

## STEP-BY-STEP

A GREAT cathedral or a towering modern office building seems a thing almost beyond the power of human beings to create if we stop taking it for granted long enough to let its size and complexity impress us. But if we think about it a moment longer we are likely to realize that it is simply the result of steady progress step-by-step towards a fixed purpose. In the cathedral one finds a great conception worked out with thought and skill and sentiment to the smallest detail, each part having its place. In the great office building one finds a mass of engineering,—structural, mechanical, electrical, sanitary, and in some cases the architectural expression of a fine conception—but it was all worked out step-by-step. A man wins a Fellowship in the American Academy in Rome, the Paris Prize of the Society of Beaux-Arts Architects, or some other scholarship in a competition of short duration—but back of his showing in that test are the years during which he has steadily developed his ability. His weaknesses have been discovered and intensive study has corrected them, at least largely. The important thing is that he kept going ahead. The hardest fight the man in the drafting room has to make, usually, is to keep going, not to fall into a rut and get into the habit of merely grinding out the special work entrusted to him. He must grind it out—there is no way around that fact, but if he is ever to get ahead he must use his spare time to advantage on things that will help him forward. It may be that sketching or drawing from life has no apparent connection with the kind of work he is doing in the office, that study in an atelier is not necessary to help him handle his present job, but these things are necessary if he is to advance.

There is another angle of this that should not be lost sight of—the stimulus derived from study will enable a man to put more speed into his work and a better quality. Routine not properly relieved is deadening, without realizing it one is likely to slow down more and more.

It is because the architectural club provides social affairs, talks by able and experience men and sometimes an atelier, that it is so important a factor in the development of the men who go in for it and so great an influence for the

general improvement of the architectural profession—the club keeps a man going—step-by-step and keeps him out of the rut.

Every draftsman and every architect can benefit himself by taking an active part in the work of some architectural club.—The younger men are not the only ones who benefit—for the more experienced men grow through exercising leadership or teaching.

The architect is probably about as much in danger of getting stalled as is the draftsman,—to become engrossed in turning out work, keeping the office going and fail to go ahead, to learn, develop and progress.

As we have pointed out before, the architectural club provides a ground upon which the architect and the draftsman can meet free from the business of making a living. The architect who has to secure work and see that his office turns it out is too much preoccupied in his own office to be very helpful to the men of his organization. He can not spare the time or slacken the work by an excursion along any instructive by path that may open up in the course of the work—but at the club where he is down on the program for a talk, or where he acts as patron, he is free to talk helpfully, to pass along some of the things he has learned.

The great thing is to *keep going*, step-by-step. It takes an effort to do things that make for advancement in one's free time—but it is fun and it is worth while.

### SEND THEM IN.

YOU may think that you do not sketch well enough to stand a chance of winning a prize in the Sketch Competition now being conducted by this journal—but why not try? Wrap up a few of the sketches you have made since the beginning of 1921, perhaps some you have made during the summer, and send them in, after you have read the announcement and full statement of conditions of this competition on another page of this issue, if you are eligible. The purpose of this competition is to stimulate a wider interest in sketching and the conditions are drawn accordingly. The sketches are coming in—let yours be in the ring.



PENCIL POINTS



*Sketching and Rendering in Pencil. Figure 40. See text opposite.*



## SKETCHING AND RENDERING IN PENCIL, PART XVI

BY ARTHUR L. GUPTILL

*In this series of illustrated articles, the first of which appeared in the issue for August, 1920, the technique of pencil sketching and rendering is being taken up step by step, carrying the architectural draftsman or student through a systematic course of study which has been gradually developed and put into practice by Mr. Guptill in his classes at Pratt Institute, Brooklyn, New York City. The illustrations are not merely copy plates, but each is drawn to illustrate some principle of composition or some suggestion for technique given in the text. Although these plates are primarily intended to assist the student in freehand work, they will prove helpful as well to those making pencil renderings of subjects prepared instrumentally.—Ed.*

IN THE preceding articles the greater part of our space has been devoted to describing methods of sketching or rendering the small type of building such as the average student or draftsman usually desires to draw, so although much that has been contained in them relates also to such larger subjects as office buildings, hotels, theatres, churches and the like, it seems wise to offer some suggestions which apply especially to their handling, supplementing these with a few additional facts not yet discussed in this series applicable to the treatment of both small and large structures.

When a proposed building of such magnitude as a hotel or court house or railway station is to be represented in perspective there are many architects and clients who prefer to see it done in water color or wash, or, if the drawing is to be reproduced, pen and ink is popular because of the ease of getting a good reproduction at comparatively low cost. Pencil, then, is perhaps less in demand as a medium for large subjects than it is for smaller ones, but there is, nevertheless, enough call for it to make its study essential. It should be borne in mind also that the pencil plays a most important part in laying out subjects to be rendered in water color, pen and ink and other mediums,—in fact it is difficult indeed to make an excellent color rendering unless the instrumental pencilling has been very carefully prepared, and it is quite an art to do this well, for certain profiles, lines of division between light and shade, etc., are often best if accented or strengthened, while subordination is necessary in some other parts. When such a layout is complete and before the color is applied freehand pencil lines are often added to indicate the brick courses, etc., a texture being thus obtained which could not be gained with the brush alone. Even for a pen drawing where the pencil layout simply serves as a guide for the ink lines it must be prepared with care, though no great attention need be given to the neatness of the draftsmanship as the lines will be erased or obliterated as the pen work progresses.

It is not this pencil preparation for rendering in other mediums which especially interests us at this time, however, but rather the free hand completion of a pencil rendering after the instrumental layout has been made. Just a word first, however, about this layout. To begin with, it is of course necessary to select such a paper or board as is known to be satisfactory for the freehand pencil work,—then in drawing the instrumental lines it is best to use a hard enough

pencil to permit later cleaning of the paper with a soft eraser without entirely effacing them, a 2H or 3H answering very well for such a purpose, the choice depending, of course, on the nature of the paper, too hard a pencil or too much pressure forming such deep grooves as to mar the perfection of the finished work or especially those parts of it which are to remain the tone of the paper itself, whereas too soft a pencil will leave hardly enough of a guide to be easily followed after the paper is cleaned. This layout, although it must be accurate, need not be quite so carefully drawn or at least so fully completed as would be necessary for wash or color work, unless, as is sometimes the case, part of the lines are to be left in the finished rendering,—then, of course, extreme care is essential.

Once the layout has been completed it is advisable for the student to make, just as for smaller work, a preliminary study or two, as a means of deciding the values and working out a pleasing composition of the surroundings,—in fact because of the amount of time and labor involved in making a large rendering such preliminaries are even more essential than for smaller problems, and an hour or two spent making them will usually result not only in the saving of several hours in the end but at the same time in better work. (It seems hard, however, to impress this fact on students, who therefore waste much time trying to render without any definite plan in mind). Such studies are usually made on tracing paper directly over the layout and the best selected and saved as a guide for completing the drawing. On work of such magnitude a diminishing glass is often of help in making both the layout and the final as it is possible by its use to reduce the whole to a size easily seen without shifting the eye. Setting the drawing away at a distance of several feet will accomplish the same result.

If the preliminary sketch is well done it will be possible for the student in starting the finished rendering to begin at the top of the sheet and work down, completing the drawing as he goes, with the exception of a few final touches which will probably be necessary at the last moment. In order to do this successfully, however, the preliminary must be carefully worked out, special care being taken to see that there is a center of interest for the entire composition and that unity and balance are observed, for it is generally true that the larger and more complicated the subject the more likely the student is to be led into



## PENCIL POINTS

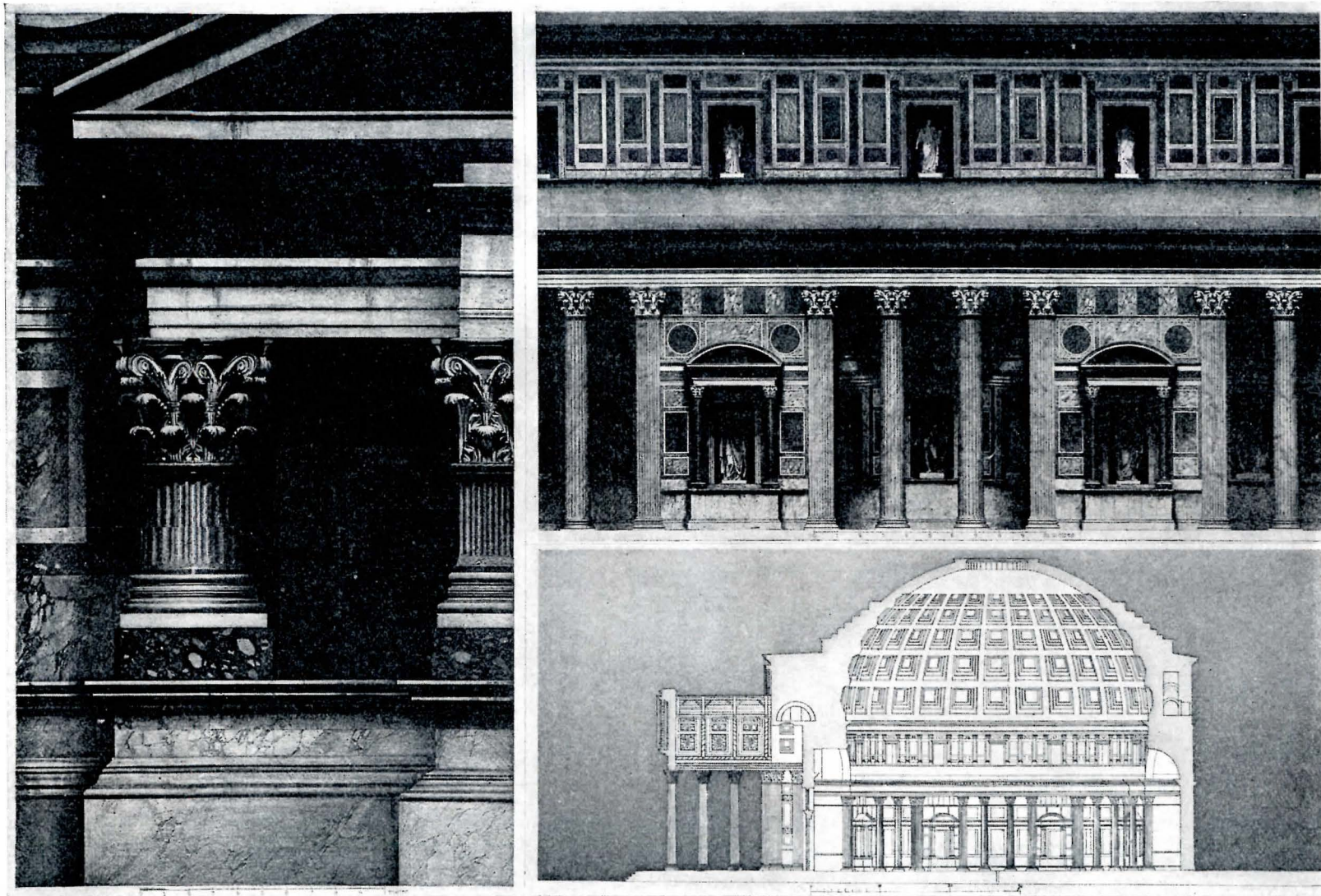
overaccenting relatively unimportant parts. As soon as this sketch is completed and "fixed" for preservation the rendering of the final is started, pencils of several grades being prepared beforehand as described in a previous article. Beginning at the top, then, and working as a rule from left to right a strip an inch or two in height can be completed at one time,—for instance if a balustrade forms the crowning feature of a building this and the cornice beneath might be finished first,—next the upper story,—then the story below and so on down until the street is reached, adding the surroundings as the rest progresses or completing them after the building itself is finished. Finally it may be necessary to go back to touch up here and there, as has just been mentioned above, adding a bit of tone in one place, lifting a little in another, until the results are satisfactory. Some teachers and artists would doubtless criticise this method as not being conducive to the best results but it at least offers the great advantage of reducing the difficulty of keeping the drawing crisp and clean, which means much to the architect, who takes little pleasure in smeared or soiled drawings. Perhaps a more logical method, however, would be to render at the center of interest first as has been mentioned in a former discussion of smaller problems, gradually carrying the work towards the edges, thus building up the entire drawing as a unit, going back over the different parts as often as may prove necessary, to change them or correct them. Whatever method is followed, however, perseverance is the one thing most needed. There seem to be many draftsmen willing to attempt to render comparatively small subjects and who succeed with them nicely yet who shun such buildings as we are considering here though mere size seldom brings difficulties greater than are found in work of less magnitude, and so should not cause one to refrain from attempting to represent them,—in fact small residences with their irregular plans, sloping roofs, numerous chimneys and the like, to say nothing of their variety of building materials, are often far more difficult in proportion to their size than are the bigger structures. Again, the smaller the building as a general rule the larger the scale at which it is drawn, simple residences being sometimes done, for instance, at a scale of  $\frac{3}{8}$ " or  $\frac{1}{2}$ " to the foot and seldom at less than  $\frac{1}{4}$ ", whereas larger buildings are more often  $\frac{1}{8}$ " or  $\frac{3}{16}$ ", thus reducing such details as windows to a size too small to require much labor. Of course the greater mass of a big building does make necessary the expenditure of more time and patience than are usually demanded by one which is small, because of the mere effort needed to cover the extensive area of paper, and some such complicated subjects as Gothic cathedrals doubtless call for more skill as well. It is usually lack of persistency rather than lack of skill, however, that causes the failures among attempted renderings of large subjects, though it is nevertheless true, paradoxical though it may seem, that those renderings which are completed

by students or draftsmen attempting large subjects for the first time, often show as their greatest fault overstudy rather than lack of study and too much detail rather than too little. Too often every window is indicated with painful precision, while not a brick or stone course is slighted or omitted. Though such conscientiousness about the detail is frequently found, too little attention is given as a rule to the study of the effect as a whole,—it is for this reason that we are laying such stress on the importance of the preliminary study.

The amount of time spent on a drawing should depend largely on its purpose, a few hours answering for some problems while several days or even a week may be required for others. It should be remembered that most renderings are drawn for a practical reason,—to show the architect or client how a building will look when completed. The drawing has, therefore, a limited and a somewhat temporary value. Naturally, then, the person paying for it can seldom afford a larger amount than the drawing is expected to be worth to him, and this will depend on its purpose. As we have previously explained, some renderings are simply studies to help the architect to visualize his design,—more perhaps are to make its appearance clear to the client. Others are submitted to banks as an aid in obtaining loans for building purposes, while some, again, are drawn for publicity or advertising uses, perhaps reproduced in circulars or magazines, the original being exhibited, possibly, in a show window or other conspicuous place. It is evident then, that the delineator must, as in smaller work, prepare the kind of drawing demanded by his particular problem,—if a rough, quick sketch will answer as well as any other that is the kind to make by all means. It is necessary, therefore, to ascertain all the requirements right at the start. The architect himself is often at fault in not giving the delineator sufficiently plain directions, forgetting that a project which is clear in his own mind is not equally so in the minds of others. Or he will ask, perhaps, for a rough, sketchy drawing, "just a few hours work," and then on seeing it either completed or partially drawn will object emphatically and vociferously to the inaccuracies of incompleteness of this or that small detail. Because of these common failings of architects a certain delineator friend of the author frequently remarks about what he terms the "inexplicable idiosyncrasies of the dizzy tribe. The architect should endeavor to make plain beforehand just what is needed, and the artist should try equally hard in turn to successfully fill the requirements, remembering that the architect is the one who is paying for the job. In order to do this it may be necessary for him to be familiar with several kinds of technique, for sometimes very bold drawings will be demanded, strong in contrasts and vigorous in treatment, while again preference will be shown for a more delicate type with the detail more accurately handled. Drawings

*(Continued on page 46)*



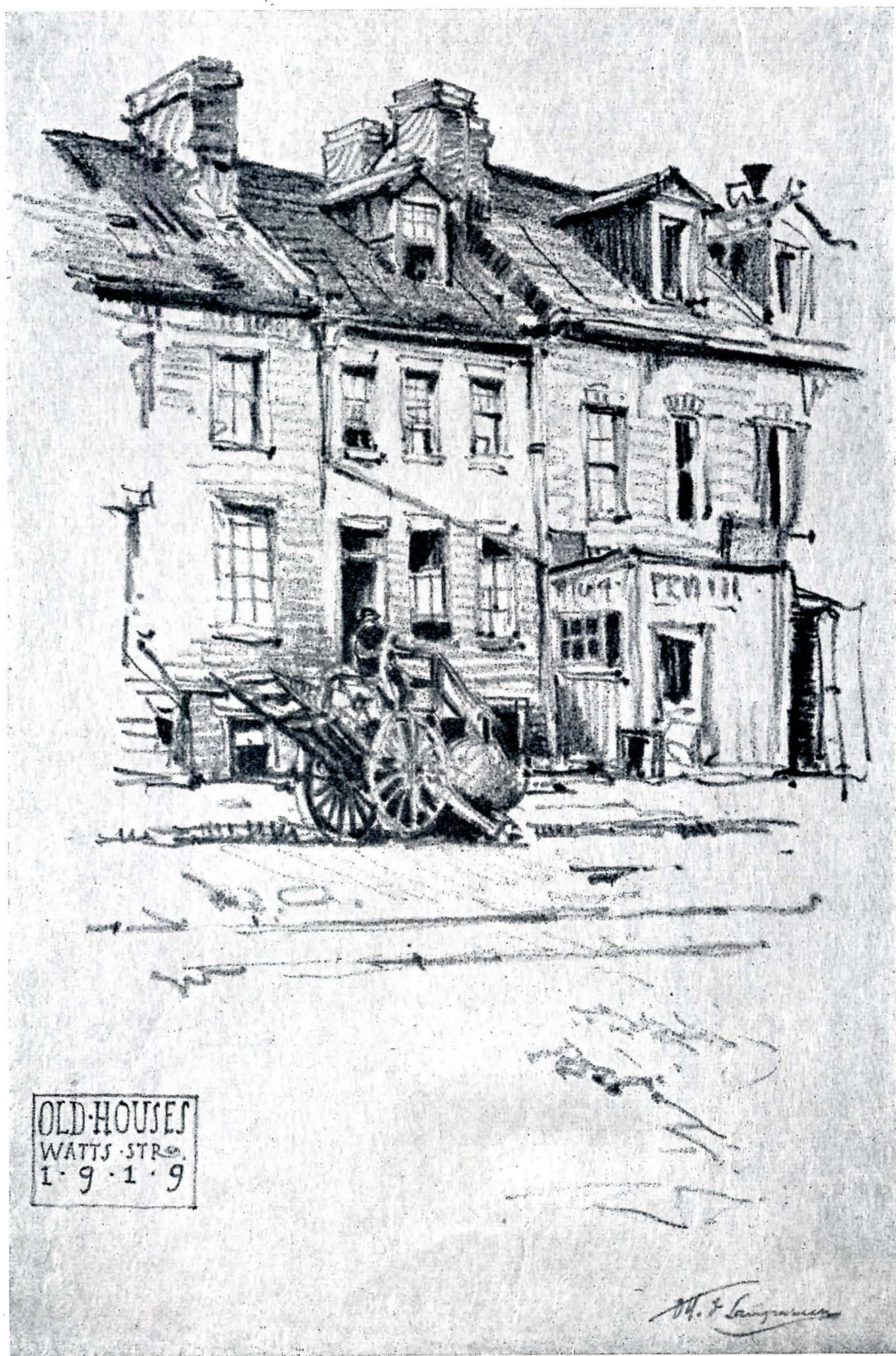


INTERIOR OF THE PANTHEON, ROME  
RESTORATION BY E. BRUNE  
FROM H. D'ESPOUY'S "FRAGMENTS D'ARCHITECTURE ANTIQUE"



*On the other side of this sheet are reproduced drawings by E. Brune of the interior of the Pantheon, Rome. The circular interior is about one hundred forty feet in diameter and the top of the dome is about this height from the ground. The interior is lighted by a round opening or "eye" in the top of the dome. The interior columns are about thirty-three feet in height.*



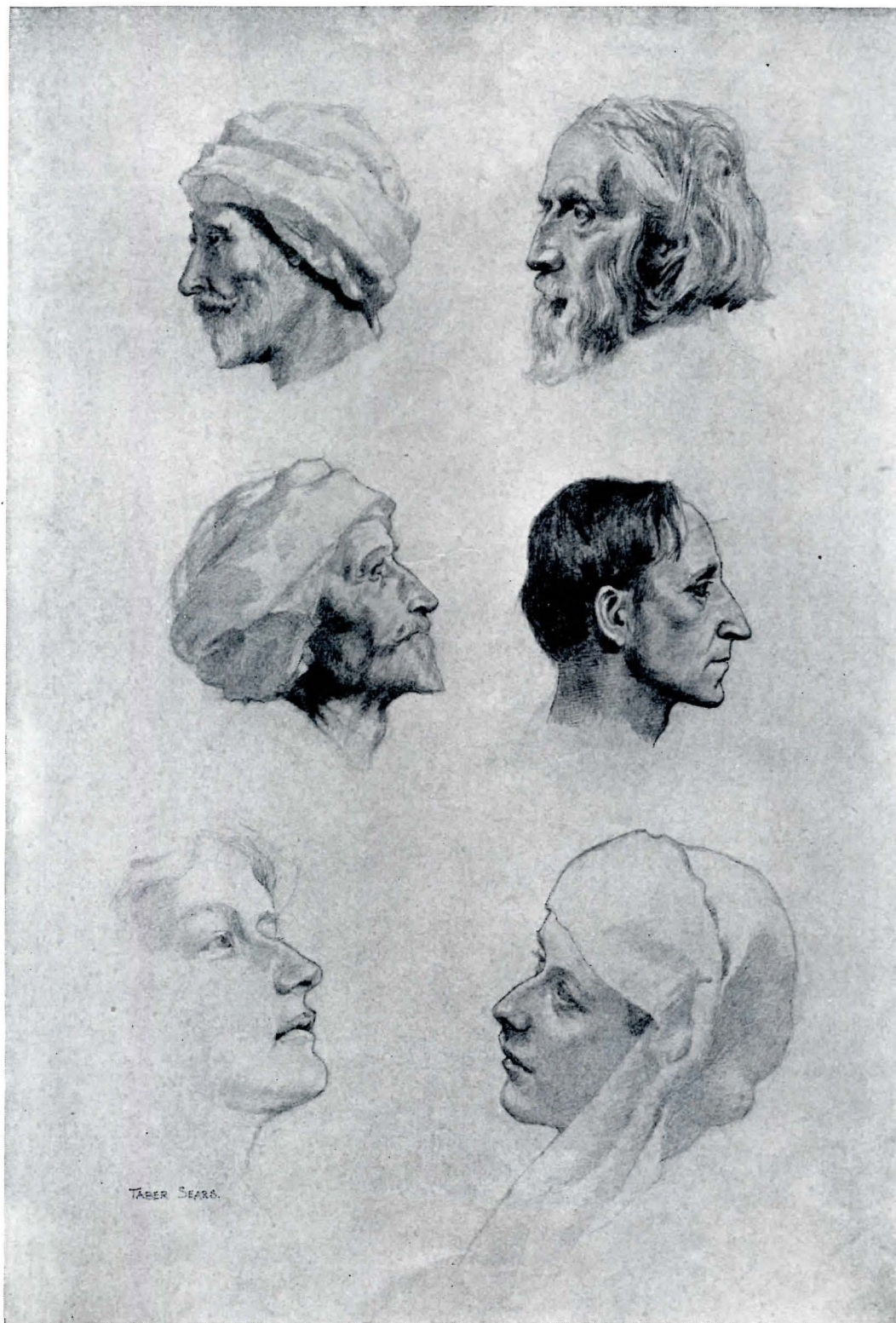


PENCIL SKETCH BY OTTO F. LANGMANN, OLD HOUSES, WATTS STREET, NEW YORK CITY



*The sketch by Otto F. Langmann, reproduced on the other side of this sheet presents with admirable effect a bit of old New York. It is drawn in lithographic pencil on a thin, ivory-tinted, Japanese paper of fibrous texture.*





STUDIES OF HEADS BY TABER SEARS FOR ALTAR PAINTING IN TRINITY CHURCH,  
BUFFALO, N. Y.

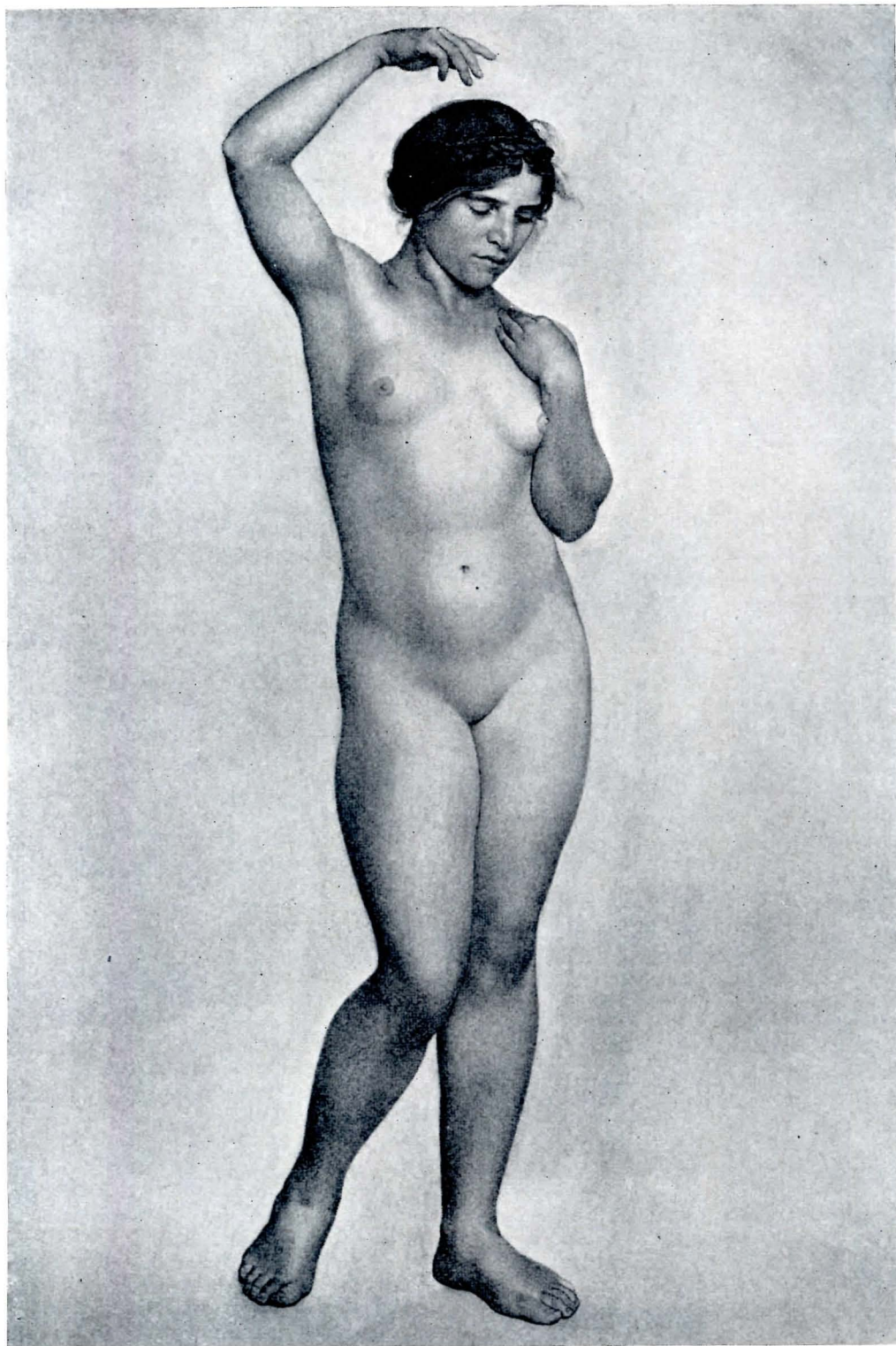
BERTRAM GROSVENOR GOODHUE

CRAM, GOODHUE AND FERGUSON, ARCHITECTS



*The studies of heads by Taber Sears which are reproduced on the other side of this sheet are admirable in their characterization of the subjects as well as in technique. Mr. Sears' paintings that are of an ecclesiastical character have a spirit and a manner that fit them especially well for their places in juxtaposition to the architectural detail of the churches for which they are made.*





PENCIL STUDY BY H. I. STICKROTH FOR ONE OF THE FIGURES IN HIS MURAL  
PAINTING "THE VALLEY OF CONTEMPLATION"



*A remarkably fine study from life, drawn by H. I. Stickroth, while studying as a Fellow of the American Academy in Rome, is reproduced on the other side of this sheet. This figure is one of several in Mr. Stickroth's mural painting "The Valley of Contemplation." The drawing is about thirty by forty inches and is in pencil on buff paper. The technique is well worthy of the most careful study on the part of students of drawing.*



## RENDERED PLANS AND RECORD DRAWINGS, PART II.

BY FRANCIS S. SWALES

AN entirely different problem in rendering from that discussed last month is shown in M. Guilbert's record drawings of the "Monument Commémoratif," in the Rue Jean Gougeon, Paris. The site is an ordinary "pocket" lot in a city street, and three different ideas of representation are used for the purpose of conveying the intended respective impressions of the plan of the floor underground, of the main floor above ground, and of the ceiling "looking up into the air." The first Figure 4, page 18, is shown in such manner as to make it plain that the lighting is received through the court, and that no light is taken from or supplied to the surrounding properties. The black walls merge into the dark tone of the *entourage* at the back of the site and become well-defined towards the street front. The tone of the court is slightly darker than the interior of the rooms—the reverse of the actual lighting and the furniture is shown in the smaller rooms while the ceiling decoration is shown in the domical room forming the crypt of the chapel. Such combination of ceiling decora-

tion in some rooms and furniture in others is confusing to the lay mind; but for record purposes, especially as in this case intended for the use of architects or architectural students, it is for many reasons, the best method. In the instance of the

*Monument Commémoratif* it has the advantage of showing at a glance the parts given over to utilities in a way distinctly different from the main, decorated, monumental part.

With this example in mind, and the color tone of rendering and character of drawing so well illustrated, it seems as though no method could be better for the presentation of utilitarian rooms than such indication of furniture. The main value of the indication is to create a true impression of scale and size of the rooms, but it assists in showing their proposed use, and may add considerably to a pleasing effect to the drawing as a whole.

The main floor plan (Figure 5) has the surrounding property shown in a much lighter tone than on the basement plan. The lightest part of the *entourage* is still kept to the front of the building and the lightest tone of the drawing is

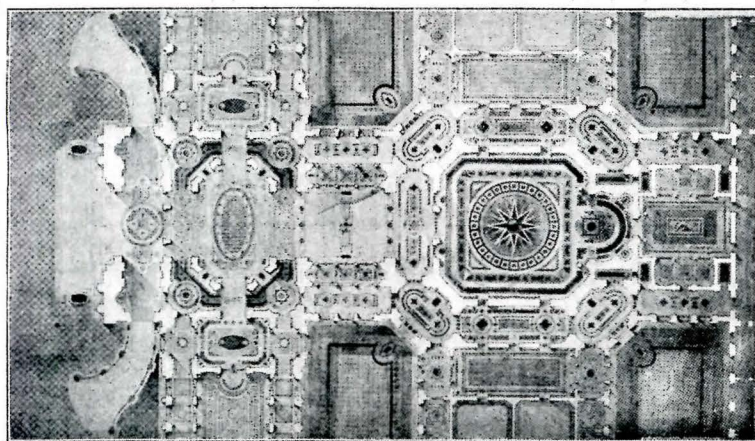


Figure 7. Entrance to a Museum, M. Jules J. Pin, Architect.

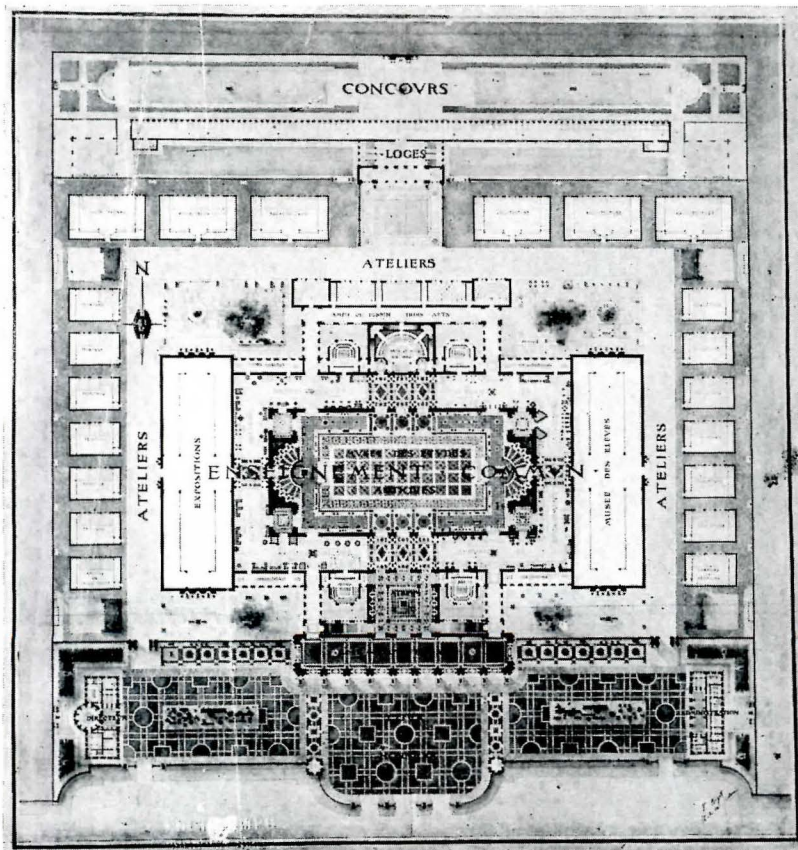


Figure 8. Plan of School of Fine Arts, P. Bigot, Architect.



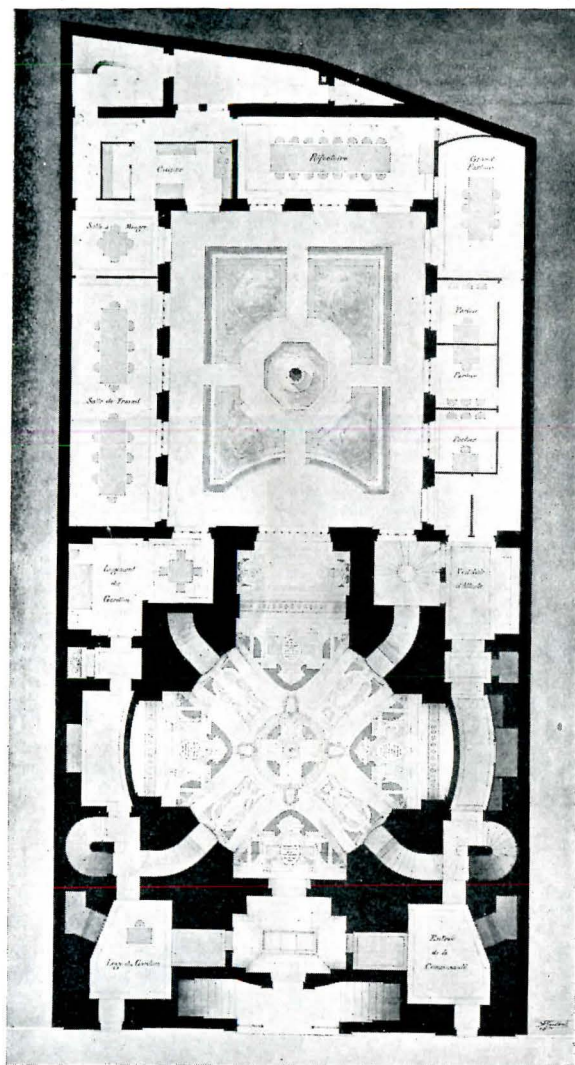


Figure 4. Plan of Crypt.

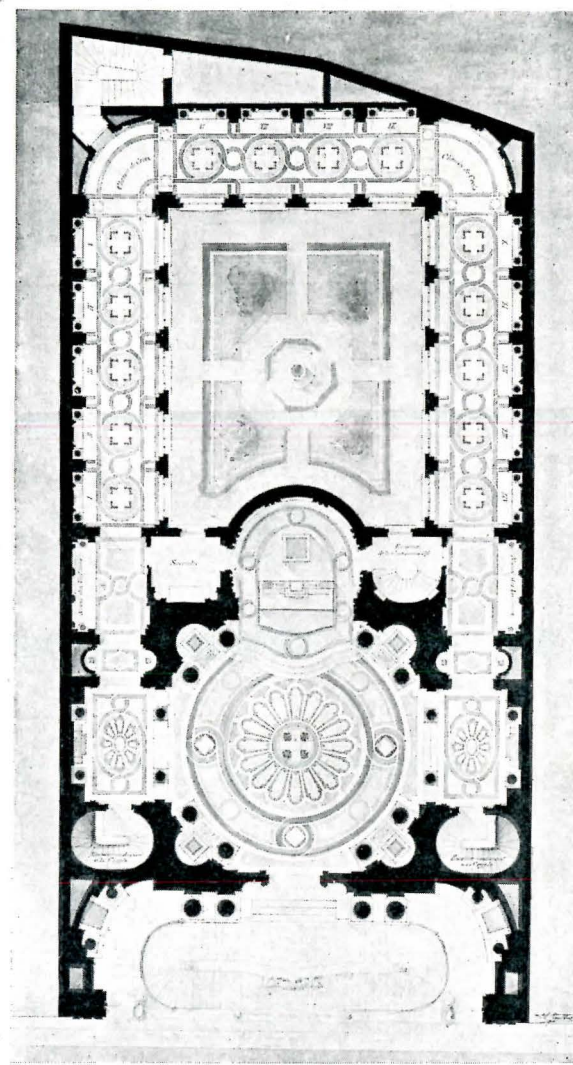


Figure 5. Main Plan.

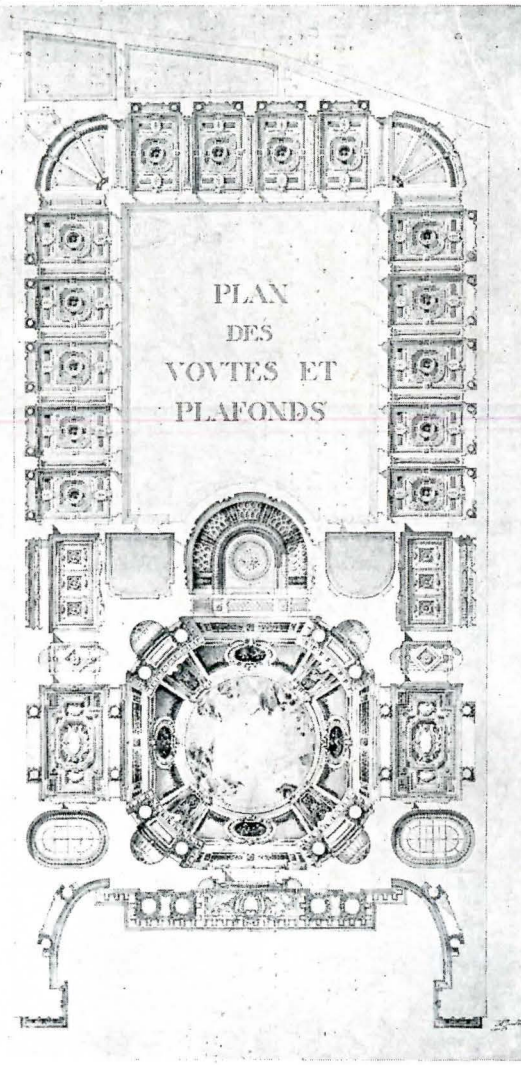


Figure 6. Ceiling Plan.

*Monument Commémoratif, A. Guilbert, Architect*



# PENCIL POINTS

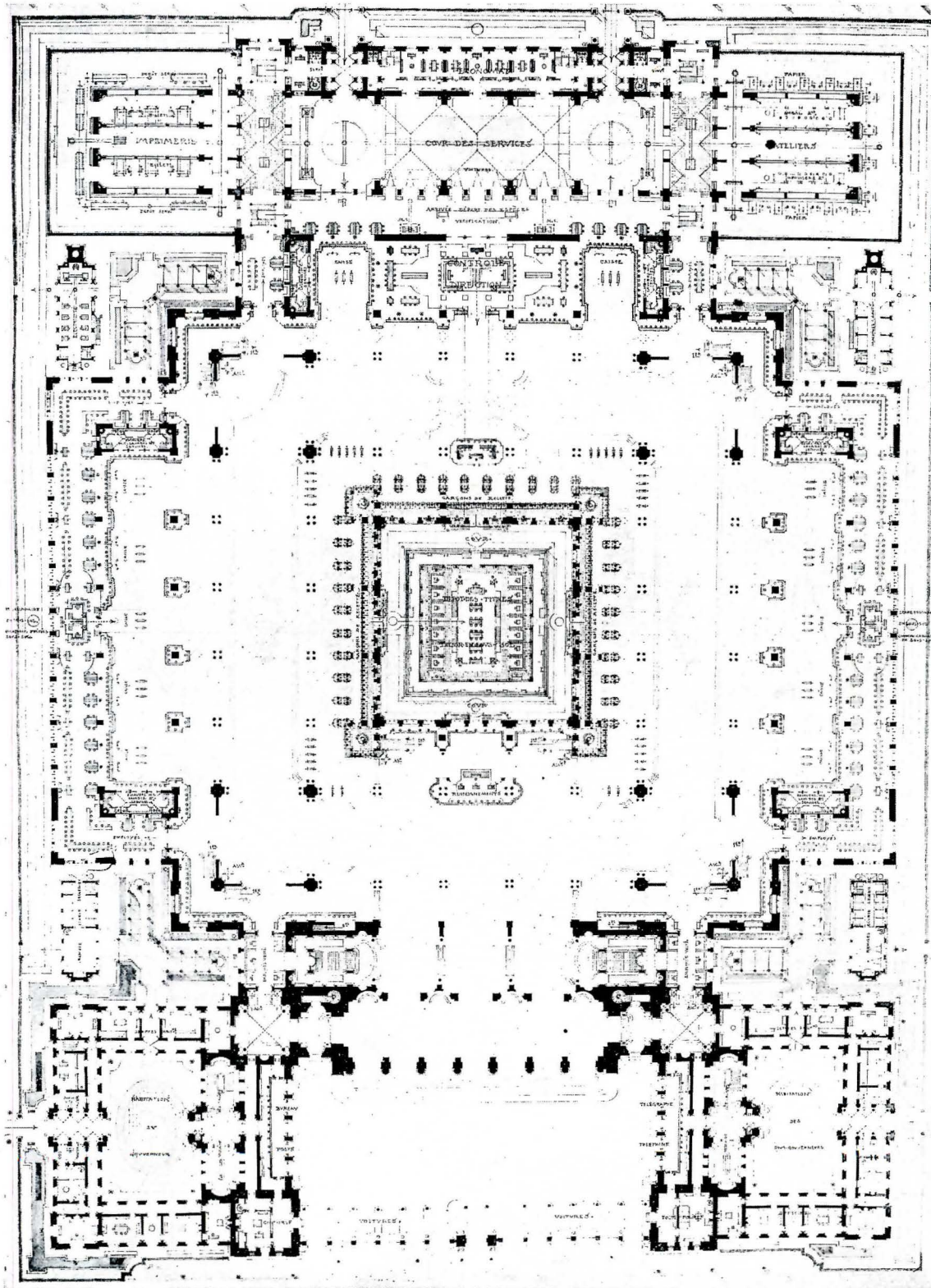


Figure 9. *A Bank*, by Tony Garnier, from "Le Concours du Grand Prix de Rome d'Architecture."



## PENCIL POINTS

still the floor of the building. The court is toned down somewhat darker than the part towards the street. The black walls of this solid monumental structure are well defined and permit the bold rendering of the decorative marble floor. The whole effect is as it should be of a horizontal section taken

through the building a few feet above the street level. The absence of all furniture and ceiling decoration—only the floor pattern being shown—maintains the monumental character of the interior.

The third example (Figure 6) shows two departures from the preceding cases; first, the general tone of the interior is darker than the *entourage*; second, the section through the walls is kept very light. The rendering of the decorative ceilings and soffits serves to define the outlines of the walls in plan. The relatively light effect of the *entourage* gives the feeling of space and air.

The method of indicating the walls light and ceilings darker is not uncommon with regard to ceiling plans, but the same idea applied to the ordinary plan—looking down instead of looking up—has been seldom employed; and few instances can be found of well-studied renderings in which the true relative values, caused by day-lighting, are properly indicated; yet it seems to the writer to be the method offering the greatest possibilities of true expression of the idea which the plan is intended to convey: of a horizontal section through the building at one-half, or one-third, of the height of the story.

Among the drawings by students at the *Ecole des Beaux-Arts* may be found almost any idea more or less completely carried to execution;

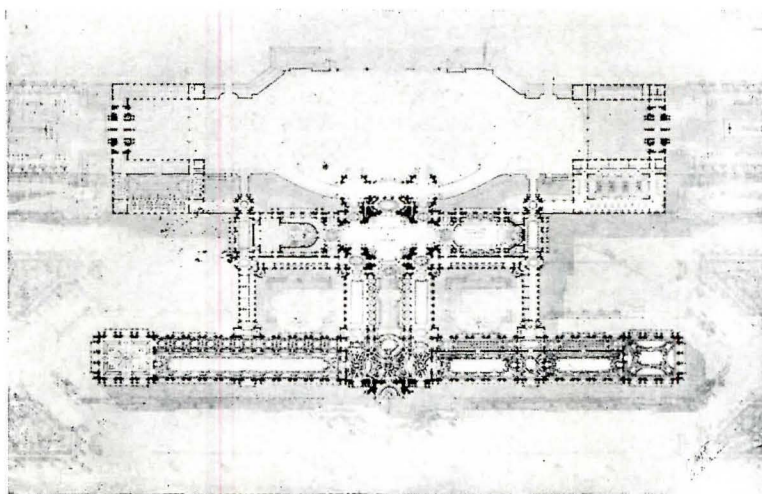


Figure 10. Plan for a Palace by M. P. Bigot.

present such a plan satisfactorily, color is essential, and decision as to the tone value difficult. If the "out-of-doors" is mainly of greensward the problem is simplified, as the external lighting strength may be considered as absorbed by the grass or foliage.

The flooring would become a lighter tone than the exterior ground surface, and yet be sufficiently dark to clearly define the outline of the walls and partitions. The casting of conventional shadows upon such a plan can be done as advantageously as with elevations or sections.

A technical point to note in such renderings is, that the physical line, used to outline the walls, becomes in effect a part of the dark wash. Its entire width must therefore be kept outside the thickness of the wall or in other words, the wall must be increased in thickness by the width of its outlines in order that it may not appear too thin in the rendering.

In any well-defined plan with solid black walls, a narrow white space, or line, should always be kept between the rendered surfaces and the *poché* of the wall (Figure 8). Similarly, in the case of the walls left white, a heavy dark line—black or red—should follow along the outline.

Some of the major ideas in rendering different subjects, according to the use or (Con. on p. 36)

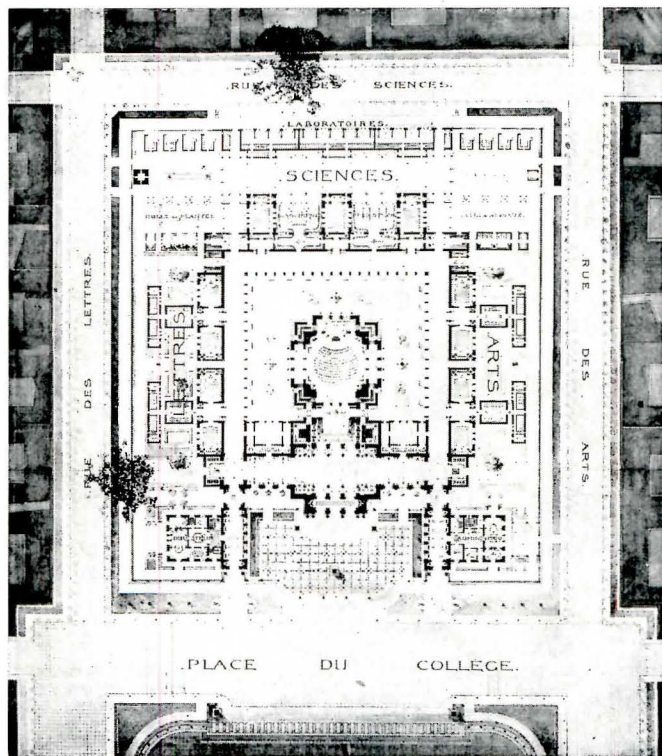
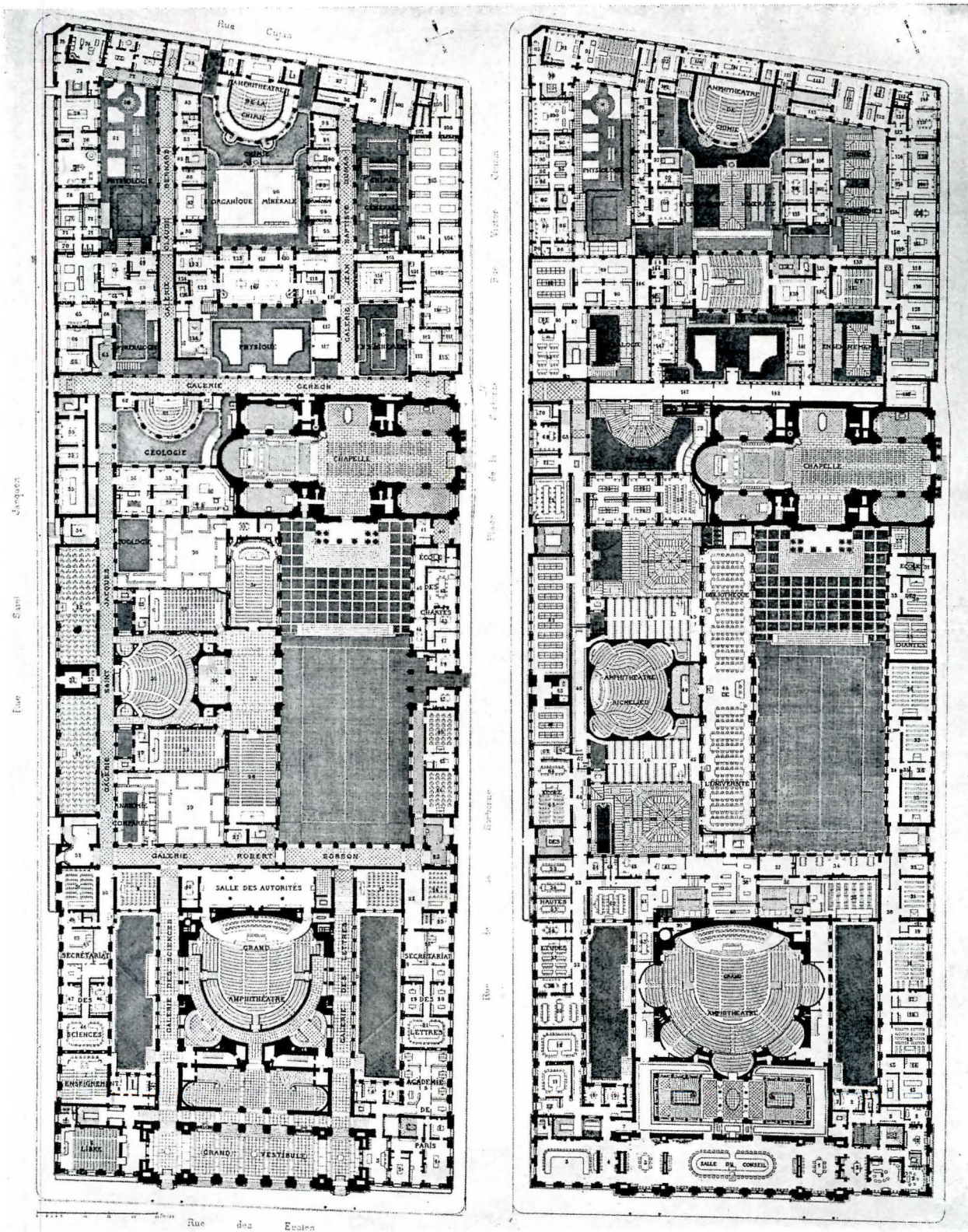


Figure 11. Plan of "A College of France," by M. Tazuin (1er Second Grand Prix, 1904)



## PENCIL POINTS



*From "The Builder," London*

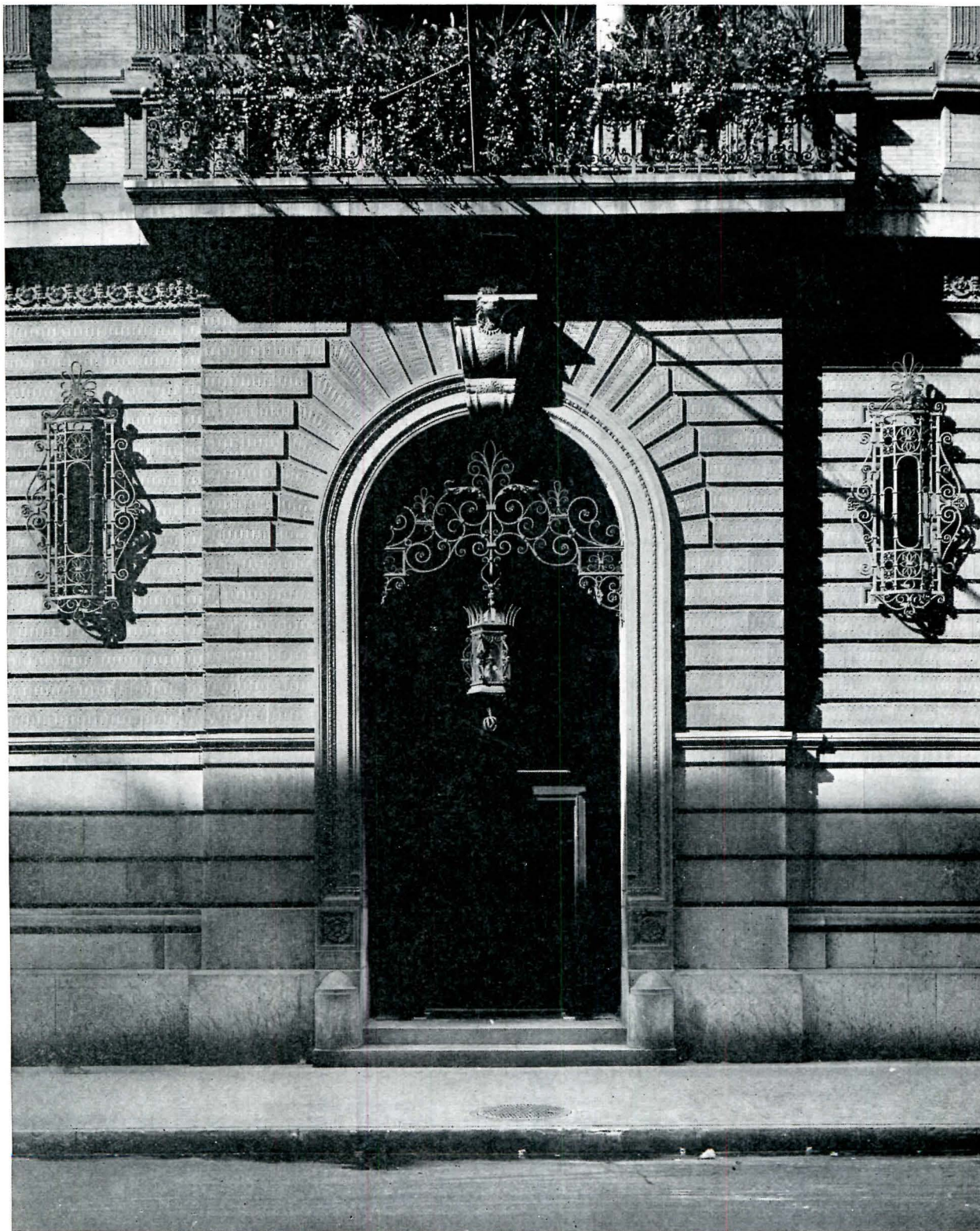
### Ground Floor Plan

*First Floor Plan*

Figure 12. The Sorbonne, Paris. M. Henri Paul Nénot, Architect.



PENCIL POINTS



*Detail of The Century Club, New York City, Showing Surface Treatment of Terra Cotta.  
McKim, Mead & White, Architects. See text on opposite page.*



## ARCHITECTURAL DETAIL PART VII

BY JOHN VREDENBURGH VAN PELT

*This is the seventh instalment of an article in which Mr. John Vredenburg Van Pelt, formerly Professor in Charge of the College of Architecture, Cornell University, Architecte Diplômé par le Gouvernement Français, and author of "Essentials of Composition," will discuss the designing of good architectural detail and point out the means by which the ability to produce good detail can be developed. Reproductions of detail drawings from some of the best architectural offices will accompany this article and the publication of this series of drawings will be continued after this discussion of the subject has been completed—making a valuable feature of this journal indefinitely.*

THE tools used for hand work in finishing stone are of three general types, the point, the chisel and the hammer. Points or pointed chisels make an indentation in the surface that in most cases is accompanied by the splitting off of an adjacent piece of stone. The tendency of the pointed chisel to split off these slivers increases when the tool is inclined a way from a perpendicular to the stone's face. The drove chisel is a tool that widens out, usually from one and a half inches to two and a half inches and is used for lime stone. It is struck with a wood mallet. A narrower chisel struck with a hammer is used for granite and the harder stones. The effect is quite different when the angle at which the tool is held is swung away from the perpendicular to the face of a soft stone, also when the closeness of the strokes is varied. Coarser drove work might show two bats to the inch, finer work six or eight. Sometimes the chisels are cut into teeth producing tooth chiselled work. The third group of tools includes the patent and bush hammers. Here the incision is obtained by direct action of the instrument that initiates the blow instead of through an intermediary. Patent hammers are composed of several parallel blades fastened to-

gether bush hammers of a number of points secured so that they fill a rectangular space that strikes the stone evenly. Hammers of this type are not adapted to the finish of the softer stones as the jar of the impact breaks down the ridges of the surface, the projections are not sharp and the bruised stone becomes more pervious to

weather. They are used in finishing granite.

If the tooth chisel is pushed by an air hammer a series of parallel lines may be obtained of any desired length instead of the slanting incision whose length is determined by the angle at which the chisel is held and the force of the blow. The lines may be crossed or sections run in different directions giving various effects.

The crandall is an iron bar some two feet long having a flattened portion at the end with a slot in it in which several steel teeth or points are secured by a wedge or key. It is held in both hands and a blow somewhat like that from a hammer is delivered directly

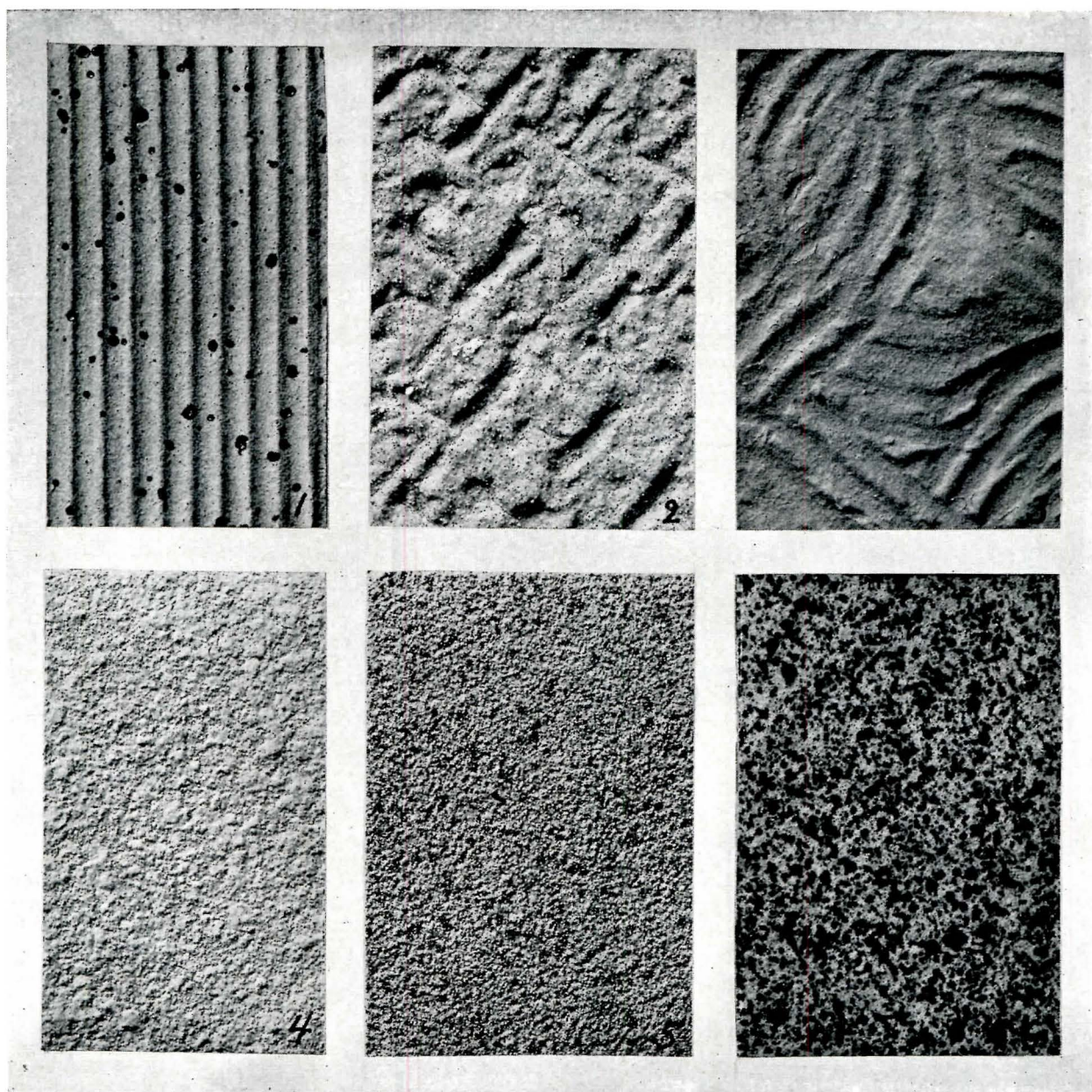
to the soft stone. The tool may be maintained in the initial direction or the surface may be gone over in directions that cross or are at random. The size and number of the points and the closeness of the strokes determines the coarseness of the work.



*Detail of Vanderbilt Residence, New York City. Showing Stone Detail. Richard M. Hunt, Architect.*



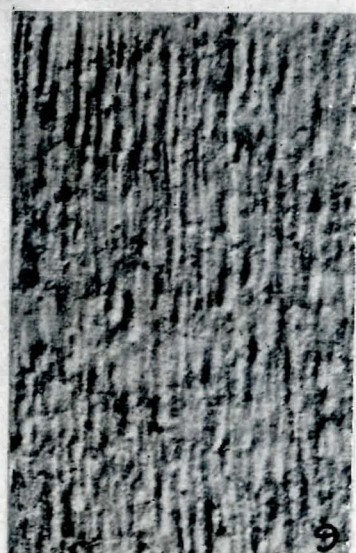
## PENCIL POINTS



*Full-size Photographs of Surface Finishes of Terra Cotta. See Text Beginning on Page 23.*



## PENCIL POINTS



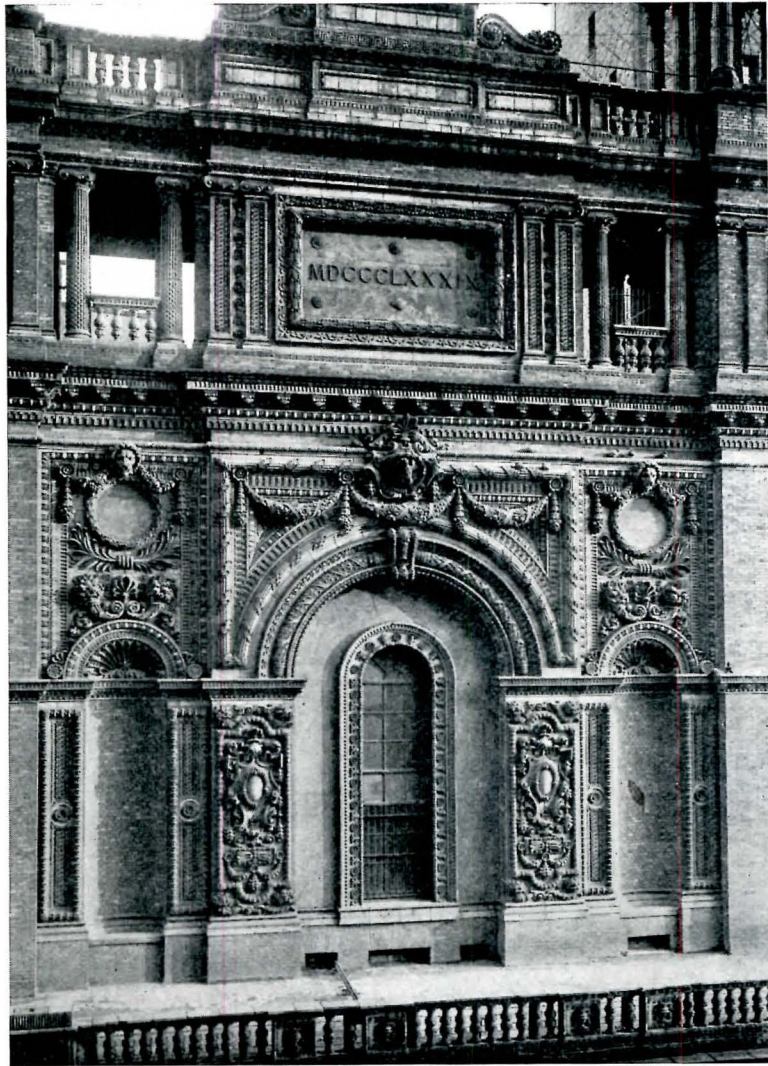
*Full-size Photographs of Surface Finishes of Terra Cotta. See Text Beginning on Page 23.*



## PENCIL POINTS

On page 28 six usual and very satisfactory effects are shown full size. a, is a "rough picked or coarse hand pointed finish" made by working over the face of the stone with a pointed chisel. For this the stone ashlar is left about one-half inch full in thickness over the face of the wall or projecting face of rustication. Rustications may be finished with a border of tooled work, 4, 6 or 8 bats to the inch. Pointed work may be used in contrast with rusticated stones finished with a tooth chisel or diamond pointed air tool giving a series of smaller indentations close together. b, is "fine pointed" and is often

used on rustication. Still finer pointing makes a good background for carved panels. c, is the "hand drove finish." For this particular example the planed surface of the stone was worked over by hand with a two and one-half inch drove chisel driven by a soft mallet, the chisel held at an angle of from sixty to seventy degrees with the horizontal face of the stone. The spacing of the bats is about three to the inch and if different stones are differently treated, both as to direction of line and coarseness the interest of the building is increased. Of this more anon. Such a finish is often used in contrast with smooth sand rubbed mouldings; but it may be made advantageously directly on the sawed face of the stone and contrasted with mouldings that have come from the planer and show machine marks. It is characteristic of English Gothic. d, is called "tapestry hand chisel finish" and in the example shown a one and one-half inch chisel was used, not more than five or six bats being made in consecutive order, and no fixed



*Terra Cotta Detail, Madison Square Garden, New York City.  
McKim, Mead & White, Architects.*

pattern followed. It is adapted to special locations such as the background of a panel or the faces of key-stones and quoins. It would probably be monotonous for a whole wall surface. e, shows a "hand tooth chisel finish" made in the same manner as is the "drove finish," c, except that the chisel has some fifteen teeth and is two inches wide. In this example there are five bats to two inches. Here again is a finish well adapted to Gothic church work, and it is also used for rustications or base courses. f, shows a "crandalled finish" used in Gothic ecclesiastical work. It is expensive.

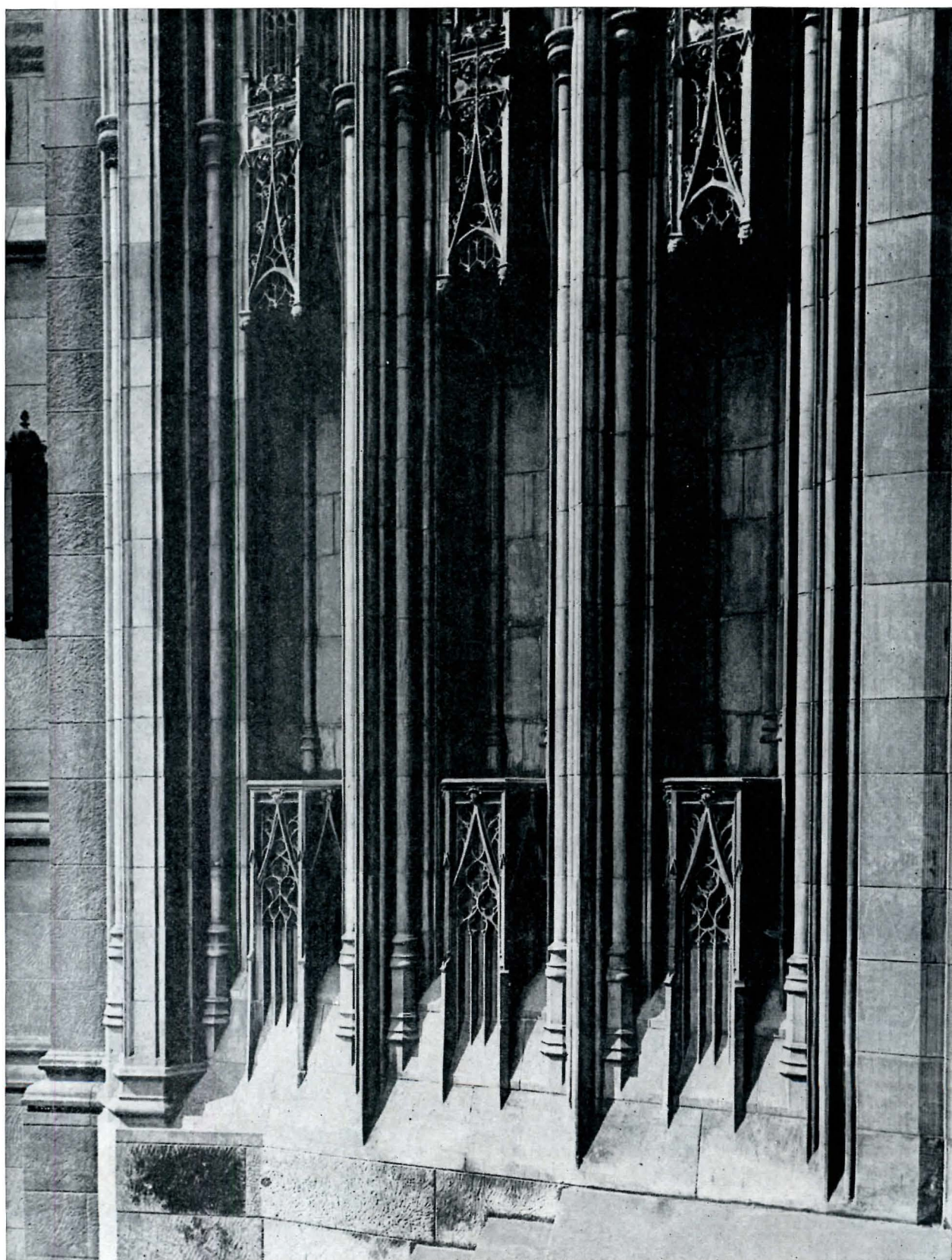
The matter of expense is of interest to the client and must be perforce to the designer. To use the stone as it comes from the saw is the most economical method and anything other than a deeply marked surface large in scale is not worth while for the upper stories of a building as it cannot be seen. The most that can be said for sand rubbing used at a distance is that it may discolour somewhat less in a dirty city.

My statement about the comparative cheapness of the gang saw finish of soft stones does not actually hold throughout the country. The beds of a stone usually have to be run through the planer and to do this a long piece of stone is often laid flat and the tools or knives cut both sides at once. In a well equipped yard it is just as easy to set a third knife, working horizontally over the stone as it goes through and so plane the face and be sure of a uniform thickness of ashlar. The strip of stone is cut at the build joints either by hand or by a diamond pointed

*(Continued on page 42)*



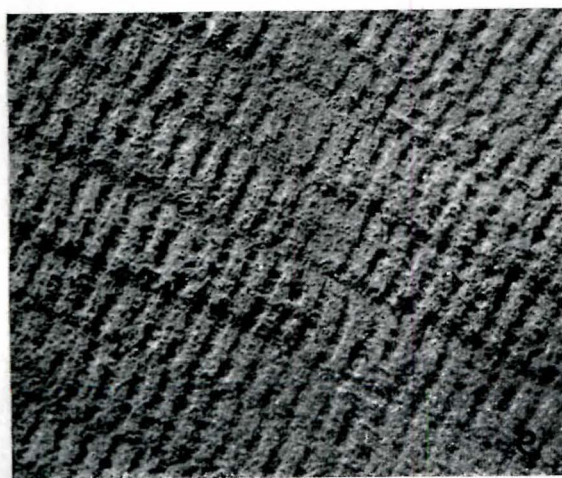
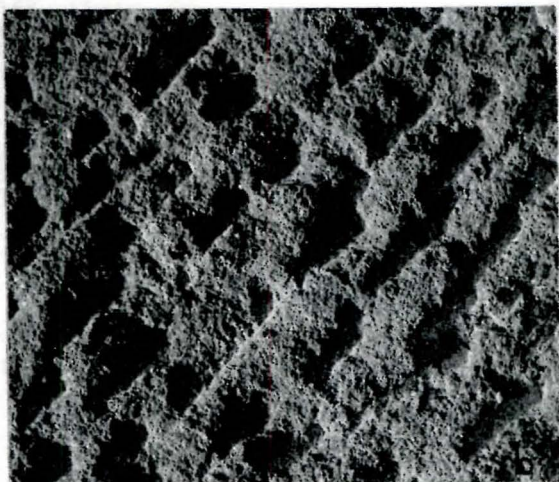
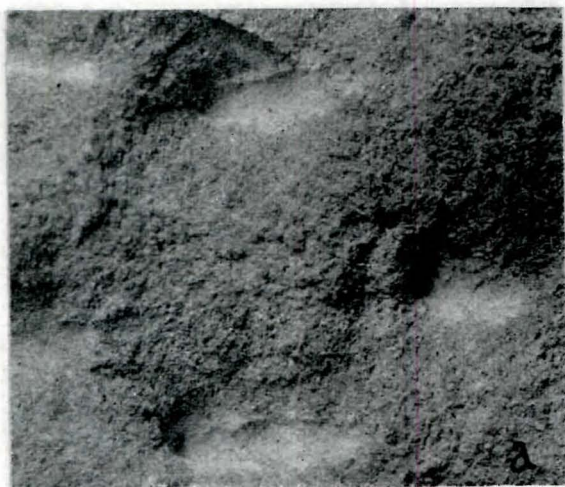
PENCIL POINTS



*Detail of St. Thomas's Church New York City, Cram, Goodhue & Ferguson, Architects. Stone Detail.*



## PENCIL POINTS



*Full-size Photographs Showing Hand-tooled Finishes on Indiana Limestone.*



# THE STUDY OF ARCHITECTURAL DESIGN

WITH SPECIAL REFERENCE TO THE PROGRAM OF THE BEAUX-ARTS INSTITUTE  
OF DESIGN

## CLASS B. PLAN PROBLEM. PART II.

BY JOHN F. HARBESON

*In this series of articles, which began in the January issue, Mr. Harbeson is explaining the method of working and how to get the greatest benefit in following the program of The Beaux-Arts Institute of Design. It is not intended as a substitute for personal instruction and criticism. The "Analytique" was treated in issues for February to September, 1921, inclusive.—Ed.*

WHEN the student makes his esquisse he shows in sketch form the best solution he is able to suggest in the short time allowed for this purpose after he has been given the program. This solution is his "parti." Other students will of course have sent in esquisses showing several different "partis." Now; what is a "parti?" The word is a French one and is used in architectural training as it is used in the ateliers in the Ecole des Beaux Arts, at Paris. The dictionary gives as translation "Parti—party, choice, way, means....method." Professor Paul Cret\* in answering this question said: "Parti means party, just as in politics there is a Republican, a Democratic Party; one has to be selected by the voter, who does not know which one is going to win, so, selecting a parti for a problem is to take an attitude toward a solution in the hope that a building developed on the lines indicated

by it will give the best solution of the problem."

In this the first requisite is common sense—to discard schemes too ambitious for the program or otherwise inappropriate as a solution. One must have some knowledge of the general class of buildings, of which the program calls for one. This means, of course, that the new student is at a disadvantage compared to the more experienced man, until he too begins to learn something of architecture: this is true of life in general.

There is usually an announcement beforehand

of the field in which the problem will lie; this gives the student an opportunity to make some preparation. For instance, if the problem has been announced as "a small railroad station," one can look through architectural magazines or other publications for the general handling of such a problem, comparing the various solutions he sees. It is a mistake for a student, instead of making such comparison among several examples, to memorize one example that appeals to him,

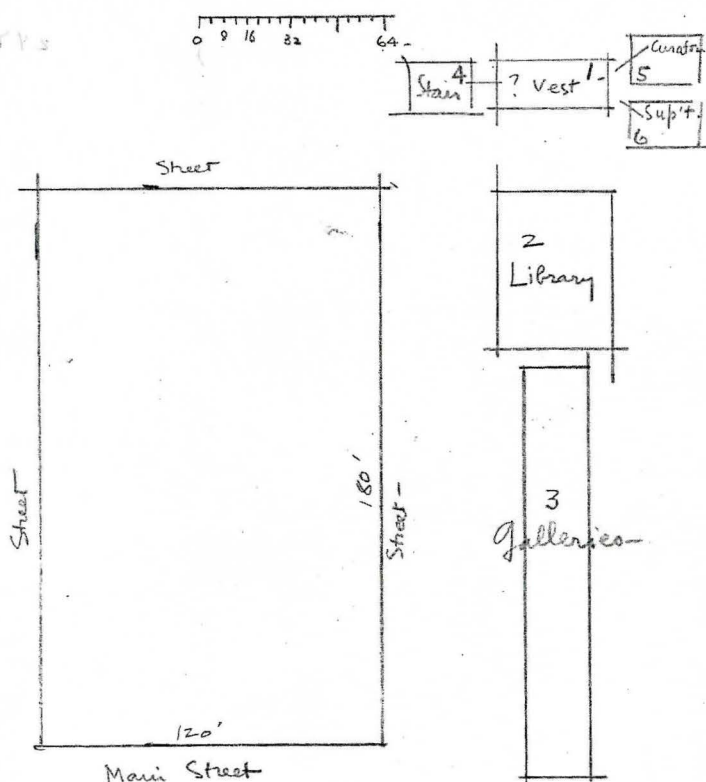


Figure 103

\*At a talk on "Parti" in which he outlined, very much what follows, given at the T-Square Club, Philadelphia, September 22, 1921, by Paul Cret, A. D. G. F. (Atelier Pascal), Professor of Design since 1903 in the School of Architecture, University of Pennsylvania.



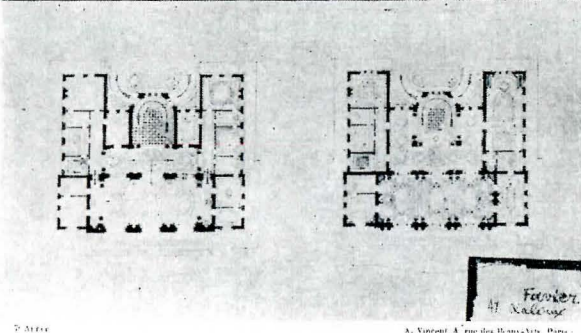
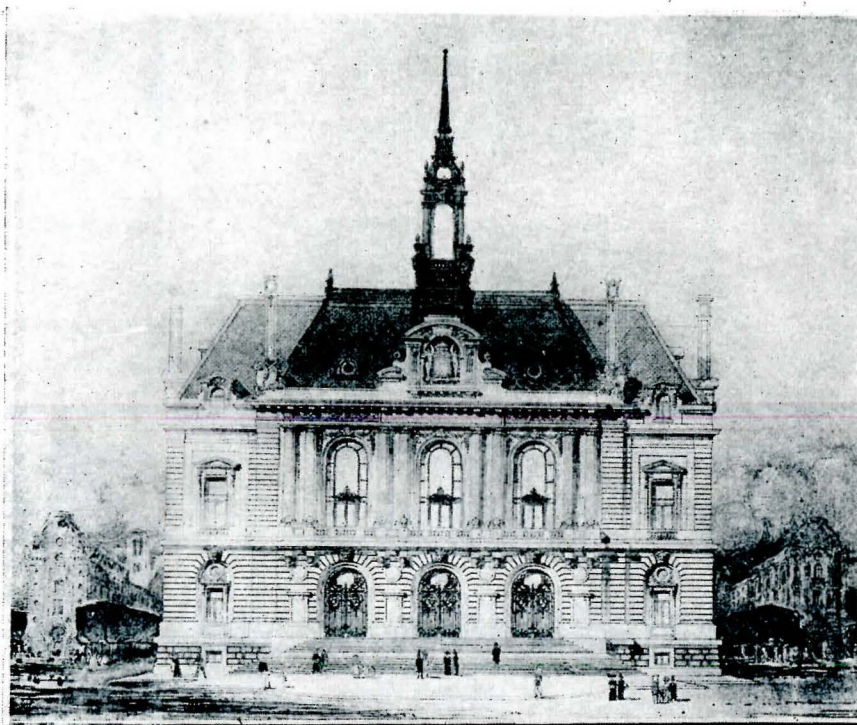


Figure 110. "A Small Hotel de Ville," by M. Favier, Atelier Laloux, Ecole des Beaux Arts, Paris.

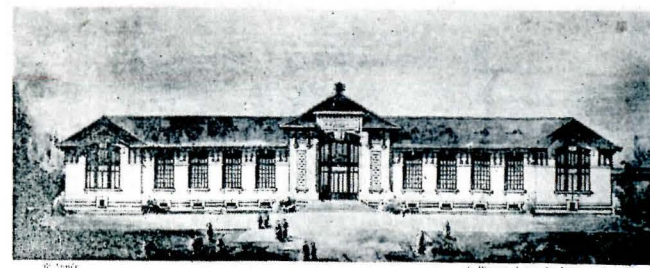
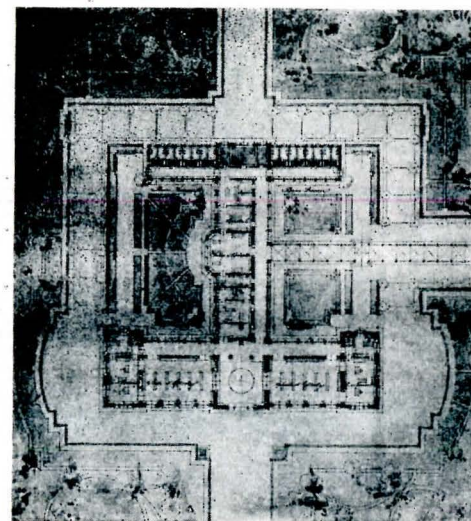
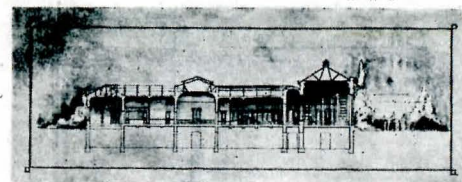


Figure 112. "A Building for Consultations at a Hospital," by M. Maurice Stein, Ecole des Beaux Arts, Paris.



## PENCIL POINTS

and put it in his esquisse, for the programs seldom repeat exactly the requirements of a former problem or example of executed work, and the difference makes the memorized solution a misfit. This is simply another instance of the need of common sense.

Study your program when you receive it, to see what is essential; what elements are needed, what elements that would be needed in a large example could be dispensed with in a small one. In doing this, put yourself in the place of the ones using the building: "What is the easiest way to accomplish what I have to do in that building?" For instance, if the problem is a railroad station, visualize yourself going through the different processes

of a railroad station, and you will be much more apt to put the ticket offices, baggage rooms, etc., in places that will suit their uses than if you considered the problem in an impersonal way. It will help you in making your esquisse, and if the esquisse is made with such a method of thinking, though it may be bad in proportion the relations of the several rooms can be improved if they are in the right order.

To make a good esquisse it is necessary to have a general knowledge of the kind of buildings that an architect is called upon to design; it is good training to study real buildings to see what "the crowd" is doing in them. If you notice that in one kind of building certain of its parts are easily crowded you will note that those parts should be kept large. If you watch a crowd you will understand why a "circulation" should not be crooked so that people will lose their way. A domestic building is different from a public one in this; its occupants know the

building and know one another, therefore an irregular plan with a circulation that is not very direct is quite satisfactory. In designing a public building, one must suppose the crowd rather dull, and the circulation in such a building should be arranged simply, so that those who use it can easily find their way about.

Try to understand from the program what kind of a building is called for so that the solution you suggest will not be unsuitable. If the problem is for a small suburban railroad station, do not make one suited to a city street, or "big" in scheme.

Usually there are special conditions in a program that will affect the problem. If "A Bank" is the problem, the

program may state that it is "on the corner of two streets," "on a wide avenue" or "on the second floor"; in each case there would be a different solution—an esquisse good for one condition might be quite poor for another. Peculiarities due to the site or geographical location, if mentioned in the program, should affect the selection of a parti. A building in the South would receive quite different treatment from one in the North. If the ground is said to be "on the side of a hill" or "facing a view," certain conditions are thereby imposed on the problem which make it different from another. Sometimes a small word in a program, seemingly casual, gives the key to an original solution, or to the only solution that is good.

Therefore, when you receive your program, read it through carefully—several times—to allow its different conditions to enter your mind before you attempt to form any solution. Think about the problem before starting to draw. The

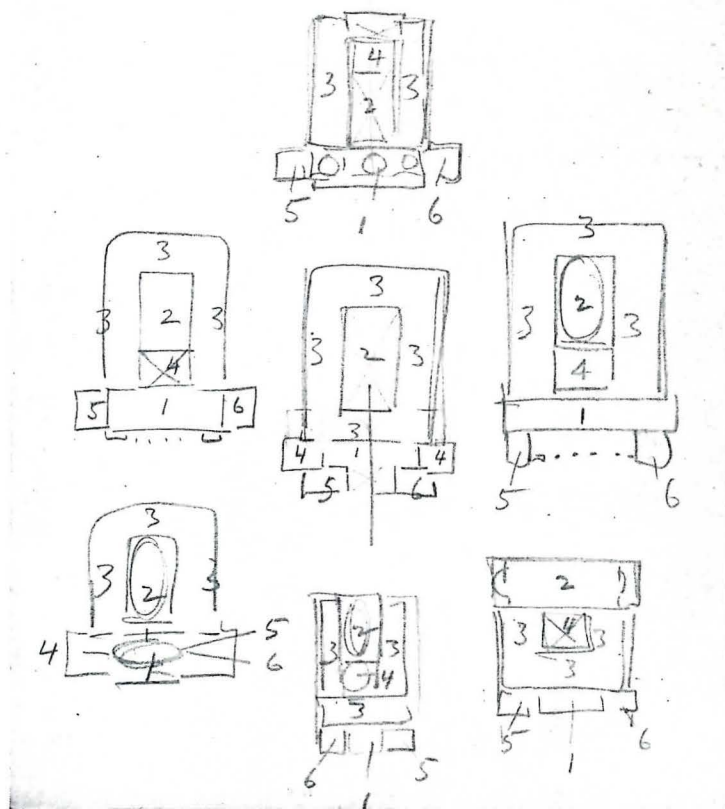


Figure 104

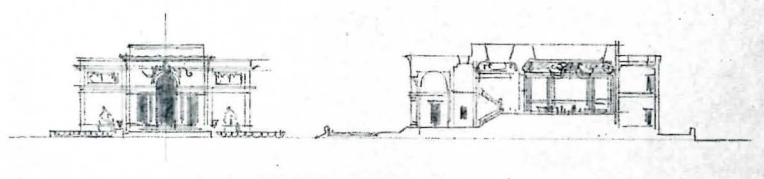


Figure 106



title will give the first clue to follow. If it is "A Bank," ask yourself, "What is a bank? What are the principal elements of a bank?—of these elements which are the most important? What others, while not monumental, are nevertheless important in the working of the bank and require large areas—such as space for book-keepers, clerks, and accountants?"

Then read the list of requirements: this gives an idea of location, the importance of the different rooms, type of architecture, etc. In a good program, no word is useless; each word has a bearing on the particular problem. In studying a program, try to find out the spirit of it—what its author really meant.

For problems other than ones in domestic or picturesque—or perhaps, religious—architecture, an unsymmetrical scheme should not be used unless the program makes it necessary. When the conditions of the program, however, are such as not to be divisible on two sides of a main axis, then the unsymmetrical solution will be a necessity for a good plan.

Sort out the requirements of the program: select those which are important, and group the others—those used by the public, those used only by the staff of the building, etc. This grouping will aid the student in arranging the elements of his plan so that the chosen parti will "work,"

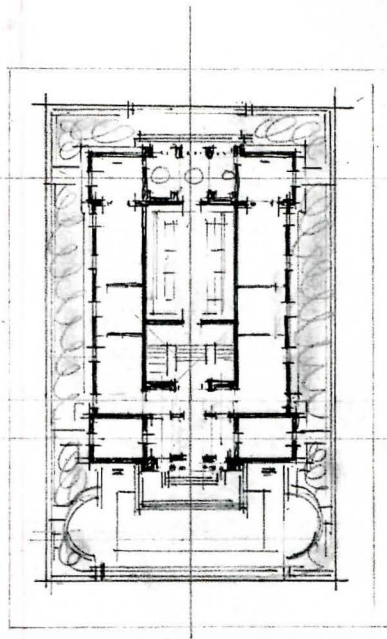


Figure 105

that the important rooms will satisfy the needs of the public in the building, that the lesser rooms will work with each other and with the principal rooms and that they can be reached easily without causing the circulations used by the staff to interfere with those used by the public. This question of circulation is very important, as it is the circulations—the entrance halls, corridors and passages, that tie together the different parts of a plan. It goes without saying that the principal element—the heart of the program—should be in a position of importance.

Now let us take a program and make an esquisse, remembering that the process would vary somewhat with each program.

## PROGRAM

### CLASS "B" IV PROJET

*The Committee on Architecture proposes as subject for this competition:*

*"A SMALL MEMORIAL ART LIBRARY AND MUSEUM"*

A patron of Art in a small city has left to the community a sufficient sum to build a memorial to house his library of books on art and architecture, and for the exhibition of his small but valuable collections of paintings, sculpture and examples of the minor arts. This building, while a memorial to the donor, is to be free to the public, especially to students.

The land on which this building is to be built is 120x180 feet with the short side facing an important street. Less important streets surround it on the other three sides.

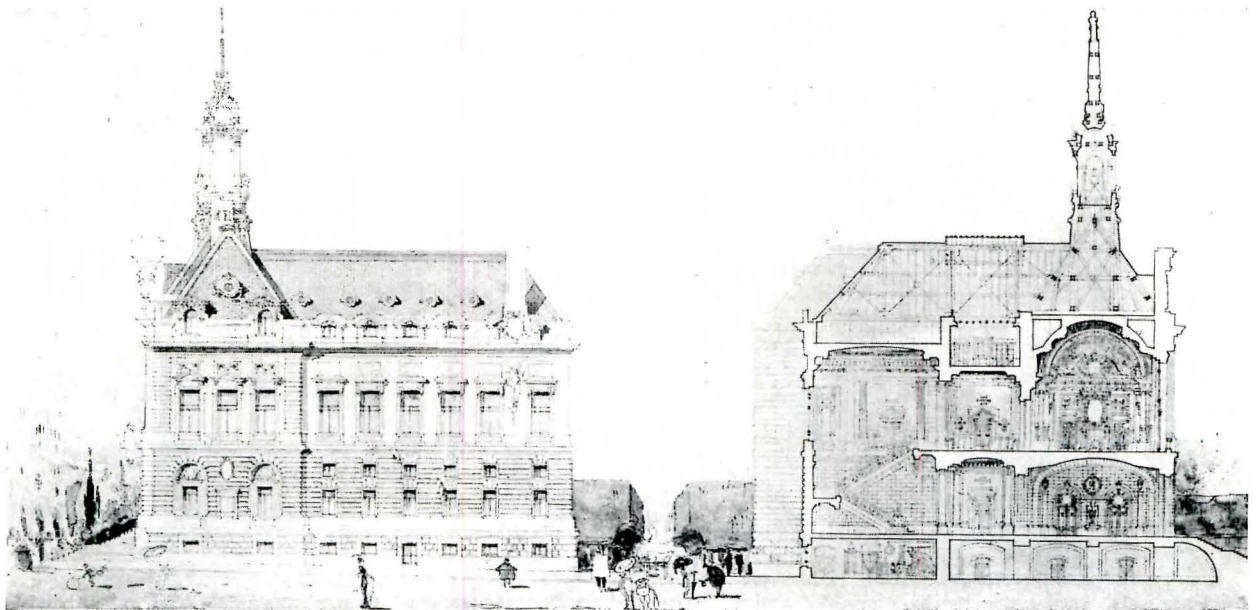


Figure III. "A Small Hotel de Ville," by M. Favier. Atelier Laloux, Ecole des Beaux Arts, Paris.



## PENCIL POINTS

The ground floor will contain:

A vestibule, with a curator's room and a room for the superintendent.

A staircase or staircases leading to the floor above.

The library suitably fitted with large reading tables and with shelves for the accommodation of large and bulky volumes. This room may extend through two floors and be lighted from the top. It should have an area of 2000 square feet.

The galleries for the exhibition of sculpture and the minor arts. These galleries should be lighted from side only and should have a total area of approximately 3000 square feet.

The second floor will contain:

The galleries for the exposition of paintings, tapestries and other things of that nature. These galleries should have top light. Their area is not determined, but should be as great as is consistent with the design.

The treatment of the grounds about the building should be given consideration owing to the location of the property on the important street of the town. Required for the esquisse; Plan elevation and section at the scale 16 feet equal one inch. Required for Projet Rendu; Plan and Section at scale 16 feet equal one inch, Elevation at scale 8 feet equal one inch.

Having read the program thoroughly, and noting the word "small" in the title, and the two words "Art Library" and "Museum" we would go over it again, underlining in the first paragraph the words *small* (city), *small but valuable collection*, *paintings*, *sculpture*, *minor arts*, *memorial to donor*, *free to public*, *students*—and in the second paragraph—*short side*, *important* (street) and, below, *library . . . may extend through two floors . . . lighted from top*, and *galleries . . . lighted from one side*, and *second floor . . . top light*.

As the size of the lot is given it is well to draw it to scale, perhaps half the scale required for the esquisse—and to lay out the other areas given by the program at the same scale, as shown in figure 103. It is well to mark a graphic scale, as in this illustration, to keep well before us a comparison of sizes. The galleries are stated to have a total area of approximately 3000 square feet. They are here laid out with a depth of 20 feet, as they are to be lighted from the side; we must keep in mind that if this depth is increased or diminished, the other dimension should be correspondingly affected. The library may vary in shape, provided that the area be

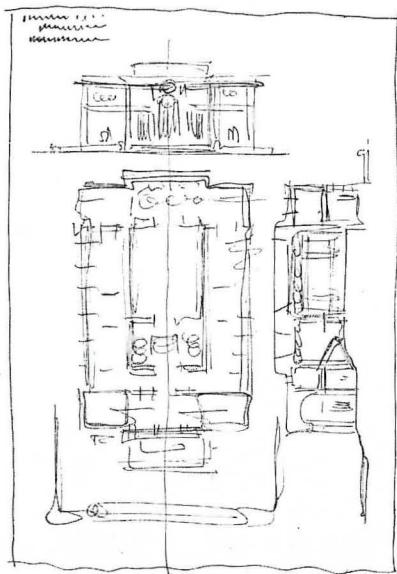


Figure 107

assistance in visualizing the scale of the rooms called for.

With this diagram before him, the student can make a beginning in trying different arrangements of the elements, at first making diagrammatic studies only to try out different arrangements as in figure 104, and then trying out on tracing paper various schemes with the rooms drawn in their true shape, as in figure 105, moving the tracing paper around over the diagram so that the elements may be traced where wanted, making any changes in proportion desired during this process.

As for the analytique, as many schemes of plan arrangement should be found as possible: among these the better should be chosen and studied further, giving now some thought to elevation and section. As these are drawn at small scale their several elements should be "indicated" rather than drawn, as in figure 106.

At this point a decision must be made, one of the solutions must be chosen, and the rest of the time spent on perfecting the parti; the actual esquisse may be rapidly traced over the last studies, and should express the general characteristics of the chosen parti without an insistence on detail, figure 107.

During the study of  
(Continued on page 42)

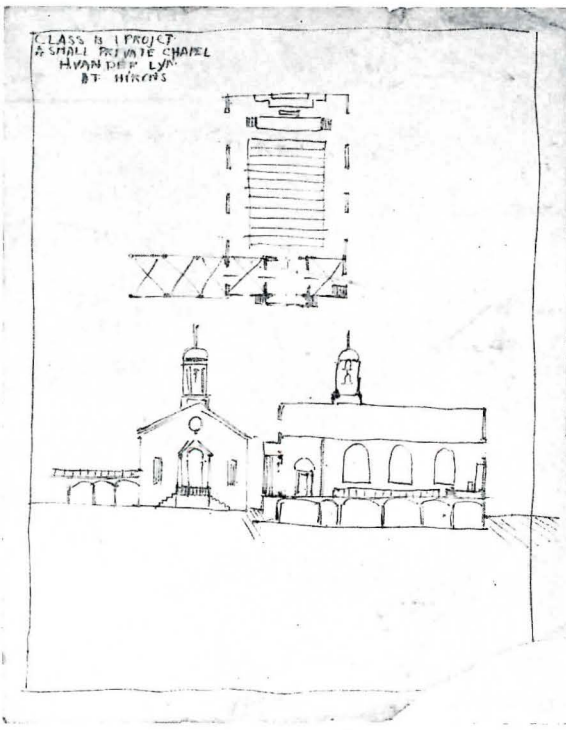


Figure 108



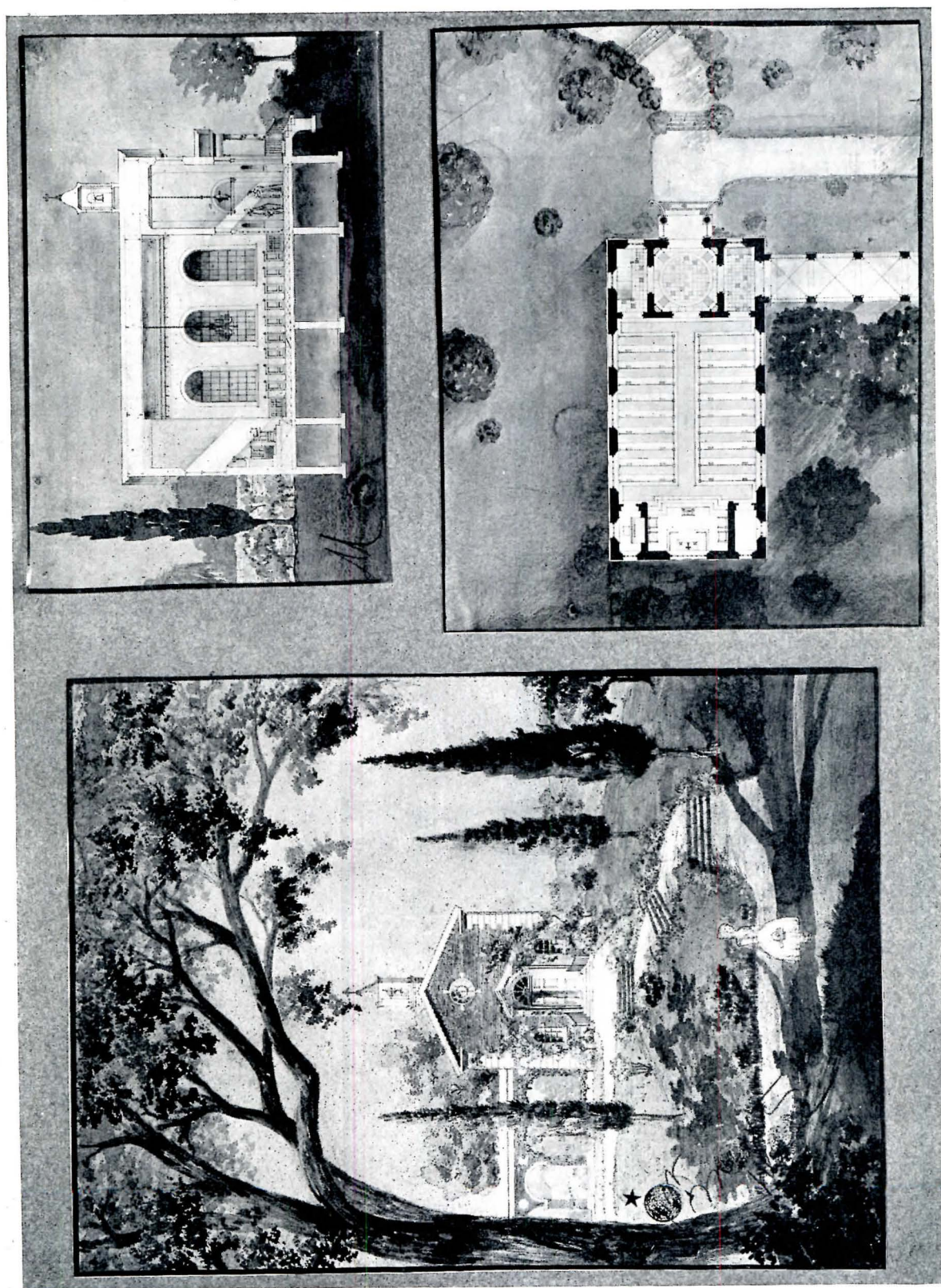


Figure 9. Class B. Projet, "A Small Private Chapel on a Country Estate." H. Van der Lyn, Atelier Hiron.



## PENCIL POINTS

# PENCIL POINTS

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### LOS ANGELES ARCHITECTURAL CLUB.

GREETINGS! We are once more on the architectural map, and bigger and livelier than ever. And upon the occasion of our rebirth, I take the opportunity to tell you all about our aims and organization.

As in the case of most organizations, the war played havoc with our membership, and when the big fracas was over and the smoke had all cleared away, there was little visible of what had formerly been the Los Angeles Architectural Club. But what there was left was very much alive, and in a year's time it had developed into an atelier of no insignificant merit. The membership grew until from a group of four we had developed into an organization of eighteen husky pencil wielders. And then the big boom started.

Early last April, on Friday the thirteenth, a meeting was held attended by thirteen members and despite all the bad luck portended by the circumstances, there was brought forth in this fair town of ours a new spirit, dedicated to the cause of good architecture. The spirit was spread abroad, and gradually the clan gathered, and finally, on the evening of July 29th, after the fatted calf had been stowed away beneath thirty-odd belts, old Father Time made a new entry in his note-book: the reorganization of the Los Angeles Architectural Club.

Another meeting was held on the evening of September 16th, and the increased membership adopted the constitution which had been framed by a committee. Officers were also elected for the year, Mr. Earle Giberson winning the Presidency.

I enclose a copy of the notice of our meeting October 7, which speaks for itself.

Since the last meeting the membership has grown to a total of sixty-seven, and the watchword seems to be "pep." The purpose of the club, to quote the constitution, "is the advancement of architecture and the allied arts, and the promotion of a spirit of good fellowship among those interested therein." The membership fee is five dollars and the dues are ten dollars a year. A Board of Directors of three members conducts educational activities, and will probably stage an exhibition of work at the end of the year.

The Beaux-Arts Atelier started off with a boom, twenty men registering for the season. Mr. Fitch Haskell has been selected as regular patron, and everything points to a successful season. And that is our story to date. But that is only the beginning; if you are interested further—just watch us this year.

(Signed) WILLIAM W. MEZGER, Secretary.

Note—The regular instalment of Mr. Paul Valenti's article, "Perspective Drawing," has been omitted, unavoidably, this month, but will appear in the next issue.—Ed.


Issues of PENCIL POINTS previous to May, 1921, are out of print.

### THE CINCINNATI ARCHITECTURAL SOCIETY.

THE Cincinnati Architectural Society held its first fall meeting Monday night, September 26th preceded by a beefsteak dinner. Plans were outlined for the year's work, and some notable additions to the educational program were announced. The usual classes in architectural construction and life drawing will be continued, as well as the program of the Beaux Arts Institute. In addition a course in architectural history and one in the use of materials are projected. The society plans to have at least one public exhibition during the year, in which the architectural firms of the city will be asked to join. A monthly printed bulletin is planned for the year.

### ARCHITECTURAL RENDERING IN WASH.

IT IS fortunate that H. Van Buren Magonigle, who is known to the architectural profession for his high standard of draftsmanship and for his personal ability as a draftsman as well as for his distinguished work as an architect, has prepared a book on rendering, this book has just been published under the title, "Architectural Rendering in Wash," by Charles Scribner's Sons, New York, at Five Dollars. The treatment of the subject is thorough and simple enough to be a guide to the novice and contains also a wealth of suggestions of value to the experienced renderer. The excellent illustrations are from work by Otto R. Eggers, Birch Burdette Long, Jules Guerin, Ernest Peixotto, Paul Philippe Cret, and others as well as the author.



**LOS ANGELES  
ARCHITECTURAL  
CLUB.**

MONTHLY DINNER  
AT  
RECTOR'S CAFE  
215 1/2 WEST 4<sup>TH</sup> ST.  
6-15 P.M. OCT-7-21

THIS IS NOT A BUSINESS MEETING, BUT WILL  
AN EVENING OF PLEASURE AND ENTERTAINMENT.

~SPEAKER~  
~MR. MYRON HUNT, ARCHITECT~  
~ILLUSTRATED LECTURE~

BRING A PROSPECTIVE MEMBER

PLEASE RETURN THIS LOWER BLANK TO THE SECRETARY  
LOS ANGELES ARCHITECTURAL CLUB-227 SO. SPRING ST.  
PROPERLY SIGNED

I WILL BE PRESENT AT THE MEETING  
FRIDAY OCT-7-1921

WILL NOT BE

DINNER \$1.50      SIGNED \_\_\_\_\_

Above is reproduced the announcement of a recent monthly dinner held by the Los Angeles Architectural Club. The announcement was a blue print, 7 3/4 x 11 3/4 in.



## PERSONALS



OTTO F. LANGMANN.

OTTO F. LANGMANN, one of whose pencil sketches is reproduced on a plate page in this issue was born in New York City and there took the regular course of schooling with no special attention to drawing. Mr. Langmann graduated from Harvard College in 1906, having taken two years of study in architecture with the attendant courses in drawing and life drawing. He then entered the School of Architecture at Columbia University and took two years in design, receiving the degree in architecture in 1909. Since that time Mr. Langmann has been connected with various New York architectural offices, excepting the fourteen months spent abroad in 1911 and 1912. It is to the practice of sketching, of which he did a great deal while abroad, that Mr. Langmann attributes his present technique. As he feels that constant sketching is necessary to maintain as well as to develop the ability to sketch, Mr. Langmann is in the habit of spending much of his free time sketching in and around New York.

### ADDITION TO THE STAFF OF PENCIL POINTS.

MR. RAY D. FINEL, for the past eight years in charge of the advertising department of *The Journal of the American Institute of Architects*, has joined the PENCIL POINTS' organization as advertising manager, his duties to begin on or before December 1. Mr. Finel brings to this important department of our journal a mature experience in bringing together to their mutual advantage those who buy and those who sell in our field.

We want the readers of PENCIL POINTS to take an active interest in our advertising section. It is our purpose to develop this, not for revenue only, but as a helpful and valuable news feature for the field. What the representative manufacturers have to say is of great importance and it will be our object to present these informative sales messages in the best possible form for your use.

Suggestions for the improvement of any of our advertisements will be received with interest and will be carefully considered.

H. I. FELDMAN, Architect, has opened new offices at 17 West 42nd Street, New York City, where he has increased facilities for conducting his work. Mr. Feldman received his training at the School of Architecture of Yale University and has been connected with the offices of important New York architects.

GRATTAN D. THOMPSON, Architect, has opened an office at 304 University Street, Montreal, Canada.

WALLACE KNIGHT, Architect, has removed his office from the Solof Building to Rooms 5-6, Oberlan Building, Quarrier Street, Charleston, West Virginia.

### RENDERED PLANS AND RECORD DRAWINGS.

(Continued from page 20)

character of building, may be observed in the presentation of the competitive designs for the *Grand Prix de Rome*. Thus, it will be noted that (Figure 8) the design for a School of Fine Arts by M. Paul Bigot, is the same in principle of rendering as Mr. Guilbert's basement plan of the *Monument Commemoratif* (Figure 4) in that the Monumental or Public Spaces are shown by elaborate decoration while the working space is indicated lightly by the arrangement of furniture. In Fig. 9 by M. Tony Garnier the utilitarian aspect is kept uppermost by the busy-looking arrangement of furniture. The indication of highly ornamental ceilings to suggest the *grandiose* character of the reception rooms in a Palace for the Entertainment of Sovereigns of Europe (Figure, 10 page 11) is employed by M. Bigot suggesting the kind of rendering suitable to the presentation of a plan for any building such as a modern club or hotel, requiring elaborately decorated rooms. More to the point of our familiar American problems are renderings such as Mr. Henri Tazin's *projet* for a "College of France" (Figure 11). This is somewhat old fashioned in that it indicates the old solid masonry construction still most approved at Paris—and depends for its effectiveness mainly upon the *poché* of the walls and relation of open spaces to the side of buildings. It may be noted that the heaviest walls surround the largest rooms, and highest parts, and their diminishing thicknesses indicate the smaller and more subservient parts. A fine, simple decorative effect is achieved by emphasizing the main circulation around and between the buildings, while a strong point is made by a narrow border of grass surrounding the site.

The theories of rendering employed by the Paris students are applicable in America to competition drawings only and even when so employed it is desirable to know who will be on the jury if the competitor would avoid groundless prejudice.

Record drawings, however, are growing to be demanded by many of our large corporation which are growing to understand the necessity of keeping complete intelligible plans. In France such policy has long been pursued and no change or repair to the building is permitted without reference to such plans which are kept at the office of the architect who originally designed the building. The final record drawings show every detail in plan elevation and section. Even to the accurate setting out of the marble squares of floors and the tiles or paving blocks of courtyards. No more than the actual number of such tiles, necessary to make a given repair to a pipe, or run an additional line, is removed when such occasion arises. The illustrations of M. Guilbert's plans of the *Monument Commemoratif* reproduce such plans for the small structure; but as an example of the same method applied to a very large group of buildings nothing more complete could be produced than Mr. Henri Nénot's drawings, rendered in only the actual and accurate lines required to show the executed work of the Sorbonne at Paris. (Figure 12).



## PENCIL POINTS

### THE AMERICAN ACADEMY IN ROME.

FROM a letter received recently by C. Grant La Farge, Secretary of The American Academy in Rome from the Acting Director, Frank P. Fairbanks, we quote the following:

"Activities at the Academy would seem to be at their lowest ebb during the summer month of August and as far as the number of Fellows in residence is concerned, this is true. But it is a month nevertheless when daily visitors from America take occasion to look us over and find out what is being done on our part toward the possible improvement of Fine Arts, and Classical Studies at home.

"Mr. James C. Bondeau, Director of Art in the Public Schools of Pittsburgh was an early visitor to the Gianicolo as well as Mr. William A. Barber of New York City.

"Charles Henry Meltzer, correspondent of a number of our leading periodicals at home made us an extended visit and displayed a particular interest in the fact that we were establishing a musical department. He is keenly interested in creating a National Conservatory of Music in America and should prove an able advisor in our own musical activities.

"Capt. R. W. Hemphill, Jr., a contributor to the University of Michigan fund, requested the privilege of a visit to us which we took considerable pleasure in granting.

"Just before sailing for New York, Professor Lamond in charge of the new musical department at the Academy, came down to us from the north of Italy where he had spent an arduous week in Milan studying the musical activities of that center. The unusual wave of heat that seemed to be universally prevalent during the early part of the month that scorched all Italy as well as other countries overwhelmed a great many travellers and Professor Lamond was required to take refuge from it in the mountains after a slight prostration.

"Professor Whicher, who is to take charge of the Classical School for next year, and Professor McCrea, the Annual appointee for the same school, after a two weeks' sojourn in Sorrento, arrived in Rome and were provided with temporary quarters. Prof. and Mrs. McDaniel assisted in welcoming the new faculty and in making them acquainted with their new environment.

"Fourteen days later Professor and Mrs. McDaniel left for Naples on their way to America after having made one of the most valuable and delightful contributions to the life of the Academy during the last Academic year.

"Professor Van Buren returned a short while ago from Oxford where he had in the course of a short vacation from the Academy participated as a lecturer at the International Convention of Archaeologists held at that venerable seat of learning.

"Messrs. Rice and Leon of the Classical School were also in attendance at the convention. The former has since returned to America while the latter is extending his travels before returning to the Academy for next year.

"Of our Fellows, Chillman, who has been travelling in the north of Italy making a general survey of the Architectural richness of that section, has returned to the Academy and begun to put his studio in order for his third year's work. Lascari has been occupying his time in travel but from the point of view of a painter and has likewise just returned to carry on his unfinished problems and attack some new ones. Smith is engaged in developing the temple of Zeus at Olympia. He has been making an exhaustive study of all the information obtainable and has arrived at one or two important conclusions that are likely to supersede long established data on this restoration. Jones has completed his study of the modelled surfaces of one of the ceilings of the Borgia Apartment in the Vatican, which is so redolent of Pinturicchio's best, and Ciampaglia in his chosen field has made a careful study of its color. Ciampaglia, by the way, has completed his required work and has started on his travels in the north. Jones treated us to a scare a few days ago by having an attack of appendicitis that required the attendance of Rome's leading surgeon, Dr. Bastianelli. Fortunately the attack subsided without the necessity of an operation. Cecere is progressing on his first year figure in the round, and promises a

very successful attainment. Griswold, our landscape man, has been occupied with studying Villa Gardens and has in conjunction with Prof. Davis, instructor in Landscape Architecture in that department in Cornell, made a complete sketch plan of the Villa Babbiamella. Griswold has also plotted work as he has taken measurements, for a comprehensive study of another interesting garden in the Villa Cicogna. In this work he was fortunate in having for a few days the assistance of Chillman. In the Classical School, Mr. Bryan carries the burden of representing that department. He alone is keeping the Archaeological end from complete obliteration. He is busily engaged in tabulating his notes on Etruscan mortuary urns.

"The visiting students are mostly travelling. Knowlton, of the Harvard Architectural School, has returned and is devoting his entire time to producing a thesis of some length on the Cathedrals of Apulia, for his University. Oxhandler, McKim Fellow of Columbia, has been active measuring the Massimi Palace. J. R. Lautenback on the Le Brun Traveling Scholarship, has just registered as a visiting student.

"During the past month we have received visits from students in Architecture, painting and sculpture, representing the University of Pennsylvania, Art Students League of New York, Chicago Art Institute, Pratt Institute of Brooklyn, Cooper Union, Massachusetts Institute of Technology, Harvard, Yale and Oxford.

"From the Classical School in Athens we have received two men into residence, L. B. Holland, Architect, on an Archaeological Institute Fellowship, and B. D. Meritt on a similar fellowship.

"Director Stevens left for a much needed vacation on the tenth of the month and returns the middle of September."

### THE ARCHITECTURAL ALLIANCE, NEW YORK.

THE Architectural Alliance, an organization of draftsmen, that came into existence about eight months ago and has made a sound growth; held a dinner and business meeting at the Lion d'Or on October 19th. This was one of the regular bi-weekly get-together occasions of the organization, and it was well attended. An attractive menu card was designed for the occasion by George A. Flannagan. The foundation of the Architectural Alliance is the belief that men having the same aims and engaged in the same work should have a centre for their interests. The object of the organization is the educational, social and economic advancement of all architectural draftsmen.

Men in other professional work in New York City have almost, without exception, club houses at which their interests centre. This fact has led the Architectural Alliance to feel that the first object to be accomplished, after obtaining sufficient members, is to provide a suitable club house for the organization. This matter was discussed at the meeting on October 19th, and a plan was put in operation to bring about the realization of the hopes of the members in this direction before many months have passed.

The growth in membership has been sound rather than be rapid, owing to the method by which new members are obtained, namely, by personal invitation. The object in this method is to bring in only men who are earnest and genuinely interested in making a successful and thoroughly helpful club on constructive lines.

The constitution of the Alliance provides that all powers of action rest solely in the vote of the members, so that its accomplishments shall be the result of the popular will. The executive power is vested in a board of governors whose duty is to carry out the vote of the organization.

The aims of the club as stated at the recent meeting, are entirely constructive. The Architectural Alliance may be expected to do much, not only in the way of providing pleasant informal gatherings for its members, and a program of lectures and other features that will afford opportunities for further development, but as time goes on the development of the excellent plan outlined should be a benefit to the entire architectural profession of this city.



# QUERIES

In this department PENCIL POINTS will endeavor to answer questions of general interest pertaining to Architecture and allied arts, giving the best available information from authoritative sources. We desire that you feel free at all times to make use of this service, inviting your co-operation in making the department both interesting and valuable. Should you desire an answer by mail, enclose stamp for reply. Address queries to The Editor, PENCIL POINTS, Metropolitan Tower, New York City.

**Question**—Will you kindly inform me of publications, books, magazines, etc., dealing with Modern Public Libraries? I am especially interested in libraries for a town of about seventy-five thousand inhabitants. E. B. C.

**Answer**—We would refer you to the *Library Journal*, a periodical published at 65 West 45th Street, New York City, also to the following magazine articles: "The Modern Public Library," by Hamilton Bell in *Appleton's Magazine*, Vol. 7, pages 515-516, New York, 1906; "The Public Library, Its Use to the Municipality," by John Billings, in the *Library Journal*, Vol. 28, pages 293-294; "The Reference Library in Small Towns," by Herbert Walker in the *Library Association Record*, Vol. 4, pages 327-332, London, 1902. We suggest the following books: "How to Start a Public Library," by Nebraska Public Library Commission, November 1902, Lincoln, Neb.; "Library Essays," papers relating to the work of public libraries, by H. L. Bostwick, published by The H. W. Wilson Company, New York, 1902. "The Development of a Public Library," published by the F. J. Heering Printing Company, 10 p., Ohio Library Commission, Columbus, Ohio.

**Question**—I am greatly interested in the newest ideas on Tuberculosis Hospital and Sanatorium construction. Will you please tell me where I can secure further information on this subject? J. E. M. **Answer**—A very helpful article on this subject appeared in the issue of the *Architectural Review* for January, 1921. This issue is out of print but can be found in many public libraries. The National Tuberculosis Association, 370 Seventh Avenue, New York City, has a very complete collection of literature, drawings, photographs, and other data on the subject of tuberculosis sanatoria, etc. They also maintain an advisory service which is free to architects.

**Question**—Can you give me a list of the states which have laws governing the registration and practice of architects, similar to the Florida law? W. W. W. **Answer**—We would refer you to the National Council of Architectural Registration Boards, 3230 W. Monroe Street, Chicago, Ill., for authoritative information on this matter.

**Question**—Can you inform me through "Queries" column if there is published an English translation of Guadet's "Elément et Théorie de l'Architecture," and if so who are the publishers? G. M. S. **Answer**—There is no translation of this book in English.

**Question**—Can you inform me of some method of filing plates clipped from architectural magazines? E. B. **Answer**—We would say that in general the simplest system of classification with as few sub-divisions as possible seems desirable. Cutting down the number of plates saved to those that contain really helpful ideas simplifies the matter of caring for them. A very convenient means of filing consists of a case divided into small sections into each of which a portfolio fits. These cases are regularly manufactured and sold for this purpose. On the back of each portfolio may be placed a label, for instance, "Club Houses," "Sanatoria," "Theatres," etc., etc.

## STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

Of PENCIL POINTS, published monthly at Stamford, Conn., for October 1st, 1921.

State of New York, }  
County of New York, } ss.,

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared Ralph Reinhold, who, having been duly sworn according to law, deposes and says that he is the President of The Pencil Points Press, Inc., and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of	Post office address
Publisher, The Pencil Points Press, Inc.,	Stamford, Conn.
Editor, Eugene Clute,	One Madison Avenue, New York, N. Y.
Managing Editor, None.	
Business Manager, W. V. Montgomery,	One Madison Avenue, New York, N. Y.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent. or more of the total amount of stock.)

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5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is..... (This information is required from daily publications only.)

RALPH REINHOLD,  
President.

Sworn to and subscribed before me this tenth day of October, 1921.

[SEAL.]

G. H. SYKES,  
Notary Public.

My commission expires Nov. 30, 1921.



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# THE SPECIFICATION DESK

## *A Department for Specification Writers*

### PLUMBING SPECIFICATIONS. PART II.

By WILLIAM C. TUCKER

**S**AMPLES of materials which it is proposed to use, must be furnished the architect by the contractor at the inception of the work and they must be clearly tagged. All rubbish and refuse from the plumbing must be collected and removed periodically, by the general contractor, if the project is large, and by the plumber if the project is small.

The plumber must furnish his own tools and erect his own scaffolds and supports and not use those of the other trades, unless by previous agreement. Open or unprotected fires must not be allowed upon the premises. No signs advertising the various makes of material or apparatus to be used upon the job will be allowed.

Care must be exercised that there shall be no overloading of the building from the storage of plumbing material, and that this material shall occupy an allotted, limited space.

#### *Work of Other Trades*

The plumber should connect properly all apparatus, machinery, fixtures, etc., which may belong to other trades, but need plumbing service. The work of other trades included in the plumbing should be given to representatives of the proper trades employed upon the job, but the plumber should furnish the apparatus or materials which are to be set under his direction, and for which he shall be responsible both as regards operation and standard of material. This method tends to secure harmony and expeditious work. Such work includes the following: masonry for sumps, manholes, trenches, foundations for pumps, and tanks, all cutting and patching, marble and tile work for water closet stalls, showers, urinal partitions, steel supports for tanks, carpenter work, wiring for electrical apparatus, steam connections and ventilation; flashings for pipes piercing roofs, and walls; waterproofing where work may be disturbed, covers for trenches, and manholes and such other work as may logically belong to other trades.

#### *Temporary Water Supply*

A temporary water supply for the various trades employed upon the job must be provided by the plumber. From street main must be run a valved supply to pump, which is usually supplied by other contractor, from which must be extended mains, with branches and hose-cock to outside work, and from which must be taken a riser which shall extend up through building. From riser at each story shall be taken  $\frac{3}{4}$  in branch with hose-cock of same size discharging over barrel supplied by other contractor. The plumber shall be responsible for up-keep and shall make all repairs and changes. All work shall be insulated against freezing. Upon completion of the building this work shall be removed by the plumber.

#### *Temporary Drainage*

Temporary drainage which shall connect with permanent drain to street sewer and, toilet facilities shall be provided by the plumber, who shall be responsible for up-keep and repair, and general sanitary conditions. In basement shall be provided a range of workmen's water closets with drainage and water supply complete. Upon upper stories similar facilities shall be provided where directed and size of the work may determine. These shall be moved and relocated as the work progresses. From barrels, over which hose-cocks discharge, shall be taken short branches connecting with waste line, which shall drop to basement and connect with drain to sewer.

#### *Pipe*

The pipe for the plumbing work will vary according to its special use, and cost, and its choice is largely governed by the local regulations and expediency. All drainage work buried in the earth should be "extra heavy" cast-iron soil pipe, with regulation fittings.

The drainage work extending within the building may be of "extra heavy" cast-iron pipe with regulation fittings or galvanized steel or wrought iron pipe with threaded ends, and heavy galvanized threaded cast or malleable iron drainage fittings. Brass pipe, iron pipe size, having threaded ends, and heavy cast brass threaded drainage fittings, is ideal for this purpose but its use is most limited, on account of its cost.

The leader and fire stand pipe systems are frequently of galvanized steel pipe with galvanized water fittings, "extra heavy" cast-iron soil pipe and regulation fittings may be used for the leader work where cost has to be considered.

The vent system, with branches and risers for trap ventilation, is frequently of galvanized steel pipe, with galvanized water fittings, but "extra heavy" cast-iron soil pipe with regulation fittings is largely used; its cost is less but the cost of installation is more.

Lead pipe is used for the short branches connecting plumbing fixtures with supply risers, to compensate for the contraction or expansion of the iron supply pipe which might injure the marble or tile work, or the fixture itself.

Earthenware drain pipe should not be used within the building, and preferably not for outside work within the city. It is easily injured in handling and installation. It is most generally employed in the country for outside use.

#### *Joints*

Joints of cast-iron drainage pipe are made with picked oakum well calked and 12 ounces of fine, soft molten pig lead for each inch of diameter of pipe, at one pour. After cooling, the joint should be calked gas tight and all projecting lead cut off flush with hub of joint.

The joints of steel, wrought-iron or brass pipe shall be tapered screw joints, made up with red lead and linseed oil. Lamp wick should not be allowed.

Joints between cast-iron and wrought-iron or steel pipe, shall be made by calking the end of the wrought iron or steel pipe upon which has been screwed a one-half inch ring to act as spigot, into hub of cast-iron pipe.

Joints of lead pipe and between lead and brass pipe shall be round wiped lead joints.

Joints between lead and cast-iron, and wrought-iron or steel pipe shall be made with heavy brass ferrule or soldering nipple calked or screwed into joint of cast-iron or wrought-iron or steel pipe.

Connection between earthenware trap of plumbing fixture and branch of soil riser shall be made with heavy lead bend, one end of which shall be soldered to heavy cast brass floor flange, screwed to flange of fixture, other end shall be wiped to heavy cast brass screw or calking ferrule and screwed or calked into branch soil pipe.

Ends of wrought-iron or steel pipe shall be carefully reamed before making joint to remove any burr formed in cutting.

#### *Pipe Hangers and Supports*

All vertical soil, waste, vent, leader and fire, pump, and supply risers shall be securely supported at each floor level by pipe clamps of approved design.

Hot and circulation risers shall be supported at points midway between expansion loops by special wrought-iron pipe clamp.



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Horizontal runs of pipe shall be supported at intervals of 10 feet by galvanized, malleable-iron pipe hangers of approved make. Trapeze hangers made from galvanized pipe, shall be used where several lines run parallel. Pipe hangers and clamps shall be securely attached to steel or masonry construction of building.

### PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER

*Any publication mentioned under this heading will be sent free, upon request, to readers of PENCIL POINTS by the firm issuing the publication.*

**Triumph Lock-joint Columns**—Under this title, the Triumph Column Company, Inc., issue Catalogue No. 8, which will be forwarded upon request by the Fireproof Products Co., Inc., 257 East 133d Street, New York City. This catalogue contains tables and details of value to the designer, together with plates illustrating the styles and architectural orders most frequently used, as well as photographs and references. The firm issuing this catalogue make a special feature of building their wood-stave columns to order to meet architects' requirements for each job in addition to making their standard styles—and these various branches of their work are covered in this catalogue. Size  $8\frac{1}{2} \times 11$  in., 27 pages.

**Detail Sheet**—The Bostwick Steel Lath Co., Niles, O., are issuing detail sheet of Bostwick "Truss-Loop" Metal Lath construction showing scale section through wall, floor and roof in and about stucco and plaster construction. Standard specifications, with table of safe loads are given. Size  $16\frac{1}{2} \times 21\frac{1}{2}$  in.

**Technical Pamphlet No. 8**—What concrete requires to adequately waterproof it, the natural laws with which concrete making must comply, explaining various phenomena, how uniform distribution is accomplished, proportions of Truscon waterproof paste, necessary methods and specification notes. This booklet, size  $4 \times 7$  in., containing 28 pages, is published by The Truscon Laboratories, Detroit, Mich.

**The Pergola, Album 33**—Pergolas designed to harmonize with the grounds are shown in this illustrated booklet issued by The Hartman-Sanders Company, 6 East 39th Street, New York. It gives sizes and dimensions of various pergolas, with illustrations of sun dials, tables, bird fountains, and other garden ornaments. The booklet is  $7\frac{1}{2} \times 10\frac{1}{2}$  in.

**Valves and Fittings**—A manual and catalogue for the specification writer and heating man on the job, relating to valves of all sorts, describing application, working pressures, listing, dimensions of various types, threading, finish and price. Size  $4\frac{1}{4} \times 6\frac{5}{8}$  in., bound in buckram, containing 775 pages. It is published by Crane Co., 836 So. Michigan Avenue, Chicago, Ill.

**Bishopric for All Time and Clime**—Just what Bishopric is, what it does, of the old homes made new, its strength are explained in an illustrated booklet published by The Bishopric Manufacturing Co., Cincinnati, O. Scale drawings show details of floor, wall, wall-opening roof and construction use of Bishopric, with specification notes to aid construction. The booklet measures  $7\frac{1}{2} \times 10\frac{1}{2}$  in. and contains 52 pages.

**Concrete Hotels, Apartments and Office Buildings**—That constructions of concrete, with concrete exterior can, in the hands of the architectural designer, become fine apartments, theatres, hotels and office buildings, etc., is shown by a booklet published by the Portland Cement Association, 111 West Washington Street, Chicago, Ill. The economy, sanitation, safety from fire loss, waterproof and sound proof qualities, low repair and maintenance costs are noted. The booklet measures  $6 \times 9$  in., and numbers 32 pages.

**Chutes**—Booklet showing coal chutes, types of interest to the man on the job. It contains 16 pages, measures  $3\frac{1}{2} \times 6\frac{1}{4}$  in., and is published by Edwin A. Jackson & Bro., Inc., 50 Beckman Street, New York.

### ADDRESSES WANTED.

THE following is a list of those from whom we have received subscriptions for PENCIL POINTS and whose names were either improperly recorded here in the office or who have changed their addresses and neglected to notify us. In any case, they have failed to receive some of their copies of the magazine.

If your name is included, or if you recognize the name of anyone whose present address is known to you, please communicate with our circulation department:

Vito Antonelli, New York City; Phelps Barnum, New York City; Lawrence Barraud, North Pelham, New York; A. C. Boyd, New York City; Walthen Einar, New York City; Roger Garland, New York City; Harris Giddens, New York City; Randall Hoff, New York City; C. L. Jones, New York City; Charles Muller, New York City; Corbett B. O'Hara, New York City; J. V. Phelan, New York City; John J. Sheridan, New York City; Leonard B. Wamnes, New York City; S. G. Wiener, New York City; E. O. Williams, New York City; Mathias N. Delfeld, Berkeley, Calif.; James D. Alcorn, Los Angeles, Calif.; Jack Beard, Los Angeles, Calif.; Sidney R. High, Los Angeles, Calif.; Walter C. King, Los Angeles, Calif.; R. P. Adams, Sacramento, Calif.; J. G. Heath, Sacramento, Calif.; S. S. Funk, Atlanta, Ga.; G. Bruce Uthus, Champaign, Ill.; Geo. McHale, Notre Dame, Ind.; Henry J. Rusche, Notre Dame, Ind.; Theodore Sitz, Davenport, Iowa; Albert G. Benner, Des Moines, Iowa; Carl E. Woodward, New Orleans, La.; Miss M. V. J. Aiken, Baltimore, Md.; Ralph C. Bohon, Baltimore, Md.; Stanley M. Ryerson, Everett, Mass.; Henry S. Booth, Ann Arbor, Mich.; Earl H. Lundin, Ann Arbor, Mich.; St. Clair Pardee, Ann Arbor, Mich.; Brainard Wilson, Ann Arbor, Mich.; Armin A. Roemer, Detroit, Mich.; Ray Boyer, Kalamazoo, Mich.; O. G. Hinman, Minneapolis, Minn.; W. I. Munson, Minneapolis, Minn.; J. A. Haner, Kansas City, Mo.; Van A. Denison, St. Louis, Mo.; Carl C. Falknor, St. Louis, Mo.; Alfonse Delesia, Newark, N. J.; Thos. F. Regan, Newark, N. J.; S. R. Graves, Brooklyn, N. Y.; J. B. Rider, Ithaca, N. Y.; James A. Chiste, Rochester, New York; Adrien Dumas, Cleveland, Ohio; Frank C. Park, Marietta, Ohio; Fred L. Albott, Eugene, Oregon; Arnold Butler, Eugene, Oregon; Margaret Goodin, Eugene, Oregon; Roscoe D. Hemenway, Eugene, Oregon; Peter L. Jensen, Eugene, Oregon; Geo. York, Eugene, Oregon; Edward O. John Philadelphia, Penn.; C. F. Bowers, Pittsburgh, Penn.; H. L. Carter, Pittsburgh, Penn.; R. G. Kinnaird, Pittsburgh, Penn.; Jos. F. Bontimps, Woodlawn, Penn.; Geo. D. Goodwin, Providence, R. I.; W. J. Hesse, Providence, R. I.; Niels P. Larsen, Salt Lake City, Utah; Dan Cooper, University, Va.; J. H. Law, University, Va.; Joelynn Davidson, Everett, Wash.; Wm. Olson, Tacoma, Wash.; John Kaminski, Milwaukee, Wis.; Slocum Kingsbury, New York City; J. M. Straw, New York City; B. K. Kaufman, Denver, Colorado; Harry S. Voyta, Chicago, Illinois; Myrle E. Smith, South Bend, Indiana; L. R. Vernon, Boston, Mass.; A. H. Vignoles, Boston, Mass.; Vincent Van Beuren, Danvers, Mass.; H. D. Schmitz, Detroit, Mich.; Clements Nichols, St. Louis, Mo.; Geo. C. Woelker, Brooklyn, New York; Roland Schultheis, Ithaca, New York; John C. Breiby, Columbus, Ohio; John L. Gibson, Milwaukee, Wisconsin; E. R. Sobulz, Milwaukee, Wisconsin; R. G. Milne, Toronto, Canada; W. A. Kendall, Minneapolis, Minn.

### ATELIER DIEHL, HUNTINGTON, W. VA.

AN ATELIER has been organized in Huntington, West Virginia, the first in the state. It has a registration of sixteen active members. The officers of the Atelier are as follows: Patron, Richard M. Bates, Jr. graduate of the University of Pennsylvania, 1911, studied at the Ecole des Beaux Arts, Paris, 1911-14; Correspondent, Francis W. Diehl, graduate of Carnegie School of Technology, 1914; Massier, William R. Frampton, graduate of Carnegie School of Technology, 1920; Sou-Massier, George E. Trent, studied at Carnegie School of Technology, 1914-17. At the second meeting the Atelier was given the title of "Atelier Diehl." The Beaux-Arts exercises are being taken as scheduled.



## PENCIL POINTS

### ARCHITECTURAL DETAIL

(Continued from page 26)

circular saw. Some yards have a special small saw called "a jointer" for this.

If sand rubbing is done as a soft stone comes from the saws, it costs about the same as the planer finish and in many yards is not figured at a higher rate than a gang saw face. Indeed the rate used in figuring machine tooled work is only slightly higher than that for planer work provided there are 4, 6, or 8 bats to the inch.

As we said last month when reviewing machine finishes the two bat fluted work costs more because the stones have to be so cut that they will match as successive courses are built one above the other. No greater in cost than fluting are the simple hand toolings and some of the hand finishes pushed with an air hammer. Naturally, where the surface is recrossed and so covered twice, the labor and consequent expense is increased. Of the real hand finishes coarse pointed and the ordinary tooling are the cheapest while the fine pointing and work that requires going over the surface a second time are the most expensive.

Following is a table of limestone figures used at the present time by the estimator of one of the New York yards. Such figures change materially as the price of stone and labor go up or down and they would be quite different for any other locality than New York City. Therefore they are useful only in giving a comparison between the different finishes and the cost of the unfinished stone set in the wall. They are based on a surface foot of ashlar, six inches thick (alternate bonding of 4 and 8 inches) and include anchors, protection, profit, etc., the whole complete.

Gang saw finish .....	\$5.50
Planer Finish .....	5.50
Sand rubbed finish .....	5.50
Machine Tooling Finish, 4, 6, or 8 bats	5.55
Fluting Finish (2 bats) .....	5.65
Hand Chisel (Drove) finish .....	5.65
Parallel tooth chiselled finish .....	5.65
Air hammer finish .....	5.65
Coarse pointed finish .....	5.65
Tapestry finish .....	5.75
Recrossed tooth chisel finish .....	5.75
Fine pointed finish .....	5.75
Crandalled finish .....	5.75

None of the above figures includes moulded work or carving and of course ashlar of a usual surface size is understood. Projecting rustications using a greater thickness of stone would cost more as would stalactite or vermiculated bossages. Limestone is usually carved by hand with carving chisels.

The detail of St. Thomas's porch shown on page 27 (Cram, Goodhue & Ferguson, Architects) is a good illustration of the contrast of machine cut mouldings carved tracery, carved foliation and hand tooled work. In this case the planer seems to have been intentionally nicked so as to leave irregular lines on the machined facings and mouldings particularly noticeable in the shadow at the extreme right of the illustration. The nickings were evidently varied by a duplication of knives and frequent resharpening so that no two stones with similar lines come near one another. The rougher stones (left and bottom) show a random tooth chiselling, some coarse, some fine. When such work is desired it is advisable to specify that no stones that will be set in juxtaposition are to be finished by the same workman. The Vanderbilt house, Fifth Avenue and Fifty-First Street, New York, (designed by Richard Morris Hunt) is another excellent illustration of a tooth chiselled face in contrast with beautiful carving. Later on I expect to show some close-up photographs of both of these buildings; but I wish immediately to compare with the soft stone hand finishes, some of the terra cotta finishes derived from stone tooling and again some of the other textures that are expressive of terra cotta and could not be produced in stone.

On page 24 there are a number of both types. The first two are similar to soft stone tooling, one a six bat

machine tooling, the other a fine pointed or crandalled finish. Both are obtained by setting a cast of the finish in the mould. Machine tooling is so regular that all moulds may be alike. In designs that seek to reproduce the accidents of irregular hand tooling several moulds are made and sometimes these are reversed in setting. Although this may be pushed to a point where the casual observer may accept this material as stone I feel strongly that this course does not develop the best possibilities of terra cotta.

The third example shows a pressed surface in which the wavy lines could not readily be carried out in stone. This would doubtless have been more attractive if the work had been done by hand on each piece of terra cotta. The latter method is often used and is called a "drag" finish.

The other finishes shown on pages 24 and 25 are of quite a different type. 4, 5, 6, 7 and 8 are the mottled, unglazed, sometimes called "standard" finish, 5 having sand in it and 9 a crinkly surface besides the mottling. 10, 11 and 12 are enameled or glazed finishes, 12 having a lustrous glaze beside the lightly mottled effect.

The indentations of 9 are made by cast moulds, a limited number of models repeated and reversed; but on all a final surfacing matter or pigment has been sprayed and the consequent accidents offer unlimited variety. Practically all of the terra cotta firms imitate stone finishes and do it well, but all of the representatives of the firms with whom I have talked agree that the prevalence of imitative work is because it is demanded of them by the architects and that they would welcome an expansion of characteristic design.

I cannot understand why a regular geometrical design such as that of the Century Club of New York page 22 (McKim, Mead & White, Architects) is not more in vogue. Developments of this might be evolved from the old Arabian and Persian tiles and geometrical diapers.

On page 26 is a detail of Madison Square Garden of New York (McKim, Mead & White, Architects). Here the ornament is applied to the surface in such a way that it looks like modelled work. Furthermore, excepting the small columns of the upper story, the terra cotta does not pretend to be structural. It is set in the brick as an embellishment, somewhat florid perhaps, but interesting when compared with the plain surfaces on either side. From this turn to St. Thomas's porch, page 27. Note the delicate tracery of the canopies their sharpness and vigor so characteristic of carved stone and the endless variety of the tooling. Now look again at the view of Madison Square Garden and see what modelled relief the clay affords. Instead of having to cut everything back of the surface of a block the ornament can be applied at pleasure. And terra cotta offers a most attractive possibility—color. Be it applied in unglazed (or "standard") finish, a thin slip not much more than a closing of the pores, or in the mat or glazed enamel finishes the color effects in terra cotta are practically unlimited. It may be applied as a uniform tone or with wide variations and irregularities.

So once more to the detailer my final word is to make the design intended for either stone or terra cotta expressive of the peculiarities of the material. Honesty is the best policy in art, as in other walks of life, and the limitations of each craft always become the source of its greatest beauty.

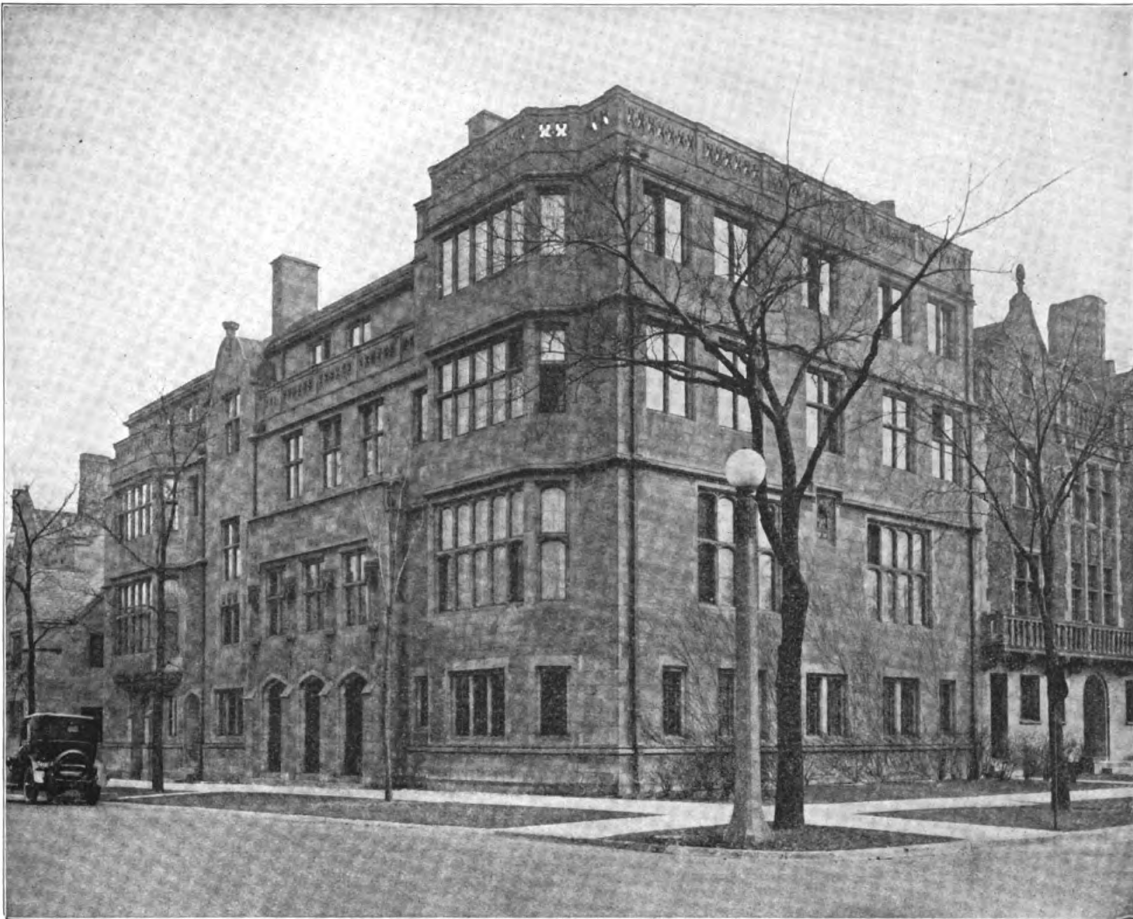
### THE STUDY OF ARCHITECTURAL DESIGN

(Continued from page 33)

the problem the esquisse should be kept in view, and a serious attempt made to develop the scheme within limits allowed by it. Figure 108 is an esquisse made by H. Van Der Lyn, Atelier Hiron—for the final problem shown in Figure 109.

Figures 110 and 111 show a solution for "A Small Hôtel de Ville" and illustrate work of the second class at the Ecole des Beaux Arts, as does Figure 112 for a "Building for Consultations in a Hospital."





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Howard Shaw, Architect

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*1921*  
*Sketch Competition*

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*See Particulars on opposite page*

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A COMPETITION for prizes to the amount of Two Hundred Fifty Dollars offered by Mr. Birch Burdette Long for the best sketches submitted in accordance with the requirements below, will be conducted by the publishers of PENCIL POINTS. The competition will close at noon, November 30, 1921. The prizes will be as follows:—First prize \$100.00; Second prize \$50.00; Third prize \$25.00; Fourth prize \$15.00; and six prizes of \$10.00 each. The Jury will consist of five members, namely: Mr. Howard Greenley, President of the Architectural League of New York; Mr. Charles Z. Klauder, of Day & Klauder, Architects, Philadelphia, Pa.; Mr. Bertram Grosvenor Goodhue, Architect, New York City; Mr. Birch Burdette Long, New York City; and Mr. Eugene Clute, Editor of PENCIL POINTS, New York City.

A public exhibition of sketches selected from among those submitted, including examples of work of the prize winners, will be held in New York City shortly after the judgment.

#### *Conditions.*

The competition is open to every one excepting architects maintaining their own offices and men who derive their principal income from making renderings on other than a salary basis, i. e., professional renderers. The purpose of the donor of the prize is to stimulate an interest in sketching, particularly on the part of draftsmen and students. The judges are to have the right to refuse to consider any entry which they deem not in accordance with the spirit of this competition. A competitor may submit any number of sketches. The work must be entirely free-hand and sketched from the objects, not imaginary subjects or proposed buildings or treatments. The subjects must be architectural in the sense that architecture must predominate. The sketches may show the exterior of a building or buildings with or without a landscape setting, interiors with or without furnishings, or exterior or interior architectural detail alone. The sketches may be in any medium,—pencil, pen-and-ink, charcoal, water color, etc., or in any combination of mediums and on any kind of paper. The size of the sheet must not exceed 18-in. x 22-in., but it may be on any size smaller, pages from pocket sketch books for instance. Sketches may be either mounted or unmounted. All sketches submitted must have been made during the year 1921. The name and address of the competitor must be marked plainly on the back of each sketch. Sketches for entry in this competition must be securely packed, addressed "Sketch Competition, care of PENCIL POINTS, 1 Madison Avenue, New York City," and delivered at that address by mail or otherwise, before noon, November 30, 1921.

It is understood that contestants give permission for the mounting of their sketches in any way the publishers of PENCIL POINTS consider suitable for handling by the jury and for exhibition and that they also give permission for the exhibition of any sketches submitted, not only in New York City, but elsewhere, as it is the intention to send out an exhibition of these sketches to Architectural Clubs in various parts of the country.

It is also understood that the publishers of PENCIL POINTS are to have permission to reproduce any of the sketches submitted.

The judgment of sketches submitted will take place shortly after the closing date of the competition, November 30th, and the winners will be notified promptly of the award of the prizes. The names of the prize winners will also be published in the issue of PENCIL POINTS for January 1922.

The publishers of PENCIL POINTS will use care in handling and in returning the sketches, but the contestants submitting the sketches assume all risk of loss or damage to their sketches.

The judgment is to be made on the basis of the evidence of natural ability, appreciation of architectural values, sense of pictorial quality and skill of technique shown by the contestants, all these qualities being given due weight, but the architectural worth of the subject chosen will not be considered—as it is desired that those who happen to be placed where good works of architecture are not readily accessible shall have as fair an opportunity to show their ability to sketch as those who are more fortunately placed in this respect.

It is understood that all contestants agree to the above conditions, and that all decisions of the appointed jury shall be final.

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# SKETCHING AND RENDERING IN PENCIL PART XVI.

(Continued from page 8)

of the bold type are often on rather rough paper while the others are more frequently done on a smoother surface. There are architects, however, who while they wish the general effect of a rendering to be rather bold, at the same time desire greater accuracy, even in the smaller parts, than can be obtained easily on a rough textured paper. This demand has caused the introduction of a rather interesting trick, the building itself being laid out first of all in the usual way instrumentally on a good quality tracing paper and rendered quite carefully and completely with the desired attention given to the smaller details, nothing being done to the surroundings, however, at this stage. Before they are rendered the tracing paper is loosened from the board and a rather rough sheet of cardboard or paper or even of cloth is put beneath the drawing and the rendering of the entourage then done, the pencil lines on the tracing paper taking an impression of the rough surface below. Then the building itself can be touched up a bit, enough to bring it into harmony with the surroundings, and the tracing mounted on a stiff board, which, if rather rough, will add to the effect desired. This same idea can of course be utilized in the making of drawings of less pretentious subjects, as can another trick which it may be worth while to mention, though it is more frequently used in connection with color work. This trick is borrowed from the printers and consists of running finished renderings, usually done on a fairly smooth paper, through heavy machines containing rollers which are designed to press patterns onto the paper, such surfaces as eggshell, linen, crash, canvas, moire, etc., being obtainable. These surfaces may seem a bit artificial but the idea is handed on for what it is worth. Perhaps it is well as a word of caution to mention that this process often makes the paper slightly smaller, destroying the accuracy of the dimensions.

Then there is one more addition to our list of tricks, this idea having been stumbled upon quite by chance by the author, though the same thing has perhaps been done many times by others. As the muntins and meeting rails of windows, as well as other similar architectural members, are usually left white on small scale pencil drawings, considerable labor is sometimes involved in so darkening the glass or adjacent members as to leave them sharp and clean cut. It has been found that if a pencil drawing is being done on a fairly thick board, such as the illustration boards in common use, it is possible to rule these small members with a clean ruling pen or dull knife point or anything of that nature, pressing a groove into the surface for each white line desired, using care of course that the instrument employed is perfectly clean and that the lines start and stop at just the right points. Then with a little practice one can learn to pass two or three strokes of the pencil over each window, grooves and all, toning the various parts to the desired values, using a similar process wherever the grooves are employed. If the pressure is not too great and the point is rather blunt the pencil will pass over the grooves without darkening them, leaving them instead to appear as white lines. After a day or two or as soon as the paper has become damp (it may be lightly washed or sprayed with water if desired) the grooves themselves practically disappear, simply leaving the white lines. Possibly the greatest objection to this way of working is that the lines so formed sometimes seem a bit too perfect in relation to those drawn more freely with the pencil, yet on drawings at small scale enough time can frequently be saved by this method to make a knowledge of it worth having.

So much in regard to the architectural handling of large buildings. For additional suggestions see the former articles of this series, nearly all of which offer something related to our present subject. Read also Hugh Ferriss's article in the January, 1921 issue of *PENCIL POINTS* and study the numerous examples of rendering by him and by others that have appeared from time to time in the text and advertising matter and on the covers as well.

(To be Continued).

An interesting and helpful book is "The Volute in Architecture and Architectural Decoration," by Rexford Newcomb, Assistant Professor of Architectural History, University of Illinois, Urbana, Ill. It is published by the University, and the price is forty-five cents. It is known as "Bulletin No. 21, Engineering Experiment Station."



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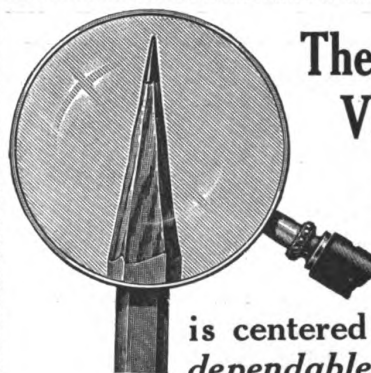
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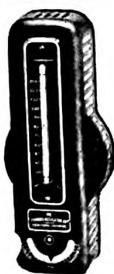
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