

PENCIL POINTS

An Illustrated Monthly JOURNAL for the
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MORE ABOUT STOCK PLANS

THE LETTER OF THE Architects' League of Northern New Jersey regarding the "stock plan evil," published in the June issue of PENCIL POINTS, seems to have started something. Since its appearance we have received many letters from readers north, south, east, and west, who have taken the opportunity to offer their views and add their voices to the protest. Some of these letters are presented this month on pages 559 to 563. Their writers are unanimous in opposing the principle of stock plans as well as the practice, now current in organizations of various types scattered through the country, of selling them for nominal sums to a public which is gullible enough to believe that the architect is an expensive luxury.

It seems obvious that the profession is here confronted with a troublesome problem that needs solution. Whether or not a solution is possible depends on the energy with which it is attacked. The business of dealing in stock plans, having apparently been found profitable, is not likely to die out of itself and it is probable that it can never be killed completely. There will always be some prospective home builders who will accept this doubtful form of architectural "service" as satisfactory because it is cheap, just as there will always be people who will buy the gaudy and shoddy furniture that is

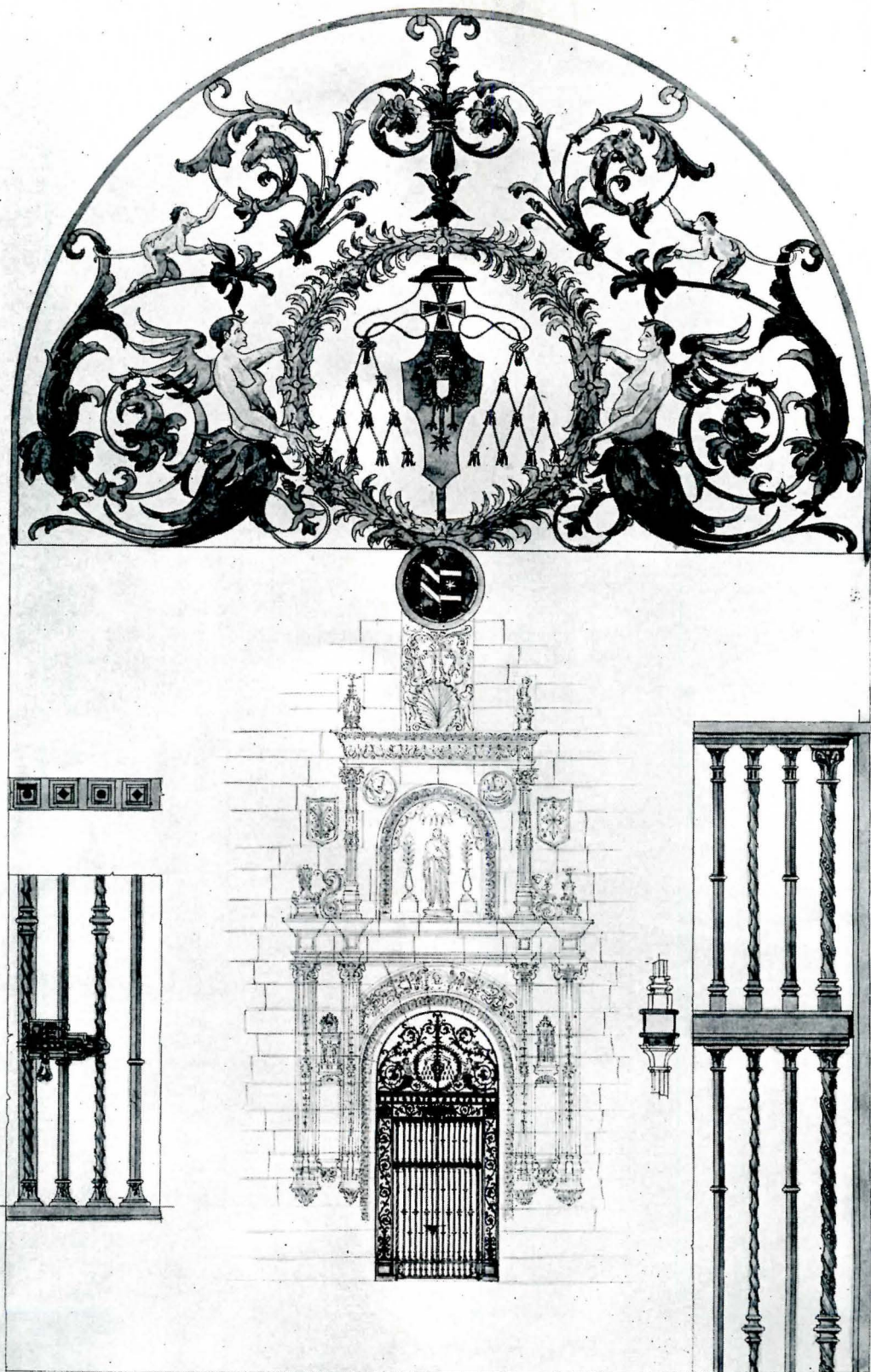
offered for sale on every hand. That the architect can save them more than the amount of his fee by insuring good and lasting construction as well as giving them increased comfort and convenience and better design does not occur to these people. We question whether they can ever be educated out of their error.

There is, however, a considerable number of people of greater discernment who might well be convinced that the architect is worthy of his hire and it is to these that the architect must address himself. They may be reached by group advertising and publicity directed at them unceasingly in every conceivable way and over an extended period. Every organized group of architects in this country can do its part in the campaign and every individual architect can, by keeping constantly at it, help to increase general public recognition of the fact that "it pays to hire an architect." It will be a long task and by no means an easy one, but it is the only way in which the evil can be even partly eradicated. The architect as a professional man must cultivate salesmanship, not that of the "drummer" but the higher type practiced by the modern business man. He must sell not only his own wares but those of the entire profession as a profession—and the profession must come first. Are the architects of this country equal to the task?

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"A SPANISH RENAISSANCE WROUGHT IRON DOOR TO A MONASTERY," BY WILLIAM VAN ALLEN
 PROBLEM IN ARCHAEOLOGY, ECOLE DES BEAUX ARTS

PENCIL POINTS

Volume X

August, 1929

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DRAFTSMANSHIP AND ARCHITECTURE, V

AS EXEMPLIFIED BY THE WORK OF WILLIAM VAN ALLEN

By Francis S. Swales

WHEN YOUNG "BILL" VAN ALLEN'S ambition to become an architect first caused him to ponder upon the problem of how to get a start and meanwhile make the cost of living with which the economic system charged him—which he knew he *must* pay, whether he could or not—he found the happy solution in a job as an office boy in the establishment of Clarence True.

True was one of those *real* architects who do not have to compromise with "the owner" or "the contractor." He was both. He was a speculative builder making "whoopie" along Riverside Drive during the late nineties and the dawning years of this century. His name, tripping the light fantastic on the signboards of New York, was then as familiar as are those of "Camel," "Chesterfield," and "Spearmint" today. "The brassy art of self-advertisement" was then in its infancy, and in the rather exclusive circles of men who considered themselves as the standard-bearers of the learned profession and fine art of Architecture it was the unfittest of things unfit to do. Contemporaneous opinion holds such views to be "high-hat." The exclusive circles are now the excluded circles which "don't count" and the survival of the unfittest is the *golden* art of publicity—"which pays for itself,"—and then some! Mr. True, it may be noted, was not only an architect but a futurist of his period.

Young Van Alen spent three years and three months working his way from office boy to general draftsman in Mr. True's office. During the latter

part of the time he entered Masqueray's atelier (after Masqueray had gone to St. Louis) where he learned the rudiments of academic architecture—made drawings of the Parthenon from plates, studied the orders, their application, etc.—and remained long enough to

get the drift of the students' stories of Masqueray's quaint sayings. For example, although the Parthenon was very fine architecture, and its refinements worth studying, "it might not make the best design for an office building if a dozen Parthenons were piled one upon another and hung to a steel skeleton"; and that Vignola made a set of good rules for setting out Roman and Renaissance orders, arcades and other simple elements of pseudo-classic design which were easy to learn and assisted in training the eye to observe proportion—the test of proportion being the answer to, "Does it look well?"—but one had to remember that "Vignola has been dead a long while and, besides, he did not know *everything* when he was alive."

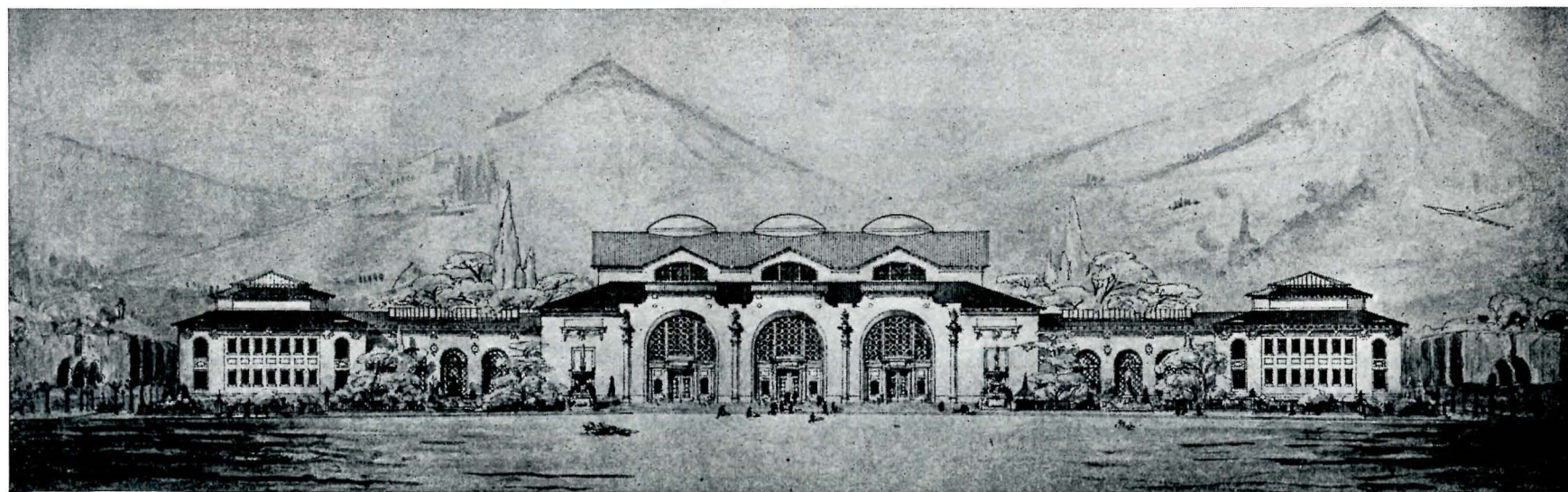
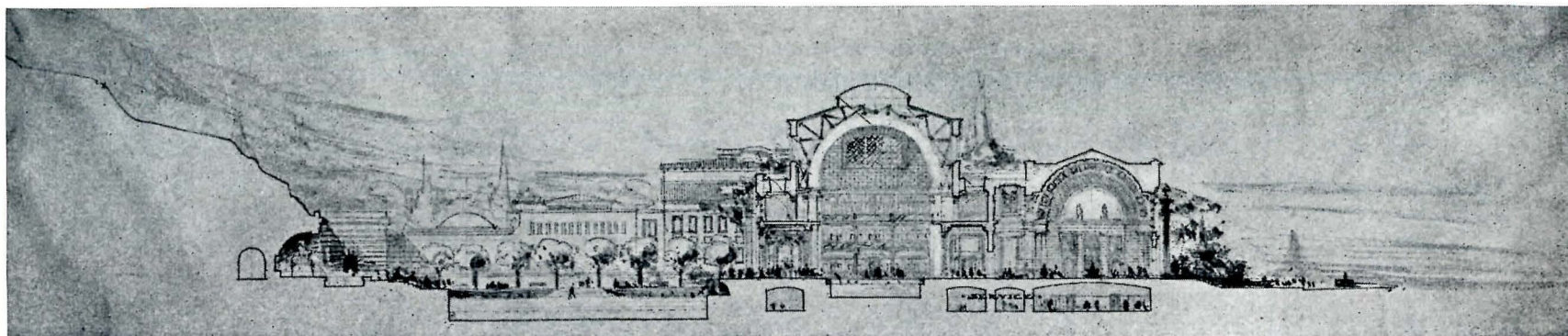


WILLIAM VAN ALLEN

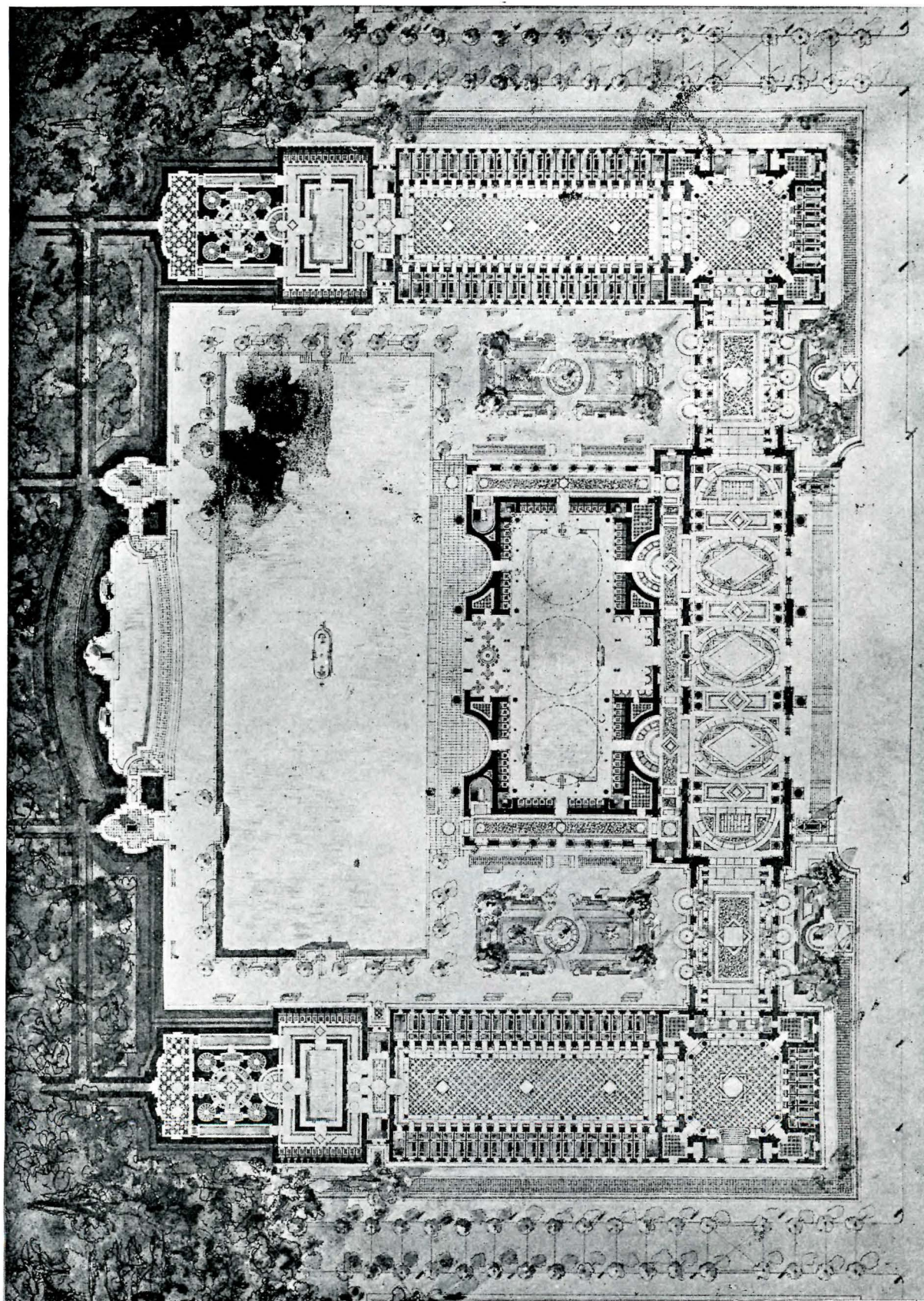
From a Bronze Plaque by Joseph P. Pollia

Sometimes a thing had to be done that was not according to the rules, but it had to be done because it was "the sensible thing to do." Also, that "a good architect would pay more money to a draftsman who knew how to get good proportions—one who had a good eye."

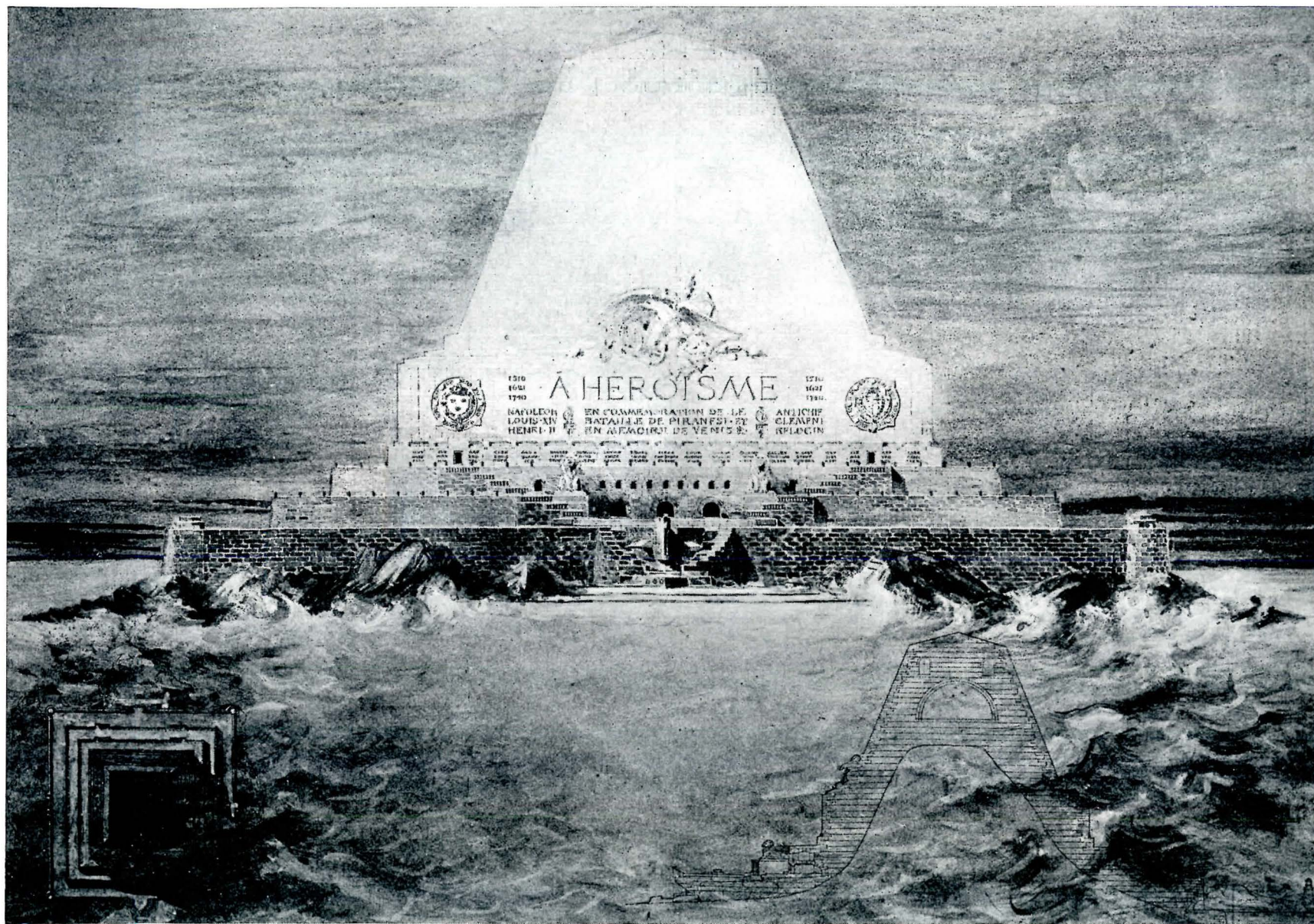
The last observation fell upon the good ear of a young man with a good eye to business. Van promptly used the main idea—he went looking for the "good architect" who was willing to pay him more than he was getting. He made application at two offices and



ELEVATION AND SECTION, DESIGN BY WILLIAM VAN ALLEN, PUPIL OF M. LALOUX AT THE ECOLE DES BEAUX ARTS
 "UN ETABLISSEMENT DE BAINS D'EAUX MINERALES THERMALES"—AWARDED FIRST MEDAL



PLAN FOR "UN ETABLISSEMENT DE BAINS D'EAUX MINERALES THERMALES"—AWARDED FIRST MEDAL
 DESIGN BY WILLIAM VAN ALLEN, PUPIL OF M. LALOUX AT THE ECOLE DES BEAUX ARTS



"A MONUMENT ERECTED ON AN ISLAND IN THE SEA TO COMMEMORATE A GREAT NAVAL BATTLE," DESIGN BY WILLIAM VAN ALÉN

AWARDED FIRST SECOND MEDAL, ECOLE DES BEAUX ARTS

landed two jobs. He took the first opportunity to get started on an ascending salary in the office of Copeland & Dole, where he remained a few months, raised the ante to the second employer who seemed to desire his services, and entered the office of Clinton and Russell. Soon after he joined their staff he also entered the atelier of Donn Barber and began working for the Paris Prize. He made a *loge* in 1906 and won the prize in 1908 with his design for *A Grand Opera House*. Until he went abroad on his scholarship he remained as a designer in the office of Clinton and Russell.

Possessing an important clientele in the field of commercial building Clinton and Russell generally abstained from taking part in competitions; but one of the few exceptions was when they entered a design which won a competition for a tall office building, with a bank below, at New Orleans. The site was a long shallow lot with an end too wide for one and too narrow for three of the bays of the motive composed for the longer façade.

Academic theory in design was "going strong" in those days and the lower stories of the design were in the popular classical fashion. To place a classical pilaster in the middle of a façade, and divide the front in two, was a gross affront to the precepts of the schools—so unlike the conservative and tactful firm of Clinton and Russell that wherever the competition was spoken of the corollary was the question, "Who was the designer?" That was what I asked of the latest American arrivals at Paris, a few weeks afterwards, and learned that "young Will Van Alen" was the culprit.

Rupert Hughes says that the successful business man is "a suffocated poet" and that "the imagination and the passion and the orderliness that brought him money were the same that would have made him a success in

verse." He described his suffocated poet as "inarticulate and incoherent . . . when beauty overwhelmed him, as it did in nearly every form."

Perhaps the beauty of Van's design overwhelmed Clinton and Russell. They did not fire him—they took the responsibility along with the profits on the job—but inarticulately and incoherently they satisfied the arbiters of elegance of the day by contriving to eliminate the pilaster.

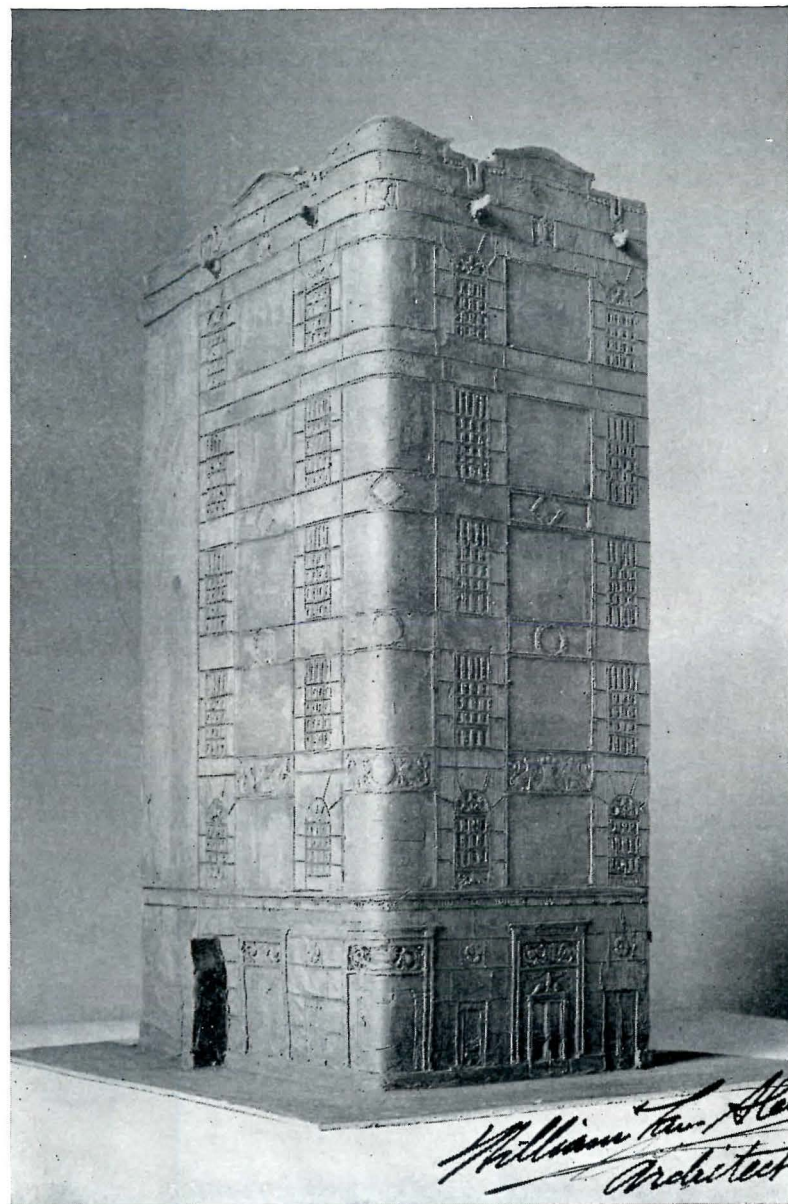
At Paris Van Alen made a good record with the problems in the *Ecole des Beaux Arts* and won special praise from his patron, M. Laloux, for the plan and its brilliant presentation of a design for a Bathhouse. In this *projet* and in another for a City Hall (both of which won medals in the *concours*) he used the then fashionable French version of the classical orders on the façades, which rather obscured the merit of the compositions and an underlying cleverness which indicated the characteristic of nearly all the work he has since performed. His work at the *Ecole* indicated that the training was providing him with the mental freedom necessary to think independently, instead of merely the usual school-cargo of elements of architecture and a technique of composition by rules. Touches of quaintness and sentiment may be found in his early compositions of ornamental and archaeological design; and one at least of his *projets*—a design for *A Monument to be Erected on an Island in the Sea*—displays a comprehension of monumental quality and scale seldom found in student design.

After that good start to the expression of conceptions, which the French training educes by its competitive applicatory method, Van Alen returned to New York. At first he became associated with another "suffocated poet" whose "imagination and passion" ran to 100% cooperative apartments. One of Van Alen's essays in that line was an apartment house with

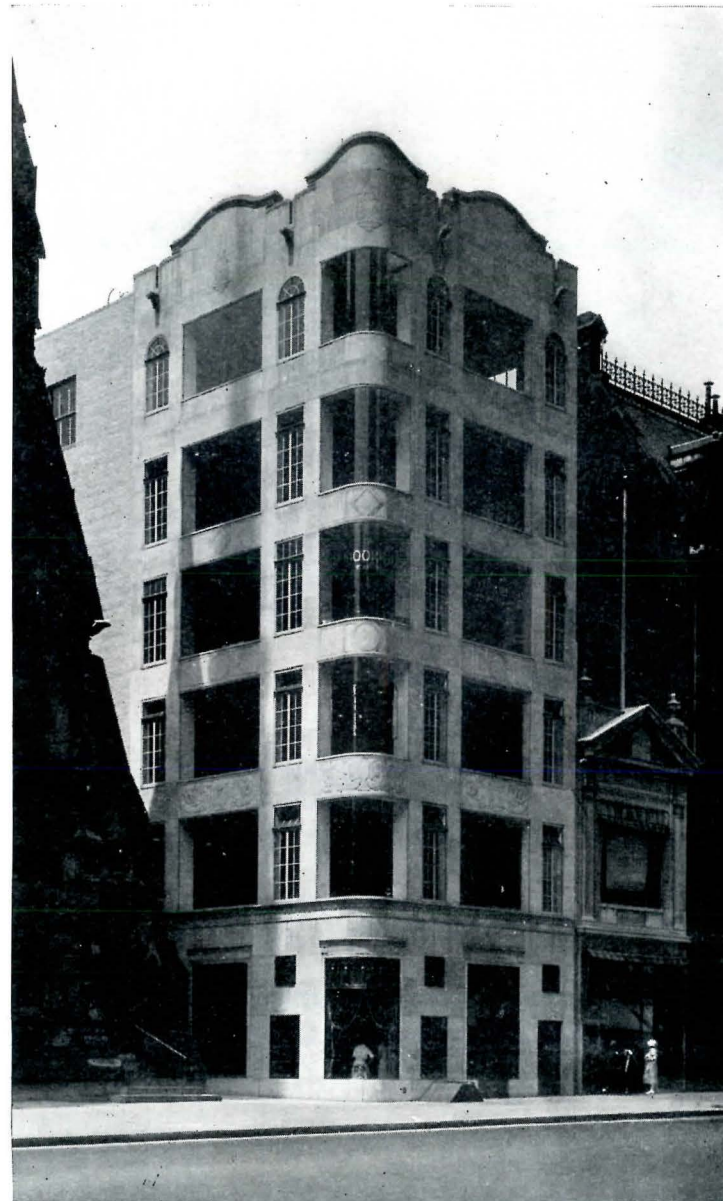


WATER COLOR STUDY BY WILLIAM VAN ALEN FOR THE LIDO BEACH HOTEL, LONG BEACH, L. I.

SEVERANCE AND VAN ALEN, ARCHITECTS



PLASTELINE MODEL
BUILDING FOR CHILDS RESTAURANT AT 604 FIFTH AVENUE, NEW YORK—WILLIAM VAN ALLEN, ARCHITECT



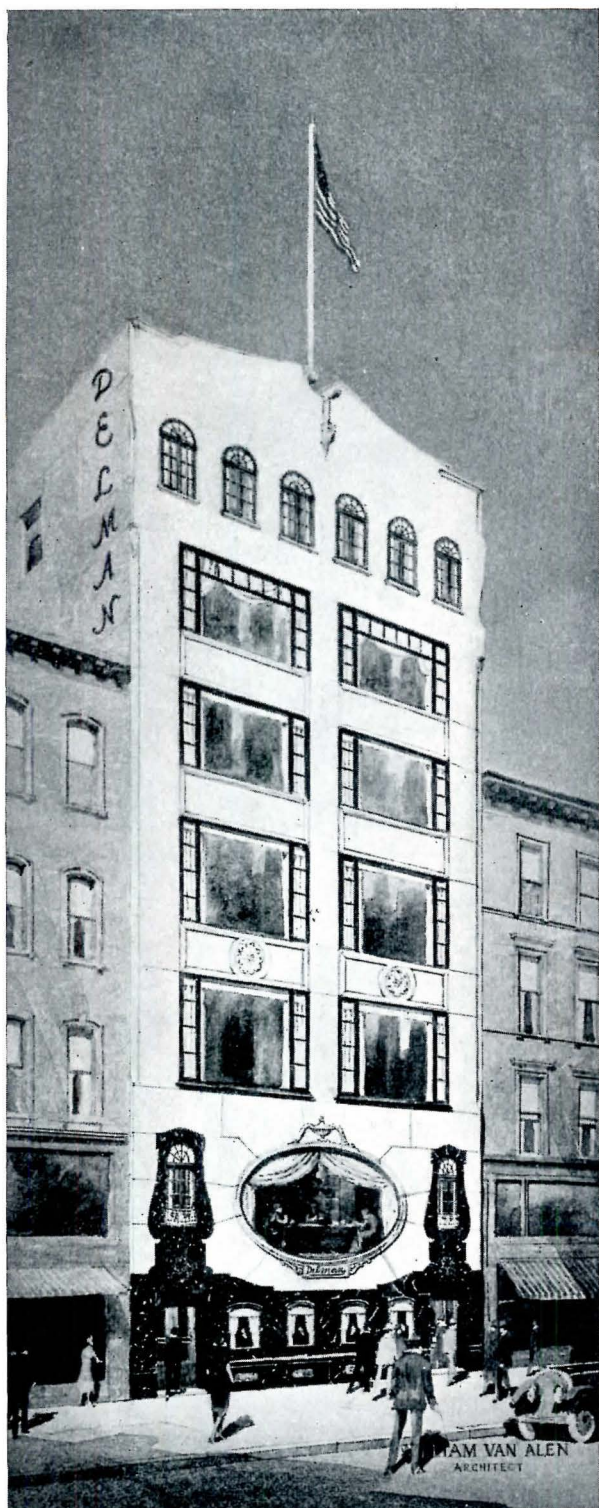
PHOTOGRAPH OF COMPLETED BUILDING



RENDERING IN OIL OF THE GARFIELD GRANT HOTEL, SHOWING EXACT COLOR SCHEME AS EXECUTED



COMPARE THIS PHOTOGRAPH OF THE BUILDING NEAR COMPLETION WITH THE RENDERING ABOVE
GARFIELD GRANT HOTEL AT LONG BRANCH, NEW JERSEY, WILLIAM VAN ALLEN, ARCHITECT



WATER COLOR RENDERING



PHOTOGRAPH OF COMPLETED BUILDING

BUILDING FOR THE DELMAN SHOE COMPANY AT 558 MADISON AVENUE, NEW YORK

WILLIAM VAN ALLEN, ARCHITECT

a garden, several inches square, in the courtyard. Any "young man from the Middle-West" familiar with the wide open spaces and places out there might use a microscope to locate the garden. But Van *knew* where it was, and invented for his flats the name "Garden Apartments"—a term that has been imitated throughout New York and its environs and has been the "best-seller" ever since! Later on he and still another "suffocated poet" (the title is readily extensible by different inflexions upon adjective and noun) became partners. He continued his work as the designing member of the firm bringing forth a number of new ideas—evolved by force of the problems, perhaps, but which the forces of custom and practice had previously successfully resisted—in the design of commercial buildings generally, but more particularly of shop-fronts, stores, restaurants, and so on, known as the "popular" types. Such work calls for quick conception and action but permits very little study, discussion, or reconsideration. The art, if any, must be spontaneous and, like a sketch, spirited and skillful to beat the enemy Time.

After several years in partnerships he launched out independently and as an individual architect is now "making quite a name for himself." Among the little things he has done, lately, towards that end is a building he has designed for a man (or is it an automobile?) by the name of Chrysler. The steel skeleton of the building is being erected at Lexington Avenue and 42nd Street. It is to rise about ten stories higher than the Woolworth Building; and several other things are said about it by the newspapers.

Of the things rather notable, in these days when designers imitating a thirty-years-old craze can see nothing but a series of vertical lines, is the way in which he has contrasted the middle and corner windows of the tower, and the general contrasts of principal shadow lines in the base, socket and shaft of the tower shaft. One feels that the steel columns are tied by girders and beams and will not fall apart like a bunch of untied asparagus stood on end. In that sense of architectural feeling Van Alen's idea seems to me better than nearly anything I have seen in the design of office buildings during the past several years.

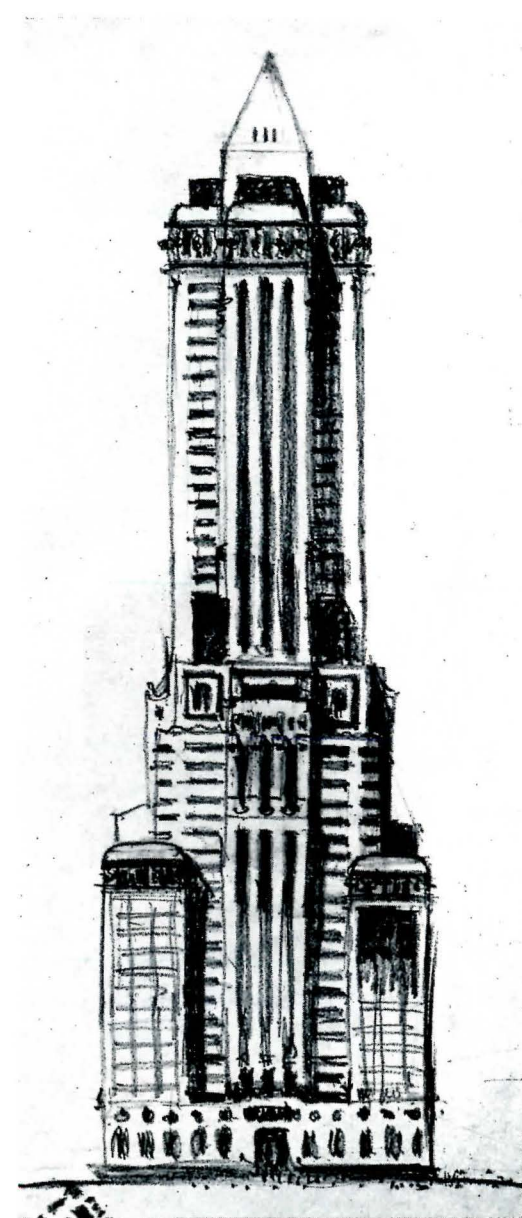
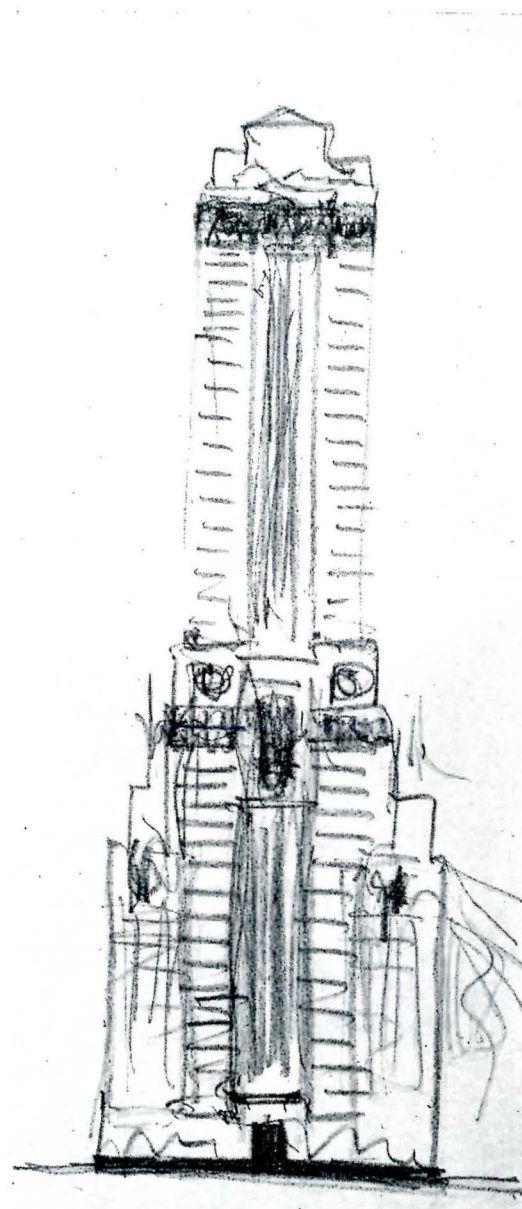
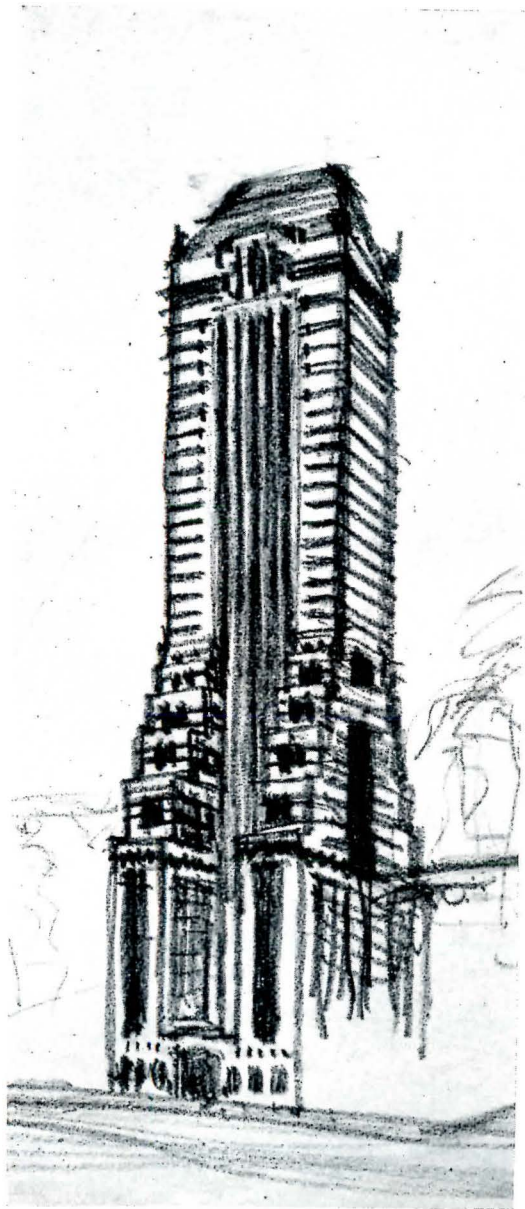
The sketch studies are full of interesting suggestion. One of the earlier studies, with bent glass corner windows all the way up, appealed to my judgment as to a successful solution more than the final design. But from the first thumb-nail sketch the artist has had a definite idea of composition in mind. What he will do with the detail remains to be seen. It may be safely stated that it will fit with the principles of good art and will not be copied from an old book or a new magazine. All of his work has shown experiment, progress, and individuality.

His most strikingly original and interesting things have been produced since he severed from partnerships and has practiced alone. Among so much experi-

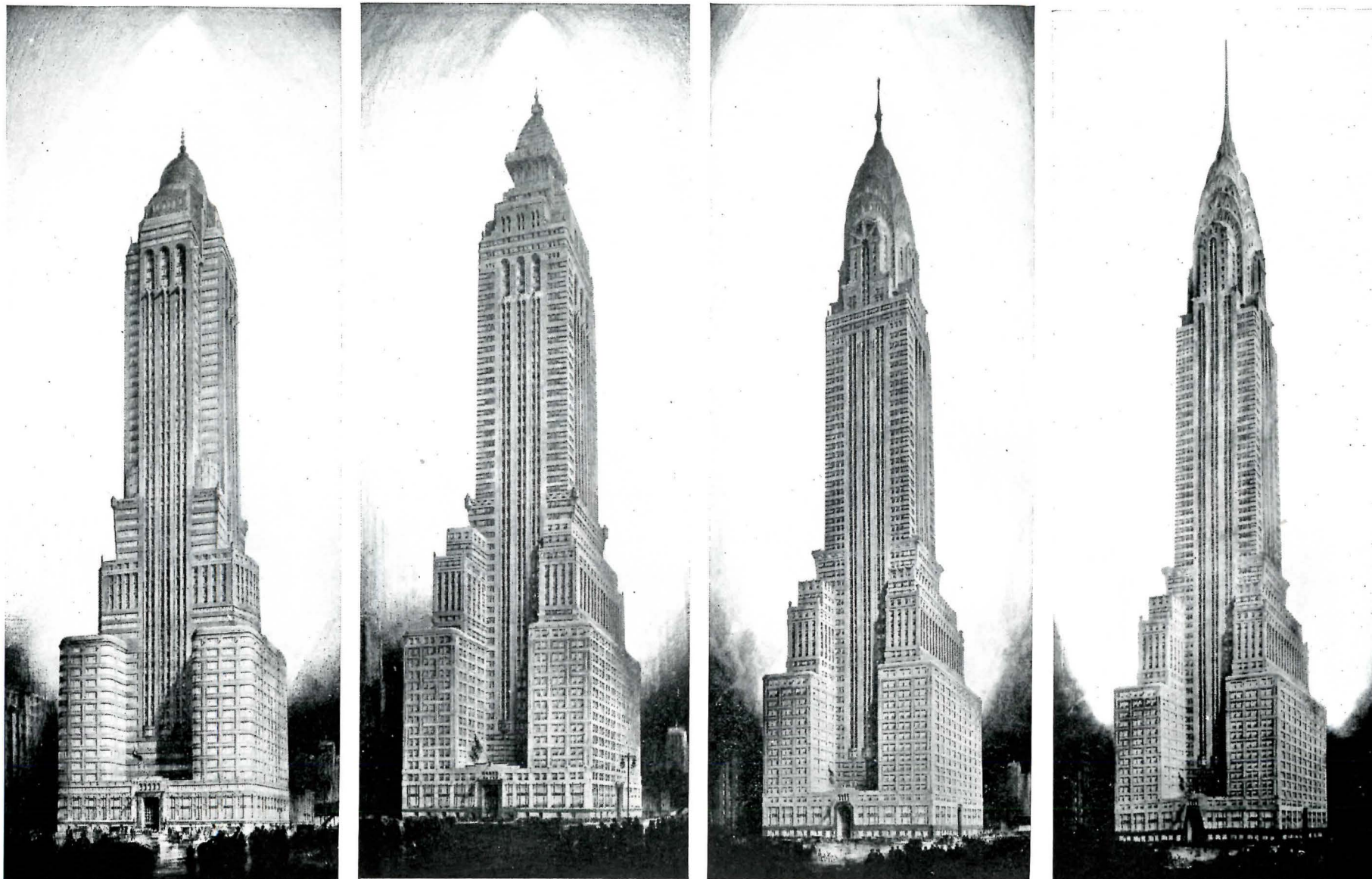
mental work some mere novelties may be expected, and found—novelties which in a few years give way to future novelties; for the front of a "popular" store is usually about as long-lived as a popular song. An observation which may be made with regard to Van Alen's shop-fronts, even the least successful, is that they are never without an interesting architectural character. Whether we like or do not like a particular front, at least we can recognize in it the work of a designer competent in judgment. It is novel, original, and amusing without being blatant or "cheap." Thus, the "Lucky Strike" cigarette shop on Broadway near Times Square has three great elliptical windows, one of which is bent to a quadrant, a thing that many designers would not attempt—believing that it could not be successful—but still would recognize Van Alen's job as being well done. For my part, I like the ellipse as a plane figure and only as a complete ellipse, or when halved horizontally along its longer axis—as in the fanlight. But I have no appreciation of beauty of the form in a distortion.

Other novelties in his work are more inciting to emulation—windows without reveals which seem to be applied to the opening like a poster on a wall are better as a treatment than four-inch reveals in curtain walls. That idea, first employed by Van Alen in the Standard Arcade in lower Broadway, has been adopted by American practice as though it were a classic. The planning of the entrance to the Prudence Building banking room in a way which makes it at once the chief entrance to that room and at the same time to the shops on the ground floor is worth a visit by any student of progress in modern planning. The principle of the idea—of two floors served by one main entrance—is not new, for we may see it in nearby buildings of earlier date—the Biltmore and Belmont Hotels, for examples—but there is an entirely different idea in the application. With the two hotels (as with some still earlier bank buildings in Chicago) the principal entrance is predominately to the principal thing: "the main floor"—the hotel lobby, or the banking room. The stores, etc., are considered as "in the basement," and one turns aside or down steps to comparatively unimportant passages leading to them. The academic theory of the "*clou*" and "subordinate parts" is satisfied; but the merchant paying from thirty to fifty dollars per square foot per year rental may not be so well satisfied to have his store regarded as a mere "subordinate part" or concession. The idea that Van Alen's plan puts across successfully is the equality of the stores with the bank—they are partners in the principal entrance. It is the "poetry" of Wall Street—neither without sentiment nor rhyme as well as reason.

Those denizens of or visitors to New York who find need of refreshment during the owl hours which fit in after all the other places are closed and before the hotels open their breakfast rooms know the open-all-night restaurants which bear upon their plate glass fronts an ugly sign in white letters, the name



THUMB-NAIL SKETCHES IN LITHOGRAPH PENCIL ON TRACING PAPER BY WILLIAM VAN ALLEN
STUDY FOR OFFICE BUILDING ON LINCOLN WAREHOUSE SITE AND TWO STUDIES FOR THE CHRYSLER BUILDING



STAGES IN THE DESIGN FOR THE CHRYSLER BUILDING—FINAL STAGE IS SHOWN AT THE RIGHT—WILLIAM VAN ALLEN, ARCHITECT

Materials are used in an interesting way in this building as follows: First story and entrances in black granite; second and third stories in Georgia marble; black, white, and gray brick above with some Georgia marble inlay; copings and entire top feature in Nirosta Steel; spandrels from 19th to 22nd stories in ornamental aluminum.

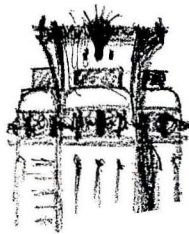
"Childs," which, during many years, was anathema to every amateur of good architecture, decoration, or furniture, or to anyone with a sense of that which is a pleasant dining room. The walls were of white tile with bands of frightful, colored elaborations which did not decorate; the griddle and urns, which stood near the window, were the products of the stove foundry's pattern maker; the ceilings came from a sheet metal manufacturer's stock; and the furniture, flooring, and utensils from God-knows-where! Then somebody in authority acquired a lucid interval and employed Van Alen's talent. Now all is changed except the plate glass with the ugly white letters and the printed disclaimer of responsibility "in case they steal your hat and coat while you are looking at the decorations." One may enter them in broad daylight and even have a meal without losing caste; in fact some quite "classy" people have talked about the architecture and decorations of the new Fifth Avenue establishments in such familiar terms as prove that they visited those restaurants more than once. One of the newer establishments on Fifth Avenue has a corner of plate glass and stone so neatly rounded that the whole thing looks as though it might have been bent by a single operation around a gigantic roller. Architects are prone, or bone, to think of a building from the plan, the internal arrangements and effects, and let the elevation express the plan; but the man in the street looks upon a building and sees, in a large blur of masonry and glass, a show window and something inside it. Childs wanted him to see the *name* on the window; but, without getting too close, a close-up view showed several stories of show windows of what appeared to be a fine hosiery store displaying living models. Perhaps Bernard Shaw and Florenz Ziegfeld strolled by, for about that time the former was quoted as casting some aspersions upon the "upholstered women of the 'nineties" and saying he preferred "the modern girls with legs," and Ziegfeld announced the building of a new theatre with bigger and better shows. Childs, in a proper "live and let live" spirit, put up curtains and returned to the original architectural idea.

However, the experience taught Van Alen the real *parti* for a show window. It must catch the eye from

a distance by form; attract attention closer up by movement in the window; and present only the articles for sale to the observer arrived at the intended destination. He used it effectively in his design for the Delman Shoe Shop on Madison Avenue, built into two houses converted to several stories of shops—a large ellipse raised to the second story as the form to catch the eye; the attraction—shoemakers at work in the window—does not cause a crowd of idlers to gather in front to obstruct view of the articles for sale. Instead of an eye-paralysing array of numbers of shoes, just four kinds are shown, in four small show-case windows, at and below the eye level. The effect is interesting and dignified both as to the display of goods and the architectural façade as a whole. The outlines of the black and gold marble against the grey stone wall above impress with *grace rather than* with anything approaching shock. The beautifully detailed bronze window-frames and ventilating registers add to the general effect of the design. The flat, two-dimensional treatment affords a pleasant relief from the monotonous broken shadows of a row of old brownstone fronts.

In most of his designs Mr. Van Alen has avoided the weak effect of very shallow reveals to windows in the mere curtain-walls of large steel-framed structures by eliminating the reveal and placing his windows practically flush with the outside of the wall. In walls of cut-stone it eliminates the effect of thin beds to large slabs, leaving the imagination free to assume a greater, instead of seeing a less, thickness than the actual.

A few years ago, when Giddings' store in upper Fifth Avenue was being completed, "Dick" Smythe and I stopped to look it over. ("Dick" himself, under his full and fancy name of Richard Haviland Smythe, had then designed many of the quaint, very original and often beautiful shop-fronts which are now known as far as the circle of architectural publications reaches.) I searched for his expert opinion by asking: "Well, how do you like it?" "How I *don't* like it is what you mean," he asserted; but answered: "Van Alen's stuff is so darned clever that I don't know whether to *admire* it or *hate* it."



THE GEOMETRY OF ARCHITECTURAL DRAFTING

PART I—ECONOMY OF MEANS

By Ernest Irving Freese

EDITOR'S NOTE:—*This article begins a new series by Ernest Irving Freese, whose articles on Perspective Projection have been completed with the installment in the July issue. Though the discussion presented this month deals with somewhat elementary problems in geometry we can promise that, before Mr. Freese is through with the subject, even the most experienced of draftsmen will find himself enthusiastic about the way in which the author shows the application of the fundamental science of geometry to practical everyday drafting-room work. The admirably clear illustrations together with the text are copyrighted, 1929, by the author.*

THIS WORK IS avowedly a *drafting-room geometry*: a geometry which, in its entirety, comprehends every practical graphical construction and every usable laying-out process or instrumental manipulation that tends in any way to increase the producing-power and, consequently, the *earning-power*, of the modern architectural draftsman. It is a geometry that makes for speed-with-accuracy. It banishes guess-work, subjugates theory, and places before the student and draftsman an apt and ready solution of any "problem" of linear construction met with in pursuance of the diversified art of architectural drafting.

Moreover, it is a geometry that recognizes and *utilizes* the fact that the draftsman of *today* works on a drafting-board, with T-square, triangles, and scales, as well as with the traditional compass of Euclid. This is a geometry of today—possibly of tomorrow—most assuredly not of yesterday. The hallowed antiquity of Euclidean methods carries no weight in this work. Where Euclidean construction is resorted to it is because it happens to be the most practical to apply to the case in hand—not because it is the most antique. This is a geometry of practical drafting—not of theoretical demonstration. It develops earning-power—not necessarily argumental power. Its chief concern is with the drawing of lines—not conclusions.

In the drafting-room, college geometry breaks down before the geometry inherent in the drafting-board, the T-square, and the "sliding triangles." A "straight line" is a line drawn with a straightedge! If it happens to be the shortest path between two points—so much the better! The sliding T-square and the sliding triangles are "straightedges"—just as straight—possibly straighter than the "ruler" of Euclid. Two straightedges sliding one on the other, with edges at right angles to one another, produce "parallels and perpendiculars." Any angle can be bisected with the sliding triangles. Modern drafting instruments have outdone the ancients and, so far as practical drafting is concerned, most of their "geometry." No *draftsman* ever draws a line paralleling a given line, or draws a perpendicular to a given line, by employing the methods of Euclidean antiquity. Instead, he slides his T-square or triangles into position and *draws the line*. His geometry is in his tools, and so is his speed-and-accuracy.

The geometry that is taught in the classroom is *not* the geometry that's used in the drafting-room. Ask any practical draftsman to lay out a rectangle or to draw a tangent to a circular arc: he reaches for his T-square and triangles and does the trick in less time than it would take the disciple of Euclid to swing the first arc preparatory to locating the initial points from which other arcs must be swung in order to locate the final points through which the required lines must pass. Figure 1 depicts these two systems of applied geometry, the ancient one of the classroom and the modern one of the drafting-room. The former is constructive, the latter manipulative. Both are theoretically sound. They produce identical results. But the one that's taught in the classroom will not qualify you to "hold down a job" in the drafting-room. Why? Well, let's work out these three fundamental "problems" both ways and *discover* why. The first problem is: *To draw a line perpendicular to a given line at a given point in the line*. All the "geometries" from the year 300 B.C. down to date have "solved" this "problem." And this is how it's done, assuming *ab* as the given line, either horizontal, vertical or oblique, and *c* as the given point:—(See "A," Figure 1).

Set compass to any convenient radius. Place compass at point *c* as a center. Cut the line *ab* in the points 1 and 2. Reset compass to a radius about fifty per cent greater than the first radius. With center at point 1, draw arc *de*. With center at point 2, draw arc *fg*, the two arcs crossing at point 3. Move a straightedge into alignment with points *c* and 3. *Draw the required perpendicular*.

Stripped of everything but *action*, the above directions would read like this: *Set compass, place compass, draw arc, reset compass, place compass, draw arc, place compass, draw arc, place straightedge, draw line*. A total of *ten* distinct time-consuming operations required to produce one needed line!

Now we'll do the same thing the drafting-room way, as diagramed at "D" in Figure 1, letting *ab* represent the given line and *c* the given point:—

Slide T-square to position 1. Slide triangle to position 1. *Draw the required perpendicular*.

Compared with the unadorned description of the former method, this is: *Slide, slide, draw*. In reality,

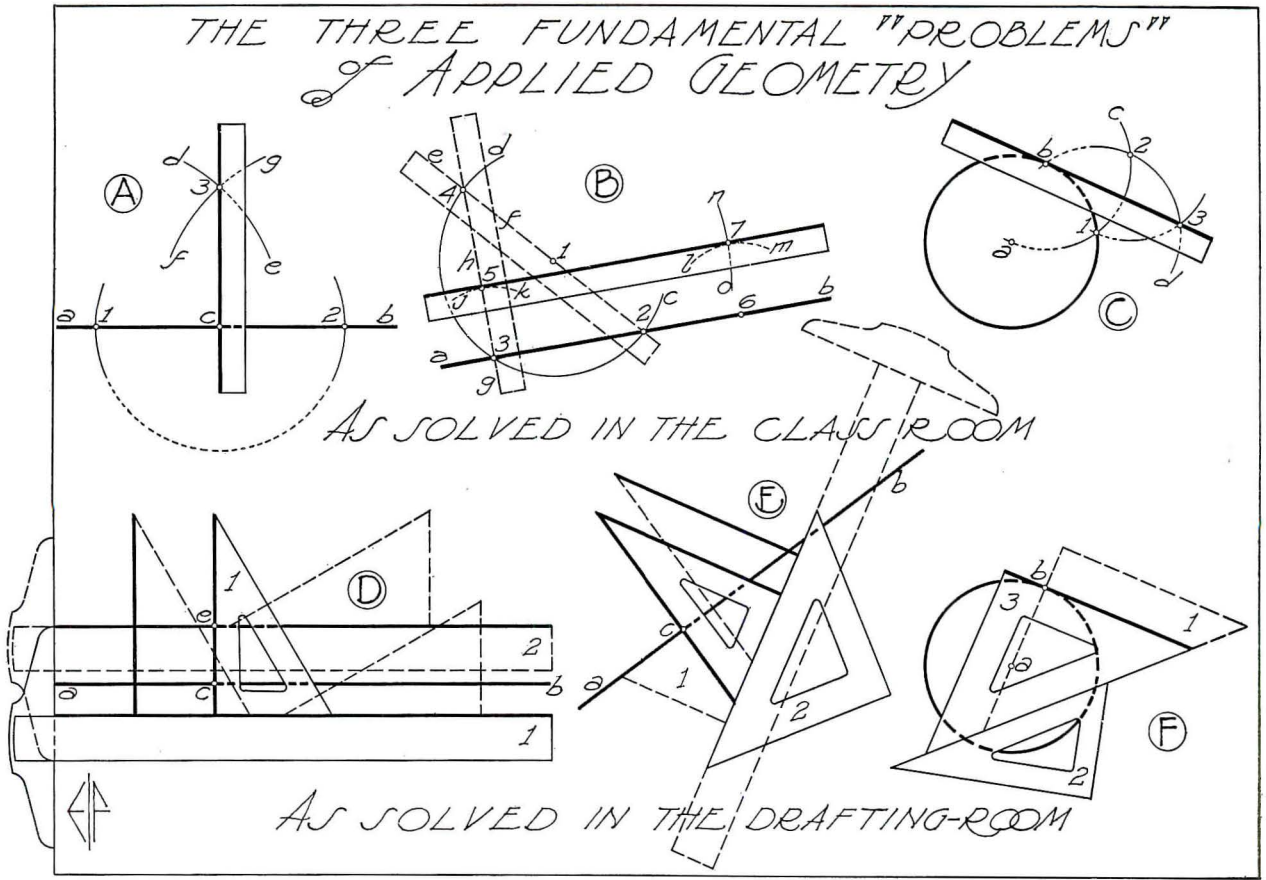


FIGURE 1—THE THREE FUNDAMENTAL PROBLEMS OF APPLIED GEOMETRY

the two "slides" are as one, for the geometry of the drafting-room is *two-handed*!

If the given line is vertical, the draftsman merely slides his T-square to the given point and *draws the perpendicular* which, in this case, is a horizontal one. If the given line is oblique and happens to correspond with one of the angles of a triangle, he promptly reverses said triangle and *draws the perpendicular*. If the given line corresponds to the hypotenuse, the reversal is accomplished by bringing the upstanding leg horizontal. But if the given line coincides with a leg line, then the reversal consists of simply sliding the triangle on the T-square in a direction to cover the line, which sliding will bring the other leg at right angles to the line. And if this latter operation does not afford a long enough leg, then the triangle is turned over and the short leg thereby changes position with the longer one. To the experienced draftsman, these manipulations are all automatic, being performed almost without thought. And I have found that it is exceedingly difficult for a student to "learn anything" by the mere act of watching someone who does it. The modern high-speed draftsman is "sleight of hand," and his "bag of tricks" can be learned only by first doing them in a slow and painstaking manner, endeavoring to "think out" each move in advance, and then by continually practicing these moves until no

thought about them is required. But, to get back to our present "problem," suppose, now, that the given line lies at such an angle on the board as not to coincide with any angle of the triangles or any angle possible by a combination of them. The problem is then solved with *two* triangles, one acting as a sliding-base for the other. For instance, in Figure 1, at "E," let the given line be *ab*, and let the given point be *c*.

Bring two triangles together and, sliding them as one unit, bring the hypotenuse of number 1 into coincidence with the given line. Now, holding number 2, shift the position of number 1 and slide same along number 2 until the hypotenuse reaches the given point. *Draw the required perpendicular.*

The above is the *general drafting-room method* of erecting perpendiculars, as contrasted with the *general classroom method* shown at "A." Observe that the drafting-room method requires no construction lines at all: merely a few simple manipulations of the sliding instruments. The drafting-room method is direct. The Euclidean method is indirect. The former *saves time*. The latter *wastes it*.

Now work out the still more "complicated" solution of the next fundamental problem, presented in Figure 1 at "B." This second problem is: "*To draw a line parallel to, and at a given distance from, a*

given line." This is the way they do it in the classroom. Let *ab* represent the given line and assume any given distance. Then:—

Place the compass at any point, *1*, as a center.

Set the compass to a radius about fifty per cent greater than the right-angular distance of this point from the given line. Draw the arc *cd*, cutting the given line at the points *2* and *3*. Place a straightedge in line with the points *1* and *2*, projecting same far enough beyond point *1* to cross the arc *cd*. Draw the line *ef*, crossing the arc *cd* at point *4*. Place the straightedge in line with points *3* and *4*. Draw the line *gh* long enough to measure off on same the given distance. Set the compass to this given distance. Place the compass at point *3* as a center. Draw the arc *jk*, crossing the line *gh* at point *5*. Place compass at any point, *6*, near or at the other end of the given line. Draw arc *lm* with the radius at which the compass was set for arc *jk*. Reset compass to the radius *3-6*. Place compass at point *5* as a center. Draw the arc *no*, crossing the arc *lm* at point *7*. Place a straightedge in line with points *5* and *7*. Draw the required parallel.

The above process is familiarly known as "sixteen-to-one." It necessitates *sixteen* consecutive and painstaking operations to produce the *one* line required. And if any one of those sixteen operations is in error, then the *final result is wrong*. This kind of geometry is ideal for expounding the theory of "spacial relations." It has no place in the *drafting-room*.

The drafting-room method of drawing parallels is simplicity itself. If the given line is "inherent" in the instruments, or in any combination of them, the given distance is measured off on a right-angular line and the line drawn, as is illustrated in the composite diagram at "D" in Figure 1. But, just to make the contrast more acute, I shall now "explain" how it is done when the given line, say, is a horizontal. In Figure 1, then, at "D," let it be required to draw a parallel to the line *ab* at a given distance from it. This is how a *draftsman* does it:—

Slide T-square to position *1*, just below the given line. (The "just below" is to allow of the measuring-line crossing, instead of just starting . . . or stopping at, the given line.) At the same time, with the *other* hand, slide a triangle, with one edge placed vertical, to any position that crosses the given line *ab*. Draw a measuring-line across the given line and extend it far enough to cross the required parallel. On this line, lay off *ce* equal to the given distance. Slide T-square to point *e*. Draw the required parallel.

As a matter of fact, the measuring-line can be, and in most cases *is*, entirely dispensed with by laying the scale itself at right-angles to the given line, or along some right-angular line already existing. The perpendicularity of the scale with the given line can, however, be accurately judged by the eye of an experienced

draftsman. Moreover, if the graduation-marks on the opposite edges of the scale are *squarely* opposite, then the said opposite marks, if brought into coincidence with the given line, will accurately place the scale at ninety degrees to the given line. This, then, reduces the operation of drawing horizontal parallels to two absolutely *direct* moves; one with the scale and the other with the T-square. The operations are equally direct for the drawing of vertical parallels as well as for the drawing of parallels whose direction coincides with any of the inherent lines of the single or combined triangles. Finally, a parallel to *any* line in *any* position can quickly be drawn by bringing two triangles together, then, sliding them as a unit, bringing an edge of one into contact with the line, then sliding the one on the other. If a triangle does not afford a long enough base, the T-square can be used instead. This *general drafting-room method* is diagramed at "E" in Figure 1, in contrast to the *general classroom method* already shown at "B."

The third problem, of the fundamental three, is: "To draw a tangent to a circle from a given point on the circumference." The ancient construction is shown at "C" in Figure 1. Let the point *a* represent the center of the given circle, and *b* the given point from which the tangent is to be drawn. Then:—

Place the compass at the given point *b* as a center. Set compass to the radius *ba*. Draw the arc *ac*, cutting the circle at point *1*. Place compass at point *1* as a center. With the same radius, draw the arc *bd*, crossing the arc *ac* at point *2*. Place compass at point *2*. With the same radius, cross the arc *bd* in the point *3*. Place a straightedge in line with the points *b* and *3*. Draw the required tangent.

Now do it the modern way, as illustrated at "F," Figure 1. As before, the point *a* is the center of the circle, and the point *b* is the given point on the circumference. Reach for your triangles:—

Slide any two triangles into solid contact. Then, moving them as one unit, bring a leg of one into alignment with the given points *a* and *b*. They are then in the positions indicated by the numbers *1* and *2* in the drawing. Now, holding *2* firmly, slide *1* along the hypotenuse of *2* until the other leg of *1* just uncovers, or meets, the given point of tangency *b*; this position being as indicated by the number *3*. Draw the required tangent.

In the above manipulation, not one construction line is drawn. The four simple movements are, in reality, merged into one . . . so smoothly and quickly is it accomplished. Truly, in the drafting-room, "geometry" has become a *manual art*. The T-square and the sliding triangles leave no trail behind them—no clue as to how it is done. The geometry of the drafting-room is *direct*. It is *economical of means*. And it is no less accurate than the geometry of the classroom, which latter, as you most cer-

tainly have seen, is a "round-about-way-to-get-at-it."

In general, *economy of means* makes for both speed and accuracy, other qualifying conditions remaining the same. In other words, the greater the number of operations performed in achieving any required result, the greater will be the time consumed thereby and the greater will be the liability of error in that result. In the solution of most of the numerous geometric problems met with in practical drafting, the necessity of drawing perpendiculars, parallels, tangents and normals, as well as the necessity of locating the mid-points and third-points of straight lines and the commonly-used angles, constantly occurs and recurs. In these cases, then, it follows that the *direct* use of the T-square, the triangles and the scale will yield a nearer approach to exactitude, *and in much quicker time*, than the *indirect* methods evolved in purely theoretical geometry. In each case, it is essential that the instruments used be accurate, and that the manipulation and "technique" be correct.

In Figures 2 to 6, inclusive, I have diagrammed some of this T-square-and-triangle geometry: the geometry that inheres in the instruments themselves. These drawings are indicative of this geometry: they illustrate the "lines" of the sliding instruments rather than their actual manipulation. Manipulation and technique will be dealt with more in detail in subsequent parts of this work. In the drawings here given, the instruments are not, necessarily, in their exact relative drafting-positions but, rather, in their *exact geometric relation* with one another.

In Figure 2 it is to be especially noted that the "working edges" of the sliding instruments contain every straight line necessary to make the drawing. Also, aside from illustrating some of the applications of the 45-degree line as contained in the triangle so-named, this example brings out the fact that the $22\frac{1}{2}$ -degree triangle, or the "quartering triangle," is a valuable and time-saving instrument which should be a part of every draftsman's equipment. It is a working-partner of the 45-degree triangle: it bisects one angle of the latter and quarters the other. In the example here shown, let the maximum allotted width of the bay, in plan, be fixed as the distance ab , and let it be required to lay out the five sides of this regular octagon from this data alone. Project convergent $22\frac{1}{2}$ -degree lines from a and b to cross verticals from the same points. Two sides, bc and ad , are the result. From the crossing, e , which is the peak of the bay roof, project divergent $67\frac{1}{2}$ -degree lines to cross 45-degree lines from c and d . This immediately gives two other sides, cf and dg . A T-square line, fg , completes the outer wall line, though not one measurement has been made, no compass has been used, and no lines extraneous to the sliding instruments have been used. This, again, is *economy of means*. Furthermore, the inside wall line can now be run around with the 45-degree triangle and the T-square, since the hip lines already established are also the mitre lines of the bay walls.

And lines from e , perpendicular to the wall lines, will yield the center lines of the windows. Moreover, in elevation, since the roof is "half pitch" the line eg of the octagonal hip will lie along the hypotenuse of the triangle shown. And a T-square line from d will cross this line at the point g . A vertical dropped from g gives the line of the front corner gh .

In Figure 3, architectural geometry invades the field of architectural design. And to most excellent purpose—for nothing else is more ugly to behold than an ungainly gambrel. The draftsman-designer will immediately appreciate the potential properties of the 30-60-degree triangle here so successfully applied. And it is worth emphasizing that the well-proportioned overhang and eaves sweeps are vital and contributing factors in the resultant pleasing lines. *Now do it.* First fix the extreme projection ab of the overhang. To maintain good lines this should not exceed one-sixteenth of the span, nor be appreciably less than that. But you don't have to calculate this dimension. It can be more quickly done by another simple application of triangle geometry. You know that the span bc is a certain number of feet. Call this *inches*. Lay off, to the scale of the drawing, these *inches* from b' to d , as shown by the small diagram. From b' and d project convergent 30-degree and 60-degree lines, respectively, to cross at e . A vertical from e establishes the overhang ab equal to three-quarters of db' , and, since db' is one-twelfth of bc , it just naturally "figgers" that ab must therefore equal three-quarters of one-twelfth, or *one-sixteenth*, of the span bc . Which is as it should be. Make bf equal to ba : said equality being at once created, without measurement, by the hypotenuse-line of a 45-degree triangle—as diagrammed at the opposite eaves. Then fix h by a 60-degree line through g , which latter point is the same as the opposite one f . The crossing of a 30-degree line from h with a 60-degree line from f , fixes j , the break of the roof from which the dormers emanate and the upper 30-degree slope starts. The ridge line is automatically established by working out the opposite slopes of the gambrel rake. Now for the sweeps at the eaves. Project convergent 30-degree and 60-degree lines from f and a , respectively. They cross at k , which is the exact point to center your compass for drawing the easement arc fa . This one simple drawing is a tabloid course in architectural drafting, design and mathematics. Yet it is all geometry . . . not from the textbooks but from the author's *drafting-room*. But before leaving this nice-looking gambrel, let me issue a word of caution: Lay out gambrel roof lines first without any relation whatsoever to floor lines. Use the span only as the initial governing condition. Then, after the roof lines are fixed, *fix the floor lines*. No trouble should be encountered in this respect for spans between twenty and thirty feet. But, for spans under twenty feet, the gambrel should not be forced to accommodate second-story rooms.

At Figure 4 are indicated a few practical applications of the actual manipulations detailed at "E" and

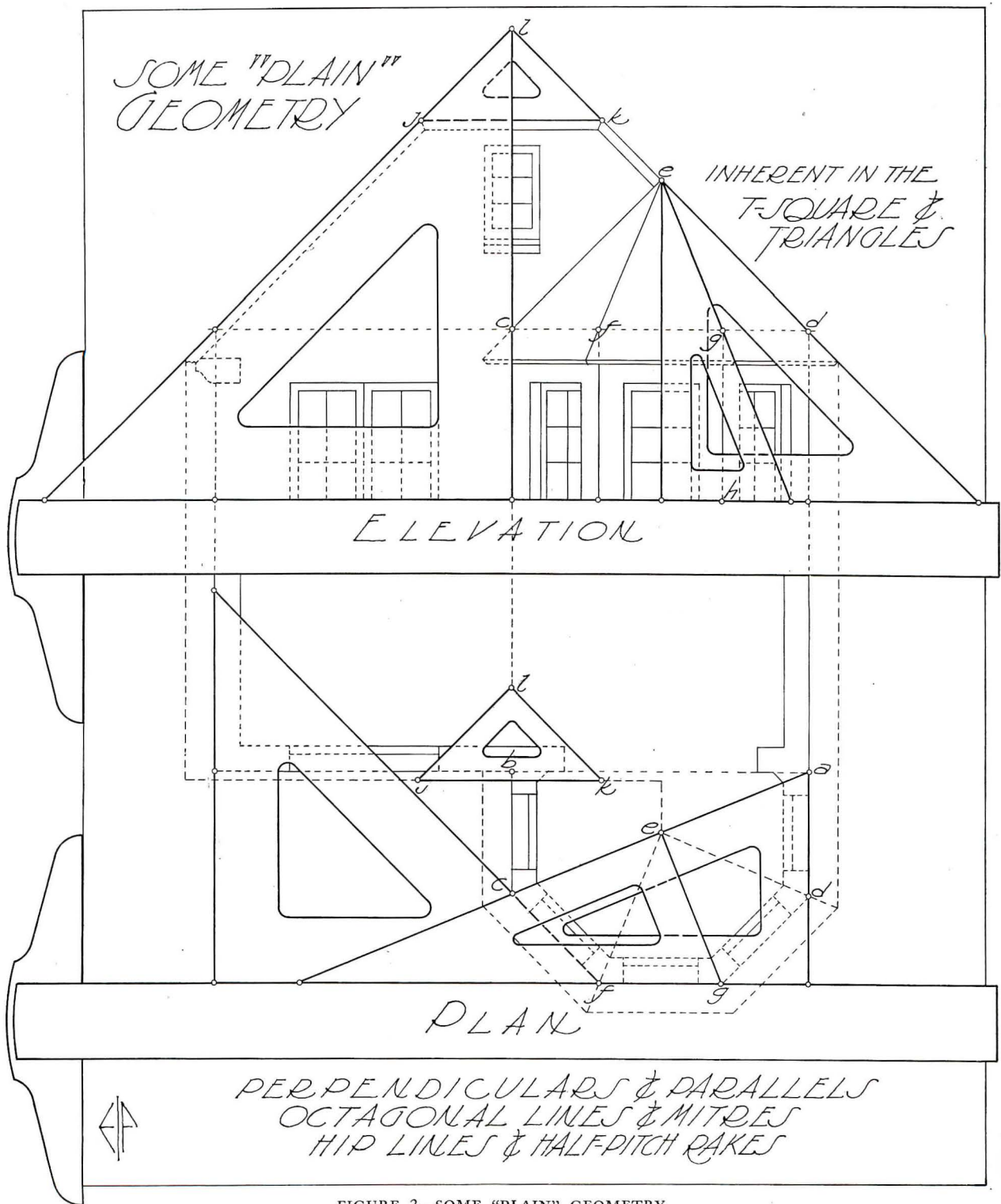


FIGURE 2—SOME "PLAIN" GEOMETRY

"F" in Figure 1. At "A" and "B," in Figure 4, the given data are the lines ab and bh and the horizontal spring line de of the ramp or haunch. It becomes necessary to locate the centers from which to draw the easements shown. First, make bf equal to bc . Then project perpendiculars from c and f . They will cross at g , the required center. And, in both cases, the 45-degree mitre line, hj , establishes the

longer radius, gj , of the ramped rail or arch ring.

At "B," in Figure 4, either of two other conditions may be given, and met, by the geometry there diagramed. Assume, first, that the haunch arc cf is fixed as shown, and that it is desired to continue the mantel arch in a straight line from the given point f to the center line, lk , of the opening. Since the line gf is the radius of the haunch, the required line must, to

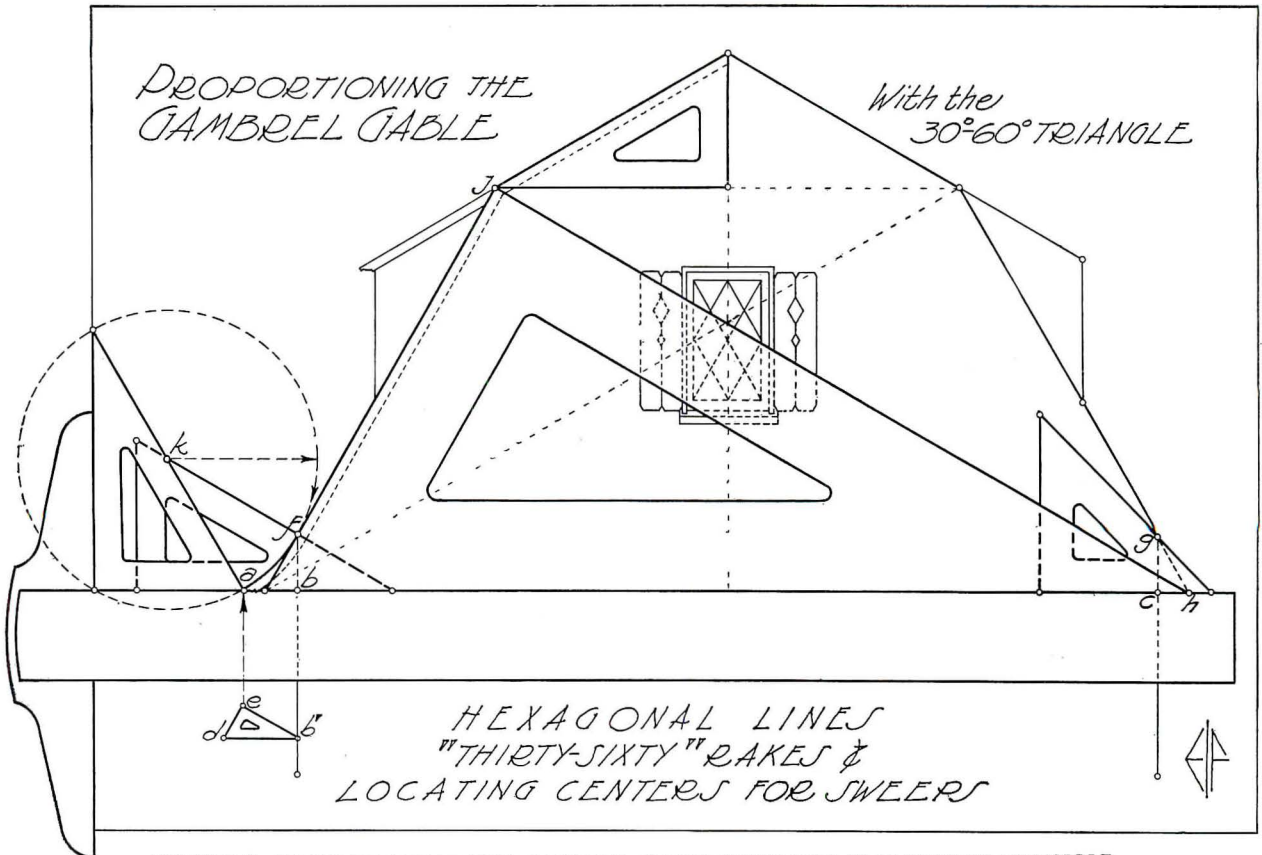


FIGURE 3—PROPORTIONING THE GAMBREL GABLE WITH THE 30-60-DEGREE TRIANGLE

come tangent to the arc, be drawn perpendicular to this radial fg . The actual manipulation of the triangles, to produce this required line, is identical with the method detailed at "F," Figure 1; the triangle afg , of Figure 4, being an indication of the geometry of the case rather than of its actual execution. Under the assumed conditions, then, the solution yields the required soffit line, or intrados, fa , of the arch. Hence, the rise la is also found. The line mk , of the extrados, as well as all moulding lines occurring between the lines fa and mk , can quickly be drawn by the method of drawing parallels indicated in Figure 1 at "E." Now, as a final variation on this "problem," let the rise la and the radius gc be given, to locate f , the point of tangency. This can, of course, be done accurately enough in most cases by merely sliding a triangle into line with a and, at the same time, into optical tangency with the arc drawn from center g . The radial gm drawn perpendicular to this "optical tangent" will then cross the arc at point f , which point will be the required point of tangency, provided the optical tangent is truly tangent. Another method, which is geometrically exact, as well as simple and uncommon, is to locate the point f as follows:—

Complete the parallelogram of which ag is the diagonal. Cross this diagonal with the other diagonal and, from the point of crossing, p , take the distance pg in the compass and cut the haunch arc at f , the required point of tangency. Draw fa , the soffit line required. The line fm is a joint-line, or normal. It

is always perpendicular to the tangent at the mutual point of contact with the curve. In the case of circles, only, it is also a radial.

If equally oblique converging lines be projected from the ends of a given straight line, these lines will cross at a point that will lie on the perpendicular bisector of the given line. If the given line is the chord of a circular arc, the perpendicular bisector of this chord will pass through the exact center of the circle and, therefore, will bisect not only the chord but also the arc and the subtended angle.

In the drafting-room, the above principle is put to work by utilizing the very lines that exist in the sliding instruments themselves. A few of the many practical and time-saving applications of this "triangulation" are suggested in Figure 5 where it can be seen that the establishment of center lines and axes of symmetry, as well as the bisection of straight lines and the commonly-occurring angles, is readily accomplished by means of the triangles sliding and operating on the T-square as a base. A handy method of locating the center lines of walls, rooms, façades, etc., is indicated at "A," while at "B" is diagrammed the geometry of the case where the given line is oblique but still concurrent with some line of the triangles. Bisection of vertical distances is shown at "C." At "D," the edges of the T-square and 45-degree triangle immediately locate the center lines of the windows in the semi-circular grouping. At "E" is shown the economical use of the 30-60-degree tri-

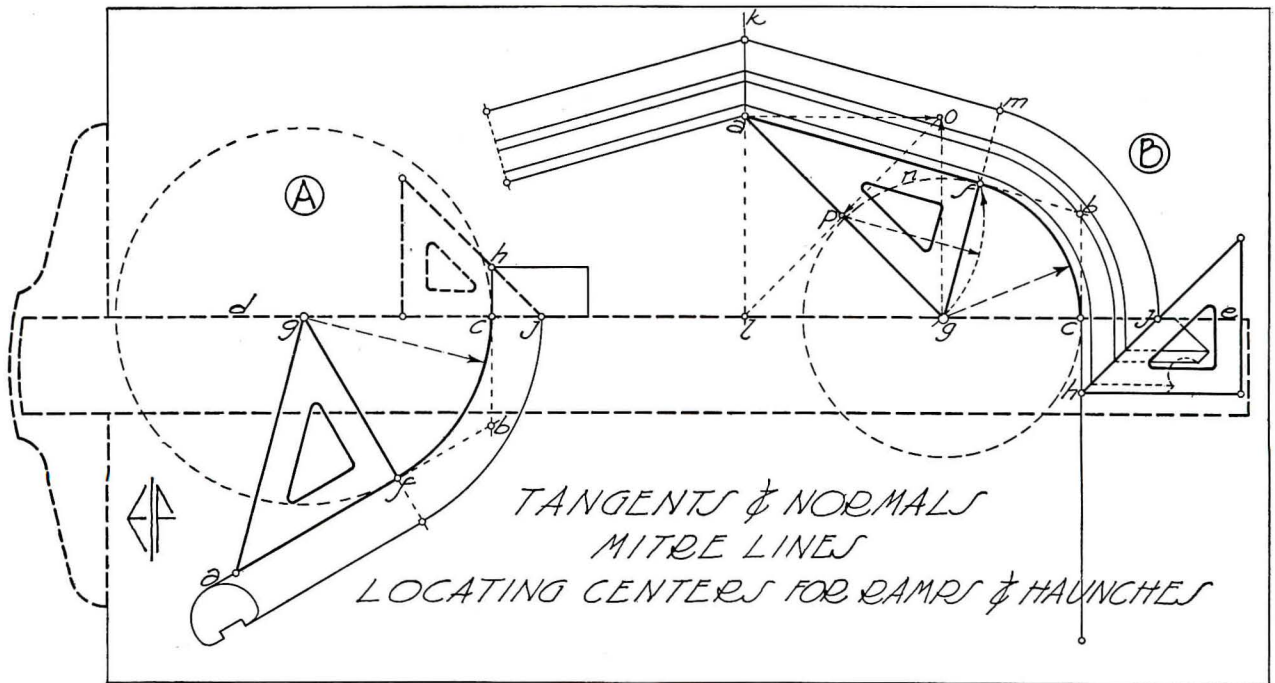


FIGURE 4—SOME PRACTICAL APPLICATIONS

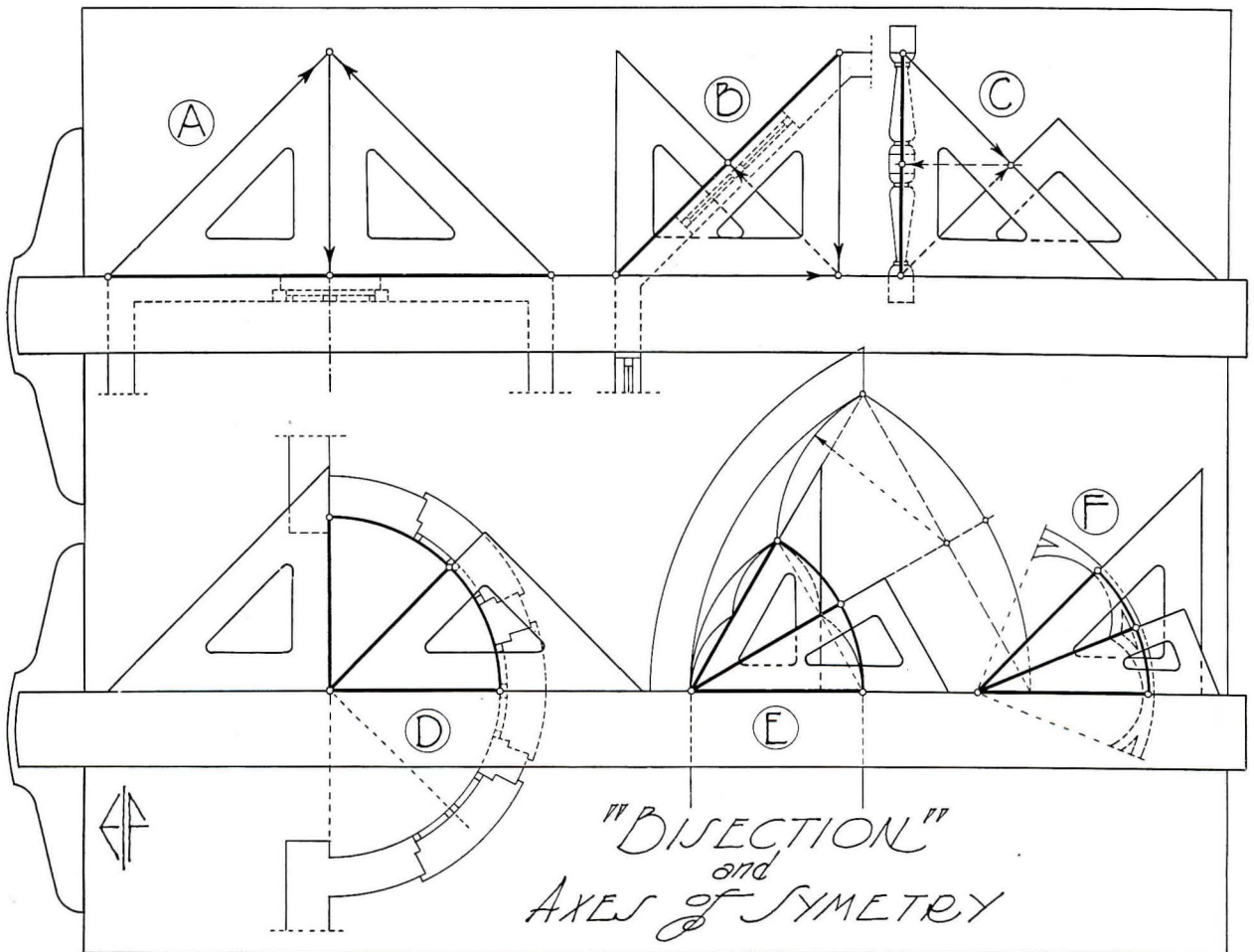


FIGURE 5—BISECTION AND AXES OF SYMMETRY

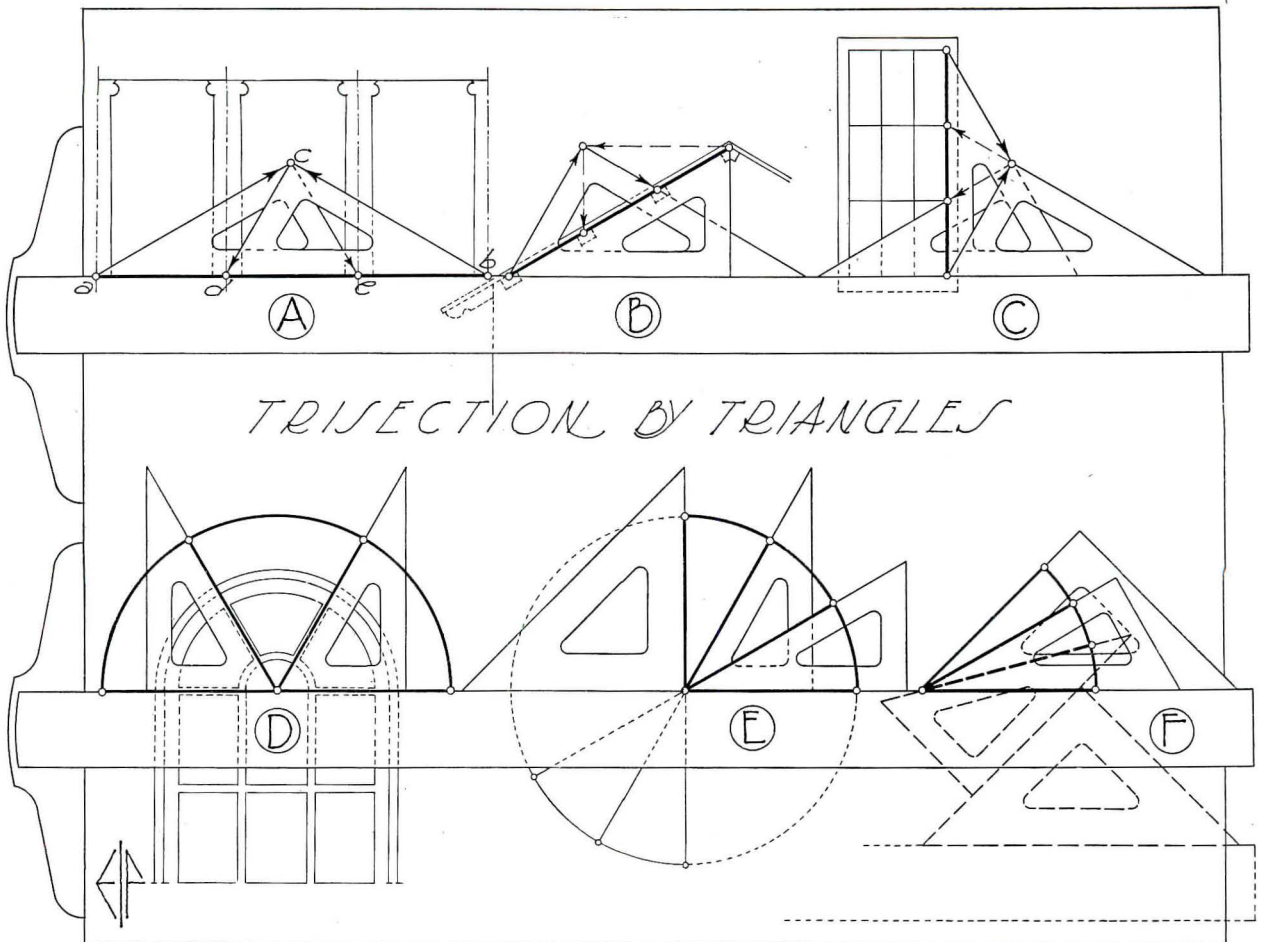


FIGURE 6—TRISECTION BY TRIANGLES

angle in the laying-out of the equilateral gothic arch and its foliated resubdivisions, while at "F" is shown one instance of the unbeatable combination of the 45-degree triangle and its $22\frac{1}{2}$ -degree ally.

But the 30-60-degree triangle is a really marvelous instrument. It bisects one of its own angles and trisects another. Properly manipulated, it will locate the *third-points* of any straight line or semi-circle. Combined with the 45-degree triangle, it will trisect that angle. Few, if any, *draftsmen* are aware of the *straight-line trisection property* of the 30-60-degree triangle. This property is clearly indicated in Figure 6, at "A," "B," and "C." Suppose, for instance, that the distance *ab*, at "A," must be sub-divided into three equal bays for column-spacing, or what not: Project converging 30-degree lines from *a* and *b* to locate the crossing *c*, and, from *c*, project diverging 60-degree lines to *d* and *e*, the third-point-divisions required. This principle can also be made good use of in many other ways; two other applications being suggested at "B" and "C," one yielding the third-point-spacing of the lookouts on the rake of the 30-degree gable, the other giving the "cut up" lines of a three-light sash. Even the old-time "pencil pusher" will here learn a few more tricks to add to his bag. The remaining

diagrams of Figure 6 indicate the more commonly known functions of this manifold instrument—the 30-60-degree triangle. At "F," it yields another line not "inherent" in any one of the three triangles: the 15-degree line that trisects half of a right angle.

And now—what have you learned in all the preceding array? I'll answer it myself: *you* may be mistaken. First: You have learned that the geometry of the classroom is not the geometry of the drafting-room. Second: That the greater part of drafting-room-geometry inheres in the sliding instruments. Third: That these instruments—the T-square, the three triangles, and the scale—are the most economical means of getting the desired result: assuming that the desired result is to produce "working drawings" instead of "hypotheses." Fourth: You have learned that the accuracy of modern applied geometry is not so much dependent upon the truth of some theorem or other as upon the accuracy and manipulation of the instruments used. *Their working edges must be straight. Their angles must be true.* So—now that you know "why" this should be, I shall, in the immediately following part, show you how, by no other means than the instruments themselves, to *prove*, not their geometry, but their *accuracy of line and angle*.

A BUILDING ON THE BOARD

A SELECTED GROUP OF DRAWINGS SHOWING THE PROGRESS FROM THE SKETCH TO THE FINISHED WORKING DRAWINGS OF THE WICHITA ART INSTITUTE, WICHITA, KANSAS

Clarence S. Stein, Architect

THE DRAWINGS SHOWN on the following pages, together with the color rendering by J. Floyd Yewell in this issue and the study model shown on page 564, will give to the architectural reader a fairly complete idea of the design for the Art Institute at Wichita, Kansas, as worked out by Clarence S. Stein. The development is traced from the architect's first rough pencil sketch of the *parti*, through the various small scale studies, to the finished working drawings of the first unit of the composition which is to be built this fall.

The major features which give the Wichita Art Institute its modern character, both as to function and technique are as follows:

(1) The modern institute of art distinguishes between the functions of education, appreciation, or inspiration and provides definitely planned and related spaces to meet the needs of each function. One of the outstanding characteristics of this Institute is the comparatively large proportion of space devoted to education and extra-museum purposes.

(2) Most museums have been and still are being built on the skylight principle, which involves larger bulk of building and very costly mechanical devices. The results obtained through skylights are unsatisfactory inasmuch as they give a flat, monotonous light which places the object exhibited at a disadvantage. In the design of this building the skylight has been purposely omitted and ample windows substituted, thus placing the works of art under light conditions similar to those in which they

were created. In addition it establishes a visual tie between the interior of the building and its outdoor surroundings.

(3) Fatigue from viewing interminable rows of pictures without relief is an annoying factor in most museums. For this reason the gardens and terraces surrounding this building have been designed so that the visitor to the museum may rest his eyes from time to time upon the gardens.

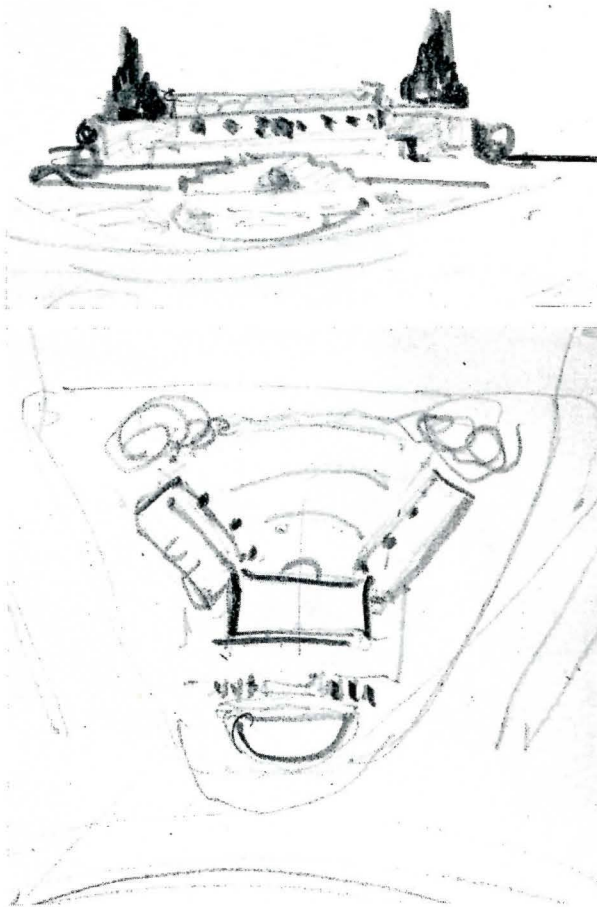
(4) In recognition of the fact that the average visitor to the museum comes purely for inspiration, the exhibition portion of the building was designed on the principle of small rooms so that groups of related objects pertaining to a period or school of art might be segregated under ideal conditions with respect to space and background. Incidentally, such arrangement also tends to reduce "museum fatigue."

(5) In its exterior appearance no definite precedent of architectural style was followed. Rather, the principle followed was to use local materials for construction to create a building dignified and harmonious with its park surroundings, and reminiscent of the early civilizations of the North American continent. The walls are to be of concrete tinted to give a

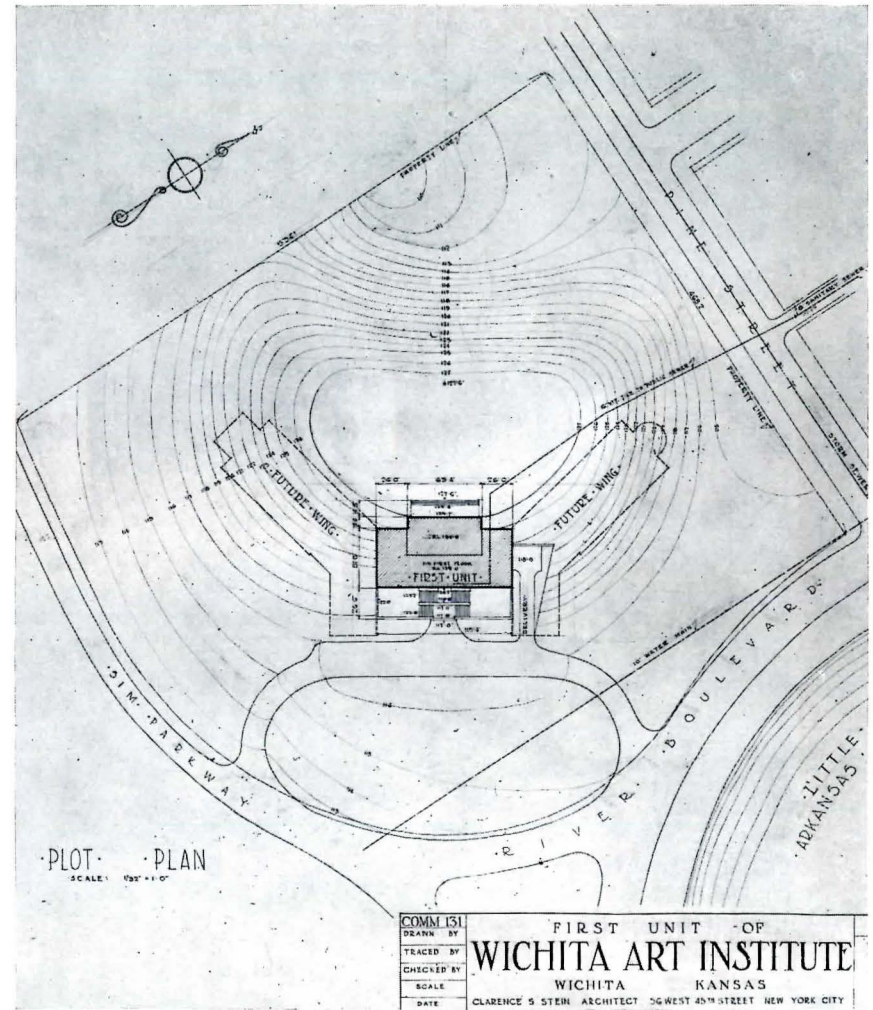
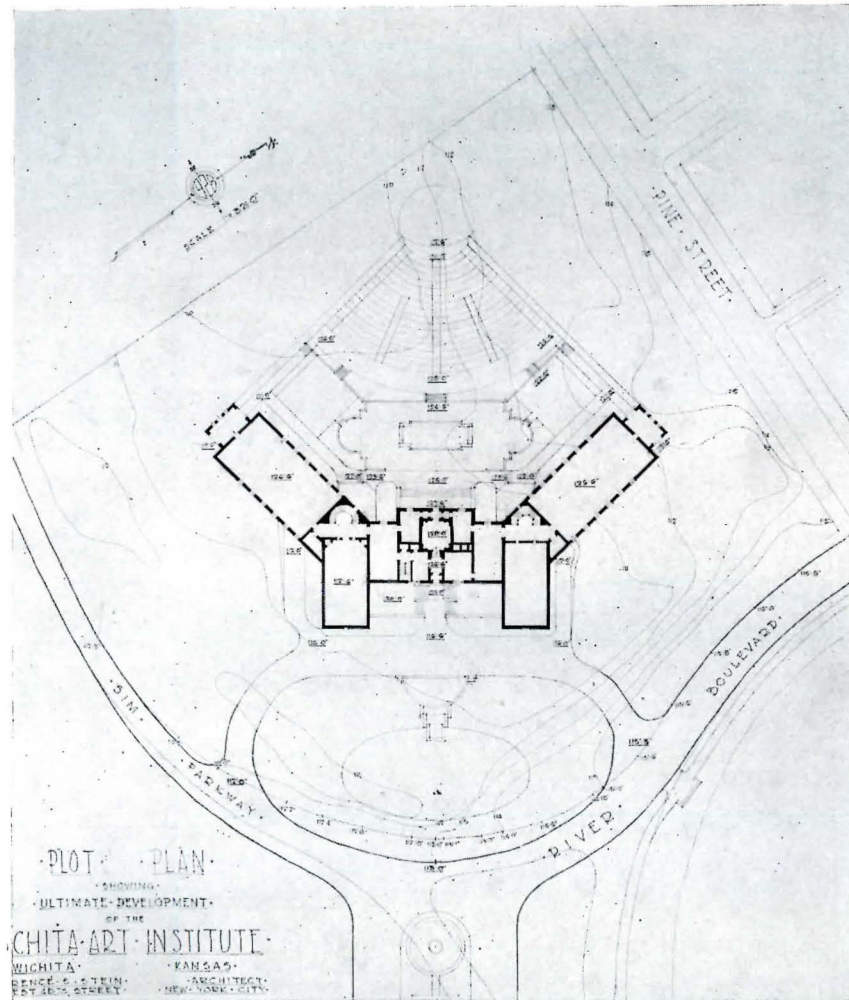
warm, pleasing effect. In addition, the ornament will be treated in polychrome as suggested by the color rendering.

The central unit, which will be built first, has been arranged in such a way that it will house all of the necessary facilities of the Art Institute until it is

(Continued on page 581)



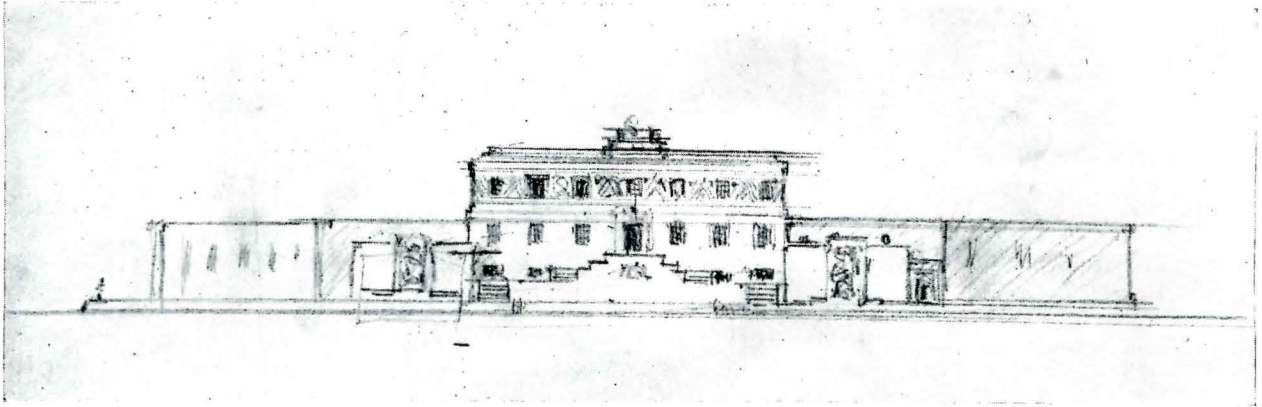
MR. STEIN'S FIRST ROUGH PENCIL SKETCH
PARTI FOR WICHITA ART INSTITUTE, WICHITA, KANSAS



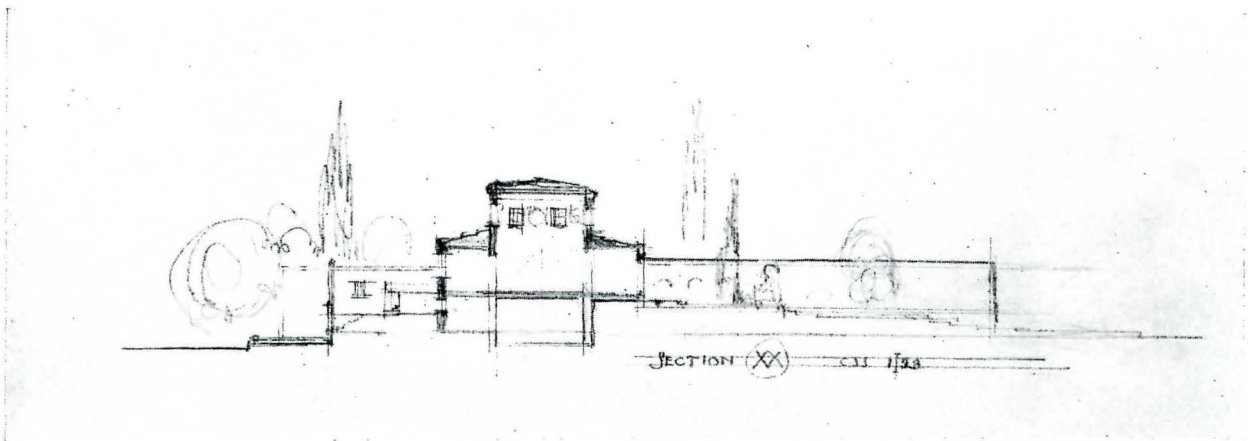
PLOT PLAN AND ULTIMATE DEVELOPMENT OF WICHITA ART INSTITUTE—CLARENCE S. STEIN, ARCHITECT

CONTOURS ON DRAWING AT LEFT SHOW PRESENT CONDITIONS; CONTOURS AT RIGHT SHOW GRADING TO PLACE BUILDING ON AN ARTIFICIAL EMINENCE

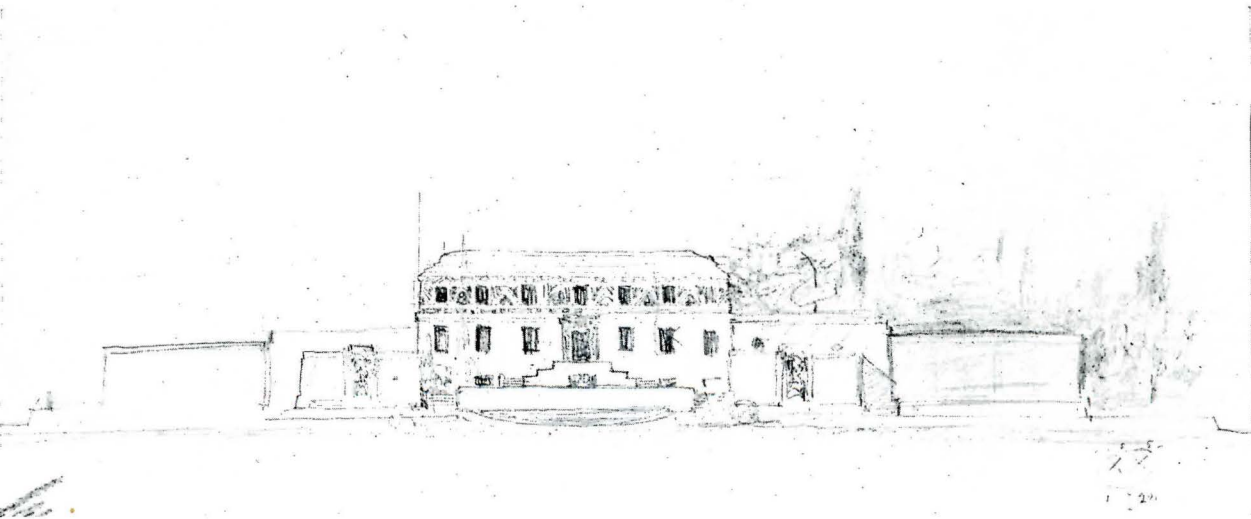
A BUILDING ON THE BOARD



FIRST SMALL SCALE STUDY OF PRINCIPAL ELEVATION—WICHITA ART INSTITUTE

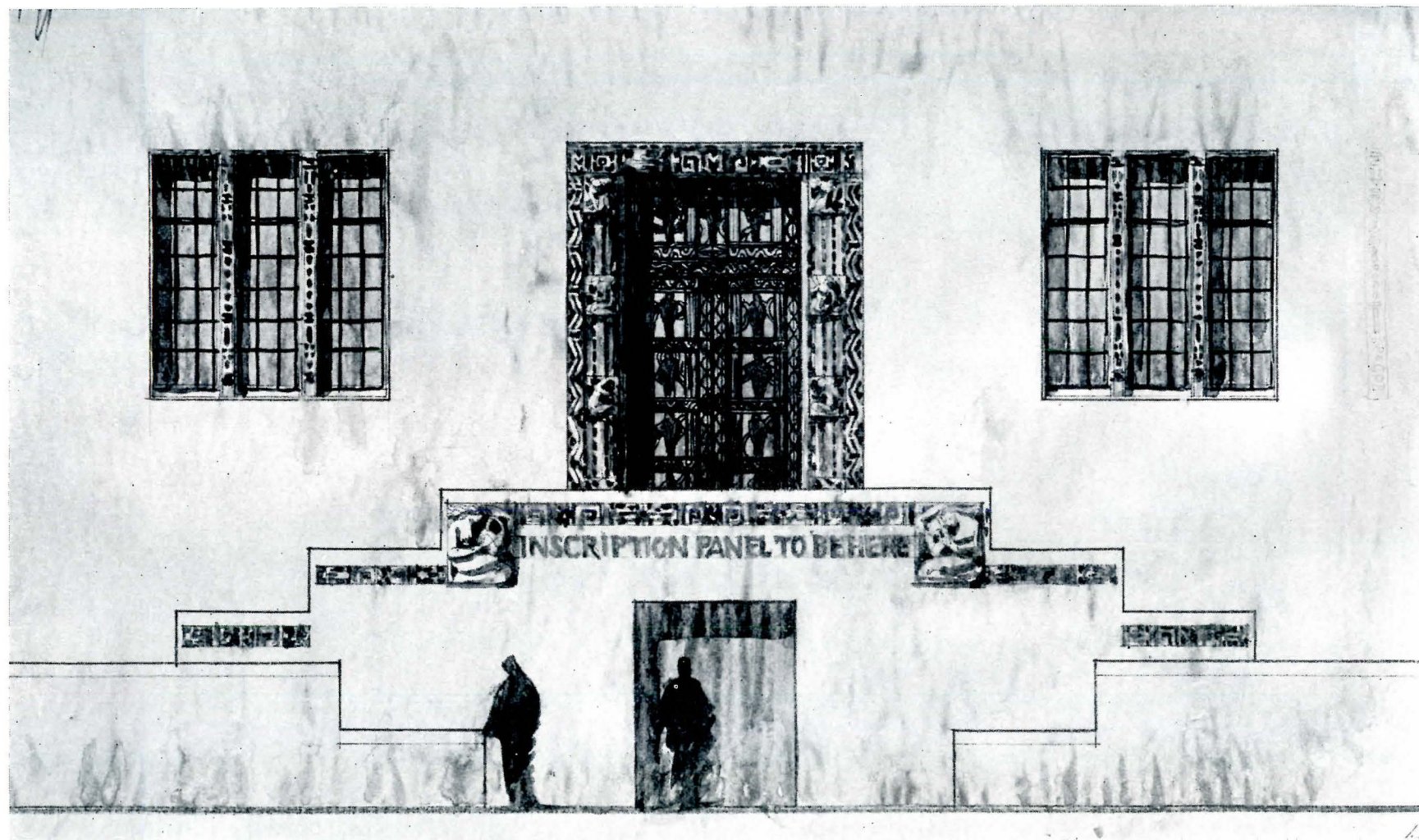


FIRST SMALL SCALE STUDY OF SECTION—WICHITA ART INSTITUTE

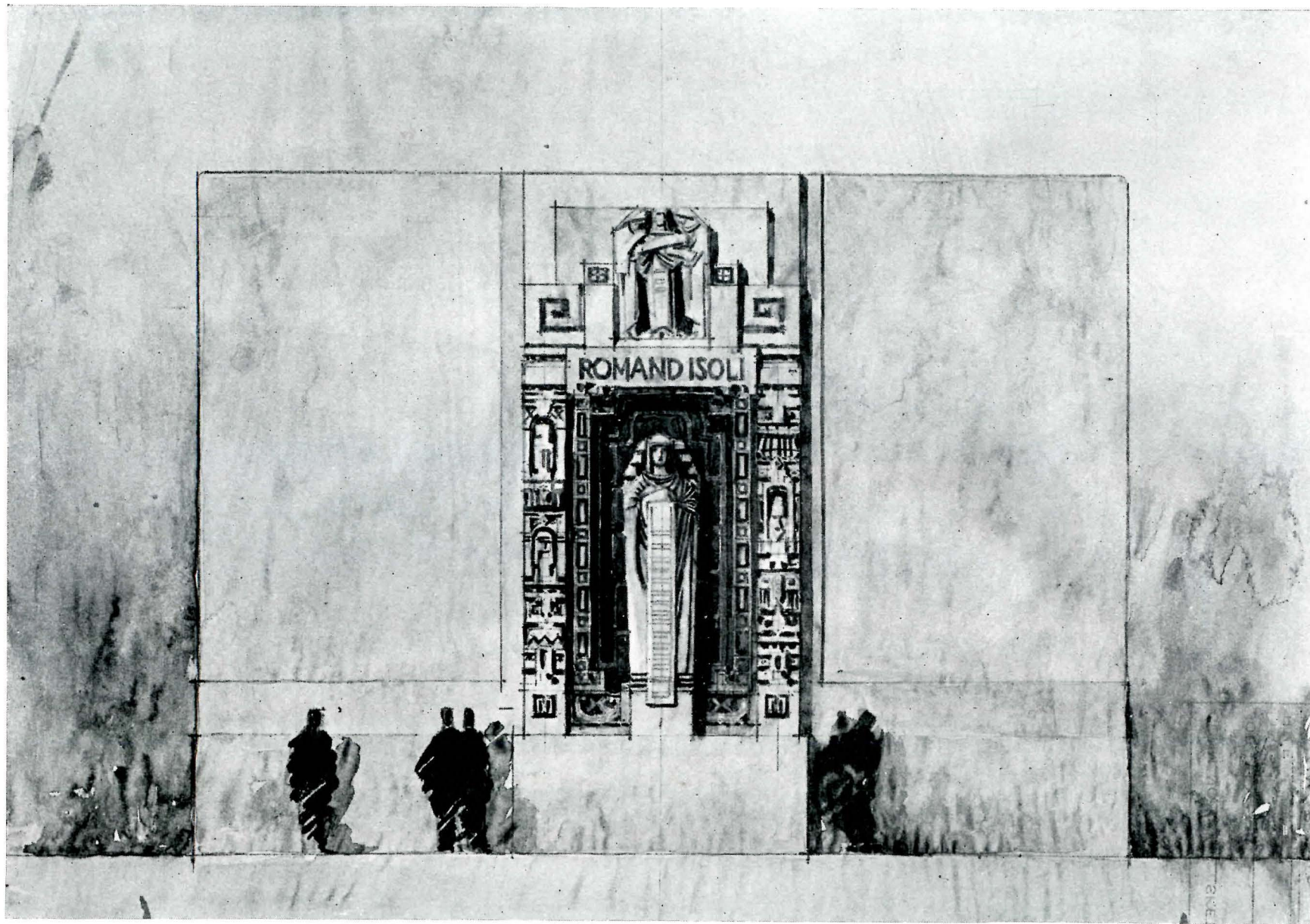


LATER SMALL SCALE STUDY OF PRINCIPAL ELEVATION—WICHITA ART INSTITUTE

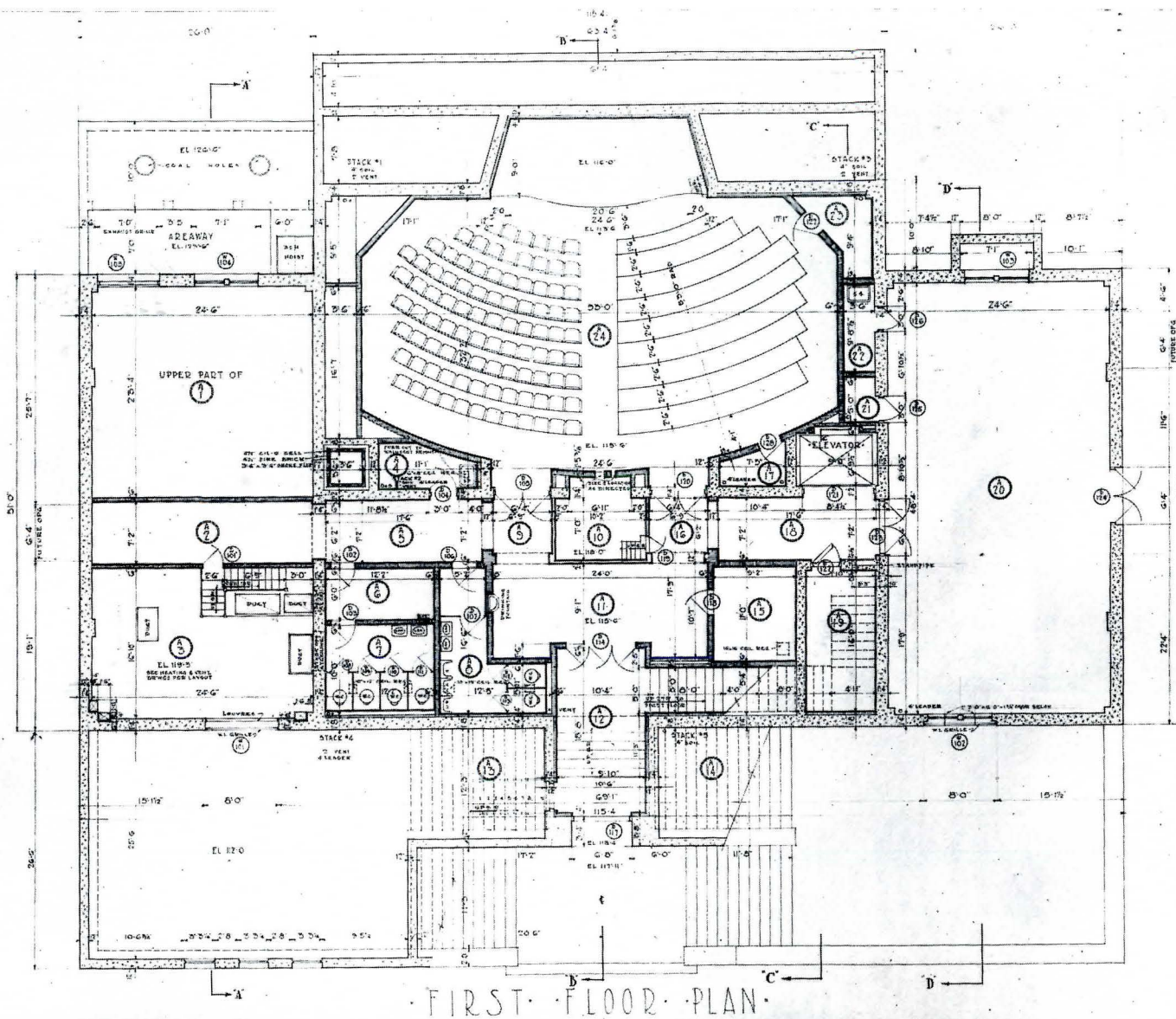
CLARENCE S. STEIN, ARCHITECT



FROM A COLOR STUDY OF DETAIL OF MAIN ENTRANCE
 WICHITA ART INSTITUTE, WICHITA, KANSAS—CLARENCE S. STEIN, ARCHITECT



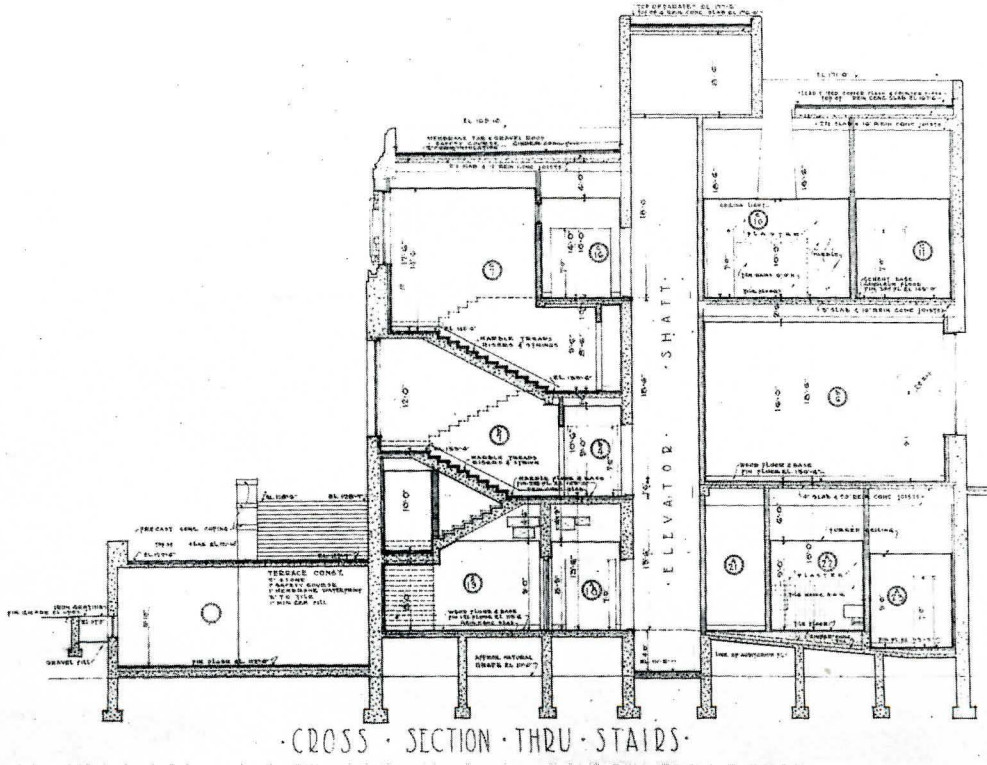
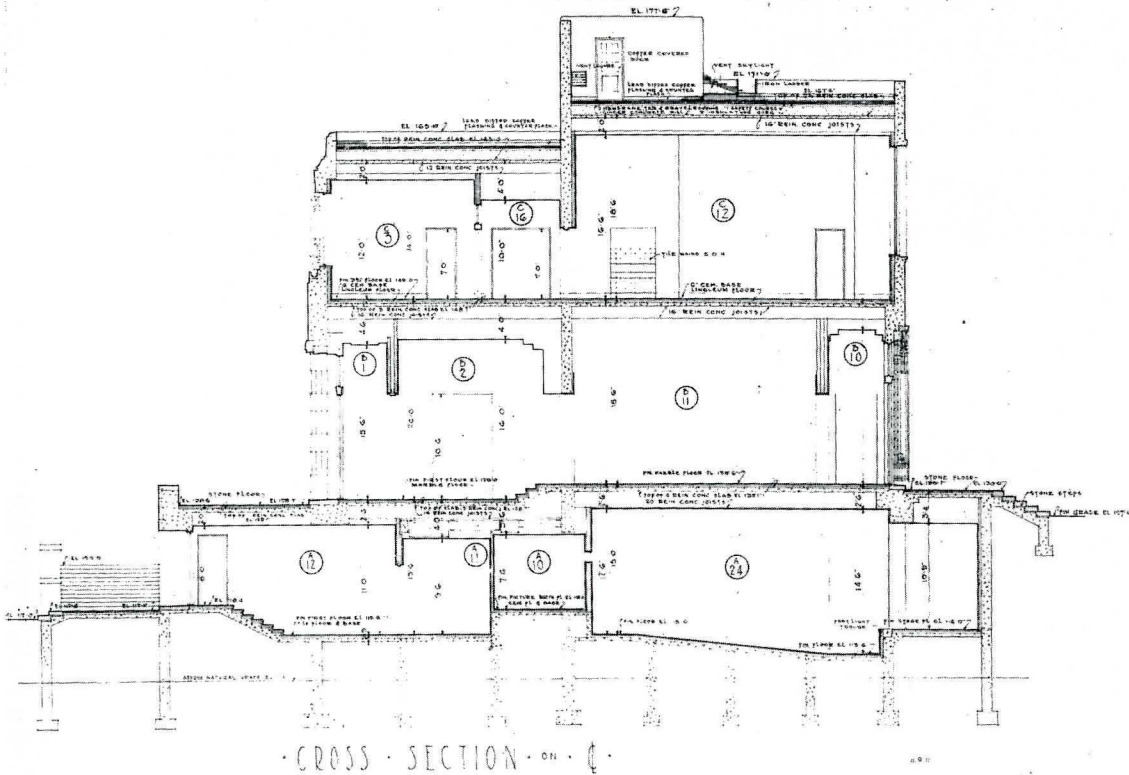
FROM A COLOR STUDY OF DETAIL AT ENDS OF WINGS FLANKING MAIN ENTRANCE
WICHITA ART INSTITUTE, WICHITA, KANSAS—CLARENCE S. STEIN, ARCHITECT



FIRST FLOOR PLAN, FIRST UNIT OF WICHITA ART INSTITUTE, WICHITA, KANSAS—CLARENCE S. STEIN, ARCHITECT

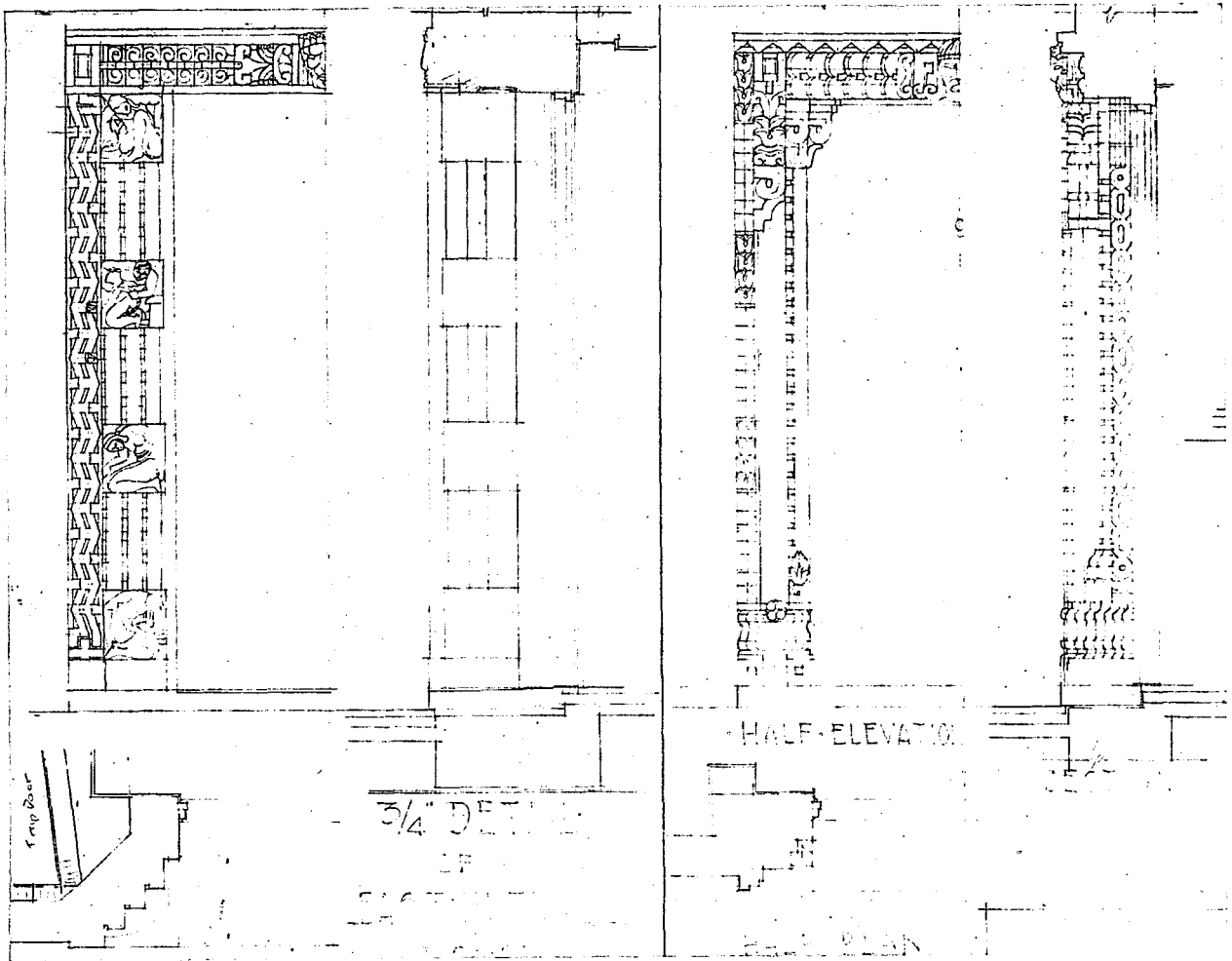
The lecture hall, to seat 198 persons, is the principal room on this floor. At the left the boiler and fan rooms and at the right a large storage room, which will eventually be a social hall, occupy most of the remaining space.

A BUILDING ON THE BOARD

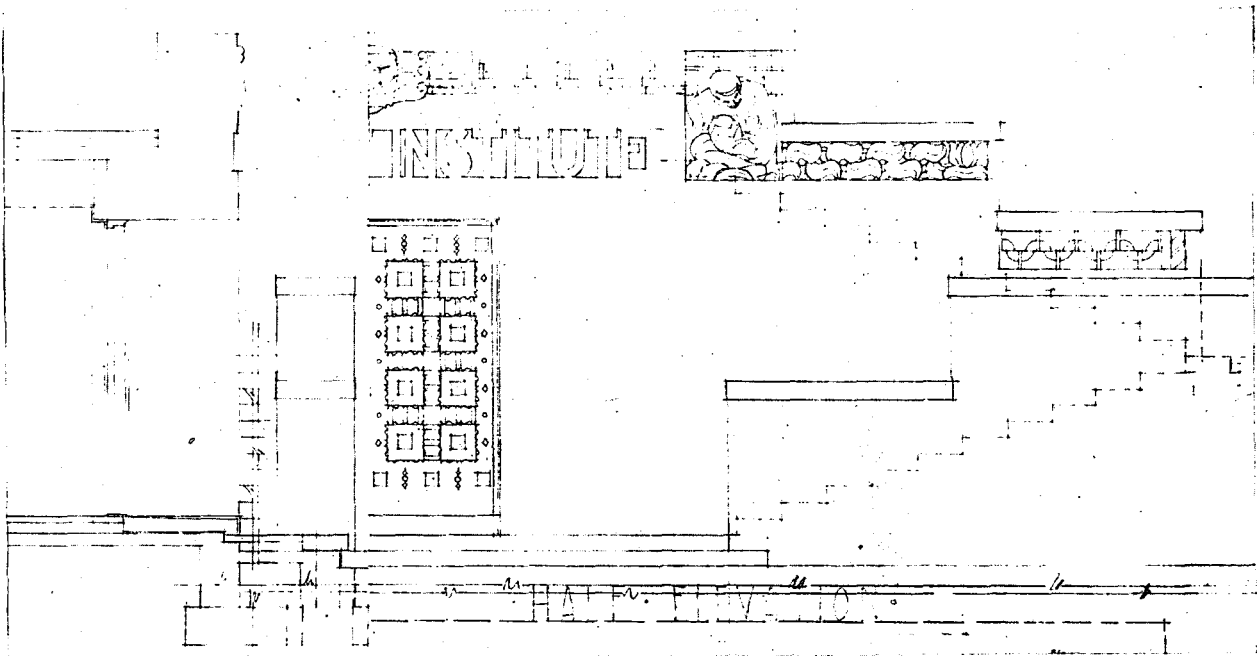


SECTIONS, FIRST UNIT OF WICHITA ART INSTITUTE, WICHITA, KANSAS
CLARENCE S. STEIN, ARCHITECT

PENCIL POINTS



DETAILS SHOWING ORNAMENTATION OF EAST AND WEST ENTRANCES



DETAIL SHOWING ENTRANCE TO FIRST FLOOR AND STAIRWAY TO SECOND FLOOR ENTRANCE

WICHITA ART INSTITUTE, WICHITA, KANSAS—CLARENCE S. STEIN, ARCHITECT

SOME RECENT RENDERINGS BY JOHN RICHARD ROWE

SHOWING DESIGNS BY JANSSEN AND COCKEN, ARCHITECTS, PITTSBURGH

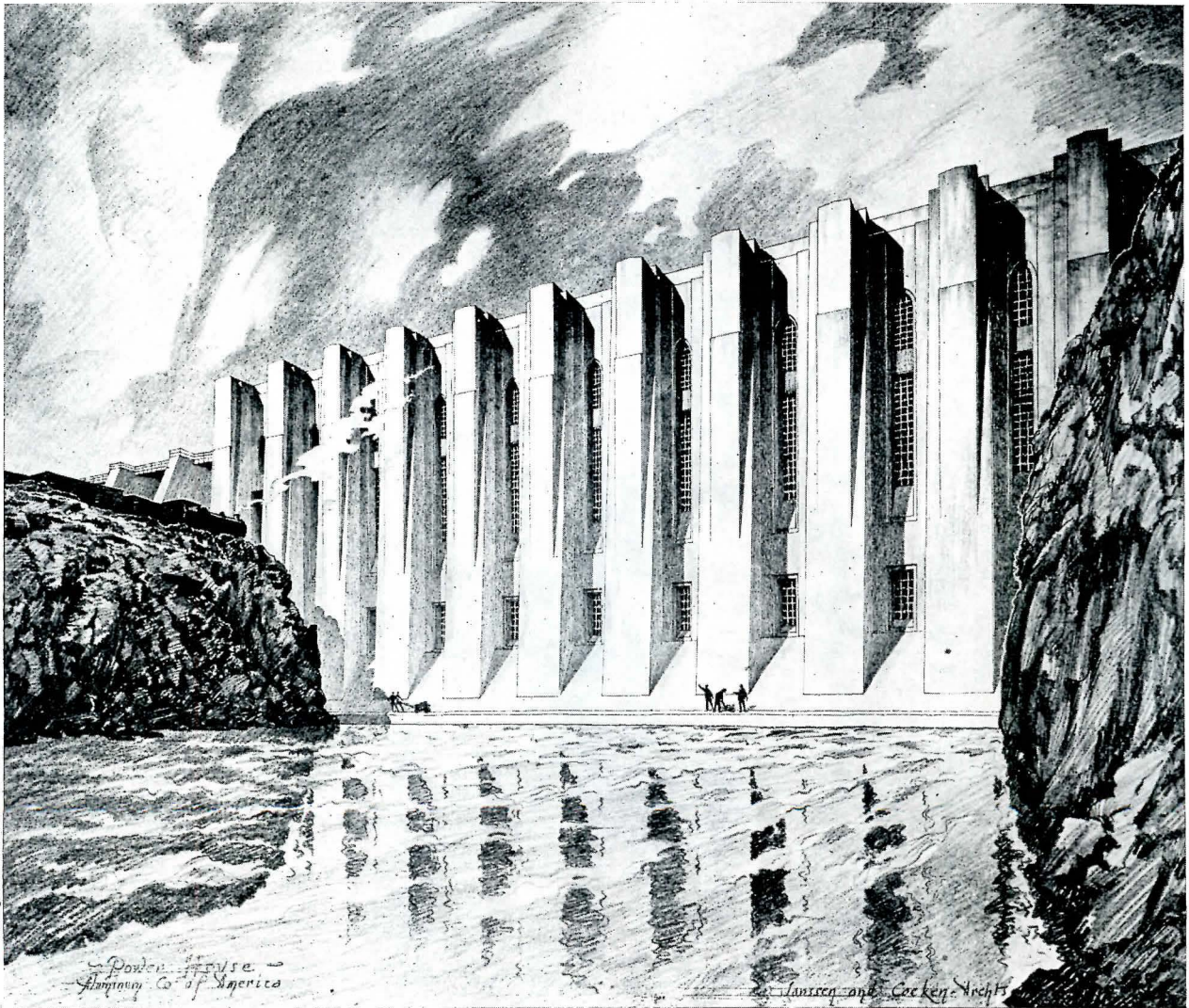
A GROUP OF drawings which are interesting both as examples of rendering and as showing a variety of designs recently made by Janssen and Cocken of Pittsburgh are shown on this and the following three pages.

The Power House shown below is a massive structure, entirely of reinforced concrete. Its height is one hundred and twenty feet and the buttresses are ten feet through at the base of the building. Behind the Power House and at a higher level is a dam three hundred feet long which may be glimpsed at the left.

The Kennels, shown on page 546, are part of a group built for Mr. Mellon at the Rolling Rock Club,

near Ligonier, and are intended to house a pack of English hunting dogs. On the following page is shown a residence designed very effectively to occupy a site on the top of a hill at Sewickley, Pennsylvania. Page 548 shows two drawings, one of a rambling house of whitewashed brick and the other of a pine interior in a house at Sewickley.

In all these drawings the renderer has conveyed something of the spirit of the architecture, treating the Power House in a manner suggestive of its mechanistic function, the Kennels with a bit of playfulness as befits a purely sporting affair, and the residences with dignity yet informality in accord with the designs.



LITHOGRAPHIC PENCIL STUDY BY JOHN RICHARD ROWE FOR JANSSEN AND COCKEN, ARCHITECTS, PITTSBURGH
REINFORCED CONCRETE POWER HOUSE FOR THE ALUMINUM COMPANY OF AMERICA AT CHUTE À CARON, CANADA



LITHOGRAPHIC PENCIL DRAWING BY JOHN RICHARD ROWE FOR JANSSEN AND COCKEN, ARCHITECTS, PITTSBURGH
STUDY FOR KENNELS AT ROLLING ROCK FARMS, NEAR LIGONIER, PENNSYLVANIA—TO HOUSE A HUNTING PACK

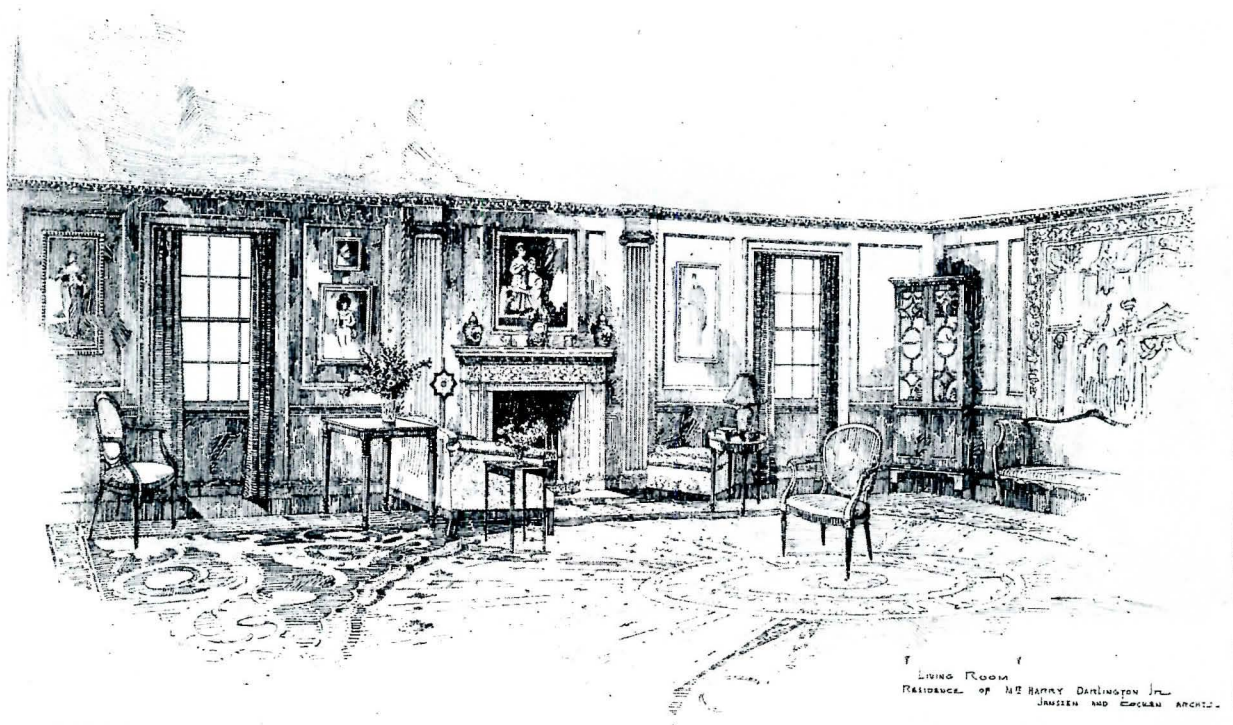


DRAWING BY JOHN RICHARD ROWE FOR JANSSEN AND COCKEN, ARCHITECTS, PITTSBURGH
 STUDY FOR A RESIDENCE FOR MR. AND MRS. R. M. DRAVO—TO BE BUILT ON THE TOP OF A HILL AT SEWICKLEY, PENNSYLVANIA

PENCIL POINTS



LITHOGRAPHIC PENCIL DRAWING BY JOHN RICHARD ROWE FOR JANSSEN AND COCKEN, ARCHITECTS
STUDY FOR A RESIDENCE OF WHITEWASHED BRICK FOR MR. AND MRS. W. W. SMITH, NEAR LIGONIER, PENNSYLVANIA



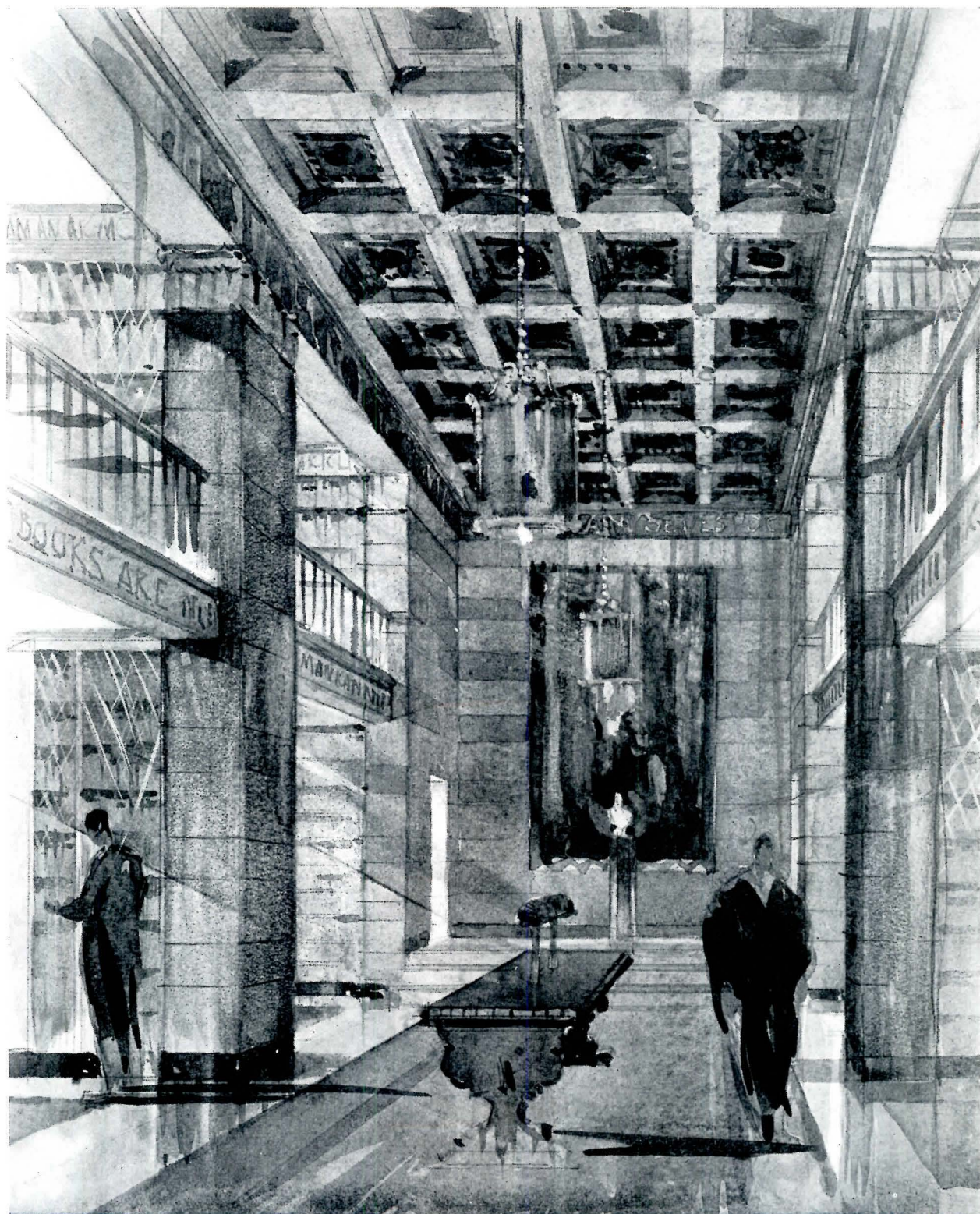
DRAWING IN PENCIL BY JOHN RICHARD ROWE FOR JANSSEN AND COCKEN, ARCHITECTS
STUDY FOR A LIVING ROOM IN PINE FOR RESIDENCE OF MR. HARRY DARLINGTON, ESQ., AT SEWICKLEY, PENNSYLVANIA

PLATE XXIX

VOLUME X

NUMBER 8

This plate shows a rapidly made and effective office presentation sketch of a library interior, done in water color over a pencil layout. The columns and walls were represented as in green marble, the floor in cream and green terrazzo, and the ceiling decorated in polychrome. The original measured $10\frac{1}{2}'' \times 12\frac{3}{4}''$. The color of this drawing was very effective and the free style of its presentation gave it a great deal of vitality.



WATER COLOR PRESENTATION SKETCH BY ERNEST BORN—MANUSCRIPT ROOM IN LIBRARY
JEWISH THEOLOGICAL SEMINARY OF AMERICA, GEHRON AND ROSS, ARCHITECTS, DAVID LEVY, ASSOCIATE ARCHITECT

PLATE XXX

VOLUME X

NUMBER 8

The drawing shown on this plate was made with pencil and light wash on a sheet of sepia detail paper. Touches of Chinese white were added to some of the figures and to the sky back of the gate. The original measured $11\frac{1}{2}'' \times 15\frac{1}{2}''$. It is one of many drawings made by the artist during his wanderings in the Orient and shows an interesting piece of Chinese architecture.



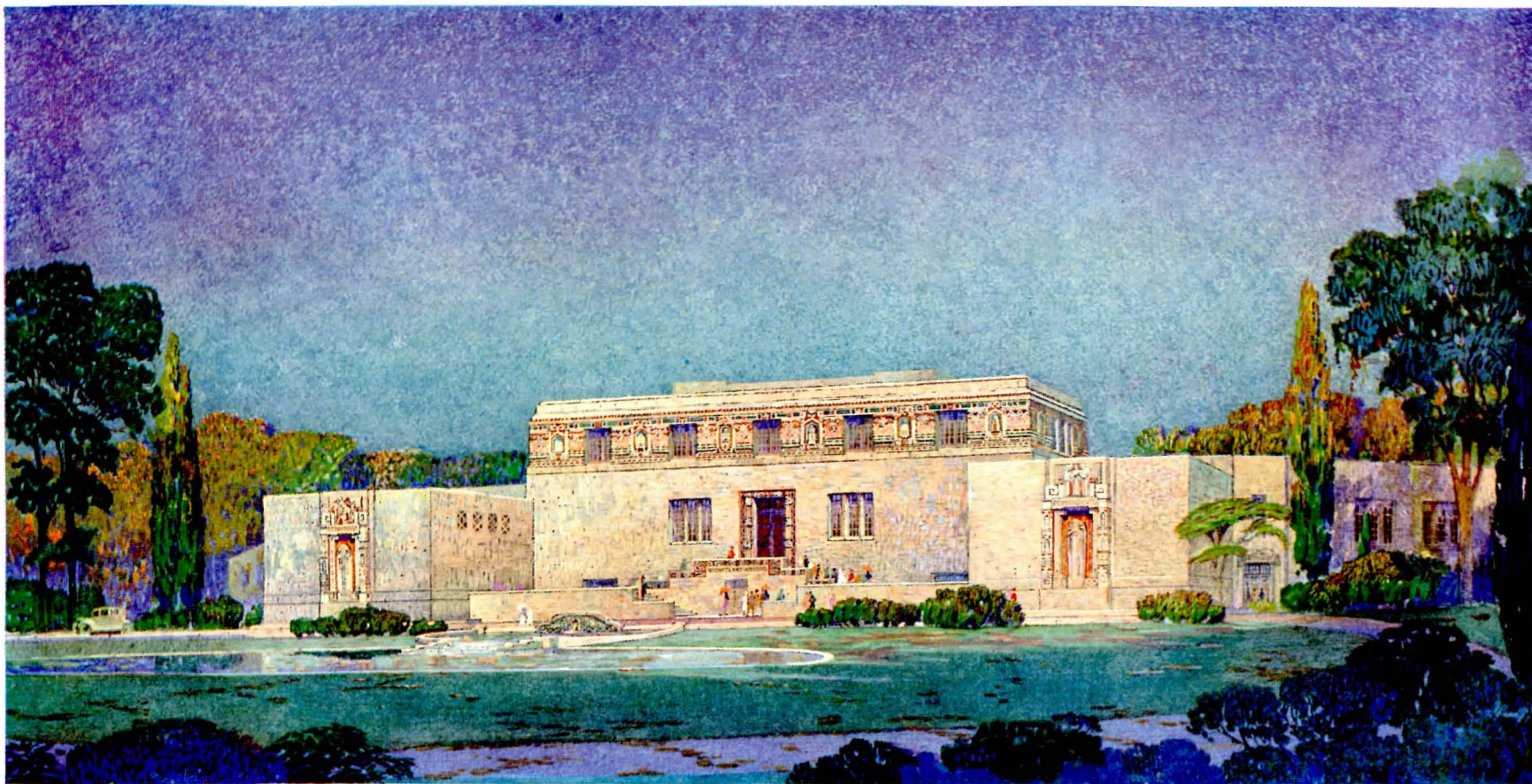
FROM A PENCIL DRAWING BY FERENC IMREY
"DOOR OF THE WIDOWER" NEAR PEKING

PENCIL POINTS SERIES of COLOR PLATES

The rendering shown on the reverse side was made on a sheet of white illustrators' board. It was laid out in pencil and the building rendered with transparent water colors opaqued by the addition of a small amount of Chinese white. The sky was done in one large wash using a settling mixture. The trees and shrubs were then drawn with pencil and touched up with light washes of transparent color. Pencil was also used for the door and window shadows on the building. The original measured 25½" x 16½".



TEMPLE EMANUEL, PATERSON, NEW JERSEY—F. W. WENTWORTH, ARCHITECT
FROM A WATER COLOR RENDERING BY PAUL F. WATKEYS

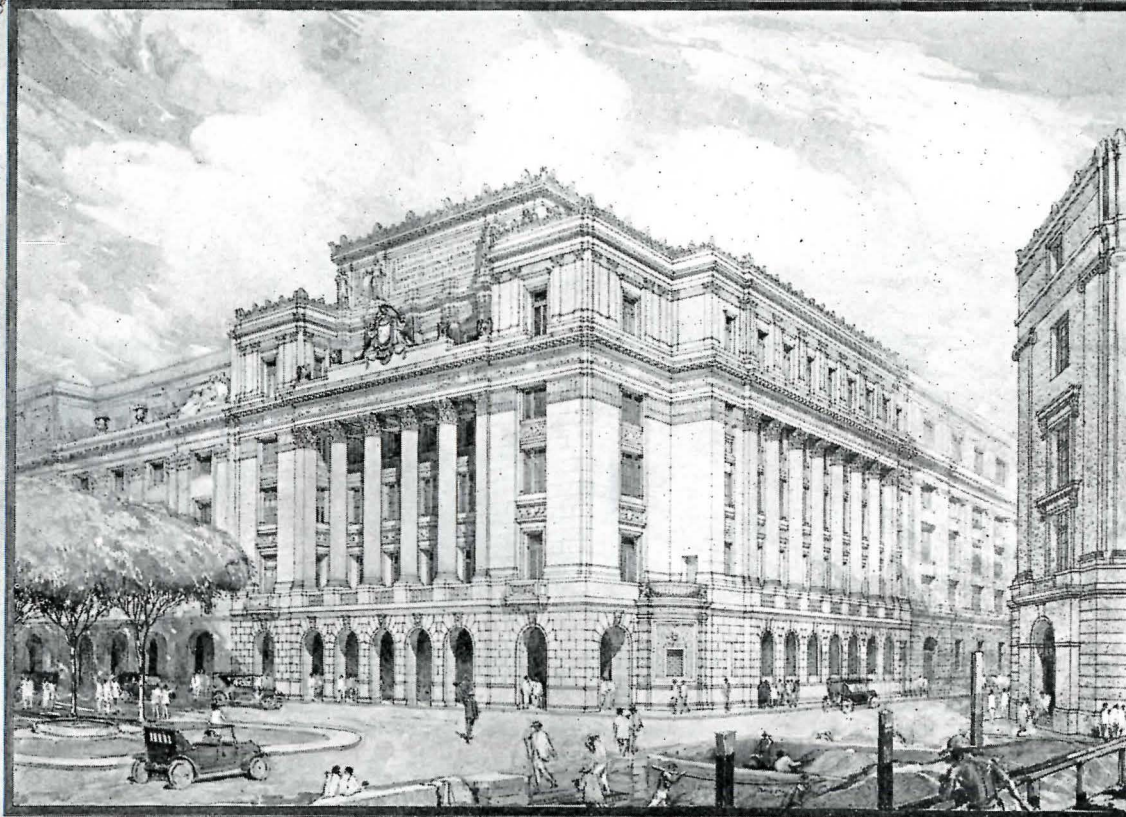


WICHITA ART INSTITUTE, WICHITA, KANSAS—CLARENCE S. STEIN, ARCHITECT
FROM A RENDERING IN OPAQUE AND TRANSPARENT WATER COLOR BY J. FLOYD YEWELL

PENCIL POINTS SERIES of COLOR PLATES

This beautiful rendering in color, showing a notable building which is described in detail elsewhere in this issue, was made on shade cloth mounted on heavy board. The layout was made directly on the cloth in pencil. A transparent wash of Antwerp blue and rose madder was run over the whole drawing and then the building, trees, sky, and foreground details were done with opaque colors applied mostly with a brush stippling technique. The original transparent wash was allowed to show through between the dabs of opaque color to a considerable extent in the sky and foreground. The size of the rendering was 61" x 36".

CONCURSO DE PROYECTOS PARA EL EDIFICIO DEL BANCO DE LAS ISLAS FILIPINAS



PERSPECTIVA DEL PROYECTO SOMETIDO POR LIMBÁS

WATER COLOR RENDERING BY JUAN M. ARELLANO

SUCCESSFUL COMPETITION DESIGN FOR THE BANK OF THE PHILIPPINE ISLANDS—J. M. ARELLANO, ARCHITECT

PENCIL POINTS

PLATE XXXI

VOLUME X

NUMBER 8

This competition rendering by J. M. Arellano, who is a graduate of the Department of Architecture of the University of Pennsylvania, now Consulting Architect of the Philippine Islands Government at Manila, is a remarkably finished product of the draftsman's art. Some of the other required drawings submitted by Mr. Arellano's office in this competition are shown elsewhere in this issue and though they are of a different type they are no less excellently executed.



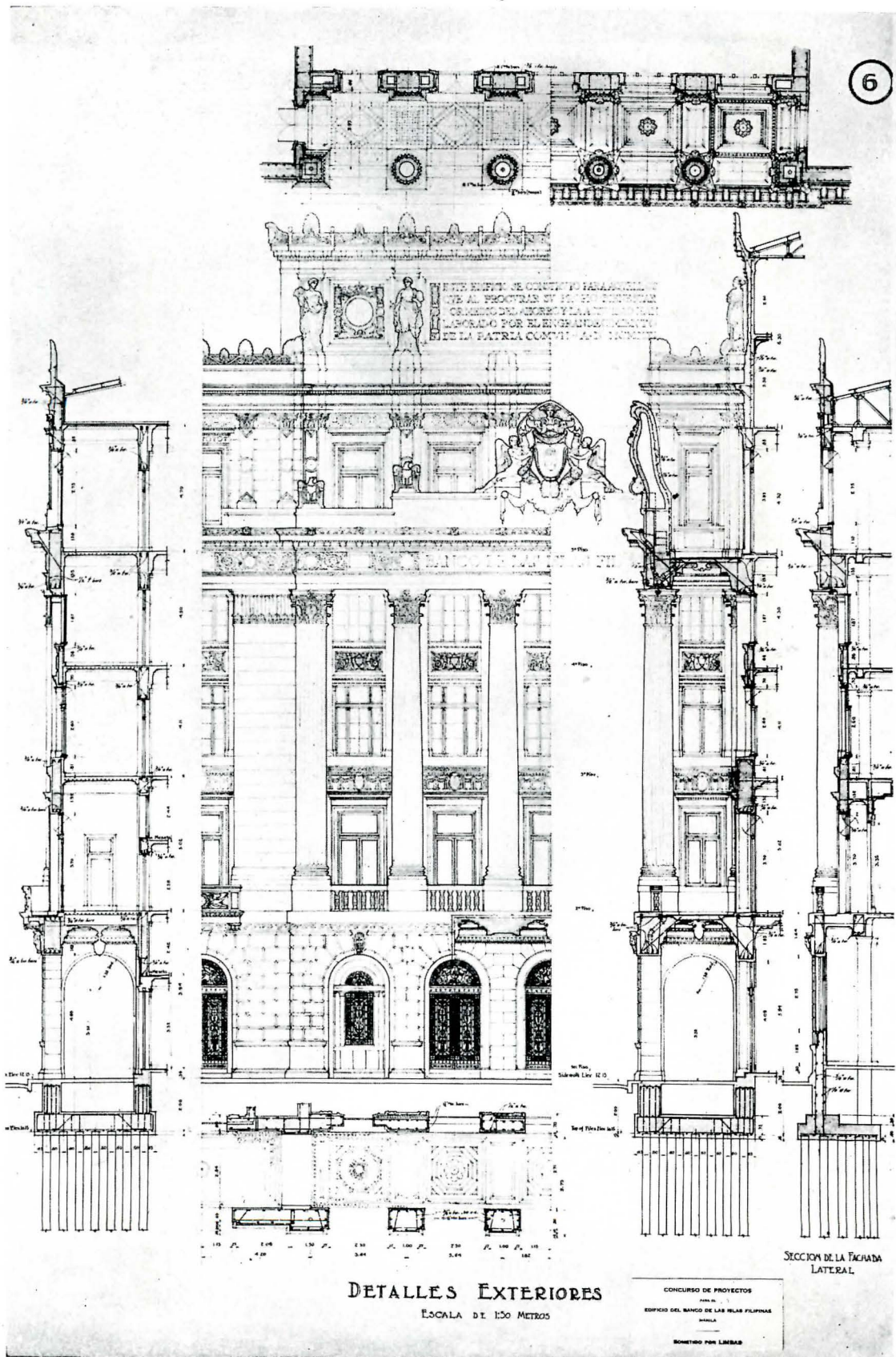
DECORATION IN TEMPERA FOR A DINING ROOM BY J. MORTIMER LICHTENAUER
"THE MERRY FRIAR"

PLATE XXXII

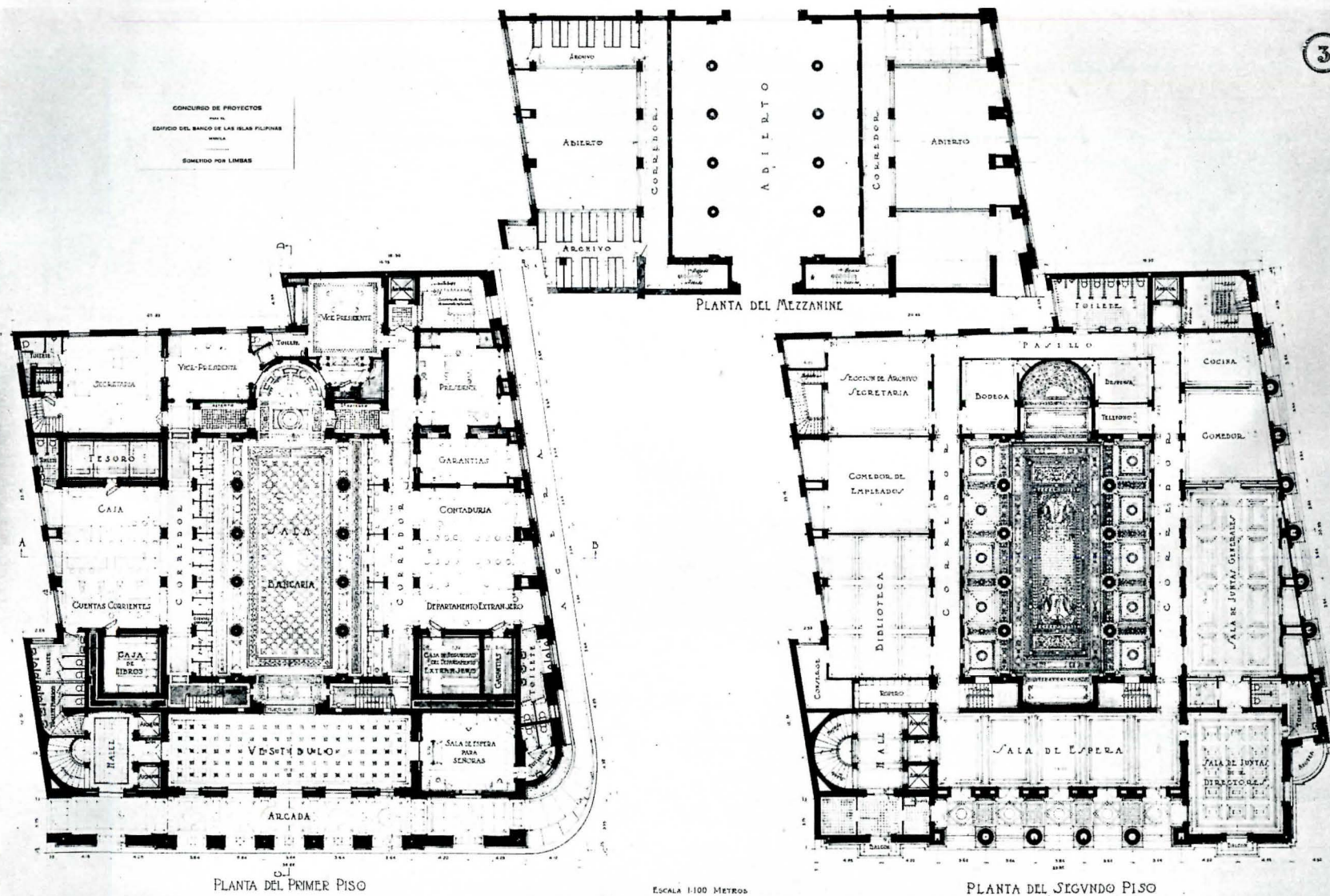
VOLUME X

NUMBER 8

This plate shows a decoration in tempera by J. Mortimer Lichtenauer, one of a series of such murals designed to be appropriate for a dining room. The original measured 23" x 51" and was painted somewhat in the colors of the fourteenth century Italian murals. The artist is now working in his studio at Westport, Connecticut, but expects to leave about the middle of August to spend about a year in the Orient where he will make a study of art and decoration in China, Java, and India.



COMPETITION DRAWING FROM THE OFFICE OF J. M. ARELLANO, ARCHITECT, MANILA, P. I.
EXTERIOR DETAILS, BANK OF THE PHILIPPINE ISLANDS—SEE PLATE XXXI AND PAGE 558, THIS ISSUE



COMPETITION DRAWING FROM THE OFFICE OF J. M. ARELLANO, ARCHITECT, MANILA, P. I.
PLANS FOR THE BANK OF THE PHILIPPINE ISLANDS AT MANILA—SEE PLATE XXXI AND PAGE 557, THIS ISSUE

SOME OPINIONS ON THE STOCK PLAN QUESTION

LETTERS FROM OUR READERS DISCUSSING THE PROTEST OF THE ARCHITECTS' LEAGUE OF NORTHERN NEW JERSEY AS PUBLISHED IN THE JUNE ISSUE OF PENCIL POINTS

*From Lloyd M. Hendrick, Jr., of Hendrick and Hayward,
Architects, Boston, Mass.*

"The letter from the Architects' League of Northern New Jersey incites many thoughts on a very live issue, but that which should be mentioned first is admiration for the persistence and courage of a group who have convictions and are not afraid to fight for them.

"Their protest against the sale of plans at \$25.00 per set is well-founded. The only thing which can be said in favor of such a scheme is that a few people *may* in that manner build better houses than they otherwise would. From the point of view of such purchasers, however, the figure on the price tag generally establishes the value of the article whether it be an ash can, house plans, or a grand piano; and seldom does any buyer think or care about the cost of production if the price is attractive.

"It may be very good philanthropy for the A.I.A. to lend its support to the sale of plans at far below cost, but it is unquestionably very poor economics. If the A.I.A. wishes to take its stand beside the Rockefeller Foundation, that is one thing; but it is quite another to do that in substance and still try to stand as an organization whose object in part is the advancement of the interests of its architect members. And their interests sadly need advancement when, as stated in the April PENCIL POINTS (and supported by common observation everywhere), only 3% of the buildings on which loans were made in a certain large community were planned by certified architects. It is the well-nigh total failure in this direction that constitutes the cardinal sin of the A. I. A. The endorsement of the sale of plans at bargain basement prices is only one incident.

"As far as small houses go, the premises in the situation are as follows:

- (a) To make plans and specifications and give supervision costs more than builders of such houses have become accustomed to pay.
- (b) Architects firmly and justly believe that they can render valuable service in the design of such houses.
- (c) It is generally believed and admitted that good architectural service either adds greatly to the value of a house or makes savings in cost through real economies in the lay-out or construction.

"Now if we were business men with the same heavy investment of education and established offices, from the foregoing premises we would argue directly and act swiftly to one conclusion only. But no, Dear Reader, we must not be commercial or mercenary or selfish or do anything so materialistic as to promote a selling campaign to educate the public; we must not try to build up a market for the sale of our service at a proper price even though to the purchaser it is worth every cent he would be asked to pay. No, rather than do that, we will practically give the plans away, even if we must go on half rations for our ideals.

"Everything for ARCHITECTURE! What's left, if any, for the architects."

*From G. M. Stickney, Manager, Service Department,
Creo-Dipt Company, Inc., North Tonawanda, N. Y.*

"I have read the letter which the Architects' League of Northern New Jersey submitted to the American Institute of Architects concerning "stock plans." I am voicing the sentiments of the Creo-Dipt Company, and, I am sure, of many other reputable building material manufacturers, when I say that the brief was very well presented.

"We, like countless other manufacturers, are besieged by requests for plans. In some cases payment is offered, but more frequently it is assumed that complete house plans should be supplied without charge to purchasers of Creo-Dipt Shingles.

"This misunderstanding has been brought about, in part, by back-to-the-wall manufacturers, who have been unable to meet price or quality competition and who offer plans to the consumer as an inducement to accept inferior or more expensive products. Of course, this is not legitimate merchandising and leading manufacturers recognize it to be absolutely unethical.

"We have refused to accept this condition as being essential to the distribution of our product, and, it may be of interest to other manufacturers, our sales have not been affected in the least by our stand.

"It has always been our policy to recommend a customer to an architect in his vicinity or to the architect who has designed a particular house for which plans are desired. On several occasions when stock plans of small houses have been requested, we have advised communication with the Architects' Small House Service Bureau which, we understand, is operated on a non-profit making basis. This organization seemed to us to be the most ethical of any of the agencies distributing stock plans, since local architects of high standing are designated to supervise construction.

"The architect is equipped to draw plans, prepare specifications, receive bids, supervise construction and handle all the multitudinous details which are essential to good building. The manufacturer can function best through contact and cooperation with the architect, and the interests of the owner will be served most efficiently in this way.

"The architect investigates the merit of all materials submitted and specifications are written around them if they meet with his approval. There will be many who will come to the defense of the manner in which an architect protects his client by rejecting unworthy material and by effecting other economies in a judicious manner. This side of the question, I think, can be presented more intelligently by a member of the profession than by a layman.

"A great deal of correspondence should result from this timely protest and it is to be hoped that the matter of 'stock plan' distribution may be effectively discussed. Your forthcoming issues will be awaited with great interest."

From W. H. Schumacher, Architect, of Tampa, Fla.

"We have read the letter of the Architects' League of

Northern New Jersey. Will say we are heartily in accord with the above League.

"During our eighteen or twenty years of practice, we have not seen a house constructed from stock plans or plan service, which were not changed, and many cases when completed one could not recognize it as the same house.

"In a number of instances we have had clients come into our office with a plan torn from a magazine with photograph of the exterior, which in most cases were excellent plans or designs by well known architects, stating that was what they wanted to build, but it was poorly planned, that this should be so and so.

"You can readily see from the above what happens to the plans of a plan service or stock plans. To us it seems a great injustice has been done by the institution of a plan service and by organizations selling plans, as though it were a commodity.

"It is wrong to have a plan service, and place plans into the hands of owners who become the final judges as to whether or not the plan is good or bad. If he thinks it is not so good, he immediately proceeds to make changes, and the author of that plan is not present to defend himself, and point out to this layman that it is a good plan and must not be changed. In many cases if the owner doesn't make the changes, the builder will, just on general principles. So between the two the house is ruined.

"Certainly young men entering the profession nowadays have excellent taste, and can design a small house and supervise its construction, and give the owner, nine times out of ten, a better house than if the owner secured his plans from a plan service, and left the builder to do as he sees fit.

"How much better would the general standard of taste become were it completely realized by the layman that architectural service is as important to his own good as the service of his lawyer or his doctor."

*From David J. Abrahams, Architect,
of Boston, Massachusetts*

"Your editorial on 'The Draftsman, the Architect, and Stock Plans' is an honorable one. The sale of stock plans is not a good thing for American architecture, and a very bad thing for the small, struggling fellow whose practice is often limited to residences under \$25,000. In the first place, the speculative builder, who often is not brought up in the construction field, begins to control the great field of house construction which he has no right to control. He wants the whole clover patch including the fence which surrounds it. I have found that the legitimate, well grounded builder wants to figure a house job from a set of plans which were drawn by a competent architect to fit a specific lot. Furthermore the honest-to-goodness builder wants competent architectural supervision. The average good builder will emphatically demand the architect's supervision. His confidence in the average owner's abilities to supervise is evidenced by his unwillingness to figure a house the building of which is to be directed by the amateur that the owner almost invariably turns out to be.

"The attitude of many a speculative builder can be illustrated by the following occurrence: A lady for whom I had drawn a set of plans for a house to cost \$18,000 took the plans to a gentleman of the speculative builder variety, specie—grab-it-all-if-you-can. He had asked to be allowed to figure the plans. He allowed that the

plans were very nice, would the lady be kind enough to tell him what the architect charged? Not at all, of course. The plans cost \$350.00. The builder gasped for breath. He was seemingly mortally shocked. The very idea, why he could get her the SAME THING for \$75.00. The devil he could. He can get what he would call a set for that price, drawn by one who poses as an architect, and that set will have no 'specs' and no good builder will either care or will be able to submit a REAL, UNGUESSED-AT figure. Curiously enough, I was an architectural renegade for doing the job for \$350.00, because a brief check-up of the value of the work will show that with the reasonable amount of supervision that I agreed to do, I am far below the 'according to Hoyle' percentage. I had to fight for the \$350.00 and if I turned it down the house would have gone up as per \$75.00 plan either stock or drawn up by the super-renegade who is forced by prevailing stock plan prices and the often-controlling speculative builder to work for stock plan prices.

"Not being a big frog in either a big or little pond I take these lower priced jobs on a three-quarters full plan and part supervision basis. It is a compromise, to be sure, but a satisfactory one because the owner is getting good service (often much more than he pays for) and the stock plan evil is effectively combated.

"Another evil of the stock plan racket (for that is what it is) operates thusly: A man buys a stock plan from which he builds a house. He gets the idea that plans are ground out of a blueprint machine at so much a set, the so much being about \$25-\$75. When he is in a position to build a factory, a store, a warehouse or whatnot his ideas about architectural fees are not anything about which to climb up a tree and get excited."

*A letter to Mr. Kemper from Lee Burns of
Burns and James, Architects, of Indianapolis*

"We are in hearty sympathy with the letter of protest from the Architects' League of Northern New Jersey, published in the June issue of PENCIL POINTS against the furnishing of stock plans for small houses, as we believe that plans of this sort lower the general standard of house design.

"As architects can not afford to make carefully studied plans for small houses at the same price at which these stock plans are offered, it would seem worthwhile to inform the general public in regard to the value of carefully studied house designs made with regard to the location and to the personal requirements of the owners.

"It would seem to us as absurd for members of the medical profession to indorse patent medicines, or for members of the legal profession to advise their clients to read articles telling every man how to be his own lawyer, as it is for architects to indorse the furnishing of stock plans.

"Now and then, a client who wishes a small house has enough judgment to insist on having it designed by a good architect and paying what such a plan is worth. Such a house is always a credit to the community in which it is built, and an object lesson on the value of architectural service on every building project whether it be large or small.

"It is an obligation of the architectural profession to the general public to increase the number of houses of this character, even though they are not so profitable as larger projects."

*From Frederic Johnston, Architectural Designer,
of Riverside, California*

"I heartily indorse the letter of the Secretary of the Architects' League of New Jersey published, with comment, in the June issue of your magazine. I am of the tribe—a small house designer—which suffers difficulties because of the activities under discussion. I have been practicing for several years, receiving commissions for small constructions, while pursuing studies preparatory for larger opportunities. I am not at present certificated in this State, although I expect to gain the appendix 'come winter.' In response to your generous invitation to discuss the subject of the letter, permit me to use some of your questions as texts.

"*Does the stock plan serve the Owner well?*—I meet with the stock plan frequently and have little to say in its favor. The best ones, supposedly, are those prepared, or at least sold, under the sponsorship of associations of Architects; the worst are probably those prepared by firms whose main business is some child of the profession's, such as blue-printing. Parenthetically, it is a fact that the public is so ill-advised architecturally that people frequently do go to a blue-print shop seeking architectural service. In practical value to the Owner I have seen little difference between types of stock plans. Those prepared by Architects are too frequently developed as theses, or for prize-winning in some competition, devoid of much evidence of earnest study from the angle of the Owner's best interest. Economic use of materials and labor is given little consideration; standard milling patterns are ignored; window and door sizes are special; cabinet work is of special design (although not showing any particular or valuable improvement over designs which are stock and generally cheaper); grades of materials are frequently unsuited to the class; such features as service porches, baths, and kitchens are neglected or designed for the use of servants not contemplated by the small house Owner; types of finish unsuited to the pocket-book or otherwise impractical are too frequently recommended; the effect of dimensions upon cost is rarely considered; and types of plan, etc., suited only to a portion of the United States are offered for sale in other parts without any attempt to adapt them intelligently to the Owner's needs. Too many have been produced with but one thought in mind—a charming design—and availability and practical use of the plan were never considered. The drawings are too frequently made just to impress judges and possible buyers, and to the Contractors are vague or incomplete; and the specifications—! I have yet to see one accompanying a stock plan which made much of an attempt to outline methods of labor or use of materials, or which afforded any protection to the Owner from an unscrupulous contractor. A fine basis for a contract!

"Again, I have seen 'drawings' given away by material firms with orders for materials, which were so poorly done that I have been called upon to advise the contractors during erection, sometimes actually being paid for services by the company which gave away the plan.

"In all this stock plan idea, service valuable to the Owner has never been the major consideration. It has been promulgated for selfish reasons—because it was thought that keener appreciation of good designs would help the business. And yet it has savoured of the Architect laying off for a moment his lofty professional dignity to entertain himself with the problem of uplifting the common people, overlooking the idea prevalent outside the profession that anyone so desiring should have a taste-

ful and well built home, representing full value for every dollar spent, regardless of size. The small house Owner's desire for architectural service is still ignored.

"There may be cases where the stock plan has functioned adequately but so far as my experience and observation extend, it has done more harm than good by misleading Owners into thinking they can get something for nothing, that the production of a complete set of drawings and specifications for so small a thing as a chicken-coop is a matter of a half-hour's time; and that they can, without any preparation or training assume responsibility for the simplest design, adapt and alter it to individual needs, and competently supervise construction of anything that comes to hand costing less than \$35,000.

"When the lumber company he selects will give the Owner a 'plan' free with an order for material, why pay even \$25.00 for one. And who is telling him the difference between these types of plans and architectural service in fact?

"Moreover the stock plan has never offered any protection to the Owner in place of supervision by an Architect. In fact I should say from observation that, with a stock plan and specification in hand, the Owner had special need of architectural supervision service,—much as a child with a stick of dynamite needs counsel.

"You ask, '*Does he get the kind of a house he should have at a fair price?*' I should say not. Allowing for exceptional cases with which I am not familiar, Owners always pay more than the current market price for a given dwelling or other structure when attempting to proceed without the advice of an Architect. There are so many reasons for this that I can not attempt to set them down. The basis of most of the failure is that no stock plan is satisfactory 'as is,' it must be altered and worked over even to represent a compromise between what the Owner would like to have and what he can pay for. The Owner will attempt to place fixtures, etc., although really lacking the imagination to visualize them in place or use, with the result that during construction frequent alterations with the attendant extra charges are necessary. (How many times I have received a client with a plan 'all drawn out.' It is exactly what he wants—he worked it out himself. Yet after an hour's consultation we have entirely abandoned 'just what he wants' for something I have shown him to be much better under the circumstances.)

"And '*Is the building, when completed, as satisfactory from the standpoint of suitability of the building to its site, proper placing on the plot, plan, selection of materials, etc.?*' How can a stock plan be fitted to a site unknown? How can the Owner know how best to adapt it without training or advice? Shall we leave an immense potential field of architectural effort to the carpenter-contractor, and say that he has the training and is competent to advise the Owner?

"Who creates the Architect; schools—the Architect himself? Or is it the people who would pay him money to do something? If asked, the average man will tell you that it is the business of the Doctor to keep one well, that of the Lawyer to lead one safely through the mazes of legal procedure, that of the Architect to advise and otherwise protect the interest of the client in constructing real-estate improvements. It is not a Doctor's business to make one beautiful, nor a Lawyer's to make one wise, neither does the average man go to an Architect for a pretty house only. Average man has little money to pay for beauty alone—he has, more or less of necessity, to take what of it

he can get along with the result of more practical and economical considerations. Why not recognize this, admit architecture as primarily a business, and give clients what they think they are entitled to—a service which has a dollar value because it produces tangible values for the Owner.

"The whole idea is a libel on the profession, anyhow, for if 'plans' for a \$10,000 house can be and are produced for \$25.00, then the Architect who takes a fee of 8% on a \$30,000 job is just a grafter. And it is a fact that there is a current notion (and a growing one) that the whole profession is a graft. 'My boy studied it in high school' . . .

"Now as matters proceed hereabouts, a trained man can produce work for the small house Owner at a saving more than covering the cost of the service. I think this field an excellent one for young men beginning the practice of architecture, that it should be held open and effort made to assist them in developing it. Here the advanced student and beginning practitioner may obtain much valuable experience without prejudice to his clients. His production may be slow and his management of the work awkward, occasionally wiping out profits, but it is the logical field in which to begin. The savings he should make, by personal attention to each case, by intelligent study of appropriate materials and finishes, by earnest attention to a tight specification, and by bringing to bear the value of his presence on the job during supervision, should result in the beginner not only earning his fee but in making a saving for his clients more than covering the cost of his fee, as well as assuring the latter full value for every dollar spent, practical suitability, and individual charm of design.

"These jobs do not take a lot of time when the Architect gives some attention to organization of his work; and once having arrived by study and experience at values for material and labor proper for this class of work, he should quickly develop facility in the handling of them, producing distinctive designs properly adjusted to the site, the needs and desires of his clients. Also not to be overlooked is the value of the educational work such a man will carry on when he has the ideals of the profession at heart. He is bound to coordinate and improve the tastes of those with whom he comes in contact, and he should, at the same time, be laying the basis of a future practice of larger opportunity in meeting the first demands of the younger generation responsible for the bulk of smaller constructions, and essentially his own.

"For myself, I have established by experience that at least in this locality a young practitioner can design a \$5,000 house, set it forth in complete drawings and specifications, and supervise its erection under a general contract gotten competitively, for a fee of 8% and frequently less; with a saving to the Owner plus many benefits, as against what that Owner could accomplish if left to 'go it alone' with a stock plan. Some of those benefits are the prosecution of the whole work satisfactorily without loss of the Owner's earning time or interference with his time for leisure; individuality of plan, worked out to fit exactly the Owner's personality and preferences; particular charm of design arising from such a plan; full development of possibilities inherent in site and environment; and protection for the Owner against fraud and malpractice.

"To sum up, Architecture, if a business as well as an art, may with advantage be applied to any sort of construction, profiting the community, the Owner, and the Architect alike."

From Howard D. Clary of Chicago

"The letter in your June issue from the Architects' League of Northern New Jersey calls attention to a condition which has existed in Chicago for several years. We have in Chicago an office maintained by a nationally known stock plan bureau. This bureau retails plans for \$25.00 or \$30.00. The plans are well studied, but do not comply with the city building code, and do not bear the seal of an architect licensed in this State, which seal is required for a permit. A great many of these plans are redrawn by architects at reduced prices. This bureau advises the client to retain an architect to supervise the construction, but not one small house in fifty built in Chicago has architectural supervision. We also have several local bureaus selling stock plans that comply with the code but are poorly designed.

"The experience of the average client is as follows: Wanting to build, very naturally he hies himself to the office of a man who advertises himself as a builder. This gentleman informs him that he must have a plan before he can give information as to costs, that the plans for small homes are fairly well standardized, that the most important thing is to get a plan with which he can obtain a permit, and that he can doubtless find such a plan already drawn in the office of almost any architect. The price of such a plan will probably be \$25.00 or \$30.00. The client goes to the architect and either buys a 'reprint' or goes to a stock plan agency. In certain rare instances he has a plan drawn.

"I have before me advertising matter circulated by one of the local stock plan agencies which reads as follows: 'Five sets plans—bungalow or two flat \$10.00; others in proportion. Printed specifications, 14 sheets, \$1.00. This should disprove rumors of an architects' combine, trust, or union.' The client, having been quoted prices of \$75.00 and up for a new plan and \$25.00 to \$30.00 for a 'reprint' before reading such a statement naturally assumes that there is such a combine, of which the advertiser is not a member.

"These conditions have forced most small offices to sell 'reprints' of plans previously drawn up and paid for by others. Conditions are such now that most people on entering an architect's office ask for 'stock plans' and that the sale of a new plan is made only after they have tired in their search for a stock plan to suit their desires. Up to about three years ago the number of reprints sold for small buildings was about half of the new plans drawn. Now the reprints greatly outnumber the new plans.

"Does the stock plan serve the owner well?' A good stock plan gets a greater amount of study than the average owner is willing to pay an architect to do, but no stock plan exactly fits the owner's needs. Changes are generally made on the job by the builder, and the results are not always pleasant to see. Every owner has certain extravagant ideas that any architect would persuade him to abandon. The average builder will include anything in a house—at a price.

"As regards satisfaction on the part of the owner in the planning, suitability to site, selection of materials, etc., the average architect would do a better job, and the difference would be worth paying for. Some of the more advanced speculative builders are coming to realize this.

"I do not know whether the plans sold by the national stock plan organization have helped to improve our small house architecture or whether the improvement is due to the general prosperity. I think that the quality of the design is in direct ratio to the taste of the client. Just

SOME OPINIONS ON THE STOCK PLAN QUESTION

now the builders are indulging in an orgy of $\frac{7}{8}$ " timber work, skintled brick, sticky plaster, and rubble trimming. The local stock plan agencies follow these fads and encourage them.

"Considering the average client's knowledge or lack of it concerning building, it is better that each residential problem be planned and built under competent architectural supervision—if the architects could handle that amount of work."

*And the following resolutions have been passed by the
New Jersey Society of Architects*

"Whereas we believe the marketing of stock plans is not a benefit to the buyers, is not for the public good, and is a detriment to the professional practice of architecture, and we are encouraged by those who see the facts continuing to present them, as evidenced by the recent letter of The Architects' League of Northern New Jersey to The American Institute of Architects, and as shown in the current pages of PENCIL POINTS, and still further encouraged by the report of a partial withdrawal of The American Institute of Architects from its connection with The Architects' Small House Service Bureau of the United States; of which partial withdrawal we trust said Bureau may learn, modifying its printed matter and advertisements accordingly; and

"Whereas, we have supported The New Jersey Chapter of The American Institute of Architects during the more than eight years it has striven to point out the weakness and harmfulness, and the faults, entanglements and embarrassments sure to come to the Institute and the professional practice of architecture from the Institute's connection with the said Bureau, beginning when the Chapter suggested to the 1921 Convention that the Institute await any movement by either The American Bar Association or The American Medical Association to sponsor and control any corporation for the production and marketing by skilled sales forces of legal advice and papers in the one case, or of prescriptions and medicaments in the other case, to be used according to the buyer's judgment supplemented by such further advice as the buyer might be inclined to ask and the corporation be inclined to grant; and

"Whereas, like other State and local architectural societies, we look to the architects' national body, the Institute, for guidance for the public good through our practices, including in the retracing of steps taken in error, and in the establishment of high standards toward which we all may strive; now therefore be it

"Resolved that we, The New Jersey Society of Architects, in Annual Meeting assembled this thirteenth day of June, 1929, declare ourselves in accord with the object of the letter referred to above; that we join its author, The Architects' League of Northern New Jersey, in asking the Board of the Institute to give further consideration to the subject; and that we respectfully plead with said Board entirely to sever all ties between the Institute and The Architects' Small House Service Bureau of the United States, if such severance be within the Board's power; or, if such severance be beyond the Board's power, that it present the subject to the next Convention, with affirmative recommendation."

From Gordon Allen, Architect, of Boston, Mass.

"I HAVE READ with great interest the somewhat wander-

ing letter from Mr. Harry Lucht to Mr. Kemper in regard to Stock Plans.

"Although I agree in the main with what Mr. Lucht says, I have always felt that the only way to build a house is to hire an architect, and that the legitimate cost of doing so can be considered in no way an unnecessary expense to the Owner.

"I have written a letter to Mr. Kemper, a copy of which I enclose. I am afraid I referred rather slightly to the quality of the plans made by the various Companies for stock houses. I think this is due not to the fact that the architects employed have not done well in a great many cases, but that the problem of designing a house before knowing the Owner, the lot, the exposure, the view, and perhaps ten or twenty other conditions, is an impossible task. Until these companies sprang into existence, architects spent a great deal of their time convincing the public of this obvious truth. The facts have not changed, and the answer to the question remains the same."

Mr. Allen's letter to Mr. Kemper follows

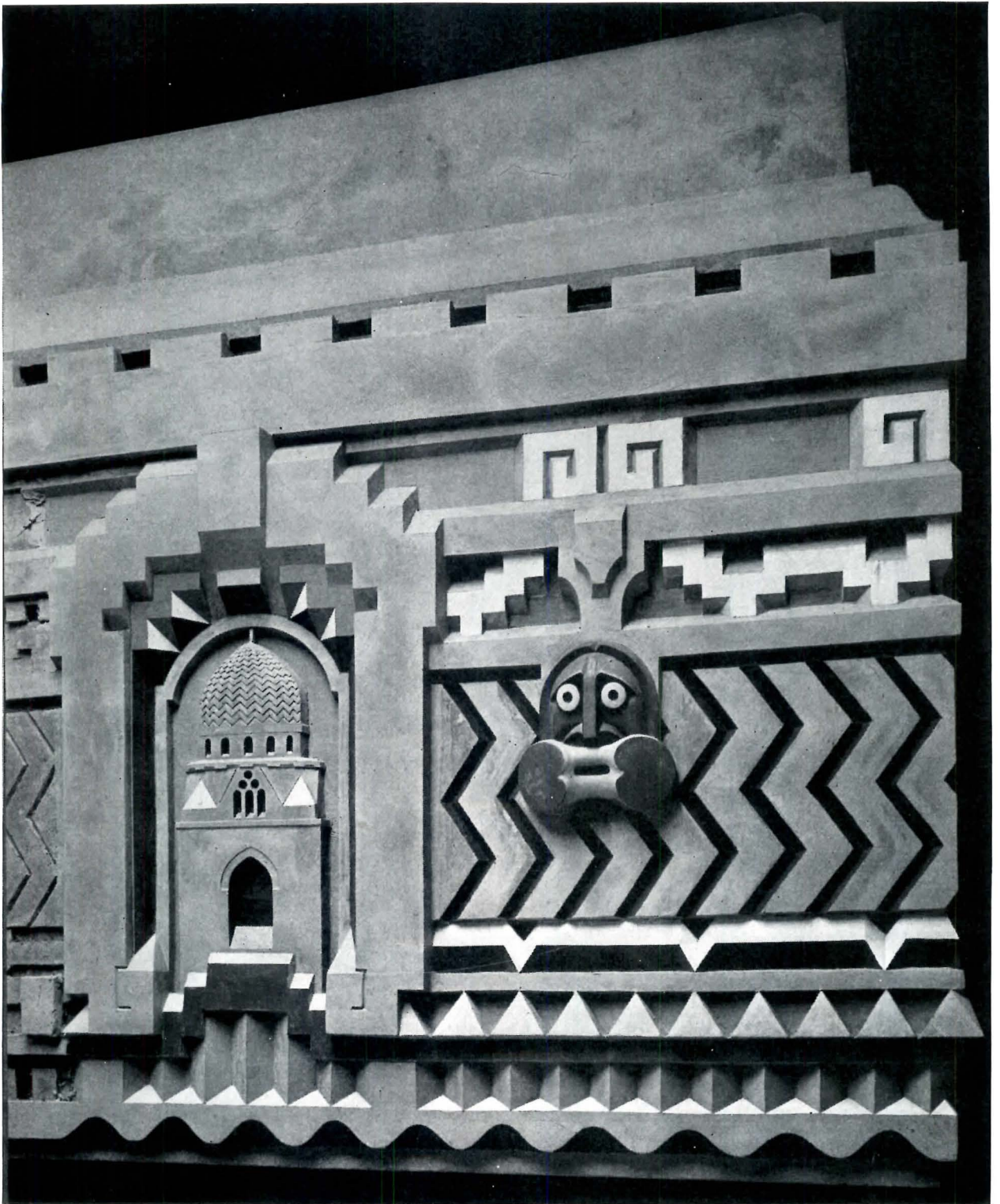
"I have just seen in the June number of PENCIL POINTS a letter from Mr. Harry Lucht of the Architects' League of Northern New Jersey, in regard to the various organizations selling Stock Plans for small houses.

"First of all, I think Mr. Lucht is incorrect, at least as regards the branches of the Architects' Small House Bureau in this part of the country, in implying that they are getting 'large profit to themselves, that they are primarily motivated by a desire for profit, and that they are not philanthropically interested in architectural design from an educational viewpoint.' I am given to understand that this organization, at least in New England, is far from successful financially, and I know that the various architects associated with the Bureau have the highest philanthropic motives.

"Nevertheless, I am firmly convinced that they are mistaken, for two principal reasons. The organization gets free service from a number of well-known architects who aid in producing these plans; in my opinion an organization economically so unsound, depending upon free service of experts who compete with other experts, who naturally expect to be paid, can never hope to succeed in the long run. I am opposed to the various organizations selling Stock Plans for another reason, which is that they do not seem to make very good ones, but I think the principal reason for this is that they are actuated by too many mixed motives. They will tell you that their prime desire is to make straightforward workable plans for the average small client, but they cannot help being influenced by the public taste for false picturesqueness, artificial textures, and general stage scenery effects which have little to do with good design, but which 'sell' plans.

"Standardization has always had a tendency to ruin any art. Architecture, the greatest of the Fine Arts, is more subject to standardization than any other, and can bear it less. Ask any number of architects how they would go about building a \$7,000 house for a near relative, and see how many of them send the poor fellow to any of these Housing Companies. Unless they are indifferent to his problem, every one of them will make the plans himself, and the lucky fellow will get a good house instead of an indifferent one.

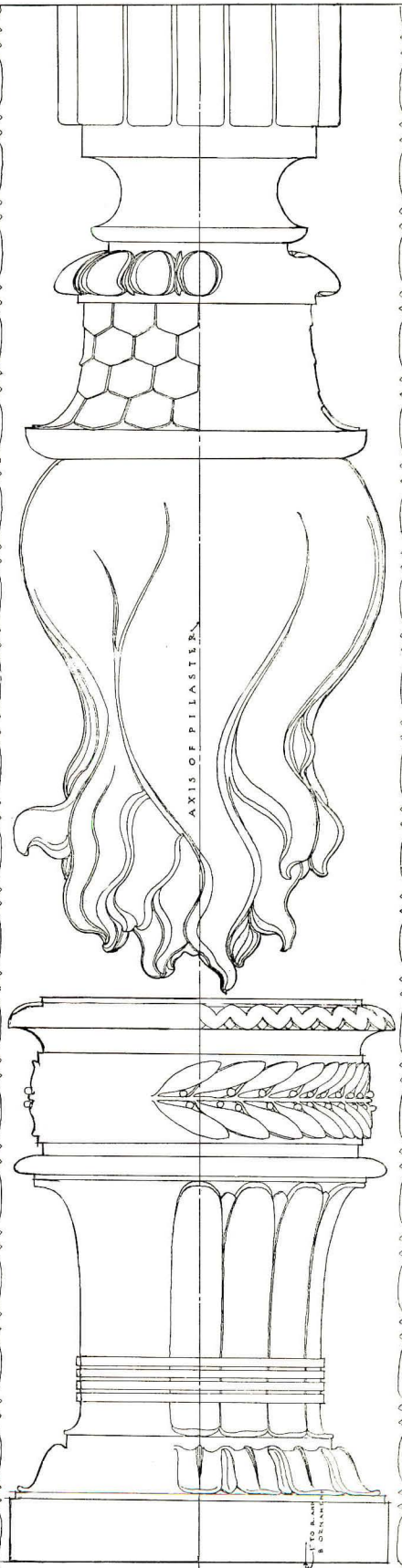
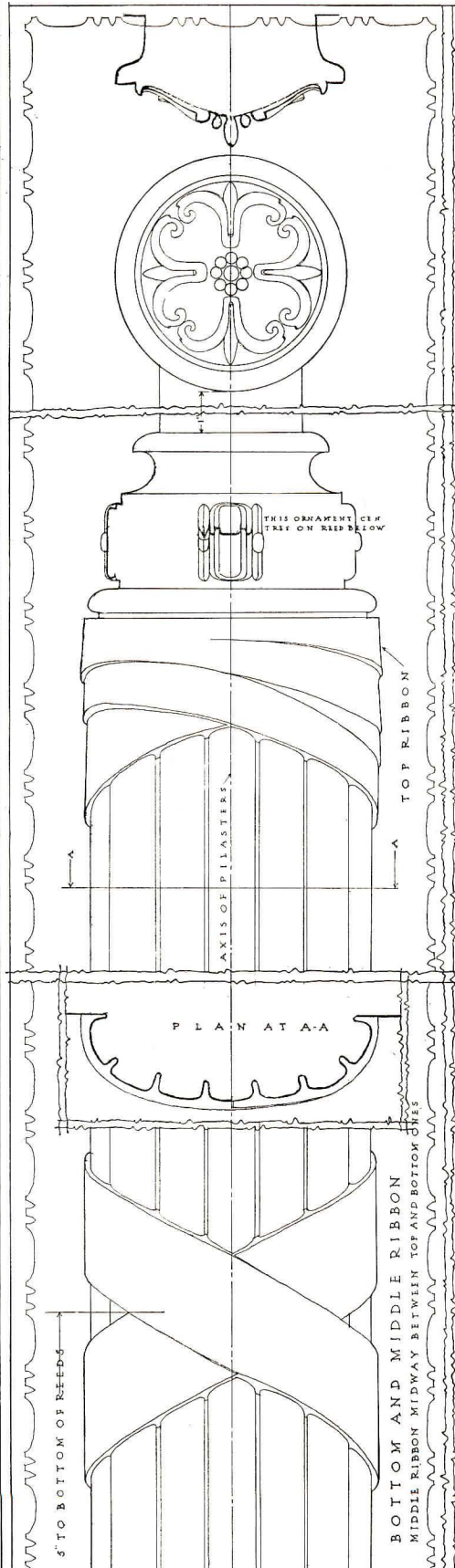
"Even if these organizations designed better than they do, I should never be in favor of their endorsement by the American Institute of Architects, which I consider unwise and thoroughly immoral."



PRELIMINARY STUDY OF ORNAMENT OF MAIN FRIEZE, WICHITA ART INSTITUTE—CLARENCE S. STEIN, ARCHITECT

This model was made at half full-size by Lee Lacrie assisted by Benjamin F. Harkins. It was colored as it was being made so that the color effects could be studied along with the modeling. In this frieze a series of representations of buildings, of which one is shown here, covers the history of art as expressed in architecture. A series of masks of different periods and peoples was also designed but may be eliminated in the final version.

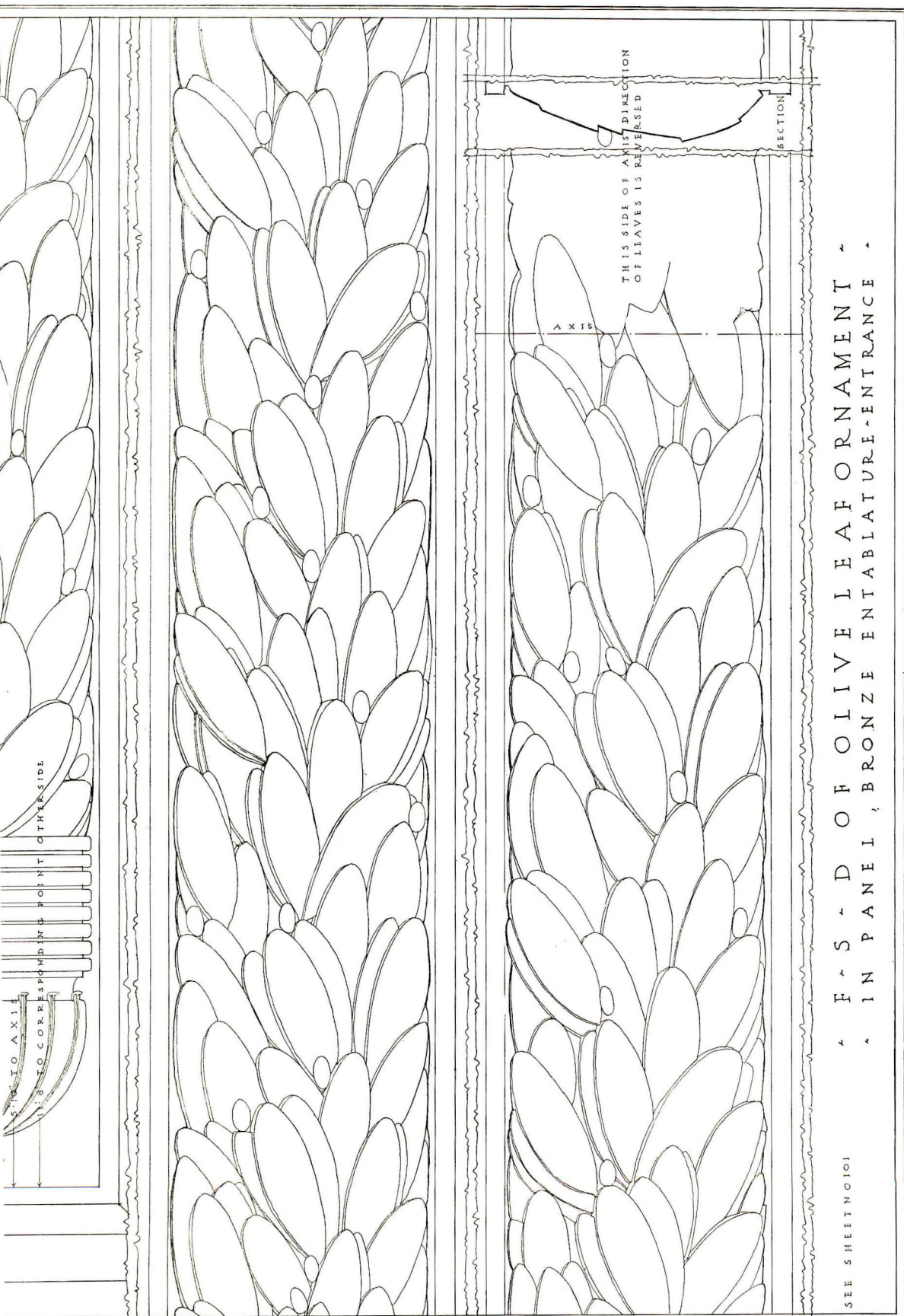
(See article on page 535)



F - S - D OF INVERTED TORCH
ON PILASTERS EACH SIDE OF BRONZE DOORS

THE CONTRACTOR SHALL VERIFY ALL FIGURES DIMENSIONS MATERIALS ETC. ON THIS DRAWING WITH OTHER DRAWINGS
THIS DRAWING OR THE SPECIFICATIONS WILL BE REJECTED UNLESS CHANGE IS DULY AUTHORIZED . . . ALL DRAWINGS

McKINLEY
C A



AL-MEMORIAL
OHIO

H VAN BVREN MAGONIGLE
ARCHITECT
SEVEN WEST THIRTY-EIGHTH
STREET - NEW YORK CITY

DRAWING NO. 105
WORK NO. 45
MADE NOV 8 1906
BY FRANK COLLINS

MAGONIGLE, ARCHITECT—REDUCED TO ONE-THIRD ORIGINAL SIZE

PENCIL POINTS

ARCHITECTURAL COMPETITIONS, CLOSED AND OPEN

By W. K. Oltar-Jevsky

IT HAS BECOME a truism that competition is one of the greatest stimulants of progress. This equally applies to the production of staple commodities, as well as to the higher expressions of human creativeness. In the industrial field competition leads to the highest standards and the lower cost of production. In the intellectual life competition calls forth the hidden creative forces of the country, and holds out an opportunity for the development of individual talent.

But to achieve completely its ultimate ends competition must insure the largest freedom of initiative and expression. This is especially true with regard to architecture, which always is a national art,—in consequence, in the development of architecture, all of the country must be represented. And the wider the contribution of initiative and of original ideas the higher will be the standards of the country's architecture.

The basic aim of any architectural competition is the endeavor to obtain the best solution of an architectural problem by giving voice to a large number of competitors. It stands to reason that the larger the number of participants, the greater the chance to accumulate valuable material contributing to a better solution of the problem. And this argues for competition open to all comers, in fact to everybody who deems himself adequate to the task, be it an architect of large experience and considerable reputation, or merely a student confident in his own maturity and bold enough to confront the problem.

The advocates of closed competitions, i.e., of competitions to which only a few participants are admitted by special invitation, usually point to the fact that by this method it is possible to select those who are familiar with the special requirements of a given problem. Besides it usually is supposed that those invited competitors possess the technical experience and are otherwise qualified to undertake the material realization of the problem. But sometimes that problematic advantage of closed competitions is greatly offset by the failure to avail oneself of the contributions of numerous young talents, who thus are robbed of the legitimate opportunity of expressing and developing their creative forces. The situation quite obviously leads into a vicious circle; the younger talents are excluded from competitions because they have yet no reputation; and there is scarcely any way of getting known to the larger public other than by taking part in competitions, which alone open to the young architect an opportunity to create a following of his own, as well as to tackle independently the more ambitious problems of his craft.

Anyone who but once had the chance to take part in a competition knows the psychological difference between working for a competition or for a private commission. In the first case one has to strive to give a solution which should successfully compete with the work of any other eventual contributor and which should prove satisfactory to the exacting criticism of authoritative judges. In the case of a private commission the task is usually restricted to requirements of a customer more often than not unacquainted with matters of architecture, and chiefly interested in the financial outlook of the problem. He is usually the only judge, and against his judgment there is no appeal. Of this, however inspired by his task, the architect can not

help being conscious. When working for a competition the architect is not under any personal pressure. He is bound only by the limits of the programs, and the freedom of competition encourages a greater and keener effort of mind; the ideas he produces are more daring and the results usually more important. In short, competitions create an environment particularly favorable for the architect's creativeness by carrying him away from the "day's evil" and giving him temporarily the advantages of an academic atmosphere. Thus his office becomes a laboratory.

The above chiefly refers to open competitions. In instances of closed competitions where the names of the participants are known, one always can anticipate from their earlier designs the character of their contributions. Besides, the fact of being acquainted with the character of their fellow competitors' work influences them in a way not conducive to the free development of the architectural thought.

The competition for an office building for the Chicago Tribune gave an impressive confirmation to the above consideration. That competition accumulated a great wealth of new architectural ideas and brought out a number of brilliant solutions of the skyscraper-problem. An attentive analysis of the development of the skyscraper for the last decade will clearly point to a decisive turn brought about by that competition. From that date the vertical elements of the skyscraper which logically reflect its structure become the basic motives of the composition, a striving for the simplicity of form is stressed, and the use of the forms of ancient Greek temples falls into oblivion. The latter, as everybody knows, have been, by some misunderstanding, profusely used in the composition of skyscrapers, although neither their materials nor the nature of their problems were in any way connected with those of the Athenian Acropolis. To all that must be added that this competition introduced a galaxy of new important names and opened for them the wide field of opportunity.

We see that thus open competitions carry a great public importance and appear as outstanding features in the development and growth of architecture, while most of the closed competitions vanish almost without a trace in the turbid currents of routine.

The matter of competitions is quite differently handled in Europe. There, about 95 per cent. of competitions are of the open kind. Their organization is usually entrusted to the executive organs of the architectural societies who undertake the task of working out all the details such as program organization, election of the jury, etc. The choice of the latter is either left to the participants themselves, who are permitted to nominate prospective judges, or is effected by a general meeting of the Architectural Society.

In the Jury the representatives of the Architectural Society usually dominate numerically, which fact, together with the entire procedure of the competitions, endows the latter with a considerable professional authority.

The organization on whose initiative the competition is called into being, usually allots a certain amount for the prizes, of which 10% to 15% goes to cover the expenses of the organization of the competition, and are usually deducted from the prizes, 10% being collected from those

participants who are members of the Architectural Society and 15% from those who are not. As a rule, in almost every competition, the group announcing it reserves the right to entrust the actual construction to any architect of their own choice. As a matter of fact this reservation is rarely used to the full. In cases where the prize has been adjudged to an architect of limited practical experience, the technical supervision usually is given to an architect of unquestionable standing, while the credit for the work and the architectural supervision is left to the winner.

Such, for instance, was the method applied to the case of the new cathedral in Liverpool, where the first prize was won by a youngster of 22, completely devoid of business experience. The method applied in this case has proved highly practical and gives an exhaustive answer to the advocates of closed competitions who see the main danger in the eventuality of the prize being awarded to an inexperienced architect.

The widespread realization of open competitions could be entrusted to a permanent committee elected for that special purpose. The unquestionable authority of our architectural organizations and their connections with the business world through those members of theirs who usually serve as advisers when competitions are announced seem to warrant a favorable solution of that question.

Besides, in the case of a large number of open competitions considerable funds could be accumulated by collecting a percentage from the awarded prizes, as actual expenses of organization never do reach even half of the collected sums. That income forms one of the chief items in the budget of the Architectural Societies on the Continent.

THE ARCHITECTS' CLUB OF BROOKLYN, INC.

AT THE LAST meeting of this club, a resolution was adopted "that it is a violation of the New York State Architects' Registration Law for any Registered Architect to allow his name to be used in connection with any plans prepared by anyone practicing architecture who is not a Registered Architect." Such action on the part of a Registered Architect may result in a revocation of his certificate of registration, and prosecution for perjury.

PARIS PRIZE JUDGMENT POSTPONED

THE JUDGMENT of the drawings submitted in the Paris Prize Competition will not take place until September 5th. The judgment was scheduled for July 10th and we had hoped to present the winning drawings in this issue. However, unless the present schedule is changed, they will appear in the October number.

THE PASADENA ARCHITECTURAL CLUB

ON THE THRESHOLD of the third year of its existence The Pasadena Architectural Club is planning a season of activities even more ambitious than its past accomplishments. With a commodious and attractive clubhouse, with a successful season of educational classes just past, a fine record of summer sketch competitions, a smoothly working employment bureau, and now the responsibility of managing the Stickney Memorial School of Art, the Club has a rare opportunity to serve the community.

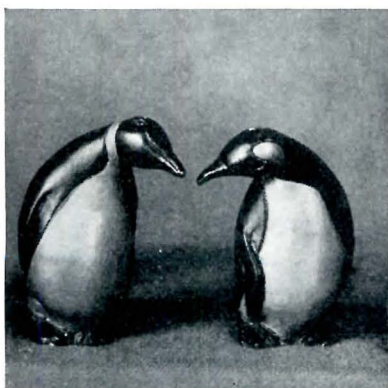
The officers for the present year are: Robert Stanton, president; Harry A. Schoeppe, vice-president; Richard W. Ware, secretary; and Mark W. Ellsworth, treasurer; who, with Orrin F. Stone, John R. Jarvis, and Wm. S. Buyers, make up the executive committee. Weekly luncheons with an average attendance of twenty serve to cement the bond of good-fellowship. Evening dinner meetings with a program every six weeks bring out almost the entire club which now approaches a membership of seventy-five.

During the past year the Club was most fortunate in being the recipient of an ideal clubhouse. The Stickney Memorial School of Art, a replica of Ann Hathaway's cottage in half-timber and stucco, was placed in the custody of the Club with the provision that art classes would be maintained. Since the Club already had a life class in operation this proviso was easily met.

The Club was ambitious, however, to go beyond that and establish classes in various branches of art. The Stickney School was not a "school" at the time; classes were being held by two independent women teachers. Finally, through Alson S. Clark, well-known California landscape painter, who had been critic of the life class, Mr. M. R. Gavaza was induced to take up his residence at the Club and undertake to build up an art school. Classes are planned in architectural design, etching, lithography, modeling, and painting and composition. Mr. Gavaza hopes to make the Club a focal point of all art and artists in Southern California, and through an artist's forum to serve their every interest.

The Club's rooms have been practically furnished, thanks to many friends and co-workers. A competition is being held for the design of a new mantel for the fireplace, for which Mr. Clark has given one of his paintings of the Panama Canal, as an overmantel decoration.

The Club was host to the Los Angeles Architectural Club on July 16th at a joint meeting in Pasadena. The wives of members were invited and the guests were entertained by a revue, dancing and bridge.



Penguins, "Alfred and Alfreda," white metal and black enamel.



"The Three Marys"—alabaster—original sketch made in soap.



Bronze elephant mounted on black marble base.

SMALL SCULPTURES BY MARGARET POSTGATE

STEEL BRIDGE COMPETITION JUDGED

M. W. KLEINMAN, student in the University of Illinois, has been awarded the first prize of \$500.00 for the most aesthetic design for a theoretical bridge in steel. The contest was held by the Beaux-Arts Institute of Design at the instigation of the American Institute of Steel Construction for the purpose of stimulating an interest in improved bridge designing.

The second prize of \$250.00 went to P. A. Bézy of the University of Illinois, while the third prize of \$100.00 went to W. J. Jensen, of Atelier Hiron, New York.

The contest was limited to architectural students in the various schools and ateliers affiliated with the Beaux-Arts Institute of Design. In response to the first request for sketches fifty-seven designs were submitted. From these, ten designs were selected by the jury for the final development on a larger scale.

In addition to the three cash prizes other awards were made as follows: R. H. Blatter, Princeton University, first medal; P. A. Goettelmann, Catholic University, first medal; W. Paxton, Yale University, second medal; E. G. Von Storch, Atelier Hiron, mention; C. S. Pope, Atelier Licht, mention; and A. C. Davoll, New York Architectural Club, mention.

Commenting on the contest, Charles F. Abbott, Executive Director of the American Institute of Steel Construction, said:

"Student designs of steel bridges may not always be practical, yet the contest proves a fact of which we had but empirical knowledge. It shows that there is a large field for the aesthetic solution of bridge design.

"The drawings submitted in this contest were all by architectural students. While in some cases they obviously lacked a knowledge of fundamental engineering principles, they did not, however, run counter to those principles to any great extent. Furthermore, they have shown imagination and originality. They prove that it is possible to obtain new and beautiful effects with a steel bridge.

"The American Institute of Steel Construction is so well satisfied with the results of this contest that it has practically determined that the experiment will be repeated. Out of such contests it is hoped to stimulate constructive thought among architects which will develop certain aesthetic principles in bridge design which can be successfully utilized by the steel fabricators."

The prize winning design and that placed second are shown on the following pages.

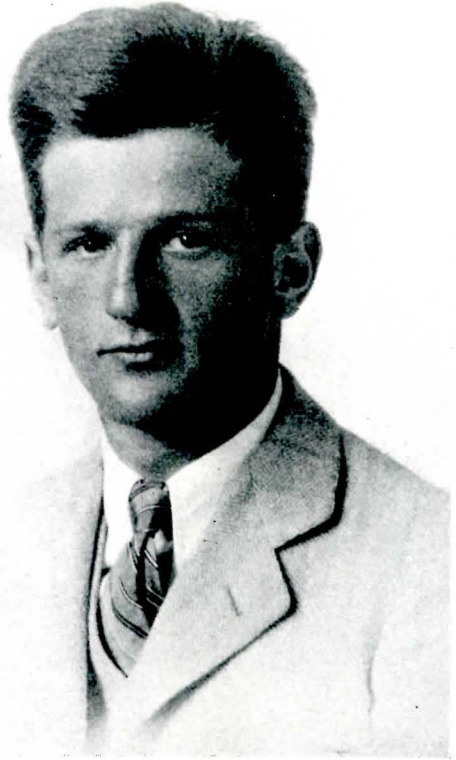
SKETCH CLUB ATELIER OF NEW YORK

THE SKETCH CLUB ATELIER will open its fourth season in the studio of the Atelier, 170 Fifth Avenue, New York, on Tuesday evening, October first. The heavy enrollment in past seasons has made necessary the dividing of the Atelier into two groups, the second meeting to be on Thursday evenings. This practice will continue this year if warranted.

The instruction will be under the direction of A. Thornton Bishop who served the latter half of the past season. Composition, the method of interpretation, as well as the rapid techniques essential to the sketch will be among the subjects studied.

The course consists of twenty-four evenings.

Applications are being made to Mr. Bishop, 105 West 40th Street, New York.



MAURICE W. KLEINMAN

MAURICE W. KLEINMAN, whose home is in Chicago, was graduated from the Senn High School in 1924. He entered the Department of Architecture at the University of Illinois and graduated in June, 1929, with high honors.

In addition to winning the first prize of five hundred dollars (\$500) given in the competition offered by the American Institute of Steel Construction, Mr. Kleinman won the Trowbridge Fontainebleau Scholarship given to the student making the greatest number of values in the class A problems of the B. A. I. D. for the year. He totaled thirteen values and won one first medal and three second medals—the latter were taken on consecutive *projets*.

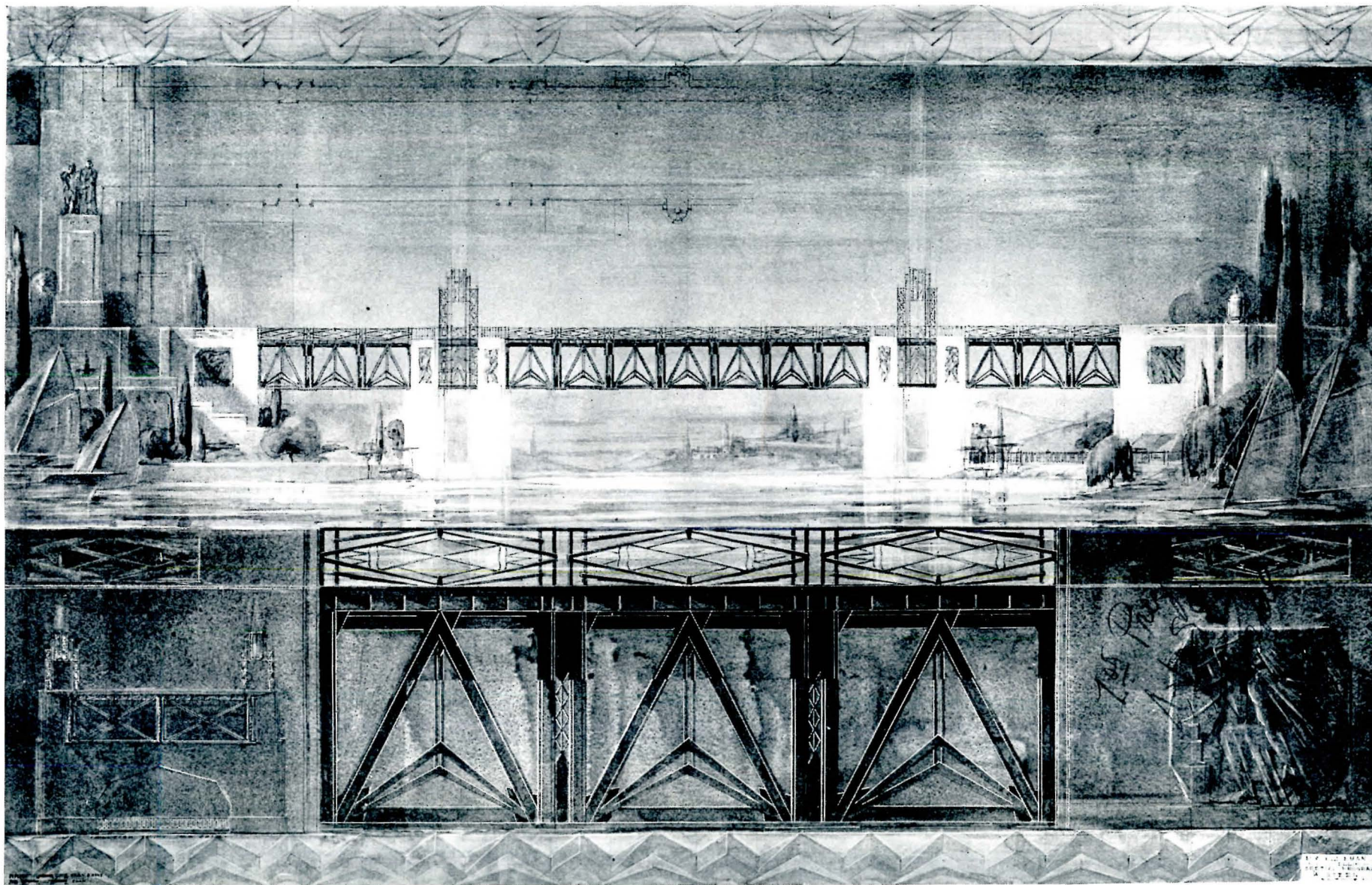
He was awarded the school medal of the American Institute of Architects given to the graduate whose work during the course is most consistent and best.

Mr. Kleinman is at present at the Fontainebleau School of Fine Arts, Fontainebleau, France, where he will remain during the summer. He plans to return in the fall to the University of Illinois for graduate study in Architectural Design.

A LETTER FROM MR. ERNEST IRVING FREESE

"Please ask Mr. Rayne Adams to answer this one:

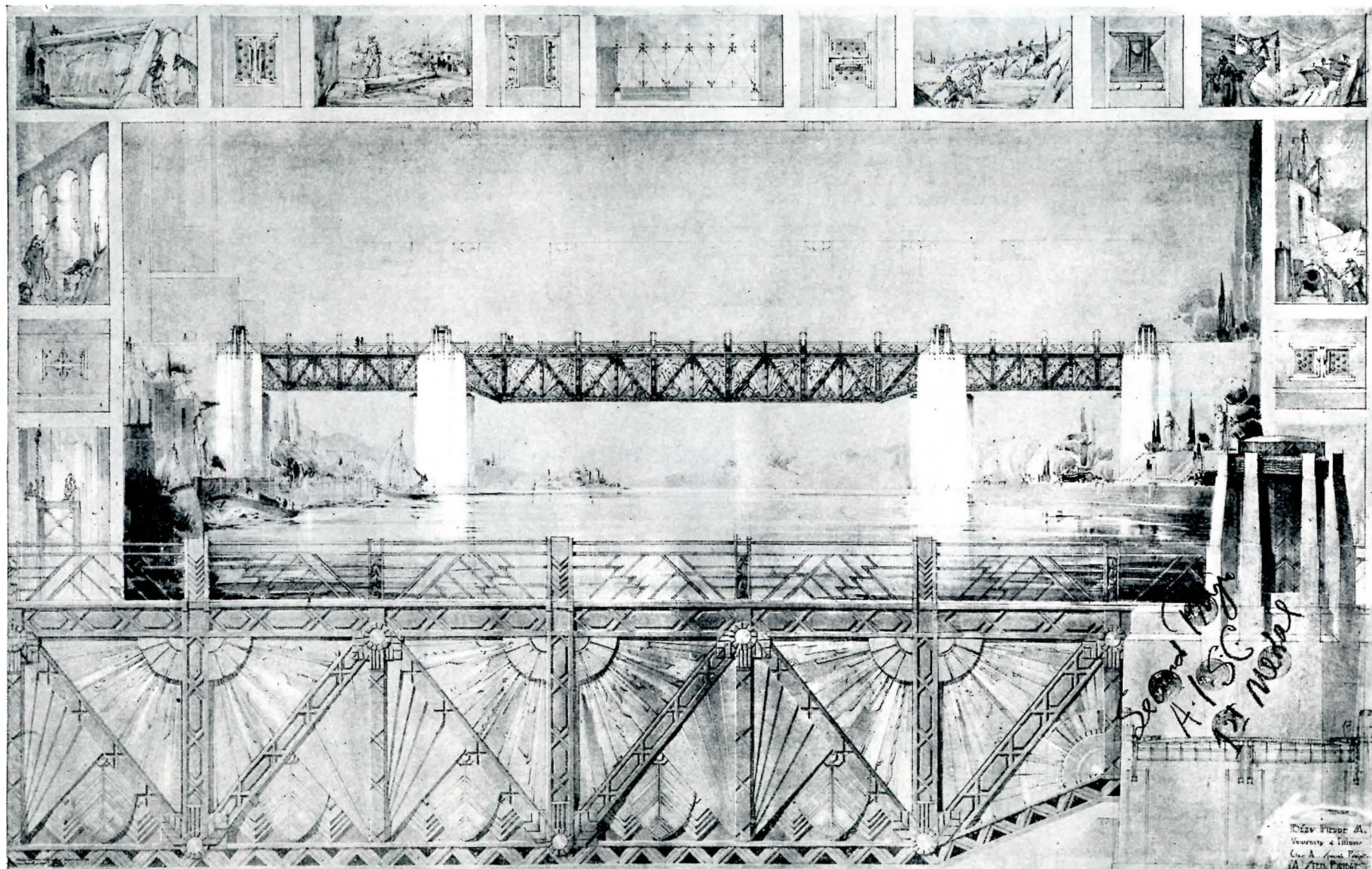
"Why, instead of his mournful 'baying at the moon,' in July PENCIL POINTS, didn't he say merely that Mr. Born is a *master* of perspective, and that the ungifted and unfortunate pencil-pusher who has to *learn* the art is, therefore, a *slave* to it. This, in one sentence, would have put across everything he had to say, and, therefore, would have cut out all of his melancholic and discouraging text to that effect, thus leaving more available space to further illustrate Born's excellent and inspiring drawings."



WINNING DESIGN FOR "A THEORETICAL BRIDGE IN STEEL," BY M. W. KLEINMAN, UNIVERSITY OF ILLINOIS

COMPETITION HELD BY THE BEAUX-ARTS INSTITUTE OF DESIGN

(See text on page 567)



SECOND PRIZE DESIGN FOR "A THEORETICAL BRIDGE IN STEEL," BY PIERRE A. BÉZY, UNIVERSITY OF ILLINOIS

COMPETITION HELD BY THE BEAUX-ARTS INSTITUTE OF DESIGN

(See text on page 567)



OVERMANTEL DECORATIVE PANEL IN STUCCO BY VALLY WIESELTHIER USED IN A DINING ROOM
DESIGNED BY BRUNO PAUL

SHOWN AT THE CONTEMPORA EXPOSITION OF ART AND INDUSTRY AT THE ART CENTER, NEW YORK

CONTEMPORA EXHIBITION OF ART AND INDUSTRY AT THE ART CENTER

THE CONTEMPORA EXHIBITION OF ART AND INDUSTRY, now being held at the Art Center, New York, presents an architectural exhibition of models, renderings and photographs of the work of Erich Mendelsohn, the German architect, which serves as his first introduction to the American public although his work is well known in Europe. Mendelsohn was one of the first architects to promulgate the idea that steel and cement were the architectural mediums of the day and as such would determine the form of the new architecture. In one of his books he pays tribute to American architecture by admitting its influence upon his own work, a fact immediately apparent when one views a collection of his designs.

In an adjoining gallery are shown plastic fixtures for window display by Vally Wieselthier, sculptress. Miss Wieselthier, who is now living in America, has adapted her lively and sophisticated art to American taste and fashion trends and has found a sympathetic medium in the designing of the novel and engaging window display fixtures which are a striking feature of the Contempora exhibition. An example of her work is shown by the decorative panel reproduced above.

A large gallery on the second floor contains a series of four rooms, a bedroom by Paul Poiret, and two combination rooms and a bedroom by Lucian Bernhard, whose interiors are distinguished by their livable adaptation of the fundamentals of modern design, and their ingenious

methods of space conservation—so much to be desired.

Harmonized rooms, or complete decorative ensembles, comprising furniture, floor coverings, draperies and lighting fixtures designed by artists as decorative units, and to be sold as such, are the latest thought in modern decoration. Eight of these rooms, including bedrooms, living rooms, dining rooms and combination dining and living rooms, are shown. Professor Bruno Paul, German architect, and the leading spirit in his country in furthering the modern note in industrial art, Professor Lucian Bernhard, architect and graphic arts designer, Rockwell Kent, and Paul Poiret, the French couturier and decorative designer, have each contributed rooms. Each of these artists is a member of "Contempora," the activities of which organization may be described as offering a service of art to industry, under the directorship of Paul Lester Wiener.

Other features of the exhibition are modern lighting fixtures, by a group of well-known German architects, among them Bruno Taut, Emil Fahrenkamp and Walter Gropius.

The graphic arts are given a special section featuring the work of Lucian Bernhard and Julius Klinger. This is Mr. Klinger's first American exhibition.

During the exhibition lectures are being given by well-known authorities on modern design. Among the lecturers are Lewis Mumford, Frank Lloyd Wright, Professor Charles Richards and Miss Virginia Hamill.

THE AMERICAN ACADEMY IN ROME

FELLOWSHIPS IN LANDSCAPE ARCHITECTURE AWARDED

THE AMERICAN ACADEMY IN ROME has announced the award of two fellowships in landscape architecture. One fellowship is for a term of three years on the Garden Club of America Foundation, and the other is for a two-year term with the possibility of a renewal for a third year. The latter fellowship is given by Mrs. Walter S. Brewster.

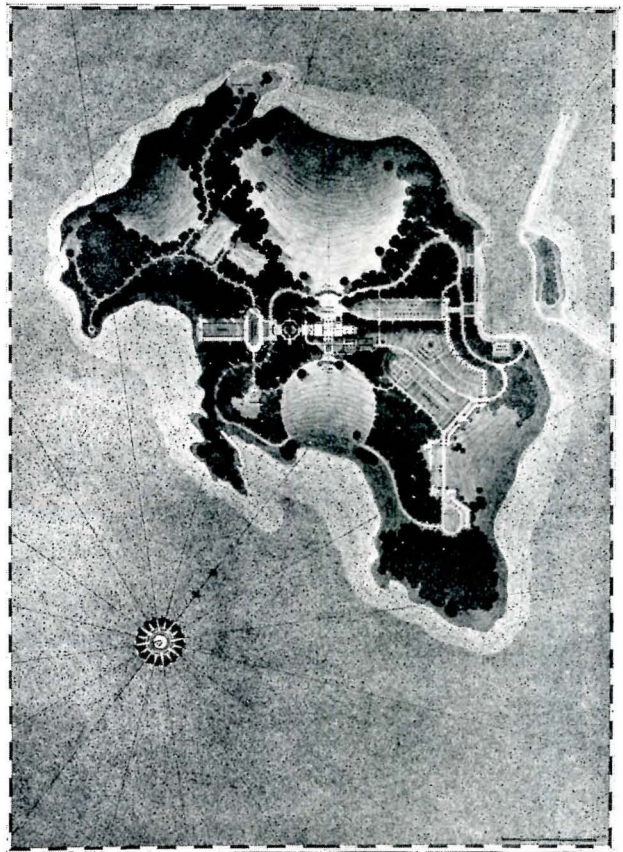
The winner of the three-year fellowship is Charles R. Sutton of Ottawa, Illinois. Mr. Sutton is 29 years of age and a graduate of the University of Illinois in Architectural Engineering in 1921 and in Landscape Architecture in 1926. He received honorable mention in the Rome Prize Competition in 1927. Since graduation he has worked in the office of Ferruccio Vitale in New York.

Thomas D. Price, of Boston, is the winner of the two-year fellowship. He is 28 years of age and holds the degree of B.S. from Ohio State University and M.L.A. from Harvard. Mr. Price won honorable mention in the Rome Prize Competitions of 1926 and 1927, and a Charles Eliot Traveling Fellowship from Harvard in 1928.

First honorable mention was given to H. J. Hanson of Mt. Carmel, Ill. Second honorable mention went to George Siebenthaler of Dayton, O., a graduate of Cornell.

The annual stipend of each fellowship is \$1,500 with an allowance of \$500 for transportation to and from Rome. Residence and studio at the Academy are provided free of charge and food is supplied at cost. The term of the fellowship begins October 1st, 1929.

The members of the jury of award were: Ferruccio Vitale, *chairman*, Albert D. Taylor, Arthur F. Brinckerhoff, Noel Chamberlin and Ralph E. Griswold.



GENERAL PLAN BY THOMAS D. PRICE
WINNER OF THE TWO-YEAR FELLOWSHIP

THE PROBLEM—*A Country Estate on an Island*

A gentleman has purchased an island for the purpose of creating a country estate. Realizing the advisability of carrying out his ideas in logical sequence he has engaged the services of an architect and a landscape architect, commissioning them to collaborate in the design of an establishment of elegance and refinement.

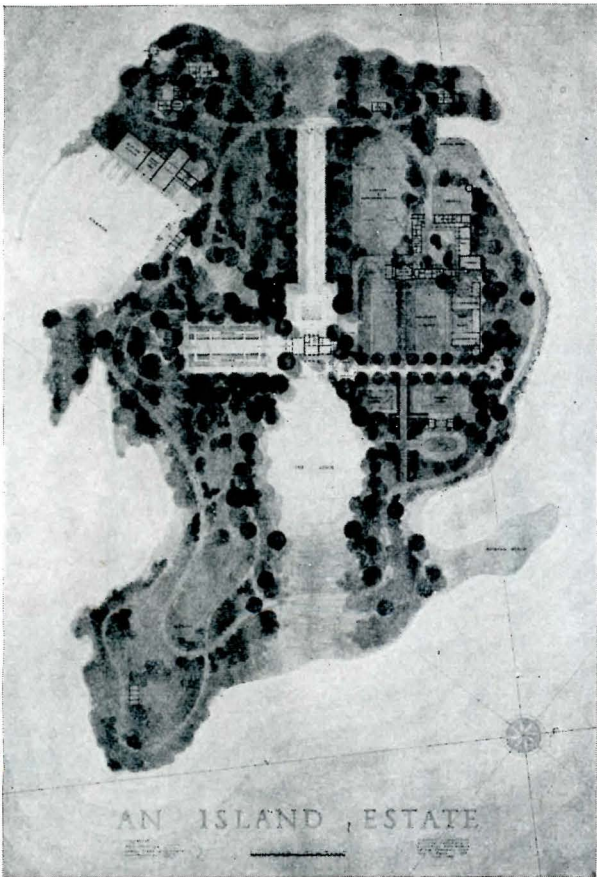
The client has set no limit to the cost of the development, relying on the good taste of the designer to suppress all ostentation in the design. The family will usually be in residence from April to November, but the place is to be designed for possible occupancy throughout the year.

The island is situated off the coast of Long Island about twenty-five miles from the shore. It has upon it wooded areas which the client wishes to maintain in the main and enhance in beauty.

The soil is a rich loam. The prevailing winds of summer are from the southwest, while the severe winter storms are from the northwest. An abundant supply of water is available.

The competitor is to select a site for the residence. Provision must be made for a boat landing with accommodations for storing boats in winter time. Besides the main residence there will be a stable for six horses, and a group of cottages for the superintendent, boat captain, coachman and help. There will be no automobile traffic on the island.

In the area adjacent to the main residence gardens are to be provided, tennis court, croquet grounds and swimming pool. A vegetable garden must also appropriately be located with hot and cold frames and approximately 3,600 sq. ft. of greenhouses.



GENERAL PLAN BY CHARLES R. SUTTON
WINNER OF THE THREE-YEAR FELLOWSHIP



DETAILS OF CHANCEL FREScoes IN CHRIST CHURCH, CRANBROOK, BLOOMFIELD HILLS, MICHIGAN—BERTRAM G. GOODHUE AND ASSOCIATES, ARCHITECT'S
FRESco DESIGNED BY KATHERINE MC EWEN AND EXECUTED ON THE WALL BY HER AND EDWARD DUBUQUE

FRESCO PAINTING AND THE FRESCOES IN CHRIST CHURCH, CRANBROOK, MICHIGAN

By Edward W. Dubuque

FRESCO PAINTING is a very old method of painting on fresh mortar. It was used by the early Italian Masters, Giotto, Ghirlandajo, Masaccio, and the others of that great period. Some of the world's greatest frescoes have been painted by these early Italians. They were also painted in the Midi and southern part of France during the XIVth Century and even long before. After the epochs of Michael Angelo and Raphael, the use of frescoes began to die away until it was apparently gone. During the XIXth Century the interest revived. Gradually the art of fresco painting came into its own. Today, with the translation of Cenino Cenini's *Treatise on Painting* and the valuable information on the subject of such men as Paul Baudouin who have given many years of their lives to painstaking research and study of this lost art, we are able to learn the art of fresco painting.

I studied fresco painting at Fontainebleau under M. Paul Baudouin, the greatest living authority on this art, and for what knowledge I may have I am deeply indebted to him.

In this country the word fresco is abused. A decoration done in oil paint or in tempera or in some other medium is not a fresco even though it may have the qualities of a fresco.

Now we come to the problem of how to paint a fresco. I will explain what I know to be the simplest and safest method. In painting frescoes one of the things that cannot be done is repainting over or correcting an error. There is only one way to do it and that is to knock down the piece being painted and put up a new one and start all over again. For this reason the exact measurements of the space to be covered and a full-sized cartoon that will fit the space exactly should be made before starting work. The cartoon should be tried on the surface to see that it goes in place so that no errors will arise in future measurements. Once the cartoons are fixed on the space, corresponding check marks should be made on the surface and the cartoon, so as to eliminate any possibility of getting it out of plumb as the work progresses. An error of a quarter of an inch in the beginning may lead to a difference of several inches or more toward the end of a labor. Once the cartoon is checked with the wall, tracings from the cartoon may be made and pricked with a roulette or a pin for the

pouncing or transferring the drawing to mortar. The tracings must be carefully measured or arranged to fit properly one alongside of the other. If the cartoon is not too awkward to handle it can be pricked itself and used for pouncing. There is only one way to paint fresco: piece by piece, beginning at the extreme top and working down, always checking up on the measurements as the work progresses. It is very difficult to draw free-hand on the mortar and the surest and safest method is to draw full-sized cartoons, which may be transferred to the wall.

The next step is to decide definitely on the color scheme. The very nature of the medium demands simplicity of color arrangement, simplicity of design, and simplicity of execution. The color sketch should be done in a medium that will closely resemble fresco in feeling. An easy method for fresco is to adopt a certain number of pure colors and use them purely and not mixed together. For example, a Venetian red, Indian red, cobalt blue, yellow ochre, and burnt sienna could be used for a fresco design and any variety of color schemes obtained; so many washes of one pure color over so many washes of another pure color will give the desired color value.

The other method and perhaps the more exact is to mix the colors in powdered form by combining two or more pure colors with zinc white to obtain the exact color value that is on the sketch. Put the color in a covered tin box of the size required, and shake it well to combine the

colors. Then compare this with the color on the sketch; the value of the dry color is what it will be on the wall in its full intensity when the fresco has dried. In this case some form of measure should be used so as more can be mixed in case of shortage. All colors should be put in covered boxes and labeled, as for example "Flesh—No. 3," and the same mark put on the sketch for identification. Everything must be done methodically, step by step. The color should be of a fine, well-ground quality. Certain colors such as ultramarine and lake colors are non-permanent. When the cartoon, measurements, color scheme, and color preparations are taken care of beyond doubt the wall and the preparation of the mortar is to be considered.

(Continued on page 575)



FRESCOES IN THE CHANCEL OF CHRIST CHURCH
BERTRAM G. GOODHUE AND ASSOCIATES, ARCHITECTS



HISTORICAL PANEL IN THE NEW HIGH SCHOOL AT PAWTUCKET, RHODE ISLAND
PAINTED BY EDWARD W. DUBUQUE

FRESCO PAINTING AND THE FRESCOES IN
CHRIST CHURCH*(Continued from page 573)*

Let us begin with the wall or the surface to be frescoed. The surface to be treated should be free of nails or iron or any metal that will come in contact with the mortar to be applied. Also it is important that the wall be free of saltpeter and that there will be no settling of the foundations. If the wall is of stone or non-porous it requires little soaking. The surface must have a tooth or be of a certain roughness so that the mortar will adhere firmly.

For a stone wall or one of a similar nature, mix a light cement and throw it on in sort of splashes. Let this dry and you will have a good surface. Of course, all holes or defects must be filled or remedied. Brick walls can receive a thin layer of cement, allowed to dry. On rough plaster surfaces, such as the plasterers use as underground for their finishing coats, one can apply the mortar. Some times chipping little holes or making scratches with a mason's hammer will give the surface enough tooth. Whatever the surface is, stone, brick, plaster or cement, it must be wetted until it will drink no more. A sprinkling can may be used to good advantage in certain cases. The surface is then ready to receive the fresco mortar. A very good method is to apply a preliminary coat of fresco mortar, let it set, and apply the final coat to be painted on.

I would advise one to read several good treatise on fresco painting for more detailed information on the subject of wall surface and incidentally on all the other subjects dealt with in this brief article. Mr. Baudouin has written a fine treatise on this subject. There are many other good ones; one called the *Chemistry of Painting*, written by an Englishman, is also very good.

I mentioned about the wall being wetted. The water used should be distilled or rain water. I have used faucet water successfully in France though I advise against taking the chance. Our water contains a great deal of minerals and iron. So throughout the working use nothing but distilled or rain water, and do not keep it in iron pails. In the locality where one may be the faucet water may be used if it is quite free of injurious matter. Fresco mortar is inorganic and should be kept free of the organic.

Preparing the mortar is no easy task. It demands close attention and hard physical work. I get a lot of fun from mixing mortar. Certainly it is only a man's work. It is wise to prepare enough to last through the entire job if this is possible. Note the quantity needed by recording the amount of approximate square feet a pailful will cover. Mortar would or should be mixed by the measure of so many pails of lime to so many pails of sand or marble chips. Mortar is composed of $\frac{1}{3}$ of slacked lime to $\frac{2}{3}$ of sand. The sand should be prismatic and not too fine in grain. It should be coarse enough to give a pleasing texture. All sand used ought to be thoroughly washed and screened. I have used a composition of white Georgia marble chips the size of the average coarse sand in grain. The composition was $\frac{2}{3}$ marble chips to $\frac{1}{3}$ of fine white sand and then $\frac{2}{3}$ of this mixture to $\frac{1}{3}$ of slacked lime. It makes a very white mortar and gives transparency to the fresco. Before explaining how to prepare the mortar I wish to write a few words about the lime.

Two kinds of lime can be used: the kind that is slacked by pouring distilled water over hot lime in barrels, or in holes dug in the ground and covered, where the lime is allowed to lose its heat during the space of about a year or more, or the kind that is put in ovens and slacked by heat. I think it is called hydraulic lime. I have used

this kind in France. It has to be screened before mixing it with the sand so as to remove any small bunches that may not have been touched by the heat.

Mixing the mortar by using wet lime is harder to do than by doing it with the dry lime, but I prefer the former. Have a mortar box or a mortar board. Put your sand on one side and on the other your lime. Gradually combine the two so that when they are well mixed you cannot find the least small bunch of lime. There is usually enough water in the lime to do the mixing. If not, use a little more. However, be sparing with the water. The less used the better the mortar. The longer it is mixed and stirred with hoes the better the mortar. Learning to prepare it only comes with actual experience. The thickness of the mortar on the walls should average about $\frac{1}{4}$ inch.

Applying the mortar to the wall is one of the hardest tasks to perform. It is not easily done. Remember that you can only paint in one day what you *feel* you can do. Usually one takes too big a mouthful. Also the piece must be so planned that the joint of next day's piece will not show. Putting the plaster on the wall and cutting a day's piece of painting can best be treated by trial studies on the wall; a joint must be so planned ahead of time that it will not show in fresco,—or as little as possible.

There are several ways of applying mortar. The way I find easiest is to put it on with a wooden float. I first put on patches here and there with a pointed trowel. Then with my wooden float I put it on with an upward stroke and with a rotating motion. I even the mortar on the wall in the space I have planned to paint for the day. I then use a steel float and smooth the surface down a bit. Remember the mortar must always be as dry as possible. If there is too much water it brings the lime to the surface and when the colors and mortar have dried you get whitish patches. This isn't so pleasant. When I've finished my day's piece I trim it and the next day I add another piece though the first thing I do is to make a joint very carefully with a small pointed trowel, being very careful to rub over the preceding day's work. When this piece is up I pounce on my tracings, and then go over the pounced drawings with thin color—red or terre verte—to establish the drawings, always working from cartoons and the color sketch. The big flat washes are applied first until the right value is obtained and the modelling is done later on in the day's work. If the piece cannot be finished in a day wet bags should be kept near the work and the walls all around should be soaked so that the mortar will be fresh enough to continue painting for a brief period the following day; and in this event plenty of water must be used with the color. Brushes may vary from three inches wide to a small Winsor and Newton red sable. So long as the bristles are not too stiff any good brush will do.

One can work with gesso on fresco very nicely and also get rich effects in gilding. The mortar gives a very pleasing texture to the gold, though I am not enthusiastic about using much gilding in fresco. Also, one can raise a certain amount of a design more than the flat part by putting on a double layer. It is possible to do many interesting things with this medium.

There is something about a good fresco painting that gives it a great deal of dignity. It is a serious art and it teaches one to be serious and sincere. You get a joyous feeling about having worked hard on one that you don't quite get with some of the other mediums. I am fond of the medium of oil painting and tempera painting on gesso and water color, but still, I even prefer painting in fresco.

(Continued on page 577)



WALTER GIBBS LEWIS, JR.

WALTER GIBBS LEWIS, JR., is the winner of the John Stewardson Memorial Scholarship for 1929. The scholarship, which is offered by the University of Pennsylvania, provides \$1,000 for foreign study of architecture. The subject of the program of this year's competition was *A Municipal Employment Bureau*. Mr. Lewis' winning design was reproduced on page 494 of the July issue of PENCIL POINTS.

CONNECTICUT ARCHITECTURAL LEAGUE

THE ROBINSON MEMORIAL MEDAL which is awarded annually to a Connecticut architect, or firm of architects, for excellence in architecture as from work shown in the annual exhibitions of The Connecticut Architectural League, Inc., was given this year to Malmfeldt, Adams & Prentice, Architects, of Hartford. The jury also awarded a first honorable mention to Alfred W. Boylen for his Brotherhood of Elks Building, New Haven, and an honorable mention to Davis & Walldorff for their general work. The Robinson Medal was also awarded to the winner for general work.

The 1929 jury of award was composed of Leonard Asheim, Bridgeport; Douglas W. Orr, New Haven; William F. Brooks, Hartford; all three past medal winners, Prof. Sheppard Stevens, Yale University School of Fine Arts; and Prof. Edwin Avery Park, also of Yale.

Malmfeldt, Adams & Prentice, one of the younger architectural firms of Connecticut, is made up of academically trained architects who achieved distinction while making their professional studies, and is representative of the best influence in the trend of contemporary practice in their state.

Carl J. Malmfeldt completed a special course in architecture at the Massachusetts Institute of Technology in

1915 which was followed by a year of post graduate work in the school of architecture, Harvard University. Later he entered for a course in the Ecole des Beaux Arts, Toulouse, France, which he completed in 1919.

Returning to America Mr. Malmfeldt began the practice of his profession in Hartford in 1920. In 1927 he associated himself with T. Merrill Prentice and won the competition for the State Trade School, Hartford. In 1929 Mr. Malmfeldt formed an association with Lewis G. Adams of New York, and T. Merrill Prentice of Hartford, under the present partnership.

Mr. Adams is a graduate of Yale University, the Ecole des Beaux Arts, Paris, and was for some time associated with Delano & Aldrich, New York.

Mr. Prentice was graduated from Yale University in 1921, and Columbia School of Architecture in 1924, where he was awarded the A.I.A. medal for excellence in design. Entering the Ecole des Beaux Arts, Paris, this same year, he was an honor student winning among others the Rougevin medal, and was *diplômé* in 1928. Mr. Prentice has been recently appointed assistant professor in architecture at Yale University.

Besides the Trade School at Hartford, some of the recent commissions completed by the firm or its members individually include such interesting buildings as: Park Street Trust Company Building, Hartford; Cheney Memorial Library, Manchester; Cromwell Dime Savings Bank, Cromwell; Hartford Hospital, Hartford; and a residence for Mr. Frank I. Prentice.

The awards were distributed at the annual exhibition dinner meeting of the League, held in New Haven, which was attended by about seventy architects and members of the allied arts representing their professions from practically every city of Connecticut. Following the distribution of the honorary awards and prizes interesting and illuminating addresses were made by A.I.A. New England Regent Maginnis, of Maginnis & Walsh, Boston; Mayor Tully of New Haven; and Professor Sheppard Stevens of Yale University.

COMPETITION FOR STEEL FRAME CONSTRUCTION HOUSE

WHAT IS BELIEVED to be the first prize competition for designs for houses of steel frame construction was conducted by The Connecticut Architectural League, Inc., in connection with its tenth annual architectural exhibition. The competition was conducted in co-operation with the American Institute of Steel Construction, Inc.

Cash prizes amounting to \$600 were contributed for the competition by the Colorado Fuel and Iron Company, Denver, Col., the National Bridge Works, Brooklyn, N. Y., and the Steel Frame House Company, Pittsburgh.

Competitors were not restricted as to architectural style but a limit was placed upon size, no design would be accepted for houses that would cost over \$30,000 computed on its cubage at the rate of 30 cents per cubic foot.

The prize fund was divided as follows: first prize \$300; second prize \$200; third prize \$100. As further incentive the Steel Frame House Company agreed to pay \$100 for the working drawings of any design they might select.

The Jury of Award was composed of George H. Gray, Robert H. S. Booth, both architects of New Haven, and E. N. Adams, steel structural engineer, of Worcester, Mass. The three designs premiated were by Eric P. Johnson, architect, Hartford, first prize; Prof. Edwin Avery Park, of Yale University, second prize; G. L. Bilderbeck, architect and engineer, New London, third prize. The first and second prize drawings are shown on pages 583 and 584.

FRESCO PAINTING AND THE FRESCOES IN CHRIST CHURCH

(Continued from page 575)

It is considered quite impractical; in some ways it may be but even so it is worth while and the more it is studied the more practical ways of using it will be found.

I would welcome any inquiries from PENCIL POINTS' readers and do my utmost to give all the information I possess. Like all good things fresco also has its weak points. Nevertheless, it is a decorative art, I love it for that and as I stand face to face with it I feel I have just begun to know it and its great possibilities.

The Frescoes in Christ Church

The chancel of Christ Church—located on part of Cranbrook, the estate of Mr. George Booth, in the Bloomfield Hills in Michigan—is entirely decorated in the medium of true fresco. It is one of the few churches in this country so treated.

The ensemble was designed by Miss Katherine McEwen of Detroit, and the full-sized cartoons were also drawn by her. The thought of the whole scheme is based on the New Testament and deals with the past, the present, and the future. A number of motives are taken from the Apocalypse; some deal with modern missions and the progress of industry and building. There are standing at the base of the design, on all three walls, the figures of saints and apostles. On either side of the altar are two evangelists each with his symbol at his feet. Aside from the Virgin they are the only ones who have raised haloes, richly treated and gilded. Details of this part of the work are shown on page 572.

The execution on the walls was carried out by Miss McEwen and the writer. It was my good fortune to be chosen as collaborator because of my knowledge of the art of fresco painting which I learned and studied abroad. I was entrusted with the care of preparing the mortar and putting it on the wall. In addition to this, I did a large amount of gilding and some work in gesso.

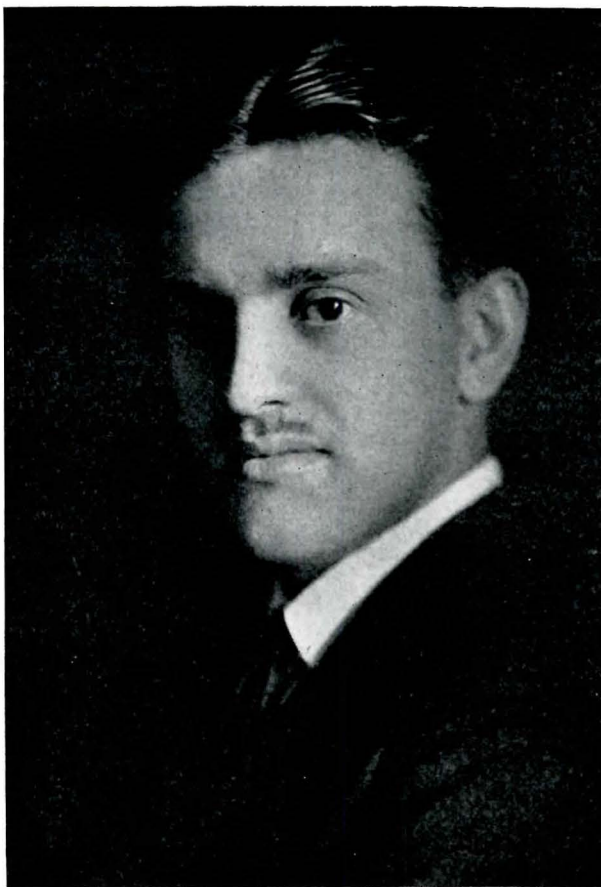
Miss McEwen spent nearly two years planning her composition and drawing the full-sized cartoons, and it took us eleven months to paint the design on the walls. It is over a year since the frescoes were finished and they are absolutely the same now as when the work was finished—proof that frescoes can stand our American climate.

A NEW COMPETITION ANNOUNCED

THE MONOLITH PORTLAND MIDWEST COMPANY has announced a competition for small house designs which is open to architects, draftsmen, students and others qualified by training and experience in architectural design. Prizes will be awarded as follows:

First Prize: A three months' independent trip abroad, first class, with all expenses paid, and \$500 cash for tips and incidentals; Second Prize: A two months' trip abroad on tour or regular cruise with all expenses paid and \$300 in cash for tips and incidentals; Third Prize: a three weeks' vacation trip anywhere in the United States, including expenses and \$100 in cash for incidentals; Ten Honorable Mentions: \$50.00 each, in addition to a special leather copy of Richard S. Requa's latest work, *Old World Inspiration for American Architecture*; and Special Prizes: First, \$100 in cash; four Honorable Mentions of \$50 each.

All entries must be received at 650 17th Street, Denver, Colorado, not later than October 15, 1929. Programs fully outlining all requirements and conditions of the contest have been prepared and will be sent upon request.



EDWARD W. DUBUQUE

EDWARD DUBUQUE, the author of the article on fresco painting in this issue, was born in Mossup, Connecticut, in 1900. After leaving High School, he entered the Rhode Island School of Design, where he started his artistic career, earning his tuition by winning prizes and scholarships and working in his spare time. He graduated from this school in 1922 and spent some time working for a lithographic company in Boston. In 1923 he won the Rhode Island School of Design scholarship for foreign study and travel and was abroad for the next year and a half. He studied at the Julian Academy and at Colarossi's; and at Fontainebleau in the American School of Fine Arts he studied fresco painting under Paul Baudouin. At Fontainebleau Mr. Dubuque became seriously interested in decorative painting and design.

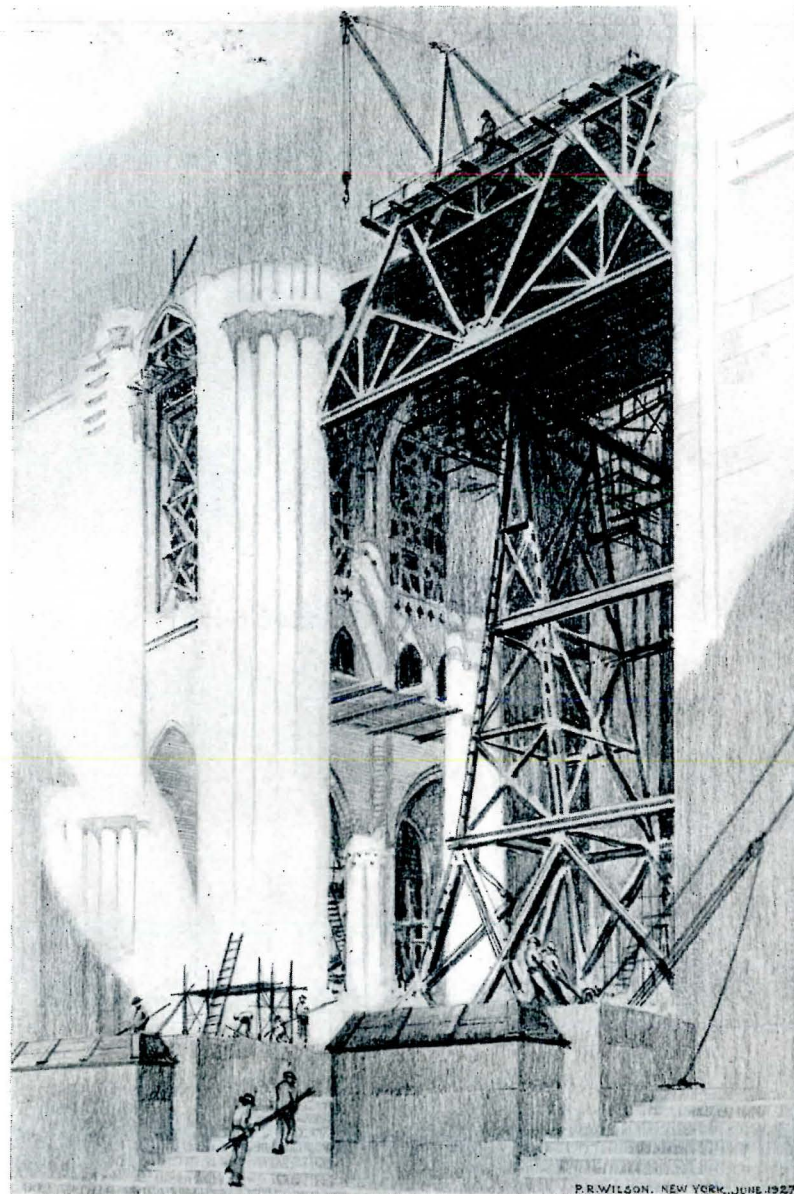
Upon his return to New York in 1925 he obtained a commission for himself and Mr. Auguste Gorguet to paint a memorial decoration for Morris High School, New York. He later assisted Mr. Ernest Peixotto in painting three large panels for the Seaman's Bank in New York. His next large work was collaborating with Miss McEwen in fresco painting the entire chancel of Christ Church, photographs of which are shown on pages 572 and 573.

In 1927 Mr. Dubuque painted the two historic panels for the new High School at Pawtucket, Rhode Island. One of these panels is reproduced on page 574.

Last year Mr. Dubuque spent seven months redecorating and renovating a Catholic Church in which he painted fourteen figures and panels, and superintended the whole decorative scheme and general painting. At the present time Mr. Dubuque is in New York in the studio of Joseph Urban.



PENCIL SKETCH BY J. L. BERRALL
ARCH OF CONSTANTINE, ROME



PENCIL SKETCH BY P. R. WILSON
CATHEDRAL OF ST. JOHN THE DIVINE UNDER CONSTRUCTION

HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

This department conducts four competitions each month. A prize of \$10.00 is awarded in each class as follows: Class 1, sketches or drawings in any medium; Class 2, poetry; Class 3, cartoons; Class 4, miscellaneous items not coming under the above headings. Everyone is eligible to enter material in any of these four divisions. Competitions close the fifteenth of each month so that contributions for a forthcoming issue must be received by the twelfth of the month preceding the publication date in order to be eligible for that month's competition. Material received after the closing date is entered in the following month's competition.

RAY MARKS of Portland, Oregon, wins the prize in Class I for the sketch which is reproduced below. George J. Becker of San Francisco is winner in Class II. Robert Schmertz is the winner in Class III for his cartoon which is reprinted here from *The Charette*, a monthly publication brought out by the Pittsburgh Architectural Club.

No prize was awarded in Class IV.

Master Billy Cellar, the winner in the PENCIL POINTS' Baby Competition has written us that, after due consideration and talking the matter over with Daddy and Mother, he would like for his prize "one of those desks combined with a blackboard that has A, B, C's, etc., on two rollers above the blackboard and with a little chair." A wise selection and very nice, too!

Miss Lizette Claire Koch decided upon a baby carriage for her prize.

Have you sent in your contribution to the TOMMY DOLAN COMPETITION? August 10th is the closing day—the complete program was published in the July PENCIL POINTS.

TO THE EDITOR OF HERE AND THERE:

HAS IT OCCURRED to you that the reason the new structure at Mountain Lake, Florida, is known as the Singing Tower is because it is built largely of coral rock?

(Signed) SALVADOR GLOOP.

A GOTHIC CATHEDRAL

By George J. Becker

(PRIZE—Class Two—July Competition)

Marking eternal destiny of man;
In splendor hallowed by calm dignity—
Poised monument of tranquil majesty;
Out of the circling tide of centuries, rise
Pier, arch and pinnacle with studied grace,
'Til sculptured summits of your spires trace
In bold relief a margin through the skies.

Slow, while the pigmy antics of a world—
Intrigue and war and tyranny held sway;
You grew, a poem of labor, to this day
Unrivalled still in daring glorious spread
Of balance vaulting slender shaft uphold.
Ethereal vistas to the eye unfold
Immortal beauty of a culture fled.

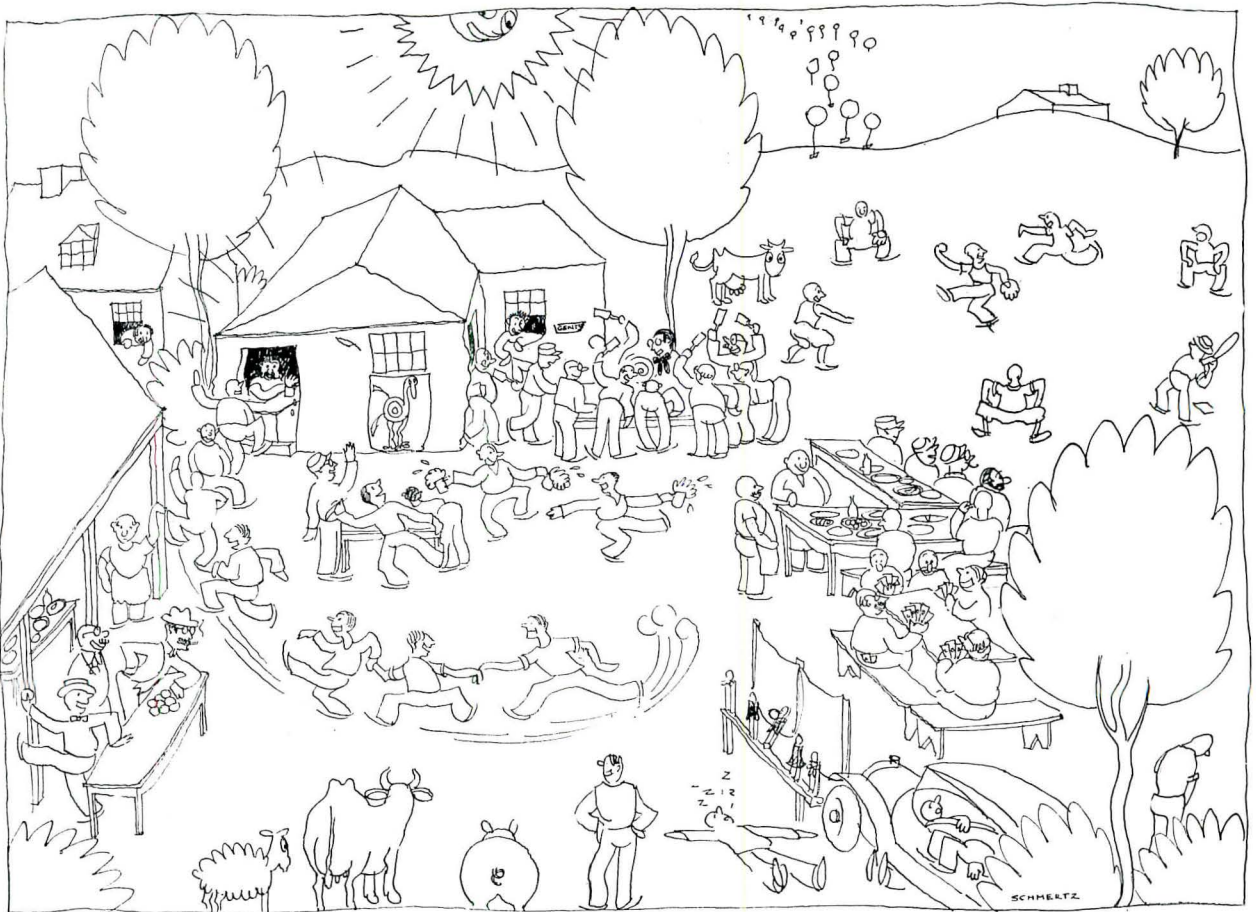
What secret voiced this eloquence in stone;
Or mystic power ruled the crafts to space
These forms enchanting in a rhythmic lace,
And breathed life into the inert mass?
That, inarticulate and cold, would fire
Through all the ages, mankind to aspire
Such art sublime to equal or surpass?



PENCIL AND WATER COLOR SKETCH BY RAY MARKS, OF PORTLAND, OREGON

(PRIZE—Class One—July Competition)

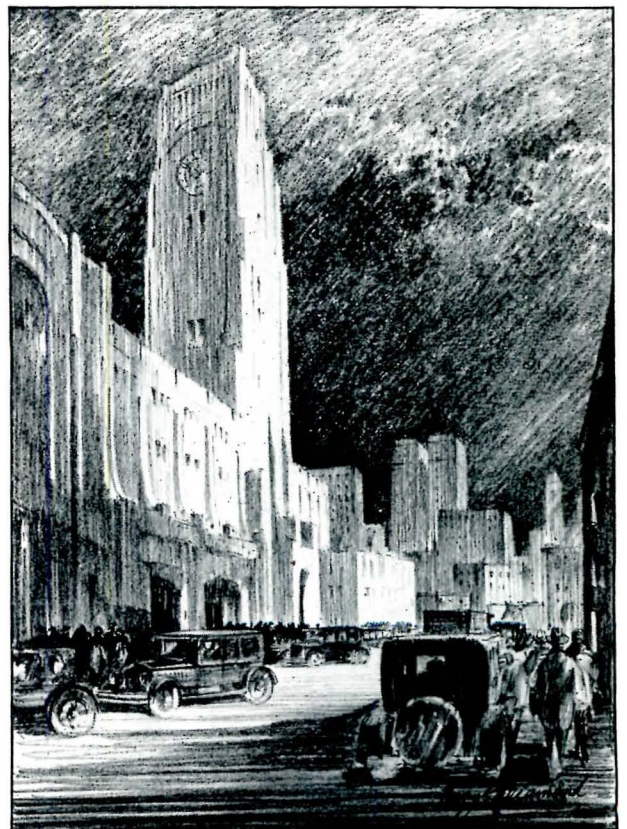
PENCIL POINTS



"THREE-QUARTER SCALE DRAWING OF PICNIC PROCEEDINGS OR EQUAL IF APPROVED"—BY ROBERT SCHMERTZ
Reprinted from "The Charette"—(PRIZE—Class Three—July Competition)



PENCIL SKETCH BY WOODRUFF K. AYKROYD



CARBON PENCIL SKETCH BY HENRY R. DIAMOND



PENCIL SKETCH BY EDNA W. LAWRENCE

A BUILDING ON THE BOARD

(Continued from page 535)

possible to add the other wings. It has been designed so that it will make an interesting and complete composition in itself. The main or second floor, which is approached by a monumental stairway, consists of a series of six galleries. There is also an information room to the right of the main entrance, with space for the sale of pamphlets, photographs, etc. The central gallery is arranged for the exhibition of sculpture, and tapestries or murals. The gallery at the left of the main entrance has been especially arranged for the exhibition of painting and its side walls are sloped in such a way as to receive the best possible light from the window. The two large galleries at the sides will serve for the exhibition of traveling collections.

The greater part of the upper story, which is not shown here, has been arranged for the school, even though it will, in all probability, eventually be put to other uses. It consists, in addition to the rooms for the director of the Institute and his secretary, of three large studios and a library. The central studio has particularly large windows facing approximately north. There are two small rooms at either side of this room for the use of the instructor or special students.

Mr. JAMES W. MARTIN of Monroe sends in the following screed on *The Field Engineer* in order that this branch of the profession may be properly represented in our pages which will, in Mr. Martin's words, "remedy this most deplorable weakness in your otherwise almost perfect publication."

THE FIELD ENGINEER

We are the advance guards of progress, we sweat and swear beneath the tropic sun and "Cuss" the cold of Alaskan winters.

We sink our caissons to bed rock and plant foundations as enduring as the everlasting hills, we throw the airy bridge spans over gorge and canyon, we drive tunnels through mountains and under seas and rivers and rear the towering skyscraper high above the crawling traffic that flows below us like a mighty river.

We are "hard boiled" and tough, we hustle the "Dago" and hurry the "Hunky" and keep the whole bunch on the run.

We're not much for pretty and we're usually dirty, but, *we get things done*, for we are the Field Engineers.

"FOUR FIFTY SUTTER BUILDING"

THE FOUR FIFTY SUTTER BUILDING in San Francisco is designed exclusively for the use of physicians and dentists. It occupies a lot 137 feet frontage by 160 feet deep. The lower eight floors are devoted to garage purposes with loft space in the street façade. The upper part of the building is "T" shape and contains the doctors' suites.

The building is probably unique in the fact that there are no window reveals whatever, the glass being set flush with the face of the special tile facing with which the building has been covered. A vertical play of light and shade is obtained by the curved shape of the piers and the pointed or "V" shape of the spandrels and windows. Corner columns are omitted.



FOUR FIFTY SUTTER BUILDING—

RENDERING BY MICHAEL GOODMAN

J. R. MILLER AND T. L. PFLUEGER, ARCHITECTS



THE DRAFTSMAN'S LIBRARY

Wrought Iron in Architecture, by Gerald K. Geerlings; 198 pages, 8½" x 11½"; price \$7.50; published by Charles Scribner's Sons, New York.

Our readers are all familiar with the valuable series of articles on wrought iron which Mr. Geerlings wrote for us during 1926 and 1927. Their excellence and usefulness was recognized on every hand and we received many letters of appreciation written by architects and draftsmen. In this book, just published, the author has added a considerable quantity of material to that previously presented on our pages and has given the architectural world the first adequate volume devoted to wrought iron as considered from an architectural standpoint. Copious illustrations, showing examples of the finest wrought iron craftsmanship of all periods and countries, not only by means of photographs but by scale drawings, make the work of the utmost use to the architectural draftsman and designer. In addition, the text gives all the historical data and technical information regarding the design, production, and upkeep of wrought iron as used by architects.

A chapter on specifications and a bibliography complete a volume of which both author and publisher may well be proud. And all this at a price which should be within the pocketbook of the average draftsman!

Wood Construction, by Dudley F. Holtman; 711 pages (including index), 5¾" x 9"; price \$6.00; published by The McGraw-Hill Book Company, Inc., New York.

The National Committee on Wood Utilization, established in 1925 by Herbert Hoover, may well be proud of the results of its labors as shown in this book by Dudley F. Holtman, Construction Engineer for the Committee. It is the most complete and useful work ever published on the subject and should be in the hands of every architect and construction engineer. After discussing the factors affecting the use of wood in construction; lumber grading, grade provision, and working stresses; the principal woods used in building and construction; the identification of common woods; preservative treatment; the uses of paints and stains; and the methods of preventing termite damage; the author takes up the approved methods of using lumber in light building construction and millwork and in both heavy timber and temporary construction. The treatment of each of these subjects is most thorough and practical so that every problem that is likely to come up in the use of woods is covered. The book will be of particular value to the specification writer who wishes to be in command of the most authentic available information on woods and their uses.

Civil Airports and Airways, by Archibald Black; 238 pages, 6" x 9"; price \$4.00; published by the Simmons-Barboman Publishing Company, New York.

Now that the question of airport design is so much in the public eye, architects are on the lookout for authoritative books which will give them information concerning this new architectural problem. The author of this book, who is an "Air Transport Engineer," has provided a volume

which cannot fail to be of considerable use to those who wish to study airport problems from the point of view of the designer. He describes, step by step, the method of providing a municipality with an airport. Some of the chapter headings are: Selection of Airport Sites, Planning the Field Layout, Clearance and Construction of Flying Fields, Drainage of Flying Fields, Airport Roads and Runways, Buildings for Airports, Airport Maintenance and Operating Equipment, Repair Shop Equipment for Airports, Fire Protection of Airports, Special Requirements of Seaplane Bases, Requirements of Airship and Balloon Stations, and Airways Lighting Equipment. An appendix gives much useful data regarding housing dimensions of airplanes, the airport regulations of the U. S. Department of Commerce, and a glossary of airport and airways terms.

An Introduction to Advertising Illustration, by Gordon C. Aymar; 236 pages, 7" x 9"; price \$4.00; published by Harper & Brothers, New York.

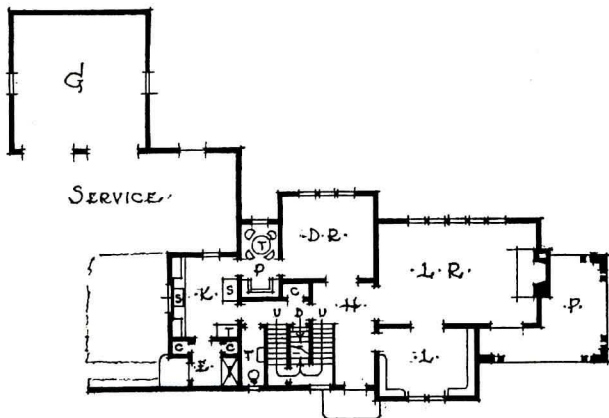
A most useful and instructive book for all commercial artists and others who are called on to make drawings and designs for use in illustrating advertisements is provided in this volume. It was prepared to bridge the gap which occurs between the art student's school training and the actual application of that training in commercial activities. The author asks the questions, one by one, which will occur to the young artist at the beginning of his business career, and answers each in turn, clearly and straightforwardly. All of the material has had its origin in questions actually asked by students in their efforts to become adjusted to practical working conditions and, since students are all more or less alike, it is probable that there are very few points of any importance left uncovered. The young artist who gets this book and reads it will save himself a vast amount of time in becoming familiar with the methods of dealing with advertising men and in understanding all the technical processes which intervene between his drawings and their final use in advertisements. He will consequently become productive sooner and with less lost motion than the artist who has to find these things out as he goes along.

American Apartment Houses, Hotels, and Apartment Hotels of Today, by R. W. Sexton; 330 plate pages, 9½" x 12½"; price \$18.00; published by the Architectural Book Publishing Company, Inc., New York.

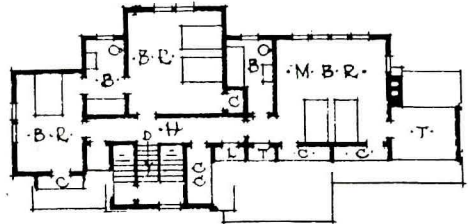
A collection of photographs and plans of apartment houses, hotels, and apartment hotels—some good, some mediocre, and some bad—but, nevertheless, forming a fairly representative cross section of American practice of today in this class of work, makes up this book. The architect or designer who wishes to have, in compact form, a record of what has been done, to use as a starting point when he is confronted with a like problem will find this collection useful. About fifty-five of the plates are devoted to interiors. A fair proportion of the designs are "modern" in character and some of the most interesting ones shown come in this category.



PERSPECTIVE



First Floor Plan



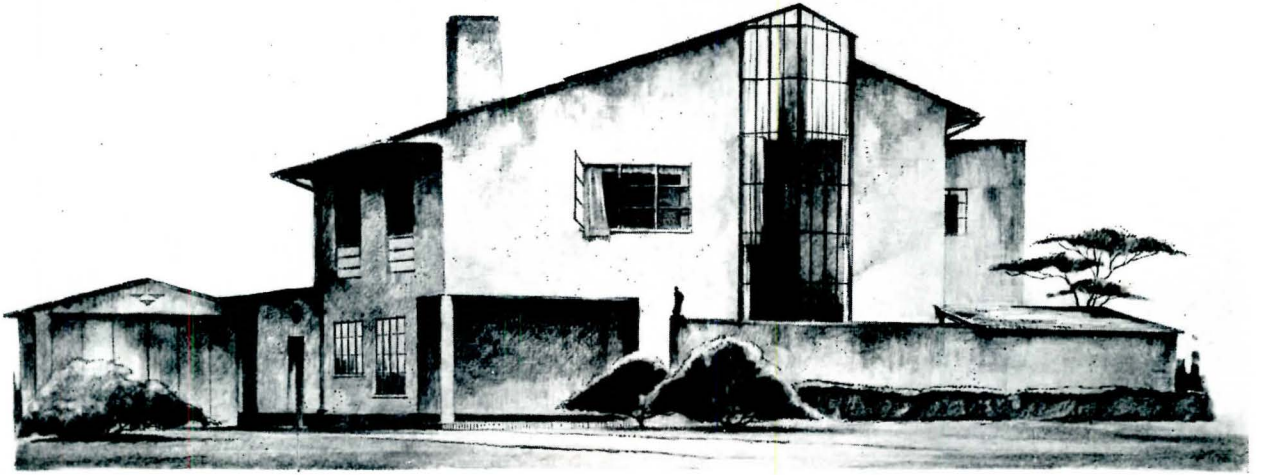
Second Floor Plan

DESIGN FOR A HOUSE OF STEEL FRAME CONSTRUCTION BY ERIC P. JOHNSON, ARCHITECT

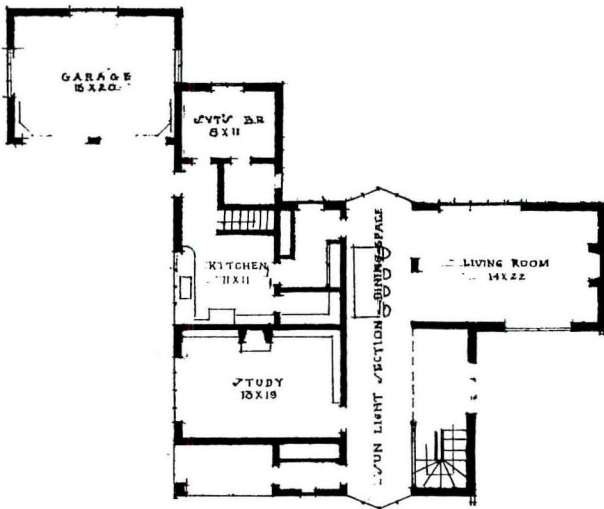
FIRST PRIZE—COMPETITION CONDUCTED BY THE CONNECTICUT ARCHITECTURAL LEAGUE, INC., IN COOPERATION WITH
THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION

(See text on page 576)

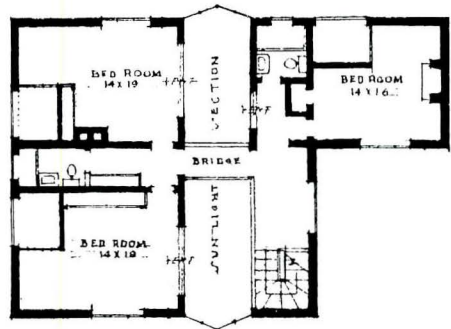
PENCIL POINTS



PERSPECTIVE



First Floor



Second Floor

DESIGN FOR A HOUSE OF STEEL FRAME CONSTRUCTION BY EDWIN AVERY PARK
 SECOND PRIZE—COMPETITION CONDUCTED BY THE CONNECTICUT ARCHITECTURAL LEAGUE, INC.,
 IN COOPERATION WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION

(See text on page 576)



THE SPECIFICATION DESK

A Department for the Specification Writer

SOURCES OF INFORMATION FOR THE SPECIFICATION WRITER

By David B. Emerson

MUCH HAS BEEN written during the past ten years on the subject of specifications, more perhaps than had been written since the advent of the architectural journal in this country. In all the great mass of this writing, most of which was along the lines of advice and suggestions to young specification writers and the beginners in the work, nothing has been written, so far as I know, as to where the budding specification writer was to obtain his knowledge on the subject of his labors. Certainly no one connected with architectural work is more in need of knowledge than the specification writer, as he is supposed to know everything pertaining to a building from footings to flagstaffs, and the question is just how to get that knowledge. Very little can be had from the architectural schools on that score, but that is no fault of the schools, and, least I be misunderstood, I am not criticizing the schools in any way, shape or form, nor am I attempting to offer any suggestions to them in the adding of new courses or additional instruction on their part. It is almost if not quite impossible for the schools to cover every phase of architectural work in the short space of four years, and furthermore it is expecting too much of the average student fresh from preparatory schools, with absolutely no practical experience, to grasp the dull, prosaic, matter-of-fact problems of building construction and building materials, when the imagination is fired with the thoughts of design, rendering and kindred subjects. I very well remember some years ago, giving a series of lectures on the subject of specifications before the senior class in an architectural school, and to the best of my knowledge and belief the only ones who really profited by them were the professor and associate professor of architecture; the students were just bored, and I, for one, don't blame them.

Just what particular training a specification writer requires is rather difficult to say, but to my mind the ideal specification writer should have a thorough knowledge of architecture, both from the standpoint of design and construction; he should have a good general engineering knowledge, should have studied chemistry, and have a wide and comprehensive knowledge of building materials, and last but by no means least be endowed with a large amount of that most uncommon commodity "common sense." "Rather a large order," most readers will say, and I will quite agree with them, but remember I am describing an ideal, and ideals are seldom if ever realized.

As we can not expect ever to find the ideal specification writer, let us consider the least training and experience a man should have before undertaking to write specifications. First we must take into consideration the fact that no one ever started out in architecture with the avowed intention of becoming a specification writer; this is always an accident, so we have many varying experiences to draw from.

To begin with a man to be able to write a clear, logical specification should have had a number of years' active experience as a draftsman, and should have done a fair amount of outside superintending and shop inspection. In addition to the foregoing, a good technical school training is a great help, although I have known some very able specification writers who did not have it and some very able ones who did, so that requirement stands about 50-50. A man who has had an early experience in one of the building trades before starting in architecture frequently has the making of a good specification writer, provided of course that the other essentials are there. Fitted with the knowledge and experience just described, and given the specification writer's temperament, which is rather hard to describe but consists largely of what I have sometimes described as a "card indexed mentality" and a faculty of visualizing a building (an acquired sixth sense), a man may start out to write specifications with a very fair assurance of success.

All this is very well for a beginning, but really to master the art of specification writing, and to write from knowledge and not hearsay, one must study constantly, and study many subjects, as there is practically no limit to what a specification writer may be called upon to know. Where to go for the required knowledge is and always has been a problem with me, and no doubt a great many other specification writers have the same trouble.

Now I will not attempt in the small compass of this article to tell of all the various sources of information to which a specification writer must go, but will try and touch upon the high spots which in my mind have been helpful. One of the best books on the methods and materials of building construction in general that I know of is *Building Construction and Superintendence*, by Frank E. Kidder, revised and enlarged by Thomas Nolan (New York 1911-1913). The authors and the book are very well known, and almost everyone connected with the architectural profession has seen it and referred to it at one time or another, but a careful and systematic study of it will probably reveal many things that had not been noticed before.

For information on cements, sand, other concrete aggregates, reinforcing material and other data on concrete, a careful study of the first two sections of Hool and Johnson's *Concrete Engineers' Handbook* (New York 1918) will give some very excellent information, in a perfectly simple and non-technical manner. Of course I do not wish to limit anyone to just two sections of the book, as it is without a doubt the best textbook on reinforced concrete ever written in English, but a specification writer has hardly the time to become a reinforced concrete engineer, which in itself is a man-sized job. If further

information is desired on cement, and its various uses, the publications of the Portland Cement Association are very instructive, and may be had free on application to the Association, which is more than willing to give out all the information possible on the subject.

Something which I believe every specification writer should have is a good general knowledge of building stones and marbles. One of the best books ever published on stone, as one stone dealer called it, "the stone man's bible," is *Stones for Building and Decoration*, by George P. Merrill (New York, 1897). Although this book is now over thirty years old, the information, as far as it goes, is just as good as it was the day it was written, and there have not been very many new quarries opened, nor many new varieties of stone put on the market since 1897. A most excellent book on marbles, very much quoted by writers on the subject, is *Marble and Marble Working, a Handbook for Architects, Sculptors, etc.*, by W. G. Renwick (London 1909), and it will be found to be very helpful to anyone who wishes to make a study of the subject. Also, *Through the Ages* (the official magazine of the National Association of Marble Dealers) has published a very complete *List of the World's Marbles*, by J. J. McClymont, which gives the names, sources, gradings as to soundness and a brief description as to colors and markings of several thousand marbles, limestones, granites, alabasters and other similar stones, which is a wonderful source of information on the subject, and it is to be hoped that it will be put into book form at an early date, as it will be a splendid desk book for reference on the subject.

A large amount of very good practical information on brickwork can be found in *Bricklaying System*, by Frank B. Gilbreth, a practical book by a practical man, a bricklayer who became an efficiency engineer.

For information on timber and the various soft and hard woods used in construction, the best information which I have been able to obtain was from *Materials of Construction*, by J. B. Johnson (New York 1903). This book not only gives some very valuable information on timber, but has chapters devoted to lime, cement and brick, steel, cast and wrought iron, all of which I have found to be very instructive.

It is very safe to say that of all the many and varied items which enter into modern building construction, there is nothing which the average draftsman and architect knows less about than ornamental metal work, that is iron and bronze, and there is nothing in my opinion which calls for a more thorough knowledge than these two items, when writing a specification. To those who are in search of information on these two subjects, there are two new books just off the press, *Metal Crafts in Architecture* and *Wrought Iron in Architecture*, by Gerald K. Geerlings (New York 1929). These two books are wonderfully good, and very thorough and instructive, in fact it is safe to say that they are absolutely the last word on the subject, and for that matter practically the first word as, outside of my own very brief articles written three to four years ago, no one, so far as I know, has ever given the subject, as it concerns the architects, very serious attention.

Much can also be learned about the use of metals by reading the various publications of the Copper and Brass Research Association, which contain some most valuable practical information on the use of those metals.

A fairly good knowledge of the technology of paints and varnishes is a great assistance in the specifying of them, and one of the best books on the subject that I know of, is *The*

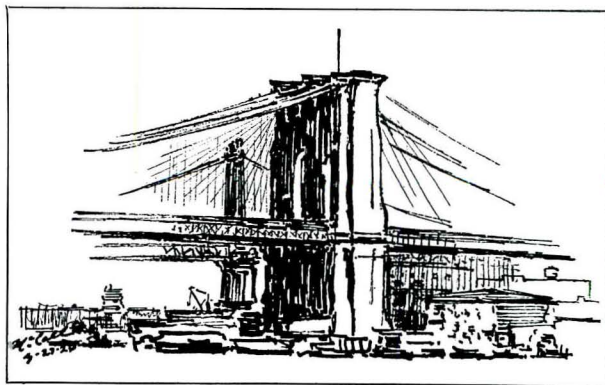
Industrial and Artistic Technology of Paint and Varnish, by Alvah H. Sabin (New York 1904), which is a very complete and interesting treatise on the subject. One might be inclined to think, that with the rapid advances of these days in the arts and crafts, that a book this old was archaic, but on the contrary it is quite up to date, even devoting some space to the nitro-cellulose lacquers which have only been holding the center of the stage for a very few years, and after all the fundamentals of paints and varnishes are not very subject to change.

A large amount of very valuable information regarding the specifications for materials can be found in the Bulletins of the American Society for the Testing of Materials, which are well worth studying, as the specifications of the society are most generally accepted as the standard at the present time. Another source of valuable information is the grading rules of the various lumber associations, notably the Southern Pine Association, Northern Pine Manufacturers' Association, and National Hardwood Lumber Association, for as I said in my previous article: "a thorough knowledge of the various grades of lumber and timber is a great help in the preparing of a clear, lucid specifications." These books, like all the various trade association publications, may be had free on application to the different associations.

In the course of this article I have recommended the reading of the publications of certain of the manufacturers' and producers' associations, that was merely because I had personally gotten more valuable information from them, but it is a good practice to read all the publications of all the different associations, as much good specification material and information is to be found in all of them.

Of all the many and varied sources of information for the young specification writer, and for the older ones too for that matter, I know of none which equal the shops of the various crafts engaged in the work of building, for it is almost as good as doing a thing one's self to have seen it done repeatedly by others.

Now I have rather briefly outlined a few of the many sources of information for the specification writer which, as the reader will readily understand, are for the most part sources from which I have obtained information at one time or another. In giving this information I can assure my readers that I am not attempting to teach the entire art of specification writing in a few short and easy lessons, nor am I trying to offer a substitute for a college education, but merely to help the aspiring specification writer to help himself.



PEN AND INK SKETCH BY H. L. McCALL



DRAWING IN PENCIL BY HARRY LOCKLAND

APARTMENT BUILDING FOR NOB HILL, SAN FRANCISCO—ALBERT H. LARSEN, ARCHITECT

Size of original 9½" x 18"



SERVICE DEPARTMENTS

THE MART. In this department we will print, free of charge, notices from readers (dealers excepted) having for sale, or desiring to purchase books, drawing instruments and other property pertaining directly to the profession or business in which most of us are engaged. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert.

PERSONAL NOTICES. Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address and items of personal interest will be printed under this heading free of charge.

QUERIES AND ANSWERS. In this department we shall undertake to answer to the best of our ability all questions from our subscribers concerning the problems of the drafting room, broadly considered. Questions of design, construction, or anything else which may arise in the daily work of an architect or a draftsman, are solicited. Where such questions are of broad interest, the answers will be published in the paper. Others will be answered promptly by letter.

FREE EMPLOYMENT SERVICE. In this department we shall continue to print, free of charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions. Such notices will also be posted on the job bulletin board at our main office, which is accessible to all.

SPECIAL NOTICE TO ARCHITECTS LOCATED OUTSIDE OF THE UNITED STATES: Should you be interested in any building material or equipment manufactured in America, we will gladly procure and send, without charge, any information you may desire concerning it.

Notices submitted for publication in these Service Departments must reach us before the tenth of each month if they are to be inserted in the next issue. Address all communications to 419 Fourth Avenue, New York, N. Y.

THE MART

Art E. Baker, c/o Dickason Goodman Lumber Co., Tulsa, Oklahoma, wishes to purchase the January, February and March, 1929, issues of **PENCIL POINTS**. He is willing to pay as high as one dollar a copy.

D. E. McCook, 2760 Coolidge Ave., Los Angeles, California, would like to secure a copy of December, 1928, **PENCIL POINTS**.

Everett V. Welch, 707 Construction Bldg., Dallas, Texas, wishes to secure all copies of **PENCIL POINTS** for 1920 except the October issue, and all for 1921 except the December number.

R. S. Stimson, Room 1500, 547 W. Jackson Blvd., Chicago, Ill., has for sale all the issues of **PENCIL POINTS** for the years 1920, 1921 and 1922.

Bernard Rowntree, Box 173, Route No. 1, Carmel-by-the-Sea, California, will sell the following issues of **PENCIL POINTS** at their original prices, the purchaser to pay express or postage: 1926, February to October inclusive; 1927, February, May, August and September.

G. Broes VanDort Co., 19 West Jackson Boulevard, Chicago, Ill., has the following issues of **PENCIL POINTS** for sale: 1921—February, June and July; 1922—August; 1923—January, April (6 copies), May (6 copies), June (5 copies), July (4 copies), August (5 copies), September (3 copies), October (5 copies), November (3 copies); 1924—February (2 copies), March (2 copies), April, May, July, August (3 copies), September, October, December; 1925—April, May, June, July, and September; 1926—October, August and January; 1927—September, October and December.

PERSONALS

REX D. WESTON has moved his office from Room 527 to Room 523 of the I. W. Hellman Building, Los Angeles, California.

L. C. MIELKE & WOLFGRAM have opened an office for the practice of architecture at 614 Vinita Avenue, West Hill, Akron, Ohio.

FINN & PORTER, ARCHITECTS, announce the opening of their office at 11 Court Street, White Plains, N. Y.

EDMUND W. MALCZEWSKI, ARCHITECT, has combined the two offices, 1801 K. Street, N. W., and 817 Union Trust Bldg., Washington, D. C., and moved them to 1301 Mass. Ave., N. W., Washington, D. C., where he will continue his practice.

RANDOLPH FRANTZ, ARCHITECT, has opened an office at 376 Walnut Ave., S. W., Roanoke, Va.

C. C. COURSEY has opened an office for the practice of architecture at Waltemath Bldg., Room 4, North Platte, Nebraska.

PAUL J. DUNCAN, ARCHITECT, has moved his office from the Pacific National Bank Bldg. to larger quarters at 662 North Robertson Blvd., Los Angeles, Calif.

MERREL E. METCALF AND FREDERICK B. KNOOP have formed a partnership for the practice of architecture, specializing in public and semi-public buildings. The firm will be known as Metcalf, Knoop & Co., Troy, Ohio.

FREE EMPLOYMENT SERVICE

POSITION WANTED: Specification writer now assistant head of specification department of large mid-west firm desires position as head of specification department of architect's or engineer's office. Box No. 520, care of **PENCIL POINTS**.
WANTED: Capable architectural draftsman. Give experience, age, and other particulars. Box No. 521, care of **PENCIL POINTS**.

POSITION WANTED: An experienced draftsman now working in Canada will be in New York early in September and would like to correspond with any good office interested in his services. Samples of work and references will be furnished. Box No. 522, care of **PENCIL POINTS**.

POSITION WANTED: Architect-draftsman, registered in Florida, 39, sixteen years' experience domestic work, some commercial, design, able renderer, litho, crayon, ink, seeks permanent connection preferably outside New York City. Studied modernist work in Europe. Salary \$85.00 a week. Box No. 523, care of **PENCIL POINTS**.

POSITION WANTED: Young experienced draftsman and designer desires extra work of any kind. Box No. 533, care of **PENCIL POINTS**.

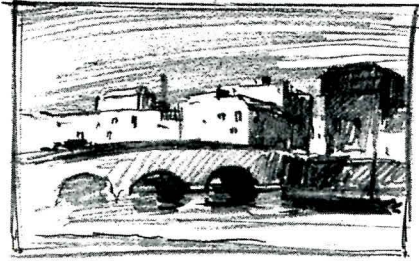
(Continued on pages 152 and 154, Advertising Section)

The ELDORADO PAGE for 1929

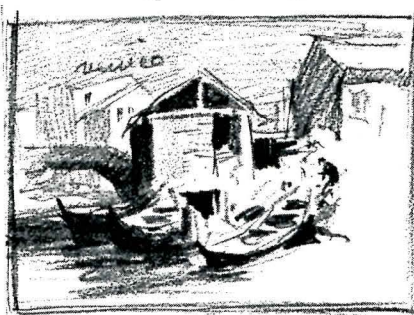
Sketching with ELDORADO the Master Drawing Pencil.

THUMB-NAIL OR VEST-POCKET SKETCHES

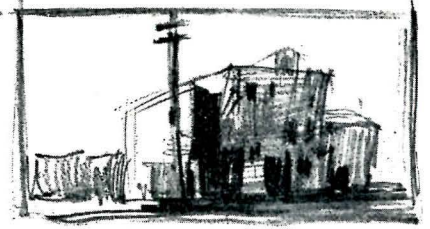
Reproduced exact size



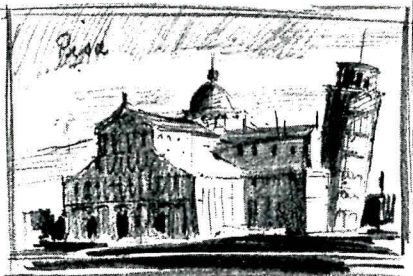
WHY MAKE THEM? Why not? In our journeyings about we often see things worth jotting down. Unless "taken on the fly" they are lost. But there's a better reason. These rapid miniatures teach one how to see, think and work in large scale and they give one the habit of looking for the significant. Your vest-pocket sketch is likely to be "bigger" than your larger, formal drawings.



MAKE WHITE COUNT—White, in a pencil sketch, is illumination, making the drawing sunny and sparkling. Use it freely: it costs nothing, being there at the start. And how it does give value to the pencil tones! Let it work its way all through the sketch and keep it alive.



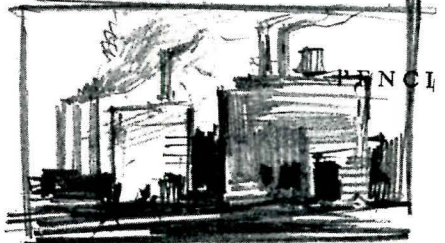
SPIRIT—When you sit down to make a "regular" drawing, how self-conscious you are! You are deliberate, perhaps mechanical. Not so with the thumb-nails. You are careless, free, spontaneous and whatever spirit is in you flows out through your reckless pencil. Whether you succeed or not doesn't matter—very little is invested in the experiment—so you usually do succeed; at least to the extent of putting spirit into the sketch. Finally, this spirit will creep into your more formal work too.



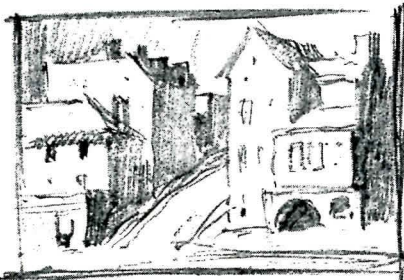
IMPRESSIONISM—The first impression: That is what you'll capture in the miniature. As a matter of fact you can't put much else into it, considering limitations of size and time. What a wholesome shock for those who always begin the sketch with the cat's whiskers!



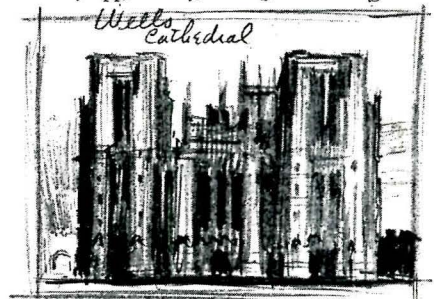
CATCH THE EFFECT—That's what you are after in a miniature: Effect, not detail. And you just can't put detail into it. What a fine discipline for the fellow who thinks a sketch is the sum of so many details! What a corrective for the "niggler"! You simply have to be theatrical when working this way.



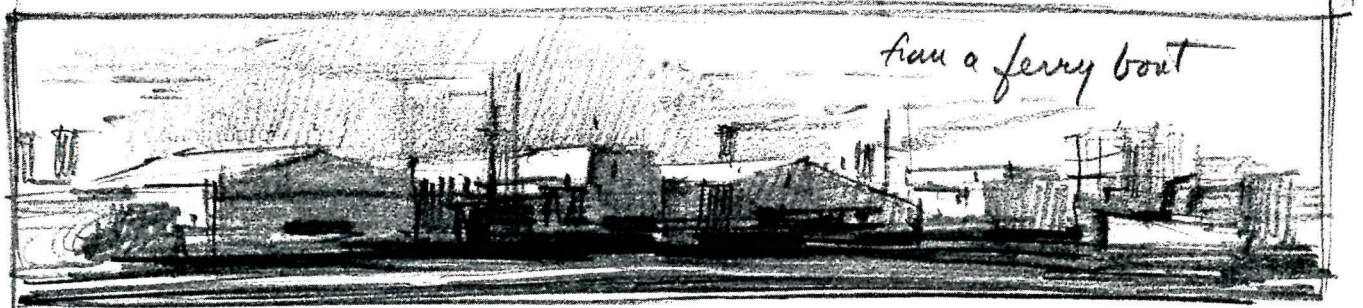
COMPOSITION—Skill in composition comes through experimentation: the more compositions made, the greater the skill acquired. You can experiment so easily and quickly with these miniatures. Size has nothing to do with compositional merit: what you learn in this way is naturally applied in your larger renderings.



LEGIBILITY—Of course the vest-pocket sketch must be intelligible. Legibility results from clearly expressed form. Form is defined by light and shadow. Keep the sun shining: make the shadows pretty flat and have the lighted areas clean and unbroken. Don't try to express color differences at the expense of form legibility.



MATERIALS NEEDED—Any grade of Eldorado Pencil you happen to have in your pocket will do. As for paper: the back of an envelope, a visiting card, the margin of your newspaper or magazine, a blank page in your pocket check book or your note book. Considering the low "overhead," what an investment!



This is one of a series of Pencil Lessons prepared by Ernest W. Watson. Write on your letterhead for sample of Dixon's Eldorado, "The Master Drawing Pencil." Joseph Dixon Crucible Co., Pencil Dept. 167-J, Jersey City, N. J.

ARCHITECTURAL TOURS IN ENGLAND



DRAWN BY SYDNEY CASTLE

THE INTERNATIONAL CASEMENT COMPANY, of Jamestown, New York, has prepared and published a very valuable little booklet entitled, *Architectural Tours in England*. In addition to giving all the information necessary to the architect or draftsman who expects to travel to England, it is very beautifully illustrated with pen and ink drawings by Sydney Castle. The booklet may be procured through your bookseller or from any sales office of the International Casement Company.

A LETTER FROM MR. W. P. PRESTON

"PENCIL POINTS"

GENTLEMEN:

Yea!! I'll admit that Philip G. Knobloch's two volumes are fine but how long is a wood window sill? Especially for a double hung window in a brick wall. Kidder doesn't tell, Radford doesn't tell, Martin doesn't tell, Knobloch hasn't told—now it seems to me it's up to you.

We do very few double hung windows down here and now when we recommend a few (to prove that we are Americans) the mill makes the fool request of how long is the window sill and how does the weight box fit down on it? Did American mills ever ask an architect?

I presume that the sill extends to the back of the back lining of the box and the box is either coped to fit the sill or the breaks on the sill are cut away to permit the box to be cut on an angle to fit the general slope of the sill, or again perhaps the pulley stile is ploughed into the sill but this would get into a lot of trouble.

Now about that pocket in the pulley stiles to change weights? We note that Knobloch does not approve of them except on plate 24, Part II. How high above the sill should the bottom be?

And what is this brad and V shaped cut Kidder talked about some 23 years ago, page 114, Vol. II.

Mr. Curtis is more serious minded than I am and agrees with Mr. Knobloch in not approving of pockets except in special cases for in the house in which he was born they never had a sash cord break; they would not even use them—they just pushed up the sash and stuck a stick under it.

Now Mr. Curtis is too lazy to write and it even makes him tired reading what I write so he wants me to ask Mr. Knobloch to detail enough overhanging tile cornices and gable ends so as to allow more time for pure design.

I think PENCIL POINTS will ruin Curtis yet for already he makes a few 1/16" sketches and sends 'em out and has 'em enlarged to 1/4" scale and the client thinks he is going to get a big building especially when he draws Lilliputians all around to give "scale." Why he bought a couple of Goodhue books on his last trip (and charges them up to the firm) just to prove to me that Goodhue's drawings were all populated with Philipinos.

Mr. Curtis thinks a concealed gutter would look nice on a tile roof if you could not see it and he thinks that Mr. Knobloch could design a beauty.

I think Mr. Curtis has the intention of having his 1/16" sketches enlarged to 3/4", mark the number of plates all over the sketch and then furnish the builders with the sketch and full set of Knobloch to do way with the worry of draftsmen. He forgets that Knobloch's are not published in Portuguese.

It must be very fine to work in the States where the only language trouble you have is keeping up with the slang and trade names.

I see Mr. Berger Mfg. Co. is not listed among your advertisers. I wonder how he found out I was down here. He wastes enough on me to put a good ad in your paper. His steel ceilings drove many a good man out of Texas.

Sincerely yours, (Signed) W. P. PRESTON.

MR. KNOBLOCH REPLIES TO MR. PRESTON

Preston & Curtis, Architectos,
Rio de Janiero, Brazil.

MY DEAR MR. PRESTON:

Your wail of anguish has been broadcast from PENCIL POINTS by its President. Unfortunately for me the habit of PENCIL POINTS is to send out their S.O.S. to me whenever they are in a quandry of this sort. Being a sort of good-natured Architect, I never have yet refused a request of theirs. Hence you will probably have your problem solved via the enclosed sketch and following essay.

In order to get authentic information, I journeyed to one of the best mill working concerns in the East.

You ask how long is a sill. According to your letter you guessed nearly right. The sill extends from the outside face of the back lining of the weight box to the outside face of the back lining of the opposite weight box. The width of the sill is the width of the weight box.

The inside and outside casings and the back lining of the weight box are carried right down past and to the under side of the sill, the sill being cut out to receive these members. The pulley stile is carried down into the sill for a depth of 1/4 to 3/8 of an inch. The parting strip is carried down only as far as the top of the sill. The staff bead or brick mould is planted outside of the casing, as you know, and carried down to the stone or brick sill.

Some additional information which you may require regarding the joining of the pulley stile and the yoke. The pulley stile is set into the yoke a distance of 1/4 to 3/8 of an inch but against the parting strip stops at the yoke.

Weight pockets in this region are never indicated on our details. I am fortunate, I believe, in even showing it on my plate; probably an oversight. Weight pockets start from the top of the sill and while their height is usually determined by the size of the window, the average height is 18 inches, one pocket for each weight and held in place by a screw. The top of the pocket instead of being butt jointed is usually cut at a forty-five to provide against the pocket strip slipping into the weight box.

You can tell Mr. Curtis that I will probably draw another batch of plates for PENCIL POINTS and will include some built-in gutters for tile cornices, also gable ends. If you have any pet details of your own, mail us the blue prints. If there are any special details you use that might be of interest to the profession, mail us the blue prints of those.

I sincerely hope that this answers your question satisfactorily. Anything further, do not hesitate to write.

Best regards from one American to another,

PHILIP G. KNOBLOCH.