

CORNELL UNIVERSITY OFFICIAL PUBLICATION

Volume XXVI

Number 11

Announcement of the
College of Architecture

Architecture
Landscape Architecture
Painting & Sculpture

for 1935-36

Ithaca, New York
Published by the University
January 15, 1935

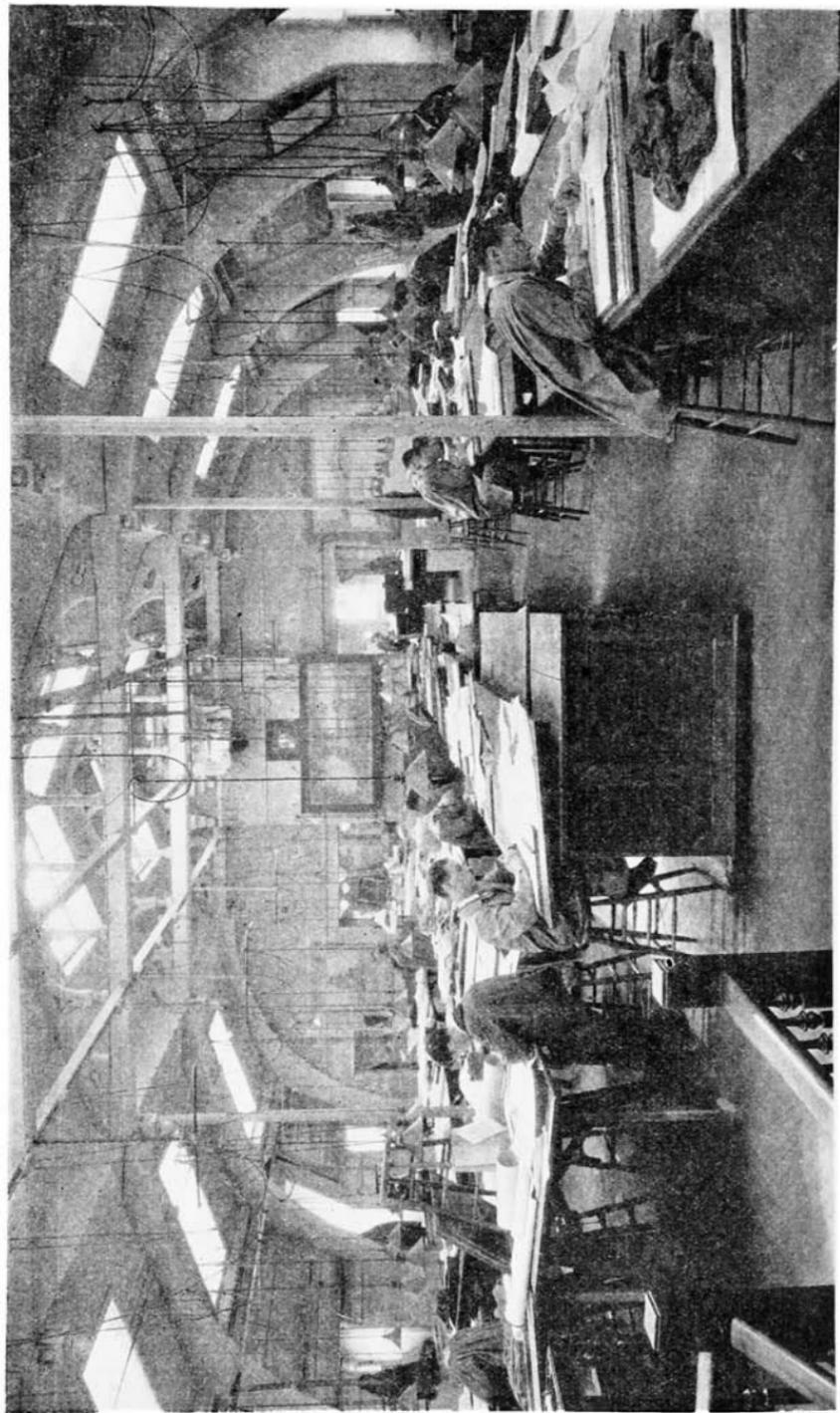
THE UNIVERSITY CALENDAR FOR 1935-36

1935		FIRST TERM	
Sept.	16,	<i>Monday,</i>	Entrance examinations begin.
Sept.	23,	<i>Monday,</i>	}
Sept.	24,	<i>Tuesday,</i>	
Sept.	24,	<i>Tuesday,</i>	}
Sept.	25,	<i>Wednesday,</i>	
Sept.	26,	<i>Thursday,</i>	Instruction begins at 8 A. M.
Oct.	18,	<i>Friday,</i>	Last day for payment of tuition for the first term.
Nov.	28,	<i>Wednesday,</i>	Instruction ends at 6 P. M.
Dec.	2,	<i>Monday,</i>	Instruction resumed at 8 A. M.
Dec.	21,	<i>Saturday,</i>	Instruction ends at 1 P. M.
			}
			Thanksgiving Recess
			}
			Christmas Recess
1936			
Jan.	6,	<i>Monday,</i>	Instruction resumed at 8 A. M.
Jan.	11,	<i>Saturday,</i>	Founder's Day.
Jan.	25,	<i>Saturday,</i>	Instruction ends.
Jan.	27,	<i>Monday,</i>	Term examinations begin.
Feb.	5,	<i>Wednesday,</i>	Term examinations end.
Feb.	6,	<i>Thursday,</i>	A holiday.
		SECOND TERM	
Feb.	7,	<i>Friday,</i>	Registration of all students.
Feb.	10,	<i>Monday,</i>	Instruction begins at 8 A. M.
March	2,	<i>Monday,</i>	Last day for payment of tuition for the second term.
March	28,	<i>Saturday,</i>	Instruction ends at 1 P. M.
April	6,	<i>Monday,</i>	Instruction resumed, 8 A. M.
May	—	<i>Saturday,</i>	Spring Day: a holiday.
June	1,	<i>Monday,</i>	Term examinations begin.
June	9,	<i>Tuesday,</i>	End of term examinations.
June	15,	<i>Monday,</i>	COMMENCEMENT.

THE COLLEGE OF ARCHITECTURE

THE FACULTY

- LIVINGSTON FARRAND, A.B., M.D., L.H.D., LL.D., President of the University.
- ALBERT RUSSELL MANN, A.M., D.Sc., D.Agr., LL.D., Provost of the University.
- GEORGE YOUNG, JR., B.Arch., F.A.I.A., Dean and Professor of Architecture.
- CLARENCE AUGUSTINE MARTIN, D.Sc., F.A.I.A., Professor of Architecture, Emeritus.
- OLAF MARTINIUS BRAUNER, Professor of Drawing and Painting.
- ALBERT CHARLES PHELPS, B.S., M.Arch., F.A.I.A., World War Memorial Professor of Architecture.
- FRANCKE HUNTINGTON BOSWORTH, A.B., F.A.I.A., Andrew Dickson White Professor of Architecture.
- CHRISTIAN MIDJO, Professor of Freehand Drawing and Modeling.
- RALPH WRIGHT CURTIS, B.S.A., M.S.A., Professor of Ornamental Horticulture.
- LEROY P. BURNHAM, M.S.Arch., A.I.A., Professor of Architecture.
- EUGENE DAVIS MONTILLON, B.Arch., F.A.S.L.A., A.I.A., Professor of Landscape Architecture.
- ALEXANDER DUNCAN SEYMOUR, B.S.Arch., A.I.A., Professor of Architecture.
- GILMORE D. CLARKE, B.S., F.A.S.L.A., Professor of Regional Planning.
- HUBERT E. BAXTER, B.Arch., Assistant Professor of Architecture.
- WALTER KING STONE, Assistant Professor of Drawing.
- WILLIAM MCLEISH DUNBAR, B.Arch., A.I.A., Assistant Professor of Architecture. (Absent on leave.)
- EDWARD LAWSON, B.S., M.L.D., F.A.A.R., A.S.L.A., Assistant Professor of Landscape Architecture.
- DONALD LORD FINLAYSON, M.A., Assistant Professor of Fine Arts.
- HARRY P. CAMDEN, B.F.A., F.A.A.R., Assistant Professor of Sculpture and Drawing.
- JOHN A. HARTELL, B.Arch., Assistant Professor of Architecture.
- JOHN NEAL TILTON, JR., M.Arch., A.I.A., Assistant Professor of Architecture.
- KENNETH L. WASHBURN, M.F.A., Assistant Professor of Freehand Drawing.
- LUDLOW D. BROWN, M.Arch., Assistant in Architecture.
- REBECCA S. HARRIS, A.B., Librarian.
- MRS. E. G. DAVIS, Assistant Librarian.
- MILDRED E. VAN ALSTYNE, Secretary to the Dean.
-
- BRYANT FLEMING, B.S., Alumni Adviser in Landscape Architecture.



THE MAIN DRAFTING ROOM IN WHITE HALL

THE UNIVERSITY

Cornell University is one of those institutions which owe their origin to the Morrill Land Grant Act of 1862. That act, coupled with the foresight and generosity of Ezra Cornell, brought about the incorporation of the University in 1865. Its plan of organization and its initial development were the work of its first president, Andrew D. White.

The policies of those two men, the period of foundation, and the geographical situation have combined to give this University a distinctive character, related both to the older universities of the East on the one hand and to those of the Middle West on the other. The terms of the Morrill Act emphasized instruction in "agriculture and the mechanic arts," but at Cornell the foundations were made as broad as the whole field of learning. In the humanities and the sciences a strong faculty was established and from time to time other faculties have been added. Along with Arts and Sciences, there are now faculties of Agriculture, Architecture, Engineering, Home Economics, Law, Medicine, and Veterinary Medicine, and a Graduate School.

In recent years a plan of selective admission has kept the number of students nearly constant—about six thousand. The faculty numbers nine hundred and seventy-five professors, assistant professors and instructors. Cornell is therefore one of the larger universities but not among the largest.

Ithaca is in the justly celebrated Finger Lakes region of Central New York State. The town, of about twenty thousand, built originally on level land at the head of Cayuga Lake, now covers also the slopes of hills on three sides. The country round about is rolling, dotted with lakes and cut by gorges characteristic of this section. Elevations vary from four hundred to two thousand feet above sea level. By rail, Ithaca is seven hours from New York City and twelve hours from Chicago. The University is on the summit of one of the hills which overlook the town and the lake. From the 350-acre campus there are wide views over the hills, the valley, and the lake. The value of such a setting in an educational process is imponderable, but in the experience of generations of Cornell students it is rated highly.

Each of the colleges of Cornell University is a more or less self-contained unit, free to work out its own ideas in its own way, but nevertheless with the full support and cooperation of the University as a whole and of the other colleges. A student in any of the colleges has at his disposal the common facilities of the University, such as the playgrounds, the Infirmary, the University Library, etc. He is also free to elect work in any college of the University within such limits as may be set by the faculty of his own college. The work of the College of Architecture is so planned as to encourage its students to make the

fullest use of the University as a whole and to allow each student to do this in the way best suited to his own needs.

THE COLLEGE OF ARCHITECTURE

The College was founded in 1871. For many years it offered training in Architecture only. During that period the college grew steadily in number of students and teachers and gathered an excellent library. By 1917 the students numbered 160 and the Faculty thirteen. In 1922 the Department of Landscape Architecture, hitherto and since its foundation in 1904, a department of the College of Agriculture, was transferred to the College of Architecture. The union thus effected has stimulated and enriched all the work of the College, benefiting equally the work in architecture and that in landscape architecture. Courses in Painting and Sculpture, organized in 1921, have likewise demonstrated the value of related lines of work carried on in intimate contact. By 1922 the number of the students had increased to the practicable and very nearly to the desirable limit. Since that time limitation of numbers has been in effect.

The College has about fourteen hundred alumni, many of whom have attained high rank in their professions, and who give the College spirited support. As students they were of wide geographical distribution, and they are now to be found in all parts of the United States and in foreign countries.

The College of Architecture is one of the smaller colleges of the University, having eighteen teachers and about one hundred and seventy students. Personal relationship between student and teacher is so easy and constant that the student enjoys particular consideration of his personal needs. Because much of the College's work is of a creative sort, instruction is necessarily in the form of individual criticism. As a natural result the College has the character of a small, compact, intimate group with well focused objectives.

The College is a professional school and its courses lead to professional degrees, but over and above this it is an educational institution committed to the idea that technical proficiency alone is wholly inadequate, even for strictly professional needs. This idea governs not only the framework of the curricula but also the way in which each subject, whether technical or not, is presented and the manner in which the whole is administered.

Relations between this College and the others in the University (notably Arts and Sciences, Engineering, and Agriculture) are intimate, cordial, and reciprocal. Thus students in any of the colleges have the advantage not only of the best instruction obtainable in a given subject, but also of widely varying points of view.

In the courses in Design the collaborative idea is stressed wherever possible. Problems involving the joint efforts of the Architect, the Landscape Architect, and the Painter or Sculptor are given from time to time, but more important is the fact that the students are constantly working side by side and frequently under the same instruction.

As between Architecture and Landscape Architecture the correlation of the work is close and very thorough. Since the fundamentals of these two professions are in the main the same, the curricula leading to the degrees in Architecture and Landscape Architecture include much of the same work. The first year in the two courses is identical. The work in design is the same for three terms. Thereafter certain problems are given jointly and from time to time the students work in collaboration. The professors of Architecture are constantly in touch with the Landscape students and the professors of Landscape Architecture with the students in Architecture. Since the courses in Architecture and Landscape differ but little throughout the first three years and because of the flexibility of both courses, it is possible for the student to vary his objective as his developing capacities and tastes may indicate.

The student's work ordinarily is planned to lead up to one of three professional degrees. It is inadvisable for anybody not vitally interested to attempt the work of any of these courses of study. Typical curricula are given on pages 14-19. In each case five years is the normal period, though students with exceptionally thorough preparation can fulfill the requirements in somewhat less time. While individual cases vary, some students entering the College after taking an A.B. degree have been able to complete the work for the professional degree in three and one-half years. Normally about thirty per cent. of the entering class will have had previous college experience of some sort. The rate of a student's progress in the College is determined in large part by the quality of his work and not alone by the quantity of it. The amount of work that a student is permitted to carry each term is dependent upon the excellence of his scholastic record, hence the actual time required for the completion of the course will depend upon his ability as indicated by that record. The time element in the preparation for any creative profession is such, however, that crowding of the work is deemed unwise.

In each of the courses about twenty per cent. of the work is elective. Elective subjects are selected by the student himself, under advice and approval by a faculty committee. Courses may be chosen from the offerings of any college in the University. This work is intended to broaden the student's outlook and to develop whatever natural interest he may have in some field or fields not directly related to his technical work. A minor part of the elective program may be used to strengthen the student in any one department of his technical work in which he may prove to be especially interested and able or somewhat deficient, as the case may be.

In a general way the first year of each curriculum is designed to establish a foundation for the major subjects of the technical program. Thereafter elective work is introduced into the program, forming a sequence through the last four years. Thus the first-year student is given the best opportunity to determine his fitness for the work, and his chance to develop other interests comes when his increasing maturity makes it most valuable.

already attended together with a certificate of honorable dismissal therefrom. He should also send a catalogue of the institution, writing his name thereon, and marking the courses which he has taken as listed in the official transcript.

Advanced credit for courses in the College of Architecture is given only upon examination by the department concerned but a preliminary ruling will be made by the Committee on Admissions on the evidence submitted.

ADMISSION OF SPECIAL STUDENTS

Special students are primarily those who have had advanced experience in practice and whose preparation will not admit them as candidates for a degree. They must be at least twenty-one years of age.

Special students in Architecture or Landscape Architecture must have had a high school training or its equivalent, including a working knowledge of plane geometry and solid geometry and of algebra through quadratic equations. They should have had at least three years' practical experience or its equivalent and submit with their applications examples of their draftsmanship, and credentials from employers or others acquainted with their work.

Special Students in Fine Arts are admitted only on evidence of ability in drawing, painting, or modeling of such outstanding quality as to set a standard for the regular students. Each application will be considered on its merits but the applicant must present evidence to show, first, qualifications and proved ability to do advanced work in some branch of the fine arts; and second, general academic training preferably equivalent to graduation from an institution of collegiate rank but in no case less than the equivalent of graduation from an approved high school. If admitted on the lesser requirement the student will be expected to take, in addition to drawing, painting, etc., such general work as the Faculty may prescribe.

Special students may be admitted at the beginning of either term, but applications should be filed by June 1, or January 1. See also the General Information Number for requirements concerning registration fee and vaccination certificate. A high scholastic performance is expected of special students and is made a condition of their remaining enrolled in the college. The college does not issue a certificate for special work.

TUITION, FEES, AND LIVING CONDITIONS

Information concerning tuition, fees, living conditions, University dormitories, self-help, etc., is given in the General Information Number. This publication gives also various other items of information applicable to all students in the University. It should be read in connection with this announcement.

FELLOWSHIPS: SCHOLARSHIPS: PRIZES

For information concerning scholarships that are open to students of this college in common with other students of the University, consult the General Information Number.

A *University Fellowship* of the value of \$400 with free tuition is awarded annually for graduate study in Architecture or Landscape Architecture.

Three Graduate Scholarships giving free tuition in the Graduate School are awarded annually for graduate study in Architecture or Landscape Architecture.

Five Scholarships of a value of \$250 each are awarded annually to graduates of four-year courses in Architecture, Landscape Architecture, or Fine Arts who are not eligible for admission to the Graduate School (see page 9).

The Charles Goodwin Sands Memorial Medal, founded in 1900 by the family of Charles Goodwin Sands of the class of '90, is awarded for work of exceptional merit in any of the advanced courses in the College of Architecture. Two grades of medals are recognized, the silver medal and the bronze medal.

The Clifton Beckwith Brown Memorial Medal was established in 1901 by John Harkness Brown in memory of his brother Clifton Beckwith Brown, killed on the field of battle at San Juan Hill. A silver replica is awarded to the senior in the College of Architecture attaining the highest standing in design during his senior year, and a bronze replica to the senior taking second place. These medals are not awarded, however, solely for order of merit, the award being withheld unless the standard reached in design is considerably higher than that required for the graduation.

The Student Medal of the American Institute of Architects is awarded to the member of the graduating class in architecture whose record is the best throughout the entire course.

Through the Beaux-Arts Institute of Design numerous prizes are offered for excellence of work in design. These prizes are open to students in the College of Architecture who frequently compete for them with success and distinction to themselves and to the college.

The Fuertes Memorial Prizes in Public Speaking were founded in 1912 by Charles L. Baker, a graduate of the School of Civil Engineering of the class of 1886. Three prizes, one of \$110, one of \$25 and one of \$15, are awarded annually to members of the junior and senior classes in the Colleges of Engineering and Architecture for proficiency in public speaking.

The Paul Dickinson Prize, established in 1927 by Miss Dorothea C. Dickinson, '23, in memory of her father, consists of the income of a fund of \$500 and is awarded to the student in the first-year class of the College of Architecture whose general record is the best.

The Baird Prizes are offered, one of \$30 and one of \$15, as first and second awards in a special sketch problem competition for Juniors and Seniors in the College of Architecture. The problem, lasting six

ARCHITECTURE
LANDSCAPE ARCHITECTURE
PAINTING & SCULPTURE

THE COURSE IN ARCHITECTURE

This course, which is designed to give a training adequate for the general practice of Architecture, leads to the degree of Bachelor of Architecture. The course regularly prescribed is as follows:

[NOTE. Of these four subjects, any which have been presented for entrance need not be taken in the University: Trigonometry (Mathematics 3, three hours), Advanced Algebra (Mathematics 2, three hours), Physics (Physics 3 and 4, six hours), and Chemistry (Chemistry 101 and 105, six hours).]

		<i>Courses of Study</i>		<i>Hours</i>	
				<i>First Term</i>	<i>Second Term</i>
**FIRST YEAR	Design, 110.	4	3		
	Freehand Drawing, 310.	3	3		
	Descriptive Geometry, 510.	3	3		
	Mathematics, 2 or 3.	3	0		
	Mathematics, 8.	0	3		
	Language*	3	3		
		16	15		
**SECOND YEAR	Design, 111.	4	4		
	Mechanics of Materials, 210.	0	3		
	Modeling, 335.	2	or 2		
	Elements of Color, 340.	2	or 2		
	History of Architecture, 410-411.	3	3		
	Perspective, 511.	0	1		
	Mathematics, 8.	3	0		
	Electives.	3	3		
		15	16		
THIRD YEAR	Architectural Design, 112.	5	5		
	Mechanics of Materials, 210.	3	0		
	Structural Design, 211.	0	3		
	Life Drawing, 311.	2	or 2		
	History of Architecture, 412.	3	0		
	Materials and Construction, 610.	3	3		
	Testing Materials, C. E. 227	0	1		
	Elective.	3	3		
		16	15		
FOURTH YEAR	Architectural Design, 113.	0	9		
	Structural Design, 212.	2	0		
	History of Art, 414.	2	2		
	Applied Design, 611.	9	0		
	Concrete Construction, C. E. 280.	0	3		
	Elective.	3	0		
	History 413.	0	3		
		16	17		
FIFTH YEAR	Architectural Design, 113, and Thesis, 114.	9	9		
	Life Drawing, 312.	2	2		
	Elective.	4	4		
		15	15		

*This requirement may be satisfied by credit earned in courses in English or in a foreign language, as approved for individual cases.

**The University requirement in Hygiene and Military Drill must be met in these years in addition to the courses listed.

The foregoing regular course, which is followed by the great majority of candidates for the degree, may be varied to meet the needs of students in any one of four ways. Four options, so-called, are open to the student, permitting him to pay especial attention to Construction, or to Landscape Architecture, or to History, or to Painting and Decorative Composition.

In any case, whether the student pursue the regular course or take one of the options, the main body of the course is the same and it contains more than the minimum of instruction required in any of the subjects for professional registration in New York State.

In the first column below are listed the subjects that are common to the regular course and all the options, and in the second column are given outlines of the four several options.

COURSES COMMON TO ALL			OPTIONS	
<i>Required of all candidates for the degree of Bachelor of Architecture</i>			OPTION 1: CONSTRUCTION* (38 hours)	
	<i>Course</i>	<i>Hours</i>	Materials Laboratory, C.E. 226.	3
Mathematics.	2 or 3	3	Reinforced Concrete, C.E. 285.	3
	8	6	Foundations, C.E. 281.	3
Languages		6	Surveying, C.E. 110.	3
Design.	110	7	Engineering Law, C.E. 290.	3
	111	8	Free Electives.	23
	112	10		
	113	9	OPTION 2: LANDSCAPE (37 hours)	
Theory of Structures.	210	6	History of Landscape Design, 450.	3
	211	5	Landscape Design**	10
	C.E. 280	3	Planting Design, 650.	2
	C.E. 227	1	Free Electives.	22
Drawing and Modeling.	310	6		
	312	4	OPTION 3: HISTORY (37 hours)	
	335	2	History of Art, 414.	4
	340	2	History, 413 or 470.	3
History	410	3	Archaeological Problems.	6
	411	3	Special Research.	3
	412	3	Free Electives.	21
Graphics.	510	6		
	511	1	OPTION 4: PAINTING AND DECORATIVE COMPOSITION (37 hours)	
Applied Construction.	610	6	Composition, 328.	8
	611	9	Historic Ornament, 470.	3
Thesis.		9	Painting, 331.	4
Total hours.		118	Free Electives.	22

*Those who elect Option 1 may omit C.E. 227, one hour.

**Under this heading such work will be required as may appear to be desirable in any individual case.

THE COURSE IN LANDSCAPE ARCHITECTURE

The course leading to the degree of Bachelor of Landscape Architecture is outlined on the opposite page. Its aim is to give a broad basic training in the arrangement of out-of-door space for human use.

The primary emphasis is put upon the instruction in Design, which is so planned to give due recognition to both the utilitarian and the aesthetic factors involved. Technical training is given in the auxiliary fields of Horticulture, Engineering and Construction, Freehand Drawing, and Architecture, and the knowledge gained in the study of these auxiliary subjects, as the student progresses, is utilized in the solution of problems of design. The study of horticulture, including knowledge of plant materials and the principles of planting design, being of great importance to the landscape architect and requiring some maturity of mind for its profitable pursuit, is put somewhat late in the course. In Construction, the student takes some courses of study in the College of Architecture and others in the School of Civil Engineering.

All the instruction in Landscape Architecture is closely related to that in Architecture (see page 14), and also to that in Regional Planning (see page 20). The landscape architect has of late years become increasingly concerned with public works, as in the planning of parks, in highway design, and in the development of recreational areas. For that reason the curriculum is made flexible enough to enable the student to include a good deal of work in regional planning.

The American Society of Landscape Architects, through its committee on education, has drawn up and published a "minimum educational requirement for professional schools of landscape architecture." The course which is outlined on the opposite page, while conforming in content to that requirement, offers very much more than the minimum of instruction and training suggested by the society.

Correspondence with prospective students throughout a period of years has shown that many have no clear idea either of the function of the Landscape Architect or of the training needed for the practice of his profession. Two distinct fields are open to the student interested in the treatment and maintenance of out-of-door spaces, and a distinct course of training for work in either of these fields is provided at Cornell.

The one field is the general practice of Landscape Architecture as a profession, or the designing of out-of-door spaces for human use in the broadest sense, and the corresponding course of training, given mainly in the College of Architecture, emphasizes design, mathematics, and construction.

A course of four years, preparatory to work in the second field, is given in the College of Agriculture by the Department of Floriculture and Ornamental Horticulture. The instruction in *floriculture* is designed for (1) those who intend to make some branch of commercial flower-growing their life work; (2) those who plan to enter a retail business in floriculture; (3) those who are interested in amateur flower-growing for pleasure and home decoration; (4) those who plan to take up some line of work on private estates or in city parks. The instruction in *ornamental horticulture* is designed primarily to fit students for nursery management, that is, the propagation, growing, and selling of ornamental plants, and for nursery service, the planting of small properties; there is also included training for park service, for the management of private estates, and for work such as is done by planting superintendents for landscape architects. Persons interested primarily in the instruction in floriculture or ornamental horticulture can best obtain further information by consulting the Announcement of the New York State College of Agriculture.

The course in Landscape Architecture and that in Floriculture and Ornamental Horticulture are each strengthened by the presence of the other on the same campus. The two faculties cooperate and each regularly gives instruction to students in both fields.

The Course Leading to the Degree of
BACHELOR OF LANDSCAPE ARCHITECTURE

[NOTE. Of these four subjects, any which have been presented for entrance need not be taken in the University: Trigonometry (Mathematics 3, three hours), Advanced Algebra (Mathematics 2, three hours), Physics (Physics 3 and 4, six hours), and Chemistry (Chemistry 101 and 105, six hours).]

<i>Courses of Study</i>		<i>Hours</i>	
		<i>First</i>	<i>Second</i>
		<i>Term</i>	<i>Term</i>
**FIRST YEAR	Design, 110.	4	3
	Frechand Drawing, 310.	3	3
	Descriptive Geometry, 510.	3	3
	Mathematics, 2 or 3.	3	0
	Mathematics, 8.	0	3
	Language*	3	3
		—	—
		16	15
**SECOND YEAR	Design 111.	4	4
	Mechanics of Materials, 210.	0	3
	Life Drawing, 311	}	
	Elements of Color, 340		
	Modeling, 335		
	History of Architecture, 410-411.	3	3
	Perspective, 511.	0	1
	Mathematics, 8.	3	0
Electives.	3	3	
		—	—
		15	16
SUMMER SESSION	Woody Plant Materials 8s.	4	
	Herbaceous Plant Materials 6s.	2	
THIRD YEAR	Landscape Design, 150.	4	4
	Mechanics of Materials, 210.	3	0
	Structural Design, 211.	0	3
	History of Architecture, 412.	3	0
	History of Landscape Architecture, 450.	0	3
	Plant Materials, 8.	4	4
	Electives.	3	3
			—
		17	17
FOURTH YEAR	Landscape Design, 151.	8	8
	Planting Design, 650.	2	2
	Elementary Surveying, C. E. 110.	3	0
	Earthwork, C. E. 296.	0	2
	Electives.	3	3
		—	—
		16	15
FIFTH YEAR	Landscape Design, 151 and Thesis, 152.	8	8
	Landscape Construction, 660.	2	0
	Theory of Landscape Architecture, 051.	1	0
	Electives.	4	0
		—	—
		15	8

*This requirement may be satisfied by credit earned in English or in a foreign language, as approved for individual cases.

**The University requirement in Hygiene and Military Drill must be met in these years in addition to the courses listed above.

THE COURSE IN FINE ARTS

The course shown on the opposite page leads to the degree of Bachelor of Fine Arts. It is intended to develop the student's creative talent in Painting and Sculpture and Decorative Composition.

The liberal allowance of free elective subjects is included so that the student, while primarily devoting himself to a definite line of work of his own choosing, shall also have the opportunity to explore other fields of knowledge and to become acquainted with persons and ideas outside his own normal range.

The constant association with the faculty and student body in Architecture and Landscape Architecture also contributes greatly to the same end.

All classes are small and are conducted by the faculty through constant personal criticism. The classes in Composition use, to a large extent, the problems of the Beaux Arts Institute of Design and the student's work is submitted to the judgments of the Institute.

The course shown on the opposite page, expressed in the percentage of the student's time devoted to each general subject, is as follows:

<i>General Subjects</i>	<i>Percentage</i>
Drawing and Painting or Modeling	33
Composition	21
History	12
Language	4
Graphics	4
Anatomy	4
Elective	22
	<hr/>
	100

The Course Leading to the Degree of BACHELOR OF FINE ARTS

	Courses of Study	Hours	
		First Term	Second Term
**FIRST YEAR	Freehand Drawing, 310.	3	3
	Composition, 325.	2	2
	History of Painting and Sculpture, 425.	3	3
	Descriptive Geometry, 510.	3	3
	Language*.	3	3
		<hr/>	<hr/>
		14	14
**SECOND YEAR	Composition, 326.	2	2
	Life Drawing, 330.	3	3
	Color, 340***, or Modeling, 335.	2	2
	History of Architecture, 410-411.	3	3
	Perspective, 511.	0	1
	Anatomy, 24.	3	3
Electives.	3	2	
		<hr/>	<hr/>
		16	16
THIRD YEAR	Composition, 327.	3	3
	Painting, 331, or Modeling, 336.	4	6
	Modeling, 339***, or Color 341.	3	0
	History of Architecture, 412.	3	0
	Historic Ornament, 470.	0	3
Electives.	3	3	
		<hr/>	<hr/>
		16	15
FOURTH YEAR	Composition, 328.	4	4
	Painting, 332, or Modeling, 337.	6	6
	Electives.	6	6
		<hr/>	<hr/>
		16	16
FIFTH YEAR	Composition, 329.	4	4
	Painting, 333, or Modeling, 338.	6	6
	Electives.	5	5
		<hr/>	<hr/>
		15	15

*This requirement may be satisfied by credit earned in courses in English or in a foreign language, as approved for individual cases.

**The University requirement in Hygiene and Military Drill must be met in these years in addition to the courses listed above.

***Students majoring in painting take 340 and 339; those majoring in sculpture take 335 and 341.

REGIONAL AND CITY PLANNING

Instruction in Regional Planning is given by the Colleges of Engineering and Architecture in cooperation. Details of these courses and hours are given on page 38.

The work does not recognize Regional or Town Planning as a separate profession, and hence no attempt is made to give the student technical proficiency in planning, nor even any large array of factual information.

The courses deal in a broad way with the adaptation of man's environment to suit his needs and desires. A study is made of past and possible future achievement in the field of planned and controlled developments of public and private properties as the necessary basis for better living.

The increased use of leisure time, the importance of public works projects, zoning, land use, and other pressing problems having to do with the welfare of large masses of people are considered in the light of their bearing on planning practice. Emphasis is placed on the fact that historically and logically, the problems presented by large scale planning are so difficult that no one professional group is competent to comprehend them, much less to solve them. It is shown that actual achievement must finally rest on the united efforts of groups composed of people of diverse interests and widely varying training. The courses offered are therefore open to upperclassmen and graduates in all colleges of the University. The presentation of the material is such that special technical knowledge is unnecessary.

The value of these courses to a given student may be enhanced by a well selected program of study in other departments of the University. Students will be assisted in making such selections in anticipation of the work in Regional Planning or to accompany or to follow it.

COURSES IN THE 1935 SUMMER SESSION

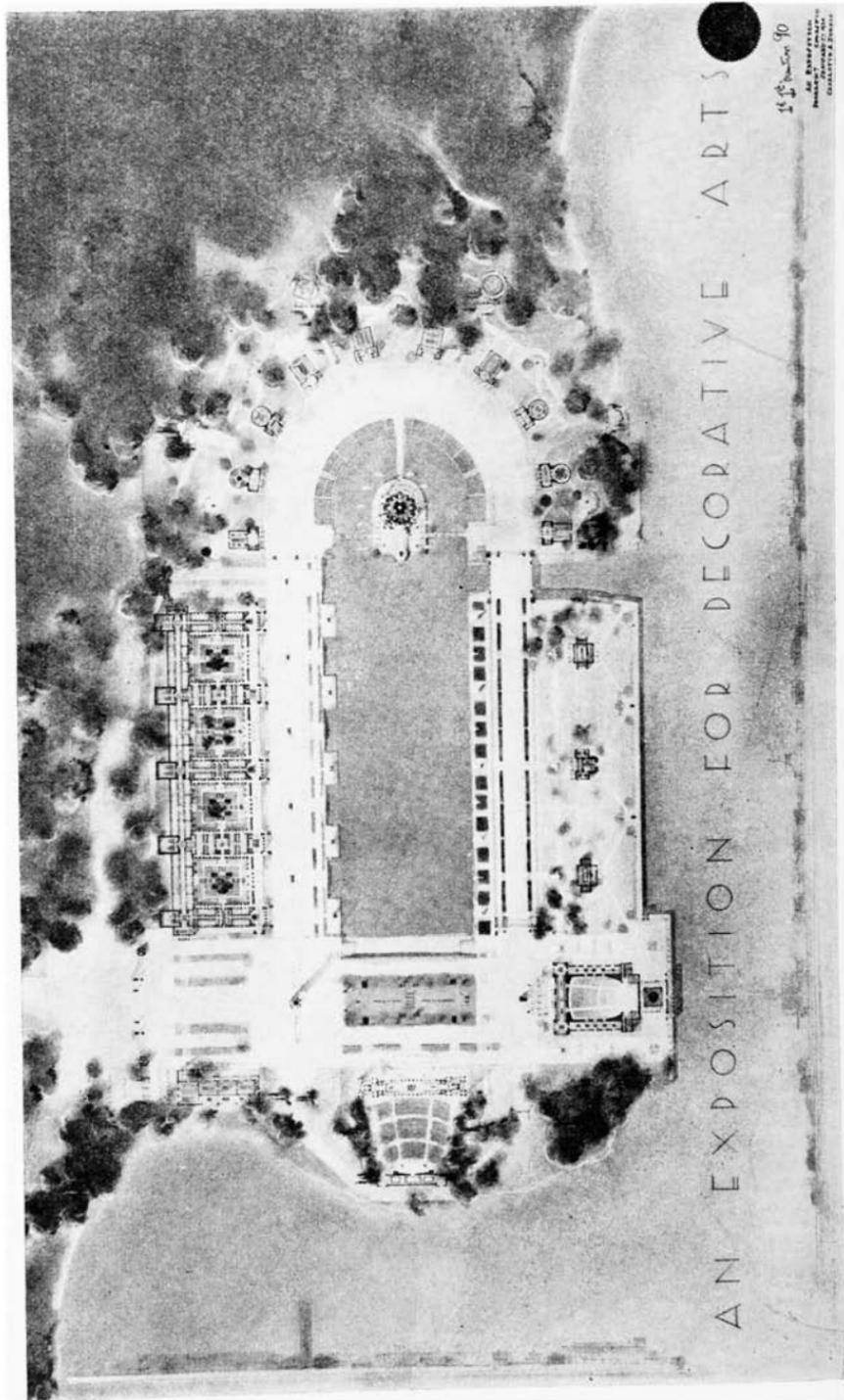
In the summer of 1935 a course in Design will be offered which will emphasize the interdependence of Architecture and Landscape Architecture. The number of students will be limited. Only those having had three or more years training in design will be accepted.

Courses in Drawing and Painting will also be offered.

The Summer Session opens July 8 and closes August 16.

Particulars concerning these courses are given in the Announcement of the Summer Session.

RECENT EXAMPLES OF WORK
DONE BY STUDENTS
IN REGULAR COURSES

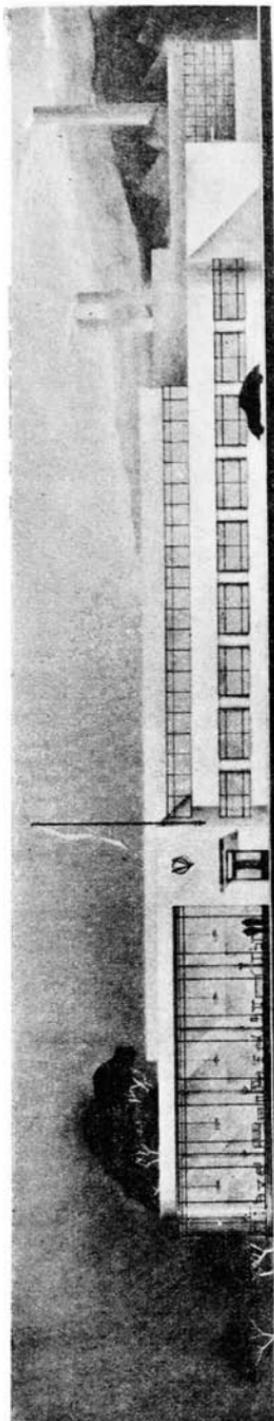


AN EXPOSITION FOR DECORATIVE ARTS

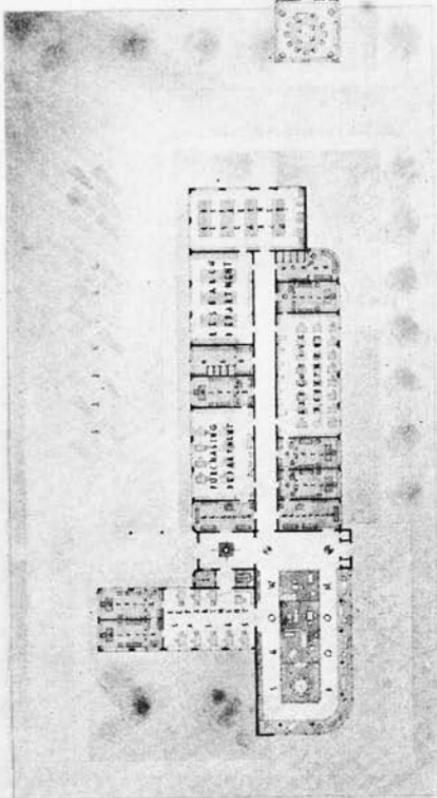
1895
THE UNIVERSITY OF
CHARLOTTE

CHARLOTTE A. DOWRIE

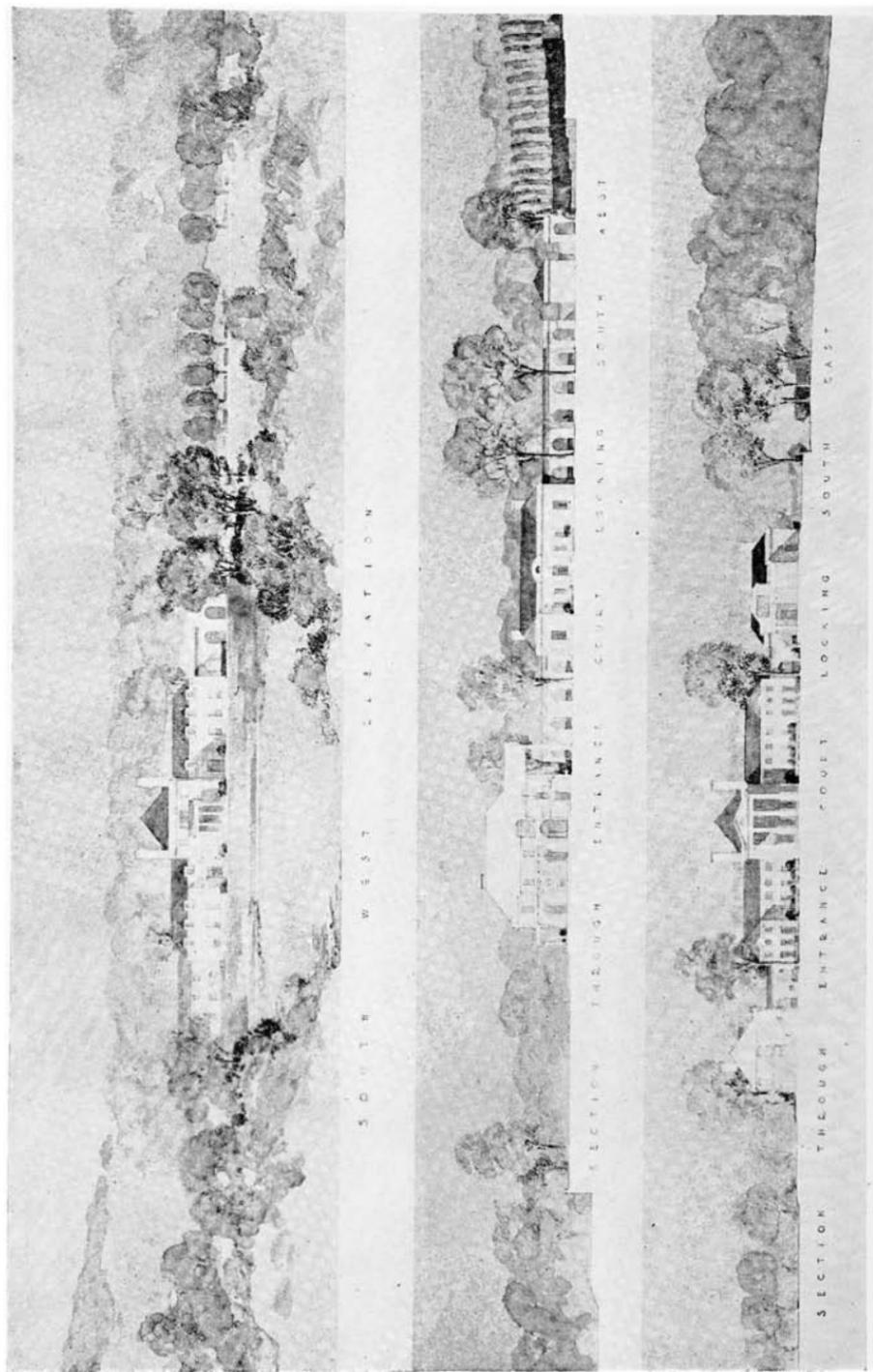
SENIOR DESIGN



AN OFFICE AND SHOWROOM BUILDING FOR A FACTORY GROUP

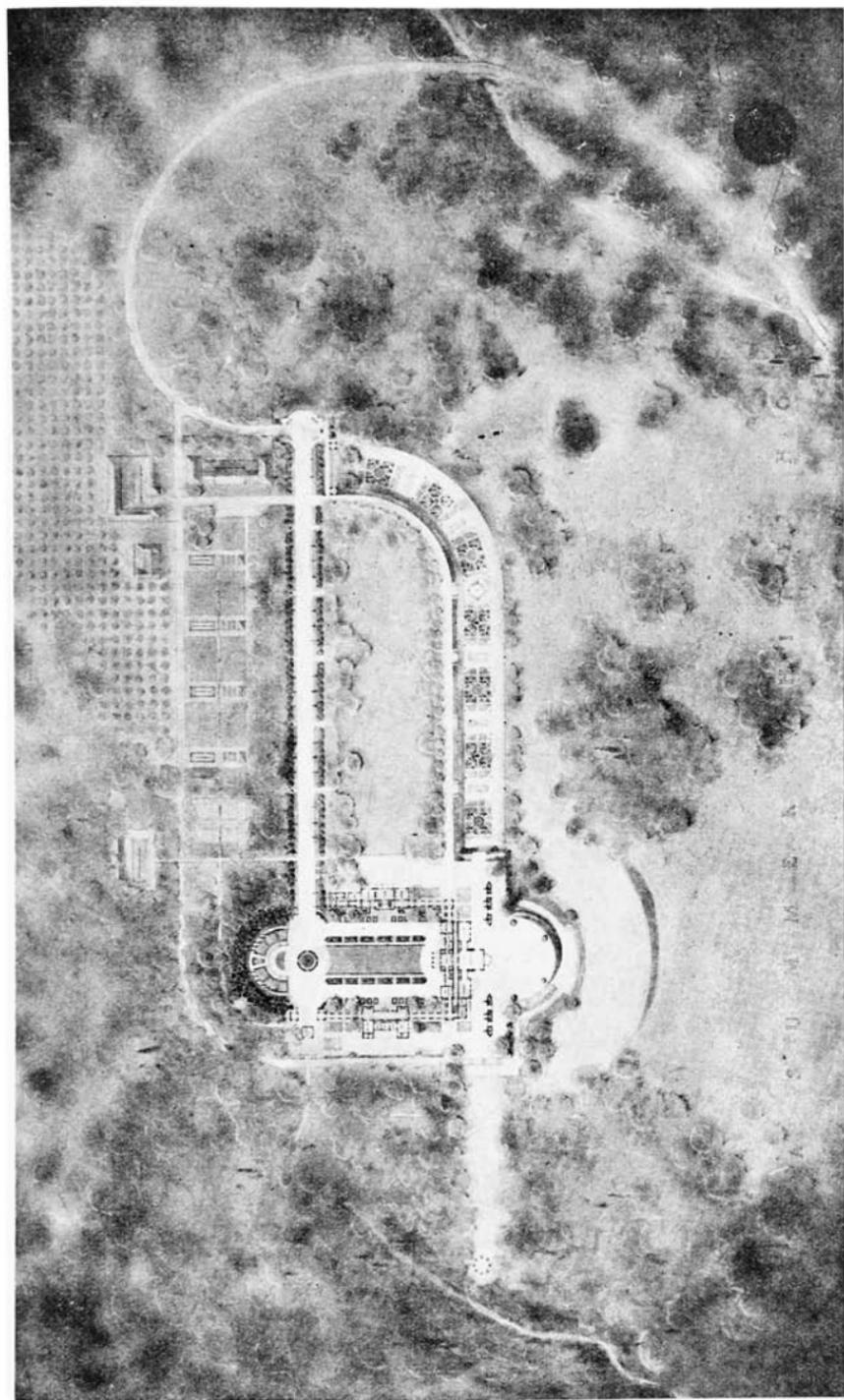


See 1st Floor Plan, 9c
H.C.



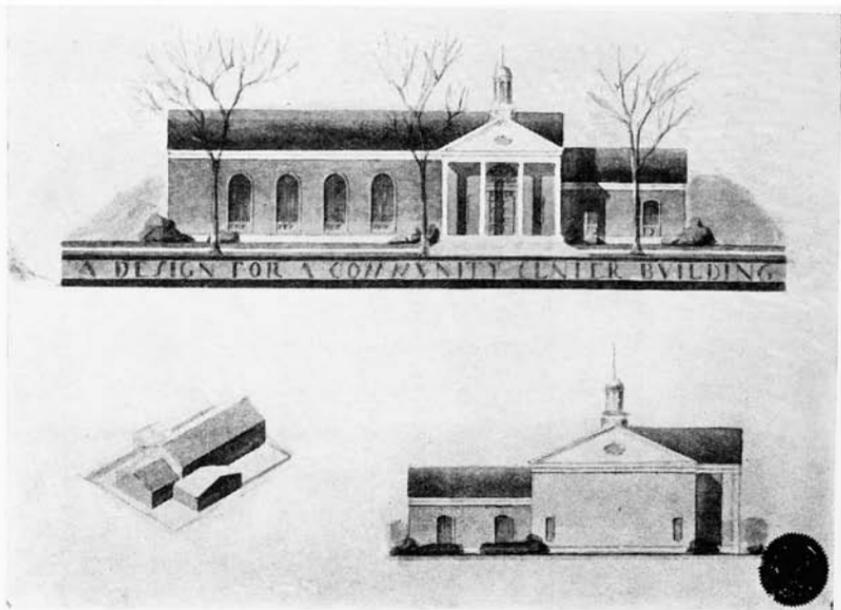
SENIOR COLLABORATIVE DESIGN—"A SUMMER WHITE HOUSE"

G. I. BOTCHER AND R. P. SHELLHOEN



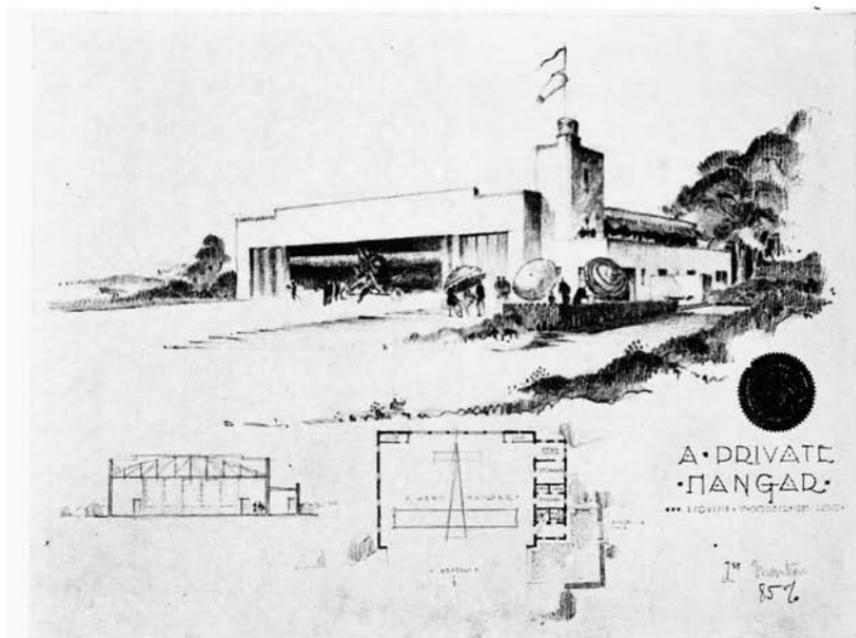
SENIOR COLLABORATIVE DESIGN—"A SUMMER WHITE HOUSE"

G. I. BOTTCHER AND R. P. SHELLHORN



FRESHMAN DESIGN

NICOL BISELL



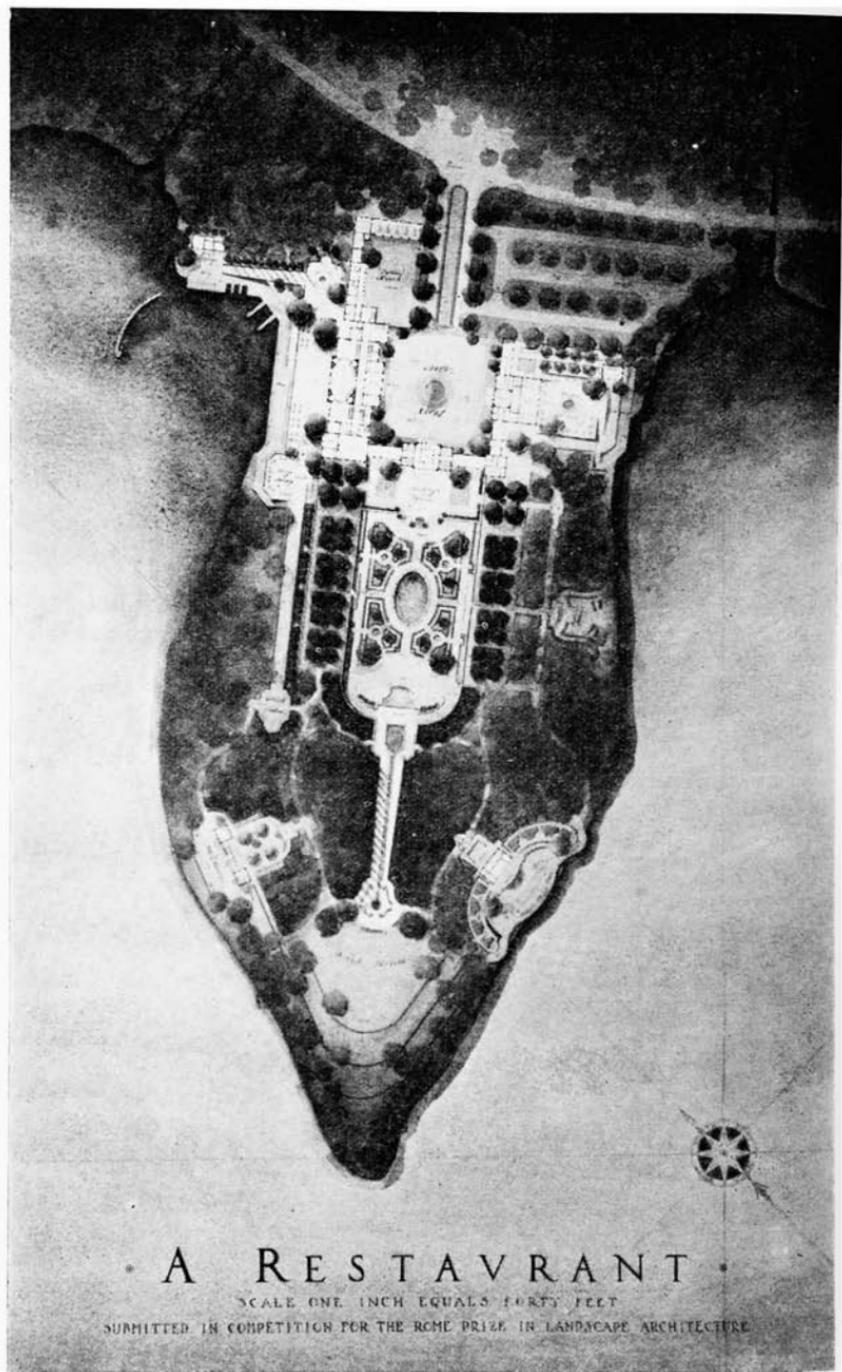
JUNIOR SKETCH PROBLEM

T. T. LLOYD



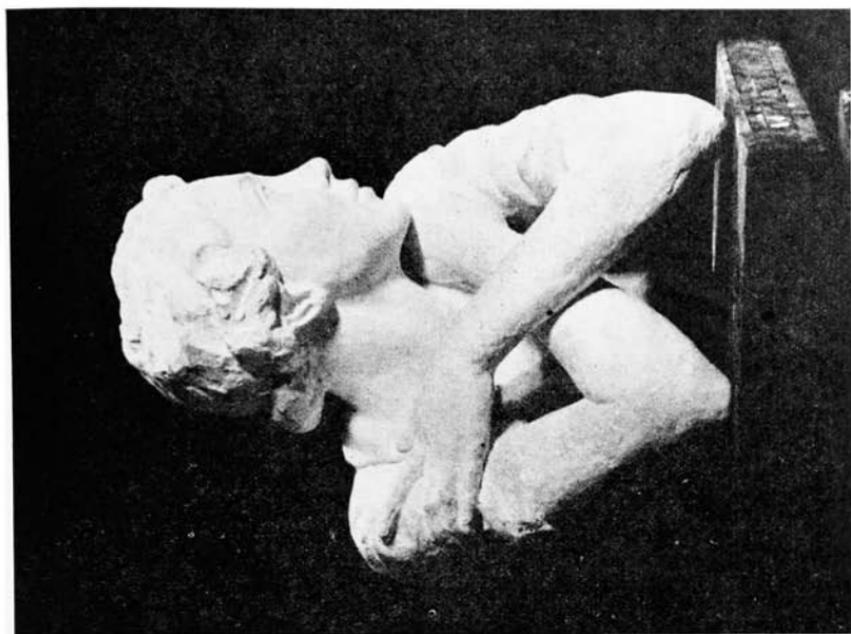
THESIS IN LANDSCAPE ARCHITECTURE

JAMES M. LISTER



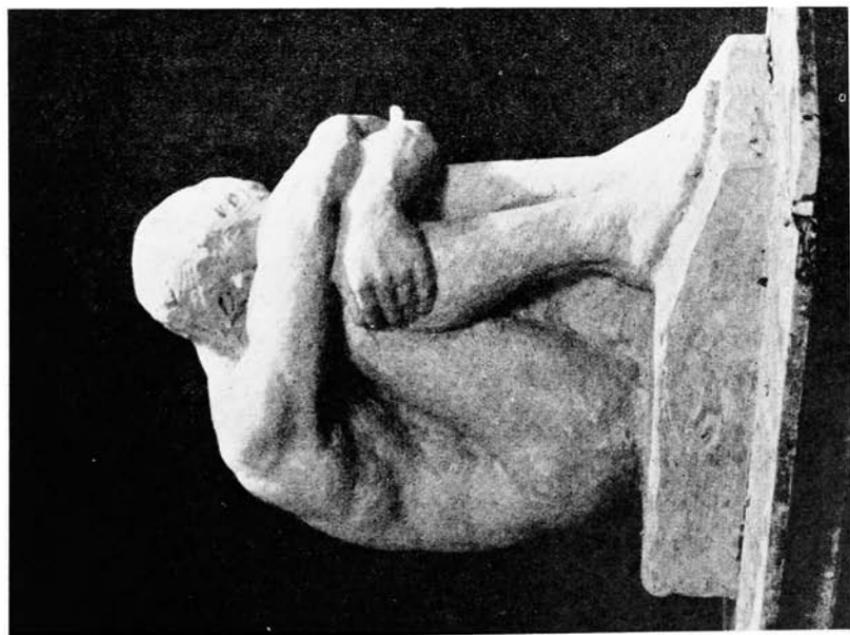
ROME PRIZE

MORRIS E. TROTTER, JR.

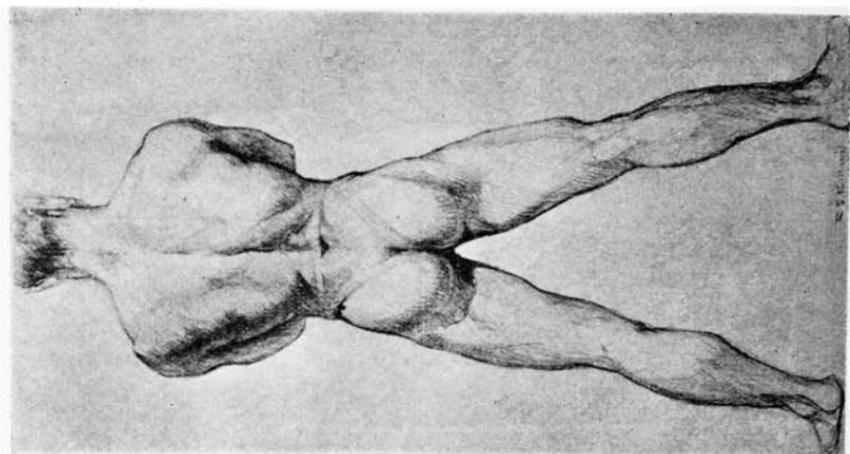


E. C. RUST

ADVANCED MODELING



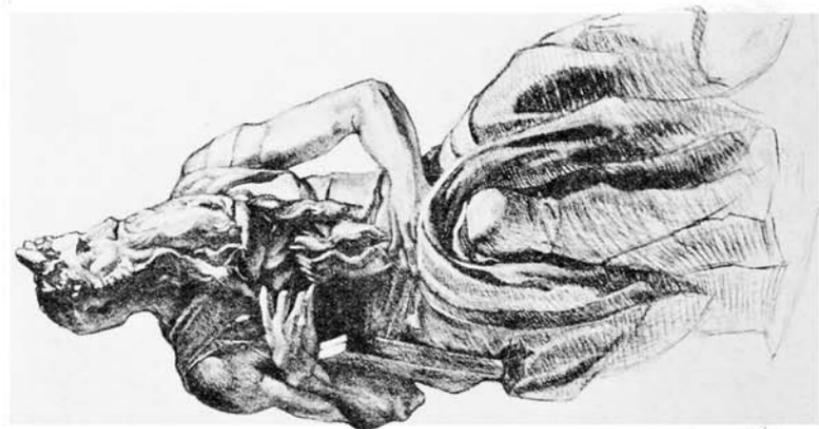
J. C. LAWRENCE



ETCHING
E. STEWART WILLIAMS

SECOND YEAR
SKETCH
R. S. KITCHEN

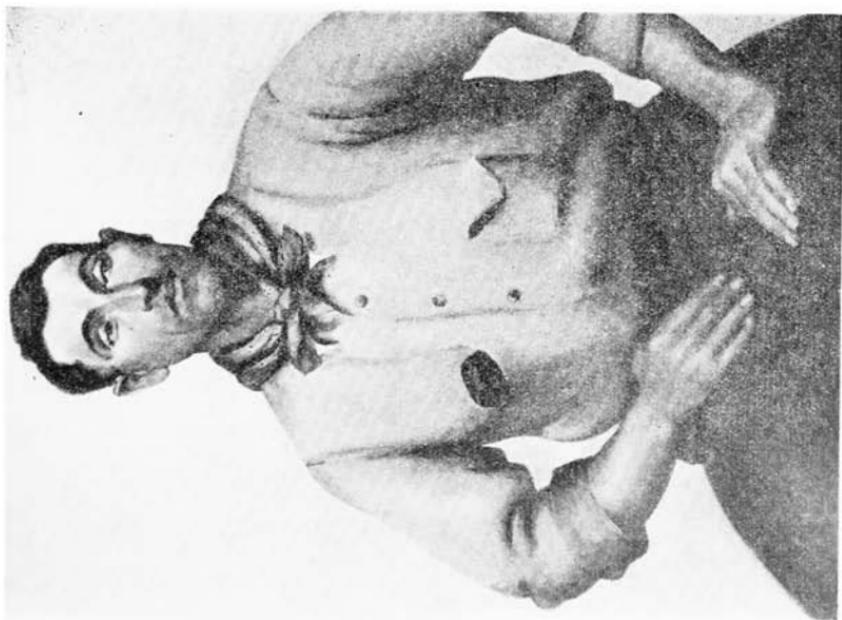
FIRST YEAR
DRAWING
J. C. FREER





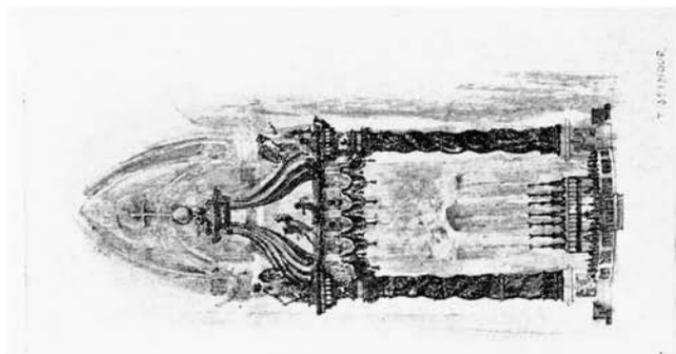
FIFTH YEAR COMPOSITION

E. T. JONES

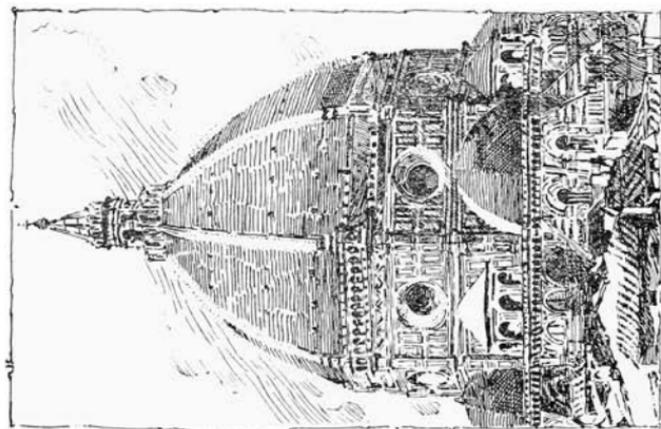


FIFTH YEAR PAINTING

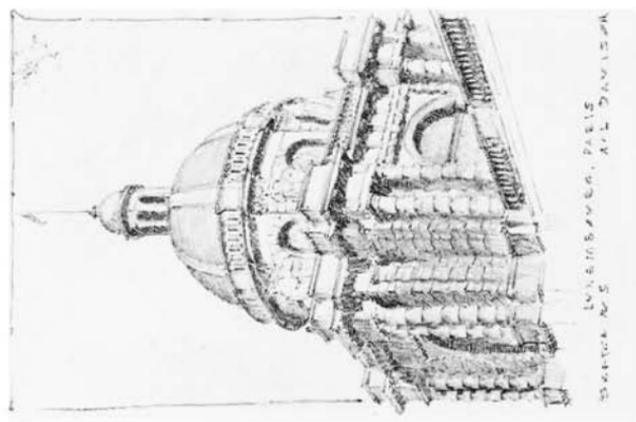
L. STEVENS



T. SEYMOUR



THE DOME OF FLORENCE
A. GELLER



A. L. DAVISON

HISTORY SKETCHES

COURSES OF INSTRUCTION

GIVEN IN THE COLLEGE OF ARCHITECTURE

NOTE: *Courses which are open to election by students not registered in the College of Architecture are marked with an asterisk (*) preceding the number of the course. The number of students that can be accepted in any course is limited.*

Certain of the advanced courses in the department of Freehand Drawing and Fine Arts may be elected by specially qualified students with the personal permission of the Professor in charge of the course. See pages 34-36.

Students not registered in the College of Architecture are required to pay a fee of \$5 a term for each course in Design, Drawing, or Modeling, except that when the student is registered for more than two such courses the total fee shall be \$10.

THEORY OF ARCHITECTURE

012. Advanced Theory Seminar, Elective. First term. Credit one hour. Mr. BOSWORTH. Registration limited. Open to seniors and graduates. W 4:00. Students planning to register for this course must obtain permission from Mr. BOSWORTH before registration day.

013. Advanced Theory Seminar, Elective. Second term. Credit one hour. Mr. SEYMOUR. Registration limited. Open to seniors and graduates. By appointment. Students planning to register for this course must obtain permission from Mr. SEYMOUR before registration day.

051. Theory of Landscape Architecture. Either or both terms. Credit one hour each term. Mr. MONTILLON. Lectures and assigned readings. By appointment.

070. Landscape Seminar, Elective. Either or both terms. Credit one hour each term. Mr. MONTILLON or Mr. LAWSON. Open to seniors and graduates. By appointment.

***072. Appreciation of Architecture.** Second term. Credit two hours. Mr. BOSWORTH. Open to non-technical upperclass students. No ability in drawing required. An analytical and historical study of specific examples taken from the Classic to the Renaissance period. Lectures with assigned readings, essays, and examinations. T Th 2 p. m. Goldwin Smith 120.

DESIGN

Instruction in Landscape and Architectural Design is given by the Design Staff and consists of individual criticism over the drafting board. By appointment.

110. Design. Throughout the year. Credit seven hours on completion of the course. Mr. HARTELL. The first principles of architectural design and construction with drawings in pencil and ink, rendered in wash and color. Lecture, M 8, White B-10. Section A, T Th S 10-12:30; Section B, M W F 1:40-4.

111. Design. Throughout the year. Credit eight hours on completion of the course. Mr. BURNHAM. Prerequisite course 110. A series of problems in architectural composition and planning. For students in landscape architecture the second term of this course will include a series of major problems in landscape design and will be accompanied by lectures in the theory of landscape design. F 2:30. Mr. MONTILLON.

112. Architectural Design. Throughout the year. Credit ten hours on completion of the course. Mr. SEYMOUR. Prerequisite course 111. A series of problems in architectural composition and studies of detail. One problem each term is identical with that given in course 150.

113. **Architectural Design.** Throughout two terms. Credit eighteen hours on completion of the course. Mr. BOSWORTH. Prerequisite courses 112 and 611. This course is a prerequisite for the thesis.

114. **Architectural Thesis.** Credit nine hours. Prerequisite course 611 and (except for students in Option 1) two terms of course 113.

150. **Landscape Design.** Throughout the year. Credit eight hours on completion of the course. Messrs. MONTILLON and LAWSON. Prerequisite course 111. A series of problems in landscape composition and studies of detail. One problem each term is identical with that given in course 112. Discussion periods as announced.

151. **Landscape Design.** Throughout three terms. Credit twenty-four hours on completion of the course. Messrs. MONTILLON and LAWSON. Prerequisite course 150. Discussion periods as announced.

152. **Landscape Thesis.** Credit eight hours. Prerequisite course 151.

170. **Architectural Rendering.** Either term. Credit two or three hours as arranged with the Instructor. Mr. SEYMOUR. Prerequisite course 110. By appointment. Registration limited. Open only to students in Architecture and Landscape Architecture. Students must obtain permission from Mr. SEYMOUR before registering for this course.

THEORY OF CONSTRUCTION

210. **Mechanics of Materials.** Second and first terms. Credit three hours each term. Prerequisite, Mathematics 8. Messrs. YOUNG and BROWN. Second term; a brief study of the principles of analytic and graphic statics. Recitations. Section A, M W F 9. Section B, T Th S 9.

First term. The effects of loading in producing stress and deformation in beams, columns, and masonry. Two recitations and one computing period. Section A, M W 9; Th 1:40-4. Section B, T Th 9, Th 1:40-4, White B 10.

211-212. **Structural Design.** First term. Credit three hours. Second term. Credit two hours. Prerequisite course 210. Mr. BAXTER. The principles studied in course 210 are applied to the structural design of such structural elements as occur frequently in the practice of Architecture and Landscape Architecture. Lectures, computations, and reports. First term, M W F 1:40-4; second term, M W 1:40 to 4. White B 10. Course 211 is a prerequisite for Concrete 280.

FREEHAND DRAWING AND FINE ARTS

(See Note, page 33)

Composition:

These courses consist in the application of the knowledge and proficiency the student has gained in other classes, in orderly arrangements, and is presented by means of series of problems in pictorial and decorative drawings in line, tone, color, or in sculptural groups.

*325. **First Year Composition.** Credit 2 hours each term. Mr. STONE. W or F 1:40-4.

326-327-328. **Composition.** Credit two, three and four hours each term, respectively. Mr. CAMDEN. T 10-12:30; Th 1:40-4:00.

329. **Fifth Year Composition.** Credit 4 hours each term. Mr. MIYAJI. By appointment.

Drawing and Painting:

In this sequence of courses the emphasis is primarily on the study and representation of form. Various media are used. The beginning work is in pencil and charcoal from geometric objects and still life, instruction in perspective becoming a part of the study. Later, in drawing the human figure from plaster casts and from the living model, the study of Anatomy parallels the work in drawing.

In the third year the course becomes the study in color of the figure both nude and draped.

310. **First Year Drawing.** Credit 3 hours each term. Given especially for students in the College of Architecture. Mr. WASHBURN. Section A, M W F 1:40-4. Section B, M W F 10-12:30. Franklin Hall 37.

311-312. **Life Drawing.** Credit two hours each term. Messrs. BRAUNER and MIDJO. Given particularly for students in Architecture and Landscape Architecture. Section A, M W 10-12:30. Section B, M W 1:40-4.

330. **Second Year Drawing.** Credit 3 hours each term. Mr. BRAUNER. M T W 1:40-4. Franklin Hall 39.

331. **Third Year Drawing and Painting.** Credit 4 hours first term, 6 hours second term. Messrs. MIDJO and BRAUNER. First term, M T W Th 1:40-4. Criticism, M W. Second term, daily 10-12:30. Criticism, T Th S.

332. **Fourth Year Painting.** Credit 6 hours each term. Messrs. BRAUNER and MIDJO. Daily 10-12:30. Criticism, T Th S. Franklin Hall 38.

333. **Fifth Year Painting.** Credit 6 hours each term. Messrs. BRAUNER and MIDJO. Daily 10-12:30. Criticism, T Th S. Franklin Hall 38.

*371. **Elementary Drawing.** Throughout the year. Credit three hours each term. Mr. BRAUNER. Given primarily for students not registered in the College of Architecture. Elementary study of the presentation of form. This course embraces free-hand perspective, outline and shaded drawing in pencil and charcoal from geometrical models and casts. The content of this course is the same as that of Course 310. T Th S 10-12:30. Franklin Hall 37.

*372. **Life Drawing.** Either term. Credit 1 hour each term. Mr. WASHBURN. M W F 9-9:50. Registration by permission of instructor only.

Modeling:

These courses begin with a study of architectural ornament from Plaster Casts, then the human head and figure from Antique Casts. The advanced work is sculptural portraiture and figure from life.

335. **Elementary Modeling.** Credit two hours each term. Mr. CAMDEN. Pre-requisite 310. Section A, M W 1:40-4. Section B, Th S 10-12:30. Morse Hall.

336. **Third Year Modelling.** Credit four hours first term; six hours second term. Mr. CAMDEN. M T W Th 1:40-4. Criticisms as arranged. Morse Hall.

337. **Fourth Year Modeling.** Credit six hours each term. Mr. CAMDEN. Daily 10-12:30. Criticisms as arranged. Morse Hall.

338. **Fifth Year Modeling.** Credit six hours each term. Mr. CAMDEN. Daily 10-12:30. Criticisms as arranged. Morse Hall.

Color:

These courses are, in sequence, the representation of still life groups in Pastel, Oil, Watercolor. In the elementary work the simple medium of pastel is used and the student is given instruction in the theory of color as applied to representation. The technique of

oil is then studied and finally water-color, the most difficult medium, is used. The study of color harmony is encouraged in the student by asking him to arrange his own groups.

Further study of color harmony is carried on in the courses in Composition.

*340-341-342. **Color.** Credit two hours each term in each course. One or two extra credit hours by special arrangement in Courses 341 and 342. Mr. STONE. Any of the three courses may be taken in either of two sections: First and second terms: Section A, M W 1:40-4; Section B, M W 10-12:30.

Graphic Arts:

This work is done in drypoint etching and (or) linoleum cuts. Students are asked to make their own designs and are given instruction in the techniques.

*370. **Graphic Arts.** Either term. Credit two hours for beginners and either one or two extra credit hours by special arrangement when credit for the first two credit hours have been earned. Mr. STONE. Prerequisite, Composition 325 or three years of architectural design. W F 10-12:30. Franklin Hall.

HISTORY

*410. **History of Architecture.** First term. Credit three hours. Mr. PHELPS. Egyptian, Western Asiatic, Greek, Roman, Early Christian, and Byzantine architecture. Lectures with assigned readings, sketches, and examinations. T Th S 9. White 33.

*411. **History of Architecture.** Second term. Credit three hours. Prerequisite course 410. Mr. PHELPS. Mohammedan, Romanesque, and Gothic architecture. Lectures with assigned readings, sketches, and examinations. T Th S 9. White 33.

*412. **History of Architecture.** First term. Credit three hours. Prerequisite course 411. Mr. PHELPS. Architecture of the Renaissance and to the beginning of the nineteenth century in the principal European countries. Lectures with assigned readings, sketches, and examinations. M W F 9. White 33.

413. **Modern Architecture.** Second term. Credit three hours. Prerequisite course 412 and at least one term of Junior Design. Messrs. PHELPS and DUNBAR. Nineteenth century and more recent work in the principal European countries, and the architecture of the United States from the Colonial times to the present. M W F 10. White 33. Not given in 1935-36.

414. **History of Painting and Sculpture, 1460-1660.** Throughout the year. Credit two hours a term. Mr. FINLAYSON. After a three-week introductory survey the course will concentrate on six or eight of the major artists of the above period. Lectures, class discussions, and examinations. W F 9. White 33. Open to 3rd, 4th, and 5th year students in the College of Architecture. Students wishing to take this course should see Mr. FINLAYSON before registering.

*425. **History of Painting and Sculpture.** Throughout the year. Credit three hours each term. Special permission is required if the second term is taken before the first. Mr. FINLAYSON. A general survey of painting and sculpture. This course is a prerequisite for all other courses in the history of painting and sculpture, with the exception of 427. Registration limited to 50. Students taking this course must register with Mr. FINLAYSON on registration day. M W F 2. White 33.

*426. **History of Northern Painting.** Throughout the year. Credit three hours a term. Mr. FINLAYSON. Painting in the Netherlands and in Germany, first term. Painting in France and England, second term. Either term may be elected without the other. Course 425 is a prerequisite. T Th S 11. White 33. Given in alternate years. Will not be given in 1935-36.

*427. **Greek Sculpture and Italian Painting.** Throughout the year. Credit one hour each term. Mr. FINLAYSON. Designed primarily for students in the Technical Colleges of the University. Others will not be admitted except by special permission. Th 11. White 33. Given in alternate years. Will be given in 1935-36.

*428. **Historical Studies in Mediaeval Art.** Throughout the year. Credit two hours each term. Mr. FINLAYSON. Some phase of Mediaeval art will be selected each term for more thorough consideration than is possible in the general survey course 425. Prerequisite course 425. T S 11. White 33. Given in alternate years. Will be given in 1935-36.

*429, 430. **Historical Seminary in Painting and Sculpture.** Throughout the year. Credit two hours a term. Mr. FINLAYSON. Registration limited. Open to graduate students and qualified undergraduates. Ten hours of History of Art or their equivalent is prerequisite. By appointment. Students wishing to elect this course must register with Mr. FINLAYSON by the Monday before block week preceding the opening of the course. Exception will be made only in the case of graduate students entering the University in September.

*450. **History of Landscape Design.** Second term. Credit three hours. Mr. MONTILLON. Lectures, sketches, and assigned reading. M W F 10. White 33.

*470. **Historic Ornament.** Second term. Credit three hours. Prerequisite course 412. Mr. PHELPS. Some of the great historic styles of decoration will be analyzed and studied in detail, and the development of furniture, stained glass, and other minor arts will be briefly outlined. Lectures, sketches, and examinations. Students who wish to take this course must register with Mr. PHELPS on or before January 25. Will be given in 1935-36.

471, 472. **Historical Seminary in Architecture.** Throughout the year. Credit one hour a term. Mr. PHELPS. Investigation of assigned topics in the history of architecture: review of books and discussions of current periodical literature. For graduates and open to qualified upperclassmen by permission. By appointment.

GRAPHICS

*510. **Descriptive Geometry.** Throughout the year. Credit three hours each term. Messrs. BAXTER and BROWN. The fundamental problems of descriptive geometry are studied and applied to the solution of problems in projection. Lectures and drawing. Section A, T Th S 10-12:30; Section B, M W F 10-12:30. White B 10.

511. **Perspective.** Second term. Credit one hour. Prerequisite course 510. Mr. BURNHAM. A brief study of linear perspective with special reference to direct methods in the use of the perspective plan, proportional measurements, etc. F 9-12:30. White.

APPLIED CONSTRUCTION

610. **Building Materials and Construction.** Throughout the year. Credit three hours each term. Prerequisite 4 terms in the College of Architecture or the equivalent. Mr. TILTON. A brief study of structural materials and details of construction with particular reference to concrete, masonry, fire resisting construction, and carpentry. Lectures and discussions, M W F 8. White 33.

611. **Applied Design.** First or second term. Credit nine hours. Prerequisites, courses 112, 211 and 610. Mr. TILTON, assisted by one member of the design staff and one member of the construction staff. The course consists in the design of structures, with special attention to their structural elements and the use of appropriate materials, and will be paralleled with discussions on heating, plumbing, lighting, specifications and contracts, and general office practice. Discussions at 8 a. m. on T and S and at 11 a. m. on Th. White 33. Criticisms by appointment.

650. **Planting Design.** Throughout the year. Credit two hours each term. Prerequisite, Plant Materials 8. Mr. LAWSON. Lectures, sketches, drafting and field trips. Th 10-12:30. White B-6.

651. **Advanced Planting Design.** Either term. Credit two hours. Prerequisite, Planting Design 650 and permission to register. Mr. LAWSON by appointment. White B-6.

660. **Landscape Construction.** First term. Credit two hours. Prerequisite, Structural Design 211 and Earthwork C. E. 296. Mr. ————. Lectures and drawing periods. Not given in 1935-36.

REGIONAL AND CITY PLANNING

*710. **Principles of Regional Planning.** Throughout the year. Credit two hours each term. Registration limited to 50. Open to graduates and upperclassmen in all colleges of the University. Mr. CLARKE. A general view of the theory and practice of large-scale planning. Lectures, assigned reading, and examinations. Occasional lectures will be given by members of other faculties and by outside lecturers selected because of their special experience and skill in certain phases of planning. Students wishing to register for this course should register with Mr. CLARKE at the College of Architecture on registration day. M W 12. White 33. First given in the second term, 1934-35.

711. **Seminar in Regional Planning.** Throughout the year. Credit one hour each term. Mr. CLARKE. Investigation of assigned topics on particular aspects of the subject with emphasis on regional planning. Registration limited. Open to students in all colleges of the University, by permission. This course should accompany or follow course 710. By appointment. White. First given in the second term, 1934-35.

712. **Seminar in Park Planning.** First term. Credit two hours. Mr. CLARKE. Specific problems relating to the design of city, state, and national parks with a study of examples. Registration limited. Open to upperclassmen and graduates in the Colleges of Architecture and Engineering. By appointment. White. First given in 1935-36.

713. **Seminar in Parkway, Freeway, and Highway Planning.** Second term. Credit two hours. Mr. CLARKE. Specific problems relating to the design of the modern parkway, freeway, and highway with study of examples. Registration limited. Open to upperclassmen and graduates in the Colleges of Architecture and Engineering. By appointment. White. First given in 1935-36.

COURSES OF THE REGULAR CURRICULA GIVEN OUTSIDE THE COLLEGE OF ARCHITECTURE

MILITARY SCIENCE AND TACTICS, AND PHYSICAL TRAINING

All men in the first two years of undergraduate courses must, in addition to the scholastic requirements for the degree, take three hours a week in the Department of Military Science and Tactics. This department is a unit of the Reserve Officers' Training Corps of the United States Army. The students are organized in an infantry regiment, a regiment of field artillery, two signal corps companies, and a band.

For details of the work in the Department of Military Science and Tactics, see the General Information Number.

All women in the first two years of undergraduate courses, and all men of those two classes who are excused from the military drill, must, in addition to the scholastic requirements for the degree, take three hours a week in the Department of Physical Training.

For details of the work in the Department of Physical Training, see the General Information Number.

HYGIENE AND PREVENTIVE MEDICINE

All students in the first year of undergraduate courses are required to attend lectures on Hygiene and Preventive Medicine given once a week throughout the college year. See Announcement of Courses page 43.

COURSES GIVEN IN THE COLLEGE OF ARTS AND SCIENCES

MATHEMATICS

Mathematics Make-up Permits

Permits must be secured from, and approved by, the Department of Mathematics at least one week before the date scheduled for the make-up examination.

*2. **College Algebra.** Repeated in second term. Credit three hours. M W F 9, T Th S 9.

*3. **Plane Trigonometry.** Repeated in second term. Credit three hours except for students offering Trigonometry for entrance. First term, M W F 10, T Th S 8. Second term, T Th S 10, M W F 8.

8. **Analytic Geometry and Calculus.** Throughout the year. Credit three hours a term. Prerequisite, Mathematics 1, 2, 3, or the equivalent. Primarily for students in the College of Architecture. M W F 8, T Th S 8.

ENGLISH

*1. **Elementary Composition and Literature.** Throughout the year. Credit three hours a term. MESSRS. BALDWIN, ADAMS, BISSELL, GIDDINGS, HARRIS, MULLER, TRACY, and WILSON. M W F 8, 9, 10, 11, 12; T Th S 8, 9, 11. Rooms to be announced.

This course is open to underclassmen in Agriculture, Architecture, Chemistry, and Home Economics who have satisfied the entrance requirements in English. A study of composition in connection with the reading of representative works in English literature. Students who have not taken the course in the first term may enter in the second term.

Students who elect English 1 must apply at *Roberts* 292 on Monday, Tuesday, or Wednesday of registration week for assignment to sections. Registration in the course is in charge of Mr. BALDWIN.

PHYSICS

*3. **Introductory Physics.** First term. Credit three hours. Demonstration lectures, W F 9. Professor HOWE. Rockefeller A. One laboratory period a week to be arranged. MESSRS. MANN and TRAWICK. Rockefeller A.

Not open to students in the College of Arts and Sciences. Primarily for students who do not offer physics for entrance.

Properties of matter, sound, and light.

*4. **Introductory Physics.** Second term. Credits three hours. A continuation of Course 3. Hours and staff as in Course 3. It is recommended that this course be preceded by either Course 3 or entrance physics.

Electricity, magnetism, and heat.

*7. **Introductory Experimental Physics.** First term. Credit three hours. Demonstration lectures. Professor HOWE. Rockefeller A. Recitation and laboratory work, Messrs. MANN and TRAWICK. Rockefeller A.

Two plans of study are offered, as follows:

(a) Primarily for students who do not offer physics for entrance. Lectures, W F 11. One laboratory period a week, to be arranged.

(b) Open only to students who offer physics for entrance. Lecture, M 9 or 11. Recitations, W F 9 or 11. Laboratory as in (a).

Properties of matter, sound, and light.

*8. **Introductory Experimental Physics.** Second term. Credit three hours. A continuation of Course 7. Plans, hours, and staff as in Course 7. It is recommended that this course be preceded by either Course 7, Course 3, or entrance physics.

Electricity, magnetism, and heat.

CHEMISTRY

*101. **General Chemistry.** Lectures. Repeated in the second term. Credit three hours.

Two sections: M W F 11; T Th S 11. Main Lecture Room. Professor BROWNE and Assistant Professor LAUBENGAYER.

Chemistry 101 and 105 must be taken simultaneously unless permission is obtained by the student from the Dean of his college and from the Department of Chemistry to take either course alone.

*105. **General Chemistry.** Recitations and laboratory practice. Repeated in the second term. Credit three hours.

Recitations, one hour a week, to be arranged.

Laboratory sections: M F 1:40-4; T Th 1:40-4; W 1:40-4; S 8-10-30. Room 150 Professor BROWNE, Assistant Professor LAUBENGAYER, and assistants.

*106. **General Chemistry.** Throughout the year. Credit three hours a term. Limited to and required of students in Engineering and Architecture. Assistant Professor LAUBENGAYER and assistants.

Lecture: Baker 200.

Recitations: one hour, to be arranged.

Laboratory: Baker 150.

GEOLOGY

100. **Introductory Geology.** Repeated in the second term. Credit three hours. Professor RIES, Dr. BURFOOT, Mr. MEGATHLIN, and Mr. CONANT. Lectures and laboratory. First term lectures, T Th 11. Second term lectures, T Th 9.

Students must register for laboratory assignment at Geological Laboratory, McGraw, before the beginning of the course. The fundamental principles of this branch of science. The inorganic aspects of the subject are emphasized more than the organic.

*501. **Engineering Geology.** Repeated in second term. Credit four hours. For engineering students. Others only by permission. Professor RIES and Mr. FORRESTER. Lectures, M W 11. Two laboratory periods, M W or T Th 1:40. McGraw. Not the equivalent of Geology A or 100.

A discussion of the practical application of geologic principles to engineering work, and of the occurrence of such economic materials as are of importance to engineering students.

COURSE GIVEN IN THE MEDICAL COLLEGE

24. **Anatomy for Artists.** Throughout the year. Credit three hours a term. Professor KERR. A study of the bones, muscles and other structure that affect the surface form and posture. One lecture and one or two drawing periods a week; hours to be arranged. Given in alternate years. Will be given in 1935-36.

COURSES GIVEN IN THE COLLEGE OF AGRICULTURE

8. **Woody Plant Materials.** First and second terms. Credit two or four hours a term. Intended for advanced and graduate students. Registration by permission of the department. Lecture, T Th 9. Plant Science 37. Laboratory and field trips, M and either W or F 1:40-4. Plant Science 29. Professor R. W. CURTIS and Mr. WYMAN.

A study of the trees, shrubs, and vines used in landscape planting and in nursery work. All members of the class will be required to participate in two excursions to the Rochester parks, one in each term. Laboratory fee, \$4.

SUMMER SESSION, 1934

For details of these courses as given in 1935, see the Announcement of the Summer Session.

S 6. **Garden Flowers.** Credit two hours. Lectures, M T Th 9; F 11. Plant Science 37. Laboratory, W F 1:40-4:30. Plant Science 15 and Greenhouses and Gardens. Assistant Professor MINNS. Laboratory fee, \$2.

This course, planned primarily for graduate and advanced students in floriculture and ornamental horticulture, comprises a study of herbaceous plant materials. The aim is to give the student such an intimate knowledge of these forms of plants as may be used in garden planting, either on home grounds, rural social centers, or public parks, more particularly with reference to summer conditions. Students must have had sufficient botany to be familiar with the botanical characters and classification. An excellent collection of plant material is available for demonstrations. All members of the class will participate in an excursion to the Thompson Estate at Canandaigua on August 10 and 11.

S 8. **Woody Plant Materials for Landscape Planting.** Credit four hours. Lectures, M T Th F 8. Laboratory and field trip, M T 10-12:30, W Th 11-1, M T 1:40-4:30. Plant Science 29 and Campus. Professor R. W. CURTIS. Laboratory fee, \$3.

A study of the characteristics and requirements of trees, shrubs, and vines for landscape planting. The laboratories and field trips enable the student to recognize common woody plants. The lectures discuss planting areas, planting practices, and plant materials, in order that the student may learn to see plants not only as growing things but as possible units in design with which he may be able to improve his surroundings. All members of the class must participate in an excursion to Rochester on August 10 and 11 to visit private estates and public parks. The transportation charge will be \$5.

COURSES GIVEN IN THE COLLEGE OF ENGINEERING

110. **Elementary Surveying.** Freshmen. Either term as assigned. Credit three hours. Use of steel tape, level and transit; fundamental surveying methods; measurements of lines, angles and differences of elevation; land surveying; areas and plotting. Recitations, field work, computations, and mapping. Textbook: Breed and Hosmer's *Elementary Surveying*. First term, one recitation and two field or computation periods a week; Second term, three recitations a week for the first six weeks and three field or computation periods a week for the remainder of the term. Professor UNDERWOOD, Assistant Professor LAWRENCE, and others.

225. **Materials of Construction.** Juniors. Credit three hours. The materials studied are: Lime, cement, stone, brick, sand, timber, ores, cast iron, wrought iron, steel, and some of the minor metals and alloys. The chemical and physical properties, uses, methods of manufacture, methods of testing, and unit stresses of each material are considered, particular emphasis being laid on the points of importance to engineers. Three recitations a week. Textbook: Moore's *Materials of Engineering*. Professor SCOFIELD.

226. **Materials Laboratory.** Juniors. Either term. Credit three hours. Prerequisite course Arch. 210 and must be taken with or preceded by C. E. 280. Experimental determination of the properties of materials by mechanical tests. Study of testing machines (their theory, construction, and manipulation); calibration of testing machines and apparatus; commercial tests of iron and steel: tensile, compressive, torsional, shearing, and flexure tests of metal and various woods and stress-strain observations; tests of cement, concrete aggregate, concrete, plain and reinforced, and of road material and paving brick. The course is planned to supplement Course 225 with its study of the properties of materials by the actual handling of the materials and by observations of their behavior under stress. Laboratory work two 2½ hour periods a week. Professor SCOFIELD.

227. **Testing of Materials.** (Laboratory.) First term. Credit one hour. Given especially for students in the College of Architecture. A brief course in laboratory methods comprising tests of beams and columns in steel, wood, and concrete. Professor SCOFIELD.

270. **Structural Design and Bridge Stresses.** Juniors. Either term. Credit four hours. Prerequisite courses 220 and 221.

Structural Design. The recitations cover the graphic analysis of simple beams and roof trusses. The computations and drawings include complete detail designs and working drawings of wooden joints to resist large tensile stresses, and of a wooden roof truss for given specifications. The object of the course is to show how to apply the principles of mechanics to the design of every detail of the simple structures named, and to study the forms and strength of joints and fastenings used in heavy timber framing. The computations required are to be arranged in systematic order in the form of reports. Textbook: Jacoby and Davis's *Timber Design and Construction*. Computation and drawing, two and one-half hours a week.

Bridge Stresses. Stresses due to dead, live and wind loads, initial tension, and impact; panel loads and locomotive axle loads; determination of the position of live loading for greatest stresses; maximum and minimum stresses; analytic and graphic methods are used. The principal types of simple trusses employed in modern construction are considered, in several cases both with and without counter bracing; three-hinged bridge and roof arches. The solution of many numerical examples taken from practice forms a prominent part of the class work. Textbook: Urquhart and O'Rourke's *Stresses in Simple Structures*. Three recitations a week. Professor URQUHART, Assistant Professors BURROWS and O'ROURKE.

271. **Structural Design.** Juniors. Either term. Credit three hours. Prerequisite course 270. An elementary course in Steel Design. Complete design, detail drawing, bill of material and estimate of weight of a steel roof truss and of a through and deck railroad plate girder bridge. Textbook: Urquhart and O'Rourke's *Design of Steel Structures*. Three computation and drawing periods a week. Professor URQUHART, Assistant Professors BURROWS and O'ROURKE.

272. **Higher Structures.** Elective. Seniors and graduates. Either term. Credit three hours. Prerequisite courses 220, 221 and 270. Determination of the loading and stresses in continuous girders and trusses, and metallic arches. The arches include arch ribs and trussed arches with three and two hinges, respectively. Both analytic and graphic methods are used; the latter include displacement diagrams to find the deflection of trusses and the reactions of statically indeterminate structures, and the use of influence lines to find their loading and stresses. Recitations three hours a week. Professor URQUHART and Assistant Professor O'ROURKE.

273. **Steel Buildings.** Elective. Seniors and graduates. First term. Credit three hours. Prerequisite courses 220, 221, and 271. This course comprises the design of the steel framework for buildings of the prevailing type used in power house or shop construction. Dead, snow, and wind stress diagrams are drawn for the roof trusses. Provision is made for an electric crane moving the full length of the building and the stresses in the framework due to the movement of the crane are determined. The effect of the

wind and the eccentric load due to the crane girder are considered in the design of the columns. Textbook: Ketchum's *Steel Mill Buildings*. Reports and drawings. Three two-hour periods a week. Assistant Professor BURROWS.

280. **Concrete Construction.** Juniors. Either term. Credit three hours. Prerequisite courses 220, 221, and 225. Concrete materials, properties of plain concrete, its making and deposition; elementary theory of reinforced concrete as applied to columns, rectangular beams and slabs; T-beams and beams reinforced for compression; direct stress combined with flexure. Three two-hour periods a week. Textbook: Urquhart and O'Rourke's *Design of Concrete Structures*. Professor URQUHART, Assistant Professor O'ROURKE and Mr. PENDLETON.

281. **Foundations.** Juniors. Either term. Credit three hours. Prerequisite courses 220 and 221. Piles and pile driving, including timber, concrete, tubular and sheet piles; cofferdams; box and open caissons; pneumatic caissons for bridges and buildings, caisson sinking, and physiological effects of compressed air; pier foundations in open wells; freezing process; hydraulic caissons; ordinary bridge piers; cylinders and pivot-piers; bridge abutments; spread footings for building foundations; underpinning buildings; subterranean explorations; unit loads. Textbook: Jacoby and Davis's *Foundations of Bridges and Buildings*. Recitations, collateral reading in engineering periodicals, and illustrated reports. Three hours a week. Professor URQUHART and Assistant Professor O'ROURKE.

282. **Reinforced Concrete Building Design.** Elective. Seniors and graduates. Either term. Credit three hours. Prerequisite course 280. Design of a reinforced concrete flat-slab building and investigation of various other types of floor systems for commercial buildings. Complete detail design for one building, including stairway, elevator shafts, penthouses, etc. Working drawings and steel schedules. Seven and one-half hours a week. Textbook: Urquhart and O'Rourke's *Design of Concrete Structures*. Professor URQUHART and Assistant Professor O'ROURKE.

285. **Reinforced Concrete Design.** Elective. Seniors and graduates. Either term. Credit three hours. Prerequisite course 280. Theory and design of gravity, cantilever, and counterfort retaining walls. Design of footings: single and multiple columns of reinforced concrete, I-beam grillages. Design of bins and tanks, subsurface and supported on towers. Reports and sketches. Three two-hour periods a week. Professor URQUHART and Assistant Professor O'ROURKE.

290. **Engineering Law.** Seniors. Juniors admitted only by special permission of the faculty. Also open to seniors in Architecture, Mechanical and Electrical Engineering, Chemistry, and other seniors submitting acceptable qualifications. Either term. Credit three hours. Basic essentials of contracts and contract principles; agency, tort and independent contractor; laws regulating acquisition, use and conveyance of lands and waters, including irrigation law, real estate documents, boundary lines, wills, eminent domain and title searches; corporations, partnerships and other contracts of association; sales and transportation contracts; negotiable instruments; bankruptcy, mechanics liens, patents, trademarks, copyrights, courts, and laws of insurance. The course culminates with the preparation of a set of contract documents for an assigned construction job, including advertisement, surety bond, form of proposal, information to bidders, agreement form, general conditions and specifications with full discussion of important clauses such as payments, time limit, arbitration, extras, liquidated damages and abandonment of contract. Tucker's "Contracts in Engineering" is used as a text, supplemented liberally from other sources. Lectures and recitations. Three hours a week. Professor BARNES and Assistant Professors CRANDALL, PERRY, and THATCHER.

HYGIENE AND PREVENTIVE MEDICINE

1. **Hygiene.** First term. Required of all Freshmen. One lecture recitation each week with preliminary examination and final. The use of a textbook will be required.

Registration and assignment to section: Men, Old Armory; Women, Sage Gymnasium.

Sections for men: Professor D. F. SMILEY; Assistant Professors A. G. GOULD, E. C. SHOWACRE, W. H. YORK; Instructors C. F. HAWKINS, P. J. ROBINSON.

Sections for women: Assistant Professor JENNETTE EVANS; Instructors MURIEL CUYKENDALL and RUTH STELLE.

2. **Hygiene.** Second term. Required of all Freshmen. One lecture recitation each week with preliminary examination and final. The use of a textbook will be required. Registration and assignment to section: Men, Old Armory; Women, Sage Gymnasium.

Sections for men: Professor D. F. SMILEY; Assistant Professors A. G. GOULD, E. C. SHOWACRE, W. H. YORK; Instructors C. F. HAWKINS and P. J. ROBINSON.

Sections for women: Assistant Professor JENNETTE EVANS; Instructors MURIEL CUYKENDALL and RUTH STELLE.

4. **Hygiene: Advanced First Aid.** Credit one hour. First term; repeated in second term. Prerequisites, Hygiene 1 and 2 and Human Anatomy or Human Physiology. Enrollment limited, and registration only after conference with the professor in charge.

First term: F 9, Anatomy Lecture Room, Stimson. Second term: Sat. 9, Anatomy Lecture Room, Stimson. Assistant Professor SHOWACRE.

This course includes the theory of the diagnosis and temporary treatment of the common emergencies with practical application of the essential fundamentals.

5. **Industrial Hygiene.** First term. Credit one hour. Assistant Professor GOULD. Th 12. Histology lecture room, Stimson. Registration at Hygiene Office, Old Armory. Prerequisites, Hygiene 1 and 2.

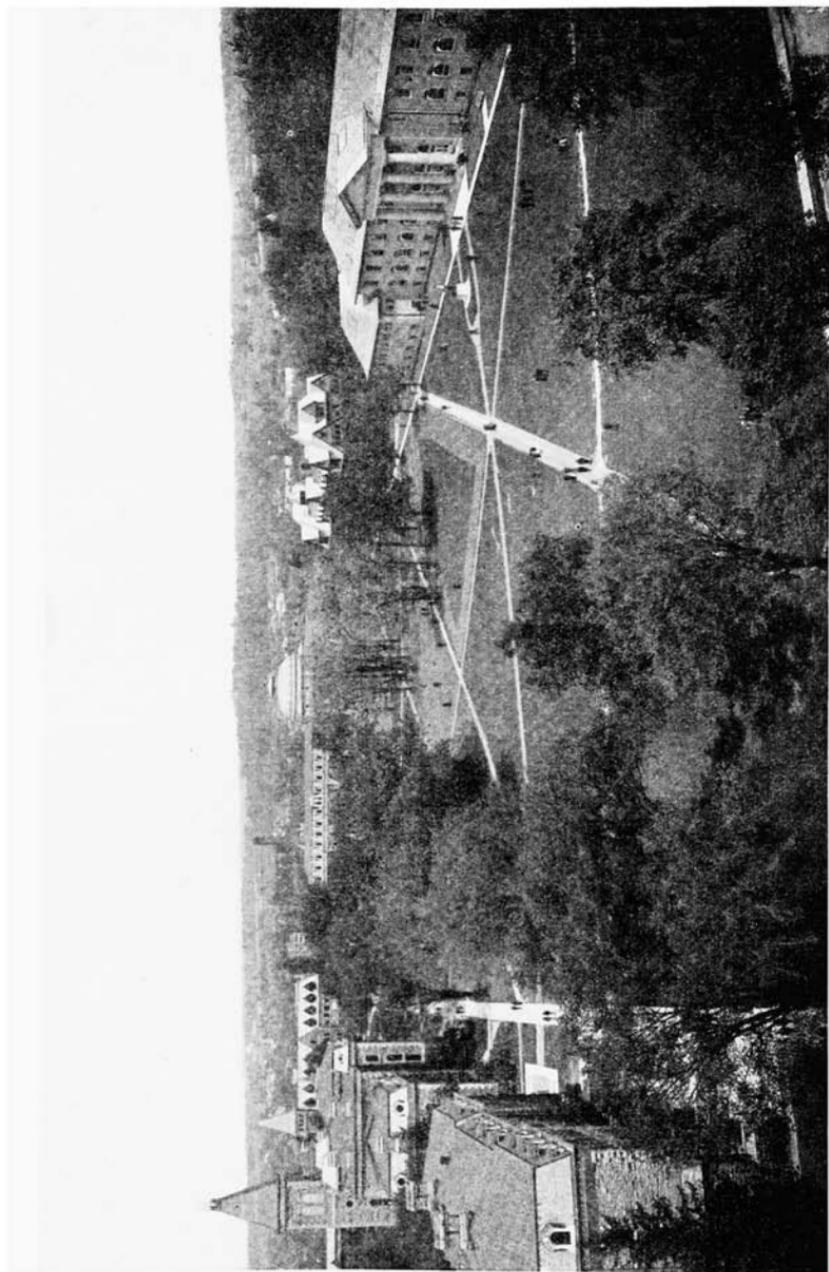
Factory sanitation, ventilation and illumination; occupational poisoning and disease; factory legislation; accident prevention; fatigue in industry; preventive medicine in the industries.

8. **Hygiene: Mental Hygiene.** First term. Repeated in second term. Credit two hours. Prerequisites, Hygiene 1 and 2. M F 11. Boardman Room B.

A study of the factors involved in the maintenance of mental health of the individual; i.e., satisfactory human relationships, attitudes, and behavior. Discussion of the causes and mechanisms underlying the more common personality deviations.

ELECTIVE COURSES

In each of the courses of study offered, approximately one-fifth of the required work is elective. No restriction in the choice of electives is made except that each student, before starting his elective work, is required to file with the College office his entire program of elective study, approved by some member of the Faculty.



CORNELL UNIVERSITY'S MAIN QUADRANGLE

The principal buildings of the College of Engineering are here shown at the farther end of the Quadrangle.