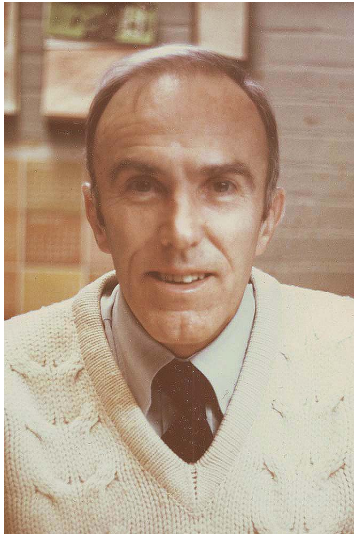


Acorn To Oak

From City Kid to Cornell Professor Emeritus



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1

Early Years



I don't remember a thing at the outset. I am told it was shortly after midnight of New Years Day, 1920. I am also told if I had come a few minutes earlier that New Year's Eve, I might have merited a ton of coal and a new baby carriage. But it was out of my hands, and in the doctor's. He, Dr. Ray Kimball, operated out of, and in, St. Mary's Hospital on Genesee Street in Rochester, New York. My earliest days are not recalled from memory, but from early pictures taken with a Brownie Box Camera – a Kodak market camera that sold for something under \$5.00 and was simple to operate. In good light, you simply pressed the shutter-release, and Eastman Kodak Company did the rest.

Home was on Seyle Terrace in the Tenth Ward. Wards then were something akin to boroughs, and sort of defined one's social station.

My father was a skilled wood-worker who took summer school classes at Oswego (College) to earn a teaching certificate. My earliest recollections of his teaching were of his wood shop at Monroe High School in Rochester.

My pre-elementary school memories are neither glamorous nor memorable. The earliest memories are those of waking to the sun sending its first rays of the day into my east-facing bedroom window where I enjoyed reading and looking at pictures. That bed, next to the east window, was my private world all through my youth. It was my scholastic and social empire, and much learning was accomplished there.

I have been told that in my earliest years, when there was a thunderstorm with lightning and an obviously disturbing rumble, my mother came into the bedroom to see if I was O.K. amid the crashing of the thunder. She was surprised to hear me saying, "Boom!" at each crash, and apparently enjoying the light and sound. Ever after that, thunderstorms have fascinated me.

My Window On The World

My bedroom was my early window on the world of Nature. Early I learned to prop up one end of an upside-down cigar box with a short stick. A long string went from the prop to my bedroom window. Some bread crumbs under and around the cigar box would lure house sparrows ("sputzies"), and in the feeding frenzy one or more would hop under the box. I would pull the string, and more often than not would capture the sparrow. I never kept a sparrow more than a few hours -- just enough to study plumage, bill shape, eyes, and to enjoy the success of the hunt. Then I'd release it and try again another day. To my early imagination, catching "sputzies" was the equivalent of lion-hunting!

My bedroom was also my office, my laboratory, my retreat, and for much of early life, my private world. I had a small closet in which my clothes and my pj's hung. The room wasn't large enough for much more than a bed and a Meccano set. Meccano was a British toy manufacturer, and to me their Meccano sets were far superior to the American Gilbert sets. In my Meccano set were sturdy steel girders and connectors, brass bolts and nuts, and a wonderfully solid

and powerful “Polar Cub” electric motor to drive or turn all sorts of mechanical marvels – products of my imagination and, of course, some of the commercial creations in the Meccano manual.

One use of the Polar Cub motor that I remember was to turn a pulley on my windowsill – the one over the driveway. That, in turn, went around a pulley on Tom Vaisey’s windowsill across the street. From the grocery-string “cable” hung an empty cloth tobacco pouch in which we could put notes to be sent across the street. The Polar Cub motor was a wonderfully strong and reliable power source for our “mail service.” Its limitation lay in the switch that was on my windowsill, not Tom’s. So when he would put a note in the bag, he would signal me. I would turn on the Polar Cub, and the note would shoot across the street in the “Polar Cub Express.” Many were the missives that went across Maryland Street in a white cloth tobacco pouch! The nice thing was that our “Polar Cub Express” operated rain or shine, and didn’t depend upon the Rochester Department of Public Works to clear the streets. It also operated late at night when all U.S. Postal Service had suspended operations for the day. Finally, it was high enough above the street that our neighborhood pests – our “enemies” – couldn’t interfere! But it needed improvement. Rain and snow posed problems for an endless cable made of grocery string. But my father had introduced me at an early age to fishing. Ah, a fishing line was stronger, not white, and was weather-proof. It was a great day when we replaced grocery string with 18-pound test black fishing line. That “cable” lasted for much of a school semester, and was, so far as we knew, the only “high-wire” communication in the city of Rochester.

Those little cloth tobacco pouches had another interesting use. I learned that there were bullheads (catfish) in the Barge Canal just east of Rochester. Near Macedon were locks through which loaded barges would be pulled by grey, up-tilted tugs. When the barges were pulling tugs through the locks and along the canal, it was a “no-no” to be near them, and we could watch only from a distance. But once the barges had passed, then fishing in the canal was looked at as a youthful pastime, and we weren’t interfered with. Local fishermen used rods, reels, and commercial tackle. With that, they caught bass, occasional perch or pike, and some bullheads. We often watched, wishing that we, too, had rods and reels. I don’t know who thought about this first, but early on I was part of a plan – put some squishy worms in one of those cloth tobacco pouches, tie it

to the end of a fishing line and let it down to the bottom for a few minutes. No fishing rod, no reel, no hooks -- nothing but patience and worms -- nightcrawlers. Where'd we get the nightcrawlers? Oh, they came out at night, especially after a rain, and you could walk softly across the lawn and grab them. They'd try to retreat into their burrows, but if you held on tight, they'd get tired, and little by little you could extract them without breaking them. We got pretty good at that! Then, with a tobacco bag full of worms tied at the end of a line and let down to the bottom, we were fishing. No rod, no reel, no hooks, just a bag of juicy earthworms at the end of the fishing line!

After a few minutes, the line with the bag of worms attached was lifted slowly. Slowly, so as not to dislodge the feeding bullheads. When the bag with the munching, tasting bullheads was at the top, a net was slipped under the bag, and the until-now-undisturbed bullheads released their tasty snack, but too late! They were in the net and the next stop was the frying pan. It was an effective, fun, no-license-fee, and tasty sport.

There were other ways to take fish, and we did. We'd ride our bikes out to Mendon Ponds, where a series of ponds with ridges that separated them, constituted a county park. Rather than creeks joining the various ponds, there were some canals -- little more than ditches -- through which there is a modest current in spring. One day we noticed that huge (to us) fish were swimming to and from these ponds through the canals that connected them. We didn't have fishing gear, but we did have baseball bats at home. And we had an idea -- a kid idea. Why couldn't we stand on the bank of the ditch and clobber some of these huge fish, using our baseball bats? After all, the ditches were shallow ones, and as the fish migrated from one pond to another in these shallow canals, they were obvious targets just waiting for adolescent predators.

So we returned with baseball bats. We stood beside a ditch, bat in hand, and tried to remain motionless until a large carp came within striking distance. And then . . . wham! The first one or two were in either deeper water than we had realized or we simply struck ahead of, or behind, the target. But before long, and after integrating the various factors of size, position, speed, and force, we hit and stunned one large carp. We laid it on the leaves in the woods around us and admired our prey. It wasn't a pretty fish, and its mouth left much to

be desired. But it was a fish, and it was a big one. Furthermore, we caught it without line, reel, hook, or bait. We were expressing some primal hunting urge, and it was exciting. But we didn't like the looks of that kind of fish, and we didn't take it home. Still, it was a great adventure, and we had taken big game with our own hands!

An earlier version of the canal had gone through Rochester, just north of the location of the present canal. When the new canal was built and the old one abandoned, a wondrous series of pools was left – site of locks and canal beds in which turtles, water snakes, sunfish, frogs, and all kinds of interesting pond life lived. It was our own private Amazon, and many adventuresome and happy hours were spent there. In those days, our bikes were simply left along the bank. No one ever touched them, and we just never entertained the thought of bike-theft. What happy, carefree days for kids to grow up in and enjoy!

Depression Years

That was The Great Depression time. There wasn't money to buy toys, or to make capricious purchases. But we didn't need the stuff from stores. We had the city streets, the old canal, what neighbors would leave as trash when they moved somewhere else, and we had orange crates. In those days, oranges were shipped in wooden crates about a foot square in cross-section, and about 3 feet long. The ends and the center partition were pine, about a half-inch thick. The slats were about 1/4-inch thick, also pine. Orange crates were so useful! One common use was to fasten a crate upright at one end of a 3-foot 2x4 and fasten the front- and the back-half of a roller skate to the bottom of the 2x4. That made a useful "scooter." I would scoot to the store for groceries, and return with them on the shelves of the scooter. Roller-skate scooters were a staple of sidewalk transportation for kids during the depression. And orange crates were the body of the scooter. No city kid would think of going to and from stores except on an orange-crate scooter.

An orange crate, when set upright, had a shelf half-way up the crate and that shelf held all sorts of things such as a bag of marbles, or a sling-shot. Important stuff like that! And sometimes it held a weapon even better than a pebble and a slingshot. Houses often were shingled with wood shingles made from splitting blocks of

cedar. We could pound a shingle nail into the thick “head” of a ½ to 1-inch-wide strip of shingle, cut a notch in the edge of the shingle a couple of inches from the thick end, then attach an 18-inch or slightly longer stick to one end of a piece of twine, put a knot in the other end of the string, and “sling” that nail-loaded strip of wood clear over a house roof. We never knew exactly where it would land, but it was in someone else’s yard . . . or window!

One of Gordon Noyes’ older brothers had a motorcycle. He would “gun it” up the inclined driveway off Glenwood Avenue and into the garage, stopping the “bike” just short of the rear wall of the garage. Just the other side of the garage wall was our own back yard, in which grew my father’s roses. One day, George, perhaps feeling a little frisky, tore up the driveway and into the garage, and with a flourish, turned off the gas. But the cable must have been a bit worn, or the “flourish” a bit more forceful than anticipated. For some reason, the flexible cable broke, and George hit the rear wall of the garage going “pretty fast.” Anyway, the motorcycle with George on it went through the wall, through the fence around our yard, and into my father’s rose garden. I wasn’t party to the oaths and subsequent discussions, but I suspect that there were apologies, promises, and whatever it took both to soothe jangled nerves and repair damage to garage and garden. George never “pulled that” again!

As kids, I suppose it was only a matter of time before we succumbed to ads and street talk, as well as to movie stars’ actions. I suppose most kids try smoking at some time, and I was no exception. Billy Orser’s folks had a “camp” (cabin) on Honeoye Lake south of Rochester. On occasion, I was invited down for the weekend. (But Bill was never invited to Tupper Lake. Perhaps he didn’t like to fish, as I did.) One weekend, Billy showed me a pack of Old Golds and suggested we smoke a few. That was so far from my up-bringing that I nearly backed out, but I didn’t want him to think I had fear of anything. So I went. Behind a vacant cabin, away from “snitching” eyes, we lit up. I suspect I nearly choked on the first inhalation, but I don’t really remember. I just know that it was a most unpleasant experience. Why, if smoking tobacco was such an unpleasant experience, did we do it? Perhaps it was simply in the defying of parents, of showing that we were “men.” Whatever, I think I never bought a pack of cigarettes except for my girl’s father – years later. Smoking and I just never clicked. Oh, I tried corn silk

in a pipe carved from a horse-chestnut, and dried leaves for “tobacco.” But it wasn’t until military service that I tried “real” smoking, and that, in a few days, was the end of my smoking. I guess that most guys who start smoking do so because it inflates ego and gives them a certain status. But it isn’t long before a habit is formed, and that is awfully hard to break. Smoking in wartime is entirely different from smoking out behind the barn! So far as I can recall, though, none of my family, including cousins (from Uncle Garth) ever smoked. But Madeline’s father died from smoking!

In a back corner of the doctor’s yard across the street, at the corner of Maryland Street and Glenwood Avenue, was an old windmill. It no longer rotated; the gears and rods were long ago rusted. But it did creak in a wind, and we kids wondered what tales it could tell about the old farm that it once served. Its vanes, though motionless, were metal and made an ideal sounding board for a resident flicker. The flicker would get to the vanes early on a spring or summer morning, and would hammer away so that the entire neighborhood could hear it. No need for an alarm clock on those days. If the flicker didn’t manage to hammer on one of the vanes, there was always an old metal mailbox that made an equally audible sound. I used to wonder what flickers did before metal windmills and mailboxes.

My only sibling -- my sister, Ruth -- should have been a boy. A year and two months younger than I, she was as big as I was, and fearless. If I came home from school crying because So-and-So had hit me, she’d say, “Tell me who it was, Verne, and I’ll lick him!” And she would have and could have; she was that confident and strong. She had her own circle of friends, but on occasion would join mine. One day, in the grassy area between sidewalk and street, a few of us kids were playing our own pint-size brand of baseball. But we didn’t have a baseball, so we used the only ball available – a beach ball. I was the batter and Ruth the catcher. The beach ball was tossed, and I swung mightily at it. And learned one of my first lessons in physics! The bat – a kid’s bat – struck the more massive ball and rebounded from it, striking Ruth right above her eye. She crumpled and cried. And so did I. I thought I had mortally wounded her. It ended our game. But her bump subsided, and I learned a bit more about Ruth’s mortality. She could cry, and on occasion did cry. I also learned about relative masses.

On another occasion, Ruth was about to sit down at the piano, and I, being “smart,” pulled out the piano bench as she was about to sit down. She fell backwards, striking her head on the bench and crying. My father struck me on my bottom, hard enough that I cried, too. I was learning, as most kids do, but in a different way.

On still another occasion, we were at the dinner table and there was a glass of water at each place. In a playful moment, I looked at my glass, and it was empty. Or at least I thought it was. (The way the light above the table fell on the surface of the water, the glass looked empty. So in one quick motion I picked up the glass and made as if to toss its contents into Ruth’s face. I had executed enough of the motion that the water was already underway before I noted that the glass wasn’t empty at all, but half-full. I don’t remember whether or not I got spanked, but I was rightfully embarrassed. Needless to say, I never tried that again!

Our house had a milk-box. This was a feature of houses in the 30’s. It was a 1- foot by 1 ½ -foot or so door that opened to the outside so the milkman could put milk there in the morning, and we could retrieve it from inside. Then the milk wouldn’t have to be left on the porch where dogs or cats or other people could get it.

One day, just before leaving for camp for the summer, my mother said to my father, “Glenn, do you think you should lock the milk-box before we go?” My father didn’t lock the milk-box. Instead, being the thorough man that he was, he cut a spare 2 x 4 and put it between the inside door of the milk-box and the wall opposite it. It was a secure and tight fix.

A little later, my father decided to check the water shut-off in the basement. He went downstairs, but didn’t turn on the cellar light; he knew where the shut-off was. So he hurried down the stairs in the dark, and ran smack into the 2 x 4 he had installed to brace the inner milk-box door. I don’t know what he said, but he turned off the water and started back up the stairs. This time I heard him cuss! He had bumped into the same 2 x 4 he had bumped just a minute before. This was the first time I ever heard my father utter an oath. The second time was when he lost his home-made hunting knife in trying to peen over the cotter- pin after shearing the pin on the prop on the way to the bass-hole. Funny what things stick in the mind for decades!

Catching fish had always intrigued me. Whether the fish were in a pond, a canal, a lake or a stream, they presented an interesting challenge. Sometime during junior high school, I think, and perhaps spurred by articles in **Outdoor Life, Field and Stream**, or **Open Road for Boys**, I must have caught the fly-fishing bug. But I didn't have a fly-rod, and commercial fly-rods were expensive – too expensive for a kid my age. So why couldn't I make one? The possibility must have germinated in my mind. Also, I must have communicated it to my father, whose handiwork with wood and tools far exceeded mine. At any rate, the two of us decided to make our own fly-rods. We had never done this before, and must have seen and inspected a commercial fly rod. Close enough and carefully enough to see that it was made of sections of bamboo, each an equilateral triangle in cross-section, with six sections glued together to make a “stick” hexagonal in cross-section. Two or more such sections, tapering in diameter from base to tip, were held together by metal ferrules. It was a work of art, but hey, if someone in a factory could make one, why couldn't we?

The first step was making a hardwood block into which were cut several 60-degree grooves of differing depth to hold a section of bamboo while it was being scraped or planed to the desired dimension. Making these blanks was a care-taking job, and I have only a dim recollection of how it was done. My father did most of it in his wood shop at Monroe High School. He cut 60-degree grooves in a long block of maple, I believe, and to give the proper taper to the individual sections of the rod, the grooves were tapered so they had a smaller cross-sectional area at one end than at the other. Making the hardwood form was time-consuming and demanding. I think the form or blank took as much time as, or more time than, any other operation of the rod-making.

For the bamboo, since we could not go to the Gulf of Tonkin, where most of the highest-quality bamboo for fly-rods comes from, we visited a rug dealer on Front Street in Rochester. Each of his rugs came wrapped around a bamboo pole, one of which he readily gave us, wishing us luck in our rod-building.

The next step was to split the rug-pole into strips, the largest (for the base section of the rod) perhaps 6-8 mm. wide. This strip was laid in the largest of the grooves, and then “attacked” with planes, chisels, and scrapers. Remember, we had to get six equilateral-in-

cross-section strips of bamboo for each section of rod. It took us a month, using much of our spare time, to get six equilateral strips for each section of the planned rod. I have since then seen but never made, many more bamboo fly rods. And I think that first and only rod made with our own hands was more a challenge to our ingenuity and perseverance than it was to innate skill and know-how. In any case, we did manage to scrape, plane, shave and sand pieces of bamboo that we glued together and then wrapped with colored silk thread every six inches or so.

After the sections were glued and wrapped, they were fitted with ferrules – metal male and female cylindrical ends that would push together to join the sections of rod. I recall something of the pride and ecstasy that I felt when my fly-rod first looked like a commercial fly-rod. Even before a cork handle was fitted, I imagined standing in a prime trout stream, casting a hand-tied trout fly over the water and catching a prize trout. My imagination knew no bounds, and I think the largest and most beautiful trout I ever caught was on that first rod, well before handle and guides were installed. Eyes? Yes, they were the half-loop wire guides through which the line ran, and which kept the line “a-lined” with the rod. I think those first ferrules, guides, and handle, too, probably came from Horrocks-Ibbotson, a fly-fishing and general tackle company in Utica, where we ordered stuff because we didn’t know where else to go for it. Our first rods were, indeed, a work of “try”, not a work of art. But we were so proud of having made our own fly-rods!

A fly-rod with no reel, line, or flies is about as useless as a drill with no bits. So we shopped for the things that would make our fishing outfits complete. Reels, lines, leaders, and flies were needed. We could not make reels, or lines and leaders. But we could make flies. Flies were made from hooks and feathers. Where to get feathers? Why, from chickens, of course, and Grandpa raised chickens. I raided the chicken coop for barred rock and Rhode Island reds. Chickens were faster and could turn more quickly than I could, but they didn’t have “staying power,” and I always won in the chase for feathers.

At first, I tied pretty gaudy and not even fairly good imitations of insects. But as I gained experience and looked at flies in a commercial fly-fishing shop, and studied pictures in catalogues, I

got better. Purchase a fly? With what? These were Depression days!

The time came when I wanted to try out my fly-rod and my flies on an honest-to-gosh trout stream. So my father and I drove to Wiscoy Creek in southwestern New York. There, with an artificial fly that was perhaps the weirdest fly ever cast on the Wiscoy, I hooked and landed my first speckled trout, on a fly like no other, on a hand-made fly rod. It wasn't the fish that was hooked. It was the fisherman! I knew the fish had to be longer than a legal minimum, so I hooked the fish solidly, tied my line to a tree along the bank, and ran downstream to get my father's ruler. Sure enough, it was over the legal limit, and so I kept my first trout – proud as I would have been with a record trout, and prouder still because it was caught on a rod that I had made myself and a fly I had tied from a rooster I had run down and plucked by hand. It was a totally hand-to-mouth contest and I had won!

Many years later, using an Orvis split-bamboo rod, tapered line, in waders on the Salmon River in Pulaski, I caught a salmon big enough to warrant an Orvis trophy pin. What a leap from the little trout on the Wiscoy, but what a huge leap, too, in materials, experience, and skill!

As a young boy, I loved going nutting in the fall. Bristol Valley was about 25 miles south-southeast of my home in Rochester, and some of my relatives on my mother's side had settled there. It was always a special area of the country, partly for early family ties, and partly because some of my first hunting experiences were in Bristol Valley and in Arkport to the southwest. Before I was old enough to have a gun, I *had* a gun. The first one was a BB gun with which I used to plink at house sparrows, of which there was no end in Grandpa Scott's barn where we would go periodically. As with most every old, large barn that sheltered horses, cows, hay, assorted chickens, cats, and rodents, it was an ideal place to learn to hunt. My father bought me a Crossman air rifle when I was about 10, and it was made very clear to me how it should be handled, and in what direction it was not to be pointed. Soon after I got the gun, I learned about other, wild game down the hill to the west of Grandpa Scott's farm. In that extensive woods with its scattered nut trees, and its fairly dense stands of hemlock and white pine, there were wild animals. But with my Crossman .22 air rifle, I was a match for any

game that lived in those woods. Or so I thought . . . until one day when I was hunting deep in those woods. I sat on a stump, looking around. I was still as puddle ice. I heard a chickadee, saw a blue jay, and heard a red squirrel chatter off to the side. Can you possibly imagine how far away I was, totally immersed in a tract of wilderness set on Grandpa Scott's hillside? I had sat there for perhaps a half-hour, every fiber of me resonating to the deep woods in which I sat. Not a mouse, not a shrew, not a red squirrel escaped my notice. I even heard an acorn fall, and it was a noisy clap there in those oh-so- silent woods.

And then I saw it – directly in front of me. How come I hadn't noticed it before? There on a hemlock limb not 50 feet in front of me was a great-horned owl. A full-grown great-horned owl! Motionless, except for two large yellowing eyes that I knew had seen me from the moment I entered those woods. He saw me at least a half-hour before I had any inkling that he shared the woods with me. It was an electrifying moment. I had a .22 Crosman rifle. But I had to pump it up to fire it. How to do so without disturbing that magic place and setting? Well, I'd try.

Slowly I chambered a round (pellet). With glacial speed, I pumped one, then two, three . . . ten pumps of air into the reservoir. Then, as carefully as the minute hand on a clock, I moved the rifle into place, lining up the sights on the very heart of the owl. Slowly I squeezed the trigger, hoping that my heart-beat wouldn't give me away. Pop! The compressed air drove the pellet out the barrel like a long-range artillery piece. And the owl simply flew away! I sat incredulous! I had lined up that huge bird exactly. It had given no indication that it saw me. I know I sent a .22 pellet right at its heart. But it flew away! Silently! It didn't lose a feather, nor a drop of blood. It simply flew away! Without a sound! It just flew away! Leaving me sitting there on the log with nothing to show for that experience but a memory and a great admiration for that amazing bird!

Delights of the Farm

Most city kids did not have an opportunity to spend days and nights on a genuine, total farm. But I did – at Grandpa Scott's and Grandma Wellington's farm at Arkport, a few miles south of Dansville. I don't know the exact size of the farm, but I think it

must have been well over 100, perhaps even 200, acres. Grandpa Scott – my father’s stepfather - raised sheep, potatoes, and hay, as well as all the other things associated with a farm. It was a delight to visit him. He had horses, cows, pigs, chickens – the “works.” And I loved going there for the very reason that it was a complete farm. Except for threshing grain and shearing sheep, Grandpa Scott did it all. To me, he was a complete farmer!

It was at Grandpa Scott’s that I first rode on a horse – a draft horse, to be sure, but it was a horse. I also rode on the hay wagon, when the hay was pitched by fork up onto the wagon. I rode on bales of hay when Grandpa Scott moved “up” in the world and got a baler. I never did understand the fiscal relationship between Grandpa Scott and his son, Carl, who owned an even larger farm across the road, but it seemed at times as if Grandpa Scott worked for Carl, or that Carl had some financial interest in Grandpa’s farm. It never seemed quite like a father-son relationship, but was more of a fiscal one than a blood one.

Grandpa Scott and Grandma Wellington had a son, Grant, who was younger than Uncle Garth, my father, and Uncle Gerwyn. Grant never seemed quite in the same family, perhaps because he had a different and later father from my father and two closest uncles. Even among those three, Uncle Garth was the closest to me. He lived in the Rochester suburb of Greece, and he had four children – two sons and two daughters – and raised melons. Uncle Garth was a mason contractor and a Chevrolet man, while my father was a woodworker/teacher and Ford man. That may explain some of the torrid arguments that came up between them almost every time our whole family gathered at Grandpa and Grandma Wellington’s for Thanksgiving or Christmas or Easter or Labor Day.

One event that was almost sure to start an argument was climbing the Dansville Hill on the way to Grandpa Scott’s and Grandma Wellington’s. The Dansville Hill was a modest hill, but the Ford and Chevy engines of the time were modest too. Both my father and Uncle Garth would get a “running start” just outside Dansville, and would begin the “hill climb” at something like 60 mph, slowing in spite of having the “pedal to the metal” all the way up to the White Horse Tavern at the top of the hill. Just on the hill side of the White Horse Tavern was the east turn toward the dirt road that led up and over the hill to the farm and on to Arkport. “Did you make it in

high?” was the traditional greeting when we got to Grandma and Grandpa’s.

Well, when the time came, and the Model A was replaced by a 1933 Ford V-8, the Dansville hill became a freshened obstacle. Climbing it on high was not the goal. Rather, staying in high, it became a test of how fast were you going at the top of the hill? My father and Uncle Garth could argue about almost anything!

The Ford engine was a V-8. Would you believe that my father and Uncle Garth argued about whether the cylinders would wear oval? Uncle Garth swore that being on a slant, they would, and my father said that was silly. While they never came to blows over such a difference of opinion, I was afraid it might happen.

And there were other arguments. The Ford V-8s were over-powered, and would skid more easily on wet or icy pavements. When stuck, they would just dig themselves deeper into the ruts instead of getting out. There wasn’t much that couldn’t start an argument between those two. One thing that Uncle Garth did that I found sensible and pleasing was spraying his used motor oil up onto the undercarriage of his car to discourage rust. More than once I saw him surreptitiously scanning and feeling for incipient rust along the seams of my father’s car. I don’t think he found any, and I was glad. Because that would have case-hardened the Ford/Chevy feud.

It was cold traveling in cars in those winters. One indelible incident concerned my father’s habit of spitting now and then. He did it out the car window, too – a pretty efficient expectoration! One day it was very, very cold – the kind of day when he really needed that little electric motor with rubber-bladed fan stuck on the dash to keep the windshield clear. Well, my father had to spit. So he did, forgetting that the window was up and well below freezing. He said something and reached for a handkerchief, but before he could wipe it off, that big glob of sputum froze on the inside of his window! I think he uttered a muted oath, and I snickered softly so he wouldn’t hear. Funny what little things stick in one’s mind for years!

Funny, too, what associations remain in memory more than a half-century later about travel in those days. Before we had the Ford V-8, we had a top-of-the-line Model A. I remember it because it had a built-in flower vase on the side panel above the rear seat. My father

would put roses in it before taking a trip. He was proud of his roses, and liked to display them in that vase. He was always “slipping” roses – taking a cutting from the stem of a lovely bush, and planting it in our yard under a quart canning jar. He carried a sharp pocket knife used mostly for “slipping” roses – even a few from George Eastman’s garden behind the mansion on East Avenue in Rochester!

Maryland Street Memories

Glendale Park was bricked. But one day they paved Maryland Street, where I lived – one of the first in the neighborhood to be paved – and that provided a whole new field of experimentation. I don’t remember what the finished surface was, but in my mind’s eye it seems to be black-top. Anyway, it seemed glassy smooth. So I had an idea. I rigged a mast on my cart (in those days a wagon was called a cart.). My sail was a worn sheet, my mast a bamboo pole like those on which rugs were rolled, and I didn’t need a daggerboard or keel; the wheels of the cart didn’t slip on that smooth street surface.

There was little traffic in those days, so interference from cars and trucks was minimal. The absence of traffic coincided with lower speed limits in those days. Cars and trucks just didn’t go as fast on city streets as they do now. Perhaps because the brakes weren’t as good. Perhaps acceleration from stop signs was less. At any rate, I sailed many times across the ocean on Maryland Street, and learned the basics of close-haul and tacking before I ever was on a sailboat.

We also had a kind of hockey game with a half-roll of electrical tape for a puck. Our hockey sticks were any kind of stick from tree branches to lath, at the end of which a wooden ruler was fastened. After all, it was depression time, and the real thing wasn’t to be had. So we improvised.

Our neighborhood was pretty much a city-block. But my boyhood clique was concentrated at the west end of the block because our block was long and narrow. I lived in the middle of the short side (west side) of the block, at number 56. Yards were small, probably less than about ¼ acre. And all yards were “protected” or “insulated” from each other by simple wood or wire fences. The fences were easily climbed. There was a favorite route between

yards, and the fence-crossing at that point was sagging, broken, or just devoid of barriers.

My father collected leaves in the 2-to-3-foot space between the back of our garage and the fence that separated our yard from Erblands'. They were a big family with ten kids. I played mostly with Bill and Lawrence, and those leaf piles behind the garage made it easy to get over the fence into Erblands' yard. Their yard was bigger than ours and had both plum and cherry trees in it, so we played in their yard mostly. Also, my father's roses in a small plot adjacent to the Erblands' yard, made playing in our yard restrictive. We didn't dare break any of my father's rose bushes!

On the north side of our yard were the Noyes' yard, their house and garage. Gordon Noyes, Bill Donahue, and I were about the same age, and shared many interests. Because my father was a vocational teacher in one of Rochester's elite schools, I had more opportunity to use tools and to make things. We three boys wanted to make a club house. We could not agree on the yard in which it would reside, so we decided to make it a portable club-house. It would stay for a week in my yard, a week in Gordon's, and a week in Bill's – on a rotating basis.

The next question was where to get the wood, the shingles, and all the stuff that would go into making the club-house. Also, if it was to be portable, it had to be light. And hence small. We made it mostly from the thin (about ¼-inch) pine that comprised the sides of orange crates. I don't remember what we used for the floor, but I do know that it was sturdy enough to hold up three young, supple boys. The shingles? Scraps from houses that were being roofed. It even had carrying handles that we needed for transporting it to others' yards. It was, indeed, quite a construction project. And no help from parents! If they had been involved, they might have had a say in where and when it would stay. But this was our club house! I don't remember how long we had this, but that we did actually make it and use it, cramped as it was, evidenced creativity and determination – of which there was plenty among us kids at that end of the block!

There were many things about our block that were different from today. For example, voting booths were standard structures in the city. Voting booths were wooden, neutral gray, one-story, portable buildings with red, metal roofs. So what would intrigue city kids

more than to get up on that roof when voters were not present? Sometimes, the shoulders of a buddy proved just high enough to enable the climber to reach the edge of the roof and help a companion up onto it. Sometimes an orange crate or two could substitute for a friend. And what would we do on the roof? We were kings of all that we surveyed. It was another world just to be up on those roofs, especially after dark!

In what season of the year did this take place? Fall, of course, because voting was always in the fall. And what else happened in fall? Leaves came down! And they were usually raked to the curb for pick-up by city trucks. I never knew where the trucks took the leaves, but I learned later that some enterprising Italians who had bought land to the west of the city, where it was low and often wet, had made a deal with the city to dump the leaves on their “good-for-nothing” land. Over the years, those landowners developed the finest, most productive “muck” from the city’s leaves. It was a lesson in making Something out of nothing. And it happened right under the noses of city people who just didn’t realize what was going on.

But back to the voting booths... We could rake the leaves into big piles for jumping into. The softness of the piles, the aroma of the leaves, and the freedom of it all, were a tocsin to us kids of depression days. Voting booths were fun, challenging to ascend, and a joy to jump from.

The voting booth in Glendale Park was one of the best. Because Glendale Park was actually a parkway – a street divided into an eastbound and a westbound lane by a grassy strip perhaps 50 feet wide in which we played our city brand of soccer, and baseball. Oh, yes, and basketball. You see, the city street lights in those days were a strong, vertical metal hoop, with the light socket projecting from the top of the arch, and a metal shade above it all. Remember that this was during the Depression. We didn’t have public basketball courts. But we had Glendale Park, with its street lights. The hoop of the light, although vertical, was just right for a basketball, and even better for a soccer ball. How many times did the police come to chase us away from a particular light that had been our basket! And how long did it take the department to learn that if they just left one bulb out, all the others on Glendale Park were protected because we had our basket! Police departments then could have used a

psychologist to convince the department that our game cost a lot less than one bulb! But the social and physical needs of us kids just didn't register, and so we became proficient at a form of basketball whose hoop was oriented a quarter turn from an official horizontal basket.

The Erblands lived on Glendale Park, just around the corner from Maryland Street. They didn't have a car. But they had children – lots of them! The same number of boys as girls. And an unpaved driveway that was our track and field. For our shot, we didn't have a spherical hunk of iron; instead, we used a rear axle from a Model T Ford. So what if it wasn't spherical? It was just about the same weight as a shot – with a challenge. When we “put the shot”, we “put” half of the rear axle of a car, and it was anything but (a) spherical, or (b) uniform along its length. We would “put” the shot, and it would often land one-end first, and then take an end-over-end flop in the driveway. So where did we measure the length of our throw? There were many heated discussions about what constituted our “put.” We learned about center of mass, and we got pretty technical about measuring the flight of the Ford axle.

The same driveway was used for our long-jump pit, and for horseshoe pitching. We became expert at pitching horseshoes, and many a discussion revolved about what was the best way to hold the shoe, and was it more efficient to throw a $1\frac{1}{4}$ turn, or a $\frac{3}{4}$ turn? After all, we wanted the shoe to approach the stake open-ended. We kept a record of ringers and misses. And each of us was convinced that our personal choice of holding the horseshoe was statistically best. I think Lawrence was the over-all champ of our backyard “convention.” He used a $\frac{3}{4}$ turn. But I stuck with my $1\frac{3}{4}$ turn just because I didn't want to copy anyone.

It's hard to describe the city traffic in those days. It wasn't anything like today. For one thing, traffic was sparse. Cars were expensive and some families didn't have any car at all. We had a Model A Ford. Erblands didn't have a car. Neither did the Lauchlans or the Leavens. Many people depended on streetcars. We kids depended on our bikes or our scooters or shoes and sneakers (“sneaks” as we called them).

And we had jackknives. Most kids had a jackknife. Every kid who had one used his knife for cutting, poking, prying, and to my

knowledge no one ever used it in defense or offense. It was a tool – a necessary implement for all that we did. No kid would even have thought of it as an offensive weapon! Often, a “scout knife” – one that had a can opener, a screwdriver, and an auger of sorts, besides a blade – was carried in a pants pocket, or sometimes openly displayed from a belt clip. Gosh, how could you do all the things we did without a knife?

Then there were hunting knives. They weren’t carried to, or displayed in, school. They were more for show. One of the “rewards” for selling subscriptions to the **Open Road for Boys**, or **Field and Stream** was a “high carbon steel” hunting knife. Oh, it was a beautiful knife, with a laminated handle. I was so proud of the knife I earned by selling a hundred or so subscriptions to **Open Road for Boys** that I had to show it to Bill Erbland and Bill Donahue right off. That they admired it put me in great spirits. My father had made his own hunting knife from a high-speed planer blade. But it didn’t have quite the shape of my high-carbon steel knife, nor did it have the same official-looking handle as mine. Also, mine was “high-carbon” steel, and that meant a lot. Until one day when my father suggested a “test” of blade quality – to which I readily agreed. So he sharpened his knife, and I sharpened mine, and then the real test came. He put the two sharpened edges at right angles, and drew one across the other. It was the moment of truth, and I fully expected the edge on his knife to roll over under the touch of “high-carbon steel.” But no such thing happened. Instead, my high-carbon steel rolled over easily under the “hi-speed” steel of his carefully ground and sharpened industrial planer blade. I re-sharpened my knife, but was careful not to let my father see the tears of disappointment that I shed later in private. Never again did I brag about my knife, but it was a long time before I could bring myself to carry a knife that he made from one of his planer blades. A boy’s pride is a pretty fragile thing!

One of the deepest differences I had with my father was in the understanding of our very similar, but different, views of Christianity. My father was a lay preacher who filled in at various small churches – often rural ones – when the minister left, retired, or died unexpectedly. I remember his “term” in Scottsville, New York, about 20 miles south of Rochester. I would accompany him to his church on Sunday morning, sit in the front pew, and listen to him preach. On many occasions, when he would wax emotional over the

words, the wisdom, and the admonitions of Christ and the scriptures, I would sit there thinking about the facts of life as I knew and had experience them, and it would disturb me. The “preacher” there in the pulpit before me had the trappings of any mortal, yet seemed above those as he spoke to the congregation. In retrospect, my father was a good man, was thought of highly by his congregation, and I think he really tried to be a Christian example to those to whom he ministered. But to me there was an at-home reality that at times I had difficulty matching to the man in the pulpit. I often wondered if the sons of other ministers felt this way about their pulpit-parent.

I guess some of this same dualism carried over into the role of teacher/student, since my father was also a high-school teacher in Rochester. And a mighty fine one, too! But it made life somewhat difficult in school because I was never entirely free of the feeling that when I didn’t do well, or when I “screwed up” in school, it would somehow get back to my father, and there would be, not repercussions, but percussions, since my father was convinced that to spare the rod was to spoil the child.

It might seem to outsiders that I negotiated with my father out of fear. Not at all, although there were times when I was the focus of his anger, and I paid physically for it.

What About School?

In the delightful world of summer, it was easy to forget school. But that wasn’t because I didn’t like school. I had a wonderful elementary school experience. I walked to No. 34 School, had excellent teachers, and have fond memories of times in the classroom, and to and from school as well. School buses were not in vogue then, and the city elementary schools were placed so that no child had to walk more than a mile or so to school. We often played marbles on the grassy strips between sidewalk and street to and from school. In the winter, we made icy slides on the sidewalk. I’m sure the people who owned the houses next to the sidewalks didn’t appreciate our slides, but it sure shortened the time it took to and from school.

I remember less about the things in school than I do about things out of school. But certain things are indelible. For example, the day that a girl ate some paste out of the paste jar. And the poetry recitations... one of my favorites was Vachel Lindsay's **The Congo** – "Fat black bucks in a wine-barrel room... barrel-house kings with feet unstable sagged and reeled and pounded on a table... pounded on a table with the handle of a broom, hard as they were able... boom, boom, boom -- boom-a-lay, boom-a-lay, boom-a-lay, boom!"

I also remember making a little note-carrier from a spool, matchstick, a couple of washers and a rubber band. The rubber band was thrust through the hole in the spool. A washer or a button secured it on one side, a match stick was thrust through the rubber band and a washer or button was between the matchstick and the spool. When the matchstick was rotated and the rubber band wound several times, the note-carrier would scoot across the floor under and between desks. We got pretty good at sending notes across a classroom in No. 34 School without being apprehended.

Not much else comes to mind about classes until Junior High. Oh, I remember Catherine Lapham and her older brother, George. And Harold Etter, and Roger Drexel, who eventually went to M.I.T. and was a friend of Bob Von Berg, a fellow professor and close friend here at Cornell. I also remember snowball fights, and jumping into leaf piles next to the curb. But a tragic accident brought an abrupt halt to that when a neighborhood youngster who, in fun, was "buried" in a pile of leaves along the curb was accidentally and tragically crushed by a truck picking up those leaves. That was a neighborhood casualty of the most casual and enjoyable childhood recreation.

The only other accident that I can recall was the untimely and tragic death of Billy Smith, who lived at the other end of our block near the city playground. Billy was fascinated by knots, which he tied in a rope, and then untied in a sort of magical minimum time. He was fond of creating a knot that the rest of us couldn't untie in a certain minimum time, after which he would demonstrate his own skill and magic. Billy was found hanging from a balcony in his house, in a noose that he had fashioned, but apparently was unable to loosen.

It was while at No. 34 School that I got the mumps, and they were the first of a series of illnesses that kept me in bed for almost six

weeks. My classmates and neighborhood friends prepared a “sunshine box” that brightened my days and helped to pass the time ‘til I could return to school. I also learned to knit, and I made a doll sweater of which I was justly proud. But the hours spent in play and pleasure outside with the kids of the neighborhood were what I remember best. Like the electric chair for earthworms that Lawrence and I made! We used a car battery and wired a doll chair so that when an earthworm “sat” in the chair, it would “fry.” Yes, I suppose we were little hellions in our own juvenile way.

At Jefferson Junior High, I spent only two years before going to Monroe High School. Jefferson was next to a branch of the Rochester Public Library, and a branch of the Rochester Museum. Lawrence Erbland and I spent hours reading about, and becoming young experts (or so we thought) in cryptography. We coded and decoded by the hour, and fancied ourselves preparing for service in G-2 of the British Foreign Service.

Although we kids had lots of fun, and spent hours in competition in “field events” on Erblands’ driveway, I didn’t compete at all in scholastic sports. I guess my playmates didn’t, either, so none of us was in interscholastic sports. My father had been an outstanding athlete as a younger man, and he still played softball for our church’s team that competed regularly at the YMCA baseball field. I would go there to watch my father pitch. He was a good athlete – strong, fast, skilled, and quick to challenge and to accept a challenge. Once I watched a heckler shout slurs at my father for much of a softball game. There came a point when my father just couldn’t take it any more, so he took off his glasses, laid them on the rubber, and walked off the mound to the heckler. He said to the heckler, “What did you say? Say it once more!” And with doubled fist, and a determined look, he frightened the heckler off the field. Then he continued with the game. My father was not one to be cowed by any man. So I must have been a considerable disappointment to him because I was diminutive in size, and not at all aggressive or competitive in sports.

I guess that as a youngster I was meek, mild, shy, and anything but aggressive. I was the antithesis of my father, who took no “sass” from anyone. I know I didn’t inherit his brand of temper. At least I didn’t have the physical size and strength to assert it! Not then,

anyway! My father, however, was big enough, strong enough, and assertive enough, that he seldom backed off from a confrontation. I was small enough, sensitive enough, and intelligent enough to realize that my age and mass were insufficient to convince in my father's way; I had to use tact and intelligence, and I did to the best of my ability. Over the years, this paid off, and gradually I learned successful ways to combine increasing body mass, insight, intelligence, and interpersonal skills. I don't think I disappointed my father. Instead, I think he was proud that I had learned successful alternatives to his more basic interpersonal conflict resolution. I know I was!

When it was time for high school, I went where my father taught. Since he taught at Monroe High School, perhaps the premier high school in Rochester at the time, I could ride to school each day, saving the more-than-a-mile walk to and from Marshall, the school district in which we lived. My father taught cabinet-making in a room whose size and machinery rivaled that of any vocational school in the country. Monroe was a pretty special school to me. Its teachers were outstanding, and its students were pretty special, too. They represented the advantaged families of Rochester. It was their houses on which, with my father, I fitted storm windows in fall and winter, and whose roofs I repaired or replaced in spring and summer.

I enjoyed Monroe, and felt stimulated by both the students and the teachers. At the same time, I never felt fully free from my father's watchful eye. I thought that any wiggle room that I had was much less than that of my fellow students because my teachers were in that same social and professional cult as my father. Even so, I liked my teachers, and I liked my fellow-students. Especially Alice Taylor, whose father was a professor at the University of Rochester. Alice was smart, and I thought very attractive. I liked being in the same class as Alice.

My favorite class, I think, was geometry. Mr. Coe was a fine teacher, and he was also an engineer. He took a few of us to meetings of the Rochester Engineering Society. We had to wear suits and ties, and that made it a special occasion. No other class that I knew of ever was treated to professionals.

I also liked Miss Reuschle's algebra class. Something happened in her class that I have never forgotten. She was a superb teacher, but also a stern one. On an exam one day I copied an answer from a student across the aisle. But it so bothered me that I wrote on my paper, "Please don't give me the grade that I would have made on this test. I cheated on Question 7" or something to that effect. I got 100% on the test, and Miss Reuschle recorded it as such. But she added this note: "I'm recording this as 100, so you'll always remember that there was one grade on your record that you didn't earn." And she was right; I remember that to this day!

Mr. Bloom was my chemistry teacher. He graduated from Cornell, and I thought that was pretty impressive. He was also a part-time employee of the Rochester coroner's office. He made us feel that chemistry was of practical value, and we waited impatiently for details that we could apply like chemical Sherlock Holmeses. Yes, high school was a delightful part of my early life – as delightful as it was quality.

Other classes were just as outstanding. In an English class we read **As You Like It**, and a "frosting on that cake" was to compose a section of a sequel in the same meter and rhyme. I was fortunate enough to be elected to The National Honor Society fairly early in high school, and since Alice Taylor was also a member, I saw to it that I maintained my membership in that select group. The parents of some of my class were outstanding Rochesterians, and I was proud of that. One set of parents owned Rochester's best-known restaurant. Another owned Rochester's largest furniture store. Another was the son of Rochester's largest auto dealer. Another was a very-high-up in Kodak. And another in Bausch and Lomb. Monroe was, indeed, a select school, and I was lucky to go there. But I didn't live in the Monroe High School area. So I always felt somewhat second-class socio-economically.

I remember one weekend being invited to Mark Sloan's home. Lunch was for just the two of us. At the table, Mark sat at the end where the signaling button for the maid was located. At the proper moment, Mark would depress the button with his foot, and the maid would come in to get our order. That was a once-in-a-lifetime for me.

Another time while I was fitting storm windows as a part of a contract my father had with a Rochester company, we were working on a house in a very “tony” section of the city. It was Saturday, and as I was fitting the storm windows on the boy’s room, he got up and into his jodhpurs to go riding the rest of the day. I continued fitting the storm windows of his house. Such was the socio-economic “spread” of my high-school class! I used to think: I’ll bet he can’t fit storm windows, or put on a roof, or catch a Raquette River smallmouth! And that thought would help bridge the gap of our social stations!


More than 10 years ago we Monroe High School graduates who were still living had a reunion in Rochester. Out of a graduating class of something like 300, there must have been 200 in attendance. It was so good to see who had succeeded in life, and at what. To see who had continued to maintain a healthful living style, who had succeeded socially and financially, and who were still “sharp” mentally, socially, and physically. It was gratifying to recognize that financial and social station didn’t necessarily guarantee over-all success and “station” in a complex socio-economic world. What one did in high school was important. But what one did in college and in later life was so much more important! As were the experiences in WW2!



2

The Raquette River and Tupper Lake



 Most of my boyhood memories centered on experiences on the Raquette River near Tupper Lake. My father had built a cottage there for our family doctor, Dr. Kimball, who had said to my father that he could be paid to build the camp, or he could use it for the month of July each year as long as he lived. Since my father was a teacher, he decided that the latter course was the better one, and he

elected to do that. So we spent each July in the Adirondacks on the bank of the Raquette River a mile or so upstream from Tupper Lake itself.

Dr. Kimball's camp had no basement. It was a wood shingle-covered frame building standing in a meadow, next to John Griggs' place. John Griggs' brother, Roy, was a minister from Long Island, whose cottage was in the woods about a half-mile away. Their sister had married Dr. Kimball, and so there was a sort of Griggs family center there in the meadow above the Raquette River. John's adopted daughter, Marguerite, was a playmate of my sister, Ruth. But we boys of the neighborhood preferred more male activities such as boating and fishing on the river.

We carried drinking water from a spring down by the road. We also had running water from a pipe that was buried a foot or more beneath the meadow topsoil. My father had used a mold-board plow pulled by Mother in the car. At one point, the plow struck a buried glacial erratic, and in an instant the handle of the plow was jerked up, struck my father and broke his jaw. One of those incidents indelible in memory!

Well the galvanized pipe got laid, and through it water was supplied to the camp for many years. It was water from a big spring a quarter of a mile away. A single faucet supplied water to the kitchen sink, and the drain was simply a pipe from the sink to the sandy soil beneath the camp. Why this detail? Because if lightning struck anywhere within, say, a quarter-mile of the cottage, a strong spark would jump between kitchen faucet and sink drain. Very early we learned to stay out of the kitchen during a thunderstorm, but would gather in the doorway in anticipation, and would jump and shout each time a huge spark jumped that gap between faucet and drain. In later years I used to wonder and marvel at the electrostatic field that must have been generated during strong thunderstorms. But as a kid, this was just one of those special, red-flag events.

The Griggses' camp was perhaps 75 feet from the Kimballs' camp. Midway between them was a balsam poplar tree perhaps 60 feet tall. One memorable experience I had involved that tree. I was sitting in a rocking chair on the porch of camp, captivated by a thunderstorm that was producing a number of lightning strikes in and near the meadow in which Dr. Kimball's and Mr. Griggs's camps stood.

Suddenly a lightning bolt struck the poplar tree, and in reaction I jumped clean out of the chair. The lightning had stripped the bark from an inch-wide path down the tree, and had made a hole about the size of a woodchuck burrow at the base of the tree. It was the closest and most memorable of any lightning strike in my life, and if I ever wondered where to be during a thunderstorm, that convinced me to leave a safe distance between me and any sizable tree.

It always seemed as if thunderstorms were more intense in the mountains. Whenever there were strong thunderstorms in the area, the thunder would “roll” among the mountains, sometimes for several seconds. It was obvious from whence the legend of the gods bowling a gigantic ball in the heavens originated.

The “bathroom” of the cottage was an old-fashioned two-seater “out-house” built at the end of the two-car garage. By comparison with the garage, which had a dirt floor and was a bit on the flimsy side, the outhouse was a mansion. It faced Mt. Morris, and my father had drawn on its outward-opening door an outline of the Adirondack peaks that could be seen from it. Seward, Santanoni, Ampersand, and of course Mt. Morris, the nearest of all. It was fun to sit there and contemplate the peaks that were, for us, the whole spread of the Adirondacks, and to try to imagine where “out there” the Raquette River started and wound its way!

There was much to see, listen to, and wonder about from those seats-with-a-view. There was a song-sparrow “with a cold” that I listened to day after day. It nested in the meadow, and was heard and occasionally seen for several years. In all that time, I never found its nest. I guess I really never looked for it, being contented to hear it sing. But it had a song different from “real” song sparrows – a sort of “zee, zee, zee, zee, zooo-zee!” That trailed off in a thin, lispy buzz. For a long time I thought it was a song sparrow with some kind of cold or defective voice. Not at all! It wasn’t until years later that I learned the difference between a song sparrow and a savannah sparrow. I rather liked this little bird, with its un-song-sparrow-like voice and its retiring disposition. Some day, I thought, I’d like to look through a binocular at some of the wildlife in and around that field, and across the river on “the flow”.

Above the meadow, near the spring from which my father piped the water to Dr. Kimball’s camp, lived an elderly, totally deaf lady, Mrs.

Place. She had a binocular, and I used to visit her, partly just to be sociable, but partly (mostly?) to look through her binocular. My father had an old “field glass” as he called it, but Mrs. Place had a binocular. To me there was magic in the way it brought distant objects close enough to “touch.” Some day, I thought, I’d love to have such a binocular. Some day...!

Mrs. Place also had a garden spot back of her house – a garden spot that no longer was used for flowers, but rather for a few vegetables. She raised a few carrots, some beets, onions, and other vegetables. But mostly, she raised worms – big, juicy worms that would wriggle on a hook, and would entice large perch, sunfish, bullheads, and an occasional pike to check them out. I never passed up an opportunity to dig some worms at Mrs. Place’s house. Not being able to converse with her was no problem. I could write my messages, and I did – always leaving her house with a can full of worms, and a fresh vow to have a binocular like hers some day!

Walking down the meadow and across the road from Dr. Kimball’s camp, you would come to a rather substantial pier that was on a half-acre “pond” just off the Raquette River. There were several such “ponds” along the river, each of them ideal for docking a motorboat, or for young boys to fish. Long before I was allowed freedom of the river, I was allowed to row and fish in this pond. I have no idea why these ponds formed as they did, but they were clearly distinct from the river itself, and made “youngster lakes” that were small, shallow extensions of the river, and also held many of the river’s inhabitants. It was an ideal place in which to learn to row, fish, and observe all the wildlife that lived along the river itself.

My father used to speed along the river, turn sharply into the narrow channel that connected the pond with the river, and continue speeding right to the dock. With the flourish of a racing driver, he would turn the boat sharply and at the same time “cut” the throttle, coasting right to the dock on the final wave of the boat. He had this down to a science, and was proud of the art of his timing and his art of landing. He had “bumpered” the dock with discarded tires, cut, straightened, and nailed to the dock. One day, to show off his landing skill, he approached the dock at high speed and turned off the throttle, but before he could react to the moment, the throttle cable broke and he hit the dock at almost full speed. The rubber-tired lip of the dock did what it was supposed to, and the boat went

up and over most of the dock and landed on the bank between the dock and the road. My father was unhurt, but his pride was severely damaged. It was an incident that I never forgot, but never recalled openly.

Cattails grew in profusion around the pond, and in them nested red-winged blackbirds. I explored those cattail marshes thoroughly, and although the red-wings always protested my incursions, I think their protests grew less frantic as the days passed. I became well-acquainted with red-wings, and have mourned their near demise of late. It is almost rare to see a red-wing any more along the banks of the Raquette. Cattails are still there, but not red-wings. C'est dommage!

In the pond I could always find sunfish, perch, schools of small bullheads, and now and then a small northern pike. I would practice casting a feathered spinner, and every once in a while I would catch a perch, which I almost always released after inspecting it carefully. The perch almost always had "grubs" – a parasite that was apparent around the gills, but seemed not to be fatal. I just didn't like to see them. The sunfish mouths were too small to accommodate a spinner, but they weren't at all too small for worms . . . or bits of worm. I became a dedicated piece-of-worm fisherman in that pond. One day I cast a feathered spinner across the pond and caught a pike! It was my first pike, the biggest fish I had caught up to then, and I felt like a big-game hunter. I brought the pike up the bank and across the field to the camp to show my folks. I think it measured 20 inches from nose to tail. It was gigantic, and that began years of fishing for larger and larger pike. Once in a while a pike would get from the river into that little pond –. And I began to dream of the day when I could row out into the river where big pike must live.

I don't remember graduating to the river. But I did, and after that, I disdained fishing in the little pond. There were bigger, wilder fish in the river, and they were fair game for me. That's when I began to look for smallmouth bass – a fish not so long as a northern pike, but oh, what fighters! I learned that they lived around logs, boulders, and any obstruction that would provide cover for their attacks on smaller prey. I learned that frogs and crayfish were the best lures for bass, while an artificial lure was best for pike. I didn't like to eat fish nearly so much as I liked to catch them. It was nice that the rest of the family liked to eat fish because then I could bring them home.

Cleaning them was never a likable task, but one that simply had to be done.

The Raquette River drained most of the northwestern Adirondacks. It was a river of modest size, rising as the outlet to Raquette Lake, one of the larger lakes in the Adirondacks, flowing in a northwesterly direction, and draining Long Lake, Tupper Lake, and emptying into the St. Lawrence River north of Massena. During the latter part of the 19th century, and the early decades of the 20th century, the Raquette River was a major route of log drives that brought logs to mills at Tupper Lake. Hardwood logs of birch, beech and maple were floated to the Oval Wood Dish (OWD) Company where they were loaded onto ramps with endless chains that pulled the logs up to gigantic lathes. Huge, thin sheets of hardwood were peeled off the logs, then stamped out into ovals, about 4 x 6 inches. The ovals were steamed and pressed into shallow dishes into which meat markets of the day put ground meat, cottage cheese, and similar products for sale. That was before the days when white, thin cardboard was the accepted receptacle. Our family also used the oval wood dishes for holding soap at the sink, and for many other shallow, inexpensive dishes. In the garage they also held nuts and bolts, and other small parts. Oval wood dishes were cheap, sturdy, and resistant to damage of all kinds.

Later on, when the wooden dishes were out of style, or were replaced with white, heavy paper stapled at the ends, the hardwood sheets of the OWD were stamped into popsicle sticks, Dixie-cup spoons and tongue depressors. Few people of today can remember what OWD stood for, and even fewer can remember using them.

Another mill in Tupper Lake – the Santa Clara Lumber Company – dealt with softwood logs such as pine and fir. These were sawed into timber for building homes, into ties for railroads, and into lumber for crates, flooring, and all sorts of structural needs. But it was the OWD on which much of the economy of Tupper Lake depended.

I was very young when the log drives on the Raquette River became rare, and then stopped altogether. But as a youngster I remember huge log “rafts” that would stretch, it seemed, for a mile or more on Tupper Lake. When I finally was allowed to row on the river, that was indeed another world. It was perhaps a half-mile from Dr.

Kimball's camp to "the cut-off," a hand-dug "ditch" that connected the river to Simond's Pond. Logs had, for years, been floated down the river through the cut-off. The log drives, as I remember, were largely discontinued by the time I was old enough to use a boat on the river. But many traces of those log-drive days lingered, and I used to imagine the drives that made the Raquette River famous.

We used to motorboat to Moody, a small community and post-office on Tupper Lake, to swim. Why motor-boat more than a mile when the Raquette River ran right by the camp? Because the banks of the river were lined with speckled alder, "soft" (red) maple, and lily pads that made swimming difficult, unpleasant, or perhaps even dangerous. The riverbank was also muddy, with only occasional sandy places. It was much more fun to swim at Moody, where the sandy shore sloped gently out into the lake. Besides, other folks, including some kids, also swam there. It was always more fun to swim with other kids.

Swimming was unsupervised. We learned to swim by jumping off our dock into the river. It wasn't a graceful jump; we just jumped. Oh, I guess there was an inner tube now and then, but almost no water-wings and no expert lessons on how to swim. We just swam. There was the dog-paddle, the side-stroke, and the breast stroke. More efficient strokes weren't perfected because you couldn't go anywhere. You just swam for the fun of it, and when you had enough, you went home. But first we had to pull off the occasional leech, or blood sucker as we called them. They didn't hurt; they were just an unsightly nuisance, and the mere trickle of blood was hard to stop.

The Raquette River was not renowned for swimming. It was renowned for its fish. In the Raquette River were some shallow places, and some deeper places. In the shallows grew Potamogeton, a water-weed that formed great masses of downstream-pointing beds. The weeds didn't extend above the surface, but the flowering heads floated in great shelves that were oriented across the current, providing superb "cover" for fish, especially northern pike. The pike were masters at riparian banditry. They would lie in the lee of a Potamogeton bed, just waiting for unwary prey. Then they would dash out and seize a smaller fish, and with their needle-sharp teeth and ferocious offense, they would rip or slash, and swallow smaller prey such as perch.

I used to row or, when I got older, motor-boat, from our cottage to the shallows where the river joined the outflow of Tupper Lake and spend a whole day just watching and casting a feathered spinner alongside the beds of Potamogeton. It seemed that pike were almost everywhere. I returned nearly all that I caught. I didn't bring many home because the pike seemed to me to be bony, and they were "fishy" fish, not like bass. But what hours of fun I spent fishing for northern pike! And what a friend I became of Potamogeton!

What was the largest pike I caught? I remember it well. We had a visit from the Haswell family from DeForest, north of Madison, WI, and I was eager to show their son, a little younger than I, how good the fishing was near the "bass hole." There was a nice bed of Potamogeton not far from it, and I decided to check it out. I think it was on the first cast that a really big pike seized the spinner, and there in front of the Haswell boy, I landed it – all 14 ¼ pounds of it. I was as proud as my guest was impressed. I nailed the head on a tree trunk, jaws agape for all to ogle.

In later years, motorboats driven by people who don't fish, and often don't know where the river channel really is, cut through the beds of Potamogeton, destroying what used to be some of the most wonderful pike fishing in the state. The boats are bigger, the motors heavier, the wake more impressive, the speeds higher, and the fishing not at all what it used to be. There still are occasional pristine weed beds, and I know where they are. But I'm not telling anyone! They are my little secret – to be shared with my grandsons when they are at the age their grandfather was when those weed beds held fresh-water whales!

Now and then logs would get stuck in the river bank, and they became the nucleus of a modest log-jam. A mess of logs was ideal for bass. They hung around the logs for whatever worms, amphibians, and arthropods they could scrounge there among the logs. The logs also offered protection from larger predators such as otters. One day I was anchored next to a cluster of logs. I let down a crayfish, and almost immediately felt the bait taken by a bass. Not a huge bass, but a medium-size one. I was reeling it in when out of the depths of the log mass came a sizable walleye, which seized the bass cross-wise and started back toward the center of the log cluster. The pike wasn't hooked but had the bass cross-wise in its jaws. I

think I jerked up the rod out of reflex or habit. Anyway, the pike let go of the bass. I reeled in the bass, unhooked it, and released it to the log jam. I wonder if the bass made to the next day.

When I was young, and the Raquette River was my playground, there was hardly a cove, a sunken log, a beaver lodge, or a muskrat burrow that I didn't know about. It was fun to row Dr. Kimball's heavy St. Lawrence skiff upstream, pull into the alders along the bank, and just sit. Hour upon hour was spent this way, observing everything that had wings, legs, or fins. How much I saw and learned about Nature, from just sitting in a boat, rowing to a spot I wasn't totally familiar with, and simply watching. What did I see? Kingbirds who patrolled the river bank up- and down-stream from their nests atop the posts driven into the bank at the river's edge. The posts were logs selected from the log "rafts" that were carried by the current down the river to the OWD and to the Santa Clara mill for lumber. The river had so many twists and turns that logs would have stuck in the bank had they not been guided by a sort of curb of logs chained end to end, and anchored to vertical posts driven into the river bottom at the edge. The vertical wooden posts, exposed to the weather, decayed at the center of the top, leaving a depression that was just right for nest-building by kingbirds, a species of flycatcher. I thoroughly enjoyed these birds and the protection they gave their young. As I rowed past them, the parents would dash out and in their kingbird style would harass me until I was well outside their territory. I guess I felt as comfortable with, and knowledgeable about, kingbirds as any city kid would be about house sparrows or robins.

One sight that comes to mind is the transformation of large mayflies from underwater nymph to an ungainly (compared with a dragonfly) adult, ready prey for an ever-watchful kingbird. The large, somewhat ungainly mayflies managed to escape the kingbirds only because the insects rose from their watery environments in such numbers that their predators simply couldn't keep up with them, or they metamorphosed after dark, when kingbirds were inactive. But for bats – what a feast! I spent many happy hours simply watching the predator/prey ratio shift back and forth. Today, the kingbirds, so important a part of my natural world, back then, are way down in numbers. Could it be that their nesting posts have decayed from the scene? The mayflies still emerge in great numbers, but other

predators have taken the place of the kingbirds, and I miss the kingbirds' noisy harassment.

There are other animals that were a major part of the Raquette River scene. Barn swallows built their nests under the bridges across the river, and were always fun to watch. Kingfishers nested in the banks and preyed on the fingerlings of perch. Bitterns were fairly common along the river bank. My recollection is of one standing amidst the shallow shore-water plants, bill pointed skyward, or at the water surface, watching for frogs or tadpoles. They would stand motionless, until some movement caught their eye. Then, with imperceptible stalking, they would move to within striking distance, when . . . wham! In a lightning stroke they would seize their prey, perhaps give it a shake or two, and down-the-hatch! Bitterns were so beautifully camouflaged to blend in with the cattail stalks and leaves along the river's edge!

One of the hazards of riverbank life for bitterns was the occasional thunderstorm that came with summer. When a thunderstorm drew near, the bitterns would fly from their riverbank haunts up into the meadows that were part of nearby farms. Almost as familiar a sight as bitterns standing in shallow water looking for unsuspecting prey was the sight of bitterns standing in meadows during thunderstorms. I used to wonder if a lightning stroke didn't tingle their feet just a little.

Summer thunderstorms – they seemed especially potent along the Raquette River. If I was out in a boat when one came up, I sought shelter in the alders along the river bank. Somehow, in spite of the heavy rain accompanying the thunder and lightning, I felt safe there. The alders were low enough that I felt sure lightning would prefer much taller and isolated trees.

The river was an outlet for fun and fishing for our immediate family, but it was also a place where we could share those pleasures with other people. Once, for example, Grandpa Scott – Dad's step-father – came to visit us. He almost never left the farm, because it was a big farm and a total farm. He did take a few days off, though, to visit us at the cottage, and for me that was a red-letter day. I was 10 and eager to show Grandpa Scott some of the river's great smallmouth bass. I knew how to operate the motorboat; it was an old friend already. But my father, anticipating my plans, made it

plain that I was not to take the motorboat out without his permission. I knew very well that he wanted to be the one to show Grandpa Scott the Raquette River bass. But Grandpa had shared so much of his farm with me that this was my chance to share some of my favorite river pleasures with him.

While my father had been “over town” doing shopping for the weekend, was when Grandpa Scott and Grandma arrived. I was in Seventh Heaven, and when Grandpa Scott inquired about the fishing, well, what could I do but take him? I had the bait, I knew just how to run the boat, and besides I knew of a big smallmouth bass that lived under a downed tree right at the sharp bend in the river. When I asked Grandpa Scott if he’d like to catch a big bass, he said, “Sure!” and we were off.

When we got to the spot, I looked down, and I was pretty sure I saw that big bass right where I knew it would be. I baited Grandpa Scott’s hook, tossed it where it would pass right by the fish’s mouth, and sure enough – WHAM! Grandpa Scott hooked, played, and landed the biggest bass of his life! He was happy as a shorn sheep on a hot August day, I was proud as a peacock, and we headed back home. When we got there, I knew from the tone of my father’s voice that I had committed a mortal sin. I had introduced Grandpa Scott to the Raquette River bass instead of letting my father have that privilege. And I knew I’d pay for it. I was going to get a licking! So I stuffed the seat of my pants with a layer of pajamas and a layer of corrugated cardboard, looked worried and penitent, and sure enough I got thoroughly whumped. I cried and cried, but inside I was smiling. It really didn’t hurt because I had planned carefully for the spanking. Inside I was beaming because I had really given Grandpa Scott one of the most pleasurable experiences of his life. I think that was the only time I had planned ahead for a spanking that I knew was coming! But the pleasure that precipitated the spanking was so worth it!

The river was not only for fishing. It was also for swimming, and it was the gateway to adventure. Once I was permitted to use the motorboat, opportunities to explore were endless. I took the smaller of our two motorboats to the inlet of Simond’s Pond. The inlet was a crystal-clear stream in which speckled trout lived. These beautiful fish were smaller than bass or pike, their flesh was pink, and they lived in pristine country. Simond’s Pond Inlet was a sparkling

stream that tumbled over big boulders, formed crystal-clear pools, and sheltered mink and other small mammals which I seldom saw, but I knew lived there. It was a bit of wilderness adjacent to an ordinary lake. It was just far enough from the village, and just enough trouble, with fish small enough, to be beyond the reach of “ordinary fishermen.” It was part of my secret world. I seldom went there because it was a sort of “dessert” place, to be savored only occasionally. There were a few other places like that – Bridgebrook, for one, which also had speckled trout. Any place that had speckled trout was a very special place, and I didn’t share it with anyone else.

Of all the fishing spots around Tupper Lake, the “bass hole” was the best. It was a rather deep place in the river in which some logs had become waterlogged, and collected on the bottom. It was shown to my father and me by an elderly couple who had a nearby camp, but who didn’t fish much any more. Somehow, they and we became friends, and they volunteered to show my father “a very good place for bass.”

We boated over to the area where the Raquette River meets the foot of Big Tupper Lake, then continued on downstream toward the village of Tupper Lake. They knew just about where to anchor, and when we let down the anchor, it seemed the deepest place in the whole area. My father let down a hook baited with a frog, and almost immediately hooked a sizable fish. To me, it was a whale. After “playing” the fish for several minutes, my father pulled up a huge walleyed pike – the biggest fish I had seen so far in the Raquette River. As he grasped it and tried to remove the hook, it somehow wiggled out of his grasp and fell back into the water. I don’t remember his words, but they were something to the effect that this place must be magic. We caught several pike and bass that day, perhaps the biggest catch my father had experienced in all our time at Tupper Lake until then. Anyway, it was we who got hooked that day. The “bass hole” as we came to call it, was the most bountiful fishing spot of all time for us. In the years that followed, we took hundreds of bass, and dozens of walleyes from that “hole”, the largest smallmouth being about six pounds, and the largest walleye about 5 pounds. For perhaps 20 years, the “bass hole” was our secret place, and we took great precautions to keep anyone else from learning about it.

We came to recognize other fishermen by the sound of their motors, and when we heard a certain motor, we would pull up anchor and move a couple of hundred yards away to a place not particularly good for fishing. One day we had moved to such a place when a boat with two fishermen approached and anchored close by. My father put on a large spinner, and nonchalantly cast it toward a weed bed. Almost immediately a sizable northern pike struck the lure, and after playing the fish for a few minutes, my father landed it and almost immediately released it. The two incredulous on-lookers exclaimed, "What the h—l are you doing?" My father replied, "We only keep the big ones!" Then he pulled up the anchor, started the motor, and we took off. He was torn between two emotions. On the one hand, he was duly proud of that big pike, but on the other hand he wanted to keep intruders out of the real bass hole, which was only two hundred or so yards away.

My Parents' Own Camp

Most of my early experience in the Adirondacks was based at "The Camp" at Tupper Lake – actually Dr. Kimball's camp, which he had given us for the month of July so long as my father lived – in return for my father's having built it and taken care of it for Dr. Kimball. It was a wonderful arrangement. But its limitation was that we had to return to Rochester at the end of July because Dr. Kimball used the camp during August. But the time came when my father and our whole family, for that matter, wanted to stay at Tupper Lake for the rest of the summer. And so my father and mother were eager to have their own place, which would be available to them at any time, and for as long as they wished.

The main road, from Tupper Lake to Long Lake, went east from the village for about a mile, then turned south along the Raquette River for somewhat less than a mile, and east again for another half mile, then south to Long Lake. A large swampy area, bordering the lake and the river, was just not suited to road-building, and my father was pretty sure that it would always be swamp. In fact, he had used a large rake to harvest cranberries from that near-boggy area. So for years, the main route from the northern Adirondacks to Long Lake and the southern Adirondacks had that rather inefficient (for car travel) offset to avoid the cranberry bog. "They'll never build there" was a pronouncement of my father.

But “they” did! Soon after my father bought and “developed” a small, rocky cliff portion along the edge of the Raquette River, the State of New York did, indeed, fill in the swamp next to the woods behind our camp, and put in the “new” highway. But first, my father (with my help) built a camp atop a granite quarry overlooking the swamp. We (Dad doing the lion’s share of the work) laid out a two-story building, with fireplace at the west (toward the lake) end, using stone from the quarry near the building. Cottages throughout the Adirondacks are called “camps”, whether they are one-room cabins or multiple-room “spreads.” Anyway, we had a camp that was to be our Tupper Lake summer home for many years.

The “camp” as it was known, grew over the years. My father built a stone two-car garage against a part of the low cliff that comprised the east wall of the quarry. It wasn’t a beautiful garage, but it was solid. The side walls were of laid-up granite. The back wall was the wall of the quarry, and the front wall was mostly double doors. The garage was used mostly to store boats, sections of the dock, and other out-of-season stuff such as a canoe, motorboat, outboard motors, lawnmower, shovels, and such. After all, if one had a summer “camp,” one needed a garage for “camp stuff.”

My father also built what he called a “slip”, which was a dockage built into the bank of the river to hold two motorboats. Alders grew along the riverbank, and any slip cut into the bank meant the removal of alders. But the alders along the banks of the Raquette River had grown there for years, and their roots just couldn’t be dug out without some “help.” Help, for my father, was sticks of dynamite, which he had never used. So he inquired from a contractor how to use the dynamite, and then set to work to blow out the alders that needed to be removed to make the slip. He used a 6-foot-long “spud-bar” to “spud” fairly deep holes down through the roots of the alders. In each of several such holes my father pressed a stick of dynamite. Then, as I somewhat hazily recall, he wired the dynamite sticks in parallel to a plunger-like blasting device. The plunger mechanism was at a safe (150 feet?) distance from the dynamite. When all was in place and “clear”, he depressed the plunger. WHOOM! The dynamite did what dynamite is supposed to do. Alder roots, alder stems, lots of mud, and one iron spud bar went sailing into the blue, coming down again like a shower of huge hail. We saw the spud bar land in the river a hundred yards away. I suppose that some day someone will pull a spud bar from the river

bottom, and wonder how it got there. But I'll never tell! Anyway, the spot for our boats was assured and only hours of removing mud and broken roots remained. It was an unforgettable experience, digging out that slip, and it has lasted for decades. For years I called it "that blasted boat-slip." What I recall best is the last look at the spud-bar hurling sky-ward. And then landing "somewhere" in the river.

My father made a log cribbing around the boat-slip, then used tar-coated 1x6's to line the slip. It has remained pretty much untouched to this day. I think it's the only one of its kind for miles around. I have thought many times since then about ways to improve that boat-slip, and the only improvement I have come up with is a floating dock. The one I made is the only floating dock that I know of on Simond's Pond that's nearly trouble-free. Its design owes its origin to that boat slip built by my father – a boat slip whose only limitation is that it cannot rise and fall with changes in water-level.


On my 16th birthday (New Year's Day), we were dinner guests at Dr. Kimball's. My father said to me, "What would you most like to do today?" I replied, "Go ice-skating with Alice Taylor." So my father said, "Why don't you call her and ask her?" I knew right then that this was a challenge, and he wouldn't let it pass without a confrontation. So, to avoid a scene, I called Alice, and she said, "I'd love to!" We made arrangements for my father and me to pick her up at her home, and for the rest of the day I was on needles and pins. When we got to her house in an up-scale neighborhood of Rochester, they were measuring the length of noses. She and her three sisters, and her professor-father were measuring noses! So much for my having put them all on some social plane that I could not aspire to!



3

College Days



 The transition from high school to college was complex. I had always been a home-body, except for daytime excursions on the Raquette River. Oh, I made many day excursions to farms near Rochester to hunt woodchucks, to trout streams, to the old canal, and to the Genesee River Gorge, but in the evening I was almost always at home. Even after an evening of ice-skating, I was **home**. Home was the place of origin, and the final destination of all boyhood travels. But that was about to change with the advent of college.

I had admired everything dealing with the outdoors – mostly the recreational aspects. But as I reached college age, it was time to think about adult life and a vocation. I had visited Wanakena, the site of New York State's Ranger School, which was not far from Tupper Lake. I had talked with a student from Wanakena who was a member of our church. When he visited in his ranger uniform, I thought, "That's what I want to be!" But rangers were low on the social and economic totem pole, and I aspired to something "higher" -- in social station and income. So I looked at the College of Forestry at Syracuse University. As a state college, its tuition was lower than that at the private arm of the University. Yet I'd take some of the same classes, and would be an accredited professional in chemistry or in several other fields allied to forestry. I applied to the College of Forestry at Syracuse University and was accepted. Happy day!

On the day of admission, we went as a family to the university, found a rooming house at 744 Irving Avenue, right across from Crouse-Irving Hospital and only a short walk from the university, but a slightly longer walk from the Forestry College. The year was 1937, and the effects of **The Depression** still were palpable. My father gave me money for room rent and food, plus something for "extras." I hadn't had that much money at one time, so I hid \$20.00 somewhere in the room, and never found it again. I searched the room as well as Sherlock Holmes, I thought. But the \$20.00 had evaporated. I didn't dare tell my parents, because that was a considerable sum. So for much of a month I ate Campbell's pork and beans – and small portions at that!

My classes were rigorous, but nothing I couldn't handle. I was prepared well at Monroe High School.

The rooming house, "Ma Britt's" as it was known, was a typical student rooming house. Its 19 guys were a pretty fair cross-section of Syracuse University students. Wilbur "Wilbs" Waffle and "Jeep" were my two roommates. They occupied the room, while I occupied a turret off the room. Wilbs had been a truck driver who was a bit older than the rest of us. He had always wanted to go to college, and had now saved enough money to afford it. His tuition at the university was \$400 a year. Mine in the College of Forestry was much less.

My father had been an outstanding athlete as a young man. In his World War I uniform, he was a handsome, 6 ft. 2 in. boxer, basketball player, and all-round physical specimen. It must have been a disappointment to him to have an only son who barely tipped the scales at 130, and who didn't play baseball or football or box. But he did introduce me to softball. When he and I came home from school in the afternoon, we often played catch with a softball, and I learned to pitch – fast-pitch. I got so I could throw a pretty fair curve, a drop, and a slow ball.

We had a softball team at Ma Britt's, and I watched them play. The pitcher was a star athlete from Rochester. Well, one day he was away for some reason, and so we didn't have a pitcher. I said to Bill Brennan, our catcher and a pretty husky guy, "Bill, if you need a pitcher, I can pitch." Bill, not surprisingly, said, "You pitch?" and when I nodded, said, "O.K., lay one in to me." So I threw one of my fast balls, and Bill exclaimed, "Holy s—t, the guy can pitch!" That was part of my introduction to college athletics. In one game, reported in the college newspaper of the time, I fanned 13 out of 15 batters in a 5-inning game. We still lost because we just didn't have the hitters. Anyway, I had earned my stripes, and I was accepted by the house. I was the starting pitcher after that!

College pranks were a part of college life in a rooming house, and I was the source of some of them. For example, I put horse-chestnut shucks in the toes of Jeep's slippers. When he got up one day with only a few minutes to spare before class, he jammed his toes into the slippers, with the anticipated outcome. He went to class with bloody toes.

Jimmy Moore was an art major who spent hours on beautiful designs for class. One day I mixed India ink with rubber cement and poured some on one of his art pieces while he was away, and left a note saying, "Sorry, Jim, it was an accident." When Jim returned and saw the "accident", I thought he might put a gun to his head, and I was afraid that that time I had gone too far. I peeled it off with no ill effects, but it took a while for me to return to Jim's good graces. I learned the difference between smart and wise.

But it was in another sport – cross-country – that I finally was an athlete. For some reason, I had gotten accustomed to running in my

later high-school years. I wasn't a competitive runner; I just liked to run. My father and the high-school track coach were good friends, so when I went to college, the high-school coach said to me, "Verne, why don't you go out for cross-country? I don't think you have it in you to make the team, but they don't 'cut' in college, and you'll find the cross-country guys a nice bunch." Not in me to make the team? I was more than a little miffed at that, so I went out for the freshman cross-country team. The first night there were seven of us who reported for practice. I asked how many there were on a team, and was told "Seven." I remember going home and praying that no more would come out. Then I'd be on a team. But the next night after practice, the Syracuse freshman coach, Dr. Eric Faigle, called us all together, put his arm around the fellow on his right and on his left, and said, "Boys, we have a pretty green squad, but if you all work as hard as these guys, we'll have a good team." He didn't know me from Adam, and it was our first night of practice, but since his hand was on my shoulder, I thought he meant me, and I was thrilled. I'd work for him; I'd make the team! And I did! Running became my *raison d'être*. I did make the team, and for the next 60+ years I was a competitive runner. Not the best – yet! – but pretty good considering the physique and experience I brought to the sport. My entry into the world of track was assured, and I felt I had found a proper spo(r)t.

There were many experiences as a Syracuse University student that would almost make books in themselves. There were all the cross-country meets – at Army, Van Cortlandt Park in New York, the Penn State campus, and Cornell, as well as the track meets on various campuses. We traveled in style for the distant trips – in a Pullman car! Imagine a kid from Monroe High School traveling in a Pullman bunk to run! Yet it happened. I remember one evening sitting on the platform at the rear of the train, listening to the Doppler effect (drop in pitch) of the crossing bell as we passed each intersection. I had never heard that before.

During my first year at Syracuse, I studied General Forestry. I spent a summer at the Forestry College summer camp on Cranberry Lake in the Adirondacks, not far from Tupper Lake. Each of us had to bring an axe to camp, and axemanship was one of the short courses required of the college. My father bought me a Plumb axe – a nice one, but not a standard axe. Most of the guys brought double-bitted axes with a 3-pound head. Mine was a single-bitted axe with about

a 2 ½-pound head. I was terribly embarrassed by the small axe, but I was determined to learn to chop well with it. Maybe I could just take three swings to other guys' two! If I hadn't been a fairly good athlete, I would have been laughed out of camp. But as it was, I kept the blade razor-sharp, and learned to chop well with it. I learned to chop at a frequency almost twice as high as others, and could make my way through a fairly decent log in about the same time as others.

We had contests of various sorts in chopping and sawing. One contest was to chop an 8-inch pine log in two. It was a contest of time, and I was in the top third or so. I could swing my little Plumb axe three times to others' two!

At the end of our chopping course, we had a contest in which we had to shave with our axes. The one who shaved the closest with his axe received a new Kelley axe as a prize. I didn't get the prize, but I was second, and this was a great delight to me. I was accepted. Even the name "beaver" didn't bother. Besides, I was a varsity athlete (cross-country), so I had earned my "spurs."

One weekend at summer camp, I decided to take off, alone, on a several-mile "trek." At one point, I wanted to check out some beaver dams, and thought, "Why take the pack all around the woods, when I can hang it on a branch and search the woods without that pack? Well, for the first time in my life, I got thoroughly lost! I could not find that pack after having scouted several streams and several beaver dams. I think I spent a couple of hours in increasing embarrassment and frustration before finding it. Never again did I hang up my pack and go off without compass or map!

On another occasion, I decided to take a solo weekend just to scout some interesting country renowned for its gigantic white pines. I found the esker on which these gigantic trees grew, and I also found a pond I had not visited before. It impressed me because it had brook trout in it – sizable ones! But it was late in the day, and was beginning to rain. It looked like an all-night rain, so I hunted for a suitable spot to hunker down. I found a red spruce tree whose limbs hung over a large boulder, forming a snug retreat between tree trunk and rock. There I made myself comfortable. For a while! Then a few hours later, the insistent rain found my blanket and me. And for the rest of the night I cuddled and shivered and tried to maintain a limited measure of comfort.

By morning the rain had stopped, the sun came out, and I spread my wet blanket and tried to dry my clothing. I had planned on making raisin pudding, but the rice was soggy. So I ate the raisins while I sat on a log and let the morning sunshine warm me. It was then that I noticed a baby raccoon up in a little spruce tree. It was probably wet and uncomfortable, too. So I spread a handful of raisins at the base of the tree, and waited. It was perhaps 20 minutes or so before the baby raccoon slowly made its way down the tree. Sniffing about, it found the raisins, and enjoyed them much as I was doing, before it slowly wandered off. It was a nice experience! Worth the wet night!

Another weekend I had hiked and hitch-hiked to the little village of Conifer, from which a single track railroad ran west to Cranberry Lake, where the Forestry College summer camp was located. On a bet, I put a red bandana on my rear pocket, and a cigar in my mouth, and got under a car, with legs and arms draped over the reinforcing rods under the car. I was quite a picture!

Some occasionally stupid things happened in Forestry camp. One morning, one of the guys was cutting firewood for cooking breakfast. He leaned a short block of beech up against a much larger block, rested one foot against the block, and split it... and his foot! It was a bad accident, and he had to be taken downstream by canoe, and then to Cranberry Lake, where an ambulance took him to the nearest hospital 30 miles away. These are the avoidable accidents that give camp directors ulcers!

I had visions of working in the woods – the same kind of woods in which I had spent hours and days as a kid at Tupper Lake. It had been my world since boyhood, a world of pleasant surprises, of challenges that were far more fun than dangerous, and it was a world with which I had become warmly familiar. I was on my professional way! Until I realized that being in the woods was not the best way to support a family.

The prerequisites for Pulp and Paper Engineering were the same as those for General Forestry, so I could transfer majors without loss of credit hours. Pulp and Paper Engineering was fun. It was a blend of science and math that suited me. Except for one thing. I found out that I simply couldn't tell the end points in titrations. I had not known before that I was color-blind. What to do? It appeared that

the pre-requisites for Pulp and Paper Engineering were much the same as those for Landscape Engineering. Perhaps I could transfer into that major. And so I did . . . only to find out that the same color-blindness that harassed me in Pulp and Paper, still haunted me in Landscaping. After many landscape “plates” on which I received “A” for design and “F” for rendering, I decided that it just wasn’t my cup of tea, and I transferred to the Liberal Arts College, with a major in Science Education. The chemistry was behind me, I liked the physical sciences and mathematics, and I had grown up in a teaching family. So what better could I do than to pursue a teaching career? The only penalty was that I had effectively lost a year in coursework that wouldn’t count toward a teaching certificate. It also meant a year’s absence from cross-country and track, but I could return to it without additional penalty. The transfer was completed, and a new set of professional goals accepted. I would become a science teacher! For a year I simply “caught up.” I took more math, more science, and added the requisite education courses.

I remember little from my last years as a university undergraduate. But some things stand out, especially my meeting of Madeline. A new guy in “Ma Britt’s”, and new to the Syracuse University campus, asked how you meet girls. At that time I was a typical sophomore with the confidence of a senior. “C’mon, I’ll show you!” I said. So I took Connie Svolos over to The Varsity, an “on the hill” (Syracuse University) restaurant and coke-and-soda place where students went for a snack. While we “jollied” a coke, Connie spied two girls (they weren’t called “women” then, but “girls”) who seemed nice. I wrote a note on a paper napkin, asked the waiter to take it over to their table, and we prepared to leave. The girls paid their check and left. Connie and I were right behind them. I said something to the effect that it was a shame that two seemingly nice girls were walking alone, and two equally nice guys were doing the same. Couldn’t we walk together? But one said, “We’re only going to Lima Cottage, not far up the street.” And I think I said, “Mind if we walk that far with you?” A brash way of meeting two co-eds, but in that short distance we managed to introduce ourselves (first name only, of course), and I got the address of the “cottage” where they lived. We had made contact! But little did I know that that contact was the first small step in a lifetime liaison!

When I met Madeline, I was a sophomore, and she a junior – a transfer student from Bucknell. Her future was clear, but my

immediate future was muddy. I would transfer from Forestry to Liberal Arts Education, with the loss of a year of residence, a year of college athletics eligibility, and another year before graduation. But my long-term future was clear – I would be a science teacher, and with the European armed conflict breaking out here and there, I thought that being a science teacher wasn't a bad choice. I would just make the most of it.

For the ensuing year, I continued in Forestry – in Landscape Engineering. And at the end of my junior year, I transferred officially to Liberal Arts with a major in Science Education. Some of my friends described my second major as Zeta Tau Alpha Sorority – Madeline's "house." And I guess that wasn't far from the truth. I spent much of my time at the ZTA house, and when a fire damaged the house so that some of the girls were forced to live elsewhere during repairs, Madeline moved to the Spencers' home near Drumlins – the university golf course, and the Syracuse University cross-country course. Madeline needed an escort from campus to Spencers' and there was a guaranteed escort – me! I justified walking the mile-plus with Madeline by saying that I had to get in the cross-country practice, which I did on the streets between campus and Spencers'.

How I learned to love that "commute"! On the way back to campus on a clear night, I would re-acquaint myself with the constellations, review some of my calculus and physics, and in other such ways make the time pay in review. All that time I was running.

One of my courses was Entomology (insects). I had cut 3x5 cards in quarters, putting on one side the scientific name of an insect, and on the other some facts about its life history, its food, and some just-because-it's-fun-to-know things about the insect. I carried a pack of 25 of these 1 ½ x 2 ½ inch cards just about everywhere I went. When I called for Madeline on a date – perhaps only a walk, or perhaps a movie, or perhaps even a dance – and she wasn't quite ready, I would take out the cards and review the information on them. It was a way to have a date and do my studying at the same time. I reviewed the cards at the sorority house, I reviewed them under a street light to and from Spencers', and I reviewed them between courses at mealtime at The Commons. Those cards were my A on entomology tests, and they were my math and physics formulas. I never had any study help that was so memorized as

those cards. It must have been both pleasant and efficient, because much of what I learned from those cards – about tree borers, gall-makers, and other insect parasites and predators – has remained with me to this day!

Did you know, for example, that the snowy tree cricket, a common, pale green cricket that sings from shrubs and low trees in late summer and early fall, is a “living thermometer”? If you count its chirps in 15 seconds and add 40, that’s very close to the ambient temperature in degrees Fahrenheit.

That little bit of knowledge gleaned from those cards was used many times over the years. One day, for example while taking an early evening stroll around the Boston, Massachusetts, Courthouse, I heard a snowy tree cricket singing in the shrubbery along the sidewalk. I bent down to peer into the shrubs, and became aware of dark blue policeman’s pants beside me. He asked what I was doing. I said, “I’m listening to a snowy tree cricket.” Well, he had heard many odd explanations, but never one like that! So he knelt on his hands and knees, saw the cricket singing with its wings raised, and then said, “Well, I’ve walked this beat for years, and never heard or seen that!”! I think his beat was more pleasant after that natural history lesson! And all because of those packets of cards I used to carry when courting Madeline.

When I started my studies at Syracuse, I didn’t dance; my father was associated with a group of lay evangelists who thought dancing was somehow “wrong.” But Madeline wasn’t wrong; she was very **right!** When my father learned that I was going to a formal dance with Madeline, he arranged for a “holiday” trip on which he regaled me with what he thought was the downside of dancing. Then he met Madeline, and his ideas of what social dancing was all about changed completely. He learned to respect, admire, and then to love her. And I became a better than fair dancer.

I had never danced before going to college. So when Madeline invited me to her sorority formal, and I accepted, I had to do some pretty fast learning. I went to a dance studio in downtown Syracuse and took a lesson. Never having danced before, I had no idea what to do. The boys lined up on one side of the dance hall, and the girls lined up on the other. At a signal, both lines advanced. The boys gravitated toward the most attractive girls. And I simply stood

there, not knowing what the custom was. Soon there were only two people not paired off – a girl opposite me, and I, myself. Two people unpaired! She was not at all attractive, but could she dance! She taught me the basics of a fox trot, a waltz, a tango, and a rumba. When the dance lesson was over, the two of us continued our dancing – on the concrete levels of Archbold Stadium on the Syracuse University campus. It was late when I got home to Ma Britt's, but I had learned to dance! I would be a proper partner for Madeline at her Sorority formal.

But I needed a tux. I had never had one, and I knew my parents would not support such an expense. But I knew in my heart that if I got a tux, it would be used over and over again. So for \$18.00 I purchased a tuxedo. A tux, brand new, for \$18.00! How many dances that tux (with me inside) attended! Never, in my wildest imagination in high school did I ever envision that! Madeline graduated in 1940, and returned to her hometown in Pennsylvania to be a Latin and English teacher. But she had a car – a lovely maroon Chevrolet convertible – and on special occasions she would drive to Syracuse to attend a dance.

Ma Britt's was not unlike a fraternity in that we had our own dances, teams, and even some traditions. But most of us worked at something besides school to defray the cost of college. My roommate one year operated an elevator in the hospital across the street. One year I worked for a local laundry and dry-cleaning business. It was my job to collect the laundry and take it to the cleaners. The cleaner would charge me for the cleaned laundry and I, in turn, would tack on a surcharge as my fee for picking up the dirty laundry and dry-cleaning, and returning the clean. Little did I know what dead-beats some of the students in the various fraternities and rooming houses were! It took me several months to realize that this was slim pickings! I left the job to someone who wasn't on a team and thus had more time to collect from students who had more money than ethics.

When a job opened up at the Coca-Cola plant, I took it. I could get a "Coke" off the line any time I wanted, and it didn't cost me anything. I got about 50 cents an hour for loading the cases of Coke and stacking them on the truck. But after a week of free Coke, I realized how good just plain water tasted. Within a couple of months, I left that job. Those were the only two jobs I had during

the academic year as a college student. The really good job I had was my summer job as a roofer at Eastman Kodak Company in Rochester – about 2 miles from our home.

It was my father who suggested that perhaps I could get a job at Kodak. For our family, the month of July had always been vacation time at Tupper Lake. Until I began college. Then everything changed. There was the matter of tuition! I worked at Eastman Kodak Company – on the roofing gang – for five summers. Kodak, like many other large companies, had its own softball team, and as a part of its overall marketing strategy it would compete with other large companies in Rochester, like Bausch and Lomb, and even “abroad”, like the Detroit Pistons (General Motors). It was a famous and popular league. On the West Coast was a small group of softball players – “The King and His Court” – who were to softball what the Harlem Globetrotters are to basketball. I admired this 4-man team (pitcher, catcher, first baseman, and fielder – that’s all) when it beat Kodak, and I admired the Kodak team and “Shifty” Gears, our star pitcher. I tried to emulate Shifty, and I got pretty good. Shifty once struck out Joe DiMaggio in an exhibition game. For Joe, baseball was hardball, but softball turned out to be “harder ball.” As restitution, Joe asked the catcher for the ball, tossed it into the air, and knocked it out of the park!

All during my academic preparation, I worked with people whose IQs and interest in science were high. It wasn’t until I worked with the guys on the roof who were non-academicians that I realized those were the kinds of people I was going to be teaching – more like the roofers than like the students in my college classes.

Preparing for science teaching was so rewarding! I had to think of creative and effective ways to get kids to think about and to understand concepts of science. It wasn’t enough to learn that certain things happened in physics, chemistry, biology, astronomy, and earth science. If I was going to be a good teacher, I had to find ways to show kids why they happened the way they did. Teaching science was going to be more fun than doing science! As I learned the whys of science, and discovered neat ways of explaining science, I realized that science teaching was what I wanted all along. Science teaching was going to be a great profession. Better than finding out what people (kids) know would be to find out how they

know, and especially how to convince both the ignorant and the skeptical.

I did practice-teaching at Cobleskill High School, where I also coached the cheerleaders, and had some unforgettable experiences only partly related to teaching. In the house where I roomed was a conscientious objector. I think he was one of the Plain People who don't believe in fighting.

I loved preparing as a science teacher. As a part of my professional education, I was required to study one public school student in depth. I remember him well. He was one of the inner-city poor in Syracuse. I was aghast that his bedroom was little more than a packing box fastened to the side of his house, and covered with roll roofing. In it were his bed and his personal possessions. He had an interest in photography, but no equipment. I purchased an inexpensive roll-film camera, a few rolls of film, a plastic developing tank for roll film, and some chemicals. You should have seen his expression of gratitude! I showed him how to use the camera, how to load the developing tank, and how to mix the chemicals to develop film. It was a minimal gift from me, but what a huge present to a boy who until then had practically nothing of his own. Unfortunately, I was not able to follow his photographic education because of other school commitments, and then military service. But I hope, and I suspect, that he became an avid and skilled photographer because of a few-dollar gift and an interested instructor.

And so, as of May, 1942 – instead of May, 1941 – I graduated with an A.B. degree, cum laude – a certified but unskilled science teacher!

From Boy to Adult: An Uneasy Truce

When I was a kid, hunting with my father, he would get almost all the woodchucks and I would get them as I could. The tables were reversed years later when I returned from service. My father and I had hunted woodchucks in the East Bloomfield area for a long time. This was such a staunch father-and-son tradition that I even hunted well before I was legally (age 16) allowed to have a hunting license. But the farmers around East Bloomfield knew my family, knew me,

and sort of looked the other way when I came hunting for what they considered pests of farmers. So Dad and I hunted woodchucks for years. It was a part of early teen life.

Then, after college, I went into service. When I returned several years later, I wanted a better-than-a-.22 rifle, and almost my first after-service purchase was a Winchester Model 70 .257 Remington-Roberts bolt-action rifle. Oh, what a beautiful gun that was! I had read carefully all the “dope” on the caliber, the ballistics and the model of gun, and I knew I had the best woodchuck rifle made. Oh, the .220 Swift was flatter-shooting, but it was subject to some wind-produced error. The more massive .257 was more stable, and was even suitable for deer. It was a superb caliber for what I hunted. When the day came to use it on “wild game,” my father and I went out to East Bloomfield, he with his .22 and I with my .257. It wasn’t long before we spotted a woodchuck about 150 yards away, and my father said, “If we sneak along that fence, we can get a shot from that corner,” or something to that effect. But I was bursting for a chance to use my “big gun” at some distance farther than a .22 could reach, so I said, haughtily, “I’ll get him from here!” Well you can guess why my father purchased a .257 within the month. No longer was he going to let some young “whipper-snapper” do what he couldn’t! And his woodchuck gun for the rest of his years was a .257 like mine, only left-handed.

Showing his superiority was not limited to guns. After retuning from service, I went fishing with him in the Adirondacks for smallmouth bass. I had purchased a new Fiberglas casting rod, and a Mitchell 300 spinning reel to go with it. We were fishing near the “bass hole”. When nothing had happened after about 15 minutes, my father said, “Let’s pull up anchor and move over there a little closer.” “There” was about 50 feet away, just a little too far for Dad’s rod and conventional casting reel. I said, “No need to move; I’ll just flick my frog right over there.” And I did – and got a nice bass without moving the boat. It wasn’t more than a week, I think, before Dad had a Mitchell 300, too! These incidents didn’t happen often, but they are indelible in my mind. My father was much bigger and stronger, and a proud guy. It was difficult for him to accept that his less massive son could equal him in anything! It was just as difficult for me to accept mastery from him after I had found ways to equal him. It was a kind of uneasy competition for the rest of our lives. I know he was a master at his trade, and he was strong

enough and experienced enough in his way to accomplish his goals, short-term or long. I, on the other hand, was vastly inferior in physical strength. But I wasn't dull, and I found various ways to match his experiential and physical mastery by clever short-cuts and an ingenious application of many of the things I learned in school and at play. I think we had a mutual admiration of each other that was often felt but seldom expressed. Since I had no male siblings, only my younger sister, Ruth, I wondered if this same understanding and uneasy truce existed in other families.

One day before I had graduated from high school, I saw a wonderful example of the family hierarchy undergoing an evolutionary change – in my Uncle Garth's family. His older son, Alan, was a gangly boy over six feet tall, slow-talking, a bit wry in humor, and made of steel. He had grown up on a sort of suburban farm, helping Uncle Garth during the summer as a mason. Alan mixed mortar in a mortar-box, lifted and set in place concrete blocks, and all sorts of muscle-building activities. Alan had a natural, slow, western-style drawl, but a quick humor and a sly temper. Uncle Garth was used to being the muscular "head" of the family, and to giving orders, and seeing them obeyed.

One day, and I don't remember the exact circumstances, Uncle Garth "commanded" Alan to do something. Alan was otherwise engaged, and said he would do it as soon as he was ready. But Uncle Garth wanted it done "now." Alan wasn't about to take such an order seriously, and declined in his casual way. Well, there was a show of force, and Alan said something to the effect of "Don't manhandle me, Dad!" That was a direct challenge to Uncle Garth, and he took hold of Alan, aiming to force Alan to do Uncle Garth's bidding. But Alan must have anticipated that this day would eventually come, and when Uncle Garth grabbed him, Alan in an instant set his father down on the floor. It was a family apocalypse! The air was electric. And Alan said, simply, "Dad, I'll do it. But first, there's something I must do!" And when he finished his own priority, he took care of his father's demand – no, his request. I never again heard a demand made to Alan. A request, yes. But never a demand. Yet Alan was always kind, polite, and respectful of his father. And from that time on, Alan was an equal to Uncle Garth, not a slave to him.


The second of Uncle Garth's sons, Donald, was a big, jolly, muscular fellow who made any situation fun. He was far more the physical equal to Alan, but his sense of humor was his way out of physical "situations." He went to Cornell, studied floriculture, and became a successful florist. It used to puzzle and amaze me how two boys, raised in the same family, could be so dissimilar, and yet be so alike in some subtle ways.



4

Military Service - A Different Kind of Teaching



 World War II exploded on the world scene six months before I graduated. So I knew that I was going to be drafted soon after graduation. For several weeks I knew that I was a prime recruit for the Armed Forces, but it wasn't until July that I was inducted – a private in the U.S. Army. At the induction center in Rochester, I was given a physical exam, a part of which was a urine sample. An older fellow, sort of a drifter, was right ahead of me. But as luck would have it, he couldn't come up with a urine sample. So the

NCO in charge of that segment of the physical said, "Go next door and have a beer, then come back." It seemed at least an hour that he was gone, and when he returned, he was in no condition to finish his physical. It was one of my first lessons in army life – I, who had never even used the word "beer" and to whom a drink meant only water! There would be many other "incidents" in my military education.

It was determined – I don't remember just how – that I should be a member of the Army Air Corps. Perhaps this was in part because of my math and science background; I never really knew. But I was sent to Fort Niagara. It was called a Reception Center. What did we receive? Clothing and shots! It was summer, and so we were issued khakis and caps. Caps were a jaunty, folded tan flight cap that was tucked under the belt when not on the head.

At Fort Niagara, I stood in all the lines that recruits stood in. One line for this shot, another for that. And forms for all sorts of things. One form said something about "Aviation Cadet." But I was color-blind. I couldn't fly! And yet – there was a type of aviation cadet who didn't need normal color vision. Perhaps...? I filled out a form, indicated "Meteorology" and put it in a box. At the same time, I remember seeing something about hay fever and Madagascar. If the hay fever was bad enough, maybe I'd go to Madagascar. But I soon found myself in Atlantic City for "basic training." What was basic training? As I recall, it was mostly marching in formation. Marching in formation on the Boardwalk of Atlantic City was fun. We soon learned to set a cadence that would shake loose the globes from the lights along the Boardwalk and send them crashing to the Boardwalk below. And so we brought about a memo from above: "No marching in formation on the Boardwalk!" Oh, we recruits had a way of moving Heaven and Earth!

The collective creativity of recent college graduates was in some ways so superior to that of a commanding officer whose only guide was a series of regulations, many of which were the result of having to deal with non-rusty college graduates. How we loved to find ways to embarrass, challenge, or anger the right-wing commanding officers! And we did!

Some things that I remember especially about Atlantic City: We lived in the big hotels that in peacetime were occupied by the

vacationers who came to swim in the surf and to play the slot machines in the many gaming places – all totally new and exotic to me. We had dances with girls imported by the High Command, who thought it the way to keep peace among the troops who were ignorant of the ways of the military. On Saturday or Sunday night, I remember going downstairs in our hotel – the Chelsea – to play the grand piano on the stage. How else could I have done that except on a weekend when all the GI's went out for the evening or the afternoon?

In several weeks in Atlantic City I metamorphosed from a recent college senior and civilian to a brash, but bright, Army Air Corps private. I spent the requisite time on KP (Kitchen Police). One chore that I learned to look forward to was setting the table for hundreds of other servicemen. What did I find enjoyable about this? Oh, we put to practice all sorts of collegiate challenges and skills. I don't think that salt-and-pepper shakers were ever lined up so accurately or artistically as on our "dining-hall" (mess hall!) tables. Nor were potatoes ever peeled in such perfect spherical or ovoid shapes as ours!

There were "chores" and skills associated with KP that we honed into an art, and the creativity we brought to bear was fun. Carrots, instead of being sliced, were first juggled in all sorts of ways – with a full turn, and then with an increasing number of turns, with and without a half-twist. Oh, we got the vegetables peeled or skinned, but with a flair that had a unique Atlantic City twist.

Then there was the drill field at one end of the boardwalk. We learned to shoot there. But while it may have been a necessary chore for some, remember I had been brought up hunting woodchucks, pheasants, rabbits, and grouse. I was a good shot, and so I graced my shooting with little frills that gave time on the firing range a little color – when the instructor's back was turned. And I got my marksman's badge with no problems or glitches. It was my first wartime medal, and I was proud to wear it. I was a sort of special private!

I even had a "go" at shooting skeet. I had never done that before, but hey, the "bird" was only a clay disc without feathers or meat. It was a lot easier than grouse, a bit easier than rabbits, and fully as easy as pheasants. But we couldn't eat what we shot. The game

was in inedible bits when we finished. But the range was fun, and it was different.

The Big Surprise

Then came our orders – orders sending us to posts where we were to get something less basic than basic training. From Atlantic City, some were sent to posts on the east coast for further training before going to the European Theater. Some were sent to Lowry Field in Denver for assignment to, and training for, some Air Force specialty. My assignment was to an Air Force Armament unit. I was going to be prepared to service aircraft machine guns and machine gun turrets. Well, at least I wouldn't be in front-line combat!

At Lowry Field I learned how machine guns worked, and how to fix them. I liked the mechanical part of aircraft armament and became pretty good at it. I could take apart a .50 caliber machine gun, repair it and reassemble it as fast as, or faster than, anyone else in my unit. I could disassemble and reassemble a machine gun with eyes closed, and in record time.

The machine guns on P-38s fired between the blades of the propellers, and that fascinated me. The pilots of the P-38s were not allowed to “charge” their guns (seat the first round of a belt in the chamber of a machine gun) until after take-off. This was brought home to me rather forcefully when a P-38 pilot charged his guns as he roared down the runway, and the whole belt in one of his guns splattered whatever was in the way on the runway. A broken sear (a device that halts functioning when a propeller passes) had effectively wiped out all invisible life on the runway. I never forgot that!

But it was the British Vickers units – the hydraulic power units that rotated and elevated the machine guns on the B-24s – they were the cleverest of all. British-inspired, they were a cluster of finger-size pistons that connected two plates at an angle to each other. But one plate was rotated several degrees from its mate. Rotating the handles of a B-24 turret gave a powerful torque to the turret and moved the projecting machine-gun barrels against the resistance of the most powerful air-stream – a torque whose magnitude could be

adjusted by changing the angle of one plate to the other. Moving the handles inside the turret changed the orientation of the turret's guns – even against the resistance of the wind in a fast-moving bomber! Ingenious! To me it was fascinating! It was a neat “trick” for a hefty airman to hang from the distal ends of the turret's machine gun barrels, and have the Vickers unit lift him off the ground! There was only one limitation. Because they were hydraulic, any puncture or leak in the tubes that supplied oil to the hydraulic units could be disastrous. Seems nothing is perfect, even by British standards!

I was also advised that before the course was over, I'd learn to flush out the belly turret of a B-24, because the gunner sealed in it sometimes didn't make it back alive. And I was warned that some B-24s might return with no belly turret at all, because on rare occasions the bolts that held the assembly to the body of the plane would shear from stress or damage. One rumor was that on occasion a new B-24 from the states would reach Hawaii with no belly turret at all. Turbulence was pretty severe over parts of the Pacific! All this was preparation for shipping orders! But for me, no shipping orders came. I caught a cold and it developed into what could have been pneumonia. So I was sent to the base hospital for treatment. “Treatment” was a large dose of sulfa and bed.

While I was in the hospital, one of the guys in the ward came down with a serious illness diagnosed as . . . spinal meningitis! Any communicable disease was serious in the army, and so the ward was quarantined for something like ten days. Ten days! At that early date, there wasn't the ready and effective treatment for such a disease that there is now. We were quarantined, and I mean quarantined! It was a low blow for us all. And when the guy in the bed next to the patient came down with something seeming similar, we all began to figure out how long before “it” got to us! The morale in that ward was mighty low for a while. But Lady Luck was with me again! The patient with meningitis survived, no one else caught it, and little by little the stranglehold on the ward was relaxed. Days before I was released, my “outfit” (squadron) was shipped to the South Pacific. I felt totally abandoned. But Lady Luck intervened yet again!

Lowry Field was a turning point for me in the military service. Way back at Fort Niagara, when I was getting shots for this and that, I had filled out an application for Aviation Cadet – non-flying – of

which meteorology was one specialty. I did it because I was just standing in line, and the forms were on a table beside the line. Well, just before I was discharged from the Lowry Field hospital, I got a message to report to the CO (Commanding Officer). To a private, that was equivalent to an order to report to the President! For what reason, I couldn't imagine. Had I goofed along the line somewhere? What could possibly be the problem? With some measure of fear and trepidation, I entered the CO's office. Had I taken the GC4 test (the General Classification test)? Yes, sir! Had I ever seen this before? No, sir! "Well, you received a very high score on it." (Whew!) "You also sent in an application for aviation cadet? In meteorology?" "Yes, sir!" "Well, in view of that application, and your score on the GC4 exam, we are removing you from orders sending you to aircraft armament in the South Pacific and sending you to M.I.T. for meteorology training. Congratulations! Good day, Cadet Rockcastle!" Cadet! I almost evaporated! Cadet was the step just below Lieutenant!

I had gone into the CO's office a private, and I had emerged an aviation cadet! How could I have engineered any more fortuitous an occasion? I don't remember how I got my cadet uniform. But I do remember that the word got around the ward. We had become a sort of family, since we were quarantined together for nearly two weeks. What I do remember is that some of the guys saluted, perhaps in jest. But I about exploded in pride. So I was going to M.I.T., and the rest of my buddies there in the Lowry Field Hospital were going to the South Pacific! How could I be any luckier? Besides, I was going back east, close to Madeline and home! What a stroke of luck! And all because I had done well on an exam and had filled out a seemingly unimportant form at the reception center! Thus began a most important part of my academic and professional career!

Christmas was approaching. Most of the guys were homesick. Bing Crosby's "White Christmas" was played in all the barracks and lounges. It made me more homesick than ever, and I missed Madeline terribly. The people of Denver were most hospitable, though, and invited us "GIs" to dinner on weekends, or took us for an afternoon up into the mountains. It was an odd, but much-appreciated respite from military life. Especially, since it was just before many of the GI's at Lowry Field would be shipped overseas, some of them never to return. It was a strange combination of near-Heaven and soon-to-be near-Hell. Yet there I was soon to be on my

way to M.I.T., and thus strangely insulated from the war going on across the ocean on both coasts!

The Days at M.I.T.

The days at M.I.T. were certainly a huge change from those early months of training in the Air Corps. At M.I.T., I was one of 400 who were being trained as meteorologists for the U.S. Air Corps. It was winter in the Northeast, Cambridge was a far cry from anything in the South Pacific, and I was in math and science that I liked and understood. This was college all over again, and I loved it. Also, I was closer to Madeline than I had any idea I would be when I went to Denver a few months earlier.

At M.I.T. we lived in squash courts – ten cadets to a squash court. There were five double-decker steel beds, and O.D. (olive drab) blankets. We had cadet captains, and each Saturday morning we had an inspection. It was the army, all right, but it was the army wedded to a university campus. Friday night was “prep” night for Saturday’s inspection. Every Friday night we had a “G.I.” party, which meant scrubbing those white walls and the floor so they were spotless. So while we were meteorology students, we were at the same time military personnel. Graduate students at one of the foremost universities, we were still “G.I.’s”, with all the earthy responsibilities of servicemen. I think all the guys felt that they had to exhibit a certain high-level scholarly production. At the same time, we felt we were a sort of experimental, exemplary bunch. I know I did! But selected though we were, we also evidenced the same concerns, the same tendencies to “goof off”, that were evidenced in all branches of the military. We did what we had to do; we tended not to do what we didn’t have to do.

Most hours were spent in lecture hall and lab. The lecture hall was especially interesting to me because it was the “cutting edge” in university lecture halls. The demonstration table was on steel tracks that came from and led to a preparation room on the other side of the huge chalkboard. At the end of a lecture, the demonstration table was wheeled on the tracks behind the chalkboard, where the completed demonstration was dismantled and the table set up for the next class. I thought to myself, “What efficiency!”

Our class of about 400 cadets was pretty much college graduates from all over the country. Most were math and physics majors. The Air Force, in an attempt to produce the best in meteorological skills, had also brought in weather researchers from New Zealand, Iceland, Norway, and many other places where weather was “spawned.” Meteorology was fast becoming an international science. At the same time, the tremendous amount of information needing to be processed put a huge strain on “number-crunching machines.” No longer were adding machines adequate. But there was a huge increase in the need for what were to become computers. They weren’t far enough developed to find an important place in meteorology – not yet, but the handwriting was on the wall! Within a few years, more data had been gathered and interpreted in meteorology than in any other subject!

Our immediate problem wasn’t simply one of forecasting for bombing raids over Europe and the islands of the South Pacific, but also of getting planes to England and the South Pacific in the first place. The Japanese didn’t have to ferry planes across the Pacific, but the Allies did. That was a long way, and there weren’t weather stations every 50-or-so miles. For the European theater, the problem was even worse. The Allies had to forecast North Atlantic weather for the bombers being sent to England as well as for the ships carrying personnel and armaments to Europe. We were losing too many planes because of weather. Something had to be done! We cadets were one promising solution. So much research was being done at M.I.T. and other meteorological stations across the country – University of Chicago, and selected airfields from coast to coast. M.I.T. was one of the most important.

I remember, for example, how we spent days and weeks trying to find better and more accurate, and further-into-the-future forecasts for the North Atlantic and northern European weather. It was so frustrating! But we kept at it, and little by little we made progress.

Our cadet corps were all college graduates. We were all pretty “sharp.” We were proud, curious, able, concerned (mostly about what would happen to us once we completed our tour of duty at M.I.T.), and both individually and collectively we were the elite of the Air Corps. So expectations for us were high. At the same time we were full of youthful vigor.

At one point, our commanding officer, Major Ratliff, called me in and said he had a special task for me. It was to keep a top-secret, sharp eye on our class because there was a possibility that one of the class was an under-cover agent for the Third Reich! A spy! It wasn't a sure thing, but they needed an insider who could report suspicious activity of any kind. I was to mail a letter each week, from a different mailbox each time, detailing any "untoward" activity within our cadet corps. Major Ratliff would not contact me again. How he chose me, I never knew, and so I mailed letters to an unknown recipient the rest of my cadet days. It was rather interesting at first, but became drudgery later on. I never saw any "untoward" activity! But I always felt that I was doing a sort of FBI job for the Air Corps, M.I.T., and the nation.

Just to the west of the campus was an athletic field with a track. I continued to run almost daily on the track, but competition as I had enjoyed it when an undergraduate was rare. Still, running was a part of me, and when I couldn't run against others, I ran against myself. And found it fun!

Madeline and I saw each other far more often than we would have if I hadn't been quarantined in Denver. No telling what might have happened if I had gone to the South Pacific! The change in orders sending me to M.I.T. was such a break! And Madeline and I got to see each other now and then – and to make plans for a wedding. Oh, happy day! It was in a snack bar right across Mass. Avenue from the front steps of M.I.T. where I proposed. And Madeline said, "Yes!" There followed all the arrangements for a church wedding – at The Little Church Around The Corner in New York City. Madeline was a stewardess with American Airlines, based in New York City. Her home was in Pennsylvania, about 20 miles southwest of Wilkes-Barre. My home was in Rochester, a little farther from New York City. But New York City was convenient for both families, and so on May 15, 1943, we were married. My sister, Ruth, was maid of honor. My close buddy at M.I.T., George Shugart, was best man, and Bob Olsen and Tony were my ushers.

One amusing incident that wouldn't have happened today – when George came in to stand in front of the altar, he stood facing the congregation. Feet at a near right angle in a proper military "attention" mode. Then, realizing that he was facing the wrong way, he did a very proper military about-face. That brought an audible

snicker from a small congregation that had gathered for a solemn ceremony.

In addition to my sister Ruth, Madeline had a few stewardess friends from American Airlines as attendants. It was a lovely, traditional wedding with a military touch. The Reverend Randolph Ray performed the ceremony. After a reception at the McAlpin, about which I don't remember much, Madeline and I departed (on American Airlines, of course) for Boston. After all, I was still first and foremost a military man, and I was due back in the squash court on Monday. But first we had a very brief honeymoon at Longfellow's Wayside Inn a few miles west of Boston.

Wayside Inn is a delightful, historic inn owned and operated by the Ford Motor Company. We have returned there a few times since, and it retains that same antique look and air that it had when we were married. It will always be a very special place for us! But Monday morning Madeline was back in the air, and I was back in the meteorology lab at M.I.T. Such was the abbreviated nature of a wartime wedding! But given all the constraints of military personnel, it was a storybook affair! It couldn't have been lovelier!

As a couple, we lived in rather unique settings. After marriage, we lived in a third-floor bedroom on Boston's Fenway, not far from baseball's famed Fenway Park. We ate and slept on the third floor, but we cooked in the basement. We'd run up to the third floor with hot dishes, eat, then take the dirty dishes down to the kitchen in the basement to wash them – unless we used the bathtub! It was a great way to keep in good physical condition!

Those of us who were married soon engineered another "arrangement", this one a group of apartments on Memorial Drive, along the Charles River very close to the M.I.T. campus. (Memorial Drive ran along the bank of the Charles.) On it was an apartment house that was the antithesis of squash courts or a third-floor bedroom with basement cooking privileges. The apartment house was relatively new, the apartments small but complete, and only a couple of hundred yards from the meteorology labs on Mass. Avenue. Several of us applied for, and got, apartments at the Memorial Drive Apartments. Ours had a pull-down bed, small living-room, tiny kitchen (I could sit at the kitchen table and reach pots on the stove!), and bath. But it was close to M.I.T., and

affordable! Also, Madeline could cross the Charles River on Memorial Bridge, and catch the subway to Logan Airport at East Boston. This was the Army Air Force in wartime? C'mon!

It was a lovely set-up, but we worked hard. We worked nights and weekends in the lab trying to get a better grasp of the causes of North Atlantic weather. We worked diligently trying to determine better ways of predicting the weather over the English Channel. We tried to determine the causes of, and to predict the formation of, fog along the coast of northern Europe. And we had the nagging problem of sudden and severe weather in the southwestern Pacific, and in Alaska. The fact that we weren't being shot at didn't diminish at all the importance of our research. It was paramount for fighter and bomber operations. But it was also most frustrating because getting accurate, timely data from inaccessible places was so damned difficult!

All the weather forecasters in the military were required to send daily forecasts to a national center at Greensboro, NC. Every week a list of relative success of all military forecasters was posted. It became not just a game, but a case of military survival to get and maintain a high score on that national forecast record. There was one staff sergeant, as I recall, whose name was at or near the top of the list every week, month after month. We all wondered who he was and how he did it. Near the end of the war it came out: he was simply entering persistence forecasts! What's a persistence forecast? It's simply forecasting for tomorrow exactly what happened today! So much for all the scientific analysis and skill that we were honing!

When we finished our basic course in forecasting at M.I.T. we were commissioned as second lieutenants in the Air Corps. It was the custom, at commissioning, to give a dollar to the first G.I. ("government issue", a term applied to a bottom-ranked army, navy, or marine soldier of either sex) who saluted you. So Bob Olson, George Shugart and I went for a walk through downtown Boston, anticipating having to pay some G.I. for that courtesy. We walked block after block, passed G.I. after G.I., but no salute. Finally, we stopped a G.I. and asked him if he'd like to make a few dollars – easily. He nodded, and we said, "Salute us!" He did so, and we paid him three dollars – a dollar from each of us. Quite a come-

down from the salute I got in the base hospital at Lowry Field when I returned from the CO's office with my cadet cap!

I don't remember the graduation of our cadet class. We all got commissioned as 2nd Lieutenants. It had been a long and arduous course of study, and since it was a military course, there were all sorts of rumors about what would happen to us. Undoubtedly, most of these rumors had little basis in fact. Some rumors were that the top of the class would be sent where weather forecasting was most difficult, or most dangerous. Some thought that the best of the class would be sent off to the most sparsely populated areas, and dropped behind the lines with radio, barometer, and rain gauge, to send important data to headquarters. Seems the native villagers in the South Pacific couldn't be relied on to send "funny" data such as those to headquarters. After all, what difference would it make whether a barometric pressure reading was taken at mid-morning, noon, or late afternoon? The native population, itself, had to be educated to the importance of synoptic (taken at the same time) readings!

Sure enough, the first class of about 400 was graduated and sent into "the field." But thirteen – including me – were retained at M.I.T. as instructors for the next class. And what a class it was! It included an experimental group of WAVES – female navy cadets – as well as male Air Force cadets. But the inclusion of WAVES delighted us. Even better was the deal we fashioned with the M.I.T. hierarchy and the military to let us commissioned instructors pursue a master's degree, using weekends, vacation time, and evenings to do extra work and research, plus thesis. We worked out a full graduate course load, and I think all thirteen completed our M.S. degrees. It was a stroke of genius of the highest magnitude! Achieving an M.S. at M.I.T. during wartime – by military personnel!

There was a rather tight bonding among us instructors, perhaps because we were "lucky" to be in Cambridge at M.I.T. and not overseas in some combat zone.. We understood the importance of our research, and we worked diligently on it. We also had limited "off" time, which we used judiciously and efficiently.

One weekend, another Air Force instructor, his wife, and Madeline and I took some time off to take a local train to Mount Monadnock

in New Hampshire. We thought it would be fun to hike that well-known peak and have lunch at the Mt. Monadnock Inn.

We would stay at a nearby farmhouse that had guest rooms, but dine at the hotel if it was open. We stopped at a lovely-looking farmhouse, and introduced ourselves to the woman we assumed was in charge. She was very nice, and showed us two rooms – this one “for you two men”, and this one for you two ladies. It was a bit embarrassing. We told her we were married, showed her our wedding rings, and she finally agreed to let us have the rooms as couples. I guess we were pretty young-looking!

At the Monadnock Inn, we had another bit of a surprise. The hotel wasn’t yet open for the season. But after some explanation and discussion, we were invited to join the staff for lunch, and a lovely lunch it was – turkey, dressing, and all that would dress up the occasion. I think they felt it noblesse oblige to accommodate “the military.”

On Friday nights we went up “Mass Avenue” to a bowling alley, where we bowled “duck pins.” I had never seen such short, fat little pins, and thought they’d be a cinch to knock over. Well, as I recall, our scores were much as they were with standard pins. Duck pins, perhaps because the “dead wood” was left on the floor, were just as difficult to knock over as conventional ten-pins. As I recollect, we were given three tries, instead of two.

Madeline had a beautiful Chevy convertible. But gas was rationed, tires were hard to get, and driving just wasn’t a popular activity. After all, it was war-time, and the whole country cooperated in a war-time “effort.” Sugar was rationed, as was coffee, which we didn’t drink, anyway. But the “war effort” was restrictive on everyone. One of our instructors, Dave, had a Raleigh tandem bicycle. So we offered Dave a reasonable sum for his tandem bike, and he sold it to us. It became our war-time transportation. We rode it all over Cambridge, and beyond. We rode it out to Wayside Inn, and almost to Worcester. An English bike, I rode in front and operated the brakes and gearshift. Yes, it had a 3-speed shift. It was a nifty bike, and we put hundreds of miles on it. On one ride, a little “sweat bee” landed on Madeline’s arm, and she asked what it was. I said, “Press on it and see.” So she did, and it stung her – not like a wasp, but a definite bee sting. She got off the bike in a huff, and

walked for several miles before she would get back on. She really knows “sweat bees”!

Another time, when we biked out to Wayside Inn, we decided to sleep in an old barn about a mile from the inn. It was a lovely, early summer evening, and we spread our sleeping bag on the clean, bare, barn floor. In the night a skunk wandered into the barn, sniffed at the bag, and I whispered to Madeline, “Don’t move!” We hardly dared breathe, but the skunk finally wandered off and we enjoyed a luxurious sleep the rest of the night.

Another night we biked to Blue Hills, south of Boston, and again slept out in our sleeping bag. But soon after dark, a whippoorwill began to call/sing. And for the rest of the night we heard “whip-poor-weel” over and over. If we never heard it again, we surely learned the call of the whip-poor-will!

One weekend, Ed Lorenz, a non-military M.I.T. staff member in meteorology, accompanied me on a hike up Mt. Washington, the highest and most demanding of the White Mountains. Mt. Washington was famous for its high winds, which at times reached more than 200 mph. I remember it because it was the only mountain I saw that had its summit structure chained to eye-bolts in the bald granite mountaintop. The climate atop Mt. Washington was, indeed, ferocious at times.

Well, Ed and I started from Pinkham Notch just before dark, intending to stay overnight at the Harvard mountaineering cabin about a half-mile from the top. The owner of the lodge at the base was more than a little upset with us, saying, “It’s guys like you for whom we have to organize rescue parties.” And I guess he was right. But the evening was clear and cold and we were young, strong, outdoor-experienced, and determined. So off we went.

It was a nice evening for mountain-climbing. When we got to the cabin, it was unoccupied, so we entered, and found it snug, with a loft that would accommodate both sleeping bags. There were also two steel, spring-loaded frames on the loft floor, so we turned in for the night. I put on the floor between us the paper bag of cookies that Madeline had baked. In the night, mice found the bag of cookies, and began to pilfer. I could hear the scurrying of a mouse, the sound of paper being chewed, then a cookie being dragged across the floor

to the edge of the loft and dropped onto the cabin floor below. The mice had had practice in pilfering from packs before! Well, I reached out and slid the bag of cookies under my bed-spring, thinking I could crush the next pilfering rodent. But they were practiced in pilfering, and I couldn't "Umpf!" my spring in concert with a rodent thief. Nothing to do but eat all the cookies before the mice did! And so we did! More than we had intended, but what choice did we have?

The rest of the ascent was uneventful. We made it to the top of Mt. Washington, looked around, took a picture or two, and descended, reaching Pinkham Notch well before dark. We had at least seen and explored the site of the highest winds recorded in the continental United States.

On another occasion, Madeline invited Alberto Cardenas, nephew of Mexico's president, to dinner. She had met him on an American flight on which she was the stewardess. Well, Alberto returned the favor, serving us a Mexican "delicacy" for dinner – a red pepper. Madeline nibbled as she should, but I – in complete ignorance of Mexican cuisine – took a larger bite and immediately regretted it. That pepper was the most spicy-hot food I have ever had. I thought I would be cremated from inside-out. Alberto was understandably embarrassed, and apologetic. He advised bread, and I think cheese, and the flame slowly subsided. But never again would I eat a Mexican jalapeño, and I never did! I'd gladly suggest them as "fodder" for the enemy!

A far more pleasant food item in our stay in Cambridge was Brigham's ice cream – to me one of the finest one could wish for. We ate quantities of Brigham's Ice Cream, and I thought it the standard against which all others should be judged.

It might seem as if in a city such as Boston, and a suburb such as Cambridge, there would be volumes to be written. But we were busy. We instructed army and navy personnel by day, and we worked on our graduate research by evening, Saturdays and Sundays. There really was little time for "play." When we did take time for play, it was a chance to bike somewhere. Bike because gasoline was limited, and so were tires. In fact, travel by car for pleasure was unpatriotic. One detail that comes to mind – Hurd Willett was a professor of Dynamic Meteorology. Call it

Meteorological Physics if that makes it any clearer. I remember it as a sort of “cloud physics.” It was largely mathematical, theoretical, and impractical. But it did help to explain the physical goings-on in clouds, without which we would have had a much more difficult time understanding what caused what, let alone forecasting. And in winter, Prof. Willett skied to campus; he didn’t drive. That put him on somewhat of a pedestal for me! He skied several miles from his home to campus each day. He was quite a guy!

One other person worthy of note: a more advanced graduate student than most – one working on his Ph.D., and a specialist on hurricanes, Doug Brooks (I think that was his name) was studying hurricanes and their physical causes. Well, the spawning ground of hurricanes that occasionally ravished New England and did monstrous damage was the Caribbean in late summer. Conditions were “right” one time in the Caribbean, and Doug thought it an ideal time to fly down there and make some first-hand “obs.” While he was there, a different hurricane was “born,” and came up the coast, crossing New England and doing considerable damage. But he missed it because he was in the Caribbean, studying hurricanes!

Another thing I recall about Doug Brooks – upon completion of his research and thesis, he was “examined” by the M.I.T. faculty. I had no idea how such an obstacle course played out, but I remember it being described to me that Doug had to present and defend his research and his findings in a “rigorous” stand before an impressive group of faculty. I remember thinking that was the ultimate test of graduate research. I wondered then how I’d react under similar circumstances. I was glad I wasn’t in his shoes!

Finally, our own year of research and teaching was over. We had earned our M.S. degrees and we were ready to move out and on.

Post-M.I.T. Military Experience

After leaving M.I.T., I began a series of postings to various military airfields throughout the eastern U.S., teaching meteorology to pilots. The first such post was in Seymour, Indiana, site of the first helicopter base in the U.S. Seymour was a small city in southern Indiana, and the only helicopter base at that time. The helicopters, being fairly new to the Air Force, were Sikorsky planes, under-

powered by today's standards, and not really ready for combat duty. But they were a start. Made in Connecticut, they were ferried to Indiana when the weather was decent. Some "telling" incidents about those early "whirlybirds":

1 – They could be ferried (flown) from the factory only when the air density was fairly high, meaning not hot, and thus "thin." One ferry pilot who got "lost" dropped down and hovered over a highway sign to find his way.

2 – Another pilot who thought it would be fun to hunt ducks on the White River, would fly out over the river, locate ducks that we could shoot from a secluded spot on shore, then return to the base, pick me up, and we'd drive to that spot and bag our dinner. Incidentally, the pilot was the same guy pictured in Life Magazine (the Harvard student) who made himself famous for swallowed a live goldfish. We didn't hunt often in this way, but we did hunt more than once.

3 – The first of the Air Corps helicopters weren't very powerful or efficient. Years later, they became extremely efficient, but like all new concepts, and helicopters were a fairly new combat concept, they were underpowered, and inefficient. When the day was hot, and the air density near the ground fairly low, the pilots would have to wheel a helicopter off the concrete apron and onto the surrounding grass. There, the friction of the grass, combined with the lower temperature near the grass, was enough for a proper take-off "cushion" of air to be formed under the rotors, and for the plane to rise on this cushion and be air-borne. I recall, too, that one day a pilot and the student-passenger had to get out, and a lighter pair get in, for the helicopter to take off.

4 – On still another day, a squadron of helicopters took off to fly to Chanute Field in Illinois, south of Chicago – only one state away. But they had to turn back because with head-winds of something like 50 miles an hour, and an air-speed of only 75 miles an hour, they didn't make enough ground speed to reach Chanute on one tank of gas! Such were the limitations of the early generations of helicopters!

I had our tandem bicycle in Seymour, and it was my transportation. Indiana was not a huge state, and Brown County was a hilly, wooded, lovely part of the state southwest of Seymour. One day I thought I'd like to see Brown County, reputed to be the most

beautiful and woodsy part of the state. I was biking alone, and as I passed a farmhouse, a German shepherd dog rushed out and snapped at my right foot. Of course, I saw him coming and pedaled as fast as I could. Just as he turned parallel to the bike, the clips of the rear pedal caught him atop his head and neck, and sent him (and almost me!) sprawling and a little bit bloody. Some days later, more than a little curious and armed with a stout club, I biked past that farm again. The dog was on the porch of the farmhouse, but didn't even bark. I wondered what was going through his mind.

One other incident comes to mind, as standing out in my stay at Freeman Field. There was a conference of military weather forecasters at Bowman Field in Louisville, KY – for a seminar on thunderstorm forecasting. I was slated to attend, along with other military people, both Air Force and Army. It was a two-day conference, and as a result of it, we were assumed to forecast much better the occurrence of thunderstorms. We used the weather report of the day at Bowman Field. It was forecast to be a satisfactory day for leaving the field after the conference. But we were delayed an hour – because of severe thunderstorms over the field. I never forgot that! It surely didn't do much to advance our standing with the pilots at Bowman Field!

The first, and the only all-Black squadron in the Air Force at the time was scheduled to land at Bowman Field to attend at least part of the conference on thunderstorms. The lead pilot called in to the tower in an accent that you could cut with a knife, “Bohman Towah, this is Ahmy two foe foe two, comin’ in on base lehg, wheels down and cheyak.” To which the tower replied, “Ahmy two foh foh two, pull up and go ‘round, Boh, yo is hot!” I guess someone got chewed out for that, but all the rest of us got a big chuckle out of it!

My next assignment was to Randolph Field in Texas. It was there that I took my first ride on a Cushman motor scooter. I thought, “This is superior wartime transportation. I must have one of these!” So I ordered one through the post PX, to be delivered to my next post, which was Turner Field in Albany, Georgia.

My scooter arrived there in record time, and I saved the crate, modifying it a bit for shipping the scooter to the next post... and the next. After I arrived in Albany, Madeline returned to her home, because it looked as if I'd be ferried here and there to help train

pilots in recognizing weather situations. Albany was on the bank of the Flint River. My stay there was not long, but several things about it stick in my mind.

One of my first runs with the scooter was onto the “line” where planes were loaded for take-off. Turner Field was a B-25 base. B-25s were twin-engine, light bombers, a beautifully efficient war machine. Well, on my first scooter ride, I drove behind a B-25 that was warming up on the apron, and what a surprise I got. I completely forgot about the “prop-wash” (air streaming back from the engines), and was nearly blown over. I’m glad it happened, because I rode across the “tarmac” many times after that, but never again failed to take into account the side-wind against the scooter.

Each morning before breakfast, I’d ride my scooter off the base and along the Flint River, looking for birds. I was an enthusiastic birder, and the bird life along the river was varied, especially the waterfowl and songbirds. One morning, I spotted something in the water that had a strange motion – strange to me, at any rate. I trained my binocular on it, watched it carefully for a few second, and almost whooped out loud. It was moving upstream with sinuous movements of a 3-foot long tail. I was seeing my first wild alligator! What a morning!

Another experience worth noting – one day I was investigating the inside of one of the B-25s before take-off, and one of its more interesting features was the bombardier’s compartment just beneath the pilot’s seat. I don’t remember whether it was accidental, or planned, but the plane took off with me in the compartment. It was fascinating and exciting to me because I had never before been in the nose of a plane at take-off!

But that was nothing compared to the landing. As I watched the runway come closer, line up with the plane, and then watched the runway rush up and under the wheels, it was better than a roller-coaster ride at Sea-Breeze in Rochester!

My Cushman scooter was a single-cylinder, kick-start, 4-cycle with a centrifugal clutch, that held all of about a gallon of gasoline and got 100 miles to the gallon. What I wouldn’t give to have such a mode of transportation today! Once Madeline joined me in Wisconsin, she could sit side-saddle on the well-padded trunk cover,

with her arm around my waist, and it seemed an ideal war-time “car.” A screwdriver and pliers were the only tools needed. We rode hundreds of miles on our wonderfully compact “car.” How I wish I had it, and could use it on today’s highways. But with modern traffic and speeders – no way!

The next post was Orlando, Florida. I was sent there as one of a group of officers to check out and field-test the arctic-desert-tropical survival kits developed for the use of downed pilots. The kit contained an over/under .22 rifle/.410 gauge shotgun, a box of .22s, one of .410 #7 ½ shot, a fishing line, pork-rind, hooks, and matches. With these, it was theoretically possible for a downed aviator to take most any game, at least enough to stay alive until rescue. But I thought it a “lark” to try it out in the name of military experimentation. This was part of the wartime armed forces? What a blast!

The trial of the survival kit was a few days’ “survival” in a Florida “jungle” south of Orlando. I was on my own, and if the Air Force thought I was scared, they misjudged me. It was a lark, and I was about to enjoy several days by myself. One thing I had forgotten was the mosquitoes and biting flies. They were pesky, but not ravishing, and some correctly applied fly-dope took care of them.

At one point, I felt positively frisky and sort of like Tarzan. Especially when I spied a small band of peccaries, and decided to charge them. If the Air Corps hierarchy had seen me then, they’d have discharged me immediately as “unfit for military service.” I had removed my knife, opened its blade, sneaked up on the wild pigs, then crouched in a track start, and charged! The bristles on the pigs’ backs rose erect, and they scattered through the palmettos. And I? I tore my pants, got numerous scratches and bloody spots, but survived. It was a bloody good attack, and I was proud of myself. What would I have done had these wild pigs charged me, instead of my charging them? Gosh, that never occurred to me!

In the officers’ mess one morning, the officer across the table from me was talking to his neighbor about birds. A bird-lover of sorts, I asked, “Are you interested in birds, Major?” And he replied, “Rather!” Then we exchanged names and home-bases. He was Dr. George Sutton, from the University of Oklahoma, but before that at

Cornell. I was embarrassed and shocked. It was sort of like asking the Pope if he had studied The Bible!

Well, George Sutton and I took some field trips together, went on the Christmas bird census out of Orlando, and got to enjoy each other's company. One singular incident that I recall from that outing: I have a pretty accurate back-capped chickadee whistle, and he – the great field ornithologist – unwittingly recorded me in the 1944 Christmas bird census in Orlando!

From Orlando, I was sent to Truax Field, Wisconsin. I never knew, or never found out, any logic or pattern in my various assignments; I just went where I was directed, and did what I was militarily prepared for. Truax Field, just outside Madison, was my last active post. The field was just north of the city, I was back in the north again, and hostilities were turning in the Allies' favor. But best of all, Madeline was going to join me, and we were going to live in a real house. Until summer, I was an on-post officer, living in a "BOQ" (bachelor officers' quarters.) But things were "breaking" outside the post. In my mother's Sunday-School class back in Rochester was the mother of a man working at the Forest Products Laboratory in Madison. Mrs. Koehler's son, Arthur, was the man from the Forest Products Laboratory who solved the Lindbergh kidnapping. Mother mentioned to Mrs. Koehler that I was in service in Madison, and perhaps I could meet her son. Meet him and his wife, I did, and learned that they had a cottage on Lake Mendota, north of Madison.

Well, Madeline drove out to Madison after her school in Huntington Mills, PA, was out, and the two of us were together for the remainder of the war. Several things happened in rapid succession. I arranged for us to rent the Koehlers' house in Madison for the summer, because they were moving to their cottage on Lake Mendota. Major Sutton had been ordered from Orlando to Madison, and this noted ornithologist with whom I had shared meals, field trips, and more-than-casual conversation in Orlando, was moving to Madison.

Before Madeline moved out to Madison, I had "cased" several places in the area, some of them churches, to see where we'd go to church when she came out. One of those places was Windsor, a few miles north of Madison. The Sunday that I first visited the church, I

was the only serviceman in the congregation, and the minister had me stand and be recognized by the congregation. At the end of the service, a local farmer, Clement Haswell, introduced himself and said, "If you don't have plans for dinner, would you like to have dinner with us?" Since I couldn't possibly turn down a home-cooked meal, I accepted, and that began a very warm association with the Haswells. After the war, they visited us at Tupper Lake.

Clement Haswell was a total farmer, like Grandpa Scott – wedded to the land, committed to good and efficient farming, and happy to show off his farm. Happy, too, to share adventures, stories, and sociability with his two high-school sons. A few memories from our association with the Haswells . . . One day, Clement found that a spike had penetrated a rear tractor tire. He was a bit embarrassed at that, and got a big pliers to pull it out. But he forgot that the tire was half-filled with water to give it mass, and calcium chloride to keep that mass from freezing. When he pulled out the nail, a squirt of calcium chloride, under pressure, struck him in the face and chest. He was so embarrassed!

Another time, when Madeline took him for a ride in her convertible around the countryside, Clement stood up in the back to ogle a load of hay being pulled up off the hay wagon to the hay loft of a barn. The whole load was being lifted at once, and Clement was admiring such efficiency. Just then a horse stepped on the trip rope, and the entire load dropped into the barnyard below. With such a satisfied look on his face, he sank back onto the car seat, saying, "Tractors aren't so bad after all!"

The scooter was our transportation throughout much of Wisconsin. A couple of incidents come to mind that are worth relating. One day when the weather was fairly cool (fall was coming on, and snow would soon be flying), Madeline and I were exploring some of Wisconsin's secondary roads. I was feeling especially relaxed and fully enjoying the freedom of exploring with the scooter. As a gesture of relaxation and freedom, I crossed one leg over the thigh of the other, and rode along completely relaxed.

At one point, perhaps to avoid a rut, or a stone in the dirt (gravel?) road, I had to turn the wheel suddenly, but as I did, the handlebar hit the knee that I had folded to put a foot on the opposite knee, and since I had already tilted the scooter to make a slight turn, we were

unbalanced and I couldn't turn the front wheel to maintain the balance. Over we went on the dirt and gravel!

Fortunately, we were going only about 20-25 miles an hour, and we both were dressed for cold weather. I had on my GI coat and heavy gloves. Madeline had on a heavy coat, hat, and mittens. It was quite a spill, and we both were shaken. But no damage done to either riders or scooter. But never again did I play the relaxed driver; I was always alert. And never again did we fall on the scooter. I shudder to think what might have resulted if the day had been warm, and we had been on concrete or blacktop – in traffic!

We rode out the Speedway many times because it was the road from Madison to Middleton, where we had looked at, and rented, a house for the colder months; the Koehlers' cottage on Lake Mendota was just not a cold-weather home. But we had found a brick house – a nice little house with garage that suited us fine. The couple who owned it were in the midst of separation and had moved out, but hadn't yet sold the house. It was a direct "shot" to Madison and to Freeman Field. So we rented it for as long as we would be in Madison. This was hardly "army life" at all! Our first guests in the Middleton house were the Haswells. A good time was had by us all!

From Middleton, we used to scooter out into the country in late afternoon or evening, and it was fun to experience the chill of the air in the road valleys, and the warmth of the air over hilltops. Often, there would be a cloud of insects hovering in the warm air over the hilltops, and we learned to squint or shut our eyes and spit out the bugs as we rounded those hilltops. Experiencing the temperature changes – the "puddling" of the cold air in the valleys or pockets, and the warm air and the insects that clustered in it – was so typical of our evening rides as were the dimming light and diminished traffic. Why so little traffic? Remember that this was gas rationing time, and 3 gallons per stamp didn't go very far – but on a scooter it was 300 miles for 3 gallons of gasoline!

Soon after New Year's Day, 1946, I got the long-awaited news that I was being sent to Patterson Field, Ohio, for discharge. It came at an opportune time, because around Christmas I had been Officer of the Day (OD), required to be on base that day and in the barracks that night, and was responsible for seeing that the mess halls were staffed properly. As it happened, my close friend, a pilot, had been on an

all-night mission, and when he got to the barracks for much-needed sleep, had turned off the alarm clock. So I overslept, and thus was not aware that at one of the mess halls, some guys who were supposed to be preparing breakfast didn't! This was a major screw-up, and I was the one ultimately responsible. What a way to finish my military career!

Again, Lady Luck was with me. My roommate who overslept was in charge of “cutting” orders the next day, and one of the orders he was to cut was one remanding me to a sort of court-martial for dereliction of duty. At the same time, he was assigned to cut orders for me to report to Patterson Field, Ohio, for discharge. With a stack of paperwork in front of him, which should he do first? His conscience bade him cut the orders sending me to Patterson Field for discharge. And so he did. And I, with an almost audible sigh of relief, crated the scooter, packed up all my military life somewhere in the convertible, and we headed for Patterson. Madeline and I were headed home together in a bulging Chevy convertible.

I don't remember events at Patterson. I only remember being uneasy about getting back home before the orders came through for me to appear before a “jury of my peers” to defend against the charge of dereliction of duty that morning at Freeman Field. But I was honorably discharged. I was so relieved. I had spent 3 1/2 years of as interesting, educational, delightful, and worthwhile a time as anyone could during the war. I had earned a master's degree at one of America's most prestigious universities. I had married a wonderful woman, an American Airlines stewardess. And I had amassed an amazing record of wartime experiences – all without ever having to face enemy fire. How much more fortunate could I have been?



5

Glendale Park (1946-1950)



X Back in Rochester, good fortune still hovered over me. Madeline and I needed a place to live. My father found one – an 8-room former farmhouse in the neighborhood, for \$4,000. True, it needed work, and in order to get the house, I had to move out two nice, elderly ladies who had paid rent for decades, but still didn't own the house. But Madeline was pregnant with our first child, and we needed a home. This former farmhouse was only a few blocks from my childhood home, within walking distance of the school where I would be teaching, beginning with the spring semester, and it was convenient to stores, to streetcars, and was in a nice, middle-class neighborhood. My father and I helped the two ladies find equally good housing, and they seemed to hold no grudge about being displaced. There was a stark reality for me in this: for the first

time in my life, I needed to pay for the house in which I lived. But I didn't have a job. I was prepared to teach, but I had no school assignment.

So I applied for a teaching position in the Rochester Public Schools, and got a temporary job. After all, it was in the spring semester, and I was hired more as a fill-in, on a trial basis. A more permanent job might be available in the fall. . So I began my teaching career as a substitute science and math teacher in the 8th grade at Madison High School in Rochester.

Old House, New Occupants

The house at 49 Glendale Park (remember my boyhood days on Glendale Park, with the voting booth?) was not on a parkway, but an ordinary street. It had no garage, but it did have a horse chestnut tree between house and sidewalk, and it was a corner lot. Its horse chestnuts were numerous, huge, and such fun for throwing – once the nuts were extracted from the prickly husk! And there were roses – old, red ones, fragrant, and beautiful as table decorations. It was a good house, and although an old house, it afforded many opportunities to learn about home upkeep.

The first thing it needed was repainting. So I got a blowtorch, and began to remove the old paint – several layers of it. I was careful not to let the flame of the torch rest too long on any one spot, and within days I became fairly skilled at running the putty knife along just behind the torch flame to scrape off the bubbly paint. It wasn't the most pleasant job, but the result justified the effort. In ten days or so the house was ready for sanding and re-painting. Oh, it looked so good after the new coats (an undercoat and a finish coat of beautiful light tan) paint! I was a home-maker at last, and I didn't depend upon my father for advice or assistance! I was becoming a craftsman on my own!

Next, the house needed a place to keep the car. There was no driveway, and no garage. There wasn't really a place to keep a car. So with a sledge-hammer, I broke the curb, made a form for shaping a new concrete curb to allow for two concrete driveway slabs, trowelled an approach from the street, and "Penny", Madeline's – our – red Chevy convertible had a place to stay when she was not

being driven. I found out later that what I had done was illegal... but it was done and couldn't be undone. Besides, it was a first-class job.

Our scooter, which had provided us so many hours of pleasurable transportation, just wasn't suited to city driving, especially by a couple who were expecting their first child, and who had other priorities at the time. So the scooter was sold, having given us something over 50,000 miles of pleasurable, often relaxing, sometimes exciting, always efficient transportation at a time when scarcity of fuel could be a problem. We never saw the scooter again. But we often missed its pleasurable efficiency.

The house needed other work than painting. In a large dress, sitting in a rocking chair in the den – a “keeping-room” of yesteryear – Madeline watched while I sketched the location of a bookcase right onto the wallpaper. After all, the wallpaper would be discarded anyway. Then with a sledge hammer I smashed through the wall and found to my horror a gas pipe and a water pipe from previous years. I re-routed the water pipe, capped the gas pipe, and built in a lovely bookcase, of which Madeline heartily approved.

The “keeping-room” needed new wallpaper. And who should paper the room but someone who had done wallpapering? Madeline's grandmother! At age 85, she insisted that she was a capable paperhanger, and with only the slightest of help (mostly in holding the scaffold steady) she papered the “keeping-room.” And a nice job at that – an ivy-clad paper that was delightful! In the corner against the kitchen wall stood my gun cabinet – my first sporting-goods cabinet, a cabinet that I made in my father's night-school class.

Dr. Kimball, whose “camp” we occupied every July 'til we built our own family camp, was our family doctor in Rochester. He examined Madeline every day toward the end of her pregnancy, and on July 30, he announced, “I'll see you tomorrow!” Something in his voice indicated that “tomorrow” would be a special day. And it was! Lynn was born July 31, and she would change the world for Madeline and me. During Madeline's pregnancy, Lynn gave all indications of being a boy. Madeline would sit at a card table with friends, and the card table would be rather forcibly bumped. I was certain the child would be a boy, and undoubtedly a football player.

So before the baby was born, I named it “Butch.” And Butch stuck. As a favor to her sex, we added a “she” to the Butch, and for years she was known to us as Butch-she. To this day Lynn, as her legal name turned out to be, is just Butch to me!

Lynn was born while I was teaching at Jefferson. “Busy” with my classes at Jefferson, I was not present at the birth, something I always regretted. But Madeline, “soldier” that she was, gave birth with only Dr. Kimball and nurse in attendance.

Bald as a bowling ball, Lynn was not at all what I had expected. But she was, indeed, an active child. When she was big enough to scoot a baby-walker around the spacious kitchen, she gave her legs a workout. I think she “pedaled” miles in that kitchen. Her chest of toys in the kitchen was the focal point of her early peregrinations. That old house was perfect for scooting from kitchen to den to living-room, to dining-room, through pantry, and back into the kitchen. How different from homes of today! And what a way to exercise on bad-weather days!

Her chuckle was something between a chuckle and a gurgle, and it was infectious. But there were occasional protests. One memorable incident occurred when George Shugart, of M.I.T. days, came to visit. We had put Lynn to bed, but she kept crying. I went up the winding stairs out of the kitchen to quiet her down. I may have spanked her lightly, then returned to continue my visit with George. But Lynn kept crying. Upset, I returned to her bedroom, and only then noticed that the string of one of her toys had become wrapped around her finger, and her finger was purple. Oh, what embarrassment and heartache I felt! I kissed her, held her hand, apologized in all the ways I could think of, and returned downstairs. Parents do make horrible mistakes sometimes!

Lynn didn’t grow any hair until well after she was a year old. For a while we despaired of her having hair at all! But when it came in, it was so red! And curly! We could have given her a second nickname of “Red” or “Curly” and folks would have known to whom it applied.

Lynn was a happy, adventuresome child, and innately curious. From the first, she had a love for the out-of-doors. She examined everything, being especially interested in things that were alive,

from insects to snakes. Once she held a large grasshopper in her fist, and wouldn't let it go even when it bit her and drew blood!

The old house on Glendale Park was on a corner. So when Lynn was older, and pushed a baby carriage, she sometimes pushed a doll. But just as often, she pushed a live animal. One of her "dolls" was a garter snake, covered with a little blanket. To Lynn, it was better than a doll because it was alive. Lynn was a biologist from the beginning. If it was alive, she was fascinated by it. Worms, snakes, insects, frogs, and toads all were more fascinating than a lifeless china doll!

I made a pack-board, an ash frame, on which was a canvas seat, that was Lynn's favorite riding place when we hiked. Unlike many, if not most, of the carrying seats for young children today, Lynn's seat faced backwards. Her legs weren't cramped against my back, and she could reach out for leaves or tree flowers as we hiked. I used to think that she could see a bear coming along the trail long before I knew there was one around.

Lynn spent her first four years in the house on Glendale Park. Its huge kitchen, corner yard, horse chestnut tree, and her nearby playmates – Gary, next door, and Kathy, a short block away – provided many pleasant (and a few not so pleasant) hours of early childhood.

Our house had a huge kitchen with 6 doors but no cupboards. One door led into the walk-through pantry, which was for dishes, for certain staples, and for many things that a kitchen with no cupboards needed. Roomy, with a large, round, tilt-top table in the center, it was a perfect play area for Lynn. There was also room for a chest of toys because there were no cupboards in the kitchen. It was, after all, an old farmhouse.

Oh, the experiences of converting it to an up-to-date 20th century city home! Although I had grown up using and becoming fairly adept with tools, putting them to use on a real house was somewhat different from applying them to a clubhouse made of orange crates! But for me it was a learning experience without equal.

An interesting thing happened in the front, or formal, living-room. The old farmhouses of the day had a family room and a formal

living-room. I guess the latter is where the minister was entertained when he came to call, so it wasn't used often. I well remember the formal living-rooms of Grandpa and Grandma Wellington, and of Grandma Norton. They both had an antique fragrance about the room that none of the other rooms had. Our own parlor was a lovely room, too, just off the front porch, with windows on two sides. But it had an anomaly that was puzzling. When a particular circuit was closed with a wall switch, there was a 60-cycle hum beneath one part of the floor. I was enough of a builder to recognize it as the 60-cycle hum of an AC circuit that was "there" in spirit only. But an electric current that was there "in spirit only" was unacceptable.

I went into the basement, putting on rubbers as I always did, because the basement floor was more often wet than not. And there was a very audible hum from one of the electrical junction boxes on the basement ceiling – under the formal living-room. I took off the cover, and sure enough, there was the disconnected wire from an earlier circuit. The remaining bare wire spiral just barely touched the iron junction box. When the switch in the parlor upstairs was closed, and a current flowed in that spiral, it contracted, pulling away from the iron box. This hysteresis was the cause of the buzzing I heard under the floor! This old house would teach me many things of which I had only a scant knowledge at the time! I taped the spiral end of the wire. It no longer could "short" on the box, and the buzzing ceased. Such a wonderful teacher was that old house – a home-making laboratory!

It was not long after moving into our house in Rochester that I realized that an essential part of building or remodeling of home or shed involved the transportation of materials, either raw or partially assembled. In building Dr. Kimball's camp in the Adirondacks, and throughout much of my early life, my father had used a trailer to haul materials, bring fruits and vegetables from the public market in Rochester, and haul cow manure for his roses. A trailer was such a convenience, except for its storage, and was at times as essential as a car. I had grown up with a trailer, and it was obvious that one was going to be needed in any home location, whether in Rochester or in Brockport.

But where was I going to get a trailer? The answer was plain and, for me, simple: **build my own!** So I set about doing just that. First, I visited a "junk yard" and purchased a Ford V-8 front end. The

Ford cars had a so-called “wishbone” as part of the front end. This consisted of a V-shaped set of stout steel tubes connecting the ends of the front axle to a ball joint under the middle of the car. This arrangement let each front wheel move up and down independently, while ensuring that it stayed in its place under the body of the vehicle. This wish-bone arrangement, turned end-for-end, with the ball joint bolted to the underside of the trailer tongue, seemed ideal as an underpinning for a trailer.

So I built a sturdy, 4- x 7-foot box of white oak boards, $\frac{3}{4}$ of an inch thick, and almost a foot wide. The bottom of the box was a sheet of $\frac{3}{4}$ -inch exterior plywood. The box had a hinged back “door” for easy loading of objects to be carried in the trailer. Two extra leaves were inserted in the transverse spring, and this was mounted in a 4-foot piece of angle iron across the middle of the trailer box. This was my own design, and if it wasn’t exactly attractive, it was neat and it was **strong**. I could carry anything in the trailer, from rocks to limber or furniture. The trailer tongue was a 2 $\frac{1}{4}$ - x 4-inch white oak beam. The trailer was strong, and it was (to me, at any rate) a thing of beauty.

For tires, I used 6.00 – 16, almost the size of tires on the Ford cars of that vintage. After all, this was not a boat trailer; it was for hauling heavy building materials and stones, gravel, and furniture – even a piano if necessary. It was a trailer of which I was proud.

Some parts of the trailer needed to be of iron, and I needed the skill and the tools of a blacksmith. But I had neither. So I heated iron in the coal fire of our basement furnace, then pounded it into shape on the cellar floor. When I finally obtained an old anvil on which to pound the hot iron, I felt I had arrived. And almost nothing was beyond my fashioning it, using furnace, concrete cellar floor, and an anvil. I think that making the trailer was, in a way, my ascendancy to the rank of a builder. I learned that if you didn’t have the where-with-all to purchase, but had access to some things that could be cut, glued, bent, or drilled, and had both creativity and determination, there really wasn’t much of a limit on what you could accomplish. And it was fun being inventive!

Later on, we used the trailer for camping – after I made a 2x4 frame over which we could stretch a tarpaulin. Such a camping trailer was ideal for traversing the Newfoundland “highway”, which was more a rutty, bouldery dirt road than it was a highway. There was almost

nothing that the trailer couldn't transport, or a road it couldn't traverse. I think the trailer was, in a way, my ticket to independence. I finally gave it to a grad student at Cornell, when I built a new, more "modern" version of the original.

Teaching in Rochester

My first weeks of teaching, like my first attempts at home repair, were anything but distinguished. My students were a far cry from the Air Corps and Naval Cadets at M.I.T. These kids were "green" and "untested." Some were "wild and unsaddled." Yet I was in charge – an unsettling combination. My first class was "mine" by virtue of the regular teacher being "out" for illness. But I was determined to be a good substitute. On the first day of a math class, I asked one of the boys to pass out the books. As he walked down the aisle, another boy stuck out his foot and tripped the book-carrier, and he fell, sending books flying under desks. I told the tripper to apologize and pick up the spilled books. He was angry and told me he was going to bring his uncle in to beat me up.

This was a totally unexpected experience, and since "Joe" was a pretty big guy to begin with, I didn't know how big his uncle was, nor quite how to deal with him if he should come in. I was so upset that I had a notion to call Kodak and ask for an appointment to interview for my old job. After all, I was still technically on leave from Kodak for military service. But then, on second thought, I said to myself, "You have been three and half years in the Armed Forces. Are you going to let this kid dominate you?" And I decided to tough it out.

The next day, the boy did, indeed, bring in his uncle – a larger man than I, and obviously potentially more physical. Needless to say, I was intimidated. When Joe's uncle asked me what happened, I related the circumstances as accurately as I remembered them. The kids who saw it were all in the classroom, and could verify what I recalled. Then Joe's uncle clenched his fist in front of Joe's face and said, "You apologize, and don't ever pull that again!" After class, I told Joe that I was sorry that it all happened, said I wanted to be his friend, not his enemy, and that I would forget it if he would. Joe and I became friends.

Within a year, I had substituted in several other schools as well. I spent an interesting year in the Veterans' Unit at Jefferson, and made some good friends among the GI's trying to finish high school and get into college under the GI Bill. There really were very few problems among the returning GI's. All in all, they were a likable, capable, and fully serious group of guys, who hadn't as yet finished high school, and so couldn't take full advantage of the GI Bill. If they got their high-school diploma, they would be eligible for the GI Bill, which might enable them to finish a college education, too. And some of them were married, with children, so their education was important to them. It was such a different atmosphere from regular high-school classes!

Some of the GI's had been discharged with problems, though. They had been through a hellish experience, and they were scarred psychologically as well as physically. I remember one particular science class when one of the guys must have said something rude or deprecating to another, and in an instant there was a scuffle there in the room – in my class! The fellows beside them immediately jumped up, separated the two, and class resumed. After class, the two apologized, and having been in service for 3 ½ years, I understood, accepted their apology, and we shook hands. Never again did I have any problem with students – not in more than 50 years of teaching!

A good friend at the Veterans' Unit, Dick Reynolds, was a veteran of the African invasion of WW2. He had also invaded Italy, and was in the front lines of the Italian conflict. He was familiar with rifles, had a .220 Swift and a Civil War .45-70. He used to do target shooting on the Batavia National Guard firing range. He had calculated that on the 1000-yard range, his .45-70 bullet had a trajectory height of 38 feet above the line of sight! He spent hours making, weighing, and sorting bullets. He was a "nut" about ballistics. Of course, with his flat-shooting .220 Swift, there was little "drop" of the bullet over 300 yards or so.

The two of us – I with my .257 and Dick with his .220 Swift -- were deadly when it came to hunting woodchucks. His was a flat-shooting rifle, and mine would do better in a cross-wind. Together we would spend a Saturday afternoon on a hilltop near East

Bloomfield, in effect cleaning out the woodchucks over a 300-acre area.

When we needed a range-finder, we made one. I got the prisms from Kodak, and Dick machined a tube at work. We calibrated our rangefinder every 5 yards up to a distance of 300 yards. What a deadly team we were!

Dick had a 1933 Ford sedan whose rubberized fabric roof must have had a leak, because inside, next to the rear window, grew a shelf fungus that was elegant. Dick used to caution anyone getting in the rear seat not to bump the fungus. His car became legendary because of that shelf fungus growing behind the rear seat next to the window! Dick and Georgiana, his wife, who was a secretary at the Veterans Unit, were our closest friends, and picnic buddies, in Rochester.

Dick and I hunted deer in the Adirondacks – I with my .257 and Dick with his .45-70. One day – during an all-day rain – I was hunched under a spruce tree on the east side of Big Trout Pond, and Dick was somewhere on the west side. Shortly after noon I heard a BOOM from across the lake. Thinking that Dick had shot a buck, I walked around the south end of the lake and met Dick. He was holding a ruffed grouse by the legs. We didn't have venison that night, but we had a delicious dinner of ruffed grouse.

Dick, a heavy smoker, from his WW2 days, died of lung cancer a few years after he and Georgiana divorced. Georgiana was a heavy smoker, too, and I always thought it was her smoking that had something to do with their younger daughter having been born prematurely and subsequently blinded by the hyperoxygenated incubator.

From my year of teaching at “Jeff,” several things stood out. One thing I did that seemed to please and totally involve the class was taking the science out-of- doors in a practical, applied way. We learned the difference between theoretical and measured horsepower. One of the guys had a “souped-up” car (of early 30's vintage) and he claimed it could “put out” something like 60 horsepower. We decided to test this, and with the cooperation of the Rochester Police, we cordoned off a city block just off Bloss Street, near the school, chalked a starting line and a finish line on the street,

weighed the car, and put it to the test. When we plugged mass and acceleration into our formula, the car produced a huge total of something like 30 horsepower! The students took a more than casual interest in our science from then on!

Another time, the question arose: Suppose a catcher sees a runner on first about to steal second. So he throws the ball to the second baseman. But after the ball is released, the pitcher sees that second isn't "covered." Can he cut off the throw, or is it too high and will go into the outfield, assuring a stolen base, and maybe two? Well, there was such a heated discussion that we simply had to go out on the ball diamond and check it out. As I recall it, since our diamond didn't have a measurable pitcher's mound, the pitcher, unless he was extraordinarily tall, could not cut off the peg to second. It was putting reality into science that made my classes popular and successful.

In another class, we were studying factors affecting the cooling of hot water in cans of varying colors. Somehow, the discussion got around to the relative efficiency of black vs. chrome cooling fins on the cylinders of air-cooled gasoline engines. We set up an experiment with cans of various colors, the upshot of which was that black cans (cylinder heads) cooled far more rapidly than silvered or white ones. Well, a few days later "Mike" had blackened the cooling fins on his motorcycle engine, and was boasting about the high efficiency of his "bike." I knew then that somehow I really wanted to teach.

In June of 1947, I didn't have a job for the following school year. My position with the Rochester schools was finishing, and I was more than a little nervous. A new baby, "new" house, and no job in the offing! I was driving downtown, and it was starting to rain. As I drove past the school, Arnold Swift, principal of Jefferson, was waiting on the street corner for a streetcar. I stopped to give him a ride. He asked if I had a job for next year, and I said, "No, not yet." Then he said something that I will never forget because it hadn't entered my mind. He asked, "How would you like to teach in college?" I would love it, but how would that ever come about? Then he told me that there was an opening for a science professor at Brockport State Teachers College, twenty miles west of Rochester. If I would like an interview, he would arrange one for me. Seems he was a friend of the president at Brockport.

I shared this with Madeline when I got home, and we decided it was too good an opportunity to pass up. But Brockport Teachers College? I had never even been to Brockport, even though it was only twenty miles away. And I had taught in a public school only as a glorified substitute. True, I had taught at M.I.T., but that was teaching in the army; it wasn't public school. Nevertheless, I wasn't one to pass up an opportunity and a challenge.

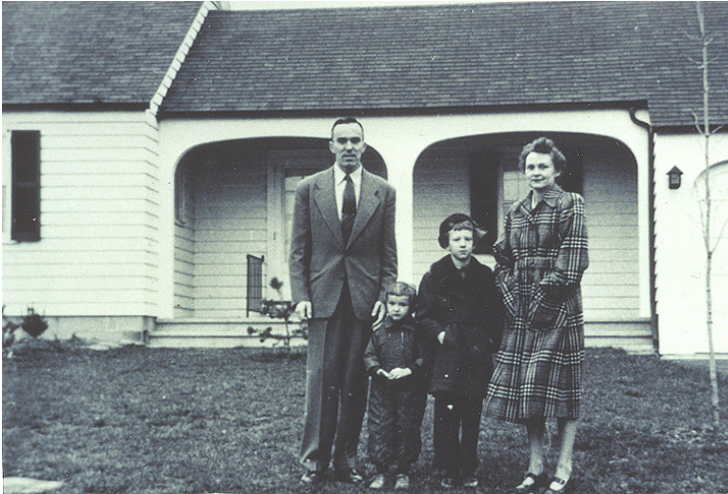
The next day I put on a jacket, parked the car a block away from the college (It wouldn't do to let the president see a prospective professor in a convertible, now would it?) and I walked to my interview. Dr. Donald Tower was a down-to-earth, very likable guy who made me feel at home. We discussed what teaching I had done (M.I.T., various Air Force bases, the Rochester Public Schools). Could I coach if the opportunity arose? What were my avocational interests? And so on. At the end of the interview, he said he was interested. I said I'd have to talk it over with my wife, but would call him the following day. I think I was on Cloud Nine when I drove home.

Madeline and I talked about what the job might entail, and whether I was "up" to it. We agreed that I was, even if I didn't have a doctorate, and I decided to call Dr. Tower and say, "Yes!" That decision was one of the few, including marriage, that set my life course. I don't know how we celebrated. I think we must have gone out for ice cream or something equally "wild." But we must have been terribly excited. I know my parents, only a few blocks away on Maryland Street, thought such a move would be wonderful. And I'd have summers off to spend at Tupper Lake! It was a move as important as being drafted, or as being accepted at M.I.T. And it was only 20 miles from our house. I could commute! In "Penny"!



6

The Brockport Years (1947-56)



There were many things that happened in my nine years at Brockport, all of which were pleasant and effective. One of the first official occasions at Brockport was the introduction of the new faculty to the old. There were something like 15 of us to be assimilated into the college faculty. It was the largest group of new faculty in the history of the college. We were all young, all had some kind of teaching experience before coming to Brockport, and were relatively free to mold our teaching to what we saw as the needs of the students.

Brockport had, besides its general education curriculum, a physical education specialty. They had a football, basketball, and soccer

team, but no track or cross-country team. Would they consider one? Yes! And could I coach it? I had never before coached track or cross-country, but having competed in college cross-country and track, and having continued to compete in AAU meets after graduation, I had some knowledge and some ideas about coaching that I was eager to try. I certainly had the interest and the zeal for coaching. I also had observed good coaching in college, but I was sure that some of what I observed and experienced might be done better. I just needed to find the kids, and to fit it into my teaching schedule. Not an easy task, because I was living in Rochester and commuting to Brockport. But Ernie Tuttle, head of physical education and athletics, gave the O.K., and so I tried to put together a cross-country team.

Teaching and Coaching at Brockport

The “call to legs and heart” turned up three candidates. Three! Nowhere near enough for a team! I needed seven for cross-country, but I should have a few more than the minimum. So I had a plan. Why not organize a handicap race among the three, the race to finish on the soccer field at half-time? How to advertise for the sport? The primary sport at Brockport was soccer. They had a good team, and their contests drew sizable crowds. So, with a home game on Saturday, I asked my three guys – Harry Emmerson, Jack Hesslink, and Walt Norris -- if they would be willing to compete in a 4-mile demonstration run to finish on the soccer field at half-time. Not only would they; they’d love the opportunity. And the demonstration race was set.

The day of the meet, it was ideal weather for a race. The three ran out of the playing field, up Adams Street, out Centennial onto Main Street, south on Main Street, up the hill south of town, into the cemetery, around the cemetery, back down the hill on Lake Road and Main Street, onto College Street, across the campus to the athletic fields, and onto the soccer field, just at half time. They ran the length of the field to the cheers of the crowd, and finished in a dead heat, collapsing at the finish line. They had given a superb demonstration of what cross-country is about. Monday I had probably 15 guys out for cross-country! Our demonstration and invitation were a smashing success! Thus began cross-country at Brockport State Teachers College, and my career as a college coach.

And never again was I at a loss for recruits! We had a winning team from the word “Go!” And a finer group of guys was never produced; they were tops! Walt Norris, Jack Hesslink, and Harry Emmerson were among the earliest and best of the runners, and Harry later became an instructor at the college. Jim Fulton, one of the new staff members with me, was the assistant coach.

We needed uniforms and running shoes, but there was no budget. So the kids bought their own. I think Ernie Tuttle helped to defray the cost of uniforms. We didn’t have the best, but we did get good shoes – not kangaroo, which I had used in college, but good shoes, nonetheless. I don’t remember many of the details about our first meets. But I do know that we didn’t travel by bus; we traveled in personal cars. We traveled in what we had, and that wasn’t much. But we traveled with the highest of morale and determination, and we practiced well and hard. In one early meet at Buffalo, I asked their coach if he minded if I ran with the team. A coach running with the team? That a coach could even run, let alone stay with the team, seemed preposterous, I guess. But I had been running daily, was in excellent shape, and actually managed to coach as I ran. We won the meet, and never again was I invited to run with the team. I had to coach from the sidelines as all other coaches did.

By the time spring rolled around and I put out a call for participants, there was a good turnout. We had no indoor track for practice in bad weather. And we didn’t have what would be considered by some to be adequate facilities. So we improvised. There was a tow-rope hung from a tree in the woods. Pole vaulters were advised to condition their arms and shoulders by climbing the rope. We strung yarn well above the high hurdles, and the hurdlers were invited to lower the yarn an inch a week. They became efficient hurdlers by squeezing beneath the yarn, but over the hurdles. It was a challenge, and it was fun, honing championship runner and field men. We had a fine team, even though we never recruited an athlete. A good part of the team’s success was simply due to morale. Our morale, our determination to excel, was high. And how did we establish such morale?

For example, one day we competed against St. Bonaventure College, a religious college in Olean, New York. They were best known for football, but had a decent track team. When our bus got to St. Bonnies, we had lunch in a small restaurant, next door to which was

an Army/Navy surplus store. The guys wandered into the store after lunch, and came out with Red Cross helmets and fly-swatters. Every track athlete had a white Red Cross helmet and a fly-swatter. They were laughing hilariously, hitting each other on their helmeted head, and hollering something to the effect that “the Golden Eagles have landed!” Well, that became our every-meet yell, “The Golden Eagles have landed!” The helmets were something like 50 cents, and the fly-swatters a dime. But the team morale never sagged after that. I don’t think we ever lost a meet in the nine years that I coached. What a great group of guys!

Our big rival was Cortland, also a physical education Teachers College. Our competition in sports came mostly from Cortland, Oswego, Buffalo State, Alfred, the University of Buffalo, Rochester, Potsdam, and St. Bonaventure. We went as far away as Mansfield and Lock Haven in Pennsylvania for contests. It was a nice league, and the right level of competition for us. One year, early in team history, five guys went to the small-college state championships and took 4th. Five guys taking fourth!

As a track coach, I had a number of events to be certain were “manned.” One was the discus. So I was delighted when a former professional football player who was in his forties decided to return to college to certify as a physical education teacher. He wanted to participate in athletics, yet was ineligible for football. So he decided to take up the discus. He was very good, very strong, and well coordinated. At Brockport, he was throwing the discus far enough to win any of our small college association meets. Bill Stebbins, our field coach decided to enter him in the Easterns. While warming up, our guy happened to observe the current ECAC champion, whose technique was a bit different from our guy’s, and so our guy changed his own technique a bit, hoping to emulate what he observed in the current champion’s throw. He did this three times, and fouled each time, even though the throws were slightly better than what he had been doing. So, with three fouls, he was out of the competition. At which point, coach Stebbins said, “Jeez, you could have done that back in Brockport and saved us a helluva lot of money!”

The biology department consisted of Russ Wallin as chair, plus John Syrocki, Frank Claffey, and me. Frank Claffey taught microbiology and anatomy, Bob Brandauer Chemistry, and the department chair,

Tony West, taught Geography. Tony was the only Ph.D. in the department then. Later, Charlie Miskell, George – and still later, Dr. Victor Schmidt from Cornell, joined the staff to make a fairly large and diverse department. George, it was rumored, had memorized all the roots of words in the Oxford-English Dictionary. It was a bit of a motley crew, but we got along beautifully, creating what we needed.

From the beginning, along with Russ Wallin, I taught college biology. Russ had been the biology professor at Brockport before the influx of the new crowd, and sort of directed me, and later John Syrocki, in what to do. In the next year or two I learned what it meant to teach a full schedule. I “worked my tail off.” I was determined to become an exceptional college teacher. So when the opportunity came to teach human anatomy and physiology to the physical education students, I jumped at the chance. I wanted to make each a solid course, which meant good textbooks. What could I choose? Well, what did medical students use in their basic courses in anatomy and physiology? So I ordered the best known, and I learned! It was a bit like learning human anatomy and physiology in medical school – a self-taught medical school! I wrote laboratory exercises, developed lectures, and tried to use the students themselves as examples and models. We all – students and I together with them – suffered through that first year. Although our classes were in revamped Quonset huts, we survived and we learned. What did we learn? We learned how to survive! And all the time I was coaching cross-country and track (and taking night classes each year at the University of Rochester: abnormal psychology, statistics, and three years of Russian, with an eye toward an eventual PhD there). None of us died. No one flunked out. And we developed an esprit de corps that was truly superb. I was asked questions that I was never asked before. By both sexes, because the physical education program had both men and women. The women asked me questions that I never would have expected. And I came up with some (for then) rather novel answers and approaches.

I remember being asked some rather embarrassing questions about sex – questions that I had absolutely no idea about. So I “bit the bullet.” I asked a local physician – Dr. Carl Sansouci – if he would be willing to come into my class in the evening and answer questions about sex-related matters. Would he? Of course! And without recompense, he came in and conducted a top-notch question

and answer evening for my physical education students. My fame was spreading, because no other classes had ever had such a straightforward discussion of such matters.

As for the so-called “laboratory” part of biology, my classes were somewhat different from others. I was determined to make this “real” and so we spent many of our lab periods outdoors. I had rather strong feelings that my classes should not be the ordinary kind of “canned” biology that I had seen in some schools when I was observing other teachers’ classes in Rochester. In Brockport I had no limitations. How I taught my classes was up to me, and I was determined to make them outstanding – standing out (in rain, wind, and snow) – because that’s the reality of the living world we were learning about. When we investigated a small stream crossing a farm, we invited the farmer to look with us. He exclaimed, “I never knew so many interesting critters lived in that creek!”

We tore bits of bark from fallen, decaying trees and examined the flattened wood borers beneath the bark. We turned over stones to examine the invertebrates beneath. And we listened to bird songs and learned the repertoire of some of the most common songsters. We even took an overnight (optional) to several distant state parks to enlarge our field experience. Our biology was, in a sense, “feeled” biology!

We spent time visiting local ponds. Other classes studied Planaria from prepared slides. My classes visited local ponds to collect live Planaria. I think the reaction from one female student who saw live Planaria for the first time at a local pond illustrates the difference between seeing prepared and live specimens. She exclaimed, “So that’s what they’re like!” I knew, then, that our trip to the pond was well worth the trouble.

We included trips to Bergen Swamp to study mosses and swamp plants. The class thoroughly enjoyed walking on a real bog. We studied various farm plants, and their insect pests. We tried to study biology where the organisms actually lived. We made our biology laboratory come alive, and the students loved it. This was teaching as I had envisioned it!

Another time, part of my class went on a weekend camping trip to Letchworth Park, about 60 miles south of Rochester, along the

Genesee River. We had the tents of the Rod and Gun Club, plus food, and we had two German student visitors. It was a chance for social fellowship, but it was also a chance for some field science. There is a railroad trestle across the Genesee River, and the question arose about how high the trestle was. We couldn't walk out on the trestle to measure, so we threw stones from the riverbank into the river gorge, timing their path to the water. There was a bit of practical, and enjoyable, physics involved. We also plotted the temperature change as skies cleared and the temperature dropped around our sleeping sites. The science, the fellowship, the time away from campus, made for a memorable weekend.

I had told the class that bad weather would not deter us. Until one early December day when it was cold and wet-snowy and physically uncomfortable. And right then I felt an attack of diarrhea coming. My track team captain and close friend, Dick McBride, was in the class, and sensed that something was wrong. But in view of my declaration at the beginning of the semester that we go regardless of the weather, none of the class moved in spite of my ending it. But Dick was aware, and finally said, "I don't think Prof. Rockcastle feels good, and I think class is over for today." Well, it was too late. I drove straight home, and went into the shower, clothes and all. That was the worst field trip ever!

At the same time as I was teaching college students, I also worked with elementary school children and their teachers, because my college students were studying to be teachers, some to teach at the elementary school level. So it behooved me to keep their ultimate classes in mind.

One day I took a kindergarten class and some of my college students to Bergen Swamp for a field trip and a cook-out. Cook-out with kindergarten children? Yes! Each child had brought to school that morning a No.10 can, an egg, two strips of bacon, an orange, and a paper cup. I had given the college students instructions on how to make a No. 10 stove. Each college student or kindergarten teacher used tin-snips to cut a "door" about 2 x 3 inches in the side of the can near the open end. Through this opening twigs would be pushed to feed the fire. On the opposite side, near the closed end of the can, a punch-type can opener was used to make openings for smoke from the fire inside the can. Then a small dry-twig fire was made on the

ground, the can-stove inverted over it, and twigs pushed in through the “door” to feed the fire.

Two strips of bacon were placed atop the can and the bacon grease collected within the can’s rim for frying the egg. The kids had a wonderful time. They learned what “level” meant, and those whose can-tops were not level lost their egg over the side. And this lunch, besides being a wonderful social opportunity, was in a swamp where Massasauga rattlesnakes lived. We never saw one of the snakes, but just the fact that we lunched and had a nature-walk where rattlesnakes lived was exciting and memorable. I wondered what tales of the adventure got home to parents. But the children had a “ball,” and talked about it for weeks afterward.

A grass-roots program at Brockport State Teachers College was the Student Christian Fellowship that I headed and was active in while I was at Brockport. It was a totally independent program that benefited small churches that simply couldn’t fund their own choral programs, mostly because they were too small and didn’t have the input of a director. Our group of about 20-25 prepared and delivered the music program at no cost to the churches we served. In response, the members of the S.C.F. were invited to farm homes for dinner, and it strengthened town-gown relations. A no-cost-to-the-college program that provided a singular bond between college and community! Too bad there isn’t more of such local, on-the-spot interaction today! The Brockport experience was more than a class one; it was a classy one! And my name became known beyond Brockport.

Another of the “asides” that I started and was active in was the Rod and Gun Club. I thought the students, at least some of them, would profit from seeing a part of wildlife that is ordinarily “off-limits” to college students. So I started a Rod and Gun Club. We created a shooting range for .22s in the basement of the women’s dorm. It had a section that was walled off but was not excavated that would make a perfect shooting range. So we got wastebaskets, shovels, clothesline, pulleys, and flashlights and began to excavate a crawl space and firing range in the un-excavated part of the basement of Morgan Hall. This was a huge departure from the rather staid program of a Teachers College, and it took some convincing for the administration to approve. But when they saw that we had planned well, had contacted a local insurance company for coverage for each

student, and that I, myself, was licensed as a Hunter Safety Training Instructor, approval was grudgingly given. We had a surprisingly effective and noise-damped shooting range in the basement of the women's dormitory!

Each member of the Rod and Gun Club was licensed, and in the fall we took a weekend trip to the Tug Hill Plateau in New York for a deer-hunting weekend. Miriam McPherson, one of three librarians, was the female advisor for the trip, and I was the male. It was a memorable trip, and everyone thoroughly enjoyed it. One of the girls, from New York City, called her mother from the nearest town Sunday morning. When she said she was on a hunting trip, I could almost hear her mother exclaim, "You're on a what?" The students would never forget those experiences!

Life Camp in New Jersey

Early in my Brockport career, I was invited to visit an educational experiment at High Point State Park in New Jersey, where Life and Time magazines were sponsoring an interesting program to educate about 100 inner-city children of upper-elementary and junior-high school in better ways of living. It was a well-conceived, but too-soon terminated program intended to change the lives of children from The Bronx and other boroughs. I was one of several people selected – largely at random, I think – to see and evaluate the summer program.

Children from the lowest socio-economic groups were taken to the park for the summer, divided into groups of about a dozen each, and assigned subsistence-level, and often historic, living quarters such as a rustic cabin, a covered wagon, or similar basic housing. Each group was also given a "grubstake" of seeds, plots of ground, chickens, and other essentials. It was thought that if groups were small, and housing creative, with modest adult supervision and the freedom to make choices, the children would fashion a lifestyle that was healthy and an educational and social outlook far superior to the one from which they came. The children were free to make choices, both individually and as groups. The contrast between the socio-economic "patterns" in the neighborhoods from which the children had come, and those that the programmers hoped to develop were marked, and some children seemed unable to accept and maintain

their new “standards”. But on the whole, the change over the summer was remarkable.

At first, their weekly allowance went for things similar to what they had left at home – cheap food, shoddy clothing and habits, and unhealthy choices. But little by little, both group and individual decisions changed. Instead of Coca-Cola, they purchased milk and cocoa. Instead of trashy foods, they purchased vegetables, selected meats, and ate nutritious desserts. They were fascinated by the eggs laid by the chickens, and some began to use the eggs as food. Instead of candy, they bought and used cereals. Instead of soft drinks they heated and ate soup. The change was slow, but it was a group decision to change; it was not mandated. I was there as a visitor just long enough to sense a small, but definite change in the lifestyle of the children. Some of the change was painfully slow and subtle. But it was an internal and definite change.

When I left, after a week or so, I was greatly encouraged. The two commercial enterprises –Time and Life – had instituted a healthy social, educational change in some of New York City’s most difficult neighborhoods. But, as I recall, the effort was not well publicized, not followed up, and not continued in subsequent years. To me, a huge, positive, and socially commendable program was allowed to falter and cease, when it should have been publicized, expanded, and Supported. I do not know what became of this exciting program. But I, for one, was awed by its educational and sociological potential, and wondered whatever happened to L.B. Sharp, its first director. He was quite a guy! And I have often wondered, with some sense of loss, what happened to those kids.

Building Our Hill-top Home

There was another, and most interesting, alternative to the campus life. That was at home, where Lynn was proving to be a most memorable child who both challenged and entertained Madeline and me. Because I was teaching and coaching in Brockport, and taking night classes at the University of Rochester, I was often gone from home from before Lynn was awake to after she was asleep. And all this time Madeline was keeping the home, getting meals, taking care of Lynn, and being all that a good mother should be. It was a hectic schedule, but we survived, and Lynn actually got to know her father.

But the commute to Brockport was neither easy nor cheap. And it was one very full day – leaving Rochester for an 8:00 a.m. class, teaching most of the day, coaching, advising a club, and returning to Rochester for an evening class at the University of Rochester. It wasn't any easier for Madeline. She had no car except on weekends, so her shopping had to be at stores she could reach on foot or by streetcar, and had few close friends with whom to socialize. Fortunately, my mother and father lived only a half-mile away, but in inclement weather and winter, that was a "stretch." So we discussed, seriously, a move to Brockport.

In the spring of '50, we decided that it would be prudent to move to Brockport. We located a house that we thought we could afford, but then learned of another, large brick home on the north side of Brockport, that with some remodeling, could include an income-producing apartment. So we made an offer, and it was accepted. But we learned to our dismay and anger that the real estate agent had "manipulated" us in a way that allowed him to sell our first choice to a client, who by virtue of our offer on the larger house, squeezed us out of the smaller house and forced us into the purchase of the much larger, more expensive house. It was not an illegal move, but it was definitely unprofessional. I wrote a letter to the agent, telling him just what I thought of such an "unprofessional tactic," and telling him that if he had any moral sense at all, my signed contract would be in my mailbox the next day. I was on pins and needles. But the next day the contract was returned.

We still didn't have a house in Brockport. But we learned of the possibility of a lot on a hill overlooking the village – a hill formerly occupied with the village's water tower. Across from the lot was a lovely apple orchard, and a view over the village of Brockport. Madeline and I were excited, but uneasy, too. Could we really manage to build our own house? Did we know enough? Could I do it without the oversight of my father? We talked and considered all aspects, and finally bought the lot. We also contacted a fine construction team in Madeline's home town – two excellent carpenters, and two masons, all of whom we "put up" in our Rochester house while building was going on in Brockport.

Building on that site was a real experience! Fred Ellis, who had the farm and the wonderful apple orchard across the road, tried to be

warmly realistic. Did we have any experience living in a rural setting? He sprayed his apple orchard regularly, and what about the spray that drifted across the road? What about the traffic on the road that was South Main Street of Brockport? But we were adamant. We would have a lovely, hilltop setting, and it was only a mile or so from the campus – not 20 miles! The only “downer” was that Madeline was soon to give birth to our second child. But our minds were made up, and we forged ahead!

There was so much to do! We had looked at home catalogues, and had selected what we thought would be a lovely Colonial designed by Royal Barry Wills, a well-known New England Architect. But we had only a sketch in a catalogue; plans were not yet available. So my first lesson in home-building was making a cardboard model based on the sketch in the catalogue. The house was basically one floor, 100 feet long, of which 21 feet was a double garage. It was to have three bedrooms, two baths, dining-room, kitchen, den, and a large living-room with fireplace at one end and a picture-window overlooking the apple orchard and the village. The view to the west was spectacular.

I made a cardboard model of the house, based on the assumed measurements taken from the sketch in the book. We contacted the builders in Pennsylvania, discussed time, availability, distance from Rochester, their own work schedules, and accommodating them in our Rochester house while building was in process. It was a complex, but well formulated plan. We even invited the two carpenters up for a weekend to visit lumber yards in Rochester. I also contacted a plumber and an electrician, both of whom were part of the maintenance staff at the college in Brockport. And then we set to work.

The hill on which our new house was to be built had been the site of the Brockport water tower. As such, the former water tower had a most substantial base -- slabs of Medina sandstone about 5 in. thick, 3 ft. long, and 20 in. wide. The water tank was long gone, but the red sandstone slabs still were in place – for the most part. Where they were absent or broken, that stone foundation was an ideal hibernaculum for local reptiles, mostly garter snakes. Since the foundation overlapped the site of our future house foundation, I decided to remove those sandstone slabs and use them for a stone wall to mark the eastern boundary of our lot.

Well, we “fought” snakes for weeks. They didn’t bite, they didn’t chew lumber, and they certainly weren’t venomous. In fact, on the rare occasions that we observed the old foundation in late spring or early summer, it wasn’t unusual to see little heads sticking out from between slabs, staring at those huge vertebrates that were intent on demolishing what had been a snake “hotel” for several years. It was several years more before we considered the “herps” population exterminated or relocated.

When the power shovel came to dig the basement for the new house, one of the early “gobbles” of soil disclosed a water pipe open at the uphill end. Because we were in a bit of a time bind, I said to the man on the power shovel, “Oh, just yank it!” (We hadn’t made a decision on where the water supply should be.) And so he yanked it! Immediately, there was a jet of water up out of the ground near the road, followed by a frantic call to the water department. It seems the pipe that showed no water at the up-hill end was connected to the water main that lay underground on our side of the road at the down-hill end. There was a shut-off in that line near the water main. But I had no knowledge of that. Anyway, the water company was most understanding, and came immediately to repair the leak. I wonder if a city water company would have been equally understanding and cooperative. Brockport was going to be a nice place to live!

When the power-shovel had excavated our site, I figured it was time to order the concrete blocks for the wall. They could be piled neatly near the excavation until the masons from Pennsylvania arrived. Little did I know just what it meant to unload and stack a truck-load of concrete blocks! The truck arrived with its driver. But it was up to me and a helper (which I didn’t have) to do the unloading and stacking.

I put on the pair of canvas gloves and went to work. At the end of about two hours, the truck still had a couple of hundred blocks to go. I was dog-tired and obviously slowing from fatigue. The driver, against “regulations” that I didn’t know about, took pity on me, produced a second pair of gloves, and helped me finish the job. I surely was learning what the driver already knew. Several times in the near future I would make the same mistake of thinking I could do it without help, and would learn that I had definite limitations – of body and brain! Fortunately more of body than of brain!

I don't remember much at all of the footer, but I know we had to have one on which to set the block wall. I can only assume that it was the masons who used the level to determine the position of the form. After all, the wall would be only as straight, plumb, and satisfactory as the footer beneath it. The footer, too, should have iron rods for reinforcement. This was going to be a house built right. I didn't want any cracks in the wall. The foundation had to be firm, vertical, water-proof, and "slightly." I would see to it!

The masons from Pennsylvania did a super job on the basement wall. I helped as I could, learning fast. I learned, for example, that it's easy to lose one's balance when leaning out from a scaffold plank with a corner block to set it in place. Those darned things are obviously heavier than a standard block. I learned, too, that "mud" (mortar) is a lot easier to clean off a wall before the mud has dried.

When the wall was complete, the basement floor was poured. Again, I met the standard of a "rank amateur." The basement was 79 feet long in this house of 100 feet. The root cellar, alone, was about 20 feet long, so that the basement and the recreation room combined were about 60 feet. I ordered enough concrete to cover a floor 64 feet long and about 25 feet wide. Fortunately, I decided to put the recreation room floor in separately on another day. I would spread the concrete alone in the cellar! But again I under-estimated the work involved. I was still learning!

The truck arrived, and the chute was inserted in a basement window space. I began to spread the concrete. The floor was going to be about 3 inches thick, so I spread the concrete as fast and as evenly as I could, not really appreciating how much concrete there is in a floor 20 feet x 40 feet by 3 inches thick. By the time I had spread it roughly, I was "beat" but still had to "puddle" it. How I managed, I don't know, but I think the truck driver thought, "That dumb guy!" And he would have been right. But I learned fast, and I had a helper for the "rec" room floor!

The recreation-room floor was a foot lower than the basement floor. It couldn't be finished at the same time as the basement floor because a fireplace still had to be constructed at the lower end (the house being built on quite a slope). A heatilator needed to be installed, and the stonework and chimney built around it. Rainwater and snow-melt would collect at that low end of the house, and so the recreation room was unusable until some solution for that rainwater

was found. One day, Dorothy Hubbard and Madeline mopped up and wrung into 5-gallon pails an estimated 200 gallons of water that had seeped into the recreation room after snow-melt and rain.

To remedy such a mess, I called the highway supervisor to ask if I might run a drain tile from the base of the fireplace through the lawn down to the state storm sewer, and tap into the sewer to drain away the melt-water and run-off. His reply was, "We won't be working there Thursday." So I said, "Then I can run such a drain into the storm sewer?" To which he again replied, "We won't be working there Thursday." I understood that second reply. So I thanked him for understanding the situation.

Thursday, at daybreak, I was out in the yard with pick and shovel. I dug a trench about a foot wide and several feet deep from base of fireplace to the east side of the highway, found the state storm sewer, tiled into it, cemented the joint, filled in as much of the ditch as I could, and called it more than a day. But that day was a red-letter day for me. We never had water in the recreation room after that. It was experiences such as that from which I learned tricks of the building trade! And achieved great respect among the workmen of the area! After all, college professors weren't known as builders! I was demonstrating that some are!

When the tiling around the basement wall, next to the footer, was complete, one other important job had to be tackled, and I wanted to do it alone. It was water-proofing the wall. I brushed two coats of foundation coating on the wall, making certain that no part of the wall was "excused" from coverage. I didn't want to wonder about rain and snow-melt getting into our basement. And none ever did!

When the foundation was nearly complete, the carpenters went to work. Normally, a sub-floor would be constructed immediately after the basement wall was finished. But these old-time Pennsylvania craftsmen were real craftsmen. They installed plate, sill, and floor joists before a single stud was in place. Usually, putting down a sub-floor provides a base for studs. But not in this case. Every stud was nailed inside the sill and floor joist. It was such a sturdy type of construction that the bank said, when I went to report on the first third of the construction, "You aren't building a battleship, just a house!" That made me feel good, especially since the house was on a hill that was exposed to strong west winds. At one point, to show the rigidity and strength of the pre-flooring

construction, I shinnied up one stud that wasn't yet reinforced by a wall, and it held me with no lean or other indication of stress. This was going to be one helluva house! From time to time, Fred and Bob Ellis, the farmers who owned the apple orchard across the road, came to ogle the building and to admire the quality of the work. That made me feel great!

In time, the studs were all in place, the sheathing attached, and the siding installed. A mark of the quality of the carpentry was the joinery of the siding. The cedar clapboards were beveled at the ends; they were not butted, as they are on "ordinary" houses. I was proud of the joinery – a Pennsylvania Dutch craftsman tradition!

When it came to the fireplace, the outside chimney, and the furnace chimney, I had a chance once again to demonstrate both a certain pride and gutsy skill not often observed in "lesser" homes. With my homemade trailer, I scoured the countryside for stone walls from which I might (with permission, of course) take granite cobbles about 8-12 inches in diameter. Wearing goggles and with a sledge, I split the cobbles. The masons turned the stones flat-side-out for a strikingly beautiful chimney and recreation room fireplace. (The living-room had a more formal brick fireplace.) Oh, along the way I got plenty of nicks and cuts from flying chips, but they healed without scars.

When it came to the roof, I was in my element. I had roofed many houses while I was in high school, and it was sort of "my trade." With its green roof, its 79-foot length without the garage, and natural cedar siding (painted white a couple of years later), it was a beautiful and standout house on that hilltop overlooking Brockport! It was at its best, of course, when the apple orchard was in blossom. It was a home to be proud of! Apples were still to come!

I know my father wanted to be in on the building of the house. After all, he was a craftsman in wood, and he had some good ideas. But his ideas were his own; they weren't mine. And it was time for me to be truly independent.

I had a stoutness of resolve (which I must have inherited from my father) that showed most in that I wanted our house in Brockport to be my house and not his. I know he was disappointed and hurt. At the same time, I honestly think he was proud of my independently-planned and executed home. The oak plank floors were screwed and

then heads of the screws counter-sunk, with black walnut caps inserted over each screw head. A beautiful effect when completed, and one that my father took pride in showing visitors. I know he approved, and was proud that it was his son's work and not his own.

Life at the House on Lake Road

When the Brockport house was near enough to “complete”, we moved in. After all, it was a 20-mile drive one-way to Brockport, and that was a nuisance when I was teaching full-time. So when the new house was complete enough to be our home, we made it so. We were about a mile from the Brockport village limits, and we felt duly rural. But we needed something to make it rural in fact. We needed chickens.

I made a chicken coop to top all coops. It had white siding, a green roof, top-of-the-line laying boxes, and a nice ramp that led to them from the wooden floor of the coop. Oh, yes, and it had front windows in matching-the-house frames. To complete the match, the windows had green screens and storm windows. It was truly a lovely chicken coop – an off-shoot of our house, in small scale. Because the bantam chickens, themselves, were small-scale. The hackles of the rooster were ideal for the hackles on some of the trout flies that I tied.

Lynn and Diane were not fond of eggs fried, boiled, or boiled and then sliced in tuna salad. But they would “condescend” to eat the banty eggs, because they could go to the chicken coop, open the shutters on the back of the coop, and simply reach in and lift out the eggs. There was a sort of magic in that, and it made all the difference. Did any of the eggs become a new generation of banties? Yes, and some neighbor children were willing caretakers of the next generation.

One cold night I closed the little door at the top of the ramp leading to the coop, and, as usual, locked it. But the rooster, apparently returning “home” and finding the door locked, “roosted” under the coop. In the night, a skunk or raccoon, must have come upon the hapless rooster, and dispatched it. It wasn't long afterward that we decided we didn't have a farm, couldn't do right by a flock, however small, and discontinued our keeping of banties.

Before we discontinued keeping banties, though, another incident helped speed our decision to discontinue “chicken-farming.” Just across the “lane” beside our house was the first of several houses that would constitute a “development.” It had no exterior doors as yet, but did have a plywood door with about a 4” x 6” opening through which the builder could reach and unhook the plywood door.

Chickens will sometimes “steal” their nest, even though they have a perfectly good chicken-coop “apartment.” One day the builder said some kind of bird was building a nest on the second floor at the eve-level, and wondered what kind of bird would do that. I knew it was one of the bantam hens, and decided then that I couldn’t very well be a chicken farmer in that neighborhood.

Life in the new house was all that could be expected. It was the only house “up on the hill,” but it wasn’t long until we had neighbors. Clarence Styza, of the English department, had a smaller house built next door. His son, Jimmy, proved to be an interesting boy. Clarence didn’t have a garage for his car, so the car stood in the driveway – an inviting “toy” for Jimmy. One day he managed to get into the car and take it out of gear so it rolled back into Lake Road. Fortunately, Clarence saw the car roll backward, and ran out to rescue it before disaster occurred. Jimmy was properly “educated” about how cars should be “restrained.”

Just downhill from Clarence, the Ohlingers built a house. Jeannie and Diane became good friends, as did Bill and Anna become friends of Madeline and me. Bill had raked and seeded his lawn, as I did, and in a few weeks had a respectable lawn. His lawn, together with Clarence Styza’s, and mine proved to be an inviting place for nighttime, black-and-white hunters.

It so happened that the arches on our breezeway, and the door frames on our garage were slated to be of real, antique oval shape. I had contracted with Six-and-One Ladder Company in Rochester for honest oval arches and doors, because I wanted genuine arches, not some cheap approximation. But it was going to take a while, so our garage remained open to the weather. I had a bale of straw on one side of the open garage, to be used to cover grass seed and some newly planted shrubs that I thought needed protection from the hilltop weather. Well, what better place for a skunk to build a snug retreat than in that bale of straw! So when Bill Ohlinger asked what

might be making little holes in his new lawn, I knew right away – the resident skunk, probing for worms and grubs! Our garage was his daytime abode, and he retreated to his straw bale every morning before dawn. A perfect set-up, secure, dry, and free of the predations of skunk hunters such as great-horned owls.

I didn't say anything to Bill, but I was both curious and concerned. After all, I didn't want to be un-neighborly, and yet I was curious about the skunk. Across from the bales of straw were two concrete steps to the breezeway. Out of curiosity, I purchased a can of pressed meat, opened it, ran my finger across the meat and traced a "sniff path" on the garage floor from bale to the steps. Then I sat on the steps, open can in hand and waited. It didn't take long before there were stirrings in the bale, and the skunk appeared. He sniffed the path, and slowly made his way to where I sat. I held out the can, and he sniffed deliberately, but carefully, and then nibbled. I let him nibble a bit more, then slowly removed the can.

It took a couple of days for the skunk to get used to me and the can, but it wasn't long before he was eating out of hand. Within a week, I was able to put a hand on his back and stroke very lightly. And within ten days I was able to get him into a cage and into the trunk of the car. When all was secure, and the skunk seemed to be willing to be transported, I took him to a woods about two miles away, then with the canned meat and slow movements, got him into the woods and free! It was the first time I had caged, transported, and released a so-far-as-I-knew wild skunk. He had provided some interesting neighborhood conversation and discussion, had proven a really good "pet", and at no time while a resident in our garage did he offend. I think he could have made a good pet.

Our doors finally were delivered, installed, and we had a genuine, lovely Colonial hilltop house. It was a wonderful place to live, work, and play. Fred and Bob Ellis were the best of neighbors, the teaching at the college was all I could have wished, and life was good. Diane, an active but quiet child, was just entering public school, was a super companion to her older sister, Lynn, was a good friend of Jeannie Ohlinger, and a delight to parent. She was the quiet one of the two girls, but inside that quiet child, a brain was constantly at work. She may have been quietly reserved, but she was as mentally alert and active as her older sister. Even as a two-year-old, Diane was alert and communicated. Not necessarily in words, but in unmistakable actions. One day in winter, the flush-

valve on the toilet stuck in the open position. Madeline had entertained some ladies from the college, and they were having tea and cake in the dining-room. Diane was under the table, apparently watching the guests from below the table-top, but came into the den and pulled on my pant leg to “come; something’s not right.” I went with her to the bathroom, and found that the flush valve had stuck in the open position, and water was continuing to run into the septic tank. We were not on a sewer line, but on septic tank with leach-lines in heavy, clay soil. Our leach field was minimal at best. It wouldn’t take long for our leach lines to fill. Diane, before she could talk much, had recognized that something was wrong, and so saved my day. I was impressed.

She was also an adventurer. One day she and Jeannie Ohlinger decided to take a long hike – down the lane, and into or across some fallow farmland and perhaps into the woods. The girls were perhaps three or four years old, and each had a paper bag with cookies and perhaps a small carton of orange juice or milk. But they were heading out into the “wilds” of Brockport, without adult company. I thought it wasn’t the best idea. So I carefully skirted their path, found a place down the lane where I was out of sight, and when they hove into view, I growled from the bushes where I was hidden. They didn’t cry out, didn’t run, but just did an about-face, and walked quickly back to the security of home and yard. Not much was said, but there were no plans, either, for a return trip down the lane in the immediate future.

In the recreation room, I had built the TV set into the wall, and it was a daily custom for the two girls to put on their “mouseketeer ears” and sit on the arms of a big chair to watch The Mickey Mouse Club. It was all these little things that were a part of the Brockport scene – a scene that Madeline and I thoroughly enjoyed.

The girls wouldn’t eat “regular” chicken eggs. Perhaps they were simply too large, or perhaps they identified too closely with chicks. But I had made a little chicken coop with white siding, a green roof, a ramp going up from the ground into the coop, and laying boxes at the top of an inner ramp. There were windows, screens, and even storm windows – the whole coop to sort of match the house. We had a few banty chickens, and a feisty rooster from whose neck and tail I could get an occasional hackle for tying trout flies. I needed those flies for trout fishing in the evening in Oatka Creek and Spring Creek at Mumford.

The girls would gather banty eggs, and would eat them. They were “different” from regular eggs. Also, it was fun to lift the doors to the laying sites and gather the eggs. One day, one of the hens disappeared. We looked everywhere, but couldn’t find her. Could a skunk or a fox have snatched her? We didn’t know, and there was no trace – no feathers, no carcass, nothing. But next door, Phyllis Adams was building a new house. The wide door towards our house hadn’t yet been installed. Instead, a plywood door, with a 6” x 6” opening through which the builders could reach to latch and unlatch the door for entry was installed. And what better entrance for a banty hen than that?

One day the builder asked what kind of wild bird would build a nest on the sill of the second floor. I looked at the nest and the eggs in it, and affirmed that it was indeed the “stolen” nest of the errant banty. She was doing what “wild” birds often do – hiding a nest away from prying eyes and predators. She was returned to her “family” for security.

The house at Brockport had many other memorable associations. Like Madeline’s father and the fireplace. Dad loved a fireplace, and in it a roaring fire. We had, as a result of building, a pretty good store of kindling for the fireplace. But we didn’t have much in the way of logs for a continued fire. So I took my home-made toboggan across two large fields to a woods about a quarter mile away, then with a buck saw cut and stacked on the toboggan a sizable fraction of a cord of dry firewood. It was a lot of work, and it was even more work to pull the toboggan back to the house. Well, when Dad saw the stack of dry firewood, his eyes lit up and I knew what he had in mind. He didn’t let the fireplace rest for several days. And what could I say? His daughter was the mother of my girls! So I chalked it up to good family relations, and decided I’d have an equally good fire in his fireplace when we went to visit him! And we did – both visit and have a wonderful fire!

My first deer-hunting success occurred during my first semester of teaching at Brockport. On one of our biology field trips I had taken a class northwest of the village, to an extensive wooded area to simply study some of the trees and shrubs of the area. The woods I had chosen had all the earmarks of a good deer-hunting woods, and I made note of it for a future hunt.

Opening day in late November was perfect. It had snowed a few inches the night before, I had a couple of free periods in the afternoon, so I dashed home, changed clothes, grabbed rope and knife, and headed for Redman Road. There were no other hunters in sight, the field was full of thornapple trees, and heavy deciduous woods were on three sides of the field. I walked slowly and carefully across the mid-line of the field, my 20-gauge double loaded and ready. About a third of the way across the field, I caught sight of action off to my right. It was a full-antlered buck running in the same direction that I was walking. It was a bit of an awkward shot, since being right-handed, I was pointing the gun down and to the left. But I knew the gun well. I had hunted grouse with it for at least 14 years, and it was a part of me. I raised the gun, led the buck just enough, and fired. The buck crumpled and never moved.

This was my first deer. I had heard stories about a buck getting up and running away, and this was not going to happen to me. So I got out all the ropes I had in my game pocket, turned the buck on its back, and tied each leg to a separate tree. Even now, as I think of it, I suppress a chuckle. I'm so glad that another hunter, hearing the shot, didn't come to investigate, or just to ogle the operation. In any event, I dressed out the deer, went back to the car to get the toboggan, loaded the deer on it, and dragged it to the car – a solo experience, and all within about an hour. At the car, a passing hunter stopped to admire the buck, and to help me load it.

Back home, the deer was the focus of neighbor curiosity, admiration, and (I hoped) not a little envy. Even Bob Ellis, from the orchard across the road, made a special visit to admire my first buck. Brockport was, indeed, going to be a nice place to live!

Now there was the question of cutting up and wrapping the venison. I had a sharp hunting knife, but no experience in cutting up a deer. So I did the next best thing – I cut the meat into cook-able portions, and what I couldn't identify by similar beef cuts I labeled “stuff.” We had a wonderfully trial-and-error winter, finding our venison tasty, but having no idea what it was truly called.

Graduate Work

Early in my Brockport experience it was obvious that I would need an advanced degree in the field in which I was teaching. I could

continue to teach at Brockport without a Ph.D., but I couldn't aspire to a full professorship without that advanced degree. Several of my colleagues had obtained an Ed.D. degree from the University of Buffalo, but I sensed that this was a degree without the "standing" of a Ph.D.; hence, my taking some classes toward a Ph.D. at the University of Rochester. But it was soon obvious to me that a Ph.D. in biology was just not the same as a Ph.D. in the natural history that I loved, and so when I happened to be in a workshop near Rochester taught by Dr. E.L. Palmer from Cornell University, I felt the "vibes" that I had hoped could be part of a graduate program. Dr. Palmer, author of Palmer's Fieldbook of Natural History, was a superb field naturalist. He didn't lecture about natural history; he immersed his students in it! And so resulted my application to, and my acceptance in, a graduate program at Cornell University in Ithaca, only about 100 miles from Brockport. But a lot of water was to go over the dam before I finished my graduate work at Cornell!

My experiences in Forestry as an undergraduate at Syracuse stood me in good stead. When I first visited Cornell as a prospective grad student, my initial stop was in Dr. Palmer's office. He looked over his glasses, which were always some distance down his nose, and said (about a tree outside the window of his office), "What kind of tree is that?" I answered, confidently, "A basswood, or American linden. A great tree for bees to visit to make honey! Also, a close relative of the trees that grew along Unter den Linden, the avenue that Hitler motored along after each victory in his European gobble." Dr. Palmer seemed a bit surprised. I don't think he expected such a response from a "city guy."

Then he asked what birds I had seen on my way from Brockport to Ithaca. I described, among others, a flock of snow buntings that apparently were getting grit from the roadside. Again, I thought he seemed a bit surprised that I had a ready knowledge of some plants and animals. He asked one more question – about mosquitoes. When I told him I assumed he wanted me to tell him about *Culex*, not *Anopheles*, he seemed comfortable with my background, and willing to admit me as a graduate student. I had to be interviewed by several others, but my admission to Cornell as a graduate student was neither complicated nor conditional. I couldn't wait to tell Madeline.

My connection with Cornell provided some interesting additions to my Brockport classes. I began making an increasing number of trips to Cornell, some for courses, some for advice. On one of the trips, I was able to get a great-horned owl that had been pole-trapped at a nearby game farm. I thought it would be nice to keep the owl in a large cage, feeding and observing it, and releasing it when its wing, injured in the pole-trapping, had healed. So I made a huge cage, about 6 feet high, and 4 feet on a side, in which to keep the bird. It was ideal, except that the owl bill-snapped whenever someone entered the classroom unexpectedly. So the room was pronounced “off-limits” by the custodian until the owl was released. Some elementary school children buy their owl pellets from commercial suppliers. But we had a source of fresh owl pellets right in the classroom! The only problem was that it was a time-consuming job catching mice. Fortunately, the apple orchard across the road had bales of straw under the trees, and under the bales – mice! The farmer, Fred Ellis, had placed “treated” mouse food under them. But after a few days, Fred’s “treated” mouse food was less lethal, and I could use the mice for owl food. I could put on gloves, and if I lifted a bale quickly, I could grab a meadow mouse and pop it in a pail. A half-dozen mice would be owl food for the day.

One of the apple trees directly across from our yard was a golden delicious. When the tree bloomed in the spring, Fred sprayed the tree, pruned it, and took the same care of it as he did the rest of the orchard. But when it came time to pick the apples, he avoided that tree. When I inquired why, he said, “That’s your tree!” What a treat! And what a wonderfully considerate neighbor! We had those apples for eating out-of-hand, for apple sauce, for baking, and for pies. After Fred died, and we had moved to Ithaca, that first fall Fred’s son, Bob, visited us in Ithaca and brought to us a full station-wagon load of golden delicious apples – such a pleasant surprise from the very best of neighbors!

My graduate studies were partially Supported by the G.I. Bill. I studied microclimates – an extension of some of the research at M.I.T. when I was in military service. I was fascinated by the climate within a few centimeters of the soil surface, especially as it affected four kinds of animals living in that lowest layer of air – grasshoppers, salamanders, voles (meadow mice), and even woodchucks. What was their climate like? What were the temperature and humidity extremes? What precautions or

peculiarities of habit enabled them to minimize the effects of temperature extremes? And what, exactly, were the frost patterns at such levels? (The type and distribution of frost indicated something about frost that I couldn't see, but the frost crystals were both peculiar and distinctive. It was a fascinating study, and that was the substance of my Ph.D. research.

The chairman of my graduate committee was a wonderful lady – Dr. Eva Gordon. She watched over my research and my thesis like a mother hen. I thought the world of her, but I was not used to having someone be quite so intimately demanding, and I resented it a bit. At one point I asked her in what order our names (hers and mine) should appear on the thesis. Puzzled, she asked why the question. Then I said that she had made so many comments about the final writing that I thought she should be co-author. As soon as I said that, I could have died. She hardly made a comment on the rest of the thesis. But we were the best of friends, and I think she was honestly proud of my work as a graduate student. Dr. Gordon was one fine professor! She gave me her personal set of Britton and Brown, Illustrated Flora of the United States, a superb 3-volume botanical set that I treasure.

Another occurrence in the Grad Room – the single large room in which we grad students had our desks – was my introduction to commercial authoring. Dr. Gordon, in addition to her professorship, was also the author and editor of the Cornell Rural School Leaflet, a 32-page quarterly for rural elementary schools of the state. They covered all sorts of science topics, especially natural history ones. But it's a tough job writing 32 pages of science four times a year, and she slowly got behind schedule. So she asked if I would be interested in writing one issue. In deference to her, I said I would. And so I wrote one entitled "Air Laboratories." It was about weather near the ground, how to study it, and how to measure it. It seemed to be pegged at the right level for children and teachers, and it was fun to do. The "author bug" had bitten me!

I looked about for other writing opportunities – mostly ones that paid a little \$omething, and I learned about Instructor Magazine for elementary school teachers. I wrote an article and sent it off. A few days later I received a response in which the Instructor editor said he liked my style, but could I send him one on another topic? Monarch butterflies had been adequately covered elsewhere. So I visited the

playground of Belle Sherman School in Ithaca, and wrote about geology, with pictures of puddles and alluvial fans. The magazine liked it, and after two more grade-level articles on science, I entered into a 3-year contract. I was on my way as an author of children's science! For pay!

My degree was conferred in August, 1955. I was, at long last, Dr. Verne Rockcastle. I remember the words of Cornell's then-president, Dr. Deane Mallott: "Congratulations, Dr. Rockcastle!" I was pleased, and Madeline was proud.

I taught one more year at Brockport after getting my Ph.D. It was a wonderful year. I had joined the "distinguished" group of Ph.D. professors, and felt that I had "arrived" at my academic and professional destination. Several years before this, Dr. Victor Schmidt, another Ph.D. from Cornell, had joined the staff as a geologist. He and I became great friends. Vic introduced me to workshops for teachers, and I entered another thoroughly enjoyable phase of professional education – teaching teachers. Vic was an excellent workshop director. He seemed to have an innate understanding of how elementary school children learned, and how to prepare teachers for that level of science teaching. Vic and I had teacher workshops throughout central New York State, and they were both effective and popular. I came to love working with elementary school teachers and their classes.

During my final year at Brockport, Phil Johnson, head of science education at Cornell, called to ask if he might come and visit me. I thought he was curious about my classes at Brockport, and said I would love a visit from him. In that year, Dr. Gordon had become seriously ill, and appeared not to have long to live. Also, I was toying with the idea of more science writing, having written successfully for Instructor magazine. When Phil Johnson came to Brockport, it was soon evident that he was sounding me out as a replacement for Eva Gordon – a teaching position in the Science Education Department at Cornell University. My first impression was that it was "over my head," that I wasn't really qualified for such a position. But Phil talked seriously about it, and asked me to give it some thought. He visited my classes, and I guess he also talked with Tony West, the department head at Brockport. I also talked at length with Vic Schmidt, who strongly advised against such a move. But the more I thought about it, and the more

Madeline added her genuine feelings and support, the more the move appealed to me. I applied for the position.

But the position was for an assistant professor. I was already an associate professor, in the same New York State system. Why move back a grade, when I had already demonstrated my ability? More discussion with Cornell. And the College of Agriculture agreed to the level of Associate Professor. But at a pay level below what I was getting at Brockport. Again, I balked. Why take a cut in salary, when it was Cornell who was seeking my services? Moving would involve considerable expense, leaving a position that I had filled admirably, and from which I would probably advance. Also, it would mean leaving a brand new house into which I had put heart and soul. No, I would stick to both position and salary. More discussion at Cornell. And finally the call came: they would invite me at the same position and salary as I already had.

In a way, this was a sort of blow – a blow with a promise. Madeline and I had a new home that was what we had wanted all along. I had tenure, I liked my job, we loved and were loved by our neighbors, we had made church commitments and friends. Why leave? It took some deep soul-searching. And with all this was Vic Schmidt's advice. He had been in Cornell's employ, so knew both Cornell and Brockport. He couldn't understand why I would want to leave. But I thought this was an opportunity that I shouldn't pass up. And so I called back to Dean Palm and said I'd accept the position and the salary. What a decision that was! Madeline and I were on pins and needles. Were we realistic? Our home was new and beautiful. We had two children. Were we "dreaming"? But at the same time, would we be passing up the opportunity of a lifetime if we didn't accept an offer that some people would give almost anything to have? We thought about it, talked it over with Madeline's family, and in spite of my own family's feeling that I was making a mistake, we decided. We opted for Cornell.

One more factor played a big part in our decision to move to Ithaca. The beautiful apple orchard across the road from us, it was rumored, was going to be sold and the site would become (Horrors!) a shopping mall. It was an ideal location for such, being close to the village, near the intersection of two main roads, and close to utilities. The rumor was only that – a rumor – but it was gathering steam even as we considered our move to Ithaca. Any development of the


orchard we had loved was a few years away, but the development rumor seemed to have some substance, we were convinced. Sure enough, the apple orchard is gone today. A shopping mall has replaced it.



7

The Cornell Years (from 1956)



 The first need was a house. I looked carefully and found a house that was newly for sale. It was a 2-bedroom, stucco house with a tiny attached garage. The house was an older house, but only a mile from the Cornell campus. It was in Cayuga Heights, a well-to-do suburb that looked up-scale and neat. I said “Yes!” without Madeline’s having seen it. Thank goodness that when she did, she agreed. It was, indeed, a lovely house – priced at \$10,000 more than we sold our new home in Brockport. But this one was in an elegant part of Ithaca, close to Cornell, and decades-old, well-kept and obviously up-scale homes of professionals. We could not dismiss that our house in Brockport (it was rumored) would soon have a shopping mall across the road. All these factors made our new purchase seem the right one.

When we moved, and the truck backed up to the front door for unloading, we discovered that the front door key was in the chest of drawers from the bedroom, and the chest was in the front of the van – blocked by all the other furniture! Did this signify anything? We hoped not!

We had all the furniture put out on the lawn, and we got the chest out on the front walk. Nervously we felt for the key. And there it was! We could move in! It was a relief to put the furniture in our new house. It all fitted nicely, and it looked gorgeous. The textured paper in the living-room was just right. The hanging lamp above the dining-room table was as beautiful as at Brockport. The one drawback – and it didn't turn out to be serious, but interesting – was that the girls had to share a large bedroom. They envisioned an imaginary line across the middle of the room, and that line became a magic “wall” totally respected by each, and unchanging during eight years of “sharing.”

The recreation room in the basement was as lovely as ours in Brockport except for one thing. The “old” rec room had a fireplace; the “new one” didn't. But, except for lacking the built-in TV, which I had fashioned in Brockport, the girls soon acclimated to a TV stand in the “new” basement. We were indeed home again!

My time in Ithaca began, appropriately enough, with another snowy tree cricket experience. It was our first night in Ithaca, I think, that I met my neighbor and Cornell vice-president, Dr. J.L. Zwingle. The Zwingles lived next door, and their driveway and ours were only a few feet from each other. In the grassy area between our driveways grew a large shadbush, and in it sang a snowy tree cricket. A snowy tree cricket, you may remember, was one of the insects in my pack of insect review cards. But I hadn't yet photographed one, much less photographed one singing. This was my chance.

So I got out a stepladder, assembled my camera and speed-light and climbed up to get a picture. Just then, J.L. drove into his driveway. Aware that something was going on up in the shadbush, he looked up and saw a man in the tree above the stepladder. Trying to be a good neighbor, and ease his concern, I said, “Good evening, Dr. Zwingle. I'm Verne Rockcastle, your new neighbor. I'm photographing a snowy tree cricket.” J.L.'s response was so short,

so expressive, and so memorable. He said, “Oh!” And I’ll leave it to the reader to supply the inflection. J.L. and I became fast friends, and that meeting was shared with many benefactors and trustees of Cornell.

A Step Up

As a graduate student, I had a desk in the Grad Room of Stone Hall – one of the original buildings on the Ag Campus. But as a professor, I had an office – one of three. The other two belonged to Phil Johnson, head of the science education section, and to Dick Fischer, my counterpart. Dick had received his Ph.D. about the same time as I, but had not had the teaching experience that I had at Brockport. Dick taught Field Natural History, and I taught elementary school science and was also responsible for writing the Cornell Rural School Leaflet, distributed free to (mostly) rural schools of the state. It had a circulation of about 30,000, but another nearly 20,000 went to individuals, libraries, and organizations. The Cornell Rural School Leaflet was now my baby!

Just as things I had not anticipated “came up” at Brockport, so did they at Cornell. In such quantity that at times I felt almost breathless! One of the first “extracurricular” activities was my association with the Cornell track and cross-country teams. Lou Montgomery, the coach, was pleased to accept my assistance, which was not officially in a coaching capacity, but more in an advisory one (to the team itself). Women had not been a part of Cornell’s team when I became a member of the faculty, but it was not long before the team became co-educational. If I had been “advantaged” as a coach at Brockport, I surely was not at Cornell. The university was a member of the Ivy League, composed also of Harvard, Yale, Princeton, Brown, Dartmouth, Pennsylvania, and Columbia universities. Quite different from Brockport, Cortland, St. Bonaventure, Lock Haven and such! But I was not a coach, and so my duties were largely advisory. I became officially the track team advisor.

But I had a new and different responsibility – graduate students. Students pursuing M.S. and Ph.D. degrees! Quite different from just undergraduates! In addition, I was expected to generate new and exciting programs without benefit of colleagues. It seemed at Cornell that I was totally alone. Phil Johnson had his orbit, and

Dick Fischer had his. But where was mine? It took me essentially three years to find out that I was encouraged, and expected, to design and fill my own niche. That was the essential difference between college and university! It was frightening, but once I realized and accepted that, it was collegiate heaven! I was my own boss, and I was encouraged to be creative! Cornell was, indeed, the right choice!

Part of my responsibility as an associate professor was to oversee graduate student research, and the writing of theses. I encouraged creativity, and engaging in new and creative research. I encouraged working with teachers and students in public schools. Go where the action is! If it doesn't exist, design it and determine its efficacy! It was not easy going, but it was challenging and fun! And my grad students were the best! Only twice in my 25 years of directing graduate students did I have students who didn't complete what they started, who didn't find graduate research as challenging and fulfilling as I did!

A couple of examples may illustrate the "no holds barred" philosophy that permeated the research of my graduate students. Moira Gleason, an M.S. candidate, studied the development of the concept of "responsibility" in children, and used unique situations to analyze its development and expression in them. For example, suppose that an "empty" milk carton was placed on a trash container at the curb. The wind blows it onto the street. Who is now responsible for the container?

But suppose the wind doesn't blow it off the trash can, and it is dumped on the truck, and as the truck goes down the street, the wind blows the container off the truck. Now whose responsibility is it? Moira researched children's notions of social responsibility, making theoretical situations ever more difficult, and in so doing, making children more critical and socially responsible.

Another grad student, Dr. Charles "Kip" Ault, now a professor at Lewis and Clark College, studied children's concepts of time. He would pose a natural and common situation involving time, and then by increasingly pointed and specific questioning would work children into a sort of conceptual corner so that they, themselves, defined and re-defined their own concepts of time, from seconds and fractions of seconds to geologic time. He made critical thinkers of

children! This kind of graduate direction was challenging and fun! Twenty Ph.D. students and 43 M.S. students received degrees under my direction. This was one of the real reasons that Cornell had been so alluring!

Not long after I came to Cornell, Phil Johnson had a serious heart attack and had to leave his campus responsibilities. They included teaching an extension class of teachers about 40 miles from campus. Who could fill in for him? Why, “Rocky”, of course! And so I did! He also had an on-campus course that I helped to teach. One of his Ph.D. students, Bob Whitney, now retired from a professorship in California, split some of Phil’s responsibilities with me. Phil was in charge of the Shell Merit Fellowship Program, and while Bob undertook, masterfully, most of that program, I helped as I could. Somehow we managed, and when Phil was well enough to return to campus, he did.

Phil Johnson added a singular facet to the graduate program in Science Education. At the National Science Teachers Association national conventions, Phil made arrangements for a hotel room for Cornell grad students. Several students from Cornell who were well along in the pursuit of their degrees made use of the room. They traveled to the national meeting in a State vehicle, but shared the single hotel suite arranged by Phil. The expense of driving and of the hotel suite were covered by Phil through the Shell Oil Corporation. But in the suite, the mostly men were invited to interview for college and selected public school positions. It was an efficient, rewarding, and eminently successful arrangement that I have not seen repeated. Cornell’s science education program was indeed active, popular, and successful. Cornell was widely known for its production of outstanding science educators! Perhaps more so than at any time since then!

One day, early in my Cornell career, “Eph” Palmer came to the office, a coil of rope over his shoulder, and said, “How’d you like to take a field trip?” No one in his right mind would ever say he was too busy to accompany Dr. Palmer on a field trip, so I said. “Sure. What do you have in mind?” He took me to Van Buskirk’s Glen, a delightful series of falls in a tributary of Cayuga Lake’s inlet. We hiked, roped, and slid down one of the most beautiful of the Ithaca area’s glens. I have experienced most of the glens in the Ithaca area, but none any more spectacular than Van Buskirk’s. I lost 50 cents to

Dr. Palmer, too, on a bet about the depth of the pothole. I never knew that a handful of pebbles could scour a pothole that deep!

I had taken my classes on field trips at Brockport, but my Cornell colleagues sometimes took direct experience to a more drastic level. For example, I asked Dr. William J. Hamilton, a renowned mammalogist, and a member of my graduate committee, if he would lead a field trip for my class. He readily agreed, and came on the day of the field trip with several knotted socks hanging from his belt. We went to Connecticut Hill, an unpopulated area a few miles from Ithaca. At one point, he stopped and took one of the socks from his belt. He untied the knot and took from the sock a gravid water snake. From his pocket he took a scissors and proceeded to slit the belly of the snake, freeing a dozen or more small water snakes, which scattered through the grass into the pond. Then he lectured the class on water snakes in a way that showed he didn't consider them vermin, but respectable creatures that are so often misunderstood. His was not a wanton destruction of a vertebrate animal, but a first-hand demonstration that none of them will ever forget. Such were my colleagues at Cornell! The other socks hanging from Dr. Hamilton's belt were equally interesting, and unforgettable! Cornell professors, themselves, are indeed unforgettable!

On occasion, I even invited renowned professors from other colleges to visit my classes and share their special knowledge with my students. One such professor was Dr. William Harlow, a dendrologist from the College of Forestry at Syracuse University. He was renowned for his knowledge of trees and woodcraft, as well as Native American lore. He shared many woods lore secrets with my class, including the making of moosewood (striped maple) whistles. "Bill" Harlow was an outdoorsman who could not be replicated on any other campus. Such was the quality of visitors that I was able to bring to my classes at Cornell.

It was challenging, fun, and intellectually rewarding to dream up new and exciting ways to teach science to children. Some things just didn't work well, and were scrapped. Others were eminently successful and so found their way into papers or articles in Science and Children. And probably some were simply tried and the trials never recorded or publicized. In one instance, I wanted children to experience something of upper winds. So I suggested to the teachers

of selected schools that they have each child write a self-addressed postcard, telling the finder that this was part of an upper-elementary school project to investigate the direction and speed of the upper winds. The finder of the card was asked to indicate on the card where it was found, and mail the card. The class would plot the “found” places, and from the record, try to determine what the “winds aloft” were on the day the balloons were sent up.

One boy received his card back from London’s Heathrow Airport. On his card was written, “What a quaint way to by-pass international postal regulations!” He got a picture of himself and his postcard in the New York Times, and it was quite a write-up about him and his card, which had been sent aloft on a helium-filled balloon from Brooklyn.

Some time later, it was revealed that his card had landed in the backyard of a Pan Am pilot who was about to depart on a flight to London. He had thought it would be fun to take the card to London and mail it to the boy in New York City, which he did. But the “trick” so embarrassed the airline that they flew the boy to London, courtesy of Pan Am! Surely the best publicized flight of a postal card and its sender!

Because running was a sport that I loved and kept active in, I continued to run at Cornell. I met Jim Hartshorne, who had been an engineering student at Cornell ‘til his wife died in a horrible fall in one of the local gorges. Jim’s father had died in the plane crash that took most of the U.S. figure-skating team at the time. Jim was a fine runner, physically active, and the father of three – two boys and a girl. He started – with a little assistance from George Gavras and me – the Finger Lakes Runners Club. We were a dedicated group, and ran in local races, as well as in races as far away as Toronto and Maryland. Jim even ran in farther-away and more prestigious races. Years older than Jim, I was close to Jim, but only once did I best him. (He must have eaten too much salad that day.) In Jim’s honor, and to his credit, the Hartshorne Mile became a popular and prestigious annual event at an indoor track meet on the Cornell campus.

Family Camping in Newfoundland

John Green, who took my place when I moved to Ithaca and began teaching at Cornell, had been working and teaching in Newfoundland. John was a good friend, and he had often said I should visit Newfoundland, if only for the experience of a Canadian maritime province. Stuart Peters, another Cornell University grad student from Newfoundland, had also urged me to bring my family to visit Newfoundland. Stu was an up-and-coming political figure in the Newfoundland provincial government. But at that time he was a graduate student in Natural Resources at Cornell. Stu's wife had a bad accident in a snowmobile collision on one of the highways just outside of St. John's, and her limited physical ability after that deeply affected Stu.

Our two girls, 13 and 9, were of an age that should enjoy such a trip, and neither Madeline nor I had been farther east than New England. So we made preparations for a summer camping trip in the Canadian Maritimes.

I remodeled my home-made trailer by adding a stout wooden frame and a canvas cover so that it would withstand both rugged Newfoundland gravel roads, plenty of rain, and dust as well as gravel. John and Stu had alerted us to the ruggedness of "Newfie" roads. The trailer had been built on a Ford V-8 front axle, with transverse springs to which an extra two leaves had been added. Two 6.00 x 16 tires insured that it would handle Newfoundland roads safely. White oak sides and bed made for a rugged, weather-proof body. It was a sturdy, ample carrier for both camping and personal gear.

We had a heavy-duty wall tent that would sleep the four of us, and all that we needed for cooking and overnights along the road. We had planned to sleep at campsites along the way – campsites that would become increasingly primitive as we went east in the Canadian provinces. John Green, and Stu Peters, both of whom were well acquainted with the provinces, had warned us about the rough roads that had been "graded to trans-Canada highway standards." We learned that "trans-Canada standards" meant slopes not exceeding 15 degrees, and no boulders larger than about 12 inches in diameter. I had packed everything I thought we needed for such a trip, including tire-patch kit, car jack, a rugged "come-along", and complete camping gear. We were ready!

Our first night camping was greeted by a thunderstorm that we weathered well. I remember our washing and brushing our teeth in puddles on the road somewhere in Massachusetts. Already, we felt like real cross-country explorers!

A few nights later, we were in eastern Maine in the state's "badlands." We enjoyed tramping through the "Maine desert", and thrilled at the seashore when we approached it. Instead of taking a ferry to Nova Scotia, we went by road up and around New Brunswick, picking campsites for our overnights. We enjoyed selected seafood along the roadside of Québec and northern New Brunswick, listened to the fog-horns along the St. Lawrence River, and delighted in the quaint fishing villages along the coast. We ogled the shore and the fishing villages along the Gaspé, and the huge, weather-beaten, wooden cathedrals of New Brunswick. By the time we debarked the ferry at Port-aux-Basques at the southwestern corner of Newfoundland, we had a routine and a hardness of which we were proud. It rained almost every night for 10 days on the mainland, and I remember getting up in the morning in a wet tent, and having a breakfast while another family "camped" in an Airstream trailer waved "Good morning!" from the cozy table by their picture window. But we were a proud foursome, and we waved "Good morning!" all the same.

From Port-aux-Basques, the road was dusty and dry. If there was an experience to be had on the road, we had it. At one point we wrote in the dust on the dash, "St. John's or bust!" But the last word should have been "dust!" At one point we had planned to take a very limited ferry across a bay, and thus save perhaps 50 miles of dusty, rutted, and not very pleasant road. But when we got to the ferry and inquired about when the ferry would leave, the skipper sitting on a crate on the deck took his pipe from his mouth and replied, "She don't!" That was about our first "Newfie" conversation – short, to the point, and no extra words! But he did add, "Go back to the highway, turn left, and just keep going." Well, we did, but in about a mile we were wheel-deep in soft "fill" that was to be the trans-Canada highway, but was only a dream as yet. We were deep in soft, Newfie soil. We were stuck, and the trailer was stuck, too!

I looked around for a tree limb or something to pry the car out of the rut. Finally, I got the cross-piece from a telephone pole that wasn't yet in service, and with Madeline at the wheel, the two girls pushing,

and me with the pole as a pry under the axle, we managed to turn the car around. Then we turned the trailer around, got it hooked to the car, and were once again on the “main road.” It was a couple of hours of concentrated, determined family effort before we were headed back the way we came, and driving around the bay that the ferry couldn’t cross! This was Newfoundland!

Hours later, we were well east and on a short strip of paved road. This was the Newfoundland that John had said was an adventure. At one point we came upon a car disabled beside the road. The driver was under the car catching the gasoline from his tank that had been punctured by a rock in the road. When I stopped and asked what he was going to do with the gasoline, he said he didn’t know, but he just couldn’t let it seep into the ground. I don’t know how long he was marooned there.

East of Deer Lake we came to Grand Falls, a large, powerful falls in the Gander River. It was a show case of a salmon river and the long pool at the base of the falls seeming ideal for large salmon. A lone fisherman was just leaving the spot after fishing for a few days without much success. When I asked him about what flies to use, he opened his fly box and invited me to take one. Being completely ignorant of salmon flies, I asked him what he would recommend. He took out a “thunder and lightning” and said it was as good as any. It was late in the day, so I thought I’d get up early in the morning and try my luck.

Just after daybreak, I put on the thunder and lightning, and went out on a rock ledge that gave me access to a run that looked promising. I had made a couple of casts when all of a sudden, “Wham!” and I was fast to a big Atlantic salmon. I shouted for Madeline, but before she got there I felt the fish make a run toward me, then it jumped and started downstream – with my leader and fly. Needless to say, it was a total turn-on to salmon fishing in Newfoundland, and I hooked many more in subsequent years, but none that I recall as big as that Gander Giant.

From Gander we went to St. John’s, on the way passing a sharp, trail-less hill that simply invited climbing. I well remember Diane scrambling up and looking back toward us as if she were atop her own private mountain. She was queen of her own paradise where there wasn’t another human to be seen. It was, indeed, a desolate paradise.

Finally arriving at St. John's, we called both Stu and John, went to our motel (a clean, no-frills one) in the center of town, where we stayed for almost a week. It was certainly in contrast to our gypsy-like trek across the Canadian Maritimes. The next morning I was invited to go out to lift the cod nets just south of the city. After the nets were emptied by forking the cod into powered dories to be delivered to the canneries in St. John's, a few cod were transferred to a dory where the fishermen would have a "boil-up" at sea. I (it was an all-male affair) was invited. A cod boil-up? Ugh! I would be a good-sport guest, but I remembered my days as a boy when I literally gagged at my mother's serving of Gorton's codfish from those smelly wooden boxes. Well, I'd go along for the experience, but . . .!

In the "dining dory" a metal barrel cover was placed across the seats, a wood fire built atop the barrel cover, and a wood fire laid on it. Into a large kettle set in a wood fire went cod filets, onions, carrots, and a few potatoes. While the stew was cooking, we whittled forks out of wood and waited for the feast. I had never before experienced an open fire on board a wooden dory at sea. This was true Newfie tradition. Much as I detested codfish, I would be a good sport and try some. I remember gingerly tasting that first bit of the boil-up, ready to up-chuck in the sea if it was at all the cod in the boil-up, preparing to up-chuck the whole business if it was anything like what I remembered boiled cod from my youth. But that fresh cod, cooked in sea water with vegetables was absolutely delicious! Why, I thought, couldn't commercial, packaged, cod taste equally delicious? I became a life-long fan of fresh cod cooked in an open boat at sea! Incidentally, one of the cod returned to the packing plant weighed 50 pounds. The smallest was perhaps 5 pounds. I had forgotten completely the rough ride on the trans-Canada highway to get here! I was now, by trial-at-sea, a Newfie! However, I did not wash it down with rum. There is a limit, you know!

Back at the docks in St. John's, I watched, in some muted revulsion, the barrels in which the cod livers were being rendered in the sun. So this was the source of the yellow, fiendish liquor that I had to ingest daily as a cross-country runner in college! Why couldn't I have had the infinitely more pleasant boiled codfish that was such a delightful experience out there on the dory?

We visited the site of Marconi's first trans-Atlantic radio transmission, conducted several meetings with teachers in eastern Newfoundland, visited Quidi Vidi, where we were able to purchase salmon filets and fresh cod fillets. Unfortunately, cod stocks are now depleted, and I don't think it available any more as a restaurant offering. C'est dommage!

After two weeks in St. John's, we started back home, now fully aware of what it meant to drive on a road "graded to trans-Canada highway standards." It meant only that the road didn't go over mountains, or across the Bay of Fundy.

Years later, in publicizing the Addison-Wesley Elementary Science program, I spent many weeks, in separate, short visits to the province, helping teachers and schools instill the program to the province. I found Newfoundland to be separated from the rest of Canada by more than the sea – a province of down-to-earth people who had a hard life, maintained some of their Irish and continental language and customs, and effused a deep-seated independence and pride in their heritage and their way of island life.

The return trip to Ithaca was both interesting and rugged. We returned along the south shore of the St. Lawrence River, camping at increasingly well-managed campsites in quaint villages along the St. Lawrence River. On one night, especially, we were kept awake much of the night by a nearby fog-horn in a lighthouse. Never before, or since, have we been so aware of a fog-horn!

Foreign Graduate Students

Within the first few years of teaching at Cornell, I became involved in a new and different kind of graduate work – with foreign students. A young man with darker skin than nearly all my students up to that time, and with a distinctly foreign accent, came into the office to inquire about studying for a master's degree in science education. He was from Ceylon (Sri Lanka today). His accent was delightful – light, with a sort of up-speak at the end of sentences, almost a question mark inflection. I chatted with him for perhaps an hour, learned about his own education, his aspirations, his special interests in science and education, and what he might do when he returned home. I decided it would be an interesting association to work with this man – Jinipala Alles by name.

Several interesting things stand out in my association with Alles. (He seemed to prefer my using his last name instead of his first.) On one occasion early in the fall semester (October, perhaps?), he accompanied me to Rochester to attend some science education meetings. On the way, the leaves of maples and oaks were falling at a great rate, and Alles suddenly exclaimed, “So that’s where the name of the season, **fall** comes from! Everything **falls** – leaves, nuts, and fruits! And I had to admit that I, myself, hadn’t been aware of the fall season being the time of year when many things fall from the plants that produced them.

Alles was a brilliant and sociable man, a delight with whom to work. A little older than most of the graduate students in the department, he fitted in readily with other graduate students, never complained about work, and seemed genuinely inspired and personally engaged in challenging educational problems. He shared with me and with his fellow students many insights and features of educators in his home country. I hoped that some day I might be able to visit this country where elephants often did the work of draft horses here in the U.S.

Mr. Alles must have genuinely interested and inspired fellow educators in Ceylon, because the next year five more graduate students from Ceylon applied to Cornell for graduate work in science education, and were admitted. By name they were (again, known by their last names) Ratnaike, Weerasingha, Subasingha, Chandrasina, and Wanasingha. Several of the names of the students from Ceylon ended in “. . . singha”, which means “lion.” The names were given the children to imply or signify being stout of heart, or brave, and it was common to label a male child in such a way.

When the students from Ceylon returned to their home country, they maintained a warm, personal correspondence for several years. One of them was having the first child in the family, and wanted to obtain mosquito netting to go over the bassinet. But there was a rigid embargo on any woven imported goods. What to do? We finally settled on a cheap piece of porcelain, wrapped in yards of cheesecloth, with great cautionary messages such as “Fragile; Handle with Care!” and “Caution! Pottery Enclosed!” The “mosquito netting” got through, and the addressee was much

impressed. He later wrote something to the effect that his Cornell professor was not unexpectedly ingenious.

In return, he wanted to send us something from Sri Lanka. So he sent a special little pitcher packed in bulk tea leaves and a rose “slip” packed in tea leaves, although there was a high tariff on packets of tea. It was fun to try inexpensive ways to thwart customs.

Another time we were host family for a couple of Russians, one of whom was a woman who wanted to return in something more “slinky” than would be appreciated by Russian customs. So she bought a nylon dress from Sears, and wore it through customs on her return to Russia. We had a much more difficult time sending her a Sears catalogue, but finally got something like one of three through Russian customs. Obstacles just make the puzzle more challenging!

Sabbatical Leave in Europe

One of the features of my first “tour of duty” at Cornell was a sabbatical leave that was for personal “seasoning” and not for study toward a degree. It was quite different from my first sabbatical leave ever, which was from Brockport State Teachers College. That one was for the specific purpose of finishing my Ph.D. This one from Cornell was for personal, social, and “geographic” growth. We as a family had not been farther from home than Montreal, and to visit relatives in Pennsylvania and New Jersey. I had had graduate students from Sri Lanka and Israel, but had little knowledge of the world beyond the U.S. border. Surely, a professor in a large university should be more knowledgeable than that! We couldn’t really manage a full year’s leave. We were fairly new to the university, were under sizable mortgage obligations. So I applied for a one-semester sabbatical leave with pay after having been at Cornell for 6 1/2 years. It was granted. The girls were 12 and 16, respectively, and each had had instruction in French, and could get along in the language if they had to. So a visit to Europe was highly anticipated.

Where to start? A woman who helps to place children of sabbatical leave parents in European schools was recommended to us. She lived in Sleepy Hollow, near Tarrytown, N.Y., and so we contacted her. She was most helpful and encouraging, and gave us the names

of a French school administrator at Institut Bénédict Montreux, Switzerland, for Lynn, and at Montjoix in Villars-sur-Ollon, Switzerland, for Diane. We made arrangements for the spring term for each, and began to plan for our own stay. We would visit the girls every two weeks, and learn about Europe so we could take them and Madeline's mother on a family tour of Europe at the end of the spring term.

What about our house in Ithaca? We had let it be known that we would be out of the country, and would rent reasonably to responsible tenants. A young couple, new to Ithaca (he a new engineering professor) answered our ad, and after an insightful conversation with them, we decided to rent to them. They were a delightful couple, and so meticulous and honest! When we returned from our leave, they had a list of little things that needed "squaring" financially. One was that one of the wires in a living-room screen had broken, and they would take care of it. Their care of the house, and their honesty, were so appreciated!

Knowing that we would need a large vehicle for our family tour at the end of the semester, we ordered a VW microbus, to be picked up at the factory in Germany soon after our arrival in Europe at the end of the fall semester. I made a plywood trunk in which to ship our clothing and recreational gear by boat. It was made to fit the VW wagons that we had looked at here in Ithaca before traveling as a family to Europe. The microbus shown in the catalogue was the one from which I had taken measurements for our plywood trunk. **But** about ten days before we were scheduled to ship the trunk, there was an east-coast shipping strike, and the box with all we had planned to put in it, could not be shipped by boat. A quick change of plans was called for!

We shifted gears, and sent everything in footlockers – by air. Actually, we had planned well, and it was relatively easy to make the switch. All four of us were expectantly giddy. It was to be the first, long trip away from home and we were excited, a bit uneasy, but determined. We four were most of the passengers on a Constellation that left New York City, flew to Gander, Scotland, Amsterdam, and Geneva. From Geneva, we went by train to Lausanne, and then to Montreux.

Lynn's school in Montreux had, as I recall, about 20 students at the secondary level. During the winter, they stayed and studied at

winter quarters in Leysin, in the mountains above Montreux. Lynn and her classmate were the only two in chemistry, and so were dispatched to stores in Montreux to purchase chemicals for their course. A pretty advanced assignment, we thought, for new students! But Lynn, ever the independent, confident, self-assured one, went right to work in Montreux, and ordered the chemicals they would need for the course.

Up the mountainside beyond Montreux, we dropped off daughter #2. Diane, just as able as her sister, was not at all sure she wanted any part of a school where the sole language was French, and more important, where bonding and grouping were already established and secure. We felt her insecurity, and our plans for her semester at Montjoie were a bit shaky. But good sport that she was, she accepted our plans and pronouncements with grace that was a bit teary. I think we were teary, too!

From Montreux, where we re-packed and sent foot-lockers to Diane and Lynn, Madeline and I were on our own. We took a train to Lausanne, to Zürich, and Stuttgart, where we picked up the VW microbus that we had ordered back in the States. From Stuttgart, we drove to Ulm. In our overnight hotel in Ulm, we stared at a picture of Lech, with its huge snowdrifts, and wondered if we really could drive there. We really were babes in the woods, and were completely amazed at the depth of snow shown in photos of in Lech. It was as high as the VW bus, and I couldn't help but notice that there were two levels of yellow stains on the snow where the rotary plows had "cleared" the street – one of the levels represented dogs!

From Ulm we drove through Liechtenstein, put on the chains, and headed into Austria. The car performed admirably, and we decided we had made the right choice of vehicle for an Alps winter. By the time we got to Lech, the snowdrifts were as high as the wagon, and we were glad we had put on chains. But with this car, did we really need them? The microbus taxis were not using them! The next day we took them off! We were real "Osterreichmänner"! The chains were relics!

We stayed at Haus Eva, a small, white, stucco hotel near the base of a small avalanche, and moved in. In the valley, a few hundred meters from Haus Eva, flowed a creek that had a faint odor of sewage. After all, a village the size of Lech couldn't be expected to

have a treatment plant. Not when the creek went right through town!

For the next two weeks Madeline and I took lessons in the Austrian ski school – Madeline in class 7, and I in class 4-A. The first interchange between me and the “Ski-Lehrer” went something like this, but in German: “You must be a very good skier!” “No, I am a beginner.” “Then get rid of those skis!” They were very long. I had purchased them on sale at a ski shop in Cortland, thinking that more was better. (They were 120 cm. long, wide, and heavy. So I turned them in at Lech, and purchased much shorter, narrower, and much lighter skis. Kneissel, 195 cm. long. I used them, learned to ski well on them, and never again thought about long, “schwer” skis.

Mine was a very “schwer” class, the instructor seeming bent on making Olympic skiers of us all. I was the only American in the class of nearly all German-speaking beginners. They asked me a lot of questions (in German, of course), and I did my best to answer them in German. “Skis schliessen!” was a common urging, because at that time skis were supposed to be together! Later on, the accepted standard was to keep skis about a foot apart. But not in Lech in 1963! At one point, the instructor, having become thoroughly disgusted with me, said, “Skis schliessen, goddammit!” He had picked up some English cuss-words, but not from me!

I wasn’t about to let any “Deutschmann” get ahead of me. I was determined to do better and without intimidation anything the instructor did, and I took every opportunity to learn to ski aggressively. Halfway through our stay in Lech, one of the instructors said, “You’re not like the other Americans!” and I took that as a supreme compliment! I learned to ski well in Austria. They don’t fool around. Skiing is important to them! And it was also important to me to demonstrate that Americans are not sissies. They can be tough, proud, and determined!

I like to think I helped change at least some Austrians’ impressions of Americans! And of America! At one point, one of my class who could speak halting English, asked how much land cost in America – per square meter! When I mentioned that I had a summer home about a day’s drive from New York City, that I had about half of a hectare next to a lake, he thought I must be very rich. But when he learned that I was a “doctor professor” he didn’t know quite how to address me. I think he thought I was kidding!

The most difficult run we made was down Madloch, a mountain right at the edge of town. A couple of weeks after we had left Lech, and were in Zermatt, the news carried an account of the death of Eva Schneider – our hotel’s owner in an avalanche on Madloch! Yes, Lech was a skier’s village, and turned out “hardened” skiers! Just two weeks later, two more skiers were killed in avalanches in Lech!

From Lech, it was back to Leysin and Villars to visit Lynn and Diane. Lynn was very happy to see us, but Diane was overjoyed. Poor kid, she had had no idea where Lech was, and felt so abandoned! As we were leaving Diane to visit Zermatt, she said in a sort of worried, lonely voice, “What country is that in?” It was, indeed, tough to leave the children every two weeks, but that was the plan and we adhered to it.

We left the microbus at Aigle, in the valley below Zermatt, locked it, and headed for a hotel nearby. We both were about as “low” as at any time during our stay in Europe. No girls, no firm plans for the next several weeks, and not even sure where and what in Zermatt the next day would bring. But the hotel was new and clean, we had a good meal, and so to bed.

The train that would take us to the famous ski town of Zermatt was nearby, and after a night’s rest we were ready and adventurous. We had no reservations so were playing it pretty much by ear. The train was only three cars long, with cogs it could engage on the steeper sections. Up, up, and up went the two-car train, and when it got to some very steep places, there was a jolt as the cogs of the wheels engaged the toothed tracks. It seemed, as we climbed, that we should soon be above the peaks around us. Zermatt was, indeed, in the Swiss Alps! It was fascinating scenery, and I wondered what skiing in this kind of country would be like. Could I really do it? But the passengers on the train were much like me, and that calmed my apprehensions.

Finally we were in the station at Zermatt – a small, seemingly friendly, very German town in language and dress, with snow-covered peaks all around and no cars to be seen. Zermatt was limited to foot traffic and a few electric-powered taxis. The village was surrounded by mountains, the most outstanding of which was the Matterhorn. With packs on our backs, and skis in hand, we inquired about a hotel room. The nearest was far too expensive for us, so on we walked. The next hotel was a bit less expensive, but

still more than we could afford. The farther we walked, the lower the price, until about a half-mile from the railroad station we found the Matterhornblick, or “Matterhorn View”, a nice old, dark-stained wood and white stucco hotel almost across from the village cemetery. There were wood panels along the hallways that smelled of wax. I think they waxed the paneling weekly. It smelled clean and quaint. Best of all, our room on the third floor looked right out at the Matterhorn. We were “home”! For at least a week! The fragrance of the freshly waxed wood paneling and the sight of the Matterhorn out every west window – it all gave a lasting impression of old Switzerland and European grace and grandeur.

At dinner that night, we asked for water to drink. It was obvious that “Fisch-Wasser” was not a popular beverage in Switzerland, but wine was. Although it was not made clear to us, it was obvious that water was hard to get. Later, we learned that there was a typhoid epidemic in Zermatt, and that anyone who came down with it was given a ticket for an expenses-paid visit to Zermatt the following year. How I wished we could have had just a teeny attack of typhoid!

At the ski school office in the morning, I got a week’s pass that entitled me to ski lessons and skiing all the runs from adjacent mountains into Zermatt. And I skied almost all of them, steep, long, and challenging. I think that every run was the equivalent of a whole day of skiing at Greek Peak back in Ithaca, and seldom did I stop for lunch. It was just ski. Ski, SKI! The snow was deep, and the runs well-marked. One run that began on the Gornergrat went through people’s back yards all the way down into Zermatt. It seemed strange to ski through people’s yards, but the colored discs and their descending numbers atop the poles marking the course were unmistakable. One run, from near the Italy/Switzerland border, began at about 12,000 feet elevation and ended in town at about 6,500 feet. It was nearly 7 miles long! Some different from anything I had skied in the U.S.! Zermatt was surely a skier’s town. Most of the runs were steeper and longer than Madeline wanted to, or could, ski, so she spent considerable time searching out interesting places in town. Zermatt wasn’t boring for anyone!

I skied enough in Switzerland and Austria to appreciate what their training is, compared to what I received as an “old” foreigner. While I was always conscious of being an American, to whom was assigned qualities of “soft,” unwilling and unable to compete with

the Europeans on their level, I think I really surprised them. It was a good feeling to compete with others of my age group, and excel. It was also a way to really learn how to ski. But I'm afraid that at times my insistence on taking the hard way didn't pay off.

My ski boots were anything but comfortable. So I went through a whole evolution of ski boots, from basic lace boots to custom-made Austrian boots. It was several years of skiing before I really found comfortable boots in which I really felt at home on the slopes. But I can honestly say that I was never fully comfortable in Swiss boots. I used them, learned to ski in them, but always felt that "something" could be done to make them more comfortable. The epitome of my ski boot evolution in Europe was a pair of custom-made boots that were shipped to me later from Austria -- a pair of leather boots made by a top Austrian boot-maker. They arrived in the United States, and when I tried them on I was delighted -- until I had skied in them one day, and was anything but comfortable in the same boots the next day. But it was several years before I replaced those with a standard Nordica boot whose cushioning was most comfortable, and in which I could ski all day and not sigh in relief when I got out of them.

One pair of boots that I used in Zermatt had little pulleys at each eyelet. There was an inner boot that was laced up first, and an outer boot that was laced up last. The outer laces were part of a pulley arrangement -- the idea being that the pulleys would apportion and thus equalize the stress, at all eyelets. And I guess they did. But not always with the desired result. One day, for example, I took a chair lift from Zermatt to the top of an eastern slope. Ever the tester of limits, I had heard about a new run just opened on a peak east of Zermatt, and so I had to try it out. It was high, steep, long, and was reached only by a cable car from Zermatt's once most easterly peak. So east I went, from cable-car to cable-car, up and up, until I could go no farther. Then I started back to Zermatt. I was "ready" for all that the Alps could throw at me. At the top of the peak, I learned that a new chair lift had been constructed to yet another peak to the east, and of course I had to give it a try. My eagerness to ski anything the Alps could offer knew no bounds. Well, I was to learn that I really did have bounds and I was about to exceed them.

On the way down that distant peak, I did something -- I don't know what -- and I fell so hard that I sprained my ankle and foot badly. The laces didn't break, and I didn't come out of the boot. But I

wrenched my right foot horribly. Yet I skied the whole way back into Zermatt without taking off my skis. And I paid for that by not being able to ski the rest of the week! It was one of those few times that my pride got in the way of common sense. It was going to happen again... and again. But this time was the longest and the most vivid of all.

When I got back to the Matterhornblick, my ankle was not in shape to ski for quite a while, so we made a change of plans. We would return to the girls, spend a couple of days with them, change some things in our suitcases, and start for Italy after the weekend.

Lynn's school was in the Rhone/Lake Geneva valley. There were cities, public transportation, stores, and many "civilized" things to do and do see. It was easy to get to visit Lynn. But Diane was "up in the mountains," in a town a few thousand feet – and several social levels – above Lynn. The girls were always glad to see us, but Lynn never complained about our leaving. Diane, on the other hand, however well adjusted at school, experienced a distasteful "separation" each time our weekend visit came to an end. We softened the separation with the assurance that we'd be back in two weeks, and we were. In a way, I am sure that Diane learned much about the geography of Europe because I'm sure she looked at a map every two weeks to see where we're be "this week."

We felt that little by little, they were accommodating to the separation, and their evolving independence was good for them both. Diane was also making some friends at Montjoie, and that was good for us all. She was learning to ski, too, and it augured well for us as a skiing family.

We learned that Diane had had the highest score in the school on her report card, and that she felt a little better about making her way at school. Still teary at our departure, she certainly was getting a handle on things at Montjoie. That was worth the whole week away for us.

We had a final lunch with the girls, took them back to their schools, and headed for the Simplon Pass, Milano, and Firenze. Our University of Rochester friends, Burt and Jan Andreas, who were on a year's sabbatical leave in Firenze (Florence), were planning on a short tour of eastern Europe, but first thought we'd do some things

together. So we stashed our winter stuff (skis and ski clothes). We put on gear for warmer climes, and headed for Firenze.

Our route took us through the Simplon Pass (a tunnel through the Alps between Switzerland and Italy). It was an 11-mile-long tunnel that we entered in Switzerland in winter and exited in Italy in spring! Quite an experience!

The highway took us pretty directly to Milano, where we found nice hotel accommodations. We parked the car and walked 'til Madeline got a blister and we had to find a foot-doctor. Where else to find such a person but in a shoe store? He patched up Madeline and we continued our sight-seeing. Milano was surely the largest city we had strolled in years. The cathedral was magnificent, with huge flying buttresses and remarkable stonework. We also visited La Scala, the famous opera house. It was important to balance skiing with culture!

South of Milano, as we entered the Autostrada, we had an experience that I think was typical of Italy. As we entered the Autostrada, a toll-taker had to put us into some category of vehicle. He looked into the VW, saw more than two seats, and said, "Bus!" But I said, in my fractured Italian, "No, only two people!" But he pointed to the seats, and counted, in Italian, "One, two, three; bus!" And so we were charged a bus rate, even though only two of us went "by bus from Milano to Firenze"! There's so much to delight a foreign visitor, but so much to annoy, too!

All along the Autostrada we viewed the Apennines, beautiful farmland with large sturdy barns and quantities of bundled branches and hay. Rural homes, as in other parts of Europe, seemed slanted toward magnificent barns, and somewhat less pretentious houses. The whole countryside seemed neat, with few "waste places." Land, in much of Europe, is obviously too precious to waste! The dominant structures, in most towns, are the duomos (cathedrals).

Firenze was our base for side trips in Italy. We went to Rome for a couple of days, via Modena, where we stopped at a small village high in the hills where Carrie Tincani and her husband lived. Her husband had helped back to his unit a Rochester WW2 friend of mine, shot down over Italy. In retaliation, the Germans had shot the men of the village. But Carrie's husband had escaped by hiding all day in a well. He wanted to show me his small farm, but

couldn't speak English. And I couldn't speak Italian, so I had an idea. When he showed me an impressive oak tree, I knew the genus name of oak was *Quercus*, so I put an Italian ending on the word, and pronounced it *Querchi*. "Si, si, Signori," said Carrie's husband. And for the next half-hour we toured his small farm, I making up an Italian word out of the scientific Latin name, and putting an Italian ending on the word. It worked, and he was delighted. A special gift we left with him was a St. Christopher medal that we had blessed in a mass blessing by the Pope in Rome. In Carrrie's small kitchen, by the way, was a refrigerator that had been sent her by the saved aviator. It appeared to be the only refrigerator in their small mountain village.

In Rome, Burt and Jan Andreas went to one hotel, and Madeline and I to another, less expensive one which proved to be a little closer to "the action" and fairly new. We tried to limit expenses as much as possible, and for the most part we did. We "did" Rome as thoroughly as we could in a couple of days, then returned to Firenze via Siena.

In the Quattro Venti restaurant in Siena, we were entertained by perhaps 30 male students from the medical school, all of whom were eager to practice their English, and so entertained us with questions and just plain fun conversation. Since they were the only other people in the restaurant, we learned about Siena from them. When we left, we wanted a souvenir of Siena, and thought the little pitcher on the table would be nice. We asked the maitre d' if we could purchase it, but he declined to sell it. Well, the 30 young medical students "worked him over" in such a way that he had no choice but to sell the pitcher. Today that pitcher graces a glass shelf in our Kendal cottage.

From Siena, we stopped by San Gimignano, the site of the most famous violin maker of all time -- Antonio Stradivari . A most interesting town, with almost all brick homes and chimneys, set all alone in a lovely valley not far from Sienna. From there we drove back to Firenze.

We had one more side trip -- to Pisa - before returning to Switzerland and the girls. We stopped at the Leaning Tower in Pisa to take a few pictures. We parked right behind a car with a TP license -- an Ithaca car! I left a note on it saying we'd return. When we did, there were a young man and a woman, who we learned were

children of the owners of the Ithaca Bakery back home. They were trying to drive a Chevrolet coupe around Italy, but found many of the streets too narrow for the car. How they missed the U.S. and couldn't wait to return! (On still another visit to Pisa, Diane, never lacking creativity, posed with her hands seeming to prop up the Leaning Tower. The effect was perfect. Her creativity was taking on a European flair!)

Once more to Firenze, then off to Switzerland to pack up the girls for an extended mid-term swing through France, and Germany.

In a youth hostel in southern France we heard our first cuckoo that sounded just like a cuckoo clock (or does the clock sound much like a cuckoo?) Anyway, the similarity is remarkable. Then further north, we visited Mont St. Michel, where we all were fascinated by the rhythm of the woman beating the batter for crêpes – “batter-up, batter-up, batter-up . . .”

Versailles was as beautiful as the pictures imply. Especially noteworthy was the French of the guide who led us around the gardens and the palace. He was physically handicapped, but his French was impeccable. Then came Paris with its fascinating Pont des Arts, Eiffel Tower, lovely art shops, and river boats. We were disappointed in the restaurants, although we did find a few that offered good food to match our budget. At one point, however, I wrote in our collective diary, “Have seen so many sub-standard rooms that I feel like a candidate for the Rescue Mission!”

As we left Paris and continued east, we passed increasingly beautiful farm land, and by the time we reached the German border, it was more like the beautiful farms south of Paris. Hotels were clean and well-kept, meals were tasty and more appealing to the Rockcastle palates, and although we as a family felt comfortable conversing in French, we found little difficulty in expressing ourselves in German. If we lapsed into French, the populace seemed to understand. We made a brief tour of Belgium, some of the WWII battle-scenes, some German towns and cities of renown such as Heidelberg, then we returned the girls to their schools in Switzerland.

We had to “scout” our trip with Madeline’s mother (who would come to Europe at the end of the girls’ school year, when the five of us would take a family “swing” through Europe, with Madeline and

me as their guides). We felt we would have seen enough in our once-over-lightly, four-leaf-clover tour of Europe to do a pretty quick, but thorough job. And since the girls had been in French-speaking schools for a semester, we would be pretty well equipped for a 4-to-6 week tour.

We had “cased” Europe pretty well, but had done all of it on the continent. Now, we needed to “case” the British Isles. And so we did, driving to Paris and north to the Straits of Dover. As we exited the ferry onto British soil, the man giving directions reminded me to “keep left.” And you know what? I drove off the ferry to the right, barely avoiding a collision. How compelling is habit!

I soon got used to the bass-ackward driving on British roads, and we checked out much of England without incident. One thing that set me on edge, though, was the parking in London. Out of habit, I parked and put my money in the meter ahead of, and to the right, of “my space.” When I returned there was a ticket on the car, and a summons to appear before “Her Majesty’s Court.” Well, I wrote a letter of explanation, saying that I did put my money in the meter, but that I didn’t put it in the meter behind the car, as apparently was the custom in England, but in front of it. It was the wrong meter! The explanation was accepted, but not before considerable correspondence and irritation.

We camped at campgrounds advertised in a camping manual issued by the British government, trying as best we could to make the tour representative of England. We visited a Shakespeare theater, purchased an umbrella, watched punting on a Cambridge canal, and generally got a taste of England’s charm. We had lunch beside the Firth of Fourth, napped in the microbus atop a hill in Scotland, and experienced the narrow dirt roads across the moors of northern England. On the east coast of Scotland, I visited the famed Hardy factory where I purchased both rod and reel, hoping to try fishing in one or more of the famed English streams. It was a quick and rather shallow tour of the island, but we got a taste of the “old sod,” of “keep to the left” traffic, and felt a bit more comfortable about taking the girls and (Madeline’s) Mother on a family tour in late June and July.

Back to the mainland, and a meeting with Jean Piaget, an international “name” in how children learn. Phil Johnson, my chairman at Cornell, had wired me in Geneva, suggesting that I

contact Dr. Jean Piaget to see if I could interest him in coming to the U.S. for a series of lectures. I had never heard of Jean Piaget, and so looked in the telephone directory. Sure enough, there was a Jean Piaget. But who was he? A science educator? I didn't know. But I called him, and in French asked if I might talk to him about a possible trip to the U.S.

Madeline and I went by taxi to a southern suburb of Geneva, to a modest house surrounded by a white picket fence. Jean Piaget met us at the gate, with his ever-present pipe. I introduced myself as Professor Rochechateau from Cornell, and he invited us in. Once inside, I saw that his living-room was filled with various species of the genus *Sedum*. Obviously, he was a botanist. A specialist in Sedums? He didn't say, and I was not inclined at that point to ask. We talked, and I said I was on sabbatical leave from Cornell University. My department chair has suggested that I contact him to see if he would be willing to come to Cornell, and perhaps other institutions to give a series of lectures – if I could get a grant to support him and pay him a stipend. “Oui, c'est un possibilité!” Soon we left, convinced that I had talked with a well-known botanist. But how surprised I was when I learned that I had been in the home of one of the world's best-known developmental psychologists!

We checked in with the girls, did a one-last-time visit to Firenze, where we had made arrangements to rent the Andreas' apartment while they were touring, and after two weeks returned to Switzerland to pick up the girls and begin their tour. We picked up (Madeline's) Mother in Geneva, and the first thing she needed was a visit to “Dames.” When she came out, she was obviously shocked, and showed it. “My laws, Madeline!” was her reaction to her first experience with a European public toilet. It was her first experience with a low-class, but very common, style of public “accommodation.” She would have more. We should have reminded her that a hole in the floor, two raised foot-rests, and a pull-chain for flushing were common. She would learn, and fast!

Our look-see of Europe with Mother and the girls was as nearly representative as we could make it. We five went through much of northern Italy, Switzerland, Austria, France, Netherlands, Belgium, Germany, and across The Channel, through England and Scotland, and even into Denmark, giving Mother the benefit of our (Madeline's and mine) experiences during winter and spring. It was

a whirlwind tour, but as complete as we could make it, of Europe. A far better and more intimate look-see at Europe than a first-time visitor could get in the same length of time from a commercial guide. The girls were our spokespersons, and they did a mistressful job. After about six weeks and more places than we could possibly remember, we shipped the VW bus back to “the states” and we five returned by a Swedish American Line’s ship, the Kungsholm, to our old “stateside” home. We had seen so much, we had done so much, but there was, indeed, no place like home.

The United States customs agent was cute. When he asked if the fly-rod I had bought was new or used, I said, “New!” “Didn’t you even hold it in your hand?” he asked. When I said, “Oh, yes!” he wrote down, “Used!” Similarly with the umbrella. And when he asked if we had any liquor, I held up a bottle of Italian wine. “I said, ‘liquor.’” he replied. And when I pointed to the wine, he said, “You don’t drink, do you? Don’t you know the difference between wine and liquor?” It was fun being back in the U.S.!

Ski Stories

As a teacher, I followed assiduously the expectations and the letter of the law insofar as my own children’s attendance in school – for the most part. But there was one time when, for some reason that I don’t remember, I had a day off when the girls did not. At that time, Lynn was about 12 and Diane 8. All of us had learned to ski, Diane perhaps on beginner’s skis, and Madeline on skis not much more advanced. Lynn was on beginning skis, and was a strict amateur. But we decided that we should take a day off for a family outing – to Snow Ridge on the Tug Hill plateau northeast of Syracuse. We didn’t ask permission; we just went. It would be a family vacation day.

So we loaded the four of us in the car, skis, poles, and extra clothing that might replace wet stuff, and off we went for a family day of skiing. I don’t remember much about the day except that we did go skiing – all four of us, without permission of the school system. It was the only time we did this, and as I recall there were no repercussions. The two girls were good, conscientious students, and we weren’t known as flouters of the law. Besides, I was a professor at a teacher’s college. But given the day, the weather, our interest in skiing, and the fact that on a school day we probably would have the

ski slope to ourselves, it was a good decision. It was a gorgeous day, we had a wonderful family outing, and we never “broke the law” in such fashion again. But oh how we enjoyed that one time! If anyone should ask, “Did you ever knowingly break the law?” I guess our answer would have to be, “Yes, and we had a ball!”

A few years later, our first trip to Europe created a lifelong passion for skiing.

On yet another European trip, I was skiing with college-aged Diane on a trail that I thought she would find as interesting as it was challenging. She fell, but being the good sport that she is, she got up, skied a little farther, and fell again. Now Diane is even-tempered and not given to emotional out-bursts, but that day while still on the not-at-all-easy slope, she shouted, “D-n! I’m so sick of being challenged!” and I knew I had exceeded the bounds of pleasant skiing. Diane is a graceful, if not daring, skier today! And her two sons – my grandsons -- have that quality of “daring-do!” that I found so admirable in Austrian and Swiss skiers.

In the United States, I looked for, and found, a competitive ski program that was independent of age, but offered sane competition for skiers of all ages. It is called NASTAR, and is “played” like this: Ski areas throughout the U.S. send one of their instructors to a designated place (often in Colorado or Utah) to ski competitively against equally good skiers on a slalom course set up for the purpose. There are “gates” or flags around which the skier must ski, and is timed for his or her race from the starting gate through the final gate. Racers are compared with other racers of their age class, and the skier who sets up the gates has been compared with others on a national basis. So it is possible to compare me with another skier of my age on a different course in, say, California. Gold, silver, or bronze medals are awarded on the basis of measured times, and courses are re-timed periodically as the skill of the course master skier changes, thus changing the level of difficulty of the course. It is, as nearly as can be set up, a NAtional STAndard Race. It is perfect for skiers such as I, who age, lose a bit of their “edge,” but still like to compete. Now I can take out my competitive edge in a safe way, and know how I compare with others of my age in other states. I take great pride in my display of gold NASTAR medals! And it’s nice to know that I can race at any age, because I’m racing against others of that age! I know, too, that my grandsons, great

skiers that they are, can compete with me, but on a scale designed for them, as mine is designed for me!

The Summer at San Jose State

In the summer of 1972, a professor of mammalogy and science education at San Jose State suggested that he and I exchange jobs for the summer, each taking the other's house. It was a rather novel idea, and since I had never been to San Jose State, it seemed like an interesting idea, and I agreed. So Ed and I cleared it with our respective institutions. He came east and I went west with Lynn; Madeline and Diane were to follow.

Sometimes the most important changes in one's professional life occur at the most unexpected times and places! On our trip to California, Lynn and I were traveling by car through Death Valley. We had never visited Death Valley, and so everything there was novel and exciting. At one point, we came upon a pay phone on a post set in the desert sand. I thought it would be fun to call Madeline from Death Valley. When we had exchanged greetings, she said, "Dean Palm wants to get in touch with you. Why not give him a call from there"? And so I did. He asked me if I would be interested in the position of Director of Resident Instruction. This was a post that would put that administrative position right in line for Dean of the College. It was an honor to be invited to apply. But I was a teacher. I loved teaching, I was good at it, and for my part, I was well on my way to a distinguished professorship. So I gratefully declined Dean Palm's offer. He was most understanding, and we remained the best of friends.

I clearly recall taking an umbrella to campus the first morning, because the overcast was low. I was informed that each morning was likely to be like that, but it almost never rained in San Jose in the summer. And that summer it never did!

In Ed's back yard was an apricot tree, and it was full of fruit. I had never seen apricots growing, and I thought it would be nice to harvest them. I didn't know that commercial apricots are treated with sulfur, and so I spread the ripe fruits on a table in sunlight, expecting them to dry and shrivel. But I was surprised and disappointed to find that in a couple of days they were crawling with

insect larvae. A check with a nearby fruit farm showed that when apricots are harvested, they are treated with sulfur and the combination of sulfur and sunlight shrivels and treats them so insects are discouraged or killed. I learned the hard way! And we purchased commercially prepared apricots.

Two incidents stand out in memory. I wanted to get a tank of oxygen to use for a laboratory demonstration, but was told that such tanks of oxygen are not available except in chemistry labs. When I said that at Cornell I was able to get a tank without special arrangements, I was told, "Wait a minute. Let me check." And within a half-hour I had my tank of oxygen. If I wasn't able to come up with something for class, all I had to do was mention its availability at Cornell, and that opened doors. Cornell exerts a powerful influence even from 2500 miles away!

Another incident – this one not connected with San Jose's program – occurred just before class one morning. My room overlooked a busy intersection with a stop light. A Cadillac of the day, with its tapered and pointed rear fender "fin" approached a traffic light, and at the last second slammed on its brakes, skidding to a stop. Following too closely and too fast was a motorcycle with a passenger sitting behind the driver. When the car stopped suddenly, the motorcycle could not, and the passenger vaulted over the driver and into that sharp point of the Cadillac's rear fender. It was a grisly accident, and I saw it all from the second-floor lab. I just know that the police arrived, as did an ambulance. It was an accident not easily forgotten!

Also in San Jose was the home of the Winchester Arms magnate. His widow had some kind of deep-seated belief that so long as there was construction on-going at the Winchester mansion, things would be O.K. So she managed to have some construction going on, even when there was absolutely no need for it. Stairs were being built where there was no need for them. Doors were installed where there was no use for a door. It was a mysterious house, indeed, and I think its total operation was supported by the many curious visitors who, like me, were intrigued with the unnecessary stairs, doors, and blind hallways that were above and beyond any reasonable need.

When I finished my summer of teaching at San Jose State, we looked longingly west. We had never been west of the continental

U.S., and since we were already half-way to Hawaii, we decided to continue as a family and visit that famous island group. Madeline's mother had already been included in the plans, and so she, Madeline, Lynn, and Diane completed the group that flew to Hawaii for an end-of-summer treat.

Our rooms in Honolulu faced a major city street, not the ocean. I wondered if by any chance the hotel manager could possibly be a graduate of Cornell's hotel school. So I checked, and guess what! The next day we were in rooms facing Waikiki Beach! A university the size and prominence of Cornell does have advantages, not all of them educational!

One day the five of us, in a rented car, drove around the island – sightseeing. (There is so much to see in Hawaii!) Near the U.S. tracking station on the west coast of the big island, we saw building lots for sale. Back in our hotel lobby there was a real estate agent who was selling lots. Wouldn't it be fun, we said, to buy a 1-acre lot just to brag that we owned land in Hawaii? Mother said, "If you get a lot, I'll get one, too." And we did and she did! We made the purchase in the hotel lobby, and were just a wee bit concerned until we got our first tax notice. We really were, and are, land-owners in Hawaii! On the way home to the mainland, Mother said, "You know, I'll never make use of that lot. Why don't I just deed it over to you?" And so she did. We now own two acres of prime Hawaii real estate that has quintupled in value since we purchased it!

Medical Emergency: Endarterectomy

I suppose that many people have a medical incident in their lives that, for some, marks a potential fatality, but through a set of circumstances, not entirely under their own control, seems less risky than it actually is. Mine occurred en route to Whiteface Mountain with close friends who were our guests at the Tupper Lake camp. We were driving along the highway approaching the base of Whiteface Mountain, when I lost sight of the guardrail on my passenger side of the car. I blinked my eyes, but the guardrail was gone. When we got to the Ski Lodge at the base of Whiteface, I mentioned it to Madeline, and was puzzled and more than a little concerned that I couldn't think of her name. She was my wife, all right, but I didn't know her name. In a few minutes, the incident

passed and I was my normal self once more. Yet the incident continued to worry me.

When we returned to Ithaca, there was another incident while I was walking from the Cornell Campus Store to Stone Hall. Suddenly, I could not see the sidewalk ahead of me, nor the street lights that lined the curb. I blinked my eyes, but there were no lights to be seen. Again, it was temporary. By the time I arrived at Stone Hall, my vision was normal. Something very odd here!

When I arrived home and related this to Madeline, she insisted we call Dr. Jerry Bittenbender, a long-time friend and son of close friends of Madeline's parents in Pennsylvania. We also contacted Dr. Wendell Bryce, our family physician in Ithaca. Jerry was insistent that we make an appointment at Strong Memorial Hospital in Rochester, and Wendell Bryce concurred. Jerry said, "When in a vital race, bet on a race-horse, not on a donkey. Go to the best. Go to Strong!" And I did. At Strong, as we call it locally, they did a number of tests, the sum of which determined that there was a lesion on the internal carotid artery, and an operation was called for at the earliest date. And so Madeline and I drove to Rochester, where I underwent surgery to remove the lesion, and patch the artery.

I had the best of arterial surgeons – Dr. Curtis Nelson. He had a medical degree, but he also had a degree in engineering (fluid mechanics). I was duly impressed with that! He recognized that arteries were similar in many respects to pipes, and he applied his knowledge of fluid mechanics to arteries. I also had a wonderful neurologist – Dr. David Goldblatt. He was as practical and down-to-earth as he was knowledgeable about the brain. Between the two, I was in the best of hands.

The surgery was performed in the morning, and by noon I was in good spirits. I had no aches or pains, and no palpable effects of the surgery. It seems that an ulceration had occurred at the bifurcation of the left internal carotid artery. The surgical team had briefed me on the entire operation, kept me "awake" right up until surgery, and "interviewed" me right afterwards.

Surgery successfully completed, I was wheeled back into the ward for recovery. The one thing that I remember well about the recovery period was that a victim of a serious motorcycle accident was

wheeled in not far away. He was really “out of it,” but he had a number of visitors in their motorcycle jackets and helmets – a pretty “fringe” sort of group. I remember wondering if what happened to their friend had any effect on their driving habits or their dress.

The next morning, Dr. Nelson asked if I felt up to meeting and talking to his class. Of course I did, and so about 24 hours after surgery I talked to his class about the patient’s point of view. It was a fun, and, I hope, valued opportunity. To date, the operation has been an absolute success, and I have had no complications. But a resident farmer near Dryden, not far from Ithaca, had a similar operation. While riding his tractor in his apple orchard, an apple twig caught on his protective patch, tore it loose, and he bled to death. Two operations, one a success and the other a failure – but not of the operation!

Rather, of carelessness afterward.

A Few Fish Tales

During the years in which I was writing on the Addison-Wesley Science project in Mt. Kisco, I spent most of my time on the second floor of the Mt. Kisco Bank building because that was our writing location; that’s where authors, editors, illustrators, and support staff worked. One floor below, and a couple of doors away, was a florist in whose shop was a huge mounted brown trout. I inquired about it, and learned that the florist was an avid fly fisherman, and a member of a then-defunct trout club in nearby Connecticut. The club had leased many acres of land on which were several ponds in which they raised brown trout. When the trout got big enough to fish for, they were released in one of the ponds for that purpose.

In time, the membership got older, some members moved away, and some passed away, and with declining membership, the club went out of business. But a few of the older breeders must have remained in one pond. The florist, knowing the history of the club, and knowing of the breeders, still used to fish there occasionally. One day he hooked a gigantic brown trout “breeder,” played it for nearly an hour, and finally landed it. As I recall, it was over 30 inches long, and tipped the scales at something like 15 pounds. It was mounted and displayed in the florist shop.

The florist and I became friends, and he told me about some good fly-fishing in a stream not far away. The stream came from one of the New York City reservoirs. It was clear, cold, and not subject to quick rises and falls from rainstorms. Furthermore, there was no restriction as to hours of fishing. So I used to go there at dusk and fly-fish for browns. On a hot summer evening, this was as close to Heaven as one could get.

There was only one limitation. The “posted” signs indicated that a line was limited to only one fly. But my very favorite system employed two flies – a “dropper” fly to call attention to the “tail fly” that was the real catcher. What was I to do? I had a plan – tie the dropper fly to the leader with a 9x tippet, but tie the tail fly with something stronger, such as 3x material. Then, if someone “legal-looking” approached, I could whip the line in such a way as to break off the illegal fly, and still retain the legal one. Not exactly “cricket,” but I felt that in practice, I was within the law, and was using only one “catch-able” leader.

There is a small tributary to Sixmile Creek, east of Ithaca. Sixmile Creek afforded me hundreds and hundreds of hours of delightful fly-fishing for browns and brookies. But I returned almost all that I caught, and so the population remained fairly constant. Just upstream from Slaterville Springs is a tributary that is hardly more than a trickle. It comes from a small pond, spring-fed, and hidden from the highway. It is a breeding place for frogs and salamanders and other aquatic life. Now and then a fish will make its way as a fingerling into a most unlikely spot for a fish to grow, and because it is an unlikely spot, will grow uncommonly large just because predators such as man simply overlook the place; it just doesn’t look like a spot that would support a large fish. One day, a professor from Cornell, perhaps just exploring out-of-the-way places to fish, happened on the pond from which the rivulet flowed. From that pond he took a sizable brown trout, something on the order of 18-20 inches! He was there at the right time at a pool that was hidden from public view, and so didn’t advertise itself as being a potential “trout jack-pot”!

Some Alaska rivers have amazing runs of salmon and trout at peak seasons. One such river, famous among fishermen world-wide, is the Kenai, which runs from snow-fields in the mountains south of Anchorage, east, parallel to Turnagain Arm, and into the sea. The Kenai is big water, has an enormous run of king salmon, and draws

thousands of fishermen each spring/summer. I saw one king salmon, mounted, that scaled nearly 90 pounds, taken from the Kenai.

The Russian River, a tributary of the Kenai, is a rushing, mountain stream that is the spawning ground for rainbow trout and smaller salmon, and is excellent fly-fishing, but is not such a magnet as the Kenai. I prefer it to the larger river simply because the fishermen who frequent it are more artists than meat-hunters. I have spent some happy hours on the Russian River, making only modest catches of trout or salmon, but having some exhilarating experiences.

One day I was fishing in the Russian River, almost oblivious to anything around me, content on fly-fishing, when I was aware that a very large animal had approached. I looked up and saw a cow moose, with calf, approaching the cottonwood tree under which I was fly-casting. Interrupting the casting, I moseyed ever so slowly back toward the bank upstream from the moose and her calf. She ambled slowly down the bank to the river, and out into the 2-foot-deep water, followed by her calf. In the middle of the stream she paused to nibble the cottonwood leaves overhead, while the calf, too short to nibble, stood by her side. And all the while I stood, not more than 50 feet away. That visit of the two moose was better than any fish I might have caught. But I wondered what would have happened if I hadn't seen the two of them and moved slowly to one side. The thrills of fly-fishing aren't only from the fish!

Some other thrilling incidents have occurred while fishing. Fly Island on the Kvichak near Igiugig, where I have done most of my salmon fishing, has been the site of nesting arctic terns. These skillful fliers seem to find the pebbly shore of Fly Island a perfect place for nesting. The shoreline is pebbly, the island is in the middle of the Kvichak River, so the river divides and flows around both sides of the island. The water flows at about 4-5 miles an hour, and is 8-10 feet deep so predation is minimal, and the pebbly strand line is nearly free from predators. It isn't easy, or even possible to get to the island except by boat.

The terns are fierce defenders of their nests, which are mere depressions in the layer of pebbles, and whose eggs resemble the pebbles themselves. On many occasions, I have been harassed by the adults, and a few times they have drawn blood. But I like the


arctic terns. They are such determined defenders of their territories. Never, though, in many years of fishing on Fly Island, have I accidentally caught a tern. They seemed to accept me so long as I stayed just off shore, and didn't step close to, or on, any of their eggs or chicks.



8

The Tupper Lake Camp



 All my life, amidst all of my professional and social life, the Raquette River and Tupper Lake intruded in a delightful way. When I needed a break, it was taken at Tupper Lake. In the early years of our marriage, Madeline and I used the only place that was available – the “camp” (as all summer homes in the Adirondacks are known) that my father and I had built. But when Madeline’s mother and father visited my parents at Tupper Lake, they liked the area and thought that, if a suitable place could be found, at the right price,

they, too, might invest in a vacation home. It wasn't long before a camp came on the market. It was a 3-bedroom camp, with fireplace in the living-room, screened front porch, kitchen, "adequate" bath, and something less than adequate basement. The living room was the most attractive room, with casement windows, and a stone fireplace in one corner. It was only a mile and a half from my parents' place, and Madeline's parents bought it. Her father soon thought a motorboat should be a part of any Adirondack camp, and bought an older model Chris-Craft. Dad loved to "tool around" Simond's Pond in his Chris-Craft, known as "The Crash" by Frank Welliver, the handy-man of Huntington Mills. "The Crash" figured in some interesting and unforgettable incidents at Tupper Lake. There was the day, for example, when Dad backed it up, forgetting to raise the anchor first, and so wrapped the anchor rope around the propeller and bent the propeller shaft. When something like that happened to The Crash, it wasn't as simple as taking off an outboard motor and fixing it. The boat had to be winched out of the water at a marine shop – a not-inexpensive operation.

The Crash had two cockpits – a front one, with steering wheel and instruments, and a rear one just for passengers. It really was a beautiful boat, and if it could write, I'm sure it could spin quite a history. It might tell of the day when Jim (my brother-in-law) and I were going to take a canoe up to Bridgebrook for a day of trout fishing. (Bridgebrook was a tributary of Tupper Lake – a small lake connected to Tupper Lake by the real bridge brook – nice speckled trout water that was as pretty as any in the Adirondacks, and was just hard enough to get to that it was sort of pristine.) It was Jim's and my idea to transport the canoe with the Crash, carry the canoe the 3/8 of a mile to Bridgebrook Pond, and enjoy a day's trout-fishing.

Well, Jim thought the easier way to transport the canoe was to lay it across the deck of the Crash, lash it down well, and we could make good time up Tupper Lake. We put the canoe across the deck, and in so doing, Jim had to stand on the outer edge of the deck. Now Jim was a lot larger than I – perhaps 200 pounds compared with my 140. And so the Crash tipped a little to one side. Since the deck was convex, that put Jim in a precarious position, and he said, sort of without thinking, "Get off! You're tipping the boat!" So I stepped back onto the dock. The result was inevitable. Jim fell backwards into the river, and he didn't like that a bit. I don't remember how we

finally transported the canoe, but I suppose we towed it at some kind of slow speed. And I suppose I chuckled now and then as I envisioned Jim falling backwards, fully clothed, into the river. Did we catch any trout at Bridgebrook"? I really don't remember because the sight of Jim falling backward into the Raquette River was just too memorable!

In time, The Crash proved too costly to keep and maintain. It had to be stored each year during the winter months, and that was costly. Whenever something needed to be done to the engine, it had to be taken "over-town" to a garage equipped to handle such a boat. After all, it was about 20 feet long, and must have weighed about a ton. And its varnished coat needed a refresher now and then, which meant hauling the boat out of the water to do it. When the oil needed changing, that was no little chore. And if we managed to strike something submerged in the lake, and it bent the prop, that was another cash outlay. Owning and maintaining a sizable inboard is not for sissies! It is not an inexpensive luxury. But The Crash was quite a boat! Like some Hollywood ladies – lovely, but expensive!

Dad loved "Huntington Lodge", as it was known. When he was there, he was a different person from the manager of Huntington Dairy. He also loved to bring friends and cronies up for the weekend. But if he got The Crash out of storage, that was expensive. There were things that had to be taken care of when owning a camp, and it was obvious that Huntington Lodge and my own father's camp were two quite different places. My father did all his own repairs, was at camp for the whole summer, had built his camp from scratch, and had a build-it-yourself camp as compared with one built by someone else, and a boat that really needed a caretaker. Huntington Lodge was an expensive "plaything" that Dad loved, but which took its toll, too.

After Madeline and I married, it sort of fell to us to maintain Huntington Lodge. We loved that place as much as Dad did, and being a teacher, I had time in the summer to spend on upkeep. But keeping up The Crash was more than any of us could really afford. Especially with two small, four-years-apart children! Dad unloaded The Crash. Then I turned my attention to the dock. It had been a sort of log cribbing filled with stones of various sizes, and wire fencing to retain them. Soil from near the camp was shoveled over the stones, and little by little grass grew on it. The dock was a

magnet for both children and adults because it projected out into the lake about 25 feet. Any such projection into the lake was a social magnet. From it you could step into a boat. From it you could see sunfish and perch. From it you could jump into the water, and with a sandy bottom, that was fun. You could even take a chair down and sit on the dock. It was sturdy and it was safe. But it had two serious drawbacks. It was narrow. And it didn't float! It didn't rise and fall with changes in the water-level. If the water was high, passing boats sent water over the dock. In dry weather, it was a long step down into a motorboat or a canoe. For several years we put up with these limitations in the dock. Then I decided something had to be done. I made a floating dock! It was my own design. The old dock was only about 4 feet wide. The new, floating dock would be in three sections, each 4 x 12 feet, making the dock 12 x 12 feet when bolted together. I made the sections out of 2 x 10's, each corner braced with angle-iron, and each section having 2 x 10 cross-ties. Without flooring, they weighed about 100 lbs. each – light enough to carry to and from the water and store in the woods. Each section rested on oil drums. When the frame was assembled, I made 4 x 4-foot floorboard that set neatly between the outer members of each of the three dock sections. Across the ends of each of the three sections a single 2 x 10 held the three together, in spite of waves and wind. A two-inch pipe was pounded down into the bottom of the lake at each of three corners. The completed dock floated up and down on the three vertical “stabilizers”, allowing for the rise and fall of the lake level. Two 2 x 12-foot walkway sections were connected, and the connecting place supported on 2 x 4s fastened to posts driven into the lake bottom. The 24-foot walkway was connected by strap hinges at the dock. The dock was “put in” by Madeline and me in about an hour and a half, and was disassembled in about the same time, and stored in the woods.

The first version of the floating dock lasted for about 15 years, with only an occasional coating of sealant. When the basic structure was deemed not sea- worthy, it was scrapped (fire-wood) and replaced by as nearly an identical model as I could make. It has now been about 30 years since that first floating dock, and I can honestly say it is the best design for a modest camp, requires little up-keep, and “floats” up to a dozen people nicely. We have never been “let down” by our floating dock, but have seen others so high and dry as to be unusable, or so fixed in position that high water made them unusable, too.

The original oil drum floats were later replaced by Styrofoam “bats” purchased from a company near Chelmsford, MA. I saw these Styrofoam bats while I was writing for Addison-Wesley in Reading, and the idea of using them for a floating dock began to take shape there. Madeline and I transported several of the bats from the company to Tupper Lake atop a VW sedan, and on the Mass Turnpike, each time a truck passed us, I felt the “bug” sway. It was with no little relief that I deposited my load at the camp. The Styrofoam bats were held in place by rubber straps connected by “S” hooks to large screw-eyes in the 2 x 10 “stringers.”

One of the “curious” uses for our floating dock has been as a dining table for muskrats. They would get clams off the lake bottom and take them to the dock where they apparently dined in protected luxury atop the styrofoam floats, but below the floor sections. At the end of every summer, when it was time to take out the dock, we would remove many weeds and empty clamshells from atop the Styrofoam floats. We had no idea that muskrats were that busy beneath our feet on the dock!

About 40 feet off the back porch, and 25 feet southeast of the current woodshed is a spring that runs all year long. It is inside a vitreous tile about 2 ½ feet in diameter, and about 4 feet deep. It stays at a nearly constant temperature of 40 degrees Fahrenheit in summer, and may go down to 36-38 degrees in winter. We have had the water tested, and it comes back at the lowest level for bacteria – 3 per cc. How nice to have such a cold, crystal-clear spring in addition to village water!

I have the feeling, when I open the hinged cover, that the water that constantly fills the spring has never before been used by, or even seen by, humans. It is just too pure, too cold, too pristine, to have been entrusted to humans. And yet I know that whatever water I see or use has been repeatedly in the water cycle that I learned about when growing up. In fact, I once thought deeply and seriously about that water, and penned the following poem:

Recycled

The glass of water you’re about to drink
Deserves a second thought, I think,
For Avogadro, oceans, and those you follow
Are all involved in every swallow.

The molecules of water in a single glass,
In number a thousand times outclass
The glasses of water in stream and sea,
Or wherever else that water can be.

The water in you is between and betwixt,
And having traversed you is thoroughly mixed
So someone slaking a future thirst
Could easily drink what you drank first.

The water you are about to taste
No doubt represents a bit of the waste
From prehistoric beast and bird –
A notion not at all absurd.

The fountain spraying in the park
Distributes bits from Joan of Ark,
And Adam, Eve, and all their kin;
You'd be surprised where your drink has been.

Just think! The water you cannot retain
Will someday hence return as rain
Or be beheld as the purest dew,
Though long ago it passed through you!

Indeed, that spring water is not so pure as it looks. True, it has a very low bacterial count. But so does the inside of a walnut, or a twig, or perhaps glacial ice. Anyway, I love that spring and the feeling of purity I have for it.

One fall day I netted a bullhead from the pond in front of camp, and put it in the spring, curious to see if it would survive the winter. In April or May I opened the cover and looked in with a flashlight, and there was the bullhead, active and seeming none the worse for being “caged” during the winter. I wonder what it found there to eat, and how it found the food? Would some salamanders or wood frogs also have found this winter retreat and become food for the bullhead? Maybe that was a snug retreat for the fish and some other “lower” animals. My spring might be a complex and fascinating place that merits further study!

On the road to Tupper Lake was an Italian restaurant where we stopped on occasion for lunch. In the ceiling of the restaurant were

fans to circulate the air and keep it relatively cool. One day we stopped for lunch, and as we waited for our meal, we discussed the décor of the restaurant, including the ceiling fans. In discussing the placement and style of the fans, we wondered how many blades the fans had, and how we could tell without turning off the fans. Being the science teacher, I wondered if, by blinking, we could essentially turn our eyes into stroboscopes and thus “stop” the motion of the fans so we could count the blades.

So we sat, our family of four, looking up at the ceiling fans, blinking our eyes. The waitress, bringing our hot food, saw all four of us looking up at the fan above us, and blinking our eyes. When I explained what we were doing, she put our plates on the table, and she, too, looked at the lights and blinked her eyes. We began to chuckle, thinking of what the proprietor would say if he were to come into the dining-room and see four customers and the waitress all looking up at the ceiling and blinking their eyes. It was a hilarious situation. But I’ll bet we had more fun than anyone else in the restaurant that day!

The New Camp

The “old camp” provided us with thousands of hours of happy vacations. It wasn’t perfect, but its shortcomings were simply considered a part of “camp.” The time came, though, when we thought it wise to “improve” the camp by insulating it so we could use it in winter, and by making it easier to use as we got older and wanted to entertain friends. We considered a number of alternatives. We could improve the basement by putting in a new floor and an outside door. We could insulate the one floor so that the pipeless furnace in the basement, and the fireplace together could keep us comfortable in cold weather. And we could add storm windows and insulate the first-floor ceilings. Or we could simply raze the building, selling what was re-usable, like our lovely casement windows in the living-room, and build an entirely new camp. After long and serious discussion, we chose to demolish and build anew. It was not a decision made lightly, but it was the right one.

We had heard of a man in Conifer, a nearby lumber town, who agreed to demolish the old camp for its beautiful casement windows and hardwood flooring. So we drew up a contract, signed it, and

waited. June approached, and not a word from the man. In the meantime, we had made an intensive investigation of summer homes (camps), had visited some factories and camps, and had decided on Vermont Log as our choice. We ordered the “Shire” model and had set a delivery date of June 15. But the old camp still wasn’t “down.” What to do? Sam (our bobwhite quail – more about him later) and I made a quick, overnight trip to be sure. We slept in a pup tent in the woods beside camp, and returned to Ithaca the next day. I had never before spent the night outdoors with a bobwhite quail!

Upon returning to Ithaca, I composed a letter to the man who was to demolish the old camp, making it sound as if it had come from an attorney. In it I pointed out the “stipulated” date for demolition, signed it “Don Dickason (actually a close friend and neighbor of ours), Attorney-at-Law,” and sent it registered mail. Well, that did it! The camp was down in days! And just in time. We had contracted with Bill Johnson, a boyhood friend in Tupper Lake, and the builder of the Adirondack Museum, to do the excavation and block wall for the log building. It was a “tight” and inflexible timing arrangement. The most complicating of all was that I had contracted through Addison-Wesley to do a two-week workshop in Puerto Rico in June, using it as a sort of preparation for an adoption of the Addison-Wesley program. Everything seemed to be happening at once! Yikes!

The workshop went exceedingly well. I had several days of workshop in the hills near Mayaguez, then came home to find that Bill Johnson had had some problems with digging the basement of camp. He began with a back-hoe, and finally went to a bucket-dredge. He also had to abandon his plan to do a one-level basement, and ended with a three-level floor. It seemed that a number of springs had prevented his putting in a one-level basement. But Bill knew his stuff, and the 3-level floor worked. When I finally got there, the basement was in and the sub-floor laid. Next, it was up to me to put in drain tiles all around the footer. But the log package had arrived on two semi trucks, and the logs had to be unloaded at the Rod and Gun Club parking lot down the road. By that time, Forrest and Lynn had arrived from Virginia, Diane and a boyfriend were on hand from Ithaca, and two grad students from Cornell were on hand. We all chipped in and unloaded the logs, sorting them as best we could, since each log was numbered and would go in a particular spot. Larry Wood, our next-door neighbor, loaned us his

pick-up truck to bring logs from the Rod and Gun Club to the camp site. It was like some kind of giant jig-saw puzzle, with a place for everything, but not everything in its place – yet!

Months before the log package was delivered, I had seen a log home “going up” in Lake Placid and stopped to inquire about the man in charge. I met him, a Swiss log-home builder, and in my then-fresh German I asked him if he would consider heading up a team to erect a log package at Tupper Lake. When he learned that I spoke German, had spent time in Switzerland, had two daughters who had been in school there, and that I was a skier, the deal was struck. Rudi Kersteiner would supervise the job, and would bring his two assistants. Wow, what a wonderful break!

Before we had actually purchased the log package, Madeline and I had kept our eyes open for log homes. We even visited a couple of log homes that we saw along the road, inquiring about plans, delivery, and quality of insulation among other things. Then one day on a lot above Wilkes-Barry, PA, we saw a log home identical to one that caught our eye in a Vermont Log catalogue. We stopped to inquire about it, and found that it was erected by two young engineers for a trustee of Ithaca College. What a lucky break! I tape recorded much of their conversation with us, and when we left, they gave me a roll of copper flashing – enough to make copper drip-moldings for the windows, and copper valleys for the roof!

Well, by the end of June, we were ready to start work. Rudi held a conference on the sub-floor, making many suggestions for our whole force and his two assistants. The logs had been assembled in piles at the Rod and Gun Club so that each log would be easy to find. Log A-1 was the first laid – just to the west of the front door. A-2 was its neighbor, A-3 next to that, and so on. When the A layer was complete, the B layer was laid atop the A layer. Every so often, a huge spike long enough to pass through one 6” thick log and well into its lower neighbor, was driven into place. When four courses were in place, windows were set in place also. Madeline, Lynn, and Diane were kept busy putting preservative on the windows and doors. An electrician and a plumber were kept busy drilling holes for cables and pipes. It was like an army of ants, with everyone having a specific job to do, and all of them working together for one end – the erection of a log home – our “camp.”

The first log was installed June 15, and the roof was completed and the camp “sealed” on July 4th. I don’t think many places of our size have been completed in less time! I had ordered a radial-arm table saw from Sears, and set it up on the living-room floor. As those working on the roof needed a board of a certain width and length, they called down to me what they needed, and I sent it up to them. At one point, the plumber was using a 4-foot extension on his power drill to drill holes for copper tubing. And the electrician was using a similarly long bit to drill holes for electric cables. Only once did a drill come out the side of a log because the shaft of the bit was too long to control precisely.

In the woods not far from camp, we kept a refrigerator stocked with beer. From time to time, Rudi would call out, “Beer break!” and all work would stop for 5-10 minutes. It was, indeed, a complex machine at work – each gear moving at just the right speed to engage an essential part of the whole operation. On the peak of the roof was a red spruce tree, much like the tree that Swiss builders put on houses they erect in the Alps. I assumed that it would stay there ‘til the camp was complete, and the tree taken down as the signal to celebrate completion.

The stone fireplace was made much like the one in Brockport. Madeline and I had taken the trailer to a stone quarry and gravel pit at the foot of Mt. Morris to collect softball-size or larger granite cobbles that Rudi laid up in the fireplace and exposed chimney. It was a beautiful fireplace, and had a heatilator which provided great heat for cold winter days. I made the mantle from one of the extra logs sent with the camp load. (The company provided a few extra logs in case of error or defect.) The mantle was shaped to fit the stones just below it in the fireplace. And a good fit it was! The “fit” couldn’t really be appreciated without looking beneath the mantle and seeing how each stone in contact with it was accounted for in the shaping of that solid pine shelf!

The hearth was a personal work of art. I made a “cribbing” of 2 x 4s, put in about ¼ inch of sand, then placed fist-size granite pebbles face-down as neatly as I could. Atop the layer of stones I poured concrete to the top of the 2x4 casing. When the concrete was hard, I turned the whole thing upside-down and brushed out the sand. The result was a beautiful cobble-stone hearth, which is both charming and rustic – and ember-proof. It is a lovely complement to the stone fireplace and log mantle.

A similar accommodation was made for the pine sheathing in the kitchen. The east, south, and north sides of the chimney abutted pine paneling. Since much of visitors' time would be spent in the kitchen, I decided that the pine paneling, where it met the stones of the fireplace, had to be shaped to the contour of the stones. It was a lot of work, but in the end it was worth it. What pride I took in showing how, in our camp at least, the fireplace wasn't mortared to the paneling, but the paneling was shaped to the stones in the fireplace!

In a similar way, the roof boards were shaped to the stones in the chimney, where it exited the building through the roof. It became a matter of pride to match the roofboards to the central chimney rather than mortaring the chimney to meet the roofboards. I didn't want a repeat of Mrs. Germaine's experience with bats.

Mrs. Germaine, our next-door neighbor, was the widow of a long-time resident and New York City caterer. His camp, built in the early years of the 20th century, had an outside chimney that had, over the years, pulled away from the building to leave a sizable gap. Bats had taken up residence in that crack. Mrs. Germaine had "friends" in New York who ingratiated themselves, hoping, we think, to cozy up to Mrs. G, perhaps hoping to have a "special stake" in the camp when Mrs. Germaine died. Well, one day one of her hopeful friends thought he would do a favor for Mrs. Germaine, and mortared up that "big crack" between chimney and building. Soon afterward, when that guest had returned to "The City", Mrs. Germaine hustled over to our camp, calling "Mr. Rockas--, Mr. Rockcas--, there are bats in my house! Come!" I went over, and there must have been a dozen or more bats flying around the living-room. I hurried home, got my landing net, went up to a landing on Mrs. Germaine's bedroom stairs, and from there snatched each bat as it flew by. It didn't take long 'til I had pretty well cleaned the bats from Mrs. Germaine's camp. They didn't return. But her do-gooders from "The City" didn't return, either!

Mrs. Germaine was a good-hearted lady who would walk over to our camp now and then, just to pass the time of day, or to share an interesting or curious happening at her camp. It was not unusual for her to walk down our gravel driveway, see me at work on something, and call out, "Mr. Rockcas --, what the goddamn hell you doing now?" I don't think she gave her language a second thought; it was just her manner of speaking. She was a

conscientious church-goer, and I doubt that she ever considered herself anything but a strict Catholic. I wish she were back in that camp instead of the loud music, loud inboard boaters that are there today!

But back to the building of our current camp . . . with all the wetness around the foundation when the camp wall and floor were put in, I was aware of possible moisture problems in the basement. So I laid the drainage tiles myself, keeping the slope of each 24-inch tile $\frac{1}{4}$ inch to the foot. Each tile sloped $\frac{1}{2}$ inch, and was bedded in gravel – 2” of gravel beneath the tile, and 2” of gravel above the tile. Over the gravel above the tile I had one to two feet of #2 crushed stone. Tiles on both sides of the camp came together in a sort of “dry well” in the center of the front of the camp, and a 4-inch tile line ran from that “dry well” to the lake. At one point, a state official from Saranac Lake stopped his motorboat out in front, and walked up to me, ready to put a “stop!” on construction because someone had reported they had seen “sewage” running from a tile into the lake. I got a clean glass, filled it with the clear fluid running from the tile into the lake, took a drink of it, and offered him a drink of “the finest, clearest water in the area.” His comment was, “Fill the ditch, and good luck with the building!”

Because Bill Johnson, - our contractor who dug the excavation and then put in the footers, the block wall, and the basement floor – had some trouble with removal of the soggy sub-soil, I had some nagging feelings that perhaps the footer, with its block wall and the tons of logs resting on it, would sink a bit. So I had put a transit in the woods about 20 feet from a corner of the building, focused on a brad in a “course A” log. I checked the cross-hairs in the transit every day for a couple of weeks, then at the end of each month for the summer. No movement! The camp was fixed, and I was much relieved. And so, I think, was Bill Johnson.

One of the last “basics” was the septic tank and the septic field. Early on, we decided to have separate tanks – a 500-gallon sewage tank to be installed (buried) on the east side, and a 300-gallon tank on the west side for kitchen waste. I, personally dug the leach lines for the sewage tank. I had planned on four lines, each nearly 50 feet long. But what I didn’t count on was boulders – big ones, too large to remove, and too large for a modest-size back-hoe. So I dug trenches as long as the yard and the boulders would permit, telling myself that these lines were for periodic use. I think that instead of

200 feet of leach lines, we ended up with something between 125 and 150 feet. Under the leach-lines I had about 12" of #2 stone, and above them about 6-8 inches. Those lines have now worked for 34 years with no problems. This year, however, by town decree, all sewage service has been replaced by "grinders" which will totally replace all sewage systems and will pump "particulates" up to the road and into a sewage line that will take the sewage two miles to a treatment plant. Modernization? At what cost? But we have to "go with the flow," I guess.

With a couple of exceptions, our gutters feed rainwater into the tiles that I installed around the footer of the camp. So the gutters tend to flush out the drain tiles around the camp, keeping the basement dry. Rains, even heavy at times, have never caused puddles on the basement floor. And that's good because in the basement are stored several wooden canoes, a valuable guide boat, and many tools including a 12-inch surface planer, a table saw, a radial-arm saw, many hand-tools, a dryer, paints, and considerable "et cetera." When one has a camp a few miles from "conveniences", it helps to have some of those conveniences close at hand. If I need a ladder, I have both extension and step-ladders. If I need to cut a board, I have saws for that purpose.

There's a nice downhill ski area about two miles from camp, and it was our plan to invite close friends for winter ski weekends. We did just that – for several decades. Camp was an ideal place for a party of four couples, including us. It was snug, roomy, very "rustic" in an Adirondack sense, and eminently comfortable.

The living-room floor is a random-width oak plank floor with black-walnut pegs to cover the screws that hold the planks in place. The kitchen and dining-room floors are covered with red-and-black "tile pattern" carpet that wears well, is just a little flamboyant, and cleans nicely. The rest of the floors in camp are random-width pine. When it came to selecting a floor for the living-room, we went to a lumber yard east of Lake Placid and there found that we could purchase a nearly half-carload of random-width pre-finished oak flooring at a good price. Since Diane and John were going to get a house in Baraboo, Wisconsin, and needed floors, they could use the rest of the load that we didn't need. So we bought the oak, and installed what we needed. John and Diane took the rest.

The black walnut pegs were 3/4-inch slices cut from black-walnut dowels and cemented in place over the counter-sunk screws – identical to the living-room floor arrangement of our house in Brockport. Unfortunately, we covered the floor of the camp with a large, antique carpet that hides that beautiful floor. But when the carpet is rolled back for any reason, we have one gorgeous camp floor!

The dining-room table is an expandable 2-leaved table that came from what was once a furniture section of an Ithaca drug store! It was bare white pine, and to protect the surface, we put on two coats of polyurethane finish. It was lovely until Scott, then about five, used the blade of a table knife to tap out time to some music. Now we have permanent evidence of his sense of rhythm -- a series of small nicks along one edge of the table – nicks made almost a quarter of a century ago!

There is a balcony over the fireplace in the living room. On the east wall is a mounted deer head – the first deer I shot after getting the job at Brockport. The furnishings are “Adirondack rustic,” but are comfortable, sturdy, pleasantly blending with lake and woods, and it’s a favorite family vacation spot.

The ceiling light in the living-room is a set of deer antlers mounted on a central post projecting down about two feet from the ridgepole. At the southeast corner is a mounted red-tailed hawk that was killed when it flew into the side of a truck on New York’s Thruway. I was driving some distance behind the truck, stopped to pick up the hawk, found that it was in excellent condition, with no indication of its being killed by impact, and put it into the trunk. I was headed to Blue Mountain Lake for a conference, and so wrapped the hawk and stored it in the camp freezer until after the conference.

I had no license to keep such a bird, and yet it was too nice a trophy to discard. So I applied to the Department of the Interior, Fish and Wildlife Service for a collector’s license, citing my position at Cornell as a Professor of Science Education, and the need to preserve skins of roadkills for study by students. I dated my application with the actual application date, and dated the finding of the hawk with the date that it occurred – some 2-3 weeks prior to the filing of the application. The collector’s permit came in due time, and I was the legal owner of a lovely red-tail hawk skin, although the application clearly states that the hawk was collected prior to the

permit. The hawk was mounted by the husband of one of my graduate students, Kathy Blanchard, and has added a lovely “natural” effect to our camp living-room.

The living-room fireplace is certainly the center of attention and social focus of fall and winter weekends. But it demands a considerable amount of wood – which I cut from an occasionally purchased log, or from downed trees and limbs after storms. Where to keep the wood so that it dries completely, is “safe” from pilferage, and is protected from the weather until used? Obviously, we needed a woodshed. And so a local builder, Jim Radimer, who had done much building for our friends, the Curtisses, was engaged. He put up a rustic woodshed about 8 x 20 feet, on concrete pilings, with a door, two double-hung windows, and two large doors at the lake end. It could be used for storing boats, canoes, lawnmower, and power-saw as well as firewood. But those things are considerably more valuable than firewood. So I had an idea . . .

I cut a sheet of ½-inch plywood to the size of each window, with two screw-eyes at the top to suspend the plywood from the upper edge of the window frame. Then I painted the plywood flat black. When it was dry, I glued to the plywood thin slices of logs and tree limbs. When the glue was dry, I hung the plywood sheets over the windows and it looked for all the world like a building full of firewood. Guests had to see inside the open door to be convinced that it had other things besides firewood in it. I was duly proud of the illusion!

I do keep some firewood in the “woodshed,” though. It’s mostly a small fraction-of-a-cord or so of split, dry beech, birch, or maple, plus “starter bundles.” I am proud of these starter bundles, which are bundled of dry twigs or branches, mostly a half-inch in diameter, and about 18” long. These are tightly bundled and piled in the woodshed as “starters” for a fire in winter. It’s so nice to come to camp – a cold camp – put a starter bundle in the fireplace, and with one sheet of newspaper and a match, have a blazing fire in minutes. The starter bundles don’t warm the camp much, but they ensure that larger chunks of wood will catch fire in a short time, and besides it’s fun to see the flames leap up from the starter bundles. Just the sight of them is guaranteed to warm a visitor!

The camp list of power tools is impressive. As a camp builder (with plenty of help, of course), I have gathered all sorts of power and

hand tools to do any repairs that might be needed. The first, and perhaps most used, was a 10-inch Sears table saw. This was primarily for cutting short stock, including the braces between floor joists. When it came to roof boards, a longer-bed saw was deemed more suitable, and a radial-arm 10-inch saw was purchased. An old, but eminently workable cement-mixer, a Porter-Cable belt-sander, shaper (for tongue-and-grooving roof boards, or any other tongue-and-groove job, a 12-inch surface planer, electric drills, small belt-sander, and grinder were all added. Each found a use, although I have to admit, the dream of a future “wood-shop” had a lot to do with what tools were acquired. The tow-able cement mixer was eventually given to Bud Russell, the handy-man plumber/electrician. Bud was always on call, and was never too busy to come when needed – or to bring flowers from his wonderful garden.

Along the front wall of the basement stands a selection of hand tools for larger jobs. There is a two-man cross-cut saw, a tamper, a spud-bar, stone fork, hoe, pitch-fork, long- and short-handled shovels, and several sledgehammers. There is also a mixing box for mixing cement, an extension ladder and several step-ladders. It’s so nice, when there is a need for a particular job to be done, to look around the basement and find just the right tool for the job. And, of course, there is a power mower as well as a scythe. And lots of paints and varnishes for the boats.

A Short History of Our Boats

Ah, the boats -- The basement at camp has sheltered a number of boats, but my boating experience began, I suppose, with a model sailboat. . .

From the time I was big enough to be on the water, boats, motors, canoes, and small sailboats have interested me. From age 3, for the rest of my life, I was near, or on, the water. From the time I was old enough to get from a dock into a boat, I was around, or in, boats. They were just a part of my life. My family accepted this, and didn’t discourage me from playing in, or around, boats. It was assumed that boats and Rockcastles went together.

Model sailboat. My very first experience with boats was sailing a model sailboat at Widewaters – a Rochester pond near Cobb’s Hill.

The pond was one of several in Rochester, which doubled as a gathering place for duck-feeders in summer, and as a public skating rink in winter. Rochester was a center for skaters, and the Rochester Skating Club was well known. It even boasted of an Olympic speed skater, John Shea. And in winter, the pond was a crowded ice-skating rink at which I spent many evenings and weekends as a boy.

My father had made for me a model sailboat almost three feet long. It was beautifully shaped, had a molded lead keel, a jib and a light-weight canvas mainsail, and we (my father and I) used it for several model sailboat races at Cobb's Hill. It was fun, but I don't think I ever won a race there. The fun was in the racing, not in the possibility of winning. That sailboat never saw Tupper Lake.

Dr. Kimball's rowboat, technically a St. Lawrence skiff, was my first experience with a real boat. It was about 15 feet long, of lapstrake construction, with a beam, as I remember it, of about 3 ½ feet. It must have weighed a ton, or so it seemed to me at the time. I don't remember how it was transported from the camp garage to the dock, but it must have been by the combined efforts of more than two men. Perhaps my father, Dr. Kimball, and Mr. Griggs? I guess "they" took it down the meadow path in front of the camp, and down the steps to the road, across the road, and down the bank to the dock. It was probably a once-a-year task, because it was too heavy to do this more than once a summer, and probably involved a half-day's work. Anyway, that boat, massive as it was, had to be my earliest brush with Raquette River water. It wasn't really a fishing boat, but a pleasure boat. I think Dr. Kimball purchased it because a "camp" should have a boat. Otherwise, why would a camp be on, or close to, a river or lake?

I played in the skiff, on the pond off the river, where my father kept his hand-made motorboat tied. I could use the skiff so long as I kept it on the pond. I was not allowed to go on the river until I could swim. So it was important that I learn to swim. The river was my "road to independence." I don't know when I was allowed to use the skiff (rowboat) on the river, but I think I was about 8. I had learned to row pretty well on that little pond which held the dock, Dr. Kimball's rowboat, and Mr. Griggs' motorboat as well as my father's. That little pond also was home to numerous perch, very small bullheads, sunfish, and an occasional northern pike. But the river – that must have housed so many, and such gigantic, fish compared with the little pond!

Some fond memories of that little pond include hours spent rowing or poling the skiff into the cattails that ringed the pond to look at the red-winged blackbirds' nests. Red-wings were as familiar to me as house sparrows. They were my pond-neighbors. So common then, and so un-common now. I wonder why?

My father's motorboat was hand-made of eastern white cedar planking clinch-nailed to a frame of mahogany ribs, white pine battens, and mahogany stem and transom. I don't know where Dad got the design, but I suspect that it grew in his mind. I do remember that a strip of light-weight canvas, coated on both sides with marine glue, was placed along the outside of each batten. The white cedar planks, about 3-4 inches wide and 1/4-inch thick, were screwed to the ribs, and clinch-nailed to the battens with copper nails. It was one of my jobs to clinch the copper nails. I held a steel clinching iron on one side of the board, and a steel hammer on the other, pounding each nail until its point had re-curved into the wood. The most demanding part of the planking was fitting the bow end of the plank to the "step" in the mahogany stem. The stern end of each plank was fitted into a "step" in the mahogany transom. The whole boat, when completed, was light, strong, and water-tight.

One winter, my father made a motorboat in our house attic. He carefully measured the stairwell, the stairway, and the front door, calculating that the completed boat could be carried down and out of the house. But somewhere, somehow, he mis-measured, and try as we did, with Uncle Garth's help, we simply couldn't get the boat out of the house! There was only one thing to do – remove the structure between the double windows in a dormer, install a beam and pulley, and take the boat out the window and with the help of a pulley arrangement, and lower the boat to the street – amid the gawking and muffled chuckles of neighbors. It was one of my father's most embarrassing moments!

With some slight modifications, my father's outboard design persisted for years. How many boats were built by both his day- and night-time students I don't know, but I think it must have been nearly 50. I wonder in how many other high school wood shops students built outboard motorboats!

The boats had floorboards fitted to the ribs and the planking. There was a floorboard between the front seat and the deck, another between the middle and rear seat, and a third between the rear seat

and transom. All were beautifully fitted and removable. And therein lay a tragedy. One day, my father and Buddy, a black cocker-spaniel, went for a spin on Lake Ontario. Buddy's usual riding place was the boat deck, ears out horizontal in the wind, and he loved it. That day, however, was unusually windy, with big waves, and Buddy rode under the deck. Somehow, an abnormal wave caught the boat and capsized it. Ordinarily, Buddy would have been tossed off the deck into the water. He was a good swimmer, and loved the water. But because he was under the deck, when the boat capsized, Buddy was trapped between the deck and the front seat. The floorboard had fallen across the space between the front seat and the deck, and Buddy was trapped. My father dove repeatedly under the capsized boat, but could not free the floorboard and the dog. Buddy drowned! I have seldom seen my father cry. But he did so when he got home and related the incident to Mother, sister Ruth, and me. All Mother could think about was that I had stayed home. All my father could think about was Buddy and that it was my father's fault. In all the years, all the thousands of miles, that my father traveled in his boats, that was the only accident, the only sad ending of any trip.

There was another outboard incident worth relating. I happened on Seventh Lake, where my father had spent much of a summer, building a camp for a Rochester school principal. The camp went up fine, and it was a good job. The owner had an outboard motorboat with a fairly powerful motor. One day, his son took the motorboat out on Seventh Lake, and soon ran out of gas. Apparently he had not checked the gas level when leaving the dock. So, out there on the lake, he filled the tank and re-started the motor.

But he had left the throttle in the wide-open position that it was in when the gas ran out. When he stood up to re-start the engine, it roared up to full speed, spilling the operator into the lake. And away went the boat at full throttle, with no one in it. Little by little, the boat turned into a big circle, each time coming a little closer to a rocky shoreline. What to do? It was panic at the owner's camp, and he was helpless to stop the boat. But my father jumped into the breach. He started out in his own boat to "subdue" the errant craft.

Little by little, my father shortened the radius of the circle he made to cut closer and closer to the runaway boat. When he finally got alongside the runaway, he straddled the two boats (left leg in one, and right leg in the other), and turned down the throttle of the

runaway. The result was immediate. The runaway stopped, but my father's boat, still at wide-open throttle, went in tight circles, nearly pulling my father in two. It was a close call, and Dad's inner thighs took quite a beating. But he got the boats stopped. Then, after collecting his wits, he towed the errant craft to shore. It was an almost "maim-orable" experience!

Remember the home-made hunting knife that my father fashioned out of a planer blade? The one that rolled the fine edge of the hunting knife that I won by selling subscriptions to the Open Road For Boys? Well, one day when nearing the famed "bass hole," we struck an obstacle, and sheared a pin on the motor. No big deal; we'd just replace it with another. We always carried spares. So my father raised the motor, removed the "prop" and the broken pin, inserted a new pin, screwed the nut back in place, put in a new cotter-pin, then looked around for something with which to bend over the cotter pin. Nothing! Not a wrench, not pliers, not a screwdriver. Ah – the hunting-knife. He'd hold it by the tip of the blade, and knock the handle against the obstinate cotter-pin. The boat, meanwhile had drifted a bit into deeper water, and my father's fingertips must have had a trace of grease on them. Whatever, as he swung the knife to bend the cotter-pin, it slipped from his fingers into the river. My father insists he said nothing. But I insist I heard him swear. And I know what I heard! All that hand-work, that beautifully made, hi-speed steel blade, and it was gone! I know what my father said, but I could understand his feeling! He was, after all, human!

The Peterborough canoe was my first "real canoe." My father could make anything – or almost anything. He even made a cedar canoe. It was about 12 feet long, with ash ribs and white cedar planks. But it didn't look quite the same as an "ordinary canoe" and I never really "connected" to it. So, little by little, it became my sister Ruth's canoe. Some day, I thought, I'll get a "real" canoe! That day came when I earned my Ph.D. at Cornell. There was no great celebration of the event, so I had a thought – why not drive to the Peterborough Canoe Company in Canada, and buy a "real" canoe – as a sort of present for my having finished the degree? And so I did!

Bill Ruf and I drove to Peterborough, slept in a field in sleeping bags, then went to the factory the next morning. We picked out a standard grade, 16-foot, canvas-covered model – at about \$900 the

only one I could afford – but while we were there, noticed and drooled over a cedar-strip “Canadien” model which I vowed I would have “some day.”

In our Peterborough canoe, Madeline and I have checked out Cayuga Lake inlet, Spencer Lake, part of the Barge Canal, much of the Raquette River, Saranac Lake, Forked Lake, the Oswegatchie River, Cranberry Lake, Rainbow Lake, and other waterways of the Adirondacks. We have also transported the canoe to Newfoundland, and to some waterways in the West. If we wanted to explore a particular waterway, we had the means of doing so! Our Peterborough canoe let us explore where we never before went. It was (and still is) probably our most widely-used watercraft. The Peterborough canoe continues to be a favorite among us and our canoeing friends. It never fails to elicit comments from observers. It is a gorgeous canoe – a bit more “crank” than most, because of its somewhat narrow beam, but that lends to its speed and sleekness. But with two daughters who also love the water, we eventually needed another canoe.

The guide model canoe. When it came time to purchase another canoe, the Peterborough Canoe Company had gone out of business, and each of several builders in the company had taken a particular pattern (model) to his hometown and set up shop there. We first bought a smaller, wider, 2-seat, canvas-covered, “Guide Model” green canoe from the Peel Marine Company, one of the Peterborough off-shoots. At the Peel Marine shop I learned that Walter Walker, formerly with the Peterborough Company and now working for Peel, had taken the cedar strip model pattern home with him.

The cedar-strip “Peterborough”. When “someday” finally came, I wrote to Walter Walker, sending my request/order for a cedar-strip canoe, and specifying certain qualities that I should like – all strips running the entire length of the canoe, with no splices; cherry decks and thwarts, and rawhide seats. He readily agreed to this, and set a date of almost a year hence for delivery of our third canoe.

We corresponded a few times during the ensuing year, and finally, in late spring, I received a card saying that the canoe was finished and I could pick it up at his shop near Peterborough. So, one Saturday morning Diane and I started out, with high hopes and an eager glint in the eye, for Peterborough. We stopped at the shop.

Walter Walker wasn't there, but a subordinate was. When we showed him our letter from Mr. Walker, his chin dropped. Seems he had sold my canoe to someone else just an hour or so before! I was incredulous. After putting in a special order, waiting for most of a year, writing and calling to make sure of the date, my canoe was sold to someone else! To whom? I got the name and address, a replacement canoe, and started out for Toronto.

We located the home of the man who bought the canoe. His wife and son were there, but he was back at work. So his wife called him, and talked to him by phone. He was adamant. He had purchased the canoe fair and square. But he had purchased it in error. His son and his wife both sided with me and Diane. It was a delicate and uneasy trade. He had, indeed, purchased a very special cedar-strip canoe. But he had purchased the "wrong" canoe! He had purchased mine. I had correspondence from Walter Walker confirming my story. Well, at last the man agreed to the exchange, and the canoes were traded. I always wondered what Walter Walker and his shop-keeper had to say to each other when he returned. Incidentally, Prince Philip of England was also a customer of the canoe builder. But I'll bet he doesn't have cherry decks and seamless planks!

The canoe was stored in our Ithaca garage for a couple of years before we decided that the basement at Tupper Lake was a better place. While it was stored in the Ithaca garage, a workman working on the kitchen/garage wall accidentally bumped the canoe with the corner of a sheet of plywood, putting a "ding" in one of the cedar strips. Not a huge "ding" but a noticeable one. I tried to swell the strip and thus expand the cedar strip to where it could be sanded and made even with the other planks, but it didn't work. I guess that "ding" will always be there – a reminder of the relative delicacy of eastern white cedar compared with other woods used in planking a canoe. Or, as contrasted with the canvas covering on most wooden canoes.

The Chestnut canoe venture was a low point in our canoeing. I had seen, or heard of, a one-man, canvas-covered canoe made by the Chestnut Canoe Company, of New Brunswick. It was light-weight and inexpensive. I thought it would make a good addition to our "fleet." So I ordered a 12-foot model from the factory. It came to Syracuse, all crated and wrapped in burlap as I recall – not a bad-looking canoe, but not quite of the Peterborough standard, either.

Diane used this canoe and enjoyed it, but it spent a winter on the deck of their house, and needs refinishing. If we had taken more interest in it, and taken care of it (painted it occasionally, and kept it out of the weather), I'm sure it would have continued to be a much-used, and much – admired craft.

Bill Harlow's Rushton. One of my professors at the New York State College of Forestry, when I first went to college, was Dr. William Harlow. A noted dendrologist, he was also a long-time camper and canoeist. I liked his teaching, and I liked him. He seemed “my kind of guy.” He had a rather tragic life. His only son took his own life, and that was the greatest blow that could befall Bill. Then his wife died before she was really old, and that was the second blow. Bill became somewhat of a recluse. But I went fairly regularly from Ithaca to Syracuse to see Bill, and he seemed to brighten and enjoy each visit. We could go out for dinner, and I came to look forward to these special evenings.

At some point, Bill showed me the wooden canoe that he had hanging in his garage. It was a Rushton, and I had seen and knew enough about Rushton canoes to fully appreciate this one – all cedar, without canvas, and with beautifully shaped decks of cedar with a cherry center strip, and stunning, narrow, cherry and cedar gunwales. But it needed work – a lot of work. One day Bill said he was going to give me that canoe, and he did. I was delighted, and in the next few months I spent nearly 100 hours in repairing that antique craft.

I made new cherry combings for the bow and side decks, and replaced a few of the cedar strips that composed the deck itself. The cherry combing around the inside of the fore-deck was especially ticklish because of the curve. I removed most of the copper tacks in the planking, scraped off the pitch that had been used to plug leaks in the planking, and shaped new copper tacks to replace the old. I removed all the old finish and “caulking”, sanding and refinishing the entire boat. When it was finished, Madeline and I took it to a tributary of the barge canal just to give it a whirl. We put it in the water, and set our picnic basket in it. Then we went to the car to lock up. When we returned, there was an inch or so of water in the canoe. I was so shocked and disappointed that I could have thrown a rock through the hull. We put the canoe back on the car and returned to Ithaca. I told Bill about the experience, and he suggested that I give it one more coat of varnish before I gave up on it. I did

so, and the canoe never leaked again. We spent many happy hours in this fine boat, and each time someone saw it, he or she raved about the canoe. It was, indeed, a work of art, and a very rare canoe.

One day on Lake Lila in the Adirondacks, Madeline and I pulled the canoe ashore and took a hike up a lovely hill overlooking the lake. When we came back there was a bouquet of wild flowers on the deck, with a note, "The least we could do for a Rushton." And out on the lake was another canoe with two people in it. They had landed their canoe, recognized the Rushton, and couldn't resist that greeting. I even treated Bill Harlow to a ride in it on the Jamesville Reservoir one day. He was teary-eyed at seeing the "old canoe" so beautifully restored, and I was duly delighted at his reaction.

Time after time people who knew canoes admired the canoe and inquired about it. But it was only 14 feet long, and somewhat delicate. It was not really well suited to leisurely travel on Adirondack waters by people of today's mass. Eventually, we donated it to the Adirondack Museum at Blue Mountain Lake, and it is on exhibit there as a prime example of Rushton's exquisite design and workmanship. Certainly the most luxuriant craft we have ever owned!

The Rushton Indian Girl. One summer in the late '90's, I learned from a friend that a man in a camp on Star Lake had a Rushton canoe that he might sell if I would get in touch with him. I did so, and after talking with him and seeing the canoe, I bought it – for something like \$1400, as I recall. The canoe needed very little work, and a coat of paint on the outside and a coat of varnish on the inside made it look like new. It was an Indian Girl model – one of Rushton's most popular and most widely used. But it was an 18-foot canoe, and a little longer and heavier than I had hoped for. We used this canoe on several waters. It was stable, easy to paddle, and except for its size and weight, it was a lovely boat. We ended up giving it to the Adirondack Museum, where it is on display with other Rushton canoes.

Madeline and I still didn't have "the perfect canoe" for leisurely travel on Adirondack water. But we were getting closer. One day, while window-shopping at L.L. Bean in Maine, I noticed a particularly nice canoe on a car in the parking lot. I left a note on the windshield, and some time later received a letter from a man in Cambridge – an architect – who gave me the name of the canoe

builder in Nova Scotia. I wrote to him, telling him that his canoe – a modern version of Rushton’s Indian Girl, but 15 feet long and canvas-covered, seemed like what I was looking for. Would he build such a canoe for me, but would he make the seat frames of cherry, and could I send him a cherry thwart of my own design for installation? I got a letter back from him saying that he could do so, and would, and he gave me a price – a lower price than I had anticipated.

There was interesting correspondence between McCurdy and me. It turned out that he was the son of the track coach at Harvard, and here I was the faculty advisor for track at Cornell. I knew his father through intercollegiate track. Well, we had some interesting correspondence. I sent him the cherry thwart I had made, asked him to make two seats of cherry also, and in June of that year (1993), Madeline and I drove to Nova Scotia, picked up the canoe, and returned to the U.S. through Customs in Calais. An interesting note: the Customs agent in Calais didn’t know just how to categorize the canoe. It was a boat, but what kind of boat? Would it have a motor? No! What was the means of propulsion? Paddle! Finally, after some discussion at the next higher level, it was decided that the lowest category of duty should apply, and I think it was something on the order of \$25 Canadian. For a canoe that cost something on the order of \$1400 Canadian!

The canoe is now the most-used boat in our “collection.” It is easy to carry to and from the dock, easy to put into the water, is stable, fast, and has a natural beauty in its design and finish. It is, indeed, worthy of Rushton in line and handling. A few years ago, while on a trip through Nova Scotia with our close friends, Bob and ‘Lyn’ Johnson, we stopped in, just to say “Hello” and to tell “Kip” McCurdy how much we were enjoying the canoe. I knocked at the door several times, and got no answer. But I noticed that the shop door was open, and I wanted Bob to see where the canoe was made. So we walked back to the shop and peeked inside. Just then the house door opened and Kip came out. I think he didn’t recognize me, and even when I explained who I was, and how much we were enjoying the canoe, he was reserved and obviously upset. So we left without the warm welcome that I had anticipated and the warm introduction to Bob that I had hoped for.

The Adirondack guide-boat is, without a doubt, the most glamorous boat now in our basement at camp. While it doesn’t have

the antique line and artistic history of an original Rushton, it is a marvelous and valued boat. Back in the '70's I had advertised in the Tupper Lake Free Press for a floor furnace for the old camp. There was a workable, but inefficient, "pipeless furnace" in the old camp that we used on occasion, but with limited success. True, it took the chill off a cold camp, but its efficiency was questionable. We thought a different furnace might help. So we advertised in the paper. The ad was answered by a camp owner on Tupper Lake. I drove up to see him. "Him" was a retired, widowed doctor who was sitting in a rocking chair on the porch as I drove up. I introduced myself and we chatted.

It was obvious from the beginning that the furnace that the doctor would sell just wouldn't satisfy our needs at the camp. But the doctor asked me to "sit a spell" and we chatted. Before long, he asked if I would like to buy an outboard motor. But I declined, saying that we had an outboard motor, but were more into paddle-and oar-propelled boats at the moment. We chatted on. He had a son who was a professor at a Florida university, and I was a fairly new professor at Cornell. This apparently touched a chord, and we chatted on. Soon he said, "Would you like to buy a guide-boat?" Would I, indeed! But I said I didn't have the money for such a boat. (I assumed from what I knew of guide-boats that they were "priced" at best.) He asked if I'd like to see his, and I was eager to do so. While I didn't have one, I knew enough about guide-boats to have considerable appreciation for their history, their functionality, their inherent beauty, and their value.

He took me to the boathouse, showed me the guide-boat, and asked if I'd like to try it. It hadn't been in the water for years, and so it might leak some. But we put it in the water and out I went on Tupper Lake. The boat was a beauty – old, but not over-used, and still elegant. It was a sort of love at first sight. When I brought the boat back, he asked if I was interested in buying it. (I think he just wanted to sell something, and he saw "the glint in my eye." But I said that I just couldn't afford to buy a guide-boat at the moment. Then he said something to the effect of "Will you give me \$300 for it?" Now that's like asking a connoisseur of fine racing cars if he would give a thousand dollars for a Lamborghini. But I told him I just didn't have \$300. I could manage \$100, but not \$300. We talked a bit more, and finally he said, "Make it \$200." I simply couldn't resist that, and gave him a check for \$200. I went to him,

expecting to discuss, and perhaps buy, a floor furnace. But I came home with a guide-boat!

The guide-boat, as nearly as I can determine from the lines, the way the screw heads are aligned, and the style of the decks, was made by Anderson, a guide-boat maker who had a shop in Moody, on the southeast shore of Tupper Lake. I had visited that shop as a kid, fascinated with the way the shop owner shaped and assembled keel, ribs, planking, and fittings. I never dreamed that one day I might own such a boat. Yet that day had come, and I was on my way home with my own guide-boat! On the way home, I stopped at a gas station in Moody, and told the owner I had just purchased the guide-boat. Guide-boats just were not for sale anywhere, and I told him I got a real bargain. I'll never forget the essence of his reply, but it was something to the effect that "Whatever you paid, I'll give you another hundred for it!" I knew then that I must have made a good purchase! The complete package included middle seat, front and rear seat backs, a pair of maple oars, and a carrying thwart. I was in Heaven! Madeline didn't know quite what to say. I had gone furnace-shopping and had returned with a guide-boat!

The guide-boat, a near 16-footer, is a rowboat, not a canoe. We brought it back to Ithaca on my home-made trailer, and I began to re-finish it. I took off all the old varnish and sanded it well, patching any spots that I thought might be the site of leaks, then applied a coat of linseed oil and turpentine (not the best treatment in today's boating world), let it soak and stand for a few days, then put on several coats of varnish. It glistened like a new boat. I was so eager to try it out on "big water." One October day when a north wind was whipping up waves on Cayuga Lake, we drove to Taughannock Park and I began to row from Taughannock to Stewart Park, about 8 miles south. I had a life jacket, and I think that was about all besides oars. There was a north wind and the waves must have been more than two feet high. But this was a guide-boat that I was rowing and they were invincible!

When I went from the creek to the lake, I wondered if I had made a horrible mistake. I had never been on Cayuga Lake in a storm, and so had never encountered waves of such size. I was, for a few moments, very uneasy. I put on my life jacket and sat on a life preserver in the bottom of the boat. But the boat didn't seem to mind the waves at all, and rocked pleasantly. Soon I put the middle seat in place and sat on it. (The middle seat of a guide-boat isn't much

above the water-line.) The guide-boat was like a cork. Then I tried the oars. All was seaworthy and comfortable. The boat seemed almost to like the stormy lake. So I rowed, and sang, as I “mastered” Cayuga Lake. I was having a “ball,” and this was the finest, most seaworthy, boat I had ever been in. It really was my boat!

I rowed my guide-boat from Taughannock to Stewart Park, a distance of about 8 miles, on a “stormy” day every month of the year except January and February, because during those two months ice might damage the boat. But waves? The boat seemed to welcome them. The larger, the more fun! Except . . . one day I wanted to take Madeline out for a ride. I chose a day when the north wind created pretty sizable waves on the lake. We put the guide-boat in at the boathouse on Fall Creek where it empties into Cayuga Lake. I was supremely confident. I had rowed from Taughannock to Stewart Park in weather much “heavier” than this. Well, the first big wave that I tried to go up and over, instead went up and over the bow, and into my back pockets. What I learned was that when only one person sits in the middle seat, the boat pivots about that point, the bow going up and over, and the stern following. But when there is a person in the bow and another in the stern, the bow cuts through, not over. Lesson learned! The guide-boat can take almost any kind of weather – some waves better sideways than straight on. Alone in the boat, no problem. With company in the boat, a modified approach is needed.

I have seen pictures of a guide-boat being carried on the back of a guide. I have a carrying “yoke” for that purpose, but I have never used it, or even tried to use it. The boat, at something approaching 80 pounds, is just more than I think I, at 150 pounds, and (today) 88 years of age, should tackle. Maybe all the guides back then were strapping he-men. But I am older, wiser, and determined to live many more years. So I will continue to get help putting the guide-boat into the water. Once there, I am in another world – my world!

It has been many years since I purchased and refinished the guide-boat. A couple of years ago we decided to have the boat professionally refinished and (at some time in the not-too-distant future) professionally evaluated. So it was refinished by Robbie Frenette of Tupper Lake, and is awaiting professional appraisal. The boat is insured for \$15,000 – a far cry from the \$200 I paid for it many years ago. Today it is the finest boat in our collection of boats

in the basement at Tupper Lake. I suppose that one day it, too, will join the two other Rockcastle boats in the Adirondack Museum at Blue Mountain Lake.

The sailfish is probably the lowest rung on the boat “ladder”. Years ago, I had an idea that I would like to sail on the lake. But I didn’t have a sailboat. Nor did I want to be saddled with a boat that was heavy and took up a lot of space. I had seen a Sailfish kit at a store in Marathon. It was only a few hundred dollars, and could be assembled (according to the ads) in a few hours. That was appealing. So I purchased the sailfish kit, built the “strongback” on which it would be assembled, and proceeded to build a sailboat. That was more than 30 years ago. And we still have the sailfish in the camp basement.

The sailfish is stored on a rack on the east wall of the basement, along with the Peel canoe. The sail and the mast are in a canvas bag, and the daggerboard and the mahogany rudder assembly are stored with it. The sailfish is a “wet fanny” craft, and so one should really wear a bathing suit when using it. However, Madeline and I sailed across Sodus Bay one Sunday, in go-to-meetin’ clothes to visit Bill and Betty Ruf at their cottage, and we did it without getting soaked.

Ed Smith, one of my graduate students, now retired from his professorship at Michigan State, thought he’d like to make a sailfish, too. I loaned him the strongback, he purchased the kit, and before long he had made a sailfish identical to mine. (After all, the Sailfish is a class, and as such, has strict “specs.” It can’t vary much and still be a Sailfish.

One weekend, Ed and his wife, Andrea, came to the camp at Tupper Lake for a visit. Ed brought his Sailfish, and on Saturday we decided to sail the length of Big Tupper in identical boats. Ed’s was an exact duplicate of mine, and Ed was nearly identical to me in height and weight. The race should be interesting.

We “put in” at Grindstone Bay, made our way to the main body of Tupper Lake, and started down the lake toward the Rt. 30 bridge in a dead heat. The wind was brisk, and we were nose and nose, so to speak. Somewhere near the south end of the big island, I was just a little too close-hauled, and I capsized. It takes only a minute or two to right a capsized sailfish, and so I was soon back upright, and

chasing Ed – soaked, but happy. We kept our relative positions until just opposite Moody, when Ed cut it just a wee bit too “fine,” and he, too, capsized. But like me, he was back on board and on an even keel once more, this time was just abreast of me – both of us trying our best to gain some advantage over the other. But the Rt. 30 bridge was lower than our masts, so we both heeled over, and we both spilled into the Raquette River. We both up-righted our crafts and continued to camp. We took out the sailfish(es), took down the sails, and headed up to camp and a roaring fire in the fireplace – wet and shivery, but happy. Two “twin” educators – professor and graduate student – both having raced and won, both happily content and, when warmed, ready for a dish of hot soup.

Another time, a Cornell supporter donated to the university a 45-foot sailboat, no doubt taking a sizable write-off for the gift. Cornell thus had a magnificent yacht on Cayuga Lake, but in a way it was like having an Aston-Martin in a small town, with no wide, straight highways on which to “open it up.” But Jack Rogers, a Cornell staff member and official guardian of the sailboat, took Madeline and me out for an evening on “Big Red,” or whatever the boat was named, and since the wind was brisk, and the boat well heeled-over, I decided to climb the mast. It was at such an angle that when I got to the top, I was well beyond the span of the deck, and I remember the uneasy feeling of being that high up, with only Cayuga Lake beneath me. It was a thrilling experience, but not one that I think I would repeat tomorrow if I had the chance.

Incidentally, Cornell sold the boat to someone whose “body of water” was a bit more expansive than Cayuga Lake – something more suitable – the Caribbean, perhaps?



9

Textbook Authorship



Throughout my years at Cornell, I was busy conducting workshops (in science) for teachers, most of them elementary school teachers. I was an active member of the National Science Teachers Association, of which Phil Johnson was the first president. So it was no surprise to me that at one point early in my Cornell experience, I was asked to take an office in a similar national organization of science education programs. It was as president of that organization that I met professors and program heads from universities such as Harvard, N.Y.U., the University of Texas, Michigan and Michigan State, Stanford, Oregon, and many others. It was my first venture into “officialdom” and while it was successful, it lacked the excitement and reality of the classroom, of working with teachers. I decided it was not my cup of tea, and gratefully declined further

invitations to serve on a national basis. Instead, I conducted workshops for teachers throughout the country.

One very surprising invitation came from Addison-Wesley Publishers. It seemed that a well-known physicist and a popular biologist – the physicist from N.Y.U., and the biologist from Brown University – had been invited by Addison-Wesley to pull together a writing team and produce a text series for grades K-6. Several high-school and junior-high textbook series were being produced with the aid of huge federal grants, and this combination of funding and teaching expertise was being expanded into some rather lucrative school text programs. I was invited to become a junior member – the youngest and least well known – of the Addison-Wesley team. It was an opportunity, and although my experiences at Brockport State and Cornell had introduced me to the field of writing articles about science, I had not been included in textbook writing. Why not try my hand at it? So, after consulting with Madeline, I accepted.

We met as an author team – four of us, of whom I was the newest, and “lowest” member. We spent several days and weekends working on outlines, on what should constitute a K-6 program in science. Addison-Wesley was a big, productive publishing company, and was expecting a reasonably rapid delivery of outlines and sample lessons. Instead, the two principals delivered set after set of outlines and general plans, but no copy-ready lessons for examination by teachers and curriculum specialists. So Addison-Wesley executives took a bold step. They cancelled the tentative contract with the two principal developers, and turned to the two who were left. I was one of the two. It wasn’t long before my co-worker was hospitalized, leaving me alone. I had prepared enough science lessons that Addison-Wesley must have thought, “Why not put the program in Verne’s hands, let him assemble a team, and then let that team move ahead with a full-blown curriculum?” So I contacted Vic Schmidt, and one of my former grad students, Betty McKnight, then teaching at a “sister college” of Brockport in New Paltz, New York. The author team now consisted of Vic Schmidt, Frank Salamon (who had been hospitalized) Betty McKnight, and me. Because I was an original author of the team, and (I think) because I was at Cornell (whose name certainly would be recognized by most teachers), I was made “lead” author, which implied a certain leadership role. In any case, I had been a colleague of Victor Schmidt, and Betty had been one of my graduate students,

so we got along well, and we saw pretty much eye-to-eye on science education issues.

Addison-Wesley had set up a writing office in Mt. Kisco – the second floor of the bank – and had moved in a highly-qualified editor and assistant editor, with secretarial staff, illustrator – the works. It was a fully professional crew, and we set to work. Three of us four worked full-time during the summer. I took a semester off from Cornell, and the others also re-arranged their teaching schedules as best they could. Summers and vacation times were spent as nearly full staff, writing a K-6 curriculum. The editors were experienced and efficient. The typists were fast and accurate. And the illustrator and lay-out designer, Elaine Bscheider, was indeed a gem. Addison-Wesley had its home office in Menlo Park, CA, and its offices were adjacent to Stanford University. Its east coast office complex was in Reading, MA. Mt. Kisco was much closer to Reading than it was to Menlo Park, so there's where our "orders" generally originated.

Writing a textbook series was perhaps the biggest professional exploit of my life. It was more of a chore, more of a commitment, and yet had more professional return than any other educational endeavor of my life. Before immersing myself in this great commitment, I had no idea, really, of the magnitude of the project. The time spent in assembling and outlining, then "fleshing out" concepts; the integrating of the various topics across grade levels; the classroom trials and the poring over statistical returns and teacher comments, the testing of individual lessons in classrooms, both urban and rural, and the "selling" of the program to school systems – it was a huge, and at times a daunting, endeavor. But it also had its elegant returns.

The first books were produced in French for the schools of Québec. Why French? Because schools in Québec would take a program one grade level at a time. In the U.S., schools wanted the entire program made available before they would accept, or even give reactions to it. So we worked cooperatively with ERPI (Editions Renouveau de Pédagogique Incorporé), a French-Canadian organization in Québec, to produce, in French, what we were developing in English. From time to time I went to Québec to meet with the top brass to make certain that the concepts detailed in Les Chemins de la Science were in accord with the province's wishes. In return, the province would

take our program, a grade level at a time, whereas the rest of Canada, and the whole of the U.S., wanted a complete program, with teacher's editions, before acceptance or rejection.

Almost, but not quite, concomitant was a Spanish edition prepared for the Caribbean and South American market. So, in reality, we as a team were readying three editions. Each edition, because of its regional nature, had rather specific illustrations. Since the Spanish edition was to be used mostly in the Caribbean and South America, I had to collect illustrations representative of that area. I spent hours photographing and tape-recording crabs on the beaches, coqui – a tropical frog of the rain-forest – and many other specialties of lower latitudes and the rain-forest.

When the Addison-Wesley textbook series was completed, there was the huge job of marketing. In the U.S., the parent company, located in Menlo Park, CA, had a huge organization for that purpose. There were regional sales managers, many state representatives, and a well-organized sales force that covered regional, state, and local science fairs and exhibits. There were also state and local science fairs in which books and demonstrations for teachers were organized.

As the senior author of the Addison-Wesley program, I had to make presentations of the program to school administrators from Alaska to Florida, from small, rural areas to Los Angeles and New York City. I had to “show” school administrators that our Addison-Wesley Science was a practical, guaranteed program for children of all abilities, that teachers would find the materials interesting, manageable, and of guaranteed understanding by children.

Perhaps the most intensive “sales pitch” was demanded by the state of Texas. The school board of the state asked for (demanded) a presentation by Addison-Wesley in each school region of the state, from El Paso to Beaumont, from Amarillo to Brownsville. For a “pitch” to Texas, Addison-Wesley sent a team of author, editor, state sales “rep”, and a couple of other “knowledgeable people” on what was essentially a 10-day information trek across the state. We held teacher workshops, information sessions, and demonstration lessons for school boards, teaching staff, school administrators, and specialty groups in an attempt to advertise and educate potential users so that our program would be on the “official” state-authorized

list. It was a tiring, but educational, ten days. It ended with a demonstration lesson before the state science textbook committee. And we got listed as “approved” for sale by the state of Texas! That didn’t mean sales. It meant only that we could present the program, and that it was considered “satisfactory” for sale within the state.

In California, we had to pass the religious standards of the state school board. The standards demanded by each of several states were at once laughable and outrageous. A casual perusal of the listed (and demanded) standards of some states showed them to be so “picky” and so specific to that state that one would wonder how any textbook could possibly pass the state requirements. The state of California, for example, had on its school board some Christians who looked for evidence of “born again” Christian authorship, and if it wasn’t there, the books would never be accepted in the state. It took some insightful questioning and pointed convincing to get certain school board members’ approval for the series to be listed – not purchased, but just listed as “approved.”

Schools often asked for Addison-Wesley to give a workshop for their teachers, and the company rarely declined. Workshops were almost guaranteed to produce a favorable impression on teachers. Sometimes, though, it made one wonder! I was asked to give a workshop in Alberta, Canada, for a large parochial school system. I brought all sorts of materials for use in the workshop, including protractors, scissors, magnets, etc. As usual, I counted out all the materials before the workshop, and again afterwards. At the end of the workshop I had only a fraction of the scissors, magnets, protractors, etc., that I had at the beginning. I thought to myself, “If only I could ask the nuns to pass through a detector, I think I know where that stuff went!” But Addison-Wesley had a philosophy about collecting the materials used in workshops. If they disappeared, we had to assume that it was for a good cause. And it surely didn’t hurt our cause. Our workshops were universally popular. I was certain that I knew why!

One day, in California, when I was on sabbatical leave from Cornell, I went to Lake Tahoe to ski. On the chair lift, my seat companion was a girl of 8. In our conversation, she said she was in 3rd grade. I asked if she had a science book, and when she said, “Yes,” I asked if it had a hot-air balloon shown on the cover. This surprised her, and she said, “Yes, how did you know?” When I said that I wrote the

book, she could hardly believe it. She told her teacher, and the teacher wrote to me to confirm the girl's story. So I wrote back, sending the girl an autographed copy of her own. This was just one isolated incident of hundreds that had their basis in the Addison-Wesley Science program.

Addison-Wesley was sensitive to any and all avenues of potential sales of the program. One day they arranged for a teacher workshop at a Mennonite college in Fresno, CA – Fresno Pacific College. It was a small college of about 1500 students, and the preparation of teachers was one of its major programs. So I prepared and presented a one-day program of science for elementary teachers, held in their gym. As with my other presentations, it was a hands-on experience geared to grades K-6. The presentation was a “smash”, and as a result, I was asked to present a one-week summer course in elementary school science for teachers. The class had about 35-40 teachers. It was, as with all my classes, a hands-on, experiential course, and it was an immediate “smash.” I was asked to teach a similar course the next summer, and the next, and . . . for 12 summers. I thoroughly enjoyed these teachers. They were down-to-earth, curious, intensely interested in hands-on experiences, and a wonderful group of people. On the weekend between instructional weeks, we went to a church camp site in the Sierra, near Yosemite, where we had a delightful overnight and an in-depth discussion of elementary school science teaching. There was no attempt by the college to proselytize, nor to indoctrinate. It was a thoroughly enjoyable and rewarding experience. I got to know many teachers, mostly from the west, but also from Florida and Texas, as well as California. At one point I demonstrated a simple, home-made magnetizer, and when a number of teachers wanted to make one for their own classes, the college provided all the materials so the teachers could make their own to take home. One teacher later reported that she had arranged for her 4th grade class to make them, and they enjoyed magnetizing pocket knives, scissors and screwdrivers for their home neighborhood at 25 cents per magnetizing.

Later on, Fresno Pacific College printed and sold a third edition of **Teaching Science With Everyday Things** that Vic Schmidt and I wrote for teachers. Fresno Pacific College was a first-rate preparer of elementary school science teachers. I have only fond memories of my dozen or so summers of teaching there!

Sam

In writing the textbook series, there were times when my personal experience of something was not sufficient, and I took steps to gain more first-hand experience before writing. At the sixth grade level there was a section on vertebrate development. It was considered important (by me, at any rate), but I thought I needed some more personal knowledge, especially of a kind that sixth-grade kids could understand and internalize. So I decided to get some quail eggs and follow them through the incubation to hatching. I ordered two dozen northern bobwhite quail eggs from a game farm in Indiana. They came parcel post, and not a single egg was so much as cracked. First hurdle successfully cleared!

Next, I made an incubator from a wooden box. I wanted to keep it inexpensive, something kids could make if they wanted to do so. I attached two porcelain lamp sockets, one to each side of the box, and an 8-foot cord. Then I got a piece of single-strength glass from a glass shop and set it atop the box. Inside the box I laid a thermometer. I put a piece of adhesive tape, marked at intervals, slanting across the glass so the tape would be over the edge of the box when the glass was slid to leave an inch to six-inch opening for air circulation. Finally, I spent a couple of days “calibrating” the temperature inside the box, depending upon the width of the opening between edge of glass and end of box. When the temperature was about 102°F, I put the two cartons of eggs in the incubator. But first I marked an “X” on each egg, turning the X toward the east in the morning, and toward the west at dusk. It was my way of making sure that the yolk/embryo didn’t stick to the shell. I turned the eggs faithfully twice a day, opening one every few days to check on development. Nothing fancy, but a strict regimen of inspection and turning. When the anticipated time came for hatching, and nothing had happened, I opened one egg. Oh, no! A perfectly formed quail chick was there, but I had accidentally ruptured one artery, and the chick died because I didn’t know enough to help it. I was learning!

By another day, things had gone into high gear. Chicks were hatching and peeping, and I was both ecstatic and frantic. I didn’t want to lose any more chicks, but I wasn’t quite ready for parenthood, either. So I rigged up a small piece of flannel about 10

inches wide, hanging from the glass in a sort of stage-curtain fashion. I wanted the chicks to be able to snuggle in the folds of the flannel without getting smothered. It worked! I also had some grain and grit on the floor of the box, along with a couple of small pans of water.

The chicks established a pecking order, ate voraciously, and grew rapidly. It was fun, and I learned so much! I was certain that kids could have a “field day” by doing the simple things that I did, and so I wrote about them. When they were about six weeks old, I released them. But the experience of hatching and raising quail chicks was so much fun that I repeated it some years later, and kept one. I wasn’t sure of the sex at the time so I called it “Sam,” thinking it was a male. If I was wrong, I’d change the name to Samantha. But Sam was, indeed, a male. And what a male he was! Madeline and I kept Sam for almost 6 ½ years as a family pet. Sam slept on our dresser at night, rode on the dash of the car by day, and was so affectionate! He loved to preen our eyelashes, and was so gentle, never, never making an error, but preening each eyelash individually and gently.


Insects and spiders – Sam was a terror! He could spot them, run to them, and in an instant they were in his gizzard. He was a top quality pet! When he died of vision problems at age 6 ½, it was as if a light went out in our lives. Sam was, indeed, a superb pet, and infinitely less trouble than a dog or cat. I wrote a small book about him, entitled, “So Long, Sam!” And I cried as I wrote it! Sam was such a gem!



10

Cornell's Adult University



 Early in my experience as a Cornell professor, being on “9ths” and receiving a salary only nine months of the year, I did not teach my regular classes during the summer. Instead, I managed to teach selected classes in Cornell’s Summer Session. The first classes were an extension of my regular classes for those wanting to teach in public schools. Or they were classes for public school teachers wanting to earn a higher degree, or wishing to extend their teaching certification to the sciences.

Later, I became active in the summer portion of Cornell’s Adult University (CAU, as it’s known by those familiar with it). Cornell’s Adult University was started about 40 years ago, as a summer as well as an academic year program of courses for interested adults

who were past the undergraduate years, but still wanted to learn more. Full-time study just wasn't "fees-able" but they could manage a week or two in summer or during "slack times" in their employment, or in their retirement. My CAU classes were thoroughly enjoyable, and through them I met another completely different population of students and friends, some of whom return year after year.

CAU has somewhat condensed offerings in political science, history, environmental science, literature, and wines. It is a non-credit series of offerings, each of which usually runs for a 5-day sequence. There are also elegant trips to foreign cities, to English gardens, and to the African veldt. CAU is a glamorous, not inexpensive, educational experience nearly unique among American universities. The students range from teens to elderly, from corporate executives to a Broadway actor who insisted on bringing his pet parrot along on field trips – perched on his shoulder. For a whole week, the parrot was a "Jolly-Polly" member of the class, and never, during a week of hikes, left his owner's shoulder. The two of them did not stay in campus dorms, but took a room in a downtown motel. I wonder if "Jolly-Polly" ever uttered a squawk indicative of any of the field trips.

Early in the program, I was asked if I would be interested in teaching a class on winter ecology. Would I? Indeed I would! And so began a winter class that spanned several years. One winter, while on a chair lift at Greek Peak, the nearest-to-Ithaca downhill complex, I was riding on a chair with someone I didn't know. I asked my chair companion where he learned to ski, and he said, "In the Adirondacks as a part of a Cornell University winter week on skis." I asked his instructor's name, and he said, "Rockcastle." When I said I was he, my companion nearly fell out of his chair. It so often happened that my path would cross that of a former CAU student – in the most unexpected ways and places!

I also had an opportunity to teach a week of summer field natural history – some of it far from the Cornell campus. One year there was a CAU tour of three valleys in California – one north of San Francisco, Yosemite southeast of San Francisco, and Death Valley in the south. What other university would offer such disparate locations for field trips, and fill a class with such delightful, eager, and energetic students?

Western CAU's

Alaska tours weren't the only notable tours of CAU, though they were among the "mostest" and best. But CAU also offered a thoroughly enjoyable week in the Sonoran Desert at Tucson, as well as a tour of the Grand Canyon. Needless to say, I got involved in both. On the Sonoran Desert tour, we stayed at Tanque Verde, a large guest ranch a few miles east of Tucson. The ranch, although catering mostly to horse-lovers, was wonderfully situated in Saguaro cactus country. From the ranch we could walk only a few hundred yards and be in real Sonoran desert. It was not uncommon to see road-runners, many kinds of lizards, saguaro cacti in bloom, and even an occasional rattlesnake. On one occasion, I found a small (about 3 feet long) rattlesnake that I picked up with a stick, and held 'til Madeline returned from our "casita" with a pillowcase. I dropped the snake into the pillowcase, tied the opening shut, and put it in the refrigerator of our cabin. The next morning, while the snake was still cold and its tongue was barely able to stick out and "sniff," I held the snake for all to see, then released it near a woodpile. Once the snake warmed, it didn't take it long to disappear into the woodpile.

We had seen tarantula burrows and tracks in the sandy berm of the road coming into Tanque Verde. Wouldn't it be fun, I thought, if we could "tease" a tarantula from its burrow. So one evening, about a dozen of the class and I took flashlights and 12-inch forceps to one of the seemingly active burrows to see if we could collect a tarantula for the group to see. I probed the burrow with a slender stick, and immediately felt the spider grasp the stick with its chelicerae (fangs). But when I tried to pull it out for us to see, it let go. This happened several times, after which it simply blocked the entrance with its abdomen, and wouldn't let the stick in. Finally, I tried the forceps, being careful not to injure the tarantula. After several tries at extraction, I was able to withdraw the spider for all to see – a lovely, not at all horrendous-looking creature. When we had all looked at it, and retreated, it was left alone – to retreat once again to its burrow. Tarantulas are not the formidable, vicious creatures that they are made out to be, but unless provoked are interesting, useful denizens of the desert.

Just outside our casita nested a roadrunner, but we never saw it. We did hear and see so many other birds, though – Gambel's quail, white-winged dove, and roadrunner, among others. We also saw occasional wild pigs, and coyotes. I shared the Tanque Verde experience with Prof. Yervant Terzian, a renowned Cornell astronomer. He had close friends and associates at the Kitt Peak Observatory, a few miles southwest of Tucson, and for each of the several tours we had of the Sonoran Desert, we spent a day at Kitt Peak with Yervant as our tour leader. He was an excellent lecturer, and was able to get us into parts of the observatory that we never would have seen otherwise. Tanque Verde, with the nearby Sonoran Desert Museum, was a popular and thoroughly enjoyable CAU experience spanning several years.

Another CAU “tour” where I, along with Madeline, was in charge was on the Salmon River in Idaho. I think we were asked because I was a field biologist, and because we were experienced canoeists. The first trip began just a few miles from the Montana border on the Salmon River in Idaho. The boats were big, sturdy rowboats, not canoes at all. Each boat was about 18-20 feet long, with fairly heavy planking, and one rower sitting atop the duffel amidships. Passengers, three in front, and three in back, plus tents, sleeping bags, food, and portable “potties”, made up the load. As a fairly experienced canoeist, I was amazed that these rigid rowboats could navigate a river as full of boulders and rapids as the Salmon. But the rowers were skilled, and they did a “180” around obstacles so smoothly and deftly that we had only a couple of “patching” sessions in 4-5 days of running rapids.

One day we had stopped for lunch beside an especially nice rapids, with a sizable boulder in the middle, around which the water made an interesting eddy. While we were eating, two solo kayakers came down the river, stopped momentarily to exchange greetings with us, then went out to the boulder to “show off.” And show off they did. They stood vertically in the lee of the boulder, did roll-overs, and all sorts of tricks to the dismay of us ordinary folks on the riverbank. It seemed that they had come some 75+ miles down the river that day, starting several miles above where we had put in at least a day before. I had a new appreciation for the capability of skilled kayakers in quality kayaks!

One memorable experience on the Salmon was a noon-time hike we took through one of the few meadows along the river. With us was

a visiting geology professor from the University of Maryland. He thought it would be a new and educational experience to river-raft in Idaho. But even on a boat, it's nice to stretch legs now and then, so when we came to a meadow nestled between the peaks, we thought it would be nice to stop and take a short hike. In the course of our hike through several acres of Russian thistle, we came across a gorgeous, rather large rattlesnake, more than 4 feet long, and at least 2 ½ inches in diameter, that was sunning. Our visiting geologist managed to pick up the snake and hold it just behind the head for the inspection by the group before he released it. How often would any in the class get that close to such a beautiful, but venomous, snake? Needless to say, everyone watched their step as they shortened their hike back to the boats.

The rattlesnake wasn't the only venomous creature along the way. One morning, as we rolled up our sleeping bags, one of the women let out a scream. It seems she had found, to her horror, two scorpions on her sleeping bag. Had she slept on them? What if they had gotten into her bag? Did any of the others find similar venomous critters beneath their bags? It was an unsettling find, and each night after that, everyone made a careful inspection of the place they were going to sleep. It's a wonder some didn't insist on sleeping on the boat! But there were no more untoward experiences with scorpions, thank goodness.

At one of our lunch stops, we took a short hike up the mountainside to a hot spring that one of the rowers knew about. It was a pool less than the size of a backyard pool, but the stream of water that fed it was close to 130°F, and felt wonderful on a cold morning. It was another of those unexpected delights of our CAU experience.

Two or three times during our week of river-running, I tried fly-casting for trout or salmon, but caught only small stuff, which were returned to the water immediately. The only sizable fish we saw was a 6-to-8-foot sturgeon, which Madeline almost stepped on when she got out of the boat for lunch below the confluence with the Snake River. From there all the way to Lewiston the river was slower and without white water. We shared the waterway with motorboats, some larger tour boats, but no kayaks or canoes. We were indeed back in "civilization". We had such an "away from it all" experience that this was a bit of a come-down for us all, and we missed the rugged and less touristy upper Salmon River gorge.

Another CAU river tour had its ups and downs. A float-trip on the Green River in northeastern Utah had been planned, with another Cornell professor as tour leader. But at the last minute he had heart surgery, and I was asked if I could fill in for him. It meant curtailing my attendance at the Cornell commencement exercises that year, and flying me and Madeline to Salt Lake City to meet the rafting group. They were about to leave for a tour of an excellent dinosaur museum before the rafting trip, because the Green River would cut through Dinosaur National Monument and we should have a “proper” introduction to those gigantic lizards of old.. The Dinosaur Museum, a few miles south of Salt Lake City, was a wonderful one. Certainly the most complete and most visited by school groups of any I had visited. Kids were simply “out of their skins” in it.

Then we began our bus approach to the beginning of the river tour. Along the road there were hordes of “Mormon crickets” – the grasshoppers that ravaged the early Mormons’ crops and made the gulls a religious symbol because the gulls were such effective predators of the ‘hoppers. The bus crossed acre after acre of semi-arid farmland, descending finally to the Green River where a somewhat smooth stretch of the river gave no evidence of the roaring rapids to come.

We river-runners left the bus with our packs and boarded the rafts, which like the Salmon River rafts of a few months ago, were piled high with tents, food, cooking and sanitary gear. Packs were stowed and everything made secure before we took off down-river. The river at that point was placid, giving no clue as to its wild character to come.

Soon we entered a canyon of colorful cliffs and increasingly turbulent water. The rafts were guided by skilled and knowledgeable rowers, both male and female. There were three or four passengers in both the front and rear “compartments – seats around the bow, and a similar set-up in the stern. We were cautioned to hold on to the rope “safety lines” any time we were in turbulent water. At one point, the rafts were tied ashore, while both rowers and passengers walked up to a point above the “hell-hole” or some such intimidating label to take a look at what should be our course of entry and exit. The guides seemingly in agreement and satisfied, we returned to the rafts to navigate the “hell-hole” and the rapids downstream.

The “hell-hole” was indeed that. One raft got through, then another, and it was our turn. I thought I held onto the rope that was our “security” but as our raft shot down into the hole, then shot up as it exited the hole, it somehow catapulted me out and into the rapids. It all happened quickly, and Madeline must have sensed it. In the water, I put my hands around my head to protect me from being bashed against one of the boulders. All I could sense was a veritable obstacle course of granite boulders, and green water turning me this way and that. All I could think of was to keep my head from being bashed against one of the boulders. Then from somewhere I sensed an extended hand. It was the hand of Dr. Don Wilson, an Ithaca cardiologist. I grabbed his hand, and some others in the raft grabbed my arm and hauled me aboard. What a “rescue”! In all the turbulence of the rapids, and the tossing of the rafts, I happened to be grabbed by someone in the last raft, and a doctor at that!

Dr. Wilson immediately checked me for physical damage, but there was none that was obvious. Then he checked pulse and breathing. Normal. Apparently an exceptional dump and an equally exceptional “rescue”! The rapids didn’t frighten me, but they surely sobered me! I think it was the only time, in all my CAU exploits, that I can truly say that I had a “close call.” In retrospect, was it really a close call, or an adventure?

We stopped to take a hike, to camp in tents in a meadow adjacent to the river, and in a calm portion of the river, some elected to take a swim. But they were cautious; they had seen the power of the river, and were reluctant to take unnecessary chances. During the camping, we were treated to a series of passing thunderstorms. Torrential but short-duration showers, and a dazzling display of distant lightning. Finally, we arrived at our take-out point in Dinosaur National Monument. Trucks were there to take rafts and baggage to a selected garage, we boarded a bus, our luggage was loaded onto a truck, and we headed for a nearby motel. The motel had a nice dining-room, where we ordered a meal fit for river-runners. During the meal, a former grad student, and one-time close friend of daughter Diane, walked into the dining room and said, “Hello, Rocky!” It was Curt Sinclear, a close friend of Diane, and the one who made the candle-holder and wood-box hinges for our cabin at Tupper Lake. He was then employed as a Park Ranger at Dinosaur National Monument. Seems Cornell has some kind of “in” almost everywhere!

CAU in the Galapagos

A CAU tour of the Galapagos Islands in the Pacific was also a most memorable trip. In preparation for the 1999 tour, I had re-read Darwin's Voyage of the Beagle. It's heavy going, but there is no other work that so minutely details the Adventure of Charles Darwin, and his experiences in The Galapagos Islands, where the beaks and the habits of finches made such an impression on Darwin that he wrote the Origin of Species – one of the most influential, and at the same time controversial, books of all time. To be invited to conduct a CAU tour of the Galapagos was an invitation of a lifetime! Madeline was invited to go as a sort of social secretary, and son-in-law John Wiessinger went as youth program leader.

The tour was in a dilemma at the start. The Galapagos “belong to” and are under the protection and administration of Ecuador. But just before we were to fly to Florida and Ecuador, the national news carried a story about there being a sort of revolution in Ecuador, and the military having taken control of Quito, the capital. It happened that the U.S. Assistant Minister to Ecuador was the son of a former Cornell Director of Athletics and world champion 400 meter hurdler, whom I knew. I called to inquire about our coming to Quito, and was assured that things were calm and there was no reason for concern. Come on down! So we went, but weather prevented our landing at Quito, and we landed at Guayaquil instead. From Guayaquil to the Galapagos was a fairly short hop, and we enjoyed nearly a week of wonderful experiences among fabulous islands. We saw sea lions, tortoises, lizards, and so many exotic birds! On one island, after swimming in a salt-water mini-bay with sea-lions, I walked out of the pool and up on the sandy beach just to relax. Two sea-lion pups came out of the pool, waddled up and onto me, sniffed at my face, and then waddled back to the pool. My strong impression was, “How heavy they are for being young! The big bull in command of the pool must have weighed a ton, and would be a formidable adversary.

Because it was such an opportunity, Lynn, Forrest, and Brian went to the Galapagos, too, as did John. He came without Diane, Scott, and Eric – an unfortunate decision on their part because this was indeed a visit of a lifetime! Especially since John was in charge of

the children's program, for which he did a wonderfully complete and superior educational program.

On the return trip, we spent a few days in Quito, taking time to visit some villages and their markets about 20-30 miles from Quito. Their stocks of sweaters made from Llama wool, and their hats, purses, and other clothing, were superb. Also, on the way we passed huge greenhouses in which are grown many, if not most, of the long-stem roses sold in the U.S. Ecuador was truly an amazing and productive country!

Of the birds we saw in the Galapagos, the blue-footed boobies were perhaps the most interesting. These birds hunt small fishes in a unique way. They fly up to a height of perhaps 200-300 feet above a school of herring or similar small fish, then dive straight down like an arrow, entering the water at high speed, bill closed, wings retracted, and legs "furled." When they hit the water close to the fish, the impact stuns the fish, and the boobies then turn, and in the upward segment of their dive open their bills and snag their prey. I had thought they did this on the dive, but they do it on their upward "return to wing!" Just one of the many intriguing sights in the Galapagos!

The crabs were quite a sight, also. Almost all the rocks that bordered the salt-water pools had a population of crabs. The crabs were so skilled at scurrying along just ahead of the wave-front, getting small invertebrates as they moved. Many times I wished I had a movie camera and lots of time. The Galapagos were not a series of islands to be visited lightly!

That about completed my involvement with CAU insofar as leading tours and conducting summer courses. CAU has, indeed, been a fruitful and thoroughly enjoyable part of my Cornell experience. CAU has also been so very willing to involve Madeline in a useful and rewarding way – a way that simply is well beyond the purview of the usual state university system. CAU has, indeed, been a sort of "frosting" on the Cornell "cake." And that CAU frosting includes Alaska.



11

Alaska



✈ Another memorable CAU tour – this one in early summer before summer tourists became a problem – was a 12-day tour of Alaska. But it didn't start out as a CAU tour. I had had a visiting instructor, Doug Schamel from the University of Alaska in Fairbanks, as a sabbatical leave student. In searching for courses to take, he learned about my course, in science for teachers. Curious, he looked me up, inquired about the course, and decided to take it just for what new and different light it might cast on topics in his own course at UAF in Fairbanks. Doug came to class the following week, and we had a good chat about preparing elementary school teachers, since that was part of both our responsibilities. I stressed my interest in hands-on experiences, and the need for children to explore, to question, and to apply creativity in finding how things

worked. Doug and I became the best of friends, sharing many ideas about teaching science, especially to kids.

Teaching in Alaska

When Doug left Cornell that summer, we remained in contact, and in the fall he invited me to Fairbanks to teach a week of classes (mostly his own). Doug couldn't pay an honorarium, but he could cover expenses. That was fine with me, because I had never been to Alaska, and to have the way paid to get there was pay in itself. Since it was autumn, most of the tourists were gone, and Fairbanks was gearing up for winter. I had a room at Sophie Station, probably the best hotel in the city. Each guest room had a kitchenette, so I could make breakfast, and it was only a mile or so from the campus. The Chena River flowed through Fairbanks, draining some of the extensive swamps and bogs to the northeast. And from an overlook on campus, one could see some major peaks of the Alaska Range, and a little to the southwest, magnificent Denali, the most famous peak in the Alaska Range, and the highest in North America.

I taught classes by day, and in the evening I took in as much as I could of the surrounding country. The one impression that I had was **huge!** By Alaska standards, my gorgeous, wild Adirondacks, was a woodlot. I had never experienced such intimate, extensive wilderness as that surrounding Fairbanks. I had rented a small car and drove to several outlying places that I thought merited my investigation. One was a village named "North Pole." There really is a village named "North Pole," which is a few miles northeast of Fairbanks. I think I sent Madeline a letter from North Pole, Alaska. One demonstration I remember doing with second-graders in North Pole was a contest in emptying a gallon jug of water. The class tried various ideas of their own, and the fastest jug-emptying took more than 25 seconds. Then I had them close their eyes and listen while I emptied the same jug – in something like 11 seconds. They watched while I showed them that unless air could get into the jug, water couldn't get out. How did I let air in? By swirling the water to produce an air-"hole" in the center of the swirl! The kids thought this was "neat." Water couldn't get out unless air could get in!

I wish I could have explored the Fairbanks area a little more, but after all I was there to teach, not to run around and explore. But I

decided I'd just have to return on a relaxed "rein." Little did I know that my number of visits to, and my experiences in, Alaska would rival my experiences in Newfoundland and the rest of Canada associated with the Addison-Wesley program!

I did return – many times. In 1991, just before Christmas, Doug arranged for me to teach for most of a week in the village of Kipnuk, on the Bering Sea coast. It was en route to Kipnuk that the long-inactive volcano, Mt. Redoubt, "blew". The pilot of our small commercial plane alerted us to the plume of smoke and ash rising from the volcano just off to our left. I had never seen a volcano in action, and this was an absolutely fascinating once-in-a-lifetime experience! I was struck by the fact that in the plane we could hear nothing of the eruption.

We continued on to Bethel, then had to take a single-engine plane to the next village, for the first of two overnight stays en route to Kipnuk. As we left Bethel, our plane dropped down to give us a closer look. On one side of a single tree was a sign: "Entering Bethel National Forest." On the other side of the tree was a similar sign: "Leaving Bethel National Forest."

Kipnuk was a village with no roads, but a school of about 150 children in grades K-12. The air strip was gravel, and only one flight a day communicated with Bethel. It was my first visit to a village pretty much isolated from a population center in that vast state. During my visit, a physics teacher, scheduled to be one of my students, didn't show up for four days. He was off with family and friends on a whaling expedition – not a vacation but to stockpile the community winter larder with whale meat!

On my arrival, my luggage was searched for alcohol, which to Eskimos is a social "poison" but much sought. The native officer conducting the search found the coil of copper wire that I was going to use for class, and said, "I buy!" I said I was going to use it in a class demonstration, but he repeated, "I buy!" and I had a bit of a time convincing him that I would give him the wire when I was finished. I think a roll of copper wire has many uses in a village far from hardware stores. It comes in handy for repair of plane, snow machine, and outboard engines where do-it-yourself repairs are common and necessary.

I tried to instill some creative science in the program at Kipnuk, and as one of the “different” activities, we had measured the air pressure inside the tire of a plane parked on the only runway. Then we measured the area of the plane’s tire(s) on the runway. From the area of the tires, and the air pressure inside them, we calculated the weight of the plane. Two years later, when I was in the U. of Alaska Fairbanks cafeteria, a boy came up to me and said, “Dr. Rockcastle! I was one of the kids who weighed that plane in Kipnuk with a ruler and tire gauge! That was neat!” I knew, then, that my kind of science was the right kind!

When it came time to return to the Lower 48, I was at the Kipnuk runway with a crowd of native Alaskans hoping to get away for Christmas. The village elder was on the runway with a clipboard and checked us off as he determined our priority. There was no protesting, no arguing; what the village elder decided was final. That was that! In a way, it was a nice contrast to the mob psychology that one sometimes sees in the more congested cities.

We had to overnight in a small Eskimo village on our return to Anchorage. The only place to stay was in the school library – on the floor. The school’s “cook” was called in to make supper for Doug and me.

The next overnight “leg” was to Bethel, where Doug and I shared a cabin with several men and one woman. The woman was en route to a cabin on the Yukon to marry a bush pilot she had met at a Dallas Cowboys football game. She was dressed for Texas weather, not for Alaska’s, and the ribbing she took that night from the guys isolated in the cabin by virtue of Redoubt’s “blowing” was memorable. “You’ll freeze to death when you make your way to the outhouse in that outfit!” “You better have lots of paperbacks to read when your husband gets snowed in and can’t fly!” I think that if she could have returned to Texas, she would have. She never envisioned anything like this when she left Texas!

Air traffic slowly condensed into Anchorage. All the time I noticed a faint (but getting stronger) “fragrance” of un-fresh fish. At the Anchorage airport, about 1400 people were “marooned.” It seemed that a day or two after Mt. Redoubt had begun spewing ash into the

air, one large jet airliner had tried to negotiate the Anchorage airport and had scored its jet engines so that the plane had to be grounded. This closed the airport until further notice. And air traffic simply piled up. For a week there were no flights out of Anchorage. And Christmas was only a few days away! But the city of Anchorage did a masterful job in providing food and blankets for about 1400 stranded passengers, and in keeping the airport clean. By the end of the week, the blockage began to lessen and little by little air traffic resumed. I, myself, made it out – smelly boots and all! Back home in Ithaca, I found that some creative, mischievous Eskimo kids had cut fish skins to fit inside my boots, which were by tradition set along the wall outside each class. It was their way of saying, “Welcome to Kipnuk!”

I returned to Alaska for much of another summer, visiting native villages, greeting teachers, and learning about the limits and the needs of Alaskan children. I learned that native Alaskans had no written language, and that UAF had instituted a department whose objective was to investigate and develop an Inuit history from the oral records of the various village elders who were the current “history-books” of their respective villages. I was teaching children whose historical knowledge of their culture and their villages was totally oral, but who at the same time were watching TV powered through a village antenna.

For a couple of summers, I applied for, and was granted, a summer of teaching science in Fairbanks, a week in Anchorage, and a week in Auke Bay, just north of Juneau. Once I had a week in Sitka at Sheldon Jackson College. Also, one of my Cornell undergraduate advisees, Peggy Cowan, was a rising star in Alaska science education, and was soon to be Supervisor of Science for the state. In addition, the soon-to-be president of the National Science Teachers Association, Emma Walton, was the supervisor of science in Anchorage. I was surrounded by competent science educators! And I was fast becoming an Alaskan!

I had teachers from various parts of the state – Anchorage, Juneau, and Bethel. One morning before class I went fishing for Dolly Vardens in a tributary of a stream that flowed through part of the Juneau airport. And we caught perhaps 20 before breakfast – beneath the roar of planes taking off and landing at Juneau.

Another time I drove in a rental car to a glacial stream that emptied into the sea north of Auke Bay. There was a pond of about 2 acres where a natural dam had blocked the fresh-water stream before it cascaded into the sea. Strong west winds would send waves (salt-water) crashing over the natural dam, so that the pond behind the dam, instead of being entirely fresh water, had a salt-water bottom, called a salt-chuck. In this salt chuck, sea-run rainbows would rest after spawning in the fresh water above, before returning to the sea.

I had some memorable fishing in this salt chuck. When I began to cast from the shore, some men with spinning rods and salt-water tackle, seeing me with my fly rod, said, "You aren't from around here, are you? You won't get salmon with that outfit!" But it wasn't long before I took a nice salmon on a wet fly from that pond. When I took the second salmon, the comments changed. One guy wondered what I was using, and then wondered if he could catch a salmon on similar tackle.

I returned to the salt chuck on a week day, found no one there, and began to fly-cast. Before long, a bald eagle slanted in and alighted on a limb of a huge, half-dead pine a hundred yards away. It wasn't long before I took a nice salmon, and decided to eat this one. I cleaned it there on the rocks, leaving the innards and head in the open, then retired to some shrubbery about 30 yards away, as out of sight as I could manage. I tried not to move, and to remain inconspicuous. It wasn't long before "Charlie" as I called the eagle, flew down to claim the remains. This happened several times in the next few weeks, and I came to feel a unique kinship with Charlie. On more than one occasion, Madeline went with me, more for the experience of sharing a catch with Charlie than for getting an evening meal of fresh salmon. I shall not soon forget Charlie, and wonder if he remembers me.

One summer I was invited to teach a class in elementary school science at Sheldon Jackson College in Sitka, Alaska. It seems that a minister from the First Presbyterian Church in Ithaca, was instrumental in starting a small church for the native Alaskans in Sitka. I don't recall the formality of the association, but in the mid-1990's I happened to be teaching science for teachers in Juneau, and so was invited to give a presentation in Ketchikan and Sitka as well. I remember the Sitka experience for two reasons – the salmon fishing in the bay into which the Indian River emptied, and the

harrier restoration project, an effort of the State of Alaska to restore wounded or injured raptors such as bald eagles.

Near the campus of the small college, the Indian River emptied into Sitka Sound. The lower reaches of the Indian River were, as with most rivers emptying into the sea, full of migrating salmon at certain times of the year. I happened to be in Sitka at one of those times. So, of course, I couldn't resist wading in both the sound and the Indian River and trying a little fly-fishing. The water in the sound was clear and cold, and shallow enough to permit wading out from shore about 100-200 yards. Perfect! I could even see an occasional salmon break water, and this only made my blood run faster and my heart beat wildly. I began to cast a large wet salmon fly, and it wasn't long before I hooked a nice fish, played it for perhaps 15 minutes, and landed it. I took it to shore, cleaned it, laid it out in the shade of a tree, and returned to cast some more. I laid out, I think, three nice salmon, all of which had their eyes removed by the ever-watchful ravens. Eye-less salmon don't look very appetizing, but since they were freshly caught, the cooks at the college were grateful to have them, and they were shared with students that night for supper.

The next day I ventured up the Indian River only a few hundred yards, found an abundance of salmon in their spawning run, didn't catch any because those in the river seemed intent on spawning instead of feeding, so returned to the bay to work on the salmon that were schooling there before running up the river. The bay with its crystal-clear water, shallow enough to wade over a 100 acre area, was a fly-fisherman's delight. I'd love to return, but Sheldon-Jackson closed its doors for good a few years ago, and so there isn't a professional reason to return. Sad, because it really was a beautiful place!

I have had some other, not-so-memorable fishing experiences in Alaska. I drove the George Parks Highway from Anchorage to Fairbanks more than once, and took the CAU group by bus several times. On more than one occasion I tried a fly on one of the many streams crossed by the highway, but never seemed to have much luck. I did see several large salmon caught by fishermen using big, heavy-duty fishing tackle, and I did see some more-than-30-pound salmon, but to me that wasn't really fishing, and I much preferred a fly-rod, even if on occasion I lost, or even failed to hook, a trophy fish.

A few miles north of Fairbanks, I checked out a stream that I thought would be good fly-fishing. There was a campsite, which was not much more than a cleared area and a ring of stones making a fire-pit. It was full of beer cans and other cast-off items left by don't-care campers. I was about to take a picture of it to show fellow sportsmen from the Lower 48, when a fellow camping nearby asked why I was taking the picture. When I told him that it was to show my buddies in the Lower 48 what camping spots in Alaska looked like, he said, "Don't take that picture; let me clean it up a little." And he did! I thanked him, and he thanked me. Alaska isn't much different from the Lower 48 in the condition of its campsites!

One day, Doug Schamel and I thought we'd sample the fly-fishing on the upper reaches of the Chena River that flows through Fairbanks. We drove perhaps 25 miles upstream from Fairbanks, found a stretch of river that looked promising, and put in. It wasn't long before we heard the roar of an air-boat, a flat-bottom aluminum boat with an aircraft engine mounted on it. Such boats are occasionally seen in the Alaska back-country because they can traverse shallow water at speeds not possible by conventional outboards.

We pulled to the side of the river and let the air-boat roar past us, glad that we weren't a part of that noisy craft. I was impressed and at the same time rather disgusted to see the air-boat ride up and over beaver dams as if they weren't there at all. It was a travesty to me – a life-long Adirondack canoeist for whom solitude is a lovely quality of wild places.

At one spot, Doug and I stopped for a few minutes to relax and enjoy the quiet occasioned by the return-to-wilderness after the passage of the noisy air-boat. Right near where we stepped out of the canoe was a fresh grizzly track. Water was still seeping into it; it was that fresh. So Doug and I retreated to the relative safety of the canoe, and continued upstream. Fortunately, we didn't see the bear that made the track. However, I wondered if it saw us!

Minto and Old Peter John

On one trip to Fairbanks, I used the day Sunday to explore. I had heard about the village of Minto, an Eskimo settlement something more than 100 miles west of Fairbanks. It was at the edge of a large

series of ponds in which northern pike were said to grow to trophy size. The village of Minto was a cluster of log buildings and a native population except for one Caucasian teacher. It was the kind of relatively pristine community that I wanted to become familiar with. So on a Sunday morning in July, I started out the haul road from Fairbanks toward Livengood. About 90 miles northwest of Fairbanks, I turned west-southwest, still on Rt. 2, for another 45 miles on a gravel road, to the still-smaller dirt road to Minto. No real forest was in evidence, but it was a wet area with many ponds, some of them large, like shallow lakes. Most of the log homes were simple, with a small porch and a couple of chairs. The one street was gravel, and there was little evidence of gardens. A small general store with a post-office at one end was the only “commercial” building in town. A small log school completed the “business district”. I inquired where to find “Old Peter John”, and his cabin was pointed out to me. So I went all of about 50 yards and found him sitting in a chair on the small porch. I drove to the cabin, climbed the three steps and introduced myself. He seemed both impressed and honored that I should come from UAF (University of Alaska Fairbanks) to visit him. But when I said I was interested in hearing some of the local history and charm right from one who knew it best, he was honored and pleased.

I asked about the building materials, since the houses were more or less alike, and chinked with moss. There were perhaps 25 to 30 children in the village, and they had, as I recall, two teachers. (One of them was in one of my classes at UAF.) Our conversation covered the natural history of the area, what commerce was carried on, the fishing in the many ponds, the source of the logs used to build the houses, and the general education of the children. Old Peter John was the elder of the village. It was he who “ruled” the village, mediated disputes, was the village oral historian, and whose opinions were revered. Minto, as with almost all Eskimo villages, set a lot of store in its elder. The word of the elder was the final word. And if someone wanted to know something about the past, it was referred to the village elder – Old Peter John in the case of Minto.

Old Peter John asked me to sit down, and he plied me with many questions. He asked at some point what I did back in the “lower 48.” When I told him that I was a professor, he was much impressed. I guess he expected someone who appeared older than I

was. He was impressed that I was a teacher of teachers, and asked what kinds of things I would teach the children in Minto. When I asked him what he knew about moss, he said it was used to chink the logs in the cabins. What else, I asked? It was mostly for chinking, and to start a fire in the stove. Then he asked what I would teach the children about moss. I mentioned its life history, how the plant grew and how it reproduced. I mentioned the use of moss in the nests of mice and birds. I mentioned its insulating value, and how it could be used to insulate food against spoilage. I mentioned the intricacies of its structure. Old Peter John was impressed that I knew so much about a plant that was both common in the area and was so valued by the Eskimos. He said, "You are a teacher!"

Old Peter John knew the Bible, and said he had read The Bible, but there were no other books in evidence, and his knowledge of life beyond Minto seemed limited. When I told him that we used trees for many things in "The Lower Forty-Eight," he asked me what, besides wood. Well, I said, we drill holes in one kind of tree, collect the sap when it runs out, boil it down to a syrup, and pour it on flat cakes that we made from wheat or corn. I knew from the tone of his voice that he really found that hard to believe. So the following Christmas I sent him a quart of Cornell maple syrup, and got a lovely thank you note from his daughter. Old Peter John thinks Cornell is a very special place, and he loves maple syrup! Incidentally, in Haines, Alaska, there is a mill that produces a kind of syrup from birch trees. But it is in no way comparable to sugar maple syrup!

As I left Minto, I had driven only 50 yards or so from Old Peter John's cabin when I was stopped by an Eskimo man waving his arms. I rolled down the window. What did he want? He wanted me to take him to Manley Hot Springs. It seemed he had some arthritis, and he needed to sit in the hot spring water. Well, Manley Hot Springs was to the left at the end of the Minto spur, but I was going to the right, toward Fairbanks. Manley Hot Springs was about 25 miles away, but I had more than 100 miles to go – in the opposite direction. The hitch-hiker was obviously under the influence, but insistent. So I made a deal – I said, "See that spruce tree down the road (about 100 yards)? I'll race you from here to that tree. If you get there before I do, I'll take you to Manley Hot Springs. If I get there before you do, I'm going to Fairbanks. He didn't know what

to say. He had an idea that he couldn't compete with me, but he didn't know how to get an edge. So he sort of gave a gesture of resignation, and waved me farewell.

On the way back to Livengood, before I got on the highway to Fairbanks, I was "accosted" by a black bear who challenged my right to the road. This was my second incident of that kind in Alaska. I drove to within 50 yards or so of the bear before it was convinced to leave the road to something bigger and more powerful than itself. I had noticed this begrudging behavior once before in Alaska. Black bears there seem less willing to give way than they do down here in the lower 48! I have challenged a black bear in these lower latitudes, and had the bear retreat, no questions asked. I don't think I'd try that in Alaska!

Fishing in Igiugig

My class at UAF had students from various outlying villages, some of them native Eskimos, but most Caucasians. Some of them, after sampling my brand of science education, and especially teacher education, were interested in having some of Cornell's brand of science education introduced in their schools. But schools in much of Alaska are far apart, with limited resources, and not easily visited. They need a minimum of 12 students to be legally qualified for a teacher. One such school was in Igiugig, at the head of the Kvichak River, where it empties Lake Iliamna in southwest Alaska. The school had, I think, something like 12-14 students in all. It happened that its teacher, Richard Baumfalk, a fisherman, was in my class at U.A.F., and he showed me a picture of some of the rainbow trout and salmon he caught right from the bank near the school. Well, that did it! I had never seen trout and salmon like that! I would have to visit the Kvichak!

Beginning about 1995, and continuing each year after that, until 2005, I made annual trips to Igiugig to fish for salmon in the Kvichak River. The first year I went alone, knowing only Richard, my student from UAF. He gave me some pointers as to places to fish, lures, etc. I flew to Igiugig the following summer. My initial salmon-fishing experience in Alaska was phenomenal. I caught enough salmon to be thoroughly hooked.

Lake Iliamna is Alaska's largest, at some 70 miles long and 15-20 miles wide. The village of Igiugig, where the lake empties into the river, consisted of about 50 people, all but two of them Yupik Eskimos. One was my student, Richard. The one other who wasn't was Dan Salmon, who was from near Rochester, NY, but who married a native woman and became a "naturalized" Yupik. Dan was a creative, high-energy, sort of civil engineer who saw Igiugig, liked it and its native people, married a nurse there, and became the de facto administrator of the village. The tiny village lacked most modern conveniences, until the advent of Dan Salmon. It was Dan who applied for federal grants to upgrade the landing strip to an airport runway, got federal grants to build a hangar, improve the landing strip, get a grader, enlarge and enhance the school, put in water lines and sewage, and make the village into a throbbing little fishing center in the "boonies" of the largest state.

Anthropological studies have been done in Igiugig by mid-western and western universities – studies that show the village dating back a thousand years. Lodges were semi-buried hundreds of years ago, with driftwood – the only wood available – arched over the excavations.

The river and the lake were pretty much Igiugig's world, and the outboard motorboat took over from native canoes and rowboats. Fishing camps sprang up, and now in the summer months of July and August the population of Igiugig may more than triple as salmon fishermen from as far away as Germany, England, and the lower 48 fly in to harvest the hundreds of thousands, or even millions, of sockeye salmon that migrate upstream from Bristol Bay to spawn. When Dan Salmon was actively monitoring the salmon run from Bristol Bay upstream in the Kvichak, he sat on a 15-foot high tower at the edge of the river below Igiugig, looking down on the stream of salmon swimming up-river, nose to tail, to spawn in Lake Iliamna and its tributaries. There was a similar stream of salmon on the opposite shore, but there were Department of Fish and Game personnel to count only the one side. I assume the counts were added. The stream of fish was clearly visible against a white sheet held by rocks against the river bottom.

There is perhaps no better count of migrating sockeye salmon than that produced by Dan and his staff as they watched hundreds of thousands of sockeyes migrate up both sides of the river on their way to spawn in the various tributaries of Lake Iliamna. What a

paradise, and a **huge** one, is Alaska! And what a privilege it was to be able to experience it! Incidentally, Dan Salmon, to whom can be attributed this mad scramble for some of the Kvichak River's teeming spawning salmon, was killed in a tragic plane crash while returning alone from a political meeting in Anchorage in the winter of 2008.

I brought only memories – no salmon – back to Ithaca from that first summer. I preferred to return the fish, and simply enjoy the experience of catching them. But that first trip set the stage for many returns to Igiugig – maybe a dozen. A year or two later, while attending the presidential banquet of the N.S.T.A., I happened to sit next to Prof. Dan Ochs from the University of Louisville. He was a skilled and knowledgeable fly-fisherman. When I told Dan about my experiences in Alaska, he was itching to go, and the next summer he did. My influence was spreading – some of it related to science education, and some to salmon fishing.

Dan Ochs – a superior fly-fisherman and fly-tyer – Bruce Wilkins, Emil Haller, and Fred Warner, all from Cornell University; Dr. Wendell Bryce; my son-in-law, John Wiessinger; Bruce Talbot from the Department of Natural Resources in Anchorage and his older son, Cole; and Dr. Eric Noble, a brother-in-law from Anchorage, all have fished at Igiugig with me, and no one has gone without salmon. A few, including me, have even hooked a huge rainbow trout, but to my knowledge not one of those trophy rainbows has been landed. I, myself, have broken off more than once, being left with knees shaking, with only visions of what could have been hanging on the camp wall!

I fished from the shore of Fly Island, about a mile below Igiugig. My friends would drop me off (and I mean **drop**, since I'd jump from the boat into shallow water and wade ashore, while the motor idled, and the rest would go farther downstream to whatever bit of shoreline they thought productive). We'd stand in water one- to two-feet deep and cast into deeper, faster water where the streams of migrating salmon were visible. These streams of fish were seldom more than 5 feet wide, but a lot of fish would fit into that wide a ribbon of fish when you consider a nose-to-tail ribbon that goes on and on, all day and all night, for perhaps two weeks – on both sides of the river!

How was the fishing done? There were two kinds of fishermen. Some, especially those who came from Europe, had spent large sums to get there, and were bent on taking home all they could catch. There were fewer others for whom the fly-fishing was primarily a sport, and so took only the largest and best. Some of the fishing camps had a reputation for “limiting out” each fisherman. For them it was a business, and they almost guaranteed their clientele a locker full of salmon filets, all dressed and frozen. For me and my buddies, it was a far more personal and less quantitative sport. We kept only the largest of what we caught. We cleaned, packed, and froze our own chests of fish. I, myself, not that crazy about salmon, kept and froze only a few to take home – evidence of that incredible place Igiugig and the Kvichak River are. One had to see to believe the unsportsmanlike greed of some of the foreign fishermen.

The highlight of the salmon fishing in the Kvichak is represented by the catch-and-release practice of the real fly-fishermen. Sprinkled among the sockeye salmon are a few big, powerful rainbow trout that prey not on the adult sockeyes, but on their eggs and fingerlings. The sockeyes are there to spawn; the rainbows are there to prey.

The village of Igiugig is much like other native villages of Alaska. It looks unkempt. It is not uncommon to see more than one old motorboat, outboard motor, four-wheeler, refrigerator, or other appliance or conveyance “junked” in the yard, or a very slight way from the house or cabin. The first impression might be one of “messy.” But what does one do with an appliance that no longer works? There is no neighborhood repair shop. There is no used-car or used-boat “dealer” in most Alaskan villages, unless the villages are close to a decent road or a city. And yet oil money (in which every Alaskan shares) keeps pouring in. So, it’s understandable, if not agreed with, that if something goes wrong with an appliance or a vehicle, the old is “chucked” and a new one ordered. Much of Alaska is junky, but not without reason.

It is unfortunate that visitors from “The Lower 48” pose such a huge problem for native Alaskans. One needs only visit Juneau, Alaska’s capitol, in summer to see what is one of Alaska’s greatest problems. Huge passenger ships, several at a time, will anchor in the harbor of Ketchikan, Sitka, Juneau, and Skagway. They will disgorge hundreds or thousands of passengers who will shop, and feel that they have seen Alaska. What an invalid way to see the state!

And yet what better way is there to see Alaska but travel by road, rail, small plane or small boat to the little native villages, the streams, bays, and dirt roads that are the arteries and capillaries of the largest state?

An Alaskan Near-Tragedy

One summer, Fred Warner from Ithaca, Dan Ochs and two of his friends from Kentucky, and I made arrangements for a special fishing venture. Dan had applied for, and had secured a Forest Service log cabin on federal land east of Kodiak Island, on the eastern half of Afognak Island. The cabin was on the sort of a bay that was reputed to have good silver salmon fishing, and about a half-mile east of the cabin on a woodsy trail was another bay into which a good salmon stream emptied. We thought it would be “fun” and an experience to be really back in the bush for a few days. The cabin, obtained by lottery, was the only one for miles. It was essentially a single fairly large room, with two double-decker bunks, a large table, a sink, and a large porch. The “facilities” were a 2-hole “outhouse” and a small cabin of dry wood. It was comfortable, but it was minimal. The only camping “gear” was what we carried in.

Transportation from Kodiak was by float plane. The plane landed on the bay about 100 yards from the cabin. The plane taxied to about 50 yards from the shore. We each put on our waders and jumped from the pontoons into the shallow water and waded to shore, passing along all our gear. When all was unloaded, the plane took off and we were on our own – miles from any other people.

The first night, I think about midnight, I had the worst nightmare I think I have ever had. We knew there were grizzlies about, and we were warned about them. I had a can of bear spray, and I think each of the others had one, too. We were well aware that we were alone, far from any aid if we should need it, and confident because we all were “experienced” Alaska salmon fishermen.

I don’t know what triggered my nightmare, but in the middle of the night, a huge grizzly bear came in through the glass window between the two upper bunks. I screamed, jumped clean out of the upper bunk, and did my best not to be decapitated by the huge, imaginary bruin. I woke everyone else, and it took several minutes

for calm to prevail. It was a rude “awakening” to what was billed as the salmon fishing of a lifetime. I wondered how it would compare to the river fishing at Iguigig.

In the morning we had a wonderful breakfast of bacon and eggs, hot chocolate (for me) and hot coffee (for the rest). We checked our fishing gear and started along the trail to the next bay east, into which a salmon stream flowed, but running through a half-mile long bay before it entered the sea. The stream wasn’t much, but what about above the mud flat of the bay? Dan and his best buddy decided to check it out. The rest of us wandered along the sea shore, over boulders and across a pebbly shore, to an obviously better place for salmon. But after an hour or so of no fish, I decided to return to the cabin, have a bite to eat, and try some fly-fishing nearer the cabin. I crossed the foot of the bay where Dan and his buddy had traversed to get to the stream they wanted to fish. And as I checked my gear, I thought I’d scan the mud flat to see if there was anything of interest before I got onto the woods trail. (I think a little of my glancing was just to check for grizzlies, since I had seen a fairly fresh track on the way across the shore when we arrived. As I scanned the mud flat, I thought I heard a cry. Turning my binocular toward the sound, I saw Dan waving his arm and shouting “Help!” or thought I did. I watched intently, and sure enough it was Dan and he was hollering “Help!”

I leaned my fly-rod against a tree, and started for the far side of the mud-flat. As I got closer, I could see that Dan and his friend were somehow mired in the mud in the bay. They were about 50 feet apart, and absolutely stuck! I had walked along the shore, and was about 100 yards from the two of them. I tried to walk out to where they were, but could see after a few steps that it was a very bad idea. I, too, could get stuck in the mud. But the greatest threat of all was that the tide was coming in, and the tide would be something approaching 12-13 feet!

I remembered seeing a couple camped in a tent about a half-mile along the shore outside the bay, and hustled to them, all the while calling to Fred and my other companions to come quickly; there was a big problem. I asked the couple at the tent if they had a radio. They had a cell phone and called the district ranger to bring a raft. In about a half-hour, he came on his power boat, towing an 8 x 12-foot rubber raft. He rowed the raft into the bay, which had about 3 feet of water in it by then, and with the help of two more (of us)

managed to free, first Dan's friend, and then Dan, both of them visibly shaken because there was simply no escape for them from what was certain to be a tragic drowning. And the worst of it all was that it was happening where we could watch everything, but could do nothing until help arrived.

At the cabin that evening, we said prayers that were anything but hollow, because we had a very narrow escape from what would have been a certain double tragedy if that couple hadn't had a hand-held radio, or had been away from their tent. How thin a thread our lives hang on when we least realize it! Yes, we did catch several silver salmon, but the excitement of the catch fades in comparison with the saving of our fishing buddies!

CAU in Alaska

I had been teaching on-campus CAU summer courses for a number of years. My classes were mostly science ones, and during the summer were concentrated on the natural history of the Ithaca area. We studied plants and animals, and the geology, of the Cornell campus, and of the various parks and state land in the Ithaca area. When it was suggested that the students who had already taken a Field Natural History course as part of CAU be invited to expand their studies, I included a week of canoeing – in Dryden Lake, Cayuga and Owasco Inlets, the Barge Canal, and the Tioghnioaga River. For a change, one week I taught entomology. But I was running out of options, until CAU or I – or CAU and I – suggested a CAU tour of Alaska. Ah, that would be different and fun! I already had a feel for the state from my workshops and fishing. So a 10-day experience in Alaska was introduced, and was an instant success. About every other year, Cornell scheduled an Alaska tour. For an “assistant” I requested, and obtained, the help of Bruce Talbot, a Cornell M.S. in Natural Resources, who had worked for several years with the Alaska Department of Natural Resources in Anchorage. Bruce had been a back-country ranger in Denali National Park, knew the state well, knew many top people in the state, and was totally familiar with its natural resources. Would Bruce be interested in working with me to lead a tour of Alaska? He sure would!

Our first CAU Alaska tour was in 1992, a year after Mt. Redoubt “blew.” It involved about 35 people, plus a trip manager, Bruce Talbot, a CAU official, and me. Madeline went along on most of these trips as a hostess, and became recognized as one of the staff. I wanted the tour to be complete, but different from most. We would start in Juneau, fly to Anchorage and to Fairbanks, visiting various natural attractions along the way. But the weather, which can be downright nasty at times, prevented us from doing much of anything in Southeast Alaska on that first trip. Many of Alaska’s most glamorous and picturesque glaciers are not far from Juneau, but we couldn’t get to them. We couldn’t fly to Glacier Bay and its neighboring glaciers. So, taking a gamble, we engaged small planes and flew north of Anchorage to a fishing camp on the Susitna River north of Anchorage. There we enjoyed a salmon dinner and a bear that wandered into the picnic area. From the air we had a good look at Denali, and circled it, before landing at the campsite. Between the fog at Anchorage, the fleeting glimpses of Denali, the luscious salmon dinner, and the visit by the bear, it was an excellent introduction to Alaska.

The first trip was a difficult one because of weather, and a bit tentative because of the vast distance covered in a few days. Our tour was to cover the equivalent of Texas to Minnesota, and weather could change dramatically from one place to another because of distance and terrain. But the group loved it, especially the wildlife and the historic air of Denali.

On the second trip, we branched out a bit, taking time to visit Portage Glacier, see the film of glaciers calving, see all that was possible of Denali National Park and the wildlife in it, including grizzly bears, moose, caribou, wolves, and foxes, visit a gold dredge, and make a leisurely, detailed tour of the Museum on the University of Alaska campus.

A few commercial gold recovery groups still operate in Alaska. Modern prospectors drill holes 50-100 feet deep in extensive gravel beds, and if they find enough gold dust to make mining financially productive, they remove the “overburden” and take out the gold dust.

One such mine is only a few miles northeast of Fairbanks. I heard about it from a friend, Roger Gordon, who made a living flying road workers and even occasional prospectors into “the bush” in northern

Alaska. The “haul road”, that goes from Fairbanks to Prudhoe Bay in northern Alaska, needs attention now and then, and it’s faster to fly help there than to take it by truck. But back to gold-mining. . .

I decided to pay the mine a visit, to see if we might take a tour. When I drove to the mine office, an unpretentious, unpainted, wooden building, the young woman in charge called the owner – her father, Don May -- on a portable phone. He came in a black Cadillac. He was an imposing man in his late 60’s, and gave the impression that visitors were not particularly welcome. His manner was anything but cordial, and I felt like an intruder. He walked with a cane, saying that he had recently been operated on for a carotid artery abscess, and was not fully recovered. What a coincidence! I, myself, had a similar operation a few years before, and knew exactly what he had been through. When I told him, we discussed our common experience, and his demeanor changed completely. He warmed to the idea of a tour by a Cornell group, and what a tour! He gave us “the works,” including showing us some wooly mammoth tusks that were “over and above” the gold dust taken from the mine.

One year Don even dressed up for us as a saloon-keeper of the ol’ days. He had on a “bowler” hat, a velvet vest with a gold watch in one of the pockets and a huge gold chain draped from it across his stomach. He was quite the “from the ol’ days” figure! He regaled us with accounts of how his family, as a family, operated the mine. One son maintained the equipment, modifying and maintaining it to do more than any “ordinary” bulldozer. One big ‘dozer had a 30-foot blade for removing “over-burden.” Another son was in charge of the blasting and loosening of the “overburden.”, often totaling more than 100 feet in thickness. All this had to be stored and replaced when the gold dust had been removed. Still another worked to modify the equipment to suit the special needs of surface mining. This included enlarging the blade on the huge bulldozers so they could push aside a wider swath of trees, soil, and gravel to get at the gold-bearing gravel as deep as 100 feet below “grade”. His daughter was in charge of the office, records, and seeing to it that the recovered gold dust got to the bank. It was, indeed, a family operation and a “tight” one at that! Recovering gold dust overlain by as much as 100 feet of gravel, soil, and plant growth in order to recover a few ounces of gold was an awesome operation!

Don showed us not only the oversized equipment that removed the overburden, the huge shovels that scooped up the gold-bearing gravel, and (final stage) series of screens that separated the gold dust from the gravel. At the end of a day's work by men and machines, a pound or so of gold dust was ready for shipment to New York City. That small bottle of gold dust – a day's sifting of all that gravel – was more than a thousand dollars. But it had to be recovered from sand and gravel far down below tree roots, roads, and stream beds. An amazing recovery!

Now and then, the dynamiting of trees, gravel, and the bulldozer operation uncovered the tusk of a woolly mammoth, and these were considered “frosting on the cake” for the gold miners. Don showed us several beautiful specimens, each of which, by itself, would bring several thousand dollars in the natural history museum trade.

Federal law required that the mine be restored to its “natural” state, so it was filled, smoothed, and trees planted where earth-moving machines had operated. Little was left to indicate the humans and horsepower that removed the deeply scattered gold dust.

Just past the gold mine, on the dirt road known as the Steese Highway en route to Circle, I found what remained of an early gold mine on a hillside – a set of buildings being restored as a tourist attraction. Thinking that it might serve as a stop for our Cornell tour, I drove from the gravel road to the work site to make inquiries. This was the remnant of an earlier gold camp, The Fairbanks Exploration Company. The owner, it turned out, was a graduate of the Cornell Hotel School who didn't “make it” in his parents' famous New York City club, tried his own club in New Orleans, failed, and so decided to try his luck in Alaska. So he purchased the abandoned hillside mine, and was restoring/remodeling it as a possible tourist attraction. I was told that he would be back shortly, and so I waited. I didn't know what to expect. But when he arrived, he was a much bigger man than I, with a gold nugget draped around his neck and a side-arm holstered on his belt. He played the part of an Alaskan gold-seeker all right. But as I checked out the camp, and tried to put it into the CAU picture, I decided that I should look further. And so I did.

Not more than a mile or so down the road I came to an interesting roadhouse – Chatanika Lodge. When I entered just to get some local information, I knew this was another must for the CAU tour. It

was a roadhouse on a dirt road. But what a roadhouse! It had a restaurant, a bar, a small room with antique racing cars, and a dining room with 10,000 (or so it seemed) lights outlining dozens of mounted Alaskan wildlife, from grizzly bear to rodents, from a golden eagle to an arctic tern. But no snakes; Alaska is, for the most part, snakeless! This place was indeed exceptional, and we stopped there for every subsequent CAU tour.

Across the road from the roadhouse was a several-acre “dump” of gravel left by a gold dredge that still sat in its dredge-pond from the early decades of the last century. The dredge, as with others of its kind, was a gigantic barge on the front of which was a boom with a chain of heavy iron buckets to dredge gravel (and gold-dust) from the bottom of the pond in which it floated, and into which the dredge spewed the gravel after it had been sifted and its tiny bit of gold dust collected. One would have to see such a dredge to believe it. And to think the iron parts of each dredge were fashioned in Pittsburgh and shipped to Alaska for assembly and use! It made the dredge all the more interesting! There was enough gold dust in the gravel that made up much of the soil in Alaska to warrant dredging mile after mile of soil, and with set after set of finer and finer screens, separating it from ton after ton of gravel! The whole process, and the dauntless determination of the dredging crews, absolutely amazed us!

Although it was “touristy”, there was an accurate restoration of a gold dredge of the teens and early 20s, on the Dalton Highway north of Fairbanks. I arranged for a CAU tour to visit “Dredge Number 8”. The account of how the old dredges worked was excellent, and the only thing lacking was a demonstration of the dredge actually at work. Instead, there were several large trays filled with gravel in which, we were told, were flecks of pure gold. So we “rented” pans and panned for gold. (I had purchased some real pans weeks before, and we had tried panning for gold in one of the creeks east of Denali, but without success.) Here, in the sampling bins, each of us was able to collect enough gold dust to have it sealed in a pendant.

On a stream not far from Fairbanks an off-duty army man from Greece, New York, used a small gasoline-operated sluice on weekends, extracting gold dust from a local creek bed of sand and gravel. He would make as much as a few hundred dollars on a weekend, and the only cost to him was his equipment, gasoline, and time. It seems that the gravelly soil in much of Alaska still contains

flecks of pure gold. Because of their high density, these flecks work their way deeper and deeper into the sand and gravel, until a prospector, an army man, or a professor from Cornell separates them from the sand by virtue of their differential density. By alternatively swishing and dumping sand and gravel, only the gold flecks are left in the bottom of the pan, and they're free! But the labor of collecting it costs food, transportation, time and energy!

And so it went. I made a total of nine CAU tours of Alaska, with Madeline as the social representative, and Bruce Talbot as the natural resource expert. Each trip was filled, and the CAU Alaska tours were eminently successful.

I sought to introduce the CAU tour to as many typical Alaskan "treats" as I could, including a bus ride along the dirt road from our railroad-car "hotel" in Denali for 50+ miles along the northern part of Denali National Park, to Sophie Station in Fairbanks – the first-class hotel in which we stayed. All along the way, Bruce commented on Alaska natural history, which he knew so well. In the park we saw grizzly bears, caribou, Dall sheep, moose, and a golden eagle.

In Fairbanks, we visited a gold mine, had an Alaskan dinner at the Malamute Saloon in the famous old mining town of Ester, and visited an excellent museum at the University of Alaska Fairbanks. We hiked at the bottom of Alaska's most popular glacier, Mendenhall Glacier, and indeed had a brief immersion in Alaskaland and its magnificence. It was a spectacular, and close-up, "field trip" to Alaska! We decided it had to be done again . . . and again . . . and again. Seven times in all, and each succeeding time better than the time before!

On about the 4th Alaska tour, it was suggested that we take a side-trip to Glacier Bay, flying to Glacier Bay Lodge from Juneau, then taking a boat cruise of Glacier Bay. We did so, getting close to glaciers. On one trip, I even squirmed on my belly beneath the toe of Reid Glacier just for the experience. I could hear the glacier moaning and groaning as it made its way down to Reid Inlet, where its meltwater flowed into Glacier Bay. A really neat experience!

On that tour, or the next, it was suggested that we take a side-trip to Tracy Arm, south of Juneau. We did so, and found it to be a sort of Yosemite Valley, with a fork at its upper end, into which two

magnificent glaciers spewed bergs, several of which were “occupied” by seals, some of them whelping. Tracy Arm was as magnificent a sight as any in Alaska!

Cornell reaches into many far-away places on Earth. Alaska is one! Not only was Bruce Talbot our near-native guide, but he offered many tips and recountings of his own experiences as a back-country ranger in Denali. On each of the several CAU tours of Alaska, we couldn’t wait to see that famous park. When we did, it never failed to come up to expectations. Highlights over the years included:

(1) a lone female wolf trotting down the dirt road ahead of the bus. We followed her for two or three miles. She seemed content to go at her trot, never speeding and never slowing until . . . she stopped suddenly and leaped off the road into a clump of shrubs and grass, where she caught a ground squirrel. It was gone in a couple of chomps and gulps, after which she disappeared into the alders nearby;

(2) a grizzly bear that was walking from ahead, right, toward the bus. It wasn’t in any hurry, so the bus stopped and people began snapping pictures out the bus windows. The bear walked right up to the bus, as if the bus weren’t there, but when the bear got close, it seemed to sense that there was an obstruction there, so it walked around the bus and continued its ramble on the other side of the road.

(3) a fox trotting along the side of the road, with several mice or voles dangling from its mouth. Once it stopped, picked up its prey, one at a time, re-arranged them in its mouth, and continued on. A feast for its young? Perhaps so.

(4) a huge, blond grizzly bear that was sniffing at the burrow of a ground squirrel at the base of a large shrub. The bus stopped so we could see and photograph this beautiful bear. Apparently it sensed that the squirrel was too deep in the soil and roots of the shrub, so the bear put both front paws around the shrub and with a mighty tug, pulled the whole shrub out of the soil, roots, soil, and all – except the ground squirrel, which must have had another entrance to its underground cavity. So the bear ambled away in search of easier-to-get prey.

(5) a young wolf “playing” with a ground squirrel on a patch of snow. The wolf apparently had caught the ground squirrel, and before eating it, chose to play with it. It would release the ground squirrel, which then bounded away across the snow patch toward the safety of some low birch shrubs. Then the wolf would dash after the squirrel, catch it, return to the center of the snow patch, and let the squirrel go. This sort of run-and-catch “game” went on for several minutes, at the end of which the wolf had its meal.

So many notable incidents in Denali National Park! On more than one trip, we took small planes from an airfield just off the highway, and flew close to, and around the east shoulders of the mountain. We flew below the level of the crest of Denali, photographing some of the glaciers and the ice cliffs on the mountainside carved by the spectacular glaciers that hugged its shoulders. The glaciers were beautiful in their awesome size and inexorable descent of Denali’s flanks. They were magnificent to see and photograph, but why anyone would want to ascend that awesome peak on foot, I don’t know.


On the way to Denali from Anchorage, our bus stopped at the tiny village of Talkeetna, about 50 miles southeast of Denali. Talkeetna is the take-off spot for climbers of Denali. Small planes fly the climbers to the flank of Denali, and pick them up days or weeks later for return to Talkeetna, and to a normal life if they are alive and uninjured. Talkeetna was interesting for its Denali-associated history and climbing stories. My friend Bob Johnson and I once had our own trip to Alaska out-of-season, and stayed at Talkeetna. It was an interesting evening of stories around the fireplace.

There were so many highlights of the CAU trips to Alaska! Not only were the natural resources of Alaska most amazing, but the members of the CAU tours were at times almost as interesting. On one bus in Denali, I mentioned to the riders that Bruce or I would use the numbers on a clock face to indicate where certain wildlife was. I said “twelve o’clock is straight ahead, 12:15 is to the right, 12:30 is behind, and so on.” One of the women replied, “Everywhere I look is 12 o’clock!” The members of the tours really were ideal comrades in the “bush,” and were always eager for adventure, and grateful for our arrangements. Bruce Talbot was a superb guide on all our trips.

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Retirement - Workshops and Website



 In June of 1986, after 30 full and rewarding years of teaching at Cornell, I formally retired. At that time, it was “customary” to retire at age 65. I was 66, having reached 65 in the middle of an academic year. I had taught for 30 years at Cornell, had written the Cornell Science Leaflet for more than a dozen years, had taught in Cornell’s Adult University for more than 20 years, had taught at Fresno Pacific College for 13 summers, had been the senior author for the Addison-Wesley Science Program, had been a president of

the American Nature Study Society, had served as academic advisor for Cornell Track and Cross-country for 30 years, had been on several college and university committees for several years, and has taught for a summer at San Jose State, and had teaching experience at the University of British Columbia, Northern Arizona, the University of Alaska, and Hebrew University in Jerusalem, and at San Jose State University in California. Perhaps it was time to retire. And so I did – formally. But I couldn't resist accepting an invitation to teach, and so there were many one-day "stands" here and there, more to demonstrate the effectiveness of "hands-on" learning than to highlight the retired Cornell professor. A few of those stand out for various reasons.

Workshops

At the Ontario Institute for Science Education, I was asked if I would present some selected experiences for teachers of upper elementary school in the Province of Ontario. Since I can never really turn down an invitation to work with teachers, I readily agreed. And I took with me some "props." Among them was a sizable king snake. It was caged, so I took it from the cage and held it while I described children's and teachers' aversion to snakes – and the reasons they give for it. One of the reasons is that they're "slimy." Slimy? Had the teachers ever felt the "slime"? I held up the snake so they all could see it, and then discussed things to do with the snake – mostly to dispel unfounded apprehensions about snake in general.

The room was long and narrower than most. It had a door in the front, out through which several teachers retreated when I held up the snake. I went to the back of the room and sat down, holding the snake near my lap, head toward me. A few teachers volunteered to touch the snake and describe what they felt. When they said they were surprised that it was smooth, but not at all slippery, and just slightly cool to the touch, several more volunteered to touch the snake. The snake hardly moved. Then one teacher, emboldened by the reaction of the others, asked if she could hold it. When she did, and nothing happened, others joined her. The teachers who had left the room looked in the door, saw that most of the people in the room had moved back where I was sitting, they came into the room. Little by little, they advanced toward the snake. One of them said, "May I

touch it?" And she said, surprisingly, "It's not slimy at all. It's not what I expected." The others who were in the hall, one by one, touched the snake and expressed both surprise and pride at having done something they never thought they could do.

We discussed various ways of changing children's ideas about things, and then how to completely turn their thinking around. I had cautioned the uneasy teachers who have never touched a snake not to hurt it. Hurt it? That had never occurred to them. They were concerned that the snake might hurt **them**, not that they would hurt the snake. This was a good session on attitudes of children and teachers toward objects, and approaches to dispel unwarranted aversions.

Another source of anxiety among children -- and teachers -- in science is electricity. Some are afraid of electricity because it can "shock" you or hurt you. So having children hold a "D" flashlight cell between thumb and forefinger to see that it doesn't shock them -- this is the kind of first-hand experience that I found worthwhile for kids. Along with this, was the added knowledge that if you add several of them together, the **sum** of several might produce a "tickle," but not a dangerous one. It could make a wire hot, but that's all. Mostly, it just costs a lot to do that. Electricity can be wasted in various ways, and that's what we try not to do. It was fun making electricity respected but not feared. It was fun making various insects respected, but not feared. It was fun changing kids' notions about many of the "scary" things in their environment. And I enjoyed this and got pretty good at it.

It was fun showing kids and their teachers that steel can be floated on water. We made little needle-holders from copper wire, and gently "rested" a needle on a water surface. We looked at crystals of sodium chloride and enlarged them under hand lenses to see that they were tiny cubes. Then we mixed salt and sugar and under a magnifier separated the salt from the sugar. We dissolved table salt in water, saw it disappear, then spread some of the salt water on clean, clear glass, let the water evaporate, and looked with a magnifier at the square crystals that were left. So many little, interesting, things that are so often overlooked in the teaching of children. I felt the influence of Jean Piaget as I investigated children's reactions to each of these experiences. My own science education was continuing despite retirement. Why not continue

writing about science for kids – in a way that would encourage both ingenuity and science content?

Website

Two decades after formal retirement, a few years after I truly stopped teaching, and after spending more hours in intellectual idleness than I was used to, I yearned for more active intellectual fare. So when I learned, as an active member of CAPE (Cornell Association of Professors Emeriti), that a Cornell alumnus and benefactor, John Podell, was underwriting four \$2500 grants to emeriti who wished to initiate or continue research in fields of their own, I jumped at the chance to get one. These were pretty much “open” in the sense that the benefactor did not wish to limit the research nor the type of fellowship other than it was to be creative and beneficial to society at large.

Here was a chance to continue the development of simple investigations by school kids to demonstrate and explain science concepts that I felt were both basic and important, but were not often well understood, and often were not even included in elementary, junior high, or secondary school science. I could continue to create and distribute some of the conceptual developments that I thought kids of upper elementary, junior high, and high school would enjoy. At age 86, I applied for, and was awarded, a Podell grant – my first outright grant ever!

Accordingly, about thirty investigations were prepared for my website at **www.rockcastle.org**. Called “Rocky’s Science Fun,” it is a series of science investigations for kids from 4th grade and up, which suggests and outlines ways to find out complex, seeming difficult but interesting interactions that are not generally included in science programs for kids.

In the ensuing year, about 25 investigations were developed and put on line for kids to try and to think about. An example was the study of what I called “Pavement Waves.” This was a type of resonance produced when a sheet of water ran down a slightly inclined pavement, thus causing a series of waves often completely unnoticed by people, but very much in evidence once a person has seen one. Pavement waves occur on sloping sidewalks and streets whenever

sufficient rain falls and causes run-off. Once people see them, they seem common and it's fun to observe and to understand them. A sort of natural and so **visible** resonance!

Another example of an activity in the program is the use of a helium-filled balloon to show the “sloshing” of air in a vehicle when its motion changes in speed or direction. With a string and a piece of masking tape, tether a helium-filled balloon to the back seat of a car so it is free to move to and fro, or sideways, without being interfered with by the car's ceiling. The balloon shows how the air trapped inside the vehicle “sloshes” as the car accelerates or turns. When the car accelerates, the air trapped inside tends to lag behind. In so doing, it squeezes the balloon forward. It is surprising to see the balloon move forward when the car accelerates! But when the car is braked, the balloon moves to the rear, squeezed by the denser air that continues to move forward. Air inside tends to keep going, and thus “crowds” the balloon out of the way. The air around a helium-filled balloon, being denser than the gas in the balloon, tends to move the balloon in a direction opposite to that of the air. It helps to show what the invisible air does when certain forces are exerted on it. And it helps to explain why, in winter, when a car turns to the right, cold air can be felt against the driver's ankles.

The activities, while seemingly simple, took a lot of creative thought. Simple doesn't mean easy, and it was tiring to try to dream up different and effective activities several times a month. But the people who did manage to read and try the activities thought them excellent, and I may resume the creation of more of them in the near future. It is not effortless. But it is fun as well as challenging! I think their educational merit was unquestioned. A complete list of titles, and a brief description of what they were intended to demonstrate follows:

1 – **What do you exhale?** -- Maybe not what you think! It is possible to make a straight pin white-hot in the flame of a candle simply by adding to the flame the unburned oxygen in an exhalation.

2 – **A better bundle** --How to tie a bundle really tight. By making a loop in the end of the bundling string, and putting the loose end of the string through that loop, you can tighten the cord far more than it could ordinarily be tied. This, after all, is the same principle as a belt buckle – two pulls for one!

3 – **Air has mass, too!** – Air is “stuff” just like water, rocks, and soil. Its mass takes force to start, stop, and turn it. Even a car moving on the highway must push air out of the way to make progress.

4 – **Suns on the wall** – Small spaces in leaves and window blinds cast images of the sun on walls and sidewalks.

5 – **Wheels that go backwards** – A “blinking light” is a magic one. With each “blink” of a light, an image can be cast on a wall, or on a person’s retina. What seems like an image rotating the wrong way may be a series of images whose sum appears to be going backwards.

6 – **Weigh a car with ruler and tire gauge!** – It’s easy and fun! Tire pressure is measured in pounds per square inch. When you find a tire’s “footprint” and its tire pressure, you know how much that tire is holding up.

7 – **A chewing surprise** – Which jaws move when you chew? Because the upper jaw is part of the same complex that holds the brain, it is held motionless while the lower jaw moves in chewing. Try it and see!

8 – **Magic in store windows** – Make yourself look double! If you stand so the plane of a store window is in your mid-line, it appears to someone down the street as if you are magically doubled in the reflection.

9 – **How much space do you occupy?** – It’s easy to find out! When you are fully immersed in water, you push aside as much water as you are big. Each 62.5 pounds represents a cubic foot of your body volume.

10 – **Water drop magnifiers** – A drop of water on wax paper is magic! Put a drop of water on wax paper and slide it over a newspaper picture. The drop will act as a plano-convex lens and will magnify what lies beneath it.

11 – **What causes a squeak?** – Squeaks are fun to investigate! Squeaks occur when something vibrates, usually from rubbing, such as a rubber sole on a waxed floor.

12 – **What radio waves can't get through** – They can get through a lot of things, but not all. Turn on a small battery-operated radio, and slowly wrap it in aluminum foil. Interestingly, foil is nearly “opaque” to radio waves.

13 – **Move the fulcrum and magic happens** -- Rock a pencil between your thumb and forefinger. Now move it the same way, but move the rocking-point so that it's an inch or so farther away from where you hold it. You can make the pencil appear flexible, depending on where you place the fulcrum.

14 – **Chladni figures from salt and balloon rubber** – Stretch balloon rubber over the end of an “empty” can, sprinkle salt on it, and sing to the salt. You can form some interesting patterns as the salt “dances” to the vibrations in the rubber.

15 – **Where does the light go?** – What happens to the beam when you turn off a flashlight? If the beam travels “at the speed of light”, what becomes of the beam when the light is turned off? Is it still traveling somewhere “out there” where we can no longer see it?

Some of these activities, and the related questions, are fun for kids to think about. Whether there are definitive answers is less important than that kids have a chance to think beyond the limits of their knowledge. They may try some things that are “wild,” “imaginative,” and “beyond reason.” But that is precisely how some of the things engaged in by scientists of yesteryear became products and concepts of today. It is good to remove the limits to kids' thinking now and then, and simply let them imagine and share their imaginings with others.

The kid who became a professor has now slowed somewhat, and finds it fun and personally rewarding just to contemplate all the ways in which learning in science can be and should be aided and extended. Kids and science still beckon and intrigue! But further website additions may need to await the hand and mind of a younger person who has more years of life to devote to this exciting, involving, and intriguing area of science.

I have had a full, varied, and wonderful life. As a kid, I had a lot of experiences that most kids would have fought for. As an elementary and a secondary school student, I had excellent teachers whom I admired. In college, I had the best in professors, and learned to truly

admire them. Even in the armed forces, I had the best instructors, and learned well from them. As a post-war veteran, and as a college professor and coach, I was blessed with good students and athletes, and wonderful friends.

Although this book is an account of one man's life, it would not have been so complete, error-free, and interesting without the creative, skilled proof-reading of my younger daughter, Diane Wiessinger. She re-read the finished manuscript, made many suggestions for improvement, and was an invaluable editorial assistant. Both she, and her older sister, Lynn Thye, long-time resident of Virginia, were essential family "glue" – ever creative, honest, and totally solid in all family crises. Lynn continues to be on-call trouble-shooter and family "engineer." Diane, on the other hand, is the oil-on-troubled-waters, the quiet, insightful, and calming influence in any situation. Most of all, none of this story would have been possible without the family home-keeper, and navigator, morale-booster, and invisible gyroscope – Madeline. Acorn to oak, it's been a good life.

