

THE PHILOSOPHY OF ARCHITECTURE

by

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## THE PHILOSOPHY OF ARCHITECTURE

### From the Logical Viewpoint

The instructors of public taste praise or condemn present day architecture, basing their judgment upon exterior appearance, as though the facade were the aim and net result of architectural effort. Thus the merit of an architect is publicly judged by an obvious but secondary result. The facade is the by-product of the art.

With the present circulation of pictures, newsreels, and roto-gravures, the facades of our more expensive or important buildings are as well known as movie actresses. Published comments on architecture usually the opinions of the uninformed, are more gushing than instructive, and display the writer's skill in adjective and alliteration. Elaboration is often mistaken for beauty, while the price is taken as a sure indication of worth.

Unlike the work of other artists the architect's creations are on display for at least a generation. His sense of responsibility is realized when we are told that a great designer willed a large part of his estate to effect post-mortem changes in the facade of one of his principal works. So, by reason of semi-permanence and the public nature of exterior appearance, the architect must be somewhat conservative in choosing forms. When one is tired of a painting, it



may be taken down. It is comparatively easy to remove a piece of sculpture, but a mighty wrath must be generated before the public will destroy a building.

From those buildings that have been fortunate enough to exist through the last generation, one observes great changes in this art of peace and prosperity. The changes seem violent, but aside from the effects of cheap metals, the auto, increased facilities of vertical circulation, and a new "Hotcha" dress, architecture is the same dignified old lady.

A building is created from within outward as surely as it is built from the ground upward. With slight reflection one realizes that architecture is the best and most beautiful use of space, within as well as without; it should be a satisfactory machine in which to live, work or play.

The most important function of architecture is a workable plan, the "Happy Solution."\* The building which is adapted with rare skill to the purpose for which it is created, one that lends itself perfectly to its numerous uses is frictionless. The inhabitants find that it meets their demands naturally and logically in its space allotments, without loss of time, crowding, or retracing steps. This is good architecture.

This science of anticipating demands is the architect's greatest

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\*This phrase is part of the usual architectural vocabulary.

duty. As living conditions change, so change the plan and mass. The decoration and ornament, in a slightly more dignified pace than women's gowns, follow the fashion of the times. In the field of planning, the lines of historical style are not clearly drawn, for the brilliance or stupidity of the individual designer plays a more important part. An old axiom states that from a good plan there proceeds a good elevation. That a man capable of producing an excellent plan may accomplish a beautiful elevation with hard and thoughtful work, is a more accurate way of saying the same thing.

The ability of an architectural designer is best shown in the plan of interior space. Simple, light, and direct, it is influenced by present methods of living, new materials, insulation and salvage value. In the hands of the accomplished man, the plan of a small house has become a beautiful machine in which to live; it may yet become the chief architectural expression of our age. As such, it will be the first architecture for the hitherto neglected common man; a direct result of the present economic upheaval with its disappearance of the very wealthy client. The new architecture, like the new pocketbook, may be for the average man. With the completion of the New York Radio City group, we may have ended that architectural cycle in which pride and display of wealth have been the chief characteristics.

In the last decade, architecture has completely emerged from provincialism, which was one of the romantic joys of travel. Standard

manufactured building material has become cheaper than local or natural material. With these products there has come a standardization of method. The name "International" has been applied to a well-advertised universal trend. There has been a wide dispersion of ideas and technique by schools and magazines, aided in some countries by limitless commissions upon which to experiment. The latest developments are available to the most remote and isolated designers. Methods and ideas which previously took years to spread are now generally known and accepted before the completion of the building that contains the original developments.

With all this standardization there are yet three schools of architectural expression. One man may, at successive stages be found in each camp, while others flit back and forth with each breeze of fashion.

Architecture is an art, a profession, a science, and a business. If one dismisses the business man, the designers fall into groups. Roughly these groups are three; the "academic," the "eclectic," and the "modern." The academicians shun change, repeat works of the past, and cling to elements and arrangements of by-gone days. They mumble the rules of ancient Greeks, Goths, or Romans, stewing dull hash from old bones. At times their works are lavished with costly "grand opera" ornament.

The eclectics stand on the middle ground. They are selective,

basing their practice upon classic precedent, ever with an eye for the impressive axis and the monumental mass. This group includes most of the famous names in the United States today. They produce many dash- ing versions of adapted Italian and French Renaissance.

The most spectacular is the modern, who states in no uncertain terms that he wishes to dispense with the authority of the past, and to approach the solution of architecture with a logic that is some- times harsh but bold, and often entirely devoid of sentiment. To solve for the unknown quantity, to find the "x" which represents the solution of a building problem is an elusive problem comparable to that of the higher mathematician. However, there are as many correct solutions as there are ingenious men to find them, solutions often being qualified by better ones tomorrow.

The modern architect describes himself as a functionalist, a term which is derived from the basic law that form must follow function. He accuses others of being decorators only. However, this idea was old when Pericles squabbled with the Athenians over the Parthenon.

To this functionalist, architecture, as an automobile, a chair, or a watch, finds its first worth in its usefulness. The job is to make it beautiful without useless additions. The lines of an ocean greyhound are those that the water likes; the airplane is designed to meet the slip of the air; so the modern building must be designed to accommodate the human being in motion horizontally, vertically, and

at rest. The great mental effort of this architecture is expended upon arrangement; the changes in arrangement express the changes in our modes of living. These changes cannot be halted by architectural rules, love of the past, or academic opinion.

A building should express its purpose. In many of these newer attempts character has been lost entirely. In part this may be due to the abandonment of well known ornament and fenestration. But purpose may yet be expressed by the bare material. When one considers the expressiveness of the human hand, sheathed in one material, skin--so capable of indicating fear, pain, adoration, or joy--there is hope for more feeling or "soul" in the simple materials of modern architecture.

What, then, of ornament and its justification with the modern? To him the swags and garlands of the classicist are useless. Modern ornament is derived from less permanent arts such as textiles. One must study the decoration many times before it appears on a building because motifs are chosen that wear well. Ornament may be described as functional when it serves a purpose, as in directing attention to the principal entrance or binding a composition into an harmonious whole. This part of design is closely related to the preliminary stages of sculpture and painting. These ideas are not new; but all revolutionary movements restate old and half-forgotten or neglected laws.

There also exists a group called "modernistic." The term has become opprobrious. They are faddists, show-window decorators, textile designers, out of their media. Only the fact that the materials in which they work are solid, tri-dimensional, and somewhat useful, keeps them from uniting with the more crazy and journalistic efforts of painting and sculpture. Their work is thin, frothy, extreme; the cult of the zigzag, the horizontal line, and the bizarre. If these were the product of the financial boom, which seems logical, we may look for a much saner utilitarian architecture in the future with their elimination. "Modernistic" architecture will bring the same mirth tomorrow, that the jig-saw period of the gay nineties and the Nouveau Art of the 1900's cause today.

Architecture is an expression of life and perpetual change; art changes, as environments vary, as conditions alter; but the principle, we believe remains constant--it dwells in the pursuit of the ideal.

Modern architecture is difficult to follow, because it has been borne along on many currents. It lacks that fair unity which many are pleased to find in the art of former times--above all those who are least familiar with it.

A stroll through the streets of a modern capital, or through the grounds of an American university, brings us upon buildings whose exteriors have been more or less happily inspired or copied from every period. Imitation, is the worst architectural form. Transplanting

bodily a building from a remote period onto alien soil is affectation rather than imitation. Imitation consists in applying to the buildings of one age, forms expressive of the idealism of another. The civilizations of the two ages, as expressed in the varying religions, philosophical, social and political systems, are altogether dissimilar.

Modern architecture can no longer aspire to the simplicity of the Antique or of the Medieval. A modern plan provides a multitude of volumes for various uses, distributed over several floors. The external and internal appearance of the building faithfully renders this complexity by the number of openings, of stories, or of the duplication of units on each floor.

Except for slight variations due to national temperament and habits, modern architecture is of a kind the world over. There still exist some countries possessing a marked architectural character very different from any that has sprung from the traditions of Occidental Europe, such as China, Japan, India, countries which have played no speaking part in the architectural drama of the nineteenth century. They have clung to the indigenous models of the past, waiting the time when the tendency toward uniformity shall have completed the ruin of their local types. As far as they adopt our civilization they adopt our architecture.

The simple matter of geographical location tends, then to lose



its earlier importance as a factor determining the character of an architecture. The same is true of climate. We aim before all else to provide light and air. If this enhances the difficulty of protection against cold, we give ourselves little concern on the score. Our age has solved a problem over which our fathers worried themselves continually. They shivered in a house of the Middle Ages, they shivered in the Palais de Versailles, and it is only within the last seventy years that we have known how to heat either apartments or large buildings.

Here, then, is one less difficulty for the architect. Moreover, the architect was formerly compelled to subordinate his composition to the materials that the country provided. There were schools of architecture using only brick, others only stone. Some in regions that produced only trees of slender growth were anxious to arrange their plans so that their buildings might not require timbers of large dimensions. Norway and Canada now send their lumber around the world. We obtain marble and building stone from Greece, Italy, France, steel from the United States, and glass from Belgium. Another barrier has fallen.

"The annihilation of distance, which is the gain of our epoch, is also its loss. Its tendency is to destroy local schools. It creates uniformity of production, lessens the incentive to invention and finally renders architecture commonplace," it is said. The general



appearance of big hotels, whether situated on the shores of a Swiss lake or in Nebraska is almost as unvarying as the savor of the cuisine.

Technical innovations have been added to our baggage. Sometimes material benefit affects unfavorably the architectural aspect of buildings. Lighting has a pronounced effect on architecture. Natural light, which should be as ample as possible, has pierced our walls with many more holes than our fathers needed. Modern edifices have the appearance of cages and have lost the calm solidity of older monuments. At night, the appearance of the streets has been markedly changed. The beginning of the nineteenth century welcomed gas as a thing of wonder. It seems sadly out of date since electricity has furnished us with a thousand devices for illumination. Here, then, technical progress coincides with an esthetic development.

Everyone realizes that roofs, since the end of the eighteenth century, have shown a tendency to become flat. The level roof has become practically universal in the United States for all forms of buildings. This is because it is difficult to cover our compact plans with the peaked roof. The desire to conserve each square inch of ground, together with the complexity of modern plans, renders the flat roof inevitable and has modified the sky-line.

The theatre, too, has lost its character of a social gathering place and has become an edifice solely designed for comfortably seeing the performance. To this end, thanks to the possibilities of steel

construction, a single deep gallery doubles the space of the parterre. This gives to all the seats a direct instead of a side view of the stage. Here is an obvious gain in comfort, but a loss in the attractiveness of the room, almost bisected by the balcony. In it the spectators, all facing the same direction, can barely see each other. This is another step in the democratic changes of modern architecture.

In the last twenty years American architecture has won a place for itself in the very first rank. In possession of a science of composition acquired from the French school, of a logic that draws intelligently on all the treasury of the present and past, it is capable of attacking any program of modern architecture.

In this page and the three previous ones, much of the material seems second hand; expressed with some variation it is true. The sources are writings of others rather than original conceptions. This, however, is of little importance. In the teaching of architecture one man contributes but little and much of his information comes from his masters or reading. He chooses whatever material seems appropriate or pertinent. The sources are so varied and confused with time that a bibliography is difficult.

## THE PHILOSOPHY OF ARCHITECTURE

## From the Romantic Viewpoint

The full meaning of art is for those who approach her in an interested receptive mood. The beholder or listener, by his willingness to appreciate, and his predisposition to understand a work of art, enters that field of fancy which is its romantic charm. To resist this enticement one needs a stern, dour fortitude, the vigilant exercising of which, but few are capable. Beauty is a sly minx, captivating us during unguarded moments with her flashing smile and soothing touch. Each of us has experienced that sensation which may be likened to the consciousness of distant music while in that peaceful state before fully awakening. This feeling, according to Coleridge is, "The suspension of disbelief for the moment which constitutes poetic faith."

The Roundheads of England partly understood this magic in smashing the splendid gothic churches. The bewitching guile of these monuments was recognized as a power, the comeliness of which would dilute the harshness of their Puritanism. How much of that scrupulous severity tinctures our pleasures today is difficult to ascertain. Perhaps a sense of guilty pleasure in the beautiful is an American characteristic.

We respond to some inanimate things, the song, the lyric, the painting because of a vital force, the intensity of which is fed by a hidden spring, and perhaps by an impetus dead long ago. Praxitiles reaches across the long centuries; our breath is nipped in a sharp pain of grace. Keats brings us very close to his Grecian Urn. So art is a "deal" or transaction between the willing one and the artist. This is the personal correspondence and contact through which we become acquainted with the hundred or so first rate men in this field that humanity has managed to produce in the last 10,000 years. The great dead, the powerful living, speak to us in architecture also; a universal language which needs no clumsy translators. This negotiation between the artist and ourselves is completed with our enjoyment and is the source of our delight, in attending a concert or reading a poem or looking at a monument. In giving ourselves to the enjoyment of art we experience part of the pleasure of creation in a subdued sense. To quote John LaFarge, "the artist energizes the work." These sensations seem to involve a maximum of nervous stimulus and a minimum of nervous wear and tear. For example, a bad design hurts, an awkward painting torments, but neither sensation is as poignant as a good kick on the shins.

These works convey something to us, and never are the sensations the same for any two, nor exactly alike on succeeding occasions. Concentrated effort at appreciation follows the law of diminishing re-

turns, a curve of relaxation. Five or ten minutes is the maximum of concentrated enjoyment of a picture. An entire evening on a hard chair listening to the music of a single stringed instrument is fatiguing. Architecture because of its bulk, various picturesque aspects, or human associations permits of more prolonged enjoyment than other visual arts. The materials are strange to no one. Brick, stone, plaster, tile are familiar and friendly to all--as protective elements. Architecture's mathematical relationships are within the common experience. So much has been written about the similarity of the arts, all possessing rhythm, balance, accent until some have tried to interpret one art in terms of another. This is possible only in the less successful examples of the various fine arts. Each has a distinct quality of its own. The contrast between architecture and music recalls Einstein, in that stately music is enjoyed while it moves, and becomes dimmer and more distant in the consciousness as time passes. In relation to music we are stationary. But architecture is stationary while we move and it is always there to enjoy again in any proportion that we wish. Good music is present only on special occasions and these occasions are often not of our choosing. This transitory delight in the masterly workmanship of the musician, led the genius Leonardo to advise against music as a career for the brilliant young men among his friends. True to his predictions, altho Leonardo was one of the most accomplished musicians of his day,

not one note of his has come down to us.

To aid in Architecture's negotiation time adds a poetic mantle of obvious age, which is not a characteristic of the arts requiring interpretation; or which is lost by the constant necessity of re-printing, and renovating literature. Architecture is redolent with human associations. Lord Nelson may be buried in a crypt, on which each school boy reads, "England expects every man to do his duty"; or from a pulpit Peter the Hermit preached a Crusade that changed the course of human events, or an ancient Queen gave the funds to complete a graceful porch.

Suspense in architecture is sustained by an unfolding of various parts. As we move about we become aware of the relation of the many parts to the whole. We come into progressive understanding, as in the unfolding of a novel. When one aspect becomes commonplace we move to another. During inspection of a building there may be only a few moments of intense pleasure. Here, architecture has advantages over painting and to a smaller extent over sculpture, but intense enjoyment passes thru many stages down to idle curiosity. Because of its intimate nature and because of human associations, pure contemplation of architecture is well nigh impossible.

Often a man asks for the name of the painter and many have turned to me in the presence of a statue and asked "What's the guy's name that did this?" But I never remember of inquiries concerning the

architect in any other building but the Nebraska State Capitol, but this is for conversational and social purposes only--to be able to tell the folks back home.

Good architecture is elemental in nature. We forget the creator in the creation with a signal ingratitude. Who thinks of Goodhue in the presence of his mighty tower? Only when the work is weak do we sense the designer. Great buildings seem part of the natural order and the man disappears in his work. This impersonal condition is found in the drama when clever quips or glittering phrases are attributed to the actor rather than the author, it helps us to enjoy the work and brings us closer to its art.

Many landscapes attract us because of their definite architectural qualities. Rugged forms appeal in their bulk and give us a feeling of contained and controlled space. The perception of depth and distance, a logical sequence of unfolding parts, is closely related to buildings. Architects seem to admire above all others those landscapes that reflect the achievements that man has devised on smaller scale in structures.

Some buildings don't appeal to my particular taste; but on examination I must admit that the architect was master of the laws of composition. Other buildings, that err in their proportions and are a bit lefthanded here and there in design, please me because of 'Character.' Buildings have this abstract quality in about the same



combinations that they are found in men. Irregularities are overlooked if the expression appeals. Character makes a more enduring appeal than beauty of form. 'Beautiful but dumb,' condemns many otherwise agreeable persons. If we can't have both we choose the spirit rather than the flesh for long associations. Character is something deeper than temporary brilliance or charm.

A rugged spirit seems to carry a masterpiece through the hazards of time. A good building, like a good play never seems to lose that force. Shakespeare on the lips of dizzy blonds, engineered by nitwit managers, decked out in dinner-jackets and evening dress, played before a window decorator's paradise of scenery; still retains some of that majesty which is indestructable. Most of the old paintings glow through miserable retouching, the Greek marbles are but fragments. Works of art like some old houses are strong and tough. They bear rough treatment, there is nothing delicate about the qualities that make them great. They continue to live with some sort of meaning until they are completely destroyed. Then they slip into that immortality which is the hope of every artist, influencing the work of future generations. Until the very idea is destroyed, all images of them are destroyed, and even their descendants have crumbled to dust. This is what I mean by romance.

Ruskin was able to classify works according to his moral code. He hated the Baroque, so admired by the advanced critics of today.



A baroque church violated every principle of the squeamish critic. He pronounced anathema after anathema against it, at last in an exhausted malediction he called it "the most immoral building on earth." His polished phrases and keen insight blind most men in this hard commercial day, but he simply couldn't stand its buttery curved form.

Men have always attempted to express the human emotions in abstract form. A brilliant young Frenchman has attempted the impossible in depicting pride, envy, jealousy, luxury, etc., in terms of city plans, a pleasant and rather unsuccessful venture into the realm of psychology. The experiment is interesting; some day someone may be able to make these emotions legible to us all in paper abstractions.

Bombast seems to be most easily expressed in architecture. Of those pompous spirits of the florid Louis's, the 14th of that name may be taken for our examination. Here is pride, luxurious and excessively ornate but controlled by severe dignity in design; grand scale for a grand monarch. The most powerful man in Europe, who knew it, is depicted in his home at Versailles. The man looked like Calvin Coolidge but loved to be represented as Alexander or Caesar in the massive compositions of Le Brun. Aside, we reflect that he was pockmarked by a disease we all evade with vaccination. During the cold winters he shivered in his chilly palaces, and we get about in Fords more quickly and more comfortably than this man who commanded Europe.

The motivating force behind many fine things has been commercial.

Absorption and exposition of subject matter is more important than a strictly amateur standing of "art for art's sake." The artist and the manufacturer are alike products of our age and each is dependent upon its external circumstances. Giotto's frescoes and Sarrinien's Tower were alike inspired by cash. This proposed tower entered in the Chicago Tribune competition, though never built, has influenced more buildings in the last ten years than any other.

All buildings are designed to order, the conditions of which profoundly effect their form. For example, a speculator has often ordered buildings that meet the bare requirements of necessity, not being the least affected by exterior appearance in facade. The architect is left with a problem of voids and solids, walls and windows; with these and these alone he may arrange a pleasing bulk of mass and spacing of units which will discharge his debt to the public. With conditions prescribed and dictated, working within narrow limits many happy solutions are possible.

The better men have shown little interest in the job once completed. This disinterestedness is well known. One of the chief sports of architectural criticism is to guess who actually designed a building that appears in the name of a firm or a well known man. Most ideas come from sources which have never been credited, each man contributes but little to the progress of any art. Everyone is familiar with literary sources, in plots as well as lines. The great

man merely adds his bit, refines and polishes the fragments that he uses. Sometimes the attitude seems antiseptic, as in the handling of distasteful subjects when authors treat characters whom they hate with esthetic distance, as Flaubert and his *Madam Bovary*.

The life of a work of art is highly variable in public opinion. Raphael, a splendid architect but universally known as the painter of refinement, described the northern medieval work with hearty dislike; rude and barbaric it seemed to his taste. Notre Dame, of Paris was neglected many years. The devil's mass was said there. Beggars used it for their frolics. The windows, the supreme glass of the 13th and 14th centuries, exists today in the fragments too high to be reached by stones. Vasari in turn admired the florid and tortuous compositions of Raphael that we esteem but little today. But we place his quiet works among the sublime art treasures of the world.

No work of art is completely under the control of the artist. Music depends upon the whim of the virtuoso or at least his interpretation; poetry upon the voice and taste of the reader. The playwright is at the mercy of the star. Many great paintings were produced by assembly plants in which each man did that part for which he was best fitted; the final touches alone by the master. Colors change with time, a statue is placed in an alien light. Its background is changed. Its surroundings may compete with it for interest. Its fate is not that intended for it by the creator. A fine building is even less in

the control of the master. He may die before the completion of his masterpiece as did Goodhue. Surely he can't build it all by himself, even if he would. Its final appearance depends upon hundreds of persons, many of whom he may never see. The contractor's ability to cooperate and the owner's directions all play a part. Later it suffers alterations. It is repaired. Additions are needed. It is redecorated. Its environment changes. I wonder that any building over fifteen years old expresses anything at all.

"Design in the arts requires the possession of the creative faculty, but the creative faculty is concerned rather with association of elements common to all, than with invention pure and simple. The human imagination is limited to personal or acquired experience. At no period has any form been created that is not traceable to some process of production, or natural suggestion; for example, the artistic conception of an angel is merely a combination of human and bird form, and is in no sense an original creation."\*

The term "originality" is usually misunderstood. To be entirely original may be impossible. The real interest in artistic production of any kind is the expression of personality. The individual view point of the artist, or the personal idea in expression, is interesting. The source material is not important and that of many authors is well known, Shakespeare's for example. Similiar origins are the

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\*Introduction to Design and Tradition, by Amor Fenn. Chapman & Hall, Ltd. London. 1932.

background of architectural progress. Design is distinct from realistic expression inasmuch as the subject does not exist in any concrete form, but has to be visualised mentally.

This creative spirit that urges men is an evasive thing to pin down. The best thinkers of all time have tried to define and locate it. Plato and Kant have said that it is a kind of frenzy; while Aristotle and da Vinci insisted that it emanated from reason. Leonardo used the word "judgment" constantly in his treatise. The best men of letters seem to have regarded it as a sort of feeling. Fancy may be bred in the heart but it is nourished by the head. The most analytical architect I ever knew continually talked of "soul" as a necessity in art.

Few ideas are born in the head in an adult stage. Sometimes tools--with the architect it is the soft pencil--assume the initiative, and the idea comes because he picked up his pencil. Workmanship in poetry is well known to most of us, books are written displaying the skill of one poem, as "The Road to Xanadu," by John Livingston Lowes. Because we are familiar with words, the materials of the poet, we have some idea of the intellectual force behind the finished product that seems so simple and natural. Because the tools are not understood nor their sources easily traced architecture and music often seem to have been created at once and whole cloth--without experiment.

"Too much importance is attached to what is believed to be in-

spiration, that Victorian affluence so revered by budding artists. If inspired, design is in the nature of an accident. Deliberate intention should be credited to the individual exponent. Inspired thought may be accounted for by subconsciousness, and may be responsible for the origin of an idea."\*

Reject once and for all the idea of inspiration with its tendency to encourage the "artistic temperament," which "won't work when it does not feel like it."\*

The designer must be ready to respond at any time, and this implies a logical and balanced mind, capable of grasping essentials, and of arriving at some desirable solution.

Another superstition is that a design is a drawing, and it only requires a facility in this form of expression to produce a design. Many designs are, for convenience, expressed through drawings. They must be made with a knowledge of the technical details of the final method of production, to be a practical design.

The conception of balance and the succeeding ideas of rhythm and composition are the laws of the artist, whether he illustrates books, paints murals, or creates statues. Designs that appear most natural to the uninitiated usually show the most attention to the rules of the artist. Simple geometric shapes are the bases of most visual designs.

Arrangement is called composition. Composition has been likened

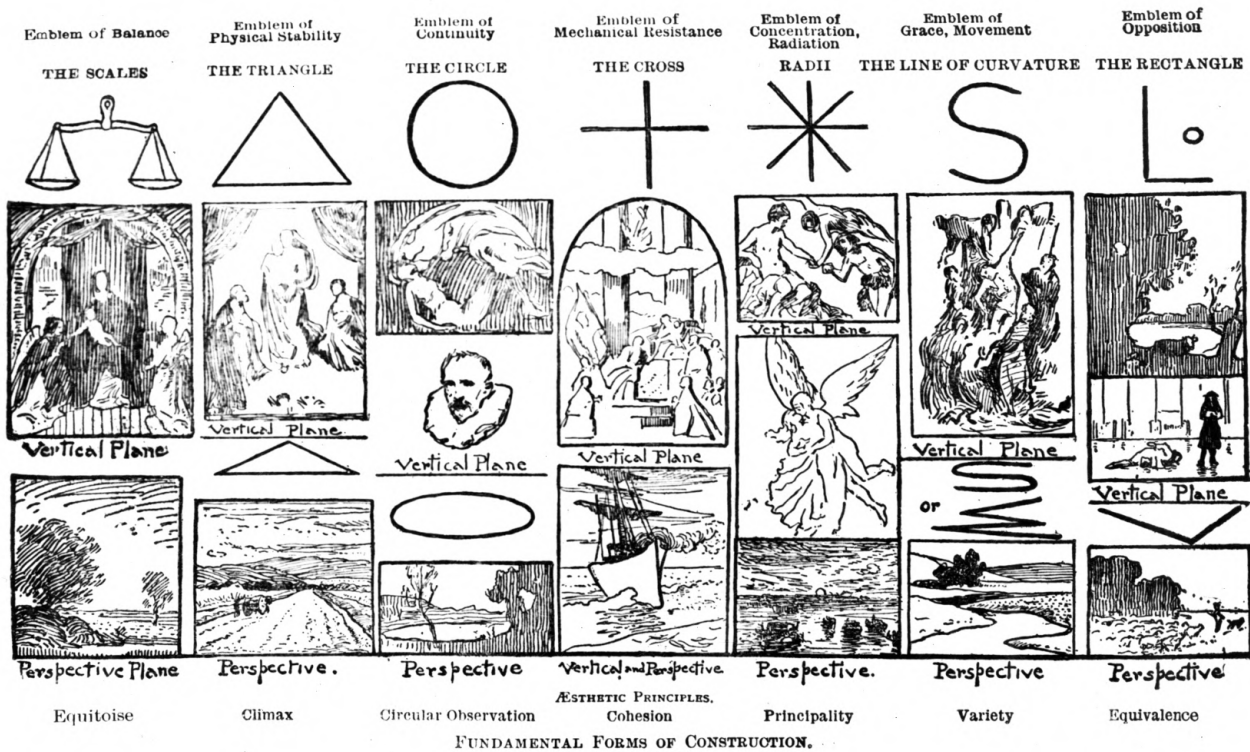
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\*Introduction to Design and Tradition, by Amor Fenn. Chapman & Hall, Ltd. London. 1932.

to salt; in that salt is what makes things taste bad when you don't put any on. Most rules for composition are negative and concern what is not to be done. The success of most designs depends upon simple geometric arrangement. The diagram, Plate 1, Page 28, shows some of the popular preconceived schemes around which artists have built their ideas. These geometric shapes compose in horizontal as well as vertical planes. Early in our education we learn to appreciate the forms of literature which are designed to fit some preconceived scheme or plan such as the sonnet. But this is not all. There is something in all art that can not be cataloged, the principle of "Apt evasion" in which the true artist purposely unbalances his balance, as the singer whose voice slides to the pitch, the poet as he reverses the accent, or the architect as he achieves true esthetic balance without symmetry.

The sculptor has accepted the human form as his ideal. The painter has taken nature's expressions, while the necessities of man have prescribed the form which the architect must make beautiful. Ten thousand years of building were needed to impress upon the Greek that a door is most beautiful whose height is twice its width. The origin of many accepted proportions is found in the same source; that is, in aptitude to the purposes they serve. There is a relation to objects which are of real use. The pleasure excited in us at their sight is ascribed to convenience, custom, prejudice, or to the habit of association, rather than to any peculiar charm inherent in them.





FUNDAMENTAL FORMS OF CONSTRUCTION.



An age which has anything to say will express it in its architecture. A race which has any message to impart will deliver it in its buildings; whether it be significant or meaningless, worthy or trivial. An age, or a people, possessed of spiritual insight, read this message and see its face mirrored in its architecture.

This world is a great tablet on which each strives to have his name inscribed. When the tablet is full, we rub out the names already written there to make room for new; but taste is variable, our successors will hardly approve all of our selections. Time itself effaces human construction. What would this world be, if the monuments of the Ancients perished not? The moderns would have no room for theirs, say the French architects.

The holes in the history of architecture are those periods in which economic dearth, wars, or invasions, have here and there reduced to nothing the industry of the builder.

Life is spent in buildings, or in going from one building to another. The continuity of our occupation of this country and its present vitality is demonstrated by our architecture. Like members of other professions we architects feel that we practice an art handed down to us by our remote ancestors; and there stands behind us a procession of men reaching back past dim antiquity, each of whom has added a measure to the sum total of human happiness. Among this group are the great heroes of peace, the unsung builders of cities; poets who created inexpressible and beautiful thoughts in stone and brick, in

wood and steel.

As a means of expression the function of steel is most important. Rolled metal has removed problems, on the solution of which, generations of architects have spent their lives. To roof a nave the length of a cathedral or of a Roman bath is mere child's play for us. We know how to bridge enormous spans, to support the most crushing weights, and above all to solve by simple combinations problems formerly insoluble.

Architecture is sometimes spoken of as "Frozen music."\* The Cathedral of Reims is an expression of this.

The title Architecture is applied to those buildings which indicate by the excellent quality of their design that they are works of fine art.

It is the art which so disposes and adorns the edifices raised by man, that the sight and use of them contribute to his mental health, power and pleasure, said John Ruskin, an eminent writer on the subject. He continued that the need which determines the height of a breastwork would not be called architecture, but if to the stone facing, there be added one unnecessary feature as a cable moulding, that is architecture. This idea has changed somewhat; but although architecture does concern itself with those characteristics that are above and beyond common use, it is not something added or applied to a building.

Morgan, the great archaeologist said, "Architecture is the print-

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\*From the conversation of Madame de Staël.

ing press of all the ages and gives a history of the state of society in which it was created."\* I like to feel that Architecture is building touched with emotion and that its object is to give satisfaction--physical and spiritual; therein lies its romance.

A glance at the Royal Horticultural Hall is a convincing illustration of enclosed space. One of the most important senses is that of volume and the existence of space, through which we are aware of ourselves and our actions. This is the sensuous element of both architecture and sculpture. Sculpture is a compound of surface, texture, and exterior volume. It coordinates the tactual and visual sensations. This is its function. Although architecture begins where sculpture stops, in many ways it seems to be the reverse of sculpture.

Architecture, in a sense composes in the round but it is not usually considered one of the plastic arts. The Einstein Observatory in Potsdam is an example of attempted plasticity. The difficulty experienced in the execution of the form disproves the plastic concept. Some material other than concrete must be invented to achieve these shapes with success. To attain plasticity the eye must be given a sense of existence in the round; to realize that lines which disappear on the right, re-enter on the left, after passing around the form.

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\*From A History of Architecture, by Sir Banister Fletcher; 7th edition, Page 860. Charles Scribner's Sons. New York. 1924.

This is an expression of dynamic power. It raises its head like a startled shaggy beast with a sinister hint of Germanic power and mystery. Speculation surrounds this laboratory which was designed by a Semitic to house the work of his traveling companion. As with this design we were jolted by the theory of relativity and made conscious of the space which is time.

A few years ago a stone setter, working on the Episcopal Cathedral, still being built in Washington D. C., humbly requested the church authorities to allow his wife to be entombed within its walls. The ecclesiastics did their best to explain that it was impossible to place her beside the great dead buried there, presidents, admirals, and statesmen. So the mason had his wife's body cremated. He returned to work, plied his trowel industriously to the mortar for several days in silence. When fellow workmen tried to incite him with resentment at the injustice of the bishop in excluding the remains of his wife, his eyes shone and a queer smile broke out over his face... Her ashes had been worked into the mortar and his wish had been fulfilled.

Some day walk through a great building in the process of erection. The place is like a colony of ants. In this cooperation, in the industry of a group following a preconceived plan, there seems to be a will generated, a force self-created that is one of the great attractions of building.

The Town Hall at Stockholm suggests the civic greatness of a city dependent upon the sea. It blends northern and southern traditions in form, while its colors glow with Eastern magnificence; not sensational nor easily read by every one. Like many great musical compositions it lacks popular appeal. It has no reminiscent melodies for us to whistle. The great hall puzzles some by its failure to fall into a category of recognized style. The building seems to have arisen from the architect's conception of enclosed space, color and line. It realized the happy opportunity of work for the capable man; for no one can be an architect unless a client is willing to trust him with funds and a plot of land. Perhaps the building recalls the music of Grieg or the dramatic writings of Sigred Undset.

"We feel that we are on the brink of a new renaissance. Men have their ears to the ground listening for an approaching thunder. We have discarded many accumulated traditions. We are trying to free ourselves of the dead command of the past."\*

The genius of this unfinished new architecture may approach in lightning, as did the great Italian, Brunelleschi; or it may be a "Spirit" that will dissolve the present taste as a lump of sugar is dissolved slowly but surely in water, we ourselves being unaware of the change.

Genium, I am told, is a comparatively simple being. A time was when critics thought that all possible piano music had been written;

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\*From a radio speech, "The Romance of Architecture," Dec. 15, 1932, by Linus Burr Smith, original source unknown.

the execution was with four fingers. A fellow demonstrated that the thumbs might be used also--and men rewrote piano scores. Just such a man in the dawn of time invented the wedge, the wheel and the arch.

The cathedral at Chartres in its grave beauty, overpowering in richness and dignity is the work of scores of artists, sculptors, glass designers. All contribute to the composite glory of this shrine. If one ever experiences rapture on this earth it is here.

The Cathedral recalls Ruskin's grand work, "The Seven Lamps of Architecture," wherein he shows that all great architecture, whatever its period of style, is illuminated by certain definite moral principles. Thus, in every noble work, there shines through the Lamp of Sacrifice.

"Again, the great building must be lit by the Lamp of Power, or it will not endure the stress of centuries. It must be fused in the Lamp of Obedience to natural laws or its parts will disintegrate and the building fall. It must glow with the Lamp of Truth, for there is no virtue in sham--and sham will be annihilated by the ordeal of time. On its face must reflect the Lamp of Beauty, or rather Significance; for without this the building can have no character or meaning."\*

At times, one realizes the poetry of architecture. "At Hampton Court when these facades are flushed with the rosy evening sun, about what do we think? Not of Henry VIII, Wolsey, Cranmer, or any of the

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\*Introduction, The Poetry of Architecture, by Frank Rutter. Doran's Modern Readers' Bookshelf. Doran, N. Y. 1924.

mighty personages of historical England. To tell the truth, we don't think at all in these rare moments. We feel--that it is good to be alive. The memory of these moments tells us what life might be and reminds us of what it holds for those who seek."\*

"For those who ask, 'What do you mean by the Romance of architecture?' few better answers can be given. The pictorial effect changes with the hour, but it is the buildings themselves that call the tune; sunshine and moonlight only change the orchestration."\*

"We may analyze the structure, work out its ground plan, measure each brick, draw its elevation to scale, and we will not penetrate the secret of its magic. Science can tell us how and of what material it is built, but its romance is something we must feel ourselves. Therein lies its glamour, which may be expressed here as 'Peace with Honor'."\*

"I should like to dwell upon the value of the association of Art with human life. It is as the centralization and protection of this sacred influence that Architecture is to be regarded by us with the most serious thought. We may live without her, and worship without her, but we can not remember without her. How cold is all history, how lifeless all imagery, compared to that which the living nation writes in uncorrupted marble records. There are but two strong conquerors of the forgetfulness of men--Poetry and Architecture--and the latter as we have seen, in some ways includes the former, and is

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\*Introduction, The Poetry of Architecture, by Frank Rutter. Doran's Modern Readers' Bookshelf. Doran, N. Y. 1924.



mightier in its reality. It is well to have not only what men have thought and felt, but what their hands have made, and their eyes beheld."\*

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\*This is an adaptation from the Introduction to, The Poetry of Architecture, by Frank Rutter. Doran's Modern Readers' Bookshelf. Doran, N. Y. 1924.



## TEACHING RESULTS OF THESE THEORIES

In teaching architecture at the University of Nebraska, there has been a splendid chance to expound these ideas of the subject in three ways; in student publications, in lectures to classes, and in design laboratories (aided by critique at the termination of each problem). The field seemed virgin in that no definite theory had been sponsored during the years previous to 1934-35.

Before that time a more archeological character of architecture had been in vogue. In this no models were considered worthy except those of the age of Pericles, and the more developed Gothic phases. The student body was well aware of the beauties of these periods, and many reminiscent designs were produced in which draughtsmanship far excelled design. It seemed proper to relegate pure draughtsmanship to the beginning courses and those in working drawings. The time element in the advanced courses had been most extended. Often a whole semester was spent on the presentation of one problem. Color had been neglected in favor of black and white presentations.

During the school year of 1934-35, it was felt that the classes in Theory of Composition (Arch. 13), Functions of Buildings (Arch. 113) and Laboratory Design (Arch. 111, 112, 115, 116) were best suited for the molding of modern architectural thought.

The class of Theory of Composition is followed by the class of Functions of Buildings. To each are allotted two credit hours. In the first group an attempt was made to draw from all the arts in the study of composition and color. The fundamentals of the arts were demonstrated wherever possible. The discussions ranged from pottery to music and from painting to poetry in an effort to show the universal use of rhythm, balance, repetition, proportion, and emphasis. Most of the published works on the subject were made available for reading, while the early assignments were to compare good and bad forms of the decorative and structural arts. Examples of everyday life seemed to be of most value, clothing and household equipment, or good and bad advertisements of products. Some of the subjects considered are listed below.

#### ARCH. 13, LABORATORY AND RECITATION

The nine following units are essential fundamentals in the study of design.

##### Part I. Art Elements

- Line
- Form
- Color
- Texture

##### Part II. Art Principles

- Proportion
- Balance
- Emphasis
- Rhythm
- Harmony

They need not be studied in the order given, but must be included in the content of the course.

## Part I. Art Elements

### Line

Line expresses many moods. It falls into three main classes; opposition, repetition, and transition. Line defines form and shape. It is difficult to say where line ends and form begins.

#### Problem 1.

1. An exercise showing the types of line.
2. An exercise showing the application of line types to an idea or mood.

### Form

Form is the result of color or value, and is closely correlated with hue - the neutrals, dark and light value and shapes.

#### Problem 1.

1. An exercise to develop harmonious forms.
2. An exercise to develop an appreciation of fine forms.

### Color

An understanding of color is one of the essentials in the body of knowledge included in the realm of Art. Color includes value which is dark and light; hue, the color name; and intensity or the brilliancy of hue.

#### Problem 1.

1. An exercise in the value scale of nine values; namely: white,

high light, light, low light, medium, high dark, dark, low dark, and black.

2. Exercises to test the students' understanding of the value scale will develop the knowledge of value.

#### Problem 2.

1. A color chart of the primaries - red, yellow, and blue; the secondaries - orange, violet, and green; the intermediates - yellow-orange, red-violet, blue-violet, blue-green, and yellow-green.
2. A chart to show the spectrum hues at their value at normal.
3. An exercise may be used to test the students' knowledge of hue.
4. Other exercises may be used to test the students' knowledge of a combination of hue and value.

#### Problem 3.

1. A chart using primaries and secondaries at one-half intensity.
2. Various intensities of primaries, secondaries, and intermediates.
3. An exercise to correlate hue, value, and intensity.

#### Problem 4.

1. Exercises studying color harmonies of likeness or related colors, and difference or unrelated colors.
2. Exercise in monochromatic, one hue, dominant or one mode color harmony.
3. Exercise in analagous harmony.
4. Exercise in the complementary harmonies - simple complementary split complementary, and double complementary.
5. Exercise in the study of triad harmonies - primary triad - secondary triad - right triad and left triad of intermediates.

6. Exercise using bright and grayed colors.
7. Exercise using hue, value, and intensity as a review.

### Texture

Texture has to do with the sense of touch as well as sight.

#### Problem 1.

1. Textiles which have different textures.
2. Exercise to develop the appreciation for various textures and the correct use of them.

### Part II.

### Proportion

Fine proportion is an essential element in successful design as it is used to create beautiful space relationships, to make the best of given sizes and shapes and to judge what sizes may be grouped together most successfully.

#### Problem 1.

1. Exercise in spacing.
2. Exercise developing the use of correct margins.
3. A simple problem in lettering.
4. The study of dynamic symmetry - Greek proportion.

### Balance

Balance is rest. There are two types of ballance--bi-symmetric or formal, occult or informal. The former is static, the latter is dynamic. Bi-symmetric balance is expressed when exactly the same arrangement occurs on each side of a center, vertical line. Occult

balance is expressed when the arrangement is not the same on each side of a center vertical line.

Problem 1.

1. Exercise in arrangement of objects.
2. Exercise in selection of pictures.
3. Exercise in original composition.

Emphasis

Emphasis is the principle by which the important part of a composition is accented through line, form, color, or texture.

Problem 1.

1. The study of composition deciding if the accent is achieved by line, form, color, or texture.
2. Original compositions.
3. Arrangement of interior decoration sets or materials for costume design.

Rhythm

Rhythm is a related movement.

Problem 1.

1. Analysis of pictures and textiles.
2. Exercises in line.

Harmony

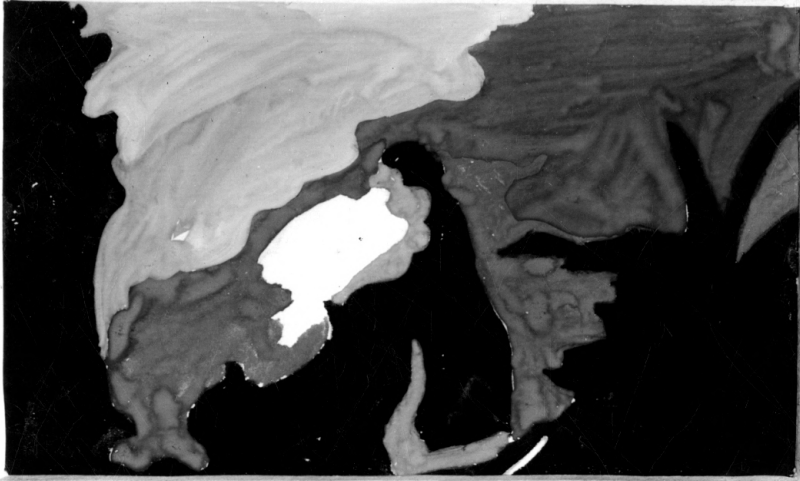
Harmony is agreement of the various art elements in a composition to express unity.

Problem 1.

1. An exercise in the art elements.

Plates and drawings were presented in class before discussions began so that no student had a preconceived idea of the instructor's especial tastes. Much was gained from the study of painting, as in the study illustrated, Plate II, Page 44, in which the composition alone was defined in simple tones. No figures or things were allowed to distract the eye. Values alone were considered. Later these mass studies were made in color as well as value. Abstract design was a major portion of the study and interesting arrangements were often attempted. Such arrangements, without the dependence upon actual things seemed most difficult to the students who had been limited to the architectural art forms alone. Architecture was referred to in the necessary study of scale, and human relationship, volume, or in the study of simple divisions, and the most obvious of symmetrical and asymmetrical balances. The last half of the course was devoted to the application of the art principles to color. Much trial and error resulted but each student became well aware of the following notes on the subject. The Plate no. III shows in mass and value the color study which was the final coordination of the material of the course both in arrangement and hue.

With Architecture 13 and 113 as a background simple problems of pre-class "B" and class "B" type were issued to the students in design, Architecture 111, 112; 115, 116. These were made as applicable as possible to the city of Lincoln, and proposed for sites available

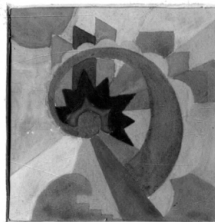


SAINT ANTHONY AND THE CHRIST CHILD - MURILLO



MADONNA OF THE LOUVRE - BOTTICELLI

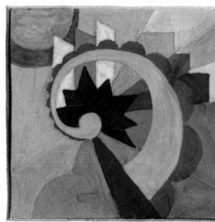




COMPLEMENTARY B-Q



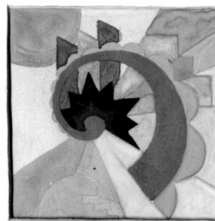
ANALAGOUS YG-G-BG



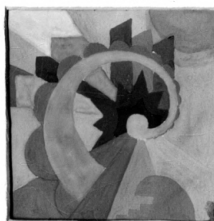
SPLIT COMPLEMENT BG-R-Q



MONOCHROMATIC RQ

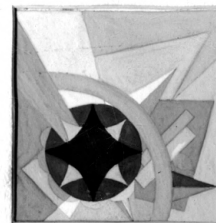


DOUBLE COMPLEMENT RG-RV-YG

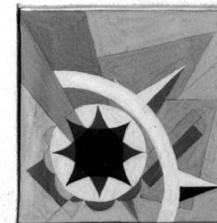


TRIAD BG-RV-YO

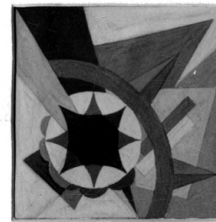
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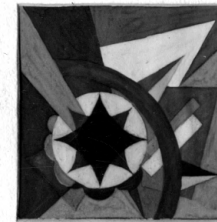
R,G  
COMPLEMENTARY



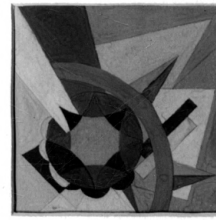
R,RQ,O  
ANALAGOUS



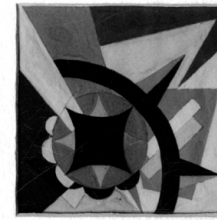
RQ,G,RV  
SPLIT COMPLEMENT



B  
MONOCHROMATIC



B,BV,O,YO  
DOUBLE COMPLEMENT



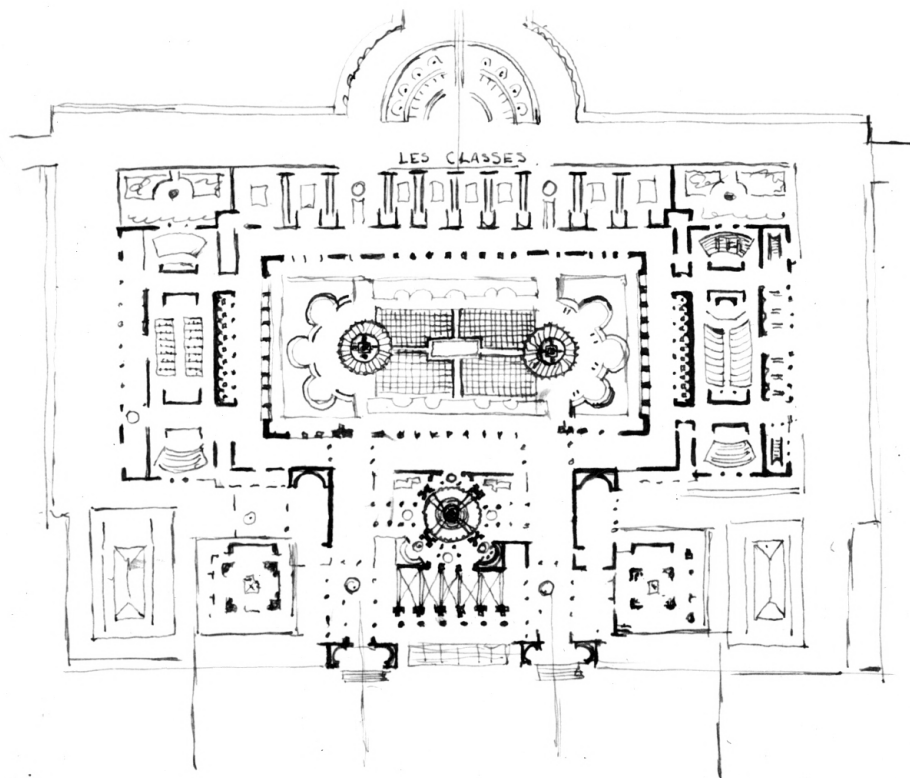
RV,YO,BG  
TRIAD

locally. Problems were proposed because of public interest in a particular building at the time, or some commercial interest. The real need for these structures stimulated the student's interest. Problems were assigned for periods of one week and one month alternately. The usual projet covers a period too long for sustained interest. Draughtsmanship is emphasized in other courses. Shorter problems allow more types to be considered. Experience has proved the points.

After each class had worked for a year on these problems of local interest, problems of more extended scope were issued, some of which were of national character. Renderings were kept simple, in water color, pastel, and tempera. Judgments were conducted by faculty, artists, architects; and in cases of specialized types, men with experience in those fields comprised a part of the jury. Problems were never written by instructors in charge of the class. These instructors were often not voting members of the jury. Stimulation to excel was provided by publication of the best two projets each year in the student magazine. Each year the best problem presented is framed behind glass to become a part of a permanent exhibition in the architectural library. No classes in advanced class "A" design have been formed. No students have been available who meet the requirements. This has proven a good thing for the faculty. The instructional staff has been allowed to concentrate upon beginning and intermediate classes

The class in Architecture 113 is a "parti" class in which arrange-

ment alone is discussed. Plan problems alternated with quick drawings of grand plans from classic examples such as the drawing Plate IV, Page 48. No finished drawings formed a part of this course, while only the elements of elevations are discussed.



UN CONSERVATOIRE DE MUSIQUE ET DE DECLAMATION.  
M. BOYET, ELÈVE de TONY GARNIER LES CONCOURS 1930-1931  
PL. 53

Robin C. Smith.  
ARCH. 113.  
FEB. 11, 1936

## ARCH. 113, A COMMUNITY HOUSE (3 hour study period)

In many farming communities of the state of Nebraska it has been found that there exists a great need for a building in which the farmers and their families can gather from time to time to hear various men sent out by the state to talk about their farming problems, also a place where they can gather for parties, festivals, etc.

For the purpose of a problem it is supposed that a large group of farmers in one section of the state of Nebraska, have been influenced toward the value and need of a community house through various farm Extension Bulletins. These farmers have voted to erect such a building themselves.

The general design and construction of the community house shall be quite simple. The building will be, therefore, of frame construction.

Two acres of land and most of the building material have been donated.

Provision must be made for parking of autos in the rear of the plot of ground.

## REQUIREMENTS: First floor:

1. Vestibule to auditorium.
2. Auditorium to seat approximately 200 people and to be provided with a simple stage at one end of auditorium. Auditorium to be well lighted.

3. Dressing room in connection with stage.
4. Dining room and kitchen separated from auditorium but connected with a hall.

REQUIREMENTS: Basement floor:

1. Dressing and wash rooms for men and women.
2. Toilets, furnace and fuel rooms, etc.

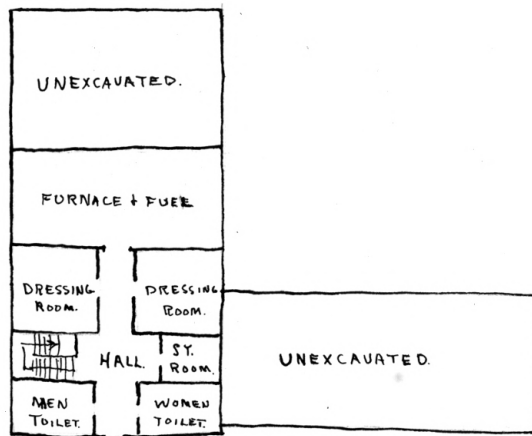
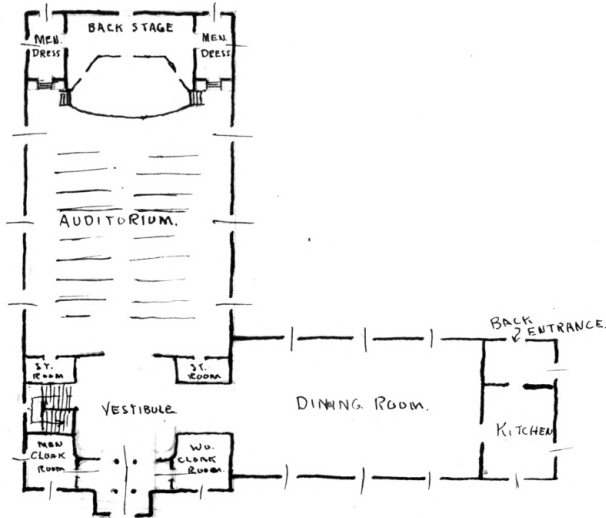
REQUIRED ESQUIRE:

Basement and first floor plan at scale 1/16" equals 1'-0"

Longitudinal and cross sections at scale 1/16" equals 1'-0"

See Plate V,

Page 51.



A COMMUNITY HOUSE

EARL CLINE A.113

## ARCH. 111, 112; AN OBSERVATORY, ONE-WEEK PROBLEM

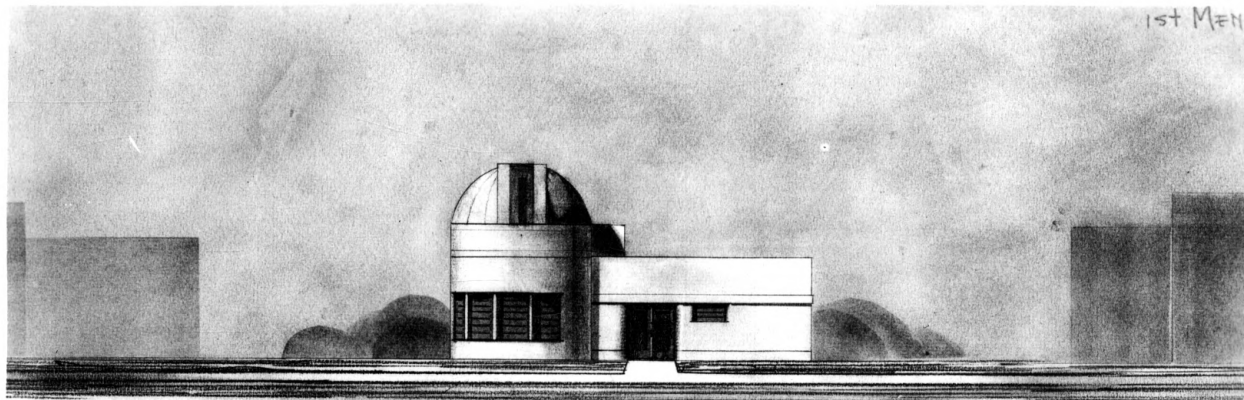
The University of Nebraska proposes to erect on the Agricultural College Campus, in some isolated position, an Observatory. This structure shall comprise a lecture room to seat 35, customary coat closets, and office for the astronomer, a workroom for developing photographic plates, equipment storage, a stair to the observatory proper, and a small accessible toilet. The observatory is to be a dome 18' in diameter, of some thin, light material, so that it may be easily turned on a track. The door of the observatory shall be in two leaves which extend slightly past the zenith. The telescope is 86" long, 14" in diameter and mounted at a distance of 1'-0" from one end.

REQUIRED: Plan, section and elevation at 1/8" scale.

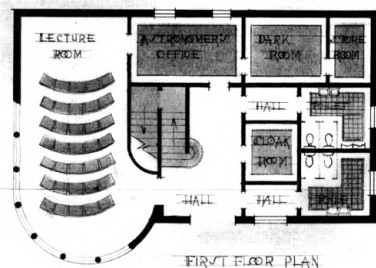
See Plate VI,

Page 53.

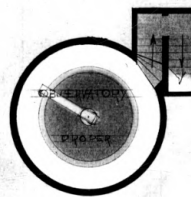




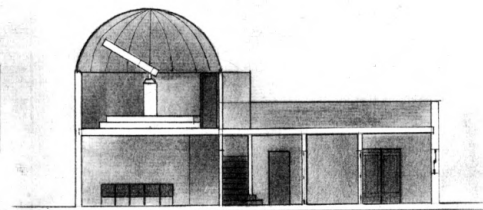
## ~ A COLLEGE OBSERVATORY ~



FIRST FLOOR PLAN



SECOND FLOOR PLAN



SECTION AT X

## ARCH. 111, 112; A UNION BUS TERMINAL

The City Planning Board proposes that all the bus lines serving Lincoln consolidate their terminals into one building at 13th and M Streets, the facade of which shall express its purpose. By widening certain highways and redistricting traffic on others, this becomes a central, easily accessible point.

This terminal will serve 30 busses each day, with an average capacity of 25 persons per bus. The building is to include:

Ticket offices and information desk,

Waiting room, or space,

Lunch counter to serve transients,  
(not to count on local trade),

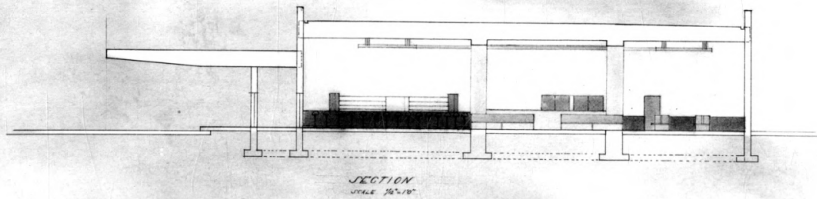
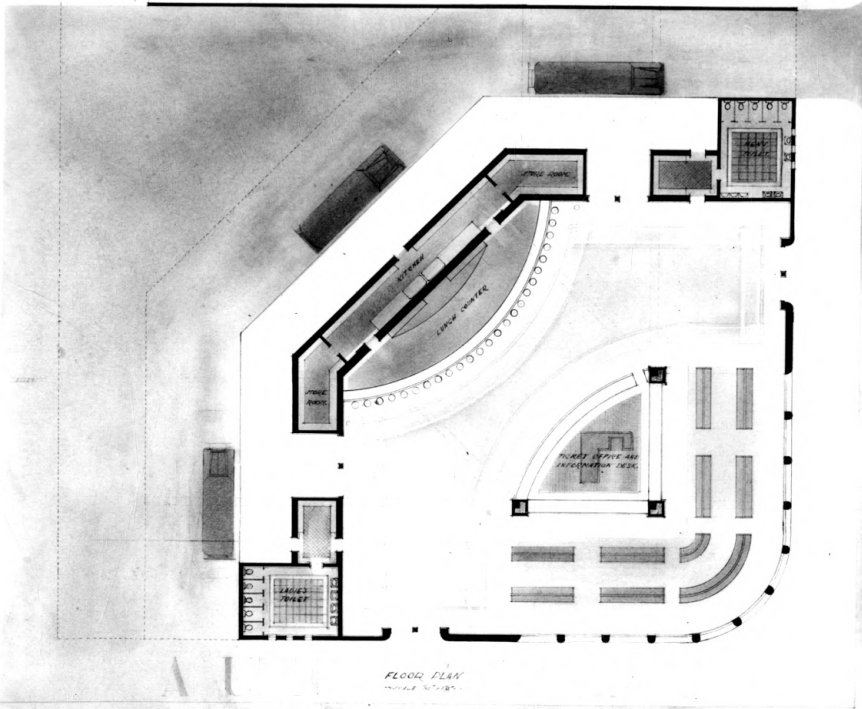
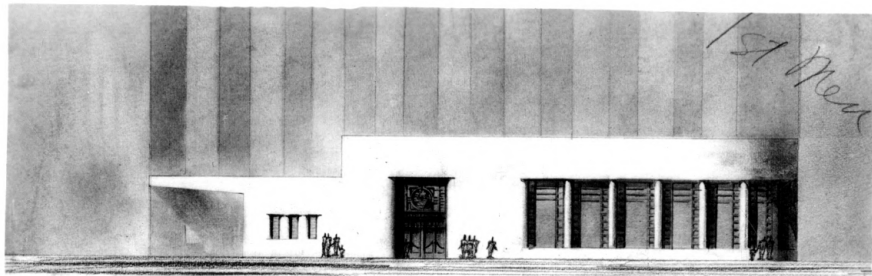
Toilets and wash rooms.

The lot is level, 150' on 13th Street by 150' on M Street.

A one-way alley 20' wide bounds its northern side.

See Plate VII,

Page 55.



## ARCH. 111, 112; A CANDY SHOP, PROJET II, FOUR-WEEK PROBLEM

A manufacturer of nationally known candy products has decided to open a shop in Lincoln to cater to the University as well as to the class of people always at leisure in a capitol city. Advertising as well as business is the object of the adventure. The lot selected is on the south side of O Street in the business section; 50' wide and 132' deep. On either side are shops that cater to women, with rather expensive merchandise. In addition to the candy shop this building will include a restaurant where tea, lunches, and light dinners are served.

The candy shop will be on the ground floor with a receiving and workroom in the rear, serviced by an alley. Here candies will be received and prepared for sale in the shop. On the second floor, reached by one or more important stairs will be a restaurant. The kitchen for this restaurant should be connected with the service entrance by elevator and service stair.

Several representatives for store front companies have approached this manufacturer in favor of their standard designs, but he insists upon a distinctive and attractive character in exterior as well as interior design. He feels that the employment of an architect with imagination will more than repay his expenditure. He has further

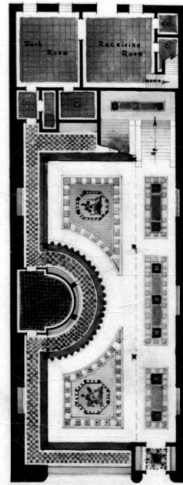
expressed himself in favor of refinement, gay dignity, and charm rather than the prevalent "Shoppe" type of architecture.

Required: Two plans at  $1/16''$  Scale,

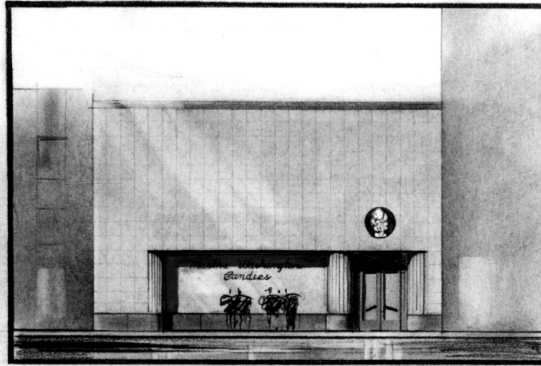
Section and elevation at  $1/8''$  scale.

See Plates VIII, IX,

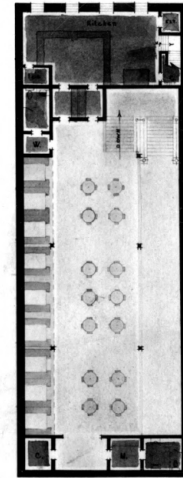
Pages 58, 59.



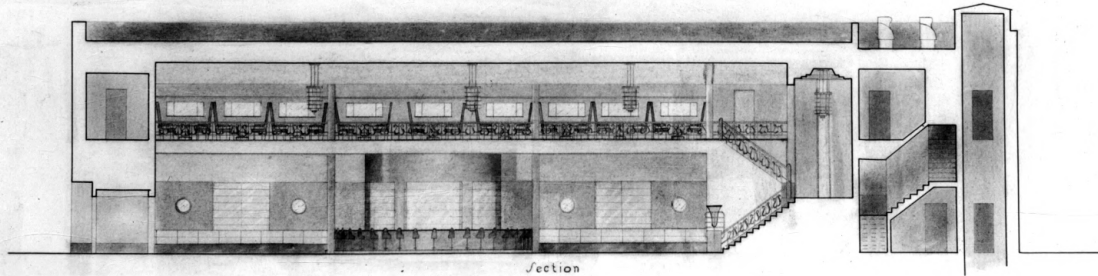
1<sup>st</sup> Floor



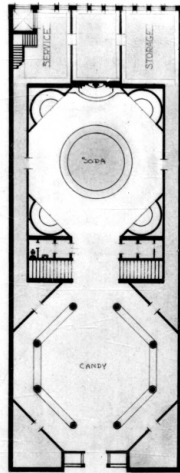
# A CANDY SHOP



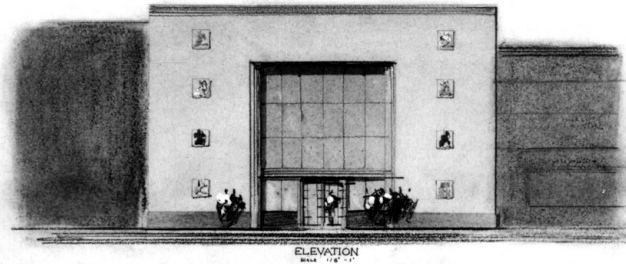
2<sup>nd</sup> Floor



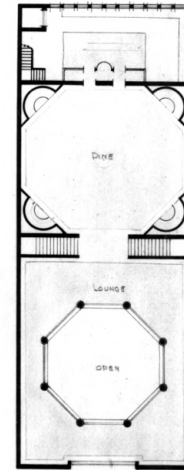
Section



FIRST FLOOR PLAN  
SCALE 1/8" = 1'

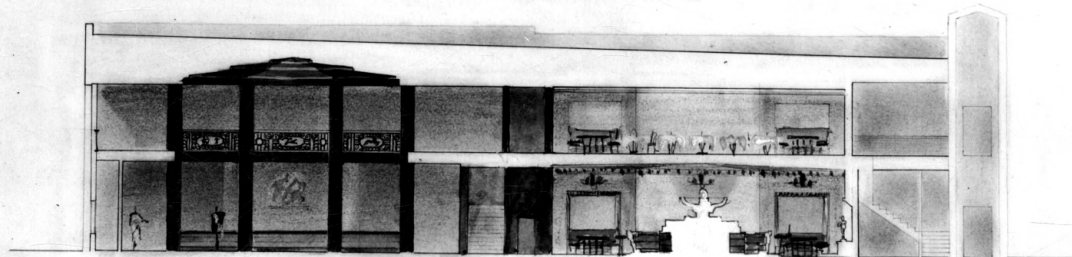


ELEVATION  
SCALE 1/8" = 1'



SECOND FLOOR PLAN  
SCALE 1/8" = 1'

## A CANDY SHOP



• DEVELOPING - BASE •

## ARCH. 115, 116; A SUBURBAN FIRE AND POLICE STATION, ONE-MONTH PROBLEM

The city of Lincoln proposes a suburban Fire and Police Station in the south part of town on a corner lot 150' by 150' facing an avenue on the south, bounded by a minor street on the east and a paved alley on the north.

THE FIRE STATION shall contain space for two trucks and the Captain's automobile. As the character of the equipment may change from time to time an overall depth of 80' for the garage space is required. A Captain's office, locker room and space for minor repairs completes the first floor.

The second floor includes dormitories, a library, recreation rooms, dining room and kitchen. Ample exterior space for washing the equipment and a hose tower to dry 100-foot lengths of hose completes the requirements.

THE POLICE STATION shall contain garage for two cars, radio equipment, temporary lockups for two men, and two women, a Sergeant's desk and office, file for data, and riot equipment. A small dormitory for two men shall be adjacent to the telephone board, while the dining and recreation facilities for the firemen also serve for the police.

The character of this building must be inoffensive to the residential section of the city. The circulation of the trucks and squad



cars, entrances and exits, must be carefully studied to provide a maximum of ease, safety, and inconspicuousness.

REQUIRED for esquisse: First floor plan and elevation.

Scale: 1/16" equals 1'.

REQUIRED for rendu: First and second floor plan, section, and elevation.

See Plates X, XI,

Pages 62, 63.

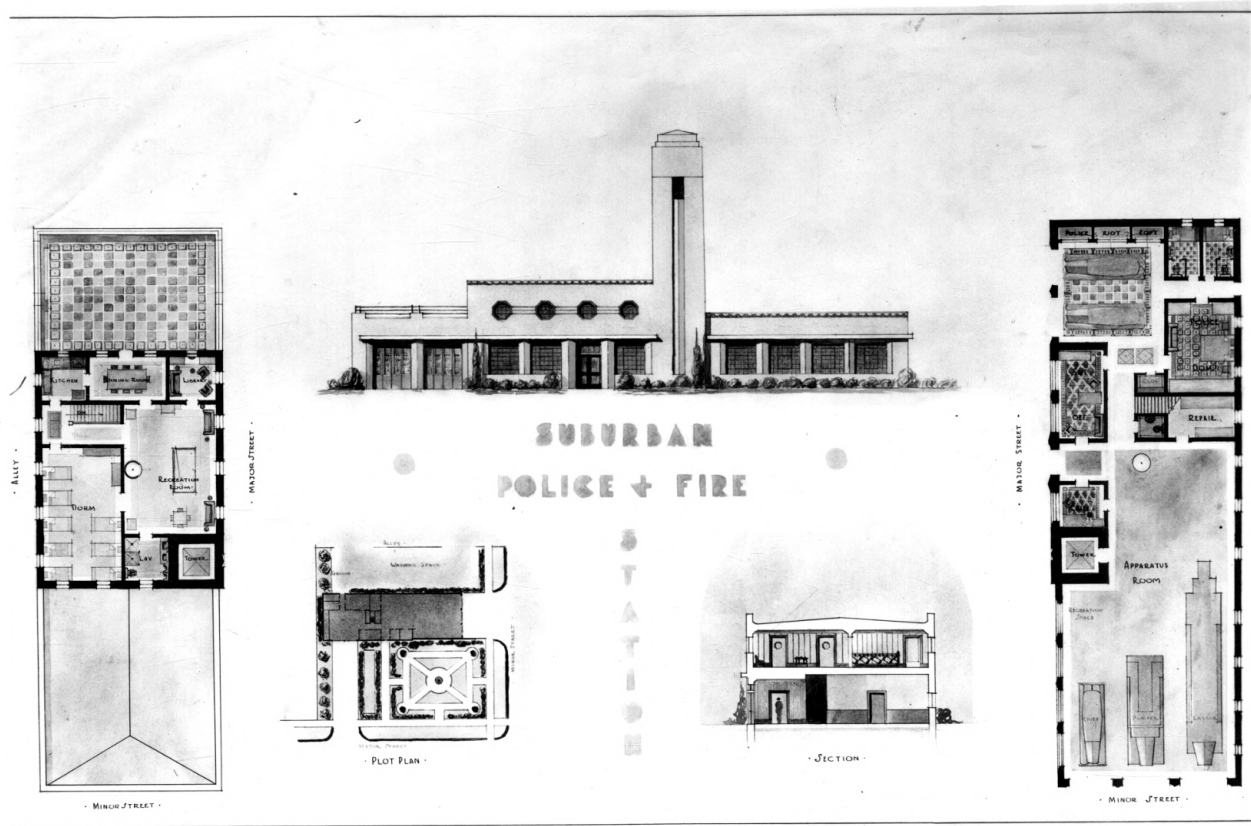
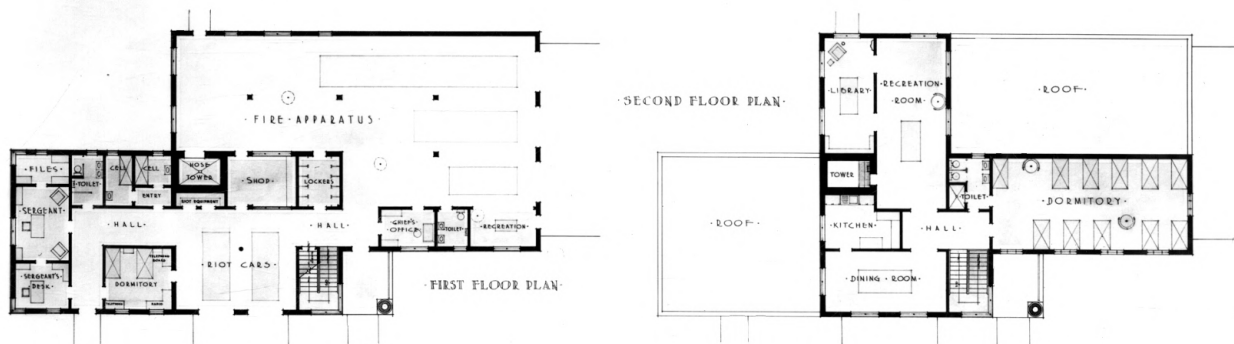
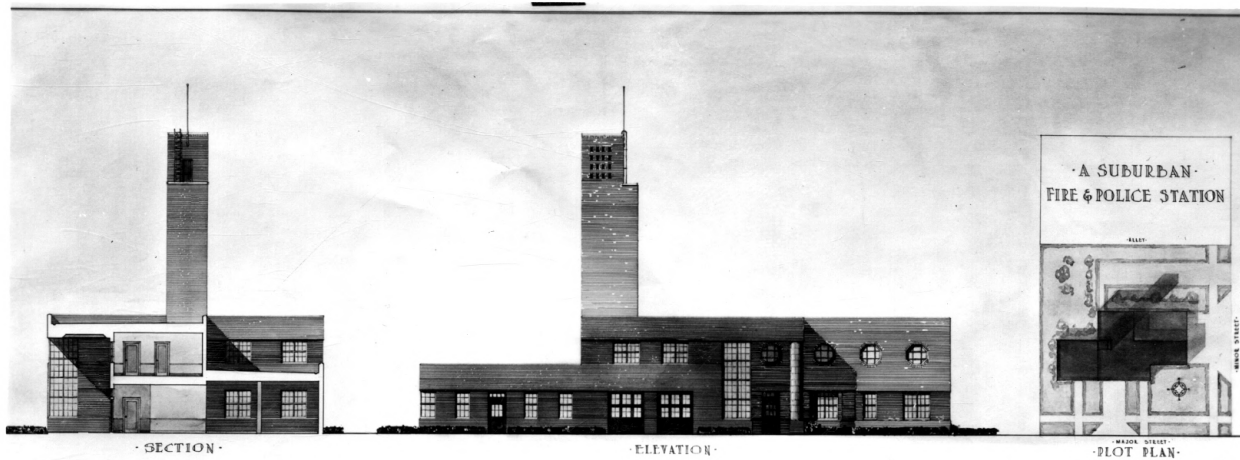


Plate X



## ARCH. 115, 116; AN ELEVATOR DOOR, PROJET 4, ONE-WEEK PROBLEM

For the purpose of this problem assume that you are working in the office of an architect who is designing a ten-story office building. The first floor of this building is to be occupied by exclusive shops while the upper floors are devoted to offices of doctors, dentists, lawyers, and a grain exchange. The architect's client is a man of good taste who feels that the impression made by the elevator lobby is extremely important in a business way. He has voiced his distaste with the designs shown him for the elevator doors, consequently, the architect has turned this problem over to you and wishes you to present a carefully rendered drawing of one of these typical doors for the client's approval. These doors are of the usual two-leaf type, finished opening of the jam 4' 0" by 7' 0". Scale 2" equals 1' 0".

See Plate XII,

Page 65.



"An Elevator Door for an office building," by Earl Cline  
a problem in Arch. 115-116.

## ARCH. 115, 116; A BUILDING FOR A TERRA COTTA COMPANY

FOUR-WEEK PROBLEM

PROJET 11

A Lincoln clay products company has decided to expand its products to include not only building material but decorative terra cotta and baked earth garden furniture.

This company plans to erect a structure around which they will build their advertising campaign, and which is to be the focal point of their expansion.

A site near the business section of Lincoln has been chosen 75' wide and 132' long on the intersection of two important streets. The building proper shall include an office for the advertising manager, an office for a resident salesman who will also act as guide, interior display space for products, space for a potter, potter's wheel and small furnace and dioramas, showing the history of clay products.

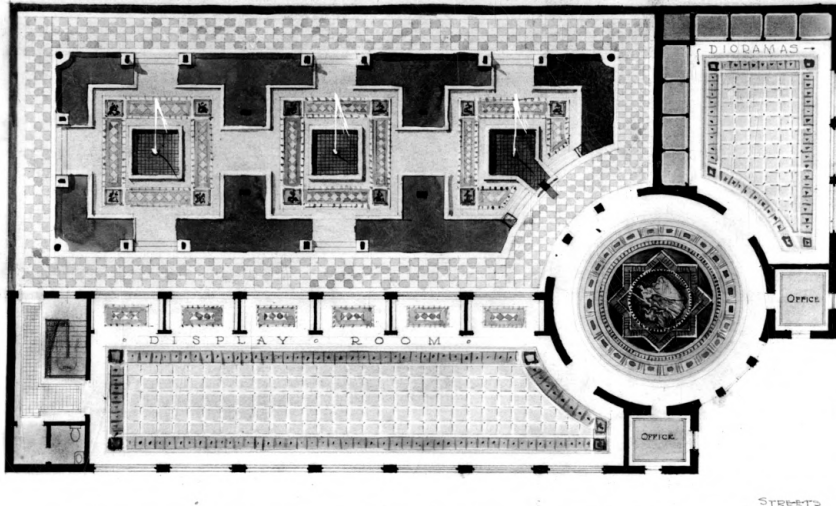
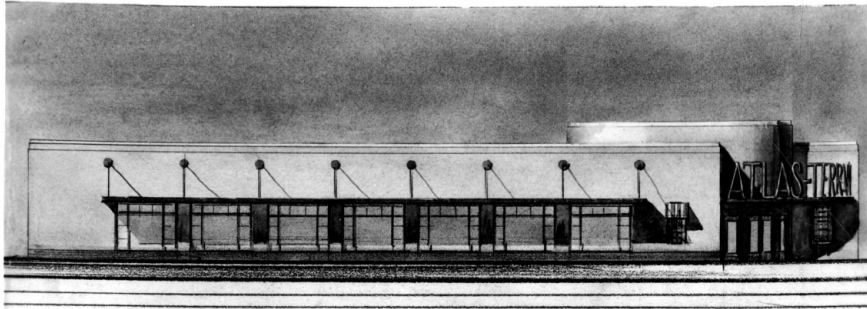
At least one-third of the area of this plot shall be devoted to a garden for the display of decorative garden pottery and other terra cotta work.

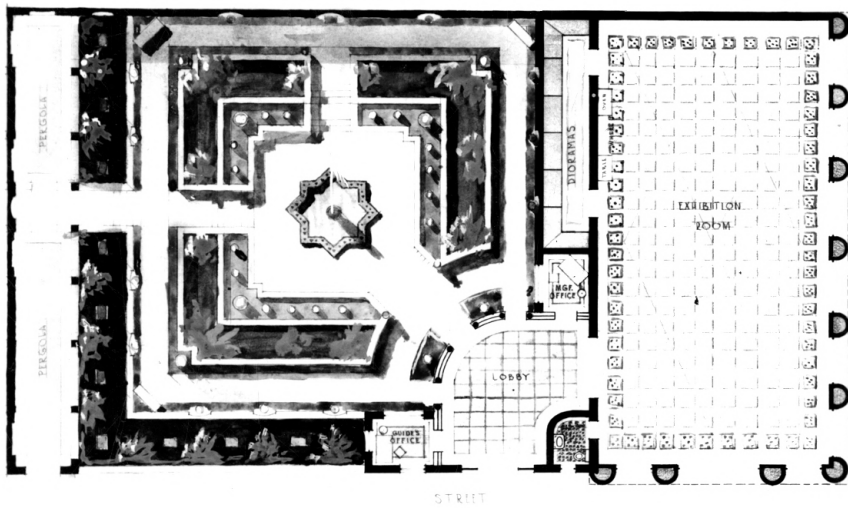
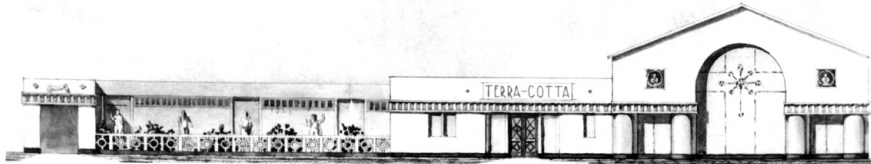
REQUIRED: Plan, sections, and elevation.

Scale:  $1/8"$  equals 1'0".

See Plates XIII, XIV, XV,

Pages 67, 68, 69.





A  
TERRA COTTA  
SALESROOM

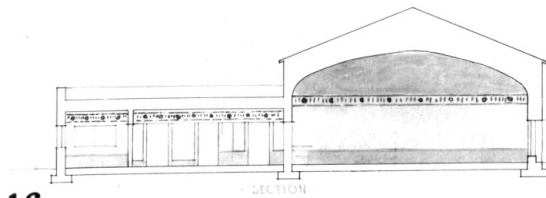
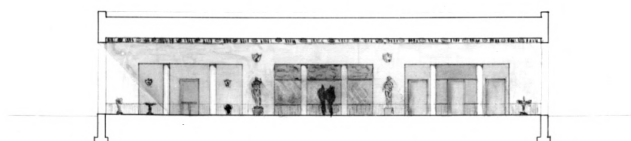
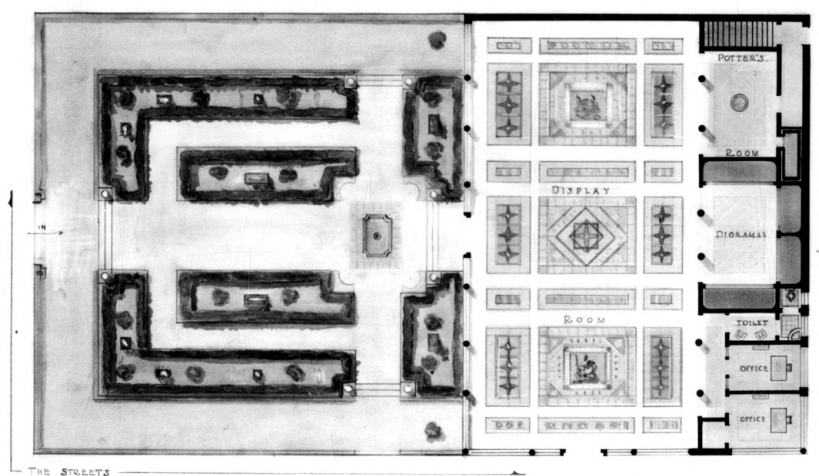
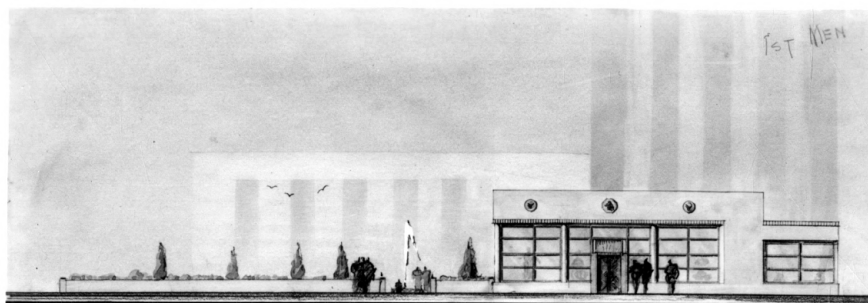




Plate XV



## ARCH. 116, AN AQUARIUM, ONE-WEEK PROBLEM

The State Fair Commission proposes to raze the aquarium now in use on the Fair Grounds. In its place it is proposed to select a level plot 200' square for an aquarium and a small garden. There are 35 known species of fish in this State. They are to be housed in this structure in glass tanks, open on one or more sides and illuminated with indirect lighting.

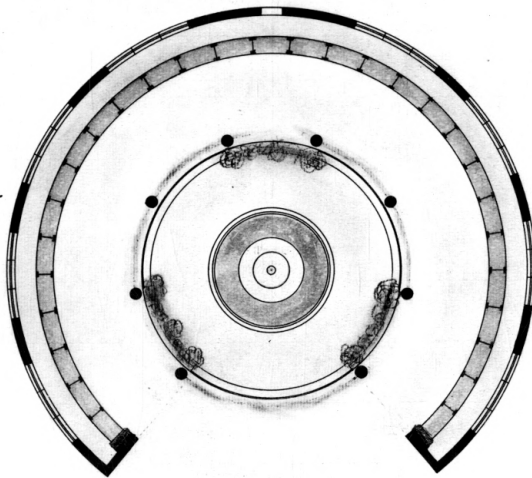
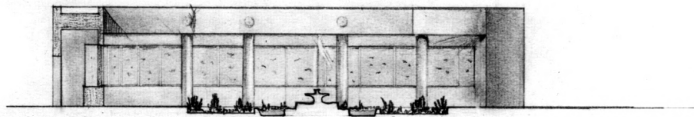
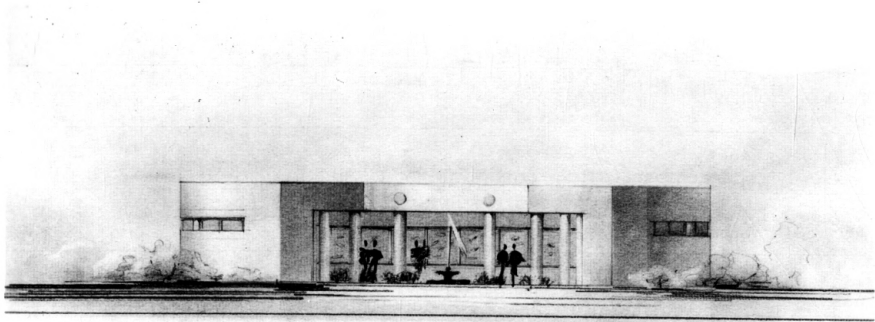
The State Fair Board has visited several structures of this kind and was impressed with the fact that circulation in all of them has seemed too congested for a building of this kind.

Dimensions and character of the structure are left entirely to the designer.

REQUIRED: Plan, section, and elevation at 1/8" scale.

See Plate XVI,

Page 71.



## ARCH. 115, 116; A BRANCH LIBRARY, FOUR-WEEK PROBLEM

In south Lincoln it is proposed to erect a Branch Library to relieve the City Library of congestion. A plot of ground 150' by 300' has been selected on South 24th Street, facing west, bounded on the short sides by Van Dorn Street on the south, and on the north by Lake Street.

The Library, to accommodate 100 patrons each day, shall contain the following:

1. Stack room or space for 1,000 books;
2. A reading room for adults, with a small space for reference work;
3. A reading room for children;
4. An office for the Librarian;
5. A community room to serve for book reviews, children's story hour, or small social gatherings, with adjacent kitchenette;
6. A workroom for repairing books, and containing 3 small stacks, a sink and gas plate;
7. Usual toilet facilities.

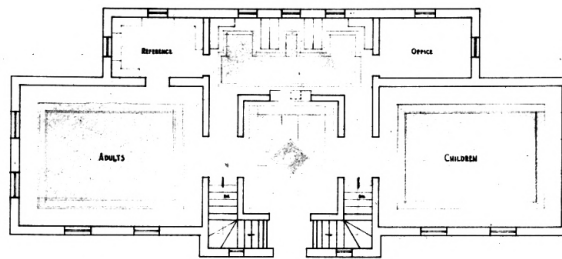
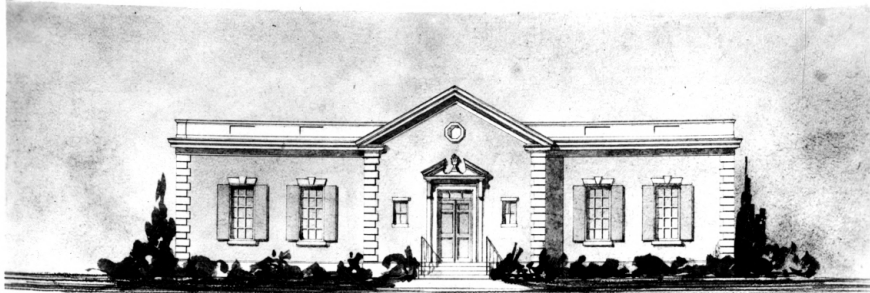
Books are brought from the Main Library in a truck and are received at the workroom. The building is to consist of a first floor and basement.

REQUIRED: Plot plan at  $1/32''$  scale.

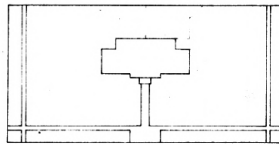
Plan of first floor, section, and elevation at  $1/8''$  scale.

See Plates XVII, XVIII,

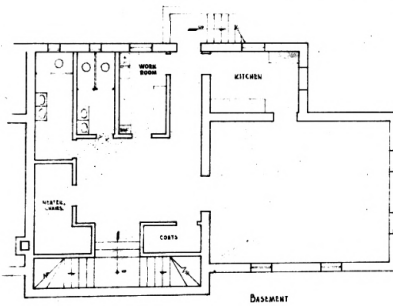
Pages 74, 75.



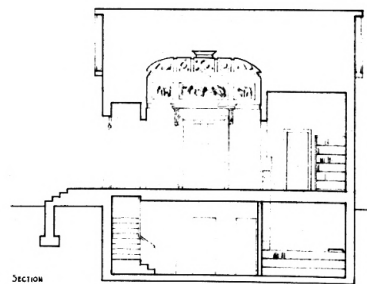
FIRST FLOOR PLAN



PLOT PLAN



BASEMENT



SECTION

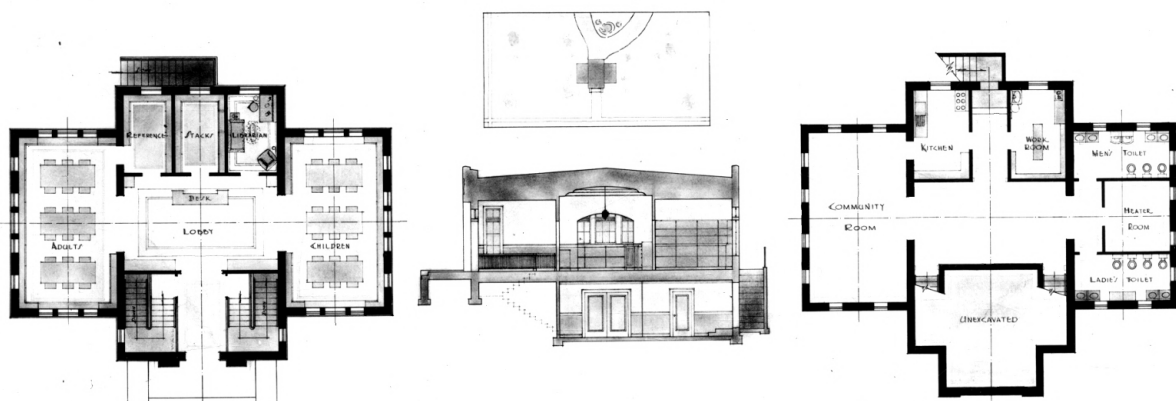
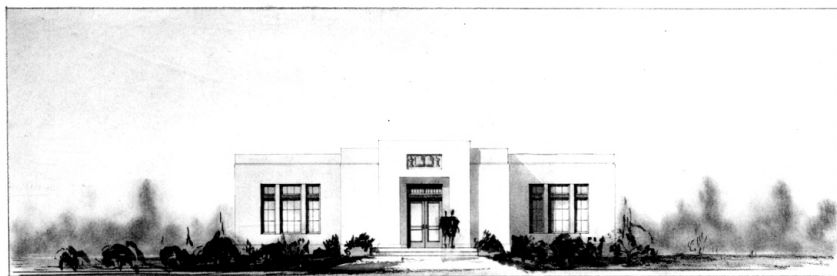


Plate XVIII

## ARCH. 217, A TRANSEPT, HISTORIC PROBLEM

December 3-10, 1934.

The subject proposed for the current problem is the transept of a large church. Those taking their first historic problem will design in the Early Christian, Byzantine, or Romanesque style; others in the Transitional, Fully Developed, or Flamboyant Gothic style, or in the early Renaissance style. Men in each group may choose the style they prefer, but they are expected to adhere closely to historic precedent in the style chosen. The student should not copy any specific example but from the study of a number of examples produce a design archaeologically correct. Mixtures of style and free interpretations are not desired.

Owing to the diversity of possibilities, no set schedule of drawings or scales is given for the rendu. The number and scale of final drawings will be settled in conference with the instructor. All students are expected to fill one double elephant sheet, and to render (pencil, crayon, ink, monotone, color). Each sheet must include a plan, at least one section, and at least one elevation, to give a complete idea of the transept. The most interesting section or elevation is to be drawn up at a larger scale than the others, forming the main body of the sheet. Details may be added if time permits.



REQUIRED for the Rendu:

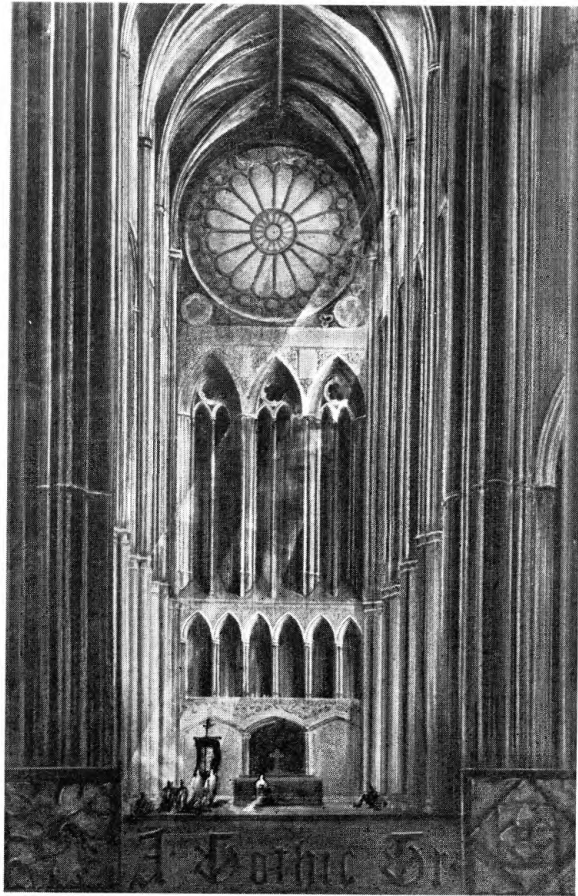
Rendered presentation sheet, and scales to be determined.

Due at 5:30 P.M. on Monday, December 10.

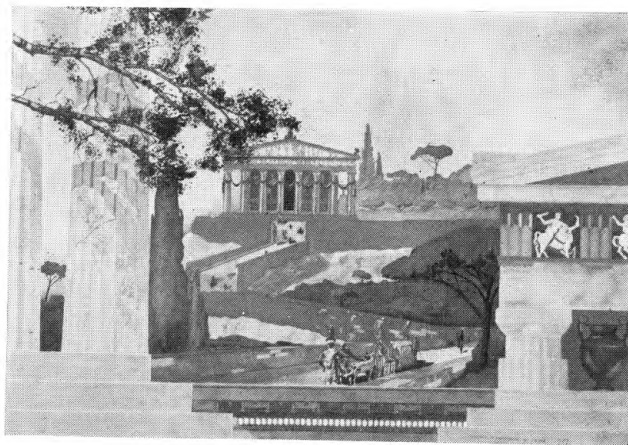
See Plate XIX,

Page 78.

Note: The lower illustration is a typical problem presented in the class of Architecture 227, 228, Classical Archaeology.



*"A Cathedral Transept." A six-day problem in Advanced Design, by Verner M. Meyers, '34, graduate student in the Department of Architecture.*



*Classical archeology problem drawn by Aubrey Nally, '35*