

PENCIL POINTS

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Number 5

THE SIXTH MILESTONE

WE HAD THOUGHT to let this Sixth Anniversary of the founding of PENCIL POINTS slide by without saying a word about it, but so much has happened during the past year that we just couldn't let this issue go to press without reviewing some of the more important developments, and somehow or other when you come to review things you are tempted to take a little peek into the future and hazard a guess or two about what is going to happen next.

So here we go. Our group of readers has continued to grow, an edition of 17,000 now being necessary to care for our subscription list and the service copies required by the advertising department. This is all most gratifying to us and constitutes the strongest and most convincing testimony we could ask for that our editorial plans as worked out have met and are meeting the approval of the field we have chosen to serve. We have, during the past year, received hundreds of letters commending our efforts, as well as some of a critical nature, and both kinds are equally welcome. The man who lets us know that he likes what we are doing shows us that in the main we are on the right track. The man who is frank enough and friendly enough to point out our shortcomings as he sees them, adds that little dash of paprika which keeps us from becoming either self-satisfied or sleepy. The last thing we want to do is to reach the state where we think we are so good that we could not be any better. As a matter of fact we have a distinct feeling that nothing we have done to date entitles us to lie back on our oars and "point with pride."

Our color plates are being approved of generally, but we do not feel that this department of our work has by any means reached its full development. Many more beautiful and valuable subjects have been chosen for publication in future issues and, as we go along, we are finding it possible to present our color subjects somewhat more successfully from a manufacturing standpoint. The range of subjects selected for future issues is also such as to broaden and enrich this branch of our work.

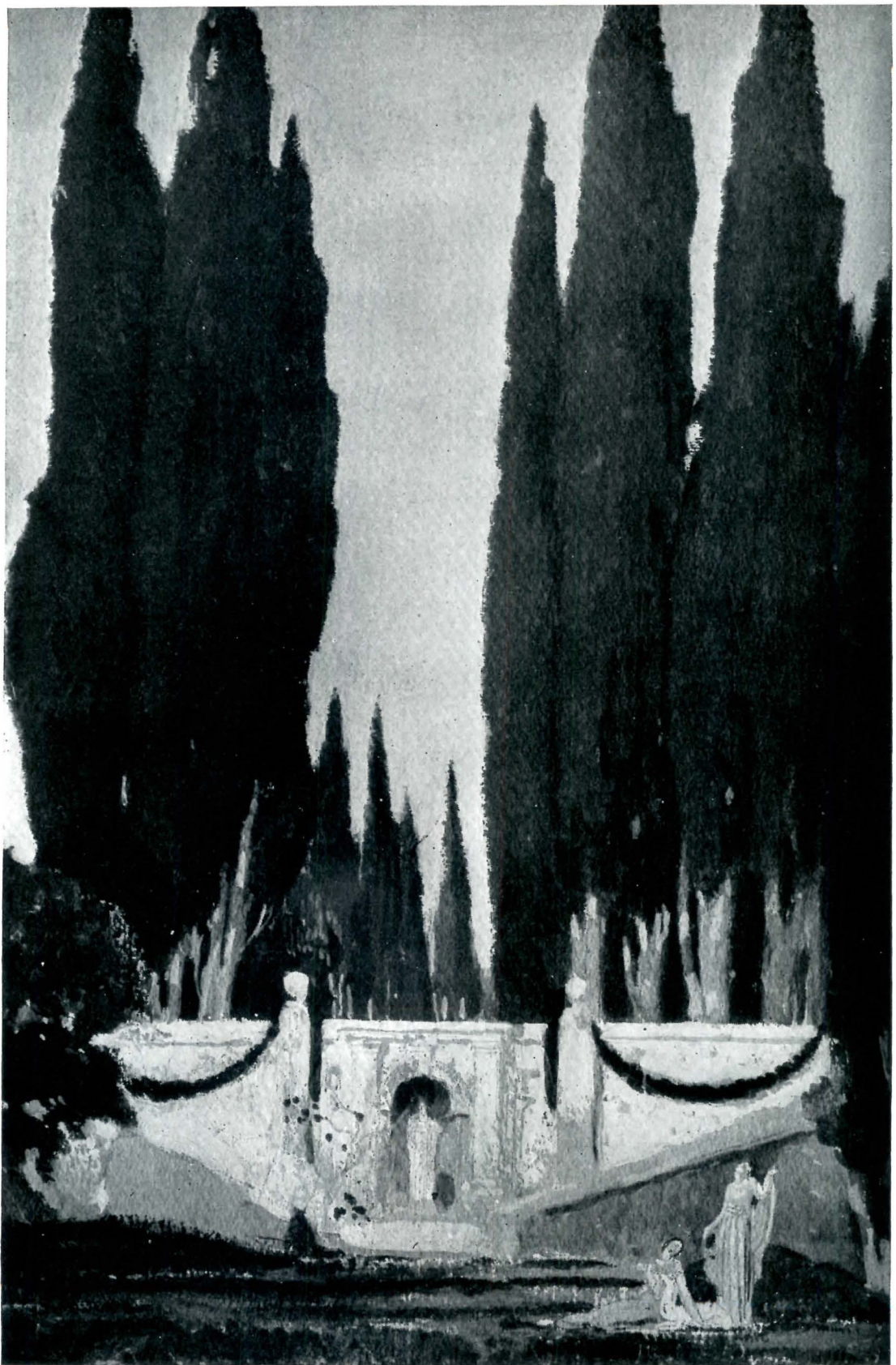
Our advertising section has shown a satisfactory growth in volume and, we believe, a decided improvement may be noted in the quality and value of the announcements published in our pages by the various manufacturers who desire to present their sales stories to the readers of PENCIL POINTS. We are constantly endeavoring to work with our advertisers to the end that what we publish for them may be of the greatest practical assistance to those who design buildings, detail their construction

and decide upon their equipment and decoration. It is getting to be more and more recognized that the manufacturer who is both willing and qualified to assist members of the profession in their problems stands the best chance, other things being equal, of having his material favorably considered for a place in the specifications. As we had occasion to say once before, we, as publishers, feel it to be one of our primary functions to act as an intermediary between those who produce all of those things required in making a building on the one hand, and those who put together in their drawings and specifications the various units required in producing and equipping these same buildings. We consider ourselves fortunate in having gained to a considerable degree the confidence of both groups. It is not our intention to publish in PENCIL POINTS any advertising which is not worthy of the full confidence of our readers, and we shall continue to endeavor to make these advertisements, as well as the separate printed matter issued by these firms, of still greater use and value to the profession as time goes on.

We have not published many books of late, but recent additions made to our Editorial Staff will permit us to offer several valuable titles during the coming year. Mr. Harbeson's splendid work, "The Study of Architectural Design," will be published late this Spring.

Selections will be made from the Piranesi plates, especially those devoted to ornament, which are not so well known, and published in the reprint series. A book by Harold D. Eberlein and Leigh French presenting the "Lesser French Palaces," both exteriors and interiors, will soon be in preparation, and other titles will be announced shortly. The PENCIL POINTS' program of presenting important material in book form at a moderate scale of prices has been so well received that both "The PENCIL POINTS Library" and "The Library of Architectural Documents" will be extended still further.

Once more we express both to our readers and to our advertisers our thanks and appreciation for the splendid cooperation they have extended to us in such generous measure. PENCIL POINTS could not have grown as it has without the great and continued interest which both groups have shown in the fundamental idea underlying this publication and in the manner in which so far this idea has been translated into actual deeds. We ask and are counting upon the continued interest and suggestions of all those who want to see PENCIL POINTS an even better journal for the drafting room than it is today.



VILLA FALCONIERI, FRASCATI, WATER COLOR BY JACQUES CARLU



"ROMA," DECORATIVE COMPOSITION, SEE DETAIL PAGE 278

FRENCH COMRADES IN AMERICA

JACQUES CARLU

By Edmund S. Campbell

A FEW YEARS AGO, at a dinner attended by forty-five Chicago architects, all present were former students of Professors L'Etang and Despradelle, the first two Frenchmen to come to this country to teach architecture. In speaking at the dinner the late Louis Sullivan said of Eugene L'Etang, "I learned from him, 'From study comes the light', and I was satisfied to have learned that much in a year."

L'Etang and Despradelle were followed by Paul Cret, Prevot, Alaux, Jean Hebrard, Gabriel Ferrand, Varon, Le Monnier, Mauxion, Grapin, Duquesne, Arnal, Albert Ferran, J. J. Haffner, to mention only the best known who have been teachers in the schools of architecture in the United States. Some of these men came in a professional capacity but remained to teach, others came here primarily as teachers. They have moulded the minds of a large percentage, if not the majority, of our school trained architects. Their influence, perhaps, has been still greater in inspiring so many of our students to cross over to the "left bank of the Seine", to see how much of the fundamental sense of plan, or decoration, and of logic could be absorbed. Our present or perhaps it would be better to say rapidly passing era of good taste may be attributed to a well-known firm of architects;—our

construction may be the result of our own initiative, but the greater part of our continued progress in architecture may be ascribed to the first few Americans who took the path to "L'Ecole" and the Frenchmen who followed them back to train and inspire students of architecture.

The latest French architect and teacher to be attracted to the opportunities in this country is Jacques Carlu, A. D. P. L. G.; Premier Grand Prix de Rome; Director in Architecture of the Fontainebleau School of Fine Arts; Professor of Advanced Design, Massachusetts Institute of Technology.



PROFESSOR JACQUES CARLU

It is not surprising to those who knew Carlu, even in his teens, that he should have attained great distinction in his profession. They saw in him an enthusiastic student full of ambition, with robust health, willing and able to work and keep up his interest in all the arts and life for twenty four hours a day. It was predicted that great honors were in store for him and so when the Premier Grand Prix in Architecture in France, certainly second only to being elected a Member of The Academy of Immortals, was awarded, the prophecy was fulfilled.

Carlu's early environment was conducive to the encouragement of his artistic genius. He lived from the time he was ten



RHEIMS CATHEDRAL AFTER BOMBARDMENT, ETCHING BY JACQUES CARLU

years old until he was twenty near Paris in the little historical town of Saint Germain-en-Laye, situated so pleasantly on the heights above the Seine and looking out over the plains to St. Denis and Paris. Between it and Paris on the winding Seine lay those charming places Marly-le-Roi, Malmaisons and Saint Cloud, all haunts and home of numerous unknown and well-known artists. In this neighborhood is situated the Chateau of Francis I in which Louis XIV was born, and which is also the birth-place of the modern musician Debussy. Many artists still live in Saint Germain-en-Laye which is filled with interesting examples of art in various forms. If you have ever walked on the promenade along the river, driven in the Forest of St. Germain, or taken the road to Versailles which lies in back, *just over the hills*, you would realize that the artistic germ should develop here if anywhere. The world renowned mural painter, Maurice Denis, lived in St. Germain during Carlu's boyhood. Carlu was fortunately his neighbor and frequently watched Denis at his work and heard him discuss his ideas which later appeared in his remarkable book entitled "Theories". Inspired by Denis' example Carlu first planned to be a painter, but finally became imbued with the idea of studying architecture. His early studies were at the Ecole des Beaux-Arts where he was a pupil first in the atelier Dusquesne and Recoura and later in the atelier Laloux.

The competitive opportunities, particularly the Grand Prix de Rome, offered by the Ecole des Beaux-Arts, were naturally of greatest interest to a

person of evident talent, in part because of the standards set for the competitions, and also because of the great opportunity open to the winner to spend three years of work and thought amid the wonderfully inspiring atmosphere of the Villa Medici in Rome. At the same time Carlu realized that there were limits to what the Ecole could offer him and he filled out his education at different opportune times by a broader contact with life, closer acquaintance with artists in all branches of the arts, and by travel in Italy, Greece, and the near Orient, Germany, England and the United States.

Those who study the early record of a young French architect of today must realize how such a record would be affected by the time necessarily spent in military service and in the World War. Carlu served seven years in the army, his military service just preceding the war. He sincerely regrets that those years could not have been used to greater artistic advantage. However, he and all other young contemporary French artists have made this sacrifice and their art as well as ours may ultimately gain.

One of the noteworthy incidents of Carlu's early career was a trip to Rumania, when he was twenty years old. He was employed by a Bucharest architect to do the competition for the "Palais du Senat." Although confident of his ability as a draftsman, he feared that if his true age were known he would not be intrusted with the preparation of this competition on his own responsibility. He therefore gave his age as thirty and only confessed the truth to the



THE ACROPOLIS AT ATHENS, PENCIL SKETCH BY JACQUES CARLU

PENCIL POINTS

architect who employed him after they had been successful in winning the competition.

His skill as a draftsman at this time was pronounced and recognized and has been further developed and disciplined by the maturity that only age and experience bring. It is truly a compensation to replace the rewards of commerce, to be able at such an age to wander in travels with sketchbook, pencil or brush in hand, to be conscious of the parti of plan, the silhouette of a dome or a minaret, of the color of the stone and of the sky.

Carlu was in the Ecole at the time when the spirit of research through constant study was especially strong. In his early years Janin and Tournon, although not of his atelier, were a strong influence as students, and like Carlu were skilled artists in decoration and painting, as well as architecture. At the same time it must be said that the expression of technique and methods of drawing were over-emphasized, so much so that Despradelle said in 1910, "the school is ever changing and rightly so, today it is a school of illustration."

Carlu was logiste for the Grand Prix in 1913 and finished the year 1913 and part of 1914 in England with City Plan Architect Mawson assisting in work for the cities of Calgary and Ottawa in Canada. In 1914 he found time to win the important Chenavard Competition, at the Ecole, and with the outbreak of the war was with the French Army in Morocco, serving later in the trenches in France. In 1918-19 he was professor in the Bellevue School, organized after the War for the artists in the American Army. 1919 competitions brought him the

Prix Roux at the Ecole and the coveted Premier Grand Prix. After the three univalled years at the French Academy in Rome, he received appointment as Director of Architecture at the Fontainebleau School of Fine Arts, the summer school for American artists conducted by the French Government.

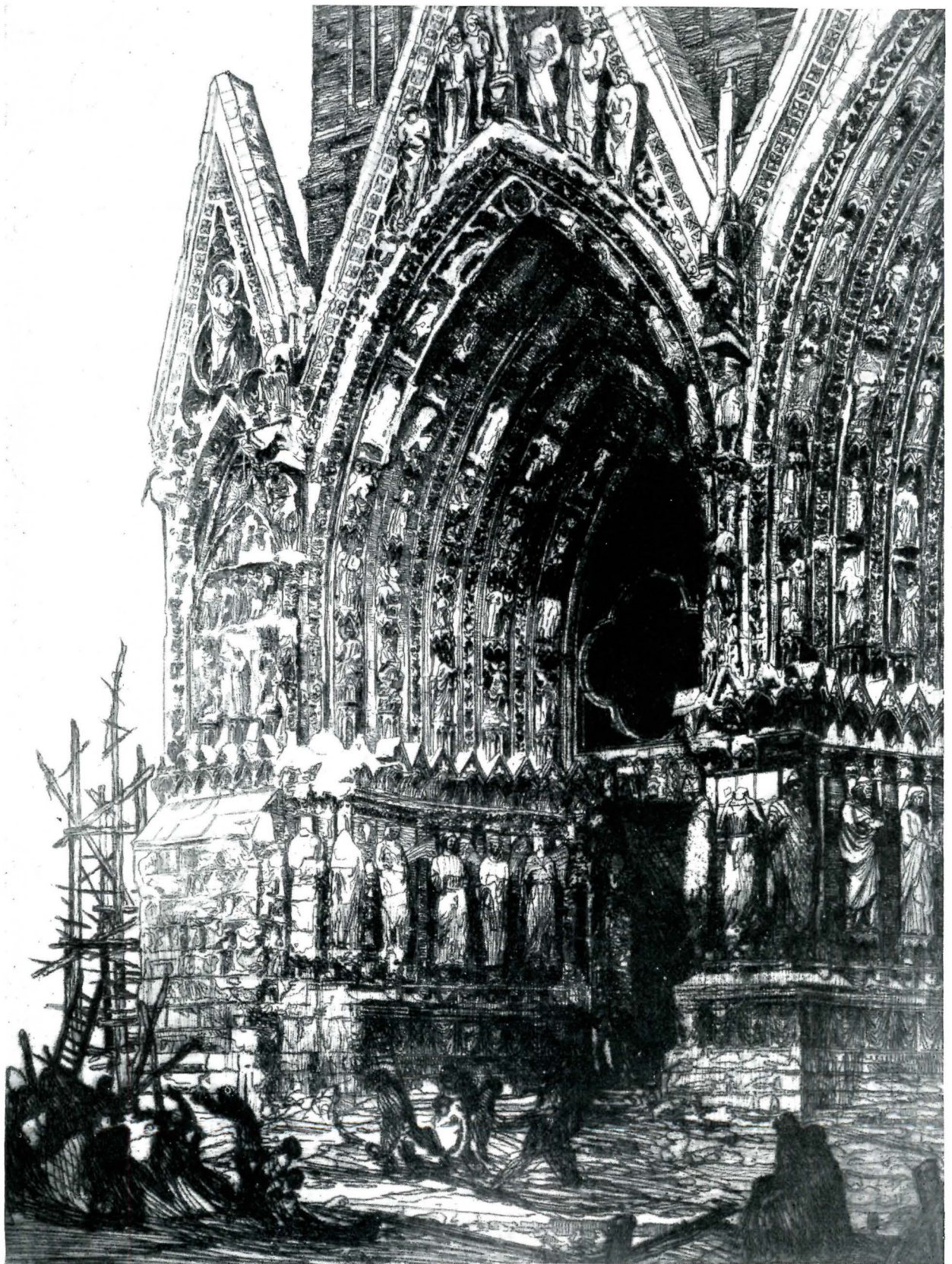
In the autumn of 1924 Carlu assumed his present position of professor at the Massachusetts Institute of Technology. During his first year there his qualities were so quickly recognized that he was appointed, together with architect Harry J. Carlson, to study and present designs to the Corporation for the treatment of the Great Court of Honor of the present Technology Buildings in Cambridge, as well as for the schemes for the future growth of the Institute's property recently purchased on the other side of Massachusetts Avenue in Cambridge. These studies are not yet released for publication.

There is no doubt that in time many other commissions for architecture will come his way as they have to our other French comrades in this country. He should also do some mural painting, of whose nature and technique he has perfect understanding.

The choice of material for the illustrations for this article has been limited mostly to scholastic drawings, paintings and studies brought over for a recent exhibition in Boston, and at the Art Institute of Chicago. A few lines regarding Carlu's own philosophy in artistic realms would add to the appreciation of these illustrations. He says, "as to my conception of architecture, I have always asked the past to teach me its lessons, trying always to find the spirit or the essential of what I am studying. Forms, like all other human creations, are perish-

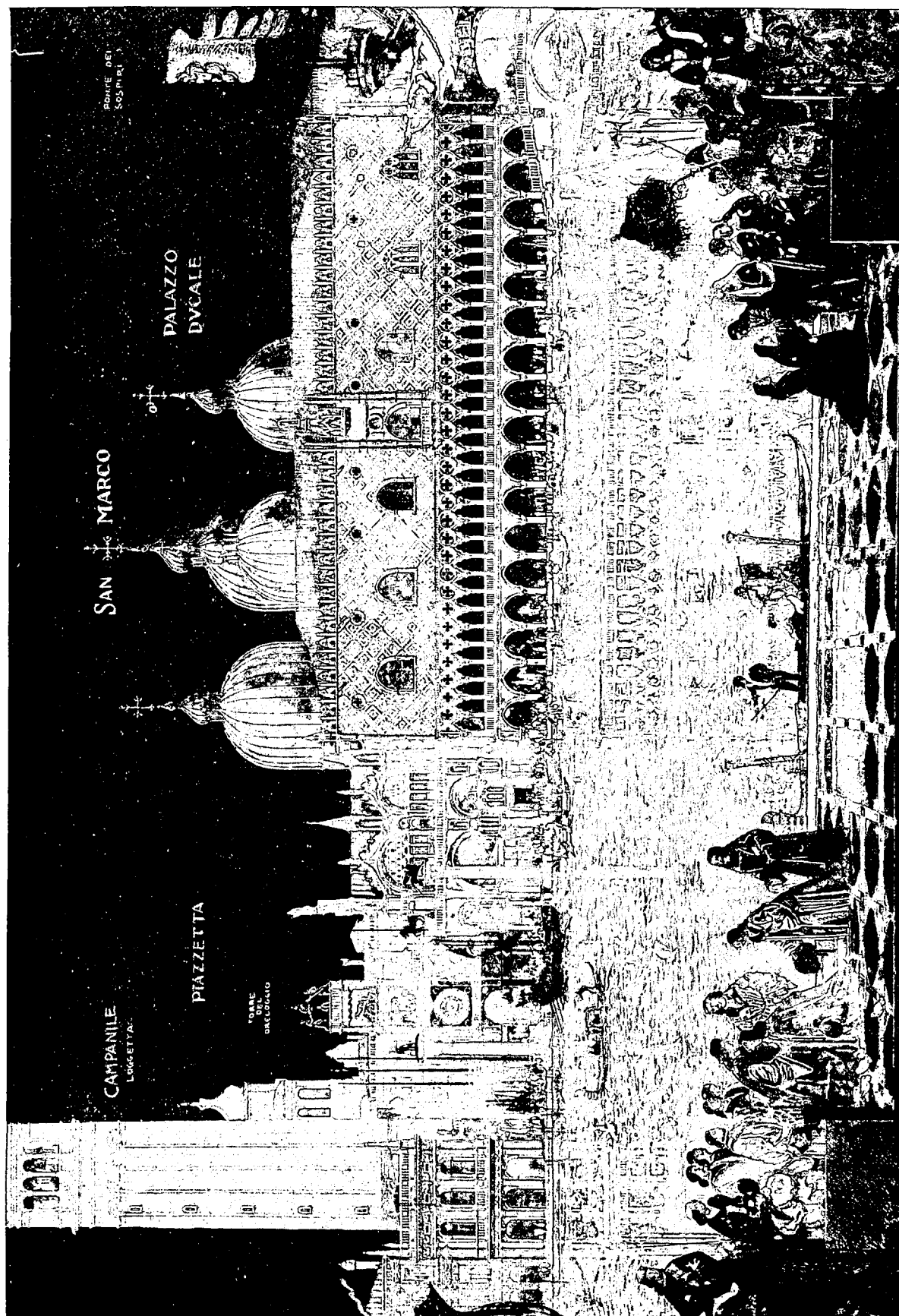


GARDEN PARTY, DECORATIVE COMPOSITION IN TEMPERA COLOR, BY JACQUES CARLU



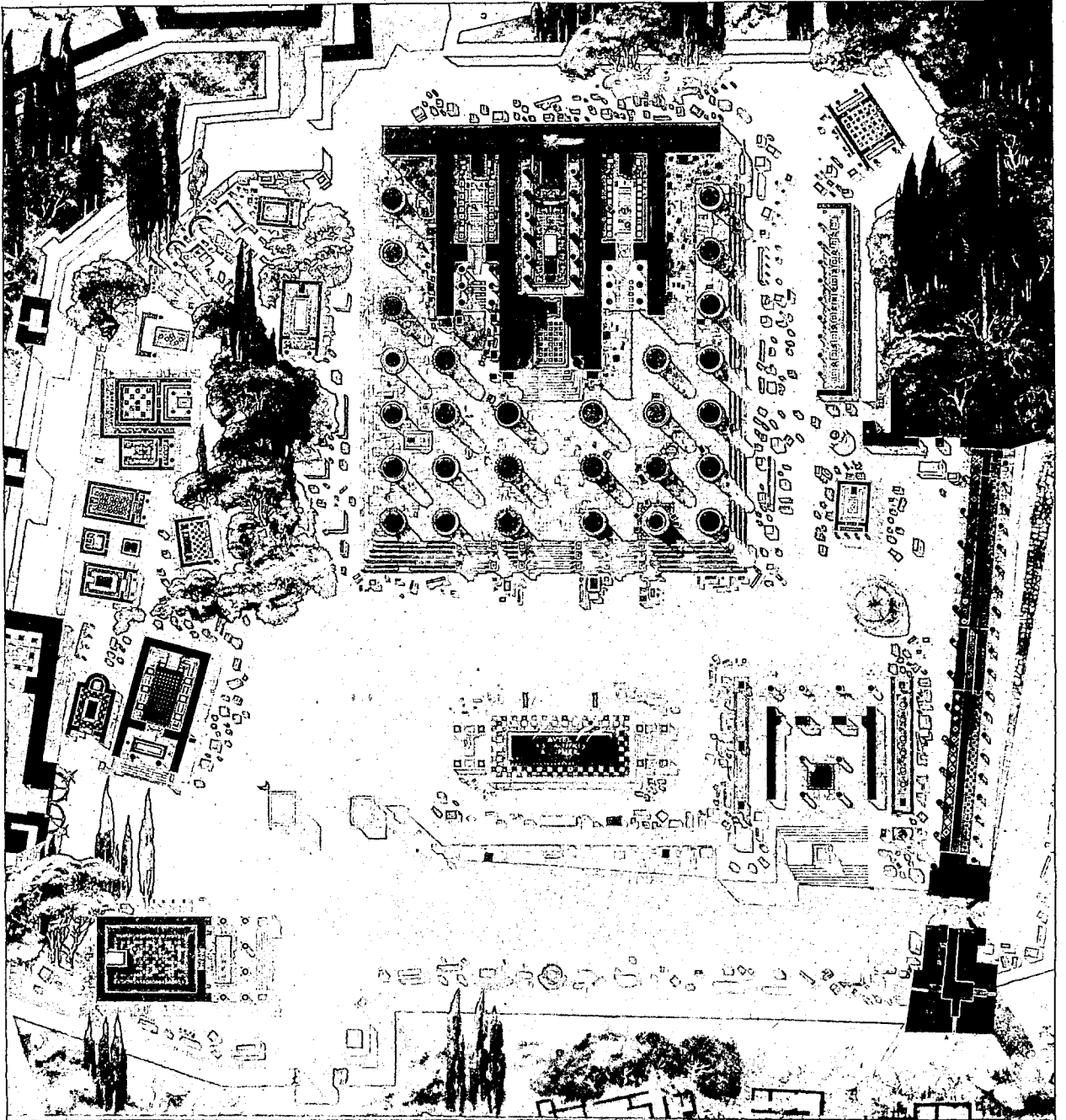
RHEIMS CATHEDRAL, NORTH DOOR AFTER BOMBARDMENT, ETCHING BY JACQUES CARLU

Size of Original 13' x 7'



"VENEZIA," PIAZZETTA AND DUCAL PALACE, BY JACQUES CARL

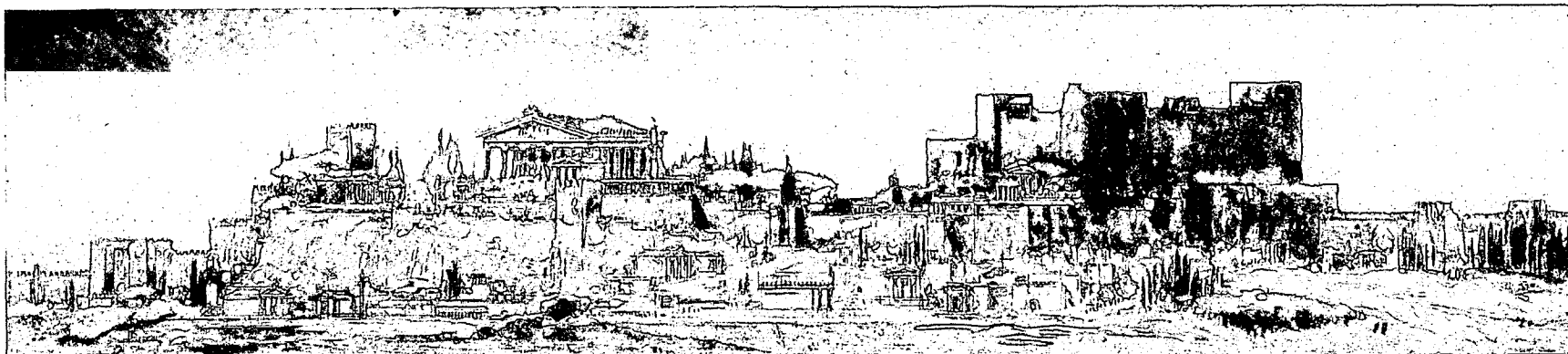
Detail at 1/8 full size



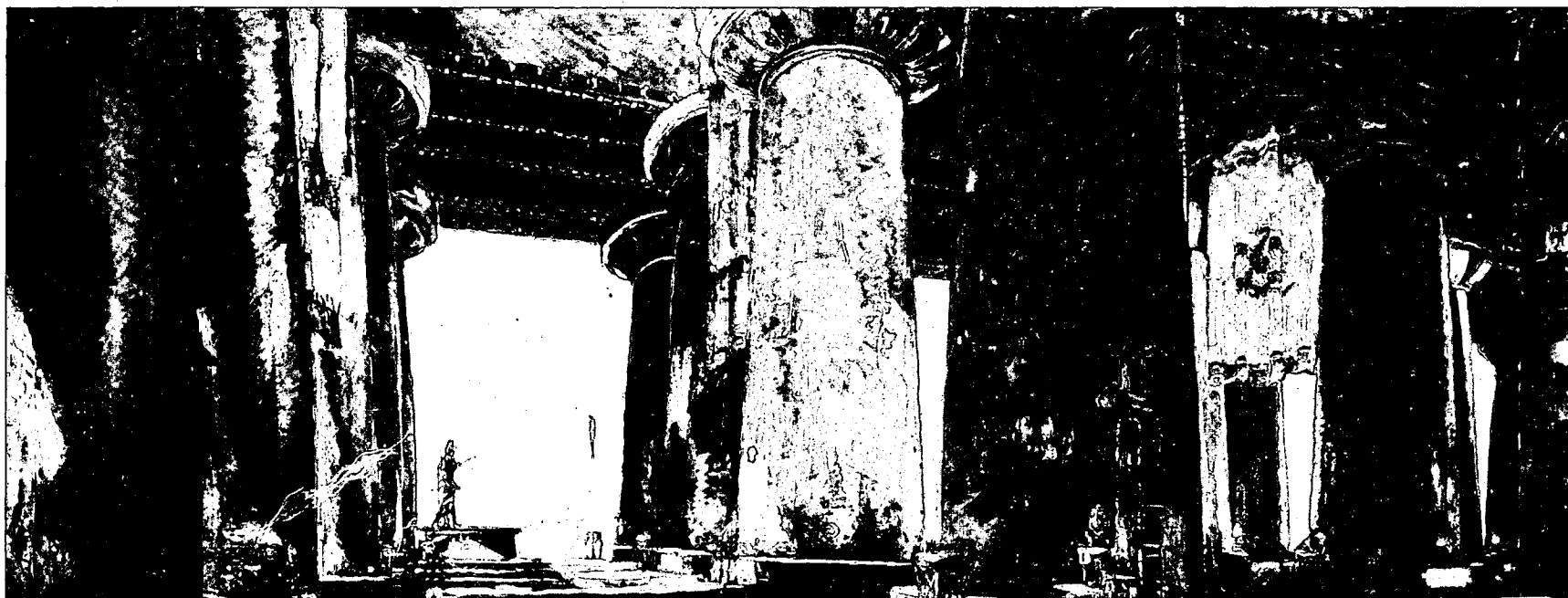
PLAN OF THE FAMOUS TEMPLE OF JUPITER CAPITOLINUS, BUILT BY TARQUINIUS SUPERBUS

Size of Original 10' x 10'

Restoration by Jacques Carlu



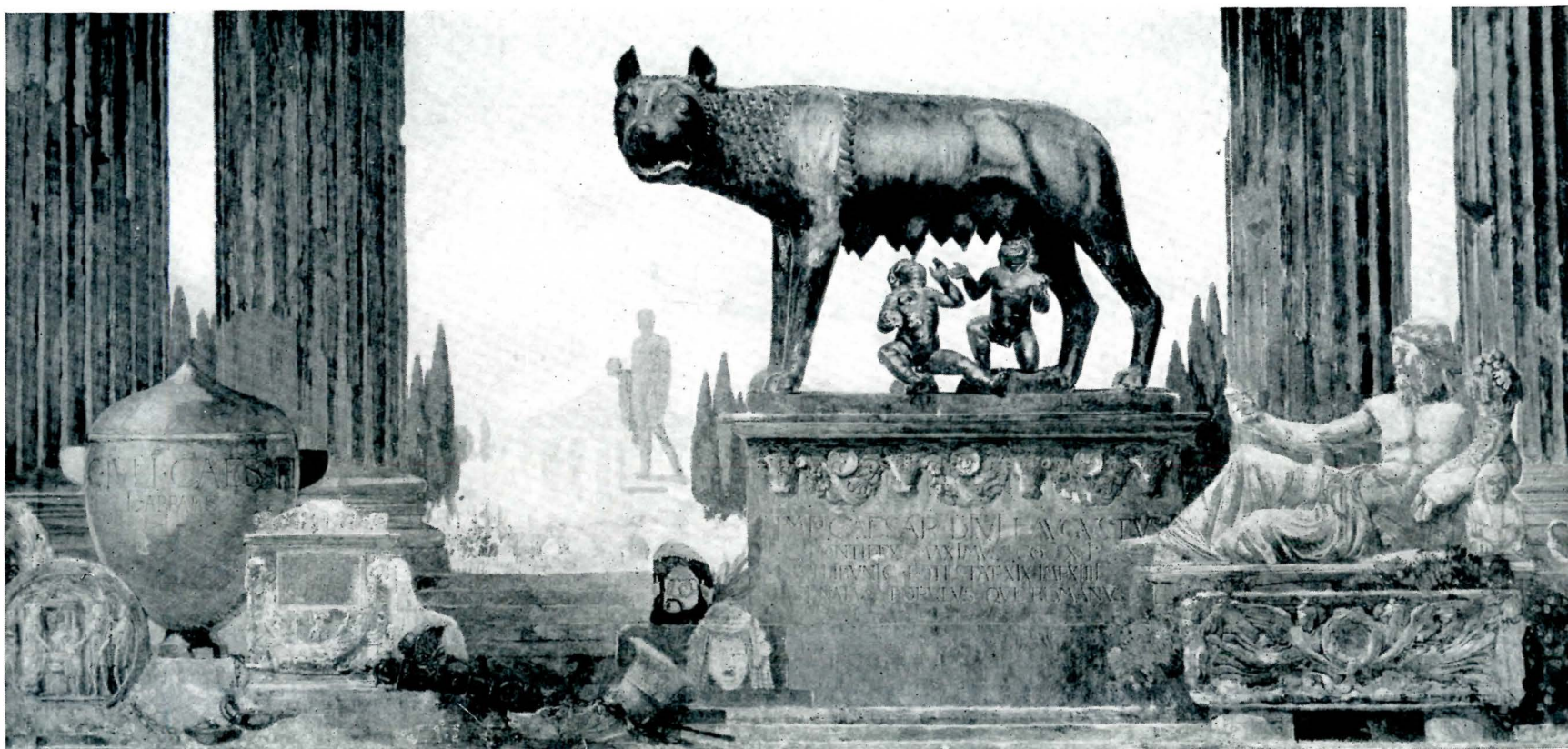
THE CAPITOLINE HILL, ENSEMBLE FROM THE FORUM, RESTORATION BY JACQUES CARLU



IN THE TEMPLE OF JUPITER CAPITOLINUS, STUDY BY JACQUES CARLU



TEMPLE OF JUPITER CAPITOLINUS, STUDY BY JACQUES CARLU

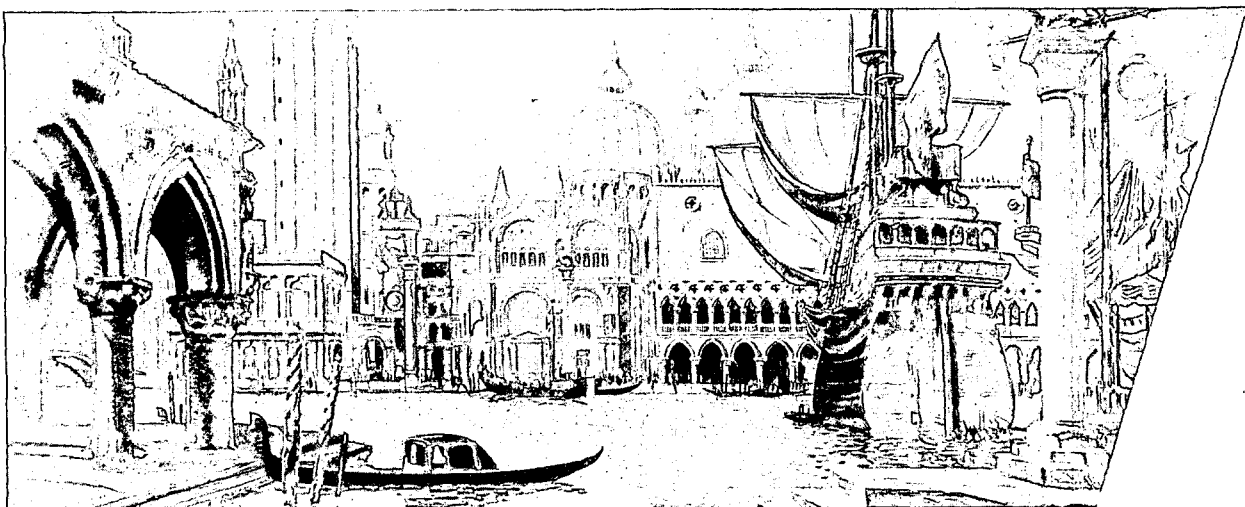


"ROMA," DETAIL OF WATER COLOR RENDERING, BY JACQUES CARLU

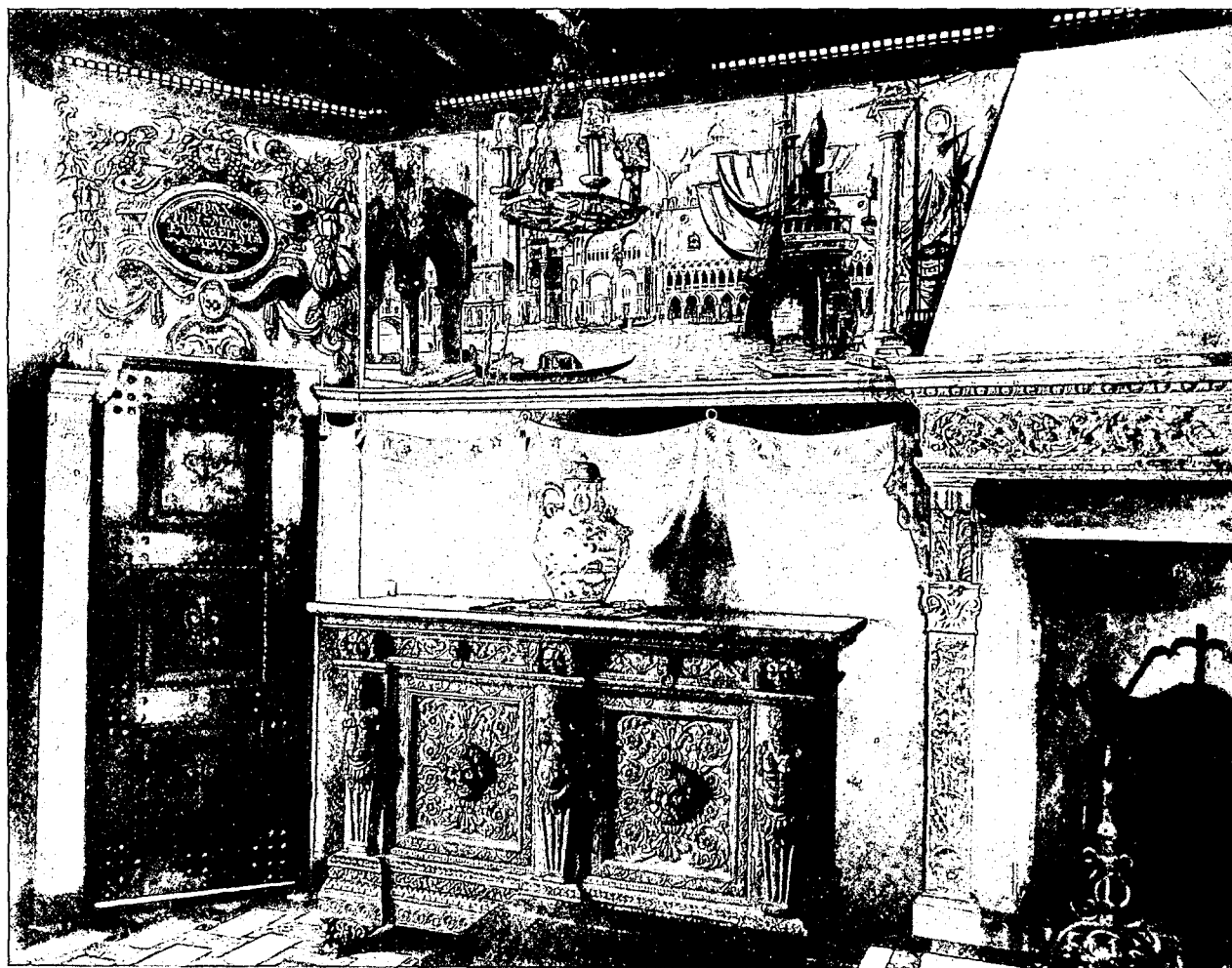
The entire decorative composition is shown on page 267



"SONG IN THE WOODS," DECORATIVE COMPOSITION IN TEMPERA COLOR, BY JACQUES CARLU



"VENEZIA," PORTION OF MURAL DECORATION FOR A HOUSE IN DALLAS, TEXAS
Painting by Jacques Carlu



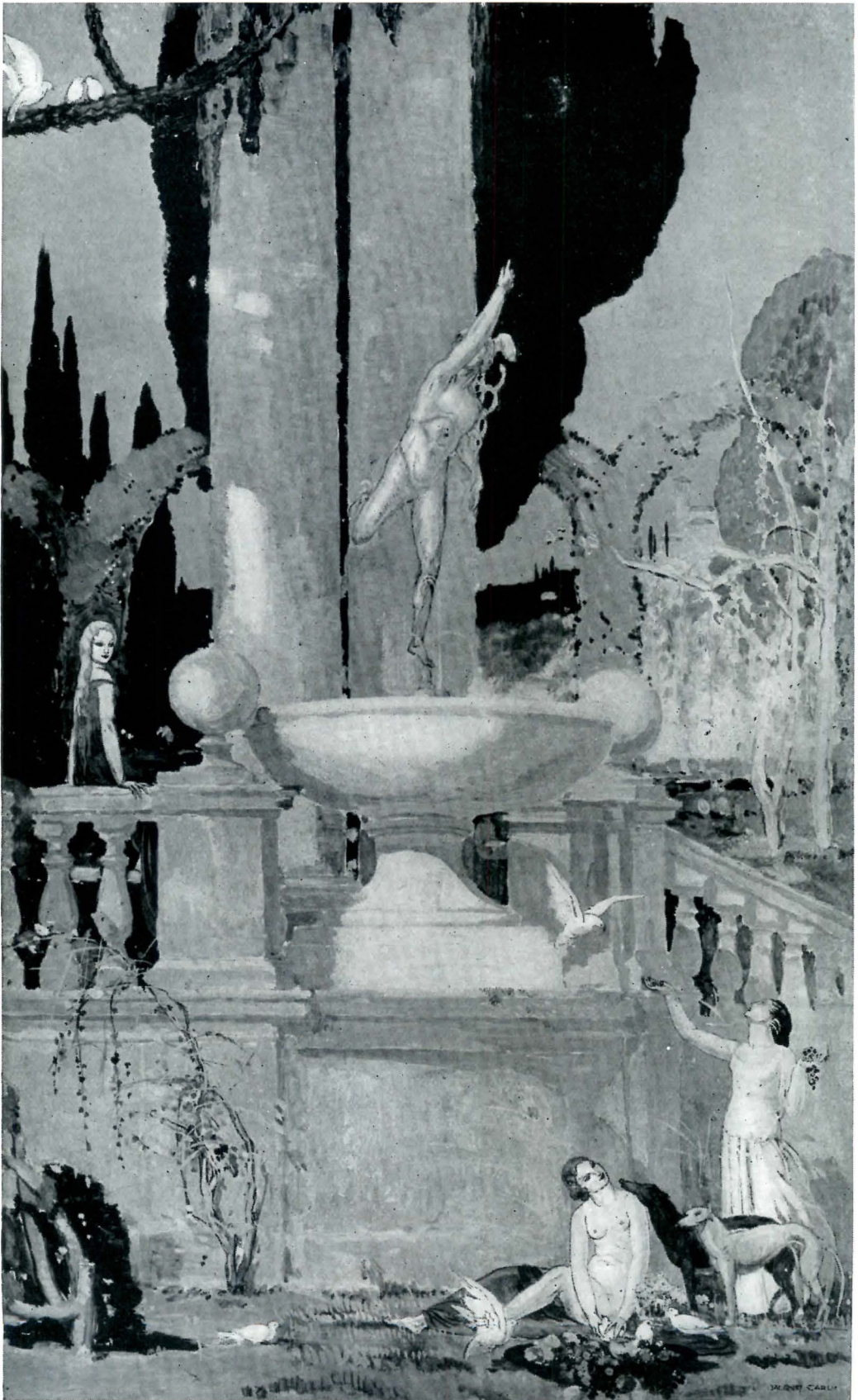
DINING ROOM DECORATED BY JACQUES CARLU, WITH MURAL PAINTING SHOWN ABOVE
Early Italian Renaissance Style



"FIRENZE," PORTION OF MURAL DECORATION FOR A HOUSE IN DALLAS, TEXAS
Painting by Jacques Carlu



DINING ROOM DECORATED BY JACQUES CARLU, SHOWING PANELS "ROMA" AND "NAPOLI"
Early Italian Renaissance Style



"MERCURY'S FOUNTAIN," DECORATIVE COMPOSITION IN TEMPERA COLOR
BY JACQUES CARLU

able, but my faith lies in an art which expresses at one and the same time all our dreams, all our desires, and all our knowledge. I believe in the ultimate success of the struggle that the modern world has undertaken toward the conquest of a new mysticism. Art does not lie in one form or another, but in a principle, in an expression of human thought, in logical method; thus there is no reason for maintaining that art which does not conform to a certain standard is not art, and that all other expressions are pure barbarism.

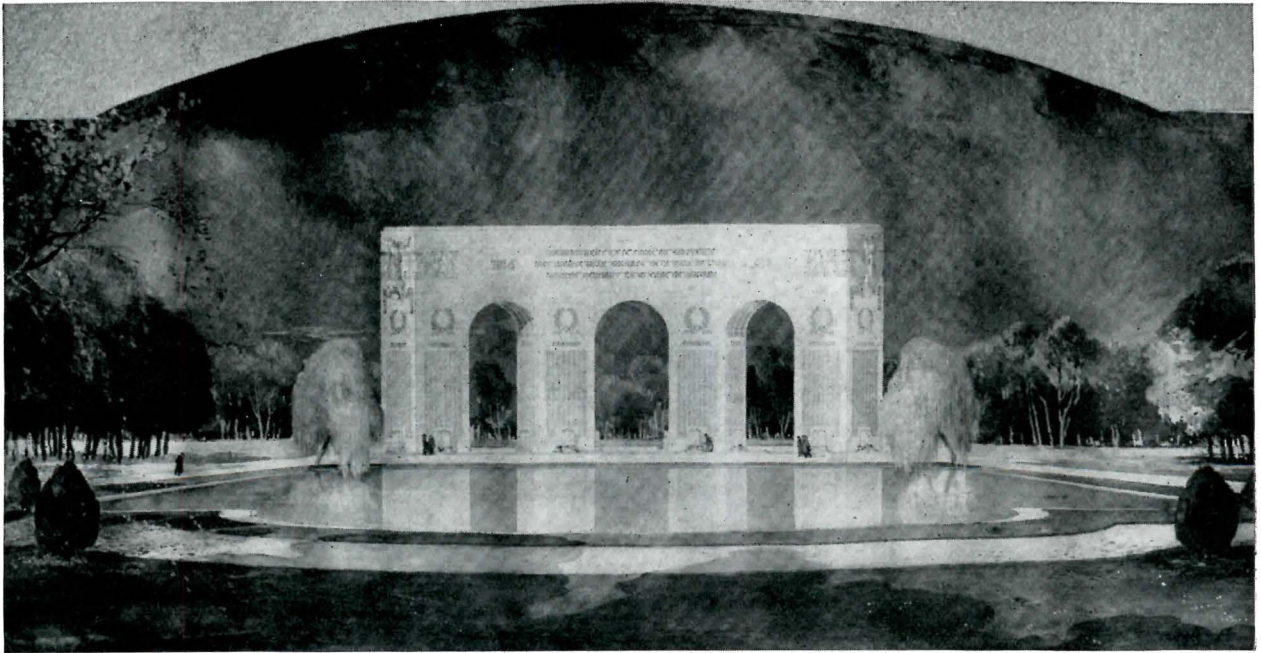
"Each form of art belongs to a definite period. The ideas and expressions of any one period indicate definitely the needs of that period. We cannot escape this conclusion any more than the human being can fail to obey the eternal laws of life. Life is not effort alone; movement and action express man's richest endowment. Dynamic equilibrium is impossible, and no society, no form of art can resist the general stagnation that would result from a cessation of progress. Art should be as alive as we are. The contemporary artist is he who is a bond between yesterday and tomorrow,—who connects the memory of the past with the expectation of the future. If he sometimes appears to be in opposition to his own time it is because he has within himself that which is invisible to the blind multitude, the rhythm of the future. The further he rises above the commonplace the more solitary he finds himself; the more absolute and the more profound is his faith. He is far above all questions of fad, fashion or money."

As to his technique he has written, "For art there is no one technique in the sense generally given to this word for the architect or the draftsman. There are those who are with or without spirit or artistic

feeling or sense of architecture. The true technique for an architect is the intelligent understanding of the program he has to interpret,—the skilled use of his material in an adaptable manner, and a profound understanding of the forms of civilization which characterize the period to which he belongs. First it is necessary to give architecture its rationalism, its sense of volume, its system of geometrical solids dictated by the plan which is the determining factor for which both logic and imagination are the laws. From this solid background the artist's dreams must be developed and expanded in order that the logical and sensitive masses which are expressed by the silhouette and by the light and shadow may have a surface that is vibrant with life, incisive, delicate or rugged, according as the requirements may be constructive or suggestive.

"Evidently the architect should have so perfect a technique as a draftsman that he may express and elaborate his thoughts to the fullest extent. But in my opinion technique should be entirely independent of purpose. Everything lies in the spirit. Pencil, pen, brush,—all means of expression, should lie at the control of the artist. All forms of technique are perfect if they help him to express through some other material the will and emotion which later can be translated into some permanent form."

In a letter regarding this article he has expressed his views so interestingly to those alive to a new awakening in architecture that I quote it here. "My classical culture strongly based on a broad and very careful study not only of the glorious monuments of the past but also of the aesthetic spirit which animated human mind in all plastical expressions of its artistic adventure, far from giving me an unreasonable idolatry for what is gone forever, on

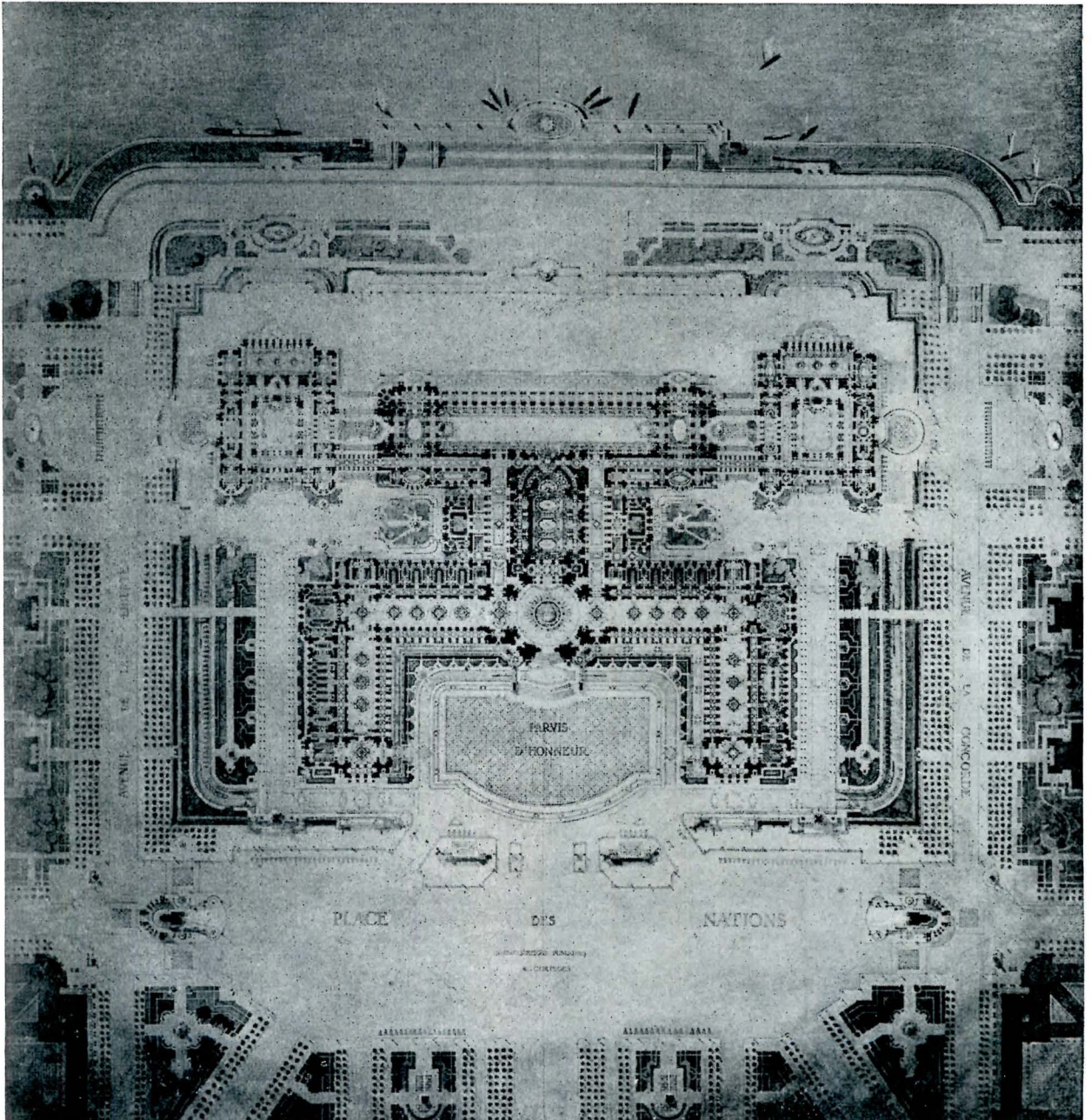


COMMEMORATIVE MONUMENT, LYONS, FRANCE
WINNING DESIGN IN COMPETITION, BY J. CARLU AND R. GIROUD

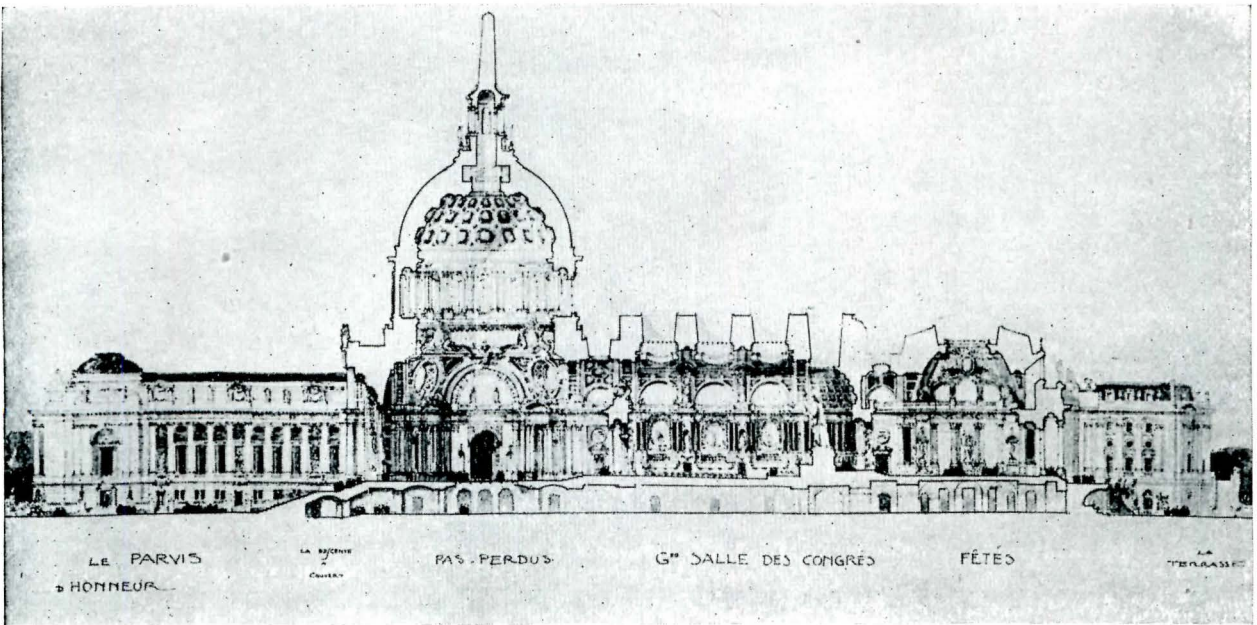
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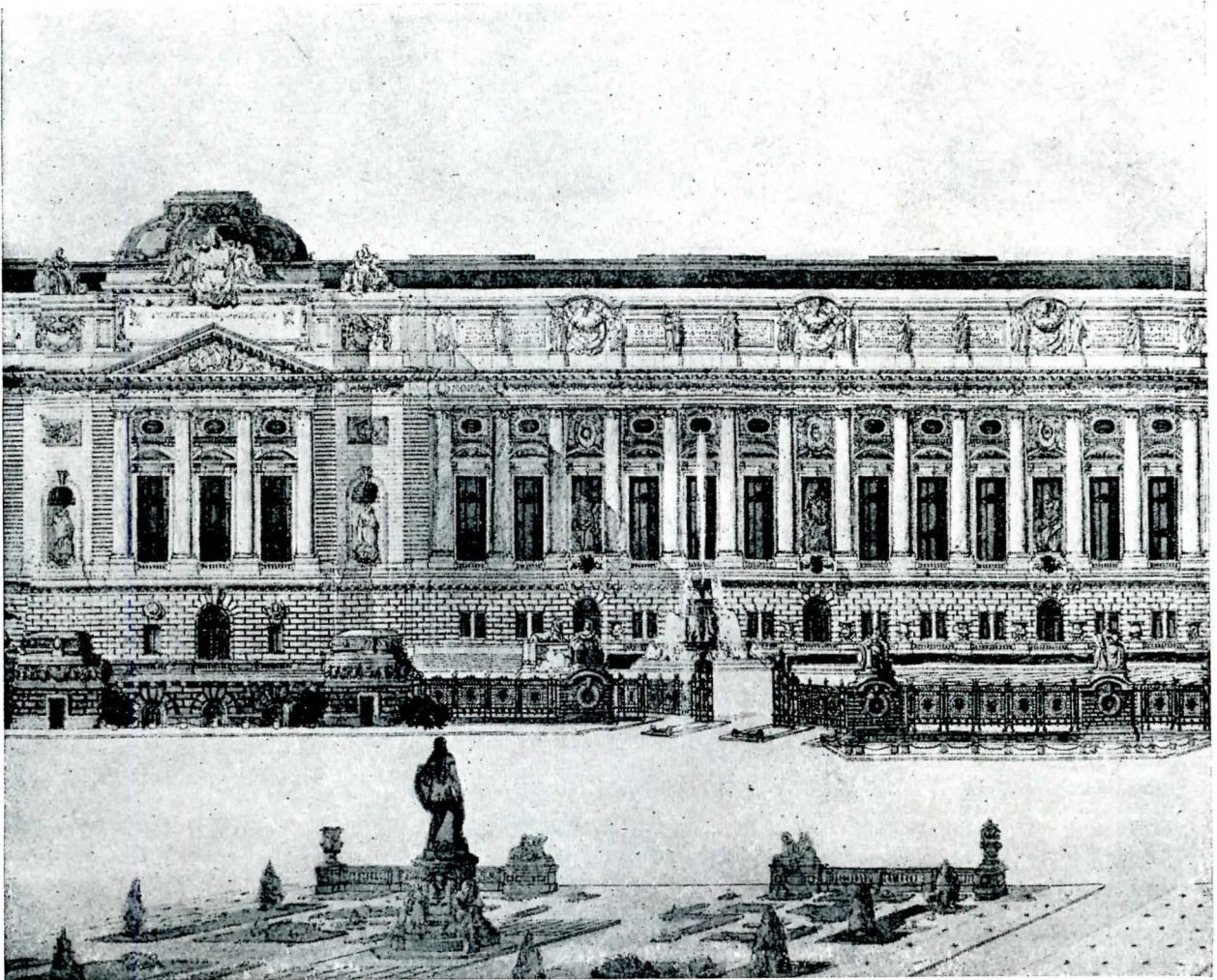
ELEVATION OF 1919 GRAND PRIX PROJET, BY JACQUES CARLU



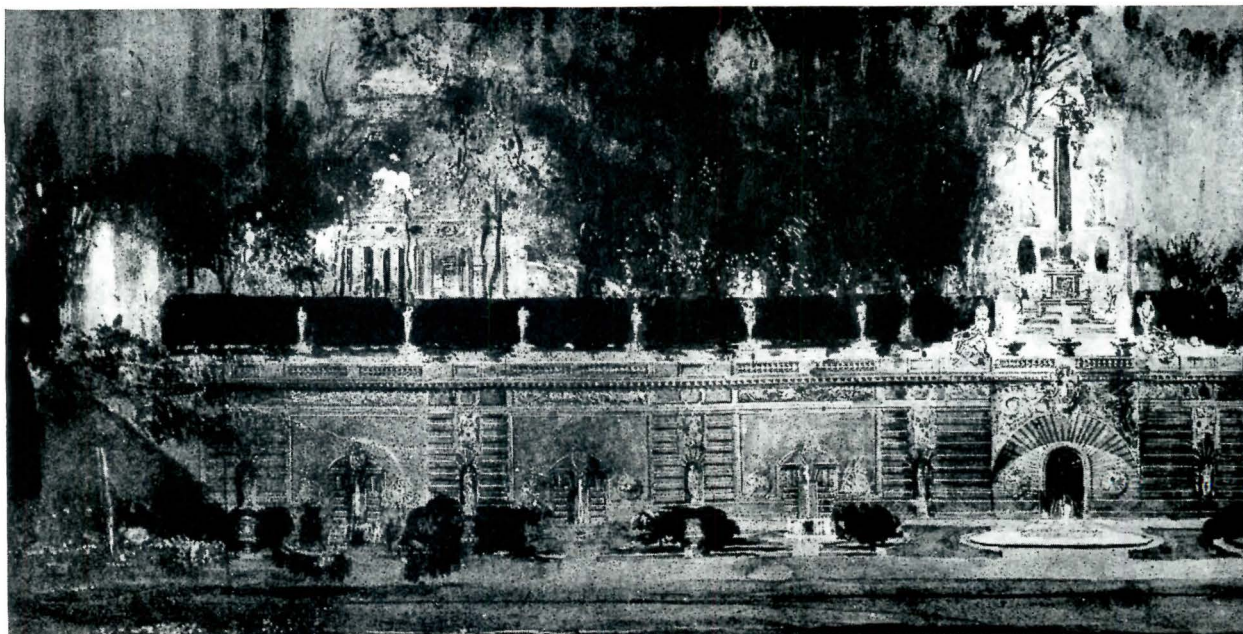
WINNING DESIGN FOR PALACE OF THE LEAGUE OF NATIONS, FROM 1919 GRAND PRIX COMPETITION
PLAN BY JACQUES CARLU, ÉLÈVE DE MM. LALOUX, DUQUESNE, ET RECOURA



FRAGMENT OF SECTION, 1919 GRAND PRIX PROJET, BY JACQUES CARLU



DETAIL OF ELEVATION, DESIGN FOR PALACE OF THE LEAGUE OF NATIONS
1919 GRAND PRIX PROJET BY JACQUES CARLU, ÉLÈVE DE MM. LALOUX, DUQUESNE, ET RECOURA



FRAGMENT OF 1913 GRAND PRIX DE ROME PROJET, BY JACQUES CARLU

the contrary allows me a robust, pertinent and living criticism in all matters pertaining to our present day living architecture. After almost twenty years study of the past I find myself nearer to the next generation than to the last one.

"If I advocate the application of true principles in architecture, whether moral, aesthetic, or scientific, I feel the necessity and the charm of the other arts used with restraint and refinement in relation to architecture, and so very early I became interested in decoration. Many of my friends are good enough to intimate that I am endowed with much imagination, and it may be that I have some gift in this direction; but as I have had time to observe and analyze carefully I am convinced that imagination has the same possibilities as the muscles of development and training, the only condition being that no manifestation of art in its relation to life and the human drama should ever be ignored."

Of Carlu's Grand Prix "Palais de la Societe des Nations" at Geneva, a Grand Prix comrade notes that his design was the simplest and the most monumental solution presented. It has a Court of Honor of grandeur and beautiful proportions. The parts devoted strictly to such business as conventions, conferences, committees, commissions, etc., are all well related to the vast "Salle des Pas Perdus". The grand conference hall was well developed, harmonious in size, preceding that of receptions

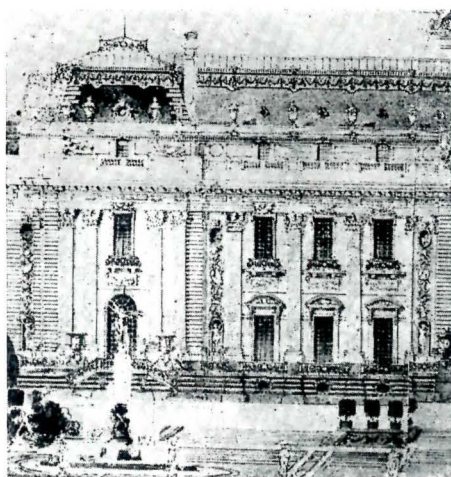
which was given the amplest possible development along the lake. There is harmony between all parts, all elements are well located, and the character and accentuations of the different divisions given by the program are well treated. It has distinction and good taste and must be considered well above the level of the average Grand Prix. It is composed in plan according to the well-known tradition of the Laloux

atelier, all on one principal axis with greatest possible elimination or suppression of all minor axes both horizontally and vertically.

Carlu's sketches of travel or imagination, as well as the scholastic drawings are all, except a very few, water colors executed in tempera. This is his favorite medium although when he desires he does do a brilliant pure water color. It was "Hop" Smith who years ago brought out a theory that in water colors it was best to paint sunlight with opaque colors and shadow with transparent colors. It is quite easy to see that a practice of this kind is carried out by Carlu, but with tempera or gouache

he succeeds in keeping shadows transparent and also avoids being muddy or milky.

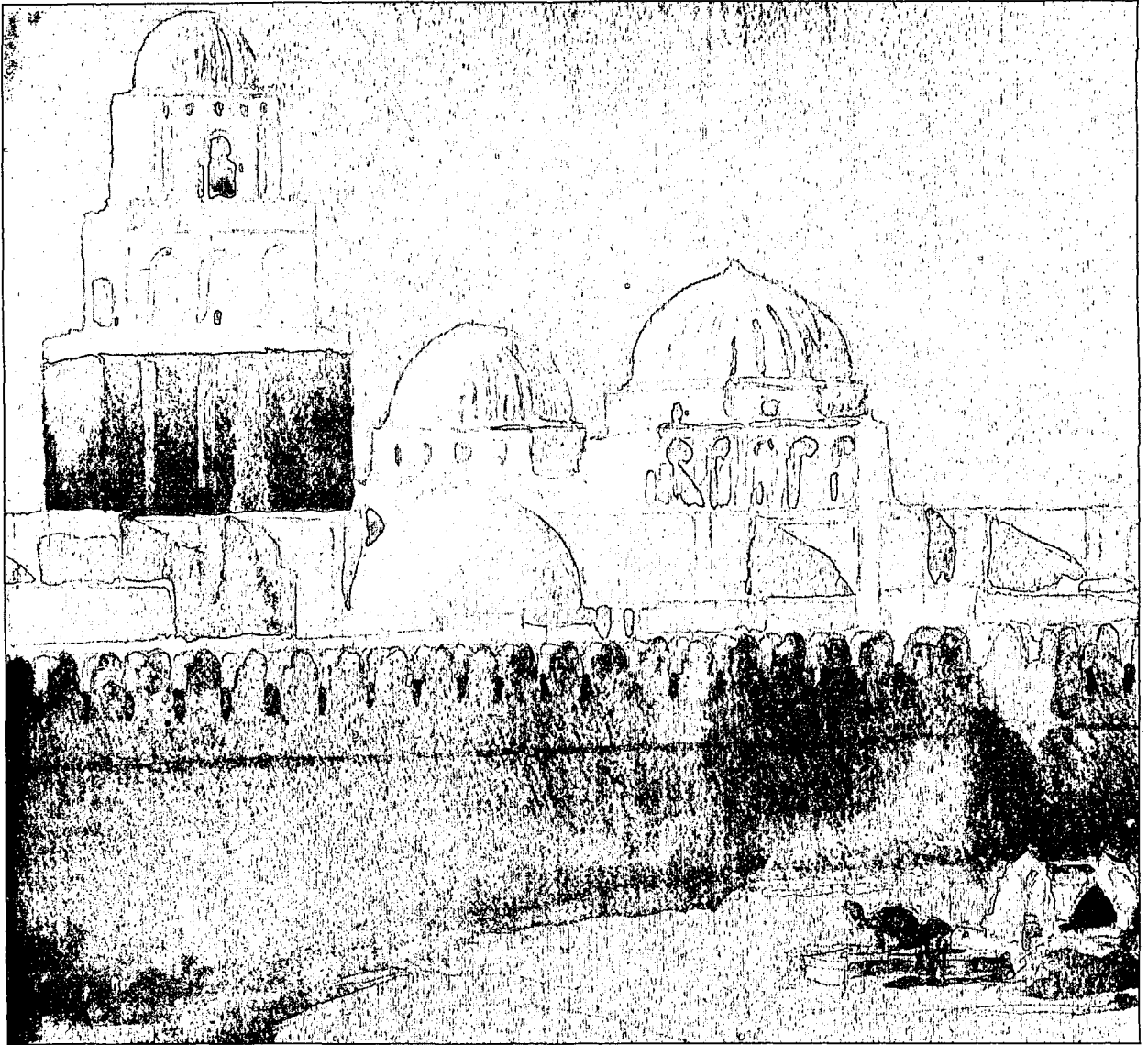
Recently, and perhaps for the first time in America, three sets of drawings by one scholar, corresponding to three years of his work at the French Academy in Rome, have been exhibited. They are now reproduced. The work of Carlu's first year



FRAGMENT OF 1913 GRAND PRIX PROJET, BY JACQUES CARLU



OVER MANDELLO, LAKE COMO, WATER COLOR BY JACQUES CARLU



MOSQUE IN KAIROOAN, TUNISIA. WATER COLOR BY JACQUES CARLU

was a mural painting in tempera, about four by ten feet in size, instead of the usual geometrical projected line drawing rendered in india ink or water color washes. It tells its own story in the illustrations except in respect to color, which is the cool grey of aged stones and antique bronzes. Romulus, Remus and the wolf, against a pale imperial scene, are balanced on either side by charming groups of Roman fragments. The picture is composed with a keen feeling for dramatic values and a grandeur truly Roman. It is worthy of a permanent setting, or, even better, it should be enlarged into a great mural panel near the size of the actual fragments.

Less dramatic than the Roman composition but more in the mood of the Renaissance was the second year envoi by Carlu. The subject, the elevation of the group of buildings at the end of the large plaza and round the small plaza in Venice, with their striking details, is too well-known to describe. The composition is arranged as a triptych framed in

very heavy gold mat which forms an architectural silhouette. In the foreground, the courtly and ecclesiastic gathering parts to allow the eye to pass to the central Byzantine, Renaissance and Gothic group. The mural, for such it is, vibrates with the light of a clear Venetian day. Perfect architectural balance, truth in color and texture of materials, well filled areas, well related spaces, interesting details properly subdued to the general composition, all tell of architectural training. The Campanile with its marked vertical accent, so difficult to compose in the picture, is skillfully broken by the garland and balanced by details of a ship. It is a mural composition with one major axis and with all minor axes suppressed by the artist to minor importance, as in his winning Grand Prix plan.

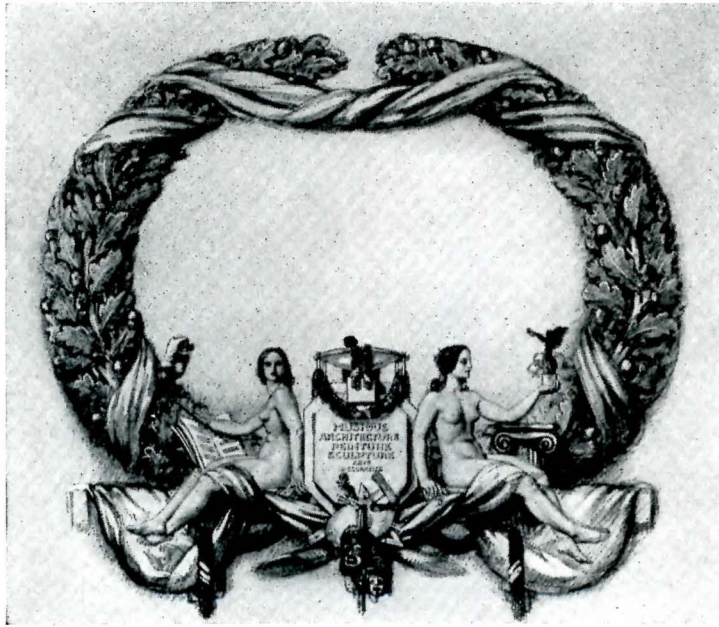
The third set, studies of the Palatine Hill and Roman Forum from the seventh to the first century B. C., forms a complete exhibition in itself, and occupied the scholar not only for the last year of

his residence in Rome but also, as usual, after his return to Paris. Such drawings are hardly possible for one who has not known the archaeological and artistic associations of Rome. The set comprises a large plan, not reproduced, which shows existing conditions in relation to actual fragments of walls, foundations, old road-beds, etc., that remain from that era; a restored general plan with a detail of the restored plan showing the Temple of Jupiter and its immediate entourage; and numerous studies, together with the final elevations and perspectives. The drawings are in yellow, orange, red, and purple, with occasional notes of green. They have a decidedly warm glow, especially in the general restored plan, where the colorful mosaics and numerous awnings over the streets add to the richness and splendor of color. The detail plan of the Etruscan Temple to Jupiter has scarlet vermillion as a dominating note. That this building was decorated by Etruscan artists is vouchsafed by Pliny. Even the location of certain columns was determined from an antique description.

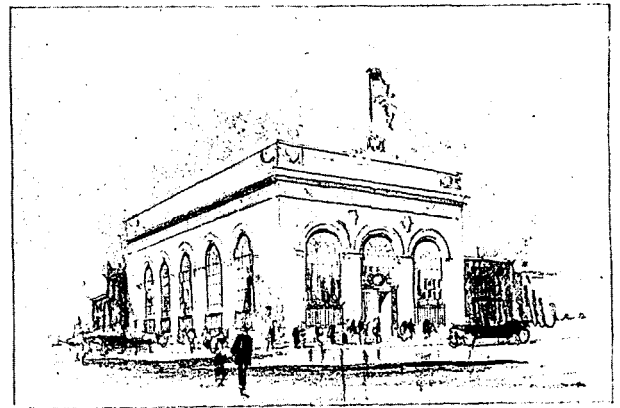
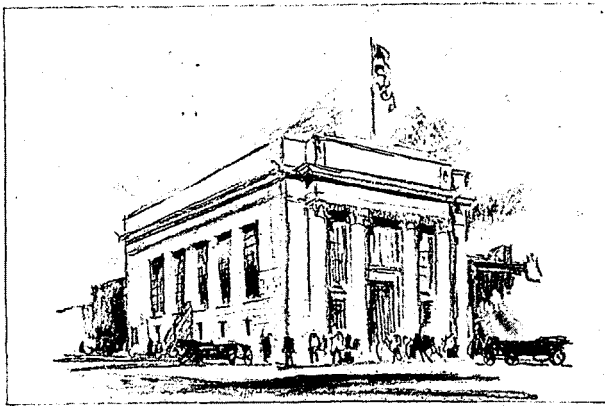
In a restoration of this early and dim period, the actualities,—the site, the ancient descriptions and inscriptions, and even the legends,—form the starting point; but they alone would never produce a restora-

tion such as this. It demands an architect-archaeologist who possesses great imagination. The recent decade has thrown more light upon Etruscan art, and has raised our estimate of its worth to a much higher level. Love of strong color and vigor, as well as a high degree of technical skill in artistic things, were among the great qualities of the people of this time. If you question whether this Roman house or shop stood here or there on Viscus Tuscus, the answer is that the scale, character, and plan grouping of the houses, in relation to the same factors in a temple group or groups, are the real truths. In all arts minor lies exist for the sake of general truths. Some of the great truths told are of the massiveness of the Fortress; of the dignity and glory of the Temple of Jupiter, with scale truly of the gods; of the Asylum on the only possible site on the Capitoline Hill; of the richness, variety and masterful grouping of the memorials; of the naturalness of the streets. Here is the studied plan of the gradual growth of an irregular city. In imagination you see the crowds approaching the temple and the forum in the hollow, with its market, minor temples, halls of justice and porticos of lecture.

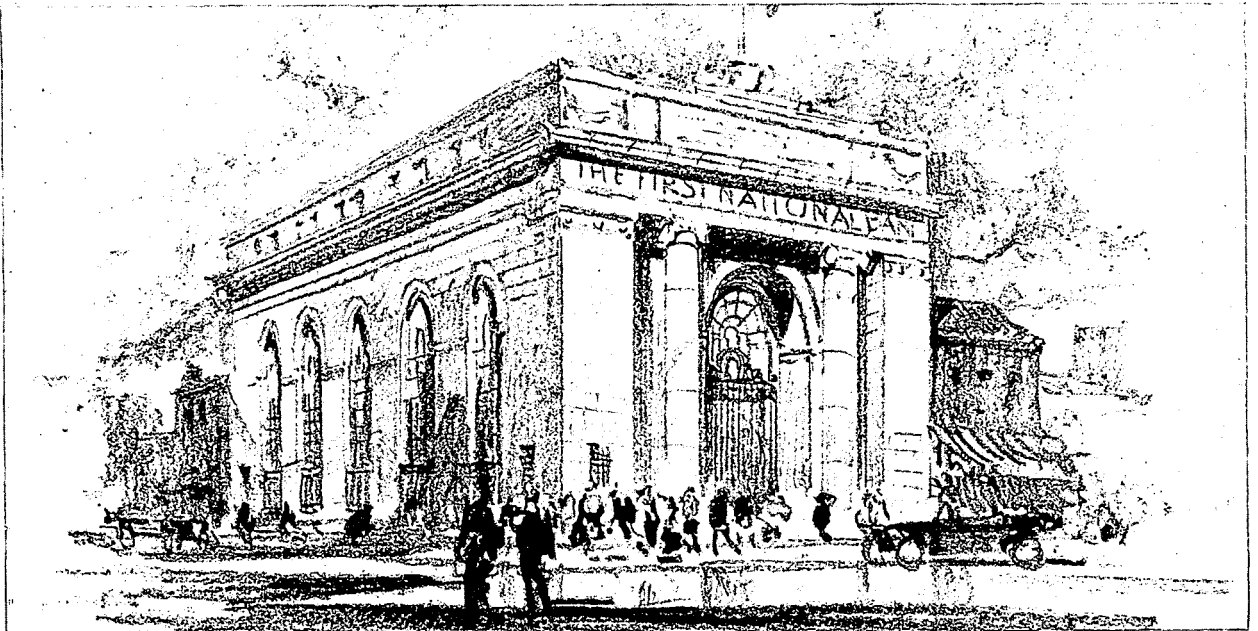
After all a man's work speaks louder than words!



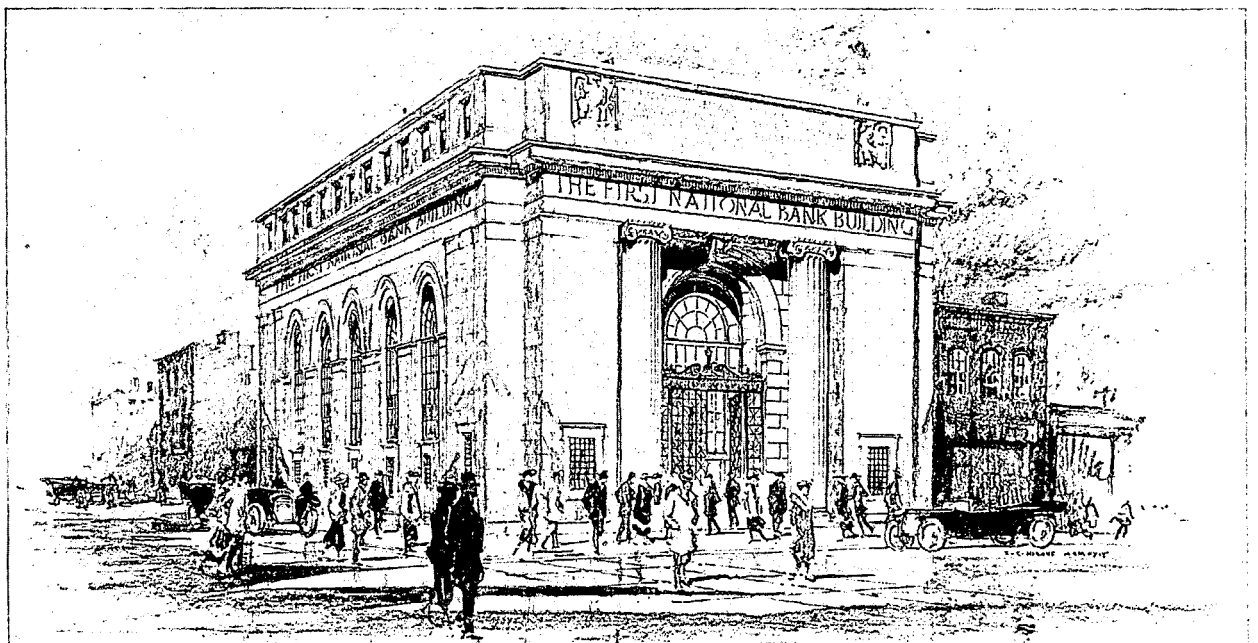
DIPLOMA OF FONTAINEBLEAU SCHOOL OF FINE ARTS
CHARCOAL DRAWING BY JACQUES CARLU



ALTERNATIVE SKETCH PERSPECTIVES SUBMITTED TO CLIENTS



SKETCH PERSPECTIVE APPROVED BY CLIENTS



FINAL PERSPECTIVE OF BUILDING AS CONSTRUCTED

FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS

A BUILDING ON THE BOARD

SHOWING THE PROGRESS FROM THE SKETCH TO WORKING DRAWINGS
OF THE FIRST NATIONAL BANK, BLAIRSVILLE, PA. DENNISON & HIRONS

TO DECLARE THAT DRAWINGS speak to the draftsman in his own language is not to add greatly to the store of human knowledge. To present a set of drawings pertaining to one building, showing its progress on the board "from sketch to finished working drawings," as the classified ads have it, is to test experimentally the truth of the foregoing bromide. PENCIL POINTS, in the pages accompanying this article, has attempted to make such an experiment, using for its subject matter a selection from the drawings turned out in the office of Dennison and Hiron, of New York, for the building of the First National Bank of Blairsville, Pa. The bank selected for illustrative purposes is an average one, such as might house a banking establishment in any moderately-sized city or town in the United States.

In the beginning, three sketch plans with corresponding perspectives were submitted to the clients, who selected one set for further development. On page 290 are shown three sketches, one of which was selected, and the final perspective of the building as eventually built, from which can be gained an idea of the development of the exterior design. The two sketch plans on this page include one of the rejected arrangements and the one which was developed into the working drawing on page 294. Two of the suggested designs for the interior, worked up into perspective sketches from the clients' ideas, are given on page 298 to be compared with the final interior design shown by the sections on pages 294 and 295.

The front and side elevations were studied at eighth scale by means of a number of pencil sketches on tracing paper, only a few of which, regrettably, could be shown here in the limited space available. The final development of the design is shown by the working drawings of the

main floor plan, front and side elevations, longitudinal section, two cross sections, and two three-quarter scale detail sheets.

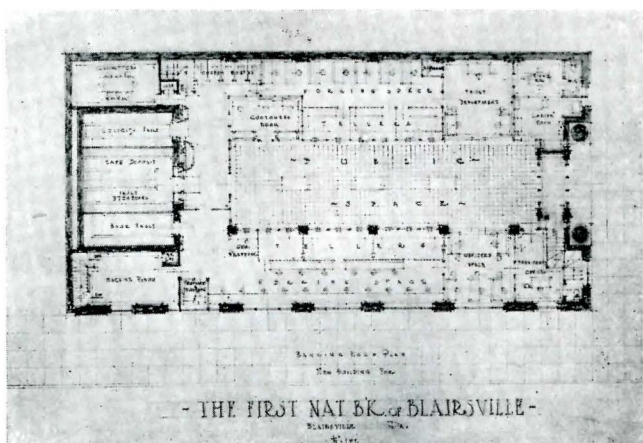
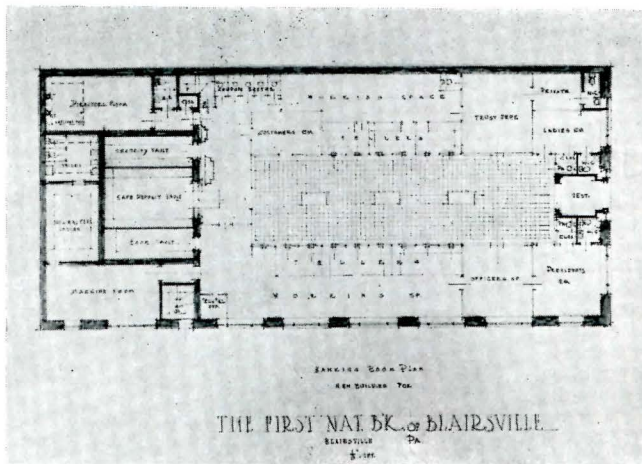
The drawings made for this job were unusually complete. The plans and elevations were studied very thoroughly in pencil on tracing paper and followed by a complete set of working drawings made in pencil on cloth. Final revised working drawings were made over the latter in ink on cloth, at which

time the necessary late revisions were included. Every bit of sculptured and ornamental stone detail was studied by plastelline models, and casts were made from which the stone was cut on the job. This work of modelling was done by the architectural sculptor, Anthony di Lorenzo, in his own studio, under the direction and supervision of the architects. The plaster models thus made were all colored the exact color in which they were executed, on account of the false conception of the scale of the ornament which otherwise would have been given by the cold white plaster.

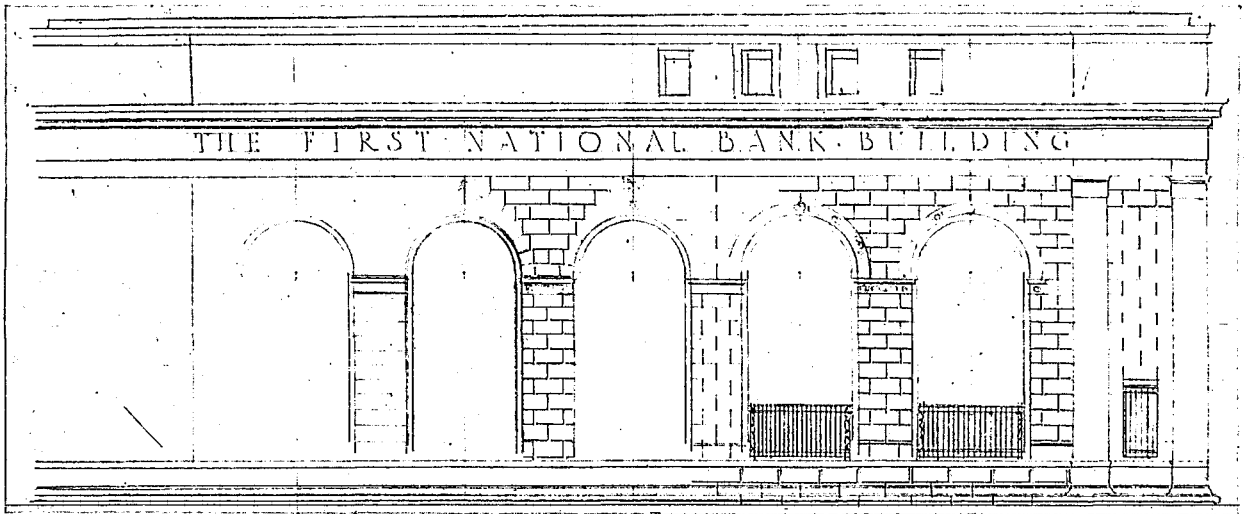
In the early stages of the study of the design, numerous cardboard models of the exterior, accurately made at eighth-inch scale, were employed to give the clients an adequate visualization of their building, especially in regard to its proportions, its color, and the emphasis

given to details. It is pointed out by the architects that cardboard models are immensely superior to plaster not only on account of their cheapness and the rapidity with which they can be made, but because they give a close approximation of the actual color and texture of materials used in the building.

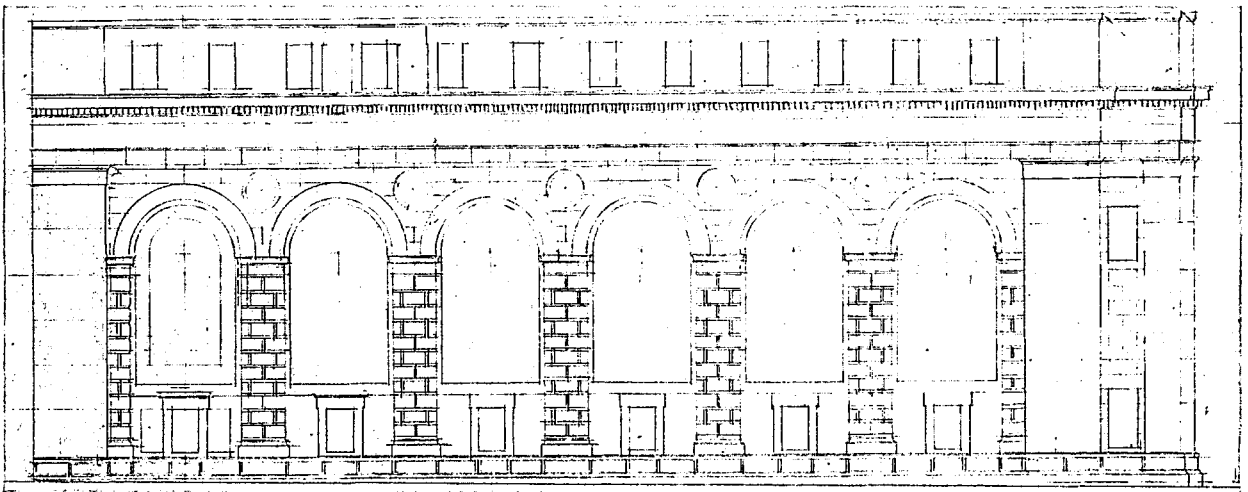
Lack of space precludes the presentation of more studies and working drawings for this building, and especially some photographs of the plaster models of detail. Perhaps, however, the reader can form, from the material given, an adequate idea of the building and of the drawings necessary for its creation.



SKETCH PLANS SUBMITTED TO CLIENTS



STUDY FOR SIDE ELEVATION



STUDY FOR SIDE ELEVATION



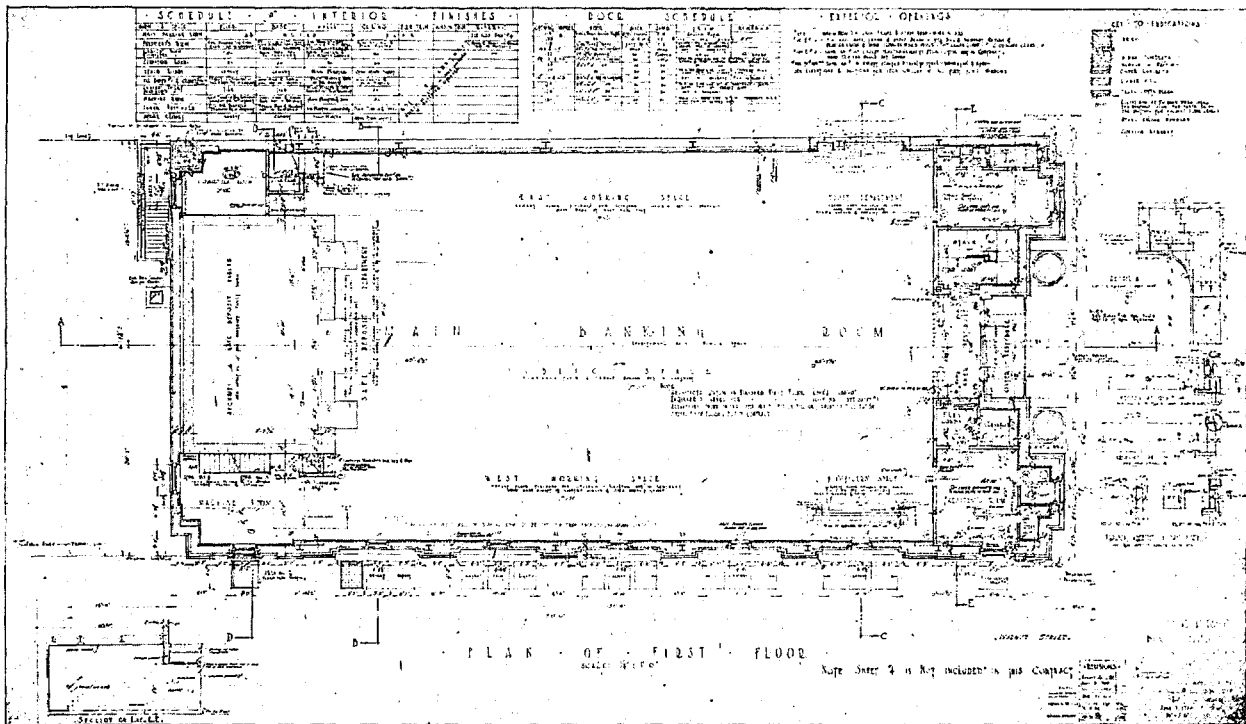
WORKING DRAWING FOR SIDE ELEVATION

THE FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS.

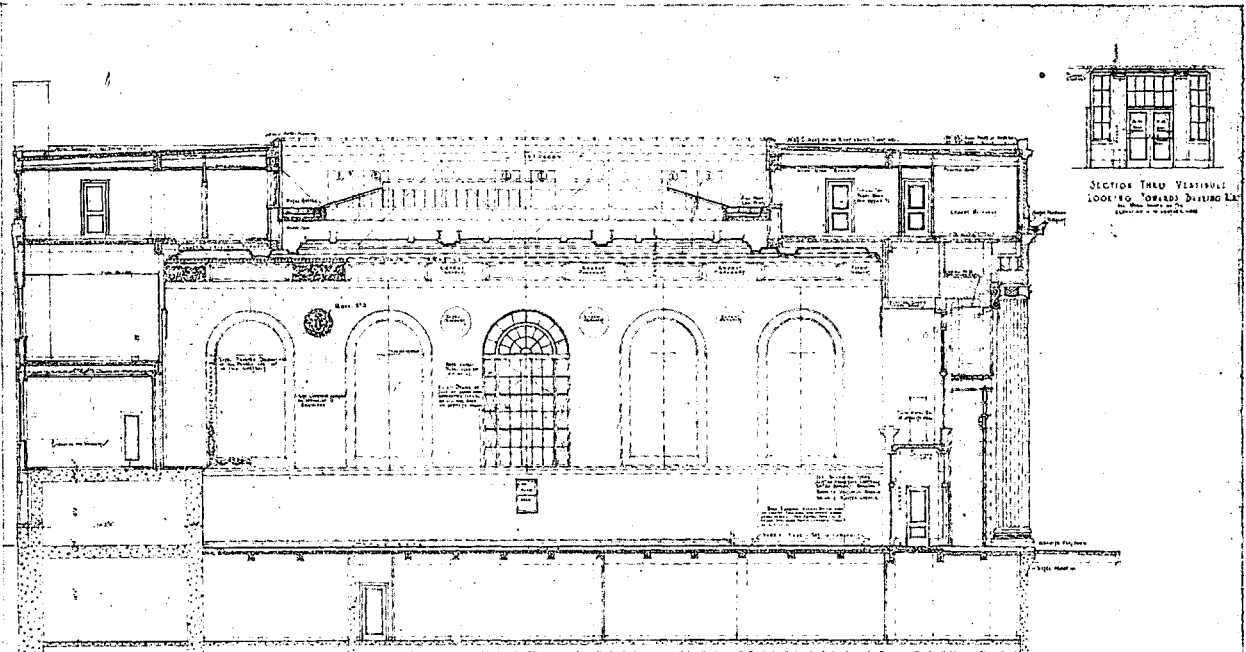
An architectural drawing of the front entrance of the National Academy of Design building. The drawing shows a classical portico with two large columns supporting a pediment. The entrance is framed by a large archway. The drawing is a black and white line drawing, showing the architectural details of the building's facade.

THE FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS.

PENCIL POINTS



PLAN OF FIRST FLOOR

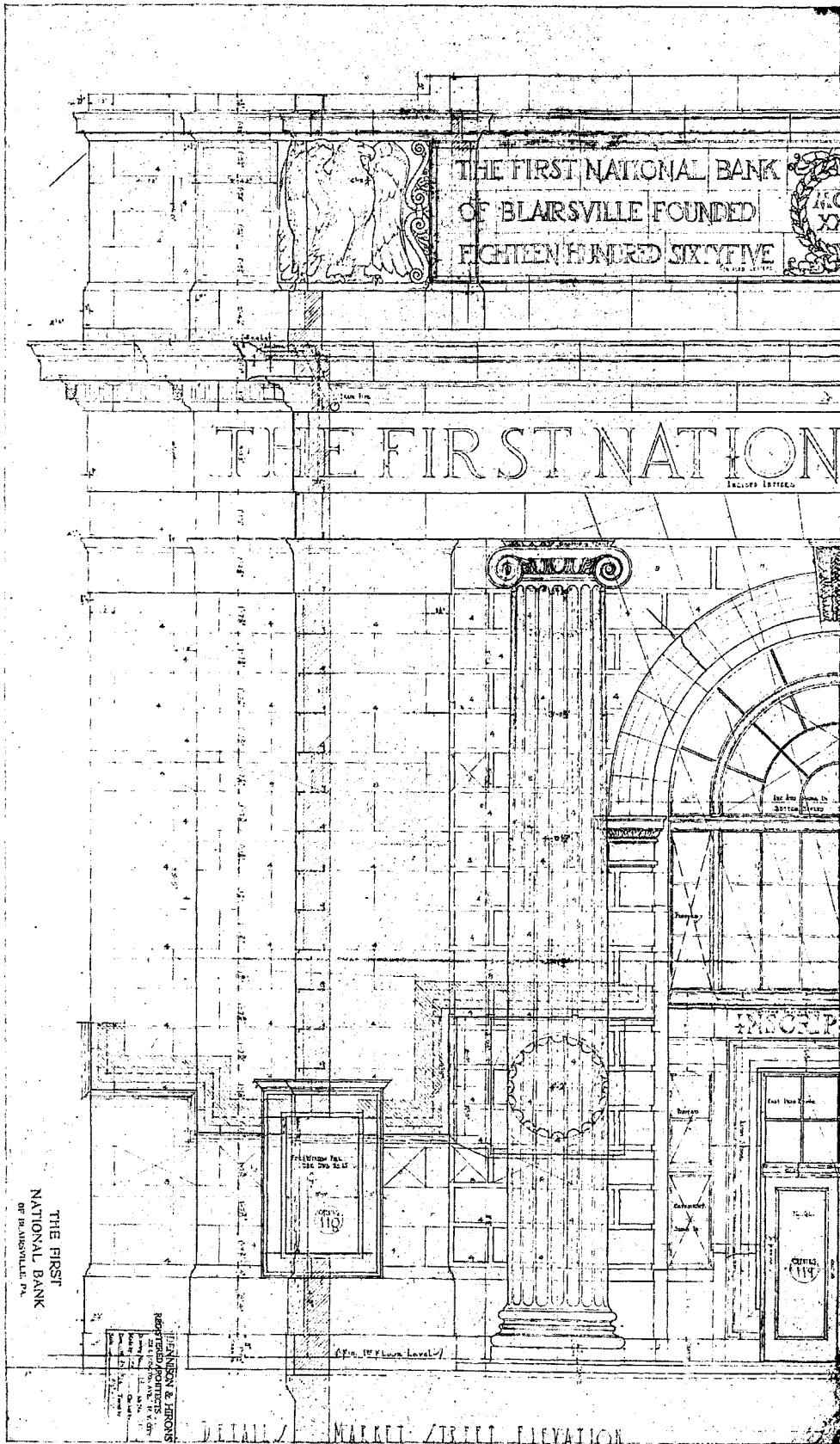


LONGITUDINAL SECTION

FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS

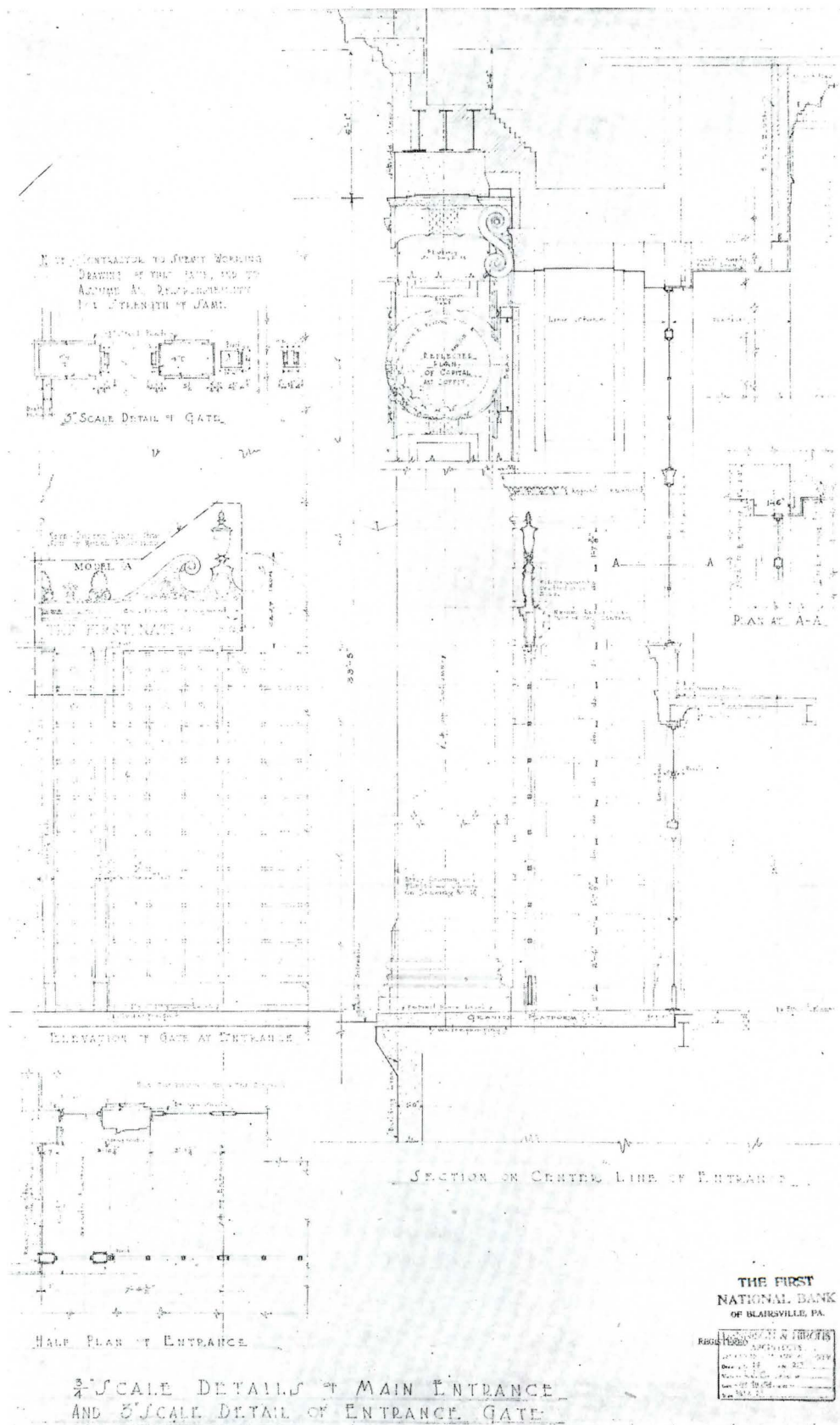
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FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS

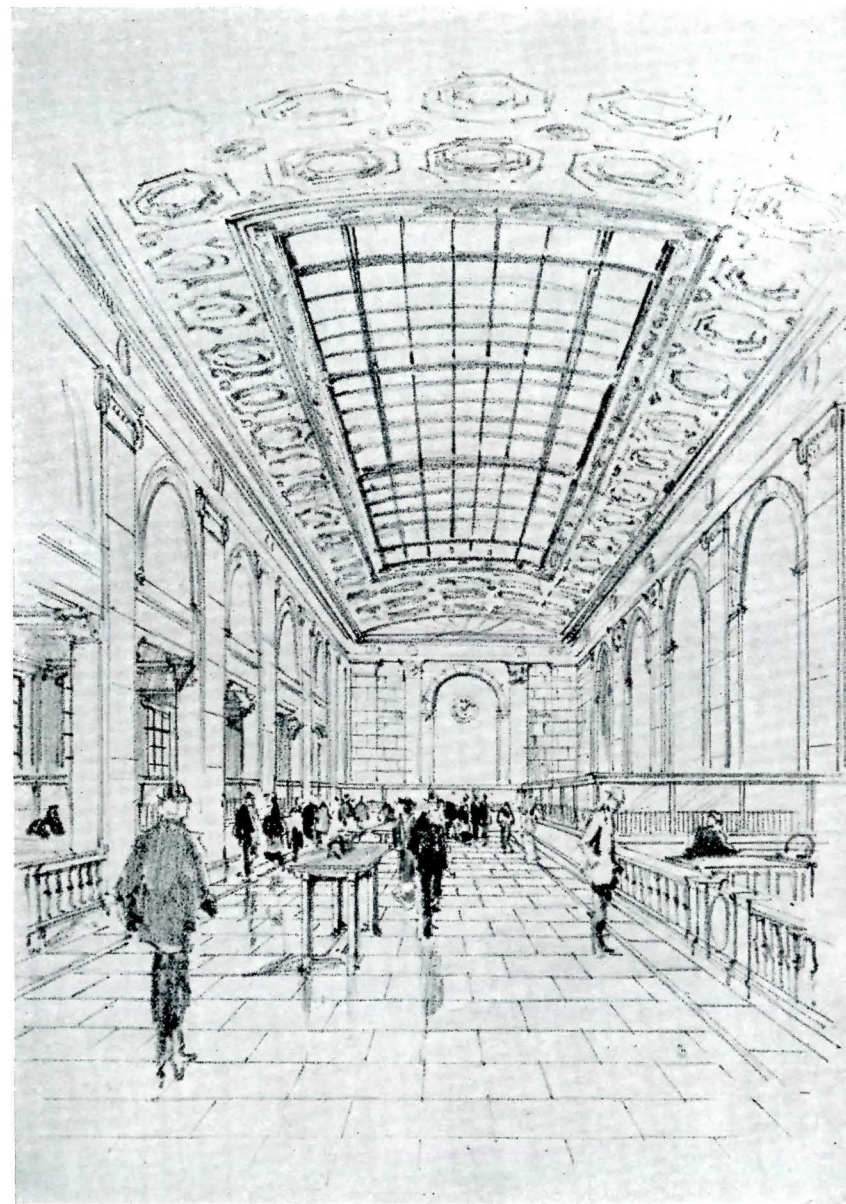
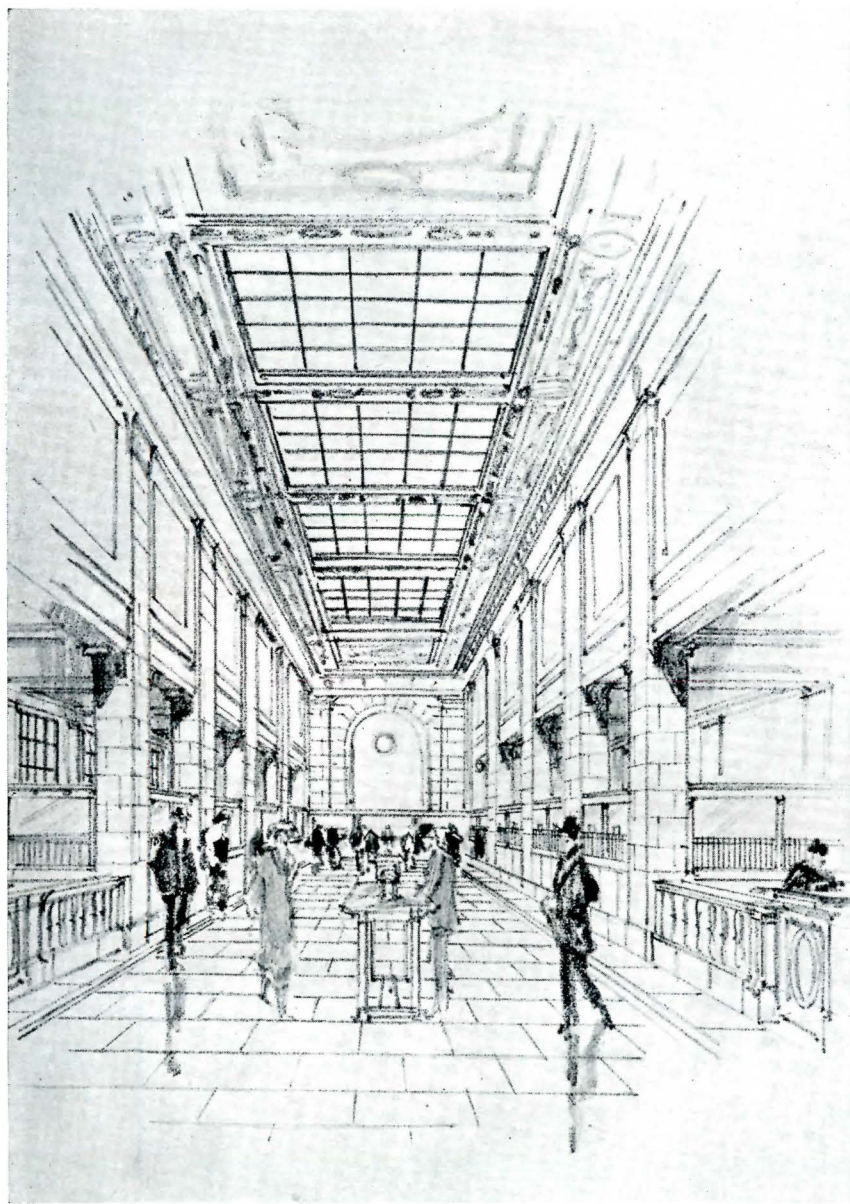


DETAIL SHEET AT THREE QUARTER INCH SCALE
FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS

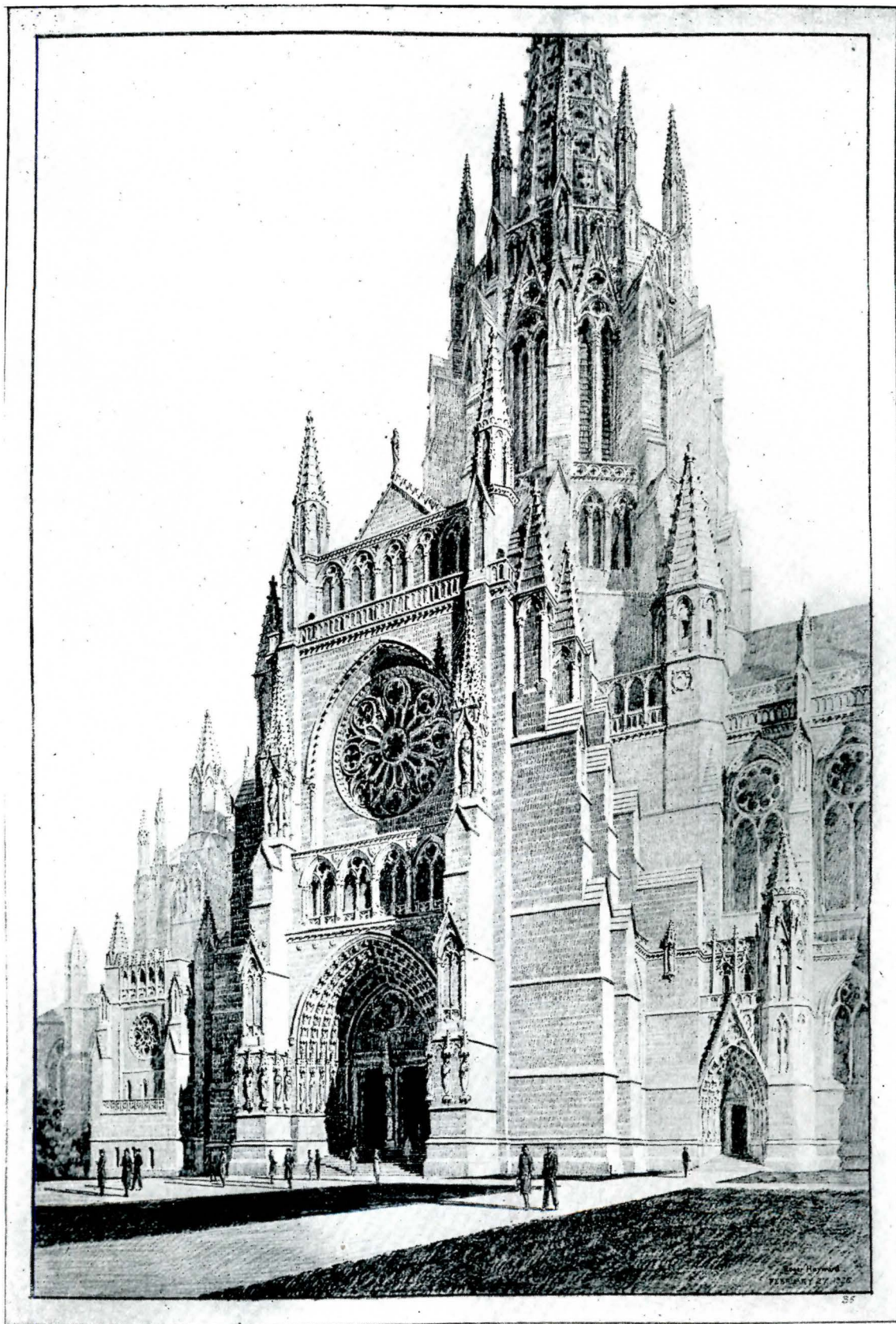
A BUILDING ON THE BOARD



DETAIL SHEET AT THREE QUARTER INCH SCALE
 FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS



INTERIOR PERSPECTIVES WORKED UP FROM CLIENTS' SUGGESTIONS, FIRST NATIONAL BANK OF BLAIRSVILLE, PA.
 (Working Drawings Show All Mezzanine Floors Eliminated in Executed Building.)



PENCIL RENDERING BY ROGER HAYWARD
NORTH TRANSEPT, CATHEDRAL OF ST. JOHN THE DIVINE

PLATE XV

VOLUME VII

NUMBER 5

*A pencil rendering by Roger Hayward showing
the proposed design by Cram & Ferguson for the
North Transept of the Cathedral of St. John the
Divine now under construction in New York City.*



RELIEF ON ANTIQUE GREEK PEDESTAL, CAT AND DOG FIGHT

Rubbing by Edmond R. Amateis

OF THE MAKING OF RUBBINGS

By Leon Keach

THE MAKING OF A RUBBING is an altogether simple matter for the average practitioner. And certainly there is no other process so conveniently at hand for obtaining full sized reproductions of such as incised lettering, grille patterns, certain ornament in low relief, mosaics, incised brass or bronze tablets, the molding profiles of many antique fragments, and so on. Any hard material cut back from a plane surface, with arrises fairly well defined, lends itself to the making of a rubbing.

The materials needed are paper and wax, unless one includes such fanciful auxiliaries as knee-pads, against abrasion to the patella, in doing floor patterns, or ardent spirits against scorpion bites in warm countries.

As to the paper, you must strike an average between economy and suitability. So ordinary, buff detail paper, though not perfectly smooth of surface, comes near to being ideal. It is reasonable in price, and tough enough; is obtainable in any length, and is of sufficient width. On the Continent one may expect to find it almost as easily purchased as in these United States. But the itinerant enthusiast, your real decalcomaniac, is unable to carry any weight or bulk of detail paper in his compact traveling kit, through Italy or France. Here a solution is found in the wall-paper stores. For they sell rolls of inexpensive, smooth, uncoated, white paper, something over twenty inches wide, and amply well suited to the usual require-

ments. It is true that this paper will not endure very rough treatment, and is yellowed by long exposure to light. Tracing paper is no tougher, it has not the advantage of opacity, and is much more costly.

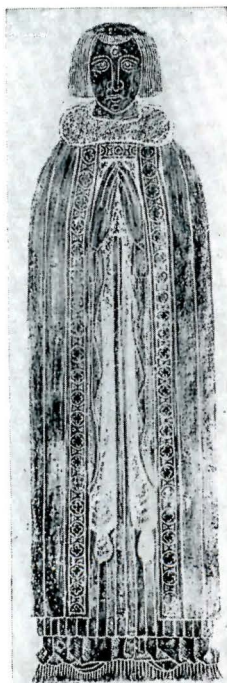
The rubbing material is preferably shoemaker's wax. It is rapidly transferred, and being of a slightly greasy nature there is no trouble later from smudging in handling or transportation.

For such special work as taking off mosaics, with intent to make a color study, a piece of lead has advantages. The tesserae are brought out with more delicacy of line, and tempera colors adhere the easier to a surface that is not greasy.

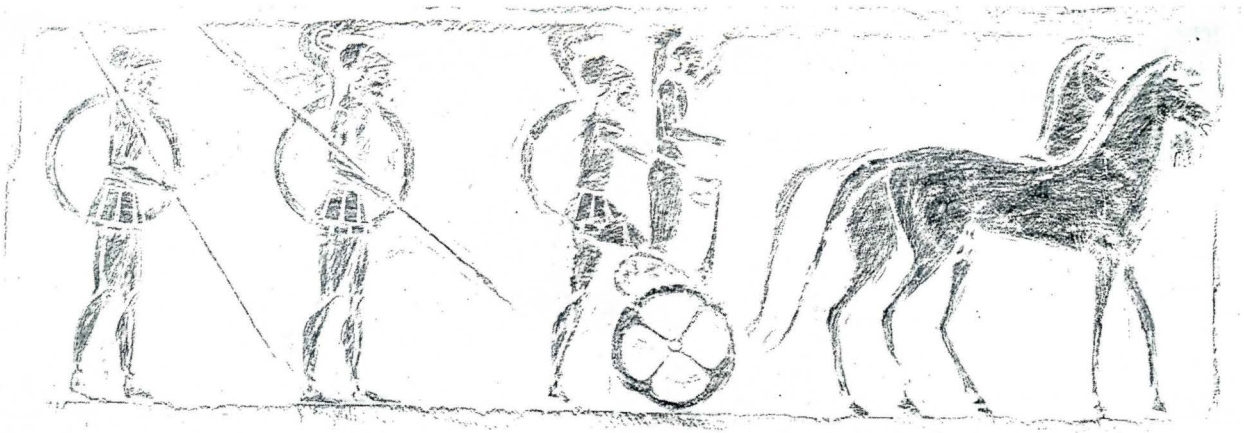
The actual process of rubbing is too simple to need explanation, but there are a few points concerning it that may be mentioned.

The paper must, of course, be kept absolutely motionless during the work. If it slips, the result is not unlike a photograph where the camera has been moved, and there is little chance of readjusting the sheet to its original position. Where two or more men are assisting one another this misfortune seldom occurs, but occasionally there comes the problem of doing the job single-handed.

The difficulty and fatigue of holding up the paper may then be obviated by the use of such an adhesive as zinc-oxide plaster, ordinary surgeon's plaster. This will do part of



RUBBING BY LEON KEACH



RUBBING BY EDMOND R. AMATEIS, RELIEF FROM GREEK PEDESTAL

the work, at least, if you put little strips of it at the edges of the paper, and permit you to rest your supporting arm from time to time.

Something of the original is bound to be lost in a rubbing; the nicety of a serif or, perhaps, the clear definition of some intricate ornamentation. If the plane of the rubbing surface is badly worn or weathered, this cannot be helped. But with a fair surface an even pressure over all, and, usually, one that is about as heavy as the paper will stand, produces the best results. Here it has been my observation that an attempt to outline the arris lines of what ever you are taking off produces a darker, but a much less accurate one, than the alternate method of going over the whole surface evenly.

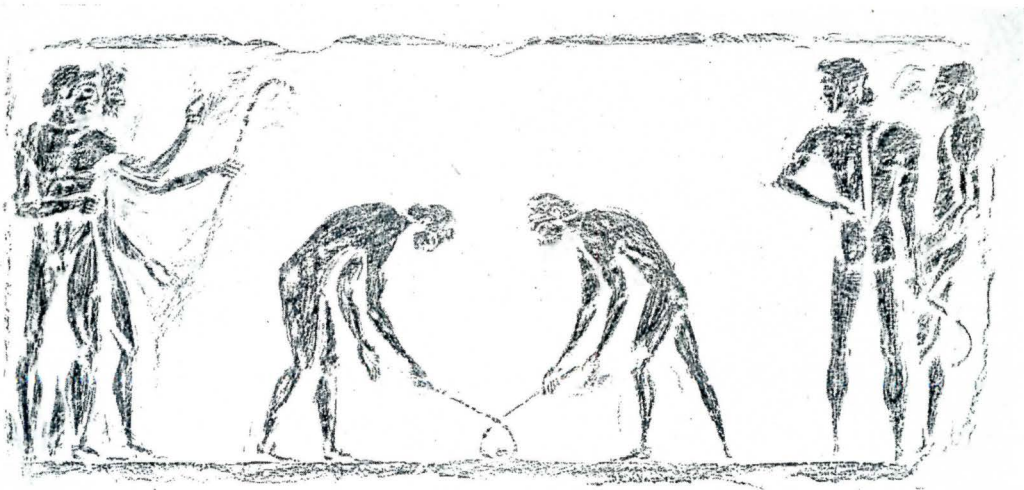
The worth of rubbings should be patent enough

to architects. If well made they are more accurate in their field than anything else short of plaster casts, and the former are as easy to make as the latter are difficult. Accurate measured drawings cannot well be obtained of all the excellent lettering one likes to collect, and it is practically impossible to copy mosaic, or any of the surface decoration that comes within the scope of rubbing. In ordinary architectural practice there are many occasions where an easily made rubbing may be worked over in the office, and a curve analyzed or a pattern studied with less difficulty than obtained elsewhere.

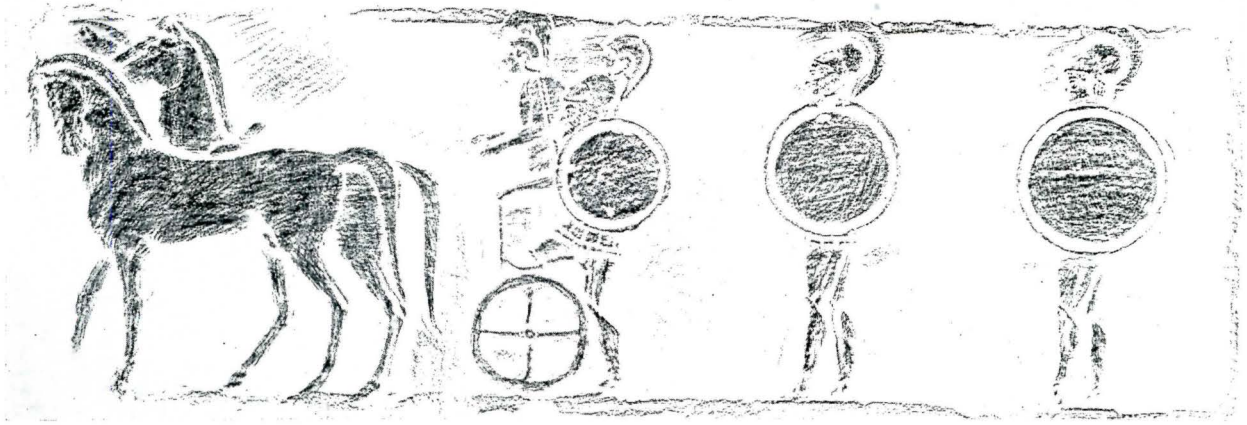
In Europe the architect will find the greatest fund of material for this work in a variety to suit all tastes. Algeria, Tunisia, and all shores of the Mediterranean have fascinating patterns to be



PORTION OF RUBBING BY FRANCIS E. LLOYD



RUBBING BY EDMOND R. AMATEIS, ANTIQUE GREEK PROTOTYPE OF HOCKEY



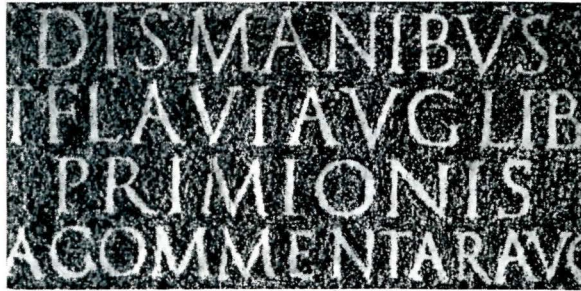
RUBBING BY EDMOND R. AMATEIS, RELIEF FROM GREEK PEDESTAL

taken off, if one knows his ground well enough and his rights as an infidel. Two traveling scholarship men afield in a Mohammedan country, being unacquainted with such rights, once made shift to lift a well designed grille, not cognizant of the fact that behind it reposed a sacred tibia, supposed to be a relique of the Prophet. Their ejection was quickly and neatly accomplished by outraged worshippers, and for a moment there actually hovered near them the shadow of the "Destroyer of Delights and the Sunderer of Companies."

A rough program could be arranged for making an Italian collection of rubbings. In Sicily, and Southern Italy there are mosaic patterns. These, with a few color notes, or even written annotations of color, and some photographs, will help one to refresh his memory of that most difficult art

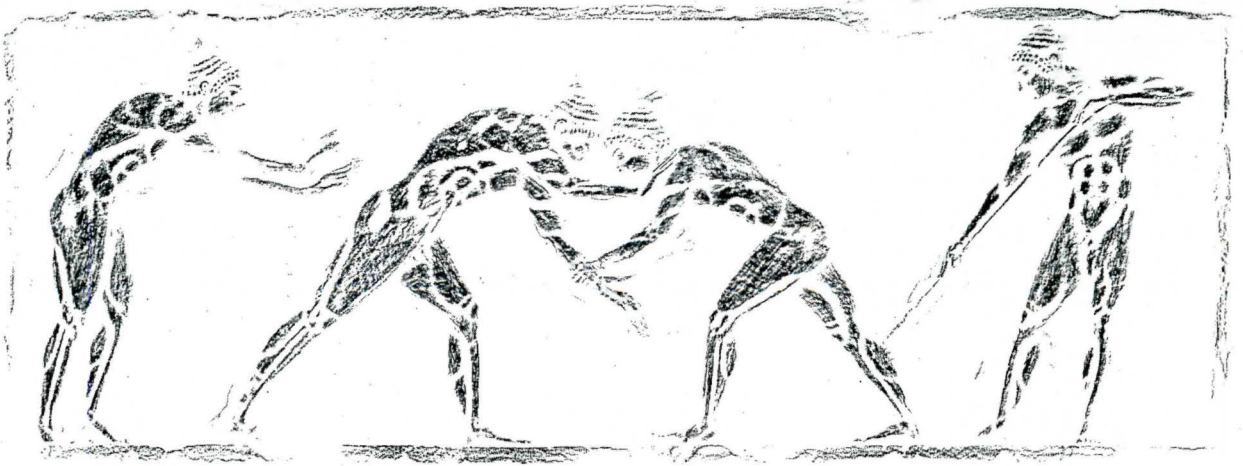
when he is far removed from good examples of it.

At Naples there is the museum with its splendid Roman fragments of lettering and ornament. But much red-tape intervenes between the desire and the right to agitate one's shoemaker's wax over these antiques, though it can be cut, given patience. Rome is the richest of all the opportunities. Prime examples of ancient lettering abound, from a panel in the Forum of Trajan and a tomb near the Porta Salaria down the list. There is a profusion of Renaissant panels in wall and pavement, Alexandrine floors, Cosmatesque work, and the like.



PORTION OF RUBBING BY TOM II. JONES

You leave Rome with a satisfying complete assortment. But there are seductive bits in Florence and North Italy; iron work here and there, ornament of the early Renaissance, the mosaic of Venice and Ravenna.



"WRESTLING," RUBBING FROM GREEK PEDESTAL, BY EDMOND R. AMATEIS

D O M
 HIERONYMO AGVCCHIO
 BONONIENSI
 S RE PRESBYTERO CARDINALI
 S PETRI AD VINCVLA
 QVI PHILIPPI SECAE CARD PLACENTAVVNCVLI
 PRAECLARAS VIRTUTES AEMVLATVS
 CVM APOSTOLICA ESEDITRIGINTAFEREANNOS
 VARIISINLOCIS OPERAMSTRENVENAVASSET
 AC MVLTIPlicEM ETIAM TVM MVNERVM
 TVRARVM OMOLIMINVRBE SVSTINERET
 VIR VEREMAGNVSETADSVMMA QVAEQ NATVS
 AB OPTIMO GRATISSIMO QPONTCELEMENTE VIII
 AMPLISSIMAE DIGNITATIS INSIGNIA
 BONORVM OMNIVM VOTIS DIVITIJS ERVENDA
 CONSECVTVS EST
 IO BAPTISTA AGVCCHIVS
 PROTONOTARIVS APOST
 FRATRI OPTIMO P
 VIXIT ANNOS L MENSES III DIES XII
 OBIT EADEM DIE QVALEO PP XI
 XXVII APRILIS MDCV

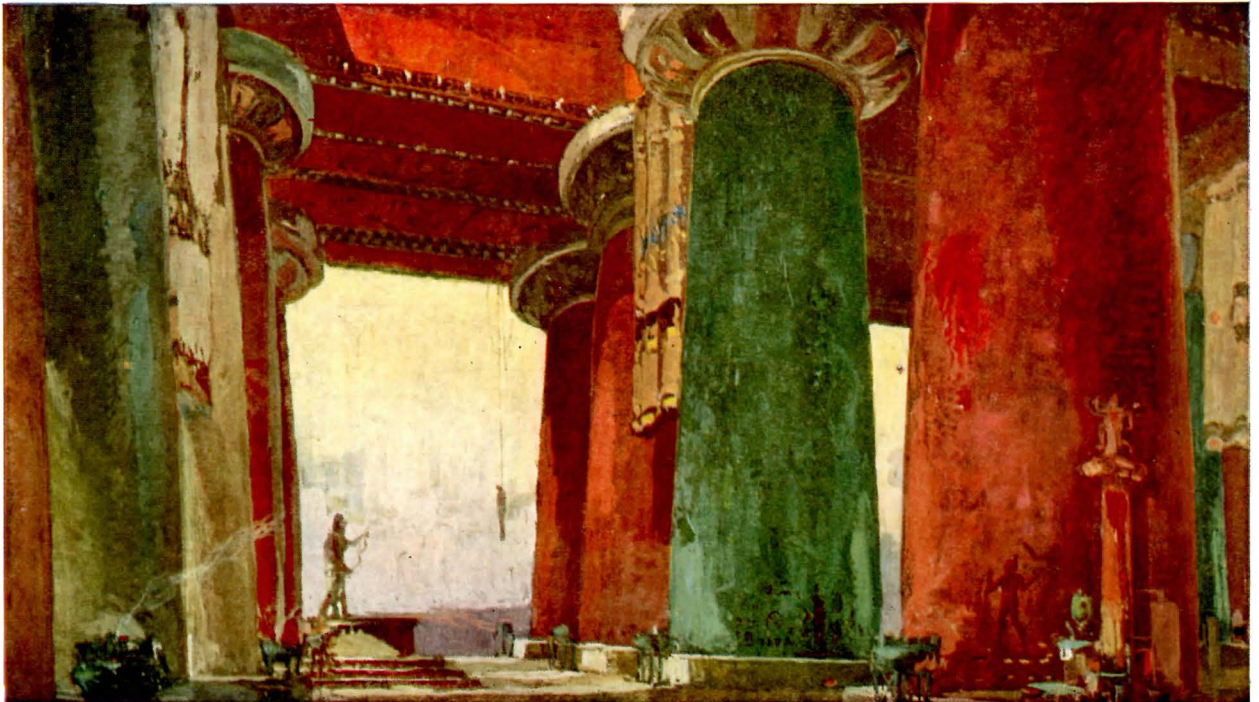
RUBBING BY TOM H. JONES FROM WALL OF ST. PETER IN VINCOLI, ROME.

PENCIL POINTS
SERIES
of
RENDERINGS
IN
COLOR



Study for Restoration of the Capitoline Hill and Jupiter Temple

Size of Original 36" x 18"



Jupiter Temple Built by Tarquinius Superbus

Size of Original 26" x 48"

RENDERINGS IN TEMPERA BY JACQUES CARLU



Tarpeian Rock, Rome

Size of Original 48" x 42"

RENDERING IN TEMPERA BY JACQUES CARLU

PENCIL POINTS
SERIES
of
RENDERINGS
IN
COLOR



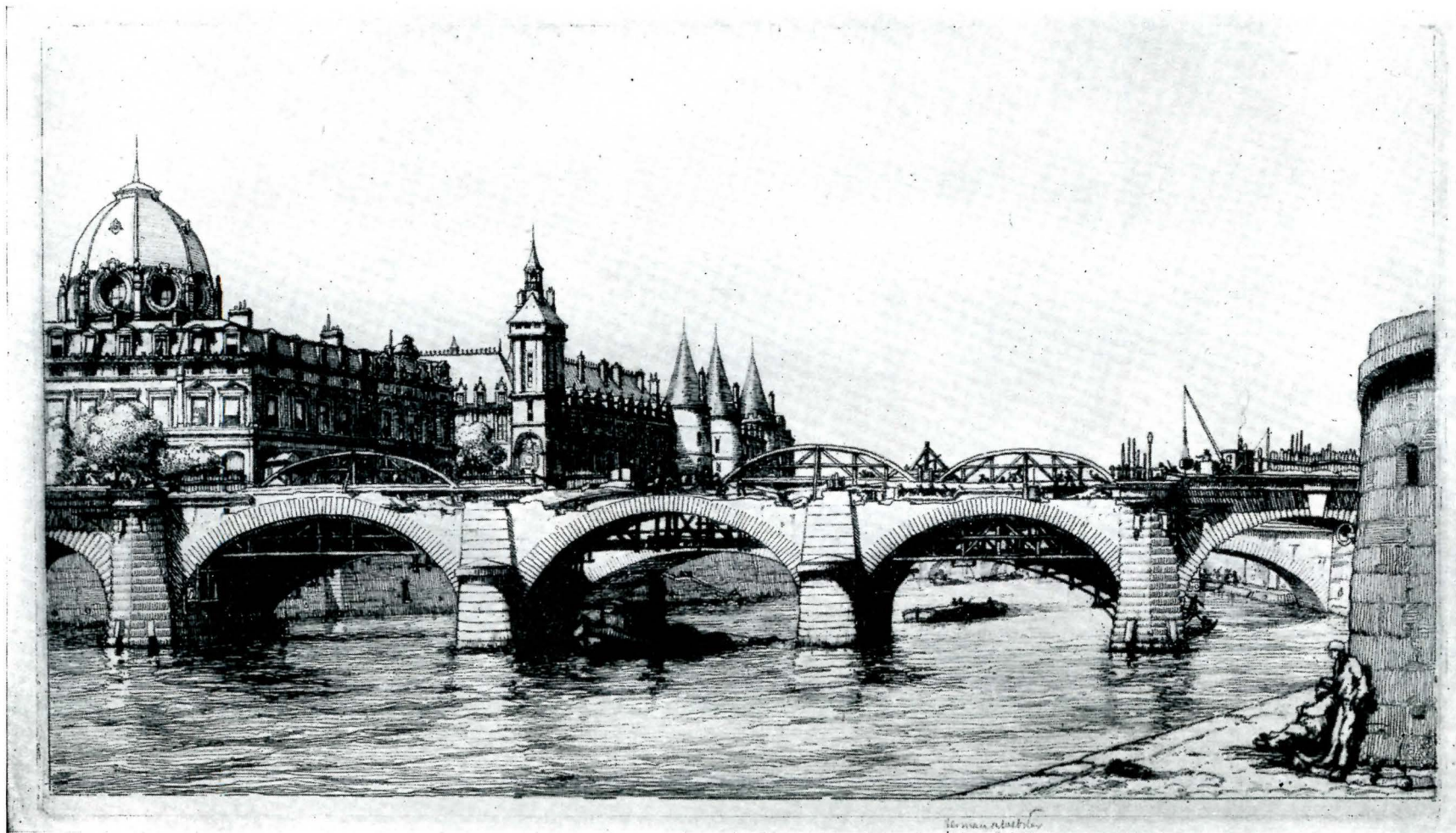
PAINTING BY CARLO CIAMPAGLIA
DESIGN FOR WALL PAPER PATTERN

PLATE XVI

VOLUME VII

NUMBER 5

This design was made by Carlo Ciampaglia, Fellow in Painting of The American Academy in Rome, 1921-23, for Robert Graves & Co. The original panel is 10 feet by 6 feet and forms one unit in a repeat pattern, so that it can be adapted to any size wall. The sky may be continued upwards as far as desired. Printed from wood blocks in twelve colors and in five sections.



Courtesy of M. Knoedler & Co.

ETCHING BY HERMAN A. WEBSTER
LE VIEUX PONT NOTRE DAME, PARIS

PLATE XVII

VOLUME VII

NUMBER 5

Herman A. Webster, a specimen of whose work is shown on this plate, is one of the foremost American etchers of his generation. Martin writes of him: "In his architectural work. Webster sets his theme upon the plate with fine skill of arrangement and with exquisite draftsmanship." Webster was an enthusiastic admirer of the work of Meryon whose influence is perhaps evident in this plate.

COMPETITION FOR THE LeBRUN TRAVELING SCHOLARSHIP FOR 1926

REPORT OF THE JURY OF AWARD

THE JURY OF AWARD begs to report that it has carefully studied the programme for the above Competition and that it examined carefully into the merits of the various drawings submitted, upon the afternoon of Friday, March 19, and the morning of Saturday, March 20th. The result of the deliberations and of several series of ballots was as follows:

- 1st Place and the Traveling Scholarship to Competitor No. 6, Mr. Ferrari, 152 East 47th St., New York City, nominated by John Mead Howells.
- 2nd Place and 1st Mention to Competitor No. 5, Mr. Rowland H. Crawford, 3733 Locust Street, Philadelphia, Pa., nominated by C. C. Zantinger.
- 3rd Place and 2nd Mention to Competitor No. 3, Mr. John Arnold Bower, 130 South 39th Street, Philadelphia, Pa., nominated by Harry Sternfeld.
- 4th Place and 3rd Mention to Competitor No. 2, Mr. Clarence Dale Badgeley, 162 East 37th Street, New York City, nominated by Harry V. K. Henderson.

The following were commended for the work presented by them:

Allmon Fordyce, Elmhurst, Long Island.

Erik Kaeyer, Yonkers, N. Y.

Emil W. Klee, New York City.

Walter Thomas Rolfe, Fargo, North Dakota

There were 24 sets of drawings presented from the following geographical distribution: New York City 7, Boston 3, Philadelphia, Detroit, Chicago and Princeton each 2, and 1 each from Fargo, Yonkers, Norristown, St. Louis, Providence and Harvard.

A high level of architectural knowledge was displayed generally by the competitors, but they apparently failed to grasp the simple character of the problem as presented in the programme and they sought needless complications. In many instances the open air auditorium was so enclosed as to require only a roof to transform it into an indoor auditorium, and the Jury regretted that a number of solutions of interest were studied and presented in a way that indicated lack of fundamental knowledge in architectural planning.

The solution presented by Mr. Ferrari was simple, straight forward and practical. It had the character of a municipal building and one that was intended for public assemblages. It was suitable to be one of a group of public buildings and would look well if built and seen from all sides. The scale, both of the plan, section and elevation, was good. The horizontal and vertical circulations were excellent and the relation between the auditoriums and amphitheatre was good. The Jury was of the opinion that the amphitheatre would have been greatly improved had it been less steep in section.

The solution presented by Mr. Crawford was also simple, straight forward, practical and interesting, but it lacked charm in its architectural expres-

sion. In character, it seemed unnecessarily heavy and was displeasing to the Jury. The opening between the two stages was a good feature and the relation in section between the auditorium and amphitheatre was excellent.

The solution presented by Mr. Bower was very interesting and the outdoor quality of the amphitheatre was greatly commended. The reception hall overlooking the amphitheatre was an added charming feature to the problem. The section was very good indeed, but the plan was not well studied, nor well expressed.

The solution presented by Mr. Badgeley was also interesting. The combined stage for the auditorium and amphitheatre was very good and the amphitheatre itself splendid. The whole conception of the general scheme was very good, but the failure to express it in better architectural form prevented a higher ranking for Mr. Badgeley.

Very respectfully submitted,

WILLIAM HARMON BEERS

RICHARD H. DANA

LANSING HOLDEN

EGERTON SWARTWOUT

JULIAN CLARENCE LEVI, *Chairman*

JACOBSON & CO. AWARD PRIZES

THE SECOND ANNUAL competition offered by Jacobson & Co., the program for which was published in PENCIL POINTS, was judged in New York on April 9th. The jury was to have been Messrs. Aymar Embury, Howard Greenley and Hobart Upjohn. Mr. Upjohn was unexpectedly prevented from attending and Mr. Ralph Reinhold was asked by the other jurors to serve as the third man in the ring.

The prizes and mentions were awarded as follows:

FIRST PRIZE, \$500.00, to Alfred Kastner, c/o B. G. Goodhue Associates, 2 West 47th Street, New York City.

SECOND PRIZE, \$300.00, to James Edward Agengroad, c/o Mellor, Meigs & Howe, 205 So. Juniper St., Philadelphia, Pa.

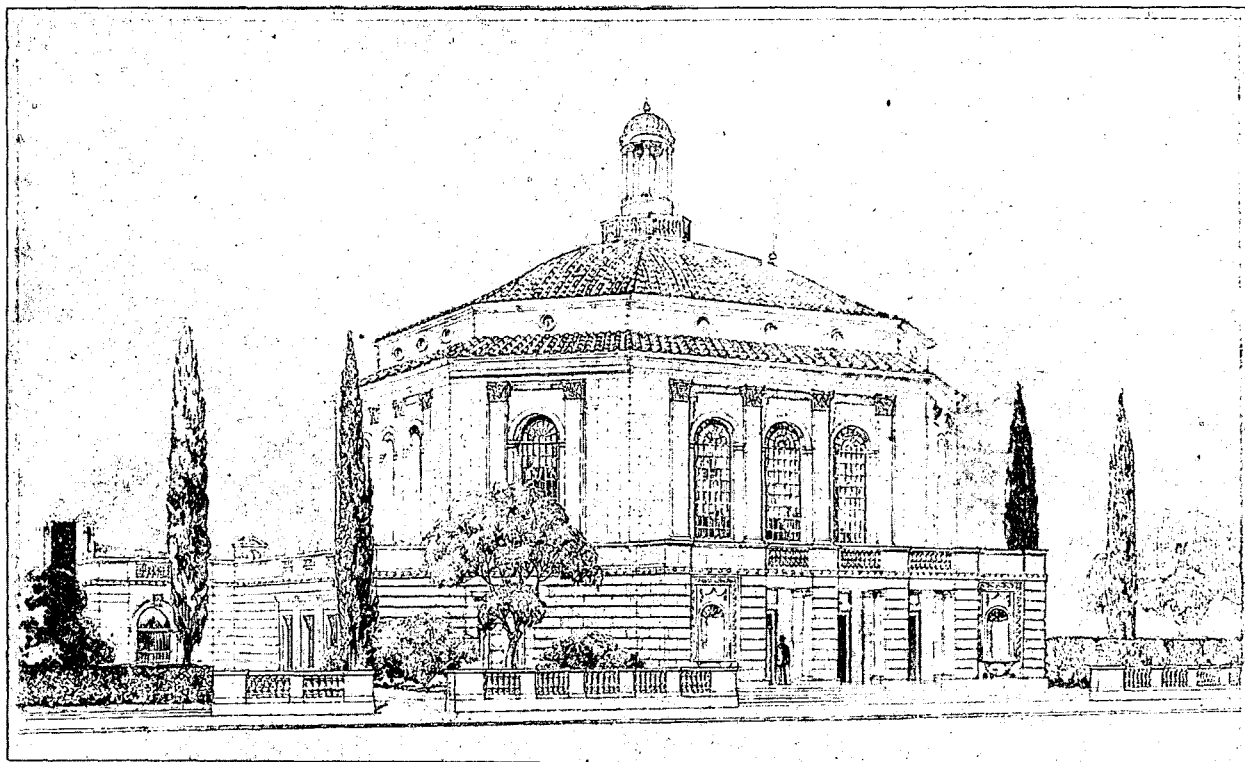
THIRD PRIZE, \$200.00, to Alfred Thompson Granger, 4651 Grace Street, Box 295, Route 2, St. Petersburg, Fla.

FIRST MENTION, to S. M. Kurtz c/o Allen & De Young, 510 Lexington Ave., New York City.

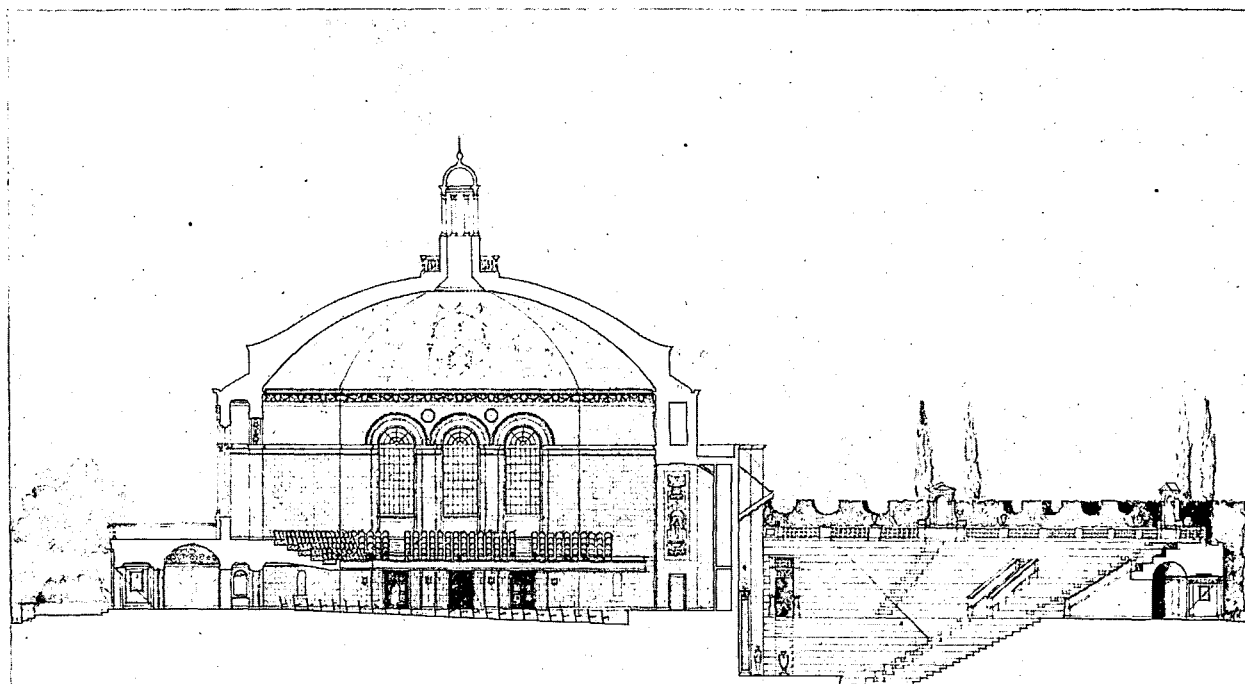
SECOND MENTION, to Albert Sturr, 14 East 45th Street, New York City.

THIRD MENTION, to F. J. Lippell, 43 Freund Street, Buffalo, New York.

The report of the jury and reproductions of the winning drawings are scheduled for publication in the June issue of PENCIL POINTS.



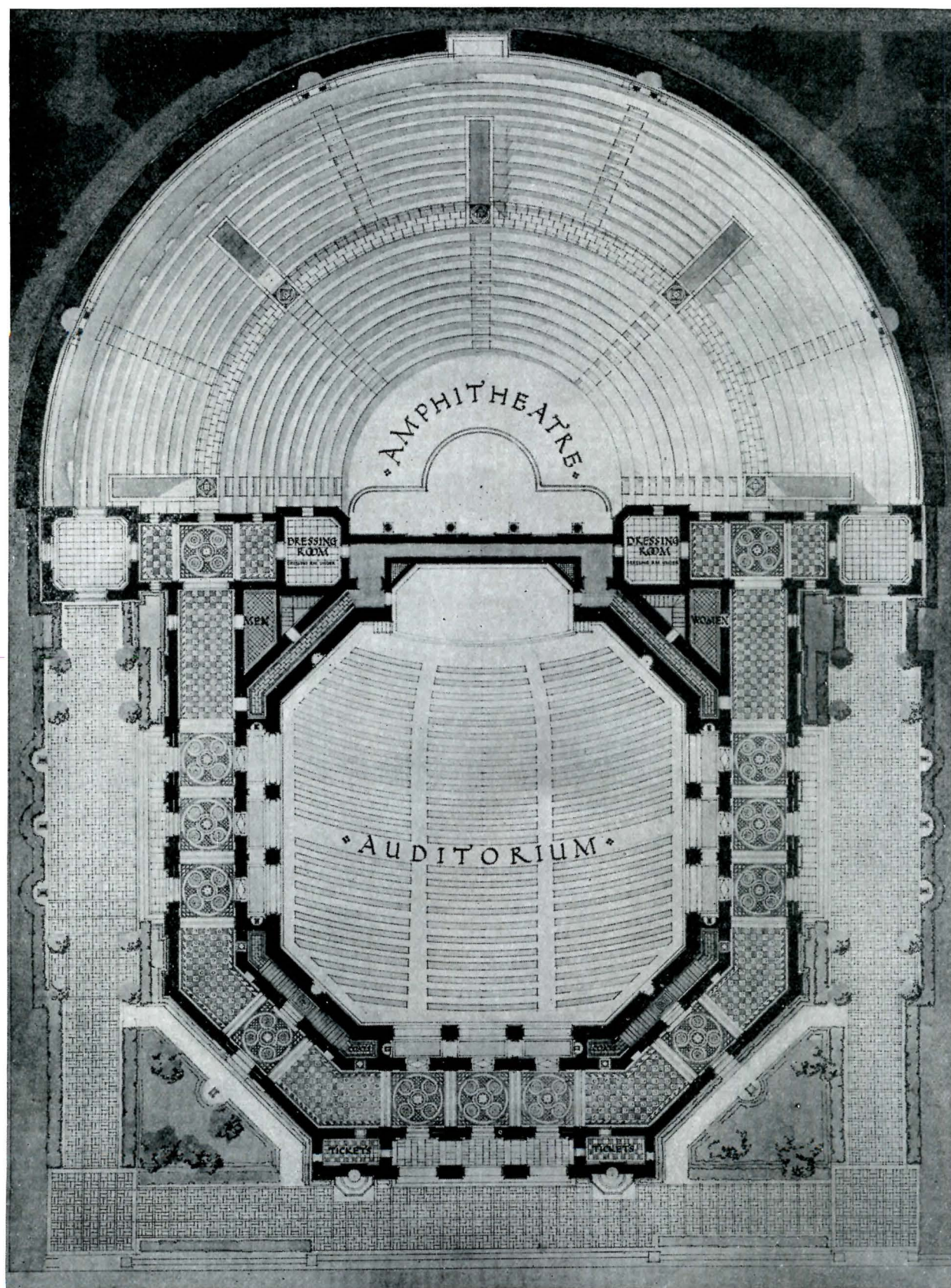
PERSPECTIVE



THE LE BRUN
TRAVELLING SCHOLARSHIP
MCMXXXVI

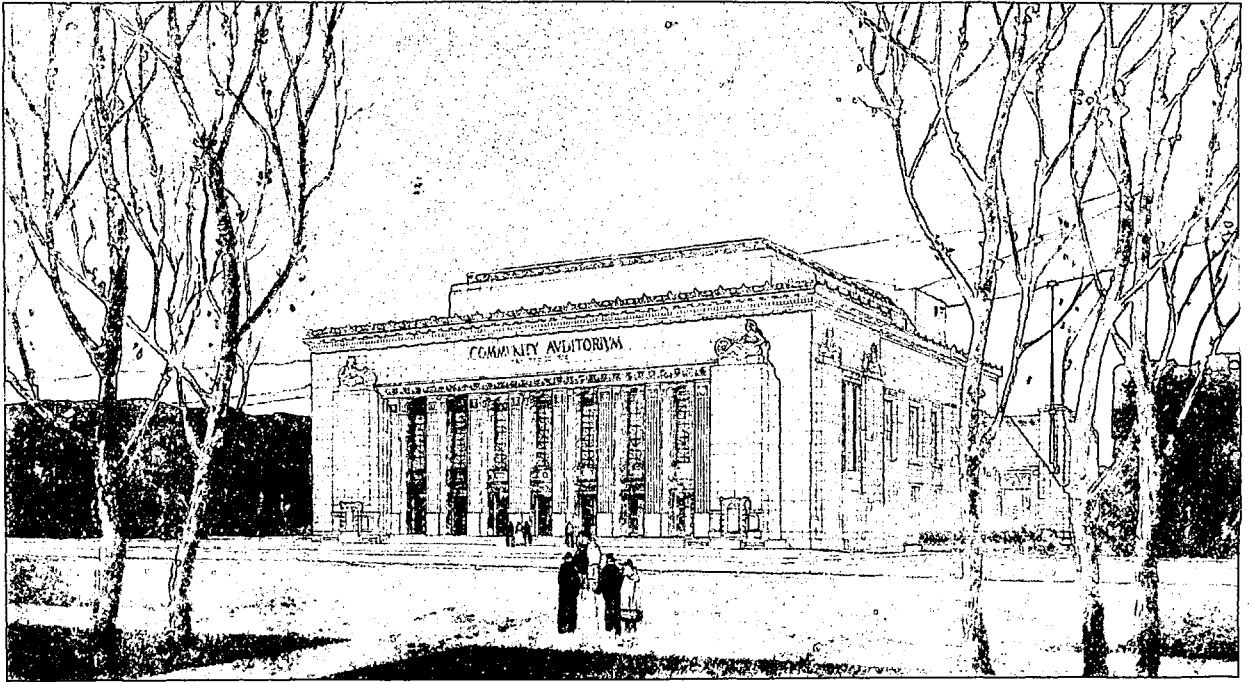
SECTION

PRIZE WINNING DESIGN BY WILLIAM FERRARI

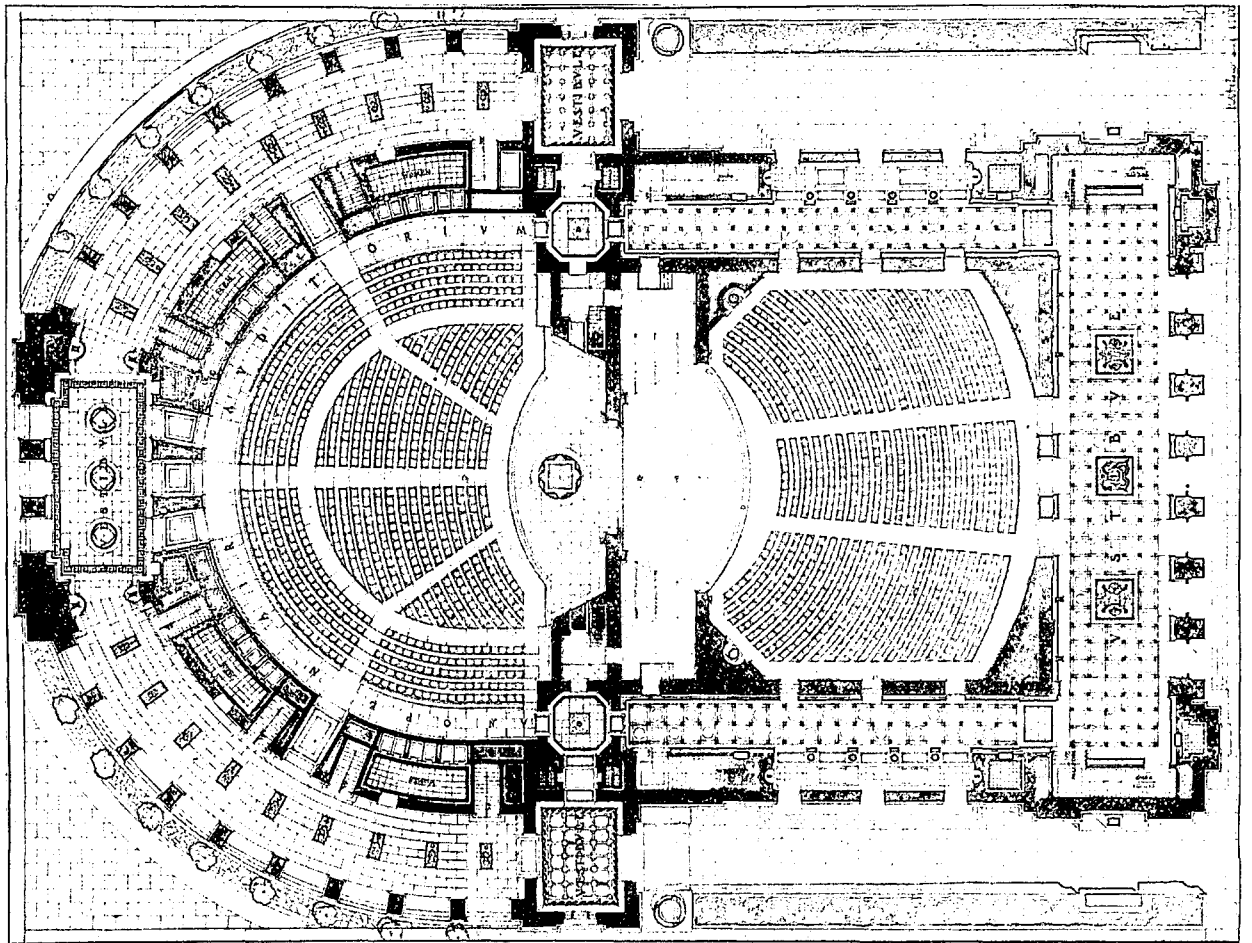


PLAN OF PRIZE WINNING DESIGN BY WILLIAM FERRARI

PENCIL POINTS

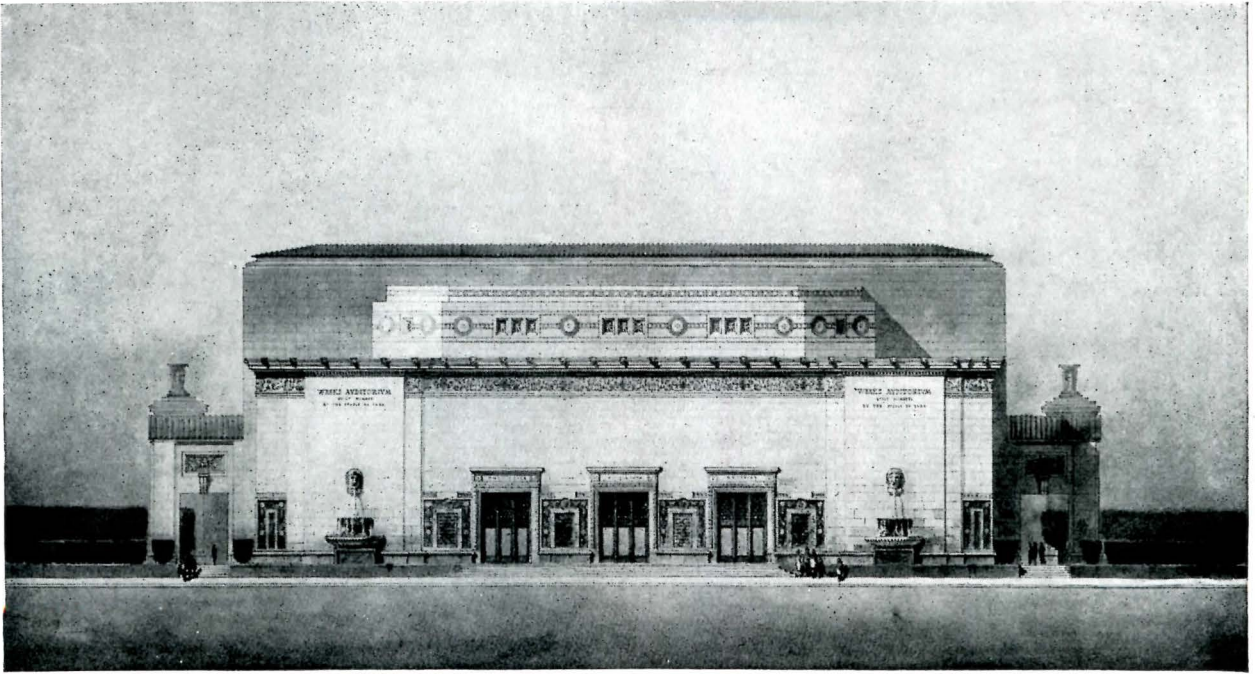


PERSPECTIVE

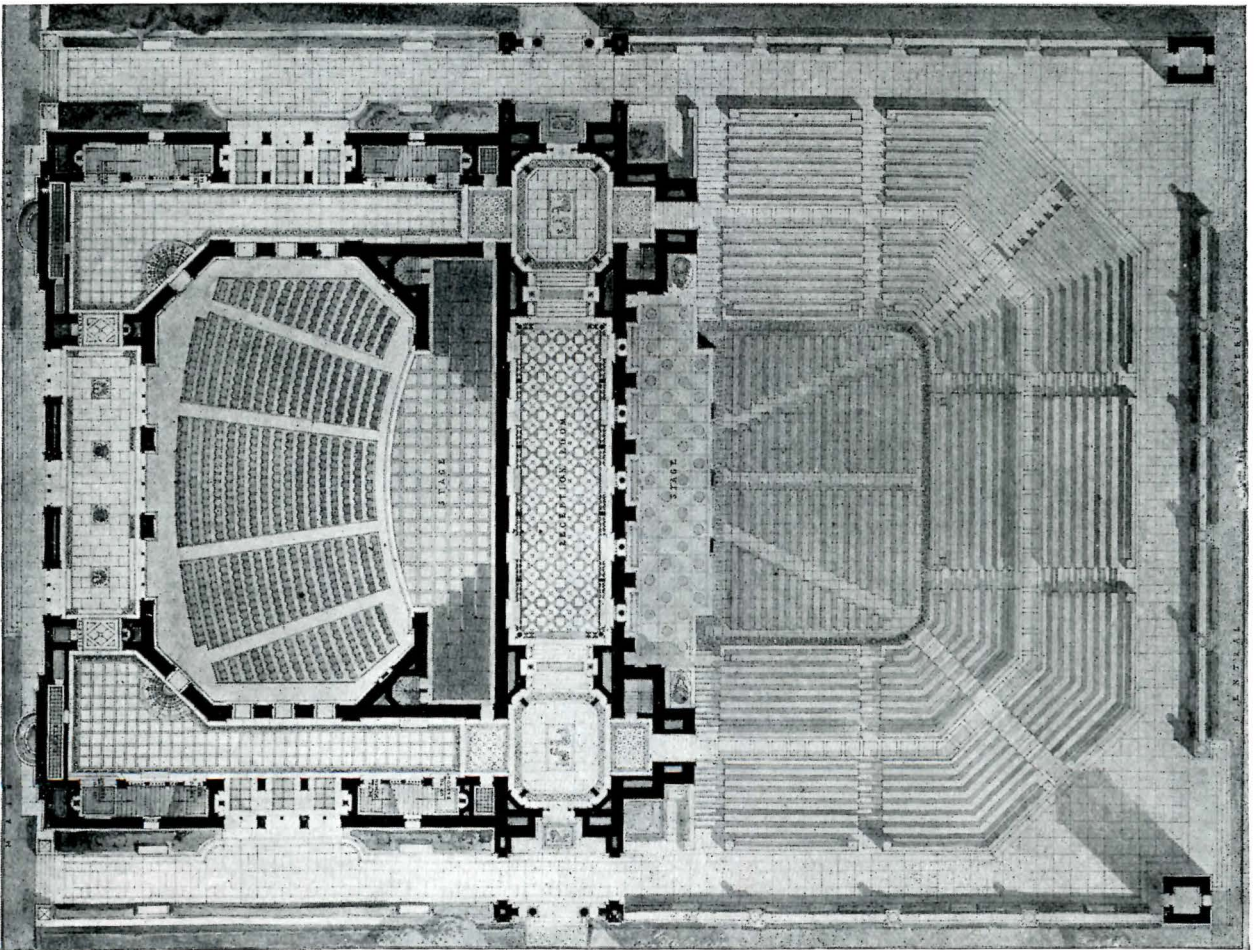


PLAN

DESIGN BY ROWLAND H. CRAWFORD AWARDED SECOND PLACE AND FIRST MENTION



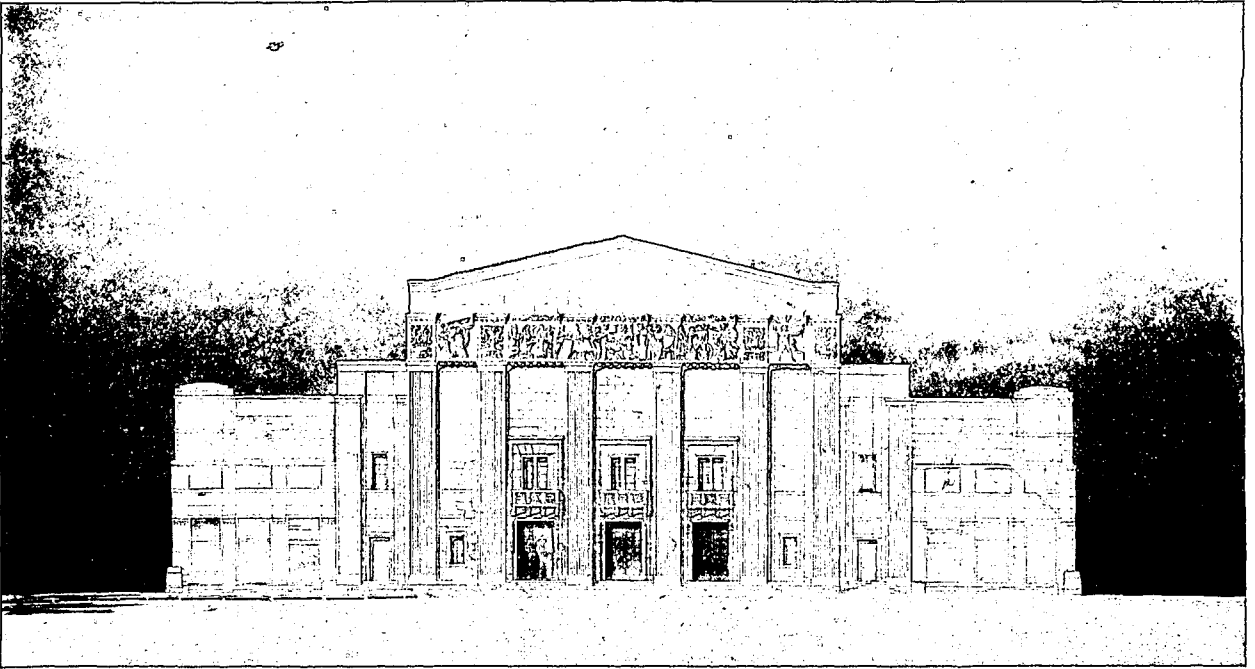
ELEVATION



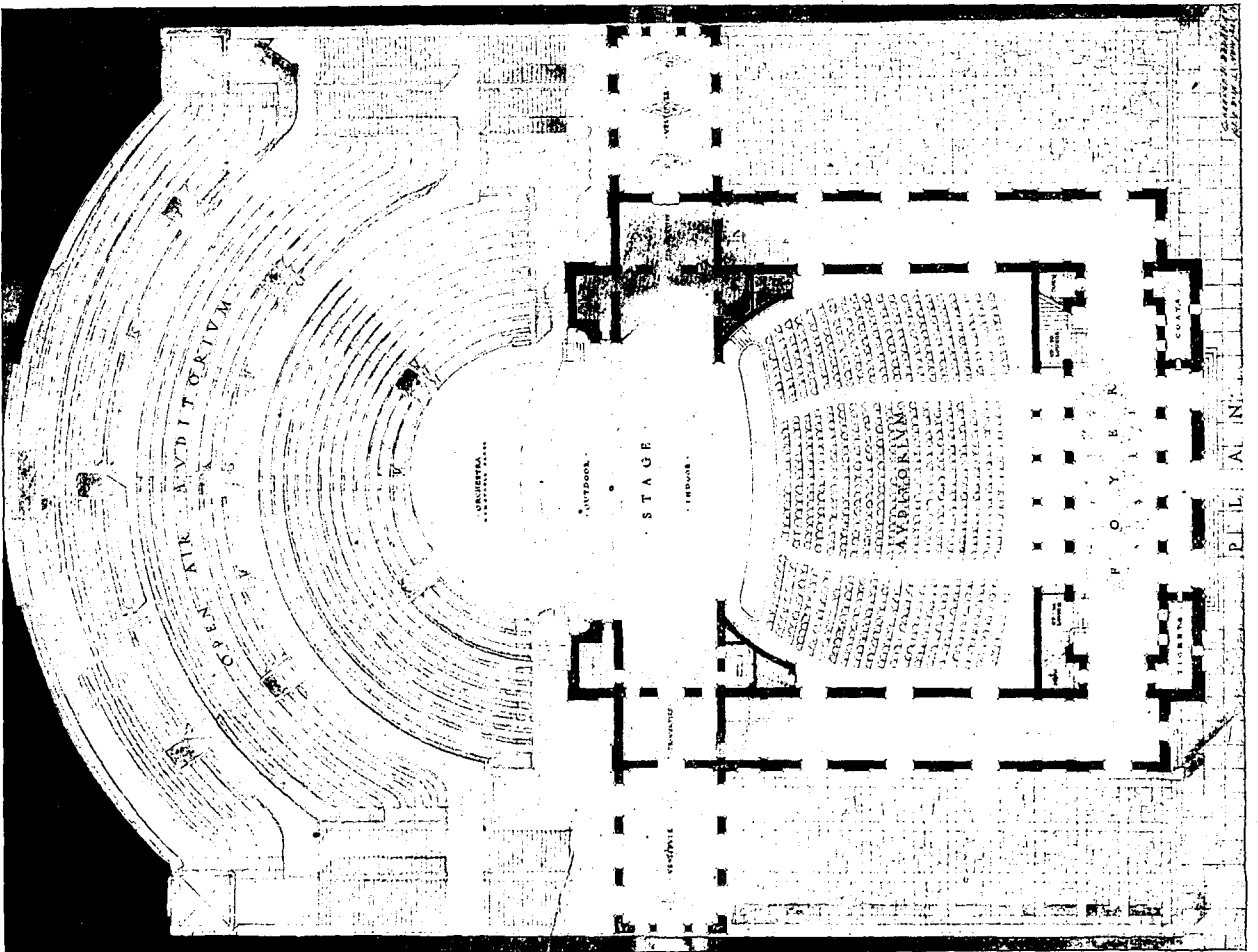
PLAN

DESIGN BY JOHN ARNOLD BOWER AWARDED THIRD PLACE AND SECOND MENTION

PENCIL POINTS



ELEVATION



PLAN

DESIGN BY CLARENCE DALE BADGELEY AWARDED FOURTH PLACE AND THIRD MENTION

PENCIL POINTS

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Instructions for change of address should give both old and new address and must reach this office before the 20th of the month to be effective with the mailing of the following number.

MAY, 1926

THE AMERICAN ACADEMY IN ROME

FROM A LETTER RECEIVED by C. Grant LaFarge from Charles R. Morey, Professor in Charge, School of Classical Studies, we quote the following:

"Since my last news letter there have been four Open Meetings and six lectures. In the Open Meeting of February 12th, Mr. Dennis and Miss Elizabeth Lawrence collaborated on a critique of the Garrett manuscript of Marcanova, Mr. Dennis giving his results on the history of the manuscript, and Miss Lawrence classifying the fifteenth century school to which the drawings belong. On Feb. 15, Mons. Wilpert read a paper on the re-working of Christian sarcophagi, which will probably be published in the Art Bulletin. The Open Meeting of Feb. 17th was devoted to Miss Marion Lawrence's 'City-Gate Sarcophagi', a study of a certain class of fourth century sarcophagi with a view to estimating their evidence for Oriental influence on late Roman art, and to Mr. Capps' paper on the Consular Diptychs, in which he isolated a class of diptychs manufactured by Alexandrian workmen. Comm. Nogara lectured on Feb. 26th on the origin of the Etruscans and their language. The Open Meeting of March 3rd consisted of Miss Lawler's critique of contemporary reconstructions of the Greek Dance, with her own reconstruction of a particular type thereof, and Professor Van Buren's notes of emendations to ancient authors and Pompeian inscriptions. Miss Gertrude Robinson read a paper on March 5th on the grottoes of South Italy used for monasteries by Eastern monks in the Middle Ages, and their frescoes. Senator Ricci gave us two lectures instead of one on the evolution of stage scenery from ancient to modern times, and arranged, for illustration of his lectures, a very fine exhibit of photographs and books at the Academy. His lectures, given on March 8th and 11th, were of a very high literary quality and extremely illuminating. The last Open Meeting came on March 10th, when Mr. Robinson read on the interpretation of the recently discovered Acarnanian-Aetolian alliance of the third century B. C., and fixed its date; I read a note on a painted panel in the Vatican, belonging to the Museo Cristiano, of which I had undertaken the catalogue. The schedule closed March 12th, with a very fine paper by Franz Cumont on the remains and paintings of Doura in the Euphrates valley.

"Miss Taylor, Professor Ullman, Professor Van Buren and myself have given lectures within the period covered by this newsletter, before the British and American

Archaeological Society. Miss Taylor's subject was 'The Origin of the Hellenistic Ruler-Cult'; Professor Ullman's 'The Origin of the Alphabet'; Professor Van Buren's 'The House of the Vettii', and my own 'The Academic Point-of-View'. Several members of the School have been attending Hermanin's lectures on the mediaeval churches of Rome, given under the auspices of the German Institute.

"The majority of the members of the School will go next week to Pompeii and Naples for the lectures by Professor Van Buren, after which the twelve composing the Greek party will leave for the Greek trip. I shall go to Milan on business connected with School publications and my own, and join the Naples party week after next.

"The School has been assisted by a particularly thoughtful gift on the part of Mr. Samuel Sachs, who gave, in addition to \$200 for the Music Department of the Academy, \$200 for the assistance of students of the School in their spring traveling, and \$200 for special purchases for the Library.

"The estimate of next year's publications has been prepared and sent in to the Committee on the School; it will include at least one Monograph (Professor Ullman's edition of Sicco Polenton), and a volume of Memoirs consisting of several of the papers that have been read at the Open Meetings. This will not include Miss Avery's work on the Vatican manuscripts and their miniatures, nor Mr. Taylor's article on the sarcophagus of S. Lorenzo, which he finds reason to assign to the fifteenth century although it has been classed hitherto as an Early Christian work. These two pieces of work will be published elsewhere."

To the Editor of PENCIL POINTS.

Dear Sir,

In answer to your article in Vol. VII Number 4 entitled "What do we owe each other?" I have written the following:—

Q. "What does the Architect owe his draftsman?"

(1) The Architect owes the Draftsman a good sound healthy body, a well poised mind and an appreciation of the manners, customs, and the ordinary courtesies of life.

(2) A broadminded view of religion that eliminates all prejudices but not so broad that his views of the subject are spread into mere empty forms.

(3) A good appreciation of the artistic—not so modern that it tends toward the Cubist but conservative enough to be both modern, and at the same time practical.

(4) He owes him an eight hour day with every Sunday and legal holiday off, also Saturday afternoons off and at least two weeks holiday with full pay every summer. Also no overtime work without adequate compensation. Time is Money and it is as wrong to take a man's time without pay as it is to steal money.

(5) These general statements of course apply to both Employer and Employee.

"What does the Draftsman owe to the Architect?"

(6) He should have a good knowledge of English so that the firm is not ashamed of the letter he writes. This applies alike to Architect and Draftsman.

(7) The Draftsman should be respectful towards his Employer. Courteous, but not too familiar nor like Uriah Heep.

(8) He should make it a point to be punctual unless unavoidably delayed by accident, sickness or inclement weather. He should not be too fussy about being kept five, ten or fifteen minutes overtime in the evening but should be willing to make up the time he came late in the morning, but he should not work over time as a regular thing unless he receives adequate compensation, as time is worth money and he should value his time more than money as he will only pass this way but once and cannot get the time back again however much money he might accumulate to leave behind him for somebody else to spend.

(9) He should be thoroughly acquainted with his work and if he is not familiar with certain phases of it should study to acquaint himself with the particulars in his own time under some competent teacher in some evening school or in the extension department of some recognized college.

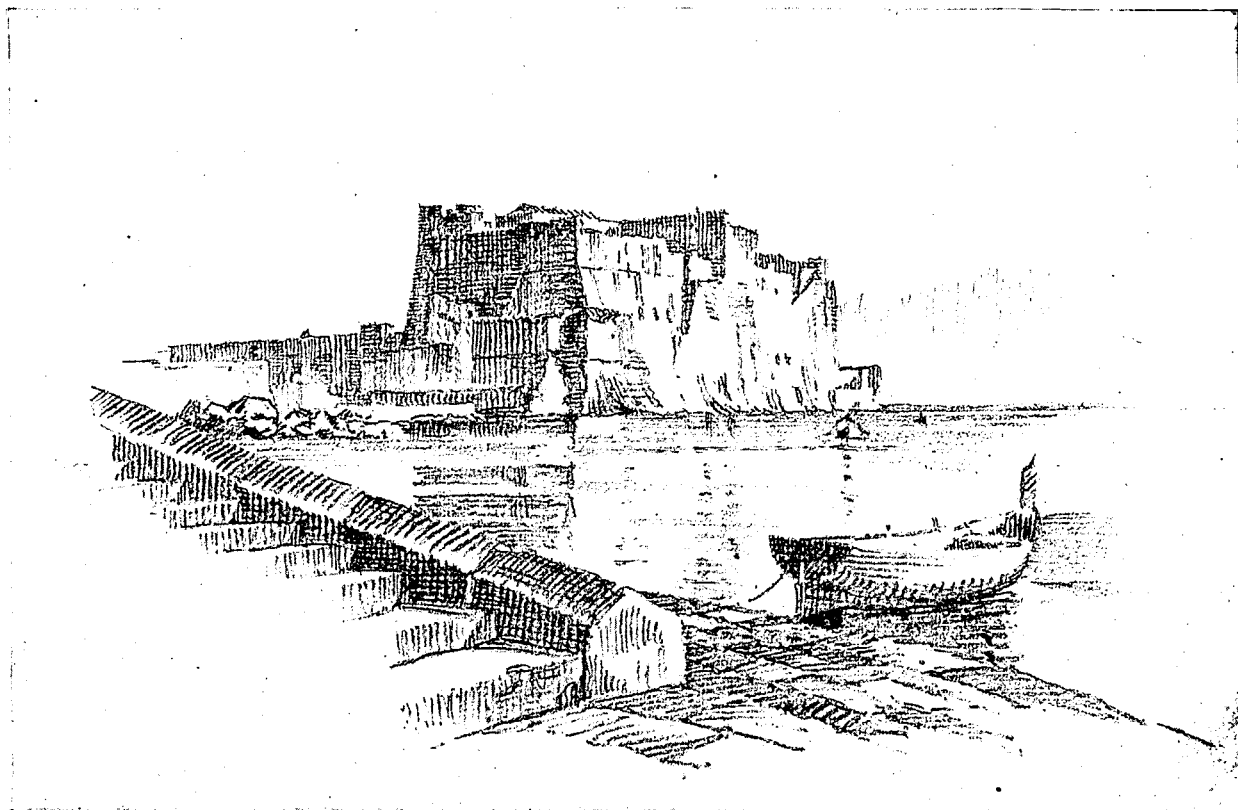
(10) He should be industrious, patient, frugal, thrifty and truthful, economical and sympathetic, neat and tidy in his dress, up to date but not showy.

Trusting this will answer your questions.

I remain,

Yours truly,

RUDOLPH P. SMITH.



PENCIL SKETCH BY RALPH WARNER HAMMETT

ATELIER HIRONS HONORS LLOYD MORGAN

A DINNER WAS GIVEN on April 5th, in honor of Lloyd Morgan, Paris Prize winner in 1920, who has recently returned from Paris. Welcome back to civilization and hard work, Lloyd. Among the notables who were present were Kenneth Reid, of PENCIL POINTS, Mr. Grunsfeld, the practicing architect, of Chicago, John Ames and Henry B. Marsh, of New York, and Richard and Robert Rowe, w. k. draftsmen and lithographers. M. Gauthier was elected toastmaster early in the festivities, by himself, there being no dissenting votes, and presided with his usual mellow humor, until subdued by a wet napkin. Each guest spoke briefly a word of welcome, and a word of introduction for the next speaker, and was seated with a round of applause and smaller ammunition. They were the finest set of after dinner speeches ever made, no one having the temerity to remain on his feet more than two minutes. Afterward the famous H. C. trio, the only three in captivity, "Big-Dick" Thomas and "Rudy" de Ghetto, Paris Prize H. C. winners in 1923 and A. "Fustonian" Euston, 1924, were heard from. Morgan then took the floor and told us in no uncertain terms what it was all about. It was noticeable that as he warmed to his subject, forcing home each point with appropriate frog-like gestures, other diners in the room hurriedly rose and left. The climax of his speech, a lurid description of the Quatz Arts Ball, was delivered to the Atelier alone, with a fringe of proprietors, waiters and dish-washers.

At the annual meeting of the Atelier the following officers were elected for 1926-27:

Massier	GEORGE W. RUSTAY
Sous-Massier	CHARLES W. BEESTON
Secretary	EARL VON STORCK
Treasurer	JOHN DE ROCCO
Librarian	HARRY SILVERMAN
Chef de Couchon	RICHARD MOORE

"THE BOOK" OF THE BOSTON ARCHITECTURAL CLUB

THE 1925 EDITION of "The Book", featuring Spain, is a volume of great charm and value and is one of the best that the club has published. Copies may be had from Fred V. Little, *Executive Secretary*, Boston Architectural Club, 16 Somerset St., Boston, Mass., Price \$7.50 delivered.

DETROIT ARCHITECTURAL BOWLING LEAGUE

THE DETROIT ARCHITECTURAL BOWLING LEAGUE finished its fourth season on April 2nd with the following standings:

Team	W	L
Albert Kahn	52	29
Smith, Hinchman & Grylls	50	31
Geo. D. Mason & Co.	48	33
Janke, Venman & Krecke	47	34
Donaldson & Meier	45	36
McGrath, Dohmen & Page	44	37
Malcomson & Higginbotham	38	43
Van Leyen, Schilling & Keough	29	52
Weston & Ellington	27	54
Simmers & Waalkes	25	56

Season's Records

Individual High Score	
1 game —Kalsched, (A. K.)	267
3 games —Jolson, (A. K.)	649
Team High Score	
1 game —McGrath, Dohmen & Page	995
3 games —McGrath, Dohmen & Page	2796

The annual banquet was held April 21st at the Book-Cadillac Hotel. A large crowd attended and a big time was had.

A CORRECTION

WE WISH TO POINT out to our readers an error in the captions on our colored lithograph plates in the April issue of PENCIL POINTS. Where the second line in both instances read "Drawn on 3 zinc line plates" it should have read "Drawn on 3 zinc plates". This correction is made to avoid confusing the thin zinc plates used by lithographers with the zinc line engravings made by photo-engravers.

Mr. Guptill's book, SKETCHING AND RENDERING IN PENCIL, should be in the hands of every Pencil Pointer. Price \$5.00. Sent on approval? Oh! yes indeed. And Brother Guptill is now doing a book on rendering in ink. It will probably be published sometime in the fall. Announcement later.—(adv.)

ST. LOUIS ARCHITECTURAL CLUB

AT THE ANNUAL MEETING of the St. Louis Architectural Club, held at the clubhouse, 514 Culver Way, the following officers were elected: President, Alfred H. Norrish; first vice-president, Charles M. Gray; second vice-president, Walter Rubin; secretary, Edward Bruggeman; treasurer, Clarke F. Sanford; associate members of the Executive Board, Carl J. Trebus, Allan W. Gordon, and trustee, Angelo Corrubia.

Other trustees whose terms have not as yet expired are: Louis La Beaume and E. C. Klipstein. A meeting of the stockholders of the club property preceded the regular meeting of the club, and the following trustees of the building trust fund were re-elected for a three-year period: H. H. Lynch, Carl J. Trebus and Herman Frauenfelder.

PRATT ARCHITECTURAL CLUB

THE PRATT ARCHITECTURAL CLUB is now a permanent organization, enthusiastic, robust and throbbing with life. The dinner on April 7th was a tremendous success, 90 men attending and all enjoying themselves greatly. A Constitution and By-Laws were adopted and papers of Incorporation taken out. Officers were elected as follows: Pres. Eric S. Anderson 08; Sr. V. Pres. H. D. Vernam 03; Jr. V. Pres. Philip G. Knobloch 12; Treas. A. D. Cole 19; Sec. Harlow C. Jones 09; Asst. Sec. W. J. Cooper 23; Asst. Treas. L. F. Boulware 24. Bd. of Governors: Warren E. Green 97; A. F. Edwards 09; E. W. Higgs 10; L. B. Pope 07; A. S. Flinch 13; William H. Gompert 92; J. A. Maycock 16; W. M. Gray 11; and D. O. Larsen 12. This is our start, and all Pratt Architects are eligible and wanted. We will soon mail full information to the men on our list. If you are not on the list, get on. Write to the Club c/o the Fraternity Clubs Building, 22 E 38 St. N. Y. City.

THE COLUMBIA ATELIER

THE COLUMBIA ATELIER is now nearing the end of the Spring Term and a cooperative Atelier spirit between the Class "A" and "B" members has prevailed throughout the year. Much has been accomplished not only in the way of work but also along the line of entertainments and our program has been well balanced with banquets, dances and theatre parties.

C. H. Jagemann was reelected Massier and H. F. Bossert elected Sous Massier. The active members for the year number 50.

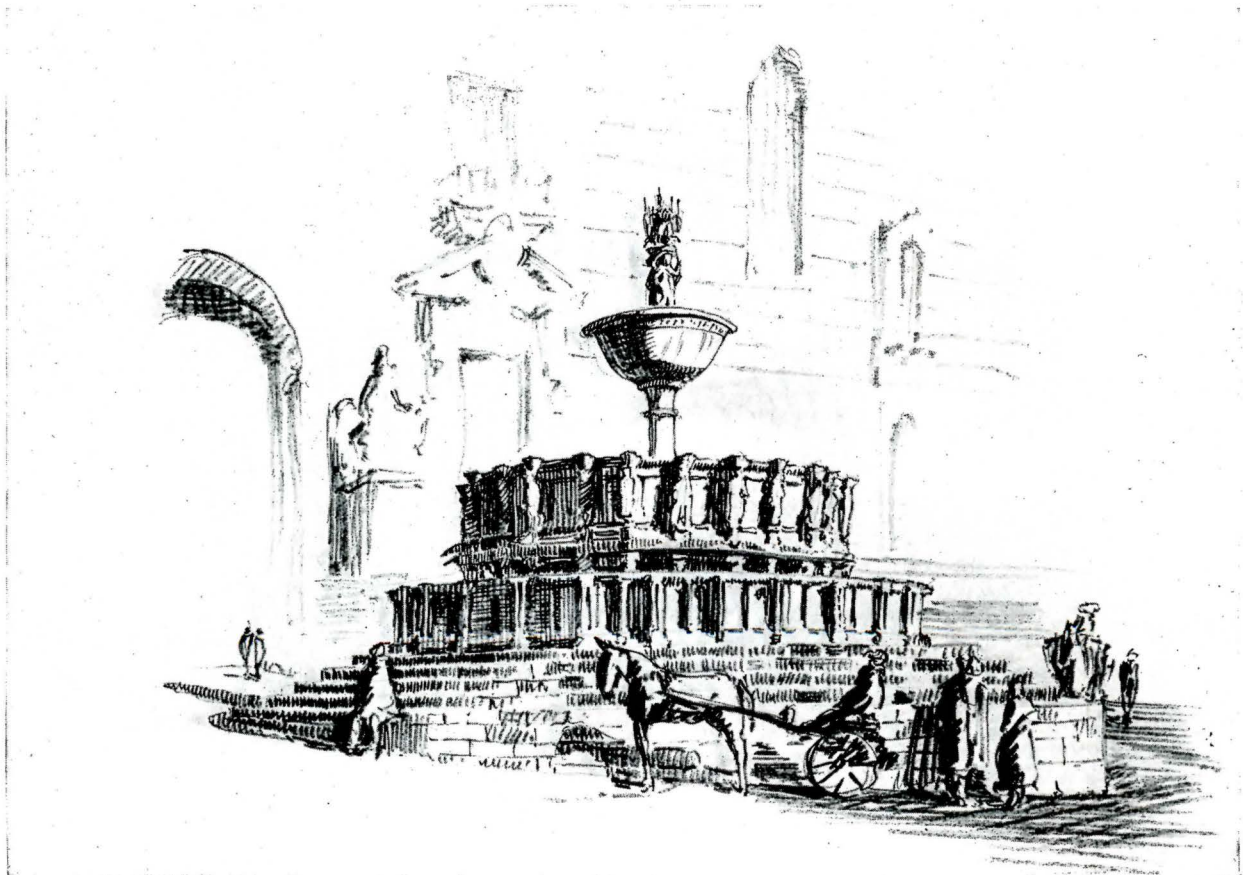
Our critics for the year have been as follows: Mr. John V. Van Pelt, (Patron), Mr. Harvey W. Corbett, Mr. Wm. T. Armstrong, Mr. A. E. Flanagan, Mr. John G. Schuhmann and Mr. Geo. A. Licht, (Mr. Licht has very kindly consented to act in the capacity of Mr. Van Pelt during the latter's trip abroad).

A hearty welcome is extended to any who desire to see our Atelier, (one of the largest in the east), which is located in Avery Hall, Columbia University.

H. F. BOSSERT, *Sous Massier*.

RALPH WARNER HAMMETT EXHIBITS SKETCHES

RALPH WARNER HAMMETT, holder of the Nelson Robinson Travelling Fellowship in 1924, recently exhibited some of his pencil drawings and water colors made during his travels on this Fellowship in the Hall of Casts at Robinson Hall, Harvard University. Mr. Hammett was a graduate in Architecture from the University of Minnesota and in 1923 received the degree of Master in Architecture from Harvard. The exhibition covered a wide range of subjects. We reproduce on this, and the opposite page, two of Mr. Hammett's drawings.



PENCIL SKETCH BY RALPH WARNER HAMMETT

THE NEW YORK ARCHITECTURAL CLUB, INC.

WE ADMIT THAT we were just a little bit too optimistic when we declared in the April number that our Club and Atelier quarters would be completely installed and functioning at the time of issue.

Unforeseen difficulties have come up since, which, while not serious enough to obstruct the mapped-out program, proved merely annoying in that they retarded the completion of the job on schedule. Therefore we were only partly right in our prediction, and we humbly apologize to all those of our friends who have suffered the least bit of annoyance or inconvenience due to our rashness. We hope there weren't many.

We concentrated our activity mainly on the completion of the Atelier portion of the Club, in order to give the boys who were anxious to start work a chance to do so. The result is that we have quite a number of students very busily and enthusiastically engaged in working out their Esquisses right now, while the finishing touches are being put to the entire premises. The present problem is the last before the Summer problem is given out by the Beaux Arts Institute. For working out this problem practically the entire Summer is allowed. At this time perhaps it will be well to bring to the attention of those who have signified their intention of joining the Atelier, as well as those who are contemplating making their application, that whereas we have a list of applicants almost twice as long as the actual capacity of the Atelier, only those will be taken in who show sufficient good faith to make their payments of dues promptly. It should be obvious that sound and efficient management of the Atelier can only be carried out in that way. On that basis the Atelier membership is being filled, and at this writing it is about half completed. Possibly there is a tendency among some of the applicants to lag behind during the Summer and to join in the Fall season. It is to just those that we want to point out that the capacity will be filled long before Fall, at which time they will have discovered that they have lived up to the old saying of having been "penny wise and pound foolish". Besides, the various activities indulged in by the Atelier members all Summer make it more than worth while to "be in". *Right here we wish to state most emphatically that this is not to be considered by prospective applicants to be a drive for Atelier members.* Membership in any good Atelier, and this one in particular, is a privilege sought by the applicants, and this notice is intended merely as a reminder that the longer you put it off the harder you will find it to get in. As to the dues, since many have stated that the payment requirements as laid down by the Atelier Committee were too high, the committee has reconsidered, and fixed the dues at \$5 per month payable in advance. For the time being there will be no Atelier initiation fee other than that the applicant must be a member in good standing of the New York Architectural Club.

The work on the club rooms is going along fairly well, and is now about 75% completed, so that a very good idea can now be had as to how it will look when it is finished. The location being so handy, very many of our members drop in at lunch time to see the progress being made, and already at this stage of the game, it is getting difficult to make them leave the premises. In the near future we hope to have some interior views reproduced, along with a list of those who are helping to make this an accomplished fact.

On Tuesday April 13th, the General Meeting was held in the club rooms, when the seven members were elected to fill the vacancies on the Board of Directors of 21, of those whose term expired. The following were elected to the Board for 3 years, Messrs. Chas. Mink, Edw. Weck, A. F. Bernhard, W. E. Herrick, A. Harrer, E. D. Thomas, and C. E. Dewey.

On Wednesday April 21st, the Board of Directors held

the election of Executive Officers for this year, with the following results:

President: Geo. A. Flanagan
1st V. P.: E. L. Capel
2nd V. P.: N. T. Valentine
3rd V. P.: J. H. O'Brien
4th V. P.: C. L. Elliott
5th V. P.: C. Mink
Treasurer: A. F. Bernhard
Fin. Sec.: L. H. Smith
Recording Sec.: J. C. Marsh
Corres. Sec.: Henry Sasch
Sgt.-at-Arms: W. E. Herrick

BOWLING LEAGUE DIVISION

THE ARCHITECTURAL BOWLING LEAGUE is now nearing the end of its season, in finishing up with the 3 man tournament.

The standing of the teams up to and including Apr. 8 is:

	Office of	W.	L.
1.	W. H. Gompert	8	1
2.	Donn Barber	13	2
3.	Cass Gilbert	7	2
4.	Warren & Wetmore	11	3
5.	McKenzie, Voorhees & Gmelin	10	4
6.	Starrett & Van Vleck	6	4
7.	Holmes & Winslow	9	6
8.	J. G. Rogers	6	4
9.	A. J. Thomas	9	6
10.	Peabody, Wilson & Brown	8	7
11.	J. E. R. Carpenter	5	5
12.	Schwartz & Gross	4	5
13.	A. C. Bossom	4	5
14.	McKim, Mead & White	6	8
15.	T. W. Lamb	6	8
16.	Guilbert & Betelle	4	6
17.	B. W. Morris	2	8
18.	Team withdrawn	—	—
19.	Team withdrawn	—	—
20.	Team withdrawn	—	—

High team score to date, Office of McKenzie, Voorhees & Gmelin,—601.

High individual score to date, Chas. Ackerman,—257.

The tournament will end on April 29th, following which the big jamboree of the season will be held by the A.B.L., the Annual Dinner, when the various and ever increasing trophies, medals and banners will be presented to the winners, (to the tune of Auld Lang Syne and grape juice—maybe).

In a way we regret that the bowling season ends so soon, as we've had seven Snikerton detectives out looking for the Amateur Bowling League, for whom we were cooking up a very snappy challenge to bowl, provided that when located they would be far enough away from here. But alas.

BASE-BALL

The "Architectural All-Star Base-Ball Team" of this club is booking games for this season, to be played during week-ends, and it is interesting to note that among the very first booking are two games with the exceptionally strong team in Sing-Sing Prison. Our team has crossed bats with this team in the past two or three years, and we again look forward to some fast ball playing. Any near-by teams that may be interested in a tussel, might be able to arrange it with our friend and fellow citizen, Mr. M. L. J. Scheffer, c/o Starrett & Van Vleck, 393 Seventh Ave., N. Y. C., who is performing the John McGraw services for our side.

HENRY SASCH, Secretary,
c/o Donn Barber,
101 Park Ave., N. Y. C.



OVER-MANTEL DECORATION FOR A SEASHORE HOME IN MASSACHUSETTS BY FRANK F. FREDERICK.

PERSONALS

EDWARD SCHOEPPPE, ARCHITECT, has removed his offices to 1437 Spruce Street, Philadelphia, Pa.

LOUIS LEVINE, ARCHITECT, has removed his office to the Roosevelt Square Building, Mount Vernon, N. Y.

ASMUS AND CLARK, ARCHITECTS, have removed their offices to 1415-18 Nashville Trust Bldg., Nashville, Tenn.

HARRY BENNETT has opened an office for the practice of architecture at 1 Masonic Temple Building, Lake Worth, Florida.

CHAS. W. DAWSON, ARCHITECT, has removed his offices to 1206 West Broadway, Muskogee, Okla.

F. EUGENE BARTON, ARCHITECT, has opened an office at 907 Crocker Building, San Francisco, Cal.

WESTON AND WESTON, ARCHITECTS, have removed their offices to 1610 Cosmo Street, Hollywood, Cal.

HELEN BAXTER PERRIN AND ELIZABETH COPE AUB are making architectural models at 100 Charles St., Boston, Mass.

H. I. FELDMAN, ARCHITECT, has removed his offices to 415 Lexington Avenue, New York.

CHARLES H. CONRAD, ARCHITECT, AND GEORGE BAIN CUMMINGS, ARCHITECT, have consolidated their offices under the name of Conrad & Cummings, Associated Architects, 507 Phelps Building, Binghamton, N. Y. The firm of Cummings & Starbuck, Architects, has been dissolved by mutual consent. Fred L. Starbuck will continue the practice of architecture in Miami, Fla.

HAROLD JEWETT COOK, ARCHITECT, has removed his offices to 438 Delaware Avenue, Buffalo, N. Y.

R. H. HITCHINS, ARCHITECT, has moved his offices to 41 Liberty Trust Building, Cumberland, Md., and would like to receive manufacturers' catalogues and samples.

JOSEPH IMPELLITIER, ARCHITECT, has removed his offices to 62 Day's Park, Buffalo, N. Y.

OBADIAH BASS AND FLOURNOY G. HAGAN have formed a partnership for the practice of architecture under the firm name of Bass & Hagan, with offices in the Still Building, Lexington, Ky.

EDWARD H. DAVIS AND GEORGE M. D. LEWIS, ARCHITECTS, have removed their offices to Board of Trade Building, Scranton, Pa.

JOHN M. LIPTAK, formerly with Shape, Bready & Peterkin, has opened an office for the practice of architecture at 366 Madison Avenue, New York.

D. LEONARD HALPER, ARCHITECT, LEE PERRY, ASSOCIATE, have opened offices at 310 Realty Board Bldg., Miami, Fla., and would like to receive manufacturers' catalogues and samples.

DAVID J. COHAN, ARCHITECT, has removed his office to 47 West 42nd St., New York.

M. C. KLEUSER, ARCHITECT, has opened an office for the practice of architecture at 509 Republic Bank Bldg., Dallas, Texas, and wishes manufacturers' catalogues and samples.

ADDRESSES WANTED

Anyone knowing the correct address of the following will confer a favor by sending them to this office, Pencil Points Press, Inc., 19 East 24th Street, New York City.

ALABAMA—James A. Stripling, Auburn.

CALIFORNIA—A. D. Baker, Emery Hirschman, J. V. Mackay, Henry F. Starbuck and Douglas Tuck, Los Angeles; W. L. Harrison, Oakland; E. N. Arnold, B. Stoton, Redondo Beach.

FLORIDA—W. F. Hampton and James H. Randolph, Gainesville; E. J. O'Callaghan, Hialeah; T. L. Bush and Louis Sigloch, Jr., Miami; Reginald F. Hird, West Palm Beach.

GEORGIA—L. C. Prichard, Atlanta.

ILLINOIS—Edward J. Thomas, Berwin; Graham E. Park, Champaign; D. D. Ehresman, Harry R. Ladehoff, T. Rissman, Hillard R. Russell, R. L. Saylor and J. Wm. Sievert, Chicago; E. H. Mittelbush, Evanston.

INDIANA—E. Hill Turnock, Elkhart; Joseph P. Leach, Jr., Michigan City.

KENTUCKY—Angelo Rich, Harrison.

MICHIGAN—John H. Barry, Ann Arbor; C. Donkervoet, R. G. Nairn and Henry Peebles, Detroit; A. D. Badour, St. Joseph.

MISSOURI—Wm. Tilden, Sedalia.

NEBRASKA—A. W. Atkins, Lincoln.

NEW YORK—Paul L. Dubois, Jr., Brooklyn; D. K. Kurita, Ithaca; G. Vance Temple, Jamaica, L. I.; E. Augustus Acker, Will G. Norris, Jesse L. Orrick and Carl Psentie, New York City; J. C. Byers, Pelham Manor.

OHIO—Paul Gasser, Cincinnati; Kenneth Paulsen, Columbus; Walter Knapp, Mentor.

OKLAHOMA—Lavone Eilerts, Stillwater; Alfred C. Fabry, Tulsa.

OREGON—Hal F. Voight, Jr., Vernonia.

PENNSYLVANIA—William M. Burke, Drexel Hill; Charles F. Schaef, Philadelphia; Edmund Poggi, Wilkes-Barre.

TENNESSEE—H. H. Wright, Knoxville.

TEXAS—Raymond L. Wofford, College Station; Wilford S. Bogue, Fort Worth; Sol R. Slaughter, Houston.

WASHINGTON—Juan D. Auginaldo and John I. Mattson, Seattle.

CANADA—A. H. Barber, Toronto.

CHANGE OF ADDRESS. (SEE DETAILS)

FROM—

TO—



HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

STRANGE HOW THINGS SHIFT about from month to month isn't it? Or isn't it? By which we mean that a while ago nobody sent us anything but sketches. We noted this fact and called loudly for verse which we had in abundant supply for a couple of months, during which period sketches almost disappeared from the map. But this month the grand old army of sketchers has come to the front and center, whereas the versifiers have thrown us down flat. This may be just as well as we have had several comments to the general effect that our contributors know far, far more about architecture than about writing poetry!

The prizes this month go as follows:

- Class 1—Carl Jensen
- Class 2—No award
- Class 3—Anonymous New Zealander
- Class 4—W. Honack

We used to run a department in this paper called "Queries and Answers", and have had several letters asking us to revive this feature. What do you say about it? We should be glad to receive expressions of opinion, also any questions having to do with the PENCIL POINTS' field in any of its aspects. If you are seeking a bit of information, either directly or remotely connected with drafting room technique, or practice, or anything pertaining to the practice of architecture, just fire it at us and we will see what can be done about it. For some years past we have been answering by individual letter all such inquiries, but it seems to us that both the question and answer in many cases would be interesting to quite a group of our readers, and that they might just as well, if not better, be published for the benefit of all and sundry.

HE'S JUST A LITTLE FELLOW

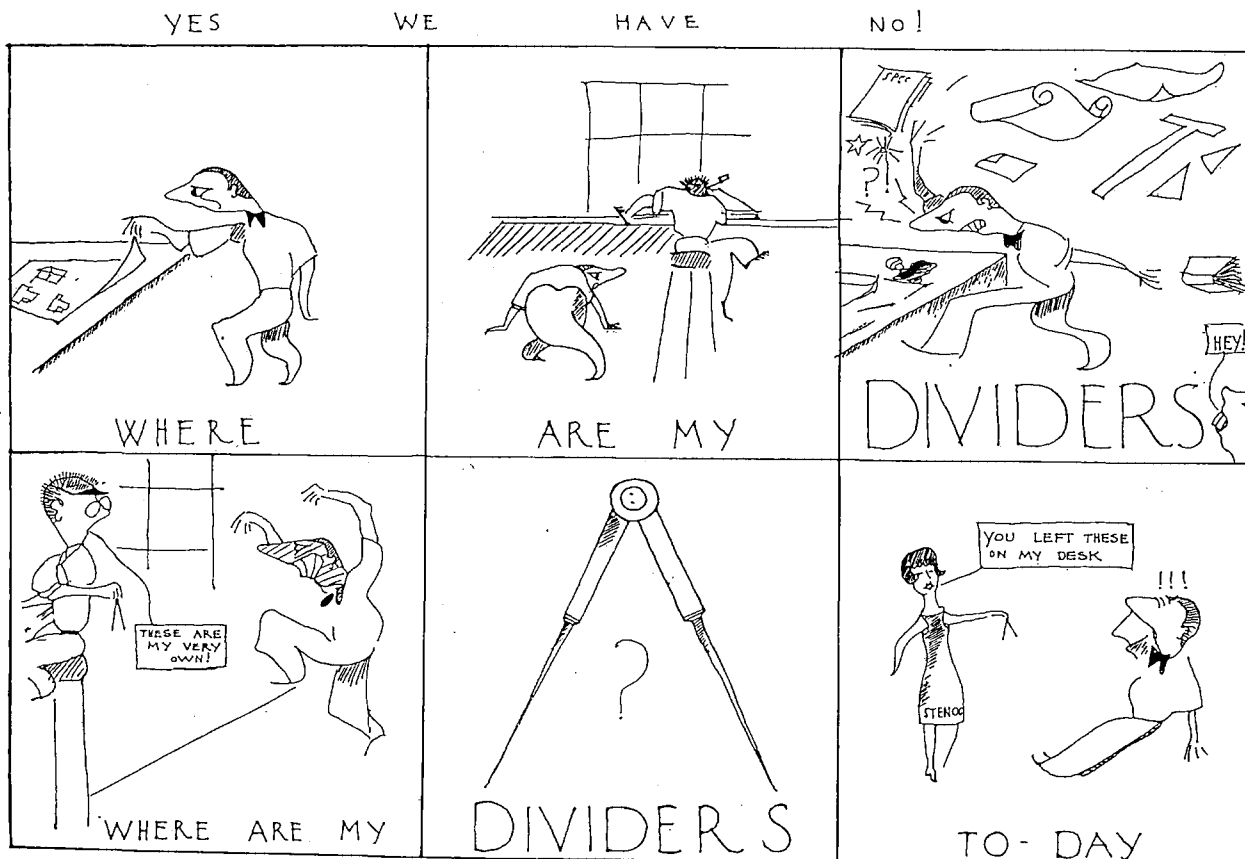
(Submitted in March Competition, therefore not eligible for this month's prize)

He's just a little fellow
With his bare feet of tan;
He runs around the back-yard,
And likes to play in sand.
He shapes his toad-frog houses
And moulds his pies and cakes;
But always when he finishes,
He tears down what he makes.

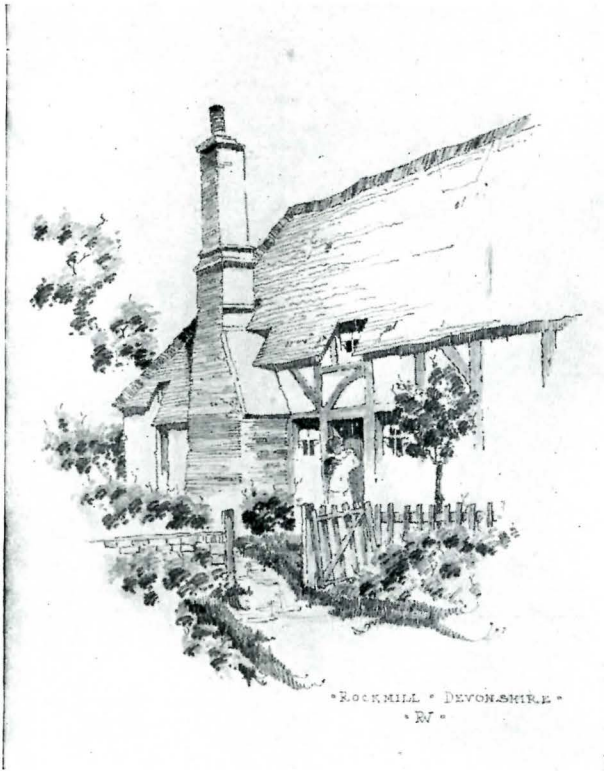
If you leave the front door open
Or forget to bolt the lock
He'll see that you're not watching
And run at least a block.
He'll stomp his toes quite often,
And scratch his feet with briars;
But you can't stop him from going,
For he hardly ever tires.

He's just a little fellow
With his bare feet of tan;
Today he's in his rompers,
Tomorrow he'll be a man.
All the building contracts,
He'll be sure to land
For he has had his practice,
With buildings in the sand.

William Lawrence Wilson



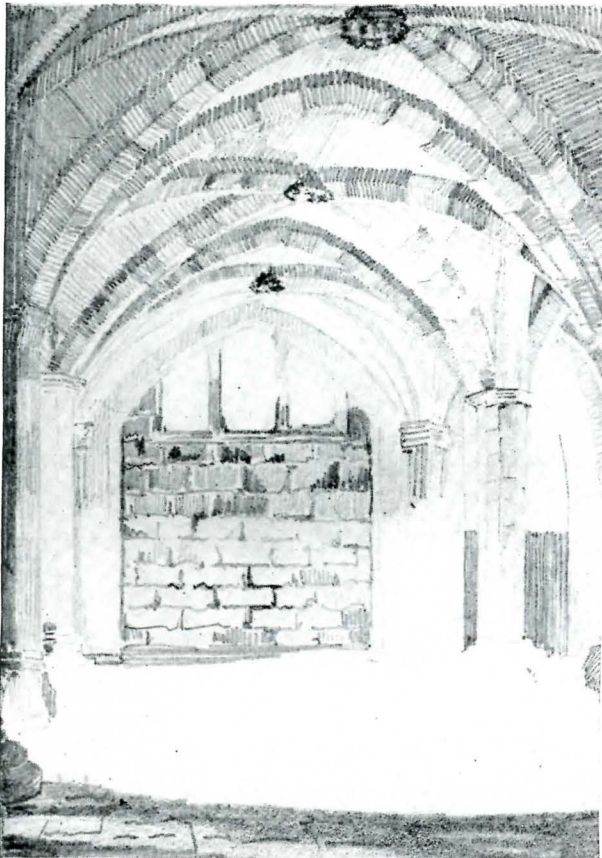
SUBMITTED BY AN ANONYMOUS NEW ZEALANDER
(Prize—Class Three—April Competition)



SKETCH BY ROBERT MOSLEY WILLIAMS
PASADENA, CAL.



SKETCH BY CARL JENSEN
(PRIZE—Class One—April Competition)

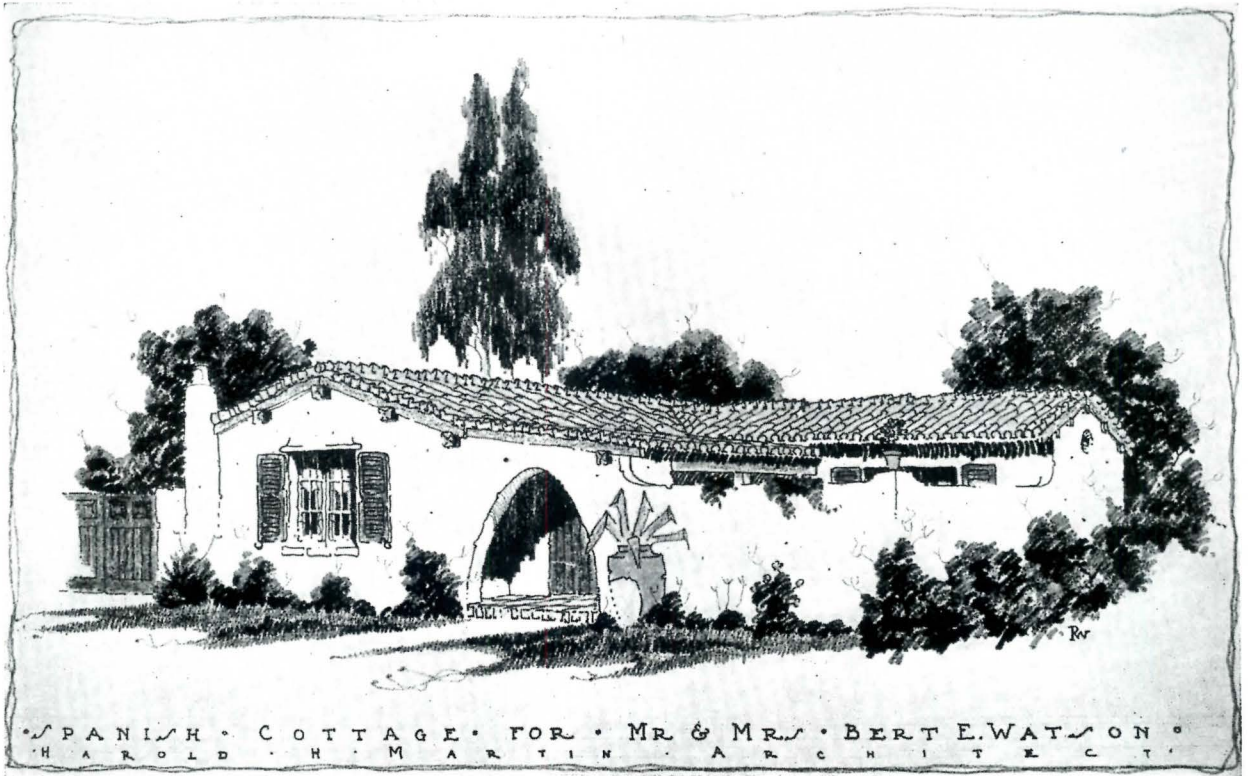


PENCIL SKETCH BY H. A. THOMAS
THE CRYPT, HERFORD CATHEDRAL

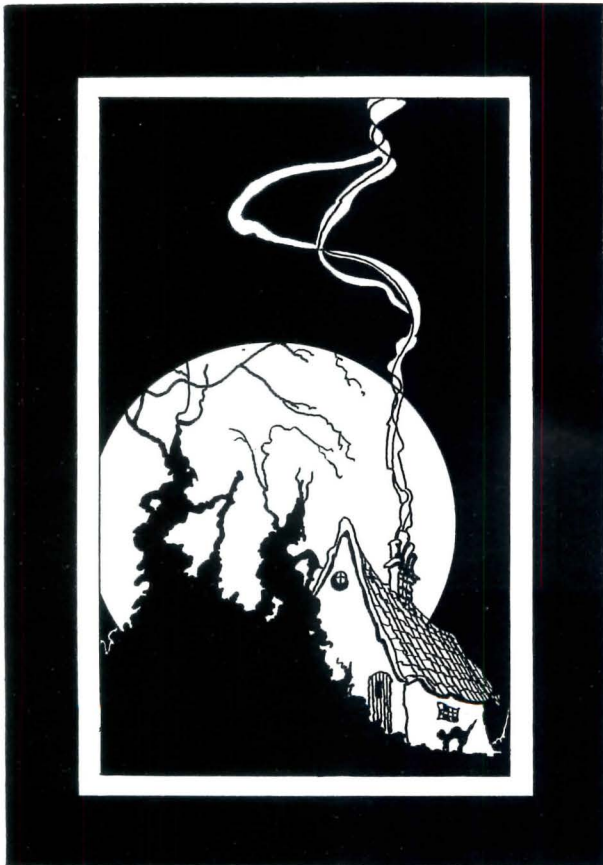


WATER COLOR AND FOUNTAIN PEN SKETCH
BY CHARLES H. VOORHEIS

PENCIL POINTS



PENCIL AND CRAYON RENDERING BY ROBERT MOSLEY WILLIAMS



The owl has always had the reputation of being a wise bird. This reputation has been preserved, not to say augmented, by that now famous representative of the owl family who made an informal call upon Mr. Calvin Coolidge the other night. Lots of other birds have tried to see the President with conspicuous lack of success, but this wise old owl just flew right in, evidently to learn from a master the last word in the technique of silence.



PEN AND INK DRAWINGS BY W. HONACK
(PRIZE—Class Four—April Competition)



DONALD



JANE



EDWARD

THESE CHILDREN NEED HOMES

WHAT FOLLOWS HERE has nothing whatever to do with architecture, but I am proceeding on the theory that the readers of PENCIL POINTS are just as much interested in human affairs as is any other group of the same size to be found anywhere.

Here are the pictures of three children who are now under the guardianship of the State Charities Aid Association of New York, a private organization. Were it not for this organization these children would remain wards of the State instead of becoming members of a family.

Now let's consider these three children.

Donald is an orphan, fifteen years old, born of all American parents. He is strong and sturdy, in good health; has brown hair and eyes. He is well brought up and fond of reading, has an inclination toward boyscouting, and likes the out-doors. A good home would do him a lot of good and he might reasonably be expected to repay his foster parents by making a real place for himself in the family with all that that implies, and developing into a fine man.

Jane and Edward are brother and sister, half orphans; mother, English; father, American. Jane is eleven years old, has a sweet disposition, is well brought up, stands well in school and is fond of music; has brown hair and blue eyes. She is a very nice little girl. Edward is fifteen, intelligent, self-reliant and has plenty of initiative, somewhat mischievous—what real boy is not? He is popular with other boys, studious, is in good health, and has the same coloring as his sister. Jane and Edward should not be separated.

Anyone interested in considering the adoption of these children can secure full information regarding them by addressing Miss Sophie Van S. Theis, The State Charities Aid Association, 22nd Street and Fourth Avenue, New York.

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Mr. C. A. Herman, P. O. Box 2241, St. Petersburg, Florida, wants 1921 January, February, March, April, May, December. 1922 January.

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Mrs. Ernest Mortimer, 400 Canner Street, New Haven, Conn., will sell, 1921, October, November, December. 1922, January, February, April, May, Aug., Sept., Oct., Dec. 1923, Jan., Feb., March, April, May, July, Aug., Sept., Dec. 1924, Jan., Feb., March, April, June, July, August, Sept., December. 1925, Jan., Feb., March, April, June, July, October. 1926, Jan., Feb., March.

Living-Stone Company, One East Lee Street, Baltimore, Md., will sell, 1920: June. 1922: March, April, August, September. 1923: Complete, also extra copies of May and October. 1924: Complete, also extra copies of Jan., May and July. 1925: Complete.

Mr. A. Wetter, 4038 N. Keystone Avenue, Chicago, Ill., will sell at twenty-five cents a copy 1924 and 1925 issues of PENCIL POINTS, all in first-class condition.

We are very anxious to secure copies of the July and August 1920 issues of PENCIL POINTS for one of our Australian subscribers. If you can supply these numbers please communicate with Mr. W. V. Montgomery, c/o The Pencil Points Press, Inc., 19 East 24th Street, New York City.

THE SPECIFICATION DESK

A Department for the Specification Writer

SPECIFICATIONS

By W. W. BEACH

HEATING AND VENTILATING, PART XIX

THE CHAPTER ON PAINTING AND GLAZING IN PENCIL POINTS for April completed our general contract specifications for a consolidated district school building. There remain the divisions of Heating, Plumbing and Electric Work.

The frequent combination by engineers of steam heating and ventilating into a single contract appears inadvisable in the smaller cities, where few steam-fitting shops are equipped to do sheet metal work. When the two trades are, therefore, so combined, it means that the steam contractor will "sub" the duct work and add his profit for so doing—perhaps thus making his figure so high as to let in the big outsider who "does his own" sheet metal work.

On the other hand, there appears to be no good reason against including ducts with other sheet metal work, thus making it a worth-while job and, at the same time, insuring against there being two sheet metal concerns on the job and the possibility of resultant friction. We prefer this latter method and the duct work will therefore be found in the Sheet Metal Division.

When setting about the design of a steam heating system it is up to the architect to determine among other things:—

1. Whether the building is to be heated by the fan ventilating system or if a "split" system will be installed, using direct radiation for heating, the fan to supply only the fresh air requirements.
2. If direct radiation is used, whether the return shall be by gravity, by air line or by vacuum pump.
3. Whether or not automatic heat regulation is to be installed.
4. What kind of boilers are to be used.
5. Whether or not air washers or humidifiers are to be used.

Discussing the first of the foregoing, it is difficult to understand why some architects and engineers continue to ignore the split system in their designing in the face of the following advantages:—

- a. The initial cost of a split system is only about 60 to 70 per cent of that of a complete fan system. This may mean a saving of anywhere from four to six per cent of the cost of the building.
- b. The operating cost of a split system can be estimated at from 65 to 75 per cent of that of a complete fan system.
- c. Direct radiation, located under or close to windows on outside walls, is 100 per cent more efficient in heating rooms on the windward side in extreme weather.
- d. Part of the economy in a split system lies in one's ability to use low pressure boilers, thus cutting down on equipment, flue size and height, boiler size, coal storage, etc. and doing away with the need of employing a high-priced steam operating engineer.
- e. When fans are used for providing fresh air only, the air emerges from the heaters at a temperature not above 90°, in order to reach the rooms at an average of 70°. At the former temperature (which is unnecessarily high), the air will not lose much of its moist content, while, if heated to 120° or more, as is requisite for warming the building, the air becomes so dry as to necessitate its being artificially humidified in order to be wholesome.
- f. If all heat is supplied by means of fans, a break-down means a shut-down; whereas, if fans are only for the providing of fresh air, their cessation means a reversion to the primitive—the unventilated, or direct window-and-door method.

As a matter of fact, there is much of piffle in the fine-haired ventilating engineering applied to our public schools. It is not unusual to see such a system of the first class installed in an up-to-date school in a city or town—and the fan omitted as a matter of economy; or, if included, left quiescent most of the time "to save the juice". The writer inspected one such, the product of the best in our profession, and found all the register openings closed with wall-board.

A recent press report mentioned a conclusion reached by certain educators to the effect that mechanical ventilation of schools is quite unnecessary; just as wrong a theory in the opposite direction as is the expenditure of too much on an elaborate system which is fore-doomed because of its very complexity. Of no avail are deflectors, volume dampers and the like, either controlled mechanically or by hand. There are too many adverse conditions. The system is too far from fool-proof.

Why go to either extreme when moderation is (as usual) the most to be desired from every standpoint?

Ideal ventilation means the supply of fresh air (and the removal of foul) in such quantity to each individual as will most nearly approximate what he could get out-of-doors under most favorable conditions. Certainly this does not imply heating it.

Obviously, therefore, the only reason for heating a fresh air supply is that it may be conducted into a room (and an equal amount of used air forced out) in such manner that no individual will be conscious of draft or of variation of temperature.

With but a few persons in a room, such change is effected naturally and nothing artificial is called for. As the number of occupants increases, the natural air supply through walls and crevices becomes inadequate. This point is soon reached in class rooms, with the infrequent opening of doors. Then the theoretical 30 cubic feet per minute demanded by each human cannot be had without superinducement.

If we seek to supply it by means of air shafts dependent upon gravity for draft, we fail, even though we stimulate that draft by means of artificial heat directly applied.

One of our western States, in prescribing ventilation for public schools, expressly permits "gravity ventilation", provided it produces certain definite air changes,—a quite impossible proviso. At time of low barometer, the back-pressure in such vent flues may be so great as to entirely stop the outflow, or even to produce a back-draft. Prevailing winds exert a pronounced influence on gravity systems. No gravity system is therefore worthy of consideration for schools and we are, in consequence, compelled to have recourse to forced draft. (The State mentioned as legally permitting gravity ventilation possesses no "machinery" for compelling the operation of any ventilating system, after its installation, hence the mistaken economy of certain school boards there resident.)

Since we must have a fan system, let it then be the simplest possible and let the heaters do as little damage to the fresh air as may be.

In the first place, let us properly locate our fresh air intake. This should be as high as possible above the ground, and sheltered from winds as much as can be. A side-wall opening is better than one on the roof, as the dust from the latter may be just as objectionable as if from the ground.

One then readily computes his requisite air quantities and duct cross-sections, and figures on enough fan and heater capacity to bring the supply up to 80° in coldest winter weather. Loss of heat in ducts need not be figured high,

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unless they are in or against outside walls—which they should not be. It is better to have the fresh air enter the rooms at 60° or 65° than that it should be over-heated.

For a school on a large lot in town or country, no air treatment (other than heating) is necessary, but provision should be made for adequate filtering through muslin to remove all dust, and the muslin should be easily replaceable.

Now one proceeds to design his steam heating layout according to Carpenter's or other accepted formula, any of which may be treated rather liberally. There is at least 25 per cent of leeway between too much and too little radiation, hence surely one cannot readily go wrong with such computations. Moreover, it is customary for the architect or engineer to require of the contractor that he shall guarantee that the heating system which he installs shall do what is expected of it.

On the face of it, this appears as if the owner's representative was dodging his proper responsibility by making the contractor liable for the correct design of the plant. To a degree, this is true. But the architect began foregoing his responsibilities when he first started having others do the actual construction of buildings and thereafter confined his activities to the less arduous (and less remunerative) but more dignified (?) duties incidental to design and supervision. But the owner is really better served by reason of the contractor's guaranty on heating, hence its justification. The owner benefits by the contractor's check on the architect's design (architects *have* been known to err) and by getting the assistance of the architect, if necessary, in securing the correction of an improper installation, and direct from the individual who is equipped to make such correction. If the architect were alone held responsible, it might be a much less simple matter for the owner to get what he wanted. The architect can nearly always allege that he left something out for the benefit of the owner, in the interest of economy. If judgment is at fault and the thing is needed, let the owner therefore proceed to put it in and pay for it.

This is sound logic and quite justifies the custom of making the contractor responsible. We are saying nothing as to whether or not the contractor is generally in better financial position to be compelled to make good, though it is possible. And we most distinctly do not approve of the custom (we are told it amounts to a custom with some "architects") of permitting a contractor to design the system in the first place, even write the specifications for the architect to copy and autograph.

If one is seeking economy of design, as should be the case in school work, he had best be most careful as to whom the mechanical engineering is entrusted. It is easy to be wasteful. For instance, in arbitrarily determining how many air changes per hour one should allow in the design of his direct radiation, it is well to remember that the fan can take care of the air changes, hence one an hour is all that need be cared for by the radiators.

Further assistance from the fan is to be had before and after school hours, at which times the fresh air intake can be closed, the recirculating damper opened and the building temperature quickly boosted.

The simplest recirculating system is effected when the used air from all rooms (except toilet, chemistry, cooking and other odorous rooms) is conducted to an open attic or roof space, from which a direct connection can be had into the fresh air intake. Or, if such connection is not feasible, the door to attic stairs can be opened for recirculating, the air being allowed to find its way down stairs to an opening to the fan intake at any convenient location.

The scheme of using the roof space as a part of the foul-air duct system is possessed of several advantages. It eliminates (saves the expense of) considerable duct work and it warms the air under the roof, thus acting as an insulation for the suspended ceiling of the upper story. This saves 25 to 40 per cent direct radiation in that story.

So, having reduced our heating and ventilating arrangements to their simplest possible terms and having already provided duct work in our sheet metal contract, we may proceed with our specifications for steam fitting and boilers. Items 2 and 3 in our list of features to be decided (steam return and heat regulation) can be bid upon as extras, inasmuch as their installation must be governed by manufacturers' specifications calling for patented equipment.

As to boilers, one must determine if he prefers cast iron or steel, brick-set or not, and to what extent he will go in

providing for smoke consumption, automatic stoking and ash removal. It is fairly safe to assume that the two last-named conveniences are only warranted in the largest plants. We ignore them in this specification and we provide two cast iron boilers, thus saving depth in our basement and keeping the floor above the level of ground-water.

DIVISION O. STEAM HEATING

Note. The Contract and General Conditions of these Specifications, including the Supplementary General Conditions, govern all parts of the Work and are parts of and apply in full force to these Specifications for Steam Heating. The Contractor shall refer thereto as forming integral parts of his Contract.

ARTICLE 1. *Work Included.*

- (A) THE ITEMS under this Division include:
- (1) STEAM BOILERS and their Setting.
 - (2) ALL STEAM PIPING, Mains and Returns.
 - (3) ALL PIPE AND BOILER COVERING.
 - (4) ALL STEAM VALVES of every Description.
 - (5) ALL RADIATION, Direct and Indirect.
 - (6) ALL VENTILATING FANS and their Housing and Motors, ready for Electric Connections.
 - (7) SUCH OTHER WORK as is Herein Set Forth.
- (B) OMISSIONS. The following items are not included in this Division:
- (1) VENTILATING AND FRESH-AIR DUCTS.
 - (2) RETURN PUMPS, unless specifically stated in Contract.
 - (3) PAINTING, except as directly called for.

ARTICLE 2. *General Description.*

Note. Under the headings of this Article, there is given, for convenience of Contractors, a brief mention, not necessarily complete, of the work included in this Division, full description of which will be found in the following Specifications, beginning with Art. 3.

- (A) PIPING SYSTEM. The heating apparatus shall be erected according to the overhead single-pipe method of steam heating, the steam to circulate under a pressure never exceeding five pounds to the square inch at the boilers, conveyed to heating surfaces by a system of piping so erected that all water of condensation in the system shall be freely returned to boilers by gravity alone.
- (B) ALTERNATIVE BID ON TWO-PIPE SYSTEM. Each Bidder is invited to state in his bid the amount to be added to same in case the system is made a two-pipe system in place of the one-pipe gravity system above specified. Complete specifications shall accompany such bid covering all differences between such system and the one originally intended. Alternatives on vacuum and air pump return systems are particularly requested. Such systems may contemplate reductions in main pipe sizes but no reductions of boiler and radiator sizes will be considered. Such alternative installation, if made part of this contract, will be subject to the same General Conditions and the same Guaranty as are herein set forth.
- (C) BOILERS shall be provided in place, including all equipment, connections, covering and fire-tools essential to their proper operation and care.
- (D) PIPING shall be complete in every particular in accordance with the Contractor's piping plans which shall be submitted for approval as specified for other shop drawings. All valves and connections shall be included, as called for.
- (E) RADIATION, both direct and indirect, together with all valves, connections, feet, brackets or other supporting members shall be provided for all locations specified.
- (F) COVERING shall be provided for certain piping as specified.
- (G) FANS shall be provided complete, on proper foundations, equipped with housing and motors, ready for electric connections, in accordance with approved shop drawings, to be submitted as specified under General Conditions.
- (H) TEMPORARY HEAT. As soon as possible, after steam piping is in place, this Contractor shall install radiators sufficient for temporary heating and shall put heating system in shape to afford use of same to the General Contractor

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who will then be permitted to operate same. No charge will be permitted for such use of the system, but the General Contractor will be held responsible for all damage due to such usage or he may make such provision for the Heating Contractor to operate the system in his stead as is mutually acceptable to both and to the Architect. It is understood that such heating is to be made available also for all others having work in the building, at all times when the temperature outside the building at 9 a. m. is below 50° F. The Heating Contractor shall, as part of this contract, reset all radiators after finished floors are laid and painting is done.

(I) **HEAT REGULATION.** Each Bidder is requested to state in his bid the amount to be added to same in case an approved standard system of automatic heat regulation is included in the contract. Maker's specifications and diagrams covering a complete installation for this building must accompany such alternative figure, in order to receive consideration.

ARTICLE 4. *Steam Generators.*

(A) **TYPE AND CAPACITY.** The steam shall be generated by two X Y Z smokeless cast iron sectional boilers (or approved equal), made by the X Y Z Co., with a combined capacity of 16,000 sq. ft. of radiation, actual measurement. The boilers shall be properly installed in locations shown, on concrete floor provided under another Division.

(B) **CONNECTIONS.** A 1" feed-water supply will be brought into boiler room within 20' of boiler connections, under another Division. This Contractor shall make proper 1" connection to same, with separate control by compression cock, conveniently located, for each boiler. Boilers shall be so inter-connected, and steam mains and valves so arranged that both boilers can be used at same time or either can be cut off and the other used independently.

(C) **BREECHING.** The Contractor shall properly connect boilers with smoke flue by means of gas-tight breeching-pipe of ample size, built of No. 12 gage black iron, in which shall be placed a shut-off damper with wood operating wheel, for each boiler, together with proper cleanout doors, with approved heavy hinges and latches. Breeching shall be neatly covered with a double-thickness of 9-lb. asbestos paper.

(D) **FIXTURES, FIRE TOOLS AND TRIMMINGS.** Boilers shall be provided with all necessary fire and cleanout tools to care for same, which shall include for each boiler: one poker, hoe, slice-bar, flue-cleaner and rod. Each boiler shall also be provided with one 5" brass-bound, low-pressure X Y Z steam gage; one safety-valve with 10-lb. weight; one water-column with $\frac{3}{4}$ " connections and cut-off cocks and two $\frac{3}{8}$ " brass try-cocks; one Scotch gage-glass with 4 brass guard-rods; one $\frac{3}{4}$ " brass-stem blow-off cock, which latter shall be set at such point as to drain the boiler and all pipes and radiators of the system and shall be provided with proper connection to sewer. All the foregoing shall be of approved material, make, finish and placement, and there shall be provided, in addition to same, all pipe fittings and valves necessary to render the connections of all items to the boilers complete in every particular.

(E) **BOILER COVERING.** All exposed parts of boilers shall be covered with $\frac{1}{4}$ " of cement plaster applied to a warm surface in successive coats, each about $\frac{1}{4}$ " thick; each coat, except the last, to consist of X Y Z asbestos cement, properly mixed with water and applied with a trowel, but with surface left rough for bond. Each coat shall be applied before that preceding is set, and only on a damp surface. After application of second coat, same shall be covered with approved poultry netting, tightly held against the cement surface and embedded in the next coat. Last coat shall consist of $\frac{1}{8}$ " of X Y Z asbestos cement and approved Portland cement plaster, mixed neat in equal parts and troweled to a smooth, hard surface.

ARTICLE 5. *Piping.*

(A) **PIPING PLAN.** As provided in the General Conditions, the Contractor shall, as soon as possible after award of contract, submit a diagram showing locations and sizes of all pipes, valves and radiation.

(B) **MATERIALS.** All fittings (except where brass is called for) shall be best heavy gray cast iron, and all piping shall be of standard quality. Where sizes of pipe are mentioned, it shall be understood to mean internal diameter.

(C) **FLOW, BRANCH AND RETURN MAINS.** Flow pipes and branches shall be run on grade, to and from the boilers, of not less than 1" fall in 10'0" run; and all pipes and branches shall be sizes given or as found in standard tables. All mains shall be so run in straight lines and all junctions so made as to avoid all traps or pockets which might hold air or water. All expansion and contraction of pipes throughout the system shall be provided for in joints thereof, so as to effectually prevent all tendency toward buckling or bending. All joints shall be steam- and air-tight.

(D) **VALVING.** In addition to the valving necessitated by inter-connecting of boilers, there shall be a full-sized main valve near foot of main riser in boiler room, one to control the main branch to the indirect-radiator stacks, and one for each of the three main branches in the roof space. Return mains shall be provided with horizontal check-valves, located where directed, to prevent water being forced from boilers into returns. Each stack of indirect-radiation shall have separate supply and check-valve. All valves larger than 2" shall have flange unions.

(E) **RISERS, RELIEFS AND CONNECTIONS.** All risers shall be erected plumb and straight and all connections thereto shall be made by double-joints to allow for expansion. All piping shall be run exposed, except risers in assembly hall, which shall be concealed in pilasters and effectually insulated. Where slope or size of pipe does not allow full vent of contained air, approved automatic air vents of sufficient size shall be provided.

(F) **FLANGES AND UNIONS.** At proper points on mains, branches and returns, there shall be located right and left couplings (for sizes $2\frac{1}{2}$ " and smaller) or flange unions (for larger sizes) so that piping may be disconnected and reconnected without injury to apparatus or other parts of system.

(G) **HANGERS.** All flow and return pipes shall be supported by adjustable steel or wrought iron pipe-hangers, securely fastened to building construction at intervals of not more than 10'0" and so constructed and installed as to permit free expansion and contraction of piping.

(H) **FLOOR AND CEILING PLATES AND SLEEVES.** Where pipes pass through concrete walls and floor slabs, this Contractor shall provide sleeves of galv. iron or other suitable material, correctly and securely attached to forms in ample time to avoid cause of delay in pouring concrete. This Contractor shall have all such sleeves gone over and locations checked just before pouring and shall thereafter be responsible for same and shall pay for drilling all holes for which properly located sleeves are not found to have been provided. Where pipes pass through brick, tile or plaster partitions, this Contractor shall provide suitable sleeves for same, with instructions for their proper placement, and shall check all such installations before work is set, so as to obviate all patching due to changes in such locations. All sleeved openings shall be small enough to be entirely covered by finished plates. Where pipes pass through floors, walls and ceilings in plastered rooms, finish shall be made with heavy, cast, bright-polished, nickel-plated floor and ceiling plates of approved design and proper sizes.

(I) **PIPE COVERING.** All mains, branches, connections, and fittings in roof space and in rooms in basement in which no radiation is called for (including fan rooms outside of housings) shall be covered with approved 85% magnesia sectional pipe covering, 1" thick, and of proper size, put on in best manner, neatly covered with muslin, thoroughly pasted (with vermin-proof paste) and with brass bands at all joints. All shall be done in the most workmanlike manner. Valve bodies in roof space shall be similarly covered. Pipes unavoidably placed near outside walls in concealed locations shall be adequately insulated and offered for inspection before being covered by construction.

ARTICLE 6. *Radiation.*

(A) **IN GENERAL.** The building shall be heated by means of direct and indirect radiation, located in the several rooms, as shown on plans and as called for in the following schedule. Radiation specified is from the catalog of the X Y Z Co. With the approval of the Architect, the Contractor may substitute equivalent items of other make, but all shall be new, smooth-cast, free from leaks, sand-holes or other defects and shall have been adequately tested before delivery.

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(B) **INDIRECT RADIATION.** Two stacks of indirect radiation shall be suspended from basement ceiling in locations shown, to serve as foot-warmers in floor above. There shall also be provided 4 sets of approved stack radiation of required size and capacity, each to consist of 4 stacks, all as shown on drawings. These shall rest, at proper height, on piers or pipe-standards, installed by this Contractor in accordance with details submitted by Maker. Each stack of indirect radiation shall be separately valved as provided for direct radiation. All housing of indirect radiation, also all duct work and register faces, are provided under another Division.

(C) **SCHEDULE OF DIRECT RADIATION.**

(Here follows a schedule giving the location, style, capacity, height, length and number of sections of each direct radiator in the building.)

(D) **RADIATOR VALVES.** Each radiator shall be controlled by an approved quick-opening, packless, radiator valve of proper size, similar to the X Y Z No. 111, nickel-plated all over, with polished trimmings. Each radiator shall also be provided with a nickel-plated air-valve similar to the X Y Z No. 222.

(E) **SHIELDS.** Each radiator in assembly hall, dining room and offices shall be fitted with an unpainted steel shield of proper size, similar to X Y Z No. 33. Enclosure of certain direct radiators in vestibules is provided under another Division.

ARTICLE 7. *Blower System.*

(A) **FANS** shall be X Y Z No. 44, single-width, single-inlet, full-housed type with top horizontal discharge. The two fans shall be located in fan rooms in basement where shown, arranged to draw fresh air from intakes and force same into ducts as indicated, one to supply assembly hall, gymnasiums and rooms auxiliary thereto, and the other to supply all other rooms for which fresh air ducts are provided. (No exhaust fan is provided.) Each fan shall be fitted with over-hung pulley for belt-drive and shall be carefully balanced for running without vibration at 225 R. P. M., at which speed they shall be capable of delivering not less than 90,000 cu. ft. of air per minute, combined.

(B) **MOTORS** shall be of size, type and make guaranteed by the Makers of the fans to properly perform the service required, and suitable to the local electric supply. They shall be located in proper relation to fans and shall be connected to same by means of heavy leather belting of proper size, all parts provided and installed by this Contractor, ready for electric connections, except that rheostats, supplied with the motors, shall be delivered to the Electrician to be installed by him.

(C) **FOUNDATIONS** for fans and motors shall be of 1:1½:3 concrete provided by this Contractor, in accordance with specifications for other concrete work for the building, resting on concrete floor provided under another Division. Foundations shall be in accordance with Maker's detail drawings, and bolts shall be built into same in accordance with templates. Each fan shall rest on a ¾" cushion of cork or fiber insulation enclosed in sheet lead in an approved manner. Wood washers shall be used under nuts on fan foundation bolts.

ARTICLE 8. *Miscellany.*

(A) **ALL MATERIAL AND WORKMANSHIP** used in the construction of the foregoing heating and ventilating apparatus shall be the best of their respective kinds. Nothing short of same will be accepted by the Architect.

(B) **TEST.** At completion of the work, or as soon thereafter as the outside temperature falls below 32° daily, the Contractor shall submit the heating and ventilating plants to a 30-day test, under the operation of the Owner's Employees and the direction of this Contractor, the Owner paying for the fuel used. This test shall be conducted while school is in session and, at the end of the period, if the test proves satisfactory, or if all evident defects have been made good and the work is found to be otherwise in accordance with the terms of the contract, the final certificate will be issued by the Architect. The issuance of such certificate and its payment by the Owner will not, however, relieve the Contractor from responsibility and liability under the terms of his guaranty.

(C) **GUARANTY.** The Contractor, in installing this steam-heating plant, hereby guarantees that it is capable, without undue forcing, of heating every room in the building in which radiation is specified, to 70° above zero, F, in coldest winter weather, and he hereby pledges himself to make good any shortcomings in this respect as well as any other defects in work installed under this contract which may be discovered within a period of 2 years from date of acceptance of the work and which, in the judgment of the Architect, are due to improper materials or workmanship. Should the Contractor consider the radiation specified for any particular location insufficient for his guaranty, he is at liberty to increase same, or he may substitute approved boilers of larger capacity, in place of those called for, but, under no condition, will he be allowed to reduce the sizes of radiators or boilers below specification requirements. During any official test of the heating system, it will be allowed to operate for 3 hours, with suitable fuel, with fresh-air intakes closed and the fans recirculating; then for 3 hours with recirculating cut off and the fresh-air intakes open. If such test is conducted during extreme cold, it will be permissible to choke the fresh-air supply 50% during the latter half of the test.

(Author's notes: The foregoing test is not for ventilating. The systems are supposed to be economically designed and, on the few days of extreme temperature to be experienced, it will be satisfactory if the building can simply be heated. The occupants will not be greatly concerned to know that, to accomplish this, the ventilating is not being conducted at full capacity. This is better than having a considerable amount of wasted radiation in the rooms, called into service only two or three times a year. In other words, in localities where -10° is coldest weather generally encountered, lasting a week at a time any winter, it is foolish to allow for a temperature of -20°, even though it may occur semi-occasionally.)

The Makers' names and catalog numbers used in the foregoing specifications are purely imaginary.)

PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER

Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm using them. When writing for these items please mention PENCIL POINTS.

"White" Door Beds and Space Saving Conveniences.—New Catalog just off the press. A book for architects and prospective builders containing much valuable and useful data. Profusely illustrated. Contains typical layouts, article on efficiency planning and equipment, details of construction, sectional drawings, specifications, details of construction. Also contains many illustrations of "White" Space Saving Kitchen Cabinet, gas ranges electric ranges and medicine cabinets. Also contains list of recent installations. A. I. A. File No. 35n9. 9 x 11. 71 pp. The "White" Door Bed Co., 130 No. Wells St., Chicago, Ill.

Electrical Specification Data for Architects.—Simplified electrical specifications covering five groups of homes in various price classes, profusely illustrated with complete information for specifying. 36 pp. 8 x 10½. A. I. A. File No. 31-C. General Electric Co., Merchandise Department, Bridgeport, Conn.

Published by the same firm. The Home of a Hundred Comforts. Large booklet, well illustrated showing the actual installation and results obtained through following the specifications outlined in "Electrical Specification Data for Architects." Typical floor plans, isometric drawings showing electrical wiring. 40 pp. 8½ x 10¾.

Hajoca Brass Plumbing Goods.—Catalog B contains brass plumbing goods for every need. Fully illustrated, and indexed. Stiff Cover. A. I. A. File 29h. 88 pp. 6 x 9. Haines, Jones & Cadbury Co., Philadelphia, Pa.

Atlantic Terra Cotta.—Monthly publication for the architectural field. Vol. 8 No. 6 being devoted to Modern Romanesque containing many full page and detail illustrations. Atlantic Terra Cotta Co., 350 Madison Ave., New York City.

E S Bulletin.—The issue for February contains much interesting data and news. Elevator Supplies Co., Willow Ave., Hoboken, N. J.

Holmes Concealed Beds.—Booklet illustrating and describing Holmes Concealed Bed for Every Requirement. Tables of sizes, installation charts, etc. Holmes Disappearing Bed Co., Woodstock, Ill.

Bostwick Economy.—Interesting booklet on the subject of steel lath. Shows process of construction, methods of erection, comparative diagrams, typical construction, floor and roof construction. Also contains data on Bostwick "Niles" Expanded Metal Lath, "Truss-Loop" Metal Lath, "Lock" Corrugating Self-Furring Lath. Specifications, detail drawings, tables of safe loads, profusely illustrated, 3½ x 9. 30 pp. The Bostwick Steel Lath Co., Niles, Ohio.

Coburn Catalog No. 140.—Valuable sliding door reference book. New Catalog just off the press contains complete data on the amount and type of hardware required. A very handy and useful document for architects and specification writers. Coburn Trolley Track Mfg Co., Dept. F-1 Holyoke, Mass.

Through the Ages.—Monthly illustrated magazine dealing with marble for both exterior and interior use. The February issue contains an interesting article on "A Study of the Resistance of Marble to the Action of Salt Solutions" by D. W. Kessler. Frontispiece in sepia of the Loggia of the G. A. R. Building at Topeka, Kansas, a brilliant creation in Vermont Marble. 70 pp. 8½ x 11. National Association of Marble Dealers, 648 Rockefeller Bldg., Cleveland, Ohio.

Quick Hardening Concrete.—A practical consideration of products, methods, results and costs. Interesting treatise on the subject. 20 pp. 7 x 10. North American Cement Corp., Hagerstown, Md.

"Douglas Fir, America's Permanent Lumber Supply".—Illustrated treatise on Douglas Fir written by a forester, telling why this is the wood of tomorrow as well as today, and how to use it. West Coast Lumber Trade Extension Bureau, 5562-G Stuart Bldg., Seattle, Wash.

Hollow Walls of Brick and How to Build Them.—Illustrated booklet containing complete information on the Ideal wall, including full data on new types of the Ideal wall. Description and construction data, details, specifications. 8½ x 11. 24 pp. The Common Brick Mfrs. Assn of America, Cleveland, Ohio.

From Forest to Floor.—Portfolio with eight full page color plates, drawings showing designs for parquet flooring, complete information on oak, maple, walnut and other rare woods. Notes on special designs, etc. 8½ x 11, in heavy filing binder. Indiana Flooring Co., 234 Rider Ave., New York.

Horse Head Zinc Specifications.—A. I. A. File No. 121. This document contains the essential information required in consideration and specifying eaves, troughs, gutters and conductor pipes. 12 full page detail drawings are included showing application of the material for a wide variety of uses. Complete specifications accompany the drawings, together with table of standard sizes, specifications for painting, soldering etc., 40 pp. 8½ x 11 in heavy folder. New Jersey Zinc Co., 160 Front St., New York. Applications for this document should be made on a business letterhead.

"Bird's Business Builder, 1926."—A work on a valuable line of products. Useful publication for architects and draftsmen, listing and describing the many Bird products, asphalt shingles and roll roofing, together with such material as Liquid Roof Coating and Building Paper and much other useful data. Bird & Son, Inc., East Walpole, Mass.

Kolstad Mail Box.—Leaflet illustrating and describing this type of mail box. Complete plan of mail box. Kolstad Mail Box Co., Duluth, Minn.

Berg Concrete Surfacers and Finishers.—Leaflet illustrating and describing this type of surfer and finisher. Illustrations of some big concrete jobs surfaced and finished by the Berg. Concrete Surfacing Machinery Co., 4669 Spring Grive Ave., Cincinnati, Ohio.

"Peerless Heating and Ventilating Units."—Booklet dealing in a comprehensive way with important matters of heating and ventilating schools, libraries, churches, theatres and other places where people are likely to congregate in numbers. Contains estimating capacities of heating and ventilating equipment, details such as heat losses, dimensions of chimneys, diameters of flues, etc. Peerless Unit Ventilation Co., Inc., Long Island City, N. Y.

Designs for Fountains.—Brochure containing many illustrations showing designs of many kinds of fountains built up of tiles of different kinds, pilasters, niches, spandrels and other parts. Tables of prices and sizes. Batchelder-Wilson Co., Los Angeles, Calif.

The Indestructible Roof.—Booklet illustrating and describing the installation of permanent concrete interlocking tile, with glass insets flat tile and channel tile, on all types of industrial plants and other buildings with flat and pitched surfaces. 10 x 13. 32 pp. Federal Cement Tile Co., 608 So. Dearborn St., Chicago, Ill.

Ruberoid Strip Shingle.—Booklet illustrated in color. 3½ x 6¼. 16 pp. Ruberoid Co., 95 Madison Avenue, New York City.

Published by the same firm, Instructions for Laying Built-Up Roofs. Illustrated booklet. 8½ x 11.

Your Home Screened the Higgin Way.—Booklet illustrated in color containing complete description of Higgin Screens designed to meet every need. 13 pp. 8½ x 11½. The Higgin Mfg Co., Newport, Ky.

Safe Loading Tables and Standard Specifications.—Pamphlet giving standard specifications for Massillon Bar Joist Permanent Fireproof Floors and Roof Construction, and safe loading tables for all spans from 4 feet to 30 feet 6 inches. Also gives detailed dimensions of the 21 standard bar joists covering this range of span. 8 pp. 8½ x 11½. Massillon Steel Joist Co., Canton, Ohio.

Published by the same firm, Massillon Bar Joists, illustrated pamphlet describing this product and methods of use. 8 pp. 8½ x 11.

Brasco Copper Store Fronts.—Portfolio containing selected examples suitable for different businesses and varying conditions of location. 32 pp. 8½ x 11. Brasco Mfg. Co., 5025 South Wabash Ave., Chicago, Ill.

Published by the same firm Catalog 28 containing details of Brasco Copper Store Front Construction, also show cases, ventilator sashes. Also Details Sheets. Five sheets giving details and suggestions for store front designing enclosed in envelope in convenient filing form.

Zouri Safety Key-set Store Front Construction.—Illustrated catalog containing complete information with detail sheets and installation instructions convenient for architects' files. 60 pp. 8½ x 10½. Zouri Drawn Metals Co., Chicago Heights, Ill.

Water Sterilization by Means of Ultra Violet Rays.—Booklet containing full data on a system of purifying water. 16 pp. 8½ x 11. R. U. V. Co., 383 Madison Ave., New York City.

Published by the same firm, Swimming Pool Sterilization, booklet describing method of purifying water in bathing pools. 24 pp. 8½ x 11.

Specifications for Dampproofing, Waterproofing, Enameling and Technical Painting.—Complete and authoritative directions for use of an important line of materials. Toch Bros., 110 East 42nd St., New York City.

Standard Wall Construction.—Bulletin 174. An illustrated treatise on the subject of hollow tile wall construction. 32 pp. 8½ x 11. National Fire Proofing Co., 250 Federal Street, Pittsburgh, Pa.

Published by the same firm, Natco on the Farm, illustrated treatise on the subject of fire safe and permanent farm building construction, 38 pp. 8½ x 11, and Natco Homes and Garages, illustrated booklet showing the use of Natco Hollow Tile for private residences. 32 pp. 7 x 10.

"National" Bulletin No. 3, The Protection of Pipe Against Internal Corrosion.—Illustrated bulletin discussing various causes of corrosion, and details are given of the deactivating and deaerating systems for eliminating or retarding corrosion in hot water supply lines. 20 pp. 8½ x 11. National Tube Co., Frick Bldg., Pittsburgh, Pa.

China Sanitary Plumbing Fixture.—Catalog "C" illustrated and describes the complete Douglas line of plumbing fixtures. 200 pp. 8½ x 10. The John Douglas Co., Cincinnati, Ohio.

The Eljer Line.—Complete catalog illustrating and describing the Eljer line of standardized vitreous china plumbing fixtures, with diagrams, weights and measurements. 104 pp. 3¼ x 6¼. Eljer Co., Fort City, Pa.

Published by the same firm, Standardized Sixteen Circular. Illustrated. 18 pp. 3¼ x 6¼.

"The Hitching Post Problem is Here Again."—Booklet explaining the solution of street motor parking problems 8½ x 11. The Hockenbury System, Inc., Harrisburg, Pa.

Better Buildings.—Catalog describing corrugated and formed sheet steel roofing and siding products, black, painted and galvanized, with directions for application of various patterns of sheet steel roofing in various types of construction. 32 pp. 8½ x 11. American Sheet & Tin Plate Co., Frick Bldg., Pittsburgh, Pa.

Architects Specifications for Carey Built-up Roofing.—Booklet illustrated, complete data to aid in specifying the different types of built-up roofing to suit the kind of roof construction to be covered. 24 pp. 8 x 10¼. Philip Carey Co., Lockland, Cincinnati, Ohio.

Circle A Partitions Sectional and Movable.—Illustrated brochure containing full data regarding an important line of partitions, also the Erection Instructions for partitions of three different types. 32 pp. 8½ x 11¼. Circle A Products Corp., New Castle, Indiana.

Painting and Decorating of Interior Walls.—Bulletin No. 3, illustrated. An excellent reference book on Flat Wall Finish, including texture effects which are taking the country by storm. Every architect should have one on file. 20 pp. 8½ x 11. Sherwin-Williams Co., 601 Canal Road, Cleveland, Ohio.

Ripolin Specifications.—Complete specifications and general instructions for the application of Ripolin, the original Holland enamel paint. Also directions for proper finishing of wood, metal, plaster, concrete, brick and other surfaces. 12 pp. 8 x 10¼. The Ripolin Co., Cleveland, Ohio.

Handy Book on Painting.—Gives directions and formula for painting various surfaces of wood, plaster, metals, etc., both interior and exterior. National Lead Co., 111 Broadway, N. Y.

PENCIL POINTS

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DRAFTING ROOM *Edited by* RUSSELL F. WHITEHEAD

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DRAW, DRAW, DRAW!

IN THE WORDS OF "Ding", the incomparable cartoonist, "draw, draw, draw". Most of the wise men who have contributed to the advice for the young architect and artist seem to agree on this point. The schools of architecture lead the pupil to believe first of all that architecture is properly to be practiced by those who have a talent for drawing pictures and plans; second, that the basis of their education should be familiarity with classic forms and buildings and training in "design", and finally an understanding of the principles, (unfortunately not always the details,) of construction.

Mere facility in drafting, however, without imagination, the ability to conceive forms, and the generalship to carry out ideas, will not produce a real work of architecture. It is a fact that in rare instances vital American architecture has been produced by men who have little or no aptitude for drawing; these might be called "the exceptions that prove the rule". Ideas are essential; the ability to explain them by the skilful use of pencil and paper is a valuable accomplishment. In the language of the day, "be yourself". Imitate the masters to gain technique and understanding. When it comes to creating, all you have to draw on is your own personality. Unless you trust it you have little to give to the world. By accepting your individual slant upon life you pursue the only possible route by which you can add the essential factor that makes of a building an original and fresh creation.

The cultivation and development of the faculty of observation is one of the great essentials in education. If you observe with a pencil in your hand, you really see and understand the reason for specific things that have been introduced into the plan or the essential forms of the design.

Schools and colleges generally close in June, and it has become a popular idea with the student that

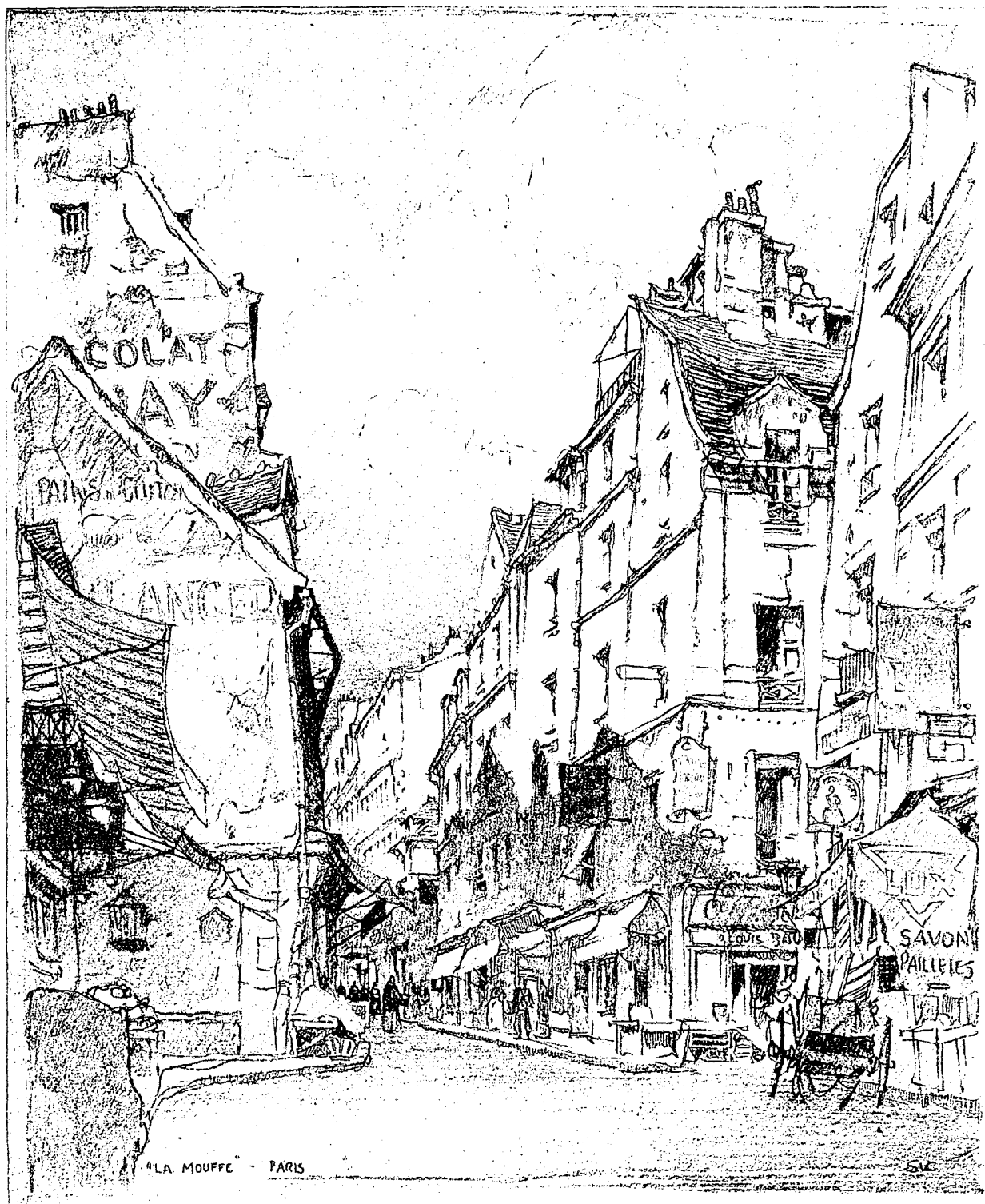
with the closing of educational institutions, education ceases for the months during which they are closed. In some professions this may be accurate, but for the architectural student it most certainly is not. He should spend his vacation drawing. This may be recreation or work, according to his aptitude, but it is essential to his growth. He should make sketches, measure buildings, jot down bits of detail and ornament that may catch his eye—his note book should be the sketched record of his months of vacation from academic study.

The man who is through school and does not have from June to September for vacation may think, "this does not apply to me", but it does. He works most of the year expressing someone's else ideas; when vacation comes it should be a time of re-creation, of re-exploring himself and adding up what gains he has made in the past year. The draftsman will not accomplish this by introspection—he must draw, use his faculties for all they are worth. He will, of course, find himself working "on his own," and it is in this way that he will find where he has grown into new power, overcome or out-grown old faults, and so forth.

The habit of drawing is one of immense value, as a means of developing the powers of observation, of improving the technique, and of broadening one's horizon. It will be found that the majority of architects still do summer sketching, carrying on a custom begun in their student and apprentice days, because they find it excellent training and great fun.

Most of this issue has been planned to act as a spur to the laggard, as incentive to the industrious and a help to both. We have assembled most enticing sketches, preceded by a comprehensive and practical treatise on the making of measured drawings, to carry our point, Draw, Draw, Draw!

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