born Oct. 6, 1887.

The Hutchinson family lived in the Boston and Northampton, Massachusetts areas in the 1600s, but from the fourth generation on in the above listing they lived in the Gilead and Lebanon, CT areas. I haven’t traced back where and when Ralph Hutchinson’s parents were born, except they did come from England. There are longer generation intervals on my mother’s side compared to my dad’s line, so there are fewer generations.

As one examines the details of families in the early years there were many deaths, including deaths of wives in childbirth. Often the husband would remarry, likely partly to have someone to take care of the children. Then there might be a second round of children, so the total span of ages within brothers and sisters and half-brothers and half-sisters often was considerable. There were almost no divorces, although likely there were some difficult marriages. I remember that all four of my grandparents held their spouses in high regard.
Comments About the Footes and Hutchinsons

When one reads accounts of early families, it appears that almost universally before the 1900s, life was centered around the family. The husbands worked hard outside of the home. The wife worked just as hard or harder keeping house, tending to sick and healthy children and husband, with scarcely time to take care of herself. My first wife, Ruth, gathered much information about families in addition to birth dates, marriages and deaths. Hopefully, these complete genealogy books with photos will end up in a library.

Various members in the branches of the family were farmers, grocers, lawyers, ministers, doctors, governors, and even several presidents of the United States. In Connecticut they were founders of Hartford, Windsor, Wethersfield, and Saybrook. Many fought with distinction in the various wars. If there were skeletons in their closets, most doors have been shut.

One incident that happened at Cornell is of special interest. I was reading about a distant relative, Irene Foote Castle. She was a famous dancer, and a movie star in the “Perils of Pauline”, and other movies made by the Wharton Studios in Ithaca, NY. Irene Castle’s name was in the Ithaca Journal on 6-25-03, where she was mentioned as a voice teacher for Mrs. Babcock, recently deceased. The Cornell library has information on Irene. She published her autobiography in 1958, “Castle’s in the Air”, also in the Cornell Library (PN 2287 C35C35). She was world famous and set hairstyles and other fashions. After her husband, Vernon Castle, was killed in WWII, she married Robert Treman and lived in Ithaca for a few years. Her father was Dr. Hubert Townsend Foote. He was expelled from Cornell University because of his involvement in an attempt to blow up the chemistry laboratory. Later he must have settled down, as he went to medical school and had a successful medical practice in New York City.

Because of the early arrival of the Footes in the new world the Foote name, or spouse family names appear frequently in various historical and war records. Whenever one takes time to dig into the ancestry there is a biological relationship through one or more lines. No wonder we have so much DNA in common.

There are letters indicating that one of the Footes (Elijah) was with George Washington at Valley Forge. His great grandson was a Captain in the Union Army in the Civil War. Also, in the Civil War Admiral Hull Foote’s fleet captured several Confederate strongholds. A destroyer commissioned for use in World War II was named after this admiral. The crew who served on this ship have an annual reunion to which the Footes are invited.

My dad, Robert E. Foote, was part of the Home Guard, but he was not called to active service in World War I. He graduated from Bacon Academy and from Alfred University where he lettered in varsity football, baseball, basketball and track. Then he taught chemistry, physics and mathematics at Chester and Suffield Academy until his father needed him home on the farm. With his ability and political interests he might have had an illustrious political career had not duty to family called first. As chairman of the town Republican committee for 25 years every candidate he supported was elected.
The Hutchinson family fought in wars too, but they were noted historically for tolerance. They supported religious tolerance, women’s suffrage and abolition of slavery. As one might guess they were prohibitionists opposed to alcohol consumption. I haven’t traced back to determine if Anne Hutchinson was an early relative.

The best documented outspoken members were the Hutchinson Family Singers. Jesse and Polly Hutchinson, with 13 children, sang their first concert in Milford, New Hampshire in 1840. They were avid supporters of the freedoms mentioned above, and they sang and composed songs rallying people to their cause. Members of the group had been associated at times with Frederick Douglas, Susan B. Anthony, Elizabeth Cady Stanton, Lucretia Mott, John Greenleaf Whittier and others. They sang in the White House at the request of President Lincoln. They toured the country and Europe. The last concert was given in New York on January 30, 1896 by the only survivor of the singing group, John W. Hutchinson, celebrating his 75th birthday. He sang about freedom. Letters of regret were received from Elizabeth Cady Stanton and Susan B. Anthony. Not everyone agreed with the Hutchinson point of view. Some Hutchinsons relocated to Minnesota. In Hutchinson, Minnesota some descendents of the Family Singers, still reside.

In June, 1905, my mother Annie Lovina Hutchinson graduated from Bacon Academy. The class prophecy given by Elmer Secord included the following:

“There was a girl in ’05,
And she was small of size—
She spoke the French and Latin tongue,
Would German never shirk,
“Twas in her power
In half an hour
To do a month’s hard work."

This was Valedictorian Annie L. Hutchinson. As a consequence of her vast knowledge and her desire to increase woman’s rights, the president of the United States has given her the special privilege of voting, hereafter”. That was just a prophecy, but I heard my mom say that as a girl she believed that women should have the right to vote and she would live to see the day when they would. She voted in the presidential election in 1920.

In later years I heard her say she had a good life. She was always positive. She had been a positive force in raising a family, in helping with farm work, in leading various community activities, and in remodeling the education program in the State of Connecticut when she was in the legislature. I once heard her say that while in school she had once thought of the diplomatic corps as a possible career. She would have been an articulate, firm, consistent, and powerful but gentle force for freedom with responsibility.
"I've been trying to trace my roots, but after a couple of generations, they go off into a different species."

S. Harris cartoon.
Source unknown.
Brief Chronology of Sons Robert and Dale

Robert Wesley Foote born April 14, 1947

2. South Hill School, grades 4-5, 1956-58.
3. Denmark, grade 6, 1958-59.
10. NYU, 1972-75, B.A. in Economics.
13. California 9-81 to 6-82.
14. Bowen St., R.I., 9-82. Real estate to present.
15. Wolcott, CT, old and new house 1982-present.

Dale Hutchinson Foote born August 14, 1950

3. Denmark (Engelsborgskolen), grade 2, 1958-59.
5. Belle Sherman School, grades 4-6, 1960-63.
8. VPI and State Univ., 1969-74. B.A. in Art Education.
10. Alfred University, Ceramic Art, 1977-78.

11. Rochester, N.Y. High School Teacher, industrial arts, and restaurant work.

Chapter 1B

In the Beginning: Reflections of Once Upon-A-Time

Robert H. Foote

It was in the great blizzard of 1888 in Gilead, Connecticut that half of what I might become some day was stored and nurtured in the ovary of a six-month old baby girl named Annie Lovina Hutchinson. This baby was born in a Christian household where neither of her parents used alcohol, other drugs or tobacco. They firmly believed that with good food and clean living the best life was a drug-free one. They were fine folks. I know because I have fond memories of my Grandpa and Grandma Hutchinson.

Now back to mother Annie who also lived a good but simple life, and nurtured the oocyte in one of her ovaries faithfully for 34 years before a sperm cell came along in 1921, and initiated a collegial journey that resulted in a howling baby boy on August 20, 1922. What a day that must have been. Remember, August 20 was the day my parents celebrated their wedding anniversary for 72 years. My birthday too? Well, they were happy on that date, and I’m sure that they were happy for me too.

So what happened in 1922? It must have been especially tough on my mother. My three siblings had been born in the relatively comfortable setting of Chester, Connecticut where my parents had moved to after graduating from Alfred University. Facilities were more primitive on the farm. There was no end to the work to be done, and a new baby was being added to the nest already occupied by a brother and two sisters. It was my loving older sister, Lovina, who later described my arrival to me. She was an eight-year-old who was evicted from her room in the wee hours of the morning of August 20. Since then I learned that many important events happened in 1922, such as the discovery of insulin. However, 1922 was quite important for me too.

Although I don’t really remember anything about 1922 I now know that Bobbie’s brain had not received any knowingly damaging chemical signals, as both of my parents found plenty of things to do without dependency on drugs, etc. We know today that the fetus can receive brain damage through drugs taken by the mother during pregnancy. Furthermore, one of the families that lived only half a mile from us was a family with mostly alcoholics. They spent their Saturday night paychecks mostly on “booze”. Their home place was a mess. I had seen young men in this family turn into staggering, drunken fools. One son managed to steer clear of this addiction. He was a good worker, and a good fellow. He left home in his late teens. My mom used to say “I never knew anyone who was so smart that they could afford to lose any of his or her brains to alcohol”. Mother was valedictorian when she graduated from high school and also from college, so I thought she must know. My observations confirmed this.

Well, back in 1922 baby Bobbie’s brain, no doubt, began to receive a variety of signals. What were some of those signals and in what ways did they
bend the vine? I will tell my story as I remember it, realizing that sometimes the vine was a bit more twisted than gently bent. There were times when I was a doubting Thomas. But I was assured that there was a balm in Gilead (Jeremiah 8:22), and I should and could attain a sense, actually a faith, that what is not well could be made well. That was my parents’ philosophy of life. The Christian faith assured us that there was an ever present help in time of trouble. However, we were expected to carry as much load as we could, and experience was a useful teacher when we tried to carry too much.

And so the years sped by. While I don’t remember how I started, I now know quite a bit about the process. I have been fascinated by my studies of the biology of life, and how miraculous and precious it is. The precious part has much to do with the meaning of life, beyond the biology. I must confess I know more about the biology of life than the meaning of life, although even the biology is still mostly a mystery after so many years of study.

With this overview I will try now to focus on the rings of my family tree. What experiences nurtured growth and development, and what may have been a wasteful diversion or excursion, i.e. what carved me out of this tree? How many knots formed? Was I a “chip off the old blocks”, or was I some of that and something else?

Goethe stated in “Faust” in 1832 the following:

   “Contemplative Judgement”
   “Our aim must be, through contemplation of the ceaseless processes of nature, to make ourselves worthy to share spiritually in her productions”.

The rings of my family tree trace back to roots in England that genealogists, particularly on the Foote side, laboriously collected and maintained from Church records, wills, other public records, diaries and old bibles. In America, the story begins with the Foote family moving through the Massachusetts wilderness in the early 1630s to settle in Wethersfield, Connecticut. A statue there indicates that Nathaniel Foote, my ancestor, was one of the eight founders. Other members of the family founded several other towns in Connecticut.

I am an eleventh generation immigrant. Along the way there were farmers, merchants, engineers, doctors, lawyers, governors, generals, etc. Several distant relatives have become presidents of the U.S. Always there were the devoted mothers, stepmothers, and maiden aunts who helped to maintain the flock as disease and death at childbirth often took the mothers from their families before the “younguns” had grown into a sapling that would point toward the paths that their lives would follow.

I did not know much about this as a boy. I knew that my parents were proud of many things that their ancestors had done. They talked little about this, however. Their emphasis was on personal action and performance. They were not members of the Daughters or Sons of the American Revolution, although they could have been.
Somehow, they simply let me know (perhaps by osmosis) that what I was, or was to be, was up to me. Yes, my parents were strict, but they were fair along with their firmness. They would help. This does not mean that there were no bruises and hurts along the way. Simply, I do not remember any period in my young life when I had no faith, but my understanding of faith was more rhetorical. Nor has there ever been a time in my older life that I felt that I had accumulated a faith that fully understood human behavior, or comprehended God's "will be done on earth as it is in heaven".

Always, I was concerned about possible failure, but I really was not worried that I would fail. My college class book stated that my favorite expression was "I'm gonna flunk" when anyone asked me how well I expected to do on a test. Fortunately, that never happened. I did not expect that it would happen. I don't know how I would have reacted if I had flunked. Perhaps my response was simply a habitual one, as I planned to do well. Who could predict how well? I did have faith that if I planned well I would do well. I always believed that Jesus loved me (my favorite biblical song), and I should not let him down, whether he knew it or not. I would know. I was not sure that he watched every move I made. I still am not sure, but my conscience watches me, and that is hooked to faith.

When I was a youngster in the 1920s my family lived downstairs in the big farmhouse. My Uncle Arnold and Aunt Mary Foote lived upstairs with their two children Helen Mary and Theodore (Teddy). They were born January 2, 1925 and January 3, 1926, respectively, so I was roughly 3 years older than my cousins. My brother Ed was 6 years older than I was, so I played more with the younger cousins until my uncle bought a farm and they moved to Massachusetts. With the great depression the farm could not support two families. So I lost my playmates.

There were no children my age within a mile from my house. My older brother and sisters helped mother take care of me when they were not in school. There are photos of them pushing me in a baby carriage. By the time I was a playful kid running around my siblings were in school much of the time. Most of my time in the house was spent with my mother, with increasing time riding in the truck or following my dad around. Part of the play was making games out of work. So a workaholic attitude was part of the game.

In the summer I liked to pick dandelions. There were plenty. The idea was that this would keep them from producing more seeds. That job combined work, counting and a financial lesson also. When I filled a can with blossoms mother would count them, so I learned to count. For each can of about 100 blooms I was paid a penny. With 5 pennies in the piggy bank I could buy an ice cream cone from the horse and buggy ice cream man who came by once every 2 weeks. Later, in early school days, the teacher would let school out for a few minutes when the familiar bell jingled a message that the ice cream man was coming. Cones were still 5 cents.

We saved everything that could be reused. A penny saved is a penny earned (Ben Franklin) I heard often. String and paper bags were saved for wrapping packages. Newspapers were used for packing and to start fires in the wood stoves. Leftover political charts made of cardboard were used for drawing or coloring, as the backs were clear. Baling wire and wooden slats around bales of shavings were saved and used. Of course the younger children were garbed in hand-me-down clothing, including shoes that sometimes were too snug.
I don't ever remember any fights among us kids. One late summer day Teddy and I were playing in the sandpile under the apple tree by the milkhouse. We might have been 2 and 4 years old then. Teddy started to cry and didn't stop. I didn't know what was the matter. My mother looked out the kitchen window and saw me standing by Teddy. She called out "Robert what are you doing to Teddy?!". Oh, oh, I was usually called Bobbie to distinguish me from my dad who grew up as Robert. That didn't sound good to me, and mother came running out to investigate. She was a runner. She noticed that Teddy was squeezing his arm against his chest. In his armpit she discovered that he had trapped, or I should add, squeezed a yellow jacket. I know they hurt big boys too. I've been stung a few times. A little baking soda helped to reduce the pain of the sting.

Another time Teddy was in the garage. There was a low small barrel of axle grease (we bought it in bulk on the farm) with the lid off. Teddy liked the feel of it I guess. He climbed in with a nice playsuit and sweater. This time I was the hero. I helped to rescue him.

About this time a funny thing happened. At least it seems funny now, especially as there is no explanation. One day mother called "Lunch is ready". All the family gathered at the table, except where is Bobbie? "Bobbie, lunch is ready" Mother called out the door thinking that I was outside. The calls became more frantic. However, eventually some small shoes were spied on the top of a stool in the kitchen which was under a hook where my dad's farm coat was hung. The coat covered most of the form of one Bobbie Foote, except for his feet. Mother admonished me for playing this naughty trick as she hugged me down from the stool. I have no idea what prompted me to do this trick. I was kind of proud of myself that I had kept from laughing during this hide and seek. I also sensed that I had caused an ache in my family. I never schemed to play practical jokes anymore on mother and dad. There was something ingrained in my behavior that told me to not do again something that would cause an ache in another. However, in anger I have said things that I regret, as they were hurtful.

In general I was a conformist. My parents made a compelling argument that work came first whether farm or school work. Play came after, just as dessert was available after you had cleaned up your plate. The dandelion story is one of making play out of work. My baby book says that when my sister called one day to ask me where I was, I responded with "I'm sitting in a chair putting on my shoes like my mommie told me to". I respected my parents. One time when I was a very young boy I fell down the steep stairs to the second story in the farm home. Mother happened to be at the bottom. I said "Look out mom, here I come". No crying. It was almost a joke. I seem to have thrived on expending energy one way or another. Fortunately on the farm there was need for plenty of this as a productive outlet.

Saturday night was the big cleanup night. When we were tiny tots we played with fish. Remember there were no plastics in those days. Many will not even remember when Bakelite® first appeared. We made our own fish from cakes of IVORY soap. I'm sure that we had help making fish to avoid any cuts on ourselves. Did they float in the tub? You bet. "Ivory soap is 99 and 44/100% pure, it floats". The scrapings from the carvings were collected in a metal strainer that could be closed. It was used to "suds up" the water.
Of course cleaning up was always an important part of farm procedures. Wash your hands when you come in from the barn. Wash your hands before leaving the bathroom. How often we heard that reminder.

Sunday was a special day. Of course all of the animals had to be fed and watered. Cows were relieved to be milked, removing the pressure on the udder. We had to work swiftly to complete the barn chores, including cleaning up the barn and ourselves. The women had to clear the bathroom before we came in from the barn, as there was only one bathroom. Sunday School was at 10 a.m. Church Service was at 11 a.m. Christian Enveavor meetings were Sunday evenings. The latter I don't remember much about, as kids seldom went. Sunday night after chores was time to tidy up any school work, plus early to bed. As mother said "Early to bed and early to rise makes a man healthy, wealthy and wise". (Franklin). Well I did these things, and at least I was healthy. Cornell records show no sickleave days in 57 years.

Mother was involved as a Sunday School teacher or superintendent most of her long life. I had 13 years of perfect attendance before going to College. We learned many passages from the Bible. I believed that these passages, beautifully written, were rules to live by. We put on plays depicting biblical times, created drawings of what we imagined life was like, etc. In vacation bible school we usually studied life in some other country. We prepared simple snack foods that represented part of the diet in the country we had studied. Of course the Christmas play was one of the special events of the year. I believe that this was held after a dish-to-pass supper on the Sunday before Christmas. One of the secular highlights was that each one of us received a big, tender, juicy navel orange, fancier than the cheaper seedy kind we obtained occasionally at the grocery store. Fruits of this type were a rarity 75 years ago. Fresh garden variety vegetables and frozen foods were nonexistent in the winter. The carrots, parsnips, beets, and potatoes came from the "cold cellar", as long as they lasted.

After church we visited the grandparents briefly. Grandpa and Grandma Foote lived directly across the road from the church. They always had homemade cookies in the cookie jar. We were allowed one cookie each, and two on special occasions. They were careful to only spoil us a little.

Sometimes we saw the Foote grandparents at church. Then we would go about one quarter of a mile to visit the Hutchinson grandparents who were considerably older. My mother (Annie Lovina Hutchinson) was by far the youngest child in her family and my dad was the oldest child in his family.

Sunday dinner was a big event. How mother had gotten things started before church so that we had a big hot meal so soon after church I don't know. I remember that we kids set the silverware and plates on the table. Someone would mash the recently cooked potatoes. I still have the sturdy wooden potato masher that came from Grandma Hutchinson. After such a meal often it was siesta time. Others would read the funnies in the Sunday paper. We could play ball on Sunday afternoon, but not play card games.

Grandma Hutchinson was a storyteller about events that occurred in her childhood. I suppose I was in elementary school when she told me a few of the examples which follow.
One Valentine’s Day she received a valentine from a boy in her class she didn’t know was “sweet on her”.

“I dreams about you every night
   I thinks of you by day.
   I specks you is my valentine.
   It certainly looks that way”.

Another rhyme was from a clipping in the newspaper when she was a young woman. It referred to Mary Lemon who had recently married Ebenezer Sweet. The ditty went as follows:

“How strange it is that folks do meet
   As Mary and Ebenezer,
   For she’s no longer sour, but Sweet,
   And he’s a Lemon squeezer."

On other visits we would play her “Victrola”. She was the only one in the family who owned this record player with the trademark symbol of a dog listening to his master’s voice. She had a special cutter that we used to sharpen the wooden needles to a fine point to fit the grooves on the record.

The grandparents usually came to one of their children’s homes for Thanksgiving and Christmas celebrations. All three of my mother’s siblings, and my father’s two siblings were married. Also, I do remember feasting at the homes of both the Foote and Hutchinson grandparents. I knew them all. What a blessing to know your grandparents, and be spoiled a little in a responsible way by all of them. As a boy I didn’t realize that there were so many people, even in America, who never knew their grandparents, or even some who grew up without one or both parents.

What did I learn from my grandparents? Now that I reflect I did learn much more than just stories, a few of which I have related here. When my grandparents talked about their lives they talked positively about the joys of family times together, the joys of helping neighbors and being helped in times of serious illness. Although surely there must have been great pain, the strength that all the survivors in a community exhibited were like Horatio Alger stories.

The importance of the work ethic I learned to take for granted. My mom related stories of her father, my Grandpa Hutchinson, getting up at 4 a.m. to prepare his load of eggs and other produce to deliver in Hartford 14 miles away. Provisions for the horse and himself had to be packed. If weather was good he made the roundtrip the same day. In cold winter weather through the snow the trip would be made in two days. Think of the horse plodding through the snow, and Grandpa bundled in the carriage, also keeping produce from freezing for hours. Who could not admire their stamina, strength and ability to succeed under those conditions.

Both sets of grandparents were farmers with animals to care for every day of the year. It is not surprising that my parents had an enormous work ethic and strength. When their strong Christian belief of goodness is added, it is no wonder that I absorbed some of this from my surroundings. In addition, I believe that both grandmothers had been teachers, as well as my parents. So the importance of education came in ample supply by example.
There was another time I visited a great aunt with my mother. She was 100 years old, and I was about 4 years old. She lived in a dim neat apartment. It was dim, I learned later, simply because she didn’t want to waste electricity. She offered me a dish of sliced apples that were sitting on the table. It was light enough that I could see that they had turned brown. I didn’t want to take a slice because I thought that the apple was rotten. A look from my mother informed me that I should take a slice. To my surprise it was good. Isn’t it wonderful that parents know something.

Yes, parents can be quite comforting to. As a young tot, at bedtime my dad would often place me on his knee and steady me as he bounced his knee up and down. That motion was accompanied by:

“Trot, trot to Boston
To buy a loaf of bread.
Trot, trot home again.
The old trot is dead”.

Probably along with a line that was added

“And now off to bed.”

One evening after supper my parents were in the living room reading the newspaper. I pulled a chair over to the woodstore. I took off one of the covers. There always was a handle handy to lift off a cover to add more wood. I had a piece of newspaper with me as I suppose I had seen mother reignite a fire from the coals. I suppose I wanted to watch this as flickering flames are hypnotizing. I dropped in the newspaper. The fire flared up. I was only tall enough to have my head a short distance above the open stove. My hair caught fire, as I still had long curls. I screamed. Mother was at my side in a flash, snuggling my head into her apron and body. The flames were snuffed out instantly. They say that was the end of Bobbie with long curly hair, but I don’t recall missing the curls. However, one haircut when I was a pre-schooler did worry me. My folks had gone to Manchester Saturday night to shop for the week. They left me at Adam’s barbershop while they shopped. That was O.K., as the menfolks had their hair cut in his shop for many years. Adam always had some mints or similar candy for kids. My haircut was finished. Adam was closing his shop for that night. Where were my parents? Had they forgotten me? Is this going to be a thriller story? No, before long they came. They had been so busy shopping that they had lost track of time until the stores they were shopping in closed. So I was rescued. Of course family friend, Adam, stayed in the shop with me.

Life on the dairy farm in the depression was both good and very hard. It was a great place to learn about the birds, the bees and the flowers, especially about how calves were born and needed tender loving care. My job at about 6 years of age was to learn to feed calves. I remember how important my dad said it was for the baby calf to have drinks of mother’s milk. It would help to protect the young calf against disease. Dad even saved any extra of this awful sticky stuff he called colostrum, so I could feed it to the calves after the mother’s milk was O.K. to ship to the milk processing plant. I did not know it was full of gammaglobulins, and other good stuff that I studied many years later. I wondered why the calf would “buck” the mother’s udder while sucking. I didn’t think it was at all nice of the calf to “buck” its mother. I could tell that she was a bit annoyed. Of course it had a purpose. I now know how
that pressure, and suckling sent a message almost as fast as the speed of light to the brain of the mother. She released some oxytocin without even thinking about it. That hormone contracted the myoepithelial fibers around the cells containing milk and squeezed the milk right out of them. We had it all wrong on the farm when we said “the cow had let down her milk”. It was no “let-down” for the cow. She squirted it into the collecting ducts and it moved swiftly into the teats for direct producer to the consumer without a middleman or woman.

Evolution of mammals was a very important step in the order of the natural world. No longer did the mother eject millions of eggs into water, fertilized by a swarm of sperm with most of the fertilized eggs devoured by predators. Mothers could nurse, nourish and protect their babies as well as bond with them.

In the winter it was cold in the barn, although the body heat of many cows usually kept the water from freezing in the water pipes. Once in awhile a pipe would freeze. Dad would thaw it out with a blowtorch. He was “mighty” careful not to have any hay around. Fires could put a farmer out of business. Later I must tell you about a couple of these fires that happened on neighboring farms. We didn’t have electric heating cables in those days of the 1920s and 1930s to wrap around exposed water pipes. Even those could start a fire in hay in a manger. The smoke from such a smouldering fire killed a prize bull at the artificial breeders when I was at Cornell in the 1950s.

Little calves do not do well on cold milk. The milk or milk replacer in the barn was cold to start with. I would bring pails of milk and water to the house where mother would watch them as they warmed on the kitchen stove. As long ago as I remember I made a game out of this procedure. I needed so many quarts total. Was it more efficient to carry many pails with small quantities of milk in each, or fewer fuller pails with distribution in the barn? How long would it take to heat them? I worked out the best procedure to beat the clock. It was fun.

Mother would ask me to keep bringing a few sticks of wood from the woodshed, as I was passing by it on the way to the house. I really hated that job. The winter wind always seem to blow hard between the woodshed and the house. There were always little pieces of loose bark. The wind would blow some specks of bark into my eyes. Often, I had to wash my eyes out with a special cup that fitted my eyes. That was a dear friend to me, and I kept it even as we moved to Kendal in 1998.

When I was a little older my job was complete calf care. I was responsible for their milk, grain and hay. I liked it when calves would give me a lick on my arm with their tongue. The tongue was not yet bristly like a cow’s tongue. They would stretch their neck out and lift their heads when I stroked their necks or rubbed them behind their ears. I felt good. These young creatures “liked me” I thought, and I was glad that I was taking good care of them. I recognized that all creatures respond positively to kindness. It makes you feel good. Still, occasionally one calf would die, or even several baby calves would die. It was sad to see a calf die with sunken eyes and a temperature. We did what we could to give them a dry warm place to lie and die. We didn’t have disease fighting drugs then. Of course, years later I learned of the importance of maintaining homeostasis in these calves by administering plenty of fluid (water with a balanced mineral mixture). That treatment would have helped.
I know that I slipped up at least once. I had gone to bed on a school night. My dad called to me and said “Did you feed the calves hay?” I said that “I thought I had”, and he replied “Then why are they bawling?” So out to the barn and up into the haymow I went. If my calves were hungry they needed to be fed. I had plenty to eat when I was hungry. I never missed feeding hay again.

Death was not an unusual occurrence. A baby calf would die. A cow would die from any one of several causes, or unknown causes. A kitten would get stepped on by a cow. Birds would fly into a window and break their neck. Our cats were farm cats. Like most outdoor cats they were hunters. They caught many field mice, played with them, and then consumed them. I was exposed to life and death as it occurred in the natural order of things. “There is a time to be born, and a time to die” (Ecclesiastes 3:2).

In rereading this chapter I noted a few things about family activities that were missing, and little was noted about my siblings. For example, our family always celebrated birthdays with cards and a homemade cake. Sometimes ice cream was added. We got the Sunday paper, so Sunday afternoon was partly spent reading the “funnies”, sports and other selected items. Often in the summer we would go for a picnic, a family swim, or play a game of croquet on the sloping front lawn.

Dad, Ed and I would throw a baseball around on Sunday when I was older. In most of my preschool days all my siblings were in school. Farm chores took most of the time on Saturdays. Nevertheless, I remember playing with an erector set, tinkertoys, and 52 pickup with my older brother and later by myself. The erector set and train sets, when all were in operation, stayed assembled in the living room for weeks. Mother would play checkers with us. Then there was a series of Parker games, such as Monopoly® played Sunday afternoon.

Dad worked hard. He was busy managing the farm. He would listen to the earliest morning weather report and news, and be busy outdoors most of the day. At night he would read the paper after supper, and often fall asleep. So my dad had little time to play with me, but we did do fun work things together. Mother seemed to be the one who reminded us that it was time to go to bed. That was very important.

When my brother and sisters were all in school I’m sure that mother had more time to talk to me and tell me stories. She seldom stopped work to read to me, although she did that also. I loved to dry dishes while she washed them and told me stories and poems. My oldest sister Lovina read to me when I was very young she told me. I don’t remember that. I’m sure I learned much from mother in my one on one contact. Mother and dad were my main contacts either in the house or outside on the farm.

With the age difference between me and my older siblings we really were not playmates when I was a young child. They were in school when I was old enough to play. Lovina was the most serious student. She consumed a book a meal. She was Phi Beta Kappa, like her mom. I got to know her better during adult life as we were the two kids most interested in world affairs. Shortly after she graduated from college, and taught Latin, French and English in high school,
she gained a boyfriend with a motorcycle. One night a van pulled out of a
driveway directly in front of them. She was severely injured, with some physical
problems thereafter. Her boyfriend lost a kidney. He was the daring sportsman
and cyclist while Lovina was the student. They married, had a daughter Anne,
but eventually a lack of common interests caused the marriage to be dissolved.
Lovina went back to college and became a librarian at the University of
Connecticut. Whenever I returned to Connecticut we had a nice visit over muffins
and coffee, leisurely reflecting on times past and present problems, with our
solutions, of course.

Ed also was a good student and a good older brother to me. I have recalled
some of this at the memorial service for him. He was more of a dreamer than I
was. This resulted in a great sensitivity to the land and caring for all things. That
is very important, but it also may have been responsible for him delaying some
farm decisions. One example that affected me was a 3.5 acre field next to the
church, and a couple of miles away from the rest of the farm. My parents gave
that to Ruth (my wife) and to me, but with an option that Ed and the farm could
buy it from me if I did not return to Gilead and build a home there, or if I
otherwise did not need it when I retired at Cornell. The land was valuable to the
church, and I did not plan to move from Ithaca where my whole adult life had
been spent. So why not give it to the Gilead Church immediately. I could not
give it to the church without Ed signing away his interest. He did not want to buy
it, but had a land-swapping deal in mind. He delayed for eight years while I
asked, wrote, and pleaded to get the transaction done. Ruthie died. Then Ed
agreed to sign off. This land was included as part of Ruthie’s estate (1/2). My
Connecticut estate taxes and lawyers’ fees in Ithaca, NY, and Hebron, CT came
to about $8,000. So it cost me $8,000. more to give it away to the church than
it should have. I learned to forget it, but noted it here, as an example of a
problem. It confirmed my postwar opinion that we would not have farmed well
together, even had I still been 100% whole physically. I believed in my parents
philosophy and Ben Franklins, of never putting off until tomorrow what you could
(and should) do today. I am an extremist on that point, no doubt to a fault.

Farming is not easy. Machinery, was Ed’s love more than the cows. With
bulldozers he removed multiple fallen stonewalls that interfered with mechanized
farming. He used the stones to fill large trenches that he dug out to drain
swamps. He removed and supplied nurseries with rich soil he dug out of the
swamps. He built a beautiful 30-acre Robann Lake named after mother and dad.
That lake supplies water to irrigate the 150 acre 18-hole golf course on the back
of the farm. By eliminating the cows eventually he prevented an occasional cow
from getting through a fence and on to the golf course, plus it was hard to find
help to milk 7 days per week. He worked hard to put much of the farm into the
Connecticut Open Spaces program, so it will never be covered with houses, as
has happened on neighboring farms. While Gilead-Hebron has retained some of its
roots put down by the 500 people (mostly farmers) when I was born, the 5,000
or more people today speed to Hartford and other cities in 20 to 30 minutes, making the hometown partly a bedroom community.

Marje also was a good student, especially interested in sports, music and boys. Whatever she liked to do she did vigorously, efficiently and well. She was a popular coed at the University of Connecticut. One time when she went to a big dance she was thrilled as the orchestra played Margie as she entered with her date. She was a natural athlete. She played field hockey. One of her good friends was a star on the varsity baseball team. She went on to teach after graduation until family responsibilities took her fulltime attention. She still is a hard worker. Her husband, Lawrence, was a mild, athletic very likeable chap.

Marje was more stubborn than the rest of us kids in conforming to some of the family routines. In many ways she has used her ability to do well, but there must have been a strain or stress she could never let go of. In her adult life she complained that she did not receive her just inheritance. She had seven children, more than she could afford, and apparently felt that her inheritance should take care of them. I hope time eventually will heal that problem, as she is hurting herself.

So, as the baby of the family, I expect my lot was to be known as the baby and the kid brother. In many ways my parents were my closest friends. They were very supportive. While they were very selective with their praise, I knew that they were supportive and generally pleased. Bragging was a no, no!

With the age differences there was neither a sibling closeness from playing together often, nor a sibling rivalry. My brother, Ed, did show me how to do many farm chores, as they were done on the home farm. It was later in life that I recognized differences in personalities. I was the eager beaver with the good and bad characteristics associated with impatience and pushing ahead. My dad was that way. This pattern may have been influenced by my baseball heroes, Lou Gehrig and Babe Ruth. They swung and hit, and hit decisively. Sometimes they swung at a bad pitch and missed, but that was better than letting a good pitch go by and be called out on strikes, in my opinion.

It is human nature to criticize persons when they commit what we perceive as an error or a mistake. However, errors of omission can be as serious. Someone told me that when one does not make a decision when needed, one has made the decision not to make a decision. I believe that is an important concept. The consequences of such a policy are procrastination and lost opportunities. I was determined to avoid this type of error. In fact daily decision making and goal accomplishment were essential to achieve a successful grant-supported effective teaching and research program.
A Few Remarks as I Remember

Bob Foote at Brother Ed’s Memorial Service, 2-22-03

Home for me was at Footehills Farm where I lived the first 20 years of my life, and where brother Ed lived most of his life. I had planned to be a dairy farmer, majoring in dairy production at the University of Connecticut. However, at the age of 20 I went into the army, and basically only returned home to visit after that. Multiple wounds in World War II made it impossible for me carry out the physical activity required for farming. So my comments will be a reminiscence of those early years.

Brother Ed had majored in Mechanical Engineering. He taught part-time in the Agricultural Engineering Department at U. Conn. for a short while, but he soon focussed full-time on the multiple requirements of managing the home dairy farm with our dad.

I was 7 years old when the Great Depression hit. Ed was 13 years old. My dad and his brother, our Uncle Arnold, were farming together. But the farm in the depression could not support two growing families. It could scarcely support one family, unless you worked like heck. So my uncle Arnold bought a farm in Massachusetts.

We were a one family farm milking cows 365 days a year with no relief “in sickness or in health”. It was a good family life, but very hard, as some of you old-timers remember.

We had 63 fields, with many crumbling stone walls to mow around, try to plant corn in irregular fields, conserving soil, etc. There were no rotary mowers, no hay balers, no front bucket loaders, etc. Ed, my dad and I pitched a lot of hay by hand and arm and back onto the truck. Later we had a hayloader. This brought the hay up onto the truck as the truck straddled a row of hay put together with a sidedelivery rake. Pulling the hay off the hayloader, placing it to properly build a load of hay while stomping around knee deep on the load of hay required skill and muscle. It was a two-person job on the big International truck with a hayrack. Ed and I often loaded together by the time I was 12 or 13 years old.

The hay was moved into the haymow by inserting a big hayfork successively into different parts of the load with the truck parked on the barn floor adjacent to haymows on both sides. A rope, with a series of pulleys, was arranged so that the end of the rope was
tied to the front bumper of the car. When the car backed up it pulled a chunk of hay up to a track in the peak of the barn where the fork tripped a lever at that point, and the hay traveled to the proper mow to be filled. The person on the load of hay signaled the driver of the car to stop. Almost simultaneously he pulled the trip rope, and the hay dropped off where others with waiting pitchforks stowed it away.

There was not enough room to store enough hay in bulk to feed the cows all winter. The extra hay harvested was stored in other hay-storage barns. In the wintertime, often during Christmas vacations, we moved hay into the central unit.

In the wintertime there was ice to cut when it was about 8” thick. We harvested enough to fill the icehouse, so that milk could be cooled all summer. We needed some ice for the refrigerator. We had no electric refrigerators until the electric power company installed an electric line as far as our house. Up to that time we were on a 12-volt system. The power was generated by a gasoline generator that powered the milking machine, with the excess electricity produced being stored in a whole series of big 12-volt storage batteries. This storage was enough to run lights between the twice-a-day milkings. Of course we only turned on lights when necessary. They were turned off promptly when not in use. Power lines with 115 volts came in the 1930s. We dug all the deep holes with hand shovels to set the poles carrying the electric lines. These poles were much sturdier than the little poles that previously carried the single telephone line. That line was moved to these larger posts. Our telephone originally was on an eight-party line, with certain people always listening in even when the ring was not for them.

We also had to shovel tons of snow with a hand shovel. Tractors did not have snowplows on them. In 1934 we had a blizzard. Besides cleaning the driveway we had to shovel a path on the highway to let the milk truck come to our farm. The snow was 4 feet deep in many places. It took 2 days to shovel a path, as we met a crew shoveling from the opposite direction.

How were the cows housed? The old barn had the long stable, short stable, and the big stable. Gutters were cleaned by hand shovel. Not all the areas had a vacuum line for the milking machine. Some cows were milked by hand. Each cow was in a stanchion with a box manger.
A stand of huge oak trees was uprooted by a hurricane about 1938. They could be sawed into boards and beams to construct a barn. Ed used his engineering training at the University to design and draw plans for a new barn. The oak was no hard that beams had to be drilled and bolted, not nailed.

We mixed the concrete partly in a home-made barrel concrete mixer. Gravel from our gravel bank, all loaded by shovel, was sifted and combined with cement. Oh our aching backs. Ed was the architect and chief builder of that main barn there today. It greatly increased the efficiency of the dairy. One very large oak beam was cut especially to attach the hayfork lift. We were putting that into the peak when a thunderstorm came up. My mom wanted Ed to get out of there. Good thing! Within an hour a lightning strike splintered that huge oak beam.

Today the stonewalls, except the boundary ones, are gone. Fields are open for efficient operation of the modern day equipment. Others can tell you more. Ed did that, draining the big meadow swamp also. That happened after I left home.

Did we ever had time for fun? Occasionally.

Sunday after church either during the time mother was preparing our big Sunday meal, or after it, in the summertime, we would often make ice cream. Mother had the mix ready ahead of time. We (usually my dad) would chip ice with an ax off one of the blocks from the icehouse. We had a big-wheeled push card that made it easy to bring a slippery chunk of ice to the milkhouse. There a bag of salt was handy to mix with the ice chips dropped into the wooden container built to hold the container of ice cream mix. Attached was a crank which moved the paddles and stirred the mix while it was being frozen into ice cream. The vanilla ice cream, plain or with fruit, or nuts, or chocolate sauce, was delicious.

Other summer activities on Sunday afternoon included a dip in the nearby farm pond, tossing a softball, baseball or football around, or even playing a softball game. We had a league a couple of years. Ed and I played on the team, and our dad was the coach. I think that Billy Warner was our best hitter. My main claim to fame was hitting a home run off the Ellington pitcher who was a coach at the University of Connecticut. We didn’t play cards, following the Connecticut blue laws in that regard.
Also we fished in the two brooks on the farm. The larger one had a salmon in it one time that somehow got lost and left the Connecticut River to swim up Black Ledge Brook. The first time I went fishing we had dug a can of big healthy earthworms (we called them angleworms). There were plenty of them in the garden area fertilized with dried humus from the barnyard. In my excitement, as Ed was showing me how to bait the hook (slip the hook into the earthworm), I jerked the pole. The hook went into his finger. Ouch! But he let me off the hook. We fished, and usually caught rainbow trout in our brook.

Occasionally we fished in the evening for bullheads (catfish) in our pond. One night we went over to Cheney’s pond. We were tired from haying that day. Instead of holding on to the poles we decided to stick them into the bank while we rested on the grass up under the edge of the trees. We fell asleep. When we woke up eels on both lines had completely tangled the lines. We had anchored the poles too close together. We had to cut the lines to put the eels in our pail to take them home. It was easy to repair the fishpoles with new line. Our poles were simply fashioned from slender tall bushes with a base about 1” in diameter. We never bought fishpoles. Money was too scarce.

In the winter we would skate on the pond if there was not deep snow on the ice. Or we would clear a large circular race track with a couple of spokes across. Cutting ice usually ended the ice skating season. We all had adjustable clamp-on skates. I bought my first shoe skates in college with money I earned. Did Ed ever have shoe skates? I don’t know.

“Somemores” were good on cold nights. We would build a little fire on the bank close to the edge of the pond. That provided light and warmth, as well as a place to toast marshmallows on sharpened small willow sticks. Add these to part of a chocolate bar, squeeze them between two graham crackers, and one had a delicious sticky, melt-in-your-mouth somemore.

Speaking of fishpoles and sticks to toast marshmallows reminds me that one always carried a jackknife on the farm. There was always twine or something else to cut. Brother Ed showed me how to cut away from ones body and not cut a finger or cause other injury. I have all of my fingers with no scars except from World War II. He showed me how to whittle and make little toys. I enjoyed making different sizes of
whistles by cutting short pieces from a maple sapling, tapping the bank to loosen it, and removing it without breaking it. Then by trimming the wood, a whistle could be fashioned.

He was a good brother, but like all siblings he used to tease me. I enjoyed singing and whistling in the hayfields or wherever I was working. He would say to me “You sing for your amusement and for everyone elses amazement! I would respond, “So what, and I care less”. Then he would say, “so now you are careless”.

It is great to have a fine big brother. I know. I had one.

Now brother Ed, as you rest in peace, hear our prayers, and pray for all those in this troubled world. Amen.

“The tide recedes, but leaves behind
bright seashells in the sand.
The sun goes down, but gentle warmth
Still lingers on the land.
The music stops, and yet, it echoes
On in sweet refrains…
For every joy that passes,
Something beautiful remains”.

Anonymous
Chapter 2

*Farm Animals: “All Creatures Great and Small”*

As Cecil F. Alexander (1823-1895) wrote:

“All things bright and beautiful,
All creatures great and small.
All things wise and wonderful.
The Lord God made them all”.

The farm was a great place to be exposed to an amazing array of living creatures. Some I liked, some I did not like, and many I knew little about. Of course the animals we lived most closely with and we related to most strongly were the cattle, horses, dogs and cats.

The team of Percheron horses (Queenie and Dan) were special in many ways. Is there anyone who has seen a horse who has not admired the graceful muscular movements of a horse in motion? Or has been awed by their mighty power as they put their weight and strength together, and as they lean forward, the traces tighten and the load moves forward?

I do not know all the tasks performed by this team of horses during their lifetime. But I do know that they understood the phonetic sounds of “Giddyup”, “Gee, Ha, Whoa or Back”. They understood the sounds of urgent commands versus “easy now”.

Yet we humans understood only a few of their sounds of recognition, fright, or hunger. I saw photos of the team pulling a load of hay. They pulled a dump cart that we threw stones into, as we kept picking stones off the field, hoping that next year would not produce a new crop. Queenie was especially adept at following between rows of corn without ever stepping on a plant. My dad would steady the cultivator. Sometimes, I would ride the horse, believing I was guiding her safely between the rows. She (I call my friend Queenie “she”, although I now know that Webster indicates that the gender terms of “he” and “she” are reserved for humans only) was great at raking hay with the dump rake. I soon learned to hold the reins tightly when raking hay in the field in the direction of the barn toward the end of the day. She figured enough is enough. It is suppertime. Also, when going home I never let her gallop. She could hit her heels on the rake, with potentially the disastrous results of a runaway horse.

My brother Ed escaped serious injury when he was raking hay with the horse. Apparently the horse was stung by a bee, bolted, and Ed was thrown from the rake. Scary!

I grew enough in physical stature while Queenie and Dan were still alive that I was able to slip the heavy work harnesses up over their backs and their customized work collars over their heads. The harness was heavy and bulky, with heavy leather traces and attached link chains for pulling the hames, belly buckles and connecting straps. I learned how to slip the bridle on and slip the bit easily into the horse’s mouth. I often had a handful of oats in my jacket pocket to use as a bribe or reward.

I could hitch the horses to the wagon, hooking the appropriate links of the chain on the traces to the whippetree of the wagon. I learned to have a little flexibility in the connection so there was no pull on the horse at rest, but also so there was no chance
that the whippletrees would hit the hind legs of the horses when going downhill. It's tricky. You learn more by doing it than I can describe in writing.

On hot days my dad rested the team under the shade of a tree along the hedgerow. These trees, unfortunately, were becoming scarcer along the walls as they interfered with growing crops. Drink time was important. My, how the horses would drink fresh water. I could see and hear bolts of water streak down their neck as they drank with gusto. Of course, I knew horses got thirsty like I did, my dad did and the hired man did. It was years later that I learned that most of the animal body is water. Water is the most precious substance in keeping the body functioning normally. Isn't education wonderful? Really!

Back to the warm horses. How they could sweat. At the end of the day their hair would be encrusted with salt if they weren't wiped down. Imagine going to work again with salt under your collar. It was easy to understand why dad always kept a salt lick (block of salt) in the manger. That was as important as the oats and good quality hay in providing the horse with a balanced diet. Yes, I realize now that they were fed well. We didn't brush their teeth daily however, and old horses had dental problems which contributed to problems of eating properly.

I never did work with horses enough to become a real horseman. Not like the horseman described by Shakespeare in "The Merchant of Venice" who "doth nothing but talk about his horse". I did admire their smoothly coordinated muscular machinery. I knew a human being must work with them, not against them. I was no match for their strength, but I was growing. I could harness a big Percheron horse.

Eventually the team of horses reached the old age where their teeth were bad and they could not eat much. Tractors had replaced their work duties. It was decided that they had to be put to sleep. I was not told about this in advance. My parents thought that this would be too traumatic for a boy, as it would have been indeed. It was a difficult decision for them. I am not sure now how it was accomplished. I know that graves were dug on the corner of the farm. Big stones were drawn on a log bolt to top off their gravesite. I was told that it was the humanitarian thing to do. We could not let them gradually starve. Their departure was never discussed again. However, their empty stalls were a reminder of their life of service. It is one of the few times in life that I saw my dad cry. Boys and men were not supposed to cry. I have learned since to allow a flood of tears when the occasion called for it. Tear glands were not made only to keep the eyeballs moist. And then it was time to move on.

Mother had a way of exposing me to other aspects of life. She knew hundreds of poems and stories by heart. Some were simply funny, but many had a profound message in them, like Rudyard Kipling's "If". I think I began to realize that there were many goals worth pursuing, but could I measure up? Perhaps there really was some mischievous elf tapping out the message in my brain that appeared in my class yearbook quotation of the possibility that "I'm gonna flunk". I would not disgrace my family. Inside I had a feeling that I never would do that.

Then the tractor became the workhorse on the farm, rated in horsepower. It still needed to be fed. Water consumption was low, except in the winter. Then the radiator had to be drained every day when work with the tractor was finished, as it would freeze and crack the engine. We didn't have heated garages on the farm. Later we did use antifreeze mixture.
Speaking of draining the water out at night reminds me of an imagined close encounter with a Canadian lynx. My dad had been sawing tree limbs and trunks into shorter pieces for firewood one fall day with a saw driven by a gasoline engine. The woodpile was located at the edge of one of our woodlots a little more than a quarter of a mile from our home. That evening the temperature declined more than was expected. Normally dad would drain the water out if a “heavy frost” was expected; but not that night. About 9 p.m. my dad said “The motor on the sawrig may freeze up. Why don’t you skip up to the woodlot and drain it.” He always said “skip” and never “walk”.

So I started out on the well-worn path around the barn, across the houselot and meadow to the woodlot. It was a frosty moonlight night, so the light helped. There was one complication. A couple nights before a Canadian lynx had been reported to be prowling farther south than usual in the adjacent town. As I reached the saw to drain the water from the engine I heard this scream in the distance. I flipped open the draincock and sped for home. I’m not sure if my feet ever touched the ground until I was home. No one will ever break the record for that run. Should a normal 13-year old kid be scared? Well either I’m not normal, or it is O.K. to have been scared? Surely the lynx was not nearby, and likely would have kept its distance from me anyway. But those were not my thoughts at the moment I flipped the draincock open, nor did I tell dad that I had been scared.

The cows were the closest animals in terms of daily contact, but individually they were not pets with any substantial attachment. We were acutely aware that they were the source of our livelihood. My often repeated statement that “Anything I am I owe to udders” has a double meaning for me. Besides the tender care we learned to give to the animals as a part of responsible management, they taught us many things. I learned some facts about reproduction, how to detect if a cow was in calf (pregnancy checks), and how to detect a few days in advance when momma was getting ready to deliver a baby. I knew my dad would get up at night to check and determine if a cow needed any assistance with calving. Also, the mother always would drink one or two pails of warm water after giving birth. When I was a young teenager I performed all of these functions to the best of my ability when my dad was away. He was seldom away, but at least once he was trapped in a big snowstorm after attending a Board meeting of the Eastern State Farmers’ Exchange in Springfield, Massachusetts. My mom was always there with words of encouragement and thanksgiving when I assumed responsibility for a task in which I lacked experience.

The cows also kept the barn somewhat warm on cold winter days. They were great handwarmers also. I would come in with cold hands after working outside, and slip my hands into the large groove between the udder and hind legs of a big Holstein cow. She didn’t seem to mind this, and I appreciated her sharing her warmth.

Our cows, cats and dog shared a direct producer-consumer relationship. We had bowls in the barn where a fresh supply of milk was available at each twice-a-day milking. We had a couple of black cats with a little white area under their chin (almost like a bow tie). My brother Ed named them Amos and Andy after famous radio entertainers. They would watch me wash the cow’s udder, known in farm country as “the bag”. Of course, that’s where the famous Vermont-made “Bag Balm” liniment, still produced today, got its name. The next step in preparing the cow for milking was to
strip (squeeze out) a few squirts of milk from each quarter (four glands in a cow’s udder with all the other milk manufacturing machinery and delivery systems that I discussed in later life with thousands of students). This first milk went into a “strip cup” with a screen to check that the milk looked O.K. Now it was the cats’ turn. I would try to aim (yes it was a game) the cow’s teat so I could squirt the milk directly into each cat’s mouth in turn. They made the necessary adjustments and carefully cleaned their faces where I had missed the mark. I tried squirting the milk directly into my mouth, but I only did it once. When that high speed jet of warm milk hit the roof of my mouth it tickled so much that one time was enough.

Now you know that the following joke cannot be true, but it was frequently told around the farm. A Vermont farmer is said to have dispensed with using milk pails on the coldest winter days. He just squired the milk out, caught the frozen sticks of milk in his arm and carried them into the tank in the milk house. Those jet streams of milk were warm. After all the cow’s normal temperature is about 3°F warmer than ours, one of the thousands of facts I learned in four years of studying veterinary physiology.

So now you know we had cats. What farm didn’t have cats. We tried to have the females spayed (neutered), but sometimes a stray tomcat got ahead of us. Also, we had cats anonymously dropped off at the farm. I suppose that somewhere the urban population of cats had risen above the saturation point. Our farm looked like a good place for them to go. We cared for some. If we were overrun, mother would put the most sickly ones to sleep. She kept a bottle of chloroform for that purpose. It had a skeleton and crossbones label on it. Yes, that gave a message in any language. As Confucius said (according to mother) “A picture is worth 1000 words.” Mother was the most caring person of anyone in our family, and she had the courage to do what she felt was in the best interest of the animal. Certainly she did not want to euthanize birds or animals.

We always had a dog. She (it) was a neutered Terrier called “Brownie” when I was very young. She eventually had a large abdominal tumor and had to be put to sleep. The dog I became most attached to was “Jack”, a Scotch Border Collie. He came from a litter of pups at the University of Connecticut, owned by “Jock” Pritchard, the university shepherd. He could communicate to his dogs with whistles and arm signals so accurately that the dogs could move sheep whenever and wherever “Jock” wanted the sheep to move and go.

I was not that clever. However, I did train my pet to fetch a cow in the brush in the pasture and bring her in with the rest of the herd. “Jack” also taught me how to throw sticks into the pond that he would quickly retrieve as many times as I would throw the stick on land or into the water. Of course, I did have enough common sense not to throw the stick into cold icy water. Kids on farms may not grow up learning the King’s English, but they learn some commonsense and could be a very practical royal court advisor. It is likely that this healthy and happy country boy of 14 was acquiring a stronger scaffolding to bear stronger loads later on than he realized.

I was fortunate to be exposed to practical challenges, as well as hearing the sounds of English spoken well. My mother had taught English, Latin and French before moving back to the farm where I was born. She was always the teacher in the shadows of my existence. Years later when I was a professor at a great university
(Cornell of course) my mother and dad visited us on the 50th anniversary of their
graduation from Alfred University. I introduced them to Ithaca friends. One asked me
what my mom had done besides being a mother and farmer’s wife. I said “Oh, she
was an English teacher”, whereupon my mother gave the correct response saying
“Bob, actually I was a teacher of English”. Isn’t life a never-ending process of
learning? It is! Mother’s soft voice was as a teacher and not as a disciplinarian.

We did have other mammals around the valley farm in Gilead. In the streams
and ponds we had muskrats and an occasional beaver. We trapped the muskrats for
hides to add a little income during the depression. Then one day we checked traps.
One trap had no animal caught in it, but only a part of a leg that the animal had
chewed off in its enormous urge to survive. No more traps were set on our farm.
These rodents (as I later learned some taxonomy) eventually became relatively scarce
from natural causes or destruction of habitat.

There were rodents on the farm that I did not like. Mice and rats seemed to find
a way to get into anything they were not supposed to unless one locked them out with
metal containers. I saw a field mouse running through a hayfield, and it looked a little
different from the house mouse. I caught it with pressure between the ground and the
tines of a pitchfork. Under this condition of restraint I tried to turn it over to see the
color of hair on its tummy (which the anatomist will recognize as including the thoracic
and abdominal regions). It bit my finger. That ended my love affair with these mice,
known more properly as voles, a member of the subfamily Microtinae.

Rats were a real pest. They would gnaw through wooden containers of calf
grain, until we stored that grain in steel containers. The big concrete grain bin that
held many tons of grain for the cows had a wooden door that they chewed through.
Bags of special grain they could sample and make holes in the burlap bags. Holey
bags were less valuable when recycled. Cats took care of the mice, but big rats were
too much of an adversary, I believe. Rat traps and rat poison were used to keep the
population low. I used to remark that “I didn’t know why God made “rats, flies and
mosquitoes". I detested them.

Another common mammal was the woodchuck, which resembled closely an
animal that a zoologist at Cornell talked about as a Marmota. Why shouldn’t they
resemble each other, after all the words are like clones. Marmota is the Latin word for
the genus which includes woodchucks. The woodchuck did considerable damage
digging holes in the alfalfa fields and piling up dirt and gravel. The hole was
dangerous for a horse to step into, and the piles of gravel with stones were effective in
dulling and breaking knives on a mowing machine. The woodchucks had a voracious
appetite. This should have enabled them to “chuck a lot of wood, if a woodchuck
would chuck wood". But I never saw them do that.

They are great diggers. One night my brother Ed and I thought we might catch
a woodchuck napping. We picked a home that a fat woodchuck had made in a bank
of gravel on the farm. One moonlight night we arrived with pick and shovel. We
moved from the opening hole into the tunnel deeper in the ground. We could hear the
woodchuck digging furiously. We came to the spot where he (she) had filled the
tunnel with new diggings. Shortly after that the woodchuck emerged a few feet away
and scampered down the bank. The woodchuck had dug a short tunnel inclined
directly toward the surface. Aren't woodchucks clever? How many people who get in a hole dig themselves out?

I must tell you about “Deerie”. Yes, she was also a “Dearie”. We were cutting hay in the meadow and found a late-born fawn in the middle of the field. We cut around the grassy spot, but the mother did not come back. I believe that we had touched the fawn. The doe’s instinct was that people were not to be trusted. No doubt their wariness helped them to survive over many centuries against potential predators.

So my brother Ed and I built an outdoor pen with a tight fence next to the shade of an old apple tree. We got permission from the state to keep a wild animal. The fawn quickly learned to drink milk from the calf pails, munch on calf starter grain, and generally participate in the calf feeding schedule. She did imprint on individuals and would follow me into the house. Her soft tongue licked salty sweat off my arms. However, she was always suspicious of strange surroundings. She roamed around the fields with us sometimes, but we did keep her in the pen part of the day and every night. She and our collie dog were friends. How she could frolic and outjump the dog. This life continued for more than a year. In the fall of the second year she began to go on further excursions, and one day she did not return. We could only assume that she was seeking motherhood. We hoped that she was not a victim in the wild, as “Deerie” was a friend of our farm family.

Birds were in abundance on the farm. Since “birds of a feather flock together” most of the birds did not flock with my family. However, we were cutting off a woodlot to improve the configuration of the land being cultivated. My brother Ed noted a nest of crows in a tree in this area. He rescued a young crow before a tree was cut down. I only remember one crow.

This young crow adapted well to feed we had around the barn. We called it (he or she) “Cawbie”. Cawbie imprinted easily on people. Cawbie’s home was in the big haymow of the barn. Most flight excursions were close to the farmyard. Perches included shoulders, arms, hats (on your head), the usual tree, etc. Of special delight was the perch on the clothesline where Cawbie’s supreme joy was pulling off the clothespins and flipping them on the ground. This was followed by a loud raucous laugh as only a crow could caw it. The detached clothes then followed the law of gravity. Mother would run out and chase the crow away, only to have the crow “think” this was a part of the game “catch me if you can”. Alas, crows and clothes did not mix.

One day the blacksmith came to trim the horse’s hoofs and put on new horseshoes. He had his special horseshoe nails laid out on a little bench within easy reach as he held the horse’s leg securely between his thighs. Cawbie landed nearby and picked up one of the bright shiny nails. As Cawbie flew off with a nail the blacksmith jokingly called Cawbie a “thief”. Soon Cawbie returned with a bright shiny penny. Where Cawbie found the penny we have no idea, nor do we have any explanation for this most unlikely exchange of goods for cash.

One winter night there was a terrible blizzard. In the morning we found the big barn doors that were close to the hayloft slightly ajar. Cawbie was not to be found and never returned. We feared that our friend had become disturbed by the storm, had gotten through the space in the doors seeking further shelter, and had been engulfed by the storm. This was another lesson of friend, fun and failure. But I learned that the homely crow is not so dumb.
It was not until I was 80 years old in 2002 that I learned from an ornithologist at Cornell, studying crows, that these intelligent creatures had a strong social order. True, I had heard them call group warning calls when predators were near. I had seen them gang up on hawks. But I did not know that families stay together for awhile, that younger ones help older parents and care for sick ones. They exemplify some of the virtues of family ties.

Hawks soaring in the air were magnificent. My brother had a pet hawk for awhile. But my favorite group of birds was the barn swallow. We had "loads" of them in the various barns. We always kept access routes open for these graceful creatures during the summertime. They would make countless trips to the nearby shore of the farm pond bringing beakfuls of mud as a cement for the fine grasses and hair lining their skillfully crafted nests. We were amazed at their agility as they flashed through the yard and low over nearby fields and ponds, swooping up insects. Thank you swallows for getting rid of some of those darn flies.

Our cats also were amazed at the flying acrobatics of the swallows. As they sat in the sun in the yard they saw the swallows flying nearby. If they ever had a thought of catching one they needed to banish the idea. The swallows would come swooping down, curving just out of reach of the cat, in a runway approach that led directly over the cat's head. As they came near to the cat they screeched to the cat "duck", and the cats always did as warned. When all the young swallows had grown up and passed flight school, they would form long lines of swallow dignitaries on the electric lines that passed the pond. This was the same farm pond where a few months earlier the parents had mixed up their mud pies for nest building. It was quite a sight with their blue wings shimmering in the sunshine. Suddenly a group would take off. Any commander of the special groups of pilots that put on these daring air shows would be mighty proud it they could perform like some of these birds.

We had lots of English Sparows. We considered them as pests. No, we are not against the English as they were our immediate ancestors whom we fought against. These sparrows were everywhere, especially where the grain for cattle was stored.

The birds that were most numerous around the lawns were robins. How did they locate their prey? They cocked their heads. I thought they must hear the earthworms chewing their way through the earth. But that was only an assumption, and I am told that they have other "radar" detection systems.

The birds that I best remember in the fields were meadowlarks. These songbirds with jackets of brown and black had bright yellow vests on their breasts. My how they would perch on a tall dock weed (relative of buckwheat) in the buckwheat meadow and sing their song of "Joy to the World".

Then, who has taken a few steps out of the barn in the evening and looked at a sheet of mist settling in the flat meadow land by the meandering brook on the farm? I have. And what did you see as the light was low? Perhaps only the wisp of fog. But that was not all that was there? What did you hear? It was the crystal clear notes of the whippoorwill. The call was repeated several times, followed by a short silence. I whistled a call-back. Then the clear notes of these modest-sized birds pierced the silence again. Think of the sounds from this bird clearly penetrating space billions of
times larger than they. I imagined that we were in communication. I was pleased, even though I did not understand the message.

There were kingfishers and herons around the shoreline of the farm pond. I had one terrible encounter with a great blue heron. One warm Sunday afternoon I had gone to a nearby gravel bank on the farm where my brother Ed and I had occasionally gone with our .22 caliber rifle to do a little target practice with tin can targets. My brother was then living in California. I went alone to the gravel bank. After a brief time at the firing range I walked back home, passing our farm pond on the way. The road ran by the dam of the farm pond. Near the shallow far end of the pond was a blue heron standing in the water watching motionlessly for any suitable creatures that might swim by. The heron was so far away that I knew (or hoped) I couldn’t possibly hit it with the last bullet or two that I had with me. Or could I?

I did take careful aim, however. The shot rang out, the majestic bird flapped its wings once to rise in flight, and crashed into the water. I ashamedly buried that beautiful creature, cleaned the rifle, and never fired it again. I shall never forget that innocent graceful bird that would never again glide through the sky as I had seen other blue herons before and since. It was a lesson of the importance of thinking versus living with “I’m sorry”. This heron was no threat to me. Herons were a part of the natural surroundings of the farm (I now call ecology). They were a part of the balance of nature that I did not fully understand nor had any right to disturb. Certainly, why did I pick on this bird? Did I feel pride in marksmanship?

I am not against responsible hunters helping to control deer populations, but I never again held a gun in my hands until I was in military service. Guns have been the instruments of so much violence, as it had been for me that Sunday afternoon, and later in World War II.

There is one other bird that I have always held in awe. It is the hummingbird. We found a recently used humming bird nest when I was quite young. My mother identified it. What a cute little home for a couple of young hummingbirds to start life in. The awesome part is their flight. It is awesome to hear the whir of their wings vibrating at hundreds of times per second. The blur of the wings is barely visible to the human eye as the rest of the body moves just enough to allow the hummingbird to maneuver its long tiny beak into flowers to obtain the nectar. Then with a flash, much faster than Santa Claus rose up the chimney, it is gone. Will it return? Will it like the fresh sugar solution I hang near the flowers? Yes, that’s why my calendar is marked to have fresh solutions waiting in early May, with fresh solutions weekly until mid-September. And how do these tiny creatures, weighing only a fraction of an ounce travel thousands of miles, much over open water during fall and spring migrations? Yes, they go nonstop wafted by friendly winds and intercepting cooperating insects for food. How can one not have enormous respect for these great creations which are so small? To expend the energy on an ounce equivalent basis to a hummer in flight, a 170-pound man would need to consume 150,000 calories of food per day, accompanied by hundreds of gallons of water, or body temperature would rise above the melting point of lead. In college chemistry I learned that this was 374°F. For me a humming bird is as exciting as the rainbow.

“My heart leaps up when I behold
A rainbow in the sky:

23
So was it when my life began;
So is it now I am a man.
So be it when I shall grow old,
Or let me die”.

(William Wadsworth: My Heart Leaps Up)

Of course the farm was the home of the garter snakes, and those big fast moving black snakes. There used to be a few copperheads and a few rattlesnakes on the rocky mountains at the edge of the farm. A large forest fire years ago greatly reduced these populations, I believe.

We had water snakes and turtles. Then from somewhere snapping turtles and water moccasins invaded our swimming hole. We drained the pond to a low water level and removed these creatures as undesirables. One snapping turtle made a lasting impression on me and on our dog. We chopped the head off a captured snapper, and left the two parts by the back door. We planned to bury the remains after lunch. During lunch we heard our collie dog cry for help. We ran out and found the head of the snapping turtle clamped to the lip of our dog. Apparently he had nosed the mouth of the decapitated snapper. The postmortem reflex snap of the turtle mouth caught the lip of our dog. I don’t remember how we quickly extricated the dog from the turtle mouth, but I remember the turtle was buried before lunch was finished.

Springtime was always heralded early by a generous supply of peep frogs that provided an energetic chorus as the ground warmed. This experience has continued wherever I’ve lived in Ithaca. It usually evokes my solo response of “Jeepers creepers, where’d you get those peepers”.

One should not forget that the insects also are part of the taxonomist’s animal kingdom. We learn in biology class that there are many more species of insects in the class Insecta, than there are kinds of mammals.

As a child I was amazed at the strength of ants. I saw these tiny creatures drag or carry captured food far larger than themselves. I was amazed to note that so many would travel along the same unmarked highways to sources of food. It was in biology class again and later from Cornell friends that I began to appreciate their remarkable social order, their scouts, and their communication system.

The diversity of spider webs glistening in the morning sun or a dewey morning also was fascinating, as I walked barefoot through the grass. There must have been a huge variety of spiders to spin so many kinds of intricate webs. Only recently have we become aware of the strength and elasticity of the spider fiber. Yet the hummingbirds recognized that pieces of spider webs were ideal for anchoring their nests in the tree tops. Now the military has genetically engineered goats to produce spider web proteins in their milk so they can make prototype army jackets. Theoretically the fibers are so strong and elastic that a flexible army jacket can be made that would be bullet proof. Biotech soldiers for better or for worse. Again the philosophy is that it is better that we have it than the potential enemies have it.

We were always bugged by the buggy varmints like the potato bugs, squash bugs, cucumber beetles, corn borers, and on, and on that made our garden their main breakfast, lunch and dinner. Of course, with the rich humus from our barnyard mixed into the garden soil our healthy plants provided more than leftovers for us. We
assisted the plants by capturing unwanted aliens in cans of kerosene or with the use of “Black Leaf 40”. This nicotine-based chemical killed insects too, but not by smoking.

Then there were the insects that we called the good kind. The bees were essential for pollinating our crops. Lady bugs were always welcome in the garden, as they made a point of designing their meal focused on insect pests and their eggs. The preying mantis also was a favorite. Yes, in the natural world there is a system of preying (to seize) for survival. Humans should pray more before they prey.

After leaving the farm I was not in as close contact with nature as I was on the farm. However, in my professional life after WWII, I had a variety of farm animals in our research programs. I worked with several cooperating farmers from Northern NY to Florida. In addition, I began to understand the natural order of things as I studied evolution. Over eons of time an increasing hierarchy of complex organisms developed, so that our planet is covered with a huge diverse mixture of living forms. So as we evolve in understanding we may find that the actual creation of the world, as described in genesis, may require modification. However, the implications and responsibilities remain.
Chapter 3

Life Inside and Outside of the One-room Elementary School

On the hilltop about half a mile above our valley farm stood the White Schoolhouse built in 1792. The daily walk, or run to and from school 5 days a week during the school year was my introduction to the discipline of a busy daily schedule. I was beginning to have fairly extensive morning and evening chores related to feeding the calves, in addition to school activities.

Mother and dad were early risers. I knew that my dad headed for the barn about 5:30 in the morning, while mother built or rekindled the fire from any coals in the kitchen stove. My dad would have thrown big chunks of wood into the furnace in the basement throughout the cold weather. Mother would soon have hot water on the stove, as a cup of hot water first thing in the morning was a ritual she followed throughout her life.

My wakeup call from mother came between 6:00 and 6:30 A.M. Often I was at least conscious, if not fully awake. My melatonin cycle automatically triggered an early wakeup call in me. I never did understand, as a kid, why my oldest sister and I could wakeup so easily in the morning, while my other sister and brother found the cozy bed so much more attractive, even in the summer morning sunlight. I was 46 years old before I knew something about how melatonin works. I was out at 4 a.m. helping to collect blood from sheep during a visit to Colorado State University. Then I learned how melatonin affected the circadian rhythm. Some people are just slow learners. But I do remember lots of things, except important ones, like people’s names.

So, the day started early for me ever since I remember much about daily activities. In the summertime it was easy to get dressed, usually in a two-piece outfit. One piece was the underpants and the other piece was overalls. I had a small flexible cap in my pants pocket shaped about like a soup bowl. Mom had made it for me. I put it on if I was throwing hay or bedding around that might be dusty. It kept everything, even the cooties out of my hair.

In the early school years I seldom wore shoes to the barn in warm weather. This meant a foot dip in a pail of water before putting on school clothes.

In the winter I was more fully clad. I had a nice warm jumper to top off everything. The barn was just across the driveway so no gloves were needed on a quick run to the barn. However, I had a pair of gloves in the jumper pockets, very handy when bringing in wood from the woodshed next to the barn.

Mother’s hot water was in a teakettle. She also had a couple pails of water heating. I added a pail of milk to the stove. While the liquid breakfast was being heated for the calves I was cleaning up wet spots and some other material in the calf pens, and adding fresh sawdust, shavings or peanut hulls for bedding. A few scoops of grain formulated for calves was soon sprinkled along a manger. Boy, did the calves love grain.

By this time I could retrieve the warm water and milk from the house. The youngest calves got fresh whole milk. The next batch got dried skim milk mixed with water. The calves heard the pails rattle and were challenged to make a decision to slurp down the milk or continue with grain. A wrap on the pail and the urge to soak up
the grain in their rumen won out. Then it was back to the grain while I washed the pails. Filling the mangers with fine hay was the last chore with the calves.

Do you know how important that hay was for the calves besides nutritionally? I didn’t then. Fiber, fiber! Without fiber the calves would never develop that big rumen with rough folds lining it. The rumen is the largest of the four stomachs ruminants are famous for. It is a big fermentation vat that is filled with microorganisms. These help the animals to digest fibrous plants and convert feed we can’t eat into nutritious milk and meat. The rumen is big, but not as big as the room we have. The biggest “roomin” the world for us is the room for improvement.

Now wash my hands and face and change clothes. Be ready for that full breakfast that mom always had ready for us. There always was some type of fruit or fruit juice to go along with hot cocoa, cereal and milk. In the summertime it was cold cereal. In the winter it was oatmeal, Wheateena®, or a Ralston something. All were good. Sometimes mom had put a little brown sugar or raisins, or dates in the hot cereal. We always added milk. Depending upon the time available I could toast some wheat bread and cover it with butter or homemade jelly. M-mm!

Then it was a quick stop by the bathroom. Hair combed? Mother did a once-over check to be sure that we were suitably protected from the weather. Then a hug, grab the lunch pail and up the hill, double time, if necessary. Get to school before the teacher rang the bell.

Our one-room White School was built in 1792. It was a rectangular building about 24’ X 50’ set back about 100’ from the intersection. The entry way took about 6’ across the entire entrance to the school. There were coat hooks on each side of the entrance door with a shelf above them to hold the lunches. A sink on one side had a jug with a tap in it that held water for drinking and washing hands. There was no water piped into the school—no pipes to freeze. The northeast side of the school had three windows, while the southwest side was almost a complete block of windows. Those windows were our main source of light. Near the front of the room was a pot-bellied stove with a small pile of wood beside it. The stovepipe went directly up about 5’ above the stove, and then inclined slightly upward until it disappeared into the north wall and outside chimney.

The long stovepipe gave additional heat, especially in the front of the room where much of the group activities were focused in cold weather. The blackboard went completely across the north wall behind the stove.

It was chilly in the back of the room on cold winter days. Then we frequently sat at our well-carved movable desks with coats on. The desks were decorated with ink spills, as we had small inkwells in the upper right hand corner of the desk. I still worry about spilling ink when I ink a stamp pad. I remember the mess if one spilled ink trying to add a small amount to the ink well. How many of you have used pen points (fine, medium, large) that you could insert into a penholder? We used only pencils with well-used erasers in the first few grades. Then we learned to use ink.

A most important building about 50’ west of the schoolhouse was the woodshed with a 2-hole privy plus a copper “pee” trough on the left for boys (of course), and a similar abode on the right side for the girls. Different farmers took turns filling the woodshed before school started each fall. I don’t know if they were paid. I
know we boarded the schoolteacher a couple of years. There was a modest remuneration for this.

The bell has rung. Quiet now. The day’s classes have begun. I can’t imagine how the teachers managed to keep about 20 kids from grades 1 through 8 involved in various learning activities. A few grades were combined for some things. Older children might read to younger children. Across the top of the blackboard were neatly written capital and lower case letters and printed ones also. Different grades could practice penmanship with different types of letters. As we advanced we had appropriate lesson books in different subjects.

I loved my arithmetic. I could whiz through the lessons and was unjustly proud of being the first one to finish. We had contests to determine who could come up with the correct answers first when the teacher wrote a column of numbers on the board to add, and later an equation with addition and subtraction. I would get excited. My feet would chatter (probably bounce) on the floor. The teacher would have to tell Bobbie to be patient and quiet.

Mid-morning recess was always a highlight. We all ran outside to play tag or alleyover. The alleyover was a game where two teams were chosen, one to be on one side of the school and the other on the opposite side. A ball was thrown over the roof so it would land on the other side of the roof. You tried to throw it high so it would make a bad bounce and be hard to catch. If caught, we would yell “here we come” and try to tag as many as possible before the other group crossed a line in the middle of the schoolyard. If you didn’t catch the ball you had to throw it back (as wickedly as you could of course). Then the other side had the same opportunity. Finally one team would win by capturing most of the others. I don’t remember any cheating.

If there was sticky snow on the ground we would build forts and choose teams to throw snowballs. More often I remember it was guys throwing snowballs at the girls. I only remember getting in one fight. One guy threw a snowball that hit me in the face. It had a small stone in it that broke through the snow on impact. I was very angry. Even though the other boy was at least as large as I was I charged him and dumped him over backwards very unceremoniously. I don’t believe stones were incorporated again.

If the fresh water supply was low it was an honor to be chosen by the teacher to fill a pail from a nearby spring. One could even be a few minutes late after the 15 minute recess. Lunchtime was another time to be honored to fetch water. Also, being asked to raise the flag at the beginning of the day, and lowering it at the end of the school day was an honor. Of course, we began each day with a pledge of allegiance to a flag which stood in the right front corner of the schoolroom. “Under God” was not in the pledge in my schooldays. I believe that it was added in 1954. That addition really was not necessary. It was the cause of great controversy. What really mattered was where your heart and mind were.

Lunchtime was one hour. Kids who lived nearby (two houses were close enough) went home for lunch. My lunchpail always contained a tasty lunch. A sandwich, often with homemade bread, was nestled in the box with an apple, applesauce or other fruit. The Thermos® bottle (was there any other kind of insulated vacuum bottle) was filled with hot cocoa or Postum®, or juice in warm weather. Often there was a homemade cookie. Some kids did not have as good lunch as I had.
Was I always a good boy at school? Well, I better be because the teachers had parental support. One day the teacher did not think I was good boy at lunchtime. There was a small hole in the ceiling in the entryway that led to a low attic under the roof. When you were about a sixth to eight grader you could jump, catch the rim around the hole and gymnastically pull yourself into the attic. A buddy would pass up the lunch pails. A few of us guys would eat our lunches up there. Kind of big shots. Of course girls never dared try to climb up there. They all wore dresses in those days. Such a climb might be socially dangerous. Where did the expression "I see England; I see France. I see a hole in your underpants " come from? Not from a geography lesson I'm sure.

Well, I've kept you waiting to get to the point of my story. That's hard for me to do. In all of my scientific writing I did not dilly-dally.

The bell rang. Lunch hour is over right now. It took a few minutes for us guys in the attic to close up our lunch pails, and get them down as well as ourselves. We dropped through the hole swinging out as we clung with our hands to the rim around the hole.

The teacher came to see what was taking so long. Just as she opened the door, out into the entry just below the attic hole I swung down. My feet swung against the door. The teacher was squeezed by this accidental maneuver. It could never have been timed so we well on purpose but she thought so. Bobbie had to stay after school. After the teacher had scolded me for my horrible crime she finished with "And your father is the chairman of the School Board" too. Yes, he was continually reelected for 25 years.

So, I was late home from school. I had to relate what happened. My dad was annoyed, but I think that really was because I was late starting chores.

I did play a naughty trick once. I was the only boy in the 4th grade class. The teacher skipped me to the 6th grade. There I joined five girls. That annoyed the girls. Perhaps they were annoyed by boys at that age, but perhaps they had some other motives for teasing me. Anyway, I decided I would play a trick on those pesty girls.

One warm spring day we guys were eating lunch on the remaining woodpile. We noticed a bird's nest under the edge of the roof. There were young ones in the nest. Part of a window had panes missing that allowed the parents to come and go freely. I conceived an idea, but told no one.

The next day when the bell rang to end the lunch period several girls were missing from the room. The teacher was concerned and inquired if anyone had seen the girls. It seems that no one had seen them. Then the teacher looked out the bank of windows toward the closed woodshed door which was shaking violently. Somehow the door had become padlocked with a big chain. The teacher scanned the classroom. Somehow her gaze stopped and centered on innocent little me. "Bobbie Foote, go unlock that door this minute" she said with a scornful look. Alas, I had the key to the lock and chain that I had brought from home. Just before the end of the lunch period I had told the girls about the nest with the cute baby birds. They scrambled in to see them. I scrambled out and locked the door. Needless to say I had to stay after school and write 100 times that "I would not do this again". Of course, I had no intention of doing it again. Late home again I was called to explain my tardiness. My dad did not scold me. He only muttered something about hurry and get
the cows in so we can start milking. I wish I had asked my dad years later what his feeling was when he heard what I had done. I do not know, but I’ll bet he had a hard time keeping a straight face. I think that he pulled a few tricks in his day too.

Most days the downhill trip home was a skip and a jump. First pick up the daily mail at our box near the schoolhouse. Then kick little stones down the dirt road which was tarred over when I was in second grade. Then stones really would bounce downhill. In the springtime, trillium, pink ladyslippers and ferns grew in the woods lining both sides of the road. Sadly, travelers have picked and destroyed the ladyslippers.

Weekends there were chores to do, but Saturday night also was the Grand Ole Opry. We could pick up that program on our little radio. There was no TV then. My parents would let me listen for awhile provided the sound was turned low so that it would not disturb their slumber. Also, this must not interfere with getting up on time to do Sunday morning chores. I knew that the privilege carried a responsibility. Responsibility is a prerequisite for freedom. It is a characteristic that we must learn and earn by doing.

The Sunday schedule continued as I described earlier. I enjoyed Sunday School, but sermons generally were boring for kids. The service after Sunday School was not pitched toward kids. One Sunday I got permission from my parents to go outside on a pleasant fall day. The minister’s son, Harlan Deeter, went with me. He picked up a football at the nearby parsonage. We threw the football on the church lawn. By the time the service was over I had gotten my pants grass-greened. We also were admonished for being noisy. No permissions were granted for football on the church lawn after that.

I mentioned in a previous chapter that the several generations of the family gathered together on holidays such as Thanksgiving and Christmas. Christmas Eve was just the family. Perhaps we would be allowed to open one present. We no longer hung stockings by the chimney, as we grew older.

Christmas morning, after chores and family breakfast, we opened some presents. If the grandparents were joining us for dinner we saved several presents to open after their arrival, including presents for them.

When I was about 8 or 9 years old my big sister Lovina (a Middlebury college student) gave me a football. I was so excited that I inflated it and ran outdoors. I kicked it around on bare frozen ground. This scratched it up a bit. My mother scolded me mildly for scratching up a new football. I don’t hold this against my mom, but I was and am convinced that I did the right thing. I showed my great joy, boyish eagerness, and appreciation by exploiting a new opportunity without waiting.

A couple years later my family gave me a Kodak Brownie camera. That camera was a great gift as it stimulated a lifelong interest in capturing places and events faithfully and artistically. This ability was an asset in recording many scientific findings during my career, but it was done initially for sheer pleasure, with no thought of utility.

One Christmas I helped float ice cakes in the pond to where my dad and older brother could pull them up a chute onto the truck. The edge of the ice next to the open water was very slippery. I fell in one cold day. I was quickly fished out and ran home. By the time I got home, only a few minutes away, my overalls were frozen stiff. Mom soon had me in warm dry clothes. After a hot drink it was back to the pond. These
cakes of ice were trucked to our icehouse. The cakes of ice were packed with snow and sawdust. This large ice storage was sufficient to cool the milk all summer. There was extra ice to chip to mix with salt and make a cold brine for freezing homemade ice cream on Sunday. I loved to crank the unit, and perhaps be allowed to lick the beater.

The reader may wonder why we needed ice. There was no electric service in the rural areas. The gasoline powered motor that ran the milking machine also generated electricity. Our farm had a 12-volt unit with huge storage batteries. These batteries stored enough energy to run the electric lights between milkings. We always turned the lights off when leaving the room.

About the time I started school the electric power company ran electric lines as far as our house. We had to dig by hand the deep holes for the large poles to extend the power line the extra half-mile to the farm. Then we were able to buy electrically-powered refrigerators.

Much had happened during those 7 years in elementary school that I haven’t mentioned. They weren’t necessarily big events, but may have been more important than the big events. For example, there was Antonio Peracchio, a 6-year-old boy, in one of the several Italian families recently arrived in Gilead from northern Italy. He was starting school without knowing English or hardly anyone in school. I don’t know why I kind of adopted this boy who was my age. We still keep in contact continuously after 74 years. Now I understand why he wanted me to know that he was from northern Italy, but then I saw through a "glass darkly", even as I do now. There was north-south discrimination in Italy also.

Perhaps the most important times of my early life indoors were spent helping mother with the dish-washing and drying. She would recite dozens of poems by Wadsworth, Whittier, Longfellow and others. She knew much of the Bible, and would recite passages meaningful to her young son. There were mixed in lots of Ben Franklin gems of wit. "A penny saved is a penny earned". "Never put off until tomorrow what you can do today". Then Confucius wrote "A picture is worth a thousand words". I know ’cause mother told me so. There were words I did not understand. Mom would say now the Latin root means this, etc. What do you think the word means?

Pronunciation also was important. As a little kid I remember seeing my mother’s cookbooks. I asked her what all those “re-cipes” were. Another time I came home from school telling her what I had read that day about the “Sigh-ox” (Sioux) Indians. Isn’t English a difficult language to learn?

My dad started me thinking about mathematical relationships. The first time he introduced me to algebra he must have wondered if this kid would ever make it. He said “I don’t know Mary’s age now, but how old would Mary be 10 years from now? I responded that I had nothing to add to 10, so I couldn’t do it. Finally the concept of X as the unknown switched on a light. From thereon X + 10, 2y-15, etc. became fun equations to formulate and solve.

Was a 12-year-old country kid ready for a big city high school? Hardly, but that summer before high school we added to my school wardrobe. We went to Montgomery Wards in Manchester. There we bought my first suit with long pants and a matching tie. I was ready to go to church now dressed like my elders, and go to high school.
During these formative years I was developing heroes and role models, not idols. My mother would recite Lincoln’s Gettysburg address. Abe Lincoln has always been my favorite American from public life. I learned how he “freed the slaves”. The Hutchinsons were outspoken abolitionists and proponents of women’s suffrage. My mother, at Bacon Academy, spoke forthrightly about the importance of permitting women to vote, and she would work to see the day when that would happen. She voted in the presidential election of 1920.

Also, I was a Lou Gehrig fan. He played for the Hartford Senators, not so far from Gilead. When he joined the New York Yankees they became my favorite American League baseball team. I admired his skill, his stamina and his leadership as team captain, and I cried when he told Casey Stengel to take him out of the lineup, as he could no longer perform up to his standards. By the way the longest homerun ever recorded at Hoy field, Cornell University was hit by Lou Gehrig. He was playing for the Columbia University Lions against Cornell.

I haven’t written much about the farm activities while I was in elementary school. There were lots of things going on. In the summertime I was fully involved in farm activities. A typical day started with barn chores. We had more time to finish them before breakfast in the summer. This meant eating a hearty breakfast, often consisting of slices of potatoes fried or scrambled eggs and bacon or sausage, along with toast or homemade muffins. Some sort of fruit plus hot Postum® and hot or cold cereal was available.

We had time to play games with the cereal boxes while we ate. We lined up all the cereal boxes across the center of the table to block the view from the other side. Then we played “guess what I am eating now”. We might eat a tiny bit of almost any food or spice available. In addition, I might have a little hayseed, corn or oats in my pocket from the barn. This wasn’t cheating to include these, was it? Funny how personal standards change, depending on who is setting the rules, or which side you are on.

Then it was out for the morning’s work to clean the barn and work in the fields. We ate a modest lunch for a farmer and then took a 30-minute siesta. Mother said I was always a bit of a workaholic. Often I was the first one up from under the crabapple tree to end the siesta with a “Let’s go”. That remark was not greeted with enthusiasm, but I wanted to finish work in time to take a dip in the farm pond.

What were some of the farm activities during those early years? In the spring and summertime there was a buzz of activity in the fields that produced the crops that fed the cows. About the time I started school I was mostly an observer riding in the truck or on the tractor. No doubt I learned something about how work was done to accomplish goals.

The fields where corn was planted were plowed under after corn was harvested in the fall. During the wintertime manure was spread on them when possible. Other fields were “top-dressed” in the spring. Then out came the disc harrow to smooth and lighten up the soil. By the time I finished elementary school I was no longer the rider, but I could proudly make a field look very attractive after harrowing it a couple times with the disk harrow pulled by our W30 tractor. On flat areas and large fields the best procedure was to harrow crosswise of the little furrows left the first time. In long narrow fields and along the hillsides one had to till the soil lengthwise of the field. Of
course the fields were laid out to conserve the soil. All farmers had known for
generations that soil conservation was essential for their substanined livelihood. The
many walls on our farm were laid out that way. And there were many walls, reflecting
the tons of stones that had been picked up and sequestered into the walls. Most of
those small stonewalls have disappeared from the farm since I left home. Many years
later brother Ed, with his bulldozers and bucket loaders, dug large trenches to drain
swampy areas into which the stonewalls were moved and buried. Farm boundary
walls were retained.

Back to the smoothly harrowed fields. If corn had been there only one or two
years it would be used to grow corn again. Supplemental commercial fertilizer was
spread on the field, and lime added if soil pH was too acid. This was done before the
final harrowing to work them into the soil. Dad had purchased seed for field corn from
the Eastern States Farmers Exchange. That was the big farm coop in New England.
Our corn was all grown for silage.

Dad would apply a harmless substance that had a tar base to the corn as a
crow repellant. Otherwise crows would pull up the young corn plants, and eat the
kernels of corn. Hopefully a few pecks on these seeds would discourage them from
pulling up more young plants. They would pull up several plants anyway, just to check
on our thoroughness of application of the repellent. Crows are smart.

The first corn planter that I remember was horse drawn. It planted two rows at
a time, with adjustable spacing so that a horse-drawn or tractor driven cultivator could
fit between the rows. A metal arm could be dropped to the side with a small metal
blade at the end which dug a small marker line to show where the corn planter should
be positioned on the return trip. Later equipment purchased was designed for use with
a tractor. Dad was the local International Harvester dealer so trucks, tractors and
machinery were International Harvester.

Crop rotation was important to hold and maintain the soil. Corn acreage was
rotated with grass or legumes. Once a field of good alfalfa was established it was not
rotated for many years as alfalfa can be productive for many years. Frequent rotation
would be counter productive and uneconomic.

Dad had a 16-foot wide planter “to seed” a field with grass or alfalfa seed.
Alfalfa seed was treated with a light coating of live Azotobacter bacteria before putting
them in the planter. The reader may know them as nitrogen-fixing bacteria. I only
knew then that they were organisms that like to be on the roots of legumes, and they
would put nitrogen in the soil. That’s when I learned that air was mostly nitrogen.

To prepare a smoother seed bed for the grass or alfalfa seed a springtooth
harrow was used to put the finishing touches on the land before planting. Then dad
would push his one-man lightweight 16’ wide planter the length of the field. I would
walk barefoot in the soft soil at the end of the planter. My scuffy footsteps would mark
the edge of the dispensed seed so my dad would know approximately where the seed
should be dropped on the return trip. Footprints and recently turned moist soil were
quite visible. The last step was to cover the seed with a thin layer of soil, and pray for
rain. We had a drag made of multiple small birches that could be pulled behind the
tractor. Later we had a cultipacker that made beautiful geometric grooves in the soil,
covered the seeds, and held water, if it came gently.
This was making farm work fun and games over the geometrical landscape. My
dad could have a marker drag at the end of the planter. Instead he had me and I had
him.

Other times I was helping mother in the house. My parents were my mentors
and my playmates. As I learned to do more things with the cattle, fields and
machinery I became a young apprentice dairy farmer outside of my school work. I
learned through demonstrations and then practice.

There were times for sport breaks in addition to swimming in and skating on the
farm pond. There was a basketball hoop in the barnyard where I could shoot baskets
by myself or with Ed or my dad. All three of us, and sister Marje, liked to play ping
pong on the table in the large upstairs living room. Ed and I occupied one upstairs
bedroom. That room incidentally was unheated and it could cool down to sub-freezing
temperatures in the winter. We took heated soapstones to bed.

And there were times when farm work did seem to be a bit enslaving. There
were chores to be done and always animals to feed. Sometimes the 4th of July was a
great day for bringing in hay before it rained. The town always had a big picnic and 4th
of July celebration. Remember one must make hay while the sun shines.

During the summer, weather dictated the schedule, except for milking. The
early morning and late evening weather forecasts were never missed. Could you cut
hay before it was too mature and no longer as palatable or digestible by the cows?
One needed about three sunny days to cut, dry, and harvest hay. Today, with mowing
machines that crack open the plant stems, tedders to fluff up the hay and big hay
balers, two sunny days is enough.

So the haying was done in sunny weather. Corn was cultivated early and
weeds pulled or hoed when weather did not permit haying.

Then there were the apple trees to spray. We had apples to eat, make
applesauce, cider, vinegar, and sell apples as a cash crop. It seemed like it always
was time to spray the apple trees when it was prime hay days. Dad would cover
himself with rubber rain gear when spraying the trees with Bordeaux mixture (copper
sulfate). Shifting winds could douse him with the stuff. But farmers were hardy. All
our pipes that brought water from the spring and the well on the hill above the house
and barn were lead pipes. Generations consumed that water and lived into their 90s.

Then in the fall there was a rush to harvest the apples at the same time that the
field corn should be harvested. Both should be harvested before the first hard frost.
That was in the days before the great advances in plant breeding with uniform early-
maturing hybrid corn. In my younger days the fields of corn were not the lovely
uniform corn tassels that formed a graceful template of the changes in soil elevation
below. No more poorly digested weeds were in the corn today either with pre-
emergence weed control. Also, the shorter, sturdier corn no longer was broken into
pieces by winds with thunderstorms. Filling silo with field corn was a dangerous
operation. Climbing a 30' wobbly ladder hauling a pulley and rope to the top of the silo
to pull up and attach the pipe to blow the chopped corn (ensilage) into the silo was
risky. Unloading wet cornstalks into the high speed corn chopper also was dangerous.
My Uncle Arnold lost part of three fingers before the beltway to the chopper was
reversed.
Apples were stored in large bins in our apple cellar. We tried to wholesale them to an apple dealer before there was any significant spoilage. Those were the days before carbon dioxide-air mixtures were controlled for multi-month apple storage. One of my jobs as a youngster was to help pick over the apples and discard any soft rotting apples. I really tried to do the job conscientiously. But one day when I was rolling them over for an apple dealer to bag them a bad one got by me. The recent immigrant dealer said “Votch-um sonny, votch-um”! So, I did “votchum”, with both discerning eyes and touch as each apple was turned.

I'll get ahead of my story briefly. When I was in high school the apple orchard came to an end. A hurricane in the 1930's really scrambled the trees. The next couple of winters were partly occupied by cutting up the trees. The initial disaster probably was a blessing. The apple enterprise was not a good fit with cows, corn and haying. In fact a couple times some cows escaped from the pasture. They wandered into (or made a beeline perhaps) for the apple orchard to gorge on dropped apples. Can cows get drunk? Yes. Fortunately, they were removed from their ill-planned escapade while they could still stagger home.

Where were my brothers and sisters when I was in elementary school? My sister, Marje, was four grades ahead of me in the White School. After school she helped around the house but she would have preferred to be outside. She helped occasionally with a few chores, but our parents thought that job was primarily a job for the boys to do. She loved to get suntanned, especially when she became a teenager, and boys were one of her major interests. The job of hayraking in the summer fitted her outdoor and tanning interests. Someone would harness Queenie to the dumpirake and Marje was on her way. I don't think they had sports bras in those days. She would tie a large blue or red bandanna handkerchief around to minimally cover upperbody parts, plus shorts. That gave maximal exposure, quite suitable for returning to high school in the fall. She was fond of sports, like her dad, but there were not many organized activities for girls in the 1930's. Besides, activities at high school were limited to the school day between bus arrival and departure.

Brother Ed was 5 or 6 years ahead of me, so he was in high school or college a majority of the time I was at the White School or in high school. He helped with the milking daily, and during the summer he was involved in all the crop production and harvesting, until he went to college.

He was a good older brother to me. When I was about 6 years old he taught me how to make a fishpole out of a slender young maple sapling, and attach a fishline plus a hook. We used earthworms for bait. They were plentiful and gigantic in our garden soil enriched each year with barnyard humus. We had plenty of that. “A can of worms” had a good connotation for me growing up. Ed showed me how to “bait a hook” by slipping the earthworm carefully over the hook. The first time he showed me I was holding the pole and in the excitement I moved the fishpole and hooked his finger. Ouch! It still hurts me when I think about it, especially because my brother really did not get mad at me. He really let me “off the hook”. Our nearby farm brooks had rainbow trout in them.

He showed me how to use a jackknife safely, and how to tap the bark of a 6-inch branch from a small maple sapling so that part of the bark could be slipped off the wood in one piece. By carefully notching the wood and cutting a small chamber in it
opposite an appropriate aperture cut in the bark, one could fashion a whistle. Tones could be altered depending on the dimensions of the instrument. We whittled many things. There were no plastic toys in those days.

Woodchuck holes were a serious problem in the hayfield. My dad would put a poison gas bomb down some of the holes and close them. Hunters captured a few, but we always had plenty. Some woodchucks lived in the walls. We could catch them with a hooked wire under their long front top teeth and pull them out. One moonlight night Ed and I tried to dig one out of the burrow. As fast as we dug on one end we could hear the woodchuck digging ahead. Suddenly it popped through the top of the ground about 6 feet ahead of us and scampered out of sight. They sure can chuck dirt, even if a woodchuck cannot chuck wood.

When Ed was in high school I was large enough so that I could throw a baseball. We would play catch. We tossed the football around. On a Sunday afternoon dad occasionally joined us. Soon Ed was off to college. Then he stayed out of college for awhile to help on the farm during the depression. After graduating from college he enlisted in the Army Air Corps program. Eventually his depth perception wasn't good enough. He worked in California, staying with the Deeters. They had moved to California after Rev. Deeter had served as pastor of the Gilead Congregational Church for many years.

My older sister, Lovina, had graduated from elementary school when I started school. Then she stayed with her uncle Arthur during her high school years so she could attend the excellent Manchester High School which was near his home. There was no bus for high school that came near our home at that time. Lovina loved to read. She was a rapid reader with a good memory. She excelled in high school and won a scholarship to Middlebury College. There she was a Phi Beta Kappa student. During summer vacation she was a waitress in nearby Breadloaf, a place that attracted artists. She waited on table for Robert Frost (thrill). At the end of the summer he gave her a tip of $100. (thrill, thrill in those days). Then it was on to Durham, Connecticut where she taught English, Latin and French. She had followed her mother's footsteps. Lovina came home many vacations, but worked at summer camps too, so I did not have close contact with her as I grew up.

In summary it was good for me to have both a brother and sisters. They were enough older that we weren't really playmates. I'm sure they helped care for baby brother at times. Also, brother Ed and I spent lots of time doing farm work together, cooling off in the farm pond, or ice skating when the pond could be cleared of snow in the winter. In fact, the neighbors skated on the pond also. On cold nights we would build a fire in a small stone enclosure. That provided light for putting on our clamp-on skates, for skating, and for toasting "somemores". Oldtimers will remember how we relished the graham-cracker-chocolate bar-marshmallow sandwich made with toasted marshmallows. The roasting pointed sticks also were whittled with our ever-present pocketknife.

Thinking of wintertime, I remember coming in from the barn and warming myself for a few minutes on the large iron grate through which hot air from the furnace flowed. Then it was time to cleanup, eat breakfast quickly and head for school. I remember Marje coming out in her pjs and sharing in the warmth then.
Of course mom and dad were there. Mother did some field work in addition to meal preparation, canning and housework. She drove the truck to pull the hayloader. One time she drove over the pile of gravel from a woodchuck hole on the upper side wheels on a sloping field. It threw me off the load of hay I was loading. I jumped clear, landing on my feet. I was O.K. Mother was so apologetic. Golly, she was really doing her best. Besides she always brought some canned currant or grape juice plus crackers out to refresh us all on short breaks. What more could we expect?

It is clear that our life revolved around school, the farm, and church. We had family picnics, and fitted in recreation when there was time. My brother and sisters tell me that there was more visiting relatives when they were small. However, mother and dad were schoolteachers, or shared farming with my uncle Arnold Foote. When he left the farm shortly after the 1929 crash to start his own farm one family was left to milk cows twice daily every day. Also, my dad was elected to the Connecticut State Legislature in 1927 and again in 1929. This took quite a bit of his time away from the farm. It seemed necessary to be a workaholic to have a successful dairy farm. By the time I entered high school I had learned most off the simpler jobs on the farm, at least I thought I had.

So the seasons and years sped by while I was in elementary school. I remember that in 1934 I shoveled the most snow I ever shoveled at one time. Farmers did not have snowplows then. A terrific blizzard blocked the highway for two days before we could shovel a path for the milk truck to reach our place. We had to dump the milk one day as we had no place to store it. There would have been no problem keeping it cool. I believe that 1934 ranks as one of the coldest recorded winters in Connecticut up to that time.

My dad’s father, Edward Alfred Foote, died in November, 1934. He was diagnosed with stomach cancer. He was the youngest of any of my recent ancestors to die at age 74. While he was ill, and until the herd could be dispersed, my dad and I milked his dozen cows by hand. When grandfather turned the home farm over to his two sons he had established a small farm of his own. In 1934 my brother was in college. I was in eighth grade. It was a rush time for me to help with chores on two farms, clean up and get to school on time. My grandmother Alice Foote and aunt Annie Miller (who stayed with her for awhile) were always watching to catch us as we finished milking Grandpa’s cows. As we jumped into the car or truck, so my dad could get me home in time for school, there they were with homemade doughnuts or a handful of cookies. Wonderful memories! The sad memory was the morning I went to the barn at home in November, 1934. My dad had tears running down his face. It’s the second time I had seen him cry. Sorry dad, I knew grandpa had died during that night. My dad nodded. It was likely one of the few times that he was at a loss for words.

In 1935 I would start a new era at Windham High School in Willimantic, Connecticut. What a change in technology had already occurred in my young life. Electricity delivered to the farm, tractors, paved roads, etc. This industrial revolution has continued unabated with machinery development, biotechnology and computerized farming, with a huge investment required today.

How had I changed besides growing physically? Certainly the mentoring I had received helped me grow from a period of complete dependence on family to one who
could contribute in limited ways independently to the family enterprise. Self, family, school, church and community were all connected somehow.

I'll add a few random things that have surfaced about my early days that I don't remember jotting down before. At school I remember kids from the following families: Foote, Borsotti, Fracchia, Freddo, Gambolati, Peracchio, Scagliotti, Hooker, Keefe, Links and Warner. We had a substantial recent influx of families from Italy, as the names indicate. I was the only person in my grade at White School.

One day we had to draw Jack and the Bean Stalk. I did not have a green crayon. My mother had taught me that yellow and blue are complementary colors. That works fine for well-mixed paints, but my blue over yellow was messy, I admit. My teacher told me so also, and she seldom criticized students.

Another time we had to write a poem reflecting our impression of some person, we had seen, but unknown to any of us. It was supposed to express some sense of values. Brother Ed once wrote about a drunk despised by a pig. I wrote:

"She would have been a beautiful maiden.
Her eyes were as bright as the stars,
But with cosmetics she's heavily laden,
And she smokes those nickel cigars."

Along the edge of the school grounds there were many kinds of trees. We climbed some of them during lunchtime. One time I saw a limber birch tree that I thought would be good to swing on. It swung me over a barbed wire fence. Fortunately there were only a few tears in my pants.

Coming home from school we brought the mail. The R.F.D. carrier went down a different crossroad by the school. Our mailbox was near the school, about half-a-mile from home.

After school in the fall I liked to take the cows out of the well-grazed pasture and turn them into some grassy areas that had not been grazed recently. We grew turnips in a nearby field. I loved to trim a small turnip with my jackknife, and munch on it. Then it was time to bring the cows to the barn for milking.

In the summertime we had flies around the barn. We put up flypaper, installed electrocuter screens, etc. It was fun to see toads sitting quietly. When a fly approached too closely the fly really disappeared. The toad's front-hinged tongue would capture the fly faster than the eye could see. Also, we had bats that were a part of our anti-insect campaign. I was thoroughly instructed in the fact that bats were flying mammals. They had teeth and could bite severely. We were never to touch a bat. I don't know whether I knew about rabies at a very young age or not.

Bike riding also was a challenge. We had only one bike. It was large. It was impossible for a youngster to jump on it until you were about 8 years old. We did have a small tricycle. I first tried riding the bike with my brother, Ed, holding it while I climbed on. I couldn't reach the pedals while sitting on the seat. Also, balancing was a problem at first. But one day, all of a sudden by myself, I started the bike down the gentle lawn slope and rode it. Whooppee! We did have a few spills with skinned knees, but never any broken bones.
I broke a front tooth when I was 12 (1934). The snow covered the fields and stonewalls. A very strong crust developed after a warm day and cold night. I slid down a hill across one lot and wall, but the sled sunk into the snow as I approached the next stonewall. Needless to say part of the front tooth was lost forever, as I hit my face on the stonewall. My mother hardly believed me when I calmly walked in the house and, told mom that I broke my tooth. Did it hurt? No. Boys were not supposed to show much physical pain. Then why were my lips bloody?

So what else happened when I was 12 years old? Graduation was approaching. All of the individual schools in Gilead and Hebron were combined for one graduation. We had a contest to write a class poem to go with the class motto of “Success Is An Open Door”. My poem was chosen, or was it a lottery? I had to recite the poem at graduation. It went as follows:

"Success is an open door they say,  
But the road is often steep.
And we must work and work away,  
And strive our course to keep.
  Day by day.

We must work with purpose true,  
'Neath the head of the burning sun.
We must battle the storm clouds through  
Until at last our goal is won.
  All the way!"

The excitement of graduation was over. It was a goal all kids were expected to reach in this small farming community. Most families put high priority on education. This was true of the established Connecticut Yankee families. Certainly it was true of the influx of families from Italy in our area and from Poland in the Hebron area. We really weren't that different were we?
Chapter 4
Bussed to a Big City High School

This short chapter will focus on life at in high school, as general farm responsibilities were touched on previously. Bus service to Windham High School came within one-half mile of our house. This was the farthest stop from the high school. Bus service was extended to this point when the dirt road became a tar road. So Ed, Marje and I went to Windham High School 14 miles away on the bus. My older sister, Lovina, had lived in Manchester to go to high school there.

The bus pickup at 8:00 a.m. was adjacent to the White School. The half mile uphill was a route I had grown accustomed to over many years. Only now I had books to carry. They were strapped together. We did not have backpacks in those days. The run up the hill with books and lunch was usually routine. I remember onetime getting to the bus stop a couple minutes late. The bus driver was cordial, but reminded all of us to be ready on time. He had lots of stops and he must get us to the High School about 8:45 a.m. One day he was quite amused, but I wasn’t as I raced toward the bus. The snaps on garters I wore to keep the socks up tightly unhooked. As I ran toward the bus they were flapping widely and wildly. Now we seem to have socks woven to stay put.

The 14 miles of highway were bumpy and winding with steep grades. We knew every bump. Travel in the winter could be hazardous. However, we always made it to school. Our driver, Floyd Fogil, was very good. Now I hardly recognize part of the road where ridges have been cut, valleys filled and the road widened.

What was more hazardous at times was when we kids got too cantankerous. This could distract the driver. On a few occasions he stopped the bus. He told us that his job was to get us home safely. I will do my best, but anyone who does not obey the rules will have to find another way to commute to school. That calmed us students. My parents surely would not tolerate any major fooling around on the bus.

So what did we pass and see daily on the way to and from high school? I got to know where everyone lived, as I was the first one on and the last one off the bus. One special home I saw daily was in Columbia. I wrote a story about it for one of my English classes. If I find it I will append it. The story was about my grandmother Lovina Hulda Holbrook Hutchinson who was born in Columbia in 1848. She was that lovely lady I’ve told you about already. Her father was Nathan Holbrook. I didn’t tell you about the time she called her father by name, Nathan!, Nathan! He responded, you address me as “father. I never want to hear you say Nathan again”. One day she came home from school and told about this boy who was “little father”. She repeated “little father” several times during her story. Her mother and dad soon figured out from her story that she had a classmate named Nathan. Since she was forbidden to use the name Nathan she had to invent a descriptive alternative. Her dad accepted the fact that he had been harsh and too broad in admonishing his little daughter Lovina. Apparently this was a story all the family enjoyed thereafter. It was told to me with a chuckle and a smile.

So what was life like at Windham High School. The first stop after leaving the bus was the locker room. There we could leave our coats and lunch plus relieve ourselves after the long bus ride. Then it was upstairs to the homeroom where we had
our assigned desks. Our homeroom teacher was a middle-aged woman with a young spirit. We liked her. I guess because we respected her, and most of us were a conservative bunch, there was not a lot of horseplay. Yes, a paper airplane might sail through the air occasionally. It would land at some random location. Probably a few paper bullets were launched with a rubber band, but I don’t recall being hit by any.

The biggest pest was Shirley, the gal who sat at the desk behind me. She really was a bright nice girl. But she was a bit older, and a more mature city kid. She liked to run her fingers lightly down the back of my neck. It tickled. I would shake my head occasionally, like a dog, to smother the tickling. One day I had enough. I whispered “Cut it out”. I must have said it louder than a whisper because the teacher said “Foote, what’s the matter?” I really didn’t know how to respond, so I said “nothing”. Of course, the experienced teacher knew that something was going on, and reminded us that our homeroom should be a quiet place to get settled in preparation for classes.

I enrolled in the standard pre-college curriculum. This included 4 years of English, 4 years of mathematics (algebra and geometry), 4 years of science, plus history, civics and social studies. I especially liked math and science. The first day in chemistry class Mr. Nelson, our chemistry teacher, told us about the equipment we would use in the laboratory. A key piece of equipment was the Bunsen burner. Mr. Nelson said “Foote, who invented the Bunsen burner?” I hesitated for a moment. He helped me by indicating that this was not just any old burner, but he was the Bunsen burner. With my answer of Bunsen, I was off to a good start in Chemistry. Mr. Nelson was a friendly, firm and good teacher. I liked him very much. Many years later my mother sent an obituary notice to me in Ithaca, telling about his life dedicated to teaching, as a classroom teacher and later as principal of Windham High School. I lost an old friend.

First year algebra was fun. We used to compete and see who could move that slip stick (sliderule) the fastest. Mr. Hewitt gave us scrap paper to rough out solutions on exams before putting the final solution on the exam paper. The back of the paper always had been used for something else. One time my scratch sheet had a short poem on it. As I had finished the exam quickly I memorized the poem on the back of the sheet. We had to turn in our scratch sheet with the exam. The poem went as follows:

“I retire at eleven,
I rise again at seven,
And I wish to call attention as I close
To the fact that all scholars
Be correct about their collars,
And particular in turning out their toes”.

When I think of that poem, it brings a sense of pleasure as I am reminded of the good staff we were exposed to at old Windham High School. I have always considered teachers as representing the most important profession. Unfortunately, the rewards must come from the satisfaction of a job well done, as the financial rewards are modest. I did not know that then.

I continued to enjoy my math and science courses. I was particularly proud of a special complex takehome problem in geometry that I solved. I was the only one in
the class who had solved it correctly, which gave me a bit of much needed confidence. Perhaps this was the one difference between my high school math and science record and that of my respected friend, Armando Fittable. I almost fell off the stage when at high school graduation I was called to come forward to receive the Rensselaer Polytechnic Institute medal for the highest average in mathematics and science. My brother Ed had received this medal when he graduated.

In the physical science courses I especially liked astronomy and geology. This fitted with my farm experience. “How often at night when the heavens are bright, had I looked at the glittering stars” (from Home on the Range, author unknow). I had walked among many geologic formations but I only knew a few such as granite and marble (the cemetery was fully of Vermont marble). Also we had quartz crystals in some of our fields. The best ones were beautiful, but also sharp on bare feet. I do not remember all the minerals, but what I do remember adds to the pleasure of walking by stream beds, through gorges cut by glaciers, and driving through highway cuts as superhighways level out the hills and dales. Star gazing, viewing the constellations with their Greek mythological designations, is a never ending pleasure. Somehow that adds to the reassurance that as time moves on there is no end that we can comprehend. The ancient Greeks saw essentially what we see today.

French class was a lively place. We had a snappy enthusiastic young native French teacher (really sharp looking too). I sat next to Jean Taylor, a bright, sparkling gal that I thought highly of. She was Armando Fittable’s steady girlfriend (and lifetime spouse), so the relationship was just good friends. She was a rascal and a bit of a distraction at times, nevertheless. One of the exciting aspects of the class was the oral competition to be selected to speak French on a radio program on WTIC, Hartford, Connecticut. Due to a scheduling problem we did not get on the radio. This was a disappointment, as we were prepared to have our families tell us that they heard us on the radio. A big deal!

One goof I made early in the French class made me realize how important it was to pronounce words correctly. During a vocabulary drill Miss Marchal, the French teacher, asked me what the word was for fish. I knew it was “poisson”, but I pronounced it like “poison”, the word with the same meaning in English. Miss Marchal said “Foote, I hope that you don’t eat it.” Touché.

English class had its high points and its low points. I did not particularly enjoy long reading assignments. When I finished barn chores at night I was tired. Math problems required active brain use, and for me they were stimulating. Reading a book was like the bedtime story preparing one to sleep. So, I did not do very well on exams based on the books assigned.

I enjoyed writing. My short essays usually received an A grade. A couple were selected for publication in the school paper. There were three or four girls in the class who were great readers as well as good writers. They were the A students in English.

My senior year in high school The Gruen Watch Company sponsored a contest. Contestants were to complete in 25 words or less the phrase “I am proud to be an American because...” I wrote because “in this country we are allowed to think, speak, and act freely, so long as it does not infringe upon the rights of others”. These A level girls in English asked me if I was going to enter the contest. I knew that I was, but I didn’t want to let them know that I was going to enter it. Still, I didn’t want to lie about
it. I responded with words to the effect that I was thinking about it, but probably I wouldn't have time to do this.

I found out later that these gals all entered the contest, wondering which one of them would win. I won the contest. The Gruen Watch Company presented a fine Gruen Watch to me at a special ceremony. The girls approached me after the award with loud accusations like "you liar, you rat you!" I considered these comments among the nicest compliments I could have received from this group of girls because I had much respect for their ability and their character. I even liked them more after that.

I am not sure if I fully appreciated it at the time, but I believe that I was beginning to feel that I could hold my own with academically good students older than I was. I believe that I never felt that I would fail after that on any task that I tackled. My eventual retort to others regarding exam grades that I'm gonna flunk had a triple meaning. Others thought it referred to a failing grade. For me it meant that I might not achieve my goal of close to 100%. Thirdly it was a way of dismissing the subject. Why worry. Prepare and let nature take its course. My parents always seemed to be pleased with my grades.

Also, I began to think that these healthy girls were good kids like my sisters. I never had time to interact with them much as my time at school was between bus arrival and immediate departure. They were not sex objects, although I knew what the consequences of sexual activity were from farm animal management. However, I did not go to dances or school parties, where social development would be enhanced.

We had a 30-minute lunch break. Half of the classes ate from 12 to 12:30, and the other half from 12:30 to 1:00 p.m. We sat on benches or on the floor. There was a hot or cold lunch you could buy. Once in awhile I took some loose change and bought some juice or soup. Occasionally I bought a candy bar. I brought a few "Milky Way" bars home when Ed was on the farm for awhile. He paid me the 10 cents that they cost, or 5 cents if we split the bar. This trade system was carried on discreetly. My parents frowned on wasting money on bought candy.

A couple of notable incidents took place on the farm about the time I was a freshman or sophomore in high school. One was my growing interest in math and science. I had studied topographical maps and knew that surveyors had used instruments, landmarks and calibrated poles to map the lay of the land. We had a huge rainfall one summer. Water spilled over the banks of the brook and pond covering the usually dry areas. I decided I could do some surveying. I sketched the meadow and relatively flat fields bordering the stream from memory. Then I fashioned a strong wooden rod marked in inches and feet. It was about 4 feet long. This was my measuring pole and walking stick. Dressed in a bathing suit and a light shirt with a pencil and pad of paper in the pocket I surveyed the flooded area. I stayed clear of the brook bed, but measured distances from the brook by pacing. The water over the grasslands and meadow varied from a maximum of about 3 feet deep to one high area about 4 feet above the water level. From multiple measurements I drew a topographical map when I got home. I showed it to my parents. At first they were horrified to think that I had gone alone into areas of the flood waters. But they thought my study was rather clever and interesting.

The other event was a sad one. Cloud formation one summer day foretold a coming thunderstorm. We were in a hay field. My dad said, "Bob (I'm now Bob) hurry
to the Hodge lot and bring the cows home. They are in a pasture with shade trees near a barbed wire fence. That could be dangerous in a thunderstorm. I ran, but alas, just before I reached the pasture a quarter of a mile from the hayfield there was a flash and crashbang all at once. Eleven cows had been struck by lightning and killed. I waited a couple minutes until the lightning was more distant. Then I ran to the gate and brought the rest of the cows home. I was safe and had done the best I could. My dad was mighty glad of that. The dead cows went immediately to a rendering plant with no sale value. That was a big loss.

Several notable events took place about this summer of 1938. In August of 1938 I turned 16. I passed the driver's test easily on my 16th birthday. The person testing me said, "I think you have driven quite awhile". I replied, "yes, since I was 12 years old I have driven tractors and trucks on the farm".

By the age of 16 I had grown into a healthy farm lad. I even have a picture of me controlling (I thought) the farm bull on a chain attached to the ring in his nose.

We had a severe hurricane about that time. The swirling wind ripped off the tin, that covered the flat roof extension on the house. My dad and I pulled a big heavy canvass up to the side of the roof against which the wind was blowing. We nailed it securely over the edge of the roof. We kneeled aside while the wind unrolled the canvass across the roof. Lying on our stomachs we nailed the canvas securely in place. Rain damage was very limited as a result.

In the meantime mom was on the ground worried "to death". A big maple tree was rocking. Had it fallen it would have crashed on the roof where we were working. It didn't fall. The big worry my dad and I had was to get the canvas nailed down securely and for us not to be blown off the roof.

Later, as the hurricane moved on the wind returned in the opposite direction. This was my first direct lesson of the circular nature of the swirling winds in a hurricane.

In December that year my parents let me take some neighborhood classmates to a high school basketball game in Willimantic. Darn, if it didn't snow 4 or 5 inches during the game. I had to take the London kids home over a hilly dirt road with deep frozen ruts. I got them home O.K., but I couldn't make it back up the hill in those ruts. I walked back to the London home. They had a big truck. We took a different route so we could come in front of the car. We towed the car up the hill and each of us went home our separate ways. I worried plenty. Here my parents let me have the car and the first time I fouled up. But they were asleep. They trusted me. The next morning I told them what happened. They were just glad that everyone was home safely.

Another event happened I believe the summer of 1938. My sister Marje and her date were conversing rather late on the front steps of the house directly below our second floor bedroom. Ed and I had trouble going to sleep. We filled a pail of water and threw the water out the window on them. My sister was real angry and said "I'll tell my folks on you". We replied "Go ahead and we will tell them what time it was--after your curfew time". No more was ever said. Ed and I always enjoyed this joke, but Marje never did. That was the last date with this guy. We were glad because we didn't approve of him.
One semester I took typing during lunch break. Typing was an important skill to master. I used it in high school, college and especially in graduate school. I still rest my fingers too heavily on an electronic keyboard.

The highlight of my extra-curriculum activities occurred during spring break, my senior year. We went on a trip to Washington, D.C. in cherry blossom time. In D.C. we visited historic sites such as the Washington, Jefferson and Lincoln Memorials, the U.S. capitol, and Smithsonian Institute. I ran to the top of the Washington Monument, starting just as the elevator at the bottom opened the doors to load my classmates. I arrived at the top (550 steps I believe) as the elevator doors opened at the top. So my big claim to fame was winning the elevator race. Since I believe that the elevator cannot be used today, nor can one climb to the top of the monument, this record is likely to stand unbroken. So what?

Two other events on this trip I remember. I was tired after all of the day's activities and went to bed in the hotel where we were all quartered. I think that it was about the 8th floor. Some of our guys had a few balloons that they put water in and dropped them on the entrance to the hotel. Of course this playful trick was a foolish one, as someone might have gotten hurt. The hotel detectives immediately suspected our group, and were soon in our rooms interrogating us. The upshot was that our whole group was assumed to be guilty. If another balloon with water was dropped we would all be evicted from the hotel and taken to the police station. Our teacher chaperones gave us a deserved tongue lashing, more severe than would happen at high school. No more balloons were dropped.

The other notable, more pleasant event, was a night excursion on a boat on the Chesapeake Bay. We had comfortable rooms with twin beds. My roommate was Roger Arnold, who last I knew was the organist in a large church in Omaha, Nebraska.

We really enjoyed gliding through the water, enjoying the band and stunts aboard. One stunt that was a bit risqué was on the dance floor with small holes in it. These holes had air pressure hoses attached to them. A few times when girls were over any of them some crew member would release a jet of air. Remember girls wore dresses in those days.

A few guys sneaked some liquor aboard, and unknown to the chaperones drank and smoked too much. They were not in good shape to enjoy the last day of the trip. None of these four or five guys were at our 60th high school reunion in 1999. I hope that they had a good life, as they all had that potential.

And so we graduated and went our various ways. Several were accepted at the University of Connecticut. I've seen them mentioned in the Alumni News. I look forward to seeing several and others at our 60th reunion at the University of Connecticut in June, 2003. I am excited about being a speaker at the reunion. An added note is now I have been to the reunion. The ranks are thinning, but the profiles of the survivors are not thinning. However, they are all in good spirits with big smiles.
CHAPTER 5
Boyhood Dream: Graduating from College

When I was a boy growing up, there were times when I could dream and work at the same time. Heaping hay took a lot of time during the summer. I heaped thousands of heaps. Mother said one day I don’t believe another 12-year-old boy heaped as much hay today as you have. I felt good and worthwhile. Weeding corn, when we were not haying was another routine job. It did not require much concentration. The ends of the rows of corn came much sooner, in this back-aching job, when one’s mind was on more lofty things. Picking the ever present rocks off the fields was another one of those back over mind tasks.

One of the fun things was bringing the cows home from pasture during the summertime. One of the pastures was more than a quarter of a mile away from the barn. Cows had to come along the main road to get to the barn. The road was a dirt road in the beginning with few cars. Later, when the road was improved and cars were more numerous, and traveling at high speeds, this pasture was used in other ways.

As I skipped to the pasture with a stick in one hand and a couple of crackers with butter I could lick off in the other hand, I looked at the beautiful sky and would dream of that “sweet bye and bye”. I also dreamt of the life on the farm, and the preparation I would need to be a successful farmer.

My mom and dad had gone to college. They had taught in high school before returning to the farm life that had surrounded them during their childhood. Their education helped them to be leaders in education, church, and community and regional activities related to government and agriculture. Also, there was that same black Cadillac car that frequently traveled the road as I was bringing the cows home. In it was Fred L. Way, sometimes with his wife. They were lovely people with a beautiful well-manicured estate in Gilead. Fred Way’s dad, John L. Way, had been the President of the Travelers Insurance Company. Fred had a responsible job in this world-famous company in nearby Hartford.

When they came along I felt that my stick, dog and I should move the herd of cows to one side of the road to let them pass. They said “no”, in a friendly voice. They did not seem to be in a hurry. We would converse a bit as I moved hither and yon near their slow moving car to “hurry up” the slow moving cows. When I was a junior or senior in high school they had a daughter, Ruth, who was accepted at Smith College. She and her younger brother John were nice kids that I had met on occasion. I did not see them often as they attended a private school.

Anyway, I thought I am going to college too. When there was no traffic on the road I modified a song and sang:

“I’m going to be a college student.
I’m going to dance the dreamy swirls,
“Cause if I’m really a good student
I’ll get along with all the girls”.
This is modified from “I’m going to be a football hero”.

So, I applied to Connecticut State College. It had a good course in dairying. Besides it was the only college my family could afford. Afterall, helping four kids to go
to college during the depression, based on dairy farm income, was not easy. I was accepted with a scholarship. I had been on the honor roll, I believe, every semester in high school. As a result I had been exempted from all final exams. That was a mistake in the system. Both the overall review and taking long exams would have been good training.

So I arrived at the state college about to become the University of Connecticut. That cozy little school of around 2,000 students had only a small resemblance to the nearly 30,000 students today, when considering the Storrs Campus plus the Law School in Hartford and the Medical School in Farmington. Perhaps U. Conn, is most famous now for having at the same time the number one rating for both the men’s and women’s basketball teams. The women are still going at top speed having set a record of more than 70 consecutive victories, and still cruising in 2003. National champions again.

The first year I was assigned to live in the Barracks. These were temporary structures erected before World War II that existed as longtime temporary structures. They had small rooms with bunk beds, one above the other. There were two desks in each room with a shelf above each one. We supplied our study lamps. The ceiling light was only adequate for general lighting. The barracks were two stories high with showers and a bathroom on each floor. There were about 12 rooms on each floor, six rooms on each side of the hall. So with 24 students per floor one needed to get up early to avoid the line in the restroom.

One room on the second floor of each barracks was reserved for an upperclass resident counselor. He explained the rules to us in a hallway meeting. He kept the noise down after 10 p.m., the required quiet hour. As the dorms were noisy with no insulation to dampen sound most of us studied in the library only about 100 yards away.

The counselor stopped water fights when they occurred. A few times some damage was done. Those responsible, if they could be identified, were supposed to pay for the damage. I did not get involved in those fights. I did break a window once. I had cleaned this dirty window so well that I discarded a 2X4 through it, thinking that the window was open.

The Beanery (dining hall) where we had our semester meal tickets was next door. This was very convenient for breakfast and dinner, but off to the side of the academic campus for lunch. I worked a few hours cleaning up the dining hall for 25 cents per hour. Remember tuition and fees were only a few hundred dollars per semester. The total for meals, housing and everything was less than $2,000. for an academic year.

I lived in the Barracks for two years. My assigned roommate the first year was Lou Doerr. He was a quiet very likeable chap from New Haven, Connecticut. He was enrolled in engineering, so he needed to study hard. He went to mass faithfully on Sunday morning. I usually attended the Congregational Church. We seemed to be highly compatible and roomed together again the second year in the Barracks. The rooms there were the least expensive on the campus. During our sophomore year we joined Pi Alpha Pi fraternity (later it became a part of the national fraternity, Theta Xi). So we lived in the fraternity house our junior and senior years. We still see each other at annual Pi Alpha Pi reunions with his wife Nan.
I don't remember all of the courses I took. There were the college requirements of some mathematics and chemistry, zoology, bacteriology, economics and social studies. In the dairy production area there were several species-oriented production courses, nutrition and genetics. Also, I took animal diseases with an elderly German professor, Dr. Jungherr. He was the strictest taskmaster that I had. He was absolutely fair. He simply challenged each one to do their best, and all had to earn their grades. Also, I enrolled in a couple of introductory courses in milk manufacturing and dairy products judging. The latter course was attractive, partly because, after being limited to tiny samples for taste testing, the leftovers at the end of the class period were available for full consumption.

Two of the courses outside of my major I did especially well in were math and chemistry. The math course was for nonmath majors and was quite elementary. I usually obtained a grade of 100%. One of my friends was a chemistry major who seemed to like to put down "aggie" students. So this was quite an incentive for me to do well in chemistry. I completed the course with a higher grade than my friend. I never heard him refer to "aggie" again.

I took bacteriology initially because I thought I should know something about microbugs. It turned out to be fascinating. I saw various kinds of microorganisms under the microscope that I had never seen or knew existed. I could use aseptic techniques and not contaminate cultures. I was given an unknown organism. By considering a variety of tests I could eventually identify the organism. Exciting! I took another course in microbiology. My, how the techniques I learned and the interest cultivated in these courses helped me to appreciate problems in health and disease, sanitation, and especially the importance of using clean equipment in any type of laboratory. This background was of great help to me in my graduate program at Cornell University which I will describe later. In fact, all of my research career was helped by reflexly knowing how to handle equipment and containers to avoid contamination after they had been scrupulously cleaned and sterilized.

The production courses in cattle and other species were good. I learned the differences between the digestive systems of ruminants (4 stomachs) and pigs. The pigs were like humans in their physiology in many ways. It was the first time that I realized how similar we were, except for brain development and some superficial characteristics such as shape. The pig was described to us by our Animal Husbandry 1 professor Garrigus as "A monogastric omnivorous obesity with the propensity for making rapid gains". If we understood that statement fully, we knew quite a bit about pigs.

The nutrition courses I liked especially, partly because what I learned in one species qualitatively applied to other species, including people. I even took courses in poultry nutrition, despite never expecting to raise chickens. Why did I do this? I heard that there were great teachers in poultry nutrition. Furthermore, the chick was such a good small experimental model that these scientists knew a great deal about nutrition.

The hillside above the university campus next to the poultry building was covered with little white poultry houses. These houses were where poultry breeders anywhere in the world could send a selection of their strain of laying hens and enter the Connecticut Egg Laying Contests. The Babcock Bessies (Leghorns) from Ithaca, New York were among those selected stocks that made terrific records. Those were
the kind of records that the poultry industry looked up to. I could always understand the connotation of "being a good egg", but I still don't understand the derogatory origin of "laying an egg", unless if was a bad one.

My dairy cattle nutrition professor, Dr. Shaw, was a sharp young professor. I liked the way he clearly classified the nutrients chemically and biologically. It made sense and order out a mass of information. He told me several times "young man, or even Bob, you will go to graduate school someday". I consistently indicated that I wouldn't because I expected to go directly into farming. How did Dr. Shaw know more than I did about what I was going to do?

Dr. Shaw told me about his great major professor, W.E. Peterson, at Minnesota. Dr. Peterson had told his students that "everything he knew he owed to udders". He was a great lactation physiologist and a humble man. I chose to do my senior project on lactation physiology of the cow. I had to present the results in a one-hour seminar. I was nervous as I approached this task. In the thousands of lectures and talks given since, a bit of that tension returns as I approached the appointed hour. But then it seems to be lost in the sharing of a subject with an interested audience.

A sequence of courses I took over a period of 4 years was Military Science and Tactics. I enjoyed the snappy drills. In the upperclass courses, as an officer, I liked to give precise drill commands. I had a clear voice. The drill instructors taught us how to use our stomach muscles as bellows. This training was not only important to be heard in battle, but also in the lecture halls where I shared ideas with students for 57 years.

Our officers uniforms were neat and snappy. Our Monday afternoon drills ran into the dinner hour. We were given special permission to move to the head of the line in the cafeteria. We did not do that usually. Perhaps we enjoyed not letting the underclass girls know that we saw them eyeing these "cleancut: young men (not boys anymore) in their snappy dress uniforms.

Another brilliant professor I had was Prof. Waugh in economics. He and other members of his family were wellknown nationally. He would stride into the lecture hall with his tall frame which was made especially visible by the bright red vest under his open grey suit coat. This happened precisely as the bell rang to start the period. His lectures certainly had continuity. He would finish the sentence that he had left uncompleted when the bell rang ending the period at his previous lecture. He was a master at lecturing in a manner befitting an Oxford scholar. He was also absent-minded. He lived not far from the campus. He was known to walk home on occasion, only to note that his car was not there. He had driven it to work that day.

He had multiple abilities. He designed and built a large, accurate sundial on the university campus, which probably is still there. His witty speaking ability made him a popular speaker at fraternity and sorority functions. These functions surely had multiple objectives. Everyone looked forward to having a good time. Quite likely there was some hope that the professor would also recognize some talented students in the bunch.

Fraternity life was a good experience for me. We all shared in house maintenance. The goals of the fraternity were constructive and usually pursued. Even the hazing of pledges was done in a way that was not always tasteful, but was never done in a way that was "dangerous to your health". Consuming too much alcohol was definitely taboo. Of course, one must wonder whether or not ones life might be
shortened due to sitting in those smoke-filled rooms during a traditional cigar-smoker social event. Certainly my clothes had a way of retaining a record of the occasion.

The pool table in the basement was a source of relaxation, albeit often a room with too much second-hand smoke. But it sure was fun trying to spatially figure the angles and execute according to plan. It was a slow-paced sport with time to grow socially and know your brothers better. There were organized sports also. Each fraternity could field softball, touch football, track and basketball teams. There was a trophy given at the end of the year to the “house” with the most winning points. This was often won by the fraternity full of varsity athletes, as these guys could participate in any intramural sport that they weren’t playing as a varsity sport.

I participated in track and touch football. I had run cross-country on the university team my freshman year. However, I was solidly built. The best cross-country runners were small and wiry. The sport did keep me in good condition. Also, the university cross-country course ran by the Pomology Department’s apple orchards. In the fall we would sometimes capture a bright red apple as we jogged by the orchards. Everyone did it, but we knew we were not supposed to. However, God was forgiving, and relented after punishing Adam so severely.

The fraternity also had at least one formal dinner-dance each year. This put the pressure on us shy guys to get a date if we didn’t have a steady girlfriend. The dance program had places to write in who you would exchange dance partners with at selected intervals. That also was good training in social graces. We often obtained our dates with the Sigma Nu Sorority, later Pi Beta Phi national sorority. Many of these girls came from similar backgrounds to the fellows in Pi Alpha Pi. The Sigma Nu Sorority house was along the border of a small “Mirror Lake”. Occasionally we would go on an inexpensive ice skating date there.

There were various clubs with educational and social programs. I was active in the 4-H Club and the Agriculture Club. I held several offices, including president of the 4-H Club. I held some office in the Ag Club because at the Agricultural Ball I had to introduce the lovely Rusty Fenn, queen of the ball, and give her a kiss. I wasn’t in the habit of kissing many girls. This was O.K., but normally a kiss was reserved for a steady girlfriend or a very special friend. I knew some guys who had kissing as part of their strategy in a petting game. I believed that action was wrong.

Also, I was president of the local Gamma Chi Epsilon Honor Society (later Phi Kappa Phi). These clubs all helped me to grow. Certainly, I needed a lot of this group experience.

As president of the honor society I arranged for a program of dinners followed by speakers. I asked my present wife, Barbara, if she would like to go. I thought I had asked her to go with me. She thought I was selling her a ticket. She already had a semester meal ticket, so she declined. After the dinner she showed up by herself to hear the speaker. I interpreted that act as a real putdown. I thought I had offered to take her to dinner and hear a good speaker. Obviously, I thought that she wanted to hear the speaker, but did not want to go with me. I never asked her to go to anything again. Much later I learned of the miscommunication and the fact that she was impressed by my introduction of the speaker, and wished she had told me so. Also, recently she showed me her certificate of acceptance into Gamma Chi Epsilon, signed by President Robert H. Foote,
So Barbara went her way and I went mine. I was not angry that Barbara (Bubs as she was called) did not go with me, but I was disappointed. I remember that I thought that the song “You Are My Sunshine” must have been written for me.

We all have disappointments, but that does not mean that the resulting outcomes are bad. On an earlier occasion I had asked Ann Ackerman to go to a dance. When I was a Freshman, Ann was a senior in Durham High School. My sister, Lovina, had Ann in one or more of the classes she taught. She said Ann was a fine student interested in coming to the University of Connecticut. I invited Ann to come to a basketball game. I got my brother Ed, who had graduated, fixed up with a date for the game with an upperclass girl in Sigma Nu Sorority. I had no car, but Ed had one. He provided me with the means to bring Ann from Durham to Storrs in his Pontiac convertible. The four of us attended the game. We had a fine time.

The next year, when Ann was a new student, I invited her to a big dance on campus. She accepted. About one or two weeks before the dance I was playing softball in a practice game in a sheep pasture near the campus. The land was rough. In chasing a fly ball I hit a bog and badly sprained my ankle. It was all wrapped up at the university health clinic. I was on crutches for several weeks. I made a game of the crutches. I used to time myself to check how fast I could go from the dorm to the distant poultry department about half-a-mile away. However, the crutches didn’t harmonize with a formal dance. I talked with Ann. I told her I didn’t think I should try to go. What would she like to do? She indicated that she had received a couple other offers to go to the dance and she would like to go. It turned out that one of the guys apparently was still available. Ann went to the dance. I also knew that the guy was from a fraternity that had well-publicized parties with alcohol after such formal dances. I did not like the idea that Ann would participate in such a party, but I knew that she went. I judged her too harshly, both for lack of loyalty in keeping her date with me, and then going to a party with not the best campus reputation. I grew up with loyalty being very important. Of course, I should not have made any judgment. Young Ann was a bright very attractive gal. Why wouldn’t she want to go to the dance. She really was an exemplary student. However, she was not in the Sigma Nu Sorority, she majored in a different college, and she was not in any of the clubs I was in. So our paths never crossed naturally. I consciously made no attempt to have our paths cross after that. I know that my snap decision after the dance probably was a reflection of my puritanical background. As I did not associate closely with a broad spectrum of girls, I tended to put them into left or right pockets.

One other group fun activity I forgot to mention was the Sunday night Student Christian Association singalong at the college community center. This was led by Harold McCoo. He was a bouncy, enthusiastic Afro-American with a golden voice. Those evenings were lots of fun. Both Barbara (Bubs Jones) and my first wife, Ruthie Parcells, attended this event. So did many other coeds and some guys. As I worked at the university dairy plant I had a key to the dairy plant milk cooler. My duties were to sign for and to carry a case of chocolate milk for liquid refreshments at the singalong. The dairy plant and dairy bar were just across the road and cemetery from the community center. Yes, I well remember lugging a case of chocolate milk by all the tombstones. I did not relish the job on dark winter nights. But very few of us had cars in those days.
I mentioned the dairy plant and dairy bar. My job there brings back wonderful memories. I obtained a job there because they had a schedule needing a milk bottle washer that fitted around my classes in the adjacent dairy building. There were a huge number of bottles to wash because all milk was bottled in glass containers. All the milk and chocolate milk for the dining hall was packaged in half-pint bottles. Most of the milk on the retail truck route near campus or at the dairy bar was sold in quart bottles.

I liked to wash dishes. I liked to see them sparkle after cleaning. There was a large automatic bottle washer that kept one busy inspecting bottles, and discarding any with chips, as you loaded them into the moving washer. Sometimes, in quickly picking up bottles you could get a cut finger. I carried Band-aids®. Any dried on bottles that needed a special soaking first were slipped into a tub with warm phosphate detergent. Phosphates were the rule for washing, laundries, etc., before the environmental contamination became an issue. Dr. Hankinson was the young assistant professor in charge of all the milk processing. He seemed to like the quality of my work. He offered me a raise in pay if I could come early some mornings, and help get the milk bottled early. I agreed. The dairy plant opened at 5 a.m. We needed to get the milk bottled early so that the cream would rise before delivery.

Before long Dr. Hankinson told me that he knew there was a problem some mornings when the student plant manager overslept, and did not arrive on time. The student manager always was an undergraduate majoring in milk and food processing. I was a dairy production major. However, he told me “I hear that you are always at the plant on time. I want you to be the plant manager. Will you take the job? I’ll teach you, and we pay 75 cents per hour”. Wow! The highest paying job I ever heard of at that time. This was 3X the pay to clean up in the dining halls. I accepted. He taught me how to pasteurize the milk in the bulk tank. Later, the 15-second 165 °F flash pasteurizer was introduced which avoided the cooked flavor of the 30-minute cooking to pasteurize the milk the old way. I learned the whole operation of early morning setup, processing the milk and cleanup. I always checked the calendar to make sure that we used the caps with the correct day in bottling the milk.

So that was a job with responsibility. I loved that job, and Dr. Hankinson was a gem. Soon the homogenizer was introduced. That machine included a clarifier that helped to further improve the quality of the milk. The only problem we had was people calling us asking what happened to the cream line on the milk. Some wanted the cream so we made sure that we had halfpints of light and heavy cream on the milk route. A few people at first thought that we had made a mistake and sent out skimmilk. I don’t recall ever answering the phone and being told that we were cheating them. Enough said about that job. I kept it during the school years until I graduated. It essentially paid most of my college expenses.

I never had to ask my parents for spending money. Afterall, I did get the laundry case home periodically. Mother paid me a visit with freshly laundered clothes as dirty one’s were taken home. I did wash a few socks.

One very special visitor was Eleanor Roosevelt. She was a great lady. She toured the dairy. At work I was thrilled to meet her. Growing up in a staunch Republican family I had my biases about FDR.
On my way to work early in the morning occasionally I saw some coeds out looking for birds. I was an early bird, but they were not looking for me. One coed was Ruthie Parcells. She also attended the Sunday night singalongs. One time Sigma Nu was having a party. She asked me if I would like to go. Why yes, this was an informal social gathering. I knew several of the coeds in Sigma Nu. This started our courtship that continued until her untimely death on January 10, 1992.

Ruthie was a quiet girl with a big heart who was so kind that she would never think of harming another soul. She was voted the most courteous person in her high school class. Her warm and quiet personality is reflected in the attached story that she neatly wrote when she was 10 years old. There would be much more peace in the world if more people mimicked Ruthie’s behavior. After that first date, the time during college that was spent together varied, attending shows on campus, walking around the campus, climbing the huge water towers on Cemetery Hill, and attending athletic contests, fraternity and sorority dances and the ROTC Military Ball (dinner-dance).

Ruthie graduated in 1942, one year ahead of me. She accepted a job as a laboratory technician at the Atwater laboratory. There she did microbiology work in the diagnostic lab., mostly associated with problems of mastitis. Dr. Plastridge conducted research on prevention and treatment of this disease, of great economic importance to the dairy industry.

She lived in an apartment with Harriette Longley. They invited me to a home-cooked dinner a few times. She continued to work at the Atwater Lab. when I went into military service at graduation. Then she worked for the Public Health Service while I was overseas. So our story will continue in subsequent chapters.

A couple other stories come to mind as I think of Sigma Nu, the sorority that Ruthie belonged to. Miss Judson, the house mother, liked Ruthie (as she did all "her girls"). Her office was near the entrance to the sorority, so she could keep good tabs on guys coming and going. One of the times we stopped by to visit for a little while. She said to me "I hear that you work in the creamery. What do you do?" I described several activities, including the Eskimo pies we made, and consumed those that had defective cracks in the chocolate coating. Then she noted that she could buy different kinds of butter at the retail store, and wondered whether sweet cream or sour cream made the best butter. Apparently I was a little tense, as I replied that "sweet cream made the bust better". She let this slide by gracefully, while I was embarrassed. Miss Judson liked me I believe, as she told a friend of my mother that I always said "Goodnight" to her whenever I was at Sigma Nu. My mom taught us etiquette.

Another time I was at Sigma Nu talking with Helen Savage about a 4-H program we were planning. Miss Judson told us we might as well sit down in her office. I was wearing pants with a sewn-in seam. Helen unconsciously slid her fingers several times along the seam. It tickled. I was uncomfortable. Helen never knew it.

Another time the Sigma Nu pledge committee asked me to help them fix a couple of stunts for the initiation of the pledges. I safely (very low amperage) wired a nice lounge chair so that a key could be pressed with a pledge sitting in the chair giving either a tiny shock in the seat or in the arms of the chair. This stunt was discontinued as it really frightened some students. It gave much much less of a tingle than one received in touching an electric fence on the farm.

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Many things were happening on the home farm. There were the chores to do, sick animals to care for, and crops to plant and harvest, even with cantankerous weather. There was the apple orchard to renovate into a cultivated field after the hurricane uprooted the apple trees. There was the new dairy barn built from oak sawed from our virgin stand of oak partially mangled by the hurricane.

Ed was back from California. He was helping on the farm and teaching part-time in the Department of Agricultural Engineering at the University of Connecticut. He designed the barn. Building material came from oak trees on the farm. The 1938 hurricane blew a virgin stand of oak trees over, mostly uprooting them and preserving the wood. Ed calculated how much lumber of each dimension would be required to build the barn. The trees were cut up by hand with crosscut saws and hauled into the Marlborough lot. After the logs had aged sufficiently they were cut (perhaps by Dan Hodge) with a professional unit designed for that purpose. The careful inventory prepared by Ed supplied just what was needed for the barn. The oak lumber was so hard we couldn’t nail it. We drilled holes, and it is said that 1600 bolts held the parts together. We all pitched in to build the barn.

Probably about that time a neighbor’s barn, the Carl Links barn burned. We were alerted that they had a fire in the barn and needed water. We stopped our summer work immediately. We filled all of our empty milk cans at the pond, loaded them on the dump truck, and sped to the Link’s farm. Alas, the water was too little to really cope with a fiery haymow. I know that we did hurry. I drove. Afterwards my brother Ed told me that I almost caused riders to slip off one running board as I rounded the corner to get to their farm on West St. Fires out of control were devastating. We had a couple of chimney fires in the farmhouse over the years, but doused them out with salt poured liberally down the chimney. The summer of 1942 is memorable for another reason. It was the summer of 1942 that Marion Odell was visiting her sister, Janet Odell Milne, in Gilead. Marion and Janet were close unmarried sisters until Janet married our young minister George Milne. After that Marion was available. I remember her visiting our farm, riding on a load of hay. She was a rugged, friendly, playful person. I knew that shy Ed liked her. She was a likeable person. In the fall I was home from college, one weekend when Ed said that Marion had invited him to come to Rye, New York, where she lived. It might have been at Christmas time, when I would be home to help with chores. Ed said to me, “It would be kind of nice to go, but there was too much work to do on the farm”. Poor excuse, I thought to myself. I knew that this was a potentially big moment in Ed’s life. I replied “If you don’t go I will never speak to you again. I will be here”. He went. I believe they became engaged then. They were married March 27, 1943. I was best man. I was very happy for Ed and Marion. That began a family story which someone in that family should write. Marion was a great addition to the clan.

Graduation day came the end of May, 1943. I graduated with honors. The president of the University (Jorgensen) and the governor of Connecticut (Baldwin) both shook hands with all of the graduates as they crossed the stage to receive their diplomas. For all of us there was the usual nostalgia. Suddenly, you realized that those wonderful friendships, great times, fine teachers, challenges, disappointments and joys would all melt into a pool of memories.
I knew that I would be going directly into the infantry. During my last spring semester, after I received my induction notice March 4, 1943 my dad had done some checking with the draft board. Running a large farm required much hard work. Every summer and vacations, except one Christmas vacation, I was home on the farm helping with the cattle and crops. There always was hay to move until the new barn was finished. When the haymow was nearly empty in the spring of the year before curing new hay we had a few real hoedown square dances. Dad told me that I would be a big help on the farm. He could obtain an agricultural deferment for me. I’m sure that he could have done so. All this was a surprise to me. I had not requested this. I immediately told my dad, thanks, but my country was calling me. I had been receiving military training. I was prepared to go, knowing full well what the potential outcome might be. After all, generations before us (including Footes and Hutchinsons) had fought to preserve freedom, and I knew that the “price of freedom was eternal vigilance” (Jefferson?). This did not make the parting any easier, nor easier to bravely hold back the tears. It truly was one of the moments of intense feelings in my life. Was this goodbye or au revoir? I know dad that I did not follow your wishes, but I know that I followed your heart. Your heart also followed me.

Fortunately, there were many good years ahead for me. Yes, I was most fortunate in World War II, as I relate in a subsequent chapter.

Now, as I write this, I have just been one of the speakers at our 60th reunion at the University of Connecticut, June 28, 2003. I came across our commencement program from 1943. The 1943 commencement was the 60th for what had just become known as the University of Connecticut. How it has changed. How times have changed. Have we changed? Yes, but have we stuck by our peaceful guns?
The Story of Some Blue Birds.

One spring my brother built a blue bird house and set it upon our pergola. A few days later we saw blue birds flying around it. After a little while they built a nest. Days went by and one day we saw four little blue eggs in the nest. Soon there were four little blue birds. They didn’t stay long, for a few weeks later they all flew away.

Next year they came back and again built a nest. The mother blue bird had just laid the four little eggs when a bad boy shot her. The father blue bird would come back to the little house and call and call for her but she never came. Then one day the father blue bird got another mate. The new mate saw the eggs in the nest and kept fluttering back and forth and scolding all the time so we took the nest and the eggs out and they built a new nest and had some more baby blue birds. Every year there is always a family of blue birds in the little house on top of the pergola.

Ruth Parcells, Age 10.

White Bear Lake,
Minnesota.
THE UNIVERSITY OF CONNECTICUT
STORRS, IN THE TOWN OF MANSFIELD

BY VIRTUE OF THE AUTHORITY VESTED IN THEM AND UPON
RECOMMENDATION OF THE FACULTY
THE TRUSTEES OF THE UNIVERSITY HAVE CONFERRED UPON

RUTH EVELYN PARCELLS
THE DEGREE OF
BACHELOR OF SCIENCE

THE SCHOOL OF HOME ECONOMICS
ON THE SEVENTEENTH DAY OF MAY IN THE YEAR OF OUR LORD
ONE THOUSAND NINE HUNDRED AND FORTY-TWO.

Mildred M. Lench
Dean

Robert A. Hurley
President of the Board of Trustees

Marjorie Warren Smith
Registrar

A. N. Jorgensen
President of the University

ROBERT H. FOOTE
Storrs, May 19—(Special)—Robert H. Foote of Gilead was recently elected president of Gamma Chi Epsilon, honorary scholastic fraternity at the University of Connecticut. He is also president of the 4-H Club, an officer in the Reserve Officers' Training Corps, and holds responsible positions in other organizations. He is a member of Pi Alpha Pi Fraternity.

Gamma Chi Epsilon was founded in 1919 by Dr. Howard D. Newton, acting dean of the College of Arts and Sciences. The object of the fraternity is to promote scholarship, build moral character, and encourage participation in extra-curricular activities.

Bob graduated with honors in 1943.
CHAPTER 6.

Missing the Plow? You’re in the Army Now.

A new era in my life lay ahead of me. It would be the first time I had been away from home for a long period of time. In fact, I did not get home from the time I entered active service in the army in June, 1943 until I returned home in December, 1945. An outline of dates of my service experience is appended to the end of this chapter.

My parents took me to the army selective service office in Hartford. I believe that the army had arranged a special service bus to transport several recruits to Ft. Devens, Massachusetts. I traveled with minimal supplies. After all we would soon be government issue (GI) everything. The ride to Hartford was quiet. I suppose we were all thinking thoughts that we could not express very well, and the unspoken words were understood. I thought of the good years on the farm and in school. I would miss these. My dad had made the offer to keep me home working on the farm. Perhaps we both hoped that under peaceful conditions that would be the right decision. But mother and dad knew that freedom was now at stake, and never in the history of our families had our ancestors shirked their duty to fight for what was right. I was certain that I had answered the right call, so help me God! We were all adults now, albeit my parents had much more experience than I had.

I checked into Ft. Devens. I was assigned clothing and simple supplies. I was assigned to a barracks. Showers, GI soap, towels, bunk beds with sheets and woolen blankets, and a footlocker comprised my new home.

We had reveille at 6 a.m. There were instructions on how to “fall in” by squads, come to attention, and stand at ease. The roll was called. Each one responded “here” when his name was called by the sergeant in charge of one floor in our barracks. Instructions were given covering the orders of the day. The first morning the sergeant ordered “all who are college graduates to fall out. You are assigned to Kitchen Police (KP) duty starting tomorrow at 4 a.m.”, he barked. That was O.K. with me. I expected some hazing, and I did not mind getting up early. We worked harder on the farm.

My main KP duty was to put hundreds of loaves of bread through a toaster (8 slices across I believe). The toaster was a continuous rotator. Toasted bread came out as fast as one put the fresh slices of bread in. A pail of melted butter with a brush was available to give each slice of toast a couple of swipes with melted butter. The buttered slices were stacked in wooden crates that oranges had been shipped in. I made this a game. What system could I devise to keep up with the toaster without missing a slice? That was easy. I even had time to eat 2 or 3 slices of toast. The GIs rightfully complained that the toast was soggy by breakfast time at 7 a.m. But how else could one have thousands of slices of toast ready to slap onto trays with GIs moving rapidly through the several cafeteria lines? Typically bacon or sausage and eggs, coffee, milk, juice and cereal were slapped onto your tray, with a help yourself to beverages all poured out. The GIs learned to move swiftly because the training day started at 8 a.m. We were given lectures to orient us about the army. There were daily calisthenics. There were rest breaks also.
At various times we were assigned to police the area. This involved picking up cigarette butts and stray paper. Some areas were raked to plant grass seed. We were at Ft. Devens only briefly until we were assigned for basic training.

We were shipped to Togus, Maine to start basic training. At Togus we had lectures on military discipline, care and cleaning of equipment, close order drill and calisthenics, plus assignment to specific duties periodically.

My most memorable experience was to observe a few veterans at the Veterans Hospital on the grounds where we were housed. One morning I saw a veteran with a pair of hand-operated grass clippers trimming grass around the trees. He would move the cutters forward and backward rhythmically, cutting one snip of grass each time as he pushed the clippers forward. He did this repeatedly as he recited "long thrust and withdrawal, long thrust and withdrawal". We were ordered not to contact or converse with these patients, so I have no idea what other thoughts were on his mind, or what his life had been like. I doubt if he knew why he did that. I could not ask him. I assumed something happened that he could not handle. The lesson for me was always keep in control of yourself. However, anyone who has ever fixed a bayonet on an M1 rifle or any military rifle will know exactly what this means in learning to use the bayonet followed by a ferocious upward knockout thrust with the butt of the rifle, if necessary. We were not taught to play the friendly games we were used to.

One event pleased me. I was assigned to a police-the-area-detail one morning. It was cool with lots of fresh air in Maine this June morning. I was raking carefully, but vigorously. An officer came by and made the comment "you like to do a good job don’t you, even this, don’t you". I probably replied "Yes, sir". He said "You’ll make a good officer". Of course I hoped so. He probably knew more about the army plans than I did, because in a few days several of us ROTC graduates were promoted to corporal and shipped to Georgia for officer training.

I aptly describe the passage to Ft. Benning, Georgia as shipped. The army had to use everything available. They had resurrected old passenger cars with metal seats without much cushioning. We traveled very slowly for a couple of days, stopping in rural areas to take care of needs not covered by the train’s limited facilities. It was hotter than all getout the beginning of July, as we approached Ft. Benning. We opened the train windows some only to get soot in from the soft-coal burning old engines that chugged along.

Welcome to the land of hominy grits. You better learn to like them because that was the staple item at every breakfast—a good slab of grits plopped on your metal tray. I may have gritted my teeth at first, but I learned to accept them as part of a substantial army chow menu.

We were assigned to OCS class 303. Near our barracks was OCS class 301, I believe. In that class was a famous football player by the name of Bob Waterfield. When he graduated he stayed at Ft. Benning as cadre, and most likely to play on their football team (if they had one). However, much more to the point or perhaps two points was his wife, his high school sweetheart, who was selling War Bonds in nearby Columbus, Georgia. Her name was Jane Russell. She had spare time to visit the post on those hot summer days in a nonmilitary attire, with a plunging neckline. She was a solid lady and cut quite a figure. I remember her picture in the Ft. Benning paper, taken with a head-on view as she lay in the sand with her head up toward the camera.
Clever pose, and clever prose. The caption under the picture read “Some folks leave their footprints in the sands of time, but not Jane Russell”. One hardly needed the caption to get the effect. I was suspicious of movie stars overplaying their characteristics, like the clever Mae West who said “geometrically the shortest line between two points is a straight line, but it’s not the cutest one”. Anyway, Jane was boosting our morale. Besides, the army allowed having the bare walls of the barracks to be covered in selected areas with almost bare pinup girls.

Incidentally, I learned later in life that Jane Russell was a religious person who lead a commendable life. After her first early divorce she remarried. Her second husband soon died, but her third marriage resulted in a long partnership. Strange how I was so glad to read that bit of positive information. I had never even talked to Jane, and I suppose I had previously put her in my narrow stereotyped image of a Hollywood actress. Of course, I always knew that Katherine Hepburn and a few others were different. Aren’t we all?

Training and discipline at Officer Candidate School (OCS) was tough. It should be that way. Officers who were cadre called “bird dogs” were watching our every move, waiting, it seemed, to give us a demerit. The demerits were referred to as blackmarks, but now that seems to me to be almost a racial slur.

We could get demerits for not passing inspection of our beds and footlockers while we were out training in the field. Our beds were to be made in uniform army style. We were told that the blanket on the top should be so taught that if the inspector flipped a quarter or half-dollar on it the coin would bounce up. The inspectors wore white gloves and would run their fingers along the tops of beams, doors, etc., looking for dust.

They could inspect our footlockers for orderly arrangement of clothes. I had my Gruen watch in the footlocker, which I should have sent home when I received my army issued watch. My Gruen watch was stolen, but there was no use in reporting it. Any number of people on the post could have wandered through checking for objects like watches that might be valuable. This stealing happened very near the beginning of my OCS course. After that, anything personal was at the bottom of the footlocker.

We had a sergeant mail clerk who was obnoxious. He would hold up the mail, not distribute promptly cookies sent from home, etc. As a sergeant, if any of us corporals complained he could arrange to have us receive demerits. He seemed to delight in his position, but he was more rank than his position. Perhaps the army figured that he could do the least damage as the mail clerk.

We had a long day between reveille and taps. We had courses in map reading, military courtesy, strategy, and intelligence, giving orders, and close order drill, cataphrenetics, obstacle courses, and the works. They even dropped us off a high tower with a parachute in case we had to jump out of a damaged transport plane sometime.

I was worried that, as one of the youngest guys in the class, the bird dogs might be looking for a weakness in this respect. However, I had a solid voice. When given command of a platoon for close order drill, I barked commands that could be heard by a company and beyond. I even mentally practiced calling my platoon, company, battalion, regiment and division to “ATTENTION!!!” So I passed this part.
The exams were easy. The instructors essentially told us "now remember this for the exam." I scored 100% on most exams. I had just finished college; this was good practice for taking exams.

Also, I was in good physical condition. While I was no longer running cross-country at U. Conn., I ran from the fraternity house to work and classes at the other end of the campus. So running the obstacle course was no big obstacle. However, I had trouble hitting the high wall correctly with one foot while running into it so that it lifted me and allowed me to catch the top of the wall, and swing over in one continuous movement. That annoyed me, so I would practice at night until I could do it, i.e. practice it before the 10 p.m. bedcheck. Some guy said to me, "you're an eager beaver; what do you want to do, make the rest of us look bad?" No, the objective was entirely to accomplish a personal goal. My parents had always told me that if you can do it better, do it!

We had lots of rifle practice, marksmanship and bayonet practice. The latter was conducted by a German POW. I never understood why a POW was used, but perhaps that was supposed to make our woven hay targets more real. We learned to clean, take apart, and reassemble our rifles in complete darkness. We crawled through barbed wire defenses with fake landmine explosions nearby, while machine guns fired tracer bullets a few feet above our crawling bodies. We were put in chlorine chambers and had to put on our masks quickly. In that hot summer weather how that chlorine mixed with our sweat burned on the skin.

Near the end of the course we had mock skirmishes that kept us out much of the night. We had pup tents we could sleep in with an army blanket on the ground. One night as I crawled into my tent in the dark I put my hand on a snake. I reversed direction like a shot out of a cannon. Then I proceeded to use my flashlight to inspect the tent and its borders carefully. No snake was seen, but I didn't sleep too well that night.

Some candidates flunked out during the course. Others received a few demerits, and had to go before the "old man" (the regimental commandant, at least a lieutenant colonel). If all went O.K. they passed. Everyone had to face the commanding officer at least once. Somehow I had managed to pass all the tests with flying (marching) colors.

At the end of the course we fought a continuous 39-hour mock battle across swamps, etc. Just as I had collapsed on my bunk at the end of the battle the adjutant came in and said, "the colonel wants to see you immediately". I ran water over my whiskers and a comb through more hair than I have now, and reported to the colonel. I stood at attention and saluted. The conversation went like this with the colonel during most of the talking.

"Foote at ease. I have been reading the morning paper and there is a discussion about how the war is being waged. Do you have any comments on this article?

Foote: "No sir."
Colonel; "Why don't you have any comments?"
Foote: "I have not read the article, sir."
Colonel; "Any excuse?"
Foote; "No sir!"
Colonel: “That is all.”

I passed (no, I didn’t pass out). The colonel knew I had no opportunity to read the newspaper. The moral of that story is, there may be explanations, but in the army there are no excuses for failure. When one of your soldiers is killed, you may write a letter of bravery to the parents and you make no excuses either for the soldier nor for yourself. I believe that the principle is important in civilian life also, tough as it may seem. I received my commission the next day as gold bars were pinned on me. We had an official photograph taken that I still have. It is my favorite photo of a young, innocent young man who never really could have looked that good. My wife, Barbara, keeps it in her bureau.

By the way, our sergeant mail clerk was nowhere to be found after graduation. We had considered ordering him to stand at attention continuously while we distributed and read our mail. He was the only person that we felt some animosity toward during our training. The bird dogs and others simply were doing their job.

I should mention that we had an Alma Mater. It so happens that the tune is the same as the Cornell Alma Mater. It went approximately as follows:

\[
\text{High above the Chatahoochee,} \\
\text{And the Upatoi} \\
\text{Stands are noble alma mater.} \\
\text{Benning school for boys.} \\
\text{Hail to Benning, noble Benning,} \\
\text{Hear our heartfelt cry.} \\
\text{We will love our alma mater.} \\
\text{Follow me, or die!}
\]

The next assignment for several of us was Camp Croft, South Carolina. I believe that happened the day after graduation. We were hoping to have a few days leave of absence to make quick trips home, but that did not happen. The company I was assigned to for further leadership exercise and training, was an antitank company commanded by a captain from North Carolina. I reported for duty. The captain said “I can tell by your accent that you’re a Yankee. What state do you come from?” I replied that I was from Connecticut. His response, with a little smile that conveyed his good nature was, “Oh a damn Yankee, the worst kind”. He was a fine officer, as unfortunately were many fine young union and confederate men who lost their lives in the Civil War. Now we were united.

We were at Camp Croft only a short time for routine additional training, this time as officers training recruits. We had the typical lectures, drill and physical exercises. One day we had a one mile run and jog with packs which I led. There were a couple of recruits on my heels that I could tell from their conversations were going to make the young lieutenant look bad. I had done enough running to know what pace I could maintain, so in the last half mile I stepped up the pace a little. Then in the last few hundred yards I turned on the afterburner and stepped up the pace. No longer were these guys right behind. They had now faded back with the pack. It really wasn’t fair to the whole troop that I set such a fast pace. However, it did establish a peck order for these two guys, which is an important part of army discipline. You don’t have to
like the noncoms or officers above you. However, you must respect the position, because the person in that position has the responsibility to carry out orders in the best interests of the men under his or her command.

One Sunday we did have an opportunity to go into town. Several of us young officers, who were graduates of the University of Connecticut, and in OCS class 303, visited a women’s college. I think that it was called Converse College. In one of the lounges near the entrance to the college we heard piano music. There were several graceful southern belles there in the parlor with a delightful drawl. They were skilled in being gracious hosts. Before we left to return to camp they invited us to have Sunday dinner with their families in the next week or two. We were all looking forward to that, as we probably would dine in a southern plantation mansion, with all the amenities which we had imagined existed since the days of our high school history classes on the Civil War. The Sunday dinners never happened for us. We did not get a leave to go home for Thanksgiving either. Our company shipped out to Murfreesboro, Tennessee for maneuvers. This was now December. It was cold and wet. We never slept in anything more comfortable than a sleeping bag on the ground that winter.

It was good rugged training. We had to cross a river with our rifle and full pack while clinging to a rope stretched between two trees on opposite banks. We had rain that, along with melting snow, had swollen the river and loosened the footings of a temporary bridge the engineers had built. The bridge broke with troops marching on it. About a dozen soldiers drowned. C’est la guerre began to take on a fuller meaning.

Each of us was given an opportunity to command a unit in a mock battle. Airplanes (Piper Cubs) flew low overhead throwing out small paper socks of flour which broke on impact. If you had any flour on you the umpire marked you as a casualty. One time when I was in command a brigadier general showed up to observe our battle performance. I saw him behind me. That put extra pressure on me. I was so busy maneuvering my unit as dummy enemy riflemen popped up here and there that I didn’t salute him. That turned out to be the correct thing to do on the battlefield. Ignore parade ground military courtesy. Concentrate on your objective.

One weekend was especially memorable. It was a cool, but sunny weekend. We had a rest period from the maneuvers. I was sitting on a blanket on the ground disassembling and cleaning my rifle. There was a small house a few hundred yards down the hill from where I sat. I saw a young boy approaching from the direction of the house. As he came closer I beckoned to him to come and sit down. We visited for awhile, but I do not remember the details. I had a broken gold second lieutenant’s bar that needed to be replaced. I asked the boy if he would like it. His delightful smile, displaying childhood innocence that can melt anyone’s heart, told me that he was overjoyed with his new possession. He scampered off home. I thought that this would be the last time I would see my new friend.

But no, soon he was back. The next morning would be Sunday morning. His mother and dad wondered if I would come and have breakfast with them. Certainly there was no rule in the army against “fraternization of this type among the natives”, provided that it was in this country. So the time was set for me to hike down to the home by 8:00 a.m. on Sunday morning.

What would I find there? Who would I meet? How would it all turn out? It was a very simple home. There lived mom and dad with my new friend, their eldest son,
and two younger siblings. Breakfast was enough grits to last a week, plus butter and biscuits, and bacon and eggs. Perhaps there was even more to eat. I don't remember. Most important of all was the wholesome time with one person from a different culture sharing time conversing with a family, poor economically, but blessed in spirit. I would never see them again, but I still cherish the friendship and the memory.

Then it was on to Camp Atterbury, Indiana. This seemed to be mostly a prestaging area to prepare for shipment overseas. The camp was near Indianapolis. We went into town once and walked around the campus of Butler University. Their campus was lovely in the springtime. On a bus going into town there was a young Afro-American on this military bus sitting in the front seat, and holding a baby. I asked her if I could use the vacant seat next to her. She assented. I didn't think about racial discrimination, but clearly the army did not follow this practice here. Soon the baby started to fuss. She tucked his (her) head under her blouse. The baby was content, but I was nervous. How could I talk to a stranger nursing a baby?

From Camp Atterbury it was on to Laurel, Maryland. We were notified in advance that relatives could visit us for a day before we left for overseas. Ruthie (Ruth Parcells) arranged to travel by bus (she did not drive a car then) to Laurel and stay at a motel. We met and talked about old times and old friends. I had bought Ruthie an engagement ring which she accepted with anticipation, I believe.

Of course, she was so loyal that no ring was necessary to seal a covenant. We talked about marrying when I returned home. Ruthie's mom wanted to have a church wedding for her only daughter. Eloping would not be a good idea. Besides, I had strong convictions against marrying, leaving immediately, and perhaps leaving a widow or a wife with a mangled husband. These possibilities were not discussed. I knew that Ruthie would wait for me. We tried to part bravely, but there were tears. I knew what my duty was. I had no illusions or second thoughts. I had made the decision earlier to serve. Now the army command told me it was time to go, like so many others.

My second wife, Barbara Jones Johnson, married a fraternity brother of mine, Roger Johnson, before he went overseas with an army quartermaster unit. She wanted Roger to know that she would be waiting for him. Servicemen in the quartermaster corps were most likely to return home uninjured, so that was not a major factor. My senior citizen life with Barbara is in a later chapter "New Life on Golden Pond".

The train took me and other soldiers to Norfolk, Virginia. The army planned things well. Folks on the home front helped to make everything work. Waiting for us before we boarded our ship of embarkation were Red Cross personnel loaded with doughnuts and hot coffee. The military band played lively tunes such as "Over There". We touched the ground, the land of the free, and boarded ship. Each one tried bravely to hide any reflection of nostalgia.

About 5,000 of us were stacked into bunks, with only crawl space between each one. After a few days the "hold" of the ship, where we slept, smelled like smelly feet. We stayed on deck as much as possible. There was a sharp card player among the troops. I used to watch him play tricks. How he could make cards disappear and reappear, I do not know. He taught us a lesson. When you get overseas he warned
us never get into card games with strangers. They will let you win as a come on and then start betting. Soon, winner takes all, means that they will take all.

Crossing the ocean for us was uneventful. We zig-zagged constantly to try to avoid being torpedoed by German U-boats. We had emergency alarms every evening. This is the time of day that it is most difficult to spot German submarines. Although, we were all ready with life preservers, and the crew was at the lifeboats to go overboard, we were never torpedoed. As we approached the Straits of Gilbratar a navy PBY slow moving airplane hovered back and forth looking for subs to drop charges on. They must have been very successful at this because I understand that German subs avoided this area.

We landed in Oran. We were housed in tents on what I would call desert. Sand blew into everything. There were huge trenches dug into the sand as air raid shelters. One night when the air raid sirens sounded I leapt off my cot and fell down. Sleeping on the hard canvas cot had caused one leg to fall asleep. Somehow I managed to stumble to the trench. Fortunately, there was no air raid.

Oran was off-limits to military personnel. It was not strictly enforced. The opera, La Traviata was being performed there. Several of us had never seen an opera. We banded together. This ploy worked well. No one accosted five or six husky soldiers basically marching in Oran. We enjoyed the opera. However, some guys must have gone into town at various times with other objectives. They got venereal infections, and they had to report to the “Pro-station” for treatment.

Officers had to censor mail sent home by soldiers. We all had coded APO numbers. We never referred to our military units or locations. One soldier wrote, in a letter that I censored that he couldn’t tell the home folks where he was, but “the ORANges sure are good here. How could anyone think they could get away with anything like that? This kept our razor blades busy. Officer’s letters home were censored by someone. I usually wrote mostly that I was O.K. and the weather was O.K. Once I wrote that the mountains were beautiful. My folks guessed that the word cut out was mountains. I suppose the censor thought that my statement might tell the enemy that we’re in the mountains.

We were not in North Africa long. The weather was windy with blowing sand. The days were hot and the nights cooled off quickly, with no vegetation. There was not much to do but write letters and tell stories. Two jokes I remember. I’ll tell both, but probably should tell only one. There were mosquitoes. I don’t know where they came from, it was so dry. We slept with mosquito netting over our cots. According to one story the mosquitoes were huge. A soldier woke up one night. Two mosquitoes were hovering over him arguing over which one had the right to carry the soldier away.

The other joke related to how cold it was at night. Blankets were scarce and guys complained how cold it was at night because all they had between themselves and the ground was a thin Arab woman. This kind of joke sounded like one that could have been true in the military. However, I never saw any camp followers allowed into the military area. Furthermore, I thought that the joke was degrading to Arab women, despite its cleverness. I grew up with the reflection that women generally were more virtuous than men. Perhaps I thought that there might be something to the limerick that “Girls are made of sugar and spice and everything nice. Boys are made of snakes and snails and puppy dog tails”.

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A British boat soon took us to Italy. I was in charge of a detachment of Moroccan soldiers. They had sergeants, but no officers with them. They were not used to flush toilets. Sanitation was a problem. I had some problems communicating the ship's policies with my poor French and their few who knew any English. My only personal problem was assimilating fish for breakfast each morning. But we were soon in southern Italy, landing in Naples. Allied troops already had pushed north toward Rome.

The military headquarters were in a former palace in Caserta. The high command had plush quarters. Soon I was in an officer replacement pool. Exact dates I do not know. I kept no diary. The military opposed this idea in case of capture. We were issued some of our combat gear. Especially valuable was a Thompson submachine gun. I had only experience previously with the M1 rifle, and the lighter weight officer’s carbine. The latter lacked much fire power. I had time to become familiar with the new weapon. It was a sturdy short piece of equipment, easy to sling over your shoulder or flip to the ready position. The magazine held 15 0.45 caliber slugs. It could spray a lethal path a short distance in front of the muzzle. Later in the war it did that for my benefit, but, unfortunately, there were young Germans who never saw home again.

There was a unit of Americans of Japanese ancestry, the so-called Japanese-American 442nd regimental combat team (RCT) that recently had been added to the armed forces in Italy. The first battalion (called the 100th battalion) had preceded the rest of the unit. They were an integral part of the force that established the Anzio beachhead. In the tough fighting that the 442nd RCT had been put into there were a substantial number of casualties. Replacement officers were needed.

Of course replacement officers were needed for various army units. I was asked if I had any biases against a unit with this background of Nisei (2nd generation Americans of Japanese ancestry) soldiers. No, I had never seen a Nisei in my life, as far as I knew. Where I grew up most of the immigrants were fine folks from Western Europe. Most immigrants seem to be venturesome people trying to establish a better life somewhere. The driving force seemed to be the longing of the human soul to be free from suppression and want.

I was assigned to company K, 442nd RCT. That was one of the luckiest opportunities I could have possibly had under the circumstances of a war. The unit was composed of wonderful young men determined to demonstrate their loyalty to the United States, to bring honor to their families, and care for their families, many of whom had been illegally incarcerated behind barbed wire.

I was fortunate that every time I was wounded the medics took such splendid care of me. I was fortunate that company K always had a place for me to return to. It was an experience that few of us Caucasians ever had the privilege to receive. For now, I will leave that part as I told it in a short memoir “A Connecticut Yankee in Nisei King Company’s Court: With the Japanese-American 442nd RCT in World War II”. A bit of that memoir overlaps background in this book about where I came from. At the same time there is lots more that could be added about the guys and exploits of the 442nd RCT. These Nisei guys were as fine a group of young men as I have ever met. It was a great privilege to serve with them. Several references are appended at the end of my story that tell about the 442.
I have written little about the details of battle. I do not enjoy describing a German soldier left dead on the battlefield, as the retreating Germans occasionally were unable to retrieve a fallen comrade at that point. It is a haunting memory to glance behind and note that a medic has pulled a blanket over a friend he could not save. You simply moved on, focused on the targets ahead, almost oblivious to the fact that you would encounter these images again. You would leave it to the war correspondents to photograph whatever they wanted to record on film. Our own retina and optical nerves had transmitted more images than we cared to embed in the tissues of our brain.

But there were potentially awful moments that one can smile about now. On a full moonlight night, as I half slid down a bank to cross a stream where the bridge was blown up by retreating Germans, I looked behind me to warn my soldiers following me of the slippery slope. Silhouetted against the moon I saw a helmet that was not ours. It was a German approaching. I immediately ordered him, in German, to put up his hands, and I shouted something that sounded like “Wir schützen nicht”. He was lost, and easily captured with maps he was trying to bring to a German unit. I released a couple of our soldiers to take him back to headquarters with this valuable information. It ended so harmlessly for all of us at that moment, that now it seems like watching a play where you know in advance that the ending will be O.K.

Another time in the Vosges mountains I simply had to relieve myself at night. I slipped out of the immediate area where we were all flattened out for the night. We had guards on our perimeter. Somehow I came back by a different guard than I had left by. The guard was on the ball and called out the sign for that night. I was startled, and couldn’t remember instantly the countersign. We had the fallback word “Buddahead”, used under those circumstances. When I called that word out the guard said, Hey Lt. Foote, are you walking in your sleep?

Another time we were chasing the Germans back through a wooded area. The German artillery unit couldn’t see where any of us where. To avoid hitting their own troops they were firing their 88s to hit an area behind us. The shells were so far behind us we didn’t even have to duck. We even joked, “Come on Germans, waste all your ammunition”.

There was another time when an 88 shell I knew had me targeted. I dropped to the ground a few feet away, fortunately in a slight depression. Flying dirt struck me and cut my hand slightly. My face stung also. I wiped my hand on my face and thought the blood was from my face. Momentarily I was worried about both facial and head injuries. A little first-aid took care of everything quickly and we moved on. And so there were moments of grace (even save face), as well as hell.

Perhaps this is an appropriate place to recall that although we were miles apart until after the war, Ruthie’s heart was always with me. She wrote letters regularly. Her letters, so neatly addressed, were awaited with great anticipation whenever we had mail call. Overseas especially, letters from home and other loved ones were great morale builders.

Being on the move, and in the front lines the letters could not be carried with us, so I do not have those treasured documents, except a few appended, written after the war. I do remember how she wrote about the positive things in life, the joy of the
sunshine, the birds and the flowers. One poem she sent in a letter had a great settling influence on me during the stressful times in Europe. I do not know the author.

"And the night shall be filled with music,
And the cares that infest the day
Will fold their tents like the Arabs,
And as silently steal away".

She would send homemade cookies too. All the guys would share cookies from home with everyone else. The homefolks were fighting the war also.

Letters from my family, especially from my mom were frequent. They also were positive and encouraging. They never dwelt on the hard times many had at home. The letters were newsy and breezy. Although I would have enjoyed sharing those experiences at home, I always knew that I had made the right decision.

I never knew until after the war that they had received a KIA telegram from the War Department stating regrets that I had been killed. The telegram was corrected but oh what a telegram to receive. I always asked for a V-mail as soon as I could get hold of one when I was wounded. I would carefully write. "I am O.K. I will write more later". I signed the letter both "Bob" and "Robert H. Foote" so that they could see that the handwriting was mine. I hoped that these V-mails would reach home as soon as the telegrams.

There were many experiences during the war that show the good in human nature. Some I have mentioned in my "Memoir", but if I duplicate a few it is good to also emphasize the good in people.

The Italian people are a fun-loving people, appreciating freedom as much as any group I have known. Most were so friendly, despite the fact that we had bombed their towns. I experienced one of the most overpowering hugs of my life when we captured a town, and the people came out of their homes shouting "Americani". One very substantial mama handed me flowers as she hugged me and said in broken English "You know my brother Bianchi in New York". The Italians were hungry for news, especially from their American relatives.

In the hospital in Rome Italian accordion and violin players would serenade us with beautiful music. It didn’t matter what the music was, even if it was "Lili Marlene", a favorite song among the German troops. Then there was time during reconditioning to walk around parts of Rome. While the railroad station was completely destroyed, the Vatican, the Coliseum, the King Victor Emanuel Monument, and other classic structures were carefully avoided targets of bombers.

I visited the catacombs and all the above-mentioned places. I saw a college fraternity brother, Mal Coulter, in the Coliseum. My most memorable visit was to the Vatican. As I arrived an American representative to the Vatican beckoned to me to hurry. It seems that Pope Pius XII was about to hold an audience in the Sistine Chapel. While all the seats were full, if we hurried, he could place me in front of the front row. That was accomplished and soon the Pope was borne in. Many troops were there, so there was a blessing in English. I had the prime position with others in the front row to essentially be blessed personally by pope Pius (born Eugenio Pacelli, the pope from 1939 until his death in 1958). I felt very privileged, but also guilty, thinking of the millions of faithful Catholics, including my sister, Marjorie, whom I gladly would have exchanged places with.
In the hospital in France I was cheered up by the exuberant young French girl workers chirping every morning “Voulez-vous de juice?” Of course. The orange juice was good and so was the service.

We had an old German POW who helped around the ward. He spoke English quite well. He talked about the evils of both Hitler and the dictatorship in Russia. I think that he was serious in liking America and Americans. The other extreme was the 16-year-old German POW imprinted only with Hitler’s propaganda. He was a fanatic. I wondered sometimes if he could be trusted to work in a hospital.

The nurses had a dance and party in their quarters at Christmas time. They offered to wheel me up the hill to their quarters, but I didn’t want to trouble them. I regretted my decision afterwards. Some of the officers went, and had a fine time. However, they were no longer wheelchair patients.

There is so much to tell besides the war. The story never ends, nor should it. A high percentage of the 442nd surviving vets of World War II have made important contributions to the life of our country. They vary from the well known political contributions of senator Inouye to the untiring devotion of Mary (Yuri) and Bill Kochiyama to the promotion of interracial understanding and justice. Mary was with Malcom X when he was killed. Their apartment in Harlem was always open to those who sought comfort and understanding. Bill has passed on to his reward. Mary is living with family in California. It is a privilege to have known them, Bill from our own company K.

Many of the vets have gone back to Bruyeres, France. The city still honors them repeatedly for liberating their town. On these trips they visit cemeteries where 442 veterans remain. I have not personally returned to these areas. I visited one military cemetery once. It was too much to read the countless names, aged 21, 24, 20, etc. I was that age then too. We all were too young to die. My good friend, college and OCS classmate, Pierce Brundage was still in the U.S.A. when I was involved in this fighting. Was he lucky to be in the states? No. The 106th Division that he was in went overseas early in 1945. That division was positioned in the middle of the last major effort by the Germans to turn the tide of the war. The Battle of the Bulge. The battle-hardened German troops and tanks that led the attack overran the 106th Division, killing as many as they could. Pierce Brundage was one of the victims. His older brother, an airforce pilot, had been killed earlier in the war. What a devastation to the Brundage family. It was felt by all of Connecticut, as their dad, Mr. Brundage, was the state 4-H Club leader.

Just after capturing Bruyeres we rescued part of the 36th Texas Division, but at a terrible loss of life. All were young men just beginning their move into adult life, when the end of the beginning came much too soon. We must not forget. We were made honorary citizens of the state of Texas, but an honor or a memory does not bring back a life. No one has said it better than Abraham Lincoln in his Gettysburg Address. I do talk to high school classes every year, relaying the “Lessons of Love and Tolerance Learned from the Violence of World War II”.

The community of Americans of Japanese ancestry has done a heroic job of reminding us of the price paid for freedom by the Eisei and Nisei. It is the price many others have paid, and more will pay if we, the people, do not practice nonviolent ways
of conflict resolution. Violence does not lead to resolution, only dominance and suppression, anger, hatred, and more violence.

The 442nd had a wonderful 50th anniversary reunion and celebration in Hawaii in 1993. The governor declared it to be a state holiday. Most of the top military brass from Washington D.C. attended the banquet. Veterans who could walk at all with crutches completed the march through Honolulu, while signs among the adoring tens of thousands of spectators along the street said "Thank you grandpa". The 60th reunion is in April, 2003. Likely it will be the last one of major size. Age is rapidly diminishing the ranks. I made an attempt to go, bought tickets, and then couldn't make it. The money was lost. The airlines refused to transfer the tickets. A 9-11 regulation, they said, prohibited my giving them away.

The Sansei and next generations of Japanese-Americans must continue to carry the torch and bear the burdens required for a free society. A visit to the 442nd memorial and the historical museum near Little Tokyo in Los Angeles provides an interesting and inspiring lesson in history for anyone traveling in that area. All the war memorials in the Washington, D.C. area provide similar lessons.

Many of the stories are being recorded before it is too late, giving first hand accounts of the lives of surviving veterans. The 442nd has built substantial archives that one can tap into. The Japanese-American Historical Society, headquartered in San Francisco also has compiled a beautiful series of records on the generations of Japanese arriving, living, and serving in this country, not only militarily. The secretary, Rosalyn Tonai, I believe is the niece of Lt. Hyashi, Co. K, 442. The World War II Oral History Institute at the University of Florida also has collected huge amounts of information accessible electronically. The Cornell University Archives has 23 cubic feet of records from two of the camps housing Japanese-Americans during World War II. So one does not need to wait to travel to become immersed in the trials and tribulations, the joys and sadness, and eventual triumph over wrong, experienced by so many. Several of these electronic sites are also referred to at the end of the book.

My reflections on World War II are elegantly expressed by Rod Serling as a part of a commencement address he gave at Geneseo, SUNY in 1973.

"Love your country. Give it affection and loyalty. But when asked to prove these things remember that they need not always be proved by a willingness to die and a willingness to kill. Make a covenant with the cause you believe in. Bring back the covenant for love".

So what does this all mean? The facts are facts. The events certainly affected different soldiers and families differently. Also, the time of reflection can change viewpoints drastically. I went into the war feeling certain that I made the right decision. That feeling would have stayed with me until death, had I died in World War II. I never felt like I had made the wrong decision about serving, even when I was close to dying. I had done the right thing in the cause of freedom, but like any of my fellow soldiers we did hope to rejoin our families on this earth.
My parents had taught me to learn from experience, but not to dwell on problems of the past. Don't cry over spilt milk! A dairy farm boy who has had a cow kick and spill a bucket of milk knows what that means. So the WWII veteran who had not gotten the bayonet maneuver out of his mind may have dwelt on events that he should have buried in his mind. That is my opinion. Don't let such events control your own life in the future, if you have one.

When Would War II was over I had a substantial amount of physical pain and mental anguish. There were many names on the K Company roster which were "who" in memory, and white crosses in the present. But I was one of the many fortunate ones who through good fortune, or however anyone wishes to interpret that expression, was one who still had a memory. I was determined that this memory would not be a substantial active factor in the future. It would only serve as a driving force to move on. Abraham Lincoln understood that. No one has expressed that feeling with more sincere passion and eloquence than he did in "The Gettysburg Address". Even that address I do not think about often because I weep, and I am torn by the thought that there is no use in crying over spilt milk. So I am a mixture of hard determination and compassion.

When I had my own family I did not talk about the war probably for several reasons. I thought at the time do not worry your sons about the horrors of war. Secondly, I had much catching up to do going back to school. I had not taken a course in chemistry for years. Now I was competing with bright young students who had just finished two years (four semesters) of chemistry. I had to make up for the lost time. I must focus completely on my graduate work. A third reason, I realize now, why I did not talk about it was my inability, at that time to really reflect on the events of war, but only to be engulfed by the extreme stresses of my experiences. It would have been a recount of stories not suitable for children. I remember as a small child attending a Memorial Day service in Gilead. It was a beautiful day for celebration. Mr. Porter, a veteran of World War I, gave a short talk about fighting in a war to end all wars. Tears ran down his face as he choked on some of the words he spoke. I could not understand why he should be crying on this gorgeous day of "Celebration". Of course, I have known for years that for Mr. Porter that was an intense moment of memories of lost comrades.

For me it was the right decision to push the past behind me. I was concerned that I had much catching up to do academically. This focus certainly helped me to do that and apparently rapidly move to the forefront of research on sperm preservation and utilization to develop a worldwide artificial insemination industry in cattle. Gray Thoron, a former Dean of the Cornell Law School, fought as an infantry officer in many places near where I fought. He is a fellow resident at Kendal. We reflect on our experiences, especially Gray does. We have a direct line of communication, and he feels I am the only one he can talk to about his World War II experiences who will fully appreciate their significance.

Gray was already a lawyer when he volunteered for the army. His lawyer friends thought he was "nuts". After the war he caught up on legal technicalities and was soon ahead of those that stayed in the security of their offices. He attributes this to his experience dealing with strategy, tactics and men in the war. Now I agree that it
was not lost time. The survivors of World War II are said now to be a great generation. But who would have said that in 1950?

So now I do talk to high school classes and other groups about the lessons of love, tolerance, and appreciation of diversity learned from the violence we experienced during World War II. I learn some things, and see new dimensions each time I do this. Yes, reflections and sharing are beneficial for the individual. However, I do not do this very often because I do not want to live in history. Some veterans do join veteran groups and swap stories regularly. I believe these stories deal mostly with the now humorous side like our cook shooting himself in the foot. Cooks were supposed to know how to load a rifle, unload it, clean it, etc. In the process one of our cooks shot himself in the foot. It was not a serious injury, and this cook may have been injured more by being the butt of jokes told by the fighting soldiers than by the superficial foot wound. For many veterans swapping these stories probably were comforting and amusing to their families.

I believe that those who went on to be doctors and enter other highly competitive and demanding professions did less of this story telling. They had more important things to do, or at least they thought so. That was certainly true of my life in attempting to give students, and the public taxpayers their money’s worth. But, as I have candidly pointed out I put too much emphasis to try to approach perfection in these pursuits, which left too little time to do likewise with the family.

My present wife, Barbara, has had a tremendous amount of experience with young children. She is great with these kids. Her discussions and my reading on research on brain waves and connections in fetuses and in the newborn, have taught me how much early quality time together is worth (pays off) in future development. Because one cannot run the script backwards, the best move is to raise the priority level of personal involvement with family and friends as soon as possible. I maintained to the present time far more contacts with all members of the Foote and Parcells families than the reverse. That follows another childhood quote “it is better late than never”. However, it is best to give high priority to quality time in the beginning. I did not do enough in that respect.
Brief Summary of World War II Experience
(Robert H. Foote)

1. Inducted into the army as a private March 4, 1943.
   Serial no. 31326790. Not called to active duty until graduation the end of
   May, 1943.
2. Sent for basic training in Togus, Maine
3. About July 1 promoted to corporal and sent to Ft. Benning, GA to join the
   OCS class 303.
5. Sent to Camp Croft, SC 2 November 1943 for anti-tank training. Certified
   anti-tank commander.
6. Went on winter maneuvers, Murfreesboro, TN, on to Camp Attlebury, near
   Indianapolis, IN, to Laurel, MD, Norfolk, VA and Africa to Italy.
7. Joined the 442nd Co.K. as a replacement officer with Lt. Ed Davis to Co.K,
   442nd RCT in June.
8. Wounded 14 July 1944. Went to 12th General Hospital, Rome.
9. Returned to K Company 24 August 1944.
10. Immediately the unit landed at night on the shores of Southern France
    (southern invasion). Rapid run (ride) north.
11. Captured Bruyeres and wounded severely 21 October 1944. Evacuated
    on 24 October and operated on twice (1st time was 27 October).
12. Released from the hospital 19 March 1945, supposedly to go home.
13. Rejoined Co.K.; landed at night at the Gothic line, Italy.
14. Captured the Gothic line.
15. 1st Lt., effective 7 May 1945.
16. April, 1945, slightly wounded by a near miss of a 280 mm coastal gun
    firing inland. No hospitalization.
17. VE day, 9 May 1945.
18. Guarded huge army depot, June-October.
19. Trips to rest centers.
    • 5 days in Genoa in May.
    • 7 days in Florence in late June.
    • 7 days in Switzerland in late September.
20. Travel orders to prepare for shipment home 8 November 1945.
21. Travel to Naples 11 November to await army transportation for
    embarkation.
22. On USS Randolph at Thanksgiving time.
23. Landed 26 Nov. 1945 at Newport News, VA.
24. Ft. Devens, MA 1 December discharged with 53 days terminal leave
    service nearly through January 1946.
25. Years later there was a Research and Development Group at Cornell.
    Army did not allow an infantry officer to be in this unit. Requested transfer
    to the Medical Service Corps. Eventually granted this transfer.
Chapter 7
The Japanese-American 442nd Regimental Combat Team: Great Soldiers and Wonderful Citizens

The Liberty Song (1768)
by John Dickerson (1732-1808)

"Then join hand in hand, brave Americans all,
By uniting we stand, by dividing we fall;
In so righteous a cause let us hope to succeed,
For heaven approves of each generous deed".

Many times in history we have forgotten or fail to heed the principle espoused by Dickerson in this stirring poem. A notable example of this occurred after the Pearl Harbor attack, when not all Americans were included in the rallying call. It was the Niseis, with their courage to volunteer and their heroism on the battlefields and in the Military Intelligence Service, who brought into sharp focus the folly of ignoring unity, and the success when it was achieved.
Chapter 7

The Japanese-American 442nd Regimental Combat Team: Great Soldiers and Wonderful Citizens

This chapter is a collection of separately written items. I wrote a memoir A Connecticut Yankee in Nisei King Company's Court: With the Japanese-American 442nd RCT in World War II. This memoir has some overlap with the preceding chapters in this book. I have not exaggerated the heroics of the 442nd RCT. General David A. Bramlett stated several facts at the 60th Anniversary Memorial Service in Hawaii on April 5, 2003. He noted that there were 251 regiments (U.S. Army and Marines) in WWII. There were 31 total regiments used in Korea, 30 in Vietnam and 1,696 regiment equivalents in the Civil War. He stated that "The most decorated of them all is the 442nd.

Also, I have included a synopsis of a talk I give to several classes of Ithaca High School students each year on my WWII experience, Lessons of Love, Respect and Responsibility Learned from and to Replace the Violence of War. This talk is a reflection told as a first person story which I hope will add an important dimension to history for the students that will not spring forth from textbooks. There is a powerful response from students. It is easier to discuss these topics now, thank goodness, even though it is not always easy.

I walk by the display in the Smithsonian Institution of the 442nd RCT. There is a photo of an unidentified young lieutenant (me), discussing battle plans for the attack on Bruyeres, France with two of my sergeants. Years ago I would shed tears if I saw this photo as so many men were lost the following days. Now I can give a faint smile, thinking weren't we young once, mixed with somber thoughts.

This year I met a freshman (really a freshwoman) from Hawaii at Cornell on a scholarship awarded by the 442nd to descendents of 442nd veterans. Her name is Kara Ishikawa. She's a fine young lady, the granddaughter of a soldier in my company, 442 in WWII. She never knew her grandfather. She is a superb soccer player.

I attend the K Company reunions and shed tears of joy as I see old grandpa friends. At the K Company reunions I find that many of the surviving veterans have done so much with and in their lives. They even tell stories that make me feel good. My wife Barbara is amazed at the camaraderie. One of the guys told her at the first reunion she went to about the guys in my platoon saving food for me. I don't remember that. One of the first times when we came off the front lines the guys were very hungry. The cooks also wanted to make them feel good and heaped food into their mess kits. After they were all fed I came, but most chow was gone. The guys noted that and shared some of their food. After that they assigned someone first in line to have 2 mess kits filled. One was for me. I don't remember that because an officer should see to it that his soldiers are taken care of first. I only did what was right, but I'm glad that this was part of our spirit and unity.

At another K Company reunion I was talking to several of the veterans. A reporter said, "Hey, are you part of this unit?". I said, "Yes, can't you tell"? Of course, I was the only Caucasian in the group. The reporter later interviewed me relative to my experience with the 442nd RCT. There was an article in the New York Times.
was mentioned, but not much about my being in the 442nd. The reunion was held shortly after 9-11-01. At the end of the interview I had casually mentioned that discrimination and fears continue. A few days after 9-11 saw a young schoolboy (perhaps 11 or 12) walking down the street in liberal, tolerant Ithaca. He had facial characteristics of an Arab. He was holding a small American flag in one hand as he looked straight ahead while he used the other hand to hold the hand of a Caucasian friend. Tears rolled down my face when I saw this fear, and they did so when I told the NY Times reporter. That point was the climax of his story. Yes, I gained some sensitivity in WWII.

While serving with the 442nd I learned about brothers of these guys serving elsewhere. A few had brothers who went back to Japan to study and got caught up in the war serving in the Japanese army. My radio operator's brother was a captain in the Japanese Army. Many more had relatives in the Military Intelligence Service (MIS) of the U. S. Army. They were skilled in the Japanese language.

Little was known publicly about these men. There were about 5,000, and all units in the Pacific had MIS soldiers attached to them. General McArthur had reported that never in the history of the U.S. had our military units been so well-informed about the enemy. His headquarters announced that they had shortened the war by as much as 2 years.

These MIS soldiers interrogated prisoners. They helped to unscramble the Japanese secret code. They got so close to the front lines that at least in one case with the Merrill Marauders an MIS soldier gave the Japanese soldiers an order to attack while the Americans ambushed them. Others served in Japan from 1945 to 1952 as translators, interpreters and in the counter intelligence corps. This assisted in restoring the country to one governed by democratic principles during a period of natural postwar unrest. General McArthur understood the Japanese culture and used the emperor at times to relay McArthur's orders. His office was above the emperor's office, so the Japanese knew who was in charge.

The National Japanese American Historical Society (NJAHS) publishes many interesting and important facts recounted by veterans who were part of important WWII events. The winter issue (XVCI. 2003) of Nikkei Heritage is full of fascinating reading. For example, was there a mistranslation of the reply by Japan to the unconditional surrender ultimatum given them on July 26, 1945 by President Truman? The Japanese may have been trying to hope for more favorable terms with the word "mokusatsu", but the English culture interpreted this as a rejection of the ultimatum. So Harry Truman's response was to drop the atomic bomb. Those bombs did bring a rapid response and end to the war.

What would history have been like had the bombs not been dropped? Personally I believe two things. One is that more young Americans and Japanese would have been killed had the ending of the war required invading Japan and annihilating the Japanese armed forces. Certainly the economic structure of the country would have been destroyed by ferocious bombing. Second is the overwhelming impact that the destruction by each bomb caused in the minds of people worldwide. This had a much greater impact than any theoretical discussion of the power of the atomic bomb could have had. We needed the demonstration as a visual
reminder during the cold war for world leaders to realize that unlimited release of atomic bombs would likely destroy most life on earth.

Harry Fukuwara tells a personal story in this 2003 issue of Nikkei Heritage. One must read the whole story to fully appreciate the emotions, the stresses, strains, grief and relief. Harry was born in Seattle, Washington. His parents had emigrated from Hiroshima in 1920, but they returned to Japan when his father died in 1933. Harry returned to the U.S. as fast as he could. He was an American. Eventually, in November 1942, he volunteered for the US Army from the Gila River camp where he and many other Americans of Japanese ancestry had been illegally interned. He went to the army Military Language School and served with the 33rd Division in the Pacific, finally poised for the invasion of Japan when the atomic bombs were dropped.

With special permission he was able to obtain a Jeep and a 6 foot 3 inch Caucasian driver to head for Hiroshima, one of the first American soldiers to see the devastation from the ground. Upon arrival all he saw as he looked across the whole city were shells of buildings. By good planning and good luck he located the house he had left years before. We pick up his story here from the Nikkei Heritage by permission.

"I told the driver to stay with the Jeep, but he did not want to be left alone. The two of us--he armed with a rifle and me with my 45-caliber pistol, knocked on the door of my house. After a long time, two emaciated-looking elderly women appeared at the door. They were my mother and my aunt, but neither said a word and only looked at the tall soldier standing next to me. I had rehearsed what I would say, but when they both stood there looking scared, I just said, "Mom, I'm home--" in Japanese. My aunt recognized me before my mother did. When she did, she broke down. Her first words tumbled out: What was I doing there? How did I get there? Where did I come from? We finally were welcomed in.

My older brother, Victor, was lying on the floor upstairs. He had been on his way to work when the bomb fell. He was dying but I did not know it then”. Harry’s two other brothers had been drafted into the Japanese Army and “both had been assigned to suicide units near the beach where my 33rd Division was supposed to have landed in Kyushu as part of that massive and dreaded final assault to end the war in the Pacific. Only Truman’s decision to drop the atomic bomb had averted that predicted bloodshed.

Sometimes I think it was fortuitous: My older brother died from the atomic bomb, but my two younger brothers, both Japanese soldiers, and myself, an American soldier, are alive today because of it. Plus my mother. One life for four. Perhaps they were not bad odds amid the misfortunes of a great war”.

So after years of silence on the subject, but also years of mental anguish, Harry Fukuwara found the balm of relief in telling his true and important story. I have given you my opinion of the consequences of the bombing without passing judgment. Some will disagree. I include a bit of Harry’s true story here to provide another dimension when we ponder the problem of why do we get into such a mess, and is force of great magnitude sometimes necessary to stop forces of great evil? If so when and how? I leave the reader to spend considerable time thinking about this, not just for World War II.
In the Cornell Archives (Kroch Library)
Collection # 4299 put in by Robert H. Foote

Description: 5 items
Summary: Videotape "Reminiscences of Company K, 442nd Regimental Combat Team," 1986, by Robert Foote, Company Commander and William Kochiyama, Company Sergeant about battlefield conditions, the contributions of Nisei, qualities of leadership, combat losses, and relations between company members in battle and since the war; and two black and white prints.

Cite As: Company K, 442nd Regimental Combat Team videorecordings, #4299.
Division of Rare and Manuscript Collections, Cornell University Library.

Subjects: Kochiyama, William
Nakamura, William
Okubo, James
World War, 1939-1945 -- Japanese Americans
World War, 1939-1945 -- Personal narratives, American.
Japanese Americans.

Items added to above:
3. My brief memoir "A Connecticut Yankee in Nisei King Company’s Court: With the Japanese-American 442nd RCT in World War II.

Also at the Kroch Library: Collection #3830 is the Japanese American Relocation Center records. The collection is 22.9 cubic feet and the entire guide is on line. If you go to http://rmc.library.cornell.edu/EAD/htmldocs/RMM03830.html you will see the guide. See the book "Beyond Words" by Deborah Gesenway and Mindy Roseman.

I will add two volumes of my life and career at Cornell.
DEAR LT. FOOTE:

THE ENCLOSED AMOUNT WILL ONLY COVER TAXI-FARE.
WE...OF THE FIRST PLATOON AND THE FEW REMAINING "OLD TIMERS"
BID YOU A SAD — BUT HAPPY "ALOHA".
WE PRAY FOR YOUR SPEEDY AND PLEASANT "SENTIMENTAL JOURNEY" HOME.

REMEMBERING ALWAYS..... OUR

COMBAT LEADER AND FRIEND...

YOUR BOYS OF THE
FIRST PLATOON... AND
REMAINING "OLD TIMERS".

USGT. BILL KOUCHNER
CO.K-442 ND. INFANTRY

TO:

LT. ROBERT H. FOOTE
June 20, 1985

Prof. Robert Foote
70 Woodcrest Avenue
Ithaca, New York 14850

Dear Bob,

How fortunate it was that we were both able to adjust our schedules so that you could be filmed for this project. I can't imagine the loss to the film had it not been possible; your memories and reflections were really invaluable.

It is clearly evident to me why you are not only held in esteem and affection by those who served with you, but why you have received awards for fine teaching as well. The same caring, commitment and attention enrich both endeavors, and I remember on our strolls on the campus the frequent fond greetings to you from students and colleagues.

Bill Kochiyama commented that he thought of you when he pictured the way all Americans should be, and I think that is the essence of your contribution to this film project. You have a direct and human way of recounting and commenting, and it comes from a mainstream, Yankee, New England perspective.

I really appreciate the time I had with you, particularly your hanging in until the last wave goodbye. Thank Ruth for her wonderful hospitality and for her rushing Bill to the airport.

Warm regards,

Loni

Loni Ding
Lt. Springfield  Co. K officers  Lt. Smith  442nd  War is over  May '45

Lt. Connors, Springfield, Smith, Foote

Lt. Foote
"Naw—we don't hafta worry about th' owner comin' back. He wuz killed in Italy."

"Can't ya read signs?"

Lessons of Love, Respect, and Responsibility Learned from and to Replace the Violence of War

Robert H. Foote

Officer in the Japanese-American 442nd RCT
(Similar to talks I give to high school classes).

All wars are bad. The one I was in, World War II, was a must war for us to defend freedom against the tyrannies of Hitler, Mussolini and Hirohito. Perhaps your grandfather was in it, but for most it is history. We veterans talked little for years, but it is important to share the lessons learned. Our biology is passed on automatically to each generation, but our history and whatever we veterans can do to share experiences that will help you make the right choices, to do the right things, is important.

You will hear from others about the Vietnam War, etc. Was that necessary? My older son stopped after 2 years of Engineering at Cornell to serve in that one.

I was young once. I grew up on a dairy farm, milking cows 7 days per week. I went from college into the army. Eventually I ended up overseas with the most decorated unit, man for man, in the history of the U.S. Army. We had three Congressional Medal of Honor awardees in my company, and many other awardees. Along with the honors went many casualties. On the front lines there are only three kinds of soldiers. They are the weary, the dying and the dead.

Young men, mostly upper teenagers or a little older with hopes, ambitions and great potential never came home to realize their dreams. Yes, we all have hopes and dreams. I hope you can achieve some of yours, in fact many of them, (if they are good ones).

I am not going to dwell on the awful violence that results in war, but only to give a bit of background for my true story of “Lessons of Love, Respect and Responsibility” that emerged from the courage, conscience and moral convictions of these young civilian soldiers who were moulded into a fighting machine.

The unit fought up through Italy, including the Anzio beachhead. It was pulled out of Italy to invade France from the South, where there was no resistance compared with the enormous severe fighting in the earlier D-day landings in Normandy. We pushed the German forces back into Germany, and rescued part of the 36th division which had been surrounded by the Germans. There were terrible losses of lives on both sides.

Then the unit was pulled back to Italy to break the German strongly held Gothic Line. The commanding general in Italy, General Mark Clark, described the unit as “the best damn soldiers I have ever seen”. Sounds glamorous! Well it wasn't. Lt. Lee said “Anyone who has ever fought in a damn war will wonder why in Hell we will ever have another one”. So when you play your glamorous computer war games, give some thought to the real world. That's where you live—where you and I need to let live in harmony.

As I look around the room I see you all are part of the same race. (Looks of amazement or disbelief by Latinos, Afro-Americans, Asian-Americans and those of Western European origin fill the classroom). “Well, is there anyone here
who is not a member of the human race? I have 99.9% of your genes and you have 99.9% of mine". Chimpanzees are more closely related to us (more genes in common) than they are to Gorillas. My dog has lots of my genes. I wish I had more of his on sight, smell, and even faithful devotion.

Of course, each one is different. This is very important to have different talents and interests so we can fill the gaps in this world.

This similarity of our makeup should give us some uniformity in achieving common worthwhile goals, while providing all this diverse talent and training to make it happen. Yes, diversity and respect for it (tolerance) are very important.

Now, you may begin to wonder how all this relates to my wartime experience, unless you are a history buff, and already have figured out what or who my unit was. You see, my unit, our unit, the unit I served in was the 442nd regimental combat team. The soldiers were all Americans (yes, All-Americans) of Japanese ancestry. Many of them came from concentration camps, called relocation centers. But they were camps surrounded by barbed wire and guards. These young men, citizens of the United States, volunteered to serve their country, despite the fact that their country (my country) had failed them.

There were not many Japanese-American officers in the army. Furthermore, in the war hysteria people develop unfounded fear. Such unfounded fears is a terrible disease. Many people worried as to whether these soldiers and their families could be trusted. There was not the same feeling toward German- or Italian-Americans. So, they needed Caucasian officers. It was made very clear to us officers that if you had a bias against these guys, don't serve with that unit. In fact, the Caucasian commanding colonel of the unit told the Japanese-American 1st sergeants in the companies, if any officer assigned isn't for you let me know. I'll reassign him elsewhere immediately. I'll kick his butt.

Cohesion, unity, sharing, caring, devotion, compassion, responsibility, dedication, determination, and extraordinary courage are some of the characteristics that were reflected by these guys. Sure, they had strange names, that is names that were strange to me like Masakasu Nishi, Kiyogi Morimoto, etc., but they all had American nicknames. Like any other group they loved baseball, sports, music, art and even studies. There was nothing strange about them.

We (the 442nd RCT) were like an American-Asian family. We had self-discipline. This transcended the usual necessary military discipline. We had self-imposed loyalty to others and country over self. Combined with other traits this made the unit the great fighting machine that it was.

Let me give you a few examples of love and understanding at the time of great tension that go beyond the glorious victories and especially the carnage suffered by both sides. The first example occurred in the heat of battle. We were attacking a well-defended village on a hilltop. As we approached, seeking as much cover as possible as we darted forward, we couldn't avoid exposure. We had casualties. One of our medics was kneeling on the ground treating a wounded soldier. All medics had big red crosses on their medical supply packs and on their helmets. A German sniper picked the medic off with a shot through
the red cross on his helmet. He was killed. This action by the German sniper was absolutely against the rules of war or human conscience.

We were furious! We will now capture and kill those bastards, medics and all, no matter what. One of our other medics said "They may shoot at me, but you do not shoot at them (i.e. their medics). Two wrongs do not make a right". We were a bit ashamed, and cooled down to a more rational and better fighting unit with humane values. Two great lessons here. One young man gives his life for his wounded comrade and his country. The second medic states a principle for us to live by always.

Another time there was no battle raging. In fact it was a sunny day with a lull in the battle. At that moment all was quiet. A German outpost had been captured by one of our units. A German messenger boy (some of their soldiers were only 16-year old Hitler brain-washed youths) was riding his bike up to German outpost unaware that their outpost was no more. He probably was bringing some orders and maps for their retreat plan.

As he approached, a rifle squad from our unit waited in ambush behind some brushy cover. Their rifles were loaded. They were expert marksmen. They were ready! When the messenger came within close range the squad leader ordered "Fire"! The men all followed orders and fired. What do you think happened? The messenger jumped off his bike and ran down the hill away from our men. Why wasn't there a massacre? It is not reported that the men said anything, but probably only looked at each other. Each one knew that all had scattered their shots because this German soldier posed no immediate threat to them. No one was going to kill that German human being in coldblood. That was an act of conscience and courage on the part of each Japanese-American soldier. We did not hate individual German soldiers, but we fought evil with all we had. The evil were the dictators who suppressed freedom.

My final example does not involve any shooting at all, but only the aftermath of a battle when several of our soldiers were killed. Some German soldiers were killed or captured also. We had, as did all army units, a group from headquarters that identified and buried the dead. German prisoners of war were used to help dig the graves.

The Japanese-American chaplain conducted a brief burial service ending with the Lord's Prayer. The Americans knelt, and so did the Germans, who joined in saying the prayer in German. Some of the American soldiers objected to allowing the Germans to join in the prayer, arguing that these Germans might have been part of the group that killed the Americans in the recent battle. The chaplain lightly admonished them by reminding them that in the prayer they said "Our Father which art in heaven..." One does not say my American father, my German father, my Japanese father, but it is "OUR Father". We are all human beings, no matter how we are classified.

So the lessons of war for me are:
1. In self-defense some wars are inevitable.
2. However, we should work for conciliation, conflict resolution, and peace, not confrontation.
3. Learn to overcome hatred and anger with forgiveness.
4. Care for and love others, even your perceived enemies, and they can become your friends.

Under the stresses in our daily lives may we have the respect for each other, the responsibility, the love and courage to make the right decisions to help our families, our classmates and teachers, our community, our country, and our world to become a happier and more peaceful place to live.

What are your questions, comments and conclusions?
A Connecticut Yankee in Nisei King Company’s Court:
With the Japanese-American 442nd RCT in World War II

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Dedication

To all *Buddaheads* and *kotonks* in the 442nd RCT and attached Nisei units, and all medical staff at all levels who saved so many lives, this memoir is dedicated. Sir Winston Churchill's famous statement, "Never in the field of human conflict was so much owed by so many to so few," aptly applies to these men and women.
Preface

The history for this memoir has been a long time in the making, going back to my own roots 77 years ago and my ancestral roots in the United States of America 369 years ago. For many years I convinced myself, and I think rightly so, that my wartime experiences were something to forget. One must live life forward. I didn’t want my growing sons or my wife to have nightmares about war; I hoped that would never happen again in their lifetime. Of course, that was an idealistic, even naive assumption. My oldest son served in the Vietnam War, although not in the infantry. As Lt. Young Oak Kim, (a Korean-American in the 442nd) said in an interview with Thelma Chang, author of the book I Can Never Forget: "War is as close to hell on earth as man can create, and why people fight them, if you’ve ever been in one, you never understand."

For many years after the war Americans generally knew little about the exploits of these heroic Americans who were of Japanese ancestry. The Nisei and a few Sansei veterans (respectively, second and third generations of Japanese-Americans) said little after the war about the fierce battles they fought, as they gently helped parents to resettle, and raised their own families--those who could return home. A movie made in the 1950s carried the 442nd "Go For Broke" insignia as its title. But that was a Hollywood version, not a war documentary. Also, only recently has it been generally known that Nisei in the United States Military Intelligence Service played an important role in winning the war in the Pacific. However, that is not a part of our story.

Eventually, several superb books were written, documenting the unjust uprooting of all mainland USA Japanese families after the Pearl Harbor attack. These books detail the volunteering, formation, training and the remarkable wartime performance of these young Americans of Japanese ancestry, usually referred to as Japanese-Americans. Few books were written by the soldiers themselves, who slogged through the mud and fought the battles, and none that I am aware of were written by a haole (a Caucasian mainlander) frontline officer. The viewpoint and intensity of feeling are different from the foxhole than from the seat by the fireplace.

From the title of the memoir it is obvious that I am a haole. In the waning years of my life I have felt compelled to relate this account. It was important to do it quickly, or it never would have been done. Besides I was rapidly running out of boxes of Kleenex after I started to write it. Most of the officers were haoles, except those from the Hawaiian Guard. Many could have told a similar story and written it better, but most didn’t. A poem I wrote in 1992, reflecting some of these sentiments is appended.

So this is my story. It is not a historical document. The only dates I am sure are correct are those supplied to me by my US Army 201 file, giving dates relative to my joining the 442nd, being wounded, and rejoining the unit, I have woven these into the military campaigns of the fighting 442nd RCT.
It is unfortunate that unnecessary tragedies seem to be necessary to bring forth our compassion for the innocent dying person, no matter what shape of helmet he wore. As you read this short memoir, let your mind ponder and your heart vibrate, recognizing that there is great potential for good in each of us. This potential is the human mind and spirit; it has nothing to do with size, shape or any superficial characteristic often used to judge a stranger until he or she becomes our friend. The innocent children now and of future generations deserve to inherit this legacy.

Certainly I owe a great debt of gratitude to many people. They are too numerous to mention individually, but I give thanks to all who made my life and this brief memoir possible.

If readers have any constructive comments or questions they wish to relay, they could be sent by e-mail to rhf4@cornell.edu, or to the author’s mail address at 204 Morrison Hall, Cornell University, Ithaca, NY 14853.
Chapter 1. The Nisei and the Author

Who Were the Nisei of the 442nd RCT?

As mentioned in the Preface, several books now have been written about the first generation of Japanese (Issei) who came to Hawaii and the western part of the United States. However, a short overview here will help to put the events of this memoir in perspective. It was mostly the next generation (Nisei), and a few second generation (Sansei) boys born in Hawaii and the mainland USA who served in the 442nd Regimental Combat Team (RCT). The parents or grandparents of these American-born sons had come to this country seeking a better life. The kids had grown up in caring, loving families, with typical Asian self-discipline and respect for others; they were as American as apple pie. They put tremendous emphasis on the work ethic and on education. There was no excuse for failure! As I will tell you later, these were the same principles that governed my family too, except 11 generations separated me from my pioneering ancestor, Nathaniel Foote.

Where Did the Nisei Come From to Form this Army Unit?

It was a cruel and tortuous journey that these peace-loving American families went through en route to establishing the 442nd RCT. It all began with the attack on Pearl Harbor, December 7, 1941. The 160,000 Japanese-Americans in Hawaii were viewed with suspicion, but were not relocated. However, the 110,000 or more persons of Japanese ancestry on the mainland, including 70,000 in that group who were native-born American citizens, were disenfranchised. The adults were mostly hard-working farmers and small shopkeepers, and the children ranged from new babies to college graduates. In the Spring of 1942 they were summarily removed to 10 hastily, poorly constructed concentration camps. They had only 7 to 10 days to dispose of the property that they had worked all their lives to obtain. Camps had little privacy, sanitation or medical care.

There was no basis for issuing the evacuation order, except fear, as no Japanese-American was ever found to commit any act of espionage or sabotage. General Dewitt, who issued the evacuation order, was obviously biased as he said: "A Jap's a Jap," regardless of citizenship.

All first-generation Japanese (Issei) were designated aliens. How could they be American citizens, as federal law denied them the right to apply for citizenship? They did the best they could in camps with limited facilities to continue the education of the children and to provide a variety of positive activities. An example of the stupidity or unreasonableness of the authorities was not allowing kids to take baseball bats to the camps because these were "dangerous weapons." Friends of the kids pointed out that these bats were only used by the kids to "keep their eye on the ball."

Back in Hawaii already there were the Hawaiian Territorial Guard and National Guard units containing many Nisei soldiers. The first gut reaction was to order all these men of Japanese ancestry discharged. How could officials do this when the men
had displayed unswerving devotion to the United States? Eventually cooler heads prevailed and the order was rescinded. These men formed the famed 100th Battalion that eventually became the 1st Battalion of the 442nd RCT. They were sent (1300 men and 29 officers) to Camp McCoy, Wisconsin for further training on June 5, 1942. There they trained for seven months. Gradually they were accepted by the natives of Wisconsin, based on their model behavior off the post and rescuing several residents from drowning in a frozen lake. The unit was moved to Camp Shelby, Mississippi in February, 1943.

Because of the excellent training record of the 100th Battalion and the constant request of young men in the camps (supported by prominent Caucasians) to serve their country, President Roosevelt opened the opportunity for these men to volunteer for service. He said: "No loyal citizen should be denied the democratic right to exercise the responsibilities of his citizenship, regardless of ancestry. The principle on which this country was founded and by which it has always been governed is that Americanism is a matter of the mind and heart; Americanism is not, and never was, a matter of race or ancestry." Unfortunately, this had not been the spirit behind the mass movement by government order in 1942. However, on February 1, 1943, the 442nd Regimental Combat Team was formed with 1,500 volunteers from the mainland and 3,000 from Hawaii.

There were many complications. The mainland soldiers came from a somewhat different culture than the soldiers from Hawaii. Camp Shelby was a mess, and weather was terrible in February. Clothing was a misfit, because small sizes were needed almost universally. At one point the army, to supply small sizes, shipped in WAC clothing, including women’s undies, which were, as you could imagine, rejected. Fortunately, much was improved at the Camp by April when the 4,500 men arrived and started training in May.

The 100th Battalion by now was a combat-ready unit. They left for North Africa in August, 1943. It was nine months later before the 442nd was ready to join them. By that time the 100th Battalion, attached to the 34th Division, had established a remarkable fighting record. General Mark Clark, commander of the 5th Army, sent a message to Chief of Staff General Marshall stating "They ... performed magnificently on the field of battle. I never had such fine soldiers. Send me all you got." They gained terrific respect among the rest of the soldiers of the 34th Division, and eventually some Caucasian folks back home began to get the right idea. These Americans were fighting for democracy against a common enemy. They were demonstrating their loyalty at the same time.

Where Did the Author Come From?

As I mentioned earlier, I was one of the 11th generation of Footes in the New World. Nathaniel Foote (the First) had come from England about 1630 with a group that followed the Mayflower by a decade. With him came his wife, and probably six children, including a baby about one year old. Imagine traveling for weeks on the restless ocean, no electricity, no washers or driers, no radios, no flush toilets, nor most
of the material goods we consider as essential, and certainly no luxuries. But they had the pioneering spirit and love of God. Were they exiled dissidents, or were they seeking freedom, or both?

Nathaniel is found in the first records among those who left Massachusetts and settled in Connecticut by 1635. There are no surviving records of their travels, but we can imagine what it must have been like to push through the wilderness. Weeks of wandering through forests and meadows, rain and muck, across unbridged streams, over rough steep hills, surrounded by wild beasts and, understandably, native Americans that were not always friendly, did not deter a band of about 60 people. They were determined that nothing short of the will of God would stop them. In a few years these settlers in Wethersfield, near the Connecticut River, were framing the new orders of their adopted home. They were committed "to maintain and preserve the liberty and purity of the Gospel of our Lord Jesus ... and be governed and guided by such laws, rules, orders and decrees as shall be made, ordained and declared" by the General Court. The Court was to be appointed by the Freemen of the Commonwealth. This was the beginning of the Commonwealth of Connecticut.

Life was tough, but I doubt that they regarded it as tough in the same way that sometimes leads us to succumb to minor challenges. They were agricultural laborers, and "jack-of-all-trades," using their muscles and mental agility to fell trees, clear forests, build houses, till the soil, plant crops, attend to family problems, and care for multiple illnesses. Despite the frequent loss of loved ones, they never turned back.

Through the years generations have worked the land and served their country in many capacities. Of course, there were infusions by other immigrants (mostly from Europe in my home town). Over the USA these hardy people from East and West added great strength to the diversity that characterizes our country today.

On August 20, 1922, I became the fourth child born to parents Robert E. and Annie Hutchinson Foote. I had an older brother and two older sisters. I, Robert (Bob) Hutchinson Foote, grew up on the same farm where I was born. My parents also grew up on farms, and despite the rigorous requirements of farm life they were the first farm kids in Gilead, Connecticut to go to college. My mother was well-trained in English, Latin and French, and my dad in mathematics, chemistry and physics.

Why have I traced my roots? Because these roots, as well as wartime service, played a major role in molding both my early and adult life. I went to a one-room school with eight grades. I revere my grammar school teachers, but mom and dad were my greatest teachers, though unrecognized as such by me as a kid. When I came to a strange word mother would help me dissect it, breaking it into components derived from Latin roots. My father began asking me questions about how old would Mary be in 10 years without telling me how old she was now. How could I figure that out? He gave me a bit more information, and for me this was the beginning of the concepts of algebra. With this kind of environment and encouragement, years later I realized why I was the class poet of the graduating class for the several one-room schools in Gilead and Hebron. In high school I excelled in math and science. Also,
years later I discovered that somewhere hidden in my brain was the recognition that I was supported and encouraged by my family and teachers to do whatever I possibly was capable of doing. I was much more fortunate than many others!

All the growing years before college, the dairy farm required feeding calves and cows, as well as milking cows seven days a week. There were always other jobs, such as repairing equipment and buildings, preparing the soil, planting and fertilizing crops, hoeing out the weeds and harvesting the crops. Sunday morning was especially busy in order to get the chores finished quickly, clean up, eat a good breakfast and get to the church on time every Sunday.

Our luxuries on the farm were few. But we were well-fed, and spiritually nourished with unbounded love. Space does not permit the recounting of the tender loving care all the children received, combined at the same time with a fair and firm demand that we perform many tasks on time according to the best of our ability. These were the days of the Great Depression! Planning, self-discipline and hard work were essential ingredients of family and economic survival.

Life and the spirit in my family probably were similar in many ways to the life of the young Nisei men who became the famous soldiers of World War II. Of course, some of them may have faced discrimination in school by classmates from biased families. I never faced that situation; my family was part of the establishment.

After High School it was on to the University of Connecticut, spending summers helping on the home farm. During the college years, 1939 to 1943, some of my classmates were drafted. As commencement approached, many of us were thankful that the Armed Services allowed us to graduate. I had been inducted into the Army, with others, on March 4, 1943, but put on inactive status until graduation. The glorious day of commencement arrived, with all its pomp and ceremony. Each recipient of a degree was given a handshake by the University of Connecticut president and the governor of Connecticut. It was a day of great euphoria as well as sadness, as we bid farewell. Those of us going immediately into the infantry branch of the Army held no illusions about the fact that some of us would never see each other again, at least on this Earth.

Foote, You’re in the Army Now

The marching orders came. Private Foote was ordered to report to Ft. Devens, Massachusetts on June 14, 1943. I was 20 years old. There I did KP (Kitchen Police) duty at 4 a.m. for a few days. This was easy for me after having arisen early to milk cows at home and open the University of Connecticut dairy processing plant at 5 a.m. during my student days.

Then it was on to Togus, Maine for basic training. However, soon I was given an opportunity to go to Officer Candidate School (OCS). After a 2- or 3-day slow, hot ride in an old train I arrived at Ft. Benning, Georgia, home of the U.S. Army Infantry School. On July 7, 1943 I began the OCS course, and on November 11, I became a
"90-day wonder," a 2nd lieutenant. Training at OCS was thorough and tough. I won't bore or excite you with details. One incident, however, had a great impact on my life. It also illustrates the spirit and good discipline that the armed services provide.

Every officer candidate had to go before the "old man" (colonel, commandant) or a special blitz board at least once during the course. As the course neared completion I had never had that "honor." The last exercise was a mock battle that lasted 39 hours, crossing a river in the dark, with no sleep, and OCS staff monitoring our every move. When the mock battle was over I returned to the barracks and fell sound asleep on my bunk. Suddenly a messenger from the commandant's office shook me and said "The old man wants to see you right away." I dashed into the washroom, threw lots of cold water on my face, combed my hair, and straightened out my messy fatigue clothes and my fatigued self.

I reported to the colonel, saluted, and he gave me the routine command of "At ease." He held the morning newspaper in his hands and said, "I have been reading in the paper about a battle waged by the American Army. What do you think about the strategy they used?" I replied "I don't know, Sir; I haven't read the article." He quipped "Any excuse?" I replied "No Sir," and he answered "That is All!" I snapped to attention, saluted, executed an "About face" maneuver and walked out. What was my fate? Well, I graduated. What would you have said? Think about this. You are an officer. You are responsible for the lives of the men in your unit. If one is killed, there is an explanation, but there is no excuse! Such are the multiple horrors of war for the families on both sides of the firing line!

After OCS I received antitank training and was certified as an anti-tank company commander. Following additional infantry maneuvers, I shipped overseas as a replacement officer, joining a pool in Italy. Casualties among infantry lieutenants were high, so we were in demand, almost as an expendable item.

We were told that the 442nd Regimental Combat Team, made up entirely of American soldiers of Japanese ancestry, and mostly Caucasian officers, needed a new supply of officers. During my life in the secluded farmlands of rural Connecticut I had never seen a Nisei. I thought "Why not serve with them rather than some other unit unknown to me." So I elected to do this, and was assigned to Company K, 3rd battalion, 442nd Regimental Combat Team. I soon appreciated, respected and admired the spirit, the dedication, the commitment, the courage and the ability of these Nisei guys. Their names were strange to me at first, but there were no strangers among us. We were all one determined family. They were loyal Americans prepared to fight for democracy against a common enemy. Also, I was a loyal American, but I never had to pass a litmus test.
Chapter 2. The 442nd Goes into Battle

The Rome-Arno Campaign

The 2nd and 3rd battalions learned many tricks of the craft of war from the 100th Battalion that already had blazed a trail of skill, dogged determination and heartache as they drove the Germans up the boot of Italy from Salerno to Rome. On June 15, 1944, at Civitavecchia, about 40 miles northwest of Rome, the three infantry battalions became one regiment, as the 2nd and 3rd battalions joined the 100th (now the 1st battalion). The 442nd RCT included the three infantry battalions, a medical detachment, service company and the headquarters company. The 522nd Field Artillery Battalion, the 232nd Combat Engineer Company, and the 206th Army Band were attached.

On June 26, 1944 the 442nd RCT, attached to the 34th Division, was committed with Belvedere as the objective. The 442nd captured and killed many Germans in the drive to take Belvedere. During bitter fighting, in capturing Hill 140 (little Cassino), they suffered many casualties in all ranks. At this point I joined Company K as the 3rd platoon leader. We immediately were a family with a common objective: Fight the best fight and get the war finished. Of course, it wasn’t that easy and this kodomo (Japanese for young kid) had much to learn. The platoon sergeant, George Masakazu Nishi, was a terrific young leader, as were all the squad leaders. I won’t mention more names, as the list would be long. There were no “goof-offs” or “f—ups” among the Nisei guys in the whole regiment. Occasionally a Caucasian officer was assigned who didn’t fit or didn’t have the necessary stomach for the orders of the day. They were quickly kicked back to some rear area supply unit.

Our next objective was to capture several intermediate towns, especially Luciana and the surrounding high ground controlling the port city of Livorno (Leghorn). The Germans were not going to give this up easily. The engineers helped us to get through mine fields by blasting a path with bangalore torpedoes (pipes hooked together and filled with TNT). Also, credit must go to the Italian underground who helped guide us past mine fields. From their defensive positions the Germans could see us coming, although we utilized as much protection as possible, moving up in gullies and avoiding booby-trapped trails. Nevertheless, the Germans were able to shower us with artillery shells from their 88-mm guns, along with mortars. One learned quickly to distinguish the sound and estimate the trajectory of the 88’s and screaming meemies, to the point that one could almost learn to duck quickly at times. The German machine guns were strategically located to rake columns of soldiers that advanced along likely trails. Their machine guns fired a little faster than ours and had a different sound. The mortar shells were silent until they exploded upon hitting the ground.

We tried to hit hard and keep the Jerries on the run. That way they had less chance to dig in and organize defenses. Also the 88 gunners didn’t want to aim their artillery at their own troops, and if we were close to the Jerries most of their shells would land behind us. This was my introduction to the real world of battle, as the Germans fought mostly rear-guard action in retreat to their next position at Luciana.
As we approached Luciana the Germans had every frontal sector well covered. Company K made a frontal attack on the town on July 16. We kept off the well-worn paths. The local Italian underground had warned us that many of the approaches were mined with the bouncing Bettys (I believe we called them.) They would bounce a few feet into the air and explode, shredding the person who was so unfortunate as to set one off. They also had shoe mines. Our guys were very good at skirting these. That is a time when having small feet helps.

Our guys were quick on the trigger and shifty in providing moving targets with as low a silhouette as possible. Nevertheless, there was much Nisei soldier blood spilled on the ground when the Jerries dumped mortar and artillery shells on areas they had pretested for precision targeting as we crossed these areas. We blasted away with the help of our cannon company, and other artillery support. By nightfall we did get a toehold on the ground along the edge of Luciana. I was very thankful that I carried a Thompson submachine gun, as on one occasion I heard the safety click off on a German machine gun just the other side of a hedge. My radio operator to my left shouted "I see them." By that time I had expended my 15-clip of .45 caliber slugs into the area where the sound came from. A dead silence followed. After the war I never hunted again.

In the meantime our engineers and others from the 34th division were clearing mines so supplies could reach us. We carried a short supply of lightweight K rations, but after a couple of days of tough hiking, crawling and maneuvering, both a resupply of these, plus water and ammunition were essential. In tough fire fights the supply of ammunition for a whole day could be expended to eliminate the defenders in protected positions, as we advanced semiexposed.

We did carry halizon tablets, so if there was no GI water we could scoop some out of a hopefully clean stream and let the heavy dose of chlorine purify it a bit before drinking it. One time when I was out of water I filled my empty canteen with cool mountain water and took a drink before the halizon took effect. A hundred yards or so further up the mountain was a bloated cow in the stream that had apparently been killed in an artillery barrage. Then I swallowed a couple of halizon tablets in a hurry.

I don’t remember anything about that night. Years later my wife asked me "Were you ever scared?" I said, that is a hard question to give an answer to in a way that you would understand. Of course we were always on edge and on the alert. You had better be or else ...! A strange noise or footsteps would bring us to the ready. Some guys were on shifts to guard all night. We had signs and countersigns that were changed daily (passwords of recognition) in case any moving human approached. If we forgot the passwords we had a backup word to say "Buddahed" when challenged. Buddahed was the name used to identify Japanese-Americans from Hawaii. The mainlanders were called kotonks. Back to my wife’s question. No, I wasn’t afraid, in the sense that I knew every soldier in the unit would help me to survive, if at all possible, as they would for every other soldier in the unit. These individual heroes were always "we."
The next day my number came up. A barrage of 88 shells hit us. Several men were badly hurt. One close to me had little flesh left on the end of one leg after the blast. I knew we had 25 seconds before the Jerries could reload and the next barrage would hit. As the medics came forward to help I told (suppose ordered) the able-bodied men to help pull the injured quickly back into a ditch. I grabbed one end of a stretcher and helped move one of our excellent corporals with the shattered leg to a safer position. By the grace of God we got all the men out of that spot before the next barrage came in.

The medics worked frantically and with great skill. They cared for many wounded. Some of our medics had several years of medical school behind them. They were terrific in knowledge and bravery. I was catching my breath when a medic said "Lieutenant, you have blood running out of your boot." Then I noticed my leg was getting stiff. The medic wrapped my leg and stopped the bleeding. I thought it would be o.k. for me to continue the battle later. However, the medic ordered me to go to the battalion aid station. One medic said he would go with me. "No," I said "you are all needed here. I'll find my way." And I did, hobbling on a stiff painful leg.

I was examined at the medical aid station, and sent by ambulance to Rome to the 12th General Hospital. There I had most of the shrapnel removed. I still have some to keep my blood iron high after this injection. But it doesn’t set off airport security alarms, and I keep all jokes about that to myself at the airport. In the meantime, after bitter house-to-house fighting, the 442nd took Luciana. There were many K Company men wounded, including all but two officers. The regiment pushed forward, securing the western flank in Italy as far north as Pisa. On July 25th, the 442nd RCT was pulled back to rest and regroup. General Clark pinned a Presidential Citation on the 442nd regimental colors for the magnificent performance. This was one of eight Presidential Citations earned by the 442nd RCT by the time the war was over.

The various chronicles of war tell of the steady advance of the 442nd crossing the Arno River into Firenze (Florence). The Rome-Arno campaign was over with 1,272 casualties, about 25% of the total force. On September 3, the 442nd RCT was pulled back for replacements and regrouping. I mention these dates because I was in the hospital in Rome and afterward in the conditioning company (according to my Army 201 file) until September 16.

There were many 442nd guys in the hospital. The K Company soldier who had his foot blown off at Luciana, was wheeling around the ward cheering up patients and staff until he flew to the USA for rehabilitation. I recovered uneventfully, thanks to a huge surgeon who was a major. After the operation on my leg I was hobbling around. The surgeon stopped me in the hall, and put all his weight through his hands on my shoulders. He said, "Put pressure on your leg regularly until it hurts if you don’t want to be a cripple all your life!" Tears of pain squirted into my eyes, but, thanks to that surgeon’s advice, that leg is basically okay today.

I did enjoy the Italian accordion player and the violinist in Rome who came through the wards playing songs like Lili Marlene, they learned from the Germans. We
liked the song too. I rejoined Company K on September 17, in time to sail for France on the 26th of September.

The Rhineland Campaign

We landed in the south of France in the dark. I was concerned about minefields, but I was soon relieved to find cows grazing in the area. Their four feet were all intact. I was able to use my French a little.

We weren’t on the coast of France for long. Let’s move our story swiftly to the Vosges mountain area. We were transported there in slow-moving World War I boxcars labeled "40 Hommes et 8 Chevaux." The rails were laid in steps or else the wheels were square, so we hung on while looking out of the box cars through the side doors, open to let air in. French people walking or biking along the country roads near the railroad waved to us and we waved back. Years later I was riding in a train in southern France. A French lady, who spoke English fluently, started a conversation with me. The conversation drifted back to World War II. She said, "I was a little girl in this area then, and I wondered who all those foreign (perhaps Japanese) soldiers were in American Army uniforms." She, of course, knew the story later on.

On October 13 the 442nd was attached to another great army division, the 36th Division, for the attack on Bruyères. We had spent several days and nights in freezing rain, as we moved forward approaching crack German units dug in against the motherland. The Germans had chosen to establish their defense line in the mountains, closer to their sources of supply than it would have been in southern France.

On October 15 the battle began with the Germans entrenched on four hilltops outside of Bruyères. The 442nd was supported by tanks, artillery and mortars from the 36th division, but we faced more of the same from the Germans. While part of the first and third battalions fought their bloody way to the hilltops, my unit headed for Bruyères. During three days of ferocious battles, including a house-to-house cleanup in Bruyères, many Germans were killed, taken prisoner or escaped. We did not go unscathed either. The people of Bruyères have never forgotten the 442nd. They have named an avenue in honor of our unit, and have held anniversary memorial services.

Then it was on to La Broquaine. On the way, through "Death Valley," the Germans had full view of us from the hills they had retreated to. As I led my platoon across elevated ground supporting a railroad track (with two scouts slightly ahead), the Germans dropped a mortar shell almost in my hip pocket. I was blasted down the slope. I tried to get up and couldn’t.

I don’t remember much for the next several days. I do remember two brave medics charging to help me, and I felt sorry that they had to carry this big "dead weight" up and back over the railroad embankment. Then I was lying, heavily sedated for 3 days, under a canvas tent cover, not far from the front lines. It rained almost continuously - what mud! Once I remember I foolishly tried to get up. The medic said "just take it easy lieutenant." I did drink water. Probably I was offered food.
Retrospectively, I realized what a great job the 442 medics must have done to keep me a breather. Finally, a break in the weather came. An ambulance gently bumped several of us a long way to a temporary air strip. There a C-47 (DC-3) flew us to a place I later learned was the 43rd General Hospital at Aix, in southern France.

I didn’t seem to much care what happened to me at that point. I was numb. And then a miracle happened! I was transferred from the ambulance into the bright lights of the operating room. A soft southern voice I will never forget said, "Why Foote, what are y’all doing here?" It was the same special wonderful nurse, among many wonderful nurses, who had taken care of me in Rome. I was suddenly alive, and I was sure, "I’m going to be all right now." My other thought was I’m dirty and unshaven. I must look terrible; how did she recognize me? I must clean up. What vanity!

Well, I thought I was all right now, but I came close to dying in the process. I had a fever of 105°F, or slightly higher. I was burning up. I was getting 8 shots of penicillin and sulfanilamide daily. I was put in a room for two people instead of the open ward, where I had been post-operatively with other soldiers close together all in a row. That in itself was a warning sign of trouble. I heard the major (MD) in the hallway one night say to a nurse, "We may have an empty bed in the morning." They did not know I was awake. I said to myself "The hell you will." "Nurse, please bring me water and orange juice, lots of it." I just about floated away, and so did the fever.

I have to thank Sir Alexander Fleming, also, for starting the research that led to penicillin production, of which I received 240 shots. The military had a good supply. It wasn’t especially fun to get poked every 3 hours, but then it did bring a nurse close by, and that was nice. We had the best possible care under the circumstances. I saw a wounded German officer in our ward die of "lockjaw." German soldiers were not protected with tetanus shots.

The first thing I asked for after the operation was a V-mail to sign and tell my parents that "I’m okay" I don’t know the exact sequence of news received at home, but my sister told me after the war that the War Department had reported that I was killed in action. Later they sent a correction which my folks wouldn’t open, and gave it to my sister to open. I guess they thought by now I really had died. My parents never mentioned this to me, but, occasionally, when I think of how distressed my parents must have been, it helps me to have enormous empathy for the thousands of loved ones who received KIA (killed in action) telegrams that were not mistakes. Wars are terrible for those who are at home and wait tearfully for good news.

Well, two operations on my shoulder, leg and hip, and five months later I was undergoing conditioning again. In the meantime the 442nd had been ordered to do the almost impossible task of rescuing a battalion of the 36th Division surrounded by the Germans. This has been chronicled as the battle for the "Lost Battalion." The battalion was rescued, as only the 442nd could do it. They fought what the War Department has officially declared as one of the 10 most heroic battles in the history of the United States Army. Members of the 36th Texas Division have been great supporters of the 442nd ever since. My K Company had only 17 men left alive or
unwounded. Really lucky me; I was in the hospital. A staff sergeant was company commander at the end. These sergeants were terrific. Some received battlefield commissions. Some refused them, as did the platoon sergeant, George Masakazu Nishi. He didn’t want his men to think he was any different. He would not have been any different, but I respect him for his decision.

The Champagne Campaign

The 442nd was so depleted after these battles, including the rescue of the "Lost Battalion" that they needed months for replacements. They were sent to guard the Italian-French border, in case Germans tried to escape from northern Italy. The guys dubbed this the Champagne Campaign. The unit was there from mid-November, 1944 to mid-March 1945. All this time I was in the hospital under the tender loving care of an overworked medical staff. We had visits by Red Cross personnel, and by Katherine Cornell, who entertained us at the hospital. Also, it was a delight to have meals served to us by cute young French girls, "très gentile."

Chaplain Yamada from the 442nd came to the hospital in late March and said, "You have to get out of here. The unit is going home." So he persuaded the hospital director to sign me out, as I had been in the reconditioning program one day already. Thus, I rejoined K Company, 442nd on March 20, 1945.

Going Home? No! Cracking the Gothic Line

Oh Lordy! The boats we boarded in Marseille were nice big landing craft. Under cover of darkness we sailed for northern Italy. It was a big surprise for us and it was going to be a bigger surprise for the Germans. General Clark had not been able to advance his army very far for months against the German Gothic line in the Appennine mountains, a line built by 15,000 slave labor Italians. General Clark had requested the return of the 442nd to Italy.

The 442nd moved under cover of darkness on April 3 and remained concealed all day on April 4. Talk about discipline! On the night of April 4 several units moved up the nearly straight sides of 3,000 foot cliffs. In 32 minutes, after reaching the peak of Georgia Hill, the 100th had secured the peak that had defied the U.S. troops from advancing previously for many months. In another 2 days the Gothic line was cracked by other units of the 442. K Company was hit hard climbing Mt. Folgorita in daylight. The toll of killed and wounded was high, but for the Germans it was many times higher. The invincible Kesserling units were beginning to stumble backwards, although they fought to the end. No longer was it "Hitler über alles."

The medics had done a great job taping my feet as this tenderfoot(e), just released from the hospital, was having a bit of a bloody problem shifting so rapidly to mountain climbing. Although the line was broken, we still had some scary moments ahead. There were plenty of firefight as we cleaned out pockets of resistance up and down the mountains in the Carrara marble quarry area. The Germans had great views
of the plains below and their guns were concealed in granite quarries in the mountains, protecting them from our artillery fire. There were plenty of minefields around.

The 280-mm coastal guns that we were told were only able to shoot out to sea at a possible invasion force, fired one-ton projectiles at us as we moved north a few miles inland from La Spezia. Fortunately they just missed us. I think it was the first blast that blew gravel against my face as I hit the ground. My face hurt. I wiped it with my hand which was bloody. I thought, oh Lord, I’ve lost part of my face. But no, it was only cut fingers and a stone-stung face. A little first aid by the medics and we were quickly on our way. Later, we found the German coastal guns mounted on railroad tracks running into the hillside. The guns could be propelled out of their tunnels and turned inland. In the tunnels were piles of leaflets, like the propaganda ones floated down on us earlier. They showed a cover mimicking "Life Magazine" with a pinup girl on the front and a skeleton on the back, headed "Death." Of course, the caption on the back read "Surrender and Choose Life." We actually chuckled at this. Probably these made the German soldiers homesick as they fought one losing battle after another. We were homesick too, and this simply stimulated us to get this damn war over soon.

The Panzers and Blitzkriegers were beginning to run backwards. Our engineers built bypasses around blown-out bridges so that our motorized units could speed up the chase. The Army records show us pushing 75 miles in 5 days, with heavy packs. Various units were capturing thousands of Germans and hundreds of bottles of champagne. But that’s another story. Sometimes it was a disadvantage to be an officer. One night after capturing a town, we found in one of the bombed out houses a bed with a mattress on it. We were all used to sleeping on the ground, in a foxhole or sitting against a tree in the rain all night. However, this night the 3rd platoon guys insisted I sleep on the mattress. I tried to argue that several of them could fit on it, but I was outnumbered in the voting. However, soon I was outnumbered by bed bugs and then I spent a miserable night on the floor getting rid of them. I wonder if the guys knew what they were getting me into and having a little fun.

There were still some very sad events – a sniper deliberately picked off a medic just before the war was over by aiming at the big red cross on his helmet. Luckily for the sniper he took off quickly. We heard a German motorcycle leaving town, with K Company in hot pursuit.

Chapter 3. What Now?

The End and The Beginning

On May 2, 1945 the notorious dictator Hitler saw his invincible war machine surrender in Italy. Peace at last, and forever. Was that an impossible dream?

There were 680 men in the 442nd RCT who would never see home again. There were 9,486 wounded, 18,143 individual decorations, and 8 Presidential Unit citations in this little unit— the most decorated unit per man and per unit in the history of the
United States. When at full strength, the unit had numbered about 4,500 men. Honors were received from the U.S. military chiefs, President Truman, and the Prime Minister of England, Sir Winston Churchill.

A memorial service was held in Italy on May 6, 1945 at which the living members of the 442nd RCT honored their fallen comrades. In the book "Go For Broke" Chester Tanaka, a K Company veteran, and colleagues have simply, but elegantly chronicled this and many other events. There was the Lord’s Prayer, the singing of "Rock of Ages," and "God Bless America." Colonel Miller, commander of the Combat Team, said the following: "The sacrifice made by our comrades was great. We must not fail them in the fight that continues, in the fight that will be with us even when peace comes. Your task will be the harder and more arduous one, for it will extend over a longer time." How true! How fully this scene recapitulated the one addressed by President Lincoln at Gettysburg on November 19, 1863. The ceremony ended with the singing of "The Star Spangled Banner." These were Americans gathered here, not just Japanese-Americans. It is a scene one cannot forget. I wish I could convey the feeling to all nonveterans in America today.

Perhaps those who read this story will understand why tears trickle down my face whenever songs such as "God Bless America," and "The Star Spangled Banner" are played. And just perhaps, if you are a reader who hasn’t fully appreciated the great freedom we enjoy in the United States of America, you will begin to feel and assume a greater responsibility to preserve that freedom, and have a greater respect for the diversity of people who have preserved it for us, the living.

When The War Was Over in Europe

When VE Day came we were happy for both sides. I didn’t feel the jubilation that I later read about in magazines describing the celebrations back in the States. Yes, we were happy, but tired, weary and longing to go home. We also had heavy hearts in which were embedded the souls of the brave companions who would never know the joy of going home. Also, many went home in pieces, no longer able to pursue their childhood dreams or professions they had embarked on before the war.

With the formal end of hostilities, we assisted in the orderly disarming and processing of German soldiers. We also guarded a large supply depot. This included acres of cartons of beer that had come over to provide ballast in the ships that brought other supplies.

There was time to travel. If you were lucky in drawing lots you might get to Florence or Switzerland. I visited both places, no longer carrying grenades and weaponry. Mail call always was a highlight, especially if your name was called, and you knew from the handwriting that there would be news inside from mom or your sweetheart. Packages of brownies and other goodies were highly appreciated. The recipient was popular, and the package contents were quickly consumed by all.
It was relaxing to sit around a campfire at night. Now you could have a light at night without being targeted. Our Hawaiian boys, especially, had managed to bring along a ukulele or other small musical instrument. By bartering with the local farmers a chicken could be obtained in exchange for a few candy bars and cigarettes. Chicken, rice and soy sauce simmered over a campfire. This was supplemented with PX rations, including a valiant effort to reduce the huge supply of beer that was guarded in the depot. Also, pidgin English songs from Hawaii helped pass an evening away. We still lived in tents, and there was no TV then either.

Occasionally we had a dance. The local Italian young ladies had formed a type of Italian USO. I was the recreation officer. My job, a rather delightful one, I must admit, was to contact a young lady, Maria Gracia, who headed the Italian group. After meeting with her at her home, and passing inspection under the watchful eyes of her grandmother in the shadows, Maria Gracia enlisted the help of her friends to come and dance with our K Company guys. Many of the girls were as large as the guys. My job was to ride the army truck to pick up the girls and deliver them to their homes after the dance. I did get a big hug the last time I rode the delivery truck before it was time for me to return to the USA. Thanks for this pleasant memory.

Soon my number came up in an exciting way, with enough campaign points to go home. When I said "Au revoir" and not "Goodbye" to K Company guys, I meant it. We still correspond, and have met again at 442nd family reunions.

Thanksgiving Day, 1945 was spent on the high seas, and they were high indeed, with 30-foot waves. One had to hold on to the anchored dining room table with one hand to keep from sliding around the room. There were many empty chairs, as many returnees were holding on elsewhere. When I commented to one later about a weak stomach, he said, "Hell no, I was throwing it as far as the rest of them."

Starting a New Life Back Home

Life back in the USA these past 54 years is a long story to be told elsewhere. In a nutshell, I was indeed fortunate to come home largely in one piece, thanks to the expert medical care of K Company medics all the way up to the general hospital staffs. Of course it was an emotional homecoming. A bunch of us took a cab from our point of discharge, Ft. Devens, to Hartford. From there I hitchhiked to a crossroad half a mile from my family home. Motorists kindly picked up soldiers, but I walked the last half mile on that familiar country road I had walked on to grammar school and high school hundreds of times before. Now it was a special road. When I reached home I knocked on the door. Mother did not know that I had left Italy. She almost fainted when she answered the knock and saw me through the glass panel of the door. Her little boy really had come home!

I was now "free" to marry Ruth Parcells, a college classmate. We were engaged before I went overseas, but I could not marry then, knowing that I might leave a widow or a wife with a mangled husband. Besides now there was time for my future
mother-in-law to plan a church wedding she dearly wanted for her only daughter (the other two children were sons).

My career plans had changed while I was convalescing for five months in the army hospital. I knew that I could not carry the full physical load I would have expected of myself on the home dairy farm. Besides, I had seen a new, more complex world during my army career, both in the USA and abroad. And most importantly of all I felt compelled to commit myself to somehow fulfill a broader mission than home on the farm. I must do a little extra to try, in a small way, to make up for what those brave and talented young Nisei guys would have accomplished, had they not given their "last full measure of devotion" in a foreign land.

It should be recognized that the Nisei who returned, and their children, have contributed greatly to the well-being of this country in all fields. A high proportion have achieved an advanced education. They have become leaders in science, education, government, business, and a host of professional fields. These American families put great emphasis on traits that build character. Dan Tani, a current astronaut (and a son of Japanese-American parents who were interned), stated that "I know I really benefit from being a citizen of such a tremendous and privileged country. And I know that my parents were heavily influenced by their Japanese experience and that certain values and morals and ethics were passed on to me by my parents" (from Nikkei Heritage, Fall, 1999).

Special recognition should be given to the little publicized life of Mary (Yuri) and the late Bill Kochiyama (a K Company soldier). They have tirelessly worked for the good of impoverished people of all races. In 1993 the National Association for Asian American Studies presented to Yuri and Bill the "Outstanding Service Award" given to a civilian couple who had contributed the most in the post-war era to peace and harmony among the different ethnic groups in America. What a well-deserved honor!

So it was back to college for me. My teachers at the University of Connecticut steered me toward a great educational center, Cornell University. I was accepted there as a graduate student, where I completed both my M.S. and Ph.D. degrees. It wasn't easy. Teachers set high standards. Competition was keen, but returning vets encouraged and helped each other. The GI bill was a blessing.

Both Cornell University and Iowa State University offered me good jobs when I finished grad work. I now had a family with two young sons. My wife and I loved Ithaca. That was important, so I chose to stay at Cornell University.

At Cornell I have taught over 8,000 undergraduate students, trained more than 200 undergraduate teaching and research assistants, together with about 100 graduate students, postdoctoral students and visiting professors. We always had an international group from East and West. I wanted students to have the benefit of counting among their friends, people from different cultures. Numerous teaching and research awards came my way as I advanced through the ranks to full professor and finally to a distinguished professorship. All of these accomplishments are shared with
these many fine young people who helped to make it possible. The scientific part of
this journey has recently gone to press (From Artificial Insemination to Cloning: Tracing
50 Years of Research). My research has taken me to many countries, including the
countries we fought through in World War II. But I have visited military cemeteries
only once. It simply is too much for me!

None of this would have been possible without the medical care on the front lines
in WWII. Nor would it have been possible without the inspiration and the drive derived
from my experience with my Nisei buddies. It is both natural and fitting that I try to
honor my lifelong bonded family with a life of hard work, honesty and humility. Thanks
go to all who made it possible for me to pursue knowledge, to unravel a bit of the
biology of life and continue to ponder the meaning of it all.
Appendix

Famous Quotations from Four Centuries that Aptly Reflect the Spirit and Legacy of the Men of the 442. (Listed in Chronological Order)

"Cowards die many times before their death; The valiant never taste of death but once." From *Julius Caesar* by William Shakespeare, 1599.

"These are the times that try men's souls. The summer soldier and the sunshine patriot will, in this crisis, shrink from the service of their country; but he that stands it now, deserves the love and thanks of man and woman." From the *American Crisis*, no. 1, by Thomas Paine, 12/23/1776.

"It is rather for us to be here dedicated to the greater task remaining before us -- that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion; that we here highly resolve that these dead shall not have died in vain; that this nation, under God, shall have a new birth of freedom; and that government of the people, by the people, for the people, shall not perish from the earth." Excerpted from Lincoln's *Gettysburg Address*, 11/19/1863.

"Ask not what your country can do for you; ask what you can do for your country." From J. F. Kennedy's *Inaugural Address*, 1/20/1961.

They Loved - I Lived

Hail to the exploits of the American Nisei
Deprived of citizenship rights, USA.
Yet filled with loyalty, democracy to save,
On battlefields of Europe their lives they gave.

Uprooted from homes, their business or a farm,
Herded into camps, based upon false alarm.
Despite disruption, being pushed and shoved,
They displayed devotion to the country they loved.

This "Yankee" farm boy was just a "Kodomo"
With lots to learn from 442-Gl Joe.
We lived, fought and shared as a family,
United in a cause with close harmony.

And so America, do you remember each day
To thank the Lord for American Nisei?
We are one nation with freedom of choice.
We should always respect each others voice.

War surely is hell, but this experience of strife
Taught me a great deal about the best things in life.
Every soldier for others his life surely would give,
And so many died that others might live.

Robert H. Foote, 1st Lt. (Capt., Reserves)
Co. K, 442nd RCT, U.S. Army
Chapter 8
The War is Over: Home Sweet Home

And so World War II was over – a terrible tragedy not to be forgotten, but not to be relived daily in our memories. Thankfully our government worked for reconstruction to rebuild the vanquished. The Marshall Plan was a wonderful example of rejecting the notion that “to the victor belongs the spoils”. Certainly we had countered violence with great force, and fostered peace with compassion.

When hostilities ended in northern Italy, life settled into a less strenuous routine. The climate in May near Lake Garda was pleasant. We helped process the German prisoners who surrendered without incident. I still have a set of binoculars from the pile that was turned in. The faces on these young and older prisoners of war reflected weariness. The older men clearly were relieved that now they could go home. Young men seemed confused and some were defiant. Like animals, these teenage boys had been imprinted that Hitler was invincible. It was “Deutschland überall”. I believe that they feared reprisals, as they would have been shot if they refused to follow orders to serve Hitler and further his evil plans.

We guarded prisoners until soon they were sent home. We guarded supplies in a huge army depot in Leghorn (Livorno). We sat around campfires in the evening, often with rice in a pot simmering with chicken juices and meat. The chicken had been obtained by our guys from residents near the camp or a nearby market. The price? Most often it was so many cigarettes and chocolate bars. We had a couple of ukulele players from Hawaii in Company K. There was a substantial amount of beer available also, as government surplus. After all the ships bringing war supplies to Europe needed lots of ballast for stability. What could do that better than cases of beer. There were miles of cases of beer in the army supply depot. I developed only a modest taste for beer, but it did wash well with the chicken and rice, as well as enhance our ability to sing, at least so it seemed. This time was an opportunity for us to share a decent life together.

I had an opportunity to have a break for a few days in Genoa and Florence. I saw historic places. Florence was especially attractive with its Pitti Palace and Uffizi Galleries, loaded with art treasures. I had been to Milano on a weekend day pass and seen the magnificent cathedral with about 1440 spires. I had seen Leonardo da Vinci’s Last Supper in a nearby church.

I was the recreation officer for the company during this postwar shakedown period. With the help of what seemed like USO girls I was able to recruit some public-spirited girls to come to a dance. They were reluctant to come because many were taller than the Nisei. But we had a couple of dances. I rode the army truck making sure that all of our young ladies were safely delivered home to worried parents. Recently I wrote to the leader of the group, asking that the letter be forwarded, I wanted to thank the person again for her help. The letter was returned as undeliverable. As I wrote this letter I realized how college and the war had helped me to grow into an adult. I felt comfortable with these gals as friends and not as a lonely soldier. I could lead men, also. I was ready to move on to new frontiers.

Through one of the girls I met a Count and Countess. They were stressed without chocolates and cigarettes. I gave them all of my ration. I was invited to their
lovely mansion for Sunday dinner. They insisted that I take one of their many beautiful linen tablecloths home with me.

In late September there was another offer for a pass for a K Company officer to go to nearby Milano. Everyone had been to Milano once or twice and didn't care about going again. One of the officers who received the option to go did not wish to go. I thought that I might be going home soon, so I offered to go. The sergeant in regimental headquarters reissued the pass to me. As soon as I was in Milano I checked in at the army headquarters. I inquired about passes to Switzerland, which is a pass everyone wanted. Fate smiled on me. Someone entitled to go had come down with an illness. I asked if I could use that allotted pass. The answer was yes, if you can obtain proper authorization. No problem. I got on the army phone and called headquarters. The sergeant on duty knew me and said to the effect "Of course, you lucky bum, take it. We'll have the changed orders for you when you get back". He did.

What a week in Switzerland. In my tiny address book I had the address and phone number of the head of the Swiss railways who lived in Montreux. His sister, Gertrude Menzel, taught French in a school in Rye, New York. She was a good friend of my sister-in-law, brother Ed's wife. I called Mr. Menzel from Milano and explained who I was. He was all host—an American soldier, a friend of his sister, well almost! Wow, after wining and dining plus a great night's sleep at his home, I was off on a train tour of Switzerland the next day. In my pocket was a free pass to travel anywhere in Switzerland, compliments of the head of the Swiss railways. Zurich, Geneva (former League of Nations headquarters), Bern, and places in between, here I come. Believe me those trains got you everywhere on time. You could set your watch by the time of their arrival and departure at each station. Be sure your watch was not slow. Otherwise wait for the next train.

Then came the orders. Lt. Foote, you have many battle stars (or was it scars). These add up to points. Soon you should force yourself to head south to Naples and depart from this beloved country to which you may or may not have adapted. Really, army orders are curt. They stated "Report for embarkation at the Naples port of embarkation on "November 11, 1945. Transportation will be provided".

Now it was really time to go. The guys in my platoon had collected money as a farewell gift. The note with it read "We pray for your speedy and pleasant Sentimental Journey Home". Remembering always... our combat leader and friend. Your boys of first platoon and remaining old timers". It was handed to me by T/Sgt. Bill Kochiyama. Bill Kochiyama and his wife Yuri (Mary) went on to be chosen as an outstanding American couple because of their humanitarian volunteer work throughout their life. I have tremendous respect for that couple. They gave to others all they had.

In Naples I signed a variety of forms, clearing me to go home. Eventually we boarded a new aircraft carrier. I believe it was called the SS Randolph. It had not been baptized into the tragedy of war. It was spic and span, with showers and nice bunks. There was a beautiful dining room and food was scrumptious. I ate with the ship's officers. I envied the wartime living accommodations of the navy personnel. Of course there is an advantage of having your feet on the ground when enemy missiles come too close.

The ship was loaded with power. The captain announced over the intercom that since the war was over he had permission to use a little extra fuel. He was going
to go full throttle and see what his baby could do. Perhaps he could break the Queen Elizabeth record time in crossing the Atlantic from East to West. Would we mind? Of course that was a loaded question. Oh, about the record, he broke it!

There was a little complication in the crossing. We had a terrific storm with 50-foot waves. Still this carrier sliced onward with its stabilizers only rising and falling about 30 feet at the bow. Thanksgiving Day few showed up for the Thanksgiving feast with all the trimmings you would find back home. The tables were bolted down, but chairs were movable. They were mobile that day. I was determined not to miss this once-in-a-lifetime treat. I ate with one hand grasping the table so I could stay with it. Afterwards, I scurried out on deck to get some fresh air in a secluded spot. Some areas were off limits during the storm. Some passengers were having a bit of trouble like the joke where one person said to a guy having this trouble "What's the matter, weak stomach?" "Nope" came the reply. "I'm throwing it as far as the rest of them"

Debarkation was at Norfolk, Virginia. There was no need to tell us to be ready to get off the ship. Off we went, greeted by a band and Red Cross ladies with doughnuts and hot chocolate on this chilly morning at the port in late November. On to the waiting train, with several cars headed toward Camp Devens, Massachussets. Off the train, we were bussed to the camp and into the separation center.

A medical exam was required. The doctor said "you took it on the chin" I see. I said "no, but most other places". He soon filled out and signed some forms, summarizing the scarred areas. Several other GIs lived around the Hartford area. We had agreed to scoot home as fast as possible by renting a taxi. That worked perfectly. I was dropped off on the road out of Hartford headed toward Gilead and Hebron. I immediately thumbed a ride that went to Bolton Notch. From there just about the first car headed south toward route 85 picked me up. Soon we were at the intersection of route 85 and Hebron Ave. (route 94). There was my White one-room school, which was used then as a small woodshop. The kind driver of the car offered to take me completely home, despite the fact that they were heading left (away from my home farm which was toward the right). "No thanks", I said. "I've walked that half mile hundreds, perhaps thousands of times. This will be the best walk of them all". My heartbeat picked up.

I cheerily walked the half mile, whistling like old times. I walked up to the back door by the kitchen and knocked. At this point my parents thought that I was still in Italy. What would I say? What would anyone say? Who would answer the knock at the door? Of course I'll comb my hair once more. I will look like nothing ever happened.

It was mom who came to the door. For just a second I think that she was so shocked that she looked almost in disbelief, like she would faint. Then in a flash I was squeezed and hugged with tears and exclamations all mixed together. Yes mom, your baby has come home!

Where is dad? He's out in the barn. Well I better skip out to the barn right away. This was cry number three for my dad that I was aware of up to that time. I'm sure that there was lots of small talk about how is everybody and everything. For me it was I'm O.K.

There was lots of catching up to do. There was an important telephone call to make to let Ruthie know that I was home. So after chores, mom, dad, and I sat
around the dinner table more interested in news than in dinner. I was more interested in finding out about everyone in Gilead than in war talk. I arranged to see Ruthie at her parent's home in New Milford on the weekend. Ruthie now worked in Bridgeport at the Public Health Lab.

The next few days were “Home Sweet Home”. Yes, I was home, the place where I was born and the place that I will always call “home”, as distinguished from the places where I have lived since prewar days. We walked around the barn, the cows and nearby fields. We went to church on Sunday. I was welcomed back with great enthusiasm. Mother and dad were already thinking that it would be good for me to set up a partnership with brother Ed on the farm. He lived upstairs in the big beautiful farm home, built in 1863, with his wife, Marion Odell Foote. They had a baby girl then, Mary Ann, born in March, 1945. My mom and dad lived downstairs.

My parents and Ed and Marion seemed to have formed a good working unit. Mother had been elected to the Connecticut State Legislature in 1945. In that role she contributed substantially to improving early education in Connecticut. It is the type of thing she loved to do, and she would have been extremely successful as a “career” woman. My dad was working very hard on the farm. In addition he held or had held many offices in the Grange, in farm cooperatives and in the Farm Bureau. The two generations living in the big farm homestead really had things under control, i.e. as far as farming ever is under control with unpredictable weather and farm income.

What was Bob Foote to do at this point? He was a 23-year old college-educated farm boy now chiseled into young manhood by the stony roads, impervious forests, and hidden minefields, with danger lurking in every direction. Always he had the undying and dying support of extraordinary capable and loyal young Americans of Japanese ancestry. This had an impact on me for life. Also, I was discharged at Camp Devens as a disabled veteran, but I wasn't about to carry that image with me into civilian life. The war experience had changed me in ways I didn't understand.

I was not restless, but I knew that “home” was no longer where I should be. I knew that my wife-to-be, Ruth Evelyn Parcells, was not crazy about dairy farming. Her family had moved away from agriculture in White Bear Lake, Minnesota, as she was growing up. The family moved to Connecticut when she was in middle school. Ruth’s grandfather processed milk there. I had doubts that a partnership could be worked out that would support two families that were likely to grow in size during the next few years. Most important was the reduction in my physical strength and agility as a result of multiple wounds received in the war. I just wouldn't be able to pull my share of the load. My conscience told me that this ability was essential. What were the alternatives?

There was the GI bill. This provided an opportunity to go back to school. I had always done well at all levels of education. Perhaps with more education I could do more than I had thought about before the war. Well, maybe in some way I could try to make up a little bit for those who never had the chance to return home. I'm not sure that my folks understood this yearning at the time. They knew that I loved Gilead, and they were kind and wise to let me make my own decisions. Afterall, that's the way it had been throughout the war, and I had made it home. I was no longer the son flying into and out of the home nest. It was time to seek other opportunities.
The next stop was New Milford. Ruthie had had time to reflect on the fact that I was home. Nevertheless it was an emotional joyous greeting. The flavor is in the beautiful letters Ruthie wrote just before I came home, preserved in Appendix VI. I didn’t mind her pampering me as her personal World War II hero. After a brief convention on how is everybody we contemplated the future. There was no discussion of the War.

Ruthie already was starting to make plans with her mother, Agnes Parcells, for a wedding. Whatever they wanted to do was fine with me. We will not start off with fruitless arguments. I had my dress army uniform to get married in, so that solved one problem. Ruthie had planned her wedding gown. It was lovely, as you could imagine, knowing that Ruthie had a taste to plan and often make beautiful, but not ornate clothes. Of course, I did not see the dress until Ruthie’s dad brought her down the aisle at the Church. It was simply a nice Church wedding like everyone appeared to want to have happen.

Ruthie and I talked about the possibility that I would likely go back to college. Ruthie agreed with that idea if that is what I wanted to do. Her parents were pleased. I found out years later that her mother was particularly pleased with the idea. She did not want her daughter to marry a dairy farmer, as she knew that could be a very hard life. Unbeknown to me at the time was the fact that Ruthie was hospitalized with rheumatic fever as a young child. There was some heart damage. Certainly the rigors of a dairy farm could complicate her health. Anyway, that never happened.

Based on letters that Ruthie’s mother wrote to us in Ithaca I believe that she hoped strongly that we would settle down near New Milford. She would have been glad to have every Sunday dinner together. Ruthie knew that such an arrangement would not be good for her, for children, and especially for me. Our own family should control our lives.

I believe that Ruthie today would say that Ithaca was a great place to live. It was a fine place to bring up a family. It was close to our ancestral homes, but not too close. In later chapters the reader will discover that we did many things, including international travel, and visits with friends worldwide that we never dreamt as kids would ever happen to us.
Chapter 9

Cornell Graduate School and My Own Family

It was now the beginning of December, 1945. Ruthie and I were busy planning a Church wedding scheduled for January 12, 1946. I went to the University of Connecticut to visit and seek advice from my former professors there. They were delighted to see me. I appreciated the fact that they treated me as an adult human being who had done something very special that they had never done. I was no longer their undergraduate student, albeit I was treated well then also.

Professor Al Mann told me that he had done graduate work at Cornell. He commented further that Cornell was an excellent university and that he knew the head of the Animal Husbandry Department there. "I'll call the head, Ken Turk, right now", he said. Professor Turk suggested that I come to Cornell for an interview. That was arranged on the spot.

I had bought a sturdy old Pontiac sedan for $395. The motor ran well. The left front fender had been buckled in an accident and most of it had been cut off. This kept the price low. The front wheel alignment was O.K. The car had tire chains. Those were important, especially because I was about to drive to Ithaca in mid-December. It did snow during the trip that Ruthie and I made together. After all, if it turned out that I was accepted at Cornell, it was important that she liked the area as well.

I had quickly acquired application forms from the Cornell Graduate School and filled them out. These forms and my transcript accompanied us to Ithaca, New York. I picked up Ruthie at her home in New Milford, Connecticut. We headed west across the Hudson River at Poughkeepsie, eventually to old route 17. We wound our way through the beautiful hills which were less enchanting on a snowy December day on old winding route 17. Then it was on to route 96B, down south Aurora Street and up east Buffalo Street. Wow, thought Ruthie, I'll never drive here. She did not have her driver's license then. Later she obtained the license and courageously drove wherever and whenever it was important to take herself or chauffeur her family.

We met Professor Turk at Wing Hall. He received us warmly. Some thought his manner was a bit brusk, especially when he announced that "I'm from Missouri, you've got to show me". That did not bother me. Of course, I was in my dress officer's uniform on terminal leave. My now natural military style and short haircut likely made a good initial impression, although it was not planned that way. After a brief discussion he transferred me to Professor Salisbury who had a vacancy for a graduate student. Dr. Salisbury was working with dairy cattle, including a new bull stud being established to explore artificial breeding. This field interested me. He showed us the facilities.

By then evening was approaching. Ruthie, with department help, had found a place for us to stay that night. We were scheduled to come back the next morning after both parties had considered whether the program discussed was a Yes or No. I liked what I saw and the people I met.

The next morning all was settled favorably quite quickly. Professor Turk informed me that everything was favorable so far. However, he added that they didn't find my transcript with the application form. He said, and I quote "Grades are not all that important, but did you bring your transcript". "Yes sir", I said. I handed him my
record from the University of Connecticut, which had on it “Graduated with honors”. He glanced at the transcript, looked at both of us squarely and said “Why don’t you go look for an apartment”. There was a twinkle in his eyes. There was joy in my heart. I was accepted at Cornell University. Professor Turk was a person who could say much in few words. I responded likewise with “Yes sir, thank you”, and we left.

By February 1, 1946 we were back in Ithaca as Robert H. and Ruth P. Foote. We had planned our wedding. It took place at the New Milford Congregational Church on a beautiful January 12 thaw day. Brother Ed was my best man, as I had been at his wedding.

The wedding went smoothly. Ruthie and I learned our vows so we did not have to have the minister say “Recite after me”. I still know them. All of our relatives and many other friends were there. All had a great time. When we went to leave we found that the car was highly decorated. That was fine. I was upset that one of Ruthie’s relatives who owned a garage in New Milford jacked up a hind wheel and took the jack handle away. Brother Ed and I finally rocked the car off the jack. I got some smudges on my only dress army uniform. I was tempted to take the jack and throw it through his closed garage window, but I didn’t. As I now recall the incident, I still think that it was a bad practical joke. We were tired, delayed, and could have gotten hurt.

However, all is well that ends well. We took off for a short drive to stay the first night at the lovely nearby Woodbridge Inn, in Woodbridge, CT. To our surprise, some of the wedding guests who lived near Woodbridge arrived. They had planned to have a get-together there after the wedding reception. So we joined them for awhile. Ruthie was very tired, as one might expect, and a good night’s rest was good for us, especially as we would be driving in January weather the next day.

Then we headed south on our honeymoon to Williamsburg and surrounding areas. When we checked in at the Colonial Inn in Williamsburg, the clerk informed us that they had a special room for honeymooners. There would be no extra charge. I asked how he knew that we were honeymooners. He said that he noted when I put my officer’s cap on the registration desk that there were still a couple of pieces of confetti caught in the band under the visor. I thought I had shaken all of dozens of pieces off the hat and uniform before heading south. Also, probably we were not the only ex-GI honeymooners right after the war. We had good weather and a great trip over part of the Skyline Drive, the Luray Caverns, and Washington, D.C.

A new life began for both of us. I had been away from home for several years. Ruthie was a great trooper and accepted the move. She had lived away from home, but close by, so her parents had come to expect at least monthly visits. The frequency of those visits subsequently greatly decreased, but we drove to Connecticut to visit both sets of parents once or twice a year. Ruthie’s parents visited us once or twice a year also. My dairy farm parents only got away to visit us in Ithaca once. That was for their 50th reunion at Alfred University. Both of us wrote letters home regularly. It cost only 3 cents for a stamp, or the postcard was only one penny in 1946.

Now I was immersed in chemistry and other courses. I had not studied chemistry for 5 years, so there was much relearning at a very fast place. But I was ready for the attack in education, leaving World War II behind. Strange how one’s life unfolds. When I was an undergraduate at “U. Conn.” my professor of nutrition insisted that I was going to graduate school someday. I insisted “Not me. I’m going back to
the farm". By the way, I received the acceptance from the Cornell Graduate School about mid-semester. By then I had been in class for 2 months. Hops between desks in processing forms were slow I suppose.

At Cornell I had an assistantship for $1200. per year. The first semester I helped Prof. Turk with his course on dairy cattle. There were about 90 students in the lab. section I had. Each week we graded the laboratory exercises plus any quizzes. The exercises were graded numerically, not just S/U. In our small apartment on the west shore of Cayuga Lake, the only place to spread the graded exercises out to alphabetize them was on the bed. Ruthie always graciously helped me to alphabetize them and record the grades. Was that a labor of love, or the desire to clear off the bed, turn off the light and get some sleep? I believe that I know that it was both.

We were fortunate to have real nice folks as landlords on the west shore of Cayuga Lake. Mr. and Mrs. Page treated us like their children. We had a bedroom and bathroom upstairs. We had the run of the kitchen downstairs. We fixed breakfast before the Page’s usually were up. We packed lunches also. Sometimes we had supper with the Pages. Other times on the way home from work and studies we stopped at The Home Dairy or Lehigh Valley Restaurant for the evening meal. There were no fast food restaurants in those days. The Home Dairy has disappeared where the Commons is today. Next door was Fannie Farmer’s Chocolate shop. Once every few months we stretched our budget to buy a few delicacies. How life has changed for better or worse?

Ruthie worked in the College of Home Economics. She performed iron analyses in Prof. Frances Johnson’s laboratory. I dropped her off there and picked her up at 5 p.m. During the day I was either at class, helping with the dairy cattle course, in the library studying, or at the animal breeding laboratory preparing reagents to help Professor Salisbury and later Professor Bratton with their research projects. Occasionally, I would go back to the lab. at night. Usually, I stayed home at night grading papers and studying. Once in awhile we would goof off. Most of the hiking or other forms of recreation were done on weekends. Ithaca’s gorges were gorgeous then too. We usually went to the Congregational Church in downtown Ithaca on Sunday morning. Sunday dinners often were shared at the Pages.

With the combination of the GI Bill, my assistantship, and Ruthie working, we could live within our income. We kept a cost accounting system accurate to the penny. Our rent was very reasonable. This small contribution to the Page’s income, plus Mr. Page’s small print shop in the basement of the house, kept our landlord’s finances in balance. Page’s economic requirements for a happy life were modest.

As springtime approached, the west shore of Cayuga Lake was a lovely place to be. The Cornell crews were out along the sheltered west shoreline on some very chilly mornings. Before long “Red Sails in the Sunset”, and much earlier in the day, Cornell’s red sailboats were out on the lake.

In the summer of 1946 we said goodbye to the Pages, although we kept in touch until they died in Florida many years ago. We moved to Bryant Avenue, just above collegetown. We wanted to be closer to the campus. The apartment was within walking distance of the campus. It was only a short drive to the New York Artificial Breeders Coop., Inc., where I had my research lab. With my research in progress for my M.S. thesis I needed to be close because much of the research depended upon
fitting into the schedule of the cooperative. They started at 5 a.m. and closed at 2 p.m. in the lab. My work started at 5 a.m., and often continued into the evening.

Our apartment at 219 Bryant Avenue was in a quiet neighborhood. We had a friendly landlady, Nellie Crosby. She was a typical grandmotherly type looking for someone who would shovel snow off the sidewalks, mow the lawn and help plant a shared garden. For that help, plus $45. per month, we had a furnished third-floor apartment with a bedroom, living room, kitchen and bathroom. We were delighted with the arrangement. We stopped in to chat with Mrs. Crosby frequently, especially if weather was bad, to ask if we could bring home any groceries for her. We did the same thing for an elderly widow, Mrs. Burnett, who lived in the 2nd floor apartment. She did not drive. This was our home away from home for 4 years.

During that time I completed my work for the M.S. degree and later for the Ph.D. The big event on April 14, 1947 was the birth of Robert Wesley Foote. Ruthie was in the hospital for a few days. There were no complications, but in those days recent moms were kept in the hospital longer than they are today. Ruthie's mother, Agnes, and father, Wesley, came to Ithaca for a couple of weeks to help out. By that time I became proficient in changing and washing diapers. Ruthie had some difficulty in matching a Holstein cow in volume of milk produced, so I used my laboratory techniques to design a special system to prepare easily sterilized supplemental formula.

We were happy to have Robert Wesley when he came. Ruthie and I were not going to get emotionally stressed by trying to have or not have a baby at or before or after a certain time. As we had waited until after the war to get married and Ruthie was 27 we knew that a long delay to finish graduate work first would be undesirable. Of course, the 1940s were prepill days (the Pincus pill by a Cornell graduate came later), and IUDs were not invented as contraceptive aids. Ruthie was a very modest, quiet person. She told our parents about the pregnancy and probably the Graduate Student Wives group. Others knew by casual conversations and appearance. Close friends from University of Connecticut days were informed. Birth announcements went to lots of people. Oh yes, there was a nice baby shower also.

Ruthie stopped working at Cornell a few weeks before the baby was born. Her mom and dad were great help for a couple of weeks. Other friends helped. I adjusted my schedule. I prepared the milk formula. We shared the night shifts on feeding, burping and diaper changing. No complications arose, so our life went on with an altered schedule controlled by Robert Wesley and adjustments in our own.

About the same time, Eleanor Wallace, the wife of another graduate student in our department, Hal Wallace, delivered a baby girl. Ruthie and Eleanor were close friends. We both lived in the Bryant Tract area so they could share times together. After about six months both mothers went back to work half time. They shared some babysitting time. Both were active in a small group of graduate student wives. One time I was told I had to work at the lab. late that night. It seems that the gals were all busy making new dresses, but their forms had changed slightly. They were all going to make new dress forms at our house by wearing T-shirts. On these T-shirts they put some kind of stickum and tape to form a semi-rigid form. When this was set it was cut down the middle so that the model could escape.
That night when I came home the gals had all left. But Ruthie said Eleanor forgot to take her dress form home. Will you take it over to her in the morning? What could I do? I did not escape. The next morning I looked carefully down the street to see if anyone was coming. I was prepared to dart into any alley if by chance an acquaintance was seen in the distance. I managed to glide undetected to the Wallace apartment near the corner of Dryden and Elmwood roads. There I delivered the dress form which Eleanor received with a chuckle, sensing my dilemma. Eleanor later worked in our laboratory for a year. She was a superb person in the lab. as well as one with a keen sense of humor. Sometimes I wondered if that episode with the dress form was a joke deviously planned by two graduate student wives to contribute to this shy country kid’s graduate experience.

In addition to Ruthie’s mother and dad, and some graduate student couples coming over for dinner, Ruthie fixed great meals for the Turks, Looslis, and other faculty members. We were invited to their homes also. Ken and Bernice Turk had no children. They considered all of the grad. students in Ken’s department as family. How wonderful!

Son, Robert Wesley, led a fairly peaceful existence for a little more than 3 years at 219 Bryant Ave. The Beyer’s lived next door. He played with Carvel Beyer in the adjacent yard or in our yard. They played well together. However, one day he apparently picked up something that the Beyer dog thought he shouldn’t. The dog bit him on the forehead. Fortunately, it was not serious. We were then more concerned about his feeling toward dogs. Again, fortunately, the relationship has been good. Mrs. Beyer, now a widow, lives at Kendal where we do. She is visited by adults I knew as her young kids.

Another memorable day (besides birthday parties) was when Robert appeared with another neighbor, the Stutz boy, with chewing gum. Robert was 3 years old. The Stutz boy was 4 years old, I believe. Both had sticks of gum. Somewhere they had found a nickel and slipped out of sight. No one knows just how this all happened. However, what is clear is that they had to walk up Bryant Avenue to Dryden Road, cross Linden Avenue and purchase gum at Eagan’s Red and White Store on Dryden Road. The clerk at the grocery store confirmed that these two small kids had been there. It sent the chills up and down our spines to think of these little kids shopping and strolling unattended. Pains were taken to insure that this did not happen again. Perhaps it was a prophetic message that Robert would be interested in finances and bargains.

Our second son’s terrestrial life started August 14, 1950, just as I was finishing my Ph.D. degree. My final thesis defense was scheduled for the morning of August 14. We had recently moved to a home we had purchased on King Road West. I had been offered a job at Cornell provided my thesis defense proceeded satisfactorily. I had been offered a good job at Iowa State University but declined with the simultaneous offer from Cornell University. Also the Cornell offer probably was speeded up by the Iowa offer. To illustrate how quickly heads of departments could move in those days, I will quote the conversation I had with Prof. Turk after returning from Iowa with an offer of an Assistant Professorship. Iowa gave me 2 weeks to reply to the offer.
Prof. Turk: "Iowa is a good school, but we have a better job. We have an appropriation for (I think) $35,000. We have hired Dr. Hansel and the Vet School has hired Dr. McEntee. We need a reproductive physiologist on the male side to study dairy cattle reproduction. This grant also provides money for supplies. Come back in a couple of days and tell me what you think of this offer. You don't need 2 weeks to size up the job at Cornell". Imagine three professors on less than $35,000 total.

I talked with others and my family, and 2 days later the conversation went like this.

Foote: "Professor Turk, I'll take the job".

Prof. Turk: "Good! Let Iowa know immediately; don't keep them waiting. You know your way around here and what needs to be done. Just get to work, and from time to time let me know how things are going along". I did that.

I had previously passed my qualifying exam, my coursework exams, and my French and German reading exams. My thesis had been revised and generally approved by my graduate committee. Already I had published eight research papers. Several of these had a major impact on artificial insemination of dairy cattle. They had received worldwide attention.

About 2 a.m. on August 14, Ruthie's uterine contractions were increasing. She had stopped working at Cornell before we moved to King Rd. West. It was raining. I quickly bundled Robert up and took him to the Poole residence next door. Ruthie was soon at the hospital. Nothing spectacular was happening at the hospital. Husbands were kept out of the way in those days. So I went home trying to rest while waiting for a call from the hospital. None came. My call to the hospital before my 9 a.m. Ph.D. final indicated that the blessed event had not yet occurred.

So on with the exam. I did not tell anyone about my arising at 2 a.m. The exam proceeded quite well. Dr. Srb asked me a few questions on the history of genetics. I knew most, but not all of the answers. He had signed my qualifying exam report without attending it, as I had just topped his course in biochemical genetics. Dr. Dukes was very kind. He was impressed with what I had learned about the heart. I had just finished the great book by Bayliss and Starling. I was even let off the hook when two of the professors began arguing from a different point of view regarding reproductive physiology. Finally one turned to me to settle the argument. One of them had used Reynold's book on The Uterus for his source of information. I responded that I had been in the library this week. By a strange coincidence there was a new edition of this book. I was able to update the professors with the information I had found. They accepted this both graciously and with compliments. The exam was over. How lucky can you be?

They excused me so they could discuss the candidate and the exam., but cautioned me not to go far away. I said, "Could I make a telephone call? I left my wife at the hospital to have a baby earlier this morning, and nothing had happen before exam. time". I think that their jaws all dropped about 6 inches. They said "Hurry back with the outcome" (or maybe come out). I did so, and announced the birth of a son. They announced that I now was Doctor Foote, and congratulated me on both accounts. Ruthie was doing well—so was Dale Hutchinson Foote.
Why hadn’t I told the committee before the examination? I did not want them to think that perhaps I was offering an excuse for not being prepared. In fact, I felt quite well prepared. I believe that under the circumstances and my behavior they probably just signed everything.

Ruthie’s parents came again to help. We were more experienced also, but now there was a 3-year old son plus the baby. Now, with the examination over I had time to be available on a more flexible schedule to attend to parental duties. Ruthie was terrific too, devoted to advancing my career, as well as being a devoted mom.

I had moved forward one Foote at a time or by degrees. But the big challenges of fulfilling conflicting roles of parent, husband, researcher, teacher, advisor, and public service lay ahead.
Addendum on Graduate Student Life

I was a graduate student at a time when nearly all of the graduate students were veterans. Our advanced study was greatly aided by the GI bill. We were a serious and extremely dedicated group. In some ways we felt that we had lost a few years that we needed to makeup or catchup. Actually, we know now that this military experience did not result in lost years. It had prepared us for life!

I expect that my load of courses was heavier than some. With the arrival of Dr. Adrian Srb at Cornell Dr. Salisbury suggested that I take a look at Plant Breeding where Dr. Srb was housed. I added him to my graduate committee, so I had genetics added to animal breeding, veterinary physiology and animal nutrition. Exposure to professors and these subjects all provided a good background for the future. It was a wise choice.

Giving a seminar in the various fields was expected of each graduate student. I remember discussing topics for a seminar in animal nutrition with Professor Maynard. He asked me what subjects I was especially interested in. I told him about two or three. "Good", he said, "We'll pick something else". Always a challenge, but he would help as he stroked his chin gently, in typical Maynard fashion.

I gave a seminar in animal breeding during my first year of graduate work. At one point I made a misstatement. Automatically I corrected it with the army statement of "As you were". I saw smiles on the faces of several in the audience. And so our academic program moved busily along.

We had fun too. We had picnics, small group get-togethers, pickup teams, and even a softball league. We played practical jokes. One of the graduate students, Lawrence Embry, was recently married. The rest of us pooled funds and took out an ad in the Ithaca Journal. We gave the Embry telephone number. The ad stated that an agency had been set up to do laundry for graduate students at very reasonable rates. Call the number listed. The Embry's promptly cancelled the ad after one or two phone calls. They cashed in on the money left to continue the ad. So the joke was on us.

We accepted the fact that graduate work required long hours. Working conditions were not always ideal. Our desks were on the top floor of Wing Hall. There was no air conditioning. The top floor, just under the roof, was beastly hot in the summertime. It cooled off little at night. Lighting was poor. There were no lights in the top floor hallway. One night I was feeling my way to the far end of the hall where my desk was. As I slid my hand along the wall it bumped an open fuse box that should have been locked shut. I got the most terrific jolt I ever received. Fate was smiling on me, as I was alone and I was not incapacitated. There could be other explanations also.

The graduate assistantships provided more than financial help. They provided an opportunity to really work with faculty and students. There was mentoring from both. This was a great help in preparing us for teaching. Also, our close contact with faculty was of considerable benefit in conducting research. Furthermore, we were a cohesive unit, all part of a mutually supportive academic family. I do not understand, support or condone units in a university where faculty and their graduate students are
so distant that both sides seem to promote outside organizations (unions) to fight each other!

My schedule was different from most. My research was greatly helped by working with the artificial insemination (AI) Coop. lab. crew. So my day usually started before 5 a.m. To reach the lab. by 5 a.m. I was up for breakfast at about 4 a.m.

Dr. Salisbury had several projects he wanted help with. One was on controlling contaminating organisms in bull semen for use in AI. He and Dr. Knodt had done some work with sulfanilamide. I told him that I would be glad to take on that project, as I had an interest in microbiology as well as fertility in dairy cattle. I had received massive doses of sulfanilamide (toxic amounts until it was withdrawn) plus 240 shots of penicillin in WWII. There is no doubt that I owe my life to these chemicals.

Dr. Salisbury left on a 6-month assignment, working on post-war reconstruction in Europe. So I really took over the project. I worked vigorously, obtained the addresses of and wrote to major pharmaceutical companies working on antibacterial agents. They responded favorably to my proposal of testing their agents in vitro on sperm survival and control of bacterial growth in bull semen. They sent free samples sufficient to complete the experimental protocols.

I set up a microbiology room, swabbed with phenol to keep room contaminants out of the culture dishes containing replicates of bull semen treated with individual antimicrobial agents plus several combinations. I breathed quantities of phenol in this closed room. Stupid, yes. However, it worked. I survived. The AI Coop. supplied me with multiple samples of bull semen, all free of charge. I showed the AI lab. staff how many "bugs" were growing in the control culture dishes, and how I could knock out many strains with magic combinations of the antimicrobial agents.

We were off to a fast start. I had taken a course in microbiology at the University of Connecticut out of curiosity to learn what that "bug" course was all about. I liked it so much that I took more. What a great bonus for any researcher who should know the importance of using clean and sterile equipment. With a few helpful suggestions from the Cornell bacteriology group I was up and running with my Cornell research.

Also, I helped the AI Coop. In their lab. routines I cultured a few swabs from the hands of lab. workers as well as previously sterilized glassware that they thoughtlessly had touched on the working part with their filthy clean hands. Boy, were they astounded when they saw some messy culture plates reflecting what was on their hands. After that, lab. procedures changed. The AI Coop looked to me for help. I certainly needed their help too.

The successful components of the lab. studies led to fertility tests in the field. These tests included antibacterials in the semen sent to inseminators plus other changes in semen preservation procedures. All tests were carefully controlled. The 200 inseminators in the field inseminated thousands of cows (free of charge relative to the research). They recorded the experimental treatment code on breeding receipts which were returned to headquarters. We summarized these by hand and analyzed them on mechanical calculators.

Results were fabulously successful. We improved the quality of preserved bull semen sent into the field. We controlled some organisms causing infectious diseases in cattle. The fertility level of inseminated dairy cows shot up an actual 15%.
Dairymen with their own bulls (often infected) started switching to AI. Several
diseases were essentially wiped out. These experiments were worth billions of dollars
worldwide. I was considered a dear friend of the AI Coop. for life. There is no greater
reward than this! There were no patents and no money collected. Millions in patent
income at 5 cents per cow could have supported a tremendous program in
biochemical genetics, but one can’t look back.

Not all experiments turned out to be so successful. There were also accidental
observations that sometimes were beneficial. One of my jobs as a graduate assistant
was to make a medium for preserving bull semen. Dr. Salisbury gave this to a
practicing veterinarian (Dr. Fuller) who had cooperated with him on AI work. The
buffer used was sodium citrate dihydrate. I noticed when I sterilized a solution of this
salt in the autoclave, that sometimes I could see gradients of solution in the bottles as
they were removed from the autoclave. This bothered me.

I had built a freezing point depression (f.p.d) apparatus that could measure the
osmotic pressure (concentration of salts indirectly) in the bottles. I performed a variety
of tests. I discovered that autoclaving apparently did cause some breakdown products
to be produced. The osmotic pressure determined from the f.p.d had increased. I ran
tests on various solutions. I recommended that this autoclaved citrate solution should
contain 2.9 grams of sodium citrate dihydrate per 100 ml of distilled water initially
rather than the 3.6 grams previously recommended. Dr. Salisbury did some additional
studies. He published a paper in 1948 in which he recommended that the “heated
sodium citrate solutions should contain 2.9 grams of sodium citrate dihydrate per 100
ml. of glass distilled water” instead of the 3.6 grams he recommended in 1946. No
acknowledgment was made of where the idea and initial data for this change came
from. The 2.9 grams is still the standard today. I was a bit disappointed. I hope I
have never missed acknowledging help.

I learned much about the requirements to keep sperm alive in a culture system
that I developed for my Ph.D. dissertation. However, as I was writing the thesis a
team of workers published a successful tissue culture medium (TC199) still used
today. It had many of the same properties as mine. I was disappointed, so I did not
publish the thesis. In retrospect that was a mistake.

Another dream of researchers was to freeze mammalian cells without
destruction. Many had failed to freeze sperm. Consequently, I assumed that perhaps
one couldn’t freeze sperm, but why not add glycerol or similar antifreeze substances
and keep the sperm unfrozen at subzero temperatures (-5 to -10°C). I did this, but the
sperm died. At the same time British workers were trying to freeze sperm by first
dehydrating them in a strong sugar solution. This did not work. One day they grabbed
a bottle with no label that they thought was a sugar solution. It worked. They had to
have a chemist analyze the solution in the bottle. It contained glycerol, the most
widely used cryoprotective agent in the world today. I had the right substance and the
wrong hypothesis. The British had the right hypothesis, and, by luck, the right
substance. The success with bull sperm revolutionized cryobiology. I was
disappointed to have come so close, but missed. However, close only counts in
horseshoes.

Teachers exposed students to great ideas. Dr. Srb envisioned the importance
of DNA in a course on genetics I took with him in 1949, long before Watson and Crick.
Dr. Avery and colleagues had discovered DNA as the hereditary material in 1944. Dr. Cushing, another geneticist, taught me an important lesson. I had 100% on all of his exams. He called me in and said “I’m only going to give you 95 in the course. That’s a good grade, isn’t it?” Yes it was. He pointed out he could have given exams on which no one could score 100, maybe even 60%. The principle to remember is that you never know it all. Thank you Dr. Cushing.

So, graduate studies, like any program worth pursuing, had challenges. The program has unexpected benefits and unanticipated pitfalls and disappointments. There always are lessons to be learned. One is “not to cry over spilt milk”. There is so much to learn. There is so much that has been given to us with no struggle on our part.

We must appreciate that there are powers in the world far greater than ours. We are so fortunate to have a privileged brain with which to contemplate natural and spiritual forces. Yet both exceed our full understanding. It is humbling to recognize that we are a tiny spec in the total order of “things past, present and to come”.

Big lab. sections for graduate TAs.
My Animal Science lab. section in 1946.
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Cornell Synapsis Club in Plant Breeding and Genetics, 1953
(Bob is in the 2nd row, right end).
Plant Breeding - Genetics. Great group

SYNAPSIS - 1953-1954

Later Pres.
of Emory U.


2nd Row: Francis Hobson, Joan Smith, Beatrice Murray, R. G. Wiggins, Donald L. Jones (Guest Speaker), Thoraya Lotfy, Jean Dolloff, Nancy Slack, Steve King, Bob Foote.


CORNELL UNIVERSITY
ITHACA, N. Y.

This certifies that

Robert H. Foote

has been a student in the

1947 Summer Session of Cornell University in the courses indicated below:

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<th>SUBJECT</th>
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<td>General Genetics</td>
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Original with Cornell seal on 8" x 10" and could not run thru copier.

Registrar

* A full description of the work in each course is given in the Announcement of the Summer Session. This may be had on application to the Cornell University Official Publication, Ithaca, New York.

GRADERS

60-100 is a pass; 40-59 is a failure (to be determined by the several colleges of the University whether this grade entitles the student to make up the work); 0-39 is a failure; Cane equals cancelled with official approval; D indicates withdrawal without permission; Inc equals incomplete; Abs equals absent from examination; Att indicates that the student has attended the course without examination. For graduate students S equals satisfactory, and V indicates visitor.

G.L. - Graduate Level

Further copies of this record will be furnished on payment of a fee of $1.00

I had 100 on all exams. Prof. Cushing told me I would receive a grade of 95. "A good grade and I don't want you to think that you know it all," he said. Very good advice from a wonderful professor.
Front row, l. to r.: Helen Cook, Ann Carpenter, Kay Barnes, Annabelle Brainard, Ruth Conover, Betsy Oils, Joan Gyever, Marlen Woolley, Maurice Johnson, 

Mildred Ackerman, Ruth Tubbs, Mildred Grunewald, Anna Updike, Dawn Bisco, Mary Reha, Core MacKeth, Mary Adams.

Second row: Helen Carpenter, Ted Vagner, Larry Murphy, Harold Ross, Dick Vagner.

Third row: Charlie Robinson, George Hall, Rodney Ford, 

Vince Hinkley.


Fifth row: A. W. Thompson, Ralph Walker, Bill Robinson, Terry Johnson.


NYABE Around 1950
Chapter 10

Family and Faculty Member Growing Up

The time span covered by this chapter is the fall of 1950 until the fall of 1958. During that time we lived south of Ithaca in a home we had purchased just off the Danby Road at 110 King Road West. We were not far from the gas station and a limited grocery store on the corner of King Road and the Danby Road. Just below us to the west were our close neighbors, Clayton and Ruth Poole, with children Lonnie and Johnnie. Lonnie was a couple of years older than Robert Wesley and Johnnie was about the same age as Robert. Robert was about 3.5 years old the fall of 1950 and Dale was a young baby.

Life was more difficult for Ruthie and the young family than it had been on Bryant Avenue. We looked at apartments for rent and small houses to buy that would accommodate a young family of four. All were much more expensive than we could afford, or had very undesirable features. The house we bought was on the market for several months. The previous owner had been transferred by GLF (now Agway) to manage a store in New Jersey. He had bought a house there and needed cash to finance it. He dropped the price and we negotiated a final price of $11,000. That I could pay, including a GI mortgage.

The house had three small bedrooms, a living room, kitchen, bathroom and a full, but unfinished basement. There was a stairway to an unfinished attic. The entrance to the house that we used consisted of about four steps up to a porch with a door opening into the kitchen. The porch was covered with snow and slippery in the wintertime. We closed the porch in with a base about 3 feet high and windows to the ceiling. I think that we did that after the first winter.

I did not have to teach the first couple of years on the staff. This gave me time 1) to establish a full research program, 2) to spend much time in the field getting acquainted with dairymen and giving talks about A.I., and 3) to work on the house. I put gutters and downspouts on it. I painted the trim and ends of the house above the brick construction. I put a railing on the stairway to the basement. I concreted the basement floor and put in a sump pump because we occasionally had a wet basement. I put a floor in the attic so that we could put a ping pong table there, as well as store boxes of stuff there. Later I won a TV set, our first TV set. I gave some money to support a 442 function Bill and Mary Kochiyama had organized. I won the raffle. We had the pleasure of visiting the Kochiyama family in their Harlem apartment.

I constructed several things. The most important initially was a sturdy workbench. I put pegboard above the workbench and some shelves nearby. So all the tools were well organized and handy. I established a good set of tools including a power drill, power sander, 6 1/4 inch power saw, a small vibrating (skil) saw and many other hand tools. I mounted racks on the cinderblock walls to hold lumber. So I had a good small workshop. I built a closet with low rods to hold clothes in Robert's room. There was no closet in his room. His room was next to the bathroom, very convenient for the needs of a young boy.

We had an ample supply of cool water from an artesian well 100 feet deep. It was good water, whereas some houses with surface wells became contaminated with surface drainage from improper sewage systems. Our water was so cool that the toilet
dripped with condensation in the summer. Our sons noticed the icky chlorinated city water later.

The kitchen window faced northwest. This provided a good view of the sloping hills in front of Cayuga Lake and the west shore in the background. It was a lovely view to absorb while preparing baby formula, doing dishes, etc. We had room in the kitchen to eat on a sturdy table with extensions that hinged down when not in use.

We had space for a garden out back. Part of this land really belonged to the builder of the house who lived at the gas station. Later we bought the land, including a parcel between our house and Poole's, for a larger sewer drainage field.

We did not have a garage, so shovels and snow removal items for the car were important items for the wintertime. Having only one car created some problems. There was no bus service in those days. Fortunately Bill Robinson, a laboratory technician at NYABC lived in Danby. He came along the Danby Road within 100 yards of our house. Many mornings I waited briefly at the King Road West corner by the gas station, and Bill would pick me up about 4:45 a.m. Later in the day I could catch a ride home, or generally Ruthie would pick me up at the planned time and place.

Ruthie looked into painting ideas for the various rooms. We painted them all different colors. She was an expert at picking harmonious cheerful colors. I didn't know that they made paint rollers with different imprints incorporated, so one could roll designs on the walls. We did that in a couple of the bedrooms.

I bought a lightweight rotary mower that Ruthie, and I, and eventually Robert could use to mow our small front lawn. I bought a small Bolen tractor that had a sickle bar attachment, a cultivator attachment and a wagon that could be attached. It was a sturdy set of equipment, all in use regularly until we moved to Kendal in 1998. The kids rode in the cart at various ages. In fact, later one boy would drive the tractor with the cart attached.

The sickle bar mower worked beautifully to trim the tall grass by the ditch in the front of the lawn by the road, as well as to cut the tall grass on the new plot we had bought to add a drainage field. Also this eliminated the possibility that the owner of the land around us might try to squeeze some type of building between our house and the Poole home.

The soil was very heavy clay with some stones. We picked off the larger stones and mixed rabbit litter into the soil. The life saver and back saver was the cultivator. With that we could loosen the soil. We all participated in various ways in laying out the garden. We planted corn (with a hand planter), peas, beans, carrots, cucumbers and tomatoes regularly. We canned tomatoes in the autoclave I had at the lab. with NYABC. We froze corn and peas. We had more frozen vegetables than we could store in the freezing compartment of the refrigerator. We bought a chest freezer from Montgomery Wards that was still running when we moved from Woodcrest Ave. to Kendal in 1998. It was in the cool basement. It was extremely efficient. We bought other frozen foods on sale. The freezer storage reduced the frequency of the needed trips to the grocery store.

Before that we had rented freezer space at Mother Zero on Clinton Ave. We purchased a quarter of beef wholesale a few times, cut it up and stored many small
packages of meat plus vegetables there. However, it was not nearly as convenient as the home freezer.

So, our little country home was a pretty good place to be. We were off route 96 which had many fast-moving cars and trucks, even in the 1950s. We had Upper Buttermilk State park less than half-a-mile down the road. We picknicked there many times. The park superintendent, Mr. Palmer, had a daughter in his family who was a good and convenient babysitter. They lived at the entrance to the park.

We also used a babysitter once from a home close by on the Danby Road when the Palmer girl was not available. When we came home we smelled perfume in the house. After the babysitter left for home Ruthie explored the area were she kept a little perfume. Incidentally, Ruthie never used more than the lightest touch of perfume, if any. She used very little makeup. She didn't need it.

Back to the baby sitter. Ruthie found spilled perfume in the bureau drawer. Clothes that she so neatly folded when put away were wrinkled up. Clearly the babysitter and done some exploring. In her apparent haste to cover up before we returned she left plenty of tracks to incriminate her. We thought that her mother should know about this for her own information. We did not plan to raise a fuss about it. Her mother accused us of lying while proclaiming that her daughter would never do that. With this family attitude we decided not to engage this babysitter again. Shortly after that the parents divorced, so it is likely that there were stresses in the family we were not aware of.

One of the disadvantages for our children, Robert and Dale, was that there were not many potential playmates in the immediate area. Lonnie and Johnnie Poole were the most frequent playmates. The Poole family was a fine family. They were regular participants in the program of the Tabernacle Baptist Church. The two Ruthies and the kids shared time together frequently. Clayton Poole worked at Atwaters Grocery store on the Commons. It was actually on State Street, which ran directly through where the Commons is today. The development of the Commons resulted in closure of Atwaters. Clayton then found a job with the New York Telephone Co.

Meanwhile I was traveling up and down hill many times. It was a steep hill down South Aurora St., then up East State Street and Mitchell St. The reverse trip was taken in late afternoon before dinnertime. Often there were experiments that had not been finished, or others requiring setups to be ready at 5 a.m. the next morning. That required another roundtrip up and down. This could be precarious during winter snowstorms. Also it was slow traveling following the frequent trucks loaded with baled hay piled as high as trucks could clear railroad underpasses.

In the summertime we kept our screened windows open to let the cool evening breezes in. We were close enough to route 96 that we were very conscious at night of the trucks grinding up the hill. They shifted gears as they approached King Road West. Eventually we were able to tune them out of our subconscious mind.

Our most frequent visitors who stayed with us were Ruthie’s mom and dad. Ruthie’s brother Don, wife Peggy, and two children, Alisa and Jackie visited. Alisa was a story teller with a great imagination as a little girl. It is not surprising that she grew up interested in language and communication. She teaches students with various disabilities.
In the summer of 1957 Wilson and Ruth Pond arrived in Ithaca as a new faculty couple in Animal Science. I believe that they did not have advanced reservations, so they stayed with us upon arrival.

Time passed quickly. Soon it was time for Robert to start school. The bus stopped directly in front of our house. He was bussed to Henry St. John School on Clinton Ave. It is no longer used as a school. His teacher, Miss Mancuso, was a warm person, fitted for the task of making kids away from home feel at home.

These were the years that the number of new polio cases appeared in the paper each week. If the incidence was high we skipped going to the New York State Fair, avoiding exposure to masses of people and dusty breezes. Then Salk and Sabin made wonderful advances in growing the polio virus. These two pioneers should be equally honored but Jonas Salk made the headlines. His “killed” organism vaccine was considered safer to use. Our son, Robert, with our written permission, was in the first test. We did not know whether he received the placebo or the vaccine. Eventually we learned that he had received the placebo, so he was vaccinated later. Anyone who has ever been vaccinated for polio, small pox, etc. (and that is almost everyone) should be thankful that they have been blessed with the results of research with animals and animal tissues. Of course there is the rare exception of misuse of experimental animals, but the blanket, emotional, and ignorant opposition to good research aimed at improving problems with animals and humans is unethical and frankly stupid.

When Dale started school in the fall of 1956 he was bussed to South Hill School. One of his teachers, Westy Gelder, now 94, remembers him. She lives at Kendal, where we live also. She remembers him as a good kid. In fact, Robert and Dale must have been well-behaved. They took after their mom. We never heard any negative remarks at the PTA meetings we attended with the teachers present to show what the students were working on in their classes. Dale enjoyed the art type of classes, whereas Robert excelled in math and science. It is great that we all have different talents and interests.

On Sundays, usually it was off to Sunday School and church services at the First Congregational Church on the corner of Seneca and Geneva Streets. Occasionally we also picked up a couple of children on the way if their parents were not going to church. Also, we took Mr. Bissel home to Danby when he came to church occasionally. He was a farmer who came in his farm clothes with barn aroma. He was a learned gentleman from a prominent family. We believe he had a M.D. degree as a surgeon. It is believed that his first patient died, and he quit medical practice.

Originally the church was a Dutch Reformed Church. It had beautiful stained glass windows. Several of these were Tiffany’s. When the church moved to its new location on Highland Road in Cayuga Heights we took the windows out and stored them. I was chairman of the Board of Trustees then. I was concerned that the vacant church might result in windows being broken or stolen. However, Ithaca College decided to use the building. Later Ithaca College sold the church to the Greek Orthodox group. We returned the windows to them. They had the windows reinstalled.

The Sunday School operated at the same time as the church service. There were few rooms for the classes so meeting rooms upstairs and down were curtained
off to provide minimal separation. One class met in the kitchen. Ruthie and I helped
with various programs. For awhile I was both a teacher in a teen-age class of boys
and the Sunday School Superintendent. Mrs. Christie, the wife of the minister (lived to
be 102 at Kendal) said she remembers Robert as one of the sheperds keeping watch
over their flocks by night. The sheperds were tripping around in burlap garments that
didn't stay in place well. Margaret Christie was a very witty woman and told the story
with much animation.

The minister, Reverend Ed Christie, was both our full-time only minister, and he
was the Cornell chaplain for Congregational students. He had been a professor of
Greek classics at Miami University in Ohio. Frequently he would give a slightly
different translation of the Bible where he felt that Greek words in use at the time that
parts of the Bible were written had a different meaning than were reflected by the King
James version. Of course many versions have appeared, and each person can reflect
differently. The sermons often were philosophical and tended to deal more with
concepts and spiritual searching rather than problems families faced daily. This likely
was a carryover from lecturing at Miami.

The Christies had no children. They had Cornell students living with them who
really felt adopted. There were several fellows who were close friends, married, and
have stayed in contact over the past 50 or more years. They were called the Golden
Boys. They kept in contact with and visited Mrs. Christie until she died recently.

Ruthie and I were active in a small "College Group" of young couples when Bob
was a graduate student. I often saw Ed Christie at Anabel Taylor Hall. He had a
much better office there than the cold one in the winter downtown. Ed Christie never
obtained a driver's license. He walked downtown and uptown. He was a large
imposing human subject as he walked erectly. Lots of people with no direct
connection to the Church knew Ed Christie.

When the Church decided to take the option to buy the property on Highland
Road in Cayuga Heights, the question of financing the building of a church on it took
center stage. We had several fund raising drives. This was a start, but never enough
money to build without a substantial mortgage.

However, I was surprised by different ones who contributed. I was on the fund
raising committee. One day I heard that the owner of Holleys store on State Street
wanted to talk to me. He was a highly respected business man, active in Temple Beth
El. He told me that he heard we were raising money to build a new church in Cayuga
Heights. Furthermore, he wished to contribute to the fund in honor of his good friend,
the Rev. Ed Christie. He told me that our minister walked down the street with cheery
hellos, and they talked occasionally. He said "Ed Christie is one of the finest men I
know; he deserves a lot of support". Walking is great exercise. It is a great way to
meet people who are not driving along at 65 miles per hour, probably trying to get
through hell as fast as they can. This is Bob's interpretation, not Ed Christie's idea.

What were some of the other family activities? I mentioned gardening. Pulling
weeds was not a popular sport. However, Robert and Dale helped. One time they
were digging something. I don't remember what it was. With one boy on the shovel
and with a hand of the other son on the plant (maybe a weed), the shovel caught a
finger and split the fingernail. Ouch! It healed, but may have always been split.
I made a good sized sandbox. A small mechanical steam shovel and other equipment were used to build roads and other structures. Our kids and the Poole kids made various things from sand plus water from the nearby water faucet.

The most popular activity was to play store, house, or whatever in a wooden structure that I built with a door, a counter by the window, open sides, and a closed back. The open sides were made from a series of parallel 2”X2” bars that were spaced for climbing. It was easy to climb on to the roof. That was good fun, but we did have to strictly caution any of the children who climbed on the roof (our children or their playmates) to be very careful. There was to be absolutely no fooling around on the roof. Although it was only 5 feet above the ground, someone could get hurt if pushed off. I am not aware that anyone was ever hurt. This building was dismantled when we moved in 1960 to Woodcrest Ave., Ithaca, New York.

A swingset was popular. This metal set had two swings. I anchored the legs securely, yet, if two kids were swinging synchronously at high speed the anchors were strained. How to balance uninhibited good fun with safety? Also, we had a seesaw. These ups and downs in life were fun.

Ithaca’s Stewart Park is a fine family park. We would picnic there. We could swim there with the very shallow water and gradual beach. The water was a bit murky when north winds carried debris south toward the beach. A youngster drowned in the murky water despite lifeguards being on duty. The beach was closed. The Kiwanis and or Rotary Clubs sponsored chicken barbecues at Stewart Park. Were these ever delicious and not expensive. They featured Bob Baker’s Cornell barbecue sauce. It still is just as tasty today.

We had a croquet set. Our lawn at 110 King Road West sloped, so that made playing that game as much luck as skill. In July we went to the fireworks at Schoellkopf Field a couple of times. However, when the kids were small it was too many big bangs for them. It was better to watch them from the car on 96B near to where we lived. We had cookies and punch with us. Once in awhile in the summertime we would go to an outdoor movie. We were equipped with punch and crackers and cookies. Soon the two sons were asleep on blankets in the back seat.

Of course we always celebrated birthdays, as that had been the custom in Ruthie’s and my family. Ruthie was a fastidious record keeper of birthdays. She recorded the birthdate of every relative in a birthday book. I still have it. Very handy. Often the Parcell’s grandparents would arrange to visit, bringing gifts on one of the family birthdays. My mom sent cards and more, but the farm kept my parents in Gilead too busy to come to Ithaca.

Then in the fall there was the trick or treat that all the kids looked forward to. We liked to have the kids visit us in their costumes also. Of course we always had carved pumpkins out with candles lit inside, and baskets of goodies when the kids came. We never had any tricks played on us.

Sometimes the boys would put on masks at other times of the year. I remember a Groucho Marx one they liked.

One time I was showing how the cowboys used to pull out their six-guns. I had a banana in each pocket. I whipped the bananas out of my pocket. They flew out of my hand and landed with a plump thump in the middle of the living room. They thought that was a good joke on me.
Another time when Robert was quite young I asked him what happened when a fragile object traveling at high speed runs into an immovable object with irresistible force. His prompt answer was “It breaks”. So much for trying to pull the wool over somebody’s eyes with fancy talk.

The kids escaped serious accidents and diseases. Chickenpox, measles and mumps were common diseases brought home from school. There were no vaccinations for any of these. Ruthie and I escaped most of these for various reasons. However, I did catch the mumps, and fortunately recovered. One accident occurred on King Rd. West. Robert was letting his tricycle pick up steam going down the grade near the house. He tipped over, with a dislocated elbow resulting. Poor Ruthie had to deal with this, as I was on a trip to Europe for 60 days in 1956. I received word about it June 15 when I was in London. Ruthie, Robert and the doctor fixed everything. When I returned home all was in order. I don’t need to be told that homemaker mothers work. They are engineers, psychologists, nurses, dieticians, household custodians, and whatever else is required to help the kids and husband keep healthy.

All of us escaped accidents in our car travels in the early 1950s. We didn’t travel much outside of Ithaca and the many parks for picnics. We did go to a couple of fantasy-type parks as well as the state fair. Once in awhile a circus would come to town. That was always fun. How could the lion tamer handle the lions and tigers? How could the trapeze specialists swing so expertly from swing to swing and not crash to the ground? What about the person riding a bicycle on a tight wire? What a treat to see those huge elephants perform in such a docile way. They also were used to work as they pushed loads of tent material into position. We need some of their genes. Be strong and gentle.

We rented a cottage on Fourth Lake for a month one summer. It was great except for the black flies. One morning about 5 a.m. Robert and I went fishing. We had purchased fishpoles before the trip. We were out in the boat well before sunup. Robert was the fisherman. I caught zero fish.

Every family should have a dog. We had a terrier we called Tish. She was a good dog with the kids. She did feel the need to defend the house, and had to be taught that the mailman and milkman were O.K. Of course we took Tish on trips such as to 4th lake. When we left for a year in Denmark we did not find a friend to take her, so she went to the SPCA. Our sons objected to this. That was a reasonable position for them to take. A faithful dog is a real friend.

Robert wanted to get a horse. There was an empty old barn about 100 yards down the road, so that could have been arranged. The owner of the barn was not easy to deal with. However, it could have been arranged. I regret that I didn’t push harder to accomplish this. It would have been good experience and fun.

In the winter we took advantage of snow to build forts. One time we made four snow figures, somewhat in proportion to represent mom, dad, Robert and Dale. We have a picture comparing these four figures with the live models. We also had sleds to slide in the fields. We had a large spherical aluminum dish that one could slide on. They weren’t easy to steer, but they were O.K. in a large field. The sled worked best on the sloping road by the house. However, that road was narrow, so we rightfully were careful not to slide there without an adult to protect sliders from any automobile traffic.
Robert and Dale took music lessons, mostly after we came back from Denmark. Robert played the accordion. We all enjoyed his accordion performance at a parent's "convocation". Later Dale took piano lessons. They haven't pursued these instruments as adults, darn it. I should talk. I never took lessons, but love the piano which I seldom play and then only with lots of wrong notes, even with simple music. My mother and dad gave a piano to Ruthie and me for a wedding present. So the instrument is there waiting to resound when the spirit moves me.

So, what did I spend most of my time doing during the years from 1950 to 1958, before we went to Denmark? I had chosen the position at Cornell. Why? First, at Iowa they wanted me to develop further the artificial breeding industry and conduct research and teach reproductive physiology. I was expected to do this as a one-person team in competition with the outstanding group of professors in animal breeding led by Professor Lush. Although he was a superb gentleman and scientist, it was clear that this group was not going to simply move over and give me a big chunk of space. Why should they! Also, the AI Coop, in Des Moines was not highly enthusiastic in supporting research at Ames. The second reason was that my young family was settled in Ithaca. It would be harder for Ruthie to set up a new household in Ames than for me to start work at Iowa State. Also, we both were happy to be away from home, but within only several hours driving distance from our parents. Besides, we liked the hills and lakes around Ithaca.

The third reason was the tremendous help that NYABC had given to me as a graduate student. The technical support by the Board of Directors was a family affair. We did not always agree, but the support was always there. They promised continued help with research of mutual interest. I knew it would be so. The success of my research career was and always has been more dependent on the cooperation and support of the AI Cooperative than on any other factor. Yes, they contributed more to support the research than did my own department at Cornell.

1950. Old Wing Hall. There were no labs and I shared an office with Bob Bratton. That office got a little crowded when one was trying to advise students or see students after exams. The other professor could get no work done with students there. There was no conference room one could move to. However, I had done all my thesis research at the New York Artificial Breeders, Inc. (NYABC) and those labs were available to me. Furthermore, I asked NYABC if they would build more labs for us that they could partially share, and someday take over when Morrison Hall was built. I talked to the Board of Directors. They were like fathers away from home.

Perhaps my close relationship with them carried the day. I had been worried, thinking that a new assistant professor should not ask for money. Why not have the request come from senior professors, but they were reluctant to do this. I presented a sketch of plans that Bob Bratton and I had prepared with an estimated cost of building by Cornell University for $60,000.

The NYABC Board Minutes of their meeting showed that the second day of their meeting they approved their budget which included $60,000. to build the large north extension to their building on Judd Falls Road. They told Bob Bratton and me to proceed immediately with constructions. Within one year the new labs and conference room were finished (basement plus two floors above). I am forever grateful to Stanley Earl, Maurice Johnson and all those who came after them for their help and support.
was in a favorable position because my graduate work improved semen processing and helped to control venereal disease, raising fertility by around 15%. Over the years worldwide, this research has been worth many billions of dollars to the cattle industry. Our antibiotic treatment of semen was a worldwide standard for about 40 years. The new labs at NYABC were occupied by Professors Asdell, Bratton, Foote and Hansel and their graduate students until Morrison Hall was built.

1950 to 1961, when Morrison Hall was completed. While the labs at NYABC were great, the struggle to teach in Wing Hall and do all research off campus was a problem. Wing Hall, in those days, was just an office and classroom building. So, we planned for a good and adequate Animal Science building, later named Morrison Hall. However, it was the idea of Dean Myers that the new Animal Science Building would be a cubicle added to Wing Hall, connecting it to the Judging Pavilion. The much larger building, built later for Biochemistry was not there then.

There was a meeting held with the Dean that was not entirely friendly. The Dean told about his plan and how he had talked with some senior faculty (nearing retirement) who agreed with him. However, a younger group of faculty (Tom Reed, Bill Hansel, Bob Bratton, Bob Foote and Dick Warner; as I remember), said “this plan was totally unsuitable”. After some debate, the Dean stated that if the department didn’t go along with his plan they wouldn’t likely see any new building in his lifetime”. We responded that if that was the “way it was to be”, likely we would be leaving for other offers (there were many then), and maybe he wouldn’t need any building in that case. There are several ways that a Dean may lose his faculty.

Silence prevailed. Then Prof. Turk said he would have a department meeting, and thereafter planning for the real Morrison Hall started. Professor Turk was convinced that his faculty were right. Thereafter he fought for the building now called Morrison Hall. We spent countless hours traveling, seeing, discussing and planning. The plans were finally approved, but the administration decided to delete a LARTU-type animal research facility to be built where the Campus Road now is located. When the bids came in to build Morrison Hall, they were considerably under the amount of money appropriated, and the animal facility could have been built, had plans not been withdrawn. It would have provided excellent facilities for intensive animal physiology studies, including temperature controlled ones for Dr. Robert McDowell and others.

Mobile Lab. During the 1950’s there were many interesting experiences traveling to farms with a mobile laboratory hauled by a 4-wheel drive jeep. Drs. Asdell, Hansel, McEntee and I visited farms, where there were reproductive problems, with the local veterinarian and extension agent. I would collect semen in the muddy barnyard from a bull, hopefully more interested in the cow in estrus than in me, while the owner was behind a fence with a 50-foot rope that he may or may not have hung on to.

Other times we would be in a place like Malone, New York in January, traveling back at night in sleet and snow. One time Dr. Asdell and I brought the trailer back while Dr. Hansel and McEntee came back in a car. The Jeep would not quite pull the mobile lab up over some of the snow-covered icy hill roads, with Dr. Asdell’s careful conservative maneuvering behind the wheel. I finally convinced him that he was getting tired and I would be glad to help drive. He consented. I revved up the Jeep a bit, and we came sliding into Ithaca in the wee hours of the morning. Dr. Asdell had
been very quiet, but as we parked the vehicle his only comment was, “You made it”. Yes, I thought, we all made it.

One night it was too late to return to Ithaca in the wintertime, or we had other farms to visit the next day. Bill Hansel hung his wet nylon socks on the grill in front of the fireplace in a hotel in Avon, New York while he took a shower. He said “Watch them”, which I did. Suddenly they changed from steamy socks to burned ones. Synthetic fabrics were highly inflammable. When Bill came out of the shower I said, “You won’t have to wash them anymore”. He said “when I told you to watch them I didn’t mean watch them burn”. Later this true story was told as a joke many times by Bill as he reflected on mobile lab experiences.

Support for Research in the 1950’s. We had little support for research, except some for traditional ideas. Also, assistant professors in those days were expected to establish a track record on their own research without graduate student support. I had no graduate students assigned with department help for 8 years. I do think that was a bit of an old boys club. So I went to Prof. Turk and said, “I want to write some grants”. He said, What do you want to do that for?” I said, “To do some new things. They’ve discovered DNA and I want to see how that works in sperm formation”. He was a little taken back that traditional research in the department was getting “old hat”, but he said okay. He probably thought we wouldn’t get funded anyway. But, we were funded by the Lalor Foundation, and we built a DNA microspectrophotometer and started labeling sperm when radioisotopes were first available for DNA (first 14C-labeled adenine and then 3H-thymidine). This led to NIH Grants. The University Office of Sponsored Programs sent people over to discuss how to get NIH funding. This was the beginning of a research career built on about 160 grant proposals funded.

At the same time that I worked to initiate a basic research program I had not forgotten the AI industry that had nourished me. I came to work at the NYABC headquarters almost every morning at 5 a.m. 6 days per week until Morrison Hall was finished in 1961. Sometimes I helped them collect semen. This was all outdoors then, even during snowstorms. A bull with a tough nose could pull me around on ice. One did just that. The staff at NYABC furnished unlimited quantities of semen, and helped me to run field trials. The technical book on my career in the Cornell archives describes the research grants written and the research done. By 1961, with help, we had published about 50 papers. Most of the papers dealt with bull nutrition, semen collection and management, semen evaluation, semen processing and fertility. Work on spermatogenesis and AI in dogs and swine was started. Research on freezing semen was intensive.

One night when I was working at the lab. the NYABC bowling team was short one person. They asked me to sub. I did O.K. That started my bowling career at Ide’s Bowling lanes across the street from the lab. We won some league titles over the years.

In the 1950s Bob Bratton and I established a rabbit colony in the basement of our new wing at NYABC. The rabbit proved to be an excellent model for semen work, superovulation studies, fertilization, embryo transfer and the effects of aging. The ability to control ovulation precisely, the short gestation length and large litter size, and the duplex uteri allowing control and experimental treatments to be studied in the same female, were great advantages. We developed the colony further when we
moved to Morrison Hall to include two lines of rabbits, differing in coat color markings (albino versus colored) for intrauterine mixtures of embryos, which could be identified individually.

At the same time Cornell kindly gave me a light teaching load. I had time to visit farms, and become acquainted with farm problems, progress, and farm leaders. Although I had no extension work assigned to me (50% teaching, 50% research), I spent at least 10% of my time in the field working with over 2,000 dairy herds on an infertility project. I called it a "Sterility project", as the name had a greater impact. This was a wonderful experience, but took very long hours.

Also, I talked at the NYABC Annual Fall Conferences held around NY State. Sometimes we had to compete with the World Series of baseball, with announcements of the inning and score. I learned much. I gained friends. Every Director of Agriculture and Markets throughout my career said they knew me from visits to their farm or county meetings, from class at Cornell and later from their sons and daughters at Cornell. What a privilege to have had that experience. At the same time I was only able to do this by working 16 to 18 hours per day, and being almost never sick. Minor colds or once the flu would not interfere. I never missed a class in 57 years. Somebody paid hard earned cash for an education. No student who came to class should be denied the right to hear what I had to offer, hopefully in a meaningful experience.

So there was a responsibility and negligence also. The negligence was not enough time with family. It is my life's biggest sin! I should have spent more time with the boys. This would have been good for all of us. It would have lightened the load for Ruthie. It would have been more time together sharing and learning experiences. My type of work at Cornell did not allow the boys to be involved, as my life had been at the farm as a boy.

I should have taken more family vacations to get away from it all where the focus was on the family. I did leave my ups and downs relative to my job on the campus. I did not bring them home. I worked equally hard to overcome problems with the research as I did to speed up the successes. I expect my mood was different some days from others. I need Ruthie here to answer that.

I did find my research rewarding because the research led to eliminate several diseases in cattle. The result of our research definitely was healthier animals. I felt that this was good for the animals as well as yielding a more productive animal for the farm enterprise. I did check our experimental animals almost daily for years to be sure that they were well cared for. I was on the job every Christmas morning while others slept to be sure that the animals were cared for properly. My former graduate students tell me that I was constantly reminding all staff that we had a special responsibility for the ethical treatment of animals that were involved in our research. (See chapter 24). How we played the game was most important. The emphasis on winning was secondary.

In the process of trying hard to learn more and do my job well I gained friends and supporters, ranging from production agriculture and industry to those in national funding agencies. That was my reward and the benefits to agriculture, but there was an imbalance, with the family shortchanged at times.
I had a notebook listing 60 journals I deemed somewhat relevant or highly relevant to my field. I went to the libraries every month to check the contents of these journals. Cornell has wonderful libraries, plus great staffs in the several libraries to help you. There were no electronic networks then.

One special trip in 1956 I should mention. By that time I was acquainted with many people in New York State and the USA, but not in Europe. There were excellent laboratories in many countries publishing papers of interest. I began to know them well through their research I had read. So, in 1956 I planned a 60-day trip to visit many labs in Europe. We were paid for only 9 months of work in those days. The idea was you did something else during the summer. Of course with animal research one is busy every day. I contacted the heads of about 15 laboratories. I sent them a brief résumé about me and why I was interested in their lab. I sent a proposed schedule. Every single professor in charge of their research responded favorably. They arranged a convenient place for me to stay. I told Prof. Bill Hansel about my plans. He joined me. We mutually benefitted from traveling together. We ended up at an International Congress at Cambridge University where I gave a paper.

Now research from those labs took on a note of personal interest. I knew some people from each lab. They treated us royally. What we did as a small token of appreciation was to present a seminar each place about our research. We also took little gifts from Cornell. That trip was a great choice of summer activity in 1956. In addition, Cornell kindly gave me a fellowship of $600 for travel. That went a long way in 1956. This trip was so important that I have described it in detail in the following addendum.

Cornell was pleased with my progress. I was promoted that year to Associate Professor with tenure. Once again I was accepted at Cornell. For me that meant encouragement to do more, or do better, or both. There is so much to learn and so little time. One must plan wisely to learn what and how to contribute information and thoughtful reflections in a university setting.
Addendum to Chapter 10
Educational Trip to Europe May 14 – July 10, 1956
Excerpts from Bob Foote's diary of the trip

I normally do not keep a detailed record of my trips, except for scientific notes taken. However, this was a very special trip. It was the first time that I had been away from my family for any extended period since Ruthie and I were married January 12, 1946. Because of the importance of this trip in really adding jet propulsion to my yearning for knowledge, and my career, I will put this in the archives. I had made arrangements for Bill Hansel to travel with me.

Ruthie had given me a genuine leather diary with maps, a place for expenses and the daily record. There were about 100 entries of expenses totalling $1493.49. Because the Dean in the College of Agriculture had awarded me a $600. Travelling Fellowship, my personal business expenses were only $893.49. Amusement expenses were small and were not tax deductible. Also I bought gifts for family and all at the lab.

I kept a list of letters and cards written to be sure that I had written to Ruthie, Robert, Dale, my farm family in Connecticut, Ruthie’s parents, and everyone in my lab., plus Prof. Turk, NYABC personnel, neighbors, a few old families in Gilead, and a few others. I can account for 104 cards and letters. Postage and film were my largest personal luxury expenses. I also bought many small gifts that could be carried. At one point I mailed home 9 pounds of reprints.

On May 14 it was Ithaca, Elmira, Binghamton, Newark, helicopter to Idlewild (now Kennedy), and at 19,000 feet on to Shannon via TWA. In Shannon we celebrated An Tostal (May 6-21) with hot Irish coffee (sugar, whiskey, black coffee and whipped cream).

On May 15 it was on to Orly airport in Paris. On that plane I saw Gary Cooper. I walked around Paris and saw many famous places plus loads of people on the sidewalk cafés. I tried a little French. We couldn’t get supper until after 7:30 when drinking time was over. Bars were everywhere. We stayed at a modest Madison Hotel.

May 16 we were at INRA in Jouey en Josas. Drs. Thibault, Ortavant, Dauziér and others showed us their research. Bill Hansel tried to eat whole artichokes by putting yogurt on them. Ask him how well that did not work. I was soon speaking French even though no one understood me.

May 17. A bus tour of Paris had little commentary. Visited with Dr. Courrier at the College d’France. No napkins for lunch, but I did not dare ask for one because I knew the French translation of napkins. I could not think of serviette. Went to the Follies Bergere. Tips for everything. The costuming and lighting were elegant. No cameras! Walked all the way dodging fearless women motor scooter drivers. Really, but men were as reckless.

May 18. Flew from Paris to Napoli (over 19,500 foot Mt. Blanc, took photos), and over Rome (no photos allowed). Rome was beautiful from the air on this clear day. As the LAI was on strike we had to take the train to Naples and stand up. We stayed at the new Royal Grand Hotel in Naples. We were attending a World Congress
on Fertility and Sterility in Naples. Naples was rebuilt since the destruction in World War II.

May 19. Congress has not started. Excursion by train to Rome. It is spring and farmers were hoeing the fields at 7 a.m. Bus tour of Rome did not stop to allow any off-bus viewing. We had a one-half hour audience with the Pope at the Vatican. On the train back a world traveller and scientist, Dr. Alexander Pou de Santiago, described in excellent English his impression of America, and American diplomats in his country ("some good, some bad"). Back in the Naples hotel we had first class meals, each part served on a separate plate in succession. But it was expensive.

May 20 to Vesuvius. It last erupted when I was there in 1944. The big eruption, smothering Pompei, was in 79 A.D. Bus back was in a traffic jam due to a communist rally. Cars are going by broadcasting political rhetoric.

May 21. Met many friends such as Drs. Bonadonna, W.W. Williams, Weinstein, Lagerlof, Anderson, Rowson, Mann, Van Rensburg (South Africa) and others. Many M.D.s were there. I gave a paper. While taking a shower I hit a button accidentally. Soon a maid came in the room, pulled open the shower curtain and asked in Italian if I needed anything. Wow! Thank goodness "No" is an international word. Meetings continue in English and Italian. One interpreter had been a 10-year old "mascot" adopted by the American army headquarters in WWII.

May 21-22. Saw a gentleman farm and the remains of the beautiful Greek temple at Paestum. My paper given yesterday was in the Italian paper today. My diary has more comments about farms, city, people and customs.

May 23-24. Cleaning up clothes. Soap is very expensive. Communist chief spoke to a big bussed crowd (10% unemployed). Harry Truman is here next door. Ginger Rogers is in our hotel. Dinner with English friends, Drs. Rowson and Lamming. Just after midnight (now May 25) we were in bed. The doorbell rang. I got up in my pjs and opened the door. There stood a neat young American girl who asked if Bill Hansel was here. Yes, and Bill got up. We were befuddled by this until we looked down the hall. Sticking his head around the corner was Eric Lamming. He had a date with this girl (daughter of an American doctor attending the meeting): He put her up to playing the joke. By this time he was laughing loudly, and we were too.

May 25. The Congress is over. We took a great trip to the Isle of Ischia in the blue Mediterranean. Politics everywhere, as election day is 2 days off. Final bill at the hotel was full of extras, some we didn't recognize? Business ethics seemed to be different than what we were used to.

May 26. Train to Florence. Airline strike was still on. Florence is still full of beautiful places, and shops, and full of beautiful cameos, silver jewelry, trinkets and art.

May 27. My dad's birthday. Took a 6-mile hike at 6:30 a.m., and found where my K Company had been in WWII. Lots of walking. Towns built on hills around. People plus bullocks, mules, donkeys and other animals pull farm and other supplies up the hills.

May 28. In Milan I visited the cathedral with 1440 spires, and "The Last Supper" by Leonardo da Vinci. Dr. Rognoni took us on a farm tour plus The Spallanzani Institute. Prof. Bonadonna treated us and others (6 countries represented) to a wonderful dinner at his home. He has four sons (15 to 22 years old).
Back to the hotel very late after Dr. Rognoni treated us to frappé after the Bonadonna party. Dr. Rognoni is single. He takes care of his mother.

May 29. Up at 5:30 A.M. to get on the train for Switzerland. Be sure to get on the right car because different ones were going different places. People, haying with tractors, and Brown Swiss cows dotted the countryside. Dr. Winzenried, his wife and young daughter met us at the train station near Lucern. I met him when he visited Cornell in 1953. They took us on a great tour of farms, mountains and restaurants with fine music. Dr. Winzenried lives in a beautiful home in Bern, but he is on the faculty in Zurich. He commutes by train.

May 30. More tours. Visited the monastery Einsiedel dating from 1056. Climbed Alp Brunnern to alpine pastures. To Mt. Pilates (7000’) saw many Simmenthal cattle. Cattle stay in alpine pastures all summer. Milk is made into cheese. Dr. Winzenried showed movies of his 1953 trip to the USA.

May 31–June 1. See diary. Saw much. Learned about the curriculum at the U. of Zurich. Students stamped their feet when we talked to the class. Then we were on the plane to Zurich and to Frankfort. I tried to call my brother-in-law, Wesley Parcells in Frankfort, but did not reach him. At Hanover, former visitors at Cornell, Drs. Rath and Wagener from the Vet. School in Hanover met us. Dr. Wagener treated us to a giant Hannoverian and a floor show at the GOP, starring Alice Asiya. She was staying at the same hotel we were, and Dr. Wagener sent her flowers he told us from “two American admirers”. Dr. Wagener also met some students who had failed an exam. He had a reputation as a superb very demanding professor, but lately had some problems that are not relevant here.

June 2–5. Wonderful hosts, Drs. Merkt, Rath, Lensch and others. We visited cattle, farms (house and barn attached), an AI station, Hamelin (Pied Piper House), old castles, Kaiser’s place and then Goring’s hunting grounds. We saw red and white Holsteins in Schleswig-Holstein and black and white Holsteins in Ost (east) Friesland, a stork and lots more.

June 6–9. To Copenhagen, Stockholm and Wiad. Prices were lower than in Italy. Lovely airplane view of the lakes in Sweden. Dr. Knudsen (who I met before in Ithaca) met us and followed the route Queen Elizabeth would travel the next day (Friday). The route was decked with welcome signs and flowers. Baggage was checked thoroughly on arrival because of the royal visit. Great Danish and Swedish food. By train to Uppsala, where we were met by Prof. Ivar Johansson (geneticist), then on to Ole Venge (rabbit embryologist), to Nordfeldt (nutrition), and Knudsen (excellent sperm and chromosome researcher). Everywhere we were taken into family homes, so warm and friendly. Dr. Knudsen takes care of the Princess’s vet. work, and his own Dachshund is the Swedish Champion. He says “this keeps me in chips”. Also discussed endocrine research (Meshaks and Holcomb), frozen semen and bull work (Alan Bane), and sperm osmotic properties (Lindahl).

Then a river ride around Stockholm. We had dinner at Skansens in the evening. There we saw a class of girl graduates, all in blue dresses. One can understand why “gentlemen prefer blondes”. The epitome of health. We ate and talked with our Swedish colleagues until after midnight (midnight sun then) and walked home, as taxis had stopped for the night. Our hosts seem to enjoy treating us to schnapps. Bill Hansel always tells the story of how I conveniently sat next to a large
potted plant, and I was able to empty my glass discreetly beneath the foliage. Yes, schnapps, like a little bull in AI goes a long way. Great day at Wiad at the identical cattle twin Station at Wiad with Dr. Bane's assistants and Dr. Hansson. On one of the trains we saw the recipients of the Nobel Prize.

Saturday, June 9 was beautiful. The royal yacht, Britannia was in the harbor. The British queen and the Swedish king would go to the opera, across main square of the city from the royal palace. I told Bill Hansel that I was going to see them. He declined to go as he knew that the crowd would be huge. We were tired also, so he slept. Bill was right. I had to worm my way though the crowd to get close to the castle. I finally positioned myself at the bottom of the ramp (palace courtyard is considerably higher than the city square) where I would photograph the procession coming down the ramp.

As I waited, suddenly a member of the Swedish royal family and a guest with her appeared by my side and said “Would you like a picture of the queen?” I sure would. She spoke in Swedish to the guards. Then she said “Come with me to the top of the ramp.” The royal car will come out of the courtyard and pick up the queen and king at the side entrance at the top of the ramp. You stand here and photograph them as they load into the side of the car opposite you. I am going into the palace, but you can’t come in. On days when we don’t have royal guests the regular local people can enter parts of the palace. We are not so strict as in Britain”. Then she and her guest were gone. I was left trembling. Why had this happened to me? I better hold up my camera in my hands to reveal my intentions if a guard should think otherwise. I have my photo to prove my story. See my diary for June 9. “Just photographed Queen”. In those days one could make a double exposure. When the film was developed there were three blanks after the photo. Was I excited! I knew there should be one blank because I didn’t want a double-exposure. When Bill Hansel heard my story in Stockholm he didn’t believe me, but when I showed him the slide back home, he said “Boy I want a copy of it!”

June 10-12. On to Copenhagen, where my friend, Dr. Sørensen met us. He was a professor of veterinary anatomy. Students supposedly felt that it was easier to “thread a camel thru the eye of a needle” than it was to pass one of his exams. He was a kindly man, and showed us AI straws he made from oat stalks, and finally from soft drink sippers. Great show at Tivoli (see diary). Visited fine labs. run by Rasbech, Alder, Moustqaard and Neiman-Sørensen. Dr. Rottensten’s eldest daughter (17 years old) played the piano, and the 2nd daughter played a duet with her mother at the Rottensten home.

Also visited castles, dairy cattle and swine stations. There are more pigs than people, and many animal test stations. Visited the cathedral of the Kings. Since 1840 kings are mostly ceremonial in Denmark.

June 13-14. On to Amsterdam. Lots of canals and windmills, with 40,000 hectares being reclaimed behind dikes. Dr. Stegenga, Dr. Rikmenspoel and Dr. de Groot took us around, and also discussed their work. Saw people in Dutch costumes.

June 14-17. On by KLM to London where KLM kindly booked a good modestly priced hotel. Of course in London we had to walk down Oxford St. to Whitehall to see the changing of the guard, by Scotland Yard, St. James Park, Westminster Abbey, Buckingham Palace, etc. We visited famous department stores. I always did a little
shopping to bring home things for the family, plus Christmas gifts for everyone at the lab. These were musts that I did on every trip all the years.

Good that we walked lots, because we ate too much. Quoting from my June 15 diary. "Breakfast, what a meal. Have a 'Screwy' French Canadian waiter who is pro-American and is probably bucking for a tip. He rushes around, gives us these GI helpings and all. Head waiter asked him if we were a waiter or a brick layer? He's amusing."

Took the train to Mill Hill where the glycerol method of freezing sperm was discovered. Many visitors were there so, besides our hosts, Dr. Parkes and Dr. Polge, there were J. Hancock, John Hammond, Walton, Mann, Swyer, Folley, Rollinson, Rowlands, Bishop, Austin, White, Audrey Smith and Mrs. Zondek. All these people I knew at least from publications. There were about 50 in total there for a program put on by the National Institute for Medical Research.

We were in London long enough to wash clothes. I carried a portable clothesline and soap on all trips. That way you can manage with light luggage. Of course there was plenty of water, often not so hot, especially in the rain. Try window shopping in London on a cold weekend in the rain. And watch out for those double-decked busses coming along the curb on the "wrong" side of the street.

Cocktails on the lawn at Dr. Parkes. He is a very witty host. He described his previous visit to Cornell as follows. "He enjoyed Cornell, except we worked him pretty hard. About Wimsatt, he was a man who lit a cigar in the morning, and since it promptly went out he chewed the rest of the cigar the rest of the day."

Walked to Leicester Square and saw Susan Hayward in "I'll Cry Tomorrow". Fine performance. News on the screen showed Queen Elizabeth was still in Stockholm. We saw lots of official residences, crack regiments making up the guard, and the Tower of London with its bloody religious history (see diary).

June 18-21. On to Reading and Woodborough. Another great time at the University of Reading learning about their curriculum and research, especially at the National Institute for Research in Dairying (NIRD) with Foot, Dodd, Balch, Bartlett, Cowie, Folley and others. Stewart and Melrose from the AI Station amused us with stories at Alfred Cowie's home after dinner. Quite a wine cellar. Lots of discussion of AI research. Foot told me how American Footes got their "e". He said that years ago all the undesirable Footes were lined up and marked "e" for export. Of course I thought it stood for the elite Footes who sought opportunity elsewhere.

Then on to Woodborough and Stonehenge, and more views of the countryside, such as the Salisbury plain. I slept in a feather bed. We had plenty of variations in beds on this trip. One place there was a grave where King Alfred supposedly held the first parliament. On June 21, the longest day of the year we were at Stonehenge in the morning. On this day the Druids assembled for sun worship as the sun comes over Friers heel to the alter stone. We had supper at Bath (Oldest Roman baths in England, 54 A.D.).

June 22. On to Bristol to see Dr. Archie Laing. Stayed at the Vet. School housing (empty summers). Nate Ayalon (Israel and Cornell DVM) was visiting. Discussed sterility treatments. Visited Horichs AI Centre with Dr. Rudge Clarke who drove us through the hedgerows back to our beautiful old hotel (1498) with gardens
tracing to 700 A.D. Most of these people had visited Cornell and/or NYABC. They really took care of us.

June 23-24. Five pages of diary about the beautiful Dartington Hall. To get there we took a train with multiple stops. One time we headed for the wrong car and saw the sign on it (not our destination). We ran to the other end of the train and jumped on. We found we were in a 1st class car with a 2nd class tickets. We were to get off at the next stop. The trainman ticket collector didn't come through our car on that short hop. At Dartington Hall Jock Currie (M.S., Cornell) toured us through lovely gardens and buildings, by the old tilting grounds, the 12 cedar (?) trees for the 12 disciples, and the wonderful arts and crafts school there supported by Mr. Elmhirst and his wife Mrs. Willard Straight Elmhirst. Mrs. Elmhirst married Willard Straight who was killed in World War I. She was instrumental in raising money to build Willard Straight Hall at Cornell in memory of Willard Straight. A wonderful gift! I was reading the paper there. Their cricket terms—“bowling from the nursery, caught in the gulley, so many maidens, etc”. A foreign language to me.

South Devon cattle have a lovely shade of tan pigment. They dotted the countryside. Red soil everywhere as we charged through the hedgerows at 40-70 m.p.h. with Dr. Holt to Cambridge.

June 25-30. King’s College. Big rooms, ancient wash basin and toilets. A piano in the living room and another one in the bedroom. Off to supper at Merton Hall with Lord Rothschild, Mann (Cambridge), and Emmens. Rothschild offered me a job. I politely declined.

The Congress on Animal Reproduction had many good papers. There was time to visit historic Cambridge as well. Mrs. Salisbury (wife of my former professor) sprained her ankle there. We learned about the educational-social life with tutors of the few selected students to who got into Cambridge University. It could take years to get through the University. Students usually wear a gown to class. Also, there was time to shop (had a wool tailor make a suit for $70). Visited the ARC and other research centers.

July 1-5. Off to Glasgow and Aberdeen via London, and then to Edinburgh after that. Every place I wait for a plane I write thank you notes to all the people who have helped us, and regular notes or cards to family and friends at home. In London I called our English secretary’s parents. Short stop in Glasgow, then on to the granite city of Aberdeen. At the Rowett Research Institute we visited with seven researchers working on nutritional physiology (see diary).

From the train along the coast we could see antitank barriers left from WWII. There were American college kids on the train on “Shoestring Tours”. One was Carole Feuer, but not our Ithaca Feuer.

Dr. King, at the Animal Breeding Research Organization (ABRO), had tested 132 lines of pigs. Visited Dr. Hancock (sperm specialist). Discussed sheep and mouse genetics with Robertson, Mason, Maule and Falconer. See 7 pages (diary) of interesting work, including embryo transfer to isolate sources of variation in development.

Got a distant photo of the Duke of Edinburgh who was staying at Balmoral Castle. Everyone at the research stations thought the Duke is very smart. He asks good questions when he visits. The queen had to worry about her following. They told
us about deaf mutes who were very sedate, as directed, when the Queen walked by, but soon they started to laugh.

The queen had been very somber, so the Duke whispered to the Queen “Smile sausage”. The deaf mutes read his hips. Another time she was disappearing after appearing before a crowd. She forgot to wave and he said to her “Remember your public”. The Duke was much more popular than the Queen with most people who mentioned the royalty.

July 6-9. On to the Hannah Research Institute at Ayr with Drs. Blaxter and Armstrong and many more. See 8 pages of notes on feeding, physiology, cropping and feed evaluation, milk quality, mastitis, hardware disease (wire into the heart from the reticulum), and more. We use magnets to control this problem when cattle eat cut wire.

Visited beautiful Ayrshire farms, AI stations, and toured with Allan Barr who could recite poetry by Burns. His father was a lecturer on Burns. Queen Elizabeth had signed the book at the Robert Burns cottage just last Tuesday (today is Monday July 9), and that page is under glass. I went to the bridge across the River Doon where Burns wrote about men after a drinking party teasing the witches who caught the tail of a mare. The diary states “Burns died a young man, a successful poet, and an unsuccessful farmer”. Then we saw more farms, an auction market (James Craig Ltd) for lambs, beef and dairy cattle (dairy 66¢/lb.).

July 9-10. On to Prestwick to catch the plane with only 36 on board a plane which could hold 70 passengers. A light load, so they took on extra petrol to fly non-stop to New York. We could spread out on the seats. As I went to sleep we were at 10,000 feet altitude. Outside temperature was 14 °F, with scattered clouds, and our ground speed was 225 m.p.h. “The plane (propellor driven) is droning and roaring on through the night, its wings lighted, and the red hot manifolds visible through some of the flaps”. This was 1956. Planes have changed too.

I recounted a few jokes told to me. One was about most accidents are caused by people under 20 going over 70, and people over 70 going under 20. Then there was the Jewish horse owner and the tight Scotchman driving a hard bargain about care for the horse. The Jewish owner said he should get some credit for the manure, whereupon the Scot said “there won’t be much with what I plan to feed your horse”.

I could dream of the Scottish expressions such as “let’s have a wee looksee at the byre” (barn). Two years later, I found some similar Danish words. The Danes had invaded Scotland centuries before. Many Danish soldiers found the Scottish lassies so attractive that they never went home. I could reflect on the beds, the food, the cultures, the agriculture, the science, and the kindness of so many new friends. What a trip! An experience to last a lifetime. Now to go to the old boxes of Kodachrome slides all labelled and stored in a file cabinet.

July 10, 1956 (Tuesday). So we landed in New York after a bumpy early morning storm that delayed breakfast on the plane. Also, I couldn’t shave. Upon landing the plane was fumigated. Then immigration, customs and “bye” to Bill Hansel. By bus and taxi to Grand Central station to catch the 9:05 train. I shaved on the train as it was approaching Poughkeepsie.

I had to put everything away to greet the family. Ruthie would have gone for a few days, once school was out, to Connecticut to stay with her mom and dad to come
and meet the train. From there we went to New Milford, and soon all the family would be back in Ithaca.

Home, Sweet Home. The trip was wonderful, but it was great to be home. Poor Ruthie and the kids, managing with a dislocated elbow, etc., with no help from me. Home working mothers meet crises with remarkable ability and stability.
Chapter 11

Denmark, Here We Come on Sabbatical Leave (1958-59)

In the early 1950s Dr. Knud Rottensten visited Cornell. He was the director of the research program on dairy cattle artificial insemination (AI) in Denmark. He had done graduate work at Cornell previously. He was familiar with our published work on AI.

In 1957 he wrote and inquired about my possible interest in spending a year in Denmark. There was a Fulbright office in Copenhagen. He thought that we might develop a program which they would support. I was eligible for a sabbatical leave for 6 months. That is a wonderful program Cornell has to upgrade your knowledge. In addition, we were paid for only 9 months in those days, and you could do whatever you wished to do in the offpay months. I was able to arrange to be in Denmark from September, 1958 to June 1959.

There was lots of paperwork completed by early 1958 to compete for a Fulbright Scholarship. Dr. Rottensten did all the work necessary to demonstrate that his laboratory would be a good place to study. Together we worked out a plan for studying spermatogenesis, and also for improving sperm cryopreservation. I prepared many slides to give various seminars while abroad. It was expected that one might give seminars in various countries at the request of institutions in those countries. The Fulbright Office paid for the travel. They also paid me a stipend in Danish krøner that covered all our living expenses. So our family of four, my wife Ruthie, and sons, Robert and Dale, 11 and 8 years old, respectively, prepared for this adventure.

We bought Danish language records. We found the gutteral Danish language difficult to mimic and simulate. We prepared long lists of items to take, addresses, travelers checks, etc. We arranged to rent the house at 110 King Road West while we were gone. A couple who was going to be at Cornell for only the academic year 1958-59 rented it.

Ruthie kept a diary covering most of our life in Denmark. It is written in her neat pretty handwriting. Occasionally there are sections written legibly, but in more of a scrawl by Bob. The title page reads “Robert H. Foote Family trip to Denmark via Kungsholm, Sept. 4, 1958”. On September 2 we took the Lehigh Valley Railroad to New York City where we stayed at the Plymouth Hotel. During two sunny days we did many things. Madeleine Vey called us. She had lived with my mother and dad her senior year in high school, as her dad, the Reverend Vey, moved to a new pastorate in Orchard Park, New York. I was a senior in high school that year also. We went to see a TV show “Beat the Clock”, a radio show “Sez-Who”, and a movie “10 North Frederick” with Gary Cooper.

Ruth, Robert and Dale went to the top of the Empire State Building while Bob got Danish krøner (20 kr. for $2.92), and tended to other pre-embarkation details. We saw Northern lights. Ruthie’s mother and dad, and Don and Peggy brought flowers, fruit, and gifts, as they saw us off boarding the MS Kungsholm at pier 97, W. 57th St. under sunny skies on Thursday, September 4, 1958. There were gifts for each one of us to be opened on successive days on the ship. This was very thoughtful and clever.

By Friday night we had reached Halifax, Nove Scotia and we were able to mail many cards and thank you notes to our families and friends. We had the usual life
boat drills. Weather generally was sunny and mild, except Sunday, Sept. 7 it was foggy. The fog horn blew every 55 seconds (I timed it). We toured the ship, including the navigation bridge. By noon, Wed., Sept. 10 we were 58°13’ latitude and 14°22’ west longitude. The sun continued to shine.

To capture the joy and realism of this venture, following are quotes from the brief daily comments as we “sailed” on and on.


Sept. 6. Opened Sat. gifts. Bob-joke book, Ruth-bracelet, Robert and Dale-balls on a rubber string. Saw the movie “Reluctant Debutante”. Could see lights from Newfoundland shores at 11:00 p.m. I’ll add a parenthetical note that the boys were wide awake way past their bedtime, and ours too.

Sept. 7. Attended church services in English by an Episcopal minister, I think. Masses and services were held in Swedish, Finnish, and German. Opened our Sunday gifts. Bob—“The Townsman” by Pearl Buck; Ruth, “Red Carpet for Mamie Eisenhower”; Robert, “Jack and Jill”; Dale, crayons and a work book. Played bingo.

Sept. 8. More gifts. Saw movie “Love Lottery”. Sat on the deck wrapped in blankets, as this was our only windy day.

Sept. 9. Saw travelogue-Sweden, Denmark and Finland. Children attended a children’s party. Watched “Horse Racing” game and trap shooting. Kids stayed up late. They dubbed a dancing teenager as “Miss Midnight”.

Sept. 10. Saw the movie “Cat on a Hot Tin Roof” with Elizabeth Taylor. Played ping pong, shuffleboard and sunned. The Kungsholm Farewell Dinner was followed by dancing, a Kungsholm Folk Dance Team and Nattkorn (sandwiches about 11-11:30 p.m.) This early dinner was for people getting off at Bremerhavn on Sept. 12.

Sept. 11-13. And so the trip continued for us. We met many interesting people. The Bruzons from Argentina had a brother who published the Penn Yan paper (Ralph Welker’s hometown). Ralph ran the NYABC lab., and was of great help to me. Robert and Dale bet on the Horse Race game at night. Robert won $2. Watched cars, trunks, mail and suitcases being unloaded at Göteborg. Bus and then train (ferried across from Hölsingbord, Sweden to Helsingör, Denmark. Saw Kronberg Castle. Arrived in Copenhagen at 7:30 p.m. Rottensten family, American Express agent and Mrs. Fennow (Fulbright office) met us. Came to Pension Lindal.

Sept. 14-17. The Rottenstens and people at the U.S. Educational Foundation office took us house hunting. We checked in at the American Embassy, and Robert got a book card and took out books from their library. Robert and Bob climbed to the top of the Marble Church tower. They could see all over Copenhagen. The boys rode and drove small cars and took boat rides in Tivoli. We visited Amalienborg Palace and other tourist attractions. Bob checked out the lab. where he would work.
When not invited out we ate at the Pension Lindal. On Sept. 16 we “ate supper at our pension again. We learned the hard way. Last night they served soup, plus a main course and no dessert. You help yourself. Tonight it was main course plus dessert, but we didn’t know that. So, as we helped ourselves, we put some plum pudding on our plates with the stew and filled our glasses with what we thought was rich milk, but was cream that was to go on the dessert”. Some of the more experienced residents were amused, and they kindly explained the proper procedure.

On Sept. 17 we looked at a house at 26 Ayervang, Kongens Lyngby. It belonged to a buyer of teakwood who would be in Africa for a year. It was not far from the Lyngby S tog (train) station. The commuter trains ran frequently and on time—very convenient for me to get to work and the family to go anywhere until I purchased a car.

Our trunks were brought to our home. We were busy getting settled and waiting to see more sights all at once. You would think we were only going to be there a few days. We started Danish lessons with Miss Brown, an English lady who taught English to the “deaf and dumb”. I expect that she thought we were a little dumb learning Danish.

Ruthie drew a wonderful sketch of our home and neighborhood exactly as it was in 1958. The laundramat was nearby. Neighbors were friendly. Many spoke excellent English. They told us that they were there to help whenever we asked, but that they would follow the Danish custom of not intruding on our privacy unless asked. Of course, Ruthie met many of the neighbors at the laundromat. Our boys were playing with the neighborhood kids before they knew how many bad words the boys were teaching them to say to tease the girls. That did teach them some pronunciation.

We got Robert and Dale registered in the nearby local elementary school. The teachers spoke some English. That was helpful, but still tough on the boys. We debated about sending them to a school in English for embassy children and others. Perhaps we should have. We were hoping that they would assimilate more of the Danish culture. They learned the Danish language, useful in their contact with Danish kids, but of little value outside of Denmark.

Meanwhile I was getting passes for everyone for the S tog. I started work half a day. There were bicycles to purchase, Danish haircuts to get, and much to see. We walked in the beautiful parks, and to the Little Mermaid statue and Gefion Fountain. Robert and Dale fed the pigeons in Kongens Nytorv. Danish trolleys would take you anywhere for a few krøner. We marvelled at the beautiful Danish furniture in Den Permanente. Yes, we would take some home with us. We were able to keep my wonderful oak desk, a teak chair and lovely sewing table when we moved to Kendal in 1998. They still are like new.

Of course it was impossible to pass a Danish bakery without helping them to reduce their freshly-baked inventory. Supermarkets were just beginning. So you shopped at the green grocer for vegetables, the butcher for meats, the dairy store for cheese and milk, and the bakery for baked goods. Danes loved rich milk. Skimmilk was for the pigs. We had skimmilk delivered for I believe it was 2 cents per liter (a little more than a quart).

A relative of a friend of the Parcell’s family lived in Copenhagen. She (Miss Sommer) invited Ruthie over for coffee. Between Danish friends, and the staffs at the U.S. Embassy and the U.S. Educational Foundation we were soon settling in for the
long haul. School for Robert and Dale did not start until October 1. So there was more time to go on harbor boat rides, go through botanical gardens, the mineral museum, the Rosenberg castle and many other places. The boys had their picture taken for school bus cards, although they were within walking or biking distance of the school.

The newspaper was full of Danish, but the word for "babysitter" was "babysitter". With the help of our neighbors we located recommended babysitters, girls already studying English for several years in school. By Saturday, Sept. 27, we were invited as guests to a dinner dance at the Hotel d'Angleterre as guests of the Denmark-America Foundation Alumni Association. We were seated at table number 1 with the president of the association. The American ambassador to Denmark, Van Peterson, was at table number 2. Did you ever feel important and welcome? Well I guess so!

Weather was still pleasant. Along with the Cirkus Benneweis (amazing juggler) we took walks, rode the S tog or rode bikes. We had three bikes by early October. I got mine for $1. at a police auction. I had to buy new tires. The tires lasted until one went flat the day we left Denmark for home, about 9 months later. The three guys in the family rode bikes out to the deer park. It was 8 miles away and was Dale's first long bike ride. We saw the Eremitagen fox hunt. We rented a 4th bike for Ruth, but she didn't feel comfortable in the heavy bike traffic, so after a couple months that bike was returned. Actually bike riding was safe as the roads have special lanes for bikes, others for walkers, and others for motor vehicles. The country is flat, and easy for bike riding. The parks have additional trails for carriage drivers and horseback riders. By early October we even managed to order a meal at the park using our meager Danish.

By early November I had arranged through the German equivalent of the AAA to buy a Volkswagen. I took the train in Copenhagen which was ferried across to Lübeck, Germany, and then on to Bremen. I picked up the car, paid for it and registered it in Germany, with the help of the AAA. By November 13 I had driven the car to Kongens Lyngby. Now we were really mobile.

However, before we had the car we were on the go. I showed the family my lab. We saw museums full of precious gems and regalia of former monarchs. We saw Chopiniana (Les Sylphides) at the Royal Theater. What beautiful music and dancers. We had neighbors, the Rottenstens (including daughters Grete, Birte and Gunnar), and the Jensens (parents of the owner of our house) over for dessert and vice versa. Dr. Rottensten's assistant, Dr. Hans H. Kofoed-Johnsen invited us to his home on November 10 for the traditional Morton Bisp day feast. We had roast goose stuffed with apples and prunes. The story is that this French Monk decided to escape from the monastery. He was found hiding among the geese.

We saw the movie "Around the World in 80 Days". The Danish theater had a break in the middle of the movie. Popcorn is sold--lots of it! We met a high school girl from Washington, D.C. who was studying in Lyngby for a year. We took the kids to Walt Disney movies. The Danish kids are wild about Mickey Mouse. They shout and cheer during the movie.

We were invited to be guests of the Danish State Radio and Symphony Concert orchestra at their homecoming performance after a successful tour of the U.S.A., including one stop at Cornell University. The King and Queen and two princesses sat
a few rows from us. The orchestra opened the program with a rousing rendition of the “King Song” followed by a thrilling performance of the “Star Spangled Banner” in honor of American guests. Our hearts really pounded. It was hard for me to realize that this little farm boy from Connecticut was really experiencing events that were far beyond childhood dreams. The king is an excellent musician. He followed closely the musical score throughout the program.

Now it is November 27. Daylength in this northern country is getting short. We attended a special American Thanksgiving Service at the Anglican Church at Langeline. Americans in Denmark for a variety of reasons were there. We met Prof. and Mrs. Harald Ingholt (Yale Archaeology Dept., and friends of the Milnes). We had lunch with them and with Susan and Melvin Voight. The latter couple were on the Kungsholm.

November 30 was notable for two reasons. It was the first frost hard enough to kill most of the flowers in our yard. Although Denmark is so far north that it is very dark in the winter (and the sun barely sets in late June), the gulf stream flows nearby. Thus, the winter days may be dreary, but usually are not extremely cold. Also, on this day we took an early ride to Hillerod to Frederikborg Castle (over 60 rooms) with lovely gardens and lovely paintings of Christ in the Church. Then it was on to Fredensborg where the royal family have their summer palace, partly open to the public at other times of the year.

Along the way we saw some evergreen boughs that had been cut and left on the ground. We stopped to gather a few for Christmas decorations. In the woods was an old burial place with markers from 1650. Beautiful sun and clouds as the sun was setting in the “afternoon”.

Now it is December. The Christmas season is a big time in Denmark too. Bob made detailed notations. To capture the flavor they are quoted here.

**Christmas time.** Copenhagen is a busy place. Lots of Swedes ferry over to shop. Also many Danes go to Malmö and Landskorna to get nuts, pineapple and a few other things which are cheaper in Sweden. Among the Christmas decorations many hearts are used, also stars, and other figures made from straw. Traditionally some people put food out for the good brownies helping Santa Claus. They are called “Nissen”. Santa Claus is here and in Sweden in the department stores. Stores stay open until 2 p.m. the day before Christmas, and are open every night until about 8 p.m. for a week before Christmas, including Sunday.

The big celebration here is on Juuften (evening before Christmas) when families may gather, eat, light the candles on the Christmas tree, sing around the tree, and then open presents. The next day they may visit friends. This (the 25th, is called 1st Jultag, and the 26th is 2nd Jultag).

On the 24th in early evening all taxis have been signed up for weeks as relatives go to visit families (grandparents, aunts, and uncles go to visit families with grandchildren, etc.). All those on trains are carrying their packages to wherever they are going.

Grocery stores, milk delivery, etc. ceased on Christmas Day. However, mail was delivered. My income tax forms from Syracuse arrived Christmas Day.

Many kinds of pretty Christmas wreaths and crosses and hearts are available at the Blumsters. However, people do not put them on the doors, as we did. They go to
visit the graves at Christmas and put wreaths on the graves. We took ours down on the 23rd to end our grave mistake! People later told us that they guessed that Americans put wreaths on the door.

4 January 1959. Last Sunday we went to Danmarks Akvarium. We saw all kinds of fish, reptiles, corral, etc. Also, visited the museum showing how specimens were caught, ocean floors mapped, etc.

Before that we celebrated Christmas on both the eve of Dec. 24th and finished opening presents on the 25th. We had real candles on our tree and lit them for a brief period while we watched. Also, we burned our Jul candle each day in December.

On New Year’s Eve and the night before there was much shooting of firecrackers. On New Year’s Eve many sky rockets were included. Kids stood out for hours in pouring rain. We all stayed up past midnight and shot off our table rockets, which spread colored paper and paper Danish flags around. We brought a few bord bombs home with us, and set them off on our dining room table on New Year’s Eve.

Today we drove to Helsingør to see Kronberg Castle. It is a large castle surrounded by moats and thick walls, and used to serve as a fortress to collect toll from passing ships. It has many underground tunnels, a huge knights room, a very old chapel, and a ship museum showing Viking models right up to the present time. The castle itself is not ornately furnished.

February 21. Very windy the past couple of days. Wind blew a man’s hat off just before the F train came into Hellerup. It blew in front of the train, but did not stop exactly on the train track. The train couldn’t stop immediately, but it did back up a few feet. As all the passengers boarding smiled, the owner retrieved his hat, and, only a few seconds delayed, the train happily resumed its schedule. Not like the lady who just bought a newspaper, only to have the wind whip it away in pieces. Also, a few days before, the train at Gentofte stopped suddenly. The train on ahead was blocked by a train with a small fire in it. An announcement over the loudspeaker was not well understood, but some got off and some finally got back on. Suddenly I heard a man shout “Til København”. I was near the end car and noted no driver there, so it wasn’t going to Lyngby. Train pulled out backwards for København with some disgusted passengers aboard. Meanwhile we soon caught an extra train to Lyngby and then the regular train pulled into Lyngby at the same time, on different platforms. People going to Holte got off hoping to transfer from the extra train out which stopped at Lyngby to transfer to the regular one going to Holte, but the train pulled out leaving more talk than usual among quiet Danes who often were reading a book or the newspaper. (End of quote from the diary).

In February there was no snow. What little came during the winter was swept off the paths and streets with big rotating brushes. We took weekend trips. One could reach anywhere in Denmark and return the same day. The ferry to Jutland had great smorgasbords or it. One trip to Jutland was on Whitsunday. There were flags everywhere. The Danes are great on flags. Homes have flagpoles in their gardens with the flag up whenever guests are coming. Tulips are blooming on all three parts of Denmark (Sjælland, Fyn and Jutland). The cemeteries we passed were beautifully designed and covered with evergreen wreaths that stayed green all winter.

We visited the beautiful Kalunborg church in Roskilde with five towers built in the shape of a Greek Cross. We went to the Flower Show. Danes are enthusiastic
flower growers and consumers. The ice show “Holiday on Ice” was amazing, as are all ice shows.

Ruthie went to the Bing and Grondahls factory with the American Women’s Club. We also attended a dinner at ambassador Val Peterson’s home in honor of the Fulbright scholars. Many years later I discovered that a distant relative, Thaddeus Foote, president of Miami University, was married to Senator Fulbright’s daughter. He told me he wanted to apply for the opening at Cornell, but his wife said it was too cold in Ithaca.

The King’s birthday was in March. Our neighbors, the Mølgaard’s (I still keep in touch with Mr. Mølgaard), Ruthie, Robert and Dale went to the parade. I went separately from work. It was a beautiful day. Thousands of Boy Scouts lined the streets, plus multitudes of people covered the sidewalks, all waving Danish flags. The royal horse-drawn carriage and guards were decked out in full splendor. The royal family is very popular, as they deal mostly with humanitarian causes.

On March 20 we left for an Easter vacation trip, driving into Germany where it borders Denmark. From there we traveled 1791 miles (per Ruthie’s neat records) through Germany, France, Belgium and Holland (The Netherlands). We visited Wes and Hulda Parcells in Frankfort. They took us to Heidelberg. We drove on autobahns and country roads. One road seemed to go almost through a barnyard in a small village.

Bob gave a talk at an international conference in Paris. A company supporting the conference gave all the speakers and spouses a night boatride on the Seine River. The food was excellent, but there was hardly room on the table for food with so many wine glasses. We enjoyed the sights more than the wine. For some others the priorities were reversed.

In Belgium we noted the difference between Brussels, where people were speaking French, and Ghent, where residents were speaking Flemish. A few remain of the World’s Fair were evident in Brussels.

We were in Amsterdam on Easter Sunday. We visited nearby Keukenhof and Volendam. The fields of tulips were exquisite. All so healthy. The people in Volendam were in their local dressup attire on Sunday, part of the tourist attraction. There were piles of Edam cheese covered with red wax. The spheres of cheeses were stacked to form pyramids.

Of course we had to take a boat ride on the canals of Amsterdam. Many sights were pointed out from the boat. One set of apartments looked to be only a door wide. It was described as the narrowest apartment in the world.

This was a fun family trip. Every country we were in we felt we should be speaking a foreign language. By now we could speak a little Danish, inappropriate for all countries visited. We usually found Europeans in every country who spoke English well. We traveled with an American flag on the car. Americans were popular in Europe because of the war effort, and even in Germany we did not notice hostility in 1959.

When I first brought the VW to Denmark, registered with German plates, we encountered a little hostility. We had gone to Ribe, Denmark, near the German border to see stork’s nests. This was a town full of people who had slipped Jews out of Germany during the war. There had been brutality by German special forces in the
area as a consequence. As soon as the local people found out that we were Americans, all was O.K. They told us to get an American flag on our car. We did.

April arrived with longer daylight, and the beautiful prolonged Danish spring. It was time for Bob to present two papers at an international symposium in Pavia, Italy. The Fulbright office encouraged Bob to go. They covered my expenses. My talks were given in a beautiful, ornate opera house. I stayed in a spartan room in an old dormitory in the very old University of Pavia. There was one light hanging from an old cord plus a marble wash basin. I could imagine that I was a student at Pavia a few hundred years ago. At the same time Ruthie’s mother and dad arrived. So Robert, Dale, Ruthie and the grandparents ferried across to Malmo, Sweden and on to Stockholm. When Bob returned we all went sightseeing in Denmark.

The Copenhagen to Malmo ferry was popular. Danes would ride to Sweden, shop, and return the same evening. Occasionally we would ride over in the evening, have snacks while on board, listen to the music provided and return home the same night.

In April the daylength was long. It was easy to drive with the family anywhere in Denmark and return. One trip might be to the Hans Christian Anderson (the H.C. Anderson) museum in Odense. Another trip might take us to the sand dunes of Jutland, or back to Tivoli again. The Lippizzan stallion show came to Copenhagen while we were there. All these events were of more interest to the kids than the palaces and museums. We older kids enjoyed the kiddie shows too.

The boys also were enjoying talking to each other in Danish, and telling us with a knowing smile that we didn’t know what they were talking about. They continued to do that for awhile after we returned to the U.S. They were right. We did not understand them.

Soon it was time to start to arrange shipment of our VW home. It was absolutely like new, but could go as a used car with a low import duty. The Danish furniture company had lovely and very substantial items that they shipped home so reasonably. Of course, at the end for us was the packing and house cleaning. We wore slippers in the house, always leaving our shoes or boots on a mat just inside the door. So the floors were not scratched. We had not broken anything, so we were able to leave our home for the year in the neat clean way we found it.

What a pleasure it was to deal with the friendly, helpful, honest Danes. They were and are a wonderful group of people, less corrupted by some of the big business overly aggressive attitudes seen too frequently in the USA.

So what are a few other things I remember that are not in the diary. One was my fascination with cattle feeding on lush pasture. As we drove through the countryside, I would stop along the road occasionally to photograph a herd feeding. To get their attention I would take out my white handkerchief, wave it and call to the cows. I wanted to get their attention, and have them looking toward the camera. The boys loved to kid or chide me about this whenever we drove anywhere in Denmark, or for years back in the U.S.A. As we drove along they would spot cattle in the field and mischiefously say “Dad, aren’t you going to stop and take their picture?”

I rode my bike regularly to the S tog (train station). There were lots of foggy damp days. I needed a rain hat and also a cover for the bicycle seat. Without the latter I would pick up the bicycle in the bike park on a rainy day and ride home with wet
pants. I got the idea that a plastic bowl cover with the elastic band would work fine. It
did, both as a rain hat and as a bike seat cover. Ruthie told me that one of the
morning laughs among the neighbors on Ayervang Drive was to see me speeding out
with my wonderful leather Danish brief case on the back of the bike, but most
noticeably was that crazy American with a cheap refrigerator bowl cover on his head.
That's great that I unknowingly could help the neighbors have a good start for their
day.

The trains were absolutely on time. I tried to arrive at the station a few minutes
before train time. I could buy the daily paper. This helped me to learn to read some
Danish. Besides everyone else was reading their copy of the paper. When Russia
sent up I believe it was Sputnik, people on the train were watching me to see what my
reaction would be.

We used our bikes often. Robert rode his bike to school daily. He had to cross
a main intersection, but there always was a policeman there directing traffic. He was
lightly hit one time by a driver who did not obey the policemen's signals. Robert was
O.K., but we felt secure that had there been bodily injury the police would be on our
side. When we left Denmark I gave my bike back to the police to auction off. I don't
remember how we disposed of the bikes we had purchased for Robert and Dale.

One night I was working late at the lab. Suddenly I realized that it was nearly
11:30 p.m. That was the time the last train went out to K. Lyngby. I ran to the station,
but alas the train was pulling out as I approached the station. I walked back to the
lab., and called Ruthie. I told her that I could borrow a bike at the lab and ride it home.
I did that. It was snowing lightly and 18 kilometers seemed like a long way. I made it
O.K., but I was never late again.

Another time I was walking from the lab. to the station when a young man
speaking very good English said hello to me. He said that he had been in the U.S. for
a couple of years. He asked me if I had ever heard of artificial insemination (AI) of
cattle? He was quite surprised that I had worked on AI in the U.S. and that was part of
my work in Copenhagen. We shared animated conversation on the way to the train
station.

Other times on the way to the station, when I had a little time, I would purchase
a chocolate bar with hazelnuts. I got so I could order those in Danish quite correctly.
They were made by the Nestlé Chocolate Company that Mr. Mølgaard, our Lyngby
neighbor, was an executive in. He traveled frequently to the U.S.A. Also, he was an
executive in the International Rotary organization. He traveled for them after
retirement from the chocolate firm.

Often I listened to the late night news. I would compare the BBC news
(excellent commentary) with Radio Moscow's broadcast in English. Subtle changes in
wording can have a substantial difference in impact upon the listener. For example,
one time there was a strike by coal miners in England. I thought that the English
broadcast did point out the good and the evils of working in coal mines. The Russian
broadcast gently supported the poor coal miners as they were victims of big
government and big corporations. They did not mention coal mining conditions in
Russia.
Research. I did spend lots of time learning and doing research. Monday through Friday often were long days at the laboratory and the library. However, weekends and holidays always were family days.

I was fortunate that I had access to several laboratories. My main efforts were in the AI laboratory working with Kofoed-Johnsen on spermatogogenesis, using $^{32}$P and later adenine-8-$^{14}$C. This was the early days of using radioisotopes. Tritiated thymidine was just becoming available when we returned to the USA. At Cornell I immediately switched to the thymidine to label DNA radioactively. This was highly specific for DNA with no background in the tissues otherwise. It's weak beta decay also gave it extremely high resolution in locating the source of the radioactive DNA precisely (resolution to a fraction of a micrometer).

Dr. Kofoed-Johnsen's wife worked in Prof. Hans Ussing's laboratory, a world famous membrane and cell physiologist. In addition, they were friends of Hilde Levi, an expert in using autoradiography for microresolution of DNA synthesis in cells and tissues. Also in this small community of scientists they were connected to friends in the Bohr atomic physics laboratory. Both Niels Bohr and son Aage Bohr won Nobel prizes. Physicists from Russia and other Eastern European countries came to study in their laboratories. We were invited to their Christmas party where we met scientists from Russia.

Through these various contacts I was able to learn new techniques pioneered in these labs. I loved their superb Carlsberg micropipettes. They were better than anything we had in the U.S. I brought a whole series of sizes back to Cornell. I saved a few.

Most of our research was applied to the rabbit model and some research was done with bulls. Both species fitted perfectly into the program I was developing at Cornell. At the same time I helped design several AI experiments. Probably what they wanted me to do most was talk to them in English and help them with their papers. Everything for world consumption was published in English. They really didn't want me to waste their time teaching me Danish. They rightly said neither you nor we can use Danish outside of Denmark.

So I had a most enjoyable time becoming good friends as I worked productively in the laboratories. Also, our family was invited to many homes. After dinner one usually moved to the living room for coffee or tea, and fruit and nuts. The next morning when you first saw your hosts from the night before you included "Tak før siste" with the good morning. In English this translates as "Thank you for last night".

We seldom went to church with Danish friends. Most were not avid church attendees. Dr. Rottensten said frankly that having a state religion was not good. Because the government paid the clergy, people felt little responsibility. Nevertheless we found that people generally had high moral and ethical standards, however those family values were derived.

They were very tough on drunken drivers. Although beer and more concentrated alcoholic spirits were widely consumed, when you drink don't drive. A designated driver was selected in advance when a group was planning to attend a big party. Arrests for driving while intoxicated resulted in large fines. Repeated offenders could lose their driver's license for life.
Our flight home was with Icelandic Airlines. We had stopped for a few days in London on our homeward trip from Copenhagen to do some sightseeing. I gave a seminar talk at the Royal Veterinary College while in London. Icelandic Airlines made brief stops at Glasgow, Reykjavik and Gander on the way to New York. Therefore, it was not considered an international flight and rates were lower. It was 2 a.m. and still light when we landed in Reykjavik. Off the coast of Newfoundland we hit a huge downdraft of air while we were eating breakfast. Later they told us we dropped 190 feet. In the meantime all the breakfasts, trays and utensils went flying toward the ceiling of the aircraft. Some breakfasts that had been partly consumed went flying also. This upset us a little.

We landed safely in New York. I believe that Ruthie’s parents drove us to Ithaca. There I picked up my old Chevy station wagon that had been stored in a barn while we were in Denmark. The VW arrived quickly in New York. We all drove to New York, whereupon the family was split between the old Chevy and the VW. We stayed together well on the drive to Ithaca. We made the Roscoe, NY diner on route 17 a mid-stopping point where we took care of necessities, including eating.

On the last Sunday in October we had the thrilling experience of attending the first service in our new Congregational Church. The last Friday in October we began excavating for our new home at 70 Woodcrest Avenue in Ithaca. So a new chapter in the life of the Bob, Ruthie, Robert, and Dale Foote family was about to unfold. We all had the unforgettable memories of our 9 months in Denmark and continental Europe stored in our cranium as well as on Kodachrome slides. The only memory I am glad to forget was figuring out income taxes for two years, combining the payment in krøner with any payments by Cornell and others in dollars.
The land is up from the street & there is a row of bushes to shield it from the street.

Paved walk

Euphorus (Sp.)

Iron pipe on which rags are hung & hatched.

Paved

Garages

Bath is over the kitchen, Dallas room over dining area & our room over the sofa part of living room. The other bedroom is locked for storage.

The garages on right are wood & Robert's room & baths & laundry room etc. are wood, but the square, main part of house is brick. Robert's side of the house has cement floors & is unheated. The laundry room is a place to hang clothes & for storage here as there are no tubs. The cold room, next to it, just goes halfway down. An outside door which goes the other half way down, holds a garbage can. Some people park their little cars in the paved area by the garbage & tool storage as the walk in front of the house is just wide enough to let one drive on it & there aren't enough garages to go around. Each yard is enclosed by a hedge.  

Drawn by Ruthie.

RtF
Chapter 12
A New House and Family Life While the Boys Are Still at Home

When I was hired as an Assistant Professor at Cornell, Ruthie and I looked for places that had enough yard space for two young sons and a place to add a dog. We did not find anything within our affordable price range as close to Cornell as we had hoped. We did buy a house at 110 King Road West, close to a park and only few miles from Cornell. However, it was up and down South Aurora St. and up and down East State Street, often twice a day because of research requiring some evening preparation, or evening programs on the campus. We went to plays at Ithaca College, but those were downtown then. There was no beautiful Ithaca College Campus on the south hill until years later.

So we were continuously on the lookout for a possible location that would more closely fulfill our dreams. We heard about a tract of farm land that was to be subdivided into building lots just south of land that Cornell owned south of Mitchell Street. Cornell owned the land behind what is now the High Voltage Laboratory on Mitchell Street plus the land along Pine Tree Road. At that time it was sheep and swine pasture and housing. Mr. Barnes had a dairy farm where the East Hill Shopping Plaza is located now. He cut the hay on the Cornell lot. His daughter, Kay Barnes, worked at NYABC, so I became more familiar with this neighborhood.

This area had many attractive features. It was on East Hill, close to Cornell. It was woody. An excellent elementary school, Belle Sherman, was nearby. There was an old railroad bed that was no longer active. Formerly trains came into the East Hill Depot from the Binghampton area. This railroad bed provided a direct walking access toward Cornell with minimal crossing of busy streets. So we investigated the area in the early 1950s. By 1954 we were the first to buy property at the corner where Cornell owned the hayfield to the north and the old railroad bed and woods to the east. I checked with Cornell. They had no plans to develop this property, so we had good protection.

Our property was the highpoint of the land. It had a beautiful view to the south and west. It was on the end of a planned dead end street, so there would be no through traffic. The city of Ithaca had agreed to install sewage lines and storm sewers. Gas and electrical hookups all would be available with no surcharge (only the cost of the installation on the individual property).

It was a wonderful selection. We never regretted purchasing that lot for $3500. The only problem was we didn’t feel we had enough cash to build a house immediately. However, Ruthie had been clipping house plans, and sketching modifications. Eventually we found a complete set of architectural plans, complete with a listing of every item needed for construction, that nearly matched our dream house.

A builder, Tony Petito, now had bought several of these lots and was starting to build houses slowly on what was named Woodcrest Avenue. We owned what really was the Woodcrest lot. We showed him our plans. He said the details were all he needed. We did not need to hire an architect. We could work directly with him. By that time we were planning to spend a year in Denmark, but we decided we could proceed to build the house as soon as we returned. We signed a contract. Tony was
a careful, expert cabinet maker and builder. Again we were blessed. All the cabinet doors were cut by Tony so that the pairs of doors were complementary. Every door closed precisely in 1998, when we gave the house to Cornell, as each door did when we moved in on August 12, 1960.

We arranged to order or have Tony order loads of materials when he needed them. When possible they were ordered so that the supplier dropped them off directly from the wholesale supplier without storing them locally. This always permitted us to obtain a discount. This way we saved on price, but we never sacrificed on quality. The masons who laid the foundation jokingly complained about the 12 inch blocks we used instead of smaller ones. They were heavy, but I complimented them by saying that I knew that with these blocks and their skill we would build a foundation that would not crack nor settle. With the deep foundation, crushed stone, drains, and other foundation preparation we had a dry basement that never moved.

Of course there were some complications. The union told Tony that they would not hook up the water and gas lines if he used the out-of-town nonunion plasterers that had been contracted to do the walls. So that had to wait. The hot water heat then was installed. The plastering followed so we did not have plaster behind the hot water baseboard radiators. Our expert stone mason had a bit of an alcohol problem. He was behind in his work. Tony loved to play golf. In the spring of 1959 some beautiful construction days found him out on the golf course. We had to remind all that there was a 10% penalty clause in the contract. We had to be out of our house on 110 King Road West, all cleaned up, by August 31, 1960.

So all put their hammer, saws, masonry tools, and whatever to work. The interior painting, wood finishing, and filling and sealing nail holes in cabinets was our job. We finished the kitchen and two bathrooms before moving day. To prepare the house for moving into on August 12 I virtually lived there for a couple of weeks. Ruth, Robert and Dale went to Connecticut to help Ruth's dad celebrate his birthday. The three bedrooms were finished soon afterward. However, the living room and dining room were white plaster for another year.

We did have a cold cellar under the front porch that I finished immediately after moving in. It was walled off from the rest of the basement which was heated. The porch floor had steel trusses under flagstone and poured concrete. I referred to this cold cellar as our bomb shelter. In fact we stored water, along with all our canned goods, on shelving that I installed. Glass wool insulation was sealed in at the ceiling to avoid freezing in this room on the coldest winter days. The full basement was not finished until a few years later.

Later that summer we all went to Connecticut to visit families, plus a quick trip to attend the annual meeting of the Eastern Division of the American Dairy Science Association at the University of New Hampshire. We had friends there from our college days at the University of Connecticut.

Robert and Dale no longer catch the bus in front of the house at 110 King Rd. West. Dale can walk the back path and down Mitchell St. to the Belle Sherman school without crossing any streets until he reaches the school. Robert has to hike down to the Dewitt Middle School. That was a long hike up and down the east hill daily. Buses did not stop at the foot of Woodcrest Ave. as they have now for many years. The high school moved out to a new facility on North Cayuga Street in 1959.
Dale was in Cub Scouts and followed with Boy Scouts and summer camp. We did not have a troop near where we lived before so Robert missed out on that. Robert is a coin collector (something his parents have tried to do in a sense over the years). He also is an avid car encyclopedia. He knows every make and model the past 45 years and recognizes them a mile away.

He took a health course and typing during the summer so that by the second year in high school he was taking English, German, Latin, geometry and biology. Wow, that was a formidable schedule, but he did well. He usually obtained about 100 on his math exams. Once on a genetics exam I think he dropped to 85. I jokingly asked him what happened. He indicated that he wondered also, and was trying to figure out if it was his genetics or his environment. I decided that he knew the principles of genetic and developmental biology.

Dale was showing his artistic talents at home and at school. He started to construct various models out of clay at an early age. He enjoyed painting and sketching. He had paintings and models on exhibit at the high school where he was active in the theater. Meanwhile Ruthie was getting things in order in our new home. She was painting the bedrooms. Our new location made it easier for her to work more closely with the Red Cross bloodmobile. She met regularly with the International Wives Friendship Group, and picked up wives to come to our home for coffee and English conversation. Also she was part of Campus Club Needlework group.

Robert and Dale were a major help about this time in finishing off part of the basement. The north side of the basement had lots of light with a ground floor entrance. We had a ping pong table there and Ruthie kept extra plants there. We had put drains in the floor for a complete bathroom and a kitchen sink when the house was built. Eventually it could be made into an apartment. What we needed now was to preserve the game room, and put in the northeast end a combination study and guest bedroom.

Tony Petito came back to build the bathroom and the study-guest room. Robert and Dale put tile on the floor of the game room, and rolled on an attractive yellow paint covering the cinder block walls. The ping pong table and a TV set fitted in the game room. Sometimes the ping pong table was used as a work table as well as for ping pong. Robert and Dale used the table and a planimeter to measure the size and shape of sperm heads magnified 5000 times. This research was published.

The study room was very convenient. When I became sleepy while preparing an exam or whatever, I could stretch out on the pullout bed for 15 to 30 minutes.

We have never been back to see the house on Woodcrest Avenue. I hope the woman who bought it with her live-in appreciates it. I gave her the plans we had drawn for a potential apartment when we built the house. She said she wasn’t interested, but if I was throwing them away she would take them. Friends of ours on Woodcrest Avenue told us that she promptly had an apartment put in. I gave her drawings of the landscaping of the lot, and Cornell’s recommendations for maintenance. She accepted these as if she was doing us a favor. So I have an unfavorable impression of this person’s ethics. Her live-in was very pleasant.

Ruthie was very knowledgeable about birds. She immediately took advantage of the proximity of our house to woods and birds. She would walk and stand on the old railroad bed back of the house and list off 20 or more birds by sight and sound. She
would record seeing pheasants crossing the back yard. One day when I was home a
male and a female pheasant were in the backyard. A neighbor’s cat was hiding in the
bushes eyeing them. The male pheasant saw the cat. He slowly walked and stalked
directly toward the cat. When he was about 15 feet away he fluffed up his feathers
and wings into a massive creature with a blood-curdling cry that sent the cat flying in
retreat. Good for that pheasant!

Ruthie also watched eggs being laid in a nest in bushes outside our picture
window. The dates the eggs were laid, dates hatched, and time the young flew were
all recorded. Hummingbirds at our feeder outside the kitchen window never ceased to
amaze us. So agile. Wings beating at a phenomenal rate. Six to eight male cardinals
on the snow-covered hedge in the backyard were a brilliant red contrast with the snow.
Rabbits, squirrels, snakes, deer, woodchucks and voles. We had them all in adjacent
trees and fields.

In 1962 Bob’s parents made their only visit to Ithaca. Lovina brought them out.
We all went to their 50th anniversary of graduating from Alfred University. Mother was
valedictorian of her college class. Dad was a good student and a star athlete. He
lettered in varsity football, baseball, basketball, and track. Although he was a tackle
on the football team he was one of the fastest runners on the team. In his senior year
I believe that the football team was undefeated. In the final game, as time was running
out, Alfred had a small lead but fumbled the ball. The other team recovered the
fumble and raced toward the Alfred goal line. But the ball carrier never made it as my
dad was in hot pursuit. The game was over. It’s the only time I ever heard my dad
brag a little. He said that after he made the tackle the referee said “Foote, Alfred is
sure going to miss you next year”.

While my parents were here we had some friends over. I introduced my mother
as my mom, a farmer’s wife and a former English teacher. She responded with a
smile that she really had been a teacher of English. Touché. Yes, she taught French
and Latin also.

Both parents had maintained an active life. Dad continued to do a variety of
chores on the farm. He worked in Hartford also. In 1945 he was appointed
Commissioner of Domestic Animals for Connecticut. He was Director of Farm Youth
for 11 years. He was active in Farmer Cooperatives. He continued to be an active
mason reaching the top (33rd degree).

My dad and Ed had one of the higher producing herds of Holsteins in New
England. They won the green pastures contest. Ed said that they had so many
visitors that it might never be green again.

Mother continued to be busy with church and other community activities. She
was Churchwoman of the year for Connecticut. She was gathering information for her
we drove around town. I took photographs of many important buildings that she used
in her book.

She was treasurer for the home farm which was incorporated. She kept all the
families informed of activities at home and around Gilead and Hebron. She was the
main source of information. Brother Ed and his wife essentially never wrote although I
wrote to them. We were in the outer loop.
Both mom and dad continued their interest in local education. Scholarships are
given to graduating hometown high school seniors each year in honor and memory of
my mother and father.

Changes had taken place in the farm buildings also. A machinery repair shop
was built. A new milkhouse with a double-six herringbone milking parlor was
completed. This was so different from when I was a youngster. One took the machine
to the cows, or milked a few by hand then. One advantage of the hand to udder
contact was the complex vaccination I evidently received at an early age on the farm.
I was immune to smallpox. My explanation is that we occasionally had cows with
cowpox. I also had small cuts on the hands from handling barbed wire, etc. It would
have been possible to be exposed to cowpox proteins that stimulated my immune
system appropriately. Probably my immune system had been exposed to many
semiharmless organisms as a kid. Do you suppose that had something to do with the
fact that whether at home or traveling I never missed a lecture or seminar because of
illness in 57 years at Cornell. I was immune.

Time is flying by. In 1963 Dale was in 7th grade starting German. Robert
already is conquering his third year of German. With their activities in school there are
more plays, concerts, and class exhibitions to attend. It was time for Robert to think
about different college opportunities. He was thinking about applying to Cornell to
study engineering. In fact, that is what he decided to do. I don’t think that we
encouraged that decision, as we wanted him to make the choice. I know that mom
was glad to have him nearby. She even thought it would be O.K. if he lived at home. I
vetoed that idea. Of course, one would like to postpone the day when the youngsters
fly away from the nest. But every generation needs to move into that responsibility.
Ruthie would have been worried every night if Robert wasn’t home, at least by 11 p.m.
That would have been bad for everyone. Besides, engineers have to spend a great
deal of time studying. The curriculum was especially rigid the first couple of years in
those days. Robert said later that the only time he had the first year was spent either
in class or studying.

The summer of 1963 was a special one. It was five years since returning from
Denmark. A camping trip with the whole family was overdue. Robert and Dale were
healthy teenagers. They provided the strength and the skill to put up and take down
our new umbrella tent (sleeps up to five people) almost daily as we traveled 9,000
miles in one month.

Ruth made a large canvas sac with a zipper that we could carry on the top of
our new 1963 Valiant station wagon. The tent poles, stakes, cords, etc. all fitted into a
canvas bag that also could be fitted on and attached to the luggage rack on our Valiant
station wagon. In the back of the wagon we had room for sleeping bags, suitcases, a
Coleman stove, reserve fuel, some groceries, a small insulated cooler and extra water.
Oh yes, we included a small folding card table and folding seats.

On Sunday, July 28 we rolled out of Ithaca toward Buffalo and the Rainbow
Bridge, and returned August 27. We had someone come in to mow the lawn and a
neighbor watered flowers. I don’t remember what happened to the garden that year.
Of course we had AAA maps, tour books, and a Trip Tick, plus a guide to national
parks.
We left Ithaca about 8:30 a.m. We took a wrong turn near Toronto so we didn’t reach our campsite in Kilbear Provincial Park on Georgian Bay, Ontario, Canada, until about 7:30 p.m. The park appeared to be new. Our campsite had never been used. It was near the water.

Being late we tried to put up the tent too fast and broke one pole (quickly repaired). Ruthie fixed supper while we finished putting up the tent. We dug a small trough to drain rain water off the tent. That was important because with the tent up and hamburgers sizzling in the frying pan on the Coleman stove, it started to pour. We scrambled into the tent until the shower was over. Meanwhile the rain spattered grease all over the Coleman stove. We had time to eat the hamburgers, plus some fruit, juice and cookies before it started to rain again. We crawled into the tent. All slept with their clothes on. The tent proved to be worthy. We stayed dry all night.

We stayed at the same campground another day to let the tent dry out. Also, we went swimming in the bay. A notation from that trip states “Had a delicious lunch. Whitefish for lunch, fresh from Georgian Bay”. With that bit of recreation, camping fun, and all dried out we were ready to move on to new sites and sights.

On July 30th we reached White Lake Provincial Park at Regan, Ontario. This was the height of the travel season. The campground was full, but the campground attendants squeezed us into the picnic area, along with others. After this experience we planned to start early in the morning and stop early in the afternoon. Weather was cooler in the morning. The campsites had openings earlier in the day. It rained off and on all day. The scenery was beautiful, but the sulfur smell from the emissions by multiple paper plants was strong.

On July 31 we saw many signs for campsites as well as lodges on the highway, but pointing into small roads into the woods. Because of the wetness we decided to stay at Fisherman’s Lodge on Lake Wabigoo. It was not raining when we arrived, so we rented a motorboat and toured around the lake. Nearby was a small fish processing plant. The fish were cleaned and packed in ice for marketing fresh or frozen, and stored in a frozen food locker.

The first two days in August we spent with Ernie and Norma Swierstra in Brandon, Manitoba. Ernie was a former PhD student of Bob’s who did a superb job of pioneering the cytokinetics of spermatogenesis in the rabbit model. Later, as a researcher in Canada, he studied spermatogenesis in large domestic animals. When Ernie left Ithaca he took Bob’s secretary, Norma Rourke, now Norma Swierstra, with him. Bob lost several fine secretaries this way.

Bob spent much of the time visiting the research program at the Canadian Research Station in Brandon. Years later Ernie became director of the station. Norma drove Ruthie, Robert and Dale to see the buffalo in Riding Mountains National Park. They remarked about the vivid colors seen in the floral plantings in many yards. Perhaps the flowers are less bleached with the cooler summers. Speaking of cool, reminds me that we noted plugin outlets for electric heaters to keep the car motors from getting so cold in the winter. I remember the workout the motor gave a good battery one morning when it was -18°F in Ottawa in January. Ernie and I had gone there when he was a graduate student to see Prof. Belanger and his procedure for preparing autoradiographs.
Then it was on and on through flat wheat country. Occasionally we would see hawks on top of the telephone poles looking for field mice. Ruthie was expert at seeing and classifying birds. We played road sign and car registration plate games. Anything to break the boredom of on and on in the warm sun and flatlands forever, it seemed.

Finally we came to Medicine Hat, Alberta. There was a kitchen shelter beside the road and the boys said “let’s camp here”. They were tired of riding, although they were great travelers. We stopped and cooked supper. Ruthie wrote a note stating that “Ruthie couldn’t stand tenting in the open beside the road, so we drove on and came to a motel in Medicine Hat that had a campground out back”. Of course this was much better. When Bob drives on and on it didn’t always turn out so well. Really, generally we started early, stopped periodically, including a stop to catch lunch, all packed in our cooler, and before long we had covered 500 miles.

By August 4 we were right on schedule in Yoho National Park, British Columbia, where we camped for a few days. The first night we were there a bear came through our area and ransacked a cooler that a nearby camper had left food in on the table overnight. We never left food or other items out on tables. The next night I thought that the bear would surely return to the scene of its crime, so I stayed awake until after midnight with my camera ready by a peekhole in the tent. Nothing happened so I gave up. The next morning I talked with a park ranger. He said you won’t see that bear. We found it yesterday near the campground and transported it far away into a remote mountain area.

But lots of good things happened while we headquartered at this campsite. We drove to Banff and Jasper. We rode in a snowmobile on the Columbia glacier and looked down huge blue colored cracks in the ice. We saw beautiful Lake Louise and Lake Edith Cavell. Ruthie, our ornithologist, spotted a Clarke’s nutcracker there. We visited mineral hot springs and swam in the sulfur water. We viewed Takakkaw Falls and Johnson Canyon and toured through the Wax Museum and Indian Trading Post in Banff. All was fun, exciting and tiring. Periodically we resupplied our basic groceries and snacks, enjoyed by all four of us, but especially needed by active teenagers.

In the early morning the Valiant sputtered a bit when started. But it soon caught its breath. By August 7 we were on our way to Kelowna, British Columbia. The fruit at the roadside stands in the Okanagan Valley was as juicy, sweet and tangy as I have ever had.

We stopped and enjoyed the fruits of the local labor several times. So we were a little late, but we caught the last campground at Katchem Kamp on Okanagan Lake. A swim in the lake was very refreshing.

Up until now most of our baths had either been in a lake or at simple showers available at a few campsites. However on August 8 we stayed at a luxury motel at Grand Coulee Dam, Washington. There are many interesting lava formations in this area. We went on an organized tour through part of the dam. At night colored lights lit the dam and waterways.

August 9 and 10. We spent these two nights at Sequin Bay State Park on Puget Sound, Washington and at a new park at Lake Quinault. We enjoyed the huge forests, especially the rain forest. All seemed to be so uninhabited that we refilled our
canteens with spring water. I don’t remember if we added chlorine tablets or not. Ruthie pointed out lots of Magpies, and Stellar and Mountain Jays.

August 11-14. Now it was time to attend the American Dairy Science Association national meeting in Corvallis, Oregon. Bob attended most of the scientific program. There were special activities for spouses and for children of different ages. We all drove down U.S. 101 to Florence and had lunch on the beach. We picked up some driftwood. One night we had barbecued salmon prepared the Indian way. The split salmon sides were hung vertically next to a slab of wood. The flames leapt up around the salmon. It was a unique sight. More importantly, if you like salmon you would love salmon prepared this way. One of the big bonuses here was that we stayed in the Oregon State University dorms, with fresh linens, hot showers and most meals included.

August 15 and 16. Now it was time to start the return trip, as we headed east, stopping one night at the Diamond Lake campground near Crater Lake in Umpqua National Forest, Oregon, and the next night at Tumalo State Park in Bend, Oregon. We attended a campfire program illustrated with slides of the area and equipment used to control fires. The Danish Peterson’s rock garden at Redmond was very unusual, and was a special attraction for our Denmark traveled family.

August 17. As we drove east from Bend to Idaho the landscape was barren with no trees. It was almost unbelievable to see on earth what we saw at Crater of the Moon National Monument. You could imagine this was the way it was when the dinosaurs were wiped out. We stayed in Cary, Idaho at a motel with a kitchenette. Every few days in our travels it was refreshing not to have to setup and break camp. A good shower was appreciated.

August 18. Now the geography has changed as we drove to East Table Creek campground in Targhee National Forest, Alpine, Wyoming, just below Jackson, Wyoming. The countryside and rapidly flowing rivers were beautiful.

August 19 and 20. We were now camped by the Snake River in Teton National Forest at the South Gate of Yellowstone Park. Bob had now reached the old age of 41. Also, he was now a Full Professor at Cornell. We toured the Tetons (which were referred to by some as the Jane Russell peaks), and Jenny Lake. We had a campfire show of the flora and fauna of the area. At this elevation one needed a campfire. We had one. As Ruthie was wiping the tablecloth on August 21 snow was noted, and “seconds later there were icy patches on the cloth”. A nearby camper gave us the unofficial temperature of 28°F. I remember that I had hot cocoa ready and toast plus the smell of bacon and eggs cooking before I could coax the boys out of the tent that morning.

On the warm side, there were hot springs nearby. Robert’s hat blew into one of them. Ruthie noted that “Bob retrieved it by bringing a tree log and fishing it out”. Wow, can’t you see me carrying a huge Douglas fir on my shoulder? I’m afraid that the log was merely a little stick.

On August 21 we camped in the Big Horn National Forest near Buffalo, Wyoming. There was a sign about a youth camp site, so we drove several miles to a youth camp which was empty at the time. The main lodge was locked. A cabin with three army beds plus a bunk beside a stream was just right for us. After much hiking on this trip a dip of the feet or four Footes in cool mountain water was most refreshing.
August 22 was another great day. We toured an open-pit coal mine near Gillette, Wyoming and the Devil’s Tower National Monument by noon. We rested with a picnic lunch there. We made a point of obtaining a list of natural attractions, park’s and visitor’s centers before the trip. Also, we bought a seasonal pass to the national parks. All were worth having, as we saw and learned so much on a Footestring budget.

We enjoyed watching a Prairie Dog colony during lunch. Dale saw his first cactus in the wild. We stopped at Spearfish, SD, where the outdoor Passion Play is held. Rain was threatening so we moved on to Deadwood, to go underground in the Homestake Gold Mine. It was a great tour. You could feel the hot air coming up from the very deep shafts, more than one mile underground. It started to pour so we stayed inside at 3 Forks Inn Motel near Hill City, SD.

On August 23 we visited Rushmore Cave, but the highlight was Mt. Rushmore and the visitor’s center. Then we took a trip off the main route along curvy, but scenic US 16A to Wind Cave National Park. Yes, you could hear the wind blow in the caves. We were now in Wall Drug country. Signs were everywhere, far more numerous than the Burma Shave signs like "A lady doesn’t like to dance or dine, escorted by a porcupine. Use Burma Shave”.

We stopped at Wall Drug in Wall, SD for supper. Supper was very inexpensive. The store was full of touristy items which they hoped you would buy enough of to offset the cheap meal. We then camped in the Badlands with an artificial campfire program. No campfires are allowed in the Badlands.

August 24 and 25. We took a guided tour of the Badlands. Beautiful and different (see slides). We went back to Wall Drug for lunch as the meals were great with a come-on price. Then it was on to Sandy Shore State Park at Watertown, SD for the night. Yes, it was a sandy beach and good swimming.

How green the countryside became as we reached Hutchinson, Minnesota. Hutchinson was named after the Hutchins who left New England because neighbors thought that they were too strong advocates of women’s rights and for the abolition of slavery. They formed a singing group with appropriate songs. President Lincoln invited them to sing in the White House. They toured Europe. A very young daughter of this singing group was approaching 100 years of age, by the 1960s, and was the only living survivor of that rebellious generation from the 1860s. My mom, Annie L. Hutchinson held similar strong beliefs. I (Robert Hutchinson Foote) do also.

The next highlight was arriving at White Bear Lake where Ruthie grew up until high school age. Ruthie was very disappointed. She wrote “Looks like a refueling stop for gas and liquor”. There were many new homes, a population of 12,000, and the country flavor was destroyed. She stopped by old landmarks such as the New Lincoln Elementary School and Hoffman’s Corner. And so we moved on toward St. Paul, MN, camping at River Falls State Park. This day was a little too much. We were late. We cooked and ate supper by flashlight. Yes, flashlights and extra batteries were part of our camping checklist.

August 26. We stopped at Wisonsin Dells, a town near the home of one of my brand new graduate students, Ralph Maurer. We saw lots of shell shops and visited an alligator farm. We needed to reach Milwaukee before 3 p.m. to board the Milwaukee Clipper. We relaxed on the ferryboat, saw two movies on board, ate
dinner, and arrived at Muskegon, Michigan. We did not see any motels with vacancies, so I kept driving. My family will never let me forget this as I rolled through towns with stop signs now only on blinking caution lights. We stopped at a place we could pull off far enough to fix breakfast. We rolled on again reaching Niagara Falls by noon. That was beautiful, as usual. We snacked there in a picnic area. Then it was on to Ithaca. I drove most of the way, but Ruthie took over during daylight occasionally to let me catnap. Robert and Dale curled up with pillows in the back seat, with occasional rest stops to walk around and get gas, plus perhaps hot chocolate.

We arrived in Ithaca about 3:30 p.m. It really was a great trip. The family thought I pushed a little too hard to get early starts each day. But the summer mornings were cooler than later in the day. It was restful to stop early when we could locate a place to stay, take a swim or whatever. We saw some campers rejected at campsites in the evening because they were full. I have very fond memories of this trip. Now I need to add comments by Robert and Dale. For Ruthie, I can only say she was a great traveler, and I'm sure that it was fulfilling for her to have the family unit traveling some of the highways and byways of life in these United States. We should have taken more scenic trips.

Of course it is always nice to get home, to that cozy house where you know where everything is, and where you can sack out when tired. It was a fine neighborhood too. We had friendly, caring neighbors. That was true through all the 38 years we lived on Woodcrest Ave.

Ruthie is an excellent tailor. She loves to make clothes. In the fall of 1963 she felt like being in school like the rest of the family. She enrolled in an adult education class in tailoring, and made a lovely wool suit, finished in time for winter.

At the national level a great tragedy occurred, with the assassination of President John F. Kennedy. This wounded any thoughtful individual, Democrat Republican or whatever. I wrote as thoughtful a note as I could compose to Jacqueline Kennedy. I was touched that her office responded to all these (millions probably) sympathy notes. Her acknowledgment is attached.

During the Spring break in 1964 Ruthie, Dale and Bob decided to take a trip to Florida. Robert decided to stay home and take care of the home place. We had not been to Florida. Ruthie made notes on the trip, which lasted from 3-28 to 4-3. There was snow on the ground in Ithaca, but none south of Allentown, PA either going or coming home. We were thinking of purchasing land for a retirement home in Florida in the distant future, so we wanted to get a little feel for the area. We traveled as far south as Sanibel Island. As there were lots of miles to cover, Ruthie notes that we were up at 5 or 6 a.m. every morning. I was teased about these early starts since it was pointed out that I didn’t have cows that had to be milked anymore. Ruthie noted the forsythia, daffodils, Japanese quince and Magnolia trees in full bloom dotting the landscape in Virginia. There were peaches and other fruit trees in bloom, and azalea gardens bursting with color as we continued south through North Carolina and Georgia. Dale picked some cotton in Georgia.

Of course there were the usual rest and snack stops, including the state visitor centers as we entered each state. Ruthie recorded seeing many birds such as terns, cattle egrets, bluebirds and others several times. There was Spanish moss in the
trees and small double-flowered Lady Banshee roses growing wild over trees and bushes. There were many areas of swamps in South Carolina, Georgia and Florida.

We were given a free tour and refreshments at a yacht club and shown model homes on display by a development company near Ft. Myers. We saw porpoises perform and waltzing waters with lights at night. We looked for shells at Sanibel and Captiva Islands. There had been no recent storms, so there were no spectacular treasures found on the beaches. On the way back, at Gainesville we had a nice visit with the Wallaces, now with four daughters. The Wallaces were contemporaries in graduate school at Cornell. Eleanor Wallace was the one who I transported the dress form to after several gals made these forms at our apartment on Bryant Ave. (I have described this previously in this book).

We stopped at Arlington National Cemetery. We stopped by President Kennedy’s grave. We saw the changing of the guard at the tomb of the unknown soldier. Very impressive, especially for Bob who as a young soldier had witnessed the horrors of war.

Ruth and Wil Pond and son from Cornell had been at Arlington. By chance they stopped at the same Howard Johnson restaurant in North York, PA. We brought home pecans purchased from a roadside stand in Georgia. We also bought sparklers in South Carolina and used them the next July 4th in Ithaca. Personal fireworks were legal in SC.

Back home the summer was rapidly shifting into the lovely fall season. Robert moved to Boldt Hall on the west campus to start his first year in the College of Engineering. Dale was in 6th grade. He decided to try soccer. He had run the 440 yard dash on the track team in the spring. It was at a track meet that I became more aware of segregation in Ithaca. Dale and an Afro-American boy were massaging each other, helping each to get ready for the race. After the track meet was over I mentioned to Dale that it was heart warming to see the different racers working together in one spirit. Dale said, “Yes, but notice when we go home we drive up the hill, and this boy heads down toward the railroad tracks”. There is still much to learn and to do about racial and social equality.

Robert had stopped accordion lessons by this time. Too bad, no time. We had enjoyed hearing him play the accordion. Dale continued his piano lessons with Mrs. McKenna. She lived only a couple of miles from us on the Slaterville Road.

We took trips to Connecticut to visit all the relatives periodically. Only Ruthie’s parents came to Ithaca regularly. We spent a couple days in New York City at shows and visiting the World’s Fair. In August we spent four days at West Harwich in Cape Cod celebrating Ruthie’s parents 50th wedding anniversary. It was all luxury, sun, sand, ocean, clam bake and more overeating.

It was time to begin some real camping again. In August, 1966 we rented a 15-foot Phoenix tent camper that opened out to provide spacious sleeping for four, plus a dining table, stove and sink. We had the Valiant fitted with the appropriate attachments for pulling the trailer and activating the brake lights. We had wonderful sunny weather as we drove through the mountains of Vermont, New Hampshire and Maine, camped among the lakes and at Acadia National Park, Bar Harbor Maine. We picked blueberries there, saw bald eagles (the first time for our family) went on nature walks, took boat rides, etc. Governor Rockefeller’s yacht was anchored there. We
went out in a boat to watch lobster fisherman set traps. We came home via Montreal where Expo '67 was under construction.

Ruthie has been helping the chicken folks at Cornell, alas. This was before avian sciences was combined with domestic mammals in the Animal Science Department, so I say “alas” with tongue in cheek. She is on a taste panel comparing different types of chicken hot dogs with various other types of conventional hotdogs. She stated that “You can hardly tell the difference from regular hot dogs. This may be a new product on the market in the future”. Well, what do you know? How many who eat all these kinds of prepared products from the supermarket have any idea of the multiple tests of taste, texture, appearance, keeping quality, cost, etc. that have preceded commercial marketing of a product?

Our 1966 experience with a rented trailer was a success. So in 1967 we bought a slightly larger one and headed west in July for a month of camping, taking a more southerly route than in 1963. We left Ithaca at 9 a.m. on July 21 after packing the trailer in a rainstorm. We still had the ’63 Valiant to pull the ’66 Apache Buffalo Mesa camper. We looked at many trailers at trailer sales places before buying this one. We returned to Ithaca at 9 p.m. on August 19 after 7821 glorious miles.

Ruthie described this grand trip briefly, but in picturesque style. One time it was a roadrunner streaking across the road in front of us, or a whippoorwill calling to us in our camper one early morning. Ruthie noted many of the birds and fauna and the great national parks we had never seen before. This brings back fond memories, and to capture the trip I will append it exactly as it was written in the diary by Ruthie. It was so positive, even the two flat tires we had were just footnotes. She did mention that we “saw a one-car accident on the Los Angeles freeway”. That was all she wrote about it. But we saw the car going very fast and roll over and over on the side of the highway as it burst into flames. Ruthie exclaimed “I wouldn’t ever live in California if I had to drive on the expressway”. She reiterated that again when we were at Davis, CA in 1978 where I taught while on sabbatical leave.

In addition to Ruthie’s 1967 travelogue I will include here our 1967 Christmas letter quoted in entirety. This briefly describes our trip. More importantly, it shows our two sons growing up. Dale directed a play in High School. One of his close friends went on to become a famous playwright and director in New York City. But the most difficult event of the year for our family was Robert stopping his engineering training and enlisting in the army. He had a draft number that was likely to be called, so he enlisted for 4 years in this Vietnam War era. Those were tough times. I hope all who did not live at that time will study history and learn from it, and soldiers will recover from it.

Dear Friends,
It sure was wonderful to welcome and visit with so many friends who came to Ithaca in June to the Dairy Science meetings which Cornell hosted. Ithaca’s weatherman provided his best weather for all and the Bar BQ by Lake Cayuga with over 3000 attending was a memorable occasion.

Our family headed West the latter part of July with our camping trailer and supplies on a trip that lasted a month. We enjoyed the wondrous scenery of the Rocky Mountains,
floating in the Great Salt Lake and speeding across the salt desert. Our first prolonged stay was at Reno, Nevada where Bob attended the Animal Science meetings.

Other highlights of “westward-ho” were Lake Tahoe, the giant sequoias of Yosemite, Disneyland, and Knott’s Berry Farm. On the way home we enjoyed Zion and Bryce Canyons, the Grand Canyon, the Petrified Forest and the Painted Desert. The U.S.A. is so vast and varied—is thrilling to see!

Ruth and Bob were interested to see a nearby section of American life in the Pennsylvania Dutch region when Bob spoke to the National Association of Animal Breeders in Hershey, PA, in September.

The latter part of November, our son, Robert, enlisted in the Army. He went to Fort Dix, N.J. and goes on to basic training from there. Dale has been busy directing a one-act play for the High School Dramatic Club. He’s leading the busy life of a Junior this year.

We wish for one and all a Peaceful Christmas and Healthy and Happy New Year!
70 Woodcrest Ave.
Ithaca, N.Y. 14850
December 1967

We had developed a substantial garden, improving the clay soil greatly with gritty coarse sand and humus. This meant not many summer trips if you are going to have a good garden. We were helped greatly with our garden tractor and cultivator to maintain a good soil mixture. Gardening was a fun exercise.

In 1968 it was time to look at colleges for Dale. We took a camping (tent) trip from August 25 through September 2. Dale shared the driving with Bob and Ruthie. We tented at lovely spots in Ohio, Tennessee and Virginia. Dale checked out Miami University in Oxford, OH. Bob attended scientific meetings in Tennessee while Ruthie and Dale took various sight-seeing trips and Ruthie bought wool plaid material to make a skirt. We went to the Grand Ole Opry. We visited Ruthie’s brother and sister-in-law, Wes and Hulda Parcells in McLean, VA, and saw one of Bob’s former Cornell advisees walking down the street in Washington, D.C. Dr. Bob Thompson was then Assistant Secretary of Agriculture. So many students have gone on to use their talents superbly. It makes one’s heart glow, which offsets some of the sad daily headlines in the news.

In September, 1968 we went to Connecticut to celebrate Grandma Foote’s 100th birthday. She still keeps house and lives alone, but checked on by family regularly. She has nearly stopped making quilts, hooked and braided rugs. She says her stitches are no longer uniform enough to pass her quality control. She died in 1980. I have a letter written to me when she was 108 years old. My other Grandma Hutchinson had died shortly before her 102nd birthday. Both had retained sharp minds throughout nearly all their life. What a blessing!

Christmas, 1968 was the first time that our family of four was not together. After Robert enlisted in the army he went to Ft. Dix. Bob visited him there. Because of his
math background he was selected to go to Finance School in Indiana where Bob visited him again. In competition with business majors Robert graduated first in his class. He was then sent to Yokohama, Japan to pay soldiers hospitalized as a result of service in Vietnam. Of course we personally felt fortunate, but were constantly reminded of the need to end that conflict as soon as possible. It was the longest of all wars for the U.S. I was able to keep busy at Cornell, which served partly to divert attention from the Vietnam conflict. It was a long 4 years for Ruthie. We were both proud of Robert that he elected to serve his country this way. We were angry with the draft dodgers who went to Canada. We were angry with Paul Gibbons, our church assistant pastor and student chaplain at Cornell when he burned his draft card. He urged others to do likewise. Paul was a sincere peace mover, and viewed the Vietnam War as an evil intervention by the U.S. He really was right in his views, in my opinion. However, when he joined communist-inspired groups belittling the U.S., and preached a sermon indicating that solid members of the church and community were bad people (presumably for not rising up against the government), it was too much. Financial support was terminated and he was told to leave. I personally was upset with him on one occasion when he was supposed to help me with a youth group one evening at the church. He did not show up. I found out later that he had attended a peace rally instead, but did not consider it necessary to let me know that he wouldn't be at the church to fulfill his agreed to responsibilities. Paul had his problems too as he was divorced about this time. I saw his wife Polly once after that, and from her appearance I realized how traumatic divorces must be. Both Paul and Polly, I believe, have reconstructed their lives. At least Paul has.

Robert saw first hand many victims of this terrible war. This experience, and the negative mood of the country toward Vietnam Veterans was very hard on him. He has talked little about this, but I hope now, years later, he can feel ready to share some of this story. I have supported the Vietnam Memorial and Scholarship Fund at Cornell in his name.

Meanwhile Dale was busy with schoolwork, plays and cross-country running. Ruthie kept the homefires burning, and sewing machine busy. She was a great gentle host for new foreign graduate students, while working with them to learn English. About this time a new bride-to-be came from Korea. Selected by the Korean families, she was sent by them to Cornell to marry a graduate student in Bob’s department. I can remember this trembling young maiden whom Ruthie took in tow. I will simply add that now this couple has two brilliant sons through Harvard and MIT with MD and/or PhD degrees.

It is time to close this chapter. Dale will be entering college next year. Robert will be in Japan for an indefinite period. Bob will still have his busy teaching, research and scientific meeting schedules. In addition he is serving on Cornell University committees that deal with difficult issues in this period of national and student unrest. (See later chapter 19.) Ruthie has to be the glue to hold us together, as she usually is home for her three boys.
Mrs. Kennedy is deeply appreciative of
your sympathy and grateful
for your thoughtfulness.
July 21  Left Attica Fri. 9 a.m. in pouring rain. We were up at 6 a.m. packing trailer when rain began. Threw plastic over it to keep off rain. The Ohio Turnpike is a trailer-tire went flat! Ken had stopped them. Robert, Del & Bob fixed it promptly by putting on the spare. Then we searched for a new tire. First night out we camped at a gas station - restaurant stop on Ohio Turnpike. They had a camping site for trailers. Near Fremont, Ohio.

July 22  Sat. night we camped at a KOA campground in Newton, Iowa. Saw yellow headed blackbird.

July 23  Sunday, while Ruthie was driving, another Trailer wheel went flat. Another quick change & a search for a new tire. We camped at Lake McConaughy State Park. Use Area near Ogallala, Nebraska. Had our first rain just after our tent was set up. Didn't last long.

July 24  Monday we entered Rocky Mt. Nat'l Park at Estes Park, Colo. A sudden downpour occurred as we asked for a campsite. All campites were full & we went to an overflow area at Hidden Valley - the ski area. The rain stopped when we were ready to set up the tent.

Visited Bear Lake & saw a Western Tanagers on a picnic table. Also saw 2 deer - Stellar Jay & Gray - headed juncos. Interesting & beautiful flowers in blossom.


July 26  Wet. Remained at camp. Saw cliff swallow nest under damn.
Rented a boat in afternoon - yet caught in sudden storm.
Docked at Grand Lake, owner told me to continue back. Huge
waves at times. A little rain before we finally docked - 2 hrs late.
We supped at Swedish restaurant in Grand Lake. Then went
To College student summer theater & saw "The Sound of
Music." Very well done!

July 27: Three looked at Big Thompson Dam. on our left Shadow Mtn.
Very hot as we passed by Dinosaur Nat'l Monument & camped
At the Rodgroppe Campsite in Uinta Nat'l Forest in Heber, Utah.
Saw Sequoily - Utah's State Flower...White, quickly popovers
Granny, beside road. Yellow-barred Sequoidea in forest.

July 27: Arrived in Salt Lake City. Camped at Isabel Trailer Camp. Toured
the Tabernacle & Square. Visited a museum of early Utah. Swam in
Salt Lake at night. Shower halls on trucks. Very hot.

July 29: Crossed the salt desert. The Bonneville Salt Flats
Race track was under water - cause of recent rain.
Camped at Shangri-La Trailer Park, Elko, Nev. Walked about
town late night to see the gambling halls. Later heard the
Wallace's did the same thing - the same night. Lacy's &
Vesicles were also in town. New Dixie at Winnemucca, Utah.

July 30: Lacy's passed us twice on the road to Reno today.
Bob registered at Am. Sci. meeting at U. of Nev. and we
set up camp at Smith Air Force Base, just outside Reno.
Vesicles were near to use. Went to reception on campus
at night.

July 31: Dale, Robert & Ruthie saw presentation of 'Stone Henge'
At Atmosphereum Planetarium. All of us visited Harrah's
Automobile Collection of Virginia City, where saloons & once
lovely mansions were prominent in this old "gold town."
All went to Am. Sci. Barbecue one night. Dale Robert &
Ruthie looked in Dept. Store & around Harrah's Club & casin-
area. Herb Courtyard hotel at night. New teppiye installed.
Someone worked off with our Coleman lantern.
Aug. 3. Stopped at Squaw Valley, where Olympic was held, enroute to Lake Tahoe. Lunched at the shops in Tremendous arena. Camped at William Kent campground in Tahoe Nat'l Forest. Bob & Debi both went swimming.

Aug. 4 & 5. Camped at Tuolumne Meadow in Yosemite after a long haul over the mountains. Dale & Bob went on nature walk at 9 a.m. We saw and tasted a carbonated spring. Saw mule pack carrying gas tanks. A honey colored bear & two brown cub walked thru our camp in daytime & climbed a tree nearby. Bob & Ruthie went to campfire & heard about fish & fishing the nearby lakes & got planes & bikes sound before early morning.

| Aug. 6 | Sunday. Drive across mountains to Yosemite village. Saw the lovely falls. Went thru mountain tunnel & to Bridal Veil Creek campground near Glacier Point. Saw where fire fell into creek at Glacier Point. Saw rocky peak of Bridal Veil Creek near our campground; also beautiful meadow flowers.


in Angeles Nat'l forest after a long, dark, winding road up the mountain. Ranger station said plenty of room & the camp was full when we arrived. Conv. campers let us park in their drive. Supper at 10:30 p.m. Saw hummingbird, Black-headed grosbeaker (around campers tables) & 8 horned moths. Hummingbird took a bath.

Aug. 8. Moved our camp to Dot T. Doden Park at Best Park. We're surrounded by Eucalyptus trees, Osborne bushes & ants. Went to Knott's Berry Farm. Supper at their Steak House. Had Boyenhur pie. Went to Wagon Camp & Heard Singers & bought record. Saw an old time *Melodrama on Stage* at Independence Hall.
Aug. 9 | Remained here & went to Disneyland. Took memories ride &
| various others including train. ate supper at Tahiti Also,
| Terrace, where women are greeted with "Leis." & a
| 3-piece band performs at do. Tahiti dancers. Saw
| fireworks at night & a Vaudeville show with Sharon
| Lewis & the Houston Hotshots performing among others.
| A Tahiti dancer asked Bob to dance & he refused with her.

Aug. 10 | Threw. Went down to beach in morning. Robert tried
| "tucking the breakers." Watched surfers for awhile.
| drove on to camp at Boulder Beach at Lake Mead Res.
| Area. Very hot; evening Morgue desert. Our campground
| was surrounded with boulder breakers. Very hot here all night.
| Went for a swim in Lake Mead at 7:30 a.m.

Aug. 11 | Looked at Hoover Dam then drove on to Las Vegas. There
| saw as many elaborate hotels & wedding chapels. Camped
| at South Entrance campground at Zion National Park. Enjoyed Visitor
| Center. Saw a movie there. Ruthie & Robert went to a campfire. saw
| a Tarantula spider, Denver golf stick & hard seed at night. At
| Zion we were in a canyon looking up at heads. Next day at
| Bryce, we were on top looking down into colorful canyons.

Aug. 13 | Ate breakfast at Cafeteria, then drove to Grand Canyon in
| Arizona. Saw many Indian shacks in Arizona. Almost every
| one had a stand by the road to sell rocks. Such desert country!
| Indians even asked price. Campground at Canyon said full,
| so Ruthie drove to Trailer court nearby & we camped there.
| Dale didn't feel well so Robert, Bob, Ruthie drove to
| Donald's to see if the saw go down on the Canyon.
| Crowds of people there. Whole place is very commercialized.
| Saw a plain tram ride at the Busch view point. Where the Watch-
| tower building is.

just before. Stopped at Petrified Forest & Painted Desert.

A thunderstorm passed nearby & caused a sand storm in

the desert. Stopped at Gallup, NM; for supper at a

Remata Inn. Heard an Indian Intertribal Ceremony had

taken place the night before. Had Mexican food for supper.

Camped at Bluewater Lake Rec. Park, Grants, NM.

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Aug. 15: Arrived at Mountain View, Idaho. Went to Tour Excursion to the Mission of San Miguel, the oldest house (1800) and the

Palace of the Governors. Interesting adobe architecture.

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Aug. 16: Crossed Texas panhandle. Camped at Fort Lake State Rec.

aera, Clinton, Oklahoma. More rolling green countryside than

heretofore.

Aug. 17: Drive to Onondaga Cave at Leadville, Missouri. Many singing

insects.

Aug. 18: Heard Whipwills early morning. Tour of cave. Many beautiful

formations. Smokey around St. Louis. Crossed flat Illinois.

Passed 78 miles from Chicago. Heard later that they

had a tornado that day. We camped at Grandpa's farm

at Richmond, Ind. A heavy rainstorm that night. First bad

rain of whole trip & our last night out. Dale enjoyed the

cricketball & bowling & slot machines.

Aug. 19: Had very heavy showers in Erie, Pa. + again in Buffalo. Home at 9 p.m. 7821 miles.
Gamete Physiology Workshop in Kalamazoo, Michigan, 1967
(Bob is in the top row, 2nd from the right end).
Upjohn Conference
Kalamazoo May '67

Front row, L-R
Dr. Anna Steinberger
Alfred Weil
Ron Ericsson
Thaddeus Mann
Anthony Bocabella
Mrs. (Cecelia) Latua-
mann
Min-Chae-Chang

Second row L-R
Emil Steinberger
Pierre Soupart

Cocorot
Ken Kinton
Roy Duff
Don Fawcett
Mike Bedford

3rd row L-R
Kirsten Eik-Nes
Jim Davidson
Gordon Duncan
Bob Zimbelman
Bill Williams
Bob Foote
David Bishop
Chapter 13

Our Life with Two Sons at College and Beyond.

The years 1968 and 1969 were years of great transition for our family, especially for Robert, Dale and mother Ruthie. Bob still had all of his ongoing teaching and research at Cornell. I am thankful that I used part of 1968 to take a sabbatical leave to improve my teaching. It also gave me flexibility to visit Robert a couple times before he was transferred to Japan. Dale was a senior in high school in 1968-69. He would soon begin college.

Both Ruthie and I were happy that both Robert and Dale were college-bound after high school. We appreciated our own college years. It was a time of maturing, more learning, making new friends, and a magic box of unknown magnitude that helped to catapult us into adult life with an eventual soft landing. (Bob’s immediate post-graduate days were not a soft landing). We hoped that this would be the same for them, albeit Robert’s college days already had been interrupted by the Vietnam War. For Ruthie, the daily voices of two sons were only memories, not replaced by the lighter load of laundry, food preparation and other household chores. And so life goes on as it had for millions of people over many generations.

In June, 1969 Dale and Ruthie headed for Blacksburg, Virginia, the home of VPI. Bob drove as far as Harrisburgh, PA. There he took a TWA flight to Dairy Science meetings in Minneapolis. His first trip to VPI with Dale was to help get him settled there in the fall of 1969. Ruthie and Dale visited the VPI campus, the school of Architecture, and Dale registered. On the return trip they stopped at the awe-inspiring Natural Bridge, and the rose gardens plus chocolate plant at Hershey, PA. The roundtrip was 1187 miles.

In the fall of 1969 Dale wrote that he was enjoying his coursework, but he was surprised at the conservatism among the student body. This was in contrast to events at Cornell. Bob wrote in the 1969 Christmas letter:

“Bob has been very much involved in the problems of campus unrest through his service on committees dealing with student affairs, human rights and rules for maintaining public order. He is disturbed both by the groups which foment change with no constructive intent, as well as those who really resist any and all meaningful changes. A university has a great deal of built-in conservatism and many reforms are needed. However, basically the university must remain a place for rational discussion of theory and reality, where scholars teach and students learn.” Of course scholars should learn too, or they are not scholars.

Ruthie filled her days with more time with the Red Cross Bloodmobile, the Service League Shop, and Meals on Wheels. She served on church committees, such as the 150th Anniversary Committee. She also enjoyed applying her excellent skills to quilting and dressmaking. She made many of her own dresses and suits. She made special clothing items for her nieces. She finished a quilt for Grandma Foote and she made her own. We set up the large frames in the basement for her quilt work. Also she refinished furniture in the basement.
She was active in the Animal Science Wives organization. She took older people who did not drive to meetings. Part of this was associated with a social service agency in Ithaca. She took people to keep appointments with doctors and lawyers. It was very helpful to have two cars, as I took one to work most of the time. There were errands to run to various barns, and the airport to meet guests. So one car was very convenient for me to have.

Ruthie maintained her interest in birds. She knew them by their shape, size, plumage, activity, and song. So her days were full, even with her two sons away and her third boy, Bob, busy at work, often including evenings. When I didn’t have to check on an experiment on the campus usually I would go to my study in the basement. There were lectures and exams to prepare, papers and reviews to write and a host of other Cornell-related activities to respond to.

The first thing after dinner and cleaning up the dishes was to read the evening paper, each reading different sections, and then exchanging them. Ruthie would tear out the crossword puzzle with a dictionary by her side. She was extremely sharp at solving them. That matched her vision. She could spot a 4-leaf clover regularly when walking along a path with clover along the edge. I would miss them just as regularly.

From April 1 (no fooling) to May 8, 1970 we took a terrific trip to Hawaii, the Philippines, Thailand, Hong Kong, Taiwan and Japan. The main objective was to meet Robert in the Philippines and travel with him on part of the trip, until he had to return to his army base in Yokahama. By now Bob had scientific friends in all of these countries, plus many of his fine soldier friends from Hawaii who had served in the 442nd RCT. So our visiting with friends, sightseeing and shopping had an additional component for Bob. He had been asked to give a seminar many places after he had alerted local scientists that he would be travelling on a family vacation.

A few highlights of this trip are included in our 1970 Christmas letter. Because this reflects our joy at the time it is appropriate to append it to this chapter in the original type.

This was before we had wordprocessing equipment, and probably was about the time we could purchase IBM Selectric typewriters with balls having different fonts. Obtaining these balls with scientific symbols was a great aid in typing scientific manuscripts. My how rapidly the technology has advanced.

Ruthie kept a diary of our travels to Asia. We left on a beautiful sunny morning from Syracuse, but with plane schedules changed because of the air controller’s strike. Bill Berndtson went with us to Syracuse and drove our VW back. We flew to Detroit at 4,000 feet because of the strike, but the flight to Denver was at 35,000 to 38,000 feet. On the Los Angeles flight to Honolulu the UA served a steak dinner with champagne. What a change from today, where no meals are served in the tourist class, or you buy them.

From the April 1 diary by Ruthie. “Arrived in Hilo at 6 p.m. We were met by Mori, Lefty and Rusty who put lovely orchid leis on us. (My added note: Kiyogi, Morimoto, Lefty Kuniyoshi and Rusty were all soldiers in Co.K, 442 RCT). Stayed at the Hukilau Hotel.

Mori and Rusty took us to the “Merry Monarch” festival where the high school band played international music, a pageant showing coronation of King Kamehameka (an early King of Hawaii) and native dancers and musicians performed. Very colorful!
Local women were dressed in very bright mumus. Ruthie bought a couple that were attractive and fun to wear on special occasions. When we returned to our room at 11 p.m. we had been up for 24 hours. Mori’s sister gave me a bronze cimbidium orchid corsage*. We must have been given about a dozen leis while we were in Hawaii. Every friend greeted us with a lei for each of us both coming and going.

The next morning we had pancakes with fresh ripe pineapple and macadamia nuts, plus guava juice for breakfast. Yummy! Mori and his wife Renee and later Lefty took us on tours of museums, volcanoes, orchid nurseries, etc. for two days. We ordered antheriums for Grandma Foote’s 102nd birthday. In the evening 10 of the guys from the 442 with their wives put on a steak dinner in the park for us.

Then it was off to Honolulu where Oliver Wayman (contemporary graduate student at Cornell, and now on the faculty at the University of Hawaii, plus Wes and Lou Gunkel from Cornell and our church met us and toured us around the island. Of course I had to see the largest dairy farm (Meadow Gold Farm) with 1600 cows. The manager asked me for suggestions. I am thankful that my suggestions were helpful according to a report I received later from the farm manager.

That evening Dr. Joe Shimamura and his wife Mildred plus 9 other vets and spouses took us out to a fine dinner at the Halekulani Hotel on Waikiki beach. Later we stopped at Moon and Gertrude Saito’s lovely Japanese home. Four wonderful days in Hawaii. Dr. Joe died in 2003. I lost another WWII friend.

On Sunday, April 5 (after a long flight delay) we were off for the Philippines. Robert had flown in from Yokahama and met us there. Ruth and Reeshoon Feuer (serving on the staff of the Cornell project at Los Banos), Tom Paterno (one of my former graduate students) and others met us. We were royally entertained for five days. I visited farms and gave a seminar. However most of the time we were taken on trips to the countryside. We rode the flat-bottomed boats at Pagsanjan Falls, saw the research at the famous International Rice Research Institute (IRRI), old churches, WWII cemetery, gardens, cultural Philippine village and floor shows. Robert did the bamboo pole dance (Tinkling) with one of the expert girl dancers.

We also experienced a very strong earthquake (7.4 on the Richter scale, I believe). We were in a restaurant in Manila when dishes started falling off the shelves. We ran out to the open beach nearby. Electric light poles bent, but did not break. The roof collapsed on a large elementary school building. Fortunately, it was a holiday, so no kids were inside. At night, as we were sleeping at the Feurer residence, we were gently massaged in our beds by aftershocks in the 4 plus range on the Richter scale. It was an experience I always thought would be interesting. However, once was enough, and I was glad I was not on the top floor of a hotel.

It’s already April 11 and on to Bangkok. Dr. Jim Johnston, working for the Rockefeller Foundation, was headquartered in Bangkok. He formerly was a young professor in Animal Science at LSU. I knew him personally. He kindly met us at the airport. Later we had dinner with Alice and Jim Johnston. We saw the Floating Markets and toured through the canals with a mixture of people washing clothes, and food and dishes as dead animal floated by. In contrast we saw beautiful royal barges, and several huge buddhas (Golden, Reclining). April 13 was New Year’s Day where people throw water at you, but shopkeepers merely put a finger in a finger bowl and flip a couple drops of water toward you. I took movies of kids throwing water, and they
threw some at me too. I took Super 8 movies and slides of the whole trip. We saw the fireworks and dancing. On April 14 we had a birthday dinner for Robert at Baan Thai (Thai food and dancers).

Then it was three days in Hong Kong at a hotel managed by a Foote. We took a boat trip through the harbor and one to Hong Kong island up to Victoria Peak, plus a refreshing boat ride by Repulse Bay and the Aberdeen Fishing Village. Many sampans and junks were in the harbor. Ruthie bought sweaters and I bought pearl earrings for her at Phil Chu’s shop (son was a Cornell student). I bought a camera (very reasonable) and we bought a tablecloth which we sent to my secretary, Ila.

A very comfortable flight on Cathay Airline took us to Taipei where we were greeted by oldtime friends of Prof. Turk, Dr. Lee and Mr. Yu. Mr. And Mrs. Tom Yu and Tom Yu’s secretary made sure that we were very comfortable and that we saw everything, ranging from cars for newlyweds decorated with flowers to treasures at the National Palace Museum. We visited National Taiwan University, went by Chiang Kai Shek’s two homes and went shopping. Stores are open from early morning to 10 p.m. 7 days per week with millions of people and bicycles and cars everywhere. Ruthie bought a jade bracelet. Robert had a suit made. We dined at various places, including at the Yu home.

Cathay Airlines again took us to Tokyo where Prof. Yamauchi (who had been in the NYSCVM at Cornell) and Dr. Hideo Onuma (a wonderful postdoc with me in the late 1960s) met us. The customs director was a former student of Dr. Yamauchi, so our baggage arrived at the hotel without us nor the bags going through customs. We went through a comfortable side office with tea and fruit. We went to Yokohama, shopped at the PX and left Robert to rejoin his army unit. He didn’t need to visit Japan after being there for 2 years. In the meantime he had climbed to the top of Mt. Fujiyama.

Dr. Onuma kindly put Ruthie and Bob aboard the bullet train to Kyoto. Dr. Iritani, an assistant professor at Kyoto University, and later the professor who replaced the famous Professor Nishikawa at Kyoto University, met us. We visited and dined at the Iritani home, newly built after Iritani’s had been in the USA for two years. It was half typical Japanese and half western. They took us to the Kinkakuji Temple (Gold Pavilion), complete with a lovely Tea Ceremony, and the Ryangi Temple (ROCK garden with interesting rocks and smoothly raked garden for quiet reflection and meditation. There were many beautiful formal Japanese gardens.

Children’s Day would be May 5. Many flags were flying, one for each son, with the size varying depending upon the age of the son. What about the daughters? I don’t know. We did see both young sons and daughters (about 5 and 7 years old, as I recall) in beautiful costumes coming out of the temple after some type of coming of age ceremony. Two children at the Heian Shrine asked Bob for his autograph.

Of course everywhere in shrines, homes and at the university you took off your shoes and put on slippers. The hotel also furnished each guest with sparkling colored bathrobes and sets of slippers. Even the largest slippers were too small for Bob and his heels extended on to the floor. This was not very comfortable. Also the hotel furnished thermos bottles (vacuum bottles) with hot and with cold water plus tea bags. Water from the tap should not be consumed. We followed directions, and were never
sick in our travels. This was good for us. Also, I was asked to give a seminar at the University or Institute in each city. I couldn’t be sick.

Mr. Utsumi, who eventually succeeded Dr. Iritani to the professorship at Kyoto University, drove us to Osaka. There we visited Expo 1970, rode the monorail and went to stay with Prof. Nishikawa. He was a wonderful friend who had dined in our home on Woodcrest Ave. When he learned that we were coming to Japan he invited us to stay at his home. His letter stated that “he couldn’t wait to receive us in Japan so he could hospitalize us”. We chuckled at the mistranslation, but recognized how in international diplomacy such errors could create problems. In fact it was in 2003 that I learned from my Nisei friends of World War II that their Military Intelligence buddies indicated that there may have been a miscommunication between president Harry Truman and the Japanese High Command. He had told them to surrender or face horrible consequences of a powerful new bomb (the atomic bomb). The Japanese replied that they needed more time, and couldn’t consider his ultimatum within the short time given. Whether or not the Japanese needed more time to get the Emperor’s decision, or it was just a delaying tactic, seems not to be known. Anyway the Japanese reply was translated not as a delay, but as a refusal of his ultimatum. So one informant indicated that Harry Truman’s reaction was “Drop the bomb. They can go to hell”. What really was the truth may have influenced the consequences. Anyway, the Japanese-Americans involved felt that lives were saved by preventing the invasion of the Japanese mainland, where every young Japanese male would have fought to the death, with similar casualties among Allied troops.

I want to contrast this with 25 years later after the USA had helped to rebuild Japan, and Japanese were our loyal friends. It is wonderful what love and forgiveness can accomplish.

Back to professor Nishikawa, we stayed in the ancestral home of his mother. His mother was there. She had her own room with a special shrine. We were shown this private room. His wife and two lovely daughters, Masako and Kazuko, of high school age, also lived there. The two daughters prepared our padded tatumi (grass) mats on the floor to sleep on. Mrs. Nishikawa brought meals to the table, bent down on one knee and served us. Only at some meals did she join us for the complete dinner. The mother and daughters joined us for strawberries, and tea and cake after tempura, peas, mushrooms, bamboo shoots, raw fish, eel, and clams. It was the custom in their household to serve this way, but I dearly wished silently that they would join us for each meal. We need to understand and respect each others customs and traditions. It was Mrs. Nishikawa’s birthday.

After supper we were invited to take a Japanese bath in a wooden tub. Water was heated with a gas burner much too hot for me. It felt almost scalding, so I hopped out soon after hopping in. Then to bed. Breakfast consisted of toast, ham, cucumbers, white asparagus, cheese, tea and a textured kind of orange.

Now (April 25, 1970) it was time to leave their lovely home with a balcony overlooking Osaka Bay. Dr. Hara took us around Kyōto. I gave a seminar at Kyoto University. The seminar, plus various trinkets I gave them, was what I could do to show appreciation for their hospitality. Always I wrote thank you notes promptly.

Dinner was in a private dining room at a fine restaurant. We sat on the tatami-matted floor with Drs. Hara, Saito, Iritani and Nishikawa. Dr. Nishikawa told us how
excited he was when he came to our Ithaca home, and we played the Japanese national anthem as he came into the house. That was news to me. When he had visited us several years before our son Robert used a shortwave radio in our basement room. Dr. Nishikawa arrived at 6 p.m., just as a radio station in Tokyo was coming on the air at 6 a.m. They start the morning with the Japanese national anthem. We did not know until that moment that we had accidentally been almost the perfect host. Robert explained the likely scenario to us later. And so, as we had tried to be a good host (but not always that lucky), we did not explain the details to Dr. Nishikawa, nor did we mention his letter about “hospitalizing” us. Attempted explanations in a foreign language can spoil a good thing.

On Sunday we were taken to an extensive handicraft center. Ruthie noted that we “saw woodblock printing, stringing pearls, painting silk screens, damascene jewelry making and fingernail weaving. Bought pearl tie pins, damascene tie pins, and earrings and silk ties”. With Ruthie and Robert with me I probably bought more on this trip than on most trips. However, I always tried to think of useful or really beautiful items that I could bring home to family, friends and my lab. and office staff. They were not all so fortunate as I was to travel, share research in discussion groups and seminars, and have personally guided tours over much of the world.

The Iritani family put us on the bullet train for Tokyo, and we detrained at Yokahama. Robert was now back at Camp Zama. After a day there we bid Robert goodbye for a few days, and went on to Tokyo where our hosts had made reservations at the Asia Center of Japan. Drs. Onuma, Yamauchi, Ogasa and Niwa took turns guiding us around to the Sony and Canon factories, and the Nikka Whisky Distilling Company. We learned to navigate through the Tokyo subway system also.

April 29 was the emperor’s birthday. The Niwa family took us to see the Emperor, his wife and two sons and their wives waving from behind bullet proof glass on a balcony. Thousands of Japanese were there waving tiny Japanese flags. I was trying to take a picture (successful, but without a telephoto lens). It was difficult because persons with a bag of flags kept stuffing one in my hand as fast as I could pass them on to Ruthie. I wanted to have hands free to hold the camera high above my head for a picture.

Lunch was at the Imagiku Tempura restaurant. The chef and all the goodies to eat rise from below in a circular arrangement. As one sits outside the circular counter the chef cooks everything in front of you. When he is finished, voila (even in Japan), the chef and his kitchenette quietly descended out of site. Tea and melon were served in the lounge room. Of course we had taken our shoes off. When we left, Bob found that one shoe with a broken shoestring had a new matching shoestring in its place. Where else would you find such service, all with a smile? Then more seminars and 12 scientists from Dr. Yamauchi’s Institute joined us for dinner and gave us a beautiful cloisonné picture.

On May 1 Bob visited Dr. Onuma’s former research center in Chiba-shi while Ruthie got a shampoo and hair set for $3.10. Then she went alone to the big Ginza shopping center using the subway. Kimonas were $20 to $100; dresses could be made for $20. and more. Diamond rings were $10,000. She did not note whether she bought many or any rings. New England Yankees would be too cost conscious.
Robert joined us again on May 2. Dr’s. Onuma and Takahashi again dined with us followed by a night tour (just the three of us) to nightclubs. We went to the “Queen Bee”, then the “Golden Getsusekai”, and finally the “Matsubaya” for a Geisha show. I’ve been to formal Gisha shows in Japan with the huge gorgeous costumes and thick facial makeup. However, this was different, as there were sequences of topless dancers, jugglers, tumblers, more dancers, Japanese instrumental music, and finally some real Geisha girls. The next day Dr. Onuma took us to the Port Festival parade and the famous Asakusa Kannon Temple. Now it was time to say “Sayonara” to Robert after a great trip and reunion for the three of us, as we travelled north to Sendai. In Sendai we met Dr. and Mrs. Tsuda. They had been at Cornell. Mrs. Tsuda still writes and sends homemade Christmas cards each year. Of course, we keep in touch also.

Drs. Tsuda, Shimizu, Shoji, Muramatsu and Sugawara took turns taking Ruthie shopping while I gave a seminar. Then they toured us around the countryside. Dinner at Dr. Shimizu’s house included his wife and daughter Yuri who was a major in English literature. On May 5 we had a picnic lunch on a high hill overlooking the ocean, and near an old temple with sandstone caves where monks had lived 300 years ago.

On to Narugo (May 5) where we stayed at a completely Japanese hotel. One ate dinner in kimonas and slept on mats. Dr. Sugawara treated us to a Japanese dinner complete with two Geisha girls. One played Japanese instruments, one danced, and they both kept our saki cups full until we broke up at 10:30 p.m. We had a beautiful view with snow on the distant mountains as we returned to Sendai an Tokyo. Robert called before we left Tokyo on May 7, again escorted to the airport by Drs. Yamauchi, Ogasa, and Matsuyama.

We boarded Pan Am 800 bound for Fairbanks, Alaska. Sarah Moore (now Sarah M. Seidel), who was teaching German at the University of Alaska, was our next stop. As we had been travelling overnight, we slept until 10:30 a.m. after checking into the Golden Nugget Motel about 5 a.m. Prices really were golden nuggets also, as we were told that the Alaska pipeline workers were well paid. Sarah took us around the university, the museum and to the experimental musk ox farm. I saw a mounted skeleton there. What a massive bone formation on the front of the skull. Now I understand how two of the beasts can charge at each other and try to knock each other out as they collide like a freight train.

On Friday May 8 we left Fairbanks with a rising sun at 3:40 a.m. After flying over beautiful snow-covered peaks in the North West Territories we landed in New York City at 2:40 p.m. Mohawk took us to Ithaca where we arrived at Woodcrest before dawn.

Obviously this was a tremendous trip. Every place we stopped we were guided on tours, wined and dined, gave seminars and caught a little sleep in between. Fortunately, Ruthie had a few breaks which she used to keep a diary in her ever-so-neat handwriting. She was a neat gal.

On most of my trips alone I had at least as busy a schedule. They were more scientifically oriented, but always I was hosted whether in the Orient, or any place where we utilized 24 hours of the day to see, share and shoot a few pictures. I did not have my private secretary along to keep the notes. I barely had time to sleep. One time I gave 12 lectures in 11 cities, staying in 11 different hotels in 12 days.
schedule like that today would be vicious. But in those days somehow I managed to live on epinephrine and other endogenous reserves. Truly I tell you Solomon in all his glory could never have been treated like one of me (with apologies to biblical texts).

On only one other trip when I traveled alone was I left at an all-Japanese rest center. I was told that I should enjoy the swimming pool. I found that men and women without bathing suits all swam together. I was sure that the only tan-haired individual present was more noticeable than he wished to be. The swim was about as brief as was the attire.

At breakfast there was tea, and a raw egg beside the bowl of rice. I cracked the egg and emptied it on the hot rice. I mixed this with my chopsticks. It tasted good. From the approving looks on Japanese faces, with eyes only discreetly turned toward me, I decided I must have passed the culture test.

These trips were the philosophy part of the PhD education. So much of the other was learning established facts, using these to make and test rational hypotheses, and learning the technical skills to conduct the experiments. What a blessing to have these opportunities laid out before me, one after another. Is it any wonder that I should be thankful, although that was not always the case.

Meanwhile, Robert had finished his tour of duty in the army. Dale was progressing through VPI. In the spring of 1971 he was a second semester sophomore. During the spring break in March 1971 all four of us drove to Florida, picking up Dale at VPI on the way. It was pleasant leaving Ithaca under icy conditions, and gradually seeing daffodils and forsythia in bloom as we headed into the deep south. We stopped at the “Stone Mountain carvings”. Impressive!

Gulf Area Development Corporation (GAC) had invited us to visit Cape Coral near Ft. Myers, Florida. We were their guests at the Country Club Motel, as we had bought a little land. Of course they wanted us to buy more. There were various attractions, such as “Dancing Water” at Ft. Myers, and “Jungle Larry’s Carribean Gardens and Animal Show” in Naples. The Cape Coral property had good canals dug through it, but the land was bleak with blowing sand. Dale unpacked candles he had made for Ruthie’s birthday, March 19. We visited Uncle Arnold and Aunt Mary at Golden Gate on our way to Miami. It has been dry and there were many fires in the Everglades.

We had an extremely rolling trip from Miami to Freeport in the Bahamas. We toured around, went to Nassau, visited casinos (spent no money), went to the horse races, bought shells, and relaxed. We had smooth sailing back to Miami and were treated on the way with a school of flying fish. We took a tour of the Kennedy space center and a wildlife refuge.

Now it was March 24. Dale needed to be back at VPI in a few days. Ruthie noted that I drove 800 miles (with a little help) after 11 a.m., arriving in Winston-Salem, NC at 2:30 a.m. Alas, I’m afraid the family is right in remembering that sometimes I was as bad as Columbus, except it was not “sail on”, but “drive on, drive on, drive on and on”. I don’t remember being tired. Of course the family would say, “How could you remember because you were too tired”. Anyway, we had a good trip as we returned to Ithaca with snow still on the ground.

The year 1971 was full of travels as Ruthie and Bob flew to California in July, while Dale and Robert took care of the home place. Then Bob returned to Japan as
an invited guest of the World Congress on Fertility and Sterility (see 1971 Christmas letter).

Ruthie again kept a diary of the trip to Davis and Arizona. She mentions the "luxurious plane", the "good steak dinner" on board and flying "about 500 miles an hour". That sure was luxury for a couple of kids who have not lost their country roots. Ruthie gives lots more in her diary, as she had lots of time to tour and visit while Bob was at the Animal Science Meeting. We both met lots of friends. Afterwards we flew to LA and then rented a car. We did a lot of sightseeing. From San Diego we drove to Phoenix. Ruthie noted "Hot as an oven here!!", and I took a hot shower using the cold water tap.

If had been very hot and dry as we headed for the Bard Kirkland Ranch, started by professor Bard, a Cornell engineer and friend of Dale Corson. All along the trip we were hosted by friends, saw beautiful botanical gardens, Frank Lloyd Wright's "Taliesin" school, and much more. The rains finally came. They must have impressed Ruthie as the diary ends with this neatly printed poem.

**The Rainy Day by Henry Wadsworth Longfellow**

"The day is cold, and dark, and dreary;
It rains, and the wind is never weary;
The vine still clings to the mouldering wall,
But at every gust the dead leaves fall,
And the day is dark and dreary.

My life is cold, and dark, and dreary;
It rains and the wind is never weary;
My thoughts still cling to the mouldering past,
But the hopes of youth fall thick in the blast,
And the days are dark, and dreary.

Be still, sad heart! And cease repining;
Behind the clouds is the sun still shining;
Thy fate is the common fate of all,
Into each life some rain must fall,
Some days must be dark and dreary."

Robert, having finished his service in one of the most difficult, unpopular wars in our history, decided to attend New York University in the field of Economics. He did very well in the army finance school, and he has much natural talent and interest in that area. Our Christmas letter indicates that he has two part-time jobs in accounting to help with his expenses. He is spending the full year in New York City. Dale is continuing his art program at VPI. He teaches noncredit courses in ceramics and makes many interesting ceramic products. After Christmas we went to Chinatown in NYC where he bought a variety of colors that he uses in his glazes. With this program Dale also spent all of 1972, except for short vacations, in Blacksburg.

With only the old folks at home, Bob and Ruthie decided to travel in Europe. Bob was invited to give a paper at the International Congress on Animal Reproduction.
in Munich. The Germans had just finished a sparkling new subway in time for these meetings and the summer Olympic Games.

The 1972 Christmas letter summarizes our trip from Venice through Yugoslavia, Austria and Germany. We spent a few days in England. London has so much to offer, ranging from history to modern plays. The area around Somersert and Dartington Hall was beautiful, especially in June.

As a New Englander, who traces roots way back in Olde England, and as a longtime Cornellian familiar with Willard Straight, I feel a sort of kinship to Dartington Hall. This lovely historic place was owned by Mr. and Mrs. Elmhurst. Mrs. Elmhurst was the wife of Willard Straight who died as a young man (see Willard Straight Hall at Cornell).

So the years keep rolling by. In 1973 Robert acquired a dog, as he continued at NYU. Dale acquired a cat as he continued at VPI. Ruthie acquired more family history as she has begun to be a regular at the National Archives in Washington, D.C. when I attend NIH meetings. Also, she is becoming a yoga expert as Bob hits that crazy tennis ball in various directions when he is not cooling off water skiing in Cayuga Lake. The water skiing is a bonus from the days when Robert suggested this, and he and Dale were here. Now it is more difficult to get a crew together.

There were the usual trips to meetings around the U.S., plus trips to visit family in Connecticut. One trip was to celebrate Bob’s parents 60th wedding anniversary. So that means that Bob has reached the half-century mark.

In 1974 Dale graduated with credentials for teaching art. Jobs are scarce in this area so he is making and selling ceramics in Blacksburg, while looking for a job. Robert will graduate in marketing and management from New York University in January, 1975. So in 1975 it will be beyond college for all our family, with the two boys still in their college towns. It is Ruthie’s parents turn to celebrate a 60th wedding anniversary.

In 1976 it was Bob’s and Ruthie’s turn to celebrate their 30th wedding anniversary. Bob had a meeting in Washington, D.C., while Ruthie continued with her exploration of ancestral records at the National Archives. We motored on to Williamsburg where we had honeymooned 30 years before. On the way back we visited Dale in Blacksburg, but about to move to the SUNY College of Ceramics in Alfred, NY. Robert has been with Woolco, moving from NYC to Enfield, CT and back to NYC.

As our 1976 Christmas letter will show we (Bob and Ruthie) kept busy, along with wondering if everything was O.K. with Robert and Dale. They weren’t the world’s most fastidious letter writers. Parents are chronic worriers. We always worried about NYC, as we had visited where Robert lived. Bikes chained securely outside the apartment disappeared. We walked down those streets near NYU with Robert after seeing Godspell. Really, how daring!

Grandma Foote is 108 years old. She has stopped making quilts and rugs, but she did send a birthday card to me. Fortunately, I saved it, with others she sent at 100 plus. How many people have a card from a 108 year-old grandmother? We have many of her rugs and quilts, as do all of her family.

I had a meeting in Washington State in January. The plane that flew me over the Cascade Mountains to Spokane, where I was to catch a large plane, was spooky.
We hit a bad snowstorm. To be sure to clear all of the mountain peaks because of the poor visibility the pilot went to a higher elevation. Ice started to form on the wings. We could see some of it flake off. The plane did not have proper oxygen equipment for the higher altitude. I slumped as low into my seat as possible to avoid nausea. The copilot did become sick. Just about the time I wondered whether we would make it or not, the pilot announced that we had passed the peak and were starting a planned descent. A couple weeks later one of the same type of planes crashed. These planes were prohibited from winter flying over the Cascades after that.

In January, 1977 Ruthie accompanied Bob to a meeting in San Diego. We enjoyed pleasant weather, seeing the big subs and other ships at the naval base while a big snowstorm hit the Northeast. At the motel one night we found “callgirl” cards left under our door. The next night we had competing “callgirl” cards left under our door. Every room had these slipped under their doors. I have never seen this at any other meeting. Is this typical where there is a large contingency of military personnel? Ruthie had great fun teasing me with “Now, I understand why you guys (there are lots of women scientists too) go to these scientific meetings”. In fact, it was about this time that I told Ruthie about an unexplainable experience I had at Boston University at the scientific meeting of the Society for the Study of Reproduction. Guys and gals were housed on alternate floors, I believe, in a multistory student dormitory. There was a large communal bathroom on each floor.

I am an early riser. I was the only one up that early washing my face. Someone approached the adjacent sink. As is customary at these meetings you say “good morning” to everyone, friend or not. I said “good morning” and looked up. There was a gal in a short sheer blue negligee. I had to look negligee up in the dictionary to see if this was the right word. Yes, it is defined as “incomplete attire”. She immediately headed for the shower. This was the first morning at the meeting, and I wondered if room shortage had caused a few gals to be housed on the same floor. I checked, and that was not the case.

The next morning I was shaving, and the same thing happened again. I wondered if she was wondering how many times I would cut my face shaving while she flitted around. I did report this and was told that person was housed on the floor below. She did not appear on our floor again to my knowledge. They said she was from England, so she could read signs. That type of event never happened again, thank goodness. I suppose I should have said the first morning “Lady you are in the wrong bathroom”, but I was too flabbergasted to engage her in conversation.

The year 1977 reminded us in another way of how time passes on. Both of Ruthie’s parents passed away that year. They had 61 happy years together, as they were married August 25, 1915. Ruthie visited them for 11 days at that time. Ruthie visited her parents early in 1977 as her dad was in the hospital. He recovered, but had a relapse and died 3-23-77. We attended the lovely service in New Milford. Ruthie was close to her dad as the only daughter.

Soon I was really worried about Ruthie. She was taking care of her mother who had cancer. Her mother could not stay alone, and she moved to our home when her husband died. She was unable to control her bladder because of the cancer. Despite special padding, etc., Ruthie was washing bed clothes every day. I tried to help some. I convinced Ruthie finally that we were not equipped to handle this. There was a good
nursing home near where her son Don (Ruthie’s younger brother) lived. This was also near where the Parcells family had lived for more than 40 years, so there were friends in the area in the church and in the Garden Club. The move was made. Ruthie’s mother died from terminal cancer 9-26-77, which was about one or two months after the move. Ruthie had done all she could for her mom. I believe Ruthie realized at the end that she had no reason to hold a guilt complex for the move to the nursing home. Of course Ruthie missed her mother, but her mother and her dad, Wesley, had spent many happy years together. Also, the different generations enjoyed each other. We recognized that there was a time to live and a time to die. Life had been good.

In 1978 we planned to head for Davis, CA, in early January. The eastern part of the USA kept receiving a new covering of snow. So we unpacked our station wagon. We shipped a few things and flew to UC Davis where Bob was to teach a graduate course while on sabbatical leave. That was great fun. No committees. I bought a used rust-free Datsun station wagon right away. Besides teaching I visited farms and gave talks to dairy groups. This was challenging and a learning experience. I was pleased when I left UC Davis that a leading dairyman said that “you are the best known reproduction extension specialist in the State of California”. I was appalled at how little some of the specialists journeyed into the field.

Swimming was great in the pool by our apartment complex. Also, this town of bicycles had streets with bicycle lanes. I rode a bike to work every day. There were bicycle policemen. Occasionally a bicyclist would try to speed away from a policeman. They hired a 6’4” bronze medalist at the Olympics, and he would let the guilty pedal until exhausted and then pounce on them. We travelled around California some, especially to old Sacramento and to San Francisco. Ruthie had a few relatives and former U. Conn. friends that lived in the area. The Labens went to Cornell and Eric Bradford had been at Cornell. Others, like Gary Anderson, had received their PhD degrees at Cornell. Also, just outside of Davis was a tomato farm run by the Aoki family. The senior Mr. Aoki was in the 442nd RCT in WWII. In addition there were other 442 veterans in the area. The K Company guys found out that I was at Davis and held a special reunion dinner for us in Sacramento. One of the vets missing part of both legs drove all the way from LA. Later that family, with a son doing much of the driving, travelled over the USA in a mobile home (especially equipped). They stayed overnight in the turnaround on Woodcrest Ave.

Robert took care of the home place while we were gone. So we didn’t have any special storage or packing to do, nor any time or worries spent trying to find a renter for 6 months. There was a big flood in Ithaca while we were gone, but 70 Woodcrest was several hundred feet above the flood plane.

A few months before we left California we were told of a French vineyard with a terrific French restaurant. We tried to get reservations, but they were booked months in advance. We were still on the waiting list a few weeks before it was time to leave. I called one last time. They said they were sorry, and I was too because an enologist at UC Davis had recommended them highly. When I mentioned the name, they said “we always have a place for special friends”. I had no idea what a bomb a name could be. They arranged for us to come that Saturday. The manager met us as we arrived and took us on a personal tour of the winery and wine cellar. Champagne was on the house.
Also, Dr. H.H. Cole had a party for us at his home just before we left. I asked if we could come 5 minutes early on a lovely June day. Ruthie, Bob and camera arrived. I took a picture of Dr. and Mrs. Cole in their garden. The photo of this lovely senior couple turned out beautifully. Dr. Cole was a revered emeritus professor at Davis. The next day the Coles went with the chancellor to spend the weekend at the chancellor's summer cottage. Dr. Cole died of a heart attack the day after I had taken his picture. I made copies of the photo for all in the Animal Science Department. The university asked for the negative so that they could make an enlargement for the UC Davis Library. "Never put off until tomorrow what you can do today". Those words, frequently echoed by my parents, passed as a gentle refrain through my brain.

And so we left UC Davis and headed east. On the way we stopped at the American Dairy Science meetings in Michigan where Bob gave a paper. Ruthie joined the spouses program. That gave us a break in the trip across the USA, this time primarily to return home quickly.

In 1979 we combined a fine vacation in Hawaii with a stopover in Utah at a scientific meeting on the way home. By combining such events and trips we could save time and money, both which were precious to us. Ruthie made notes on little sheets in a small pocket notebook. She captured in few words the many beautiful things we saw and were the beneficiaries of (birds, flowers, cultures, music, friendships, etc.). So I will attempt to make a photocopy of these to append to this chapter. One bit of fragrance that I believe occurred on this trip, and she didn't mention it, was the pineapple aroma. They gave us boxed field ripe pineapple in Hawaii. In our room in Utah the pineapple really were ripe. The boxes started to leak. With boxes in the bathtub we ate and drank what we could before leaving.

There were a few travel delays. Many trips do not have everything turn out precisely as scheduled. Some have fringe benefits. I did have a couple of flights over the years that were scary, but most travel was a wonderful experience. So is life, with bumps along the way.

The year 1980 was another big one for us. In March we celebrated the 150th anniversary of our church. The American Society of Animal Science meeting, with over 2,000 people, was held at Cornell in July. Naturally we attended that meeting while keeping busy as hosts.

In May we took another trip of a lifetime. Bob was invited to give a plenary paper at the International Animal Reproduction meetings in Madrid, Spain. He decided to be a tour guide for his sister Lovina, sister-in-law, Marion, and of course, Ruthie. He ordered tickets for the Passion Play at Oberammergau a year in advance. Other details with European rail passes, international driver’s license and car rentals were worked out later.

We visited London, Paris, Munich, Vienna, Oberammergau, Geneva and Madrid. We went to all the famous landmarks in each place. Bob took lots of pictures. Later he made copies of selected photos so everyone had a set. It was a fantastic trip. Bob was the youngest one of the group, so he was sort of the kid on the block. The three gals also greatly enjoyed each other’s company. Weather was great, especially important for the Passion Play held outdoors.

I could write about the fun on the trains, meeting European students who were glad to test their English on old folks, and to find out what these old codgers were
doing on a train instead of in a Mercedes. Or about the time I left the gals at the airport while I returned the car to the car rental place. There was much construction at the airport. With all the detours I just made it to the airline ticket counter in time to join the girls and catch the plane.

We did scads of things. The most unusual lodging was in Paris. While in France I planned to pay a short visit to Bert Cassou and his dad who make the straws used for packaging and freezing bull semen throughout the world. I wrote to him, giving him my proposed schedule. Remember this was before we had fax machines or the internet. He wrote back saying we should cancel our hotel reservation. His company had a fine apartment in the heart of Paris maintained for business guests. It would be vacant during our proposed stay in Paris.

We arrived by train at the Paris train station. We had crossed the English channel to France on a hydroplane boat. A driver from Mr. Cassou’s company (IMV) met us in Paris and drove us to the apartment. He handed us the key to the apartment, and he told us where to drop it in a locked box when we left.

On the door to the apartment was a note that we had maid service. Beds would be made and laundry done for us. The apartment was filled with flowers and potted plants. There was a large kitchen, a living room with a good view and three bedrooms. The bathroom was special also. Brightly colored small tiles covered the walls. A mobile light gave sparkling colored reflections off the wall. There was a large jacuzzi tub. I jokingly said, there must be a hidden video camera observing the mermaids in the tub.

Well, everything worked out perfectly, if there is such a state. Very comfortable. Ice water, orange juice and champagne in the refrigerator. The major points of interest in Paris were within a few blocks. I certainly was kidded by the womenfolks. “I suppose that you travel like this all the time” was the refrain that they echoed to me. Of course, I had never been in such luxury. While we were away we had no worry about house or lawn care. Robert was working in Ithaca. He lived at home and took care of all. We did receive one bit of sad news while in Madrid. Grandma Alice Foote, who had lived almost agelessy for 111 years, died a few months short of her 112th birthday. There is time to be born, what a life to live, and a time to die. The next year Marion broke her ankle, but in 1980 all were in good health.

In the fall we (Ruthie and Bob) went to Seattle, Washington where Bob was part of a group of scientists who met on the subject of aging gametes. The meeting was held at the University of Washington Lodge on a lake up in the mountains. On the way we stopped in Rochester, where we left the car to fly west. Dale was teaching art in high school there. We also spent a lovely weekend in Vancouver, British Columbia, while on this trip. Dr. Smith and I canoed on the lake early in the morning.

A special event in 1981 was the centennial celebration of the University of Connecticut. We saw lots of friends, but they had aged since the 1940s. Later Ruthie and I camped on the way to the American Society of Animal Science meetings in Raleigh, NC. This was the first camping trip since we had travelled with Robert and Dale. We managed O.K. but not as easily as with the two sons in charge of the tent operation plus inflating air mattresses. Dale is teaching art in Rochester. Robert is looking for a job in San Francisco. As I remember it, he hitchhiked across the country, mostly with truckers who wanted someone to talk to.
The year 1982 was full of travel to 5 countries. I'll include the 1982 Christmas letter with a couple of additions. In Israel I was working on a BARD project when the hostilities with Syria over Lebanon occurred. One night I saw military vehicles moving north from Tel Aviv. The next day there were instructions posted in all the labs telling caretakers what to do. All males who were in the military reserve were with their unit, fully activated overnight. One of my lectures had to be stopped for about a minute as Israeli jets took off and roared low overhead. Then I continued. After all, the jets were taking off. It was not enemy aircrafts coming in. In fact the aerial conflicts indicated that the older MIG jets used by the Syrians were no match for the US fighter planes used (and improved I was told) by the Israelis. I learned first hand that the citizens and government of Israel were thorough planners, highly resourceful, and dedicated and unified in the defense of what they considered to be their homeland.

The other point concerns the move by Robert and Dale. Robert has researched the background of the second oldest house located in the historic district of Providence, RI. He is spending scads of money to restore the exterior to its original appearance. Dale moved because they closed the high school he was teaching in. Only art teachers with 10 years of experience were offered jobs in Rochester. He was in demand as a substitute teacher, but he had little opportunity to be creative in that job. He also worked at a major restaurant. So he continued working in the restaurant business, but soon moved to Philadelphia.

The year 1983 was another special year, not but what there are ups and downs every year. We even bragged about the mild winter and the beautiful summer sunny weather in Ithaca. Bob was spreading the word about biotechnology in Hungary, Argentina and Japan, and later in Japan, Korea and Taiwan.

Ruthie organized a real Parcells family reunion on Memorial Day weekend at the Dearborn Inn, near Greenfield Village, Michigan. This was close to the geographical center of the clan. Sixty people ranging in age from 3 to 93 attended. Some relatives came that had never seen each other before. Ruthie compiled the whole genealogy on a scroll that covered part of one wall. She gave the information to a younger Parcells who said he was interested in genealogy and would use genealogy software in setting it up electronically. Did it happen? My requests have gone unanswered, something that is high on my order of characteristics associated with rudeness.

In July we had a great Pi Alpha Pi fraternity reunion at Dick and Ella Huyler’s farm in VT. This reunion has continued every year in late June until Dick died suddenly early in 2002. Then we visited Don Parcells (Ruthie’s brother) and family at their lakefront cottage in NH. After that we visited Robert in Providence on our way to help my parents celebrate their 70th wedding anniversary. We didn’t get to Philadelphia to see Dale.

All these trips have to be scheduled in the summer or during the semester Bob is not teaching. He has taught at least one semester every year since he started in the 1950s. Later the schedule became more difficult as he taught reproductive physiology one term and artificial insemination and animal biotechnology the other semester.

The year 1984 was spent mostly close to home especially on the telephone, as Bob was president of the Society for the Study of Reproduction. With no fax, no internet, no extra secretarial help and not even a touch-tone phone, transacting society
affairs was very demanding. Ruthie and Bob did drive to Portland, Maine and ferried across to Nova Scotia.

Dale collected our family and the Parcell's brothers and their families in Philadelphia for Thanksgiving. This was a central location. Dale has become a superb chef with all of his restaurant and banquet experience. So it was a delightful social and gastronomic experience. We had an early Thanksgiving in Ithaca for my foreign students and postdocs. We attempted to help these friends experience and celebrate some American holidays on a regular basis.

Oh yes it is now 25 years later. Later from what? It was 25 years ago that we came back from Denmark, we finished the new church, and were finishing our new academic home, Morrison Hall.

The year 1985 was a special one with Thanksgiving in Connecticut. The Foot family was together at Betsy's home. Bob's parents were 95 and 98 years old. I tape-recorded part of that occasion, with the blessing of my parents. I have the tape. It was most timely, because in early 1986 my mom died rather suddenly January 13, 1986 at the age of 98. I was at an international meeting in Colorado when she died. I went back to my room to pick up slides for a plenary presentation I was to give. The telephone message light was flashing. The message was to call my old home in Connecticut. The message there was "mother Annie died suddenly". I took a very deep breath. I said to myself "the show must go on". Mother would not have it any other way. And it did. Then I packed and caught the next plane home. There are times when you feel like a delinquent son, but if parents know that you appreciate the love shared together, it helps. We all were proud of each other. Mother was a legend in Gilead and beyond. The church was packed for the memorial service. Dad insisted on standing whenever the service called for it. Now it was my turn to help as I steadied him. Mother was cremated. I was chosen to place the urn of ashes in the grave. Losing mom was not easy, but we gave thanks for the 98 blessed years. Again it was time to go, and we knew that the good shepherd was waiting for her. My dad took it well. He was healthy. Would he live as long as his 111-year-old mother? Despite many family visits and a regular caregiver he was lonely.

Several years before this my dad had an unfortunate medical problem. He had reduced circulation in his leg. He went immediately to his doctor who told him not to worry, and he (the doctor) would treat the problem after he returned from vacation. The leg condition rapidly worsened. Gangrene was setting in. My dad had a clot that was blocking circulation. At that point my dad had to have much of his leg amputated. This ended his active days walking around and doing odd jobs on the farm. He was mostly wheelchair bound which added great frustration to his life. The doctor, taking off on vacation without recognizing the need for action was really medical malpractice. However, my dad would not sue an old friend.

There were more trips again this year. Bob presented papers in Illinois, Montreal and Washington D.C., travelling alone. Ruthie accompanied him to Boston and Davis, CA. It's always nice to see recent friends, as well as friends from friendships established in World War II. The latter was an important part of our trip to Davis, along with Bob "participation in the First Symposium on the Genetic Engineering of Animals. We also made family visits to Robert in Providence, and Dale in Philadelphia. We visited the huge and gorgeous flower show in Philadelphia.
In Washington, D.C. Ruthie continued digging up long lost relatives in the Library of Congress. She hasn't found any skeletons yet. However, she found that 300 years ago we had mutual Phelps ancestors (the William Lyon Phelps line at Yale). So we have more "kissing cousins". Our 1985 Christmas letter states that "We have decided it is a good tradition to follow".

The year 1986 was more sharing of roots. We attended the Foote Family Association of America reunion in Wethersfield, where Nathaniel Foote was one of the founders in 1635. My dad, at 96, was the oldest Foote there. Because of his leg amputation he used a wheelchair. It was great for him to go. He had a ball.

Cornell again was host to multiple summer meetings, but Ruthie and I did slip in a trip to England (London, Stratford-on-Avon and Oxford), and to the Netherlands. The trip was a "Dutch treat" of the best kind. We were housed at a 5-star hotel, guests of the International Veterinary Association, as Bob was an invited speaker.

In the fall it was exciting to hear the Hutchinson Singers at a concert in the Statler auditorium. The Hutchisons were strong advocates for women's rights and for the abolition of slavery. They formed a group of singers in the 1840s communicating this message through music. Abraham Lincoln invited them to sing in the White House. Eventually, some of the Hutchisons were encouraged by conservative neighbors to leave New Hampshire. They settled in Hutchinson, MN. In 1986 there was still a 96 year old (I believe) Hutchinson who personally knew the group of singers. The present group of singers are non-Hutchinson musicians from Minnesota. They introduced me (Robert Hutchinson Foote) to the audience. Ruthie included in the Christmas letter that "I was speechless". Can you imagine that?"

I was still teaching both semesters in 1987, as well as carrying a major research load. We were making progress on cloning. I asked the college and department to provide help with the teaching. I had carried the major share of the load of teaching reproductive physiology in the department for four decades. The request was granted, and 1987 was the last year that I taught the introductory course in reproductive physiology. Research picked up with 13 papers submitted in 1987, and then published in 1988.

My dad, who appeared to be in very good health when my mom died last year, passed away April 16, 1987. Before mom died two of them would alternate reciting successive lines from Shakespeare, famous poems, the Bible, etc. Mother sometimes had to provide a hint as she had taught English for several years. Clearly this interaction had been a great stimulus to both. Without it, dad soon joined his sweetheart in life eternal. His amputation had limited his activity. He had a helper come in daily. The family in Gilead (Ed and Marion upstairs) visited regularly, but much stimulation in his life was gone. It was time to go, although still a shock. I had a call, I believe on Sunday that he was sick and had gone to the hospital. I told my sister that I would be home to see my dad that coming weekend. There seemed to be no emergency and I was in the middle of teaching. On Tuesday, I believe, my sister called again and said dad was better and there was no need to come then. I told my sister to tell dad I was coming home to see him. That was especially good that there was no emergency. He took a sudden turn for the worse on Friday, I believe it was, and died Friday night. My trip Saturday was too late, although my intentions were good. I laid his ashes beside mothers in the Gilead Cemetery at the close of the
memorial service. Dad was considered to be an "institution" in Gilead and Hebron. Remember that mom was a "legend". It is always for us, the living, to carry on. Ruthie's parents and my parents had provided for us what was needed to do that.

Ruthie attended her 50th high school class reunion in New Milford. Bob was manager of the USDA animal reproduction competitive grants program, requiring frequent trips to Washington, D.C. A new Smithsonian Exhibit opened in 1987 featuring the 442nd Japanese-American unit from WWII. One of the photos in the display was Bob with two of his sergeants discussing battle plans before the attack on Bruyeres in October, 1944. This photo also is in the Go For Broke book by Chester Tanaka.

Bob had a very educational trip to China where he traveled by train and plane, and lectured at three universities. All of his slides had Chinese titles and abstracts of the talks were prepared in Chinese for distribution at the lectures. These were prepared by Bob's Chinese graduate students. One of the train rides took nearly 24 hours. We cracked and ate a whole jar of dried pumpkin seeds during the journey. The train ride gave me a good view of agriculture and life from Beijing to Xian.

In 1988 Bob and Ruthie toured part of Ireland, while headquartered at the home of Mike Kane. Mike was a former graduate student of Bob's, and now is a professor at the University of Galway. Bob navigated on the left side of the road after touring for a day on a bus and getting the knack of it by watching the drivers. What a lovely green countryside. Bob had a review paper in Dublin, and soon was on to Japan lecturing at several universities. Most of the time was spent in Kyoto. He had a neat apartment for a month at the foreign visitors guest house. So he learned to shop for groceries. Also, he took his tennis racket and played with the graduate students. Sometimes he ate in the University cafeteria. To practice using chopsticks Bob chose these to eat with. Most of the students chose knives, forks, and spoons. They all were highly adept at using chopsticks, which is what they all had used at home. There is an advantage of the chopsticks when a long reach is needed to pick up food from one of the many Japanese dishes at some distance on the table.

During these years life and location for Robert and Dale had stabilized. Dale had a huge old home to remodel as he worked in Philadelphia. Robert had his apartment houses to rent and repair in Providence. He did add a beautiful home in Wolcott, Connecticut.

To follow our lives in some detail copies of most Christmas letters are appended. Bob wrote the rough draft of most of these. Ruthie added the soft touches. She also added many touches to the 200 copies of each letter when candles and wreaths needed a touch of color at the beginning of the letters.

By reading the Christmas letters for 1989 and 1990 you will note that life at 70 Woodcrest Ave. was moving smoothly along, with typical house sprucing up, gardening, family visits and weddings. Bob continued his biotechnology teaching plus guest seminars at home and abroad. We rejoiced in the good news on political reunification in Germany. Bob hosted a three-week workshop at Cornell for Chinese Agriculturists after the bloody student protests in China. The U.S. State Department was not sure that this workshop should be put on as scheduled. However, I insisted that cultural and technical exchange should not be encumbered by unfortunate political action. Years later, on a visit to China with my present wife, Barbara, she was
delighted to meet the Chinese who attended my workshop. They hosted a dinner for us. All brought photographs of their meetings with me at Cornell. It was the first time they all had been together since their days at Cornell. I believe that we had accomplished more than just a technical exchange of information.

So we had much to be thankful for. Indeed, we were thankful. But 1991 hit us personally more powerfully than an earthquake, as the epicenter was our backlawn at 70 Woodcrest Ave. The powerful and irreversible impact of that event deserves a separate chapter, albeit a brief one.
This brings back fond memories of our time spent in Davis, California while on sabbatical leave.

You are invited
to a
Buffet Supper
Thursday June 22
7 PM
Cranbrook Court-South Lounge
Ruth & Bob Foote
Dear Friends,

This year, as for the past many years, we are thankful for good health, a growing circle of friends and many other blessings. We only wish all people, and especially leaders of all nations, would work fervently for joy and peace in the world.

Bob was in Israel this year at the time that the Lebanon crisis exploded. Jerusalem, as he saw it and photographed the Mount of Olives, seemed so peaceful and so far from the hostilities; yet in the jet age it was very near.

We took our first trip to Mexico this summer. Bob was lecturing in Mexico City, so we saw mostly people and more people (16 million in Mexico City) and their cars just filled the streets. What an enormous problem, as people from the country flock to the city. We took a trip to the sun and moon pyramids not far from Mexico City. What a fascinating and mammoth place. It would be fun to take a leisurely trip to Mexico and learn more about the cultures that have emerged from vastly different origins.

Bob also went to Hungary this fall as a guest of the Ministry of Agriculture. He had a car and driver available which made it possible to see large segments of the plant and animal agriculture. This was followed by a series of lectures and suggestions concerning animal breeding. He has been invited to review the program further next year. The trip was most enlightening, particularly to see the productive agriculture developed by the strong Hungarian people.

Two more new countries were added to Bob's list of "Places Visited in 1982." In early November he spent 12 days in Uruguay and Chile lecturing to various groups, ranging from international meetings to veterinary student classes. All persons contacted were extremely hospitable.

Our sons Robert and Dale moved to new locations this year. Robert purchased a historic house built in 1739 in Providence, R.I. It has five apartments in it. He is now experiencing the joys of refurbishing and of being a landlord. Dale is in Philadelphia. He enjoyed Rochester but was ready to try new horizons. He is working at a Quality Inn near the Philadelphia airport.

Ruth continues her work on a comprehensive genealogy she is putting together for both sides of the family and we have been copying old photographs to include in it. She is also busy with her antique club and needlework group and has just started taking lessons in tole painting.

Now as 1982 leads into 1983 we wish you and yours joy and peace.

With love,

Bob and Ruth
Sunday, June 17 - Father's Day

Left鸿州 via 6:00 A.M. flight and arrived in Rochester by 9:00 A.M.

Plane left Rochester at 11:20 A.M. for
Chicago and arrived on schedule at
11:50 Central time. We were on United
Airline and were given coupons entitling
us to go to a theatre between July 1 to Dec.
On arrival in Chicago "ticket agents" were
offering to buy our coupons for $2 each.

We were asked to discover that
our flight to San Francisco + Hilo was
delayed 2 hours on the flight boards.
It was supposed to leave at
1 P.M. + arrival Hilo at 6:46 P.M. (12:46 A.M.
our time) The ticket agents tried
to get us to go on a flight to Honolulu
where we'd be the last ones on + have
to sit apart, but Bob told him we
would go on the flight we were
scheduled to go on.

After two hours we were told
our plane had a dead engine
they'd have to fly a plane up
from Florida. Expected departure
was then 6:10 P.M. We were
given a lunch ticket good
for $2.40 each by United while
we waited at O'Hare airport.

In Chicago I had sand +
dessert + Bob had a full dinner
of fish, soup, salad, dessert + drink.
We had been served a lunch of
sandwiches, fruit, cutters + buns.
Rochester + Chicago.

Our DCS took off for San
Francisco + Hilo about 7:10 p.m.
Their dinner menu offered a
choice of seafood casserole, roast
turkey, or beef stew.

Arrived San Francisco
9:20 p.m. (12:20 A.M. our time).
Changed planes and took off for
Hilo at 10:30 P.M. Another meal
was offered here - Chicken, rice,
Beef Stew, Veal Parmigiana,
Paradise Salad - Shrimp, pineapple,
Macadamia nut cake + cake.
Arrived in Hilo at 12:20 A.M.
(6:20 A.M. our time) and it was
raining... More + Renee were there
to meet us and had two lei's -
they had made of Plumeria flowers.
Delicious fragrance. They brought
us to the Sheraton Waikiki Hotel.
It is a series of buildings around
dragons + Tropical foliage with
an interesting shopping area there.
Monday June 18

Took it easy around the Sheraton Waikiki Village Hotel & Market Place - a series of little shops of native & imported items.

Sat by pool, wrote cards, walked over to tennis courts.

Went to a Chinese restaurant with Jean & Jim Carpenter for supper.

Tuesday June 19

Jim Carpenter took us around the whole island. Left at 76 m. and returned at 5:30 p.m.

Saw lots of sugar cane - acres & acres along Northern coast. Acres of Macadamia nut trees there too.

Stopped for hot Malasadas - (sweet, solid donuts).

Drove thru Parker Ranch Country & saw museum & slides showing the history of 6 generations farming this land. There are no more Parkers interested in carrying on, however. Jim pointed out various pasture grasses.

Stopped for lunch at the resort town of Kona. Kealua.

Many hotels, shops & nice beach area there. Saw oldest Congregational Church with Sausage tree in yard, fruit, paneling & table made of Koa wood. (Notuaikiau Church)

Wednesday June 20

Henry & Fred Tom took us to the Native Loa Macadamia Nut Factory where we saw a slide show of operations and saw Nut Brittle being made. We then drove to the crater and saw a slide presentation on volcanoes, then drove around the area.

Had lunch, then went to a lava tube in a fern grotto where ferns are like trees. Went to an Anthurium farm where acres of flowers were under plastic netting. Also saw some vanda orchids growing in pots.

Then we went to a park where Ohia trees, tremendous in size, and other native plants were growing and some trees were standing I have had covered these part way up the trunks. The trees had died & left the round, hollow, lava formation standing.

Went to Tom's lovely home for fresh mangos & pineapple.

Had dinner that evening with More & Renee Horimoto at a Japanese restaurant. Gave them a present.
Tuesday night, June 19

Had dinner at the Aukiluan Restaurant with Mari and Patty.

Rice was a necessity. They gave Bot an orchid lei & me a deep purple calla orchid corsage.

Thursday, June 21

Walked to the Arch of Hawaii, shop then took cab to airport. Left Fiji 9 A.M. and arrived in Honolulu at 9:40 A.M. Stayed at Sheraton Princess Kaiulani Hotel, $30 per night - special rate - very nice location across from Waikiki Beach. Walked around the shopping area and down to the beach. Saw the pineapple and musu factory.

Friday, June 22

Shop again and Bob and Mari went to fun fair. I washed hair + clothes. In afternoon went to U of Hawaii Medical School to see Dr. Yamagataki. Also saw a Marine Lab. right on the beach front where they study sea arches.

Saturday, June 23

Took city bus out to the Polynesian Center - an hour + 1/2 to 2 hour ride for 25c. Many interesting villages to see with native arts + crafts. At 12:30 we saw a music & dance show put on by the whole group. Mormon Temple sponsors this group & many students from their branch at Brigham Univ. work + take part here.

The 442 Co K group had a reception at the Sheraton Hotel. Bread & rolls, smoked salmon & roast beef + drinks. This is a very lavish hotel.

Sunday, June 24

Checked out of hotel before 5:30 + went to Punchbowl Cemetery for 442 Co Inf. Ceremony William M. Richardson, Chief Justice, Hawaii State. Supreme Court gave a very fitting address. The graves were decorated with leis. After the service a large group of Co K drove around South-Eastern tip of Oahu island + saw Haruna Bay. Gorgeous blue green color in the ocean + heavy surf + white...
Monday, June 25
San Francisco

Arrived in Salt Lake City at 7 A.M. and waited 2 hours for our flight to Salt Lake City. United has a new terminal building at San Francisco. Took off at 9 A.M. and arrived Salt Lake City at 11:45. Salt Lake Fine.

We rented an Avis car and drove to Logan - 1 hour 45 min.
Staying in a warm room.
Days are very hot, nights cool.
Snow on some mountains still.

Went to Awards Program in beautiful auditorium in Arts building. Lovely organ music.

Tuesday June 26

Had ladies lunch at Walnut Room in University Center. Our souvenir of the affair was a record of the Mormon Tabernacle Choir. Entertainment was a prof. of the Music Dept. doing step-stick comedy or Musical Instrument.

Went to the State Fair & had a very nice meal. Cantata was made for dessert.

Attended Mormon Tabernacle Choir concert at June Arts Center Hall.
Wondrous concert! Eyre Tfelt Benson spoke about the progress of Commism.
Chapter 14
Triumphs and Tragedy

The year began peacefully for us (Ruthie, Bob and sons Robert and Dale). We had a memorable visit to Cornell by the Dalai Lama. We witnessed also the creation of a beautiful mandala from colored sand by the monks from the Tibetan monastery in Ithaca.

On a sunny April afternoon I was using the large lawnmower and Ruthie was using the smaller one. We were preparing our yard for spring. Ruthie stopped mowing. I stopped then and went over to see if there was any problem. Ruthie said "I am very short of breath". She had not been in ill health. No colds, flu or pneumonia. I immediately contacted her doctor for an emergency appointment. She had considerable fluid in one lung. A more thorough exam was arranged immediately. Fluid was removed from the lung, and biopsies were taken. The diagnosis was adenocarcinoma of the liver and lungs. A nonsmoker in a household of smokers. How could this be?

I knew that this was a deadly prediction. I talked privately with two doctors. They predicted that Ruthie had one to three months to live. We had one chance in a million that treatment would be successful. I never told Ruthie these precise estimates. We talked about the seriousness of the condition. It was spring. Ruthie loved the summer-birds, flowers and all living things. She felt good otherwise. She wanted to live, and agreed to try the best treatments available.

The chemotherapy did affect her, but she took them like a trooper. At first there seemed to be an improvement. She bought a wig and really looked lovely. However, the improvement was only temporary. The badly affected lung was fused to the chest wall. She was functioning on one lung. She was requiring blood transfusions more frequently. I hoped and prayed for a miracle.

I wrote the 1991 Christmas letter in entirety. She allowed me to tell the truth about her condition, but wanted the letter to be positive. I attempted to do that, making the letter sound somewhat like "business as usual". But it wasn’t. Ruthie kept busy doing things she loved to do, but not the heavy work. I did attend some meetings. However, now I usually came home for lunch. I never went back to the laboratory at night. She maintained her cheery disposition, but she tired easily. I signed her name for the first time to our Christmas letter.

I made the trip to Australia sound rather routine in planning. Such was not the case. The business class was arranged to make the flight as comfortable as possible for Ruthie. The doctors considered the trip as risky, but if Ruthie wanted to go, and I wanted to chance it, then God speed. The airlines kindly reduced the rates, which were still a small fortune for four tickets. I had a professor friend in Sydney, Australia who had worked in my lab. He had a large station wagon and wheelchair rented for us in Sydney. Robert and Dale cleared their schedules for several weeks, from before Thanksgiving to the middle of December.

I worked out an itinerary of what I thought would be an interesting and leisurely trip up the coast of Australia. This was done with regular discussions with Ruthie. Brisbane was about the midpoint of interest there, so I arranged for the four of us to stay in Brisbane for 2 or 3 days. Dr. Blackshaw, a scientific friend of mine, was on the
faculty of the University of Brisbane. He kindly arranged for us to stop at the hospital for a blood transfusion, if necessary. The paperwork and insurance were worked out in advance. Ruthie was getting weaker on the trip. Two pints of blood boosted her considerably. This rest in Brisbane, and a rest stop over in Honolulu coming and going were what was needed for the trip to go remarkably well, considering the circumstances. What really was the key was the help and encouragement provided by sons Robert and Dale. They wheeled their mom everywhere. They made sure that we stopped to have a bit of refreshments whenever they were needed. Ruthie was a determined good trooper, as if everything was as usual. It was a historic trip for our family.

We almost did not get started. Ruthie was not feeling well the night before we were scheduled to leave for Australia. I took her to the hospital. After various tests and treatment, waiting much of the night in the emergency room, she seemed much improved. At about 4 a.m. I asked her if she still wanted to go. She replied, “Of course I want to go”. Brave Ruthie! So we loaded the car and headed for Syracuse to catch a Northwest airlines plane. Robert and Dale were a great help.

We had wonderful weather in Hawaii, where we spent Thanksgiving. Of course we had to stroll and sit on Wakiki Beach. In Foster Park there were many orchids and other flowers blooming. The huge Banyan and the Baobol trees were overtowering. There was a memorial there to early Japanese laborers who came to Hawaii.

Then it was on to Australia. The business class was luxurious for us who normally travel tourist class. Meals were terrific. Wheelchair service was always waiting at each arrival and departure. The Whites had a beautiful station wagon waiting for us. Many thanks to them. There was lots to see in Sydney. The shops already were decorated for Christmas.

The Sydney opera house is impressive both inside and out. While we were there models were rapidly changing garments and photographed with the opera house in the background. Robert and Dale manned the wheelchair, as needed, providing wonderful support. That helped me too physically as well as mentally, as my war hip wounds were quite a “pain”.

Our drive north was partly along the beach and partly inland through Armidale, where we visited the university briefly. Much of the countryside was dry. There were areas of controlled burning along the roadside. Also, there was a large forest fire near Sydney. Weather was warm to hot. This was summertime in Australia.

We visited a large winery and saw the bottling and labeling operation. Robert and Dale bought selected samples of their product. We passed large flat areas with beef cattle or sheep grazing in the fields. Along the way we took a refreshing break at the Sunshine Pineapple factory. At another point we paused by a sundial. The explanatory plate stated that it was the largest sundial in the world.

From Brisbane on we were closer to the coast. We stopped to walk on sandy beaches. Ruthie liked the feel of sand on bare feet, likely a reminder of tiny tot days when one would build tunnels and sand castles on the beach. I have a clear photo of the four sets of footprints in the sand. This is a very emotional memory! We visited other parks and botanical gardens. We saw wallabies, koalas, kangaroos and emus. A large dead kangaroo was beside one of the main highways. They must cause at
least as much damage on impact as our white-tailed deer. Another stop was on Heron Island with a large sanctuary.

Our trip north stopped at Rockhamton. There we turned in our station wagon and boarded a boat for Great Keppel Island. The crossing was bumpy, but we were all O.K. We had beautiful quarters there during a meeting that Bob participated in. The rest of the family enjoyed walks on the island or refreshing breaks in one of the 8 or 9 swimming pools. While there we were entertained by aborigines presenting native dances. Also, they demonstrated boomerang throwing and allowed the audience to give it a try.

From Rockhamton we flew back to Sydney, with a stop at Brisbane. We attempted to follow a leisurely schedule which Ruthie handled very well, with some help from her boys. We were back in Hawaii for a 2-day reststop, and then flew on to LA, Detroit and Syracuse.

So it was the last big excursion for our family. It was done on a wing and a prayer, with good fortune and the grace of God ever present.

When we returned to Ithaca, Ruthie needed to spend much time resting. It soon became apparent that I could not provide the professional care and comfort she needed and deserved. I bundled her up and took her to the hospital where she remained until she died January 10, 1992.

I went to the hospital to be with her three times a day at mealtime and stayed in the evening. Her brothers came and visited Robert and Dale came. Rev. Julia Oatman and others from the church, visited and shared comforting time with her. The last couple of nights I rested in a closet off the nurses quarters. She was no longer eating much. I kept reheating little bits of food, offering cut orange sections, etc. She quietly rejected my offers, but usually took a bite to show her appreciation. At this time I finally recognized that no matter how hard I tried to do something helpful, Ruthie's life was no longer the least bit dependent upon my hands.

At Christmas time there were lots of cards to go over together. We brought in nonfloral Christmas decorations. We could not bring flowers (pollen problems) into the intensive care unit. We played some Christmas music. The family all came for a visit.

Ruthie was very thoughtful to the end. She mentioned specific things that she would like to give to certain individuals. She asked me to bring in her jewelry. She thoughtfully selected very appropriately various pieces, and neatly wrote a note with each piece as to why she thought that was special for each special person. I wrapped these and sent them promptly to each person. I went over the will. I believe that I executed each item promptly and correctly. It was hard to find the right words, and I won't try to now, as we shared emotions. I was not sure what to say and what not to say. She was not about to give me any advice at that point.

In January, Ruthie clearly, was trying to hold out until our wedding anniversary, January 12. A few days before that she said that she knew I was supposed to give a talk on January 10 in Colorado on the “Ethics of Cloning”. How long would I be gone? I told her I wouldn't be “gone”. I had sent my slides and talk to Dr. George Seidel, a superb person in this field, and former graduate student. He would present my talk very well. Later others told me he did. I only wanted to be with Ruthie.

On January 10 her condition worsened. The doctor asked us if they should give additional blood transfusions. Ruthie indicated no, and did say "I did not think I would
be the first one in my family do die”. Those were the only words of remorse she spoke during this whole ordeal. She was still lovely. Yes, I said to myself you are too young to die. Son Robert called and said “Wait for me mom”, but her soul had departed. She would have been glad to live, only if life could have been good. And so she passed on to life eternal, as I held her.

I buried myself into making funeral arrangements and notifying relatives. I finished writing her obituary. I found a shiny small stainless steel casket that would shelter her physical remains. I had her favorite dress put in the casket. Memorial tributes were given for her at services in Ithaca and in Gilead. Meanwhile I threw all of my other waking hours into work at Cornell, plus taking care of the lovely flowers that flourished with Ruthie’s green thumb. There was a large space that I could not fill, nor can anyone when they lose a beloved spouse, at least during the months of healing. Ruthie had been the biblical Ruth who always supported me “for better or for worse”. Now it was my turn to be the compassionate parent that Ruthie had been as well as the hard driver.

And so our life which had had so many joys and triumphs together came to an end. For quite awhile I felt that the early end of her life was a tragedy. Every night for the rest of 1992 I shared prayerful thoughts with Ruthie for our life together. She gave me guidance. Eventually I came to recognize that the way Ruthie had lived her life was a triumph! Amen.


A retirement symposium was held in my honor on August 13, 1992. It was organized by my former graduate students and held at this time because the American Society of Animal Science was meeting at Cornell in 1992. Many of these former students would be here for that meeting. The former students arranged a whole program of papers presented by some of them, now with their own exciting careers. A whole issue of Theriogenology was devoted to this symposium. The former graduate students presented me with a framed copy of the program with each speaker signing the program next to the title of their presentation.

I am sorry that Ruthie died earlier that year because she would have enjoyed meeting again many who came. Also, it was my opportunity to pay public tribute to her for her many contributions. But life is fragile, and we must appreciate the days that we have.

I will attach here a list of the slides I prepared for that occasion. Many were photographs of family. I have written a P in front of those slides which were photographs. Some of these are included in this book.

Most of the nature of the slides with narrative is evident from what is written as a short title after each slide number. Each slide was brief with the “thank you” emphasized. At the end of the list of slides I have attached the first slide, as an example of the slides. Also slide 3807 (53) has a message that is attached.

It was a wonderful occasion. I am most grateful to all those who put the symposium together and who contributed so much to our collective program over many years. Their programs will build another solid step into the future.
I am thankful for the many good things in life.
Home farm, 20 years before I was born (≈1902).
Home farm, 20 years after I was born (1942).
I was fortunate in the choice of my parents.
Photo of mother and dad (photo studio).
Photo of mother and dad on the farm.
Photo of our family at church.
I was fortunate in growing up on a dairy farm in the depression.
Hard work, service and honesty were the hallmarks of survival.
Bobbie picking dandelions 1 cent/100.
Bobbie and the pet deer.
Bobbie and his dog.
Thank God for cows.
Brother Ed, father, farm and cows.
Bob and the bull.
Softball: Pa, Ed, Bob
Lou Gehrig's farewell address 7/4/39.
I am thankful for my many fine teachers at the University of Connecticut and Cornell University.
Crosscountry: University of Connecticut.
Lt. Foote at OCS, Ft. Benning.
442nd RCT. One of the greatest combat teams.
Go for broke motto.
Thank God for my Nisei army buddies who shared their life with me.
Bob and Co. K Sgts, near front lines in France.
Bob receiving a medal.
Military cemetery.
Ruthie, a walk in the spring.
Married January 12, 1946.
Bob and Ruthie, now Senior Citizens, CA.
Family - son Dale
Family - son Robert
One of my faults is being a workaholic. My family put up with that, I'm sorry to say.
Family and Tisch, Palmer Pt., 1956.
Ruth, my lifelong supporter to whom I owe more than I can repay.
I am thankful to the founders of NYABC and the Eastern family.
I am thankful to the great body of undergrads at Cornell University
Photo of A.I. class at T & R Center, 1981.
I am thankful that Cornell placed no restrictions on what or how I taught or hours worked.
I am thankful to many agencies for supporting over 100 grants.
Budget cuts. "Damn the torpedoes, full speed ahead."
I am thankful to grad students, postdocs, technical, animal and office help.
I am thankful for the opportunity to lecture and make friends in many countries.
Photo of Leaning Tower of Pisa.
Photo of Emperor of Japan.
I am thankful for a host of other things.
I am concerned about the lack of ethics.
I am concerned about the shift from need (to help) to greed.
Ethics: "Ask not what others can do for you, but what you can do for others."
If it is to be it is up to me.
Administrative red tape, cartoon.
Be a winner, but don't infringe upon the rights of others.
A challenge: Giant strawberry.
With genetic engineering - I plant/garden.
Ann Landers column. "Resolve to be..."
My research in animals and relevance for humans.
New approaches thru molecular biology.
Charting genes - blue jeans.
Charting all the genes - cystic fibrosis, BLAD, etc.
Wedding of IVF, ET and Genetic Engineering Technology.
RNA synthesis. Base pairs can spell AVG.
Sex, Science and Society
Sex, Science and Society vs. Society, Science and Sex
Scientists, Science and Society: stand up for the truth---.
Helping hands around the world.
Thank you all for coming, for what you have done for me and for everything you've done to improve the quality of life.

Slide #1

I am thankful
for the
many good
things in life.

Ann Landers column:
"Resolve to be tender with the young,
Compassionate with the aged,
Sympathetic with the striving,
And tolerant of the weak and wrong.
Sometimes in life you will have been
all of these."
Memorial with inscription remembers Ruth Parcells Foote. The “church lot” was formally dedicated to her during ceremonies last Sunday.

‘Church Lot’ Dedicated to Ruth Foote

by Marge Dill

A field in Gilead that was long a part of Hebron’s farming heritage — before being deeded to Gilead Congregational Church in 1994 — was formally dedicated Sunday.

A rustic stone memorial marks the 3.4-acre “church lot” donated by Robert Hutchinson Foote and dedicated to the memory of his late wife Ruth Parcells Foote.

A history of the church lot written by Edward A. Foote, Sr. for the program notes touches on some of the former uses of the field.

At one time, Foote wrote, a telegraph line passed through the lot, supported by giant chestnut poles with ten locust crossarms and ten wires per crossarm.

“Farmers split the discarded poles into rails for fencing, and coils of discarded wire found endless uses,” he wrote.

“Uncle Banks Jones, husband of Carrie Hutchinson Jones, who owned the ‘church lot’ for many years, used a number of the locust cross arms in a chicken coop,” wrote Foote.

Fifty or 60 years ago, a handful of Gilead kids picked strawberries grown on the church lot which was rented by Wellesway Farm at the time, he recalled.

When Doris Hutchinson inherited the property, she had no use for it and offered it to her uncle, Robert E. Foote, he recalled.

Footehills Farms used the field for hay and pasture. Water bowls attached to the well were used to water the stock, Foote wrote.

When the Gilead Church couldn’t find water on its own property, they requested permission to drill on the “church lot” and Robert E. Foote paid for the drilling, wrote Foote.

Robert E. Foote eventually gave the lot to his son, Robert Hutchinson Foote, and daughter-in-law Ruth Parcells Foote as a part of his estate.

In recent years the field has been used for Easter Sunrise Services. In 1994 it was donated to the church.

This past Sunday members of the congregation gathered at the memorial stone on a corner of the “church lot” and with song and prayer dedicated it in memory of Ruth Parcells Foote.
Chapter 15

New Life on Golden Pond

I will begin this section of my life after the death of Ruth Parcells Foote by referring you to the 1992 and 1993 Christmas letters. These will tell the story authentically as it seemed at the time. The 1992 letter is the only one that I signed singly. Our 1993 letter was individually signed by Bob and Barbara, probably tailoring each one with a short note according to whom the letter was sent.

A few additional thoughts come to mind that are not in the letters. First, our home at Woodcrest Ave. that Ruthie had so carefully planned and groomed became a lonely house in 1992. I stayed there long enough each day to cook a few items, and sleep a few hours. Church groups, PEO, and others brought in food in the beginning, so initially I didn't even cook much. Saturday was my house cleaning day, and gardening and lawn care day. Also, Saturday night and Sunday were days when I wrote thank you notes to every person who wrote to me or contributed (in Ruthie's name) to some charity.

I would go down to a card shop at the Ithaca Shopping Plaza. It was owned by people who had a deli next door. The card shop closed at 5 p.m. When I came later in the evening on a regular basis, they soon gave me the key to the shop to select a few boxes of cards. I locked the store when I was finished, paid for the cards at the deli, and returned the key of course. I tried to buy a selection of cards that collectively would fit everyone I wrote to. One weekend I wrote about 30 notes. I never just sent a signed thank you card. There was a joy in remembering each person as I wrote to them. There was a joy in relating to the cardshop owner as well, who trusted me with a key to the shop.

When I was away at a meeting for more then a couple days the neighbor came in and checked on everything. One time we had a big snowstorm just before I returned to Ithaca by plane late at night. My car was snowed in at the airport. I had lowcut shoes on, but I did have a shovel in the trunk of the car. I shoveled the snow away and drove home. While I was gone the city had started to install a new fire hydrant at the foot of the driveway at 70 Woodcrest Ave. I had to shovel a path just wide enough for the car to fit between the construction on one side and my mailbox on the other side. With additional shoveling I was able to put the car into the garage.

I went into the house. It seemed eerie. I turned the thermostat up to 65, from the 60 I set while I was away. That temperature saved fuel and reduced plant requirements for water. As I crawled into bed, cold and tired, it was the only time in my life that I felt that it was a hell of a place to come home to. I was the only creature there. But I did sleep well, thanks to a comfortable house.

The largest change in activities was the hours worked at the lab. Some of the Chinese graduate students, especially, worked far into the night. I might enjoy a cup of tea with them at 1 a.m. or later. The house at 70 Woodcrest did not care what time I came home. These long work hours, helping the aspiring graduate students, were balanced somewhat by the time I spent writing thank you notes. These gave me cause to reflect on the many caring people in this world. Also, I spent more time keeping in touch with my two sons and with Ruthie's brothers.
Life was basically O.K. The research and teaching at Cornell was stimulating. Besides my good job I had the security of knowing that I was on the list to move someday after construction to the wonderful Kendal at Ithaca retirement community which had been planned. I could manage O.K. There were no thoughts of remarrying. I didn’t feel the need to. How would my sons react to such a possibility? Besides, the good Lord and others had taken care of me for 70 years. I didn’t need to plan any changes, because “If it ain’t broke, don’t fix it”. But then soft breezes bring unexpected messages not fully appreciated or understood at the time.

One of the women who wrote was a 1943 classmate at the University of Connecticut, Barbara Huntington Jones Johnson, known as “Bubs”. She wrote a thoughtful note of sympathy to me, including a statement that she went by “Bubs” at college, but I probably wouldn’t remember that.

I was born a Republican and elephants never forget. There were several reasons I remember Bubs. She entered the coed milking contest which I helped to run as a dairy student. I had seen her picture several times when looking over a photo album of old college days. Also, she was active in the 4-H Club, where I was an officer also. Two yearbook photos of the club show us sitting side by side.

But the big reason I remember her was because I thought that she turned me down for a date (see chapter 5). That was the time I thought I asked her to go to a dinner-speaker event where I was the president. Bubs thought I was trying to sell her a meal ticket, which she didn’t need with her semester meal plan at the university. She came alone to hear the speaker. I interpreted that as a flat turndown for a date, and never asked her again for a date at the University of Connecticut. I later signed her certificate of admission to the honor society, and I still admired her qualities as an All-American girl. She was and is that, as I can confirm. Read on.

So in 1992 more correspondence followed. I really didn’t think in the beginning that it would end up in marriage. Some elderly widowers had reminded me that there were many fine widows in church. I was not interested. I really was not pursuing a trail leading to marriage. As I mentioned previously, I did put my name on the Kendal list in 1992, thinking that when I retired the house on Woodcrest was too much for one person. I could move to the Kendal Retirement Community when it was built.

Then a whole series of events followed in late 1992 and early 1993 when I was traveling near where Bubs lived or to events close to or the same events she was planning to attend. Some power was sending us along the same fork in the road. I had to present a paper at a scientific meeting in Tampa, Florida. Barbara had lived there since 1952 with her husband, Roger, a fraternity brother of mine. Barbara also was a sorority sister of Ruthie’s from the University of Connecticut days. So we had lots of friends in common, although we had little contact with each other after Roger finished graduate work at Cornell.

I had planned to rent a car in Florida to visit a relative in Florida that I had not seen for many years. Barbara lived alone, not so far from my planned car travels. Her husband was a smoker. He died of lung cancer in 1987. I never smoked, which I found out later was an important plus for me as far as Barbara was concerned, and healthwise for me too. So, I stopped by to see Barbara, or Bubs as I knew her. We had a fine visit about old times. We ate at a pleasant nearby restaurant. We ordered
the same dessert, which caused the waiter to remark “You must be married”. This was in April, 1993.

Then in early June we both attended our 50th class reunion at the University of Connecticut. I must confess that I recognized Barbara as that same classy grandmother that I knew as a co-ed 50 years before. I admired her then, and now as I write this.

Finally we began to think seriously about a change in status. We decided to make a list of likes and dislikes. That was the conservative approach. When we compared notes we couldn’t find any roadblocks. By that time we probably had decided in our hearts to get married anyway. At least I had.

Another event of serendipity occurred about the same time. Jamie Jones, Barbara’s grandnephew, and likely the one to continue the Jones Family Farm, in the many years ahead, wanted to enter Cornell for his college career. His parents were University of New Hampshire graduates and wondered, why Cornell, especially as he did not know anyone there.

When I learned of his interest I wrote that I would be glad to show Jamie and family around Cornell. If they would like I could make appointments, as I knew the people in the Admissions Office. So Jamie and his parents came to Cornell. Jamie had an excellent high school record, and was admitted to Cornell. His parents thought I had a nice home. They reported to Barbara this fact, plus it would be a great place for her dog Sarge. Now the last point was a plus too!

Getting ahead of the story a bit, I should add that having Jamie at Cornell was great. He came to my office. His parents and grandparents visited Ithaca. They stayed at my Woodcrest Ave. home, which soon became our home. So this was a wonderful opportunity to know the family on the farm where Barbara grew up. They made it easy to become part of their family too.

In the meantime Barbara’s daughter and her family became involved when I made a trip to NIH in Washington, D.C. I included Richmond, VA, where the family lived, as I was invited to attend Barbara’s grandson’s graduation. I spent some time visiting Barbara and her daughter’s family. Unknown to us the grandchildren established a peek position at the pantry window as Barbara and I visited in the backyard. It was reported that during this show and tell Barbara’s granddaughter told her mom that “It looks like Nanny (Bubs) had landed a good fish”. After my trip they had a family critique and promoted the idea that Barbara should proceed. I was now thinking the same thing. So we proceeded. It really was much more romantic then that, if you can believe that old codgers can be romantic.

We planned to have a wedding around Thanksgiving in 1993. Then we realized that daylight is short the end of November, travel conditions can be bad, and many of our close relatives are old enough not to want to travel then. We moved the date to September 25. I hastened the completion of the invitations, as I had access to computers. It was a beautiful, warm, sunny day. A good time was had by all at the Whitehills Church in Shelton where Barbara’s grandmother had played the pump pipe organ. It was played again at our wedding. The Reverend George Milne, now retired in Gilead, married us, as he had married Ruthie and me more than 47 years earlier. Barbara was “given away” by her son Philip. My sons Robert and Dale were my best men.
For Barbara this was coming back home after more than 41 years in Florida. She had spent the first 30 years of her life growing up in Connecticut and working there, plus several years in Ithaca when her husband, Roger, was a graduate student (see 1993 Christmas letter).

Her many close friends in Lake Alfred, Florida, could scarcely believe that she would leave Florida. She had been a leader in her Presbyterian Church. They put on a terrific mock wedding with a robust mature flower girl throwing flowers to the audience. Her church minister performed the mock ceremony with great hilarity. We have a video of this performance. The groom had to promise that he would not only faithfully take care of Barbara, but that also her dog would have an honored seat in the car. Barbara had a 3-year-old dog, a puppy had followed her home 3 years before. It was an extra puppy from a litter down the street. She decided to keep him. She named him Sarge. He rode joyfully in the backseat of her car around Lake Alfred—a familiar sight to the residents.

Barbara did not know if she should bring Sarge to Ithaca. I told her by phone (before this farewell party) that I had already installed an electric underground fence enclosing the yard at 70 Woodcres Ave. It cost $1100. So that was that.

Sarge rode happily with us to Connecticut and Ithaca. We were not yet married, but we had the “Just married” sign from the mock wedding. We put that in the back window of the car. The truckers tooted and gave us thumbs-up signs as they rolled by us on the way north. Sarge always has been a most gentle, expressive and loyal pet. He (it) is a member of the family. Barbara teases me by telling people that I married her to obtain access to Sarge. Yes, we both think he is a very good dog, as do all dog lovers at Kendal. Best of all for Sarge he has no fleas in Ithaca. He had loads of them in Florida. Besides he has two people now to spoil him, especially I do.

The 10 years of a new era in the lives of Bob and Barbara have sped by with two family units joined. These have been 10 very active years. They have been 10 very good years. We have both wanted them to be that way, as one should try to live and appreciate each day to the fullest, commensurate with the changes that accompany a more senior status. Barbara is that tremendously caring positive spirit who can make anything work. Again, the Christmas letters highlight some of our activities. I will give an overview of some of the events and changes from 1993 to 2003.

Bob reached mandatory retirement age on July 1, 1993. He didn’t really retire, as will be described later. He still had research grants, graduate students and a course to teach. He did have more time to present talks on a variety of subjects to alumni, civic groups and other organizations. He did more volunteer work.

Barbara became immersed in a variety of local activities, especially connected with the First Congregational Church. She continued her Cup Cooking workshops, now in their 19th year. She has revised her book “Cup Cooking: Individual Child Portions”. About 90,000 copies have been sold. This book is partly an outgrowth of her many active years teaching elementary kids and integrating kids in Florida. Kids and families learned much by her leadership in organizing seeing and doing activities. She organized an after care program in one of the churches. It is still going, but misses her enthusiasm and leadership.
Along with these local activities we have more families to visit now, or have visit us. Another activity that is a wonderful way to learn is to take carefully planned trips accompanied by reading, lectures and observing. In January, 1994 we visited my WWII friends in Hawaii on our way to Australia. In March we had a short visit to the Land of Lincoln, Springfield, Illinois. We had great tours of Lincoln’s home and law offices, plus a marvelous rendition of one of his debates with Douglas. Both of us admire Lincoln greatly for his ability, dedication and loyalty to worthy causes. In April we pursued the life of the Tarahumara Indians in the massive Sierra Madres of Mexico.

Barbara’s home in Florida has now been sold. Friends are living there. We flew to Florida to check on things there as well as visit many of Barbara’s longtime friends. While Barbara has been pulled away from many lifelong friends she has made lots of new ones. No stranger will pass by her without becoming a friend. Also, we both recognize the enormous cultural opportunities in a community filled with scholars of diverse talents at Cornell University, Ithaca College, and other surrounding colleges and institutes.

The year 1995 was another great year to be alive and busy. A schedule of meetings, in a folder being discarded, shows an AI meeting in Calgary in Canada (Feb. 16-19), one in Ithaca on ethics (March 10-12), an NIH report in Bethesda (March 17-19), Andrology Meetings in NC (April 1-4), Animal Reproduction Symposium in Lexington, KY (May 18-29), ADSA Meeting at Cornell (June 24-26), SSR Meetings in Davis, CA (July 5-13), Reproduction Symposium in Budapest, Hungary (August 24-31), Conference on AI and Biotechnology for the EPA in Maryland (Sept. 14-15), and another NIH Report in Washington, D.C. (Oct. 25-27). Bob gave lectures or reports at essentially all of these meetings on different subjects, in addition to teaching, advising, and writing papers. Barbara went with Bob to California, Hungary and China (see 1995 Christmas letter). We have given several travelogues since then.

Barbara’s granddaughter, Erin, was married in 1995. Her grandson, Michael, was traveling with the Marines. Grandnephew James Jones is a sophomore at Cornell. He stops in to chat with Bob at his office and comes for a meal at our home occasionally. This also brings the Jones family relatives to Ithaca. At home we were always busy keeping up or catching up.

Again, 1996 was a great year for us. One has to adjust a little with advancing years. Bob is very lucky that the chronic pain from WWII injuries is only that, and most things are still possible. A terrific adventure was a trip to Antarctica via Chile, the Falkland Islands and Argentina. We traveled on a Russian icebreaker modified for a small contingency of tourists. This trip was sponsored by the American Association for the Advancement of Science. We had superb lectures by geologists and naturalists. The weather was relatively good, so we have lots of pictures, tape recordings, and zodiac landings.

You ought to take this trip, or at least see our slides and video. Most of the fresh water of the world is there. Weather is affected by conditions there. If much of the icepack should ever melt, Florida and coastal areas will be part of other ancient civilizations beneath the sea. It was a fascinating and highly educational trip.

In between travel we had many visits with relatives, and activities in Ithaca (see 1996 Christmas letter). Most of November we were in Thailand and Japan. Bob gave
a series of lectures both places. Barbara maintains her strong interest in elementary
education. Friends in both countries arranged for her to visit elementary classes.
Come see our photos. Better yet travel there. One of the great advantages we had in
all our travels was that Bob’s scientific friends arranged to get us into places of special
interest to us as well as visit the typical tourist attractions. They provided
transportation, and in Thailand, Dr. Kanok hired professional guides for us. We were
spoiled rotten. However, we tried to benefit from this and capture as much of the
culture and history as one could in a superficial visit.

The year 1997 was more of the same, but different (see 1997 Christmas letter).
We continue to try to get our relatives to take things they want when visiting, as we
continue to downsize. Bob arranged for all of the Parcells clan to get together in
Connecticut at the only 5-star restaurant in New England. I thought that the cousins
should keep in touch after Ruthie died. Connecticut was a central location, and this
Mayflower Inn (see attached letter) did attract all the clan. All had a good time, and
the Parcells suggested we do this again. They didn’t, and I could not afford a $700
Sunday spread again. I hope that we will all meet soon. I make gentle hints in
 correspondence. Don’t wait until it is too late.

We predicted that we would be moving into the Kendal Retirement Community
in 2000. Bob was never anxious to move. The home at 70 Woodcrest Ave. was nicely
located and comfortable. Would the “Retirement Home” be like his impression of a
nursing home? It wasn’t.

However, it is a good thing that we kept on the ball because our prediction of a
2000 year move into Kendal was wrong. I had a good priority number, having signed
up in 1992 before Kendal was built. When you are given the opportunity to choose a
unit but do not take the option it is not held for you. We moved.

What happened was this: A call in the spring of 1988 from Kendal informed us
that the many units we preferred were going fast. We were fortunate that the unit we
most wanted had been passed up by many other Kendal applicants because the car
garage in that area was used as a machine shed. The maintenance shed had not
been built. The car garage was not available, and tractors sometimes were left on the
lawn. So we acquired a large cottage with a great view and near the woods to walk
Sarge or let him run.

However, before the call from Kendal, as a preventive measure, I had
scheduled open heart surgery in April. This was an experiment I had not tried before,
so why not. We had to make a quick choice to move or lose our choice cottage at
Kendal. So a tremendous downsizing of Barbara’s and Bob’s things had to occur.
Family, auctioneers, garage and rummage sales, specialty shops, Salvation Army, and
others helped to find ways to use most items. Our neighbors held a warm and
wonderful farewell party for us. Movers did a terrific job of moving items we kept. The
Cornell Real Estate office sold our house to a buyer before it was put on the market.
Cornell Tradition Fellowship (service required) students will be aided, as the proceeds
were a gift to Cornell. I was disappointed that the Real Estate office sold the house
low to an inside offer without advertising it. That department still got their cut. They
didn’t have the interest to get maximal dollars to help students, in my opinion. With
this quick sale we had to be out of our house before September 1.
Back to the surgery. It went well. Two days after surgery, while still loaded with 13 catheters, Bob helped a graduate student revise his thesis. I was careful to not do any heavy lifting in preparation for the move.

We got busy planning to add a sunporch and a flagstone walk to the carport we would have eventually. They were added in the fall of 1998. They are great. Sarge likes his solarium very much. Eventually the maintenance shed was built, and we had our carport.

Life now seems to be even busier. There is much to be involved with at Kendal. Bob still works full time at the office. There was a tremendous number of books and other items to dispose of prior to the move. We decided not to rent storage units. People who did the latter have never opened their lockers. We still have a few boxes stored in the closet yet to be opened.

There are various reunions to go to. The younger generations are getting married. Jamie Jones, the Cornellian on the family farm, is getting married on August 30, 2003. This is in contrast to the Shaker Villages we visited, with no marriages or kids, and where the last survivors are passing into oblivion with no heirs. It looks like the Jones Family Farm will continue to be in good hands.

Lots of planning is taking place on the farm where I grew up. With both Marion and Ed passing on, the house has no permanent residents. There is the farming operation of hay and woodcutting to attend to. Both the homestead and farm buildings need some repairs. There is the beautiful golf course on the back side of the farm. Part of it extends across the north view from the homestead. My mother and dad used to enjoy seeing the green space covered with avid golfers. So the next generations have promising opportunities as well as problems to work out. The Open Space Program will keep it green.

We have had time to do some of our own landscaping. Also we have had help from professional landscapers, so we are comfortably and attractively (I believe) settled. We like our flagstone walk curving gracefully toward the garage. The American flag is usually flying, except when the breeze is so strong that the pole bends and the flag flaps like mild thunderclaps. Anyway, as in Denmark, the flag welcomes visitors.

In January, 2000, son Robert arranged a luxury liner trip to the Panama Canal at bargain rates. Dale was too busy with his catering schedule to go. We made multiple stops going and coming at new places for Bob and Barbara. Robert has become an adventuresome traveler when he finds bargains to go to new places.

Another special treat was to meet many of my close friends from Company K, 442nd in Los Angeles. I was the banquet speaker, a very special honor. Barbara was impressed with the closeness with which the group held each other. Another new venture for Bob was to give two sermons this year.

Barbara is as busy as ever with Cup Cooking. Literacy Reading programs, church activities and helping Kendalites who are in the assisted living component of Kendal. And so life goes on with us old folks having to keep a careful daily and weekly schedule so we will be at the right place at the correct time.

Sarge had a new experience, having a tumor that had to be removed. We were able to pick him up after a day of rest post-operatively. The way he dragged the handler into the waiting room, and did four-dimensional gyrations one would have
thought that we had deserted him for years. When we went on trips and left him at a kennel, we left the car door open so he could bolt from the kennel and leap into the car in one motion. He is a wonderful loyal companion, and he communicates very well. At nearly 14 years of age he is still youthful, but becoming hearing impaired like many of us.

The Christmas letters for 2001 and 2002 point to multiple variations of earlier activities, often with a new twist. We keep the medical personnel in Ithaca up to snuff by letting them keep us in stitches now and then, or we try a new visionary approach that is an eye-opener. Ithaca is blessed with remarkable medical facilities. The big event for 2001 was Bob, Barbara, Robert and Dale all vacationing together on the inland waterways to Alaska, followed by a land trip in Alaska. Wow, what a beautiful expanse of wilderness accompanied by a marvel of the world in technical achievement, the Alaska Pipeline. The safeguards seem to have protected the environment, and the income has brought prosperity to Alaska, including about $500,000,000 in oil revenues distributed to about 100,000 native Alaskans. For a family of 6 that would amount to $30,000. What will happen when the oil supply ends at Prudhoe Bay? Will they tap other huge oil reserves? These reserves are large, but they are finite.

Two great trips highlighted 2002. The International Embryo Transfer Society gave Bob the Pioneer Award plus an all-expenses trip with a guest (Barbara) to Foz do Igussu in Brazil. There we saw spectacular water falls (much larger than Niagara Falls), a tropical bird sanctuary and rain forests. Later we travelled the Columbia and Snake Rivers with superb historians and naturalists. The rock formations of lava spread over 200,000,000 years, the gorges cut with melting glaciers thousands of years ago, and the historic mapping trip of Lewis and Clark, planned 200 years ago, all were exciting to see and learn about. How different the USA today might have been without the Louisiana Purchase and these explorations through regions that the Spanish, French and British collectively had claims to. Bob enjoys learning more about history and giving illustrated talks, combining history with a tourist point of view.

Most of these reflections have focussed on personal family. That was the purpose of jotting down these thoughts. Much has been omitted, forgotten, not recalled, or avoided because of the repetition of unimportant points. During all these years we have lived, not as individuals in isolation, but in communities of people, affected by friends and indirectly by events influenced by friends and others, originally strangers to us.

Kendal is a wonderful retirement community with Quaker values. It is staffed by expert and friendly folks. The residents form a large family of highly talented caring, people with diverse interests. Cultural, craft and exercise programs are abundant. Food is terrific.

Our own cottage is very homey. The added sunporch is Sarge’s Salon, but we all look out and enjoy the view. We are near the woods, and the fields. This is convenient for Sarge to walk and run after squirrels, rabbits and deer. We enjoy the birds that fly into our yard, or enjoy our bird feeders. The birds vary in size from humming birds to crows. Cornell ornithologists are doing interesting studies with crows. Natural Resource people at Cornell are studying the deer. Of course, we like
animals, but have to work hard to keep deer and rabbits from destroying the flowers and vegetables.

One problem for the gardeners is the heavy clay soil with stones embedded in concrete. However, I had lots of experience with that type of soil at Woodcrest Ave. I learned how to add coarse gritty sand and humus to make a wonderful pliable nourishing soil. I used my rototiller to remove the clay around our cottage and by the garage at Kendal. The soil was replaced with barrels of soil from our large Woodcrest garden, plus more sand and humus. So we have soil that is a delight to work with. An agronomist said it would not work. We have the good results. I added some of this grit to a small experimental plot in the Kendal garden. It worked beautifully. However, the garden committee was afraid to add this grit as this old-time agronomy professor insisted that it would not work. He really is an expert. Unfortunately he was thinking about fine grain sand that he had been teaching about for 40 years before retirement. He had never tested grit of this larger size. So I now have my little vegetable garden in beautiful clay-grit-humus soil while others pound the rock clay soil of the community garden, or cover their rows every year with tons of humus for roots to spread in. At this stage of life I will not disturb any established ruts. I'm sure that I have some too.

As a complete care facility, nurses, doctors and transportation to medical centers are available at Kendal at Ithaca. Kendal provides quality care and security. In the cultural community of Ithaca there are multiple opportunities to participate, to volunteer, to learn and to relax, all at once.

National and global events occur continuously that affect our lives and our perception of human life and our environment. Historians will reflect on these events for decades. At this point I will leave it to each reader to reflect on his or her own life. I will now move on to my professional career. More tangible facts may allow for some meaningful reflections there. However, one may not recognize the importance that serendipity may have played in invisibly guiding the rudder though our personal lives. Remember that serendipity includes the sagacity to learn and do worthwhile things as we make accidental observations throughout our mortal days.
July 17, 1997

Invitation

Dear

Come Ye!

The Parcells family reunion you have been hearing about is now set, starting with lunch at 12 o’clock sharp on Sunday, August 17 at the lovely historic Mayflower Inn. So come a bit before noon. This inn is 0.3 miles south of the center of Washington, CT on state route (SR) 47. The location is only a few miles northeast of the Parcells homestead at 1 East Street, New Milford, CT. Don Parcells and Jackie Parcells-Feldman suggested a number of lovely places. If you have access to an AAA book on Connecticut (page A49) you will find that this inn is one of the highest rated inns in the U.S.A., so I thought that this old Connecticut Yankee farmer would like to splurge on this special occasion. Don’t worry, it’s not too expensive and it is on my credit card. It is smoke free, dressy casual.

Currently we are listed as choosing from the "creative cuisine using locally organically grown ingredients where possible." If there are special needs I should inform them in advance. We will eat at adjacent round tables (6-8 per table) and then move to the veranda overlooking spacious lawns and gardens. Bring pictures, genealogy, books, etc.

Reserve the date! Confirm with me the number coming. Need a map? More details later.

Cheers!

Bob
Chapter 16
Cornell Career: Learning to Teach, Teaching to Learn, and Advising Students

In another book entitled “Archival Material Documenting the Professional Life of Robert H. Foote, 1946-2003” more details on teaching are given. However, to make this autobiography complete the next part of this book includes modified excerpts from chapter 25 of the “Archival” book.

The teaching experience covered 58 years (1946-2003). During that time Cornell had seven presidents, counting the incoming president in 2003. They were the following: Presidents Day, Malott, Perkins, Corson, Rhodes, Rawlings, and Lehman. I had varying contact with the presidents in terms of university service, but none relative to teaching.

The composition of my class changed considerably during that time, especially the gender ratio from about 2% females in 1950 to about 50% females more recently. Also, many fewer come from commercial farms now. Over the years it was always a fine bunch of students.

My philosophy of “Teaching” was “learn to teach and teach to learn”. I felt that teaching should be given the highest priority because students came to Cornell where teachers should facilitate their learning. Someone was investing a substantial sum of money to prepare each student for life. Of course research was important for the graduate students, the professor and the university. I soon learned that exposure of undergraduates to the rational approach of advancing knowledge through the scientific method (research) also was a valuable part of education.

Of course there were four parts to my job, all of which required learning (knowledge and acquiring skills). These were ARTS (advising, research, teaching and service). The goal was to achieve a STAR performance (not be a star). I suppose a negative view would also spell RATS.

A. Graduate Student Career

As a part of my assistantship of $1200, I was expected to help Prof. Salisbury with his research and be a graduate TA at least 50% of the time. I assisted with An. Sci. 10 (Animal Nutrition), An. Sci. 20 (Breeding and Reproduction) several times, and An. Sci. 50 (Dairy Cattle). We graded numerically every lab. exercise, quiz and prelim in those days. The load was heavy, but that was part of the experience to become an effective teacher, and eventually I gave a lecture to the whole class. This experience was invaluable. One gained both knowledge and unmeasured benefits working both with the professor and the students.

B. Professional Career

I have lectured in about 18 courses, and I have been responsible for several (see C.V.). The major courses were as follows:

An. Sci. 430. Artificial Insemination of Farm and Companion Animals. This course was taught for many years.

An. Sci. 431. Micromanipulation and Transfer of Embryos. Many years. For a list of the other courses taught in Animal Science, Biological Sciences, and Veterinary Medicine, see my C.V in the appendix.

C. Approach to Teaching.

Just because teachers try to teach does not mean that all teachers facilitate learning by students. I recognized that students selected to come to Cornell had the ability to learn. If the student failed it represented the inability of the teacher to motivate the student, with the expectation of an occasional student facing severe extracurricular problems.

When I retired in 1993 I wrote the following:

We should be very proud of the quality of our students. The April 12th, 1993 issue of U.S. News and World Report had an article, "Inside the Ivy League: An exclusive survey of the nation's best and brightest". President Clinton had chosen two women Cornell graduates to be Attorney General and to be a member of the Supreme Court. Although less than 1% of college students are in Ivy League Schools, 15% of the chief executives of large corporations and 20% of president Clinton's cabinet are Ivy League school graduates. Every student who comes to Cornell has the capacity to learn, if we have the ability to teach".

I always tried to teach on the basis that I was a student also trying to learn. My job was to pick out the important concepts and share with the students ways that they could learn most easily the basic tools of the subject. This first step was necessary in order to think about the exciting dynamic interplay of the body functions that allowed the miracle of sexual reproduction to be completed (usually) successfully.

Preparation of exams was something that I worked very hard on and I was never fully satisfied. I knew that exams put pressure on students which could be a motivation toward learning as well as a discouragement. I tried to sample the subject matter fairly. I tried to make the questions very clear (and usually short). The questions required different types of answers, such as true or false, fill-ins, multiple choice, matching, labeling diagrams and short essays. I tried to add a bit of humor (lightness and philosophy) to each exam to relax the student. Often I added an extra sheet to the exam for the student to use as a scratch pad, and it might have a take-home poem on it. There were always makeup exams. How to make them fair? When to give and what to put on makeup finals!?

Students could always discuss their graded exams. This was an educational process for students and the instructor, although a few liked mostly to argue.

I wired a 602A IBM machine when we obtained the 602A in the 1950s, so that I could calculate all sorts of statistics and learn more about constructing tests and assigning fair grades. Setting up and testing wired boards was time consuming. So I bought a couple of them to keep intact (so no one would tear them down).

Teaching assistants. I had some superb undergraduates who wanted to gain more teaching experience. I paid them a little, but to show that they had done this work I got a committee formed to establish a course in CALS that students could enroll in to receive credit for undergraduate teaching. It works, and I am proud of my
involvement in initiating this, as well as the undergraduate honors in the CALS academic program.

We had a detailed process of selecting undergraduate TAs based on academic performance, friendly and positive personalities, helpful, shared their knowledge, had good writing and oral communication skills, and were interested in being a TA. They excelled. We evaluated the professor, undergrad. TAs, and grad. TAs at the end of the course. As a group the undergraduate TAs received excellent evaluations. They went on to outstanding careers in most cases. At the end of the course we had all the TAs over to our house for dinner or took them out to dinner. My wife, Ruth, made special tablecloths for each of the two-part ping pong table we used at dinner.

There were lots of nuts and bolts that were important to help fit and lock the components and concepts of a course in place. One was to outline the course in detail, with the title of each lecture, dates, outside reading in the text, and prelim schedules included. Prelims from previously years were in the library and a set was in a locked glass case in the hallway of Morrison Hall. These exams had suggested answers. It was necessary to build a locked case, or the posted exams disappeared almost immediately. The way the course was graded, general helps, and my office hours, offices and telephone numbers of TAs, also were included in information given to all students. Remember this was before voice recorders, fax machines, e-mail and any form of electronic network was available.

All general information, schedules and special announcements were reproduced on colored paper. All subject matter was in clear Gothic print on white paper. I hope that this helped the students to organize the course material. It helped me. There were lots of handouts to supplement the text. I could then use slides or overheads to explain these same diagrams, carefully pronouncing new terms so the spelling, the sound and the function of a part or chemical (such as a hormone) would soon become integrated into the students’ memories. In addition I used 16 mm films where excellent ones were available to show movement and dynamic interplay so important functionally. These helped the student to see, hear, and understand more fully how the miracles of reproductive life were performed.

Finally, I wanted to help the students go beyond regurgitating facts and integrating some into short answer questions in the lab. I wanted them to take some topic in the course that they could relate to in a way of special or even personal interest (experience), and to write a short paper. The student had to do some library work to expand the student’s knowledge beyond the course. To help them get started in the library I kept up-to-date references on about 100 topics dealing with farm and pet mammals. These books of references were available for all students to copy. (Remember, there was no electronic library network during about the first 35 years of teaching).

The students had to present a 10-minute talk with 5 minutes for questions during their lab., stating briefly why they chose the topic, and presenting a few results and conclusions. It was informal. We provided an overhead and 2 X 2 slide projectors. The class was divided so that in 2 sections during 2.5 hours X 2 weeks (5 hours) we could easily give the 30-34 students per lab the opportunity to speak. Subjects were divided so each section would hear a similar cross-section of topics. I believe that it was a very positive learning experience for the presenters and listeners.
By presenting the paper orally students learned to prepare material in their own words with less regurgitation of material taken from various texts. Graduate and undergraduate TAs attended the sessions (divided between us), but the TAs ran the 2 sessions for their experience. I stayed inconspicuously in the back to put the least pressure on the presenter, and to encourage the class to ask the questions. If there were none, I would start them with a simple question. I brought bushels of apples for breaks. The final grade was based 5% on the oral report and 5% in the written report. Graded reports (with comments on them) were available for students to pick up if they wanted to. These minisymposia required a major effort to organize, but I believe they were a great part of the course. I started these before Cornell had the Freshmen Seminars (all took English 111-112 in the beginning).

D. Animal Science 20 and 220. My large introductory course originally was an animal breeding course combining genetics and physiology of reproduction. In 1968 a new course in genetics, A.S. 221 was started. In 1954 I greatly revised a book on Reproduction in Farm Animals for use in this combined course. It included genetic selection as well as Mendelian genetics. With the help of Dr. Henderson's graduate students, particularly Ted Heidhues, we set up a computer program for cow and bull selections based on realistic figures from New York herds. Students made yearly selections each week. This was the first time, I believe, that such a computer program was established in a large introductory course in animal breeding anywhere. It kept us very busy with the punch cards and slow computers in those days. But it worked.

For the physiology we used multiple approaches to learning. Lectures were supplemented with handouts, lecture outlines, overheads, slides and movies. Each laboratory had a written laboratory exercise. This covered knowledge acquired from lectures and outside reading, as well as observations in the laboratory. In the laboratory we had microscope slides to examine preceded by 2 X 2 projected slides that the teaching assistants (TAs) could use to explain what the students should be looking for. We also had many museum jars of well-preserved specimens of reproductive organs, endocrine glands and embryos, as well as fresh reproductive tracts. Labeled photographs accompanied these. Students had to perform some dissections unless excused to perform alternative tests. We had short videos prepared to show on our TV monitors. Students made some drawings from specimens observed both grossly and microscopically.

All lab. exercises were turned in and major problems discussed at the next lab period. A suggested key of answers was posted in a locked glass front case I had made for ease of viewing, but so the answers did not disappear. We held reviews before all exams.

A major experimental part of the course was the study of hormonal effects on rats. Our graduate students who became professors elsewhere reported that these experiments were better organized than they found at universities they went to, and were not found in most undergraduate courses. So, I will include here a substantial excerpt from the chapter in the Archival book.

1. The lab setting with TAs in An. Sci. 220.
a. A brief introduction on today's lab by the TAs. They often asked me to do this in the first lab, where I always introduced the TAs to the class (that lab. section).

b. A written exercise.
c. Microscope slides for students to examine.
d. 2 X 2 slides that the TAs could project when students had questions. All of the microscope slides were also available on 2 X 2 Kodachrome slides.
e. Reproductive organs, endocrine glands, sperm and mammalian eggs, as appropriate.
f. Semen collection, insemination, estrous cycle regulation, cryopreservation and other equipment was on display, as appropriate.
g. Rat experiments to introduce animal handling experimental procedures and observations, asepsis, etc.

2. We obtained discarded breeders (inexpensive) from a large rat supply house. These rats would otherwise be euthanized and incinerated by the supply house. We did likewise after study.

3. We developed an auto-tutorial outline for each lab.

4. Carrels were built with colored photos (labeled), 2 X 2 slide projectors and super-8 films loops in each one. I had a good super-8 camera and made and edited all films. I learned to cut costs. The student had the written material given to them in lab. the previous week to take home. They could use the carrels from 8-5 p.m., M-F, some nights and Saturday 9-12 (few came on Saturday).

5. Subjects included anesthesia, asepsis, surgical equipment, and a series of simple experiments on castration, cryptorchidism, hormone replacement therapy, etc. We were experienced in making our own Silastic implants of various sizes with different steroid hormones.

6. Microbalances. I constructed microbalances for less than $10 each, using 2 sizes of piano wire in a cork. The free length of the wire could be adjusted by sliding. At the end a tiny aluminum foil pan in the loop of the wire could hold the organ on the microwire arm or the semimicrowire arm. One could weigh accurately to less than 1 milligram on our calibrated scale pasted behind the wire. Really this was ingenious. I got the idea when Bob Dunbar (an early student of Hendersons and later Dean at the U. of W. Virginia) needed to weigh Drosophila on a genetic experiment. We had no multithousand dollar microbalances, and we figured how to make one that was almost foolproof. We had the tiny balance weights to check the calibrations. We made 15 of these balances.

7. Data from each lab. was collected, summarized and analyzed. We validated endocrine principles, established dose response effects of testosterone on seminal vesicle gland weights in castrates, etc. It was a tremendous effort to do this, but we tried to be professional role models (helped greatly by superb undergraduate, and graduate TAs who were
the finest group of students I have ever met on my travels and sabbaticals).

8. We took a field trip to NYABC (later EAIC) to see bull sexual preparation, semen collection, evaluation, and freezing. Demonstrations were set up just for our class. Students were invited to come back and see the regular early morning routine if they wished. The AI Corp. was extremely cooperative in putting on these demonstrations.

9. The lab sessions requiring microscopes were all held at the NYABC building (north wing built for An. Sci. use until Morrison hall was built in 1961). The Conference room had floor plugs. We set up sturdy folding tables (later donated by us for the Livestock Pavilion). Wing Hall had no place to use microscopes. It was built for dry labs.

10. Makeup for sick persons, athletes on field trips, students on field trips in other courses, etc., were a problem, but we did it. We tried to have students who knew they would be away take lab another day and go to that lab. The course was so large we always had labs. Mon-Friday, and often Tuesday morning and Monday and Wednesday nights. Athletes were not scheduled for Friday labs.

11. Time commitment. It look 14-18 hours a day to prep. for the labs, prepare handouts, fix equipment, order rats feed, set up water bottles and feed, take care of makeups, reviews, exams, etc., etc. and still keep grant writing and research going. Besides, there were AI conferences with technicians and students to advise. Also, there was a Sunday School class to prepare for and teach.

E. AI, Embryo Transfer (ET) and Biotechnology (An. Sci. 430, 431, 497).

1. These courses had many of the same requirements as An. Sci. 220 relative to exercises, audiovisuals, TA help, animals, etc. We had to rely on more experienced help for animal palpation, AI and ET. Often we had researchers who were vets. They were very competent professionals.

2. There was no suitable book for teaching these two courses. I prepared a 226 page manual plus supplements for A.S. 430 and a 188 page manual plus supplements for A.S. 431. Also, I prepared a TA manual. These items are attached in the Archives set.

3. We had the cooperation of the T&R Center in providing cattle for insemination of cattle. We went out to the Swine Farm for boar semen collection and insemination.

4. We set up at the Teaching Barn, old calf barn, and Mitchell barn, small groups of pony stallions and mares, ewes, rams, and male and female goats. The class individually had an opportunity to collect semen, evaluate it and inseminate the females. I designed a special safety semen collection chute for bulls. These barns are mostly where parking lots are now.

5. The labs in Morrison provided space for the technical part of the course. I had lots of audio-visuals, and tremendous help for our group of superb lab. technicians. They had been through my courses.
6. All the embryo transfer (ET) course work was done at the Reed Farm. The farm manager was a great help. Also, our animal lab. people, along with our research specialist, Mike Simkin, worked out doable schedules, got the students scheduled to give FSH and LH injections, and PGF$_{2\alpha}$. Our vet. grad students also were great in managing this part. At the same time I learned much to share with others that I would not have been able to do if I relied only on “book experience”. So, I should have been a capable teacher. I hope so. Also, I firmly believe that we turned out better future veterinarians, grad. students, physicians, producers, etc., who knew and respected animals more than they would from a printed page. 

Electronics today add much, but hands on experience is unique and essential!

My own animal experience was chiefly with dairy cattle. To learn more about other species of domestic animals by direct contact, whenever I had a question about some important unanswered aspect of reproduction, I tried to obtain the most appropriate domestic animal species to study the problem. This way I became more familiar with animal behavior, besides reproduction, in horses, sheep, swine, goats, beef cattle, dogs and rabbits. Students interested in different species helped.

For example, because of the similarity of several reproductive tracts I thought that sheep, and goats were similar. While working with both species I found out that they were vastly different. Sheep behave more as a flock. Goats are really individuals. They are very clever and can easily become pets. Great for small ruminant 4-H projects.

My AI course included goats. I had does loaned by goat breeders for the course. It was fascinating to observe differences. One year a small doe seem to take a special liking to me. When I went to the barn in the morning, as soon as I lifted the latch on the door I heard the hoofs of this doe land on the manger, then on the board wall dividing the pens, and then down onto the concrete floor. The little doe was already trotting down the aisle toward the door where I came in. She looked forward to a good rubbing of her ears and neck, much like a pet dog. She trotted around after me as I fed about 10 goats (2 were bucks), and then returned to her pen to eat grain.

The males were not as friendly, but O.K., except for the odor. Whenever I came home or came into Morrison Hall after working with the buck goats, the standing order was to leave my coveralls outside. Even then I still smelled like a male goat.

In June, 2003 I received an e-mail from a student who I helped years ago to freeze goat sperm on her farm. She is now a video specialist and recalled this in a recent video. Wonderful! The biggest reward in life is being able to help.

7. We all signed thank you sheets that I distributed to all the farm helper groups. These were accompanied by boxes of donuts. Also, I kept the
class supplied with apples. Also, on special paper I printed a certificate of completion of the A.S. 431, Biotech Course. Students could frame this certificate.

Students worked hard. As Barbara Rybicki wrote on a beautiful Audabon card “Thank you so much for the fun in your course. This is the 1st class I learned so much in such a short time, and had so much fun. There’s nothing like a practical course!” Sincerely, Barbara Rybicki. Many such encouraging notes were received.

Also, a good overview of student participation was provided by Andrea Colleruis who took AS 430 in 1988. Her series of color photos and captions captures the flavor and attitude of the course. It’s a treasure that anyone devoted to students and teaching appreciates greatly.

Protocols of animal use in teaching. As for research, protocols were required for all animals used for teaching, approved by the Institutional Animal Care and Use Committee (ICAUC). As all procedures on cattle, etc. for AI and ET were nonsurgical we were able to use animals to give students the proper training. However, we gave up using rats for class, even to show reproductive anatomy in situ in euthanized animals. We just couldn’t spend all our time and money coping with regulations and no time left for teaching.

F. Other Courses.

1. We gave individual lectures or a series of lectures in many courses. The lectures were updated every year, modified in various ways to improve organization, visual aids, etc. I always tried to obtain a profile of the group I was talking to, and where my lectures fitted into the sequence of lectures before and after my lecture.

2. The distance learning AS 321 was a special challenge. One challenge was the lecture given live at Cornell and to several other campuses. The second challenge was to prepare labs. For AS 321 on biotechnology, AI, ET, genetic engineering and cloning. This required integrating subject matter, narration, illustrations and a video tape. Toni Oltenacu put this on a CD ROM. I revised my part slightly each year; I have been asked to give the first lectures in the course every year since its inception.

3. Project EZRA, around 1980, with special learning projects on AI, sampling bulls, progeny testing and embryo transfer. I prepared the written background. Computer experts programmed the problem sets so each student had a slightly different data set to solve. A book that summarized this project has been saved.

4. Most of the other courses involved the same principles: 1) know your subject, 2) know your audience, 3) focus on the major points, 4) present a clearly articulated integrated lecture with appropriate audio visuals, and 5) leave time for questions. I tried to do this.
G. Grading.

In discarding the files I had retained, I found the grades of all students and a 5 X 8 card of the interests and background of each student. What a group of diverse and generally fine young people were in this group. Once in a great while a young former Cornellian would die, such as the plane crash out of N.Y. city in the late 1990s. I knew one of the former students. I had the "5 X 8" card with the picture of the student. This helped my memory, which is fuzzy on many of the 8,000 or so students. I could write an appropriate letter to her parents.

I also kept notes on grade distribution each year to be sure there was no considerable grade inflation. With a large class I assumed that the distribution of abilities of the students did not change greatly from year to year. The distribution was A= 21±1%; B= 42±2%; C= 29±1%; D= 7±0.5%; F= 1%. The CALS average (including upper class courses, with more As, was A= 28%, B= 44%, C= 22%, D= 5%, F= 1%.

With the F grade I always tried to contact the student in advance to determine if there was a problem we could help remedy. In most cases we were unable to reach the student. They seemed to have left school. At the other end of the scale there usually were a few with A* grades.

Before 1985 all my computations were done by hand or Foote. In 1985 Dr. Liz Oltenacu wrote a program in Fortran to calculate the numerical averages by computer. We still had to fill in all the grade forms by hand. I posted by student I.D. number (alphabetical order, but with the name cut off) all grades.

Grading fairly is always difficult, especially grading discussion type questions. We tried to have one question graded by the same person, or if two persons graded the same question they graded together. Then controversial answers could be discussed. Did penmanship affect the grade? I hope not, but it was important to be able to read the answer. I always provided some refreshments for the graders. It was important that we were all in good humor while we graded.

H. Humor.

To help students relax when taking exams I frequently had a few simple true-false questions to start the exam. The first question was not graded and was some pun or silly interpretation of some aspect of genetics or reproductive physiology. A few examples follow that are funny relatively to the lecture material in the course.

1. Polar bodies were so-named because they were discovered in polar bears.
2. A Bul-ova watch is a device that is an intersex.
3. A barrow is a genetic male pig that never grew up to be a big wheel.
4. When students fall asleep in lecture it's because they have too much hormone, relaxin.
5. The uterine horn is an ancient musical instrument.
6. If you go on Spring vacation to the Panama Canal you will pass the Islets of Langerhans.
7. Freemartins are female heifers given away free because they are sterile.
8. The ewe failed to conceive because she was under the wether when mated.

Also we occasionally put a cartoon or a short poem on an exam. Examples of these are in the Cornell Archives.
In addition we tried to include a bit of humor in the lectures where it could be used to emphasize a point. For example, males produce billions of sperm and they are able to mate with many females, or in artificial insemination sperm from one bull can be used to inseminate successfully thousands of cows.

There is the story of large bull, a medium-sized bull, and a small bull on a mountain top, gazing off at the lush green grass filled with heifers in the valley below. Let us go to the valley agreed the bulls. The path to the valley was blocked by gates, however. Fortunately, some gates were far enough above the ground that the small and medium-sized bulls crawled under the first one. The two bulls came to another gate, and only the small bull could crawl under that gate. The small bull pranced into the valley and lived for heifer and for heifer. Of course, another moral of the story is that, if used in artificial insemination, a little bull can go a long way.

The class liked the poem I read about the "Protest by the Bull". This is attached. Also, I have attached the last stanza of the poem "Song of the Queen Bee" by the famous Cornell author, E.B. White. This poem appeared in the December 15, 1945 issue of The New Yorker.

I. Other on Teaching.

There were no courses at Cornell in the 1940s and 1950s on human sexuality that I am aware of. The girls in my course seriously asked me to cover more about the menstrual cycle when discussing comparative estrous cycles. Also when discussing control of the estrous cycle they wanted this to include hormonal control of the menstrual cycle and contraception. I was very familiar with this, as my good friend, Dr. M.C. Chang, and his mentor at the Worcester Foundation was Dr. Gregory Pincus, a graduate of Cornell University. They were the pioneer pill makers for contraception tested by Dr. John Rock. Their background was reproductive research in animals. I tried to get Dr. Pincus to come to Cornell to give a university lecture on the subject, and the Pincus pill. However, Cornell authorities told me that the subject was too controversial, and to forget it. That was the 1950s.

Later the subject became a public issue on the Cornell campus. I have attached the "Ode to the Pill", written as a result of a Cornell demonstration. I might add that I sympathized with the girls because it is the guys that initiate most of the sexual activity problems and then the guys walk away.

This course made it easier for me to discuss this topic naturally, a subject that was not discussed in my conservative home when I was growing up. Of course I lived with the life of reproduction and calves born as a part of farm management.

I had fun seriously teaching this subject. I had a gang of helpers who were enthusiastic helpers. One of the gals who later obtained a DVM degree and is a professor now told me that the graduate course in reproduction she took at another university did not go beyond what she already knew from our AS220 sophomore course in comparative reproductive physiology. We brought many animals to our laboratories for practical studies, thanks to help by our farm crew. Attached is an example of the thanks we expressed for their help in our senior A.S. 430 course.

Attached is a letter I wrote recently about teaching in response to NSF funding to bring selected young teachers together with the apparent emphasis on more computer simulation. That is great for a starter, but that is only a half-baked cake.
Also, I’ve added a handout given to my teaching assistants to indicate that there has been some improvement since 1872 in rewarding teachers. However, most of the reward comes from sharing knowledge and inspiring others. The salary and hours I put in would average out to be below the minimal wage. That is a fact. The joy that emanated from this experience is enormous and not measureable.

Teachers are always learning. In 2002 I read a paper by M.W. Peter et al. “Use of Critical Interactive Thinking Exercises in Teaching Reproductive Physiology to Undergraduate Students, J. Anim. Sci. 80:862-865. I didn’t have students assigned to select and defend an “incompletely understood idea”, but their term paper provided for questions and answers. We sure had lots of discussion with our genetics selection takehome problems until 1968 when the course was split into a course on Genetics and one on Reproductive Physiology. I learned from other teachers and from students.

J. Advising.

Perhaps this is not a part of teaching. We are not trained psychologists, but teachers helping students to plan a sequence of learning through selected courses. So really this is an important part of each student’s academic life. Some students still come in to see me for various reasons.

Of course, many times the student looks to the advisor as an older friend that they can turn to for advice. We always can be a listener. We can sometimes answer the problem and fill the need directly. But where professional help is needed outside of our expertise we can help that student find that help. It is important to be available. One time I was working at the office getting ready for the next day’s demands. The phone rang at midnight. A student had a question that I could answer. Then I said to the student, “I have a question for you. It is how in heck did you expect to reach me here at this hour?” The student said, “Your students know you are always available to help.” That did make my heart take a couple of leaps, but of course, there was the balance of family needs that could (should) have received more attention by this workaholic.

So teaching (sharing information with others) was joyful work!
ODE TO THE PILL

This item appeared in the New York Daily News

"Coeds March at Cornell"

Ithaca, N.Y., March 13 (AP) — About 60 Cornell coeds marched on their school’s administration building today and demanded that contraceptives be dispensed by the university medical clinic.

“Chanting ‘now.’ ‘We won’t wait any longer,’ the girls, member of the Women’s Liberation, said they presented university Provost Robert A. Plane with a petition signed by 1,300 members of the Cornell community calling for ‘competent contraceptive and gynecological advice’.”

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In response Sanchez Sez, as printed in the Daily News.

“Far above Cayuga’s water
High upon the hill,
Doing what they hadn’t oughta,
Coeds need the pill
Contraceptives from the clinic
That is what they yell,
We don’t want to be a mater
While we’re at Cornell”

W.N. Sanchez ‘32
A.I. Center

Protest by Bull

The noble bull once roamed the wood,
Breeding his cows and doing good.
His sons and daughters proud to say,
They had all come the natural way.

But now, alas, sad to relate,
In deep disgrace and humble state;
The bull is victim 'cross the nation
Of artificial 'semination.

He sees no cow, he rings no bell,
Mere instrument, his life is hell;
His ego's gone, in shame he walks,
He'd much prefer to be an ox.

Rebuff by Cow

But hold! Let bossy have her say,
The young technician comes her way;
She likes his looks, so free and guile,
His gentle touch, his friendly smile.

No bull to bellow, bawl and roar,
To crush her frail form to the floor;
Why be mauled as a block of wood;
When all she wants is motherhood.

Thus ponders bossy; What's the plan,
Be it the bull or nice young man,
With plastic tube and rubber glove.
Her answer's prompt "To hell with love".

Bring on the youth with the sterile tube,
Away with the bull, the clumsy rube.
Let fools or jesters sneer and laugh,
All bossy wants is a well-bred calf.

Author Unknown

Pete Burfening
SONG OF THE QUEEN BEE

If any old farmer can keep and hive me,
Then any old drone may catch and wive me;
I'm sorry for the creatures who cannot pair
On a gorgeous day in the upper air,
I'm sorry for cows who have to boast
Of affairs they've had by parcel post,
I'm sorry for man with his plots and guilt,
His test-tube manner, his test-tube smile;
I'll multiply and I'll increase
As I always have — by mere caprice;
For I am a queen and I am a bee,
I'm devil-may-care and I'm fancy-free,
Love in the air is the thing for me,
   Oh, it's simply rare
In the beautiful air,
   And I wish to state
That I'll always mate
With whatever drone I encounter.

Written by E.B. White. Published in the December 15, 1945 issue of The New Yorker (pg 37).
Sent similar notes of thank you every year.

Thank you for your help! The A.S. 430 class.

Sincerely,

Jim Basset
Frank Capelle
Jim Carmichael
Curt Dewey
Christian Schaefer
Laszlo Gabor
Lindsey

Karen Wilkins
Blue Mclain
Mark McDowell
Gayana Debraud
Mark Mapstone
Ray Williams
Collin

Scott Puffin
Kathy Barrett
Phillip S. Ludwig
Troy W. Herron

Week II
Again many thanks by the TA's and myself.

Bob Foote
RULES FOR TEACHERS

★ 1872 ★

1. Teachers each day will fill lamps, clean chimneys.

2. Each teacher will bring a bucket of water and a scuttle of coal for the day’s session.

3. Make your pens carefully. You may whittle nibs to the individual taste of the pupils.

4. Men teachers may take one evening each week for courting purposes, or two evenings a week if they go to church regularly.

5. After ten hours in school, the teachers may spend the remaining time reading the Bible or other good books.

6. Women teachers who marry or engage in unseemly conduct will be dismissed.

7. Every teacher should lay aside from each pay a goodly sum of his earnings for his benefit during his declining years so that he will not become a burden on society.

8. Any teacher who smokes, uses liquor in any form, frequents pool or public halls, or gets shaved in a barber shop will give good reason to suspect his worth, intention, integrity, and honesty.

9. The teacher who performs his labor faithfully and without fault for five years will be given an increase of twenty-five cents per week in his pay, providing the Board of Education approves.
To: webmaster@hhmi.org  
From: Robert H Foote <rhf4@cornell.edu>  
Subject: You editorial letter in Science  
Cc:  
Bcc:  
Attached:  

Dear Dr. Cech:

I am interested in your recent editorial in Science "Rebalancing Teaching and Research". During 57 years of teaching and research that is something I tried to do. I guess that I was partially successful, having received numerous high awards for teaching and also for research. During that time I taught about 8000 undergraduates, all in courses with laboratories. Also, we published about 500 research papers and chapters in books, which required my raising in today's dollars about 50 million. Also, there were lots of committees, etc.

To do this required 80-to 90-hour weeks regularly, partly because I was in the animal physiology and biotechnology field. Animals for teaching and research require planning and care seven days per week. No one should be expected to be such a workaholic. However, there are real problems today as I see many young teachers arriving and leaving the campus with the secretaries on a 39-hour week schedule. Of course computer work can be added at home.

So why am I writing? First, it is commend you on the effort to provide more funds for innovative, exciting and energetic teachers. Second, it is to express a concern. Computer simulations can be a highly effective learning tool. There have been many "wet" labs now replaced by computerized labs. There is a real danger in protecting young people from the real world. "Computerized" parents don't want their children to play in the dirt, thereby not fully developing their immune system. Children, unlike my generation on the farm, are not in daily contact with nature's world of insect and animal life. Potential medical doctors, veterinarians and many biologists are touching keyboards and not living creatures during their educational training and experience.

We had animals (from rats to large farm animals) in all my basic and applied physiology courses. There is a danger if we develop robots in contrast to those who by contact experience know how to deal with the real world. The best teaching and learning includes contact experience with discovery!

Sincerely yours,

Robert H. Foote  
Professor of Animal Physiology  
and Jacob Gould Schurman  
Professor Emeritus
Albert Mitchell's Daughter

One of the unusual experiences I had in teaching was having Albert Mitchell's daughter in class. She is a very successful Texas rancher today recently featured in a Cornell News Publication.

She flunked my A.S. 20 (220) course. I talked to her and she said that she just did not want to be in college. However, her father was chairman of the Cornell Board of Trustees. He insisted that she should enroll at Cornell. She was motivated to do other things.

When the grades came out I received a call from one of the Cornell presidential assistants asking if I knew that I had flunked the daughter of the chairman of the Board of Trustees. I said "Yes, that is accurate. I have talked with the student and she seems to agree with the grade." The person calling said "thank you" and hung up. After flunking out I believe that she returned to Cornell later. She had plenty of ability and her own agenda, O.K.

A reflection written in 2003 many decades after the event.  

Robert H. Coote
Chapter 17
Cornell Career: Researching Animal Reproduction and Biotechnology

Introduction.

Everyone should dream. Dreams can be spontaneous combustion driving creativity. Researchers must be creative. They also must be pragmatic to convert an otherwise idle dream into a real discovery. Students vary in creativity, and anyone can develop that talent with experience. Also one must distinguish between creativity and grandiose ideas which are completely unrealistic to approach experimentally. One must be careful not to discourage a person with a grandiose idea, but the impracticality usually will became apparent when one discusses how could you investigate the idea and what would be required. For example a student told me that they wanted to sex sperm. They read that a certain enzyme was produced by a gene on the X chromosome and not on the Y chromosome so "of course only half the sperm would have the enzyme". I pointed out that the sperm was less active than many cells, so none might have this enzyme. Alternatively, it could be present in the precursor diploid cells and included in all sperm, or he might be right. It was an easy staining experiment to do. All sperm were stained equally. I actually knew that this experiment had been done. However, the student learned the importance of reviewing the literature and considering alternative hypotheses.

The first thing the mentor of a graduate student needs to do is to become well-acquainted with the person and try to discern the individual's stronger and weaker characteristics in order to be of the most help. Of course, this does not all become clear after the first conference. Having stated this, there is a common thread where undergraduates and nearly all new graduate students need some direction, unless they have already learned it during a substantial undergraduate research experience. This need is to make a shift in the mindset from the undergraduate days of soaking up masses of information to the research mode of questioning selected information from whatever source. A graduate student must learn to analyze, evaluate and synthesize before reaching tentative conclusions. Despite this careful approach there always will be errors in judgment. After all, research is a pursuit of the truth, something that will seldom if ever be attained in the absolute sense.

Experimental Project Outline (EPO).

First there was a discussion of possible projects. Reading research reports on alternative projects was followed by selection. Each student was given an EPO to help him or her organize their approach to a research project. The headings for the writeup were extensive, covering a literature review, statement of the hypothesis to be tested, experimental design, materials and equipment needed, analysis of data, and writing the report. Sets of forms for complete data recording were prepared.

The Nitty-Gritty of Doing Research

There are so many facets to a research endeavor that it can be frustrating as to where to start and how to proceed. While individual initiative and ingenuity are
important, some help in launching the initial project can help the investigator in steering a future course.

So, I prepared a book given to each new researcher. It was called “How To Do”. It contained many sections on guidelines and resources available. Perhaps the most important part was the section on “How to Do Research”. This spelled out the steps to follow which would lead to a completion of all parts of the Experimental Project Outline. One of the most complete ones was written by Ralph Maurer, totaling more than 20 pages. This outline was critical because it involved an aging experiment, lasting several years, with great detailed planning on having the correct number of donors and recipients at the right time, and all the equipment and supplies and trained people on a schedule known in advance. It was an extraordinarily successful experiment resulting in many papers. I believe that it was the most complete, best-replicated experiment on reproductive aging ever done. We had complete control over the animals, checked by the researchers daily, with the healthiest bunch of several hundred rabbits possible for 3 years. The detailed planning was essential for successful execution. Also, there was a long list of cooperators, always important to thank.

Specific Procedures.

I included specific written procedure forms for proper washing of glassware to analyzing results. We used lots of glassware before the plastic revolution. I could wash 200 Petri dishes in 1.5 hours, and put them sparkling clean into the oven for sterilization. A book containing the “How to Do Procedures” has been saved in the Archives.

The “How To Do Procedures” book covered numerous topics. Our laboratory was involved in using many laboratory procedures. These included microbiological, histological, biotechnical, biophysical, statistical, preparation of class materials, etc. Dozens of recipes for media, reagent solutions, standards, sperm buffers and extenders were needed. It was important to have these available for many reasons.

1. Consistency among experiments to assure uniformity when that was intended, by following a specified recipe.

2. Once a recipe composition was thoroughly checked, errors in reformulation by different individuals were avoided (at least minimized).

3. Time saver, and time is money.

It was important to have the recipes spelled out so that 1) the exact chemical formulation was indicated, 2) that the ingredient concentration was specified both as to molarity and grams per ml. or liter and volumes of liquids specified. Scientific publications usually give media composition in molarity, which is good relative to the physiology and biochemistry. However in the laboratory gravimetric and volumetric procedures are used. Many mistakes are made between the lab. and publication and vice versa in translating between publication and the lab. (like GWS publishing too high a molarity for sodium citrate dihydrate which I detected by F.P.D.).

The recipes of composition also included steps to follow in preparation of media. This included order of adding ingredients, pH adjustment, sterilization and storage to avoid precipitation, etc.
I compiled six notebooks of procedures, which included operation of all instruments. Also saved were any booklets received when equipment was purchased, important for use and maintenance of equipment.

I have saved in the Archives one example of preparing organs (specimens) for preservation in museum jars. I did all of these personally. I am not aware that anyone else in our department knew how to do this. I applied combinations of techniques used by the Vet. College and by Prof. Uhl in training high school teachers how to preserve specimens. I could retain natural color.

It is amazing to me now to see how many procedures our group collectively learned, modified or developed over the years. Likely other labs. have the same experience, but only the researchers behind the publications have any idea of the amount of careful preparation was behind each result.

In addition, specific forms were prepared for each project so that all data would be recorded completely and systematically. We had more than 100 forms. Some were useful for only one experiment. Others, such as those used to record initial semen quality, hemacytometer counts, acrosomal fixation, staining, etc. could be used for many experiments. These forms all were numbered. They had a title, a date of preparation or revision, and a place for the date, page number and person recording these data. These forms have been discarded.

In addition to these procedures a set of procedures on the use of rabbits and cattle for semen collection, evaluation, artificial insemination, ovulation, superovulation, flushing, embryo culture, cloning, and more was prepared. We contributed 13 procedures to a book “Handbook on Methods for Study of Reproductive Physiology in Domestic Animals”, compiled by P. Dziuk and M. Wheeler in 1991, at the University of Illinois, and sold for $50. The authors collected and put these in a book simply by making copies. There was no Table of Contents or index so one had to look through the book to determine if a pertinent procedure was included. Without this index the book had limited use.

We had many requests regarding reproductive studies in rabbits. Our procedures and checklists sent to others helped them. We apparently slipped occasionally on internal vigilance. For decades I checked all batches of hormones that we received, and I prepared directions for use. However, we had experienced people, and I finally relaxed on micromanagement. When we were having poor results for longer than was likely due to chance I discovered an error on a dosing schedule we were using. The dosage was much too low. I corrected that error with expected beneficial results. But we had wasted animals and time by researchers.


Accountability and Ethics.

Periodically (about yearly) I held a session on accountability and ethics. Ethics topics varied from group cooperation to proper use of experimental animals. I wrote guidelines and hints for all staff. Announcements of training sessions run by our Veterinary Animal Resources Group were included to be sure that all of our workers were in compliance. Great emphasis was placed on proper care and treatment of experimental animals.
Many of the meetings were devoted to progress reports by undergraduate and graduate students, or other researchers. Sometimes these were practice sessions for a person practicing a presentation for an upcoming scientific meeting. At other times an individual would discuss their plans for new experiments so that they could obtain feedback from the group.

Anyone in our group who had attended a scientific meeting brought back ideas and summaries of papers most relevant for our group. Other sessions would be spent on proper slide making and the use of other audiovisuals so that they were clear. Inclusion of main points only on each slide was emphasized. Details could be filled in verbally.

**Educational Weekly Meetings.**

In addition to the education and information obtained at the meetings mentioned above, we had visitors give us talks about their research beyond material that might be covered in seminars. Also, sometimes I would lead a series of discussions. Some of these discussions involved extensive reviews of the literature. These were equivalent to some published reviews. However, they were all used internally with the hope and expectation that our research was up-to-date, and would be as good and effective as possible. Examples of these sessions are:

1. Series on experimental design and statistical analysis.
2. Series on embryo requirements and optimizing media for embryo culture. The goal also was to develop a good completely defined medium that could be repeated in our lab. or anywhere else.
3. Another series was on aseptic and sterilization procedures for animal surgery and for in vitro studies.
6. Organizing your life and time.
7. Accountability

Selected notebooks have been stored in the archives at Cornell.

**How Did We Get the Work Done**

For many years we worked before electronic machines for direct recording of experimental data were available. No electronic computers were available. So data were recorded neatly by hand, checked and double-checked. The laborious statistical analysis often took as much time as conducting the experiment.

We were greatly helped by undergraduate students who wanted exposure to research as well as a strong letter of recommendation to vet schools, med schools, or graduate schools. At one period of time 24 of 320 vet students at Cornell had worked for me, and other students were accepted at other vet schools.

A critical mass and flow of information and technical skills within the groups was important. Senior grad. students and experienced technicians shared their knowledge and skills with new grad students and undergraduate students. I continuously shared some skills and tried to maintain an encyclopedic overview of the important and exciting developments in our field.
We had very limited funds. Often I used thousands of dollars of my own salary to keep important projects going, as a stop and new start was very costly. This meant I must write grants continuously to support a first-rate program. I did not want any other kind of program. I had to write several grants simultaneously with different renewal dates to smooth out the funding and work load. Besides the probability of getting any single grant was about 1 in 5 up to 1 in 3.

So, I was constantly writing grant applications and interim reports of progress. There were multiple annual reports for Cornell and the federal government. These are detailed in the Archives. Besides, there were manuscripts and theses to revise and rereview. Oh yes, there always was the important task of stimulating the students with clear lectures delivered in an exhilarating and enthusiastic manner.

Yes, I was a workaholic. We still did some fun things and shared family time. But it was not fairly balanced. My only relief from guilt is that the students over many years indicated that they received more than 100% back for their time and someone’s investment in their education. One student now an M.D. said she called her parents every night to tell them how she was doing embryo transfer in an embryo biotech course in cattle. As she was a city girl I was afraid her parents would think that was a waste of time. She said her “parents think it is great”. They said “You could have gone to Harvard and other Ivy League Schools. However, we sent you to Cornell where you could receive the broadest experience. You would not have gotten that at Harvard”.

All of these efforts required money. My C.V. summarizes the supporting agencies that I recall. A list of grants follows because grant writing required thousands of hours, and without them I would have had only a tiny mediocre program.

**Grant Support**

In the early days of my research career I shared a lab., a secretary and a technician. With help from NYABC and the lab. supply of test tubes, etc. I was able to work with almost no budget, just long hours. I decided that if I was going move into new frontiers on the one hand and maintain a practical program on the other, I needed some funds and equipment.

I wrote a letter to the National Research Council about a project I was thinking about in which inseminators recorded the time cows were inseminated, and the sex ratio of the offspring obtained. The NRC liked the idea and sent a check to me for $1500., and only a memorandum to sign. (Wonderful!). This paid for half-time help to summarize the records. This was the beginning of my field studies. See reprint number 304. Now the bureaucracy is onerous to submit a grant.

At this time Coulter had just invented their particle counter. Scientific Hospital Supply had the first model (Model A). They kindly loaned me their first demonstrator. I used it all summer and learned much about osmotic pressure and cell size. This was the beginning of the use to study osmotic behavior of sperm and to calibrate Spectronic 20s for estimating sperm concentration by optical density for most of the AI industry in the U.S. Eventually NIH and AI grants helped to buy the equipment needed. We started this before there were any publications on the subject, but by the time I had spent several years to accumulate data in between teaching, others published on the subject. Paul Breddermann did some classical osmotic studies for an M.S. thesis published in several articles in Exptl. Cell Research.
Russ Jones did 46 experiments with particle counters as a postdoctoral, but always wanted to do one more. So only one abstract was published. He was a newlywed, so there were other major attractions besides research in his life.

Over the years a bit of serendipity, fortunate meetings with potential donors, and following up on opportunities kept our research going. It was tenuous, however. As we were a small group, whenever someone married and left, or was offered a good job and left in the middle of a program, we frequently were caught without the necessary backup. As the department was more oriented toward nutrition research, we seldom were able to garner any fill-in funds or help. We were always outvoted.

No permanent records were kept of funding by me. I was my own accountant, but not a historian. However, from various notebooks and other files a thumbnail sketch of many sources of funds is outlined below.

1950s
1. Regular annual grants from the Northeast Council of AI Coops. Grants were usually for $10,000 or less.
2. Regular annual grants from NYABC for $20,000 or more were solicited successfully. They (NYABC) also supplied tremendous help with semen and in running field trials. The latter, with 200 field technicians was worth millions of dollars in covering research cost, and in hundreds of millions of dollars worldwide in improved animal breeding and disease control.

These funds were shared with Bob Bratton. We worked together some times with his graduate students such as Hank Dunn, Harold Hafs and Stan Musgrave. I was not able to obtain a State Assistantship until Ernie Swierstra arrived in 1958. All others worked on my grants.
3. Lalor Grant for DNA studies. In 1958 I was at a meeting and had breakfast with C. Lalor Burdick. I described our proposed research to examine DNA synthesis in the testes and content in sperm using a microspectrophotometer microscope with monochromatic light. Later we would add $H$-Thymidine and use autoradiography (ARGs) also. Dr. Burdick liked the idea and said write a proposal to the Lalor Foundation. I did. It was funded for the maximum allowed (around $5,000). Results were excellent, and we were invited to resubmit for a second year while we sought NIH Grants. We did both. Our first NIH Grant was in General Medical Science as there was no NIH Institute emphasizing reproduction at that time. My grant was a combination of reproduction and genetics.

Over the years we obtained grants from The Population Council, USDA many semen producing (AI organizations), Cornell Biotechnology, various companies and other groups. The NYSCVM (Antczak group; Lein in the Diagnostic Lab) provided funds. Ithaco built electronic probes for free and provided funds. The Chore Reduction Program and Agway provided support. Em Tran gave some money and embryos. Upjohn and CEVA and Searle gave us large quantities of PGF$_{2\alpha}$, GnRH and PRIDS. Kamar, Inc. gave us 1000s of Kamars, and Vetropharm gave us FSH and LH. Many herds contributed cattle for measurement.

I had a project for wealthy donors who had prize cattle that became poor embryo donors and we asked them to donate their cattle. We had only a few donors (and only when the owners were unable to get these cows superovulated, plus wanting the embryos if we were successful), so that was stopped. Also, they wanted
us to appraise the cattle as being very valuable, which was not true. Following is a list of donors and funds from various sources.

**Itemized Budget Support**

The department always paid my salary starting at $4500. in 1950. (As a graduate student it started at $1200. and finished at $1600. Beyond that I had no direct help for many years. Dr. Bob Bratton had an R&M 15 budget for bull nutrition and state funds that provided some help. I had access to this technical help such as Joan Cruthers Flood, an excellent, bright recent Cornell graduate who helped both of us.

1950s
1. Yearly: Help from Bob Bratton’s state and federal grants of technical help and about $2,000. That I could spend for supplies.
2. Yearly NYABC grant. Starting in 1953 the NYABC grant included about $4,000. for me, which included excellent technicians that were highly motivated, bright and were delighted to finish a job even with a little unpaid overtime. They were from the old school and were highly dedicated. We also had a secretary paid by the department. We were all housed at NYABC, except for teaching and advising. The NYABC grant provided 2 technicians, 1 working with Dr. Bratton and 1 with me, each were paid less than $3500.

After 1957 Dr. Bratton did not like the way NYABC handled grants so I wrote them on the same basis as he did for us to share funds.

1957. NYABC Grant $10,292. I wrote it, half for RWB.
1957. Sir William Farm Grant was $2500. For on farm swine AI.
1958. NYABC Grant for RHF was $5,000.

As mentioned earlier, it became clear during this time that the NYABC grants, the grants from the New England group and the North Central Group of artificial breeding organizations would maintain a fairly vigorous program relative to the practical aspects of AI. I had no department-supported graduate students, so we put graduate students on short M.S. projects with the semen funds and with help from Sir. William Farm. In order to do some fundamental work of interest and important to include in the training of PhD graduate students I decided that grant money would give me the clout and provide the support needed to break out of this Feeds and Feeding Department of great importance, but not the road to the future in animal breeding (physiology of reproduction and genetics). The first few grants I’ve listed titles to indicate the DNA emphasis.

From my sketchy records the following grant applications were filed successfully.

1. Lalor Foundation: DNA and Fertility. 1960-61. $5,000.
4. NIH. Maturation, Metabolism and Aging of Gametes. 1965-68. $111,201.42. There was another $81,046. listed, but as grants shifted from GM to CHHD with a new grant number I’m not sure if I wrote another related grant under a modified title or not.
5. Population Council grant for Quantitative Analysis of Spermatogenesis in Rabbits and Dogs. 1963-65. $24,516. In 1966 an additional $12,474 was added. All direct costs.

6. Population Council Grant on Immunological Control of Fertility. 1971-73 $21,500. We did request $55,100. from NIH to continue this work. We obtained a positive review, but just below the funding cut off of the top 1/3. I did not resubmit as Dr. Spillman left for a job at Upjohn. Also a Pop. Council Fellowship for In Ha Bae for about $20,000. total came through.

7. NIH Grant on Maturation, Metabolism and Aging of Gametes for 1968-71. $105,547. The renewals went well, and the application for the next 3 years was recommended for funding at reduced costs to $60,000. However, NIH Funding was cut and this later renewal was not funded. Some of our research was no longer fitting under this title.

8. Summary of NIH (Discarded most reports)
   1962-65 $49,620. direct cost. Most of these list only direct costs.
   1965-68 $111,201.
   1968-71 $105,547
   1971-73 $........? 
   1974 $26,827. (Some years NIH took back a small % on everyone).
   1975 $22,225
   1976 $26,827
   1977 $56,894
   1978 $43,843. Direct costs on all of these only.
   1979 $49,859.
   1980 $52,901. (43,028 direct). Had this report.
   1981 ? Records missing. I did miss writing a renewal when
   1982 ? I was President of SSR, but obtained SSR
   1983 ? Symposium Grant from NIH for
   1985 ? About $200,000. in total
   1986 Direct costs below

   1987 $103,970. Indirect cost
   1988 $112,677. probably about $80,000.
   1989 $ 90,521. $225,000
   1990 $ 98,091.
   1991 $ 89,595. + Indirect cost
   1992 $121,322 + $64,503.
   1993 $129,133 + $76,188. $370,619 in
   1994 $134,297 + $72,520. indirect costs
   1995 $139,669 + $76,818. Total grant
   1980s About $500,000. Trng. Grant with Hansel and Van Tienhoven.
1993  About $400,000. Wrote a grant with Dr. Moreadith, TX. Funded, but he soon left research and did not answer what happened to his money or rabbits we sent for genetic engineering.

A grant proposal with Ron Wester in 1971 for $71,610. for 3 years was site-visited but finally turned down. It was on “Hormonal Control of Spermatozoal Function”. The reviewers weren’t interested in this. They thought hormones only affected spermatogenesis and female reproduction. Everything we proposed to study was vindicated 20+ years later with many published papers elsewhere.

Semen Grants

9. The NYABC grants with Bob Bratton from 1946-1957 for me amounted to an average of $3500. per year for 12 years = $42,000. In addition the Northeastern ABA Council provided a total of about $10,000 in research grants from 1960-65.

In addition I contacted the Midwest Council of ABAs. They provided about $30,000 from 1966-73.

NYABC grants for 1958-1966 are sketchy (only in annual reports, but they increased steadily).

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
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<tr>
<td>1946-57</td>
<td>$42,000.</td>
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<tr>
<td>1958</td>
<td>$5500.</td>
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<td>1959</td>
<td>$7000.</td>
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<td>1960</td>
<td>$7000.</td>
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<td>1961</td>
<td>$7500.</td>
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<td>1962</td>
<td>$7500.</td>
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<td>1963</td>
<td>$10,000.</td>
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<td>1964</td>
<td>$11,500.</td>
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<td>1965</td>
<td>$15,000.</td>
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<td>1966</td>
<td>$15,000.  + $5,000.</td>
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<td>1967</td>
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<td>1970</td>
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<td>1971</td>
<td>$18,000.  + $1,500.</td>
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<td>1972</td>
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<td>1973</td>
<td>$19,000.  + $1,500.</td>
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<td>1975</td>
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<td>1976</td>
<td>$20,500.</td>
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<tr>
<td>1977</td>
<td>$23,000.  (20,000 + 3,000 one-time)</td>
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<tr>
<td>1978</td>
<td>$22,860.</td>
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<td>1979</td>
<td>$22,860.</td>
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<td>1980</td>
<td>$20,788.  + $14,960. herd mgt</td>
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<tr>
<td>1981</td>
<td>$19,000.  + $11,550. herd mgt</td>
</tr>
<tr>
<td>1982</td>
<td>$22,187. + about $17,000. quality control; + $8,000. herd mgt.</td>
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<tr>
<td>1983</td>
<td>$22,685. + about $17,000. quality control; + $6,000. herd mgt.</td>
</tr>
<tr>
<td>1984</td>
<td>$33,400. + about $17,000. quality control; + $6,000. herd mgt.</td>
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North Central Breeders Res. Council (NCBRC)

All groups said they were supporting research in 5 states and we should turn to NAAB that they support.
1985  $33,500. + about $17,000. quality control; +$6,000. herd mgt.
1986  $34,500. + about $17,000. quality control; +$6,000. herdmgt.
1987  $34,500. + about $17,000. quality control; +$6,000. herd mgt.
1988  $35,000. + about $15,500. quality control; +$6,000. herd mgt.
1989  $19,000. (Plus a budget for John Parks also, and one on cloning
1990  $14,000. (Budget I can't locate so?).
1991  $12,700. + $28,000. for cloning research
1992  $14,700. + $28,000. for cloning research
1993  $10,000. + $30,000. for cloning research
1994  No request (retired).

NAAB
1970-73  $15,000. ($5,000./year) Frozen Semen.
1974-76  $ 9,000. ($3,000./year) Frozen Semen.
1974-76  $15,000. ($5,000./year) Testicular Evaluation.
1976-79  $15,000. ($5,000./year) Optimizing C.R.
1979-81  $15,000. ($5,000./year) Semen Quality
1981-82  $ 5,000. ($5,000./year) Semen Quality
1982-84  $14,000. ($7,000./year) Stimuli of Female
1984-87  $21,000. ($7,000./year +$3,000 Select Sires)
        Plus semen donated from many studs for hamster egg tests.

In addition, there were the previously mentioned grants from the Northeast Council of Artificial Breeders. These small AI Coops contributed about $2,000. per year for 6 years.

Also in conjunction with the bull studies and calibration of counting sperm (Spectronic 20) instruments there were a few special grants. The largest was $3,000. from Select Sires.

Bert Cassou of IMV contributed about $10,000 in money and supplies toward a project to improve cryopreservation of rabbit sperm. Also he gave me free use of his IMV apartment in Paris when I was visiting with sister Lovina, sister-in-law Marion, and wife, Ruthie. It was an elegant apartment, and would have cost us at least $400. per day to have to stay elsewhere in a hotel.

Cornell Biotechnology Grants
1984-85  Cell micromanipulation  $42,700.
1985-86  Cell micromanipulation  $45,000.
1986-87  Cell micromanipulation  $34,775.
1988-89  Selective nuclear injection  $49,650.
1989-90  Selective nuclear injection  $49,300.

A few thousand dollars were for Steponkus, and later for Elizabeth Earle.
1992-93  Cloning (now in Yang's name)  $25,931.
1993-94  Cloning (now in Yang's name)  $30,000.
1980s  Cornell loaned us the gene gun  $13,000.

Industrial Grants
1960s  Morris Fdn. on Dog Fertility  $ 25,000.
1980s Fertility Tech., Inc. Thousands of counting slides $10,000.
1975-76 International Cryobiological Services, Rajamannan $5,000.
1984 PHI $20,000.
1980s Bristol Labs, Amikacin et al., about $20,000.
1980s Hamilton Thorn, CASA equipment $28,829.
1980s SB initiative for IVOS, Year 1 $49,875.
1980s SB initiative for IVOS, Year 2 $49,800.
1980s Coming to develop sexing, about $49,000.
1980-89 Hoechst-Roussel: $8,000 to $19,681/year $108,000.
1980-93 Hoechst-Roussel: Buserelin $5,000.
1980-93 Vetrepahrm LH, FSH $10,000.
1970s NYDHIC, 2 years total $3,840.
1970s Agway Chore Reduction $1,000.
1970s Ithaco, cash and probes $8,000.
1983-85 Genetic Engineering, total $150,000.
1960-90 CEVA, Upjohn, Armour, Kamar, and others; Kamars, GnRH, FSH, LH, PGF2 $40,000.
1982 Allied Mills for rabbit feed toxicity (damage) $18,000.

Federal Grants Outside of NIH
1986-89 USDA, Fertilization Failure $199,999.
1992-94 USDA, Polarity and Embryo Development $187,000.
1980s EPA, Set up rabbit model, DBCP $70,000.
1980s EPA, EGME studies and sperm number $193,000.
1990s EPA, Finish EGME $75,000.
1990s DOD, In vitro model for testing lead toxicity, about $60,000.
1979-83 BARD, cattle nutrition, breeding and fertility $170,700.
1984-85 BARD, hormone analysis $12,000.

Veterinary College Funds to RHF
1980s Antczak Hatch for gene gun research $18,000.
1980s Lein for Kovacs, 3 X $10,000./year $30,000.
1983-85 Gillespie for virus in embryos. $54,700.
1983-85 Wetterburg (Gillespie) $5,700.
1987-90 Zweig funds for horse reproduction. $47,100.

Income Generated by Foote
1960-1993 Sale of cattle bought for research $100,000.
1980-2002 Schurman Chair @ $2,000./year $44,000.

Fellowships
Rashwan (USAID), Clamohoy (USAID), Im, Kim, Kim, Yang (all Korean gov’t), Ahmed (Pakistan), Cavestany (OAS), Arriola (Mexico), Ehrenwald (Mexico), Chacalof (Greece), Hahn (Humboldt), Holst (Kellogg), Mellado (Kellogg), Kovacs (Hungary), Eger and Sturman (Israel), Davis (NSF), 5 Chinese (China),
Voss (German), Butendiek (Rockefeller), Parrish (minority), plus a host of visiting professors Kuroda, Koyama, Suzuki (Japan), Presicce (Italy), White (Australia) on their own funds, and others. (I kept no list).

Other
1990s Helped Yang write EPA, USDA and NIH grants for more than $1,000,000. total. Funded? He went to U. of Conn.

Summary
The total cost of research, mostly from grants is estimated at over $40,000,000. In today's dollars. The benefits to animal agriculture in wiping out some diseases and raising productivity is many billions of dollars.

Unfunded
1990-93 USDA on embryos. $187,139.
1990-92 DuPont on the gene gun. They sold the rights and therefore no grant. $60,000.
1970s NIH (Wester). Hormone effects on sperm. High marks, but too speculative they said. All objectives were confirmed by others in the 1980s and 1990s.
1980s CAAT (Hopkins U.) for in vitro tests of toxicity with sperm and embryos. 1st year ($29,011). High marks, but did not like the compounds we proposed to test. Funded 27% of the proposals.
1980s NIH Ultrasound effects on meiosis in the developing fetus (with U. of Rochester). About $300,000. Design got high marks, but MDs said "we know ultrasound is harmless". No one knows if 25-40 years later women irradiated as fetus during their mother's pregnancy would have a normal complement of oocytes.
Probably a few others were not funded. I think one NAAB proposal was not funded, but these are all I have a record on and/or remember. In the 1980s we started to write a grant with Dr. Paoletti at the Wardsworth Institute in Albany to inject a GnRH construct into cattle embryos. Dr. Rothchild (Cleveland) was an eager collaborator. Dr. Paoletti moved and this grant proposal was never submitted. We had a similar experience in the 1980s on injecting the luciferase gene into rabbit embryos as a marker with a collaborator from BTI. He moved to Calgary, Canada with the gene. The proposal was dropped. Others published papers on these subjects several years later.

Teaching Grants
1960s. Innovative teaching (Maas had a grant we helped with), $3,000+
1960s. NSF Grant with Visek for physiology, about $20,000.
1970s SUNY for audio-visual equipment $2,000.
1980s Project EZRA, video equipment and computer programming. Run by Cornell. About $10,000.

The An. Sci. Dept. regularly provided several thousand dollars per year for teaching A.S. 220, 430, and 431. That was a big help. It was not enough, but our
emphasis on animals in the lab. for all to gain hands-on experience was expensive. At least half of the help, and the most experienced was covered by grants to me or to visiting scientists and grad. students on my research grants. Collectively we gave about 8,000 students hands-on experience.

Many people contributed essential components to our program. I always considered the office professional (secretary) as the key position in our group. She could keep everything rolling that supported teaching and research. As time went on we had more undergraduate volunteers and researchers doing their own projects and helping graduate students and postdoctorals. Experienced laboratory technicians also were essential in helping to plan experiments, train others and conduct the research.

All of us who used rabbits owe a great debt of gratitude to Mike Simkin. The bunnies owe a lot to Mike also for his constant supervision to insure their welfare. He trained the rabbit caretakers, he managed the colony, and he was the superb surgeon who collected and transferred, or helped to collect and transfer tens of thousands of embryos. I also felt very responsible for the animals, and any of our experimental animals anywhere were usually checked by me early on Christmas morning, and on other vacation times, to be sure that they had healthy holidays too.

Our service personnel kept our building clean, the electricity and water flowing, and cared for so many other daily needs that we took for granted. Ray Nobles was a great help and fine friend. As a Buildings and Grounds supervisor he took personal interest and pride in keeping things running smoothly. He always told me that if any emergencies arose, Christmas or anytime, call him directly. I also saved him some work. I like to fix things when they need to be fixed. Water faucets often were leaking. I got Ray to leave with me a bunch of rubber inserts to repair leaky faucets, which I did. This was done quietly, as it may have not followed the university SOP. Years later, after Ray retired, I reported a very leaky hot water faucet. After about 6 months without repair I measured the flow rate. I calculated that about 100,000 gallons of hot water had been lost. I reported this to the head of the University Utilities and Management, pointing out that if there were many leaky faucets on campus, saving hot water would pay for a full-time faucet repairer. The faucet was fixed.

One of the tragedies of our time, and contributes to the great increase in cost of the university, is the layer upon layer of people far removed from the action. This causes delay with a large increase in overhead cost. In the early days I could write a letter to the National Academy of Science requesting a grant for specified research. It would be awarded with a memorandum of understanding. Today writing a superb scientific proposal can be easier than getting all the animal forms, and overhead budgets figured out to pay the people who provide little help for your research. Of course the maintenance people were essential.

The Office of Sponsored Research is an example I had much contact with. There were some dedicated people there. However, some you could not reach until after 9 a.m. They were out to lunch from 11:30 to 1:30, and they were “out of the office” after 4 p.m. A call the next day indicated that they had “gone home early” the day before.
What kinds of research were done? Our program was goal oriented. If basic knowledge was available, applied experiments might solve the problem, if knowledge was lacking, a basic approach was required.

Hundreds of studies were done on multiple aspects of bulls, semen collection, preservation, and insemination. Other studies involved cow fertility. We performed basic studies on spermatogenesis, requirements for embryo survival in vitro, stem cell technology and cloning. These are too numerous to mention here. However, some indication of the scope of our lifetime program is represented in a book Artificial Insemination to Cloning: Tracing Fifty Years of Research, published by the author (Robert H. Foote) in 1998. The Table of Contents is appended here. Also appended is Chapter I which provides a philosophical background for the work.

My CV appended at the end of this book summarizes the major accomplishments. The research contributed greatly to the development of AI, some to embryo transfer, and to cloning. Many experiments were exploratory and did not reach the point of publication. Many of these are stored in the Archives.

Other experiments produced negative results. One of the most novel, but 20 years before we had the microprocedures to be successful, was the transfection of rabbits by introducing DNA extracted from sperm produced by pure-breeding colored males into eggs of albino females. A short section on that information follows, with more information in the archival book.

In 1960 and 1961 we did a series of exciting experiments which unfortunately were negative. They have been repeated in modified form with modern microinjection equipment and hailed as great achievements (which they were). We should have published these, along with some very positive related experiments (also unpublished).

These experiments were conducted in cooperation with Dr. Ellen Borenfruend, a biochemist at Sloan-Kettering. We were interested in getting DNA into eggs to determine what effect foreign DNA would have on early development. We knew about the real pioneers in DNA (Avery et al, J. Exp. Med. 79:137-158. 1944) who induced transformation using a DNA fraction. The letters and the 1961 attached protocol describe the plans. Unfortunately, we were not successful. We needed viral or other vectors such as liposomes or micropipettes. We were moving to Morrison Hall from NYABC, I was building a house, and with teaching etc., the negative results caused us to stop. The book was discarded when we moved into Morrison Hall the summer of 1961, I believe. (Later I found some letters and data put in books on unpublished data).

In Morrison Hall we set up in vivo studies to determine if radioactive sperm could fertilize eggs (oocytes). We treated male rabbits with \(^3\)H-thymidine and used radioactive sperm to inseminate females. We combined this with studies that Ernie Swierstra did on kinetics of spermatogenesis (1959-63) and published them (no.111 and 128). The fertility studies were never published.

Ernie Swierstra did one study mounting whole eggs on slides and covering them with NTB3 photographic emulsion. Film was too far from the nuclei to obtain ARGs. We had an extraordinary fine technician who took off a year from Vet. School (later John W. Whitefield, DVM). He was a superb tissue cutter, and mounted and cut at 4 micron thickness hundreds of eggs, with sections mounted on slides. He made
many cuts, so some were through the center of nuclei. Occasionally a polar body was included. These sections were useful for ARG.

In the 1962 experiment 54 does were inseminated and in 1963 many more does were inseminated to obtain fertilized eggs within 1-2 days of insemination and an equal number of does allowed to kindle. Semen was collected 2x every 3 to 4 days from Day +1 to Day +63 following isotope injection, except semen was collected daily on Days 38, 39, 40, 41 and 42. Semen was evaluated for volume, sperm concentration, and % motile sperm. Fertility was very good, especially considering that we diluted semen with saline and years later tested and published much more compatible diluents.

Probably the biggest disappointment in research in the late 1940s was my attempt to preserve bull sperm at subzero temperatures without freezing them by storing them with antifreeze, such as glycerol, in the semen extender. The sperm stored unfrozen at -10° to -15°C died. At this time the British had tried to freeze bull sperm, but were largely unsuccessful until they accidentally added glycerol. They used the wrong unlabeled bottle that turned out to be glycerol. The British had the right theory and the wrong stuff, until the accidental discovery.

Facilities. Previously I noted that the old Wing building was just an office and dry lab building except for the slaughter facilities. All the research was done at the NYABC building where we had a laboratory and the AI Coop was very cooperative in the use of semen and their semen processing facilities. It was a great pleasure to work with all of their staff and to be able to help them improve the efficiency, productivity and profitability of their program.

Then in 1950 they fully supported our request for additional space and built the north wing at the AI headquarters. This was shared among several Cornell professors and NYABC, until we moved to Morrison Hall in 1961.

Morrison Hall was a great addition. We worked hundreds of hours planning, visiting other new facilities, and revising plans. Most of our plans were included in the new building. However, our small conference room was deleted. Our stainless steel bench and sinks for our wet teaching lab were replaced with wooden benches and small soapstone sinks. These were eliminated by the very conservative chairman of our building committee. Years later these stinky wooden benches on the side were replaced at great cost with stainless steel that sloped into the sinks for easy cleaning and sanitizing after displaying reproductive organs. Architects changed our animal rooms to have flat level floors instead of floors with slight slopes toward the central drain. We discovered their change during construction, but the contractor said he could not deviate from the drawings. The drain was the high spot when construction was complete, so we had to mop water uphill when floors were washed. Later we purchased large vacuum units to suck up the water.

The building had a great Corning Pyrex glass drainage system. This was very resistant to corrosion. If there was ever a plug in any line it was easy to see and correct. The only problem was that the drains went through large tubes in the floor with space to avoid pressure when lines contained hot versus cold water. When someone let a sink run over or had a leaky hose the floor below could get drenched with water coming through these openings. We had a few bad floods from a lab. above that damaged our records and some equipment several times.
We had two natural disasters as a result of fire in our barns. We had extra rabbits housed in the annex to the dairy barn behind Morrison Hall. In June, 1968 (Saturday) I was mowing my lawn at 70 Woodcrest Ave. I saw smoke billowing into the sky near what I was sure was Morrison Hall. I jumped into the car. The dairy barn was in flames and firemen had arrived, spraying water on Morrison Hall to keep it cool.

Ralph Maurer and Mike Kane, two of my graduate students with rabbit projects, were working at Morrison Hall that afternoon. They threw their rabbits into the hayfield outside of the annex before that part caught on fire. Some of the rabbits were caught later in the field, but the experiments were destroyed. I was due to leave in a couple days to give a talk at the International Congress on Reproduction in Paris. I cancelled the trip to help the graduate students put their research back on track.

We quickly put together an estimate of the minimal essential equipment we needed to replace. This was submitted to our administration. Nothing happened. Fortunately, Dr. Hahn, a visiting professor with me, was living in Connie Cook's spare apartment. She headed the Education Committee in Albany. At a picnic at her home I reported the dilemma. She said that she would look into the matter when she went to Albany on Monday. She did just that and told me that the estimate was sitting in a pile of papers with no urgent priority and nobody from Cornell was "squeaking" the wheel. Connie did just that for us, and the money to replace equipment came through promptly. Thank you Connie. Graduate students need this kind of support. When the administration called to say they had gotten Albany to release the funds, I knew the true story.

Why had the barn burned? Kids from a family in nearby Forest Home got in the barn haymow. They were playing with matches, and set the hay on fire. Their parents were reported to blame Cornell for not having the barn locked up.

We lost our Reed Farm barn for reproductive studies due to spontaneous combustion of the hay. It had been a wet summer. Our farm crew put in hay that was not dry. On July 4 Bill Hansel and I were working at Morrison Hall. We noted smoke coming from the Reed Farm area. We drove out with one of Bill's graduate students, Dennis Gengenbach. Dennis climbed into the haymow with a garden hose trying to put out the flames. I'm glad he got out of there as the tar from the asphalt-shingled roof was beginning to melt. Later we saw spots of tar on his T-shirt. In the meantime Bill Hansel moved the dairy heifers out into the pasture. I backed the tractor out of the stable just before the end of the barn above the tractor blew out. Firemen came. We said let it burn. No, they said it was their duty to put out the fire. They left a wet stinky mess of hay and metal stanchions that took weeks to clean up. Fortunately for us Dean Call and others put together the money to replace part of the barn with a modern heifer barn and silo.

We had a few more losses that curtailed some of our grant-supported research. We had a calf barn at the Warren Farm for work on superovulating calves. Suddenly we were told that this farm was being given to the Veterinary College. We needed to find a new spot. Fortunately, there was a partly empty calf barn near Morrison Hall that had survived the dairy barn fire of 1968.

So we remodeled that for calves and extra rabbits. We also remodeled it to teach the sheep and goat part of our AI course. However, soon we were told that this area would be needed for a parking lot. The barn was demolished, and no alternative
space was provided. We also used the Mitchell Barn that Bob Bratton had remodeled. That was turned over to the Vet. College for equine research. Dr. Antczak did a great job in locating funds to bring that old barn into a stately equine facility.

A small teaching barn was built that we eventually used for our classes on cattle, horse (ponies), sheep and goat A.I. I designed various safety features for handling bulls. We also used the Reed Farm and the T&R Center for dairy cattle Al and embryo transfer teaching. The artificial breeding cooperative also helped us. Eventually, after all these moves and elimination of convenient facilities we had made (mostly ourselves), we gave in. Perhaps it was time for computers to replace animals, but they are not the same, nor do students who only have touched a computer know the warmth that comes from associating with animals versus a cold robot.

Life is full of surprises. Some are pleasant and some are not, but one needs to move on. In fact, after cloning animals without much Cornell interest in the late 1980s, once Dolly, the sheep clone came along we had more letters, e-mails, and requests for comment on radio and TV than ever before. As of June, 2003 the requests still come regularly. So life in retirement was only at night.

This extensive research, teaching and advising load sounds like all work and no play. Well, lots of the research and teaching involved joyous times. There is joy in accomplishment. There is joy in watching one’s students learn. In addition, we observed birthdays, and had holiday and bowling parties and picnics. These activities will be covered in a later chapter.

There also was time for travel. The next chapter will take a quick peek at some of these excursions.
Typical Rabbits in Our Cornell Colony

We developed and maintained a rabbit colony for about 40 years. In the early days of breeding to produce males and females for reproductive studies I took hundreds of colored photographs. My intention was to use these to further information on the multiple allelic inheritance of coat color in rabbits. However I became too busy to pursue this objective.

Later an albino gene appeared. We had a typical double recessive albino born. Perhaps, the gene was brought in by a carrier animal that we had purchased, and had a New Zealand (albino) animal in its background. We selectively bred animals in our colony to produce animals with Dutch genes except for the gene for albinism. This coat color marker allowed us to conduct experiments within mother does carrying transferred colored or albino type embryos (treated and untreated).

The colony became known as one of the best rabbit colonies anywhere for reproductive studies. We were asked by the EPA to develop the rabbit model as a second (nonrodent) animal model for toxicity testing. This we did very successfully. Earlier, Dr. Bob Staples, a former Ph.D. in our department had demonstrated that the rabbit was an excellent model for thalidomide testing. Had rabbits been used, along with the nonresponsive rats, the fetal limb bud defects would have been clearly detected.
Research on Fertility of Bull Sperm at NYABC and With the Mobile Laboratory (Studies and photography by R.H. Foote, 1961)

Note in this series of sperm with bent tails and giant duplex sperm (double DNA as the precursor cell failed to form two separate sperm) that bulls producing these sperm were infertile. Normal sperm from an NYABC bull are shown with a dark background (India ink). Many years were spent studying spermatozoa and fertilization. The magnifications in these photos vary from about 500 times to 2,000 times.
Bob Foote and Karen Smith Meet with Dr. Daniel Gingerich of Bristol-Myers Veterinary Group.

The company supported research on sperm preservation and infertility in horses. In cooperation with the NYSCVM we studied particularly treatment of semen and mares with Amikacin®.
Research On Culturing Rabbit Embryos
(Studies and photography by R. H. Foote, 1962)

Note in this series of embryos that one of the 2-cell embryos is beginning to divide in one of the blastomeres. Soon it would be 4 cells. Many years were spent studying early embryo development. The magnification is about 400 times.
Development of the Milk Progesterone Assay for Monitoring Reproductive Patterns in Cows, Mares, and Female Goats.

Thousands of milk samples were frozen and then assayed in a large batches for progesterone content.
Bob Foote Using the Electronic Probe to Detect Estrus in cattle
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Chapter I. Animal Scientists: Nature and Nurture

Introduction

Whatever each one of us becomes depends upon how fortunate we were to receive a good measure of inheritance, a generous supply of many good things in life, and on how well we nurture and utilize these given talents by both creating and capitalizing on opportunities. I was fortunate in the "choice of my parents," in growing up on a dairy farm in the Depression when honesty, hard work, and service were mandatory, and yet the opportunity for formal education was provided, despite the shortage of money. Furthermore, I was fortunate in being a survivor of World War II after having an opportunity to grow and to learn firsthand what it meant to try to serve my country and the cause of freedom. Finally, after colliding on several occasions in the war with high-speed particles, which necessitated a change in my objective of dairy farming, I was fortunate to receive the assistance of my former undergraduate college advisers in steering me to a program of graduate study. So, I begin my presentation with an acknowledgment of great indebtedness to others. This important principle I hope I have continued to recognize throughout my scientific career, partly by appearing as the last author on papers, unless I personally did most of the work.

Dr. L. E. Casida, 25 years ago (Casida, 1966), set forth principles that are as important and appropriate today as they were when first published. He pointed out the need to learn research techniques, especially biostatistics, and to learn to think about principles and concepts. Appropriately he mentioned the importance of developing the ability to discuss, to publish, and to prepare research grant applications. He recognized the need for comparative studies and the role that laboratory animals could play in designing replicated, short-term experiments that could be applied by the same researchers to enhance understanding of the function of farm animals. He suggested a sequence of training by which the novice researcher could develop into an independent scientist. Dr. Casida's paper is an ideal one for all animal science graduate students to read and ponder. I wholeheartedly agree with his philosophy. Thoughts I will express here are examples of things I experienced which I believe were useful in attempting to achieve, in a small way, some of the objectives described by Dr. Casida.

My first contact with Dr. Casida's work was reading "The Oestrous Cycles of the Ewe: Histology of the Genital Tract," Missouri Research Bulletin 170, 1932. The University of Missouri had many excellent bulletins, especially by a series of reproductive physiologists working under the tutelage of Dr. Fred F. McKenzie. The list of references cited in Dr. Casida's bulletin includes a veritable "Who's Who" in reproductive physiology and endocrinology. The list includes Cole, Corner, Evans, Hammond, Hisaw, Leonard, Marshall, Meyer, Papanicolaou, Price, Smith, and Zondek. What a history of reproductive science course could be built around a study of these persons!

These Missouri bulletins were in the library, along with huge amounts of other interesting sources of knowledge. Cornell University has an excellent library system, and my mentors encouraged me early on to start using this resource. I was exposed to many great teachers and researchers, including Drs. Asdell, Bratton, Dukes, Losse, Maynard, McCay, Morrison, Salisbury, and Srb. As a result of their stimulation, I decided to carry extra subjects and had concentrations in physiology, animal breeding, genetics and nutrition. Later Dr. Henderson joined the group to become acknowledged as a world leader in statistical aspects of animal breeding. These teachers were sticklers for accuracy and depth of knowledge, integration of concepts, familiarity with current research, and the proper design of experiments. I set up a notebook that soon expanded to 60 journals I found interesting in the libraries. Every month I went through the list and checked off that I had seen each number. Also, I developed a threecopy abstract card that allowed for filing a 3" x 5" author card and cross-filing by two subject headings on two 5" x 8" abstract cards. This was before the days of computer retrieval systems. Animal Breeding Abstracts, Biological Abstracts and Chemical Abstracts were major sources of the world literature in abstract form.

Personal Goals

I had always been indoctrinated with the ideas that one should do something worthwhile with one's life, that time was valuable, and with Ben Franklinisms such as "Never put off until tomorrow what you can do today." I've learned that not to make a decision is, in fact, a decision. Also another simple expression with powerful implications (author unknown to me) is "If it is to be, it is up to me." Thus, there was a "workaholic" element built in, which seemed essential to teach, do research, read the literature, publish, and write grant proposals, in addition to the many little things that often occupied the 8 A.M. to 5 P.M. shift. One must love science and the pursuit of knowledge, if one is to feel well rewarded through the adventures of discovery, which often are preceded by frustrations of failed experiments. However, frustrations occur in simple everyday life without this reward. J. McGavran, in The Homesteader, wrote, "Frustration is when the same snow that covers the ski slopes makes the roads to them impassable."

Another important point in working with colleagues is to recognize them as individual people, outside of the realm of science. Over my desk is a clipping from Ann Landers that reads: "Resolve to be tender with the young, compassionate with the aged, sympathetic with the striving, and tolerant of the weak and wrong. Sometimes in life you will have been all of these." I wish I could say that I have always followed this good advice, but sometimes, regrettably, I have failed.

I have always had a personal idol, who was President Lincoln, with memories of him recounted by my grandmother when I was young. We all know his Gettysburg address, but I refer here to his second inaugural address, March 4, 1865: "With malice toward none; with charity for all; with firmness in the right, as God gives us to see the right, let us strive on to finish the work we are in."

Some Attributes of a Scientist

Ideas expressed here I've borrowed from various seminars I have given and from a detailed mimeograph by N. L. VanDemark dated June 1, 1978, entitled "The Synthesis of a Scientist." Obviously, what will make a person a successful scientist are qualities that are inherent in persons successful in many walks of life. Choosing a series of traits, listed in alphabetical order, I would include the following: able, ambitious, analytical, broad in perspective, challenging, critical, dedicated, determined, enthusiastic, honest, innovative, inspired, leader (not leaner), motivator, observant, organized, patient, persistent, positive, resourceful, sincere, thinker, and understanding. That is quite a tall order, but these are traits we should cultivate. We must hunger and thirst after knowledge. We must doggedly adhere to the truth as we understand the truth to be. We must separate facts from beliefs and propaganda and attempt to minimize our biases. We should view research as (1) a privilege, (2) a responsibility, (3) a science, (4) an art, and (5) joyful work.

Research Goals

My research program is what I call "goal oriented." If there is enough information to determine how to solve a practical problem, then we can help our extension service in relaying solutions to the potential users, as well as use these examples in our classroom teaching. If knowledge is in short supply (which often is the situation), then experiments must be carefully planned to yield possible answers to specific questions or hypotheses tested.

Usually there are a host of problems to be solved so one must (1) establish a set of goals, (2) carefully assign priorities, (3) decide what to give up, and (4) get to work, as success is 1% inspiration and 99% perspiration.

Evolution of a Research Program

A few examples of how and why my research program evolved the way it did and mistakes made may be useful. In the beginning of my research career artificial insemination of dairy cows was in its infancy. Fertility was low and what was then called Vibrio fetus was widespread in bull studs. The first research was aimed at better methods of preserving bull semen. One experiment was a split-ejaculate arrangement with egg yolk-citrate extender added to semen immediately after semen collection before cooling instead of the control method of cooling semen first. The fertility of the sperm was increased about 6% (Foote and Bratton, 1949). Antibiotics, penicillin, streptomycin, and polymyxin D were found to be compatible with good sperm survival,
and this combination prevented spread of *Vibrio fetus*, raising fertility several more percentage units (Foote and Bratton, 1950). Other studies involved better methods of collecting and using semen.

With fertility levels highly acceptable, our research could turn to basic studies of spermatogenesis. In order to facilitate a thorough study of the histology and kinetics of spermatogenesis, using radioisotopes, we needed a small animal model. We chose the rabbit (Swierstra and Foote, 1963, 1965). A rabbit colony was gradually established for comparative studies with large domestic farm animals. We chose the rabbit because (1) sperm could be collected repeatedly, (2) artificial insemination was simple, (3) studies with the female were simplified because of induced ovulation, and (4) a whole series of studies on fertility, embryo culture, transfer, and embryonic mortality could be modeled using a variety of techniques (Kennelly and Foote, 1965; Maurer et al., 1968; Kane and Foote, 1970; Anderson and Foote, 1975). These studies provided excellent opportunities for designing good experiments with sufficient replication, with reasonable costs and opportunities to learn many procedures and to complete theses and publish results in a few years. This contrasted to lifetime nutrition studies with bulls that covered about 15 years and were not ideal alone for thesis research or gaining tenure. At the same time studies with bulls, calves, and cows gave persons experience with large animals (Seidel and Foote, 1969; Seidel et al., 1971).

Regular cooperation with industry also was and is an important part of the research program. Research can be facilitated by this cooperation and the flow of information for practical application is expedited. This also keeps the basic research program in tune with agricultural needs. One such program was the collaboration of many major bull studs in studying testicular growth, developing simple methods of measurement, estimating heritability and the relationship to sperm production, fertility, and reproductive characteristics of the female (Hahn et al., 1969; Coulter et al., 1976). The study was repeated to measure growth for many years. This type of collaboration has been continued through the years with Eastern A.I. Cooperative, Inc., and embryo transfer studies more recently with Em Tran, Inc. Thus, a program of basic and applied research across laboratory and larger farm animal species was usually kept in reasonable balance. One problem was that we did not always control as well as was desirable the tendency to proliferate beyond our means. The resultant scattering of effort could lead to superficial research, which is poor training of researchers and money wasted when equivocal results are obtained due to inadequate replication.

Laboratory animals also can serve as models for studying reproductive function in human beings (Foote, 1989). Agents in the environment that may damage reproduction can be studied in both male and female rabbits (Foote et al., 1986a, b). The agent, dibromochloropropane (DBCP), caused infertility in male workers in the manufacturing plant in the 1970s. We were able to study the effect of DBCP in the drinking water on spermatogenesis, semen quality, and fertility, as well as to compare in vitro effects on rabbit and human sperm. These papers today serve as the basic information on quantified effects of DBCP in the drinking water on male reproduction. The data have been analyzed in detail to provide estimates of the number of animals needed in future experiments to detect treatment differences of specified magnitudes and with specified Type I and Type II errors.

**Cloning**

More recently, the rabbit has proven to be a useful model for production of chimeras and for cloning (Yang et al., 1990; Foote, 1991). The blastomeres of the rabbit embryo maintain totipotency, probably for a period similar to cattle. Many of the aspects of the sequence of steps in cloning cattle can be modeled in the rabbit much more rapidly and with modest costs. Simultaneously, the best procedures can then be tested with cattle. Currently both species are being used, giving undergraduate and graduate researchers, as well as postdoctorals, an opportunity to learn various skills and compare results in properly designed experiments.

**Keeping a Perspective**

Dwight J. Ingle gave a highly entertaining and thought-provoking speech when he was president of the Endocrine Society (Ingle, 1960). He described Percy Dioret, born in obscurity, but who received a mutated gene which "enhanced the ability of the brain to function creatively." He became a gifted
scholar with many personal problems, but he made a fascinating discovery. His professor, Professor Suopnop was about to address an "Academy of Science Writers" and he suggested he report Percy Dioret's finding. Many honors came to the professor, but little to Percy. Percy later rose to a professorship and became involved in committees and fund-raising. Later his laboratory made a startling discovery which Percy reported and which made him more famous. The lack of credit to the discoverer bothered him, but he was able to rationalize that the discovery was possible only because of the laboratory Percy had established.

Dr. Ingle goes on to point out that a human life is minuscule in terms of geologic time and space, but in the "evolution of the universe man does become important." "Man deserves respect for being alive" and creative, and Percy Dioret was an example. In "evolutionary biology we do not rant at the errors of nature or at the tooth-and-claw way that has not been completely lost from the human brain. Rather we wonder at the positive achievements of nature and its greatest gift of all--the capacity of man to control his own future even though error, chance, and risks are still a part of nature and the evolutionary process."

**Teaching**

While the focus of this paper is research, teaching, so that others learn, should not be overlooked. Teaching courses at the various levels stimulates discussion of research as well as feedback to the researcher of questions currently without answers. Many undergraduates become aware of research possibilities through hearing about research in courses on reproduction. Selected students can work with staff and explore closely related side projects, some of which often lead to major research efforts. Some of these able students change career objectives and apply for graduate work. The researcher who is also excited about teaching, I believe, is a better teacher because of the research. As indicated, such a teacher opens the door, exposing new horizons for many a young undergraduate.

**Problems**

Obviously, one person cannot be all things to all people. A person who teaches has less time for research. A person who trains graduate students cannot generate the research results that large laboratories produce with a force of postdocs. Some research groups hire only the latter. With tight grant funds, this is a serious problem. If the person willing to train graduate students is less competitive in obtaining grants, where will the graduate students be trained? There will not be the pool of postdoctorals. Universities, the federal government, and industry should provide more basic support of graduate training programs. Otherwise this somewhat "cut-throat" competition for research grants will be both discouraging and self-defeating in producing the needed ongoing supply of outstanding young scientists in this country. Although errors are a part of the evolutionary process, as Dr. Ingle pointed out, scientists must unselfishly play a very active role in advising the powerful institutions concerned with research so that science, the country, and the community of people served by research will prosper.

**Acknowledgments**

To all the teachers mentioned in this paper, many other colleagues and collaborators, undergraduate and graduate students, visiting scientists and other technical help, and peer reviewers who have helped to keep grant money coming, I am deeply grateful. Words are inadequate to express my deep appreciation to my family, who put up with my long hours at the laboratory.

**Literature Cited**


January 8, 1951

Professor Robert H. Foote
New York State College of Agriculture
Cornell University
Ithaca, New York

Dear Professor Foote:

I am enthusiastic about your check on sterility in dairy cattle. There is so much talk of it today with so little basic information available that getting facts seems to me to be the first job.

The suspicion has even entered my mind that perhaps there is not so much increase in sterility today as there is an increase in knowledge of what actually has been happening because of the records kept by reason of artificial insemination. Anyway it will find out the truth and I congratulate you.

If there is any lack of cooperation at my farm please let me know.

With every good wish,

Sincerely yours,

TED:LR

We had great cooperation!
Fire Destroys the Main Cornell University Dairy Barn and a Nearby Unit Housing Experimental Rabbits

On June 22, 1968 I was mowing my lawn at 70 Woodcrest Avenue. A strong wind was blowing in a southerly direction. I saw a cloud of smoke emerging from an area I guessed might be Morrison Hall. This building housed the Animal Science Department. I jumped into my car and drove to Morrison Hall. I parked away from the building. There were many places to park this otherwise pleasant Saturday afternoon.

The dairy barn, full of freshly cured hay, was burning. The fireman had arrived, having been alerted by one of my graduate students who was working in Morrison Hall that afternoon. The fire was too advanced to prevent the barn from burning, so firemen sprayed most of their water on other buildings where sparks carried by the wind might ignite other wooden buildings.

One wooden building close to the barn and downwind also was ignited. This unit contained experimental rabbits that formed the basis for the PhD programs of two of my graduate students, Ralph Maurer and Mike Kane. Ralph had reached this unit before it caught fire. He tossed most of the rabbits out into the nearby grassy area. The rabbits disappeared in the hayfield and only a few were caught. The whole experiment had to be repeated. Children from a nearby home accidentally set the fire by playing with matches near to the hay. The family took no responsibility for the fire!

Bob cancelled his trip to Paris where he was scheduled to participate in the International Conference on Artificial Insemination and Animal Reproduction. It was a long and hard struggle to get the facilities replaced so these two young graduate students could finish their research (described elsewhere in this autobiography).
Moore Business Forms reduced this to a 5" x 5"
triplicate form for 2 subject abstracts plus a
snap off 3 x 5 author card. Prepared by
R.H. Foote in the late 1940's. About 15,100
abstracts were prepared and often reprints
obtained before the electronic network in the 1980's.

* This is how I kept up with the literature. R.H. Foote
Prepared by RH in cards/sheet.
Micromanipulation of Embryos


Following is an example of making identical twins.

Fig. 1. Procedures to produce identical twin embryos. a: A good-quality embryo and an unfertilized egg were held at the tips of the holding pipettes. A surrogate zona pellucida was created simply by aspirating the contents of the unfertilized egg, discarding them, and rinsing the empty zona pellucida. b: Half of the blastomeres from the good-quality embryo were aspirated into the pipette and then injected into the surrogate zona pellucida through the hole made previously. c: A pair of identical twin embryos were thus created with approximately equal numbers of blastomeres. d: Following culture for 24 h, a pair of bisected embryos and an intact control embryo developed to the blastocyst stage. Note that blastocysts developed from bisected embryos have only about half the volume of the control embryo.
Production of Chimeric Rabbits From Morulae by a Simple Procedure

Xiangzhong Yang and R. H. Foote

Department of Animal Science, Cornell University, Ithaca, New York

Chimeric rabbits were produced using a technique similar to the one on the previous page. However, to make chimeras, morula-stage embryos from colored parents and from albino parents were microinjected into one zona pellucida so chimeras had four parents.

Fig. 1. (a) Litter of six young at 20 days of age. Two chimeric young are the second (A) and the third (B) rabbits from the right. (b) Chimera A at 40 days of age, right side view. Note the ears, head (black spots), and the albino area on the right side. (c) Chimera A, dorsal view. Note the albino tail and albino area on the back. (d) Chimera B at 40 days of age. Front view. Note the color mosaic on the right ear and face. (e) Chimera B, right side view. Note the right ear and face, a black spot dorsally behind the ear, and the albino area toward the rear. One albino band on the tail is not visible.
Chapter 18
Cornell Career: Traveling the Scientific World on Sabbatical Leaves and to Meetings.

Cornell was well-known around the world for its program in agriculture. As our own program unfolded to develop the AI of livestock, this program also received considerable global attention. This resulted in requests to give seminars and major papers at international meetings, congresses, and universities. Hundreds of presentations were made ranging from genetic selection to fertility, sterility, artificial insemination, cryopreservation, and a whole range of animal biotechnologies, including cloning.

In the Archive book some of the talks and places are listed. I never kept a file on these, and most of these were done before they could be archived in a computer.

Since the early 1970s I gave about 200 presentations in the form of seminars, symposia, special lectures (outside of my usual coursework), and domestic and international educational talks. These were in addition to the short presentations about specific experiments included in the program of scientific meetings.

I felt that it was important to produce slides targeted to each specific audience. Some slides were produced with Spanish or Chinese titles. In the process overall I prepared more than 5,000 slides. As most talks were one-shot presentations, I wonder how much carryover impact they really had. For example, one of the tightest schedules that I have a record of occurred at the end of October and beginning of November, 1983. I was not teaching that semester. These were one-day stops at each place, except for 3 days in the area of Budapest, Hungary. I was in Hungary for a Symposium in late October, and due to return to the U.S.A., 2 days before leaving for Korea and Japan. My plane in Budapest was delayed. I missed connections in New York City for Ithaca. Due to torrential rains I could not get to Ithaca. I phoned Ruthie (my wife). I washed a few garments and socks in the shower, and packed them almost dry for Korea. On the plane the movie was Paul Niven, in "Better Late Than Never". After lecturing in 5 cities in Korea and several in Japan in early November I returned to Ithaca in time to address Dairy Day participants in Alfred, NY on November 15. Fortunately, I carried all my international slides for Asia with me when I went to Hungary, so I had time to review them while on the plane.

What was very important for me was to meet people, and learn about their concerns, culture, and programs. This led to many longtime international associations and cooperative research. Graduate students and postdocs came from east and west. This was wonderful for me and my staff as they developed friendships across cultures and geographical boundaries.

Some of these exchanges took place every year. Also, Cornell had the excellent sabbatical leave program, allowing one every seven years or more to take time off from regular duties at Cornell to strengthen one’s teaching and/or research programs.

One of the local meetings I attended was a dinner meeting of the New York Farmers in New York City. This was a small group of wealthy individuals interested in agriculture. I received their award in 1969 for contributions to northeast agriculture. The award was appreciated, but something else I learned was more important.

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This group was interested in preserving the natural beauty of an area by buying it and giving it to the state to be protected from development. The members discussed this piece of land and the cost. There were differing opinions about the price they would be willing to pay. As I recall it was for sale for $500,000.

I sat next to J.C. Penney. Yes, that was the Mr. Penney who owned about 1700 J C Penney stores, and who checked regularly the balance sheets of each of the 1700 stores. Mr. Penney was in his early 90s, but was still sharp. He thought that the discussion had gone on long enough. It was beginning to become a circular argument. Mr. Penney said “You want to buy the land don’t you?” The members all responded in the affirmative. J.C said “I’ll write the check now for $500,000., and each of you give me your share of the pie”. The deal was done. It gave me insight as to why Mr. Penny was successful.

Relative to sabbatical leaves, I did the following. While on 9th payments I took a two-month summer vacation trip and visited major researchers and their labs in Europe. Then in 1958-59 I went to Denmark on a Fulbright Award and studied spermatogenesis with the aid of the world experts on use of radioisotopes and ARGs. Then in the 1960s I traveled to many states where use of audio-tutorials was being developed so that I could enrich the student exposure to what I thought was important in comparative reproductive physiology. This experience helped me to develop carrels with photos, tapes and Super 8 projectors, plus written material for individual instruction, available six days per week. In the 1970s I went to Davis to teach an advanced graduate course on reproduction and to learn about agriculture in California. In the 1980s I took a semester off from all committees to catch up on writing. All this time I had to schedule my leaves around teaching An. Sci. 220 (affectionately dubbed by the students as “barnyard sex”), as I never was able to get a professor to take over this course for one semester.

1. My first major educational trip was to Europe May 14-July 16, 1956. This trip was detailed as an addendum to chapter 10.
2. Also the sabbatical leave in Denmark, chapter 9, is a family story while I was gaining lots of educational and research experience.
3. National meetings. Many had spouse and children’s programs which were attended by the family, along with much exchange of scientific ideas.
4. China. I tried very hard to establish strong contact with Chinese institutions, as I recognized their developing expertise and extraordinarily strong interest in cooperation. I was encouraged to do this by President An Min of Beijing Agricultural College and leaders of other Chinese universities (Nanjing, Northwest, etc.). However, I could not generate interest at Cornell, despite strong connections in the 1930s. I did nearly all this travel at my own expense.

Later, after one of my former students, Dr. Xiangzhong (Jerry) Yang got a Rockefeller grant for exchanges with China, Cornell became interested. Lots of our administrators started traveling back and forth. I only hope that most of the money was used to exchange scientists to accomplish meaningful mutually important objectives rather than big reports of annual bureaucratic conferences that I have seen. One of the Cornell administrators told me several years ago that it was important to go
to China that year because Cornell would pay for the trip. Next year they would retire. Who benefitted? Probably Cornell did not benefit.

I am attaching three reports on China. I tried to learn as much about China and share that information with Americans by giving seminars. Incidentally, to share our data with Chinese, my earlier talks were given with slides having headings in Chinese. Attached are summaries of trips in 1987, 1990 and 1995.

Addendum to Chapter 18
Fringe Benefits of Travel

My travels to many countries (about 40) in conjunction with international scientific meetings provided me with an opportunity to explore history and the development of modern cultures in both the eastern and western worlds. The only continent I did not visit in my professional career was Antarctica. I have been there more recently on a converted Russian icebreaker.

One could give countless travelogues on the castles of Europe and the homes of the current royal families in the United Kingdom, Sweden, Belgium, Thailand, and Denmark. These contrast with the ancient empires, The Forbidden City in Beijing, the tombs of the Ming Dynasty, the Terra Cotta Warriors in China, and others. These exposures make history a living and lively subject. As a student of genetics I was amazed to note the inbreeding among the royal families, with many marriages arranged to create a hoped-for political advantage. One of my superb professors at Cornell, British born and educated Sidney Asdell, wrote an informative article about the royal families entitled “The Relation Between Inbreeding and Intelligence (Human Biology, 20:171-181. 1948).

There were and are the beautiful tulip fields in the Netherlands, the snowcapped mountains of Switzerland, Patagonia and northern China. I passed Mt. Fujiyama about five times on the bullet train in Japan before I saw the top. The tremendous flow of water over the huge falls in Foz do Iguassu, Brazil, reminds me of the most important substance on earth, water. Then there is endless beauty in our own 50 states from the Grand Canyon, to the sandy beaches of Hawaii to the wondrous wilderness of Alaska.

The travels bring back not only an encyclopedia of memories, but also an appreciation of how mother earth has nurtured life over eons of time. We are the first in this great evolution to be able to ponder the meaning of it all, and unfortunately to plunder what we had no part in creating.

Also, there were many memorable personal experiences. The most special ones often occurred by chance. It’s fun to recall a couple of these. One I repeat, if you missed it earlier on.

In 1956 I was on a scientific trip to Europe, and I happened to be in Stockholm, Sweden when Queen Elizabeth and Prince Philip were visiting. I saw the royal yacht, Britannia, docked on one of the many waterways of Stockholm. On Sunday I had nothing scheduled. The newspaper headlines “exclaimed” that Queen Elizabeth and King Gustav would be going to the opera. Everyone should go to the city square and
see the two monarchs drive from the Swedish royal family residence to the opera house. Believe me, everyone was there.

I was there in the squeeze. I managed to edge my way to the base of the ramp that the monarchs would motor down from the castle courtyard. The ramp started 15 or 20 feet above the level of the city square. There were Swedish police all around the base of the ramp. Very clearly I could go no further. Suddenly there was a little opening in the crowd. A lady was by my side at the base of the ramp. She said in English with only the echo of a Swedish accent “You want to get a picture of the king and queen don’t you”. Yes, yes, my camera almost spoke for me. This lady continued. “I am a relative of the Swedish Royal Family. I am going into the royal residence. You can’t go in, but when visiting dignitaries are not here you can go into parts of the castle. We don’t separate our royalty from the rest of the people as you do in England. (I believe she thought that this Connecticut Yankee farm boy was British). She spoke to the guards in Swedish. Then she told me to follow her up the ramp. I did so, but I was scared. Imagine, a World War II veteran knowing what he had to do in WWII and doing it without thinking about being scared, was scared just to walk up this ramp. What would these thousands of people below in the square think?

Well, we made it to the top. She told me to stand where I was. A car soon would come out of the courtyard and stop in front of the door exactly opposite to me about 15 feet across the ramp. The lady left, disappeared into the courtyard, and after that brief engagement, disappeared from my life forever. At this point you think, what a dream. No, I have the picture I took to prove it was not a dream.

I went back to the hotel and told Bill Hansel what had happened. Bill was a young professor from Cornell traveling with me. When I told him earlier about my plan to go to the city square to see the two monarchs, he declined to go also. We were tired from traveling. He said, “you’ll never get close. I’m tired and I’m going to take a nap”. So when I told him what happened he did not believe me. After returning to the U.S., I had the film developed. When Bill saw the resulting photo he was excited and wanted a copy. He asked me why did this lady offer a total stranger (one in a crowd of thousands) this opportunity? This breech of security? Of course I don’t know. It is clear that the security police recognized who the lady was. I wish I knew because I wanted to write, thank her and enclose a picture. Somehow this kind lady took pity on this farm boy from Gilead, CT whom she had never seen before and probably assumed was a British citizen. It was a wonderful trust. I wish I had the ESP to be able to do on occasion what this Swedish lady did, a lady who stands taller in my memory than the ruling monarchs.

Another chance meeting. In 1987 I presented a plenary paper at the 5th International Congress of in Vitro Fertilization and Embryo Transfer in Norfolk, Virginia. The opening ceremony was marvelous. Dr. Marlowe, who had studied music before he became an M.D., sang “Oh What a Beautiful Morning” from Oklahoma, accompanied by Dr. Patrick C. Steptoe. Dr. Steptoe, at the age of 18 already had become Musical Director and Conductor of the Musical Society and Organist at Christ Church in Oxford, U.K. His friends convinced him he needed to study medicine to earn a living, so at 20 he started his medical career. In Norfolk he played several pieces on the piano at the opening ceremonies, including one he had written with a title of "Tribute to a Dying Embryo". Who was this Dr. Steptoe (now deceased)?
is the clinician who, along with the basic scientist, R. G. Edwards, was responsible for "Test tube baby Brown", the first human baby produced by IVF and embryo transfer. This event headlined the news and shocked the world nearly 25 years ago. Now the baby is a healthy adult, and she has a younger sister produced the same way.

I got on the bus taking us from the meeting to the hotel. An empty seat was next to Dr. Steptoe. He nodded and I sat down. We visited. He told me that he played the piano or organ at home nearly every day. After long days in the operating room he relaxed his mind and mobile fingers on the keyboard. What a great combination. What a fine man!

My interest in in vitro fertilization (IVF) was high mostly because of our own research on animal IVF, and because in the 1970s I was a technical advisor to the NIH panel studying the ethics and advisability of government funding being allowed for studying human IVF in the U.S.A. Dr. Leon Kass was a prominent ethicist and physician who opposed human IVF, also was an NIH consultant. We went to national hearings open to the public for discussion of human IVF. Dr. Kass also visited with me at my office at Cornell.

Dr. Kass has partially accepted IVF now that there are about 500 human IVF clinics in operation. I support what these clinics have accomplished to help childless families, but I am disturbed that they charge the maximum the traffic will bear. More recently Dr. Kass and I have discussed stem cell technology and reproductive cloning. Dr. Kass is the chair of President Bush's Bioethics Commission on Cloning. He has taken the correct political position to oppose even some of the stem cell research which is not conducted to pursue reproductive cloning. He and I disagree on this. I'm busy trying to clarify the issue for congressmen and senators, so that they won't mix and confuse apples and oranges. It is difficult to change fixed minds with eyes glued on the ballot box.

Now for one more example of a meeting, under a more pastoral setting. I was lecturing in China in 1995, including a lecture in Urümgi in northwest China. The head of the sheep research station invited us (my wife Barbara was with me) to spend a few days on his mountain research station. The helpers at the station were Kosacs. A Kosac daughter was being married that weekend. The Chinese director of the research station asked the parents if we could attend some of the celebration. They welcomed us warmly with both hands.

We took off our shoes and walked up on the raised tent floor covered with carpets. We sat in a circle with the families around the edge of the tent about 15 feet in diameter. Hung on the walls of the tent were beautiful carpets woven as gifts for the bride and groom.

One of the ladies brought in a large pot of warm water. She poured some water on a cloth that was provided for each one to wash their hands. You washed and squeezed the dirty water into a pan. This was repeated two more times by each person until all persons had clean hands.

Then in came a cloth sack filled with many shapes of small rolls and unsweetened cookies made from cereal grains. This was spread out. We were beckoned to help ourselves to these. Hot tea was provided for all. The special course was mutton from a fat ewe. The fattest cuts were considered to be the choicest.
As the guest of honor I was asked to cut the meat. However, I did not know how they wanted it cut. Dr. Guo, head of the research station, kindly took over this responsibility. My wife, Barbara, was given mostly fat as a choice cut. She couldn’t eat it, but merely held it in her hand. Finally the young interpreter told her that she could just set that piece aside. After consuming the goodies we expressed our thanks through the interpreter and left.

What a treat? How many tourists are guests of honor at a wedding feast in a family of Kosacs in northwest China, practicing the wedding feast ritual as they had for hundreds of years?

Today when I hear news from different parts of the world, seldom does it come from a strange place. These places are different, but they are not strange to me because I was there. Yes, I was the stranger who was there. Of course, I do not know the culture and politics of each country well. I scarcely understand the logic that is displayed by our own politicians offering us more government subsidized services and stating that they will reduce taxes. Our largest expenditure now in the U.S., I believe, is to pay interest on the debt. A political joke I heard long ago was that a statesman makes his own bed and lies in it. A politician makes his own bunk and lies out of it. But we really should be cautious about throwing stones, as we all live in glass houses.
Addendum to Chapter 18

Report of Travel to China to Participate in China's Agro-Expo '87 in Beijing, November 4-10, 1987

Robert H. Foote
Department of Animal Science, Cornell University, Ithaca, New York

Introduction

The purpose of this trip was to share ideas with Chinese experts on technology and genetics that are available in the United States that could be utilized in China to improve their dairy industry. As background for this trip I discussed some aspects of China's agriculture with several Chinese students and postdoctoral researchers working with me at Cornell University. Also, we have had many other Chinese visitors, and I have helped to host at Cornell several presidents and high officials from Agricultural Universities and other agricultural organizations relating to animal science.

To become more familiar with some of the agricultural practices, agricultural needs and training of young animal scientists I arranged to come to China October 18 to spend two weeks prior to my seminar at Agro-Expo '87. Because of the extensive lecturing, discussions and travel during these two weeks, and its relevance to my seminar, I will give a brief account of this at the end of my Agro-Expo '87 report.

China Agro-Expo '87

The seminar, which had been accepted in advance by the Chinese authorities, was on "In Vitro Fertilization and Embryo Transfer in Domestic Animals: Uses in Genetic Engineering and Livestock Improvement." The paper was sent in advance of the seminar. Packets prepared by the Holstein Association contained this paper and various other materials. Most pertinent to my seminar were two reports I had prepared for the Holstein Association entitled "New Developments in Embryo Transfer and Related Technology" and "Improvement of Reproduction in Large Dairy Herds." Copies of all three of these papers are appended to this report.

On November 4 I arranged through Mr. Mix of the Holstein Association to come to the exhibition hall where Agro-Expo '87 was being held. There Mr. Ma and I went to the seminar room where the seminar was to be held and went through all 50 slides I had prepared to illustrate the talk. We checked out all equipment and coordinated the translation of my talk with Mr. Ma. Mr. Ma had all the qualities of an excellent translator. He has an excellent command of the English language, an unusually good understanding of the technical terms in my seminar and a superb speaking voice in Chinese.

On November 5 the seminar started, as planned, approximately at 9:00 a.m. We were there at 8:30 a.m. with Mr. Mix so packets of material, sign up sheets and slides were all ready to 9:00 a.m. Mr. Maurice Mix will provide more details on individuals in attendance.
The room was nearly full with over 40 people in attendance. The seminar consisted of a lecture for one hour, a 15 minute break, the second hour of lecture and 45 minutes of questions by people requesting further explanations and information. The lecture portion consisted of slides containing the objectives, principles and procedures involved along with results of application of embryo engineering. Photographs and graphs were interspersed to follow the Confucius principle that "a picture is worth a thousand words." An overhead projector and blackboard were used to amplify or clarify certain points.

The audience was wonderful. They were absolutely attentive throughout and clearly understood the talk (some both the English and Chinese version). The questions were excellent and followed in rapid succession. Additional questions not answered there or later in the Exposition will be sent to the Holstein Office and on to me for reply. From all aspects I believe the seminar was most successful, reflecting the careful advanced planning, my own experience in speaking to international audiences and the excellent audience.

The content of most of the seminar is outlined in the paper attached. However, in addition, I believe that I utilized my experience the previous two weeks in China to advantage. I had read about the deficiencies in the diets of the Chinese people, particularly the diets of children, as outlined by a Chinese nutritionist at a current conference in Beijing. So, when I showed slides on milk in a balanced diet, it was easy to use this information to refer to the need for increasing the availability of milk. Also, I pointed out that genetic engineering studies at Cornell on the "cellulase gene" could likely be used to increase the ruminant's ability to convert more of China's vast grassland areas into high quality animal protein. Thus, the energy of our great natural resource, the sun, through photosynthesis by forage plants could be used more efficiently. There was also considerable interest in the increased efficiency possible through the use of genetically engineered growth hormone.

Some of the specific people I talked with after the seminar or later in the week (November 5-9) who asked questions about related work in the United States and the application in China were the following people who gave me their cards:

Chen Youchun, Professor  
Institute of Animal Science  
Chinese Simmental Association  
2. Yuamingyuanxi Road  
Haidian Malianwa  
Beijing, China
Dong Szecheng  
Senior Animal Husbandry Expert  
Bureau of Animal Husbandry  
Ministry of Agriculture Animal Husbandry and Fishery  
He Ping Li  
Beijing, China

Li Song Sun  
Director, Associate Professor  
Agricultural, Animal Husbandry Bureau  
Zhangye Prefecture, Gansu Province, China

Xiong Han Lin  
Centre Director  
Beijing Dairy Cattle Research Centre  
China Dairy Cattle Association  
Beijing Municipal Dairy Cattle Association  
Qing He Nan Zhen  
Beijing, China

Qin Zhirui, Professor  
Institute of Animal Science  
Chinese Academy of Agricultural Science  
Malianwa, Haidian  
Beijing, China

Zhao Hai-Quan  
Secretary-General China Dairy Cattle Association  
56 Zhuan Ta Lane  
Xisi Beijing, China

Zhao Shiru, Machinery Engineer  
China National Corporation of Animal Husbandry and Veterinary Pharmaceuticals and Instruments  
No. A10 Yang Yi Hu Tong  
Dongdan, Beijing, P. R. China

Zhou Dingnian, Associate Professor  
China Dairy Cattle Association  
56 Zhuan Ta Lane  
Xisi Beijing, China

Zhu Yuding, Associate Professor  
Institute of Animal Science  
Chinese Academy of Agricultural Sciences  
Malianwa, Haidian  
Beijing, China

In addition I was in contact with faculty at Agricultural Universities in Beijing, Yangling (Northwestern), Nanjing and Inner Mongolia. There was a specific request to set up a more permanent arrangement with Beijing
Agricultural University in this area, as well as to give a series of lectures and demonstrations at other agricultural universities. These universities and associated dairies and artificial insemination centers will serve as the nuclear herds for multiplication and improvement of the dairy cattle of China. Brief discussions of the need to relax restrictions on international transport of frozen embryos were held, as this permits dissemination of superior livestock genetics without the great expense and risk of the spread of diseases.

High priority should be given to expanding the exchange of personnel to further train the Chinese technical people in this area. They are very able, conscientious and industrious, and with some assistance will be fully competent to apply programs of livestock improvement through biotechnology and transfer of embryos.

Other Contacts and Experience at the Agricultural Universities in Beijing, Yangling and Nanjing

The three universities visited are three of the leading agricultural universities in China. A total of 11 lectures were given to the animal science and veterinary faculties and graduate students at these universities. Each lecture consisted of a lecture for about one hour, a break, a second hour of lecture and a period of discussion. The total time for each session was about 2.5 hours. After the formal sessions there were additional informal conferences with faculty at lunch or in the evening.

The lectures covered a variety of topics with the emphasis on dairy cattle. Topics included current research and application in artificial insemination in the U.S., evaluating animals for breeding soundness, endocrine causes and treatment of infertility in cattle, embryo micromanipulation, genetic engineering and embryo transfer. Also, we discussed teaching and research strategies at American universities.

Dairy farms and bull studs were visited. The highest producing dairy herd in China is the one set up in conjunction with the Swedish supported Dairy Training Center at Beijing. The herd average is 8,000 kg of milk. Through these visits and discussions some first hand impressions of the status of the dairy industry and the needs in China were gained. This subject also is discussed by Chinese authorities in the papers listed at the end of this report.

Finally we discussed furthering cooperative efforts through the exchange and training of personnel and the importation of U.S. cattle genetics through frozen embryos. The group at Beijing is especially desirous of setting up arrangements which will lead to long range cooperation. They will be one of the leading centers for seedstock through their dairy and bull stations nearby. The same situation applies to Northwestern Agricultural University and Nanjing Agricultural University. Cornell has an agreement with Nanjing Agricultural University. This Agricultural University is growing and building extensive new dairy cattle facilities. Northwestern Agricultural University also will be a livestock
seedstock base. West Germany has cooperative programs with several of these universities.

Conclusions

An intensive three-week program of lectures and discussions at the invitation of the Chinese from three major agricultural universities supplemented my participation in China's Agro-Expo '87. It is clear that China has enormous needs and desire to improve nutrition, especially of children, through development of an expanded genetically superior national dairy herd. The Chinese universities and cattle breeding organizations have highly competent people, but lack some of the technology developed in recent years. They desire to move ahead as rapidly as possible, recognizing that a major void was caused by the cultural revolution.

The Chinese Government is sponsoring the training of animal scientists in the USA. Two more from the Institute of Animal Science, Chinese Academy of Agricultural Sciences are being sent to Cornell in 1988, for example. This arrangement was finalized during my visit to China. More funds are needed, including U.S. funds to help secure a continuing program.

We need to have American technical experts spend considerable time studying Chinese culture and tradition, as well as time in China. An American who went through such a Ph.D. program in the early 1970's and came to China in 1979, where he has lived ever since, sat next to me on the plane from Tokyo to Beijing. He speaks Chinese fluently and assists in negotiations between such companies as General Electric and General Motors (and others) in working out possible co-sponsored industrial ventures. He said the major weakness of American businessmen is that they try to do business totally from an American perspective and they would be more successful if they had an appreciation of the Chinese philosophy.

China will someday be a major power of the world. Our participation in a partnership which establishes people to people trust, that in time involves people who move into responsible government positions, would seem to be of great importance, especially in agriculture. Currently about 800,000,000 Chinese are engaged in agriculture. I have been invited to return to China at anytime, partly at China's expense. I would find this challenging if the plan has enough continuity to provide a base for likely success.

Selected List of Documents Reviewed


An, Min. Remarks on Food Production in China. 5 pp. Mimeograph, Beijing Agricultural University.

An, Min. Livestock Development in China During Nineties. 9 pp. Mimeograph, Beijing Agricultural University.


Appendix I. Papers Appended.


Appendix II. Itinerary and Official Persons Contacted at the Agricultural Universities (All Professors or Ph.D.'s)


An, Min, Professor, Department of Animal Science, B.A.U., Yuan Ming Yuan, West Road, Beijing

Chen, Youchun, Director, Institute of Animal Science, 2 Yuan Ming Yuanxi Road, Haidian, Malanawa, Beijing.

Dong, Wei, Professor, Department of Animal Science, B.A.U., Yuan Ming Yuan, West Road, Beijing

October 27-29, Northwestern Agricultural University

Zhang, Yua, President, Northwestern Agricultural University, Yang Ling, Shaanxi, P. R. China

Quian Jufen, Professor, Department of Veterinary Medicine, Northwestern Agricultural University.

October 31-November 3, Nanjing Agricultural University

Liu, Da-jun, President, Nanjing Agricultural University, Weigang, Yat-sengate, Nanjing, Jiangsu
Xie, Chengxia, Professor, Department of Animal Science

Cheng, Ruihe, Professor, Department of Animal Science

Han, Zheng-Kang, Professor, Section of Animal Physiology, Department of Veterinary Medicine

November 4-9, Agro Expo 87 and Beijing Agricultural University

Also contacted Zhu Yuding, Director of Animal Reproduction, Institute of Animal Science, Chinese Academy of Agricultural Sciences regarding exchange of scientists Jiang Shie and Li Chang.
Addendum to Chapter 18
Traveling Through Parts of China
Robert H. Foote, June 1990

Background: History and Geography

China's recorded history starts more than 4,000 years ago with the Xia Dynasty, which lasted nearly 500 years (21st to 16th century, B.C.). Many dynasties of various lengths followed until 1911. In 1912 the Republic of China was founded and this was replaced in 1949 by the People's Republic of China.

The Chinese civilization developed early and was noted to be one of the foremost in the world for centuries. Art flourished. The Chinese historically have had a great appreciation of form and color and the natural beauty of water, trees, flowers and shrubs. Marco Polo, a 12th century Italian explorer, famous for his travels eastward along the "silk road," described Hangzhou as "the most beautiful city in the world." Earlier, rulers in China had sent emissaries to the west to open up trade routes. These routes covered great distances, passing through terrain ranging from very hot and dry areas at the edge of great deserts to mountain passes where towering peaks are covered with snow the year around.

China has contributed many important inventions to world society, ranging from the compass to gun powder. China is struggling hard to regain a position of leadership among developed nations of the world, having to recoup severe losses in development during the cultural revolution. This problem is compounded by the enormous population (1.2 billion), an increase of more than 500,000,000 people in the last 50 years. Also lack of rainfall and limited arable land are severe hindrances to development.

Geographically, China stretches 3,400 miles from north to south and 3,100 miles from east to west, making it larger than the United States and exceeded in area only by the Soviet Union and Canada. The total land area is $3.7 \times 10^6$ square miles. About 23% of the world's population live in China, being very sparse in the grasslands and semi-arid regions with nearby towering mountains and very densely populated in other areas. However, the range in latitudes and elevation permits China to cultivate numerous crops, and the coal, other minerals and gas reserves are large.

Major Challenges

Bulletins available from the Chinese Government emphasize the need for controlling population growth, increasing electrical power, development of more manufacturing capabilities and technology, building transportation and marketing systems, increasing the education of the rural community and increasing labor efficiency. Hydroelectric power has been developed. More is needed but opportunities are limited. The enormous coal reserves are being utilized partly to generate electric power. Atomic power plants are under construction, but none will be operational before 1992.
The animal husbandry improvement of cattle, sheep, goats and swine have received major attention. Stopping the desert encroachment and improving grassland areas are high priority items also.

Controlling population growth is very difficult. China has a good health program and baby survival is high. Rural families want boys to stay home on the land and migration to the city is prohibited. As 80% of the population is rural, strictly controlling the other 20% to a limit of 1 child per family does little to prevent population growth. Nevertheless the country is trying to control this problem.

Areas Visited

The combination seminar-agricultural explorer and tourist trip took me first to areas surrounding Shanghai and Hangzhou. Then it was on to Inner Mongolia with a variety of talks at the Inner Mongolia College of Agriculture and Animal Husbandry. An airplane and a jeep took me to Huhhot and Xilinhot, southeast of Huhhot. Travels by jeep into the grasslands and later to the edge of the desert west of Huhhot enabled me to see various types of cultivated crops, rangeland and semi-desert conditions. Then a flight to Urumqi, Xinjiang Autonomous Region provided an opportunity to glimpse another area in northwest China. Back at Beijing I spent the last few days. Most important near Beijing was my visit to the National Machinery Center where Joan Hinton and Sid Engst have been developing and testing labor saving more efficient equipment for cropping and dairy cattle management, as well as using A.I. and E.T. They have been doing this since the 1940’s. William Hinton, famous for his work in China the past 50 years, is Joan Hinton’s brother.

Other General Observations

People are very friendly. People are healthy and strong. Young women wear gaily-colored dresses while biking expertly. Everyone bikes expertly and rides easily also on the back of a bike as a passenger. Personal hygiene appears to be strongly maintained. Motor vehicle traffic is high, with coal, farm produce and other products moving along limited main highways. Bicycles and a few motor bikes, plus buses are the major source of local transportation. Drivers are very skillful. To avoid accidents, as they weave in and out of traffic, the horn and brakes are in constant use. People develop the ability to "sit on their heels" as they wait for buses, etc. They develop patience and physical strength. Donkeys are used very extensively, especially in dry areas. They know the way, and a driver on top of a load of produce may snooze as the donkeys plod along. Small tractors also haul heavy loads to factories and markets.

Trees, especially Poplar trees, some Maples and Scotch pines are planted by the millions. These provide windbreaks and hold soil in arid areas. They provide shade everywhere. City streets usually are lined with trees on both sides of the road.

Piles of bricks are everywhere. People are constructing new homes. Bridge and road building and repairs are regular sights. Many roads are
broken up in places. People are on the move, but foreign investment is badly needed to build and equip the needed facilities. Some areas, such as in Beijing, enormous construction is plainly visible. A new sports center to house the 11th Asian Games in September 1990, is beautifully designed. A whole city, such as Shihezi has been built in arid land in the past 50 years. Melting snow, channeled into poor grassland areas, has made it possible to build a new city with trees, gardens and cropland. Everything must be irrigated, but with water and the intense sun, photosynthesis converts CO₂ into enormous areas of vegetation for man and beast. There are enormous problems to put natural resources and 1.2 billion people in balance with the environment, but the Chinese are "determined" people.
Daily Travelogue of Travels by R. H. Foote
To Taiwan and Mainland China May 28-June 28, 1990

May 28-29. To Taipei via Northwest Airlines from Syracuse, Detroit and Seoul, Korea.

May 30-June 1. 5th AAAP Congress on Animal Production. I gave a major paper and two short ones. The major one was "Use of Reproductive Biotechnologies to Solve Problems of Reproduction of Farm Animals." I saw many former Cornellians from different countries, such as Luis Iniguez, project leader of SR-CRSP in Indonesia, and others from Taiwan, South Korea and Japan. In the evening I was invited to concerts at the new concert hall.

June 2-3. Hong Kong to Shanghai. Just a stopover.

June 4. Institute of Cell Biology in Shanghai, with a seminar on "Embryo Co-culture." This lab (Prof. Wang Ya-hui) is one of the best in China in cell biology. It has 19 sections. The staff is excellent. Facilities per staff member are short, but staff are resourceful. The lab has started an International Journal on Cell Biology in English. The afternoon was spent shopping. Large department stores are well-stocked. People are buying items. I also saw the place where a picture was taken in 1913 and sent in 1913 to a college classmate (my mother) by an American friend teaching in Shanghai.

June 5-8. Visiting relatives of Chinese who have been at Cornell (Yu Qi Chen's husband, Dr. Xu, Zhi Xin, Zhao Ping and other relatives). They all invited me to their homes in Jiaxing and insisted I eat too much. The driver who took us around (Xiao Ming Yang) was also a part-time police officer. So when traffic was heavy he put on his flashing lights and siren to clear the way. He had fun and was careful. People, would look and see an American in the car. I don't know whether their thoughts were good or bad.

In Jiaxing I visited a large swine testing station. Native Jiaxing pigs are involved in 3-way crosses with Durocs and Landrace. Litter size is large. Boy pigs are distributed to farmers. Hogs for meat go to Hong Kong at 90 kg.

Hangzhou was gorgeous. The West Lake with flowers and islands is scenic and restful. We stayed at a beautiful spot at the Hangzhou Xihu Hotel. Chairman Mao spent some summers here and Kissinger and President Nixon stayed here on the first visit to China. Agreements were signed here restored relations between the two countries. No ordinary Chinese stay here I would guess, as we, along with a few others, were the only occupants. Marco Polo called Hangzhou the most beautiful city in the world. I took pictures of many scenic views and tourist attractions. These included South Lake (Nanhu) and West Lake. A boat where the Communist Party of China was finally organized in 1921 is at South Lake. We also visited huge caves in Ling San (= mountain), where limestone had
been eroded for millions of years. Nearby stone quarries were busy, as loads of stone hauled by small tractors moved endlessly to sites of road and other construction. People were tilling cultivated crops (various types of vegetables, rice, cotton and corn). Others were gathering water chestnuts. Silkworm production is high and loads of cocoons were headed to a silk factory before the larvae pupate. One is impressed with the tree planting along the roads and other areas where cultivated crops are not grown.

Also we visited the largest Buddhist temple in South China (Lingxin Si). Most temples were destroyed in the cultural revolution and remaining ones are not very active. Many pictures were taken of life, culture and tourist attractions. After this my trip was agriculture mixed with visiting historic spots in the vast areas of Inner Mongolia and Xinjiang Autonomous Regions.

June 8. To Shanghai by car and Huhhot by plane.

June 9-11. Visit administration, President Wu Ni, Dalai and other members from the Foreign Affairs Office, and discuss Inner Mongolia College of Agriculture and Animal Husbandry. We toured facilities. Faculty and students all live close to the campus. A campus loudspeaker gives news and sounds a gong at 6:00 and 7:00 a.m. Many students have radios also and listen to foreign broadcasts.

I gave three lectures and/or seminars (each 2 1/2 hours with a break and questions). The classroom was more than full. Attention was miraculous. Translators such as Tian were excellent. Many students understood at least the written English. Prof. Chen clarified several points. All grad students were helpful. A person with great knowledge of the area who went to all the places and answered many questions was Prof. Wang, ShouQing.

Also, I took square dance tapes and calls. I ran one session on square dancing. The room was packed. The book of calls and tapes stayed at Huhhot. In between I visited museums, temples and had huge dinners. Also Dr. Chen insisted I eat more breakfast and more lunch (enough to feed a horse I told her) at her apartment. Her husband (Prof. Zhixin Xu) is a Professor of Grassland Agriculture. I learned from helping him prepare a manuscript in English on "The Productivity and Developing Trends of Inner Mongolia Rangeland."

There was always laundry to do, preparation for the next day and visitors. Usually a night’s sleep was from about 1:00 a.m. to 6:00 a.m. One night, after being caught in a sandstorm-rainstorm far from Huhhot, there were zero hours of sleep, as my plane left that morning for Beijing.

A new large provincial A.I. station near Huhhot is involved in freezing semen, especially from Holsteins. They also do some Holstein embryo collection and transfer work and want to import embryos.

June 13-15. Fly to Xilinhuo from Huhhot and then by 4-wheel jeep along a very rough "cowboy ride" to the Inner Mongolia Grassland Ecosystem Research Station, Academia Sinica." Here the roads end and all driving was across
rangelands where studies are in progress on 1) the ecosystem, 2) changes naturally over time, 3) improvements from fencing and controlled grazing, 4) seeding and limited fertilization, and 5) cutting vs. grazing. They have an excellent photosynthesis laboratory. About 40 researchers spend the growing season there. Water is the limiting factor, with about 14" (350 mm) of rainfall and 60-80% of this in June to August. Rodents, grasshoppers and larks are the major non-plant forms of life, other than grazing cattle and sheep and a few horses. Research funding is available, but limited (350,000 yuan, or about $75,000 total for the year). Of course all wages are paid by the Province or Federal Government.

Several legumes do well. Alfalfa is used. Certain varieties of shrub or grasses are suitable for harvesting for rabbits. Some grassland areas may be leveled for cultivated crops where there is adequate water. Incidentally I saw practically no Mongolian Yurts (house or large tents). Brick homes are replacing these.

**June 14-15.** Back to Xilinhaote (Xilinhhot) by jeep and to Huhhot by airplane. I hope my pictures while speeding over rolling grasslands (no road) come out. Xilinhaote is a frontier town and a place where meat, fleece, hide, milk and other products are processed and finished products as frozen meats, carpets, etc. are produced.

**June 15-17.** Visit agriculture, desert, new land reclamation projects, Chengjisihan (Genghis Khan) tomb, cashmere factory, etc. The history of Genghis Khan, the great Mongolian leader who united China and ruled over Turkish and Tartar tribes and much of Asia in the middle ages is portrayed here.

On the road to Dongsheng many summer beekeepers with their tents and numerous hives were every few kilometers along the roadside. Huge fields with hundreds of plastic greenhouses dotted the countryside, along with irrigated fields of corn, wheat, millet, barley, potatoes, cabbage, onions, sugar beets, tomatoes and other cultivated crops. Sunflowers were planted among rows of wheat.

One begins to sense the huge problem of drifting sand, soil erosion, lack of rainfall and intense sun, causing surface evaporation. Once we got stuck (even with 4-wheel drive) in sand where a bridge was out and the bypass was through "drifts" of sand.

At the tomb of Genghis Khan, several Mongolian people were in native costumes. At lunch we had typical Mongolian toasting with individual singing; a toast to each person. There was always lots of toasting. I was treated royally.

We passed thousands of square kilometers where trees have been planted, shrubs planted by seeds distributed by helicopter, and other attempts to push back the desert. One type of shrub has an odor until July that goats don't like, so they can graze other plants until July. Then they are stopped from grazing and the plant is cut for hay. We passed many goats and sheep (300,000 of each in that area). The sheep are especially
the fine wool type. One of the largest cashmere factories in the world is there (joint Chinese-Japanese venture).

The Cashmere factory has invested in reclaiming a large tract of land (4,000 hectares) to handle about 10,000 goats to produce 350 g per goat of fine wool each per year. This is all fenced in with 600 meters of trees at the periphery. Although rainfall is only 250 mm (10 inches), the water table, a few miles from the Yellow River, is only 2 meters down in most of the area. They are leveling, irrigating, planting shrubs and grasses and some cultivated crops. This has all been done since April 1988.

To get to this farm we drove about 6 hours across bumpy roads, forded one river with the road washed out and crossed the Yellow River in a small boat. Some of these roads take a beating with heavy truck loads of gypsum, coal and other products. At the end it was no road, just across "prairie" land. On the way back we were caught in a quick thunderstorm with high winds, blowing sand, and then blowing sheets of rain. Bicyclists and motorized vehicles were struggling along the windswept road after dark. This is the night we returned to Huhhot in time for me to respond to an emergency FAX on a grant from Cornell, pack my clothes to leave Huhhot and leave for the airport with 0 hours rest. Obviously, there is much more to see and learn (next trip).

Summary on Inner Mongolia Autonomous Region

Inner Mongolia is located in Northeast China, extending east to west 2,400 km (1.18 x 10^6 km^2) with a rangeland of 0.88 x 10^6 km^2. This is the largest grassland area in China. The latitude is from 37° to 53°N. This province accounts for 12.3% of the total land in China. With 20,000,000 people, about 1.7% of China’s population, are here. The average precipitation over the region ranges from 50 mm to 450 mm (2" to 18"). Sunshine and water evaporation is high. Winds are strong. About 13.6% of the area is forest, the second largest in China. Wheat, corn, millet, sorghum, soybeans, sunflower seeds, linseed and beets are major crops. There are 30,000,000 sheep and goats, 8 million cattle and horses, and 5 million pigs. Milk production is 250,000 tons. Wool production is 51,000 tons, and the wool industry is a major one.

Coal and minerals (especially rare earth metals) are abundant. Batou essentially is a steel producing city. The transportation system is improving, but is underdeveloped. More industry can be developed with the proximity to coal. The great grassland can become more productive with controlled management. The people are optimistic despite many problems.

Xinjiang Autonomous Region

June 18. Airplane from Huhhot to Beijing. Short meeting in Beijing with Prof. An Min who was chairing a National Research Council meeting and then back to the airport to catch a plane for Urumqi, Xinjiang. We arrived in Urumqi (pronounced Uilumuqi) late, but China is all on Beijing time. So the work day is 10 a.m. to 2 p.m., 2-4:30 p.m. a siesta, and 4:30-8:30 p.m.
June 19-24. In Xinjiang Research at the Institute of Animal Science, Chinese Academy of Agricultural Science (Dr. Guo). Traveled to a large Holstein Farm using several generations of Holstein bulls on native yellow cattle, along with Simmental and a few Brown Swiss. They are producing embryos from their best cows and using the embryos themselves or selling them to others for 200 yuan (about $42). It costs about $32 to produce an embryo.

They are doing research on freezing and splitting embryos, and even obtained a pregnancy on a blastocyst split 4 ways. They are interested in sexing embryos and sperm also.

Others are working on gene transfer in cattle and pigs. Considerable research on sheep embryo transfer also is ongoing. Dr. Guo has a finger (surgical, but no suture techniques) for E.T. in sheep. They are doing crossbreeding and selection of Merinos for wool and other breeds of sheep and goats for carpet and cashmere production.

The Xinjiang Academy of Agricultural Reclamation, Institute of Animal Husbandry and Veterinary has 304 scientists and technicians. I met also with faculty of the Xinjiang Agricultural College and the Xinjiang Academy of Agricultural Science.

While I discussed (seminars) animal reproduction and biotechnology, I heard about projects on nutrition, grassland agronomic problems, ecological studies, veterinary research on diseases (vaccine for foot-and-mouth disease), etc.

Also I went to Shihezi and gave a seminar on animal reproduction and biotechnology of reproduction and growth. This city was built in a very arid semi-desert region 40-50 years ago. Melting snow provides water for a relatively modern city, new buildings, streets lined with trees and irrigated fields. They do turn the water off from about 11 p.m. to 6 a.m.

Dr. Guo, director of the institute where Jingbo Chen (at Cornell with me 1987-88) works, has a small very active group. They do IVF, sperm capacitation, freezing, embryo splitting, E.T. and cooperatively work on transgenic animals.

For 2 days we drove into the hot (45 - 50°C) arid areas of ancient Gaochang and stayed in Turfan. It is so dry that people buried underground long ago still have skin intact. We saw ancient abandoned cities (ruins of Jiaohe), the beautiful Emin Minaret (Moslem) at one of the abandoned cities. The Flaming Mountains, Salt Lake, the Thousand Buddha Caves (along one of the silk routes) and the Valley of the Grape Vineyards. They make excellent wine and dried grapes in this area. They said this was envied by some Californians.

Outside of this stream-fed valley, water is very scarce in many areas. Most water comes from melting snows. They have underground canals (or irrigation ditches) which must be kept open regularly as they are soil-
lined (no pipes). These ditches bring water a long ways form the mountains to prevent evaporation before surfacing at the fields of cultivated crops.

Another large farm about 70 km from Urumqi had Holsteins and Simmental cattle. The Holsteins average 8,200 kg of milk and the Simmenthal 7,000 kg of milk. These cows are next to the experimental herd of Dr. Guo and Jingbo Chen and are partially involved in E.T. studies. Identical twins by embryo bisection were there.

The new city of Shihezi, west of Urumqi was very impressive. It was really green. Beautiful tree-lined streets, new buildings and busy people characterized this city built in an arid area, using water from melting snow. They do practice water conservation with all water shut off at night. I gave a 2 1/2 hour seminar and discussion there for the Academy of Agricultural Sciences and College combined. A very good discussion followed the two 1-hour lectures. Much work on freezing ram semen has been done.

On the cultural side one is struck by the fine and different features of the many ethnic groups. They are people with smiles, friendly attitudes and gaily colored clothes worn by many of the women. Each group tries to outdo the other in feasting the guests. Watermelons and hami-melons (similar to our muskmelons), apricots and other fruits were especially delicious. They said come later in the season for even better melons.

Back in Urumqi I visited another A.I. and E.T. station and gave another talk. Holstein and Simmental bulls predominated with a few Brown Swiss. They also freeze semen from Xinjiang Merino rams and a long hair local breed of sheep. They are shifting from pellet freezing to straw freezing with new Cassou (I.V.M.) equipment. Alfalfa hay is chopped as the chief source of feed for bulls, but with some concentrates added.

Summary on Xinjiang Autonomous Region

This vast area had 13,000,000 people at the last census, of which nearly half are Uygurs, with 12-47 minority groups, depending on the classification used. There are six languages, including Chinese. It’s an important crossroad in history.

Xinjiang is the largest region in China, totalling 1.6 x 10^6 km^2, which is 1/6 of the area of China. The population is about 13 million or 8 persons per km. However part of the area is desert with land ranging from below sea level to Mount Qogir (8,611 meters). The grassland area covers about 7,000,000 km^2. There are about 33,000,000 livestock (23,000,000 sheep), with a potential from grazing land of 60,000,000 sheep goats and cattle. There are about 4,000,000 goats. Also there are 3,000 cattle, 160,000 camels and 120,000 yak. Aquaculture is being developed. Besides cereal grains and vegetables cotton, tobacco, tomatoes and many excellent fruits are grown.
Coal, fertilizer and other mineral reserves are high. Water is short. Windpower harnessed through windmills would seem to be beneficial as winds blow fairly steadily. Can solar panels be used in desert areas?

**June 25 Beijing.** Fly back to Beijing and also shopped briefly. Prof. Ma was especially helpful with a car and meals in his apartment. Prof. An Min took time off from a National Research meeting to have lunch with me and again dinner at his home.

**June 26.** All day with Prof. Zhu Yuding and associates and with Joan Hinton and Sidney Engst at the National Farm Machinery Center where they have been building and testing farm machinery for years. The emphasis has been on dairy management, easy feeding, cleaning and milking in a milking parlor. The goal is labor efficiency and a high quality product. On ordinary dairy farms they said there was one person for each 6 cows. I think here there are around 20 cows per person. They also do A.I., freeze semen and do E.T. studies. Dr. John Hasler from Em Tran has helped them considerably.

We also discussed the work at the Chinese Academy of Agricultural Science, Institute of Animal Science. Prof. Zhu Yuding’s group has made good progress in IVF, embryo splitting and genetic engineering. They have transgenic pigs with growth hormone using both microinjection and sperm as vectors. Dr. Zhu Yuding’s wife, Prof. Jiang Shi-e is in our laboratory.

**June 27.** Final errands at the American Embassy to help Chinese friends, final packing and off to Tokyo, Detroit, Syracuse and Ithaca.

**Conclusion**

This was an extremely busy and informative trip. Obviously, there is much I don’t know. Not speaking Chinese is a handicap, despite many Chinese wanting to help by translating as much as possible. Needs for 1.2 billion people are very great. Determination of the Chinese to meet these needs and develop technology to compete on the world market also is very great. Large areas of grassland can be developed to accommodate more crops, animals and people. Water is very precious, power is limited and education in the rural areas is limited (although I saw children walking kilometers to school). Capital for equipment and major development is extremely limited. However, where there is a will, there is a way! It is unfortunate that the tumultuous times affecting the political area has a negative effect on aid for the people who are struggling to move upward with the goal of making China a country with a noble future consistent with its rich and vital history.
Grassland Areas

These areas are huge. Rainfall is limited. Prof. Xu states that in Inner Mongolia annual precipitation is from a low of 50 mm (2") to a high of 450 mm (18"). Nevertheless by controlled grazing of areas, fencing areas for cropping and increased use of available water, there are many plant species well-adapted which can be fostered and productivity increased for sheep and cattle. The current average yield is 1.8 kg of beef and 0.7 kg of wool per hectare. Unfortunately, due to overgrazing, production has tended to decrease. Government permits and grazing charges and penalties for abuse have been implemented.

Fencing has been shown to increase productivity three-fold (up to 5-10 x under exceptional circumstances). This helps to facilitate controlled stocking rate. A third effort is reseeding and planting trees as windbreaks, especially close to the desert. A fourth effort is soil loosening to assist rhizome-producing grasses in spreading. Finally, continuous selection of the best adapted most productive sheep and cattle is being practiced, but needs further resources and development.

Some of the flatter areas near streams can be restricted for irrigation. With intensive sunshine, irrigation and chemical fertilization produce good yields of cultivated crops.

In Xinjiang Autonomous Region the principles seem to be similar. There is more desert, but there are highland pastures and with higher mountains there is water in the summer from melting snow. Goats for cashmere production also are a more important species than in Inner Mongolia.

Animal Research

I visited the animal reproduction units of the colleges and institutes. These are set up as divisions separate from the grassland and agronomic units, although people knew each other; I presume that there is some collaboration.

The animal reproduction units are focused on further development of artificial insemination, especially of cattle and sheep with the use of frozen semen from selected bulls and rams (different breeds with different fleece characteristics). The effort in cattle is especially to improve milk production for fresh milk in cities and the production of dried milk. Holsteins, Simmenthal and a few brown Swiss bulls have been used to cross with native yellow cattle. Holsteins lead the others in milk production per cow per year. I saw small groups of mixed breeds grazing. Most of the large herds I saw were government operated and were primarily Holsteins.
Research and teaching efforts in reproduction relative to A.I. have been training inseminators, teaching people how to detect estrus, testing methods of freezing ram and bull semen and testing methods for inseminating ewes. They report 65% conception rate in ewes with one insemination of fresh semen and about 55% with frozen semen.

The research labs are focusing on (1) in vitro fertilization, (2) embryo splitting, (3) embryo sexing and (4) embryo transfer. The idea, with inexpensive labor, is to disseminate Holstein genetics especially more rapidly among a larger segment of the cattle population. This would seem to be a worthy goal as they can produce milk quite cheaply in these areas. There is a demand and there is little foreign exchange for import. Also, there is government support for this type of research, including transgenic animal research and the production of products (vaccines, hormones, etc.) by transgenic methodology. Some of this support probably stems from the feeling that developing countries must do these things to encourage young people and to be considered as developing countries.
Addendum to Chapter 18

Brief Account of Trip to China to Lecture, Receive an Honorary Professorship from Beijing Agricultural University (now China Agricultural University) and Learn More About China and its Educational Systems

Robert H. Foote
October 27, 1995

Introduction

The trip to China and Hong Kong from October 4 through October 27, 1995 was financed by myself plus much help at many places by Chinese authorities and friends. Contrary to some administrative reports, Cornell University did not provide any financial support. This has been true of all trips to China.

The objectives of this trip for Barbara J. Foote (my wife) and me were as follows:

1. To receive an Honorary Professorship in conjunction with Beijing Agricultural University's celebration of 90 years of service to Chinese Agriculture.

2. To lecture at several universities and research academies on "Embryo Biotechnology."

3. To exchange ideas with students.

4. To support the Cornell-China program through discussions in Beijing and in Guangzhou (President Wang at Zhongshan University, Guangzhou).

5. To encourage further exchanges of information through networking and through scholarly exchange within China and between Cornell and Chinese institutions.

6. To learn more about the pre-school and primary school educational programs (by Barbara J. Foote).

7. To learn more about China and the relationship with Hong Kong (to be returned to China July 1, 1997).

8. Other activities included discussions with Chinese joint venture companies and possible future development.

In the process of meeting various persons around China, I distributed 75 business cards, 25 monogrammed pens and 20 more valuable mementos. Thank you letters have been sent to 24 persons in China.

Beijing Agricultural University, October 5-11, 1995

The days in Beijing were filled with the 90th Year Celebration at Beijing Agricultural University, the Honorary Professorship Ceremonies, and discussions with President Mao Daru and others. In addition, we were treated to a variety
of excursions and dinners overflowing with food. We received royal treatment. For details of the formal activities see various programs and the report to Cornell University by J. Haldeman. I gave a seminar to a room packed with students on Embryo Biotechnology. There were several questions by students and staff during the 2.25-hour session. Jiang Shi-e came after the seminar. Dr. Cheng Pelieu’s daughter Zheng Xing was there.

In addition, I visited the laboratories for reproductive physiology research. These were modestly equipped for embryo micromanipulation and cryobiology. Limited cooperative research had been done by one of the graduate students and Prof Guo (Urümqi) in the area of making transgenic sheep.

We visited former BAU president, Professor An Min twice. He is very alert. We had a great, "touching" time. He is full of smiles and can feed himself, but recovery is slow.

Wang Yang Shen, a graduate student in the Animal Science Department met us at the airport (we arrived 4 hours late on a delayed flight), and provided excellent help as a guide and translator. We are indebted to him for all the time he shared with us.

We were also tourists. We visited the Great (Long) Wall, The Forbidden City, Summer Palace and Ming Tomb.

Inner Mongolia College of Agriculture and Animal Husbandry, October 12-14.

This visit was a short one. We gave a seminar to a packed room of nearly 100 students and staff. Dr. YuQi Chen discussed the pig and sheep farming operations to obtain money for the college. Also, she discussed doing more collaborative research with Prof. Guo at the Xinjiang Academy of Animal Science.

YuQi took Barbara to see the pre-school and primary school programs at the College for children of the staff. She visited several classes and was impressed with the program and the discipline of the children.

Again we were royally treated with excellent accommodations and meals-one at YuQi’s home with her husband chef, Prof. Xu.

Xinjiang Academy of Animal Science, October 14-17.

We had an excellent time at the Sheep Farm and Biotechnology Laboratories up in the mountains. We saw sheep and goats grazing and learned more about their seasonal grazing areas. There are about 30,000,000 sheep and goats in Xinjiang Autonomous Province.

The procedures for recovering embryos and freezing sheep embryos were demonstrated. Likewise the 2-3-minute procedure for the actual transfer of embryos to the sheep uterus was demonstrated by Dr. Guo.

We saw many (76) transgenic sheep that resulted from using spermatozoa as the vector for carrying the gene into the oocyte. They have used both bSTH
and hSTH gene constructs. The first results were 2.3% incorporation (measured by southern blot) and now about 7%. The gene is expressed in the mammary gland, but the yield in milk is only about 100 mg/Liter. In the future Prof. Guo will study incorporation of a gene construct for insulin, and he plans to start work to produce pigs as organ donors.

Prof. Guo’s laboratories are extremely well-equipped with multiple copies of good microscopes, micromanipulators, PCR’s, centrifuges, spectrophotometers, gel electrophoresis equipment, cameras, video equipment, etc.

Along with Jingbo Chen, a Chinese scholar who spent two years in our labs, they have access to large numbers of dairy cattle, sheep and goats. They have excellent results from embryo transfer (80% pregnant, 140% lambing rate with the transfer of 2 blastocysts per ewe; 60-70% pregnancy rate in cattle with fresh embryos and 50% with frozen embryos). With 1700 cows in the field (some of poor quality) they obtained approximately 800 progeny.

They train inseminators to work with sheep and others with cattle. They have dairy herds producing as much as 8,000 kg of milk. Prof. Guo wants to establish a joint venture to expand the dairy cattle work. He stated that there was an excellent market for milk at the Chinese cost of production. Also embryos (by IVF and by superovulation) and frozen sperm can be marketed. He invites any company to come and see his program and plan a joint venture. I can supply more information to interested parties.

The Xinjiang Academy of Animal Science is in a relatively new building. It houses the China-Australia Sheep Research Project. I saw the various projects on sheep breeding, measurement of fleece yield, fiber diameter and other measurements of fleece quality. In addition, I visited the laboratories where Dr. Guo’s staff is doing research on sheep and cattle. These are in addition to the sheep field station in the mountains.

We had a gorgeous view from our field station quarters of the beautiful mountains with sheep grazing on summer pasture, ready to be moved to winter pasture (where there is snow to "drink"). Snow was falling on the higher mountains while we were there. We had the unique opportunity to attend pre-wedding festivities in a Kozak tent home and took pictures. Also, while in Ürümqi we had one day to visit the beautiful Hongshan (red mountain) park on a hill, see a large Christian Church being built and time to shop.

Guangzhou, October 18-24

South China Agricultural University and surroundings. We stayed at the guest house, as we did at other places. This made it very convenient to be near our place of "work and play." We visited the Bureau of Animal Husbandry and the ostrich, pheasant and poultry farms. The ostrich is a new venture. The claim is that the ostrich digests fiber well and an inexpensive ration can produce 1 kg gain on 2 kg of feed. Growth rate is phenomenal. They expect the price of meat to be competitive with pork. I suggested they try turkeys. They said "Perhaps, but we have to learn to like turkey meat." They have learned to eat a lower fat pork. We also visited a new bull station at the Dairy Research Institute. I went over details of semen processing and extenders.
(They use egg yolk-citrate and egg yolk-tris, both developed at Cornell University, so I was very familiar with these.)

At South China Agricultural University we gave a seminar with a break and lots of questions (2.5 hours). Then in the afternoon we had a 3-hour question and answer session. It was lively. We visited the campus. We visited the campus - lots of walking. They had a banquet for us. I had fun with chopsticks the whole trip. Barbara struggled a bit with them, but was a good sport.

**Zhongshan University**

We had an excellent tour of the Zhongshan University (Sun-Yatsen University) campus. We met with President Wang Xunzhang. He is leading a strong biotechnology program. A new building has recently been finished. The money came from a wealthy Hong Kong businessman who graduated from this university. It is a lovely campus, completely separate from the rest of the city. There are older lovely buildings also built in the style preceding the October 1, 1949 revolution. President Wang was pleased with the first scholar who came back from the U.S.A. to lecture and he looks forward to the new exchange scholars.

**Joint-venture Companies**

We had a fine visit to the Guangdong Chia Tai Conti Ltd. joint venture company. It started in 1987 and appears to be one of the successful joint venture companies. It has a large feed mill, two swine breeder farms, a parent breeder breeder farm and an aquaculture farm. They also are in the egg production business and Leghorns will be for eggs and meat. We saw the very modern feed mill in operation (24 hours of the day). They have 2 hammermills and are adding a third one for pelleting feed. We saw thousands of tons of bagged feed going out on modern highways (built by much hand labor). Three silos hold 9,000 tons of corn, their largest imported feed component.

A summary of a few statistics (in U.S. dollars).

<table>
<thead>
<tr>
<th>1995 expected</th>
<th>1996 planned (10% increase)</th>
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<tbody>
<tr>
<td>Total sales:  $80,000,000</td>
<td>$88,000,000</td>
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<tr>
<td>Feed, metric tons: 240,000</td>
<td>270,000</td>
</tr>
<tr>
<td>Day old chicks: 15,000,000</td>
<td>&gt;16,500,000</td>
</tr>
<tr>
<td>Live pigs: 18,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Net profit: $5,000,000</td>
<td>$5,750,000</td>
</tr>
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</table>

This company also represents the UpJohn Company in China.

**NOTE:** Some of the people here in Guangzhou were the group of 6 that I ran a training program for 3 weeks in 1989. On that trip they established their "DeKalb" contract for the line of pigs they produce. They are looking for new projects with experts from China, the U.S., Thailand, Taiwan and Hong Kong.
Their motto: "Quality first, Credit first and Service first."

Before leaving Guangzhou we had an opportunity to discuss China policies with Professor Liu Fuan. He seemed to feel that most people strongly support what China is trying to do to become a developed country. I think the people are less aware of things like human rights "violations." But with so many people they look at people who violate the law as being ones who should receive severe punishment. Prisoners do work and produce goods. The practical point he said was "The prisoners, like everyone else in China, must try to be self-supporting." There were other discussions, but this report is not a political one. Then it was on to Hong Kong by a very comfortable train.

Hong Kong, October 24-26 (to the plane early Oct. 27).

We enjoyed the parks for walking and learning (greenhouses with tropical plants, others with rain forest types, others with insect eaters, etc). The modern skyscrapers were everywhere. We had a beautiful view of the heavy boat traffic, barges, ferries, tugs, hydrofoils, catamarans, excursion vessels, etc.

We took a Chinese junk ride to Cheung Chau island. It is an island occupied mostly by fisherman. The harbor is packed with hundreds of fishing boats. There is also an old monastery, Pak Tai, being restored there. Life on the fishing boats is relatively poor and the boat people seldom advance in education or job opportunities. There are other islands larger than Hong Kong that are being developed. Lantau island is 1.5 x the size of Hong Kong.

Hong Kong also has some poor areas on the outskirts. It is a city of contrasts as is Kowloon. The shops include elegant ones with fashions from many countries. In these areas the women are fashionably dressed. Men are in dark suits, white shirts and ties.

The history of Hong Kong and the associated opium war has a lot of dark history in the 1800’s relative to British, French and American involvement. China paid U.K. for opium lost, insolvent British merchants, etc. according to a treaty signed 29 August 1842. Various problems continued.

In 1898 Britain signed a 99 year lease with $5,000 (Hong Kong dollars) paid per year. Although China did not recognize this treaty, they have accepted the payment each year. There is a major cost of about 2,000,000,000 HK dollars to maintain British ships, battalions, etc. in this 413 square mile territory (22 miles contiguous with China). Hong Kong pays a majority of this cost, which will end July 1, 1997.

Deng Xiaping stated in 1983 that China would take back Hong Kong in 1997 and he has stated that "Hong Kong investors should put their hearts at ease." Hong Kong has been guaranteed self-rule until 2047 (50 years), but China will determine which laws are proper to enforce.

There is a problem for the Chinese Civil Servants who have British Dependent Territory passports. They need to get British National Overseas Passports to have British protection after July 1, 1997. About 60,000 migrate out each year, but quotas are limited.
There are still 6-7 million people in the 10% of the land area that is relatively flat by the sea. China is investing heavily in Hong Kong and likely there will not be major changes for most in 1997, was my impression. As China develops Shanghai and Guangzhou further, it would seem that Hong Kong will be less important as a trading center for the rest of China in the future.

There are 15,000 non-Chinese refugees and the boat people. China has said that they must go.

Prices are high. A luxury home can rent for as high as 100,000 HK dollars per months (about $13,500 U.S./month).

The preceding is an overview of our trip. We saw much more and have extensive personal notes and pictures.
Chapter 19: Synopsis of Chapters 19, 20, 21, 22 and 25 in the Unabridged Version of the Book in the Cornell Archives and the Hebron Library

From the preceding chapters it might appear that our total job description was to do research, teach, advise and travel. It is true that we were eventually allowed to take 4 weeks of vacation and had several holidays recognized by Cornell. However, with animal research and the use of animals for teaching, care was required 365 days per year. We did not usually have a sufficient budget for animal care. Also student help filling in did not know what to do if an animal became sick, so I stayed close by most of the time. Students gained valuable experience by this mentoring, and I did also.

Teaching and lab. preparation took 5 days per week during the academic year. Saturdays were spent cleaning up the leftovers from previous laboratory exercises and setting up for the next one. Christmas vacation and the intercession were spent writing EAIC and other research reports, plus writing new grant applications. Summers required advanced arrangements to secure goats, sheep, ponies and cattle for the AI course, plus attending scientific meetings, in addition to the daily research.

I did take three trips with the family that lasted about one month each. Most other short family trips were on weekends to family homes in Connecticut, or to scientific meetings. I never took a day of sick leave. At the end of my pre-retirement career I had an operation but I took the days off as vacation. I enjoyed trying to be productive. My efforts totaled at least 4,000 hours per year. How some of this time was spent, in addition, to research, teaching, and advising is chronicled here. The Cornell Archives and Hebron Library copies give more of the seasoning and flavoring, with both struggles and success.

Committees. Chapter 19 in the Archives Book

There were dozens of housekeeping committees over the years. Everyone was expected to share and should share in these responsibilities. On the average several hours per week were spent on planning and holding these committee meetings, as well as writing reports. They are omitted here. Examples of other committees and major assignments are described briefly here.

1. Faculty Committee on Student Affairs. I served on this committee during the Vietnam War era when there was much student and general unrest in the country. The takeover of Willard Straight Hall by Afro-Americans occurred then. Responsibilities, privileges, and ethical and moral behavior were viewed quite differently by individuals and groups within the Cornell community. Cool minds were needed, especially as Cornell presidential leadership was not strong at that time. The unabridged edition includes reports and letters of documentation.

2. Division of Unclassified Students. This was a very useful and successful committee. Talented students who were doing poorly academically because of misguidance or parental pressures in applying to inappropriate Colleges at Cornell were allowed to change their major for a trial semester. Motivation of
most students increased substantially, and academic performance improved dramatically. Then they could transfer, and did so.

3. University Faculty-Student-Administration Forum. This was the first body at Cornell made up of the three University components. It was formed during the 1960s to facilitate discussion of problems associated with undergraduate education and student dissatisfaction of the status quo. I chaired the Forum. We prepared three reports on:
   b. Programs to improve student motivation.
   c. Better student housing.

We worked long hours with excellent students like Paul Wolfowitz, Keith Kennedy, Jr., and John Dyson on the sub-committees. They became state and national leaders. Our reports created positive reaction by the Cornell Daily Sun and student groups. However, we were only a committee with no power except to recommend. About 35 years later President Hunter Rawlings III (probably totally independently) implemented programs similar to our recommendations. As no action was taken by administration following our submission of the reports in 1965, and administrators frequently missed our meetings, I declined reappointment, and recommended that the Forum be dissolved. It was dissolved. I needed to devote more time to research and teaching where my input could have an impact on output. Some of the faculty felt we were used by administration to defuse unrest.

4. Section of Physiology. When the College of Veterinary Medicine decided not to provide training in physiology for nonveterinary students, Professors Tapper, van Tienhoven and I were commissioned to explore and recommend a structure to provide undergraduate and graduate student training in anatomy and physiology. The Section of Physiology resulted, and continued for many years.

5. Buildings. Considerable time in my early career was spent on exploring needs for research facility development. Wing Hall was an office and lecture hall building. There were no wet labs. Bob Bratton and I designed the additions to the New York Artificial Breeders, Inc. labs which were built by NYABC in 1950. These labs were essential for our research (Asdell, Bratton, Foote and Hansel) until Morrison Hall was completed in 1961.

The construction at NYABC was a remarkable example of an instant favorable response with no interference to drag out construction. The Board of Director’s at NYABC was comprised of leading dairymen who knew how “to make hay while the sunshines”. They responded favorably and appropriated the money one day after I described the need to the Board of Directors.

Two barns also burned. The main dairy barn burned, and was eventually replaced with the Teaching and Research Center. An annex to the dairy barn had part of our rabbit colony. We were able to throw the animals out safely into the adjacent tall grass, but all semblances of any controlled experiments were I lost. I cancelled my trip to participate in an international conference in Paris to assist two graduate students in moving ahead with their Ph.D. programs after their loss of experimental rabbits. Nothing happened to replace our lost rabbit equipment until I had the good fortune of being invited to a family picnic at Connie Cook’s home.
She chaired the Education Committee in the State Legislature. Things flew after
she learned of our needs and the long delay. We still had to rebuild our rabbit colony.

The Reed Farm barn burned on July 4, after wet hay caused spontaneous
combustion. Bill Hansel, I, and Dennis Gengenbach discovered this, but were unable
to stop the fire with a garden hose. Dean David Call provided funds to replace the lost
barn with a modern more efficient unit. Thank you Dave. So the time spent in
planning buildings was two steps forward after one step backward.

A later joint plan with colleagues in the Veterinary College to improve the Reed
Farm facility was completed on paper, with partial funding. However, support at the
top to help secure total funding was lacking. In the meantime we lost our calf barn at
the Reed Farm, where we did prepupal embryo studies, to the Vet. School for an
equine research park, and the Mitchell Barn likewise was lost for equine studies.
Good use of these facilities have been made by the NYSCVM, but we had to alter our
plans with reduced animal facilities. This caused problems in meeting commitments to
granting agencies. Also, the loss of the Mitchell Barn, and then the loss of calf barn
near Morrison Hall reduced our ability to give students animal AL practical experience.

6. Undergraduate Research and Honors. There was no program in the College of
Agriculture (now Agriculture and Life Sciences) when I started undergraduate
students on research projects in the 1950s. I suggested to the college
administration that we explore these possibilities. Consequently, I served on
the original committees that established a course for credit for undergraduate
research as well as the honors program. It has given me great pleasure to see
students bloom in these programs, and become leaders.

7. Undergraduate Teaching Assistants. I found that our top students, and we had
lots of them, were very helpful to new students. So I started using some as
undergraduate TAs, paying them a little and writing strong letters of
recommendation when they graduated or applied for jobs, etc. I urged the
college to consider establishing a course for credit for supervised
undergraduate teaching assistants. This was done. Again this addition to the
CALS curriculum has been of immeasurable benefit to hundreds of
undergraduate TAs and thousands of students.

8. Course and Teacher Evaluation. There was no formal evaluation of courses
and teachers. The College of Arts and Sciences had an evaluation of courses.
This evaluation is important in providing information to improve courses,
 improve teachers, and recognize and reward good teaching. I served on early
committees to implement such evaluation. How to do it was hotly debated.
There is no perfect system, but a good system is much better than no system. I
believe that this evaluation has been a stimulus, along with others, which has
resulted in generally excellent teaching in CALS.

9. National Institute of Health (NIH) Boards. I served on several ad hoc boards for
NIH, including reviewing about 900 grants during a 4-year appointment to a NIH
Study Section. This was very hard work, but it was of great educational value.
I gained knowledge of the subject and hints on how to write grant applications
more clearly. Also, I became acquainted with many superb scientists.

10. USDA Competitive Grants Program in Animal Science. I took a turn chairing
this program for one year. My prior experience at NIH was a big help. I was
able to manage this by traveling to Washington on weekends and vacations plus one additional week at the end in Washington, D.C.

11. President of the Society for the Study of Reproduction (SSR). After serving on many SSR committees and the SSR Board of Directors I became president. I was helped in this job by my many previous experiences. This job took an enormous amount of time, as this was before the widespread use of computers, no fax, no e-mail, and no voicemail. It was callback after callback or write letters. The SSR is a fine society, recognized worldwide. Again there are many fond memories, along with the many emergencies, including the sudden death of the Executive Secretary of SSR when I became president. He kept everything in his head. That did not help me, as he had no backup. I really was also the Secretary for awhile. Whew!

12. Miscellaneous. In between, or along with these major tasks, there were committees to select faculty and deans, and to evaluate staff and faculty performance. Other committees planned, executed and evaluated orientation programs, and ran workshops on advising, teaching, and grant writing. So there was never a dull moment nor time to get into serious trouble.

Accountability and Integrity. Chapter 20 in the Archives Book.

A responsible person expects to be held accountable for what he or she does. As a faculty member one is expected to perform at a high level of teaching, research or extension according to the nature of the position. Also, one should provide a role model for students in terms of exemplary behavior.

Many evaluation systems have been initiated. There were two important problems with some of these systems. Some of the systems were antique and not re-evaluated. The second problem was that every segment of the university (department, section, college, experiment station, university) insisted on reports with much overlapping information, but no consistency in format. With the old typewriters really enormous time was spent filing carbon copies six different ways. Few of us opposed being held accountable, but we did not wish to spend an inordinate amount of time accounting, at the expense of productive effort.

Integrity and ethics also was an occasional problem. There were a few faculty who spent much time at coffee hours (and I mean hours, not 15-minute breaks) regularly with the department chair. How could anyone with a substantial teaching and research program find a set time daily to stop everything and chat? It was a successful ploy apparently. While distribution of department funds was a secret, these coffee hour faculty who had few or no substantial grants had technical support from Hatch or College Funds distributed by the department chairperson.

As the years passed there were more and more people added to the administrative staff at every level of the university. At the same time support staff for faculty were reduced. My substantial program survived because I supported office staff personally when the chairperson took away department support. We had no grant money for this job, yet support staff were added in administrative offices. It was clear that there was a tendency for some administrators to have two distinctly different set of standards, one for themselves, and one for others. One exception was Bob Cooke, Dean of the Faculty, who tried to curb administrative costs. These costs rose faster than all other university costs.
Public Service. Chapter 21 in the Archives Book.

Service on national committees, discussed previously, might well be listed here. In addition, some of us felt that it was important to talk to farm groups to feed back to them what we were doing with their money. Also, what were the problems “down on the farm?” I talked to county extension groups and artificial insemination groups. I gave reports on the radio, at Farm and Home Week, and put on workshops on breeding. I spoke to civic groups about current research.

There were several court cases where we had clear research evidence of wrongdoing. I spent many hours testifying in court for the side I was sure was right. Multiple lawsuits in California were for hundreds of millions of dollars. I would never be an expert witness for someone who is at fault. That is “Selling your soul”. Some people did.

Much government legislation over the years is based upon faulty knowledge or even misrepresentation of the facts by State and US government legislators. I have written hundreds of letters to key legislators, providing what I thought was unbiased information. In some cases I believe that it helped. In other cases the letters may have fallen on deaf ears. A few examples of the letters are attached to this chapter in the Archives Book.

Birthday Parties and Holiday Celebrations. Chapter 22 in the Archives Book.

Our academic family took time to relax and celebrate. We had birthday parties with cake and ice cream for every staff member. They were fun. I wanted those from other countries to join in this tradition. Sometimes I added a special secret-formula strawberry low-calorie milkshake. We always had birthday cards.

We had a bowling party at which I arranged for the alleys to cover cost of the balls, shoes, alleys, beverages and pizzas. We also had a big birthday cake, as the party was usually held near Mike Simkin’s birthday, April 1. Then in the summertime we had picnics in our backyard. Families brought various goodies. We provided grilled meat, beverages and sports equipment. Occasionally I took water skiers out in the summertime. Occasionally we took a break in the skiing for a snack at Ye Olde Port Harbour on the inlet to Cayuga Lake.

Thanksgiving and Christmas holidays we shared with foreign students, visiting staff, and other graduate students whose homes were far from Ithaca. We usually had a pre-Christmas dinner at Morrison Hall also. I always baked the turkey. My wife, Ruth, at all of the celebrations did an enormous amount of work before, during and after cleanup. She put on dinners for the TAs in my courses at the end of each term until it was too much. Then we went to a restaurant.

In my travels, especially overseas, I looked for unique items that I hoped would be gifts enjoyed by all my group at Christmas time. Sometimes I found tapestries that were easy to carry (light and not breakable). Other times it would be porcelain from the Delft factories in the Netherlands. It was fun to shop and also I always made it a point at the beginning of a trip to send cards to my own family, to my lab. and office staff, and to my parents and siblings. Sometimes I got back before the cards arrived.

A party with celebration and nostalgia was held for each person or family when they departed from Cornell. Of course, their stay here was one step on the ladder of life. I hoped we provided a strong step. Many have gone on to make fine contributions to the world. One special gift given to each one was a pewter mug.
engraved with our laboratory name at Cornell University. I kept a closet full of mugs, just in case I couldn't obtain more, as they were made in England.

On trips I packaged a bunch of small gift items to leave with each party that hosted me along the way. I believe we matched in spirit, if not in kind, the reverse hospitality that we received everywhere we traveled. These items I paid for personally. They were an investment in friendship and a token of appreciation for the wonderful friendship of science international,

*Not All Was Well at Cornell. Chapter 25 in the Archives Book.*

Cornell was and is a fine institution. It was built on the principles of a Quaker farmer, Ezra Cornell, who "would found an institution where anyone can find instruction in any subject". Ezra also established the tradition of service. If a person could not afford the $10. per semester fee to attend Cornell that person's fee was waived, or $10. loaned. However, when they graduated and became a wage earner they were expected to return $10. to help the next students. I found that service to others was one of the most honorable and rewarding callings that one could pursue in a career. I have established funding for "Tradition" scholarships at Cornell. Also, I believe that integrity is the most important characteristic of an individual. At Cornell I found many example of all these traits. But there were exceptions.

I found examples of persons being rewarded for personal favors rather than for performance. The reverse discrimination occurred occasionally when an individual dared to call attention to some problem that existed. There were examples of commitments that were made, but broken with flimsy excuses, even in conflict with facts. There was administrative failure to admit that a mistake had been made, and then it was swept under the rug rather than to rectify the problem.

It is not appropriate to list examples here, but they occurred at all levels of administration. Several are listed with documentation in the Archives Book. As most histories of Cornell are prepared by administrators these examples seldom, if ever, appear. These demonstrate that even university people, with all their privileged brains, are human and make mistakes at a personal level. Then, who am I to judge?

**Comments on this Synopsis.**

Some of the committees I served on in the 1960s were very educational, sometimes humorous, but mostly dealt with serious problems. The significance and excitement is lost in the synopsis here. National service on boards dealing with the ethics of in vitro fertilization are only covered in the unabridged edition. The synopsis on public service excludes testifying in court cases of major significance, and many other types of service.

Similar comments apply to all chapters. If one is interested in this part, then one should read the unabridged archives volume.
Further Reflections on Chapter 19

As I glanced through this chapter 19, I realized that this synopsis of 5 chapters does not capture the flavor or significance of many things that happened.

Some of these things were part of my personal academic program. They included my attempts to train imaginative, dedicated, and ethical scientists, i.e. to impart both knowledge and principles to all students. This way I learned much also. To include a little flavor here I have included a few examples of items included in the unabridged edition.

Other things were part of the university struggles, flaws, and lack of understanding of the problems of minority groups and other national problems. More wisdom and foresight were needed in the tumultuous 1960s! We all made mistakes, retrospectively. I hope that we learned some things. I have added a bit more reflection at the end of Chapter 22.

I wrote to national politicians (including presidents) about lack of support of family planning, ignoring negative impact of the environment, sexual preference discrimination, etc. Humor and fun also are important. We had parties and laughed a bit, as I do this mild cloudy day, 11-3-03.

Robert H. Fookes
Black Students Leave Straight As C.U. Accedes to Demands

SDS Rally To Support Black Move

By ROBERTA GORDON

Exhausted from their two-day demonstration and weary from over 94 hours of rhetorical meetings, SDS held an emergency meeting yesterday immediately following the evacuation of the Straight and called for a rally to support the blacks and encourage acceptance of their demands at the faculty meeting today.

The rally, which will be held at 3:30 p.m. today in front of the Straight, will then progress to Bailey Hall for a student-picket of the faculty meeting. No decisions have been made yet as to what action will be taken should the faculty not approve the demands.

SDS's main concern, however, was with forming a statement concerning the black's possession of guns and other weapons. While many of the students were "turned-off" when they saw the blacks emerge from the Straight, rumors were.

EVACUATION: Tom Jones '69 (l.) and former student Larry Dickson '70 raise clenched fists as they march out of the Straight yesterday. Officials walking behind them are Vice Provost W. Keith Kennedy (l.) and Vice President for Public Affairs Steven Muller. Posted at doorway is Safety Division Sgt. Arthur S. Graham.

By RICHARD M. WARSHAUER

The Afro-American Society members who had occupied Willard Straight Hall early Saturday evacuated the building yesterday afternoon after University officials promised to meet some of their demands.

W. Keith Kennedy, vice provost, and Steven Muller, vice president for public affairs, signed a seven-part agreement with Afro-American Society officials on the steps of 320 Wait Ave., as armed black students looked on from their position near the house.

The blacks, who had occupied the Straight for 33 hours, received the arms at the Straight late Saturday.

News that the blacks were going to leave the building was announced by SDS member Alan Snitow '71, who told spectators, "The blacks are leaving and they are going to be escorted out."

Snitow said he learned of the evacuation from Supervisor of Public Safety Lowell T. George.

George directed the 11 uniformed campus patrolmen and two plainclothesmen to clear a path in front of the Straight. They were aided by SDS members, who took up positions on the front lines.

One spectator who was pushed back testily said "This is not an SDS party out here."

The policemen then re-formed in two lines in front of the Straight. George asked the crowd to clear a path and not to

Continued on Page 9

Faculty Meeting Set for Bailey; Members Split

By ERIC WEISS and ARIC J. PRESS

Faculty reaction to the University agreement with the blacks was deeply divided last night, as Cornell's teaching staff geared itself for today's 4:30 p.m. Bailey Hall meeting.

Dean of the Faculty Robert D. Miller agreed in yesterday's seven point pact to recommend nullification of the judicial action taken against five black students Thursday night.
A. Accountability.

1. Each individual source of money must have a separate account number. We and accountants must balance out on about 14 accounts yearly.

2. 100% of our time has to be accounted for according to committees, advising, teaching, research, etc. and money is budgeted on that basis. I have just done that for all (a yearly task).

3. Graduate students, research associates and tech. all are 100% research (although graduate student effort is listed as .5 person years). Therefore, unless we change the R.A.'s to a taxable T.A. all are held accountable for a major research effort. Potential for success in research is the primary consideration for the Ph.D. program anyway.

B. Research Productivity.

1. This requires ingenuity, initiative, dedication and commitment to and organization of a time schedule which must be given first priority outside the regular class commitments. The group's potential is high, but our performance has room for improvement.

C. Reporting.

1. Every project or subproject (all account numbers) must be assigned to approved projects. For approval I have to write a project as follows.
   a. Title, location, leaders, cooperators.
   b. Justification.
   c. Previous work and present outlook.
   d. Objectives.
   e. Procedures.
   f. Literature cited.
   g. Budget and duration of project.

2. Every year in December I must file a progress report to Cornell and the USDA (Coop. Res. Service) on each project.

3. Every year an individual report goes to each funding agency, according to their deadlines. Coming up soon are Eastern, Agway, NAAB, NIH, etc.

4. In June each year a list of all publications must be submitted to Cornell and the Expt. Station.

D. Conclusion.

1. Maximum concentration by each one is needed to sort the best ideas, to plan and to expedite the work (this means relegating most social planning, etc. to times outside of work).

2. Write up all projects initially and add continuously. Note how good papers are written in publications you read.
Integrity of Researchers and of Research

R.H.F. May 1966

1. Integrity is a personal thing. Integrity of research is dependent upon the researcher.

2. There is no absolute code of honor which one must master and subscribe to, but the development of a sense of values and proportions is necessary. This evolves - it is not static, anymore than when we have had biochemistry is our knowledge of biochemistry final. Both have interactions, and the appropriate reaction or action in either case may vary depending upon other factors present.

3. The substance of scientific integrity. In simple semantics it is the 5 R's.

   a. Reading - Knowledge of previously established relevant information and acknowledgment of major sources of this information.

   b. Reason - Should accompany all phases of research. Evaluation of other work, planning new research and interpreting the results.

   c. Writing - A clear expression of the work planned will help clarify one's thoughts on the objectives and approach to be taken. A clear expression of the results will help others to evaluate, understand and appreciate the work done and knowledge gained.

   d. Research - Actually testing hypotheses by the "scientific method". Many ideas can be partially tested mentally or with available data, but we should not let such theories become established facts in our minds until they have passed all the meaningful tests we can devise.

   e. Responsibilities - In addition to points "a" thru "d" several other points come to mind.

      (1) Review other research papers. Be constructive, objective and prompt.

      (2) Review other research proposals.

      (3) Assist in the proper use of technical information in one's field for the public good when it can and is being applied.

      (4) Transmit the best we know to the next generation.

4. Some suggested guidelines.

   a. Security or sacrifice. Be prepared to sacrifice in terms of hard mental effort, precise execution of experiments (demanding 100% concentration) and the tenacious defense and promulgation of unpopular ideas if the facts support this. (By the same token do not
stubbornly cling to old ideas if new facts indicate old concepts should be revised). The intensive effort required to validate the whole process of research means one must make choices and attempt to do only what one has time to do well... (I have said yes too often). Security can be found, even when one holds a minority viewpoint, in the knowledge that one is pursuing the truth to the best of his ability. Furthermore a competent scientist seeking the truth to the best of his ability should expect reasonable financial security (note tenure at Universities).

b. Fund seeking and handling. Popular problems get more support and tend to channel efforts and ideas. This is bad if overdone, but, if the top scientists take responsibility for securing general public support, the popular ones should be the important ones. Some support should be available for the less popular or unheard of ideas.

In seeking funds become familiar with agencies that grant funds compatible with your objectives. This will provide a little for speculation which is important. Don’t knowingly pad the account, as a day of reckoning will come when knowledgeable reviewers will question your expenditures.

c. Publication. Unless one has a private source of income publication of finished units of work is a must. Otherwise it is embezzlement of funds, and with competition one could not survive indefinitely. Glass (Sci., 150: 1254-1261. 1965) wrote: "A full and true report is the hallmark of the scientist, a report as accurate and faithful as he can make it in every detail". To this I would add that it should be as concise as possible consistent with the above quotation. The style and requirements of the journal to which the work is to be submitted must also be considered.

Glass also stated "Science is no longer - can never be again - the ivory tower of the recluse, the refuge of the asocial man". Let’s face it, most funds are public funds. Scientists are competitors, each trying in overlapping areas to push back the walls of ignorance and replace them with highways of knowledge.

d. Authorship. The person who has done the work and contributed many ideas should be the senior author. Persons merely hired to carry out certain segments may be appropriately acknowledged. If they make a substantial contribution to a change in the experiment they might be a co-author. Junior authors include those who have contributed essential time to the planning and carrying out of experiments. Much time usually is required in the actual planning of funds, space, and equipment. The final writing for publication often is a major part.

A fascinating address related to this topic was given by D. J. Ingle. See Endocrinology 67: 139-145. 1960.

5. Pitfalls to avoid.

a. Do not accept funds which place restrictions on flow of information and ideas. Never become a pawn for a commercial concern. These apply if working at a university. Commercial work may require some withholding of information from competitors.
b. Beware of working where financial gain, patent filing, etc. are the major rewards. I would always be more interested in a position that was offered on the basis of opportunity than on retirement benefits. Commercial concerns as well as universities, etc. differ within each group considerably.

c. Avoid making extravagant claims for work never published and that the scientific community does not have the opportunity to critically examine. To do so will cause our peers to have deaf ears when we have a legitimate reason to cry "wolf".

Note: These ideas are plagiarized from many sources. Two known sources are listed in the text.

Robert H. 

[Signature]
Date: Thu, 18 Mar 1999 18:48:15 +0100
To: Deloris Bevins <dgb1@cornell.edu>
From: mdg15@cornell.edu (Marvin Glock)
Subject: Re: Congratulations

Dear Bob I was congratulating you on your remarks at the library meeting the other day.

I said that I continued facilitating workshops in communication skills at Cornell and around the country. I remarked that participants always seemed surprised when I reviewed the research on nonverbal communication. When one speaks, except perhaps for instructions, only 7% of the message comes from the words and 93% comes from the emphasis, pauses, facial expressions, body posture, etc., the nonverbal aspect of the communication.

I mentioned that you not only had mastered your use of words, but your nonverbal part of your presentation was flawless in getting your message across.

It was nice meeting you. I wish you the best. Cordially, Marv Glock

>Date: Sun, 14 Mar 1999 08:35:00 +0100
>To: rhf4@cornell.edu
>From: mdg15@cornell.edu (Marvin Glock)
>Subject: Your remarkds at Friday’s luncheon
>
>Dear Robert:
>
>I want to tell you how impressed we were with the delivery of your remarks at the luncheon. I continue to facilitate workshops in communication skills here at Cornell and around the country. Participants always seem surprised to learn how much of a communication is delivered by the nonverbal aspect of the message. Research has shown that only 7% of the meaning comes from the words we speak. The other 93% comes from our facial expression, our pauses, emphasis, tone of voice, body posture, etc.
>Along with the verbal part of what you say, you are a master of the nonverbal. It was a pleasure to observe as well as to listen as you spoke.
>
>Cordially,
>
>Marv Glock

I wrote a personal thank you note to Prof. Glock for his encouragement. R.H.F.
Season's Greetings—

During this holiday season I wish the same for you as throughout the year: Joy, Hope, Faith and Love! These are perilous times, but history is full of perilous times.

One must maintain hope for achieving high goals in one's work, among one's family and friends and in the larger community of mankind. One must strive conscientiously to achieve these goals. Yet one must also set one's expectations much lower than one's hopes. Then each bright spot that emerges is a shining jewel, and each lack of "success" is neither darkness nor failure.

We press on undaunted by the frustrations of unfulfilled hopes, as we are fulfilled by the joys and love that abound around us. May we be uplifted by an unending faith and abiding hope for the future.

Thank you for being here!

Joy, Hope, Faith and Love

Bob Fookes

(To people at Morrison Hall) 1973
Invitation

(Please was in color)

PLEASE

COME

TO THE-

Bowling Party with Pizza and Beverages
Ides Bowling Lanes
on Friday, April 10th from 4:30
(or even 4:00)
with bowling until 6:30 p.m. followed by
Pizza, soft drinks or beer.

Bowling shoes and bowling balls
are available at the bowling place (Ides).
Just tell them you are with the Foote party
so you do not pay for anything.
Please save the date and come
(families included).
(was in color)

Invitation

Picnic

Friday, June 12.

After work.

Come play and eat.

70 Woodcrest.

I have badminton, frisbee, etc. Please bring a dish to pass with a signup on door of room 219, so I can fill in what's needed. I have some hamburg, rolls, mustard, ketchup and cake. Hope all can come - welcome new and "old".
Chapter 20  
*Cornell Career: Retirement, But Mostly at Night.*

On July 1, 1993, I reached mandatory retirement because of age. It is important to retire and make room for new staff to conduct their programs. I had already turned over most of my laboratory space for use by others. However, I had grants that had not terminated, especially a NIH Grant that continued until 1996. It was agreed by the department chairperson, in advance, that I should complete the grants, but not write any new ones.

Thus, my smaller group continued to use some laboratory space to complete the work of two Ph.D. students. In addition, we were providing all of the animal space for Jeff Kidder, a graduate student with Dr. Richmond, who did not have space for the ferret project. Mike Simkin was of enormous help in making arrangements for maintaining the needed ferrets and assisting with some of the lab. work. When I retired I suddenly found out from Mike Simkin that he was shifted and was not to help me anymore. No one consulted me. I pointed out that the department approved the NIH Grant on which Mike was committed to 50%. Did they want me to cancel the grant? Oh no, we didn’t think about that. Fortunately, Marshall Farms donated surplus ferrets. That reduced costs.

With Dr. Yang leaving for the University of Connecticut I closed out our rabbit colony built up over 40 years. This probably was the best rabbit colony for reproductive studies in the United States. This closure provided more animal room for ferrets. Also our small animal surgery was no longer used for rabbits, making this space available for Jeff. Thanks to the help of Mike Simkin, and my available time we were able to help Jeff Kidder complete his Ph.D. on a shoestring budget. Dr. Richmond was able to provide funds for feed and bedding and some animal care. However, we absorbed considerable expenses as well. Jeff tackled a tough project, but he persevered and finished.

Jeff was hoping to obtain a position at Cornell. I helped him write a grant to the Morris Foundation (I was the P.I.) for continued ferret research. When no position was available at Cornell, and Jeff took a position at Rutgers University, the grant was transferred to Rutgers. I believe that it became difficult to conduct the research at Rutgers. One of my former students, the veterinarian at Marshall Farms, indicated that Jeff stopped going there to work on the project, Material that I sent to Jeff plus emails and letters apparently were received, but never answered, for reasons unknown.

In the meantime I worked hard helping my two graduate students to finish their theses and write up their research. One published eight papers. The other one published several papers while I was able to provide extensive help. Two manuscripts taken with him to a high paying job at a human IVF clinic were never returned to me despite some prodding. I decided I should not write them for the student.

My teaching load had decreased. I still put on the biotechnology course of embryo collection, evaluation, in vitro fertilization, culture and transfer for a few years. Also, I guest-lectured on ethics and biotechnology in several courses. I organized a new section for the course in Applied Animal Genetics developed by professors Oltencu and Pollack. These efforts took considerably more time per lecture than
simply revising lectures I had given for the comparative reproductive physiology and AI courses. They were both a challenge and fun.

With all the excitement about cloning I had calls, emails and letters to answer on a weekly basis. There were still dozens of questions researchers had about earlier work we had done on spermatogenesis, sperm and embryo function. Others wanted me to critique their grant applications. Also I averaged about one request per week from 6 to 8 journals, asking me to review manuscripts. To help with the secretarial job of responding to these requests I still had a part-time secretary who I hired 12 years earlier. The department paid none of her salary. It was all covered by grants and my personal contributions to the department. The person was very competent and highly familiar with the technical language and journal styles. This greatly facilitated the steady output of my fulltime job (now cut by me to five full days a week).

By keeping my office open my extensive library was open to any student. Graduate students working with another professor in reproductive physiology occasionally stopped by with questions. Veterinary students working on a special project in AI used my library. This was fun. These bright, energetic young students (seemed like kids to me) were a joy to work with.

I had accumulated thousands of slides for teaching. There was interest in building a national repository electronically available so any teacher could research this library and obtain illustrations otherwise unavailable. So, I began selecting and culling slides for that purpose.

A bigger job was what to do with the hundred or so research projects that had not been published. Many of these had valuable information that would be difficult to obtain today, but were not complete enough to warrant a new publication. So these have all been summarized for the Cornell archives.

In addition, there were many experiments completed that potentially are more valuable today than when they were done. Many could be more fully interpreted today in view of new information. Some would be prohibitively expensive to conduct today with new regulations and loss of animal facilities. So, I decided that the hundreds of thousands of dollars which might be spent by others having to repeat those unpublished experiments should be saved by publishing some of them. How to do it? I no longer had a budget, so I decided to continue to support this excellent part-time office professional I had trained.

This procedure worked fine for awhile, as this person also helped out as needed in the main department office. Then one day without any discussion the person had been offered and accepted a full-time job in the main office. That was a fine offer. However, after years of my dedicated support of the department, this was an unexplainable kick in the teeth. All these manuscripts in transition. What to do? I lost months of time between worry, and the indecision associated with makeshift operations. Finally, I found a fine person to help, although not familiar with the technical language, etc.

So what have I been able to accomplish? Well, during retirement I published about 100 peer-reviewed papers. All but one of those submitted was accepted. These studies would have cost more than one million dollars today to repeat. One of the papers on dogs was valuable to pharmaceutical companies doing research with dogs. A veterinarian from DuPont called me to say it would save DuPont tens of

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thousands of dollars and the work would be better controlled than before. There were other examples of many compliments by reviewers and users.

The paper I struggled the with most was an excellent study by Prof. George Wellington. We had helped him with the reproductive aspects. Dr. Wellington had all the data on 126 variables carefully analyzed, but dropped the project when the meat section of the department was diminished and he retired. The reason I had to struggle was the fact that there was so much data and I knew so little about meat science. So, I did lots of library work, and apparently became an acceptable meat scientist by writing the paper many times before submitting it. It was accepted and published. I am so glad for George. He had done his typical meticulously executed research on multiple factors affecting growth and carcass quality. Now he was an author in 2003.

Other data are now in the wastebasket, mixed with nostalgia. But all things must come to an end.

With fewer commitments at Cornell I have more time to volunteer for multiple outreach programs in the community, and at Kendal where we now live. There is more time to travel, and more time to play with our lovable dog Sarge. I prepare a collage of photographs for the annual craft exhibit at Kendal. And of course, I’m taking time to pen this book. Also, more details are in an earlier chapter about “Life on Golden Pond”.

As an example of the fun I have with rhymes, following is what I call “Kendal Pep Song”, written with a meter that can be sung to the old tune “Now I’ve Got No Use for the Women”. The song is written in the singular. Couples can easily substitute the plural words where appropriate.

**Kendal Pep Song**

I had the old place I was used to
    I didn’t go out anymore.
It was just far too hard to be mobile,
    But, I admit, life was a bore.

But when I heard about Kendal
With great food and programs galore,
    I decided to move into Kendal,
And I found it had very much more.

So now I’m forever kept busy
With lectures, crafts, swimming, and more.
Its program would make young folks dizzy.
    For us, though, it’s “esprit de corps”.

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I acknowledged this letter thanking her for her help and her excellent help! (Many other similar letters)

Dear Dr. Forte -

You are amazing and an inspiration for me. Fast congratulations on putting to completion my research and taking the effort to get your work out! You have given me hope and motivation that someday, I too, will have the time to get backlogged research out to publication.

It was so good to hear from you and to know you are well. You have stimulated me to write you and thank you for your mentorship during my undergraduate years at Cornell. Often, this reason I am a Surgeon today as I so fully enjoyed "getting my feet wet" as I so fully enjoyed "getting my feet wet" on rabbit surgery in your lab. I know you have provided these opportunities for many students like me and your should be proud of all the lives you helped shape. Thank you for writing!

Warmest Regards,

Alicia Gilkey Bertone
Department of Veterinary Clinical Sciences

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Chapter 21

Personal Thoughts on Ethics, Living and Giving

Following are a few thoughts as they tumble out of my mind. This is not a discourse on ethics, as I have never studied ethics professionally. Yet, of course, there are ethical standards in every profession. For example, the Hippocratic oath, attributed to a Greek physician born on the island of Cos about 460 B.C., is an attempt to call all physicians to prescribe a “regimen for the good of my patients according to my ability and my judgment and never do harm to anyone”. Felix Adler founded an Ethical Culture movement in New York City in 1876. All members were expected to accept as supreme that ethics guided all relationships of life outside of theological and metaphysical domains. Some of the famous Jewish scientists, including those who felt compelled to develop the atomic bomb at Los Alamos were influenced by this movement.

So, I do not have a definition of ethics, except to say it is a beacon in the brain that continually projects an image which states “am I doing the right thing?” Of course, what is right under what circumstances when there are many possible “good” options to choose from has no precise answer.

Where does one learn and accumulate some appreciation of ethics? In my case, developing a conscience of some concept that one could discriminate between right and wrong resulted from emulating my parents. To the extent that their habits and decisions were good ones, then I was the fortunate beneficiary. There were the many things one learned very early in developing self-discipline. Pick up your toys. Pick up your clothes. Don’t leave the mess you made for someone else to clean up. Don’t hit others. The golden rule of the Christian Bible, similar to the moral standards proclaimed by other religions, was a central feature. I really had a golden ruler in the desk where I did my homework.

I believe I learned many of these principles by examples set when I was very young. One thing I did not learn until later was how important it was to get rid of grudges. I now believe that one of the greatest mistakes, a part of our human frailty, is to be unable to forgive. What a relief to forgive! We were told that many times, whether in the Lord’s prayer or the prayer by St. Francis of Assisi.

If we pursue science professionally, the scientific method requires high obedience to principles that underly ethics. Bentley Glass wrote a thought-provoking article “The Ethical Basic of Science” in Science 150:1254-1261, 1965. He states that “science is ineluctably committed to standards of right and wrong, and unavoidably moves in the large toward social aims. Man’s own values grew out of his evolutionary origins and his struggle against a hostile environment for survival”.

In my own scientific career I hope I usually set a good example. We also discussed with staff our responsibility to maintain public trust in what we did, how we did it, and how we spent “their” money. An example, excerpted from one of the handouts I discussed with students, follows (with more details in my records in the Cornell Archives). I am surprised, as I look over old notes how many times ethics appears. I really don’t remember that I made such a point about this. But now that I reflect on it, I believe that any rational thought should have some ethical consideration underlying it.
Good science involves good scientists. Good scientists are good people who use the scientific method in their search for the truth. Although good scientists must inherently have certain native abilities, a scientist really is made not born. A person to be a good scientist must possess at least the following characteristics:

1. Creativity – ability to perceive the unusual – imagination, resourceful.
2. Commitment – dedicated to worthy goals.

These characteristics are not unique to successful scientists, but are especially important in science. The scientist must be willing to work diligently and objectively seeking answers to important questions, knowing that the illusive truth may not be known for certain. But by eliminating what can be established as not true, scientists collectively have established concepts and theorems that have stood the “test of time”. The scientist must continuously be curious about what he or she can observe as well as the things reported by others. The scientist should go beyond curiosity and contemplate what “things” might be like under different conditions and combinations. Einstein had an amazing ability to perceive beyond what was known.

Throughout a scientific career a scientist should find great comfort in knowing that the “facts” and conclusions reported are based on valid studies without “fudging” data. This should be rewarding, even when results are negative and frustrating to the individual researcher. But it is extraordinarily exciting when a new discovery is made (no matter how small) that can be repeated and applied by others for the potential benefit of our world. As new experiments are completed, some old concepts will be superseded. When we push back the boundary of ignorance we are making progress. I’m reminded of a Sidney Harris cartoon with two scientists making a discovery and stating “What is most depressing is the realization that everything we believe will be disproved in a few years”.

The scientific method includes the following components:

1. **Observation**: Observe and learn all one can about the subject to be investigated.
2. **Hypothesis**: A clear statement of the problem in terms that suggest a method of solution.
3. **Experimentation**: A design with appropriate sampling, replication and controls which will provide an unbiased answer to the question or hypothesis under the conditions tested.
4. **Interpretation**: By appropriate statistical analysis one can reduce the observations to some meaningful numerical terms that will help the scientist interpret the particular results in concert with the body of knowledge already established on the subject, and with which the researcher should be familiar.
5. **Reporting Results Accurately and Simply**: An extreme example is a restatement of one my favorite childhood stories of “Goldilocks and the three Bears”.

   An immature female Homo sapiens christened Goldilocks, whose hair fell into the spectrum between green and orange and extended from wave length .590 to .533 microns, did not yield obedience to the entreaty of her parents who had enjoined her to abstain from penetrating the sylvan area lest she become enveloped in
a maze and fail to reissue. The parental hypothesis propounded was significant at the .01% level of probability. Goldilocks did enter a state of magnum abashment. Reconciliation returned only upon receipt of asylum in the abode of an unknown quantity of carnivora. Circumstantial evidence placed the family size at three – a single sib and his sire and dam.

- Anon (from Nematology Newsletter, vol. 11, No. 2, June 1965)

Science involves methodology, and that requires doing something. We work with equipment. We take good care of it. We work with people. We share, care, and treat all with respect. That includes the custodians of our building. They are professionals too. We make their work load and day as pleasant as possible.

Our graduate students are very special. They are the future of our profession. We share what little we know with them. We encourage them to go beyond the boundaries that limit our (my) generation. We not only support them during their graduate days, but we also help them to locate a position, in the next step in their career, that is mutually symbiotic between that person and their employer.

Part of that opportunity comes from giving them an opportunity to present their research and themselves at scientific meetings. Toward that end I used grant money, any service fees, and personal income to assure that graduate students travel to the most relevant scientific meetings. This gives them credit for their work, even though the basic idea may have been one I shared with them to start their research program. In an earlier part of my book I recount Professor Ivy’s story about Percye Diores. As a graduate student his professor mentions Percye’s work at a scientific meeting, and the news is Professor so and so said this and that, but Percye is not mentioned in the paper. Then Percye becomes a learned professor, and history repeats itself.

Our research involved animals. As their custodian in research we have moral and ethical obligations. I presented a short paper on this aspect in 1992. It is appended here to provide some background as well as conclusions about ethical concerns when using animals in research. I will add that we were constantly seeking in vitro models for our animal research so as to minimize the number of animals used. Fortunately, much of our work dealt with sperm which were available in large numbers without any treatment or surgical intervention.

Earlier I listed “Reporting Results Accurately and Simply” as part of the scientific method. This is usually done through scientific journals where our peers can evaluate and use the information. Also, we have a special responsibility to keep the public informed and help to see that any applications of our work are made wisely. In that regard I quote the following from a chapter I wrote for the book Cloning, published in 2002.

“One of the most exciting fringe benefits is the major increase in research on developing procedures to enable many types of differentiated somatic cells to be reprogrammed and guided forming specific cells and tissues. This has great potential for improving the quality of life for our aging human population afflicted with age-associated diseases.

This has been and will continue to be a wonderful journey on the road to understanding the biology of, and pondering the meaning of life. It has been marked by insight, determination, and serendipity. The latter word, coined by Walpole in 1754, combines sagacity with accidental discovery, and is not correctly defined in the dictionary. The largest room in the world is the room for improvement. Exciting times
lie ahead as the mysteries of developmental biology are waiting to be unraveled. The opportunities in this area are as exciting for the twenty-first century as landing on the moon was in the twentieth century. These powerful techniques also put powerful emphasis on us to discern how these technologies might best be applied, especially to our own species. We should all ask and ponder the question, just because we can do it, should we? Those who blaze trails should assume some responsibility for the consequences”.

One way of regulating use of information is through patents. This may be necessary to obtain a return on huge investments in product development today. Personally, I have resisted the patent idea for two reasons. One is that the restrictions and monetary cost of legal fees and licensing may greatly restrict the benefits of discovery. Secondly, if a scientist receives money from a patent, he or she most likely will be biased in presenting information to the public. I do talk to alumni, civic groups, and others. I am sure that I have biases. However, none of them stem from potential monetary gains because I hold no patents, do not consult for specific companies, and do not have a company of my own.

A survey of tens of thousands of college students in the 1960s indicated that service ranked much higher than financial gain in terms of personal values. Twenty years later students asked the same questions indicated that financial gain was the major objective.

The scandals that have shaken the stock exchanges, the business world, and destroyed the hard earned savings of many workers (ENRON and others) again raises the question of where was ethics? Have standards changed, or is it that a few huge conglomerates today have a more noticeable impact, overshadowing the many companies run with high principle? The trend for many scientists and engineers to form their own companies for profit is troubling to me.

At the same time there are major efforts, with widespread support, to help the poor, protect our environment, and use our brain for worthwhile causes. Let's hope that this prevails. Our quality of life, and even our survival depends upon it.

Some people have given generously of their time and talent, and dedicated their whole life to serving others. Ruthie and I agreed on a plan to live comfortably, but modestly, and to build in security for the future. With the “other” I was able to contribute about 40% of my yearly income to Cornell, church, and about 80 other charities. Support was set up at Cornell for student scholarships libraries and special facilities. One fund honors Vietnam veterans, such as son Robert. Scholarships were set up at Alfred University in honor of my mom and dad. Lectureships were established at the University of Connecticut commemorating my two wives, Ruthie and Barbara. A fund for special symposia was established at the Congregational Church in Ithaca in honor of Ruthie. Valuable land next to the Church in Gilead was given to the Church. Another fund supports students attending the Society for the Study of Reproduction.

Could we have given more? Yes. Could I have contributed more community service? No, not unless I gave up something else, but were my priorities right?

A simple philosophy of a life worth living, is one filled with giving. What one shares lives on. What one does not share is lost.
Ethical Concerns of New Animal Biotechnologies

Robert H. Foote
Ed. by G. E. Seidel, Jr., Colorado State University, Ft. Collins, 1992

INTRODUCTION

What is ethics? My old Webster dictionary defines ethics as "1. A treatise on morals. 2. The science of moral duty; broadly the science of ideal human character. 3. Moral principles, quality or practice." And morals is defined as "establishing principles of right or wrong in behavior." No reasonable person will argue with the importance of distinguishing between right and wrong, but there is a wide range of opinions on almost every area of endeavor as to what is right or wrong action. Certainly it is of great importance that scientists be highly concerned with ethics, both to secure their own well-being and to serve as role models for others.

Factors Contributing to Mistrust of Science

A number of highly visible events and social trends as well as the power of newer technologies interact to call considerable attention to the questions of the ethical regulation of science, especially bioscience. Some examples follow: 1) There are numerous national and international conferences dealing with ethics in the biomedical area that stimulate vigorous public debate. These are presumably prompted by the fact that application of new biotechnologies can control, treat or otherwise produce effects not possible in earlier decades. 2) Materialism and greed have become driving forces in contemporary society. For example, among 240,000 college freshman surveyed in 1970, the vast majority felt that "developing a meaningful philosophy of life" was a more important goal in life than was "being well off financially"; the goals reflected in a survey in 1989 were dramatically reversed (Bailey, 1990). 3) In science, a few cases of unethical behavior and falsification of data have received wide publicity. Moreover, university officials have appeared to misappropriate public funds by attaching indirect costs unrelated to the cost of doing research to the budget of governmentally funded projects. 4) Environmental pollution and animal rights have become the fashionable causes of activists. Pollution of the environment with chemicals, such as pesticides later found to have detrimental effects, have made substantial segments of the population wary of the application of scientific achievements, and perhaps wary of science and scientists. 5) Coverage of science by the media is often careless of facts and manipulates perspectives to create interesting (sensational) copy when the primary motivation of reporting is to increase circulation of the medium rather than to inform the public.

Public distrust can lead to public perception of lack of ethics in scientific endeavor. Scientists need both to be in contact with the public, not only to explain science, but to explain honestly what they are trying to accomplish, and also to be confronted by those who do not understand or do not wish to understand what our science is about. Scientists also need to work with science writers who can assist in "educating the public." Science writers should also check their facts for accuracy (Powers et al., 1991). It is difficult to believe the
excuse often given that the writer has no time to check the facts—or does the demand to sell papers override this precaution?

THE ETHICS OF BIOTECHNOLOGY

Right or wrong action in animal biotechnology can be taken in the conduct of research, the use of resources (animals and money) in carrying out the research, and the application of the results of research to alter current practices in animal breeding. Of most concern to the public at present are the use of animals and the socioeconomic ramifications of producing new genetic types of animals and selectively multiplying existing ones by biotechnology.

Animal Rights

First, this discussion is based on the premise that animal rights are different from human rights. There have been numerous theoretical, theological and philosophical discussions of this point. The fact that animals could be patented (Brody, 1989) is based on the considered judgment that animal rights are different from human rights. Whether or not animals could be patented was sharply debated. However, in 1980, the Supreme Court of the United States decided that living matter was protectable under the patent law. The most important argument for patenting appears to be the benefits which patenting presumably promotes. In Congressional testimony, Assistant Commissioner for Patents, Rene Tegtmeyer stated that “The grant of patent rights has in fact encouraged research and provided useful new products including research into solutions of problems such as those associated with genetic disorders and increasing food yields (Brody, 1989).” The various arguments against patenting of animals, including the fear that such a step would eliminate constraints against altering human beings, are discussed by Brody (1989). The animal patent law specifically excludes human beings.

Second, animals do have the right to receive (and researchers and production groups have the obligation to provide) proper treatment (NIH Guidelines, 1985; Porta et al., 1991; Richmond, 1991). While the objective of science is to create knowledge, it should be done in a way that will minimize cost to the animal’s well being. Thus, seeking knowledge is ethical if done in an ethical way. This differs somewhat with clinical human or veterinary medicine where the objective is to help the patient. In either case, ethical people generally will follow acceptable procedures in pursuing diverse goals (Sigma Xi, 1991).

New Biotechnology

Ethical principles are the same for new biotechnology as they are for old technology, whether applied to animals or humans (Rollin, 1985; Fletcher, 1989; Ethics Committee, AFS, 1990). What is ethical depends upon the starting assumptions. The objective of the new animal biotechnology continues to be to produce a more desirable animal. Concern and consideration for the animal should be a part of the experimental plan when attempting to produce better animals; should any defective animals be produced, they should be properly cared for. Although animal welfare is in some respects a separate issue, the whole area of animal research, including the new biotechnologies, is inextricably entwined with animal welfare. Researchers who ignore this will do so at their own peril and do a disservice to the animal research effort aimed at improving the quality of life.
Throughout all history of natural selection and constructive breeding programs, such as artificial insemination, the intent and result has been to provide more fit animals. These are animals that will survive and be more productive in an agricultural environment. What is different now is primarily the speed with which new genetic types of animals may be produced or existing types be selectively multiplied by new biotechnology, as has been discussed at this symposium. Also, the potential enormous financial benefit from certain technologies may motivate some individuals with strong financial interests to manipulate animals unethically.

SUMMARY

The major ethical concerns are 1) that the objectives of these biotechnologies be used to produce superior or especially useful animals, 2) that each animal produced will not itself be at risk, 3) that if some animals produced are at risk, they will be properly cared for, 4) that the impact of these rapid changes on social and economic well-being of the human population will be addressed and 5) that the genetic base (gene pool) of any species of animal being selectively propagated be preserved (OTA, 1987) to provide future opportunities for maintaining species and producing individuals most compatible with changing environments. Rollin (1986) states that in his view "the genetic engineering of animals in and of itself is morally neutral, very much like the breeding of animals, or indeed, like any tool. If it is used judiciously to benefit humans and animals, with foreseeable risks controlled, and the welfare of the animals kept clearly in mind as a goal and a governor, it is certainly morally non-problematic and can provide great benefits. On the other hand, if it is used simply because it is there, in a manner guided at most only by considerations of economic expediency and 'efficiency,' or by quest for 'knowledge for its own sake,' with no moral thinking tempering its development, it could well substantiate the worst rational fears encapsulated in 'the Frankenstein thing.'"

REFERENCES


Newly unearthed letter affirms Ezra Cornell's commitment to university's nonsectarianism

By Jill Goetz

For nearly 125 years, historians have assumed that a letter written by Cornell founder Ezra Cornell and placed for posterity into the Sage Hall cornerstone concerned the university's coeducational status. After all, the campus building was to house the Sage College for Women at the only coeducational institution of higher education in the eastern United States.

But historians could only assume, for Cornell made no copy of his letter and showed it to no one at the time. No one but the author himself knew its contents. Until now.

On Tuesday, March 11, workers renovating the building were able to remove the letter. Dated May 15, 1873, the day of the laying of the Sage Hall cornerstone, the letter is addressed to "the Coming man & woman." Cornell writes:

On the occasion of laying the corner stone of the Sage College for women of Cornell University, I desire to say that the principle danger, and I say almost the only danger I see in the future to be encountered by the friends of education, and by all lovers of true liberty is that which may arise from sectarian strife.

From these halls, sectarianism must be forever excluded, all students must be left free to worship God, as their conscience shall dictate, and all persons of any creed or all creeds must find free and easy access, and a hearty and equal welcome, to the educational facilities possessed by the Cornell University.

Coeducation of the sexes and entire freedom from sectarian or political preferences is the only proper and safe way for providing an education that shall meet the wants of the future and carry out the founders idea of an Institution where "any person can find instruction in any study." I herewith commit this great trust to your care.

At an open session of the Cornell Board of Trustees on campus last Friday, President Hunter Rawlings invited Ezra Cornell, a trustee and direct lineal descendant of the Founder, to read the letter aloud. Except for the sounds of clicking cameras, the Statler Amphitheater was utterly silent as trustees, local officials and journalists listened to Cornell softly reciting his ancestor's words from a one-page letter held in a slightly shaking left hand.

"What makes this letter so poignant," said Rawlings, "is that Cornell University at that time was under attack." As he reminded trustees, Cornell was vehemently criticized -- labeled "godless" and "infidel" Cornell by preachers, college presidents and the public alike -- for its nonsectarian stance, which many people equated with atheism. Though Cornell was not the first university to be nonsectarian, it was perhaps the most conspicuous, and therefore the most berated.
Rawlings quoted from Cornell's remarks at the Sage dedication ceremony all those years ago: "I will close, with the remark that the letter deposited in the cornerstone addressed to the future man and woman, of which I have kept no copy, will relate to future generations the cause of the failure of this experiment, if it ever does fail, as I trust in God it never will."

Written just five years after Cornell's founding, the letter makes clear that that "experiment" was not coeducation -- which the founder took as a given, as reflected by the letter's salutation as well as its text -- but rather that the freedom of ideas, freedom of access, freedom of worship and freedom of political beliefs should form the essential core of this new university. "An interesting lesson for us in 1997, as well," Rawlings said.

Current trustee Cornell first saw his ancestor's letter on Wednesday. "I have to tell you, it gave me chills," he said. "People have assumed that whatever was in the letter had to do with the experiment of women's education. But this letter proves that the Founder assumed women would be fine on this campus."

He added, "Of all the issues that bothered the Founder in 1873, such as finances, politics, recruiting students and faculty and the equal education of women, it was the subject of religious conflict that he chose for us to read . . . 124 years later. This characteristic of being nonsectarian was one of the important concepts that made Cornell University the first truly American university."

The letter's unearthing is largely the result of lucky timing. Sage Hall, a Victorian Gothic building that served as a women's dormitory from 1875 until World War II and more recently housed the university's graduate school, is being renovated to serve as the future home of the Johnson Graduate School of Management. Cornell officials have long known of the cornerstone's contents but had no definite plans to remove them. (Cornerstones generally are not opened until a building is demolished.)

But about a month ago, Johnson School student Tatiana Rosak read this passage about Cornell's letter in a book by Charlotte Williams Conable: "Cornell's views remain a mystery, enclosed within the walls of Sage College." Intrigued, Rosak approached John McKeown, director of business operations for the Johnson School, asking whether the letter could be retrieved. McKeown, in turn, called University Archivist Elaine Engst to discuss the possibility, and the process of retrieval had begun.

The letter was unearthed with other artifacts on Tuesday, March 11. Four workers spent 45 minutes carefully chipping away at the cornerstone and concrete surrounding the snugly positioned, heavy lead box. Once it had been removed, Engst retrieved its contents and read the letter aloud to students and staff assembled at the site.

"It was amazing," she recalled. "It was very cold, and I was wearing a hard hat; but here I was, the first person reading these secret words aloud." She added, "I thought it was especially nice that that person was a woman."

The cornerstone box was officially placed by Mrs. Henry W. Sage (ironically, an opponent of women in higher education) in the presence of assembled dignitaries, including Cornell (who died the following year and never did see the building completed); President Andrew Dickson White; the presidents of several other universities; and members of the Cornell faculty.
Also in the box were the university's first copies of the Register (akin to today's catalog); a pamphlet of the university's laws and documents; a May 5, 1873, copy of the student weekly publication *The Cornell Era*; photos of Mr. and Mrs. Sage; the *Albany Evening Journal Almanac* of 1873; and three newspapers, all dated May 14, 1873: *The Ithaca Journal*, *The Ithaca Daily Democrat* and *The New York Times*. All of the documents are extremely well preserved.

The university plans to place new mementos back into the Sage cornerstone in the next few weeks, Engst said. The lead box and its contents will be archived and put on display in the Cornell Library, she said, adding that Cornell's letter ultimately will be available on the World Wide Web.

During breaks from their meetings on Friday, Cornell trustees viewed the historic letter and other cornerstone contents in a lobby of the Statler Hotel, in the shadow of the Sage Hall renovations across the street. The trustees themselves reflect the Founder's commitment to nonsectarianism: the Cornell Charter stipulates that at no time can a majority of the trustees belong to any single religious sect.

The trustees clearly were moved by the power of the letter's words and their enduring relevance.

Judith Berman Brandenburg said of the letter, "It reinforced the feeling I had about the kind of advanced thinking that went into the university, that was there from its inception."

Thomas W. Jones observed, "It brought home to me in a more immediate way how truly visionary Ezra Cornell was." He added, "I think he would be very pleased with what he saw today. There is a strong commitment on the part of the board of trustees to uphold Ezra Cornell's vision."
Chapter 22
Epilogue: Reflections

Times have changed. How often that expression is used. It is easy to document approximately many things, such as population growth, but it is impossible to assess their impact precisely. The population growth has been enormous, having doubled in the past 60 years. More people are living today than were born up to 1900 from the time Homo sapiens emerged as a separate species, perhaps 60,000 years ago. At the present rate it will double from 6 billion today to 12 billion in about 45 years. Natural resources are fixed. As population grows, as well as our insatiable demand to consume these resources, the length of time that these finite reserves will last, decreases, unless we find substitutes. Does this mean that by the year 2150 the crowded world will result in a world with great famine and disease, and be generally a miserable place to live? Will the rich get richer and the poor get poorer? Are we affecting climate change beyond the cyclical changes that the universe has experienced, and particularly our planet over eons of time. Certainly we better pay attention and take remedial action to avoid catastrophic results where necessary.

This short epilogue, will not attempt to deal with world issues, the subjects debated in voluminous literature. But how has daily life changed, in my own experience, from the 1920s to the 21st century? What was all in a day’s work then and now?

A majority of people lived on farms where they worked. If you worked in the city generally you did not live far away from your work as the roads were muddy in the spring, dusty in the summer, and often snowbound in the winter. The major metropolitan cities, as New York City, did have train service.

Life on the farm was family centered and community oriented. The rural towns were not bedroom communities, as many are today. The family arose early in the morning. The members had their assigned responsibilities. The meals were prepared at home from home-grown produce plus purchased groceries. The family ate many, if not most, meals together.

So at work and play, outside of time in school, I was mostly with my parents. This probably had at least two major effects. In some ways I was exposed to much more mature people regularly, without as much social give and take among playmates. Secondly, I did not recognize fully how much my same work ethic at Cornell took me away from rather than kept me with my own family. I seldom brought Robert or Dale to the laboratory as Cornell did not want kids coming and possibly getting hurt, with lawsuits, etc. Surgeries and laboratory studies were not a good environment for young kids anyway.

Work with my parents often was making games out of work. Mother recited many poems for children, but also ones for older kids. For example I remember being able to imagine then and now the story conveyed by Henry Wadsworth Longfellow in “The Children’s Hour”. Remember the 8th stanza:

“Do you think, O blue-eyed banditti,
Because you have scaled the wall,
Such an old moustache as I am
Is not a match for you all!”
Or a stanza from “A Psalm of Life”,

Life is real! Life is earnest!
And the grave is not the goal;
Dust thou art, to dust returneth;
Was not spoken of the soul”.

Or “The Village Blacksmith”, or John Greenleaf Whittier’s “Blessing on the little man, Barefoot boy with cheeks of tan!”, in “The Barefoot Boy”. I was that boy. It’s amazing how many great poets, minister-philosophers, naturalists (Ralph Waldo Emerson, Nathaniel Hawthorne, Longfellow, Whittier, Abraham Lincoln, Oliver Wendell Holmes, Charles Darwin, Alfred Lord Tennyson, and others were born between 1803 and 1809.

The cooked food was prepared on the wood stove. There always was a teakettle of hot water on the stove. There were no electric stoves or microwaves. One of the electric items was the toaster that replaced toasting bread on a griddle or over the open wood fire. Today consumers insist on many prepared foods that can be processed in a few minutes in a microwave. Frozen foods were unknown in the 1920s, whereas they are in everyone’s home freezer today. The cost of processed foods greatly exceeds the price paid to the producer. Whereas a pound of potatoes can be purchased for a few cents, a pound of potato chips, with reduced nutritional value, costs many times as much per pound. Our work required us to exercise more. Our meals on the farm were healthy. Very few farmers were overweight. Type II (adult) diabetes was not nearly as frequent as today. Of course Type I (juvenile diabetes) was usually fatal before insulin was discovered in 1922 and became available within a few years.

Thus, with smoothly paved roads, high speed cars and fast food restaurants, many homes are in bedroom communities. The daily work, meals, and evening entertainment may be miles from the postal address. A fire could destroy a house if no one is home to discover it. Of course, if anyone is home the 911 and other quick alarm systems will bring rescue vehicles quickly. In the old days the gossips were asked to get off the party lines so a fire could be reported. The church bells pealed a directional signal code to report a fire. They would also peal to announce church service. Now people complain if church bells are rung in the morning, as it disturbs their sleep. Cornell had to stop blowing their heating plant whistle at 7 and 8 a.m., and at 5 p.m. People complained of being awakened in the morning. Perhaps they didn’t want to wait until 5 p.m. to be on their way home.

All of us helped our neighbors and vice versa in emergencies. Systems that alerted us of the time of day were welcome, such as church bells. We didn’t carry wristwatches on the farm. Some had cheap pocket watches.

Big wash tubs and scrub boards were replaced with washing machines with ringers to squeeze out excess water. Then the clothes went out on the clotheslines to dry or freeze like skeletons on cold winter days. The women developed considerable muscle power between washing clothes, mopping floors, helping with other chores, and the million things a household engineer had to do.

The lye and lave soaps are antique items today, with high powered detergents, mild bleaches, modern washing machines and associated clothes dryers that control
all the cycles electronically while one hops in the car to visit a nearby salon for a haircut.

This does not mean that the modern mother has an easier life. She may be working full-time outside of the home. Instead of seeing to it that the kids are doing their chores at home she is speeding off to get them (boys and girls) to their athletic practice sessions or multiple games, music lessons, etc. Then there is the constant call for more volunteers. Yes, the needs increase, especially as we live much longer, and the world fails to cope with growing populations.

The old typewriter seldom needed repair. Just clean the keys with an old toothbrush and put in a new ribbon. Now the computer, printer, fax machine, copier, TV, video player, etc., all need attention to keep up with the Joneses.

Lots of muscle power used by people and horses was replaced by tractors when I was a kid. Our muscles were used extensively to carry feed to the animals, clean the barn and harvest the crops. Later there were silo unloaders and guttercleaners. Pitching hay by muscle power was replaced by mechanical balers with mechanical elevators available, although much loading on trucks is done by human power.

Hoeing crops was replaced by cultivating them, and eventually by herbicide treatment. Genetic engineering of crops has great potential. Unfortunately, it has stirred up a pot of controversy. Shoveling the snow became a lost art and pain on the farm when snowplows and bucket loaders became standard equipment on tractors.

When this need to expend lots of energy to stay alive changed to a pushbutton society, obesity became a serious problem for many. One better take up golf and tennis and join an exercise club. Better still, walk and run with your dog. Dogs really are a wonderful friend.

None of my family smoked. We witnessed neighboring barns going up in smoke because someone had been smoking in the barn. One of our hired men smoked outside. He rolled his own cigarettes. He poured a little tobacco into a small sheet of special tissue paper, rolled it up and licked the edge of the paper to stick it, making a small cylinder. Voila! He had a cigarette. As this took awhile to prepare he didn’t make and smoke many per day. Today it is amazing to see movies of the processing and packaging machines that turn out millions of uniform cigarettes per hour. Cigarette manufactures have spent billions of dollars on filters and additives to make cigarettes safer. Unfortunately, for the addict they still are the microbomb.

The medicine cabinet had cotton, bandages, adhesive tape, Mercurochrome®, tincture of iodine, epsom salts, vaseline, aspirin, a few other home remedies, and scissors. The number of antibiotics and drugs a doctor has in the arsenal to prescribe today is mind boggling.

Thank goodness the pharmacist has the whole Pharmacopoeia on line to a central computer to check and pull off critical and correct information. The CATSCAN no longer is the cat looking warily from the bushes at the barking dog next door. So we are busier than ever keeping our prescriptions filled, getting our MRI done, and thankful to find there was nothing there. Is that like the game we played as kids and said “point to your head and say M-T?”

We probably need more of these medical tests and additives that drive up medical costs today, partly because we live much longer. Also doctors are driven to
excessive testing for protection in a lawsuit society. But is our immune system taking care of us like it should and could? We used to play in the healthy dirt on the farm. Our ancestors for thousands of years lived on the land. The children developed multiple immunities at an early age. Today we know from Nobelist Dr. Medawar that it is at a very early age when our immune system “learns” and develops a defensive system to deal with and prevent many infirmities that adults raised in a sterile environment are afflicted with today.

What about wars? Can we ever learn from history that violence usually does not resolve a problem. It is true that violence may be necessary to stop violence as in World War II. Fortunately WWII was followed by aid and healing. Wars exact a terrible price on lives of young people in the military and on populations in the war zone. Historians still debate the use of the atomic bomb. My Japanese-American friends who had relatives in Japan and even in the Japanese army state that the bombs likely saved lives. They feel that definitely the Japanese military would have defended Japan to the end of total destruction of their military and probably at a great cost to the attackers. This I believe to be a true scenario, considering that at Iwo Jima 19,000 of the approximately 20,000 defending Japanese had to be killed before the remainder surrendered. In the process more than 6,500 U.S. marines were killed and 26,000 were wounded.

World War II was a must war for us to defend and preserve freedom. I believe that the most important decision I ever made was when my dad told me that I could be deferred to farm, but I told him that I needed to go. It was not for me, but for others who would come after. I knew very well the consequences that caused John McCrea to write “In Flanders Fields”.

However, many conflicts for the U.S., most notably the Vietnam War, certainly were questionable. Veterans who survived, including my son, were affected for years afterwards. They were not treated with respect. General George Washington is reported to have said “The willingness with which our young people are likely to serve in any war, no matter how justified, shall be directly proportional to how they perceive veterans of earlier wars were treated and appreciated by our nation”. How true!

Faith and good fortune have been with me all the days of my life. Once the War Department reported that I was killed. Another time I nearly died. An atheist would say that I was damn lucky, but that night in WWII when the MD major whispered to a nurse in the hall that they might have an empty bed in the morning I heard a voice “Bob you are one of my children worldwide. If you believe that you are too young to die, and that you can do things that are worthwhile in the world then your prayer to live may be answered”. So I have tried to fulfill God’s promise.

Now in 2003 I take a moment to reflect on the personal effects of wars and the meaning of sacrifice. As the physical pain in my war wounds increases, I only have to reflect for a moment on a visit to the military cemetery. There lie the untested potential of tens of thousands of young people who did not come home. I could have been one of them. Imagine the enormous pain of the families who lost a loved one. Of parents who may never have grandchildren. Of the sweethearts who had to discard their dreams, and hopefully replaced them with new ones. They must provide the catalyst, along with the survivors who came home, to stimulate the next generation. All are a part of the great generation that Tom Brokaw wrote about.
These are the thoughts which haunted me when I visited an immaculate cemetery with crosses row on row. I did not need to stand among them, nor do I need to now to say “why me?” What do I do now? There is work to be done. With faith, and love we must move on, not into the valley of death, but into the valley of hope.

And so in numerous other ways our personal life goes on “for better, for worse, for richer, for poorer, in sickness and in health...”. I was extremely fortunate to have fine parents and two spouses who were superb, as well as two sons who were tremendously supportive over the years. Many people fulfilled fully the spirit of Proverbs 31:10-31. What about our professional life?

We fixed many things in the lab. in the early days, often with the help of a buildings maintenance friend, without a work order. Today I have seen a warm water faucet leak 100,000 gallons of hot water a year (I measured the flow rate) before it was fixed. How much heat energy and water was lost in all of Cornell in one year? I reported such problems, and I wrote letters after months of no action, but seldom was there a response to my letters. I no longer had the spare parts to fix it.

I have seen a great diversity of students come and go over the last 57 years. I’m sure that they have about the same DNA over that time, with one exception. Our student body today has a much greater sample of people with two X chromosomes. Only about 2 or 3% of the students in my class in Animal Science were girls in the beginning. Now it is about evenly divided between boys and girls. Some other parts of the university had more women. Overall the proportion of women in the university has increased. This is good.

We have a highly selected group of students at Cornell. I have not noted any change in innate ability. They have been exposed to masses of information and worlds news. I don’t believe that this has increased their capacity to think and reason, even though it may have made students more sophisticated. Generally, they have had less practical experience today.

Many students are most concerned about income. Some surveys indicate that we are more greedy today. The monetary interest also can result from the simple recognition of the high cost of obtaining an education today, and the cost of a modest living by today’s standards. Certainly many students do volunteer work for the joy of sharing, not just for their resumé. Overall, the students at Cornell are the greatest bunch of young people I’ve seen anywhere.

What about professors? The attire is more relaxed. We always wore neckties to work everyday. Today, when I see a young professor with a tie I know that there is some kind of meeting scheduled. Individuals differ in attire also. The same is true of the women on the professional staff. Certainly the attire and demeanor in our classrooms today is more informal than in former times, and more informal than in classrooms in Europe and Asia. This likely is good provided that class discipline is maintained.

The graduate students and technical staff deal more with molecular biology and sophisticated equipment than formerly. Less use is made of animals in research. Plastics have greatly reduced the time required to wash glassware. Of course, landfills now are filled with trillions of plasticware used one time. Electronic recorders have greatly reduced the use of handwritten data, with increased accuracy and decreased time spent. Handling the data so closely in the early days, combined with
statistical analysis on simple calculators, gave one a good perspective of what was in
the data. When samples go into machines for analysis, with a direct-line computer
printing out the statistics, one must take time to become very familiar with the output.
Otherwise, superficial or wrong conclusions may result. That can happen anyway.

Technology has given us more options. It has created the possibility of having
more leisure time. Also, it has caused vast agricultural land areas and natural habitats
to be paved with concrete and tar as people drive to work and drive thousands of miles
seeking pleasure.

Are people becoming robots? They communicate at a distance, seldom
shaking hands. Cold e-mails replace warm handwritten cards – at least often. How
will technology affect social structuring and caring for each other?

Jokingly, it is said that a friend questioned the Wright brothers on why build an
airplane. After all the friend pointed out, there were no airports. Where would we be
without dreams converted to reality? I can remember as a child running out of the
house to see an airplane that we heard flying overhead. In Ithaca, New York I knew a
little airport at the south end of Cayuga Lake (where the Hangar Theater is now). It
was the home of Robinson Airlines. A new airport was built on East Hill. Successive
enlargements and mergers resulted in Mohawk, then Empire, then Allegheny, then
U.S. Airways and U.S. Air. Distant travel is easy and fast, but more land is covered
with concrete runways and airplanes also are weapons of destruction.

We gobble up huge quantities of oil and coal in our heated and mobile society.
Clean water is scarce. We are not treating our source of livelihood, the planet earth,
well. We must do that. Otherwise the lessons from evolution are very clear. We must
take care of one another also. The lessons from human history and animal behavior
also are very clear. Am I just old-fashioned? Will times change? Surely they will.
Hopefully we will use our privileged brains in the most constructive ways before it
might be too late. We have that potential. Our educational institutions, such as
Cornell, are working hard to help all overcome ignorance with increasing emphasis on
ethical values. Education helps us to earn a living, and ethics helps us to make a life
worth living.

It has been a golden age to live in. I have had a wonderful life doing what I like
most to do; that is to help and serve others. A further demand on us all is to leave our
earthly home a good place to live for the generations to come. Frankly, we must do a
much better job than we have been doing for the past many decades.
Reflections by my Mother

My mother wrote regularly all the years I was away from home (the Gilead farm home). They were newsy. They were positive, even when mentioning an item that might have considerable negative local or national impact.

My parents were conservative New Englanders. While they were always supportive, you were expected to do well, and praise was given very sparingly. I did receive a letter on my 61st birthday which was most unusual. I recently discovered it with miscellaneous items that had been saved. It reflects the kindness that always characterized my mom, though such words were seldom spoken. So this letter from my mother is included partly as a tribute to her.
There are dozens of memories of Bob (Robert Hutchinson Foltz). Among those of preschool days, there always comes to mind his answer regarding his whereabouts, "He's sitting in his chair putting on his shoes like his mummy told him to.

After he started going to school, he brought home a spelling paper on which the letters were so strangely mixed that no English words were apparent. A few home lessons in "at, but, eat, etc., resulted in a paper with "so, on it.

We recall how faithfully the eight-year-old worked, rolling the key into corks and by way of resting a minute, Bob (or Bobby) would stand on one foot with the other foot traced against a knee.

When he graduated from the district school, he had a part in the program. He spoke "Lincoln, the Man of the People" much as his brother had done a few years earlier.

When the older ones were away from home much of the time, I found Bob very companionable and thoughtful, and I tried to help him in little ways such as throwing a football to him as he practiced kicking it. When Bob was at the barn, unless Lurina was there, I made mental notes about radio reports of baseball, especially concerning the Yankees.

Like Ed, at Windham High School graduation, he received the Pi Mu Epsilon Medal for Math and Science.
One day when Robert and I came from Manchester, the door from the porch to the kitchen stood. I was thrilled as I said, "No one but Bob and Ed would hold this door on me. Ed is in the yard; Bob must be home." They had to be one and thought some boy would not be home. And everywhere there would be future problems.

Bob enjoyed Christmas wrapping. "I may never do this again," he said. Then came the wedding and Ruthie and Bob started housekeeping in Ithaca. Then began a long line of classes, some taken by Bob and some held by him. Robert and Hale arrived with some conversation about middle names. A Glastonbury lady said, "You can be proud of your son; he is very helpful to these boys who are just starting at Cornell."

We have visited Bob and Ruthie in their three Ithaca homes "each..."
better than the last. They take a little time out of their busy schedule to come to Connecticut. Usually Bob plays the piano for a few minutes and I think of the boy who said, "I wish you would show me how to play the piano. I know Ed didn't like to practice, but I think I would practice." A while later when he was at the piano he informed me that he almost wished he hadn't said he would practice. He doesn't say it now.

Recently Robert said that it must have been a shock to Bob when he went after the cows and found several (was it seven?) dead, struck by lightning. We recalled that when Bob was working on the 1941 farm, he came down because of an approaching thunderstorm and left

an area that was soon afterwards by lightning. (Ed was there too. Note by RHF)

I am not attempting to detail the years of hard work, travels in and outside of the United States, and many honors that have been given him because he earned them.

Ruthie helps Bob in various ways. He has mentioned her as a hostess, as a driver, and as one who attends to many small but important matters.

Recently Bob sent home a card of appreciation for parents who encouraged him to do his best within the framework of human imperfection. I was interested that among good qualities he mentioned pride and humility were included.

We are proud of you, Bob, and feel a kind of humble gratitude that you were given to us.

Happy Birthday! Pa and Mutter

(Note: Mother soon will be 95. RHF)
Reflections on Our Time

Robert H. Foote
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In the process of closing my office after nearly 58 years at Cornell University I have paused to reflect on some of the seemingly more difficult times, partly at Cornell, but also during my 81 years. I say seemingly more difficult times because at every moment of time many persons somewhere are stressed to the limit of self-containment or beyond. The famous words of Thomas Paine that “These are the times that try men’s souls” is an ever applicable statement.

My reflections are limited to a few examples of personal involvement. It is not a time line of natural disasters, political intrigue, global violence, discrimination, starvation, disease or drugs. Likewise impressive advances in technical achievements, such as harnessing electricity, space exploration, agricultural productivity and medicine, and progress toward minimizing the dehumanizing of people through faulty discrimination, affect all of us and are not included.

As a boy I thought that time was a simple thing. You learn to tell time, you learn that it is time to get up, time to go to school, time to do your homework and time to go to bed. The Webster dictionary devotes extensive space to time, so obviously it is not simple. Neither is the cause of certain events clear or simple, and solutions to crises are even more complex. However, history is an important component of time, and we are reminded that history often repeats itself because of our ignorance of history or our failure to learn from it. How many crises could be avoided with thinking, listening and meditating, but not procrastinating?

As a reproductive biologist and geneticist I marvel at the intricacies of DNA, and how a simple codon of four nucleotide bases replicated in varying sequences carries out this miraculous process of cell multiplication and differentiation that leads to each generation of individuals. Miraculous biology, self-controlled, and possessing generations of experience we human beings hardly have to do much to start the process. But now, after conception, life becomes extremely complicated. Each one of us must be helped to learn how to cope with life here and now, and not thereafter. We must benefit from the generations of experienced people who preceded us.

I was born in a farmhouse on a dairy farm. Calves and cows needed to be fed, attended to in other ways, and cows milked morning and night every day of the year. And the better you cared for the animals, the fewer crises of sickness and death occurred. Was this a hard life? Hardly. It was a rugged one. It required great discipline, setting time priorities, responsibility and resourcefulness. One learned the importance of caring for others, be they animal “critters” or people.

Then there was the one-room school with eight grades and a multitude of subjects. My one-room school classes were made up of about half kids from old New England Yankee farm families, and about half from several families who
recently emigrated from Italy. Then there was the teacher. Yes, just one person who had to manage time, multiple subjects, and a diverse bunch of kids. But manage she did, without an oppressive management.

There was this atmosphere of learning, sharing and caring. We knew that the teacher wanted all of us to learn; perhaps I should say to succeed. They (all three of the teachers I had) were there to help each one of us, but each one had to learn to develop self-help and self-esteem. Furthermore, the older kids could learn more and feel good when they helped younger ones. Didn’t Bobbie or some other uppergrade student feel good, even proud, when the teacher asked if you would help someone in a lower grade having a problem with arithmetic. You learned that to help you had to try to figure out what the problem really was and not show how smart you were. I hope I didn’t flunk that approach often. Of course, if really experienced help with a certain student was needed, the teacher would handle that herself. My grade school teachers were women.

So life went on. There was something about those simple times that allowed one or forced one to focus on the important aspects of growing up. This fourth dimension was what made reading, writing and arithmetic important. Life at home, on the family farm, also contributed to this fourth dimension. The roots were strong. No plant, tree or person can reach its, her, or his fullest height without strong roots. These roots seemed to require only a modest amount of clear fresh water during those years of the great depression. Of course, there were many families left uprooted with only crumbs from the breadline that allowed them to barely exist, but not live with dignity.

And then there was World War II, the Great War that followed the war to end all wars, World War I, but unfortunately, every minute there is fighting in many places year after year.

I had the good fortune of going to Officer Candidate School (OCS), and later to volunteer to serve with the 442nd regimental combat team (RCT). This was the now famous unit composed entirely of Americans of Japanese ancestry. They were proud to be Americans while retaining great respect for their Japanese ancestry. This unit is the most decorated army unit in the history of the United States, all U.S. wars considered.

Why was the unit so successful in fighting bloody battles? Why do I consider this the next great experience of my life, after the first of growing up on the farm? There are no simple complete answers, but there are a few major characteristics of the men and the unit that stood out. These Nisei (second-generation Americans of Japanese ancestry) young men were not guys that grew up on violence, nor did they thrive on it. There was a job to be done in the war and they did it.

They grew up in families with Issei parents. Cohesion, unity, sharing, caring, devotion, compassion, responsibility, dedication, determination, and extraordinary courage are some of the characteristics that were reflected by these guys. Sure, they had strange names, that is names that were strange to me like Masakasu Nishi, Kiyogi Morimoto, etc., but they all had American nicknames. Like any other group they loved baseball, sports, music, art and even studies. There was nothing strange about them.
We (the 442nd RCT) were like an American-Asian family. We had self-discipline. This transcended the usual necessary military discipline. We had self-imposed loyalty to others and country over self. Combined with other traits this made the unit the great fighting machine that it was.

Let me give you a few examples of love and understanding at the time of great tension that go beyond the glorious victories and especially the carnage suffered by both sides. The first example occurred in the heat of battle. We were attacking a well-defended village on a hilltop. As we approached, seeking as much cover as possible, we darted forward. We couldn’t avoid exposure. We had causalities. One of our medics was kneeling on the ground treating a wounded soldier. All medics had big red crosses on their medical supply packs and on their helmets. A German sniper picked the medic off with a shot through the Red Cross on his helmet. The medic was killed. This action by the German was absolutely against the rules of war or human conscience.

We were furious! We will now capture and kill those bastards, medics and all, no matter what. One of our other medics said “They may shoot at me, but you do not shoot at them (i.e. their medics). Two wrongs do not make a right”. We were a bit ashamed, and cooled down to a more rational and better fighting unit with humane values. There are two great lessons here. One young man gives his life for his wounded comrade and his country. The second medic states a principle for us to live by always.

This second example was told to me by another soldier in the 442. There was no battle raging. In fact it was a sunny day with a lull in the battle. At that moment all was quiet. A German outpost had been captured by one of our units. A German messenger boy (some of their soldiers were only 16-year-old Hitler brain-washed youths) was riding his bike up to a German outpost unaware that their outpost was no more. He probably was bringing some orders and maps for their retreat plan.

As he approached, a rifle squad from our unit waited in ambush behind some brushy cover. Their rifles were loaded. They were expert marksmen. They were ready! When the messenger came within close range the squad leader ordered “Fire!” The men all followed orders and fired. What do you think happened? The messenger jumped off his bike and ran down the hill away from our men. Why wasn’t these a massacre? It is not reported that the men said anything, but probably they only looked at each other. Each one knew that all had scattered their shots because this German soldier posed no immediate threat to them. No one was going to kill that German human being in cold blood. That was an act of conscience and courage on the part of each Japanese-American soldier. We did not hate individual German soldiers, but we fought evil with all we had. These men served with an ethic that placed honor above savagery. The evil were the dictators who supposed freedom.

I still keep in touch with several of the remaining members of the unit. Our roots have remained entwined permanently. Some of the descendents have attended Cornell University. It is a special treat to meet some of these kids who never knew their grandfathers who served in the 442.
At the time of World War II I was studying agriculture, planning to return to the home farm eventually. However, my experience in WWII changed my life forever. I was wounded three times, seriously enough that I no longer had the physical strength that I was so proud of while growing up on the farm. I had done well academically at the University of Connecticut before joining the army immediately after graduation. Upon discharge from the army I visited my former professors at the university seeking advice about further education. With the GI bill I could afford to continue, and I had a yearning for more learning.

I was referred to Cornell University as a fine place to undertake graduate work. So I applied to Cornell and was accepted. I received my M.S. degree in 1947 and my Ph.D. degree in 1950. I was offered a job at Iowa State University and at Cornell University. My young family helped me decide to stay in Ithaca which was really my preference also. Fortunately, I had taken a broad array of coursework, with concentrations in physiology, nutrition, animal breeding and genetics. This lead to a rewarding and awarding career in both teaching and research, receiving the Jacob Gould Schurman Chair in 1980.

Along with an extensive teaching and research program, I served on numerous departmental, college and university committees. There were two university committees that I believe were especially important for me and should have been more important for Cornell University. One was the Faculty-Student-Administration Forum. The other group was the Faculty Committee on Student Affairs (FCSA). My comment about Cornell relates primarily to the activities and possible lessons derived from service on these two groups during the turbulent 1960s.

In October, 1962 the Executive Board of Student Government passed a resolution urging that a Faculty-Student Committee for the study of the Freshman year be established. It was established. It worked hard and filed a 14-page report May 20, 1963, making recommendations on 1) the academic atmosphere and student motivation, 2) undergraduate instruction, 3) faculty student interchange, 4) housing, and 5) sub-frosh contact and preparation. There were many excellent suggestions. Some would require very substantial sums of money. I believe that this report was one of the forces that led to the wonderful Freshman Writing Seminars that replaced English 111-112.

In 1962 and 1963 the Executive Board of Student Government and the Faculty Committee on Student Affairs held many meetings on the Student Code. The students felt that they were getting nowhere, and on December 7, 1964, Paul Friedman, president of Student Government, raised the issue of "What role do students have in university policy-making?" Out of these joint discussions the FCSA on May 27, 1964 recommended that the Forum be established.

In November, 1964 the Faculty-Student-Administration Forum (FSAF) was established. This was a great idea because this provided the potential opportunity for these three important segment of the university, named in the title, to meet regularly in an informal setting to raise critical issues, to prioritize these, and to suggest solutions benefiting from the needs, resources and wisdom of all three segments. Student Government had been pushing for such a group. They appointed undergraduate members promptly. President of Student Government,
Elliot Fielder, and Richard Hoffman of the Cornell Daily Sun sat in on many of meetings as non-voting participants. One faculty member and one student from each college were appointed. The Dean of the Faculty, Vice President for Student Affairs and the Vice President for Academic Affairs were appointed to represent the administration. Also, two graduate students were appointed.

The FCSA resolution establishing the Forum stated “it shall be the function of the Forum to study any matter appropriate to furthering excellence in education at Cornell, and to make recommendations to the appropriate University body.

The Forum shall have neither legislative power nor jurisdiction”.

The fact that the Forum had no legislative power nor jurisdiction prevented any problems from arising concerning powers already delegated to other agencies. It also made the creation acceptable to any established group fearing that this might lead to competition and decrease the power of certain groups. While this is really the way a democracy should work, in my opinion it left the Forum in a weak position to effect any changes no matter how far-sighted the recommendations might be. It would be up to the goodwill and the determination of legislative groups to set aside time to study the proposals. Furthermore, after reading the proposals, meetings should be held to discuss ways of implementing, at least experimentally on a low-cost basis, the most urgent high priority recommendations. As one will note later in my reflections, this was never done to my knowledge.

Organizational meetings of the FSAF were held November 16 and December 15, 1964. It was suggested at the November meeting that John Dyson (a superb student I had in class previously) and I review existing reports and prepare a list of priority topics that the FSAF Forum should tackle. We did so. These initial meetings, I noted, provided an opportunity for individuals to air their pet peeves, and push aside vested interests. It was exciting to observe this group join forces. In a note to Professor Hertel on March 19, 1945 I wrote that “We are tackling our charge with the hope that we will be much more useful than just another report filler”. On this basis I acceded to the request that I chair the group. I did jump in with biweekly meetings, and correspondence and telephone communication in between. I did not neglect teaching or research, grant writing, and advising. However, my family practically never saw me, and I hardly warmed the bed before it was time to hop out. Of course this was not fair to the family, a fact I always regretted. It would not have been so bad if we didn’t have to wait 30 years to see the major essence of our reports implemented. But one should also rejoice in the progress made eventually.

I immediately found additional , thoughtful students and faculty who would serve on subcommittees chaired by Forum members. These four subcommittees were as follows:
1. Freshman Housing: Immediate problems and long range policies.
2. Teaching: Faculty suggestions, student needs, use of appropriate graduate students and grading.
3. Faculty-Student Interchange: Establishment of student seminars, honors, etc.
4. Student Motivation: orientation, advising, small discussion groups, and counseling.

We read draft copies or final copies of the Kahn-Bowers Report on Undergraduate Education, the Keast Report on Teaching and on housing, along with the Makesey proposal on housing. We held open meetings for anyone in the university community to attend, raise issues and make suggestions. One meeting was held when the Cornell Board of Trustees was meeting on the campus. Several trustees attended our open meeting. Student turnout was poor. They missed an opportunity to impress the Trustees that some issues were urgent and should receive priority attention.

Students for Education also wrote to the Board of Trustees on April 26, 1965. They raised five issues in their thoughtful letter. They noted that they were maintaining a peaceful protest. They had refrained from disruptive public demonstrations. They were frustrated because the students felt that professors and administrators were not responding to issues raised by the students. A lack of response (in any direction) can be logically interpreted as a lack of interest and concern by faculty and administration.

During the Spring Semester hundreds of hours in total were spent by the various subgroups in the FSAF in grappling with the problems, followed by recommending specific solutions. It was exciting. The Cornell Daily Sun provided much favorable publicity. That was unusual for the Sun.

On May 11, 1965 we produced a series of reports by the four subcommittees listed previously. Copies were sent to the administration, all deans, chairs of all department, Student Government, and Forum members (112 copies). At a special meeting of the University Faculty on June 7, 1965 Dean Murphy read two resolutions by the Faculty Council recommending that all segments of the university review these reports with the intention of improving undergraduate education, and specifically beginning with the coming Fall semester that experimental Freshmen Seminars be offered by full-time University staff. The latter, with later support from the Knight Foundation (and perhaps others) has and is one of the nation's best programs for first year students to develop English language skills.

President Perkins and provost Corson acknowledged receipt of the reports. Both complimented the Forum on its hard work, identification of problems, and suggested possible solutions. A copy of the report is attached. There was no more contact. What happened to the report thereafter I do not know.

During the Fall of 1965 I took the lead in studying the advisory system. I asked to have a new chair elected for 1966, as I needed more time to devote to my departmental responsibilities. A new chair was elected. I continued to explore the advisory system in the various colleges. There was good input by faculty and students as they viewed this system in each college.

Also, we attempted to find out what was happening with our previous reports. From what little we learned, it seemed to be not much. The attendance by the Forum representatives from the administration was very spotty. Many on the Forum began to question whether or not we were wasting valuable time.
One faculty member even stated that his view was that the Forum had been used by the administration as a "lightning rod" during the campus unrest the previous year.

The Vietnam War was causing considerable unrest on campuses. Side by side in the Cornell Daily Sun were reports on the progress by the Forum and lack of progress in the Vietnam War. There were war protests that interfered with classes. Some were led by non-students, and these clearly had no business to be on the campus. Where does one draw the limit on free speech in interpreting the Bill of Rights? This conflict was diminishing further efforts by the Forum to perform a useful function for the University. One of the keys that was missing was effective participation by the administration in the first group ever formed at Cornell (I believe) to have administrators, faculty and students together on one body. Previously some students didn't trust some faculty or administration, and the same could be said relative to some faculty views of the administration. The Cornell Daily Sun in 1966 ran a headline and editorial on "Whatever Happened to the F-S-A Forum?" Soon the Forum dissolved itself.

Turbulent times continued in 1967-68-69. The Vietnam War became more and more unpopular. Several provocative incidents occurred that increased the tension among the Afro-American community. The Faculty Committee on Student Affairs (FCSA) was aware of several of these problems. I was a member of this Committee. Afro-American leaders appeared before our committee voicing their concerns. They had also staged some illegal sit-ins. The Afro Americans were disturbed with the student code and its application. The FCSA studied the Judiciary System and filed a report published March 26, 1969. This reflected the dedicated work of many knowledgeable people. The FCSA hoped that this effort would help to reduce the tension with the discussion of this report aimed toward revision of the Code to deal more fairly with current and future problems, many especially relevant to minority groups.

I am not aware that appropriate faculty and administration sat down with Afro-American and other students to hash out and thrash out revisions. Obviously some compromises would have to be negotiated to reach a consensus. Who should have initiated the call for such discussions? At this point I don't know who that should have been. Certainly key faculty (such as FCSA) and administration should have been talking to each other immediately to propose a plan to meet with students in as nonconfrontational a setting as possible, with all options open for discussion.

Then black students took over Willard Straight Hall. The possible role played by SDS encouraging black students to stage such a protest is not clear to me. Then weapons were moved in, I believe out of fear on the part of the Afro-Americans. The perceptions on the outside was that this might be the beginning of violent confrontation. Some of the more radical black leaders had made threatening remarks earlier about burning buildings.

Vice provost W. Keith Kennedy and vice president for students affairs, Steven Muller, accompanied the students out of Willard Straight Hall on April 19, 1969, and signed a seven-part agreement. This evacuation was handled extremely well, considering the tension and possible hot heads inside and
outside of Willard Straight Hall. Volumes have been written in the aftermath. Many improvements have been made.

In my reflections I can only wonder how much damage was done by these events? Could better and frequent communication have accomplished as much or more without as much bitterness? The faculty blamed the president. The president, in addressing the trustees, blamed the faculty. These adversarial reactions did not help to lead the University on a positive course.

As a faculty member I wondered why the administration never responded directly by requesting a meeting to discuss these reports. It seemed to the FCSA that the administration was ignoring this possible useful discussion in attempting to resolve the problems. Was the administration hoping that the problem would silently go away? As a consequence, Prof. Henry Ricciuti, chair of the FCSA resigned. He stated his reasons, one of which was the disparity between administrative action and recommendations by the FCSA.

About the same time (May 15, 1969) I wrote a letter to the dean of the faculty expressing my misgivings. This was prompted by my experience on the FCSA, and by my earlier experience as chair of the FCSA Forum. Attached is a copy on my letter.

I believe that in recent years there have been more conversations and coordination between bodies that have responsibilities for closely related issues. I hope so. Certainly remarkable steps have been taken in recent years to provide the setting for a community of students on the north campus to interact with the challenges of every-day-life outside of the classroom.

A few years ago I was asked to serve as a retired professor on an ad hoc subcommittee dealing with faculty titles, positions and the problem of some very senior professors staying on indefinitely with high salaries. Given the current financial situation this prevented hiring many young talented teachers and researchers. Obviously, financial arrangements were an essential part of any practical committee recommendations. Initially the Dean of the Faculty (Prof. Cooke), who organized the committee, felt that he had administrative support to pursue this possibility. Later he was unable to get appropriate university administrators to respond to the subcommittee. We had ideas that in a few years would save the university money and open positions for assistant professors in areas where needed expertise was lacking. So those deliberations were thrown into the recycling bin. We quit wasting our time.

What do I conclude from these reflections, relative to my Cornell experiences? The University is very complex. Most important questions and problems do not have simple or single answers or solutions. Often a solution doing the most good for the university may require some concessions by one or more groups. But that is a democracy so long as we do not forget the needs of others along the way, especially those who have made concessions.

The university has come along way in coping with its multifaceted problems within the university community, and as it has interacted with the community at large. Nevertheless, my experience with important university committees and the Forum in the 1960s and another committee in the 21st century cause me to reflect as follows:
1. No faculty committee should be formed or exist unless there is a problem which can be defined in a clear mission statement suitable for committee exploration. The committee should report to an authority who or which has the power to proceed with some action.

2. Furthermore, as committees have no authority for action, no committee should be formed without the authorizing body making a commitment in writing to study the recommendations promptly, to discuss the report with the committee and vigorously pursue solutions insofar as possible.

3. Otherwise it is a wasteful exercise in mental frustration which may do harm to the University components in working together for the common good.
Appendix I

Curriculum Vitae

NAME: Robert H. Foote
TITLE: Emeritus Professor of Animal Physiology
and Jacob Gould Schurman Professor

EDUCATION:
Early: In High School, Rensselaer Medal for highest in math and science, 1939
University of Connecticut, Storrs B.S. (honors) 1943
Cornell University, Ithaca, N.Y. M.S. 1947
Cornell University, Ithaca, N.Y. Ph.D. 1950 in the fields of animal
breeding, physiology, nutrition and biochemical genetics (Note: 1943-1945 served
as an infantry officer in combat in Europe with the famous Japanese-American
442nd RCT. Returned to continue education in 1946).

POSITIONS:
1950-56 Assistant Professor, Department of Animal Science, Cornell
University, Ithaca, New York.
1956-63 Associate Professor, Department of Animal Science, Cornell University,
Ithaca, New York.
1958-59 Fulbright Scholar, Zoophysiology Institute, University of Copenhagen.
1963-1993 Professor of Animal Physiology, Department of Animal Science, C.U.
1976-1993 Professor of Animal Physiology, Section of Physiology, C.U.
1978 Visiting Professor, University of California, Davis, CA.
1980-1993 Jacob Gould Schurman Professor (University Chair), Cornell University.
1993-present Jacob Gould Schurman Professor Emeritus

MEMBERSHIP IN NATIONAL ORGANIZATIONS:
1. American Association Advancement of Science.
8. Society for Cryobiology.
11. Phi Kappa Phi.
12. Sigma Xi.
RESPONSIBILITIES AS A FACULTY MEMBER (with help until retired)
1. Responsible for teaching undergraduate reproductive physiology, A.I. E.T., embryo biotechnology and gamete physiology.
2. Research: responsible for male reproductive physiology, A.I. fertilization, embryo transfer and cloning research.
3. Advising undergraduates, graduate students and post-doctorals.
4. Various departments, university and national committees.

HONORS:
Graduated with distinction, University of Connecticut, 1943.
NY State Jersey Cattle Club Tribute for Outstanding Educational Work, 1953.
Cornell Traveling Fellowship, 1956.
Fulbright Scholarship for study and research in Denmark, 1958-59.
Mark L. Morris Recognition of Research in Veterinary Medicine, 1958.
Spallanzani Symposium Award, 1959.
Fellow, American Association for the Advancement of Science, 1961.
Professor of Merit Award, NYS College of Agriculture, Cornell University, 1967-1968.
NY Farmers' Award for contributions to Northeast agriculture, 1969.
ASAS Animal Physiology and Endocrinology Award for Outstanding Research, 1970.
Russian Exchange Group Recognition, 1975.
Univ. of Conn. B&B Club Alumni Award, 1976.
SUNY Chancellor's Excellence in Teaching Award, 1977.
NIH Study Section Award for Service, 1978.
Edgerton Lifetime Teaching Award, CALS, 1980.
Jacob Gould Schurman Professor, 1980.
Kitasato University, Tokyo. (2) Awards 1983.
Seoul National university (2) Plaques of Appreciation 1983.
SSR Recognition for Services as President 1985.
Upjohn Physiology Award, ADSA, 1985.
Japan Society for the Promotion of Science Award, 1987.
Superior Service Award, USDA, 1988.
Kangwean National University Lecture Award, 1991.
University Honorary Professor, Beijing Agricultural University, 1995.
Distinguished Alumnus Award University of Connecticut, 1996.
In Who's Who in Science in America for many years.
Japan Society for the Promotion of Science Award, 1996.
Hartman Award; highest award for lifetime research by SSR, 2000.
Cornell University Trustee Foremost Benefactor Award, 2001. (High honor).
ADSA Fellow Award, 2001.
ACT Award for Service to community and humanity through ACT, 2001.
Pioneer Award for AI, ET and Cloning, IETS, 2002.
Outstanding Faculty Award, CALS Alumni Association, 2003.
Many other lectureships and an invited speaker at international meetings in North and South America, Europe, Asia, and Australia.

**ADVISORY POSITIONS:**

1950-1993 Numerous editorial boards and national committees (approximately 60).
1972-1974 Ad hoc member Study Section, Reproductive Biology, NICHD.
1975-1978 Study Section, Reproductive Biology, NICHD.
1985-1988 Advisory Board, Biotechnology Institute, Cornell University.
1992-present Hundreds of requests for help, all done gratis.

and grant applications. Probably the total number of papers and proposals evaluated over many years exceeds 1,000.

**RESEARCH:**
About 500 papers on A.I., fertility, ET, biotechnology, and cloning published.

**LOCAL COMMITTEES:**
1950 - 1998 Served on approximately 100 department, college and university committees such as those which started the Honors Research Program for Undergraduates, Committee for Evaluating Teaching, Committee for Undergraduate Teaching Experience, Student-Faculty-Administration Committee on University Affairs (chairman), General Committee of the Graduate School, Committees for Selecting Deans and Provosts and others too numerous to list.

**Examples of National Committees (approximately 50):**
1. Program Committee, SSR.
2. Nominating Committee (4X) SSR.
3. Awards Committee - ASAS.
4. Awards Committee - NAAB.
5. Host Committee, national meetings (ADSA 2X, ASAS, SSR, Cryobiology).
6. Archives Committee, ADSA.

**COURSES TAUGHT:**
3. A.S. 221 Genetics, guest lecture.
7. A.S. 395, 498. Undergraduate teaching; taught about 125 students.
8. A.S. 396, 499. Undergraduate research; taught about 100 students on independent research projects and Honor's Research.
9. A.S. 430. Course in artificial insemination of farm and companion animals; about 65 students/year. Extensive labs., 600 students.
10. A.S. 431 and 497. Micromanipulation and transfer of embryos. (Also lecture on this for Sr. Vet. students.) About 20 students/year.
11. A.S. 470. Two lectures on “Ethics of Cloning”
15. Vet. Medicine 561. Guest lecturer, Theriogenology; about 80 students each year (4 lectures).
18. B.S. 812. Selected Topics in Physiology. Guest lectures.

I prepared extensive manuals for TAs and for students in A.S. 220, 430 and 431.

ADVISEES EACH YEAR: (Average over the years)
1. About 12 undergraduates plus 1-2 honors students.
2. 6 graduate student majors and/or postdocs.
3. 3 graduate student minors.

As a result of teaching and advising, thousands of letters of recommendations have been written.

GRADUATE TRAINING AND MAJOR RESEARCH:
During my research career I have trained approximately 100 Ph.D. students and postdoctorals. These scientists are in responsible positions in the U.S. and many foreign countries. In addition to many University professors these scientists hold staff positions in EPA, NIH, USDA and many industries. One is a member of The National Academy of Science.

The information generated by about 160 funded competitive research grants has been distributed throughout the world in the following ways:
1. Approximately 500 peer-reviewed research publications.
2. More than 200 abstracts of papers presented at national and international meetings.
3. Seminars and symposium plenary papers at approximately 100 national and international meetings. Approximately 5000 slides, prepared and used.
4. Chapters in textbooks and reference books prepared for national distribution. These include chapters on reproductive biotechnology and cloning.

MAJOR RESEARCH CONTRIBUTIONS:
The approximately 500 research papers include the following major areas:
1. Pioneer research. Development of semen extenders, antibiotics and semen processing methods which became standards in the A.I. industry. The use of antibiotic combination of penicillin, streptomycin and polymyxin we published was used from 1950-1988. This wiped out Vibrio fetus and other problems worth hundreds of millions to the cattle industry.

2. Pioneer research. Researched the basic process of spermatogenesis in farm animals and the rabbit lab animal model, so that this process would be better understood and would be useful in evaluating sperm production in males.
3. Developed better methods of sperm evaluation, including new automated computer-assisted image analysis of sperm. This has led to a current NIH grant to assist a company in developing improved instrumentation for sperm evaluation in animal and human medicine.

4. Pioneering research. We studied development and heritability of the testis size ($h^2=.67$). Testicular characteristics were highly predictive of semen quality, fertility and conception rate in female relatives.

5. Developed testicular biopsy techniques. This, along with ultrasound (started in the 1960's) and other publications on testis function and semen evaluation led to selection by EPA of our laboratory to develop a laboratory animal model for assessing risks of potentially hazardous agents affecting male reproduction. This quantitative approach is pioneering research.

6. In conjunction with research done on dibromochloropropane (DBCP) as a potential toxicant affecting male reproduction we were asked to testify in California on a multimillion dollar lawsuit won primarily on the basis of our research. In another plan considered in California to eliminate DBCP from ground water at an estimated cost of $200,000,000, our papers were cited as the "classic" papers indicating that this endeavor was not necessary.

7. Applied research on artificial insemination. We have performed hundreds of lab experiments and field trials leading to better methods of collecting semen, evaluating semen, cooling and freezing semen and developed quality control procedures. As a consequence, we have been invited regularly for 20 years to give technical reports on various projects at the NAAB Technical Conference on Artificial Insemination. We have contributed more than twice as many papers as any other laboratory at the request of NAAB.

8. To study libido in the bull and sexual attractiveness, many studies were done on bulls, steers, freemartins and intact and castrated male rabbits with hormone supplementation. This clearly pointed to estrogen in the male (testosterone aromatized to estrogen in the brain) as a powerful stimulus in males.

9. In females, we did the classic work to establish that all "eggs" in the sexually adult female were formed as ovarian oocytes in the fetal ovary. No new oocytes were formed in the adult and any "sterilizing" injury to the ovary of the young animal resulted in permanent sterility.

10. Relative to improving fertility in A.I. from the cow side we conducted a variety of studies on factors controlling estrus and better methods of detection of estrus. We pioneered the method of milk progesterone to evaluate cyclicity and problems in the postpartum cow.
11. We have initiated or collaborated on many studies involving nutrition and abnormalities in the postpartum cow and the use of GnRH to reduce the calving interval.

12. To study embryo mortality in the cow we pioneered studies using the rabbit as a model, along with cattle, involving superovulation, culture and the study of early embryo development. In the rabbit it was shown by reciprocal embryo transfer that embryo mortality was more closely associated with defective uteri (low blood flow, high connective tissue content) than age of the eggs, pituitary or ovarian function and circulation of LH and progesterone.

13. Embryo transfer studies were pioneered before application was started commercially, and in 1970 we published a paper stating that non-surgical transfer should be the method in the future.

14. We developed the first semi-defined medium for rabbit embryo culture in 1970 and the first completely defined macromolecule free culture media for rabbit embryos in 1990.

15. In cattle we have developed the first in vitro system for culturing one-cell zygotes into morulae and blastocysts with the same developmental potential following transfer as those produced in vivo.

16. Currently we are improving genetic engineering methods by introducing novel techniques for maturing oocytes, capacitating sperm, improving conditions for in vitro fertilization, functionally enucleating oocytes for nuclear transfer and developing improved cloning procedures.

17. Current studies on CASA analysis include human, rabbit and bull.

18. Our development of the rabbit as a nonrodent model for reproductive toxicology studies appears to have provided the stimulus and lead information for the EPA and pharmaceutical companies as they adopt the rabbit to supplement rodent studies. The placenta, and some other developmental aspects, make the rabbit especially useful as a model for humans. Note, for example, the thalidomide story.

19. This research was made possible by dozens of technicians, graduate students and postdoctorals supported primarily by competitive grants from The Lalor and Rockefeller Foundations, Population Council, NIH, USDA, EPA, NRC, BARD, many companies and especially Eastern A.I. Cooperative, Inc. The latter supplied semen and major help in conducting all field trials, as well as providing financial support. During this time several postdocs were supported by grants from foreign countries. Most of the research was supported by about 10 competitive grants written by the P.I., as only modest funds were available from
the Department or College. The people employed on the grants also contributed
to the college teaching function at no cost to Cornell.

In addition, many of these people have become distinguished award-winning
teachers, researchers and administrators in many countries, who are in turn
training others.

Grant Support

A. Recent

1. Since 1958 I have had one or more NIH Grants. My last major NIH Grant
   that has several co-PI’s was for five years (09/01/91-08/31/96) for a direct cost
   total of $657,116. This grant was on "Control of Oocyte Maturation, IVF and
   Embryo Development."

2. A recent USDA competitive grant was on "Polarity and Development of
   Embryonic Cells," direct costs of $164,036 (09/01/91-2/29/94).

3. A grant from EPA for one additional year was for $60,000 direct costs. The
   title was "Sperm Evaluation for Risk Assessment."

4. In addition I have had recent smaller grants on cloning and stem cell
technology with the Cornell Biotechnology Program, matched by Eastern A.I.
   Coop., Inc. and the National Association of Animal Breeders. Also, we had a
   subcontract on an SBIR from NIEHS to improve equipment for computerized
   automated sperm analysis (CASA) for $45,000.

B. Lifetime as a P.I.

1. About 160 competitive grants totaling millions of dollars from NRC, BARD,
   NIH, USDA, EPA, DOD, Morris Foundation, Rockefeller Foundation, Lalor
   Foundation, Cornell Biotechnology, Population Council, Kellogg Foundation and
   many industrial grants from AI organizations and pharmaceutical companies. In
   addition, whenever grants were funded for less than was minimally essential to
   fully do the important aspects of the work, or the department did not provide
   expected funds, the P.I., personally paid tens of thousands of dollars for
   equipment, supplies, personnel and office help. Also, this included paying a
   minimal supplement for undergraduate TAs before the committee I initiated
   established the undergraduate TA and research courses for credit in CALS
   several decades ago.
   The total dollar equivalent to fund this research today over the many years
   exceeds $40,000,000.


162. Foote, R. H. If you could control the sex of your calves, which would you choose? male or female. Charolais Banner, October, pp. 92-93. 1972.


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505. Mackin, J. Double vision. Cornell Focus 6(3):4-9. 1998. This article on cloning was written by Jeanne Mackin with the help of Currie, Foote and Parks.


Appendix II

Photographs of My Family and Professional Life

There are a great many stories that could be told about the life of a person who has had the opportunity to be exposed to so many times, conditions, cultures, and just ordinary family experiences. My ancestors lived a long time. I knew all of my grandparents. Although everyone has ancestors (profound statement), many were not so privileged to know many of them. My grandfather Hutchinson was old enough to vote for Abraham Lincoln. That generation lived to see trains and the beginning of internal combustion engines in cars and trucks, replacing horses for transportation. My great uncle Henry Holbrook helped to build the nation’s early railroads. My parents grew up with the industrial revolution greatly altering farm work. Electricity has revolutionized our lives. There have been times of relative peace and prosperity, and times of war and the great depression in the United States.

I was influenced by the environment of my time, including my parents who reflected both current times and past experiences. Some of my experiences are documented in the book, with only a few photographs. Pictures often are worth more than many words. The beholder can add their own experience to the script while viewing a photograph. Many photographs are included that are not mentioned in the book. Examples of family times, and from travels are somewhat random samples from about 10,000 slides and prints on file. Examples of research are likewise a few samples that were still in the office after I had discarded the material from eight 5-drawer filing cabinets. Some readers will be interested in the family life. Others will relate more to my Cornell career. I had to leave out most of the latter for space reasons.

These photos and the text are still only records and reflections of mine on the times. In the text, especially, I have commented on how these relate to my personal set of values. Some of these events could be expanded into short stories that would reach the hearts of most readers, with subtle points lying in the background. But it would require a better writer of prose than I am.

What were the idle dreams of this young farm boy in the depression as he communicated with the whippoorwills? Or were they not so idle? What were crucial experiences in college or in Church that changed these dreams? What were the experiences in World War II that had moments of excruciating pain versus moments of euphoria, of peace and rest of the body, mind and soul? Can I decipher how these impacted upon me, and how and why I responded “for better or for worse”? Searching for answers is a meaningful journey, despite the fact that in living we will never fully understand the biology or the meaning of life. Both exist. Have faith.

Note: The following “Photo Essay” also was printed separately by the author with many of the photographs in color.
A Brief Photo Essay of the Family and Life of Robert Hutchinson Foote

This restored house in Colchester, CT was built in 1702 by Nathaniel Foote, grandson of the original settler in Connecticut. I am eleven generations down the road from the settler.
Dedication

To family and friends, and the many students and staff who made the ups and downs of my life challenging, enjoyable, and meaningful.

Acknowledgment

To Marissa Richards of the Tompkins-Seneca-Tioga BOCES faculty, and especially to one of her students, Dustin LeBlanc, who helped me with the challenge of putting this book together, I am most grateful.
Preface

This short photographic essay was intended to be included as Appendix II to the book I wrote in 2003 “Born to Live and Living to Learn: Autobiography of a Farm Boy, Soldier, Parent and Educator”. That book, in the Cornell Archives, has only a few photographs in it.

Photography can convey feelings that are difficult to capture as realistically with prose, so here are more photos. There were many photographs to choose from, and at the same time there were gaps in the 81 years where few photos were found. However, the samples enclosed provide added glimpses of events and life during these past years which may or may not have been mentioned in the book. A short description accompanies each photograph.

The first section of this essay contains pictures of my ancestors and the farm where I was born. The next section catches a few memories of the farm family and farm activities. Then it was on to the University of Connecticut, followed by service with the famous Japanese-American Combat Team in World War II. Due to injuries in the war I had to change my career plans from farming to education. With the wonderful aid of the GI bill I headed for Cornell University where I started my own family. Next is a series of photos representing a career in teaching and research. Finally, a few photos provide glimpses of travel, parties, and retirement. Thousands of these events of early years are stored on colored slide film. These are yet to be dealt with, if time permits.

Ithaca, New York, 2004
The photograph of Grandma Foote was taken at a young age (around 40), young especially for her as she was nearly 112 years old when she died. Her hairstyle was modeled after that of President Taft’s wife (1908-1912 era). In 1891, Grandpa Foote bought the farm where I grew up. I had the good fortune of knowing all four of my grandparents. This added a sense of security and being that I did not recognize as a young man. They all had keen and clear minds all their lives.

The Hutchinsons said morning prayers daily. Grandpa H. farmed, kept bees, and marketed produce and eggs in Hartford. He was in the state legislature. Grandma H. was an outstanding student, with a remarkable memory. She was known throughout the area for her motto “Do right”.

Grandfather Edward E. Foote

Grandfather Alfred W. Hutchinson

Grandmother Alice Hills Foote

Grandmother Lovina Holbrook Hutchinson
I always loved this picture of mother, and I think she did too. This must have been taken about the time that she graduated as valedictorian of her class at Bacon Academy. She was a caring person, as reflected in her thoughtful face. This picture of my dad was taken when he was 18, probably about the time he graduated from Bacon Academy.

A formal portrait of my mother and father, early in their married life. Aren’t they a good-looking couple? This is the unbiased opinion of a son. After mother graduated from Bacon Academy she taught several languages at a junior high school before attending Alfred University (valedictorian in 1912). My father was younger than mother, so when he went to Trinity College and Alfred University they were classmates at Alfred. After marriage my father taught math, chemistry and physics, and he was principal of a high school (1913-1919) while mother raised a family.
At the time of the picture to the left, ox power was the standard power. Later on, however, horses replaced oxen on the farms and this is the beginning of the expression “horsepower”. In the next generation, horses gave way to tractors. Looks like Grandpa Hutchinson is using a cell phone, but obviously not so around 1870.

Gilead Hill School probably in my grandparents’ time. Some were well educated for the times, with the wives teaching before marrying and raising families. Note the dress of the schoolmasters and the students. The girls look so old in their outfits. Where were the older boys? Working on the farms?

The Gilead Hill School in 1894, when my mother was 6 years old. She is sitting in the front row, second from the left. Many old-time Gilead families are represented, such as Way, Warner, Prentice, Perry, and Gilbert.
Home farm about 1902, looking east along the dirt road from the valley stream that in former times powered the gristmill built by Mr. Strickland. The mill was gone when I was a boy, but the millstones were in the brook. Grandpa Foote bought the farm in 1891. My mother and dad moved to the homestead in 1919 with their three children. My grandparents moved upstairs.

Home farm about 1942, looking down the hill from above the house. This is where I was born in 1922. The power lines run along the paved road. The new barn designed by brother Ed was completed about 1941. Note how much the Norway spruce tree has grown since the previous picture was taken. We call it Footehills Farm after Grandpa Foote and Grandma Alice Hills Foote. It is also in the foothills.

Front view of the farm home in the fall of 1998. It was well built. Mr. Strickland wanted it to be better built than any others. The spruce tree is visible on the left side. It still stands, although struck by lightning several times. The maple tree in front was rocking during the hurricane in 1938. Mother watched with great concern, as my dad and I nailed a big hay tarpaulin over the blown off flat tin roof at the right, now replaced with a conventional roof. This episode is described in the book.
My Grandpa and Grandma Hutchinson’s 50th wedding anniversary in May, 1922. This photo, taken in front of the Hutchinson homestead, included the four Hutchinson children, their spouses and grandchildren. The four children were Arthur Edwin, Carrie Jane, Carroll William and Annie Lovina. I am invisible in the picture because I was born 3 months later. My mom is sitting down two places to the right of the horses.

Probably 1923, with siblings Ed, Lovina, and Marje. Guess who is in the carriage. The old icehouse and hay wagon are in the background. We cut ice on the farm pond to cool the milk until we had electric power in the 1930’s. The open door at the far left is part of the old homestead built in the 1700’s. Now it is a garage and storage area.

Bobbie (me), age 2, picking dandelion blossoms, and learning to count. Mother would count the dandelions I picked (so I learned to count), and she paid me a penny per hundred. No wine production in this WCTU household was made from dandelions.
Bobbie, age 3, thinking he’s the king of swat. As a farm boy he belted more small stones out of the yard with a slab of wood than Babe Ruth or Hank Aaron ever hit in regular baseball games. But he was warned not to hit them into the hayfield.

The four Foote kids: Marje, Lovina, Ed and me with gladioli from the garden. I was about 5 years old, so Marje would have been 9, Lovina, 13, and Ed, 11, when this photo was taken.

Ed (now a young teenager) with a calf, plus Bobbie scratching its back. Later, when we had a pet fawn, a fenced paddock was built under the apple tree out along the stonewall that shows in the background of this photo.
Ed and the family dog, Bobbie (and another dog), and Marje with a kitten. We always had plenty of cats, between reproduction on the farm and drop-offs from the city. These pet farm animals were fed milk and grain supplemented with their catches of mice and woodchucks. Pets were only allowed to visit in the house; they were not house pets.

Lovina, Marje, Dad, handsome Deems Buell and his wife Helen Foote Buell (my dad’s sister), with brother Ed at the far right. In front is Irving Buell and future gentleman farmer Bobbie (pocketing his money). What money? Not much in the depression. Mother kept us neat and clean, and our hair combed.

Real farm boy, Bobbie, heaping hay (above left). Cousin Teddy (left, out of focus) and our dog sniffing for a mouse under the hay. Compliments were scarce in my family, but mother did say that she doubted anyone had heaped as much hay that day as 10-year-old Bobbie. I felt really good. Bobbie on his favorite wagon and own load of hay (above right).
Bringing the cows home for milking from a nearby pasture. Note the paved road, the electric power lines and the farm pond in the background. Ed had repaired the dam, so the pond is full of water. Cows are turning into the yard, with our house out of sight on the right side of the photo. I had many chats with Fred Way while bringing the cows home. He was coming home from Hartford. (see book)

Bobbie giving some calf grain to the pet deer. We found the fawn in the middle of a hayfield. The mother did not return after we cut the grass. Ed had the idea that we should care for the fawn. We built a fenced, shaded paddock for Deerie, letting her out to run in the fields where we worked during the daytime. Occasionally she followed me into the house.

Bobbie and his pet dog about the time he started high school. Ed and Marje were at the University of Connecticut (Conn. State College then). We obtained this Scotch Border Collie as an extra pup in a litter belonging to Mr. Pritchard, the Connecticut shepherd who trained his dog to handle sheep. Our dog was a loyal companion and loved to help bring the cows home.
Bob mowing (probably the barn lot) with the W-30 tractor at age 15. By this age I was expected to be able to handle most routine farm projects. There was no power steering and no shade on the tractor. You could burn your arm if it touched the fender on a hot day. All steering and lifting of the mowing machine was done by human muscle power. Good exercise.

Bob (note no longer Bobbie) at 16 thinks that he can handle the bull. Years later friends commented that I must have learned early how to throw the bull. Many farmers were killed by bulls, but none by artificial inseminators who replaced most bulls.

When Bob was 16 he had his driver’s license. The fall of his high school senior year Ivan London and Bob took two girls to a basketball game at Windham High School. Shown here is Bob with Beatrice Links and Lena Scagliotti. It was a nice cool December day when we started for Willimantic. When the game was over it was snowing. The book tells the story of getting stuck on the frozen rutted dirt road on a hill near the London home. How embarrassing, as this was the first time I borrowed my parents’ big car. The story ends well.
Mom and Dad on a brief break from the hard work on the dairy farm. Milking and caring for cows, and coping with uncertain weather and farm economics, plus caring for a family, welded strong families, and broke some. We had a job, and always there was good food on the table. Mom was very active in church affairs, Farm Bureau, Grange and other organizations. She served in the state legislature, where my dad earlier had served for two terms. Dad also served on and chaired the School Board, Farmers Cooperative, other boards, and was Commissioner of Domestic Animals.

Church was central to our family life. This photo was taken on the steps of the Gilead Congregational Church about the time I graduated from high school, and Ed and Marje graduated from college. Lovina was teaching in the Durham, CT high school. In the front row, left to right, is Marjorie, mother Annie, and Lovina. In back, left to right, is Edward, my dad Robert, and Bob.
The four kids as they leave or have left the home nest seeking their fortunes elsewhere. A. Bob is off to college. B and C. Marje and Ed have finished college. D. Lovina is a high school teacher. Marje also taught high school. Ed taught part-time at the university before returning full-time to the farm. Bob eventually traveled far and wide, courtesy of the U.S. Army. Our parents have done what they could for us. Now it is up to us! NO EXCUSES. Read my lesson in the book on the last day of Officer Candidate School (OCS) on excuses.
Time for fun too. When I was in college, and Ed had returned to the farm, we had a summer softball league in Tolland County, CT. My dad coached the team that Ed and I played on. Dad had been a star athlete at Alfred University. We had snappy yellow and blue jerseys. One big plus, besides the fun of playing, was we had to get through farm chores early to start and finish a game before dusk.

Ruth Evelyn Parcells. At the University of Connecticut I met casually many fine co-eds, but I was mostly busy with classes, clubs and student work (I mostly paid my way as the 4th child going through college in the depression). However, this all changed when Ruthie Parcells asked me to come to an informal dance at the Sigma Nu Sorority. Ruthie’s mother said that Ruthie was the sweetest, dearest daughter a mother could have. I agree!
Ruthie was one neat little girl. We walked and we walked. She always kept on smiling, not knowing at the time what the years ahead held for us individually or collectively. On the bottom left is Barbara Peschko, brother Ed, Ruthie and Bob. Ed was busy on the farm, so he had little social time. He had a convertible, so Ruthie and I made a simple plan. I wanted to take a ride in his convertible. Ruthie had a friendly friend who didn’t have a date. Voila! We then arranged a picnic and phoned the weatherman to arrange for picnic weather. Below we are at the picnic. Bob had lots of hair then. He is amused by Barbara’s joke, as is Ed (one quarter of his face showing), while Ruthie took the picture. Everything was fine, but farm schedules and university programs didn’t jive well, so the picnic arrangement faded into the past.
Bob is no longer the dairy farm boy seven days a week. His help on the farm is mostly during summers and vacations. Meanwhile he is keeping in shape running cross-country as well as across campus to the dairy classrooms and up to the poultry classroom on top of Horsebarn Hill. Also, he was in the ROTC and that helped him to “shape up”.

One of the extra-curricular activities was student club programs, including fitting and showing cattle at the student livestock show. I showed this young heifer one year. Ruthie came during my preparation of this animal, and would have been an attractive show woman.

The University of Connecticut had many super co-eds. Barbara (Bubs) Jones and Peggy Bruce are going for a buggy ride. Barbara is my present wife. She was a sorority sister of Ruthie’s. She married Roger Johnson, a fraternity brother of mine who died five years before Ruthie died. Peg married Ronnie Rood who died recently, and Peg visited us in 2003. It is fun to reminisce about old times, but don’t try to live in them.
Ruthie and Bob posing under more formal conditions at one of the college balls. When you pose too long the smile fades for the photograph, but it returns as the music starts and the dancing begins. I wasn’t a good dancer nor a campus socialite, but the dances were fun, and excellent experiences. We had dance programs. We arranged to exchange partners in advance with several other couples for several of the dozen or so dances. There were breaks for the orchestra and the couples. It was a great time for social sharing and putting your best foot(e) forward.

Cadet officer Foote giving a farewell salute to the University of Connecticut in the spring of 1943. While this seemed, at the time, to be the end of wonderful college days, it was only the beginning of friendships established and experiences gained that were meaningful in the many years since 1943. Some of the close friendships established were continued by correspondence, even when interrupted by the war. There were joys and sorrows, all a part of the challenges of a meaningful life. Connecting is so important for enriching one’s life.
Bob (Lieutenant Foote) on graduation day in November, 1943 from Officer Candidate School, Ft. Benning, GA. I am thankful for the past, and hopeful for the future when this photograph was taken. The promise of a hopeful future was fulfilled.

Go for Broke was the Hawaiian “go all out” motto for our 442nd combat team made up of Americans of Japanese ancestry. This peace-loving bunch of guys formed the most distinguished fighting machine in U.S. history. I was privileged to be one of their officers, and a friend ever since. I have wonderful friends with whom I formed very close bonds, during the stresses of battle, which tested our loyalties to each other and to a common cause.

Bob (Lt. Foote) and two of his sergeants (Ikehara and Shumida) receiving attack orders in the Vosge Mountains., France, from a headquarters officer (no helmet), October, 1944. In an ensuing battle, we (Company K and others) rescued part of the 36th Texas division that had been surrounded by the Germans. They had 8000 men to our 2000. My Company was one of those leading the attack. Ninety percent were killed or wounded, but they and the ten percent remaining were victorious. The Pentagon displays this as one of the 10 greatest battles in U.S. history.
I spent the next five months in the hospital with TLC that was part of why I am here. The battlefield medics, nurses and doctors were wonderful. They are real angels. I have known them. Here I am, while in the hospital recovering from wounds, with Frank Matsuda.

Here I am with Fugio Miyamoto.

Here I am with Tommy Homma.
Lt. General Truscott is pinning the Presidential Citation on the K Company Guidon, equivalent to the Distinguished Service Cross for each individual. The 442nd received seven of these citations, including one for the rescue of part of the 36th Division in France.

Our company passing in review after receiving the Presidential Citation. Lt. Foote is the officer, front, left (near the camera). To his left (right in the photograph) is Lt. Horace Smith, a very fine officer who I last saw at the 50th reunion in Hawaii in 1993. He died a few years later. In the front ranks are several fine sergeants.

1st Lt. Foote receiving the Bronze Star Medal from General Oxx for heroism in Italy. On another occasion the military records show a recommendation for the Distinguished Service Cross, but apparently it was never completed. I’m just glad to be here. There certainly were many acts of heroism, but who was there to be an observer and survivor to record them all?
The war is over in May, 1945. Lt. Foote (later captain) demonstrating his Thompson submachine gun, usually fired from the hip in emergencies. When fired in battle, these were emergencies. This gun, capable of firing 15 rounds of 0.45 caliber bullets in 1 or 2 seconds, saved my life. But the other side of the coin is most regrettable as it extinguished others.

Platoon Sgt. George (Masakazu) Nishi, Co. K. As fine a soldier as one could ever find. I relied on him a great deal and he never failed me or his men. He was offered a battlefield commission but refused on the basis that it would separate him from his men. He went home to take care of his parents. Then he was married. I still keep in touch with his widow, Flo, as I try to do with other 442nd families.

Relaxing in 1945. Taking a regular shower after the war. A helmet full of soapy water and then a helmet full of rinse water was the SOP (standard operating procedure). We kept our dog tags on at all times. They needed a shower too, along with our shorts.

Maria Grazia, 1945. She was a volunteer Italian USO girl who kindly helped me, as the K Company recreation officer, to locate a group of Italian girls to come to our company dance and party in the summer of 1945. I would order a truck from the motor pool, pick up Maria, and she would direct us to all the stops to load up. The reverse order was followed after the party. You can bet all the parents were waiting up to see that their daughters came home safely. They always did. Even Maria’s grandmother, who lived with Maria’s parents, waited. After the last party I escorted Maria to the door. We exchanged a big hug. I was ever so grateful for what she had done for us, and she was so thankful for what we had done to bring the war to a close. I found her address among boxes of war souvenirs in 2003. I sent her a letter of thanks and wished her well. The letter was returned with address unknown.
Faithful Ruthie writing Bob throughout the war. A wonderful morale builder. I believe this photo was taken outside of the Atwater Lab, University of Connecticut, where she worked. The photo she has is my OCS graduation picture.

Bob reading one of Ruthie’s letters after the war was over at Ghedi, Italy. A few of those letters, received just before I came home, I brought home with me. Ruthie saved them. They form appendix VI in my autobiography in the Cornell and Hebron libraries. Ruthie numbered her letters. There were 100 of them, but most during the war I couldn’t keep.

K Co. Bobbie ready to smash the ball in the photo at Ghedi in May, 1945. Unfortunately the final score was I Co. 2, K Co. 1. We did have some time for fun. We all had furnished uniforms too, the same for opposing teams. Now how do you keep track of who is on first?
Our K Co. mascot that adopted us after the war. Dogs know good people. Nothing more is needed to amplify that statement.

Chaplain Yamada when I saw him just before going home from Italy. He was our courageous chaplain from the 3rd battalion. I believe that he was a UCC ordained minister. The Chaplain in the second battalion was a Buddhist, I believe. Of course they administered whatever type of support and encouragement was needed by anyone. One of the wonderful things is that no questions were asked that might have created artificial barriers.

Gertrude Menzel’s relatives (the Marguerat family). A picnic at their home in Lutry, Switzerland, in July, 1945. Mr. Marguerat was head of the Swiss railways, and he gave me a pass to travel all over Switzerland. I did that. Gertrude Menzel was a French teacher in Rye, New York. She was a friend of Marion Odell who married my brother, Ed, in 1943.
The United States flag over a military cemetery. The flag is a great symbol of a country in which the founders hoped they would provide “liberty and justice for all”. Those who deface the flag don’t understand that the flag never hurt anyone. It is we the people who cause problems when we behave irresponsibly.

The crosses, row on row in Vada, Italy. Remember the feelings portrayed in “In Flanders Fields” by John McCrea. Soldiers who fought and lived, loved ones of those who died, and civilians in war-torn countries must tell of the futility of war and violence as a way of maintaining lasting peace. I now can tell, but I avoid seeing the crosses again.

Meanwhile, back on the farm, my mother and father are running the farm with brother Ed, and they are involved in many wartime activities on the home front. Dad and Ed are shown here with a Holstein heifer. In the background is the barn and two silos finished in 1941.

There were many changes beginning to take place in farming. Labor was expensive. Wages on farms could not compete favorably with what industrial employers could pay. Soon milking parlors and bulk milk tanks made it possible for more cows to be milked per worker. Machinery for working crops was designed for greater efficiency, and equipment costs were increasing dramatically.
Mom and Dad took time to pose for a formal photograph. Both were busy with chores on the farm, including the house and garden. Both were busy professionally in church and agriculturally related organizations. Dad was active in the Masons, as indicated by the pin he is wearing.

Mother Annie Hutchinson Foote was elected to the legislature in 1945. Here she is all dressed up in 1946. She felt at home in the legislature. She dressed differently for the hay field, as shown earlier.

My dad, Robert E. Foote, was appointed Commissioner of Domestic Animals about 1945. Here he is being interviewed at WTIC.

Commissioner Robert E. Foote, at one of the agricultural fairs, enjoying this team of horses.
Ruthie and I were married on January 12, 1946 at the Congregational Church in New Milford, CT. Here we are cutting the wedding cake at the reception in the Parcells home. Dottie Shepherd Jones is in the background. Bob had curly hair, and more of it then. In one month after I came home we had arranged a wedding, and by the end of two months, we were in Ithaca, where I had started graduate work at Cornell University.

January 12 was a lovely warm day. This photo was taken in the yard at the Parcells home. Ruthie designed and made part of her wedding dress. Lovely! The army designed my attire. Her dress is in the collection of special clothing in the Department of Textiles and Art at Cornell University. My uniform was donated to Ithaca High School to use in artistic productions when appropriate. So this is one of the “parts” of us that continues on.
Prof. Ken Turk and his wife Bernice. Ken accepted me to come to Cornell in 1946. He hired me after graduate work in 1950. He and Bernice were father and mother to all their academic family while he was head of the Department of Animal Husbandry. The name was changed later to the Department of Animal Science. The Turks had no children of their own. Graduate students and faculty were invited regularly to receptions at their home. In 1963 he left the department to be head of the new International Agriculture Development Program he founded.

A few times at Cornell I invited the staff in the Department of Animal Science to take a boat ride, and have lunch on the boat on Cayuga Lake. Also, I invited my own group to go on a dinner cruise of the lake. In this photo Ken Turk is enjoying the summer cruise.

Glenn and Dorothy Salisbury are shown here with their children, Laird and Susan, who they adopted when the children were babies. Glenn was chairman of my graduate committee until he left in 1947 to chair the Department of Dairy Science at the University of Illinois. I still keep in touch with Dorothy, the only one of the faculty families here when I came to Cornell who is living today.
Two sons were born in 1947 and in 1950. We moved into our first house in the fall of 1950. In 1951, Dale, 16 months old, and Robert, 4 years old, have unhooked their stockings from the Christmas tree. The team is building a tower. Look at the teamwork. Dale has the easier job at 16 months of age of being the supplier, and able to pose for the photographer. Robert is carefully, but confidently, stacking the blocks squarely on top of each other. My grandmother Hutchinson’s beautiful cherry drop-leaf table is in the background.

In 1952 our family modeled snowmen at 110 King Rd. West. I remember these as some of the best times of my life. The photo was taken with the camera on a tripod, using a delayed action shutter. Because I usually was the photographer I am the “unseen” person in most photos.
Christmas, 1954 at 110 King Rd. West. Ruthie’s mother and dad came with greetings and gifts. Ruthie has prepared a delicious Christmas dinner. Robert and Dale are patiently waiting while Bob (empty chair in front) takes a picture. We had many warm visits by these Grandparents. My study is in the corner at the left, and the corner of the kitchen is in the background at the right.

Our family in 1957, in front of Buttermilk Falls on one cool but sunny Sunday afternoon. Our dress indicates that we have been to church. The Congregational church was on the corner of Geneva and Seneca streets then. We often took short drives after church, eating at the Lehigh Valley Restaurant.

Our oldest son, Robert Wesley Foote, about 4th grade in school. One of his grandfather’s names was Wesley Parcells, therefore the Wesley. This is a photo taken at school. Robert was the more serious student of our two boys.
Our second son, Dale Hutchinson Foote, in grade school. Hutchinson is my mother’s family name and my middle name. Dale followed artistic interests, as did his mother.

In Denmark in 1958. Dale is 8 years old and Robert is 11 years old. Feeding pigeons in Kongens Nytorv, Copenhagen. That was a great year. My autobiography has a chapter on the year in Denmark. We traveled throughout Denmark in our VW, and visited other countries during school vacations. Robert and Dale went to Danish school. They spoke a foreign language when we went home.

On vacation with the family. This one was in 1963. I have photographed Dale, Robert and Ruthie on the Athabasca Glacier, Columbia Ice Fields, Alberta, Canada, August 6. I am surprised that we were allowed to walk on the glacier without special equipment. There were large cracks in the ice.
Ruthie and Bob, now senior citizens in 1978. Bob was on sabbatical leave at UC Davis, CA. This was a wonderful 6 months of work, play, and travel. Our Son, Robert, took care of our home in Ithaca. In Davis we had a comfortable apartment with a swimming pool outside. Davis is flat. The city is full of bicyclists riding in the bike lanes. I rode a bicycle to campus.

Besides campus activities we traveled in California on several weekends. Also many of my 442nd army friends put on a fine dinner for us in Sacramento.


We had planned this trip for some time, as Ruthie wanted to visit Australia. We were losing the battle with cancer. Good sport Ruthie insisted we still go. Australian friends arranged for a station wagon and wheelchair. Two sons took charge and wheeled mom through part of Australia.

We left our footprints in the sands of time. It was Ruthie’s last hurrah! She passed away on January 10, 1992.
Passport photos from the 1950’s, 60’s, 70’s and 90’s
**The Beginning of AI**
This photo shows Professor Stanley Brownell, Maurice Johnson and leading New York dairymen in 1938. They planned the Pioneer Artificial Breeding Cooperative in 1938, producing the first calf by AI in NY State 07-25-39.

In the early days of artificial insemination (AI), all semen was preserved in liquid form at 5°C (40°F) in an egg yolk medium developed at Cornell. The semen was sent as rapidly as possible to technicians in the field. It was packed with ice to keep it cool. The inseminator kept the package in his refrigerator and then carried tubes of semen with him in an insulated box. Here the technician is drawing the semen from the box into an insemination pipette (all glass, no plastic then). The farmer is watching this new procedure on his farm.

By the 1950s we were doing research with frozen semen. We had exhibits at Cornell Farm and Home Week and at the NYABC Cattle Show. In this photo Governor Dewey is observing results pointed out on the chart. At the far right is Cap Creal, a great dairy farm friend of mine, who also headed the NY State Fair.
Photos of my bacteriology studies in 1946-47. The three culture dishes on this page are Petri dishes containing sterilized agar medium that is favorable for growing bacteria. Each dish has a larger cover that fits over the top to keep out dust and bacteria that could be floating around the room and contaminating the culture medium in the dish. In our studies we mixed various dilutions of bull semen with sterile warm agar, and poured this into a series of Petri dishes. There it would cool and harden. Incubation at 37°C (98.6°F) for 24, 48, 72 and 96 hours resulted in growth of tiny colonies of bacteria. The number of colonies counted times the original dilution of semen indicated the number of bacteria in the bull semen that we were studying. My advisor and I were interested in controlling (killing if possible) the bacteria in semen without harming the sperm. This could control venereal diseases. I knew that some new drugs were available, as I received sulfanilamide and 240 shots of penicillin for wound infections in WWII. The top dish shows a typical number of bacteria after dilution. The next dish shows that all bacteria were inhibited by antibiotics. We also ran control dishes to check on sterilization procedures. The bottom dish shows different kinds of bacteria in highly diluted semen. We successfully controlled bacteria and raised fertility by controlling venereal diseases. This was worth hundreds of millions to the dairy industry.
With the development of freezing bull semen successfully, insulated tanks to hold tens of thousands of breeding units were developed. The frozen semen here is in liquid nitrogen at -196°C (-320°F). Semen can be stored at this temperature for many years.

We shipped both liquid and frozen semen by air freight to the Philippines in the early 1950s. This was before tanks of liquid nitrogen were available. The frozen semen was packed in “Dry Ice” with a special permit showing that the fumes were not dangerous. Here is a crossbred calf produced and mother in the Philippines.

This photograph is an aerial view after NYABC became Eastern Artificial Insemination Coop., Inc. I had my lab there from 1946 to 1961, when Morrison Hall was built on the Cornell campus. The Coop board and staff were extremely generous in supplying semen and helpful with the research. My program owes an enormous debt to these cooperative people and their 30,000 farm members.
Professor Bob Bratton with the first calf born using frozen bull semen in New York State. Dr. Bratton contributed greatly to the AI industry. His work was not fully recognized by many because as a perfectionist he procrastinated often in formally publishing results that the AI industry adopted. Also, for various reasons, many not objective, he was not accorded the emeritus status that he deserved.

Young Assistant Professor Bob Foote (left) and a Ph.D. graduate student, Stan Wearden, manning one of the annual exhibits. Stan was a statistician, and went on to become Dean of the Graduate School at West Virginia State University.

This graph illustrates what our program contributed to the field of AI. The development of semen extenders (CUE, and Tris-yolk not shown), along with better cooling, and antibiotics to control venereal diseases, was worth billions of dollars worldwide.
Our AI work focused on cattle, but also included, sheep, goats, pigs, horses, and dogs. We collaborated with Ken Walden, a graduate student of Herb Everett’s, in freezing corn pollen so that samples of the same pollen could be tested in Ithaca and Florida. Here Ken is applying the pollen to the silk (pollen tubes) of young ears of corn.

The rabbit model was of tremendous help to our research program. This small animal allowed us to study how sperm and eggs were formed. We could collect and preserve both sperm and eggs, and perform artificial insemination, embryo transfer and cloning. The rabbit was an ideal model for domestic animals. Our work also put the rabbit on the map for EPA adopting it as one non-rodent model for toxicity testing.

**Basic research**

We were interested in antioxidants and the effect of radiation exposure of cells in vitro to different wavelengths of light. Here sperm cells, in closed capsules with oxygen versus inert gases, with and without antioxidants, are exposed. The inert gases and antioxidants provided major protection to sperm, especially against blue light.
Many research projects at Cornell and elsewhere led to one selected outstanding sire being able to provide semen for the insemination of 1000 times as many cows as was possible with natural service. This increase had a tremendous impact because selected AI sires were superior to those in natural service. No bulls on farms to kill farmers either.

The tremendous increase in milk production per cow (in 2004 nearly 4 times the production in 1955) has greatly reduced the number of cows needed to meet the nation’s milk requirements. Prof. Henderson, of Cornell, was the powerhouse geneticist behind this.

A basic study, that we were one of the pioneers in, was examination of the cytology and kinetics of sperm formation. This had application in the field of male infertility as well as AI. Here is an illustration of a cross-section of a bull testis tubule just before the sperm lining the lumen are about to be released.
This is a microspectrophotometer. We built this in 1959 with parts and help from Leica experts in New York City for about $5,000, plus the monochromatic light source for $3,000. A commercial unit would have cost at least $30,000. With the slide diaphragm (dark slide) we could measure the DNA in individual sperm heads after exposure to different agents, including light. There was a detrimental effect of light.

A bull sperm magnified about 7,000 times, as it resides in the oviduct of the female. The droplets on the head of the sperm reflect the beginning of a process called capacitation. This change permits the sperm cell to fertilize the egg after it continues its journey up the oviduct to meet the egg (oocyte). Note the many villi lining the oviduct.
Many studies were done with bull sperm. This abnormal sperm is duplex with double the normal DNA in the head, and with a double tail.

Normal spermatozoa fertilizing an egg in vitro. Many sperm are attached to the surface, but the one by the arrow had penetrated the egg. This causes the head of the sperm to swell as the DNA decondenses, before the head fuses with the egg nucleus.

The nucleus of this egg is near the center. The chromosomes have duplicated and soon the fertilized egg will divide to form a 2-celled embryo. Parts of other eggs are in the photograph.
Much of our research was done to improve the in vitro culture of embryos, useful in studying early embryo development and for embryo transfer. Here are 4- and 8-celled embryos surrounded by the zona pellucida.

The surface 3-D appearance of an 8-cell bovine embryo. This embryo will divide into 16 cells and then 32 cells, still as a ball of cells. Then it will form a cavity and start to differentiate into cells that will become the fetus and others will become the placenta. The embryo below is a blastocyst with a cavity inside (not visible).

This is an embryo with more than 64 cells, but the individual small cells are not clearly visible. This is the first embryo ever to be cultured in vitro from the beginning to a “hatched blastocyst” in a purified defined medium (Kane and Foote, 1969).
Dr. Harry Rajamannan, owner of Int. Cryo-Biological Services, Inc., arranged this conference. The participants in the photograph represented scientists known for their experience with embryo culture and transfer, cryopreservation of sperm and embryos, and cattle genetics. We had been researching embryo transfer, using the rabbit as a model for cattle breeding to obtain more progeny from the best cows, with superovulation, AI, and embryo transfer. We had been studying this with rabbits for 10 years and with cattle for 5 years. (1973).

**More Research**
Classic work by Jim Kennelly showed that all eggs in the adult female were formed by birth, here retaining an isotope (dots) in egg nuclei incorporated when injected with the isotope at birth. No new ones were found in the adult.
A very important part of a successful insemination or embryo transfer program is to identify correctly the stage of the reproductive cycle that each cow is in. Visual observation of sexual behavior is the most common technique. In estrus the cervical mucus has a higher salt content. It dries on a slide with a fern-like pattern.

Hormones in blood and milk change during the reproductive cycle. Milk is a convenient way to sample the cow’s progesterone concentration. It is relatively high most of the time, but reduces to near 0% at estrus, when estrogen increases, bringing the cow into estrus, with ovulation of the oocyte (egg).

Dr. Charles Hall, an extension veterinarian in the NYS College of Veterinary Medicine, and Bob Foote examine a chart that shows the cyclic changes in milk progesterone of one cow. I had many excellent collaborators in the NYS College of Veterinary Medicine.
A heifer painted by a marker bull when she stood to be mounted by a specially prepared bull with paint in a chin ball. The bull had been surgically treated to prevent mating.

Superovulated ovaries from a calf stimulated by hormones to produce multiple ovulations (Seidel et al). Note that there were about 100 (red areas) ovulations instead of one.

The most advanced technology developed to date for animal breeding is cloning. Here a stem cell (ESC) is being transferred to an egg (a,c). Blastocysts produced (b,d) stained to show future fetal cells (blue) versus the outer cells which will form the placenta.
Dr. Jerry Yang with the first calf we cloned from ESC. We had to do it the hard way. We were planning to use ESC from good blastocysts produced in vivo at Em Tran. Unfortunately they had a complete failure that week, so we had to take ESC from blastocysts we had produced in vitro to make cloned embryos to transfer to synchronized recipient cows.

Dr. Paul Farrell, then a research technician, played an important role in the process of cloning this calf from an embryonic stem cell (ESC). The calf was born in May, 1992. She was a lively calf, and had to be held still for the photo taken at the Cornell T & R Center where she was born.

This calf is pictured here as a 1-year-old healthy heifer in May, 1993. She went on to breed normally, produced healthy calves and was a good milk producer. Unfortunately, we could not generate Cornell support to expand the work. Cornell was excited in 1997 when the British-cloned sheep, Dolly, was born. By then Dr. Yang had a big cloning program at the University of Connecticut.
Teaching is enhanced with a little appropriate humor, along with solid information. In the early days of artificial insemination some people had rather strange objections to AI, including the “poor cows missing the bull”. No, really, inseminators were more hygienic and gentle.

Inseminating the cows at the correct time is very important. We illustrated the use of many gadgets to aid the farmer, along with observation of sexual behavior, in detecting cows in estrus.

Teaching included the training of students from other countries. Here I am working with Dr. Tony Solis, a fine young veterinarian from the Philippines. We are going through a procedure for proper semen preparation prior to examination with the aid of a microscope. Note the older type of microscope with a mirror and separate light source used in the 1950’s.
The use of audiovisuals to enhance learning through pictures and sound as well as reading text material. By 1970 I built individual carrels where students could read text, examine colored photographs, and view with an accompanying audio, Super 8 films. My son, Robert, had given me a Super 8 camera, so along with my other cameras I shot the films and prepared the narration. Tom McDonald was a superb assistant technician, now an Associate Professor at NYU. This was before we had video equipment.

I taught some large classes, but they were divided into lab sections of about 32 students. I put name cards in front of the students to try to associate the correct names with the energetic young faces. My lab assistants were better at this than I was.
If one is planning a career in the animal field, practical experience in working directly with animals is indispensable. This was limited in some of the courses I took, probably because of the cost and difficulty of procuring animals. I tried to provide many living labs for my students, here collecting bull semen.

I liked to have classes in the morning when students and I were fresh. Here we are all set before 8 A.M. in our coveralls headed for the barn to practice artificial insemination. What a good bunch of students!

A class in AI at the Cornell Teaching and Research Center. Two very able graduate assistants, Dr. Dan Cavestany (left front), and Dr. Javier Arriola (right front) provided great expert help.
In my complete autobiography, to which this book was originally an appendix, there were a few photos of researchers in the laboratory or working with animals, such as shown in the miniature here. They helped with teaching the labs also.

On sabbatical leave in Davis, California in 1978. Most of my time there was teaching a graduate seminar (10 of the students are pictured here with me), or working with two of them in the lab. Also, I did some field work.

Graduate students at Cornell in 1981. Martha Doane and Dr. Javier Arriola, (both PhD candidates) are preparing to measure intrauterine contractions in the cow. Rob Warren, a superb animal tech in the background, is preparing the cow. What a great team! They helped to teach, too.
Another example of adding a little humor through this attention getter when discussing with students or with dairymen the importance of catching the cycling cow when in “heat”.

I greatly enjoyed working with a fine bunch of students. In 1967-68 the student honor society in the College of Agriculture awarded me this treasured plaque for teaching. The plow represents one used by Liberty Hyde Bailey in formally establishing the college in 1904.
World Travels
In conjunction with scientific meetings, sabbaticals, and family trips I visited many countries. This page of photos gives a few examples of the places visited. This first photo is of Westminster Abbey, England in 1956.

My family (Ruthie, Robert and Dale) spent 9 months in Denmark in 1958-59. Here we see the famous Little Mermaid in the harbor in Copenhagen.

While living in Denmark we took a tour of several countries of Europe in our Volkswagen. The four members of this family in Volendam, The Netherlands, are dressed in their Sunday native costumes. This was a delightful journey.
In 1956 I visited many major research centers in Europe to learn firsthand what were the high priority questions they were studying, and to meet the people doing the work. While in Stockholm, Queen Elizabeth was visiting King Gustaf. On Sunday they were going to the opera in Stockholm. Through some miracle (described in my autobiography) a member of the Swedish royal family took me up to the landing at the castle where the queen and king boarded the car. I took this photo, reproduced from my original slide.

This beautiful tower is the Emin Minaret in Turfan, northwest China. This area is very dry and hot today. It was more than 120°F the day I was there. Nothing grows without irrigation. In ancient times a river flowed near there. The Minaret is a tower where Moslem clerics said prayers from the top.

This photo will be recognized as the Great Wall of China. I visited China several times. On this trip Barbara was with me, but I don’t see her in the photograph.
Parties
We celebrated birthdays, graduate students when they finished a graduate degree, and when anyone left Cornell. Also we had a Christmas luncheon each year. Here a bunch of us are having punch, cake and ice cream.

Two new PhDs. Drs. Ed Carney (left) and Dave Jasko (right) display their freedom, their theses, and the pewter mugs I gave every individual when leaving our group over a period of about 45 years. The mugs were engraved.

Mike Simkin (what form) was a great contributor to our program. His birthday was on April 1. We celebrated it with a bowling party for our lab families, including pizza, beverages and a birthday cake, along with free bowling.

Our group didn’t let me forget that I was growing older too. Here is one of the fancy cakes they made. There were always humorous birthday cards.
Summer picnic-parties in the backyard at 70 Woodcrest Ave. We had a small trampoline that we bought when Robert and Dale were young. The small children of grad students and visiting scientists got a big kick (or jump) out of this.

After the trampoline, and after others had played badminton or other sports, we sat down for a full picnic meal. Guests brought a variety of foods (including foreign dishes), and we supplied beverages, hamburgers, hot dogs and a large grill.

I’m not really praying here. This photo was taken at a Physiology picnic at the Vet School. I attended both physiology and animal science picnics. I put this picture in because I had been doing some carpentry work. You can see that I did not always hit the correct nail on the head.
A third life. My first one was on the farm, and nearly ended in WWII. My second life started when I married Ruthie. My third life started after Ruthie died when I had the good fortune of meeting widow Barbara Jones Johnson, a college classmate. Here we meet for the first time in 42 years at Barbara’s home, Lake Alfred, FL. I had a meeting in Florida. The squirrel is our chaperone.

September 25, 1993. We were married on a lovely day in the beautiful White Hills Church built in 1839. Essentially all of our two families attended. Originally we planned to be married at Thanksgiving time, but realized that bad weather for our older family members might make traveling difficult. No, not a shotgun wedding.

Barbara’s children, spouses, grandchildren, and one great grandchild, plus Sarge, and Bob in the background. Barbara’s son Philip took the picture, so he is missing. The photo was taken on the lawn of our cottage at Kendal, 474 Savage Farm Drive. We moved there in September, 1998.
On a cruise to the Panama Canal in June, 2000. It was lovely weather. We stopped at several Caribbean Islands for sightseeing and snorkeling (in rough seas). Food was fabulous. You can see it all went to waist.

Also, Robert organized this Panama Canal trip. He went with us. Here we are in the main dining room of one of the lovely ships owned by the Princess Cruise line.

In June, 2001 both of my sons, Robert and Dale, joined us on a cruise with the Holland-America line from Vancouver, B.C. to Alaska. We are ready for another yummy meal on board. In Alaska we took an inland trip. What a miracle – the Alaska pipeline construction.
Barbara and Bob near the tremendous falls at Foz du Iguassu, Brazil, in January 2002. This was a wonderful trip, viewing a rain forest, a bird sanctuary, and other scenic panorama. The International Embryo Transfer Society held their annual scientific meeting there. Bob received their Pioneer Award. Thank you, everyone.

Bob, Sarge and Barbara are enjoying a Blue Grass concert on the Arts Quad one fine summer day. Cornell has these free concerts each week every summer. Lots of people were sitting on the ground in front of us. A frisbee game is behind us.

A slide I prepared, and used in many talks. It focuses, obviously, on the need to work together locally and globally. It was natural for me to fall into the mold of ethics and service fashioned by my parents. One of my favorite slides follows.

**Ethics and Service**

Ask not what others can do for you, But what you can do for others.
Appendix III
Christmas Letters.

The original Christmas letters had color, so some copies are not as clear.

Why include Christmas letters? I am sure that they are written with a bias. In my case we dwelt more on the good things that happened to the family rather than the misfortunes. But there were accidents, deaths, and complications that were included.

The letters have value from at least two standpoints. First, they are dated, so events are correctly documented as to when they occurred. Secondly, they include items considered to be of sufficient interest to pass on to family and other friends. They cover a broad spectrum of items. This is because I soon accumulated a large academic family in addition to my direct relatives as well as in-law relatives. Also, the letters reflect the sentiments that were present in my mind when I wrote the letters, and not how I remember them now under layers of more recent events. Of course vertical reflections are of value also. They provide a resource for remembering too.

If I were writing the 1991 Christmas letter today, likely it would be more sentimental in a version sent to family only. At the time I was bracing myself for what appeared almost certainly to be the inevitable last few weeks of Ruthie's life on earth. Ruthie was calm. She was cheerful. She was tired also, but she maintained the grace of living each day as a blessing. Could she have felt that way so much of the time? Who knows? It was what was displayed that counts!

There were many joyous times. The letters are written conservatively. They do not have the crescendo that various times deserved. Perhaps the reader can supply this with a little imagination.
110 King Road West
Ithaca, New York

Dear Friends,

Another year has flown by, and once again it's time for a few of the "Footlights" from our family.

Bobby and Dale were very excited over their first train ride during Spring vacation when along with Ruthie they visited Ruthie's parents. Their second train ride came in the Fall when this same trip was repeated to see Ruthie's brother Wesley, home after working for the U.S. Government in Germany for six years.

All the family were looking forward to attending the American Dairy Science Meetings at State College, Pennsylvania in June, but two days before we planned to leave Bobby came down with a light case of Scarlet Fever. Ruthie and the children were disappointed not to go, but they were thankful Bobby did not develop it while we were there. Later Bobby went to a two-weeks day camp for the first time. He enjoyed the swimming and handicrafts at the camp located on the west shore of Cayuga Lake.

Dale is four years old now. He is showing more and more interest in drawing, coloring and clay modeling, and is a good little companion to have around the house.

Toward the end of August we drove to Connecticut for a visit with Bob's folks on the farm. We were planning to spend a few days at the beach too, but the day we were to go along came hurricane Carol. We drove down the following day to view the damage and were glad we were on the farm during the storm.

We were back home again in time for school when hurricane Edna came blowing through. It was the first hurricane in the city's history. Tree damage in Ithaca was extensive, and power and telephone service was interrupted for several days. We were lucky and lost only a few shingles.

Bob spent many hours in the summer revising the manual for the Animal Breeding course he is teaching this Fall Term. As usual it is a large class. Along with this course advising many undergraduate students has taken a good share of the time during the Fall.

And now to each of you we wish a very joyous Christmas and hope that the New Year will be a peaceful and happy one.

Sincerely,

Ruth and Bob

December, 1954
Dear Friends,

Once more it's Christmas time and we find our thoughts wandering their way to each of you. We hope this letter finds health and happiness abiding in every home.

Some new experiences were added to our routine this last year. Probably one of the most thrilling was Bob's two-month trip to Europe. He took off from the Ithaca Airport, May 17 with Bill Hensel, a colleague from Animal Husbandry, bound for N. C. and then to Paris. He attended the World Congress on Fertility and Sterility in Naples, Italy and the International Conference on Animal Reproduction in Leeds, England. He visited many research stations and universities on his tour. After Italy, Switzerland, Germany, Sweden, Denmark, Holland, England, he took many colored slides of the countryside.

Ruth buried herself by painting two bedrooms. /3/

A red letter day here. Bobby was to be in an accordion recital which was in charge of a wedding reception at our church in the afternoon. Bobby went down the road on his scooter and fell on his left elbow. He spent the evening in the hospital while the rest of his recital and also the wedding reception. The next morning (Sunday) Ruth took him from the hospital to church since it was Children's Day and he was commended for having perfect attendance in Sunday School all year.

School was out, Dale, Bobby and Ruth visited Ruth's folks in New Lebanon, Conn. until Pat returned from overseas on July 10. /4/ The last of July we took a week's vacation at Fourth Lake in the Adirondacks near Old Forge. We had a wonderful time taking boat rides, fishing a little, and climbing mountains.

The boys are enjoying attending a brand new school where Dale (6) is in first grade and Bobby (9) is in fourth. At the moment, Bobby is just over the measles. We expect Dale to have them any day now.

Our best wishes to all for a very Merry Christmas and a Happy New Year. /4/
Dear Friends,

September fourth our family embarked for Denmark aboard the Swedish-American liner "Kungsholm". Our ocean voyage was such smooth sailing we just relaxed and had fun for nine days.

For two weeks we lived in the heart of Copenhagen at a strange old Hotel-Pension. It proved to be a friendly and interesting place as we visited over after-dinner coffee with tenants from many lands. Next door was the famous old Marble Church, and two blocks away was Amalienborg Palace, the residence of the Royal Family. We viewed the city from its canals and harbour in a sightseeing boat; we put on felt slippers for a guided tour through Christiansborg Palace, containing parliament and royal reception rooms. We went to the spectacular amusement park, Tivoli, and many other places during these first two weeks of orientation and looking for a permanent place to live.

October first found us settled in a comfortable home in a new housing development about 10 kilometers north of Copenhagen. The community, Lyngby, is typical of picturesque Denmark, with its many flowers, neatly kept gardens, and stucco or brick houses with red tile roofs. The local people have been very helpful.

Robert and Dale go to a Danish school. Their teachers speak English, which helps, but it is still a drastic change for them. They are beginning to learn some Danish.

The shopping areas are full of little shops. Ruth goes from butcher to baker to "green grocer" to dairy, etc., as there are no supermarkets. A wonderful feature is the excellent delivery service, sometimes by truck, but more often by bicycle. It is a land of bicycles. On Sundays whole families go for a leisurely bike ride, and on weekdays mothers often carry groceries on the front and a small youngster in a little seat on the back of their bicycle. Mail is delivered three times daily by red-jacketed men on yellow bicycles. Bob, Robert and Dale have bikes. Bob rides his bike to the station to catch a commuter train bound for the Royal Veterinary and Agricultural College where he has his research work.

We are very grateful that Bob's sabbatical leave and Fulbright Scholarship not only provide him with this opportunity for further research and study, but are enabling the whole family to share this wonderful experience.

Sincerely,
Dear Friends,

After a wonderful nine months in Denmark last year we are back in Ithaca. Our Christmas card brings a little touch from both Denmark and Ithaca, for the twin Danish costumed dolls greeting you are on our front door step at 110 King Road. One of our Danish friends designed and made the clothes for these dolls.

Last Christmas we followed a Danish tradition and had real candles on our Christmas tree. We watched things pretty carefully while the candles were lit. At New Year's we had some "table bombs" which are indoor fireworks. Outside, the neighborhood children were ushering in the New Year like we used to celebrate the 4th of July.

At Easter time we took a 10-day trip in our Volkswagen through Germany, France, Belgium and Holland. We visited Ruth's brother Wesley and his family in Frankfurt, then drove to Paris where Bob attended a scientific meeting and Ruth and the boys went sight-seeing. From Paris we drove to Belgium and saw where the World's Fair had been. Most of the buildings were on their way down. In Holland we saw colorful fields of crocus and daffodils in blossom. At Keukenhof, a lovely park with acres of naturalized bulb plantings; we saw early tulips in bloom as well as many other flowers, thanks to an early Spring.

Ruth's mother and father arrived in Holland the end of April to see the tulip festival and then visited us for 10 days. While they were with us, they, Ruth, Robert and Dale went to Stockholm, Sweden to sight-see a few days while Bob flew to Milan, Italy to speak and attend two meetings.

June 8 found us leaving Copenhagen on our way to New York via London. Bob spoke at a meeting in London; we spent three days sight-seeing and visited our friends Bea and Prescott Kerr in Ashford.

Flying via Icelandic Airlines from London to New York, we made short stops at Glasgow, Scotland, Reykjavik, Iceland, and Gander, Newfoundland. When we landed in Iceland at 2 a.m. it was still light!

On the last Sunday of October we had the thrilling experience of attending the first service in our new Congregational Church. It is the culmination of years of planning and saving by the whole congregation.

The last Friday in October was another memorable day for us as we began excavating for our new home about a mile from Cornell campus. Moving time will be around the end of June; then our address will be 70 Woodcrest Avenue. Come see us!

May the blessings of Christmas be with you as once again we look forward to this wonderful season and to a happy and full year ahead.

Sincerely,
Dear Friends,

As 1960 draws to a close we are thankful for the many blessings that are ours, and for the friends both near and far to whom we wish to send our Christmas greetings.

This year saw the fulfillment of one of our dreams—building and moving into our new home. For those who are familiar with Ithaca it is just inside the city limits on East Hill, bordered by Cornell fields and sheep pastures on two sides (to the left and in back of the sketch). August 12 was moving day. We are doing the interior painting and wood finishing ourselves. The kitchen, bath and half-bath were completed before moving day. The three bedrooms have been painted since, and we still have the living room and dining room to go. The basement is not finished off, but already sports a ping pong table.

Ruth, Robert and Dale helped Ruth's father celebrate his birthday the last of July in a family reunion at New Milford, Connecticut.

Naturally we stayed close to home most of the summer, but one short trip was sandwiched in the first part of August to the Eastern Division of the American Dairy Science Association meeting in Durham, New Hampshire. On the way we had a brief visit with Bob's folks in Gilead, Conn. While in New Hampshire we enjoyed a visit with our former U. of Conn. classmates, Charlotte and Walter Collins. New Hampshire was beautiful! We'd like to make a longer visit.

Since we are now within the city limits Robert and Dale no longer ride the school bus, but walk to school each day. Robert goes down town to the eighth grade at DeWitt Junior High. This building housed the High School students last year, but the high school students now have a brand new camp near Stewart Park.

Dale is in fourth grade. He has a 15-minute walk to Belle Sherman school and comes home for lunch. He has become a Cub Scout this year.

We hope that any who come near Cayuga's Waters will stop at 70 Woodcrest to see us.

With Best Wishes for the New Year,

Bob, Ruth, Robert & Dale
Dear Friends,

During the previous three years we were working on and moving into either a new church building, a new home, or a new animal husbandry building. This past year we have been a little lazy -- enjoying all three. We also enjoyed a marvelous sunny summer. It was hard on hay crops, however.

Early in June Bob's parents and his sister Lovina came to Ithaca, and we all drove to Alfred, N. Y. to attend the 50th anniversary of the graduation of his parents from Alfred University. At the end of June we went to a Parcells reunion at Ruth's brother Don's new home in Woodbridge, Connecticut.

Robert went to summer school to get a required course in health and pick up typing skills. This made room for English, geometry, biology, German and Latin when he entered his Sophomore year in high school this fall. He seems to enjoy this schedule, despite the many hours of homework. His hobby is coin collecting, something his parents have been able to do only with moderate success.

Dale went through the usual camp-outs and summer camp for Boy Scouts. This was his first year at summer camp, and so an especially eventful one.

After this we all visited Bob's folks at the farm. A new milking parlor (double-six herringbone style) was in operation. Bob found this to be quite an improvement over the type he grew up with.

Bob has been very busy revising the beginning animal breeding course (A.H. 20) this fall. It is now accepted as meeting one of the biological science electives, and enrollment has increased.

Ruthie has been helping out with canteen duties when the Red Cross bloodmobile visits town, meeting with the International Wives Friendship Group, and getting to know some of the foreign wives better through monthly coffee hours.

We are looking forward to a camping trip to Oregon next August to attend the American Society of Animal Science meetings. We hope to see many of the famous landmarks and visit some of our friends en route.

Our very best wishes to each of you for a Very Merry Christmas and a Happy New Year!

Sincerely yours,

[Signature]

70 Woodcrest Avenue
Ithaca, New York
Christmas 1962
December, 1963

Dear Friends,

Some of you may recognize lovely Lake Louise at Banff on our Christmas card. It was one of the many beautiful sights we admired and enjoyed on our month-long camping trip this summer. We traveled the trans-Canada highway in August to Brandon, Manitoba where we spent two happy days with Ernie and Norma Swierstra. Then on to Alberta to see Banff and Jasper National Parks, then British Columbia and Yoho National Park. It was all gorgeous!

The camping was a unique experience since we had never done it before as a family. We learned a lot and had fun.

We drove through Rogers Pass, the Okanagan fruit country, and down into Washington. There we visited Grand Coulee Dam—a spectacular engineering feat and sight. Our route took us to Seattle, through the rain forest in Olympic National Park and on to Corvallis, Oregon, where Bob attended the Animal Science meetings at Oregon State University for four days. Many former Cornellians were there to renew acquaintances with as well as friends from our University of Connecticut days.

Crater Lake was another interesting visit and that was as far South as we went. We then headed back East going through Idaho, Wyoming, South Dakota and into Minnesota with a visit at White Bear Lake, Ruthie’s hometown until high school days. We were awed by Craters of the Moon and Devil’s Tower National Monuments and we thoroughly enjoyed Yellowstone, the Badlands and Mt. Rushmore too. The visitor centers at these places were excellent.

Each province and state was different and offered something of interest. The campsites were nicely developed; however we were very glad to get back home to our own beds again.

Dale is in 7th grade this year and is just starting German. Robert is a junior in high school and is conquering his 3rd year of German.

Bob’s classes in Animal Husbandry seem to get larger each year, so there is no lack of things for him to do. Since all the other members of the family were so occupied by school this Fall, Ruthie enrolled in an adult education class in Tailoring and has just finished making a suit.

We hope the year has been good to each of you and that this Christmas season will be a happy one.

Sincerely,

Ruthie, Bob, Robert and Dale
Greetings to you dear friends,

It has been another eventful year and we are thankful we were blessed with good health and happiness.

During Spring vacation in late March, we drove to sunny Florida for our first visit to that state. We went as far south as Fort Meyers and Sanibel Island on the Gulf Coast. What a paradise for shell collectors at Sanibel Island. We thoroughly enjoyed a visit with Eleanor and Harold Wallace at their home in Gainesville and a tour of the University of Florida campus there. Harold was a graduate student along with Bob a few years ago here at Cornell.

In July we saw the World's Fair and did a bit of site-seeing in New York City while there on a two day visit. Bob had a meeting to attend also. He had been working on an educational film on the population explosion.

Other meetings took Bob to Michigan, Minnesota, Wisconsin, Boston, Guelph and Toronto.

Ruth's mother and father celebrated their 50th wedding anniversary August 25. We gathered at West Harwich in Cape Cod, Massachusetts for a family reunion and celebrated for four days. It was a lovely place and all 17 of us had a grand time.

We visited at Bob's home in Gilead, Connecticut afterwards and while there enjoyed a picnic with about 60 relatives from the Foote side of the family.

Robert began his freshman year at Cornell toward the end of September. He is in the School of Engineering and living in Boldt Hall on campus. He says all he has time for is studying.

Dale is in ninth grade. He tried some track last Spring and soccer this Fall, and is continuing with piano lessons.

We hope the year has been good to you and that this Christmas will be a happy one.

Sincerely,
Dear Friends,

Another eventful year is drawing to a close and once more we are thankful for the good health and happiness we received.

Bob has been happily occupied with 200 undergraduates in lectures and in laboratory work along with additional advising and administrative challenges. Three research associates arrived this Fall from Japan, Australia and Germany for post doctoral work. The week following Christmas Bob will spend in sunny Argentina working on cattle breeding problems.

Dale is a sophomore at High School and Robert, a sophomore at Cornell. They find that their studies keep them pretty busy too.

Ruth is working with Cornell Food Scientists in the Poultry Department by being on a taste panel that meets once a week to taste hot dogs made from chicken. You can hardly tell the difference from regular hot dogs. This may be a new product on the market in the future.

In August we rented a 15-foot Phoenix tent camper that opened out to provide spacious sleeping facilities, dining table, stove and sink. We camped among the lakes and mountains in Vermont and New Hampshire and at Acadia National Park, Bar Harbor, Maine. The weather was sunny and wonderful. The naturalist-conducted hikes and boat trips were great fun. We saw the bald eagle twice -- at its nest and swooping for fish. This was a first for the whole family. On the way home through Canada we drove through Montreal and saw the beginnings of "Expo 67."

No doubt many of you will be taking in "Expo 67" before or after the American Dairy Science Meetings here in June. We are looking forward to seeing many of you at Cornell for the meetings.

At this time of year, as we gaze into our back yard, our glances may fall upon deer, rabbits, pheasants and quail seeking their food a little more boldly. Ten quail have been calling daily at the bird feeder close to the house along with other winter birds.

We hope the Peace and Joy of this Christmas season will abide with you throughout the coming year.

Sincerely,

Bob and Ruthie
Dear Friends,

It sure was wonderful to welcome and visit with so many friends who came to Ithaca in June to the Dairy Science meetings which Cornell hosted. Ithaca's weatherman provided his best weather for all and the Bar BQ by Lake Cayuga with over 3000 attending was a memorable occasion.

Our family headed west the latter part of July with our camping trailer and supplies on a trip that lasted a month. We enjoyed the wondrous scenery of the Rocky Mountains, floating in the Great Salt Lake and speeding across the salt desert. Our first prolonged stay was at Reno, Nevada where Bob attended the Animal Science meetings.

Other highlights of "westward ho" were Lake Tahoe, the giant sequoias of Yosemite, Disneyland, and Knott's Berry Farm. On the way home we enjoyed Zion and Bryce Canyons, the Grand Canyon, the Petrified Forest and the Painted Desert. The U.S.A. is so vast and varied—it is thrilling to see!

Ruth and Bob were interested to see a nearby section of American Life in the Pennsylvania Dutch region when Bob spoke to the National Association of Animal Breeders in Hershey, Pa. in September.

The latter part of November, our son, Bob, enlisted in the Army. He went to Fort Dix, N.J. and goes on to basic training from there. Dale has been busy directing a one-act play for the High School Dramatic Club. He's leading the busy life of a Junior this year.

We wish for one and all a Peaceful Christmas and a Healthy and Happy New Year!

70 Woodcrest Ave.
Ithaca, N.Y. 14850
December 1957
Dear Friends,

This year we realize more than ever how rapidly time has flown. It is the first Christmas that the four Footes will not be all together. Our oldest son, Robert, has been in Japan with the army since June. During the winter and spring, while on sabbatic leave, Bob visited him at Ft. Dix and then at Finance School in Indiana. Robert is in Yokohama, where he is involved in paying soldiers hospitalized as a result of service in Vietnam. And so, while we personally feel fortunate, we are ever more mindful of the need to resolve this conflict with all possible speed.

Bob continues to enjoy his research and teaching. His many trips while on leave were to seek novel approaches to both.

During most of this time Ruth and Dale stayed in Ithaca. In August we all took a brief camping trip to Tennessee in connection with two meetings Bob attended. Dale looked at a prospective college on the way. He is interested in studying architecture next fall at a school smaller than Cornell. He has been busy with plays, cross-country and school work.

In September we went to Connecticut to celebrate Grandmother Foote's 100th birthday. She still lives alone keeping house, and making rugs and quilts. While there we saw the back side of the home farm being converted into a golf course.

Ruthie has continued to help foreign students get established in Ithaca. This year she has been teaching conversational English to foreign student wives.

Our best wishes for a Merry Christmas and a Happy New Year to all.

Sincerely,

Ruth and Bob Foote
Greetings!

Again the beautiful, but often abused, season of Christmas draws nigh. Even the weatherman finds it hard to keep up the modern pace--a warm moist fall has kept the Ithaca lawns green, and as yet unblanketed by snow. However, the lovely snow scene on our card is one of the many Grandma Moses paintings we saw on exhibit this summer in the Bennington, Vermont Museum.

Dale took his first prolonged flight from the home roost. He is studying Architecture at V.P.I. in Blacksburg, Virginia. He writes that he thoroughly enjoys his work, but he is surprised at the conservatism among the student body. Perhaps this is because of the contrast with some recent events at Cornell.

Bob has been very much involved in the problems of campus unrest through his service on committees dealing with student affairs, human rights and rules for maintaining public order. He is disturbed both by the groups which foment change with no constructive intent, as well as those who really resist any and all meaningful changes. A university has a great deal of built-in conservatism and many reforms are needed. However, basically the university must remain a place for rational discussion of theory and reality, where scholars teach and students learn.

Robert still is in the finance section of the army in Yokohama, Japan. He has completed two years in the service and will be returning next year.

Ruth is doing her bit around Ithaca in such projects as canteen work when the Red Cross Bloodmobile comes to town, taking her turn at the Service League Shop which is a used clothing exchange shop, and "Meals on Wheels". This involves delivering food prepared at the hospital kitchen to people who are shut-in, but who do not require nursing home care.

And so again our wishes for a Merry Christmas and Peace in the New Year.

Sincerely,
Dear Friends,

The year was filled with travels, especially the Oriental adventure in April and May. It was a grand vacation for Bob and Ruth along with a series of seminars that Bob gave in several countries. In Hawaii we had a marvelous reunion and orchids and continuous feasts with World War II buddies of the 42nd. In the Philippines we met son Robert who had flown into Manila from Tokyo. There we saw some of the country as well as the results of the cooperative effort by Cornell and the College of Agriculture at Los Banos. We were greatly impressed by the Rice Research Institute, and the increase in rice production in many countries where a few years ago rice was in short supply. From the Philippines we flew to Bangkok, a city filled with beautiful temples and interesting people. Of course we traveled by boat through the canals and floating markets there. Bob took movies and slides while Ruth did most of the shopping.

Then it was on to Hong Kong which means Fragrant Harbor. It certainly has a beautiful harbor when viewed from the top of Victoria Peak; one can also see the Red Chinese border from there. Our next stop was Taiwan. Here we had a whirlwind tour of Taipei and the Yangminshan Park area where Chiang Kai-shek has his summer home. The pig breeding work in Taiwan was most impressive. We thrilled to the displays in their National Museum which contained many lovely paintings and handicrafts. Our Christmas card is from one of the paintings.

In Japan we had the delightful experience of staying in a Japanese home while visiting Expo '70 and the ancient capital of Kyoto. We saw the Emperor and his family in Tokyo; also we visited friends and institutes in Tokyo and Sendai with time for sightseeing and shopping. Then it was home via Fairbanks, Alaska, to end a trip filled with the boundless hospitality of many friends in many countries.

In the meantime Dale was finishing his first year in architecture at Virginia Polytechnic Institute. He is continuing his studies there this fall.

The Parcell family had a reunion in Ithaca in July to celebrate Ruth's father's 80th birthday. Bob's grandmother celebrated her 102nd birthday in September.

Robert will be out of the army before Christmas so we are looking forward to another reunion. We hope that the new year will find you all well, and that the world will be filled with more peace, patience and perseverance than it has known in a long time.

Sincerely,

Ruth and Bob Feitz
Dear Friends,

Another year has sped by. It seems like one of the busiest ever in Ithaca, but we still had a chance to take some interesting trips. In March the whole family went to Florida. We picked up Dale at the end of his winter quarter at Virginia Tech. Then Robert, Dale and the "old folks" continued right on through Florida to the Bahamas. Other than one rolling night at sea we had a pleasant, sunny, warm change from a long snowy winter.

In August we attended the Animal Science meetings in Davis, California where Ruth enjoyed getting together with two of her U. of Conn. roommates, Ruth DeVore and Olive Garrigus. We also enjoyed a tour of San Francisco with Jean Iusi, a friend of Ruth's from grammar school days. From California we flew to Phoenix, Arizona and stayed at the Bard Kirkland Ranch, home of Barzona beef cattle. The ranch is owned by a former Cornellian. We brought good luck to the ranch, as a dry summer was broken by heavy rains which started as we left.

Bob returned to Japan this fall, where he was invited to address the World Congress on Fertility and Sterility. October is a lovely time to visit Japan, as the trees display their colors. Also, he had seen spring planting on the April trip last year, and now it was harvest time.

In Ithaca Bob has been especially busy teaching the largest class he has ever had. He has been developing an audio-tutorial system of pre-lab instruction. This has been most challenging, but so far highly gratifying.

We both have been very busy with church work. Our church has been going through difficult times, as have many others, striving to be relevant to all its members and to society.

Battles of the budget and on the firing line seem to be endless. Yet there is much to be thankful for. We hope the new year will bring health and happiness to each of you, and progress toward peace in the world.

Sincerely,

Bob and Ruth
A few days in England rounded out our safari abroad. The areas around Wooton Courtenay in Somerset and Dartington Hall in Devon were beautiful. The London Zoo was also a treat. Our wonderful friends in all these places made the visits most memorable and enjoyable.

Next it was on to Copenhagen, Denmark where we visited friends and places we hadn't seen since our sabbatic leave 14 years ago. A ferry boat ride brought us to Oslo, Norway and more interesting visits. In Bergen we took a boat trip through scenic fjords and witnessed bonfires on the longest day of the summer.

Then we turned inland and saw some rural farming areas. From Zagreb, Yugoslavia we headed north to Salzburg and Innsbruck, Austria. The picture on our card is a photo of a mural on a ceiling in the Lindenhof Castle near Oberammergau. We spent a week in Munich, Germany where Bob attended an international congress on animal reproduction while Ruth shopped and visited with German students we had known at Cornell. Göttingen and Hannover were other interesting stop-overs. It seemed like we were having an "Oktoberfest" in June.

Robert is attending N.Y. University and has two part-time jobs in accounting. He spent the entire year in New York City. Dale continues his art training at Virginia Tech in Blacksburg, Va. and spent his summer there.

The June hurricane left some flood waters in Ithaca, but it was mild compared with the damage done to Elmira and Corning, just south of us.

May the new year bring peace and happiness to you.

Sincerely,

Bob & Ruthie

Ithaca, N.Y.

Dear
One of the highlights of 1972 for us was a trip to Europe the end of May. We visited Venice, Italy and then drove a rented Fiat along the beautiful Adriatic Sea.
Season's Greetings

AND OUR WARMEST WISHES FOR

YOUR PEACE AND HAPPINESS IN THE NEW YEAR

This year has brought new experiences to all of us and it sounds as though the coming year will be calling on each one to cooperate in more savings and economies for the good of our country and the world. May we all find rewards in this closer sharing.

Last March, while Bob attended a meeting at the National Institute of Health in Bethesda, Maryland, Ruth visited the National Archives in Washington, D.C. She became acquainted with its genealogy resources and found interesting information to add to the family tree.

A few sessions in Yoga were one of Ruth's new experiences. It was interesting and something different. Tennis and water skiing were some of Bob's enjoyable experiences this summer.

Bob attended Animal Science meetings in Lincoln, Nebraska in July and Ruth visited her family in Connecticut. In August we helped Bob's parents celebrate their 60th wedding anniversary and we've enjoyed visits from relatives and friends from here and abroad.

Along with teaching and research this Fall, Bob took a quick trip to Palo Alto, California.

Dale continues his studies at Virginia Tech and will soon do some practice teaching. He has acquired a cat. Robert is continuing his studies at N.Y. University and he has acquired a dog.

Now from our hearts the wish that your Christmas be happy and brightened by Comet Kohoutek--perhaps similar to the star over Bethlehem so long ago.

Bob and Ruth Foote

70 Woodcrest Ave.
Ithaca, New York 14850

1973
Footlights For 1974

June - Dale graduated from VPI and Statell, at Blacksburg, Va. as an art teacher. With art education positions in schools being very scarce, he is continuing to teach pottery courses at VPI Student Union and putting his own ceramics on exhibition and sale at craft fairs.

August. Bob and Ruth visited Cambridge and Stockholm on the way to and from a Scandinavian postgraduate course in reproductive physiology that Bob gave in Helsinki, Finland.

The red mill pictured is on Pettu Island off the Southwest coast of Finland where we spent a few days and indulged in our first Sauna baths.

December - Robert is interviewing for jobs in marketing and management as he will graduate from New York University in January.

Our greetings and best wishes to you for health and happiness at Christmas and in the year to come.

Bob and Ruth Foote
FOOTELIGHTS FOR 1975

We can be thankful this year has passed rather quietly with more footlights than highlights. It is the first time in more than 20 years that we haven't had a son in school. Dale and Robert continue to live in their college "towns" of Blacksburg, Va. and New York City, but Robert expects his management training program may move him to a new location before long.

Ruth's parents celebrated their 60th wedding anniversary this summer with a nice family gathering in New Milford, Conn.

Bob still has problems saying, "No." Review panels, site visits and other meetings in addition to teaching and research kept him constantly on the go, but the challenges are stimulating.

The geese on our card remind us of the many V-formations we see over Ithaca in Spring and Fall.

We hope that the year has been one of peace and joy for you, and we send our best wishes for much happiness in historic 1976.

Bob and Ruth Foote
Dear Friends,

As the nation was celebrating its bicentennial anniversary we celebrated it too, along with our own 30th anniversary. After going to the University of Connecticut in March to receive a nice award we headed for Washington, D.C. in early April. Bob attended a meeting and Ruthie filled out a few more branches on the family tree while leafing through files at the National Archives and the D.A.R. library. We stayed near Watergate, but soon left that behind as we headed for Williamsburg, Virginia. It was a lovely spring drive. We stopped at several historic sites on the way and spent a weekend touring the grounds where we had honeymooned 30 years ago.

On the way back we visited our son Dale who was living in Blacksburg, Virginia. He has since moved to Alfred, N.Y. where he is in the S.U.N.Y. College of Ceramics. Our son Robert has also moved about. He was transferred from a Woolco store in New York City to Enfield, Conn., but has recently returned to New York City.

Ithaca also had many special events this year. On July 4th we joined in the ringing of the bells which occurred simultaneously throughout the country. Later the New York Bicentennial Barge came through the old Erie Canal and Cayuga Lake into Ithaca's lovely new marina. Many exhibits were featured on and nearby the barge.

Then Ithaca was also the site of a large and elegant display of quilts. There were several hundred displayed. Bob took pictures of many examples of old and new quilts. We have some quilts of our own. Bob's grandmother (now 108 years old) was still making quilts until a few years ago.

Ruth has been keeping up with historical events as she attends genealogy meetings in Ithaca. Bob continues to use his photographic hobby in conjunction with teaching. Currently, he is making short video tapes in color to supplement previous color slides and films. National commitments have given him diverse opportunities to travel as far as Washington state, including the "thrill" of flying over the Cascade Mountains in a small plane during a January snowstorm. The thoughts of a trip to San Diego, California this January are much warmer.

And now to you all, WARM GREETINGS and BEST WISHES for HEALTH and HAPPINESS IN 1977!

Sincerely,

Bob and Ruth Feite
1977
MERRY CHRISTMAS TO YOU

We are getting ready to roll westward for a Spring term sabbatical leave at Davis, California. Bob will do some teaching and researching and sit in on selected courses for a little updating. It has been nearly 20 years since we lived outside of Ithaca, at which time we spent a year's leave in Denmark in 1958-1959. The "boys", Robert and Dale, were in their very early school days then. Now Dale is the only one still pursuing another degree at Alfred University. Robert will move from New York City to be master of our home on Woodcrest Ave. while we are away.

This past January we were lucky to be at a meeting in San Diego when the big snow storm hit the eastern part of the country. It was quite thrilling while in San Diego to go to the Zoo, see the Wild Animal Kingdom and go to Sea World. We had never been to San Diego before. Now we have some interesting slides, movies and fond memories.

Time took its toll in the Parcells family this year, as Ruth's dad passed away in the Spring and her mother in the Fall. Though we shall miss them, it is wonderful that they had 61 healthy and happy years together.

Bob's grandmother continues on agelessly, passing her 109th birthday this Fall. His mother and dad are busy retirees on the home farm.

Peace and Joy in the New Year!

Ruth & Bob Fote
Read down the side and you'll see who sends this message to thee.
Our past year was filled with work and play
Bound for sabbatical leave in Davis, C. A.
Everything was different; everything was new;
Real challenges to meet and programs to pursue.
Traveling in California was interesting and exciting;

Apartment living was really quite inviting.
New friends were made and several reunions unveiled
Delightful relatives and army buddies with whom we regaled.

Returning in July was a long drive indeed
Under the power of our Datsun we made good speed.
Through mountain and valley, by desert and plain
How beautiful is America we echoed the refrain.

Freedom from need and maintaining good health
Our blessings are many, we give thanks for the wealth
Of bountiful goodness far and near.
Thinking of you with thoughts of good cheer
Every wish for a Peaceful and Happy New Year!
Happy Holidays

Bob and Ruth
Foote

1978
The year 1980 began a new decade of hope and continued challenge in the world. Our own lives were filled with many happy experiences, although time took its toll also.

In the spring we joined in the celebration of the 150th anniversary of the founding of the First Congregational Church in Ithaca. It started originally as a Dutch Reformed Church. We moved into our present church building 20 years ago. That was a time of great celebration also.

The end of May found us on a European trip with Bob's sister Lovina and sister-in-law Marion. We visited London, Paris, Munich, Oberammergau, Vienna, Geneva and Madrid. Our travel overseas was by air and through Europe by Eurailpass. This all worked out really well, despite a few connections almost, but never missed. The Passion Play was the highlight of the trip. We had applied for tickets almost a year in advance. The day was beautiful, and as birds glided overhead one felt the realism of the events portrayed.

In Paris we stayed at a lavish apartment of one of Bob's friends. In Vienna we saw Marion's friends from youth exchange programs years ago. The final destination, Madrid, was the site of an International Congress which Bob attended.

Our son Robert lives in Ithaca so he looked in on our home while we were away.

We were saddened on our return by the passing of 111 year old Grandma Alice Foote. We are glad that she maintained relatively good health until the end. We all have wonderful quilts and rugs that she made during her first 100 years to remind us of her long and productive life.

Summer was upon us as we returned, and the American Society of Animal Science, with over 2,000 people in attendance, were at Cornell for their Annual Meeting. The first-time visitors and the returnees all helped to make the meeting and the evening fun a joyous occasion.

In August the fall term started with many activities at Cornell involving Ruth and Bob. The last of October Bob spoke at a meeting in Seattle, Washington. We flew from Rochester, where our son Dale is living, and spent a lovely weekend in Vancouver, British Columbia before going to Seattle. The picture on our card is Queen Elizabeth Park in Vancouver which reminds us of "Peace on Earth."

Our best wishes to you,

Bob and Ruth
Dear Friends,

The year 1981 began, as our local meteorologist prophesied, one of the coldest on record. But in February the sun's warm rays were felt and we went on to one of the nicest springs and summers in many years.

At the end of May we returned to our Alma Mater, the University of Connecticut, to the Alumni Reunion and to celebrate the University's centennial. It was interesting to see many of our former classmates, who like ourselves, had not changed a bit over the years (see picture). Or was it that both we and the campus had grown?

In July we headed for the American Society of Animal Science meetings at Raleigh, North Carolina. We took the coastal route and camped one night in Maryland where we pitched our umbrella tent, unused since we had camped with our boys years ago. It was a picturesque drive across the Chesapeake Bay bridge and tunnel into Virginia. At Nags Head, N.C. we saw people hang gliding from the tremendous sand dunes. Ruth enjoyed the women's tours to the Governor's elegant Victorian mansion in Raleigh and to Winston-Salem to visit Old Salem founded in 1766 by the Moravian Church people. After a few days of Raleigh's sweltering heat we wished we had bottled a little of the previous winter air to average things out a bit.

The summer was a quiet one, with the usual lawn and gardening chores. We shared a bit more of the shrubbery in the back lawn than we would have liked with a large deer population.

This fall finds our son, Robert, in San Francisco looking for a new job and Dale teaching in Rochester. We still have the latchstring out at 70 Woodcrest Ave.

Best wishes to you for health and happiness in the coming year.

Bob and Ruth Foote
Dear Friends,

This year, as for the past many years, we are thankful for good health, a growing circle of friends and many other blessings. We only wish all people, and especially leaders of all nations, would work fervently for joy and peace in the world.

Bob was in Israel this year at the time that the Lebanon crisis exploded. Jerusalem, as he saw it and photographed the Mount of Olives, seemed so peaceful and so far from the hostilities; yet in the jet age it was very near.

We took our first trip to Mexico this summer. Bob was lecturing in Mexico City, so we saw mostly people and more people (16 million in Mexico City) and their cars just filled the streets. What an enormous problem, as people from the country flock to the city. We took a trip to the sun and moon pyramids not far from Mexico City. What a fascinating and mammoth place. It would be fun to take a leisurely trip to Mexico and learn more about the cultures that have emerged from vastly different origins.

Bob also went to Hungary this fall as a guest of the Ministry of Agriculture. He had a car and driver available which made it possible to see large segments of the plant and animal agriculture. This was followed by a series of lectures and suggestions concerning animal breeding. He has been invited to review the program further next year. The trip was most enlightening, particularly to see the productive agriculture developed by the strong Hungarian people.

Two more new countries were added to Bob's list of "Places Visited in 1982." In early November he spent 12 days in Uruguay and Chile lecturing to various groups, ranging from international meetings to veterinary student classes. All persons contacted were extremely hospitable.

Our sons Robert and Dale moved to new locations this year. Robert purchased a historic house built in 1739 in Providence, R.I. It has five apartments in it. He is now experiencing the joys of refurbishing and of being a landlord. Dale is in Philadelphia. He enjoyed Rochester but was ready to try new horizons. He is working at a Quality Inn near the Philadelphia airport.

Ruth continues her work on a comprehensive genealogy she is putting together for both sides of the family and we have been copying old photographs to include in it. She is also busy with her antique club and needlework group and has just started taking lessons in tole painting.

Now as 1982 leads into 1983 we wish you and yours joy and peace.

With love,

Bob and Ruth
Season's Greetings

70 Woodcrest Avenue
Ithaca, N.Y. 14850
1983

Dear Friends,

As this annual message goes to press the fall leaves have turned color. Some are twisting and twirling to the ground, reflecting a light breeze on this another gorgeous sunny day. One seldom brags about the Ithaca weather, but this summer has been beautiful and sunny after an extremely mild winter.

The past year has been another interesting one for Bob, with new research and teaching in biotechnology, interspersed with trips near and far. He is leaving for Japan, Korea and Taiwan next week after having been to Hungary, Argentina and Japan earlier this year. The work of many people in every country is very impressive. If only the governments in every country could be as dedicated and sincere as most people, it surely would be a happier world.

There was a wonderful Parcells family reunion this past Memorial Day weekend that Ruth initiated and helped to organize. It was held at the Dearborn Inn, near the interesting Greenfield Village brought together by Henry Ford, just outside Detroit, Michigan. What a memorable occasion with over 60 members of the Parcells clan from eight states and ranging in age from 3 to 93.

In July we had a great fraternity reunion at Dick and Ella Huyler's farm in Vermont. It was nice to see so many hale and hearty folks (all just as young as we are). My, all the things that have happened to this group during the 40 years, more or less, since graduation from the University of Connecticut. After that we visited Ruth's brother Don at his lakefront cabin in New Hampshire, our son Robert in Rhode Island and Bob's parents in Connecticut who celebrated their 70th wedding anniversary this year. Our son Dale continues with his job in Philadelphia and is enjoying the sights and sounds of that interesting city.

We send our best wishes for your health and happiness this holiday season and in the new year to come.
Dear Friends,

Yes, another year has gone by. One could hardly not notice that with it being a national election year.

Also, we realize that 25 years has gone by swiftly. It was 25 years ago that we spent a year on leave in Denmark. What pleasant memories of those days when one could cross the ocean in passenger ships and enjoy that magical shipboard life. This year also marks the 25th anniversary of moving into our new church, which is growing vigorously. Also, Bob’s academic home, Morrison Hall, was nearly complete 25 years ago. So those were “moving” times.

This year has been a relatively quiet one. Our home has weathered the 25 years extremely well. The TLC that went into its construction paid off. We put in a new sidewalk to replace a cracked one this year and some new shrubs replace several that we let get out of control before cutting them back. A new garden house will soon be completed.

We took a quick but interesting trip to Nova Scotia and New Brunswick this summer. We drove to Portland, Maine and then car and all ferried overnight to Nova Scotia. These were places we had always hoped to see.

Ruth has several organizations as well as volunteer work at the church to keep her out of trouble. Bob has his usual long-time teaching and research programs. In addition, he has a new program in biotechnology and is president of the Society for the Study of Reproduction.

Robert is still in Providence, R.I. Dale is in Philadelphia. We’ve just been there with Ruth’s two brothers and their families for a wonderful Thanksgiving celebration. We had one in Ithaca a few days earlier for Bob’s foreign graduate students and post-docs.

It’s been a good year, for which we are thankful, and we hope the year has been kind to you and yours.

MERRY CHRISTMAS and HAPPY NEW YEAR

Bob and Ruth
70 Woodcrest Avenue
Ithaca, N.Y. 14850
December 1985

"One of the nicest things about December is letting friends know we care and remember."

We are very thankful for another healthy and happy year. We have just had a lovely Thanksgiving with family members in Connecticut including Bob's parents who are 95 and 98 years old. It is so nice that they can still live at home on the farm with the help of nearby relatives and friends.

Bob's travels took him to Illinois, Montreal, Washington, D.C. and Ruth accompanied him to Boston and California. In Boston we attended the International Andrology meetings and enjoyed a beautiful view of Boston from a restaurant at the top of the Prudential Building. The food was excellent too. In California we had a nice visit in San Francisco with one of Bob's WW II friends from the Nisei army unit. There have been some fine movies about the Japanese-Americans and their struggles, and another one is on its way relating to those virtues we all hold dear—freedom with responsibility. It was also good to see friends again at the U. of California in Davis.

We were able to visit our sons, Robert in Providence and Dale in Philadelphia. Both have large old homes that required lots of repair and both have apartments in them. Ruth enjoyed seeing the Philadelphia Flower Show last February and visiting relatives in Virginia during the summer. She continues to use the Library of Congress, while in Washington, to search for more genealogy information. This summer she found that 300 years ago we had mutual Phelps ancestors who were "kissing cousins" and we have decided it is a good tradition to follow.

Bob is teaching more than ever, and is looking forward to more research time after relinquishing some national duties. Ruth finds more social service agencies that need volunteers.

We look forward to seeing those of you who will be coming to the SSR meetings at Cornell next July 14-17. In the meantime—health, happiness and peace!

Bob and Ruth
Dear

The Thanksgiving holiday has just passed as 1987 begins to wind down. How will 1987 be described in history books? Will it be viewed as a roller coaster year with fighting and the feeling of futility in many areas of the world? Often the news media seems to dwell on doom and gloom. Yet there are constant examples of millions of people sharing, giving and helping in countless ways to promote a world of peace and prosperity, and these examples seldom capture or even share the headlines. So at Thanksgiving time and throughout the year we have so much to be thankful for and so many opportunities to positively pursue powerful forces for good.

Personally, we have had a year with many things for which we can be thankful. A sad note was the passing of Bob's dad, but he had lived a long and good life and now he has joined his "sweetheart" who preceded him recently into eternity.

Ruth has been active in various caring and sharing groups and was a delegate at one of the state meetings in Buffalo for a few days. More recently she returned to New Milford for her 50th high school class reunion. As these "students" reminisced about their senior days it was hard to imagine that now they were achieving senior status in life.

Bob and Ruth attended a Pi Alpha Pi reunion at Dick and Ella Huyler's home in Vermont. It's always amazing to learn how much has happened to everyone since we graduated a few years ago.

Bob keeps busy with Biotech, and other exciting programs that have emerged the past few years. Also, this past year he "tripped" to Washington, D.C. as project manager of the USDA competitive grants program in animal reproduction. Also, there was a major new exhibit added at the Smithsonian Institute commemorating the Japanese-American 442nd RCT, which Bob served with in WW II. A positive side to this war service was that the experience and exposure broadened Bob's perspective, and heightened his awareness of the shared needs and aspirations worldwide. This aspect was increased further by a recent lecture tour by plane and train to three major universities in China. Bob's Chinese students had prepared translated abstracts and slides of his multiple lectures in advance. The trip was fantastic. One must go and see and walk and talk with the people to become aware of the massive changes which are taking place to overcome equally massive problems. The patient, persistent, and friendly Chinese people are dedicated to improve their life and country.

Our son Robert continues with real estate in Providence, R.I. Dale continues old home remodeling and restaurant work in the city of brotherly love, Philadelphia.

We send our love and good wishes to each of you for peace and happiness in the new year.

Sincerely,

Bob & Ruth
God grant you the light of Christmas, which is FAITH;
The warmth of Christmas, which is LOVE;
The radiance of Christmas, which is PURITY;
The righteousness of Christmas, which is JUSTICE;
The belief in Christmas, which is TRUTH;
The all of Christmas, which is CHRIST.

by Wilda English

Why did this year seem to pass even more quickly than last year? Could one day in February make that much difference?

After a relatively mild winter we moved into a cool spring and a hot summer. Fortunately we had rain when it was needed, so crops and lawns were all good in our area.

Ruth and Bob headed east to Ireland in June, where we rented a car and drove through the Limerick, Shannon and Galway area on the wrong side of the road. We met Mike Kane, his wife, Marlon, and daughter, Aine, at their lovely home in Galway. Mike was a graduate student at Cornell and now is a professor at the University of Galway. After a few days of touring through this lovely area of Ireland, headquartered at Kanes, we drove to Dublin where Bob attended the International Congress on Animal Reproduction and A.I. and Ruth enjoyed more sightseeing and shopping.

Ireland has lots of open green space. People there seem to have escaped some of the rush and tumble of much of today's society and are very warm and friendly.

The summer sped by after that and this fall Bob lectured at Kyoto, Miyasaki and Kagoshima Universities in Japan. He was gone for a month and lived in an apartment, where he learned the routines of grocery shopping at individual small shops and being chief cook and bottle washer. Hiking to work was good for the health as long as one could avoid speeding bicyclists on the sidewalks.

To our Animal Science friends -- a sad note this fall was the sudden passing of Bernice (Mrs. Kenneth J.) Turk. Ken currently is maintaining his residence at 303 Hamsaw Road.

Ruth's travels of late have been more of the local type as a volunteer to take people who need rides for doctor's appointments and other needs for those who don't drive. Also she is involved in several other community activities.

Our two sons are still maintaining their unattached life. Robert has expanded his real estate to a home on the lake in Wolcott, Connecticut, with headquarters still in Providence, Rhode Island. Dale continues to live in Philadelphia.

Our best wishes and seasons greetings to each of you.

Bob and Ruth

70 Woodcrest Ave., Ithaca, N.Y. 14850

December 1968
70 Woodcrest Ave.
Ithaca, NY 14850
Christmas 1989

Dear Friends,

We just want to let you know we are still "hale and hearty" and maintaining our home at 70 Woodcrest, which was spruced up with a good paint job this year.

We're still doing some gardening when the weather permits, still driving the needy or elderly to appointments, still doing exciting research with graduate students and attending scientific meetings in various part of the country.

Hosting was also in vogue for the year. We had a three-week school for Chinese Animal Scientists and a National Chinese Students and Scholars Symposium at Cornell, the Second Genetic Engineering Congress on Animals and several other short courses for national or international groups met here too.

A bit of a change in pace was provided in July when we attended the wedding of our niece in Virginia. It turned out that the lucky young man was the nephew of a former New York A.I. Coop employee we knew and had worked with for years.

Houses and townhouses are being built at a great rate in Ithaca and more buildings and dormitories are filling Cornell's campus. Even our church added a new chapel and Sunday school rooms to accommodate our growing community.

Our sons were home for Thanksgiving and we look forward to seeing them again at Christmas time.

With all the changes taking place around the world may peace and happiness finally come to all. Our best wishes to each of you in the coming year.

Bob and Ruth
70 Woodcrest Avenue
Ithaca, N.Y. 14850
December 1990

Dear

The year 1990 has been a relatively quiet one for us. We rejoiced at
the unification in Europe and watch with anxiety the unsettled conditions in
the Gulf.

Bob is still busy teaching, advising and researching, although he no
longer teaches the introductory reproductive physiology course, which has
now been dropped from the curriculum after decades of enrollment by many
thousands of students. He still teaches an advanced embryo biotechnology
course. Visitors from many countries continue to come, and this means
extended academic families in dozens of countries.

One especially exciting experience was a trip in June through thousands
of kilometers of mainland China after an international conference in Taiwan.
First Bob stayed in beautiful Hangzhou, including accommodations where
Richard Nixon, Henry Kissinger, Mao Tse-tung, and Chou En-lai met to restore
diplomatic relations. He then went to northern China and with the superb
help of Chinese friends he traveled by plane and especially by 4-wheel drive
jeep beyond the roads through the grasslands to the deserts of the
Autonomous Region of Inner Mongolia. This was repeated in Xinjiang’s
Autonomous Region, where many minority groups with a moslem heritage live.
The Emin Minaret, pictured on our card, was built by Islamic regional rulers
as a tribute to the Emperors ruling China. It was finished more than 200
years ago in a very hot dry area, since abandoned, just outside of Turfan,
on the old silk route. It was a wonderful trip!

Ruth is busy with volunteer jobs and has been embroidering, smocking,
and cross-stitching articles for our church fair.

In September we attended the wedding of Ruth’s niece, Alisa Parcells,
in the historic First Church of Christ in New Haven, Conn. We also visited
our alma mater, the University of Connecticut, and saw the beautiful new
home our son Robert has built overlooking a lake in Wolcott, Conn. Dale
keeps busy in Philadelphia.

Our best wishes to each of you and may it be a peaceful new year.

Sincerely,

Bob and Ruth
The Emin Minaret, pictured on our card, was built by Islamic regional rulers as a tribute to the Emperors ruling China. It was finished more than 200 years ago in a very hot dry area, since abandoned, just outside of Turfan, on the old silk route. Bob photographed this on an exciting trip in June, 1990, through parts of China, travelling especially through the Autonomous Regions of Inner Mongolia and Xinjiang.
Our Best Wishes for a Merry Christmas and Happy New Year to All!

Celebrate our Thanksgiving Day there and return December 14, surrounded by a most impressive display of flowers and foliage. We shall have our customary business class so our two sons and we shall be flying to Connecticut. Our hosts, with whom we have been so pleasant over the holiday season, have given us a wonderful reception. We are grateful to them for their hospitality and their thoughtfulness towards us.

month has ended and we are now looking forward to the New Year. Here's hoping for a very happy and prosperous year ahead.

December 1991
Season's Greetings
1992

The year 1992 has been one of extremes. Recognizing how lucky I have been over the years I stated when receiving an award in 1981, that "Whatever each one of us becomes depends upon how fortunate we were to receive a good measure of inheritance, a generous supply of many good things in life and on how well we nurture and utilize these given talents by both creating and capitalizing on opportunities." I went on to thank my parents, my family, my teachers and my students.

Early in 1992 my luck ran out as my beloved Ruthie, a nonsmoker and "tea totaller," died (January 10) from lung and liver cancer after a valiant fight. The primary cause was never found. Our two sons, Robert and Dale, helped to manage a trip on a wing, chair and prayer to Australia in November -- a place Ruthie had wanted to visit. Between the sons driving a large station wagon, with a wheel chair included, business class tickets and a rest stop in Hawaii, the family took a forever to remember successful trip. We have had tremendous support from many people, which helped us all.

I have learned a great deal about empathy and can appreciate better what some of you have been through. There is so much to learn about life isn't there! The more one learns the more one realizes how little one knows. Ruthie was a quiet person completely devoted to serving family and friends. We have set up lectureships at both the University of Connecticut and here in Ithaca to preach, promote and preserve these values.

I have learned how to be a better housekeeper and how to keep needles out of my fingers when sewing on buttons. I tell the flowers that Ruthie is providing expert care, but they "feel" the difference and respond accordingly.

There continues to be a host of bright students and visiting fellows coming to our lab. We have been lucky to be grant competitive. This has provided me with lots of fun and challenges, as I plunge back into long hours of work per week.

Former students, post-docs and staff also put on a wonderful symposium for me at Cornell in August. I am very proud of their accomplishments, excellent material, eloquent talks, and superb slides. Obviously, they did it and I was only there in earlier years to give a little guidance.

Right after the symposium I put on a workshop in the Netherlands at an International Congress. What a fine country with wonderful people. The conference gave me a chance to see dozens of friends from all over the world.

Then it was quickly back to the U.S. to have highly skilled surgeons at the University of Rochester Medical School patch up leftovers from WWII plus added complications over the years. It took nearly 6 months to book surgery in the regular schedule with the top surgical team. They did a superb job. The rest is up to me. (Pardon the pun).

Sons Robert and Dale, graduate students, church and other friends have been of great help. Dale spent more than a week with me fixing everything inside and outside of the house when I came home from Rochester.

So many things happened along the pathway of life in 1992 that I could write a book, but I won't bore you with more. I know Ruthie joins me in wishing you peace, courage and happiness in the years ahead.

With love,

Bob
December 1993

Dear Family and Friends:

Five hundred years before 1992 Columbus reportedly said "Sail on, sail on, sail on and on." That must have seemed like forever. Well that's the way 1992 seemed at times, to Bob. All kinds of minor things malfunctioned and that continued into early '93 when a freak accident caused Bob to smash his knees against the concrete completely breaking one patella. So the common greeting was "Say young fella, how's your patella?" What one will do to become an instant smashing success!

In March we had the coldest night on record and the most snow in 100 years. So Bob went out to play in the snow (photo enclosed shows the value of a Ph.D. to pile it higher and deeper). Quite a contrast with the September photo enclosed last year.

Later in March Bob had a wonderful reunion with his Japanese-American buddies and 442nd RCT heroes of World War II. This was terrific to see the survivors, their children and grandchildren. Scientific meetings took Bob to various places, but the most important one was in Tampa, Florida. That meeting was near some relatives and the road led not too far from the home of Barbara (Bubs) Jones Johnson.

Bubs was a delightful young farm girl that he had admired as a classmate at the University of Connecticut. She was a sorority sister of Ruth's and married a fraternity brother of his, Roger Johnson. Roger and Bubs had come to Cornell, where Roger did graduate work in Entomology. Bob had stayed on the faculty after doing graduate work at Cornell, while Bubs and Roger moved to Florida. In '52 Roger joined the staff of the University of Florida Citrus Experiment Station at Lake Alfred. After Roger's death and her retirement from the public school system Barbara remained active in church and community. Her volunteering included Heifer Project International (H.P.I.) work/study tours and local presentations on H.P.I. In Honduras, January '93, she saw healthy children and healthy gardens resulting from milk and manure carefully harvested from H.P.I. gift goats and cows.

Well, the meeting in Tampa was followed by Bubs' and Bob's 50th class reunion at the University of Connecticut, later simultaneous fraternity and sorority reunions, letters, telephone calls and visits. Finally our union was announced for September 25, 1993. The Lake Alfred community and church family were surprised but rejoiced with Barbara. We had support from our families as they shared in the celebration of our wedding.

We honeymooned for a few days at Sturbridge Village in Massachusetts. There we saw farming and manufacturing as our great grandparents experienced it.

Bubs is now busily reorganizing the house at 70 Woodcrest Avenue into a home with something old and something new, as we combine resources. What a lot
of "stuff" has accumulated over the years to dispose of in various ways. But we are getting settled. "Sarge" is enjoying the wall-to-wall carpeting and learning to run within the confines of the invisible fence in the backyard.

Currently we are planning a trip to Australia in early January to include a meeting of the International Embryo Transfer Society. We'll stop in Hawaii for a few days on the way back.

Remember the latch string is always out at 70 Woodcrest Avenue. It's only once every hundred years (see photo) that we'll need to have you use one of our several snow shovels to tunnel your way in. So don't wait that long. We may not even have a white Christmas.

We hope that your holiday season is a joyous one, full of good cheer, good health and concern for the less fortunate worldwide.

Love,

Bob and Barbara

1993
December 1994

Dear Family and Friends:

This is a year that "The Lord hath made" -- full of good friends and good times! But let's start off with the picture taken in early spring on the Ithaca Recreation Way just behind our house on the right side of the hedge. Our dog "Sarge" is really in charge, as we walk one of the cleanest dog, bicycle and jogger routes anywhere. Just read the sign that Barbara wears which states "Please clean up after your dog." Also, armed with our own designed scooper we can sling a real looper over the hedge on the left side which is Cornell pasture land. In the foreground, trying to steal the show, is our neighbors little poodle "Missy."

It was an absolutely gorgeous spring after a near-record snow cover during the winter. In fact in January we were delayed getting out of Ithaca one day, but we made it to Australia by way of Hawaii. It was a great trip. In Hawaii we had lesis given to us by one of my many favorite people, Kiogi Morimoto, a sergeant in our K Company in World War II. In March we enjoyed the Land of Lincoln in Springfield, IL, where Bob had a meeting. April took us on a particularly spectacular trip to the Sierra Madres and Tarahumara Indian country of Copper Canyon, Mexico. We had a wonderful local guide who knew the history of the Indians and the area and another fine young biologist guide. Another plus was the cheerful group of scientists and spouses, 23 in all, on this trip sponsored by the American Association for the Advancement of Science. Later that month Bubs flew to Richmond to visit Lois and Dennis (daughter and son-in-law) while Bob flew to an NIH meeting in D.C. In July Bob flew to another professional meeting at the University of Michigan while Bubs was the week's co-director of a small summer church camp in Pennsylvania for 9-12-year old kids. Though Bob's professional meetings have taken us to interesting places, but we can't keep up with the travels of Bubs' son Philip and wife Toni, but we'll try!

In September we flew to Florida to check up on Bubs' Lake Alfred house and friends. We also shared a relaxing two days of fellowship at the Lake Alfred Presbyterian Church fall retreat at Cadillac. We also visited relatives on quick Connecticut trips.

We've gone to alumni breakfasts, special receptions and convocations, including attending a fine talk by Cornellian, Attorney General Janet Reno. President Rhodes introduces all guests with an extraordinary display of memory, wisdom, and warm rhetoric. He will be missed as he retires after 17 years at the helm here.

Bubs has been involved in short-term projects at our church, a humor-talent show, leading nature study at kids' summer Music Camp and church school teaching for the fall quarter.
We have been fortunate to have an extraordinary young Associate Pastor, Julia Oatman Hollister, who left recently for Wisconsin where her husband is taking on a new pastorate. We will miss her but rejoice for them too.

Bubs also has kept her "Cup Cooking" cooking. Cooperative extension leaders, elementary school teachers and others around Ithaca have responded enthusiastically to her workshops. We are both aware that as a nation we need to spend much more time in providing loving nourishment and encouragement to children to enable each one to develop up to his or her maximum potential. It was interesting that Janet Reno stressed this very basic need in her talk.

Bob is downsizing his research and teaching program, only working 50-60 hours per week in retirement. He is finishing up graduate student programs and research grants with lots of publications to prepare. Along with this, many former Cornellians and other visitors continually enhance our life with their visits and kind remarks about years gone by.

We've enjoyed having Jamie Jones (Bubs' grandnephew) come to Cornell this fall and visit us occasionally. This also makes for great visits by his mother, dad and sister as they take fly-thru visits before returning to the busy Jones strawberry, blueberry and tree farm. It's been nice to have Bob's sons Robert and Dale visit and help with sundry items. Also it is great to have them take family keepsakes as we slowly clean out boxes not opened in years. You all know how "things" accumulate.

We've enjoyed the few short visits from far away friends and would welcome more. We encourage anyone to come by and try our "Bed and Breakfast."

In the meantime, when possible, keep a song on your lips and love in your heart. Wishing you and yours all a safe, sane and blessed New Year!
Dear Family and Friends:

Ninety-five was another great year to be alive, except for the politicians. After Mother Nature (or maybe we have to say Person Nature) put on a snow show the previous winter to remind Barbara how it used to be in her younger days in the North, this year was a no snow show.

So Bob had to go to scheduled meetings in Calgary, Canada in both January and February to remember it was wintertime. In fact he has been speaking at meetings somewhere in the world almost every month while Barbara was selling her house in Florida, directing a summer 3-day church camp and presenting her Cup Cooking educational workshops for children, families and professionals working with children. We both were involved in hosting the American Dairy Science Meetings at Cornell, where Bob enjoyed seeing old friends and Barbara in making new ones.

We took three grand trips together. We were in California in July. This year Yosemite had terrific waterfalls (near flood stage) because of the record winter snowfall. In August Bob had an international meeting in Budapest. We traveled around Budapest, Lake Balaton and other areas of Hungary with a family that had been in Ithaca for 4 years while the husband was working in Bob’s lab. The greatest adventure was our trip to China (Bob’s 4th) where we saw nursery school programs, gave lectures at 4 universities and academies, and Bob became an Honorary Professor at the national agricultural university in Beijing. We traveled to the north, to the western mountain sheep country (home of many minority groups) and to the south. My how Guangzhou (Canton) is growing at 20% per year. Then on to Hong Kong. In our old age we are almost keeping up, in travel, with son Philip Johnson and his wife Toni. They explored Costa Rica this year. Come see our pictures and share our experiences with yours.

During these travels we tried to split up some to have one person home to take care of Sarge. Other times we had a person come and stay at the house. So Sarge is doing very well, but we are pleased that he is always ecstatic when we return.

Another highlight was being in Richmond when Granddaughter Erin Malarky tripped to the altar in March. Now she and husband Jay Parker have traveled to Wyoming to stay for awhile. In the meantime, Grandson Michael is traveling with the Marines and now is in California. Grandnephew James Jones is a sophomore at Cornell, so we are delighted to keep in touch with him and his parents, Terry and Jean, and other members of the Jones Family Farm. We’ve visited our Connecticut families, especially Bob’s, as they can’t travel so easily. Sons Dale and Robert have checked in at Ithaca, so we can keep our roots together.

Speaking of roots, it was a great sunny summer, and with a little water on the roots, the vegetable garden (Bob’s) and flower gardens (Barbara’s) were terrific. We and the birds have enjoyed this planet earth. We are still enjoying root crops in the garden, tomatoes in the cool cellar and frozen vegetables. The only drawback of the summer was that everything was so luscious that the leaf hoppers decided to feast for the first time on our
locust trees. But Bob hopped through the trees with "Sevin" with great effect, while Barbara cheered him on with "Get down you dope."

We are busy with church work. Barbara teaches Sunday School and is on the C.E. Board. Bob is on the Outreach Board and Area Congregations Together. We keep our hands in, in other ways, by washing cups after Sunday morning coffee. Bob spends big days at Cornell working on grants and with students.

We seem to find that retirement means trying to get to bed a little earlier at night. This is enough for now. We hope we can keep you tuned in, so next year we can share with you our January '96 trip to "Ant Artica." She is full of sunshine in her heart this time of year.

In the meantime we hope that the sun will shine on you all 366 days of 1996, remembering that, whether some days we feel great or some days small, the Lord God loves us all!

From B and B, and that means welcome to our Bed and Breakfast from Bubs and Bob.

Bob and Barbara
CHRISTMAS GREETINGS
from Bob and Barbara (Bubs) Foote,
our 1996 in review.

As we write this we think back to last year's Christmas time. Bubs' daughter, Lois, and husband, Dennis, drove up from Richmond for their first Christmas away from their children. Erin and her husband were then living and working outside of Cody, WY, while Michael Malarkey was at his U.S. Marine base, Camp Pendleton, CA. It was a treat for us to be together here.

As they left Bob's son Dale arrived, bringing the most delicious gourmet meals which he had prepared as a Christmas treat for us. I felt like a queen sitting in my own home being served such lovely meals. There were even leftovers to enjoy after he returned to Philadelphia!

Come winter many folks head south for a bit of thermal immersion. We did too. In late January we flew south from Miami to Santiago, Chile and on to The Falkland Islands! The Russian ice breaker we boarded there became our home for this expedition around the Falklands, south to the islands and waters along the Antarctic Peninsula and north to the Argentine tip of South America.

Fortunately our crossings of the Drake Passage, both south and north, were in relatively calm seas. Besides the interesting life seen on and from the ship, we had morning and afternoon zodiac landings. What fun to walk about watching and listening to "talking" penguins of many varieties, fur seals, elephant seals, on land or icebergs and to follow humpback whales as they dove to feed on krill and rose to spout and breathe. Sometimes our zodiacs just cruised among icebergs of all shapes and sizes. The Russian crew was very helpful, meals were superb and the naturalists' talks on shipboard and ashore were great. Truly it was a fascinating trip!

Spring and summer saw Bob working up a healthy garden. We ate, froze and shared with our neighbors. Horrors! Deer pruned off the tops of chard, beans and tall tomato plants!!! Hooray! A strand of flagging tape strung above the wire fencing was enough to discourage them from more raids.

Summer in Ithaca was lovely. We took advantage of Cornell's summer lecture series. Great lectures, including one by DR. Yvonne Thornton, author of The Ditch Digger's Daughters. If you haven't read it, DO. There were also pleasant musical evenings on the Arts Quad, and others on the Commons in downtown Ithaca.

Bob continues working at Cornell. He has helped two Ph.D. students finish their research, theses, degrees and go on to good jobs. He has finished his last research grant and is busy writing up papers for publication. Bob is also assisting a graduate student working in his lab on endangered ferrets, since Bob is the only person left there with the necessary technical skills. One morning the Dean surprised Bob with a pleasant little celebration of Bob's fifty years of service at Cornell.

Cup Cooking Workshop invitations have increased this year. Bubs enjoys sharing this technique and her philosophy of children learning by doing. It appears that this mostly volunteer activity will continue. Teaching Sunday School is a three month commitment in our church so Bubs has and is helping there. During the summer she helped plan an All Church Retreat held at our church in mid October.
"Sarge" shared our June trip to Bob's fraternity picnic in Vermont. This was combined with visits with Bob's family and a stop at the Jones Family Farm. It was good to have time with friends and family.

Since Jamie Jones is a student at Cornell we see more of that part of the family. It was fun to have three generations of Bubs' brother Philip's family join us for our birthday celebration, a luncheon trip on the Tioga Scenic Railroad.

A visit in Philadelphia with Bob's son Dale included his showing us the spectacular Cezanne Art show in late August. Son Robert and friend Mike were here for Thanksgiving weekend. Again we rode the Tioga Rails for a "rolling" Thanksgiving dinner. B.J.F. was certainly glad Bob had made those dinner reservations in September, because we were away from home from October 29 'till the evening of November 23.

We travelled through and over much of Thailand and Japan, being hosted by Bob's scientific friends. These friends who had worked in or visited his lab over the years met us at every stop. They had arranged for wonderful western or indigenous style hotel accommodations and whisked us about to major tourist attractions, to and from the lectures Bob gave and wherever we needed to go. Also they arranged for Bubs to visit K classes in two Thai schools and an elementary school in Japan, as well as other places while Bob was lecturing. Our stay in Japan ended with a few days at the lovely home of a couple we met on our Antarctic trip.

Prior to the trip, a phone visit with Philip and Toni Johnson revealed that we would be visiting some places in Thailand where they had been a couple of years ago. Toni had some good tips on things not to miss. Early this summer they visited London for a break before professor Philip set to work on his summer research project at Univ. of Alabama.

Lois and Dennis had hoped CPL Michael could be home for Christmas this year but it appears that he'll not have enough time. Their daughter Erin and husband Jay have returned to Richmond, are both working and enjoying having their own apartment there. It would be fun to have them come up here but I doubt that work schedules would permit that.

As we travelled through the year, near and far, we found warm and wonderful friends who helped us keep a spring in our steps, a smile on our faces and love in our hearts. May our Good Lord help us all to do the same in 1997.

With love,

Bob and Barbara
Dear Friends:

As we start this letter, a bit late on December 7, 1997, we are reminded of events 56 years ago this day. We have come a long way since then, but there is a long way to go. As Thomas Paine wrote on December 23, 1776 "These are the times that try men's souls." The Mayflower Pact reflected similar thoughts. So the challenges remain great, but we remain optimistic that people of good faith and love will prevail by continuing to work their good deeds.

As old timers we are both out of a job, but working and busy full-time, including lots of retirement luncheons. Rich with blessings, both spiritual and material, we do not need to worry about lack of soles for these 2 Footes.

Now for the exciting things in our lives. We will be relatively brief as we don't want you to become too ecstatic. We'll start with Sunday, the first day of each week, at least on our calendar. Although we believe we are spiritual, it is a day of spirit and not the scriptural "day of rest." Of course, Saturday doesn't fit that for us either.

Barbara teaches Sunday School one quarter and serves on the Church Education Board. We both greet, usher, read scripture, wash cups (Bob really loves to start the week with a clean slate, washing cups). Bob also is busy with outreach work and the ecumenical Area Congregations Together (ACT). This involves many faiths working together. On our CROP WALK this year we raised nearly $16,000 to fight hunger and poverty here and around the world. We also help with the Literacy Initiative Program to help kids learn to read and read to learn.

Barbara continues to present Cup Cooking Workshops, as invited, twelve last spring and six this fall, several requiring overnights away. Those nights Sarge deserts his regular bed to sleep on the rug by Bob's bed.

Bob is still working full time, writing papers and a book, as well as helping graduate students. Some have questions about animal procedures that they need help with, but which are no longer routine in the department, as the molecular era takes over. The latter sure offers powerful tools. Bob also has been asked to participate in many government, law society, symposia and college groups on the ramification and ethics of cloning. Especially interesting has been the development of a computerized course in applied genetics which goes from artificial insemination, embryo transfer, etc. to cloning.
In February we went to Baltimore where Bob gave a paper and Barbara visited Alice and Gordon Otis. In April Bob gave a paper at the University of Connecticut. We visited our families also. In August there was a great family reunion at Barbara's home farm, The Jones Family Farm in Shelton, Connecticut. Over a 3-day period a total of 39 family members converged at the farm for sharing, reminiscing, meeting new family members with picnics, farm walks, family trivia games, etc. A wonderful experience. This was followed by a reunion at The Mayflower "five star" Inn Bob organized to bring together relatives of the Parcells (Bob's 1st wife) family from New York, Connecticut and Virginia. Bob's sons Robert and Dale came. In October we attended a K company 442nd (WWII unit) picnic at the Sam Ochia home in Stamford, CT. We overnighted with Bob and Barbara Reid in Stratford, CT and the next day attended the wedding of one of Bob's nieces. In September we flew to Florida for a five day visit with Barbara's friends and former church members at a church retreat. Thanksgiving found us in Richmond, Virginia with Barbara's daughter Lois and husband Dennis, and granddaughter Erin and husband Jay and his parents.

We do stay home and garden, mow the lawn and watch the squirrels, deer and birds. There are many wonderful cultural events here -- art, theater, music, sports, and special lectures. One day we had tickets for theater, ballet and a sports contest all the same time. Then, for a bit of history we saw a dinosaur egg 60 million years old at The Paleontological Institute in Ithaca. They have 3,000,000 fossils of various types.

We still have empty beds, spare room and bath, so do stop by and see us. But don't wait! Time and Tide wait for no one. We'll be moving in the year 2000 into Kendal at Ithaca, a new continuing care retirement home near Cornell. In the meantime let's try to keep a smile on our face, love in our heart, and make a difference in our lives and the lives of others.

With love,

Bob and Barbara
Dear Friends:

This has been the year of the great move for us. In our annual holiday message last year we indicated that we would "be moving in the year 2000 into Kendal at Ithaca, a new continuing care retirement community home near Cornell." Well, we’re here already. See our new address. We didn’t want our move in the year 2000 to be blamed for all the 2k computer problems many doomsday self-proclaimed soothsayers are predicting. But we are optimists. After all, computers already have problems. When asked what is the result of 1 + 1, the computer refuses to give any other answer than 2. But we know that 1 + 1 makes 3, and sometimes lots more -- a real problem for people and planet earth to handle. This is especially true as people like us, at the other end of the scale, are staying around longer.

Kendal is an excellent caring community, full of talented sharing people. We will appreciate all the medical and other services more as we may need to use them. Besides, the cooks and dishwashers there take care of suppers and cleanup.

What really happened was this: A call late this spring from Kendal informed us that the many units we preferred were going fast. We had to make a quick choice to move or lose our priority number. So a tremendous downsizing of Barbara’s and Bob’s things had to occur. Family, auctioneers, garage and rummage sales, specialty shops, Salvation Army, and others helped to find ways to use most items. Movers did a terrific job of moving the major items we kept. Cornell sold our house to a buyer before it was put on the market, so Cornell Tradition Fellowship (service required) students will be aided.

This all happened just after Bob decided to try a new experiment after completing more than 500 in the lab. This one turned out to be more "boring" than the scientific ones, as it was open heart surgery, done for preventive medicine. He’s doing fine, but Barbara is disappointed that it didn’t make him sit still any longer than before.

Now we are settling into our cottage containing a master bedroom (nice closet) and bathroom, living room, den (Barbara’s office), guest bedroom and bathroom (Bob’s office), and utility and storeroom. We will soon have a sunroom added for year-around pleasure for us and plants.

So come see us. Sarge loves company too. He made the move well. Of course all three of us miss our wonderful former neighbors on Woodcrest Avenue. Kendal is full of caring people also.
Barbara revised her book, "Cup Cooking-- Individual Child Portions," with over 80,000 copies sold. She continues to give workshops to a variety of groups of people who work to build young people. She is invited back locally and statewide on a regular basis.

Barbara took an exciting trip in July to California to grandson Michael Malarkey's and Caroline Davidson's wedding. Michael will be back from Okinawa and out of the Marines soon.

Bob wrote a book on "Artificial Insemination to Cloning." It is a nonprofit venture (proceeds, if any, go to Cornell for students) reflecting on 50 years of learning more about the secrets of nature, how to build scientists and puzzling over our place in the grand scheme of things. He also finds it stimulating to reflect on the continuous stream of requests to comment and lecture on the technologies, benefits and ethical concerns of cloning. This has kept him busy in Ithaca with just a few out-of-state trips.

We have both been active in various women's and men's groups at the church, Meals on Wheels, Kitchen Cupboard and other "inreach" and outreach activities. One outreach activity was Bob's help in putting together a community Thanksgiving service involving many faiths. Yes, we have much to be thankful for, but those of us privileged to be fortunate to receive so much in our lives need to energetically (as much as seniors can) share and care for others less fortunate.

We have enjoyed the visits of family from both the Jones and Foote side, along with college students at Cornell and Ithaca College that have come into our lives through various ways. We look forward to seeing others as we travel to Connecticut soon to see the Jones Family Farm in full swing, preparing for the families out to cut trees and shop for other goodies. Then it will be on to the Footes for grand nephew Jonathan's wedding.

Now may you have "THE SPIRIT OF CHRISTMAS, which is Peace, THE GLADNESS OF CHRISTMAS, which is Hope, and THE HEART OF CHRISTMAS, which is Love."

Love,
Bob and Barbara
HOLIDAY GREETINGS in ‘99

Dear Friends:

We have been getting settled in the caring community of Kendal near Cornell University. See our layout on the back of the page. Also see the enclosed photograph showing the added sunroom, "Sarge’s Solarium." It is a wonderful addition, as is the garage (not shown), that just became available for a car and implement storage. The latest addition inside is a new Dell computer for Barbara that’s all compatible with Y2K and the Cornell system free to all emeritus profs. It can play CDs, so we’ll have to move up from records and tapes. We are at the edge of the cottages so we have the north 40 to roam on and off trails with Sarge (our dog).

Kendal is full of diverse people, successful in all walks of life. The daily craft, intellectual and entertainment programs, involving local talent, Cornell University, Ithaca College and other groups are enough to fill a 48-hour day. Buses take residents to plays, and major sporting events at the Colleges. We drive to many. We were fascinated by a couple of star Cornell women softball pitchers who could put the ball over home plate almost faster than we could see it. (Yes we’re getting older, but we can still see, thank goodness, although the daily calendar often includes doctors’ appointments). By the way I (Bob) had a brain scan. They found nothing, so you can see why nothing profound is emerging as footnotes.

Twice a week Barbara assists a stroke victim during therapy sessions in the Kendal pool. Bob also enjoys the pool, and especially doing exercises in the bubbly warm Jacuzzi nearby. We are both involved in various workshops at Church and the Senior Center, and in programs to feed the hungry. At a recent CROP WALK Bob co-chaired in the community, our church alone raised $3,000 to care for the hungry. Barbara continues to work with children and their care givers in many ways.

We’ve enjoyed visits from family, friends and college students. Several Cornell students are partially supported by the service-required Tradition Fellowships we have established.

One of our trips to New England to attend a University of Connecticut fraternity reunion also took us to a Shaker Village in Massachusetts. It is amazing to discover how skillful and efficient they were in their farming, crafts and recycling. Their life of celibacy certainly did not add to our population explosion (including birth of so many unwanted and improperly cared for children), but it has led to their near extinction. We’ve also been to two weddings of Bob’s grand nephews and his 60th high school reunion in Connecticut. The latter came in October right after a lecture trip to Italy. Barbara has spent time with her families in Virginia twice this year, the latest to see her first great grandchild. In January we go to the Panama Canal.

We wish the best for each one, as we all do our best to make the world a place of peace and love.

Bob and Barbara
COTTAGE UNIT E: TWO BEDROOM + DEN
1320 S.F.
HOLIDAY GREETINGS in ‘00

Dear Friends:

My, another year has rolled around. It’s amazing how the earth completes its circuit around the sun faster each year. It couldn’t be that we’ve changed any, could it?

In January we boarded a luxury liner in Ft. Lauderdale for a cruise to the Panama Canal. Bob’s son Robert helped to arrange the trip and went with us. Dale was too busy with his catering business. What an engineering feat to plan, without modern computers, how big a lake to make so that locks could be filled all year by gravity flow with fresh water and no hydraulic power. The canal was made large enough to accommodate ships much larger than were built when the canal was opened, but not all ships are able to go through the canal today. One of our friends at Kendal is the daughter of the army officer in charge of the canal as it was built. We visited Mayan ruins on one of our ports of call.

We’ve made several short trips to Connecticut for family reunions with Bob’s family, and later with Barbara’s family. Also special was a visit here in May of all of Barbara’s children, spouses and descendants.

In July it was fun and kind of nice to attend a national scientific meeting where Bob received an award for lifetime scholarship and research. Perhaps the greatest thrill was a reunion in September with my wartime buddies and families (Americans of Japanese Ancestry who made up the highly decorated 442 combat team). Three men in my company, including one medic, were belatedly awarded the Congressional Medal of Honor this year (none are living). Bob was honored to be the banquet speaker. If you wish to tune into a bit of history about this astonishing group of young men, check out "A Connecticut Yankee in Nisei King Company’s Court," web page: http://www.ebookstand.com/m/roberthfoote.

Our faithful, loving dog, Sarge, had a tumor removed. He has recovered well, and at nearly 11 years of age can play like a puppy at times.

Life is very busy here at Kendal. The schedule is loaded with in-house talent, plus speakers and entertainment groups from Cornell, Ithaca College and nearby towns. Kendal buses take residents to concerts and plays at a variety of nearby places.

Barbara volunteers to help in the Day Care Center at Kendal and other programs with kids, including a variety of church-related programs. She also keeps up her Cup Cooking Workshops, backing up her book on "Cup Cooking."

Bob also is busy with Kendal and church related programs. He even gave two sermons this year. However, most of the time is spent regularly at the office writing, guest lecturing and answering lots of questions about good stuff discovered before the electronic network was born.

So let us rejoice and be glad for the good things in life, and may we be a messenger of peace and love.

Bob and Barbara
HOLIDAY GREETINGS in ‘01

Dear Friends:

This has been a year full of events that affect us all. We had a grim reminder on 9-11 of the high level of care and concern we must have for each other. At the same time we must move forward.

We are moving at a pace in keeping with our seniority, although of course we are not getting older. More visits to the surgeon are just to keep us in stitches. More visits to the dentist, ophthalmologist, physical therapist and general practitioners simply reflect their concern that we will not have to pay estate taxes some day. Seriously, here at Kendal we receive wonderful care and have an infinite numbers of things to be thankful for. The total program of health, nutrition, physical, social, spiritual and educational activities is unlimited. Even our dog Sarge participates enthusiastically in our walking program.

Of course the Ithaca community, Cornell and Ithaca College all are nearby. Regular transportation is available for many concerts, plays, art shows, and lectures. We enjoy both men’s and women’s sporting events. Besides, this year Ithaca was ranked very high nationally as a good place to live and also to bring up children. Speaking of children, Barbara is a great-grandmother a second time.

Bob and Barbara are involved in multiple church programs. Barbara continues to give workshops in and out of town for caregivers of young children based upon her book "Cup Cooking". She took the OAR course this year to build on her canoeing expertise. Really, OAR stands for Offender Aid and Restoration, a program to help persons in jail.

Bob has helped at a nearby juvenile maximal security detention center and needs to increase his participation. Other community service activities are rewarding, but most of Bob’s time is spent at Cornell writing, publishing, advising and guest lecturing. It has been great fun to give talks to alumni, civic groups and medical societies, as well as keep in close touch with families of his Nisei buddies from World War II. Barbara keeps him out of trouble when he gets in "hot water" in the Kendal jacousy.

We’ve done some traveling separately. A big trip together in July was with Bob’s two sons, Robert and Dale, up the western Canadian waterways and on through Alaska. A great trip! We’ve enjoyed two wonderful visits by Barbara’s family.

A postdoc from India left Bob this quotation: "The only disability in life is a bad attitude". More than ever we wish for you the good things in life that love and peace can bring.

Bob and Barbara
Dear Friends:

This is the year that we made a New Year’s resolution that we kept. "Resolved that we would only become one year more senior. Furthermore, resolved that our percentage increase in age would decrease." So much for the Ying-Yang of daily life.

It’s been a great year, especially as we look at life through dark-colored glasses. Speaking of glasses, Barbara had surgery for cataracts. She no longer asks Bob "Don’t you see those halos around lights at night?"

The complete lifecare program at Kendal, plus the nearby Community Hospital Convenience Care Center, cultural centers around Ithaca (7 among the top 10 in the U.S.A.) provide opportunity for cultural development, education, hobbies, parties, entertainment, and spiritual, mental and physical well-being. One of our dear former-farmer Kendalites from Hicksville, OH has an Ithaca granddaughter who played the flute for us. She is one of 30 selected nationally to play in Washington, D.C.

We take in a bit of football, basketball and girl’s softball. I wouldn’t want to be "Casey at the Bat" when the pitcher lets go of the ball. We also are involved in a variety of specific activities. Barbara is active in groups within Kendal developing shared activities among the more and the less mobile. She is busy promoting and participating in programs to put books in homes, and other programs of reading to children, both pre-school kids, and others after school. Also, she continues her "Cup Cooking" workshops for leaders of young people.

We both participated in one-on-one sessions with 4th graders in the Cayuga Hts. School, sharing with them what life was like when grandma and grandpa were young. The kids sketched us, wrote a play and a song about old times. This was put on for other 4th graders and later for parents. Spectacular! We played a brief role as the old folks. They had a tea party for us oldies, serving with linen napkins on their arms. The talent is here (our genes you know) - just give them a little help to develop their self-esteem. Bob also is busy with church programs, supporting a young woman from Ghana developing a Women’s Coop. in rural Ghana, feeding the hungry in Ithaca, and outreach programs worldwide. This year 5 days a week of work at Cornell will be phased out.

We’ve made brief trips to Connecticut to visit Jones and Foote relatives. Barbara visited her second great-grandchild and family in California. Very special visitors were Stan and Betty Wearden, renewing old times at Cornell. Longer trips were to Foz do Iguassu in Brazil (tremendous waterfalls, and a wonderful meeting with a Pioneer Award), and on the Columbia and Snake rivers following the Lewis and Clark Trail. How they changed American history!

Poor Sarge stayed home, but he had a Sarge-loving pre-vet gal stay with him. He will go with us to Virginia for Thanksgiving with Barbara’s family, Lois and Dennis Malarkey et al. On the way we will stop in Philadelphia to see Bob’s son Dale. Son Robert will be off sailing in the Carribbean.

As we are octogenarians now our letters will gradually fade into the sunset. In the meantime keep love burning in your hearts and pray for peace among all.

Bob and Barbara
Dear Friends:

We are looking forward to the year 2004 because we’ll need 366 days, or more, to keep our New Year’s resolution after exceeding the genteel age of fourscore. But now what happened in 2003 that we can briefly share with thee.

Bob still goes to the office regularly to prepare various lectures and talks, and meet with students who stop by for chats, a word of assurance or a bit of help on stem cell technology and cloning. In addition, it was great to see many friends at the 100th anniversary of our department in Morrison Hall. Bob led his first time discussion in an American History class on the experiences in and lessons learned from World War II. It has been a year of writing reflections on 81 years (two volumes for the Cornell Archives and one for family and friends).

Neither Barbara nor Bob have traveled far. Barbara has conducted several more workshops for Early Childhood care givers and educators, based upon her successful book Cup Cooking, Individual Child Picture Recipes”. Bob spoke to several Cornell Alumni groups, and at our 60th reunion at the University of Connecticut.

We both keep very busy (the time goes faster; we don’t go more slowly) with numerous Outreach/Inreach programs for the church. Our retirement community, Kendal, has loads of activities. Barbara is involved in many groups for the good of the community, and Bob jets (or slips) in and out of a few. We both enjoy the superb numerous illustrated talks, discussions, educational programs, concerts, movies, and theater at Kendal, Cornell and Ithaca College.

Of course, there are parties, especially for retiree’s 90th and 100th birthdays, and other special occasions. Our biggest problem is deciding which one of the many activities to attend or be involved in or with.

We visited Foote relatives in Gilead, and Footes from all over at a Foote national reunion. We saw many of the Jones Clan when we attended the delightful wedding of Barbara’s grandnephew, Jamie Jones, at the old White Hills Church where we were married 10 years ago. Barbara’s daughter, Lois, came for a special mom-daughter time together. Bob’s sons, Robert and Dale, both came later for a brief visit. It would be special to see each other more often, but sometimes the telephone or postal mail is the next best. The e-mail is cheap and fast, but full of spam and so impersonal.

Wishing you peace and happiness in 2004 and more!

Love,

Bob and Barbara
Greetings 2004

Dear

Looking over our scheduling calendar there were about 20 events listed per week. Now isn’t that exciting, with all those visits to the dentists, doctors, etc. There were lots of lectures, concerts, theater, and parties too, but we want you to read on and think about all the opportunities we have to be thankful for in this troubled world. We are fortunate to live in an exciting lifecare community at Kendal. This place has lots of opportunity to expand the mind, just as the concept of the universe is expanding at an amazing pace.

Much of the joy comes from being proactive. Barbara continues many of her caring and sharing activities at Kendal, at church and through the larger community. She is a big booster of Family Reading Partnership. She conducts Cup Cooking, Individual Child Portion Picture Recipe workshops in various communities. Participants experience the actual use of the recipes, and consider the learning and teaching potential of the activity, as young and adults are involved.

We both ring bells at Salvation Army kettles. It is wonderful to see the smiles on people’s faces, and feel the warm glow of their hearts as many adults or their kids make the kettle chime. We try to cheer up the few who slip by with a depressed look on their face by greeting all with a cheery “Good morning”. Bob also continues to do a bit of writing, teaching, reviewing, and interacting with a few students at the office.

He is trying his hand at writing tidbits of episodes in his life that may have been important in molding a life. The hand, especially longhand still is important, as the brain can compose independently of the fingers that way, as he has not learned to use the computer without thinking. Yes, how much he appreciates now the highspeed output of former secretaries and kids who grew up with computers.

As Bob serves on several boards at Cornell and in the community he has more time to reflect on peace, war, violence and conflict resolution. He has been involved in discussions of the courage and wisdom to lead by concern and compassion versus conflict and coercion.

On the lighter side we go to a few parties. Kendal residents even hold dances, and have a nightclub setting one evening during the holidays. There are lots of sporting events. We enjoy the many classy women’s teams that Bob thinks (?) we should support as the emeriti pros and spouses get in free of charge. We are not big couch potato TV fans.

We traveled to Gettysburg, PA for an Elder Hostel program that provided excellent coverage of events leading to and occurring during the Civil War. Bob’s son, Dale, toured us around historic sites in Philadelphia. In June we saw most of Barbara’s relatives at the reunion and 60th wedding anniversary of her brother Philip and sister-in-law Elisabeth. This really was an extravaganza, held at the Jones Family Farm in the superbly remodeled cow barn. On a quick trip to Gilead we saw some of Bob’s relatives after he gave the sermon at his childhood church. The big traveler in Bob’s family was his son, Robert, who scans the Internet for bargains to interesting places.

Our travels were planned to be sure that our wonderful senior dog, Sarge, was well cared for. He began to fail in the spring of 2004. We managed to pep him up for a good summer. However we had to invoke his “health proxy” this fall just before leaving
for the west. This trip in one week included a reunion of Bob’s Japanese-American wartime unit, talks to Cornell alumni in Las Vegas and Los Angeles on cloning and stem cells, and a visit with Barbara’s grandson Michael and family in California. Subsequently Barbara flew to Florida to share old times at the 90th reunion of the church she was so vitally involved with during 41 years there. On the return trip a stop in Richmond, VA enabled her to see three generations of her family. So there have been lots of reminiscing, smiles and laughter, all-important for the body, mind and spirit.

Last fall it was uplifting to read in your holiday messages about the generations of family, successful careers and retirements, and your concern for our friends around the world and our earthly home. Congratulations on what you are doing to make a positive difference in this troubled world. And for those who don’t include a message, please do, so that we will know that you are O.K., or that we may share in your concerns.

On the wall by my desk for 30 years is a framed statement neatly done in calligraphy by my first wife Ruthie. It relates to war and violence, but also has a message of love. The author was Rod Serling. Many of you will know of him for he was the creator of the famous TV program “Twilight Zone”. His family still lives just north of Ithaca.

**Hope for a Finer World**

“Love your country. Give it affection and loyalty. But when asked to prove these thing, remember that they need not always be proved by a willingness to die and a willingness to kill. Bring back the capacity for love.”

Now for a bit of humor that we all need is a cartoon from the Ithaca Journal.
Greetings 2005

Dear Family and Friends,

Despite the hustle and bustle of the holiday rush, we are glad that we can take time especially to reflect on family and friendships enjoyed over many years. We hope that each one who receives this letter is finding many good things to reflect on in what seems to be an increasingly hectic life. And remember we want to hear what is on your minds too. The joys, the sorrows—that’s life. As we grow older we gain some friends and we lose some. Also, we find it easier to gain weight than to lose some.

Meals here at the Kendal Community are superb, as are many other programs and activities. Bob, as Co-President of the Residents’ Council, has his feet in water constantly varying in temperature. Of course he keeps up his reading on stem cells and cloning, an area of research that was dear to his heart for the past 25 years. He still lectures on those subjects. Those of you who know Barbara know that she constantly is involved in helping others in multiple ways. For example, she participated in co-hosting more than 30 Kendal residents who would not have family or other friends with them at Thanksgiving. Easily done, actually, as the Kendal staff set up special tables, convenient serving of a splendid meal, and then they wash the dishes. She also is doing her own cooking with children using her “Cup Cooking: Individual Child Portion Picture Recipes”, now in the 20th edition.

Exercise: Walking, walking dogs for others and using the pool and hot tub. Recreation: Kendal Lyceums, musical programs and movies, multiple Cornell sports and other programs, and unlimited events in this cultural Ithaca community.

Travel: We had fun and fellowship visiting Jones relatives in Shelton and Foote relatives in Gilead, Connecticut. Another trip took us to Storrs for an Alumni award at the University of Connecticut. What fun to see how that University has grown in size and prestige, and to recall lifetime friendships formed there, including meeting our spouses there. Also the national Foote reunion was in Cromwell, with fascinating side trips to the Mark Twain and Harriet Beecher Stowe (a Fote relative) homes in Hartford, plus a tour of Native American places, such as the Pequot Museum.

A trip to Richmond, VA, where Barbara’s four generations gathered, was fabulous, with a wonderful vacation at an in-laws luxurious lakeside cottage. Bob also attended the last formal K Company (Japanese-American) army reunion in Los Angeles. Very emotional!

Outside the USA we traveled to Denmark. Then we took a perfect cruise (weather, ship, et al.) to major Baltic cities, with travel at night and daytime tours, including the Hermitage in St. Petersburg, Russia. More next year if we keep in tune, so keep tuned.

In the meantime let us treat each other as equals and truly love and support each other so that peace in the world comes closer to reality.

Love and Peace

Bob and Barbara
Appendix IV

Table of Contents of Subjects Summarized from the Files of
Robert H. Foote, 2003
(In Cornell archives)

A. GENERAL AND MISCELLANEOUS

2. Comments on a Few Responsibilities at Cornell in Addition to Teaching,
   Advising, Research, Writing About 150 Grant Proposals, and Many
   Routine Committee Assignments.
3. Activities of Robert H. Foote at Cornell University Taken from his Calendar
   November 15, 1982 to November 14, 1983. (Sample of Activities).
4. Teaching, Research and "Public Service" Activities During the Past Year,
   1987-88.
5. Committees and Review Boards.
6. Preparation of Exhibits.
7. Testifying in Court for Companies.
8. Recommendations and Correspondence.

B. MAJOR ACTIVITIES in RESEARCH

10. Graduate and Undergraduate Training and Ethics in Research.
11. List of Published Papers (see C.V.) and a Summary in my 1998 Book on
    "AI to Cloning: Tracing 50 Years of Research".
13A. Unpublished Research from Bob Foote’s lab.
13B. More Unpublished Research.
    and Honors.
17. Project Outlines and Early DNA Research.
18. DNA and ³H-Thymidine Experiments in Rabbits, 1960-63.
19. Annual Reports to Many Agencies.
20. Types of Annual Reports of Research.
21. NYABC, EAIC and Genex Reports.
22. Animal Care and Inventory Reports.
23. Miscellaneous Research Projects where Herd Cooperation Was Essential.

C. MAJOR ACTIVITIES in TEACHING

25. Overview of Teaching, Extension, Workshops, etc.
   A. Graduate Student Career.
   B. Professional Career.
   C. Approach to Teaching.
   D. Samples of Components of A.S. 220.
E. Teaching AI, Embryo Transfer (ET) and Biotechnology.
F. Other Courses.
G. Public Service Talks and Extension.
H. Advising.
I. Addendum: Records of individual student interests; study of grades; genetic problems up to 1968 with the computer when AS221 was started; animal barn help with AS430, 431 and 497.

   A. Birthdays and Bowling-Pizza Parties.
   B. Picnics and Summer Parties.
   C. Christmas Parties.
   D. Class Breaks and Thanksgiving Day.
   E. Other.
   F. Room 219.
Appendix V
Summary of Parcells Genealogy. Also Cemetery Information

Ruth Parcells Foote investigated extensively and with great attention to details the ancestry of both the Foote family and the Parcells family. I (RHF) copied with my camera as many old photographs as we could find and identify. They are in two genealogy notebooks, along with the details that trace back to the 1400's or 1500's. My intention is that one set of these will be put in the Cornell Archives and the other set in the Hebron Library.

Attached is the line of descent of the Parcells. In France the family was Parciel, meaning Par Ciel (By the help of God). They left their large estates in France and fled as Hugenots to Great St. Albans in Harfordshire, England. Eventually three brothers, John, Thomas and William Parcell with the Lawrence family sailed on the ship “Planter” and arrived in Massachusetts in April, 1635. In 1637 they moved to Long Island.

Ruth Parcells Foote describes the occupation and many other interesting facts about the descendants in the genealogy book. The Parcells line with birthdates, starting with Ruth’s dad is as follows: Wesley Henry Parcells (1890), William Alonzo Parcells (1865), Alonzo Terry Parcells (1826), Thomas Parsels (1784), also Thomas Parsels (1751). Alonzo Terry Parcells married Polly Orinda Sherman (1835), daughter of Justin Sherman (1791), Eli Sherman (1764), another Justin Sherman (1729), Samuel Sherman (1709), Daniel Sherman (1668), another Samuel Sherman (1641), another Samuel Sherman (1618) born in Dedham, England, etc. with ancestors traced back to the 1400s. Some came from Colchester, England in the 1500s. Could there have been a Foote-Sherman connection in early times? Samuel Sherman, born in 1618, was first cousin to the great-great grandfather of Roger Sherman, a signer of the Declaration of Independence. So Ruth Parcells Foote, 11 generations back had a common ancestor with the signer of the Declaration of Independence. Although Samuel Sherman first settled in Wethersfield, most of the Shermans were in the New Milford, Kent, Newtown, Woodbury, etc., area.

The Foote family has been in Gilead for a long time. So Robert H. Foote, first wife Ruth P. Foote, and sons Robert W. Foote and Dale H. Foote, or their ashes, will be buried in the Gilead Cemetery where headstones already are in place. Most of the Parcells ancestry is in the New Milford Cemetery.

Barbara Jones Johnson Foote (Bob’s second wife) will be buried in the Johnson plot beside her husband, Roger, in the Monroe Center Cemetery. The Jones family, ancestors, longtime prominent residents of Shelton, Connecticut (Jones Family Farms), and Barbara’s home during the growing up years, are in the Monroe Center Cemetery also.
Line of Parcells Descent
1. John Parcell emigrated from England in 1635.
2. Thomas Parcell born in 1653; died about 1732.
3. (Missing probably 3 generations here).
4.
5.
8. Alonzo T. Parcells born 1826, died 1906.

Line of Sherman Descent
2. John Sherman died in 1504.
3. Thomas Sherman born about 1490, died in 1551.
4. Henry Sherman born about 1520, died in 1590.
5. Edmund Sherman born 1548, died in 1600.
6. Edmond Sherman born 1572, died in CT in 1641.
7. Samuel Sherman born 1618, died in 1700.
8. Samuel Sherman born 1641, died in 1718 or 1719.
9. Daniel Sherman born 1709, died in 1747 or 1748.
10. Justin Sherman born 1729, died in 1782.
11. Eli Sherman born 1764, died in 1850.
13. Daughter Polly Orinda Sherman, born 1835 married Alonzo T. Parcells in 1860. He was Ruthe E. Parcells great-grandfather (see above).
Appendix VI

*Last of 100 APO Letters from Ruthie*

One may think that because the 442nd RCT was so successful in battle that this would be the biggest morale builder for us on the front lines. Yes, that did instill some confidence. However, nothing came close to giving us so much of a boost as did the letters from home. Letters from family and friends were all important! So were cookies. When we came off the front lines we were much more interested in having the mail dispensed than we were to replace the K rations with a hot meal. Besides a good hot meal could be better digested when consumed with all the good feelings floating around from the many caring letters we received. Epinephrine (adrenaline) ran high at mail call.

Some of us were more fortunate than others. I heard from my mom frequently. Best of all I heard very frequently from as nice a girl as one could ever meet, my Ruthie. I don’t have many of her letters, as we couldn’t save them in an infantry unit where your home was seldom in the same foxhole or similar accommodations two nights in succession. However, I did save the last few letters before I came home. The last one was number 100. Ruthie certainly had a perfect score on letters. They were so lovingly and neatly written. I am grateful that Ruthie saved the few I brought home in a safe place that I did not discover until long after her death. She had saved my letters, but I discarded those when she died. With my sorrow at the time of her death I could not deal with these letters. They were expressions of faith, longings and hopes for the future, and gratitude for her love.

Now I will save the few left of Ruthie’s letters. Why? Because they are so sincere, and because they capture faithfully the thoughts and emotions of one of the young lovers separated by a great war fought for a just cause, now with the opportunity to be united. They are saved to share private thoughts with family, and for others who wish to reflect on the passions of people under the circumstances of the time. She had many, many admirable qualities—always a kind, concerned, supportive and loving person. The letters speak for themselves. Let the reader be overwhelmed by their gracious and comforting qualities, so characteristic of Ruthie, and the longing for dreams to be fulfilled.
My dear Bob,

Know what? There's some great news to cheer you up! You have already heard it, probably, but the point system for enlisted officers has been announced and they are to come home within 60 days! Isn't that perfect? Captains, 237 points needed; lieutenants, 185 points. So I'm just keeping my fingers crossed that you really have that many or that everything has come through as you'd hoped. You'll have about 75 points now, so they are counting the points as of September 20, or on 20.

Last night, Donna received her V-mail from Daniel saying she didn't write anymore. My next address will be West Skidmore. She was so excited, she was just shaking all over.

I've started to read a book called "So Little Time." It was one of those I got in the booth of the movie club, haven't read yet. It's sort of a satire on this modern life.

I've written this at the lab. Sat. morning, cause there isn't much to do. Miss Irwin just walked in and said, "Keep on writing anyway. Don't care much anymore what she thinks." Bazen little thing, ain't she?

I'll be seeing you sweetie. Lots of love,

Pattie
YWCA, Bridgeport, Conn.
September 18, 1945

My darling,

Know what I bought today? A beautiful, old wool, blue blanket—especially for you, since I know you like blue. Last week I bought a set of blue bath towels. They are especially for you too—will match the blanket maybe. Ammee. All you have to do now is hurry home so we can start using some of these things.

Oh, what else? Dora came in yesterday after her weeks vacation & announced that she was leaving! Has it ever stunned me! Daniel had arrived Saturday so she came to Bridgeport to move her things from the YW called Shingo to tell them she was leaving & they are going to be married a week from tomorrow—Sept. 26th. Jeeps!

We came to the Y the same day, but guess we aren't leaving the same time.

While she hasn't been able to sleep at all & she's beginning to feel all worn out.

Daniel says he's getting scared. Dora

Orders

To his negro company of infantry it camp a black first sergeant spoke dirty
words: "From now on when Ali blow your whistle, all wants to see a big
impeccable cloud of dust come rolling
drift away. All men to fall in & take
their places."

A Success

Employer: "Pay me, I started out
of college on the theory that the world
had an opening for me."

Office Boy: "And you found it?"

Employer: "I did. In fact, I'm in
the hole right now."

I want to get some sheds for my pigs. How much are they? So you're dealing with
of those waif stations, huh? I suppose
you'll be wearing cat mitts for your
chickens next?
My mom's handwriting. She sent me a note: "She sent them to me."
Briarcliff, Conn.
September 20, 1955

Caro Roberto,

Voila! je repand done L'Italienne aussi
Comprenz-vous? Ho bene e sperche
ta sei anche bene. "Know where I
learned that?"
From my little friend Marie,
It sounds very soft and musical the way she
speaks it.

It was grand to go home last night.
The five of us had supper together and talked. We
had been working on his science, helping
them & giving them up in order—so we saw
some of them I'd set up. Ben was trying
to find his clothes that I have been packed
away so he'd have something to wear to college
+ I had to help locate some.

The two of them were driving to Boston
today & were spending the night there, then coming
back by way of Stars & arriving home late.
Certainly wished I could go too. I like Boston.
I wanted to give them Steve's address + have
them look her up, but I didn't have it
with me. Wondering if she is still there.

Tonight I received your letter written
Sept. 7th. Too have been wondering if the

package you said I'd like to know what it was.

Wish I were to use a rest of it for my time I
have a chance to take a picture.

I'm enclosing the picture of Kay. Would
remember her?
The blue blanket I bought arrived home
yesterday so we had a grand opening. It is
lovely. Hope you like it too. The blue bath
ruffles are a different color, but that's all right.
Who'll know the difference.

Oh, but I'm feeling so impatience cause
I want you to come home so much. It
just seems as though they'll never send you.
Still there are lots of things I should be getting
done + doing. There's enough to keep me busy
I guess—but time drags anyway.

Know what? It seems tanto cara!

Arrivederci, sweetheart. All my love
and tones of kisses.

Ruthie

P.S. Then who came home? So curious! She was on
a boat loaded for the Suez & was taken by
the Panama Canal when they came + they
turned right around + came home.
My dearest Babe,

Tonight I received your air mail letter written September 15 and I was heart-broken. Funny thing to say, hum, but you see it is this way. (First of all I don't see why it took so long to come, but it did). I hadn't heard from you for 3 weeks (exceptly 3 today) and even tonight when I came in your letter wasn't in my box so I was sure you must be almost home. For the past week I've been listening intently to every ring of the phone, both here and at the Lab to hear if it would be your voice. I haven't written to you since September 30 cause I was so sure you must be on your way home.

Then tonight the buzzer rang and the girl who answered it called me and said I was wanted down at the office. My old heart began to beat like a trip hammer and I kept telling myself you couldn't possibly be here. I was all ready, but still I couldn't help but hope & my knees became so weak.
I could hardly walk downstairs, but I did. And when I got to the office, the lady in charge said there was a letter for me she thought I might like to have. It had been put in the wrong box by mistake. Instead of you being there, there was your letter & I'd been hoping I wouldn't have any more of those. But would have you instead.

Oh, sweetheart, it was one of the worst disappointments I've had in a long time & I just broke right down & felt sorry for myself, but I just couldn't help it.

The mail you wrote the morning of the 19th hasn't arrived yet. I'm so anxious to see how you thought you stood in regard to coming home.

Today I told Miss Jones I wanted to hand in my resignation effective November 1 and I asked her who I should address the letter to. (What a sentence, & I went to college too) All she said was "You can address it to Rev. J. Green." Didn't even ask me why or say she was sorry, or not another word. She just walked right out of the room. Guess she was "mad" but I don't care.

Lynne Milton Baldwin came up to the lab to see me last Wednesday for a few minutes. She told me Lorna Reid was planning
a luncheon and wanted Ginny Burnap Wilcoxon who is in Milwaukee, Lynn & myself to come, but since then it has been cancelled because Ginny accepted a temporary job and isn't free at noon time. Lynn said Herb is in Washington D.C. She goes down occasionally for a weekend & he comes home occasionally — so they're lucky still.

I tried to call Lynn tonight to ask if we couldn't have lunch together anyway one day this week, but I couldn't get her. She had called me once when I was home in Indiana & left a number for me to call her back, and called that number & the operator said there was no such number & she didn't even give me my nickel back. Oh, the world was black today!

But look what the newspaper will say for you and for me. It sounds cheerful if you want to believe it.

Don't mind me dearie, I'll cheer up again when you get home.

It was started back towards Camp McCoy, Wisconsin Oct 21. The night I came back here.

The following day a special delivery came for him paying his furlough had been extended to October 23rd. Isn't that fierce! X Mother sent a telegram to Detroit 'cause he stopped there to visit some relatives, but I had a letter from her tonight and she didn't say that they'd heard anything from him — so I don't know where he is.

So far now — all my love to you dearest.

Ruthie.
Maple Terrace, New Milford, Conn.
October 14, 1945

My darling Bob,

How are you precious? Keeping busy? Wonder if you are on your trip to Switzerland or if you have been there already. Hope I have some more mail from you when I get back to the Y tonight. I received your 1st mail of Sept. 15, Saturday, Oct. 9th. (Your mail came Monday). Glad to hear you still think you'll be home by Christmas. Can't be too soon for me. I'm getting all excited about it anyway.

Columbus day was a vacation for me, so I came home Thursday night. Mother drove me in Saturday morning. She shopped while I worked till noon—then we looked around some together and I came home with her for the weekend. Did they celebrate Columbus day over in Italy at all? All the Italian people at the north end of Bridgeport put on a great celebration & gathering. They had electric lights strung across the streets & there were going to have a parade & think, to honor the great Christopher.

Our luncheon with Lorne, Lynne, Jenny & me didn't go off as planned Thursday cause Jenny has taken a temporary job & wouldn't be able to come, so I called Lynne & she and I had lunch together. We had a very nice time.
Monday, Oct. 15, 1915

Know what? There were three letters from you waiting for me last night when I arrived back here. One started Sept. 16th. I finished the 24th. One by mail of Oct. 1st. And another airmail written Oct. 2nd & 3rd! Oh! But am I ever thrilled to think that you may be home by Thanksgiving now. Oh, precious, I can hardly wait! Several of the letters you spoke of having written haven't arrived. The one from Switzerland hasn't. My! I am so glad you fooled that trip. I'm anxious to hear all about Switzerland. That place sounds very interesting. Wonder if you got some good pictures there.

They have really sold the Y.W. to a Hotel Corporation & all the girls have to leave by Dec. 15th. Glad I'm leaving for home so that I won't have to look around & find another room elsewhere.

Jeepers, I'm proud of your meritorious achievements and am only sorry those officers in charge of the regiment are so bad about seeing that everything possible is done to show their appreciation for your efforts. It is really maddening, & I don't blame you a bit for feeling bitter. I'd be too.

You'd never guess who I had a letter from last week. Corinne! After one year and four months she finally broke down & wrote to me. She certainly sounds enthusiastic about Ohio. And, know what? She said that she & Ted had broken off! I was really surprised she finally did it. Ted must have said "Marry me or else!"
Caroline said several new grad students entered this fall & that they were all married except one. Their wives either work in the city or go to school there too. She spoke of an Icelandic fellow who was there for two years. Said she hopes to finish her masters in March, then wants to travel West.

Yesterday afternoon Mother & I went over to see Emma. Daniel, her husband, was very shy. He'd been lying down on stairs & came down & was introduced to us then went outside. Hardly even had a look at him. His furlough was extended to November 1st. He wants to go to school and study to become a Veterinarian — Cornell if he can get in. However, he isn't sure how soon he will be discharged. They've lowered the number of points to 70 now for officer's discharge, so will lower them every month I understand.

Guess I'll be getting ready for bed now cause I'm sleepy. Lots and lots of love darling.