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"NOCTES MANHATTANENSES"

*Impression of the Fifty-Eighth
Annual Convention of the
American Institute of Architects*

By Hubert G Ripley

THE ANNUAL PILGRIMAGE of the faithful worshippers of the Heliconiades led them this year to the great metropolis. At some personal sacrifice, many architects from many chapters including a number who were not delegates, postponed important business conferences and made the trip from every quarter of the United States and the Virgin Isles. The age average this year was higher than is usual at Institute Conventions. Doubtless at Washington next year our younger men will attend in greater numbers. A very complete, careful, and conscientious report of the proceedings, written without bias before the Convention began, by Mr. Murchison, appeared in the May number of "The Architect," so that those who found it difficult to attend every session were enabled to tell a connected story of the doings of their fellows on their return home. A four-page sheet, folio size, the "A. I. A. Con-

vention Daily," full of interesting leading articles, announcements, and half tone photographs of notable men and women, was ready promptly each morning for the convenience and instruction of all visiting architects.

The Hotel Roosevelt, Convention headquarters, is an attractive twenty-story building occupying a whole city block with all the set backs, outer courts, and other zoning features that are so fashionable this Spring. All guest rooms are outside rooms, quiet, well ventilated, and, even from the inmost court, glimpses may be had of towering masses of imposing masonry, classic temples on two hundred-foot stylobates, and soaring turreted pergolas of brick and tile.

Arriving at the Grand Central Station one takes a taxi and directs the driver to the Roosevelt in a careless off-hand way, just as if one were accustomed to do this sort of thing every day. After

a pleasant drive across Vanderbilt Avenue one arrives at the hotel where, fortunately, a room has been reserved.

The system of room numbering at the Roosevelt is based on historic precedent. Famous dates in American history are commemorated by such numbers as 1492, 1620, 1776, etc. Other rooms were easy to remember, 1621, for example, as the year after the Pilgrim landing, following the great drought, when the first feast of Thanksgiving was held. The ball room served the first day as registration headquarters and for luncheons during the week. Every convenience was offered to the visitors in the way of information regarding excursions, teas, theatres, restaurants, night clubs and roof gardens. For each day a different colored ticket was issued under the seal of the Institute, place of the Convention, (in this case New York, N. Y.) and the menu for the day from 9 a. m. to 6 a. m. the following morning. Between 4 and 5 p. m. and 6 and 9 a. m. the visitors were allowed a much needed rest. After registering and receiving a very tasty badge with pin, satin colored ribbon with gold locket pendant, a pack of vari-colored cards, theatre tickets, boat tickets, luncheon tickets, committee reports, invitations to teas, receptions and functions, the Convention Daily and programs for many events, and gathering up the accumulated mail from the office (mostly invitations from the Si-Roc-Co Exhaust Fan Ventilating Company, and the Own Your Home Corp. Ltd., to visit booths at the Exposition) the delegates and visitors scattered in little clusters to various places of amusement and refreshment so that they might with renewed vigor take up the more serious and solid duties devolving upon them as representatives of the noblest profession in the world.

Manhattan (and the Bronx) are replete with distractions. For every mood, every whim, every purse (especially the plethoric) there are compensatory analogies. When a number of men and women all professing the same "group of ideals," (as one of the speakers at the Convention so aptly phrased it,) are gathered together in the greatest city of

the world, freed from the shackles and conventionalities that bind and coarctate the frank and natural development of their individualities, a subtle process of incogitancy, or selective eclecticism, finds expression in significant form.

It was so on Monday night, and sympathetic co-operation was not found wanting on the part of our hosts. The Exposition was thrown open to an eager public in the evening, which quite swamped the delegates, so that the great show was one vast beehive of milling masses of people with now and then a familiar face or voice, quickly lost in the seething cauldron that confined the crowds between walls of celotex. Above the voices of the thousands that thronged the mazes of corridors and booths could be faintly heard a few words now and then of the address of welcome, and the announcements of the prize winners. Interwoven with this babel was the noise of hammer and saw of men working feverishly to complete certain of the delayed exhibits. The whole was reminiscent of Gershwin's "Rhapsody in Blue," or Moussorgsky's "Fair at Nijni Novgorod."

The Architectural and Allied Arts Exposition was so Gargantuan in extent as rather to dismay the timid visitor as well as to discourage the native. The only way to get anything out of it was to stroll around a little till you came to something of interest—concentrate there for a while and then return to the Roosevelt for relaxation and rest. Many famous names were noted appended to splendid exhibits, but what was of equal or even greater interest was the presentation. Any building that was not notably presented, either by the seductive art of the photographer who knew how to manipulate light and shade, soften hard outlines, enhance the brilliancy of wall surfaces and sun-flecked paths or by the alluring pencil of Otto Eggers, Hugh Ferriss, Schell Lewis, Chester Price, and the facile brush of Jules Guerin and Birch Long, had very little chance of recognition in the maelstrom. It seems as if the acme of pencil and crayon rendering has been reached by these geni. As for the work of Guerin and Long, it is the

despair and the stimulus of all architects and draughtsmen. What interests the average architect almost as much as the design of a building is the way it is presented and it is always comforting, on being shown the work of some esteemed confrère to say, even if you do not care for the building itself, "What a charmingly bully drawing." The architect is just as much pleased and proud to hear the praises of the medium of his presentation, as he is to listen to an appreciation of his design. His absorptive powers adjust themselves to conditions very rapidly, as was shown in many instances during the survey of the Big Show.

After an hour or so spent at the Exposition, it was a disappointment not to find around the corner where the drawings of the 9th regional district elbowed the electric ranges and roll top garage doors, a hot waffle stand. We really needed a waffle and did not dare go to the Roosevelt Grill for one after what happened there to Charlie Baker, who innocently invited a party of four for a lemon ice.

The Convention Sessions were held in a high hall on the main floor, approached from the grand staircase. Mr. Greenley's art had transformed this apartment into a classico-medieval-renaissance salon, crowned by the deep blue vault of one of Cleopatra's nights. The inspiration may well have been Gautier's for "the curious stars leaned over the frieze." At one end of the hall was a marriage of painting and sculpture; two naturalistic modelled figures in color "qui beauté eut trop—plus qu'humaine," that looked like paintings, and a wall decoration of three panels, in deep chiaro-oscuro that one would take oath was in high relief. The lighting and color scheme of the court was opulent and highly concentrated, forming the culminating point of the Exposition. As a convention hall the court salon made a very splendid arts and decoration gallery. This mattered little, however, as all sessions were greatly curtailed by the omission of routine business, discussions and reports. Only the briefest papers and speeches were delivered which, due to the use of micro-

phones and loud speakers could be better heard in El Paso, than in the hall itself. By the use of these modern inventions one is enabled to listen to causeries and papers, hear the sound of the voice perfectly (de-humanized to a curious degree, it is true,) without understanding any continuity of ideas. It is quite extraordinary how it is possible to hear words, without, except by great mental effort, being able to arrange them in logical sequence. It must be that, due to the strangeness of the sound, an appreciable interval is necessary to recognize a word; by this time the next word is lost and one only takes in a geometrical progression of verbs, substantives, and prepositions; skipping the adjectives, adverbs and conjunctions, and vice-versa.

The result is easy to listen to and not unpleasant. One is left free to speculate on the futility of mundane affairs, greet old friends and make appointments. Outside the salon court where "amplifiers" and "loud speakers" were installed, the voice became clear and distinct like a bedtime story over the radio. Few seemed to pay much attention to the proceedings—the delegates as a rule preferring to remain in the room with the speaker, perhaps to lend him their moral support and encourage him with grateful applause and thanks when he finished.

The luncheons in the Hotel Roosevelt Ballroom must have been a source of satisfaction to the committee, to the hotel management and to the waiters. To the committee for their popularity, to the hotel management for financial reasons, and to the waiters for their opportunity to see interesting people and listen to stimulating discussion. Who knows but at some future convention, a great artist whom we are privileged to honor may rise in response to deafening applause and say: "It was my good fortune to wait on a party of architects from St. Louis, Boston and New York, at the Convention luncheons in the Hotel Roosevelt in the Spring of 1925. I was a young man at the time, newly arrived from Jugo-Slavia. We were clearing away the débris of the French pastry and quarrelling over the division of the tips,

when a chance remark by Louis La Beaume, overheard in a temporary lull, caused me to pause and reflect that there might be a nobler fate in store for me and that money is not everything. The rest is history."

Hot afternoons have been in Manhattan as well as in Montana, and the programme that the entertainment committee had prepared for the visitors included an excursion by boat around Manhattan Island (executed only in part, due to the fierce tides of Hell Gate, and the traffic jam of the garbage scows in the draws of the Harlem river at Spuyten Duyvil), tea for the ladies at the Colony Club and the Junior League, concerts at Aeolian Hall, bus rides up and down the city and receptions in architects' offices. Wednesday and Thursday were the hottest of these afternoons; Wednesday by virtue of visits to the offices of the great and near great (it was hoped by some that this would be a unique opportunity to learn much of the methods and practices of Big Business, how these giants managed their designers and how they ran their Secret Service; but the offices were deserted by their draughtsmen, the boards neatly covered over with dust cloths, only a select few of the department heads remaining to ladle out the punch and pass cigarettes and caviare) and Thursday by virtue of climatic conditions; (the heat was so intense that Acker Merrall and Condit, the McKim Meade and White of épiciers, had to send an extra gross of cases of White Rock to the Roosevelt).

The hours between five and seven, the twilight hour or children's hour (when the alcohol lamps are lit and tea is served) were some of the most enjoyable moments of the week. These interludes passed in joyous companionship with old friends from far away cities will always remain treasured memories. Usually the evenings were arranged so as to follow in natural sequence the twilight hour. Some celebrated the feasts of Pantagruel and Seithenyn, while to others the platonic friendships of Brunbelois possessed a peculiar fascination. The art of the Drama was not neglected,

though the doors of the Theatre Guild were closed to all non-subscribers. If one could not see Helen Hayes, one could at least visit the scene of her recent triumph (an Ionic play with a most satisfactory ending). The Music Box Review was more in the late Corinthian style, florid with well decorated supports. To our mind, Metropolitan drama, as exemplified by these two productions, is vigorous, sound, and on a parity with the best architectural traditions. Just as much that is executed in masonry and steel is unworthy of the name of architecture, so the votaries of Telxiope, Aoede, Arche, and Melete are not always found entirely faithful to their trust.

Thursday evening was set aside for dinners and receptions. It was the good fortune of some to be invited to the Architectural League for dinner, followed by a group of Benda's masques and dancing. The occasion was most successful and time passed so rapidly that it was unfortunately too late to attempt the reception and musicale at India House, which, from reports, was one of the high lights of a brilliant evening. Long tables in the League Hall were filled with the beauty and chivalry of the votaries of the Fine Arts. Personalities and names, famous in three continents, rubbed elbows with modest violets from the East Texas Chapter, Toronto, and Kav Kas. From his seat at the head table, where his presence lent an added dignity and grace to the occasion, Mr. Harvey Corbett announced that there would be no formal speaking and that he was leaving shortly to gather up Sir Edward Lutyens (the dinner guest of the St. George Society) and replace him as the guest of the League. This was shortly accomplished, and all adjourned to the Galleries of the National Academy of Design to view the exhibit of modern paintings displayed on their walls. Thence the company took seats in the adjoining hall to witness Mr. Benda's masques. These acts were hugely enjoyed and very easy to watch, and included a café scene, two exquisite dances by the delicious Dixie, and the rendering of patriotic national anthems by a group of Muscovite singers

in their quaint native dress. There is a haunting wistfulness in the music of Moskovitz that only the Cossack tongue can interpret. It was so in this instance and the response of the audience was electric. Sir Edwin was seen to wipe a furtive tear with his hemstitched handkerchief of Delhi cotton. After the entertainment, dancing was enjoyed till an early hour, whence the company dispersed in various directions, some even returning to their hotels.

The reception and concert at the Metropolitan Museum of Art on Friday evening was very beautiful, dignified, harmonious and colorful. We have visited the Museum on many occasions but never before under such favorable conditions. Despite the great number present—there must have been between five and ten thousand—an air of stately magnificence and quiet formality added luster to the priceless objects on display, and gave to them a fitting setting. The rich gowns of beautiful women, their graceful movements and scintillating jewels, the courtly demeanor of notable men in faultless attire, were in close attune with the strains of Tschaikowsky's "Fourth Symphony in Andante Sostenuto" and Rimsky-Korsakoff's first movement of "Symphonic Suite, Scheherazade," interpreted by David Mannes and a Symphony orchestra. A last opportunity for this convention was here offered to view at close range the officers of the Institute and many distinguished men and women from foreign shores.

Shortly after nine, the bugle call sounded for the procession down the grand staircase, of the brilliantly robed delegates to the main hall where, on a raised dais were ranged Dr. Waid, the presiding officer; Mrs. Goodhue, Sir Edwin Landseer Lutyens, the Honorable John W. Davis, LL.D., the Honorable John H. Finley, LL.D., and others. The Honorable John W. Davis delivered the presentation address, after which Dr. Waid awarded the gold medal of the Institute to Sir Edwin, who responded in one of the best speeches we ever saw. Dr. Finley delivered a very fine appreciation of Bertram Grosvenor Goodhue, one

of the most lovable and forceful geniuses American architecture has ever known. Dr. Finley's remarks were sympathetic and scholarly, and touched a responsive chord in the heart of every lover of the fine arts. Dr. Waid then placed the gold medal of the Institute in the charge of Mrs. Goodhue. While the audience lingered in the halls of the vast Museum, the orchestra rendered Bach's "Aria" and "Bourée" and Wagner's "Tristan and Isolde," concluding with the "Entrance into Walhalla," from Das Rheingold.

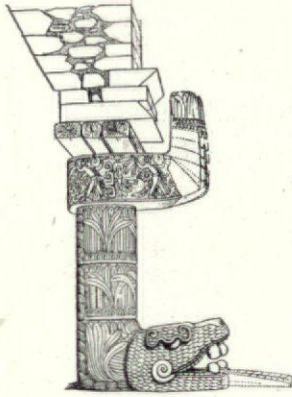
Saturday morning (7 a. m.) dawned bright and clear for the excursion to Princeton—but by train time (10:15), the sky was overcast for the first time during the week. About eighty, a comfortable carful, made the trip and the day proved a most profitable one. Our host, the Department of Architecture of the University of Princeton, had most generously given up the day to the architects attending the Convention with their ladies. The architectural school was visited, a delicious luncheon served in Proctor Hall, and drives made around the campus allowing opportunities to view the natural beauties of that historic town as well as the splendid recent buildings for which the University is famous.

The statement was frequently heard during the day that Princeton, all things considered, without doubt possesses the most lovely site, the most beautiful buildings, and is the nearest approach to the ideal college of any such institution in the United States. These statements were unchallenged and easy to believe. Princeton is a one street town, and the University lies wholly on the south of the broad highway of Nassau. Its plan while picturesque, is not haphazard, but sound and logical. The arrangement and groupings of the quadrangles on the rolling mounds and ha-has of the last glacial moraine are eminently suited to the mingling of styles that the buildings show. That's one reason why we liked Dr. Cram's Architectural School, even though others of the party rather shied at it. The list of architects of the University Buildings is a notable one—from Robert Smith's Nassau Hall, 1756, to Day

and Klauder's Eno Hall, 1924, and includes such names as William A. Potter, A. Page Brown, J. L. Faxon, R. M. Hunt, Cope and Stewardson, B. W. Morris, Cram, Goodhue and Ferguson, McKim, Meade and White, Zantzinger, Borie and Medary, Park and Morgan, Ernest Flagg, E. V. Seeler, Mellor and Meigs and others. The time spent in Princeton was far too short, at least a week would be advisable, an ideal vacation for water color sketching. The staff of the Architectural School, headed by Edward Raymond Bossange, Ph.B., were most assiduous in their attention and everyone was given an opportunity to browse around at will through the yards and courts, singly and in groups, so that intimate acquaintance with detail and material could be formed. The group of buildings known as the Graduate College (Proctor Hall, Cleveland Tower and Wyman House) by Cram, Goodhue and Ferguson, made a tremendous impression on all, not only for its picturesqueness and beauty of detail, purity of outline and stately mass, but also for its magnificent setting on slightly elevated ground overlooking meadow land and hills, the richly tinted stone work of its walls clasped in the clinging embrace of hederæ helix, and wisteria frutescens. Holder Hall, by Day and Klauder, is so absolutely and perfectly fascinating in its loveliness, so natural in its simple perfection, that it seems to exist in an ether of its own, without in the least ceasing to

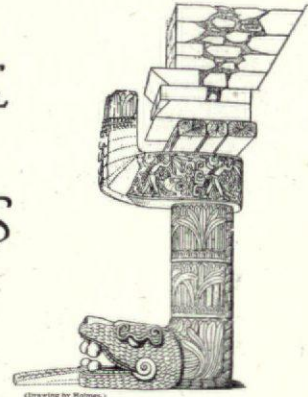
form an integral part of the University Group. The Faculty Houses by Park and Morgan form a long group shaded by stately elms that create a picture unexcelled in natural dignity. There are many architects, who with large resources at their command, produce successful buildings of great beauty, but it has always seemed to us that the real test of greatness lies in being able to do a really successful small house. The phrases from a recent trade circular, describing a great building as "man's utmost resources in mathematics and metallurgy" and "his furthest advance in culture since he devised the first crude hut," mean little except for their virtue as belles-lettres—the true test of man's advance is his accomplishments in small house building. For each towering mass of gorgeousness, as exemplified by the skyscraper, there are millions of hopelessly sordid, turgid, flaccid, and barbaric little barracks, dwelling places of the shackled souls who inhabit them. There are some beautiful small houses, well planned and built, in which man may live, expand and enjoy life, but their percentage is infinitely minuscule. Until such time as the number of these dwellings is greatly increased we shall continue as a nation to dwell in outer darkness.

The International Town, City and Regional Conference meetings, held jointly with the Institute, should be of very great significance to architects, publicists and the future of American Architecture.



The
ARCHITECTURE
of the
ANCIENT MAYAS

By S. K. Lothrop



TWO THOUSAND AND THIRTY years ago a Maya Indian carved an inscription on a small jade statue. This was no mean achievement, for the carving of jade in itself is not easy, and the inscription shows that an elaborate system of writing was already in use. Furthermore, in the text of the inscription is a date which records a count of 1,196,017 days or nearly thirty-three centuries from the mythical starting point of Maya chronology. The mathematical system involves the use of zero, which was not employed among our European ancestors until the twelfth century, A.D. The evidence of this small statue* is then that the Maya had reached a high place of culture before the beginning of the Christian era.

OUTLINE OF MAYA HISTORY

The development of Maya culture and even its place of origin, are buried in the dense jungles of the tropics, or, recorded upon wood or other perishable materials, have been obliterated by the destructive climate. However, we know that at the beginning of the Christian era the Maya moved into the southern part of Yucatan and the northern part of Guatemala. Here they built great cities—Tikal, Copan, Naranjo, Palenque, Yaxchilan, and a host of others slightly less important—in which they dwelt until the end of the sixth century, A.D.

*This remarkable carving, which bears the earliest recorded date yet found in the New World, is known as the Tuxtla statuette, because it was found at the Mexican town of San Andres Tuxtla. It is now in the U. S. National Museum, Washington, D. C.

After occupying these cities for several centuries, the Maya suddenly abandoned them all, for reasons that have remained unknown. Why a great civilization representing a vast investment in permanent buildings, should be thus completely deserted is a puzzle which archaeologists have not solved. War, pestilence, famine, political and moral decadence, climatic changes, breakdown of the agricultural system, and other causes have been suggested, but no wholly satisfactory explanation has yet been offered. From the gulf of Mexico to the bay of Honduras, however, stands a series of ruins which bear silent witness to the fact that the Maya once inhabited them, and the date of the exodus we can judge from the fact that all new construction and the recording of dates suddenly ceased near the end of the sixth century, A.D. Today reforestation has taken place, and cultivated lands and buildings are swallowed up by the jungle.

Thence ensued the Dark Ages of the Maya tribe, a period of wandering, of temporary settlements, and probably of much unrecorded fighting. By the end of the tenth century, however, they again became stabilized, and new cities arose in the highlands of southwestern Guatemala and in the peninsula of Yucatan. In the south there sprang into existence the highland kingdoms of the Quiché and the Cakchiquel, which endured until the Spanish conquest. In Yucatan there was organized the League of Mayapan, composed of the cities of Mayapan, Uxmal,



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FIG. 1. A TIKAL TEMPLE

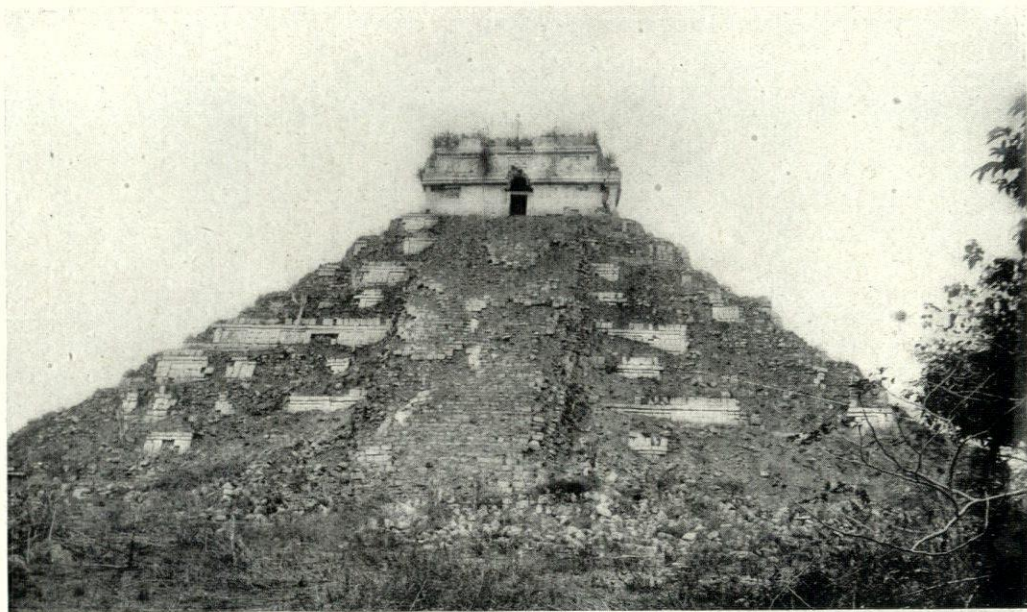


FIG. 2. THE CASTILLO AT CHICHEN ITZA

(Courtesy of the Peabody Museum)

and Chichen Itza, the vast ruins of which may be seen today.

The League of Mayapan ruled the peninsula until the year 1201, when war broke out between Mayapan and Chichen Itza. The ruler of Mayapan brought mercenaries from Mexico, with whose aid Chichen Itza was captured and sacked. These Mexicans are believed to have been Toltecs, one of the several predecessors of the Aztecs in the valley of Mexico. As a reward for their services they were

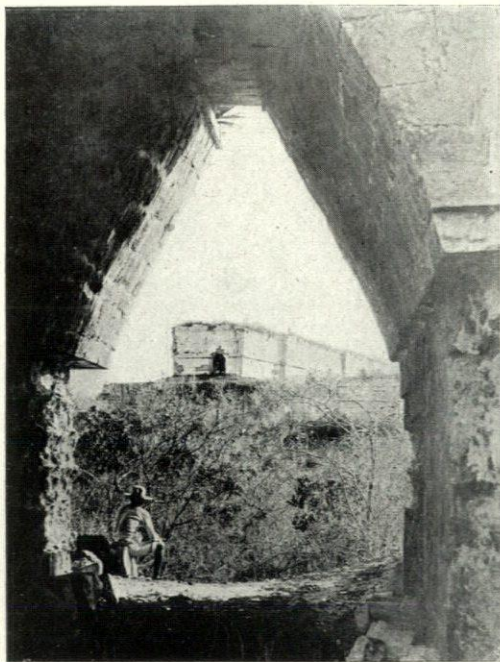


FIG. 3. PASSAGWAY IN THE HOUSE OF THE NUNS AT UXMAL, YUCATAN

given the city of Chichen Itza as their own, where, as an old account says, can be seen the "sumptuous edifices" which they erected (Fig. 2).

As a result the conquerors became lords of the peninsula, and ruled with no light hand. They resisted the efforts of the Itza to regain their capital, but finally were overcome and the whole family put to death (except one who was absent in Mexico) by a coalition headed by the city of Uxmal. This

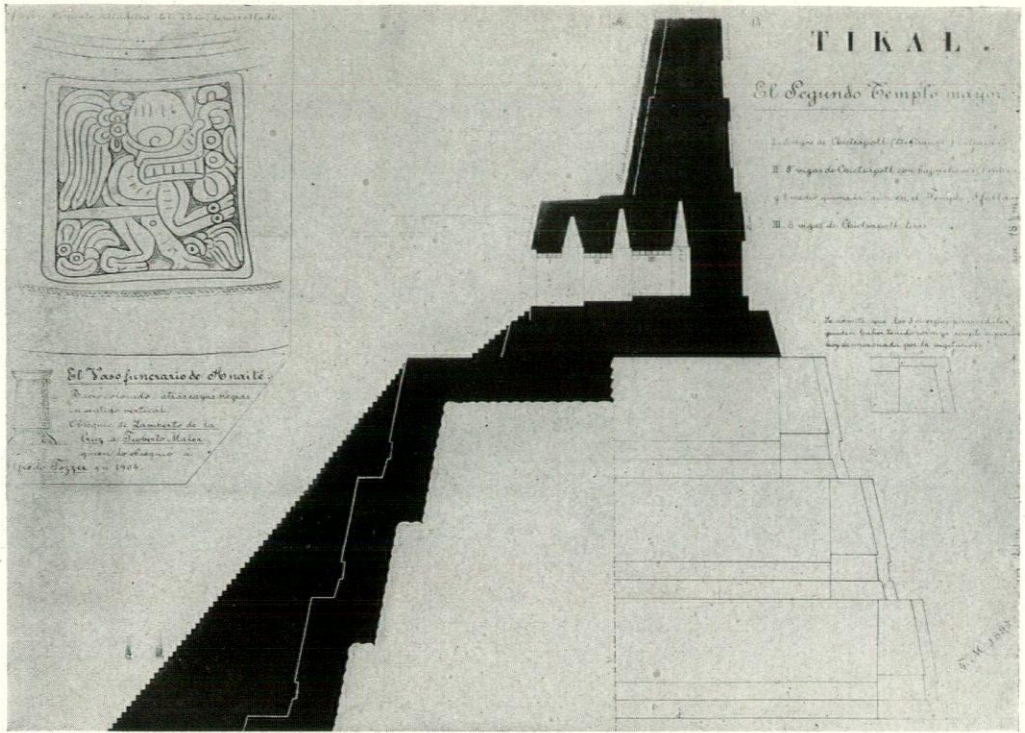


FIG. 4. CROSS-SECTION OF A TEMPLE AT TIKAL, GUATEMALA

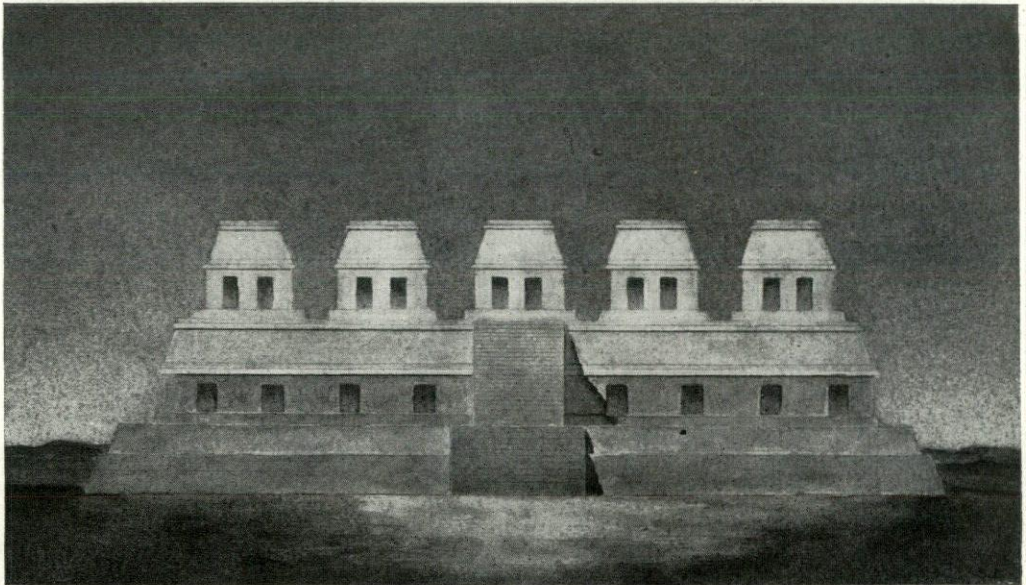


FIG. 5. A TWO-STORIED PALACE AT EL CAYO, GUATEMALA



FIG. 6. THE JAGUAR STAIRWAY IN THE EASTERN COURT OF THE ACROPOLIS AT COPAN
(After a Drawing by Henry Sandham)

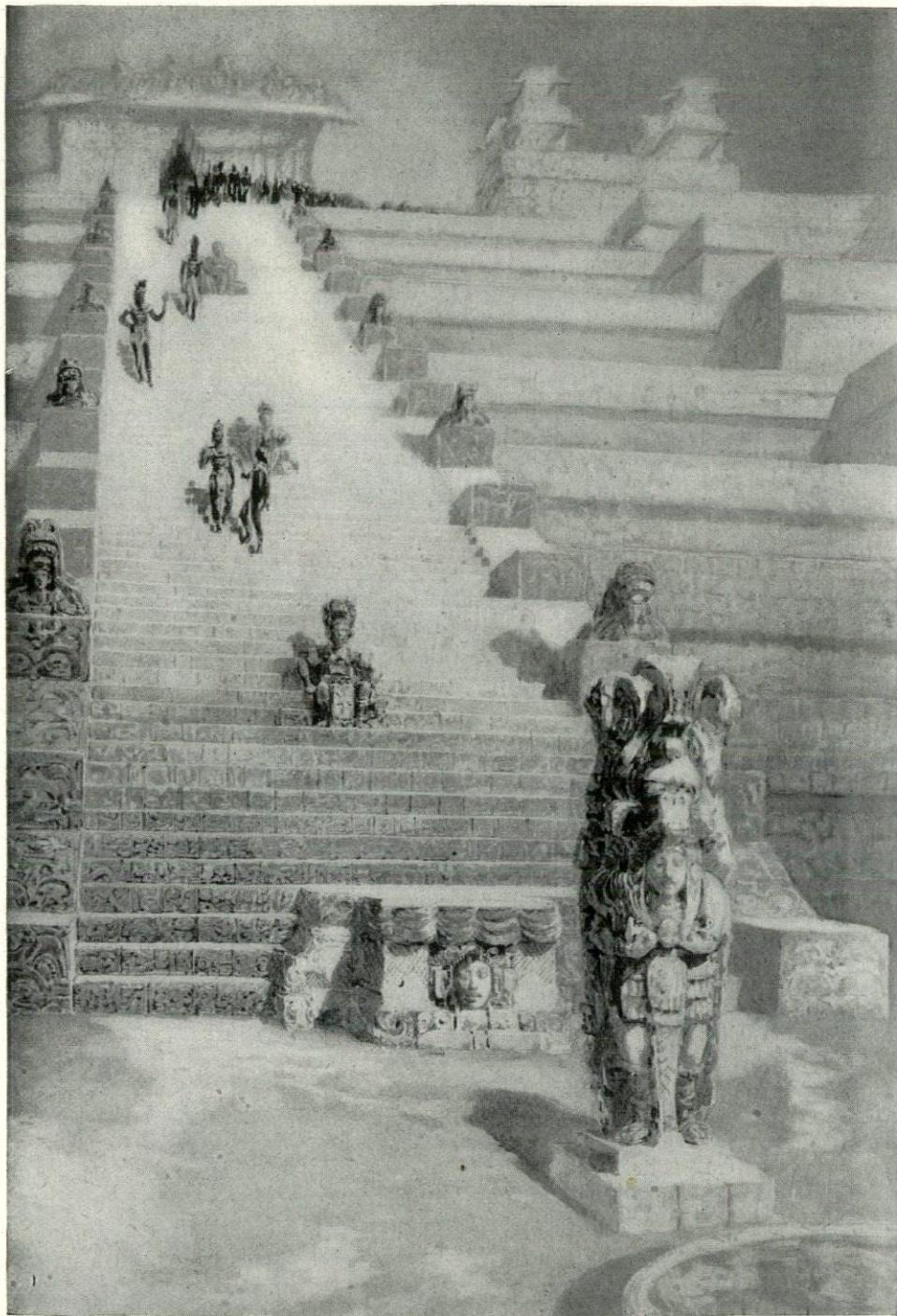
event, which took place in the year 1458, really marks the downfall of the Maya civilization. Famine and pestilence now followed in the wake of civil war and took their inevitable toll of the population. Such was the country encountered by the Spaniards, who, driven off at their first attack, returned and conquered by taking advantage of the native dissensions.

GENERAL FEATURES OF MAYA ARCHITECTURE

Maya buildings were built of the limestone which forms the backbone of the Yucatan peninsula. This stone was crushed to form rubble, cut to form building blocks, and burned to form cement. The walls were made of rubble and cement faced with a veneer of cut stone.

Such construction is essentially monolithic, for the stone veneer had but little effect on the stability of the walls. Indeed, often only the outer face of the stone was carefully dressed, and the back remained an irregular mass projecting into the cement core of the wall. With this type of construction the bonding of courses and corners and other features of true masonry are unnecessary.

The interior rooms almost invariably had vaulted ceilings. Although the true arch was known, as is proved by a few isolated examples, we find in its place the corbelled or overstepping vault, in which each half is able to stand by itself, and which is topped by a *capstone* instead of a *keystone*. This may be seen in Fig. 3, which shows the outer end of



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FIG. 7. THE HIEROGLYPHIC STAIRWAY AT COPAN
(Reconstruction by Henry Sandham)

June, 1925



FIG. 8. THE TERRACED PALACE AT LABNA, YUCATAN

a vaulted passageway. Vaults of this type were used in early times in Europe, the best known examples of which are probably the famous tombs and gateway at Mycenae. Its chief disadvantage lies in the fact that it cannot span wide spaces without undue height, but, on the other hand, it can be built without the use of supporting forms. Incidentally we may say that the Eskimos are probably the only people in the world who habitually build true arches without the use of some kind of form.

Maya buildings standing today are of two types. One of these is a small edifice with few rooms, evidently a temple. The second type has many rooms, was evidently used for residential purposes, and is today known as a "palace." The temples were often set on pyramidal substructures, towering as much as a hundred feet in the air (Fig. 1). A cross-section of such a temple (Fig. 4) shows a vast amount of solid masonry in relation to the room space. In the heart of the pyramid there might have been tombs, but this can only be determined by excavation. Palaces also were raised on substructures, but as they were much larger, it was not possible to lift them so high

in the air. An example of this type of building is seen in Fig. 5.

On account of the lofty bases of Maya buildings the stairways are an important architectural feature, forming a central motive *in antis* which fills the place of columns and pediment in Classical architecture. The Maya architect achieved harmonious and striking results in his treatment of steps and balustrades, often with much associated sculpture, as can be seen from the two stairways at Copan, illustrated in Figs. 6 and 7. Of these Fig. 7 deserves a special word. These stairs are thirty-three feet wide, including the balustrades, and originally measured one hundred and twenty-five feet up the slope. Across the rise of each step runs a hieroglyphic inscription, from which no less than twenty-eight dates have been deciphered. From stylistic and other evidence the stairway itself appears to have been built and carved during the last twenty years of the fifth century, A. D. Unfortunately, the upper part of this great work was destroyed by a landslide, so that but little remains in place today, although innumerable carved blocks have been recovered from the debris. Sandham's restoration which we reproduce may not



FIG. 9. MODEL OF THE TEMPLE OF THE CROSS AT PALENQUE, MEXICO
(Courtesy of the American Museum of Natural History)

be entirely accurate in all details, but it admirably preserves the spirit of the original.

The Maya architect's delight in tall buildings was in part gratified by high substructures but it was cramped by his dislike of many-storied edifices, for he evidently feared that the peculiar arch in use could not carry the superimposed load. This difficulty was overcome by placing rooms on terraces at different levels, with each range resting on a solid foundation, as at the palace at Labna (Fig. 8). In some instances, however, two or even three stories were built directly over each other as at El Cayo (Fig. 5). More commonly the effect of greater height was obtained by placing one of two kinds of construction on the roof. One of these forms, known as the roof comb, has a history which can be traced for over a thousand years. The oldest type (Fig. 4) is a solid mass of masonry which covers the greater part of the roof and towers aloft like the steeple of mediaeval Europe. The Maya soon saw that this form placed an unnecessary load on the roof, and the weight was cut down by introducing interior rooms. Still later the roof comb was reduced to two lattice-work walls tied together by horizontal bands, of which the most delicate examples are found at Yaxchilan (Fig. 20) and Palenque (Fig. 9). The final stage is found on the Renaissance buildings in Yucatan, where the roof comb is a single wall pierced by rectangular openings. This is well shown in Fig. 10 which also introduces us to the second type of roof construction, namely, the false or flying façade. This device is found in the smaller communities all over the United States today, usually built across one end of a gable roof, and is too well known to require further comment.

THE DECORATION OF MAYA BUILDINGS

The façade of Maya buildings is surmounted by a cornice, and is divided into two roughly equal portions by a moulding. The upper zone usually slopes backwards in Old Empire structures (Fig. 9), but both zones are vertical in Renaissance buildings (Fig. 13). The upper zone is

the chief locus of decoration during both periods of Maya history. Traces of paint are often seen on both zones, and it is certain that the lower zone was at times adorned with frescoes.

The relief decoration of Old Empire times is composed of figures of the gods and various mythological animals associated with them. The chief characteristic of this art is the quality of the line-work, in the most perfect examples of which the arc of a circle and the straight line are both tabu. It is most difficult for the average person today to approach Maya art sympathetically, for, although the skill in design and perspective are evident and the beauty of line is unquestioned, the whole effect is cloaked by the symbolism of a religion which remains incomprehensible to the modern mind.

On the buildings erected during the League of Mayapan the decoration consists of inset panels of stone lattice work, huge frets, and geometric conventionalized faces with long curling noses (Fig. 13). Interspaced with these are certain minor life forms, lacking the vigorous rendering of the previous epoch (Fig. 11). After the arrival of the Toltecs sculptured decoration is more common on the door jambs, lintel, and columns than on the façade. The subject matter is usually warriors or gods with associated heraldic or astronomical signs. The frescoes of this period are particularly pleasing, portraying as they do many scenes from the daily life of the people.

OLD EMPIRE EDIFICES

In the earliest cities now known, dating from what we call the Old Empire, most of the standing edifices were erected between the third and the sixth centuries, A. D. These cities were not composed of compact blocks of dwellings, but they rather resembled the suburbs of our own cities with each house surrounded by gardens and lawns set with shade trees. The majority of the houses were built of wood or adobe and covered with thatch, so that but little remains today except small mounds of débris. The centre of the city usually was a large stone faced mound or acropolis, which

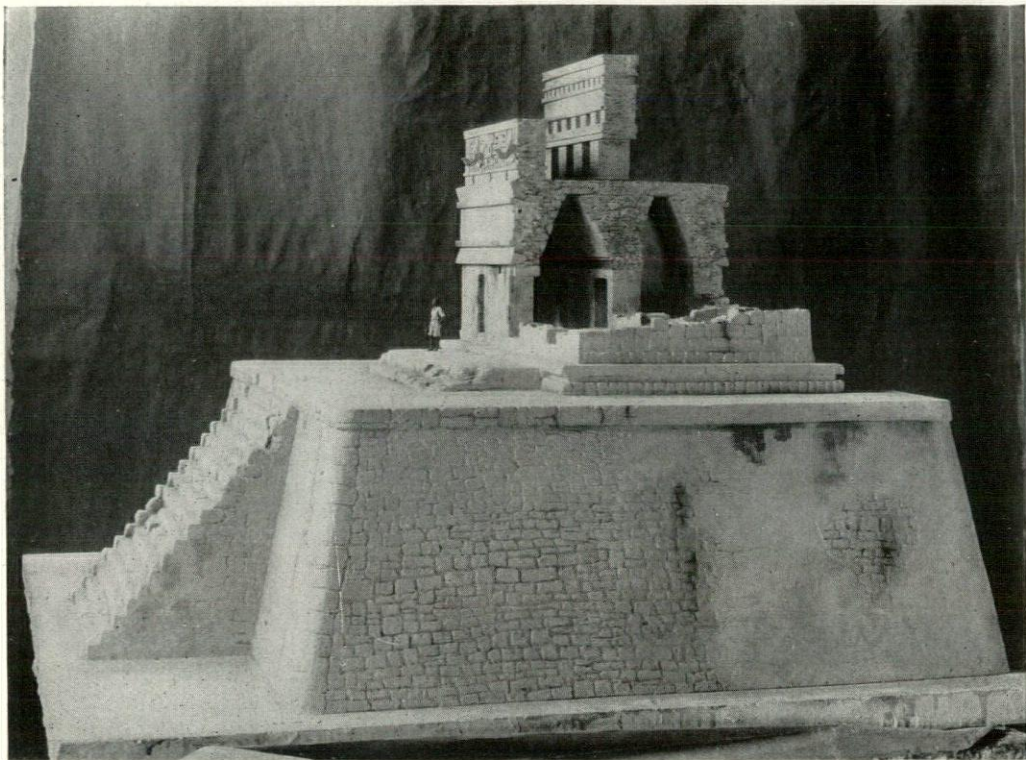
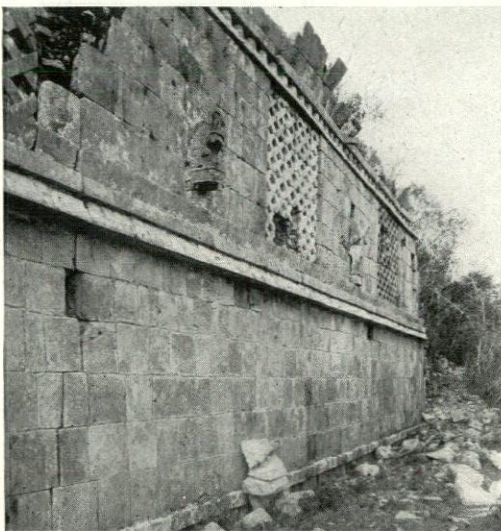
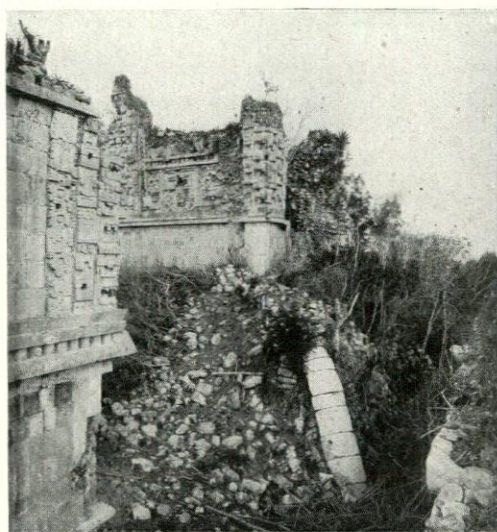


FIG. 10. MODEL OF THE RED HOUSE AT CHICHEN ITZA, YUCATAN
(Courtesy of the American Museum of Natural History)



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FIG. 11. PART OF THE NUNNERY AT UXMAL
(Courtesy of the Peabody Museum)



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FIG. 12. A CORNER OF THE NUNNERY AT UXMAL
(Courtesy of the Peabody Museum)

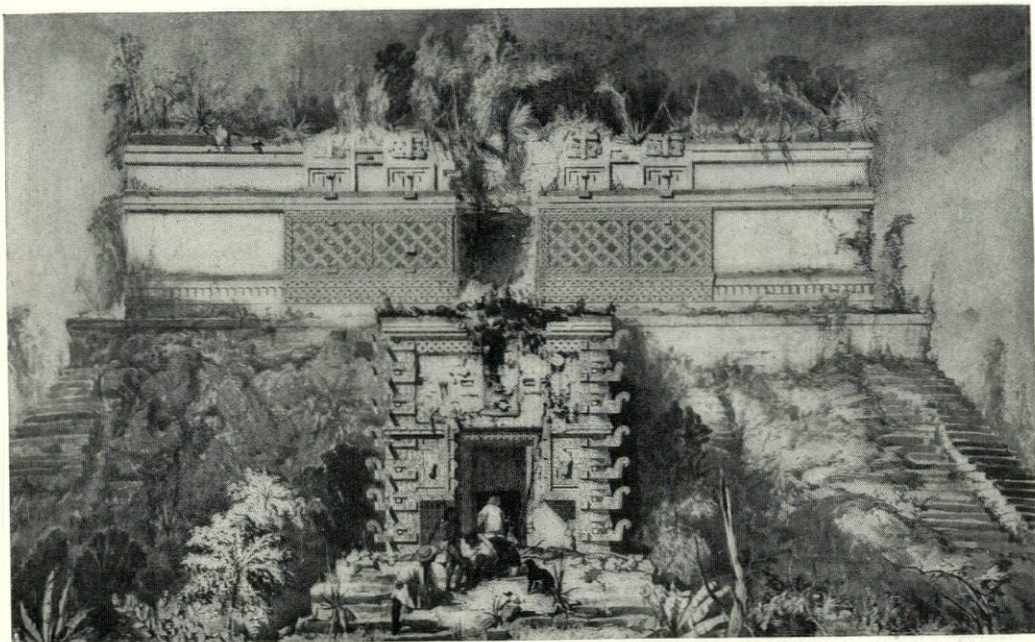


FIG. 13. THE HOUSE OF THE DWARF AT UXMAL, YUCATAN

carried on its summit the most important temples. Fig. 7 shows a small section of the acropolis at Copan. Around the acropolis was a series of courts, often stone paved, formed by various palaces and the less important temples. Such a civic centre may well cover half a square mile or more, and about it are grouped the houses of the common people, extending for several miles in every direction in the case of the larger cities.

Of the Old Empire palaces the most famous example is that at Palenque. It contains many courts and long galleries, and is boldly decorated with stucco relief and paint. In general, however, the large residences of this period have so suffered from the destructive tropical vegetation that little remains today but the lower part of the walls. The two storied palace at El Cayo shown on Fig. 5 dates from about 590, A. D.

Many examples of Old Empire temples are still standing, and there is much material available for study. The Tikal temple shown on Fig. 1 dates from about 300, A. D., and is today over 130 feet high, although the top has fallen. It is

the smallest of the five great temples found at this the largest of all Maya cities. The tallest of these today measures 69.7 metres or 226.5 feet, although the top of the roof comb has fallen. The Yaxchilan temple on Fig. 20 was erected about 500 A. D., and the Palenque temple on Fig. 9 was perhaps set up a few years later.

THE MAYA RENAISSANCE

Maya history, as we have said, is divided into two periods of brilliancy separated by several centuries. The cities of the second epoch were built for the most part at the time of the League of Mayapan (eleventh and twelfth centuries). They do not have one civic centre like the older cities, but rather a series of centres, usually in the form of scattered plazas or courts surrounded by temples and palaces. This corresponds to many of our own large cities, such as New York, which contain a number of contiguous communities, each with its own public buildings, shops, theatres, churches, etc. The temples of this period



FIG. 14. PYRAMID TEMPLE OF THE MAYA RENAISSANCE, LABNA, YUCATAN
(Courtesy of the Peabody Museum)



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FIG. 15. THE HOUSE OF THE GOVERNOR AT UXMAL, YUCATAN
(Courtesy of the Peabody Museum)

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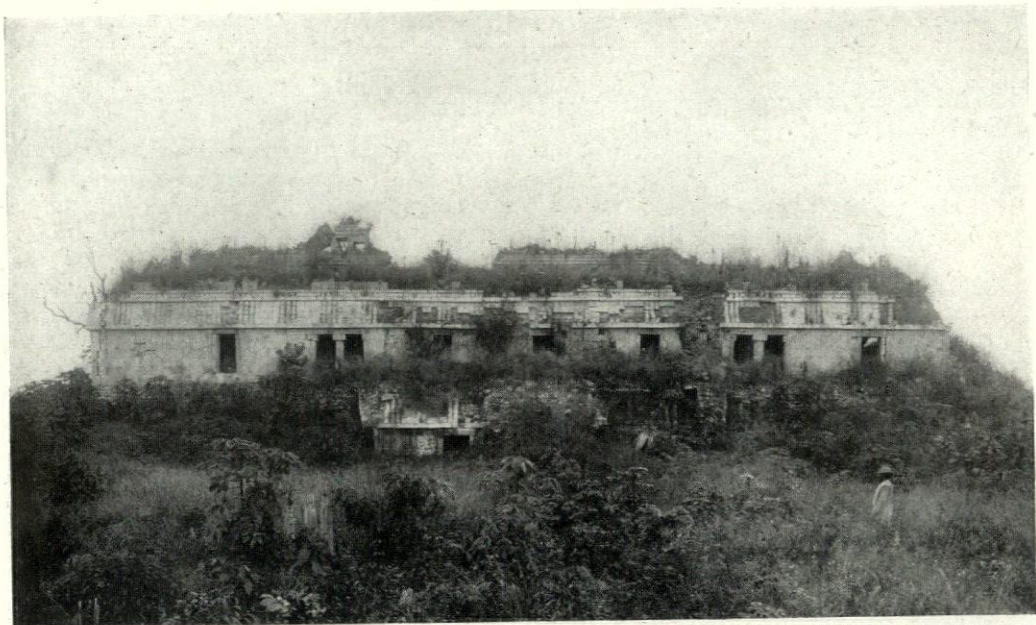
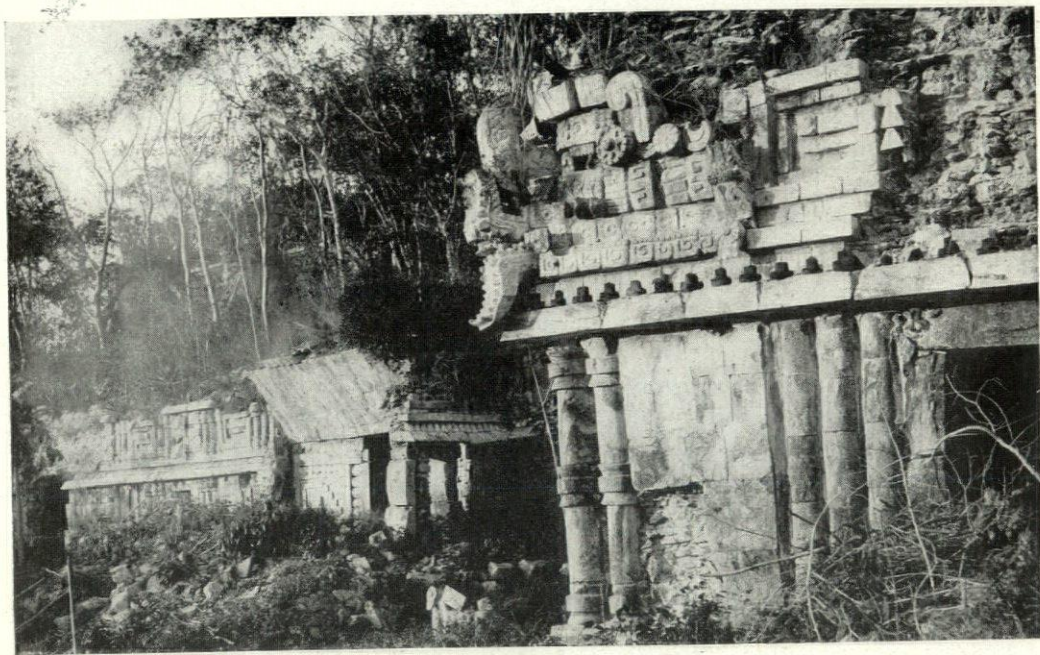


FIG. 16. PALACE NO. 2 AT KABAĦ, YUCATAN
(Courtesy of the Peabody Museum)



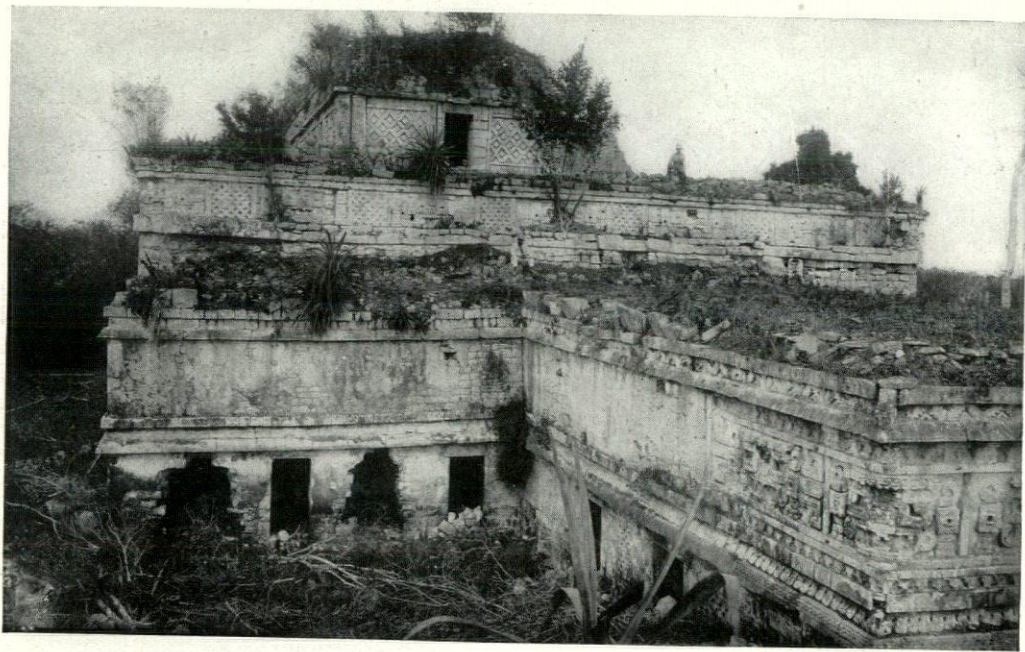
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FIG. 17. AN ANGLE OF THE FAÇADE OF THE PALACE AT LABNA, YUCATAN
(Courtesy of the Peabody Museum)



FIG. 18. THE GATEWAY AT LABNA



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FIG. 19. THE EAST END OF THE NUNNERY AT CHICHEN ITZA
(Courtesy of the Peabody Museum)

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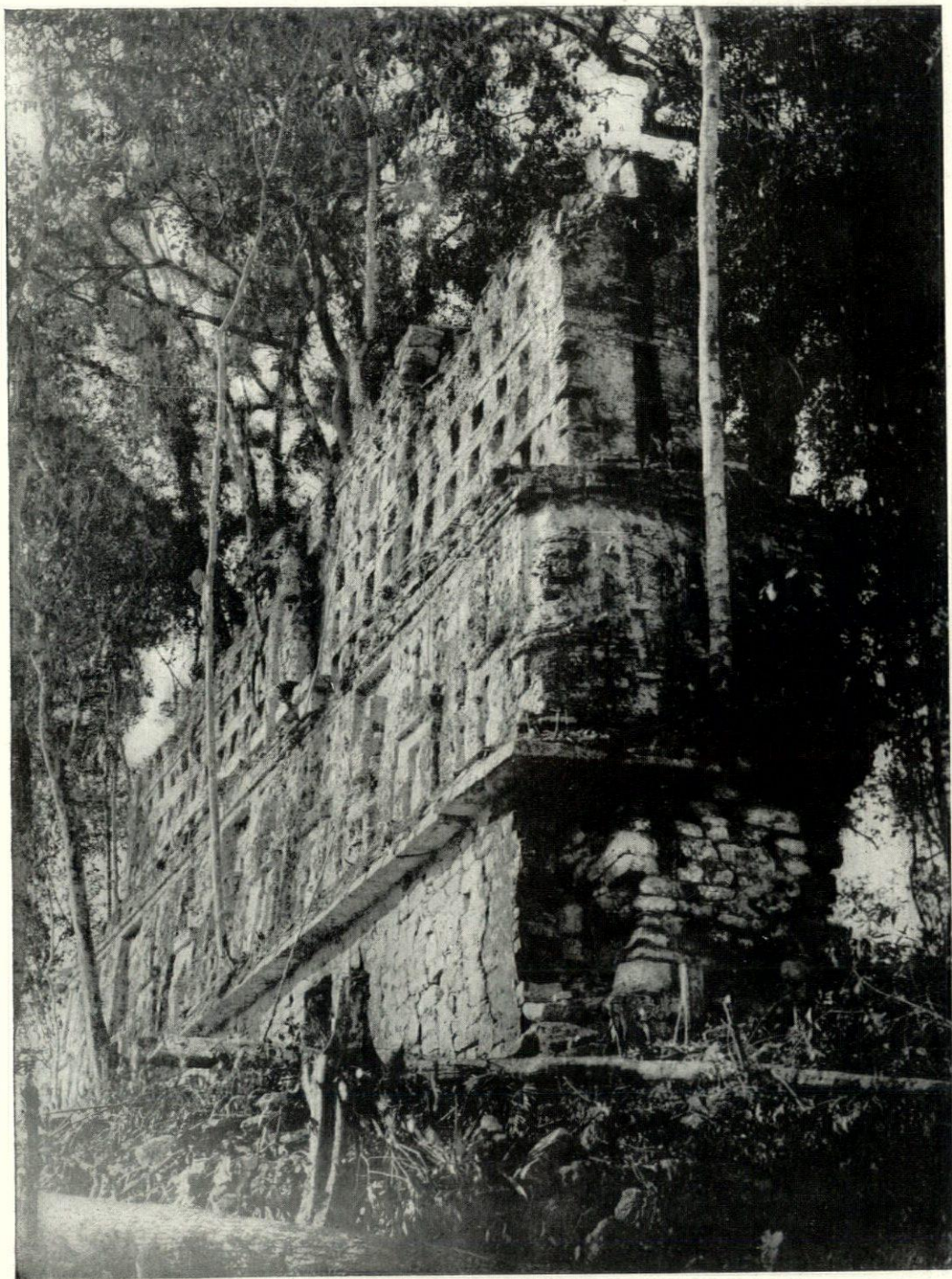


FIG. 20. TEMPLE AT YAXCHILAN, GUATEMALA
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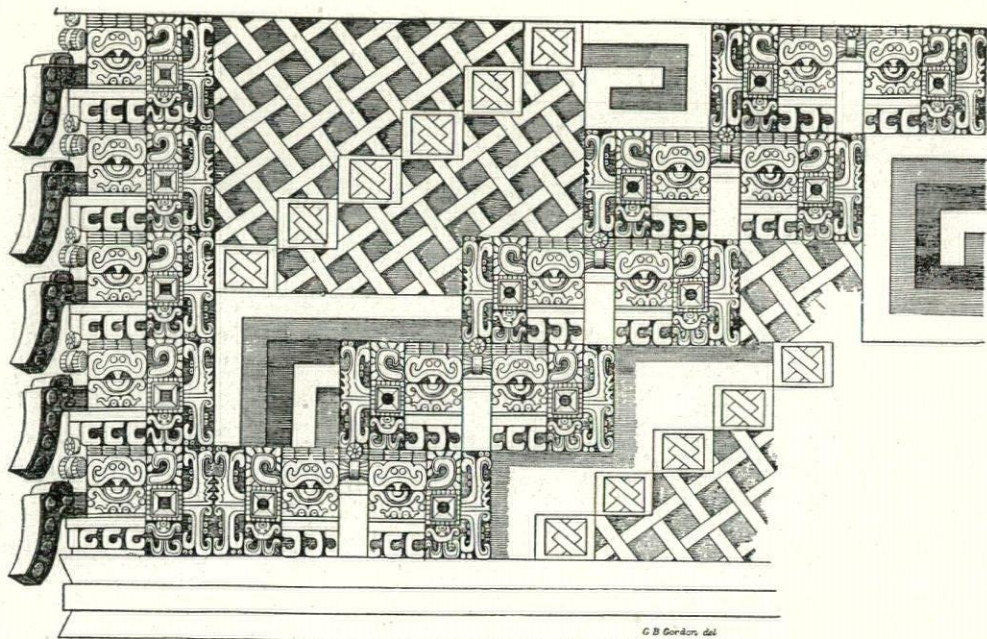


FIG. 21. DETAIL OF FRIEZE, HOUSE OF THE GOVERNOR, UXMAL

are not so imposing as those of earlier times, for their bases are neither as high or as steep. The Labna temple on Fig. 14 is presumably of this date; it is marked by a high false façade.

Palaces are common and really magnificent. The House of the Governor at Uxmal,* seen on Fig. 15, is over a hundred yards long. The exterior walls are covered with a most elaborate frieze, a detail of which we show on Fig. 21. It has been estimated that this frieze contains no less than 20,000 stones, each one cut and carved to fit its individual place, without the help of metal tools. The interior is divided into twenty-four rooms, two of which are sixty feet long. Set on a series of lofty terraces, the builders planned this edifice to form one side of a great quadrangle. Although this ambitious project remains unfinished, the building was indeed a regal palace for the princes of the Xiu, who once were

*The more noteworthy edifices in the Yucatec ruins have received fanciful names from the early Spanish settlers. It must be remembered that most of these cities were in ruins when the Spanish landed as a result of the native wars. Such names as the Nunnery do not mean that the natives used a building for that purpose, but that the early settlers thought the building looked like a nunnery.

the lords of Uxmal. Fig. 12 shows a detail from the Nunnery, another great palace complex at the same city of Uxmal. An unusually simple palace at Kabah is seen on Fig. 16. The front wall of the lower range of rooms has fallen as well as the central staircase. Traces of the roof comb are still to be seen here and there.

Simple columns with square capitals divide some of the doorways. Fig. 17 gives a view of the angle in the façade of the palace at Labna (see also Fig. 8). The building rises in three terraces with ranges of rooms on each. A fine sculptured head projecting from the wide open jaws of a serpent appears in the centre of the picture. The gate to the courtyard of a second palace at Labna is illustrated on Fig. 18. One of the finest and best preserved Renaissance palaces is the Nunnery at Chichen Itza (Fig. 19), which still stands three stories high. As usual the builders dared not superimpose their rooms, so the upper ranges rest on solid cores of masonry. Our view shows but a small part of this large edifice.

THE TOLTEC PERIOD

With the downfall of the League of

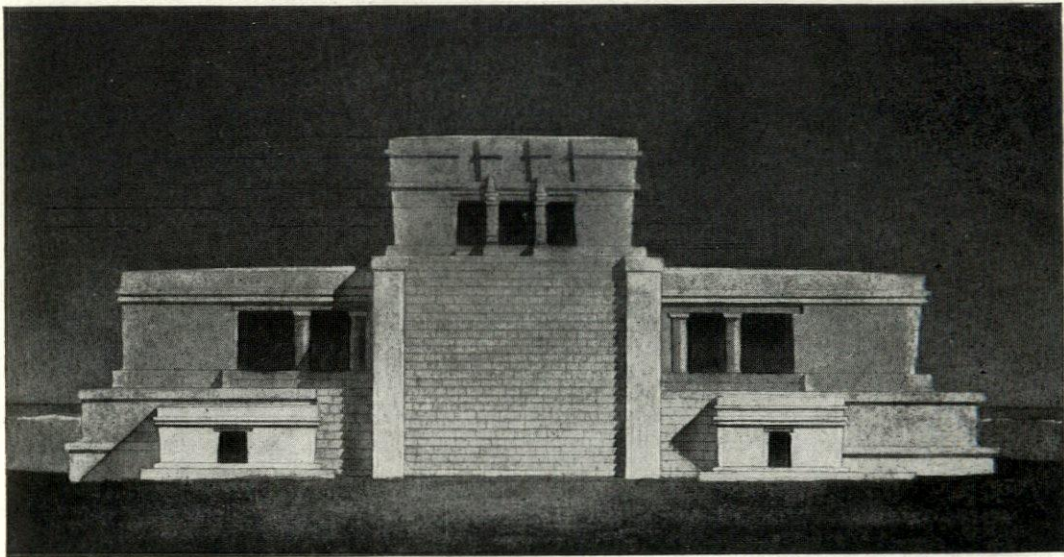


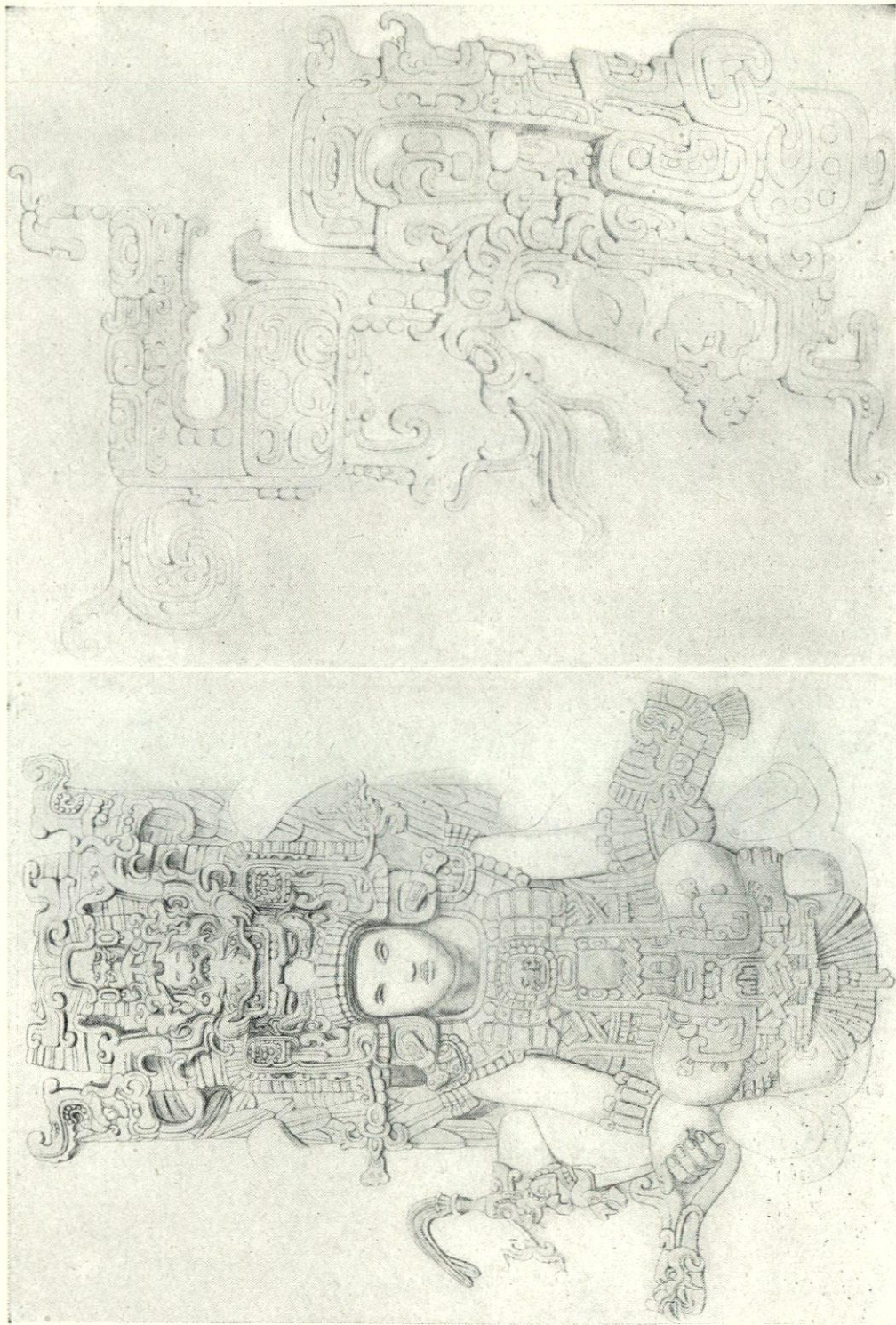
FIG. 22. THE CASTILLO AT TULUM



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FIG. 23. A STONE RING FROM THE BALL COURT AT UXMAL
(Courtesy of the Museo Arqueológico Nacional de Madrid)



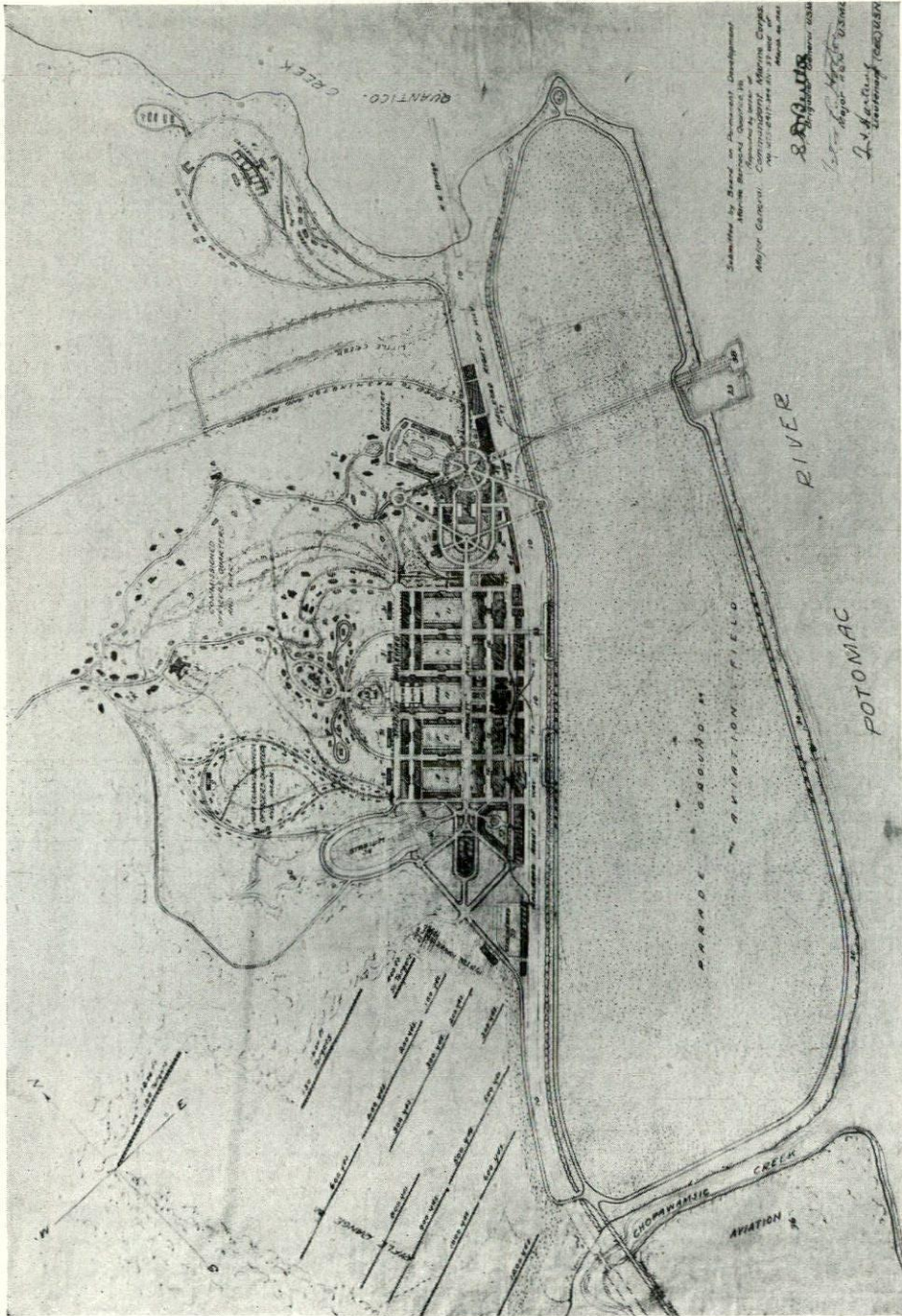
Mayapan we have seen that the Toltecs came into Yucatan from Mexico, and settled at Chichen Itza and elsewhere. In spite of the constant warfare of the succeeding centuries they found time to erect many magnificent buildings, which are marked by a peculiar style. One of the most important features that the Toltecs introduced is the serpent column. As seen in the heading design on page 491, the column is regarded as the body of a rattlesnake, the head of the snake forming the base, and the tail the capital. This feature is found chiefly at Chichen Itza, but it spread over to the east coast of the peninsula, where an example occurs at Tulum (Fig. 22). The Toltecs also altered the spacing of the mouldings and the type of façade decoration. Hence buildings which they erected are easily distinguished. A temple of this epoch, set on a large terraced pyramid which dominates the ruins of Chichen Itza, is shown on Fig. 2. The Castillo at Tulum (Fig. 22) is a simpler and more provincial building of a slightly later date.

A peculiar feature—also found in the highlands of Mexico, Guatemala, and Honduras—was introduced into Yucatan by the Toltecs. This was a ball court in which a game somewhat like our basket ball was played. The court itself consisted of two long parallel walls of masonry with a vertical stone ring set in either side, through which the players attempted to drive the ball. This was

evidently quite a feat, for the successful performer had a right to the cloaks of the spectators—if he could grab them before they ran away. The religious nature of these games is brought out by the fact that small temples stood on top of the walls at some of the courts. In Fig. 23 we illustrate one of the rings from the ball court at Uxmal, which was removed and taken to Spain many years ago.

Our survey of Maya architecture has only covered the high spots, for as yet but little is understood about the Maya civilization. The several hundred ruins which are known today are difficult of access, and investigation is costly when extensive clearing is necessary to permit even the taking of photographs. The picture we have drawn is furthermore incomplete because all the Maya buildings were once smoothly coated with plaster and painted in brilliant colors.

The Spanish explorers and conquerors have recorded but little of the barbaric splendor of the Maya, although the scenes which met their eyes must have rivalled even the wonders of Cathay and the court of the Great Khan. The once populous cities are now but forest-girdled ruins. Today the Maya Indian, devitalized by the loss of his religion and the extermination of his hereditary rulers, enervated by tropical disease, and brutalized by the vices of the white man, stands as isolated from the past achievements of his race as the *fellahin* of modern Egypt.



The Architectural Record

PLAN SHOWING PROPOSED DEVELOPMENT OF MARINE BARRACKS, QUANTICO, VIRGINIA

June, 1925

The PROPOSED MARINE BARRACKS AT QUANTICO, VA

By Glenn Brown

ON MARCH 23, 1923, Maj. Gen. John A. Lejeune appointed a Board consisting of Brig. Gen. Smedley D. Butler, Maj. Jeter R. Horton of the Marine Corps and Lt. Theron A. Hartung, Civil Engineer, U. S. N. to report on Quantico as a permanent Marine base. This board on April 17, 1923, submitted a report describing the topography, the necessary sanitation, and the character and area of the required buildings. The present article has been prepared from data given in this report.

THE PLAN AND DESIGN.

The topography of the Marine Reservation gives an opportunity for a dignified and imposing installation of buildings and a picturesque and pleasing park treatment, allowing unexcelled views of beautifully wooded valleys and the broad Potomac river with the hills of Maryland and Virginia rising in the distance.

Coming up the river the Parade Ground would be seen as a broad and effective lawn sloping up from the river shore to the railway right of way. Beyond the railway the barracks would be seen rising up the hillside step by step. The mass would reach its highest point on the center axis of the barracks group where the church would emphasize the composition. The ground falls away from the church on either side by a gentle grade. This gives the top line of the barracks group a pleasing curved line against the background of wooded hills.

THE MARINE CIRCUS.

The entrance to the Marine Barracks is into a circle from which radiate streets leading to the officers' quarters, the parade ground, the educational unit, the barracks, the utility buildings and the sick quarters or hospital.

The everyday activities of the Post are grouped around the Circus. The buildings, in a circular composition, will give

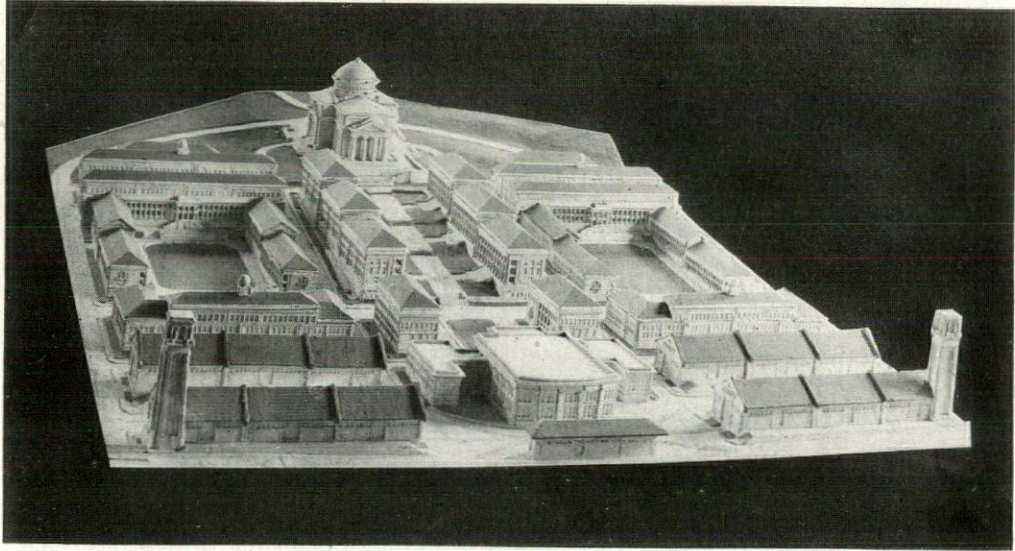
an impressive and dignified entrance to the Post. The Barracks being the largest and most important group around which the Post rotates, have been given a decided individuality. Dignity is attained by grouping each Barrack or Regimental Unit on a large quadrangular court around which the porches form a continuous encircling colonnade. These courts have an open end on Barnett Avenue, the principal thoroughfare. In passing through this Avenue one will see a series of open spaces 250 x 500 feet, encircled by classic colonnades, with lawns and border planting.

Standing in the center of the Camp the vista on Barnett Avenue will be closed at one end by the portico of the Armory, at the other by the porch of the Administration Building. At right angles to the Avenue one will look over an open court bounded by three-story colonnaded barracks to the Church situated on the highest point and to which there is a dignified approach up the hillside.

The Stadium, to foster outdoor athletics, is located south of the Barracks, where it nestles naturally in the valley. Being surrounded by forest, with its principal entrance intersecting Barnett Avenue at the Armory, it will present to all beholders a pleasing vista from this end of the main artery.

Northeast of the Barracks is located the Educational Group with the School on the top of the hill closing the end of a terraced quadrangle, on which are placed detached quarters for the instructors and apartments for the pupils. This group, opening upon the Marine Circus in connection with the circular composition of buildings, will give an imposing first view to visitors who arrive at the Post.

Sites away from the bustle of the Post have been selected for the Commanding Officer and Staff, as well as for the Sick Quarters or Hospital. The sites selected for these purposes are on the crest of



MODEL LOOKING FROM THE POST EXCHANGE TOWARDS THE CHAPEL

one of the highest hills, overlooking Quantico Creek and the Potomac River—most attractive locations and, while away from the Camp, are yet in easy access of the Marine Circus.

A picturesque wooded valley extends northeast of the Barracks, with an attractive stream winding its way through the low ground. Laurel, dogwood, white locust and azaleas thrive naturally beneath the native trees with which this valley abounds. It is proposed to park the valley with foot and bridle paths, thus giving short cuts from section to section.

On the ridges surrounding the valley the Commissioned Officers' Quarters will be located, allowing an opportunity for individual setting among the forest trees. A similar valley exists north of the Stadium. On the hills which surround this valley it is proposed to locate the Non-Commissioned Officers' Quarters. This valley when parked will offer a pleasure ground and playground for the benefit of both young and old.

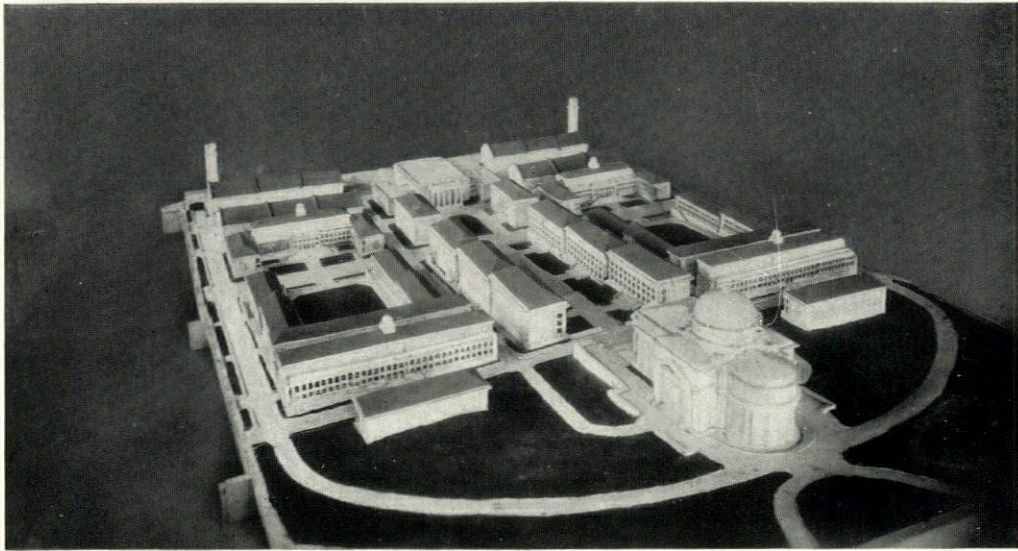
An attractive and useful feature may be readily added to the landscape by placing a water gate across the stream that runs beneath the Stadium field. This gate when closed, damming the water, would form a lake in the woods with its shore line changing constantly as it

wound around projecting hillsides and spread out in valleys and ravines. Such a lake would afford excellent canoeing in summer and a skating pond in winter, from one hundred to three hundred and fifty feet in width and twelve hundred feet long or thereabouts.

Another charming feature that may be mentioned will be the valley viewed from the Officers' Club Porch. From the foreground of the Club Terrace will be seen the valley with its slab stone walk in the center, open grass lawns on the hillsides enclosed by natural forest, and, looking over the forest, a charming view of the Potomac with the hills of Maryland and Virginia in the distance. On the crest of the wooded ridges which extend from the Club House on either side of this valley, it is proposed to plant in their natural soil a profusion of laurel, dogwood, locust, rhododendron, azaleas, redbud, ash and other flowering trees and bushes natural to the woods, and, in addition, to supplement these native plants by a few foreign flowering trees and shrubs where background or important points need emphasizing.

THE ARCHITECTURAL STYLE.

Before adopting a style for the new buildings, their character was given careful consideration.



MODEL LOOKING FROM THE CHAPEL TOWARDS THE POST EXCHANGE

As the Spanish Mission style was appropriately adopted for the Marine Barracks in San Diego, it was thought proper that the prevailing Revolutionary Style, the so-called Georgian or Colonial style as developed in the thirteen original states, should be utilized for this post in the eastern part of our country.

The style seems peculiarly appropriate in Quantico, the section of Virginia where we find some of the most noted buildings of this character. The colonnade encircling the barracks quadrangle was suggested by the portico at Mount Vernon, the Armory portico by the big columns in Arlington, the church entrance by the Catholic Cathedral in Baltimore and the administration building entrance by the more delicate portico of the White House, each one of these features ending a vista from the center of the camp.

The Marine Circus is suggestive of the noted circular group of buildings designed by Charles Bulfinch for Boston after his studies in London.

The style adopted has advantages other than historical. It is simple in its lines and economical in its construction; it allows for the use of plain materials and little ornamentation; it calls for dignity and good proportion; it is thoroughly

typical of the straightforward service and life of the Marines.

PRESENT BARRACKS.

Some four thousand marines are now living in the temporary wooden shacks built during the emergency of war. The need of new quarters has been felt keenly as the present quarters have become more and more intolerable. For several years, under the direction of General Smedley D. Butler, I have, as other duties permitted, been making studies for the proper accommodation of sixty-five hundred enlisted men and four hundred officers. These studies cover a wide field: barracks, mess-halls, kitchens, Company and Regimental offices and stores; Commissary and Quartermaster warehouses; the machine, plumbing, carpenter's, painter's and tinsmith's shops; power, heating and refrigerating plants; warehouses for small and large guns, tractors, motor trucks and other odds and ends. The Post Exchange was a study in itself, consisting of a Department Store and branches such as barber, tailor and cobbler shops, restaurants, news stands, soda fountains and the Hostess House. The report provided for buildings, roadways, water supply, sewerage, drainage, heating and lighting; to house, feed, clothe, edu-

cate, train and entertain seven thousand five hundred men and four hundred and twenty officers.

Fireproof construction was recommended for all buildings except the detached officers' quarters, which were to be semi-fireproof.

BUILDINGS REQUIRED.

The Barracks are divided in five units for seventeen hundred and fifty men. Each unit is grouped around a quadrangular court with an open end on Barnett Avenue, the principal thoroughfare. Each group will consist of five separate buildings, two and three stories in height, three hundred and fifty feet long and sixty feet wide. The principal feature of these barracks will be the colonnaded porch two stories high which will encircle the 250 x 500 foot quadrangle. This porch is provided not only for the pleasure of the men in favorable weather, but is an important factor in an emergency by which the sleeping capacity of the barracks may be doubled.

The plan of the barracks calls for separate company dormitories, mess hall and storage warehouse.

Permanent, attractive Georgian dwellings have been erected for twenty-five officers. Additional quarters will be needed for two hundred and seventy-five officers, exclusive of those attending the school. These accommodations vary according to rank from that of the Commanding General, which is two stories high, containing living room, dining room, kitchen, store room, wash room, six master's bed rooms, four baths, two servant's rooms and bath, with ample cellar, attic and porch, to that of the Lieutenant, with living room combined with dining room, two bed rooms, one bath, one servant's room and bath.

For bachelor and student officers, apartments are proposed with from two to six rooms according to rank. One hundred and fifty non-commissioned officers need quarters about the size given for lieutenants. The Commissary, a large grocery and provision store, with its sales room and storage, and the Quartermaster's Dépôt, a clothing, drygoods and

house furnishing store with its constantly changing freight, are placed on the Marine Circus where they will be convenient to the railroad as well as to the Barracks and the Officers' Quarters.

The Quartermaster will require for his needs two buildings 100 x 300 feet, two stories high; while the Commissary will need thirty-six thousand square feet of floor space.

The Hostess House, the Library and the Post Exchange are grouped together to give enlisted men an opportunity for amusement, study and a place to spend their pay. The Post Exchange is a Department Store; the Hostess House a temporary hotel, restaurant and dance hall; the Library, a reading and study hall. The theatre, with three thousand seats, is for movies, vaudeville shows, boxing matches and dancing. It is located so as to be convenient to men and officers.

The Marines are building a Stadium to seat thirty thousand with their own labor, excavating into the hills, filling the ravines, fabricating the steel carriages for seats, casting reinforced concrete treads for seats, collecting the stone and laying the masonry wall encircling the field. This is a large undertaking, about half finished, of which both officers and men may well be proud. The Stadium will have the largest athletic field in the country. The football field will not overlap the baseball field, the running track or the tennis courts.

Near the Stadium all the athletic sports are grouped. The most important of the group will be the Armory, 250 x 350 feet, used for an indoor drill hall, riding room and indoor major athletics. North of the Stadium field is placed the Team House, balanced on the other side by the Public Waiting Room; each will be 100 x 50 feet. The Team House will have separate rooms and lockers for the contending teams which visit here.

The Commissioned Officers' Club is a piece of construction which the Marines are doing with their own labor. On the Cornerstone is the inscription:

"Built by the United States Marines. They picked, shoveled and carted the earth. They quarried, cut and laid the

stone. They felled, sawed and framed the wood. They wrought, hammered and riveted the iron."

The Church is placed on the most commanding position on the center line beyond the Barracks. It is intended to accommodate eighty per cent of the force, six thousand five hundred men in close formation. The Transepts, Nave and Choir may be readily screened off for the service of the different religious sects for their regular services.

An educational group on one side of the Barracks gives a balance to the plan with the Stadium on the other side. This group is built around a large terraced quadrangle, 300 x 500 feet. The school with class rooms, study halls and administration offices has been located at the top of the hill. Detached dwellings for the teaching staff are proposed on the flanking sides of the quadrangle. The children's school, the dispensaries, the Post garage, Post Office, fire station and the brig have been placed where they would be most convenient for use.

The Laundry, Refrigeration and Cold Storage are provided for near the power plant adjoining the railroad right of way. Machine, plumbing, carpenter and paint shops for the Post maintenance and to serve as a part of the vocational training provided for enlisted men when they join the Marine Corps, will be placed along the railroad. Beyond the shops a stable is provided to accommodate one hundred horses.

A new administration building is called for in the new plan, as the present one, although a permanent building, has been found inadequate to accommodate the administrative branches of the Post, which should be for the best service, under one roof. It is proposed to make the present building into Bachelor Apartments. One hundred and eighty thousand square feet is required for regimental store houses in addition to that required for the Depot Quartermaster and the Commissary Officer.

THE CENTRAL POWER AND HEATING STATION.

Lieut. T. A. Hartung, C.E., U.S.N., studied and laid out a tentative central

heating and lighting plant and a sewerage system. These systems contemplate a progressive growth in proportion as the various sections of the station are brought into service.

A rearrangement of the rifle range, under the direction of General Butler and Major Keyser is shown on the general plan. The Marines have proved themselves the champion marksmen of the world and this rearrangement will thus provide them with an adequate range upon which to perfect themselves.

It appears that there is no drill ground in the country adequate for training large bodies of troops. At Quantico it is proposed to devote to a parade ground the area between the railroad and the river, bounded on the north by Chopawamsic Creek and on the south by Quantico Creek. This tract approximates half a mile wide by two miles long. It gives an area upon which a division could manoeuvre and at the same time supplies a much needed field where a large number of airplanes could practice in mass manoeuvres.

ROADWAYS.

The system of roads centers in the Marine Circus which is the entrance to the Post by highway from Washington and Richmond, from the railroad by the station and from vessels by way of the pier. From the Marine Circus branch Barnett Avenue, the main artery through the Barracks ending in the Armory on the south and the Administration Building on the north; Potomac Avenue, which leads to the Officers' Quarters and the Pier; a new avenue which leads to the Parade Ground and the Educational Center. Parallel to Barnett Avenue, bounding the Barracks on the west, is the proposed site of the Stadium Boulevard. This will provide another main artery particularly useful on field days of major athletic events. This boulevard crossing a valley on a viaduct from the Officers' Quarters will continue around the Stadium, connecting with the Aviation Roadway.

The Stadium Boulevard viaduct is proposed as a series of simple concrete

arches, making an attractive entrance to the Officers' Park.

Second and Fourth Streets, the principal cross streets, pass from the Parade Ground, under the railroad track, through the Barracks, and rising up the hill by elliptical curves, merge at the Church to form a single road which leads direct to the Officers' Quarters.

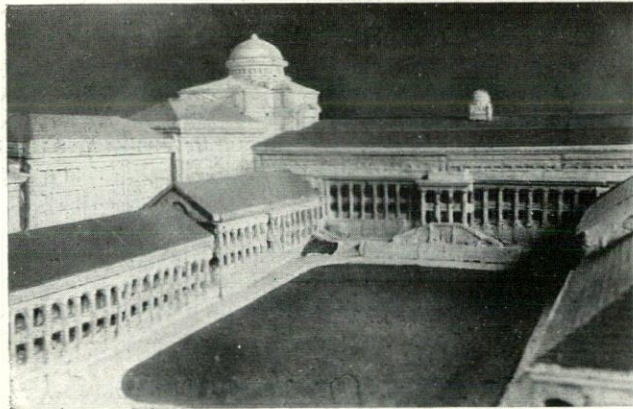
The crossings from the Barracks to the Parade Ground under the railroad are important features of the proposed roadway system to allow ready access between the Barracks and the Parade Ground free from the movements of trains. At

least two such subways are needed to prevent congestion.

A roadway will encircle the Parade, which in addition to its utility purpose will form in all seasons an attractive drive along the river shore.

The topography of the country and intercommunication between the sections of the camp have been considered in the roadway system.

The report gives a detailed account of each building with the cubical contents and estimate per cubic foot of each, with an estimate for heating, lighting and sewerage, etc., per unit.



MODEL VIEW FROM BARNETT AVENUE—ONE OF THE QUADRANGLES

P O R T F O L I O
C V R R E N T A R C H I T E C T V R E



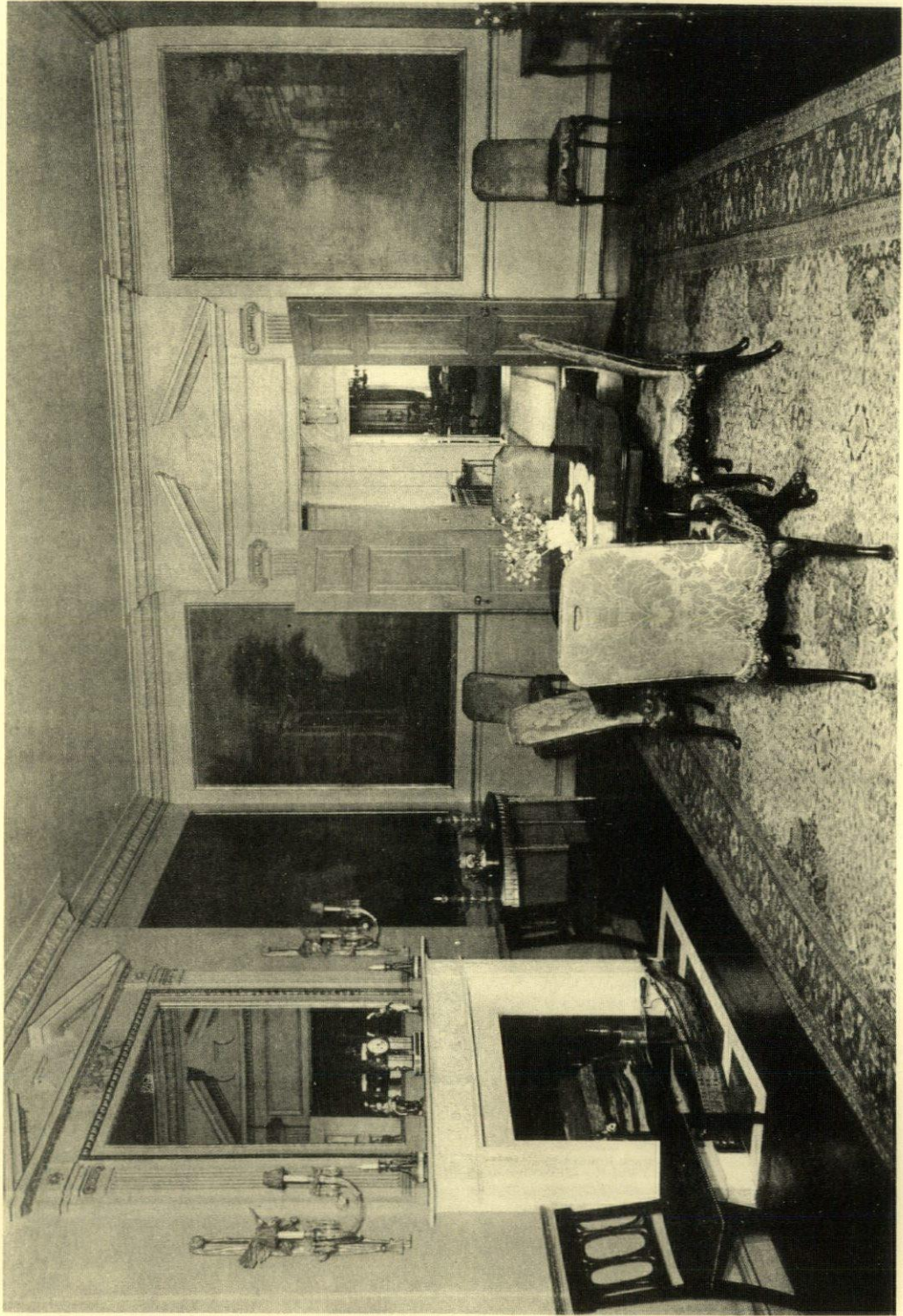
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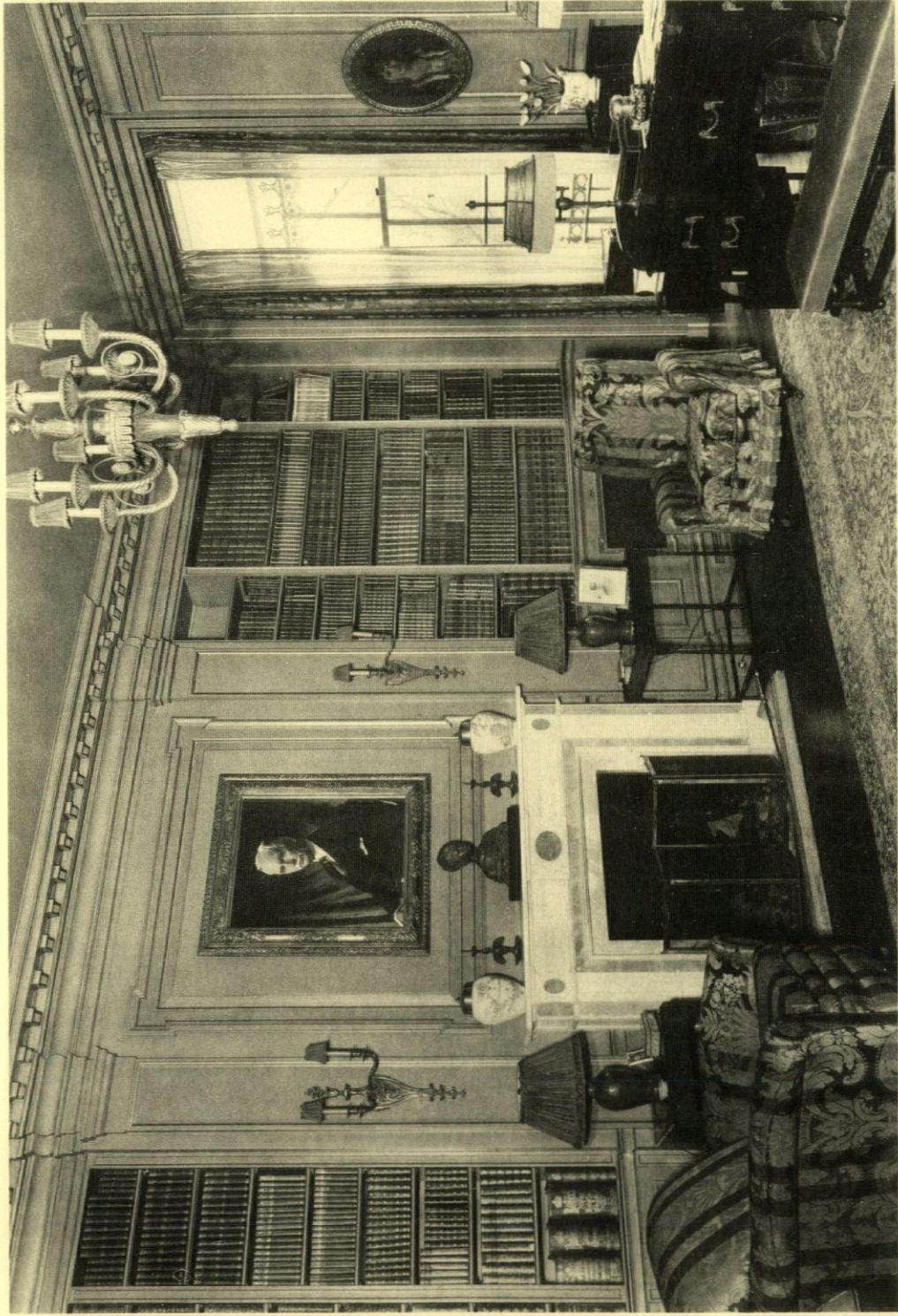
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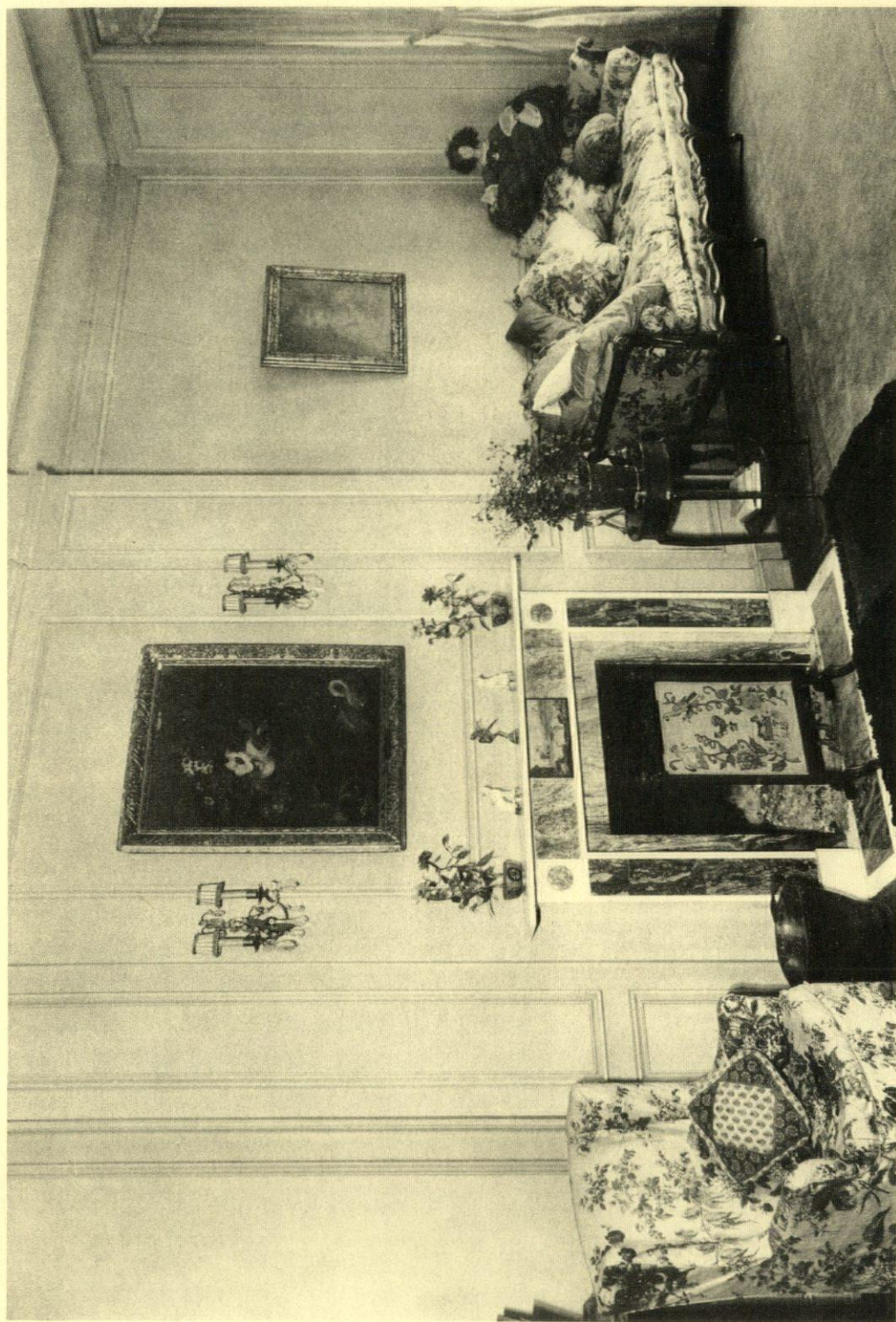
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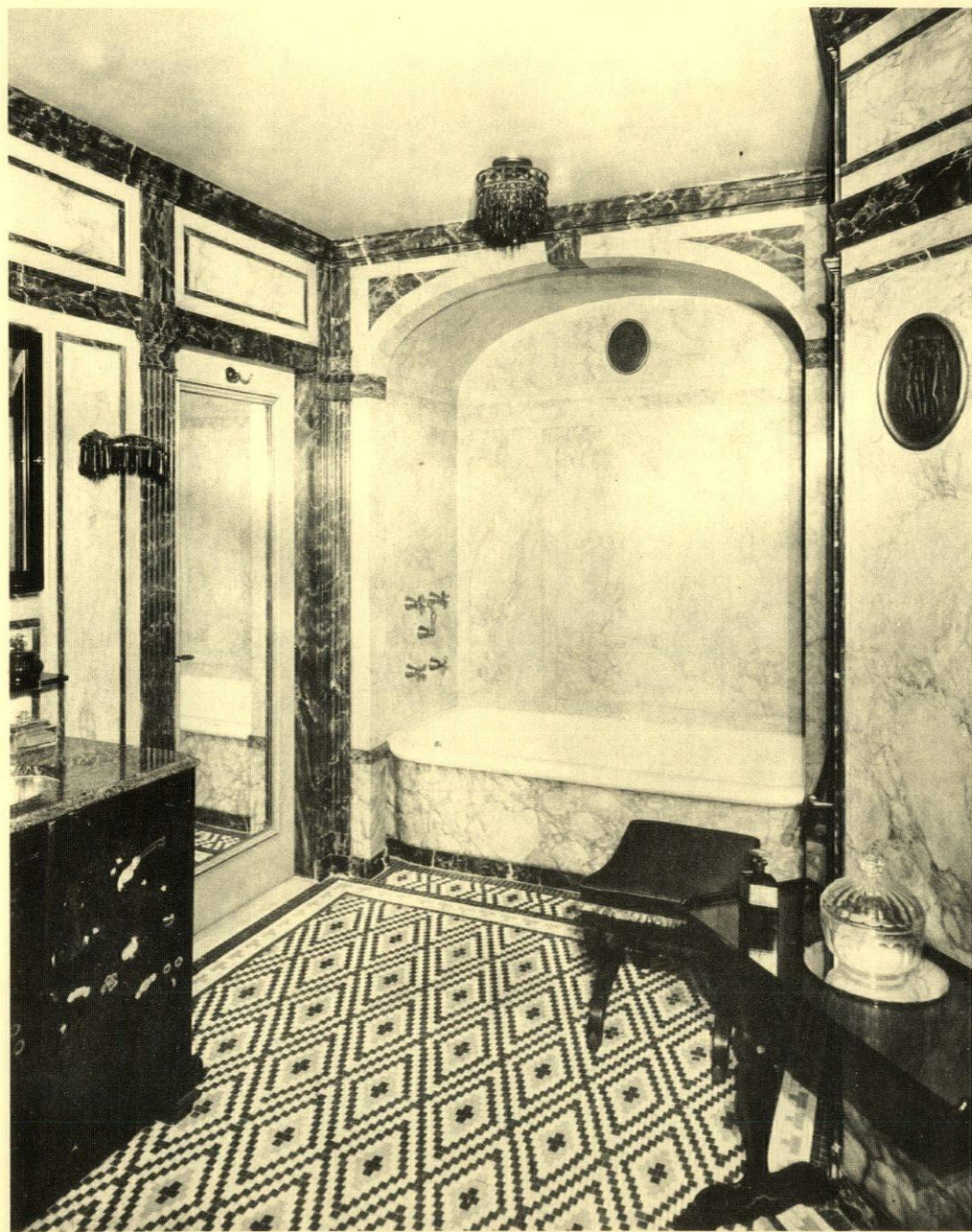
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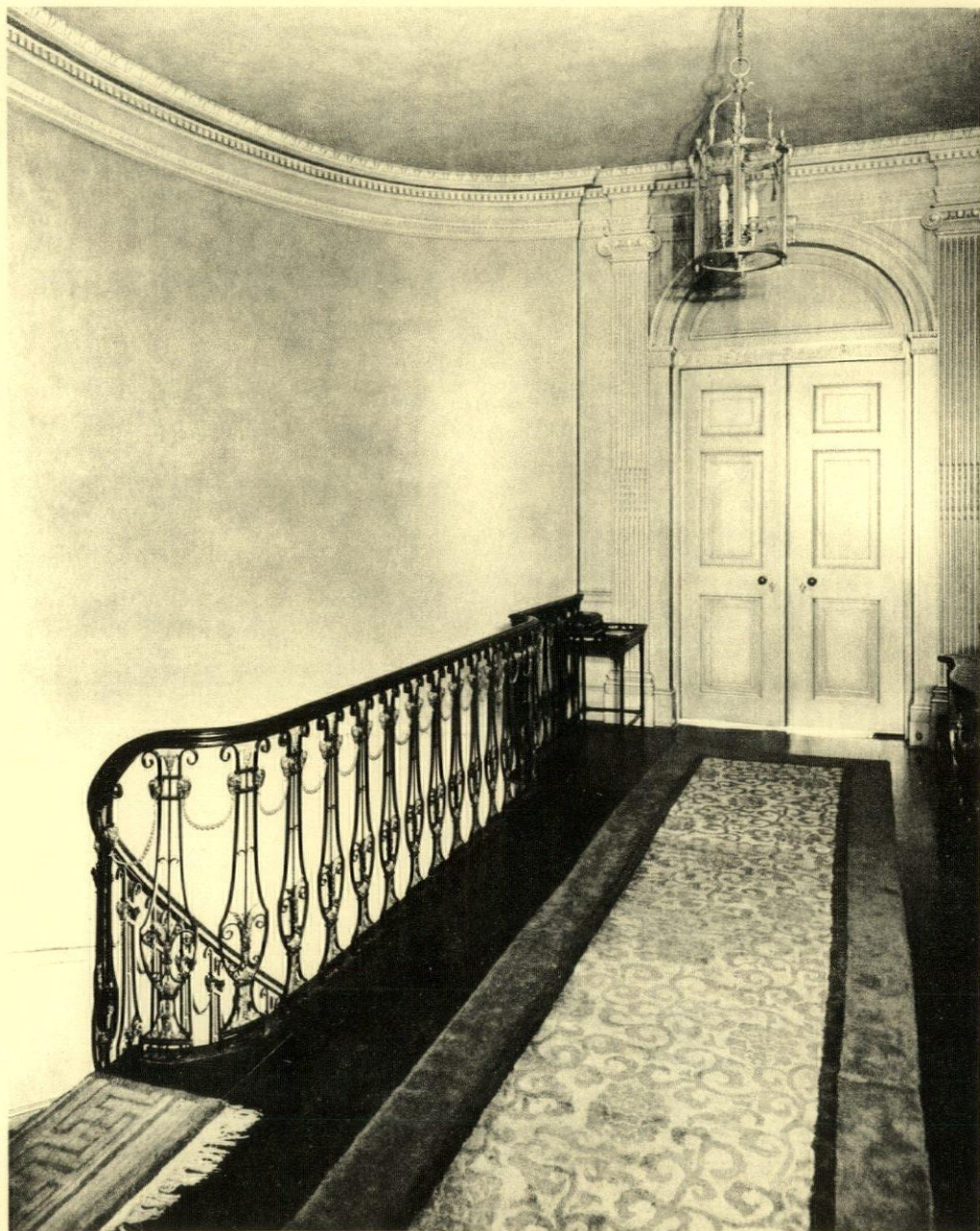
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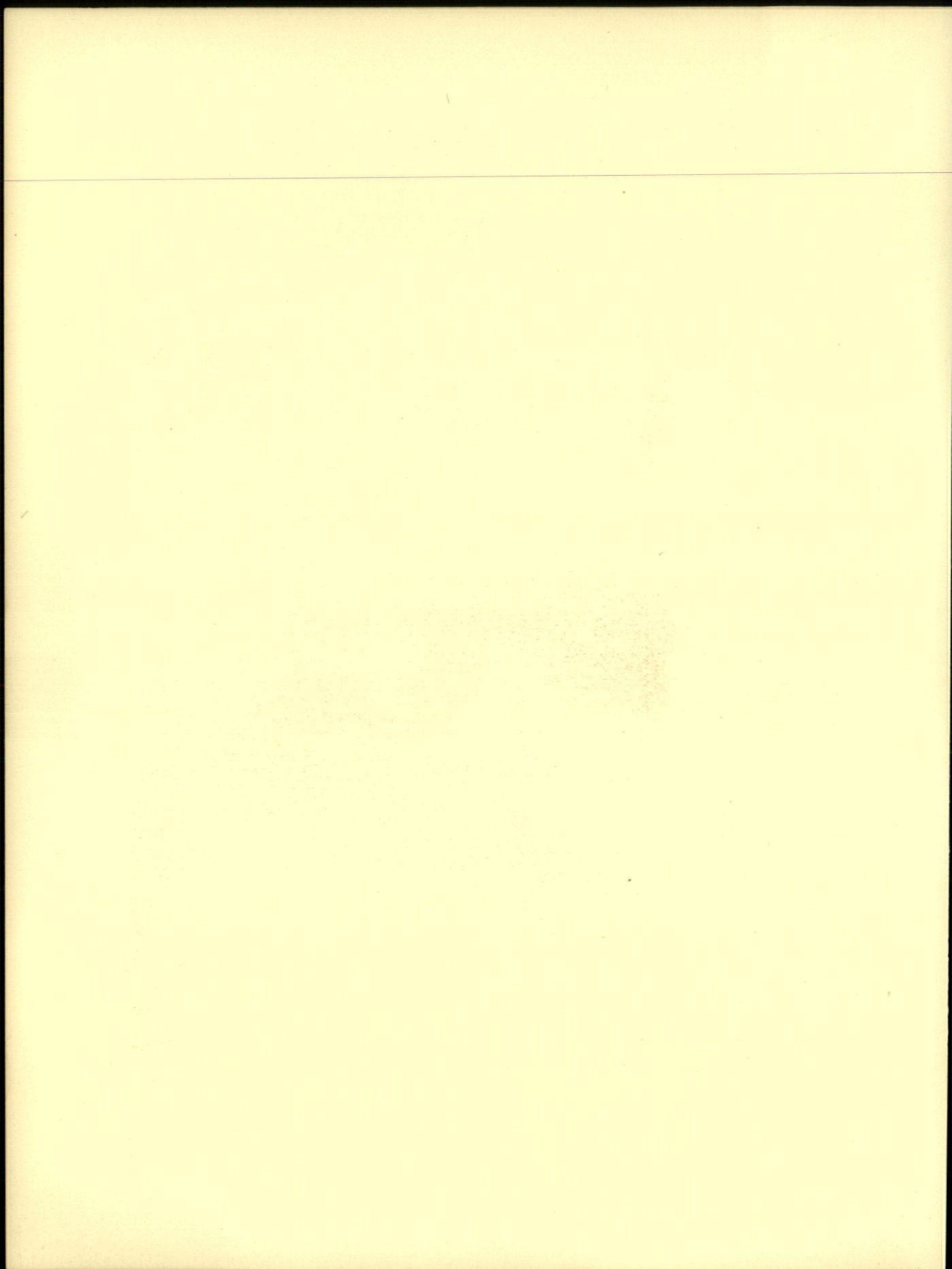
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RESIDENCE OF JAMES BYRNE, ESQ.
A. Wallace McCrea, Architect



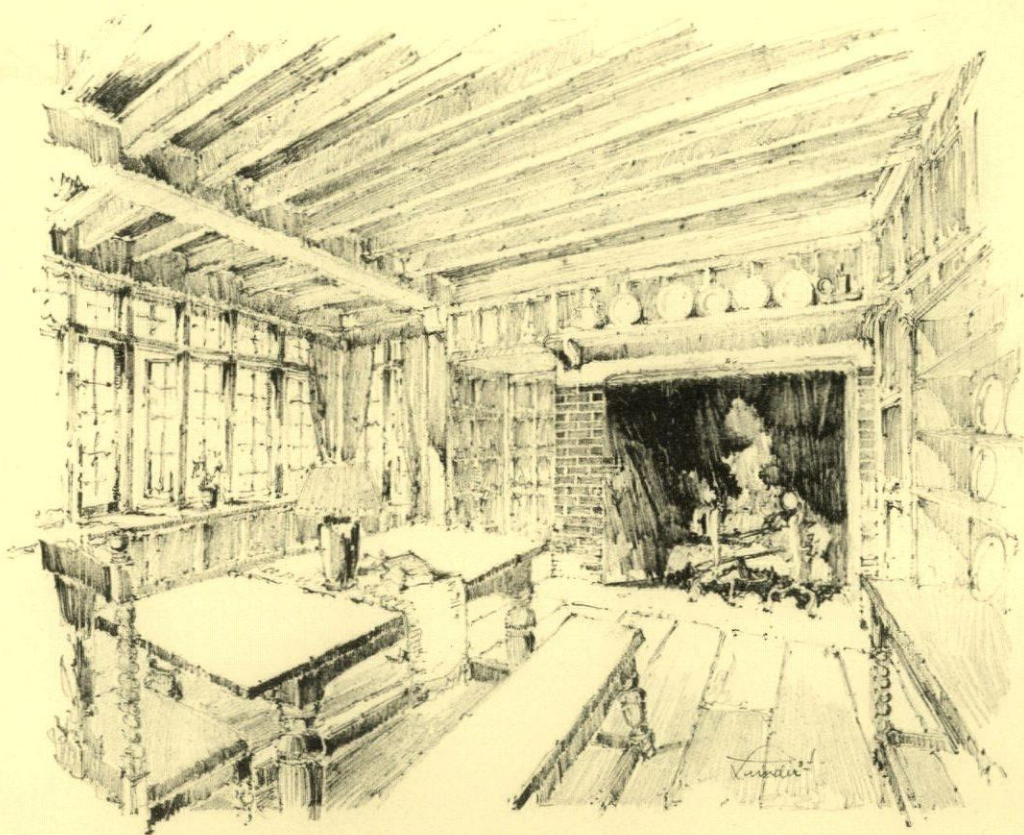
RESIDENCE OF JAMES BYRNE, ESQ.
A. Wallace McCrea, Architect



RENDERINGS

BY

EDWIN H. LUNDIE





HOLTON & JENNE
ARCHITECTS

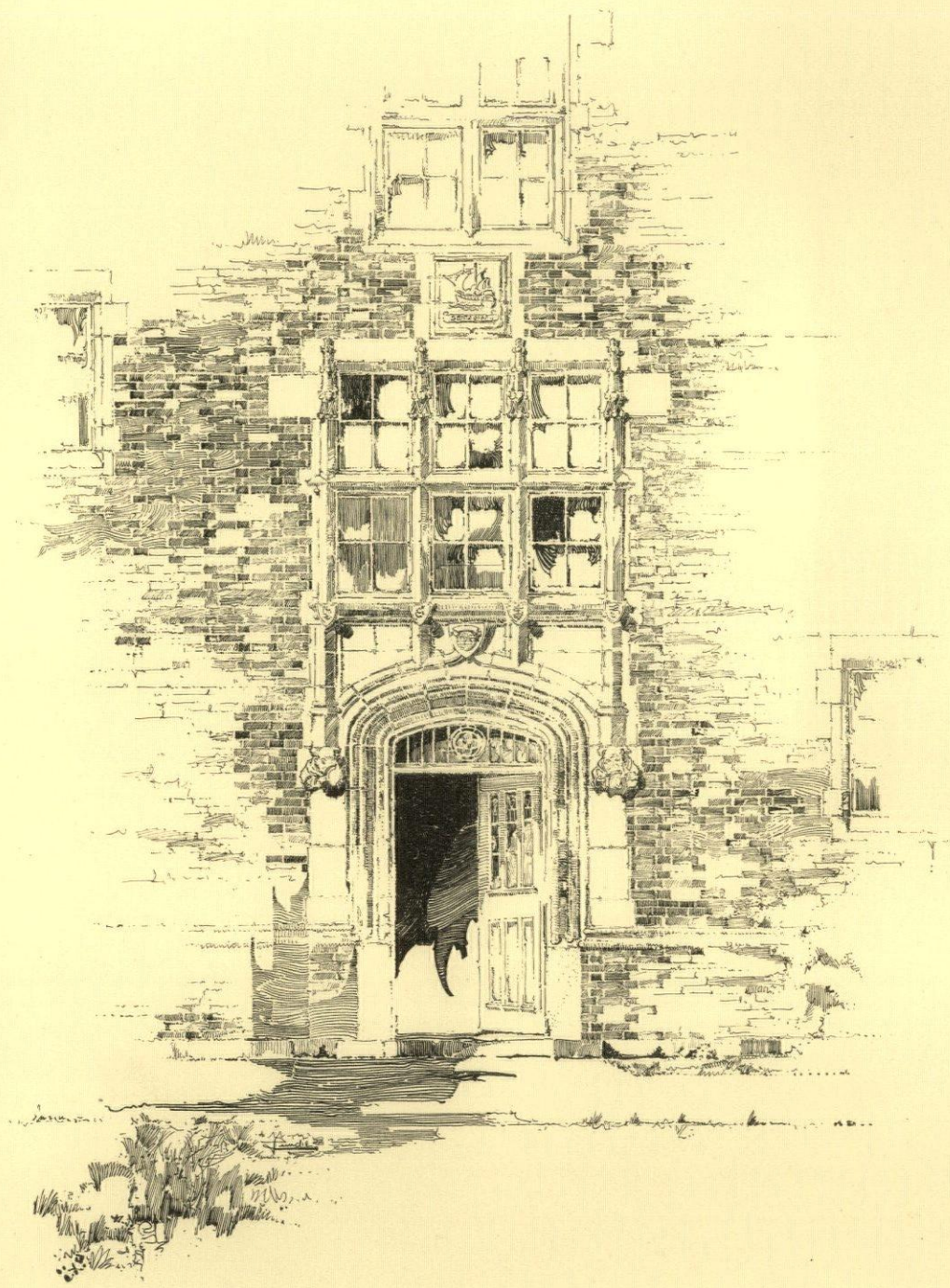


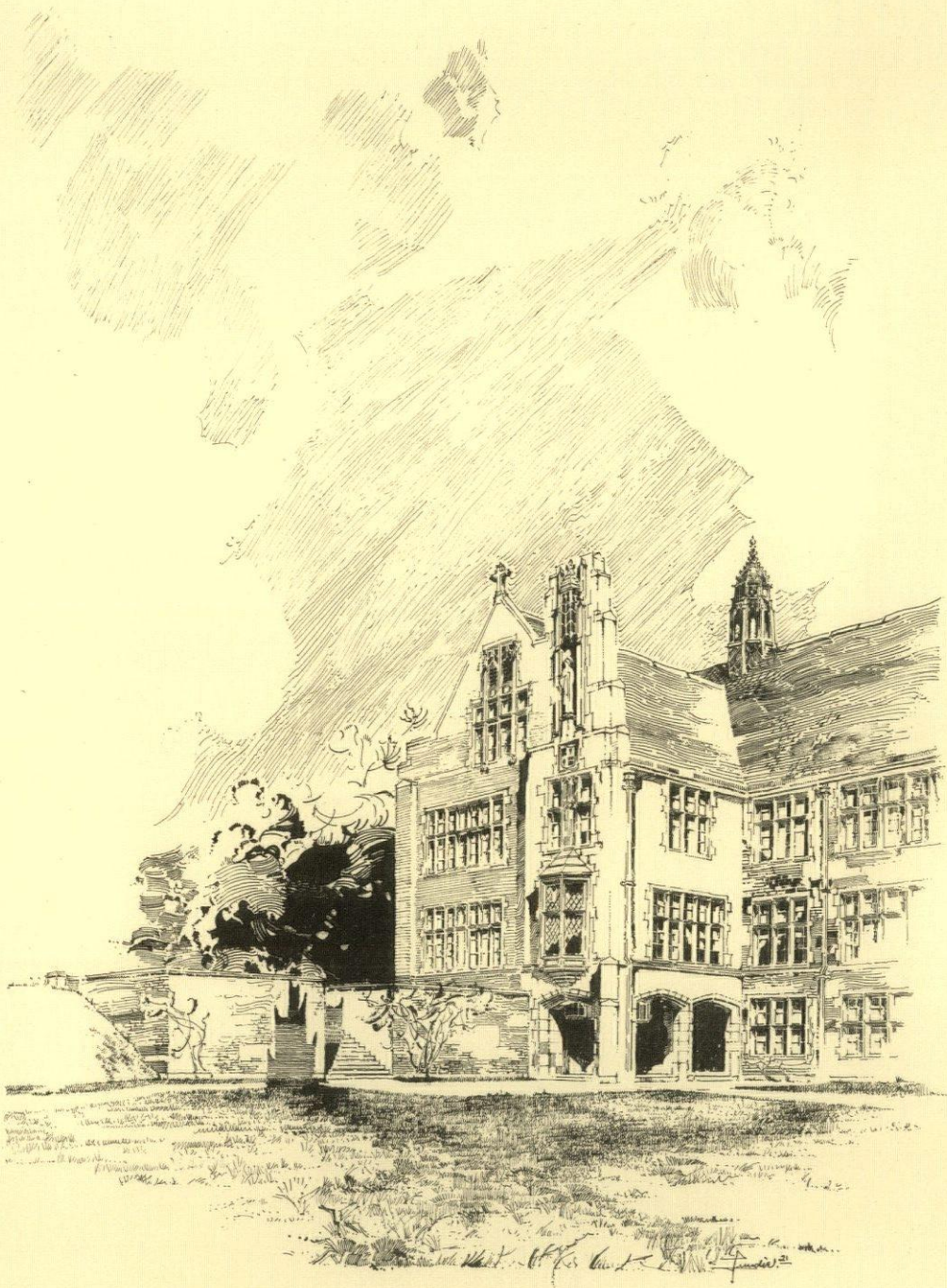


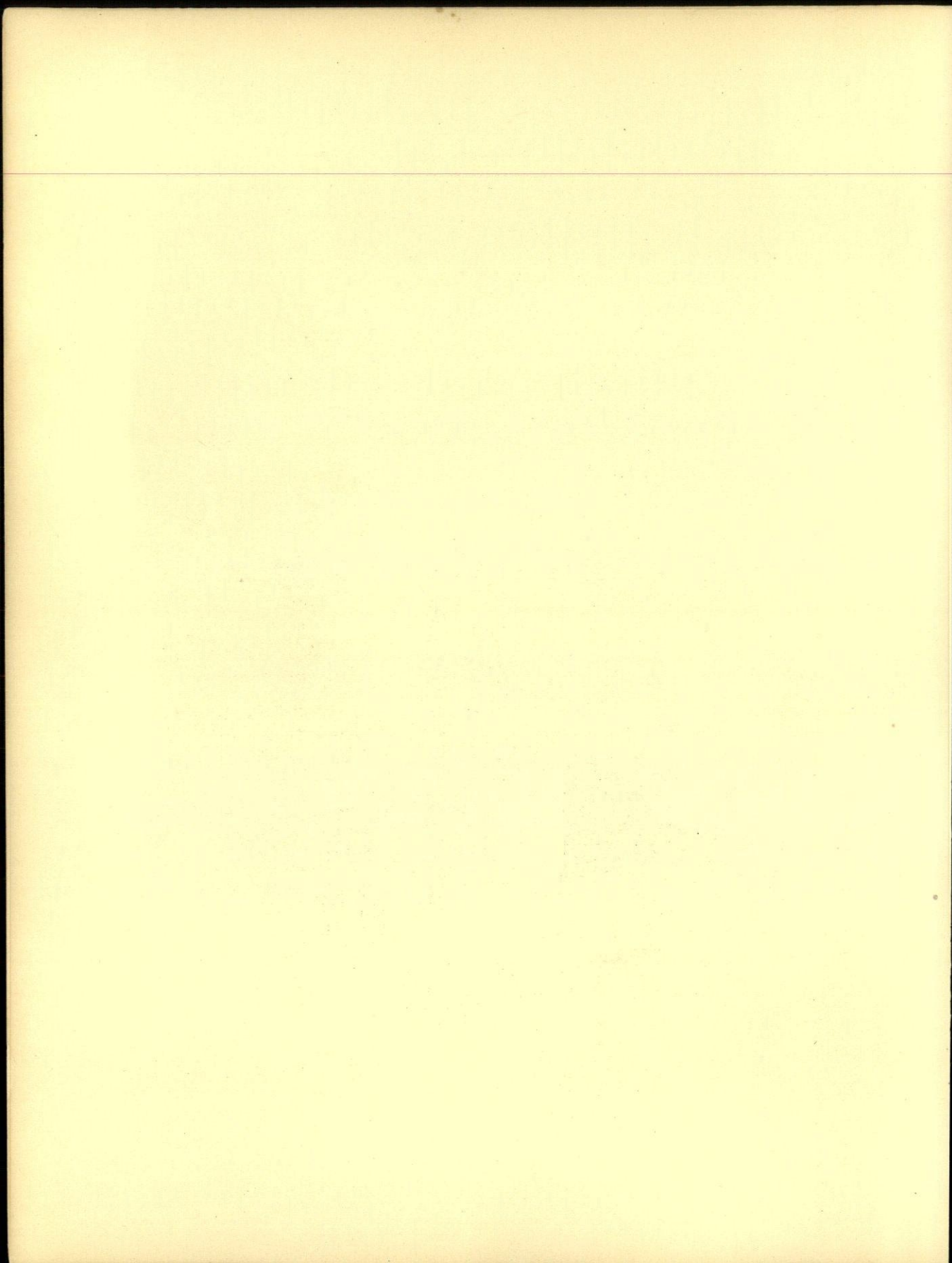


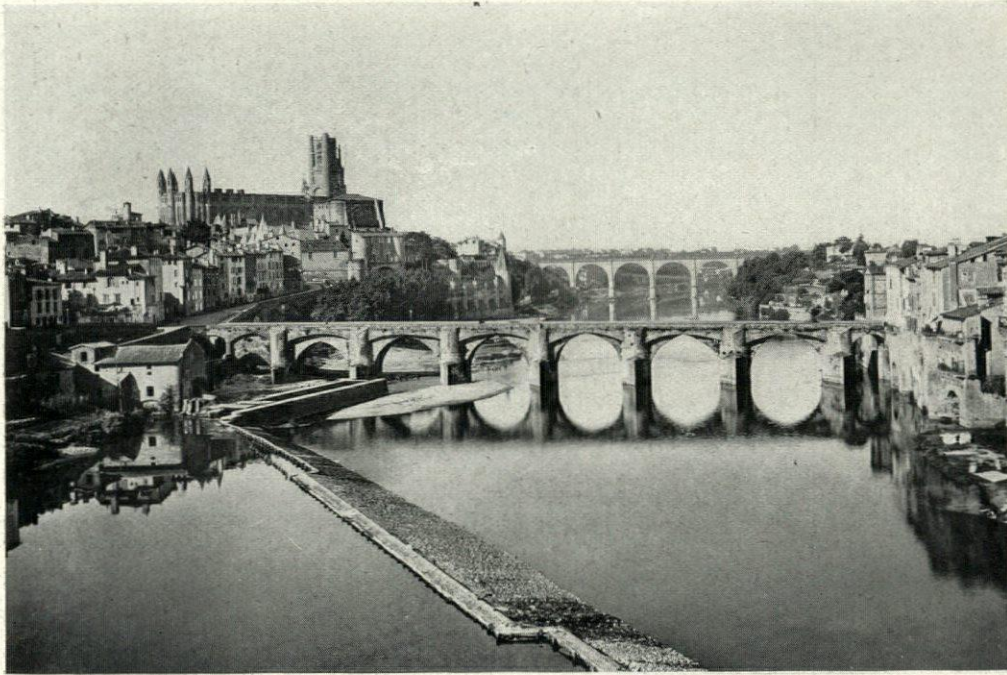


Sketch Elevation
Saint Catherine's
Chapel.
College of St. Catherine
H. A. Sullivold Architect









ALBI—VIEW FROM THE PONT NEUF

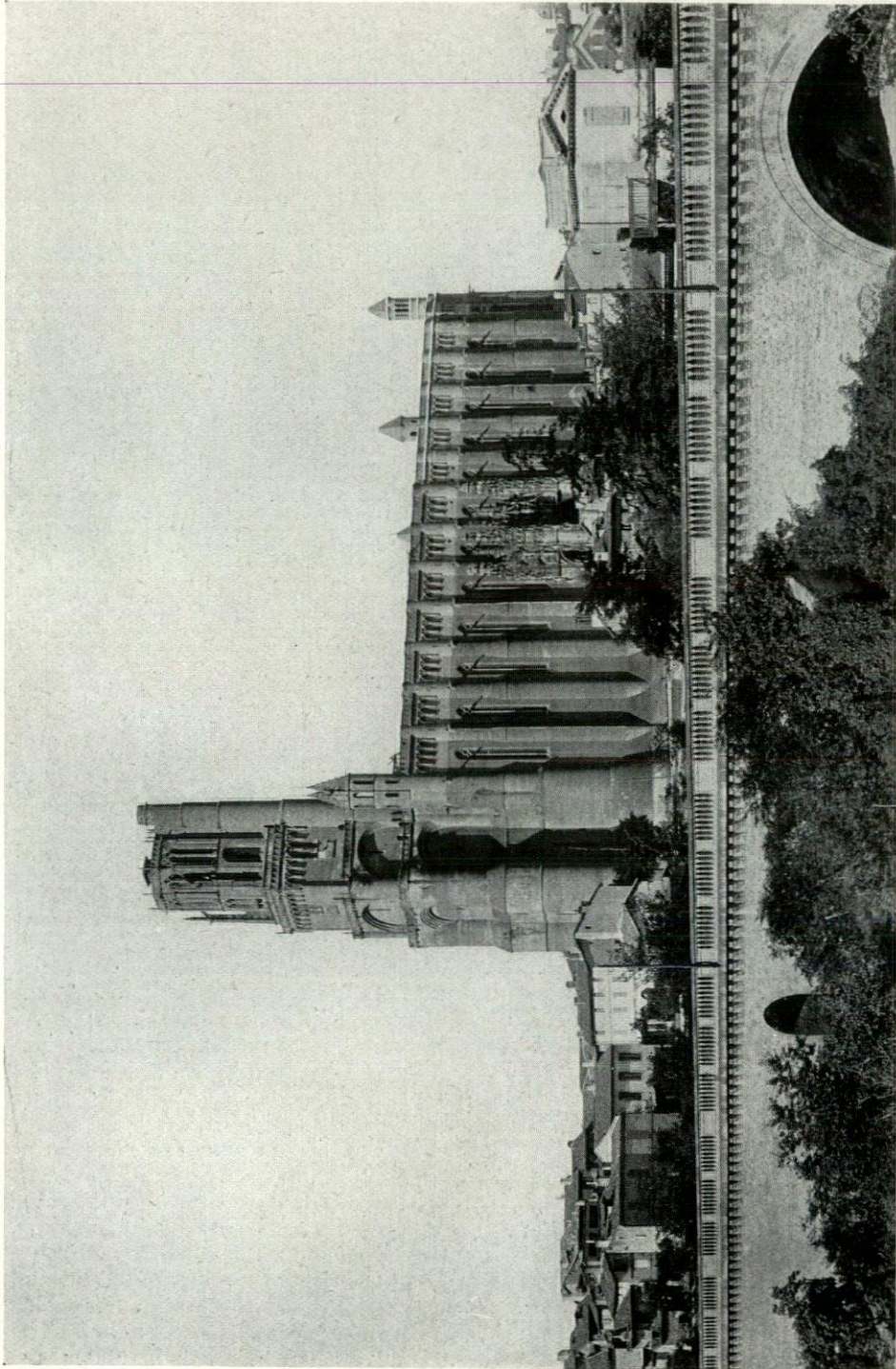
ALBI — A MEDIAEVAL TOWN

By

Aymar Embury II

IF WE CONSIDER France as one great museum of architecture then the town of Albi, one of its rarest gems, is preserved in an inaccessible wing. Were it possible for the curator of France to shift the objects around in his museum, Albi would most certainly be placed in the showcase opposite the front entrance, but since it is not possible to change an exhibit which is hemmed in by mountainous walls, the architect who wants to see Albi must take one of the little narrow gauge railways at five or six in the morning and spend four hours in going forty miles to get to the town, but the sight of the towers of Albi rising up at the end of his journey is worth any amount of trouble.

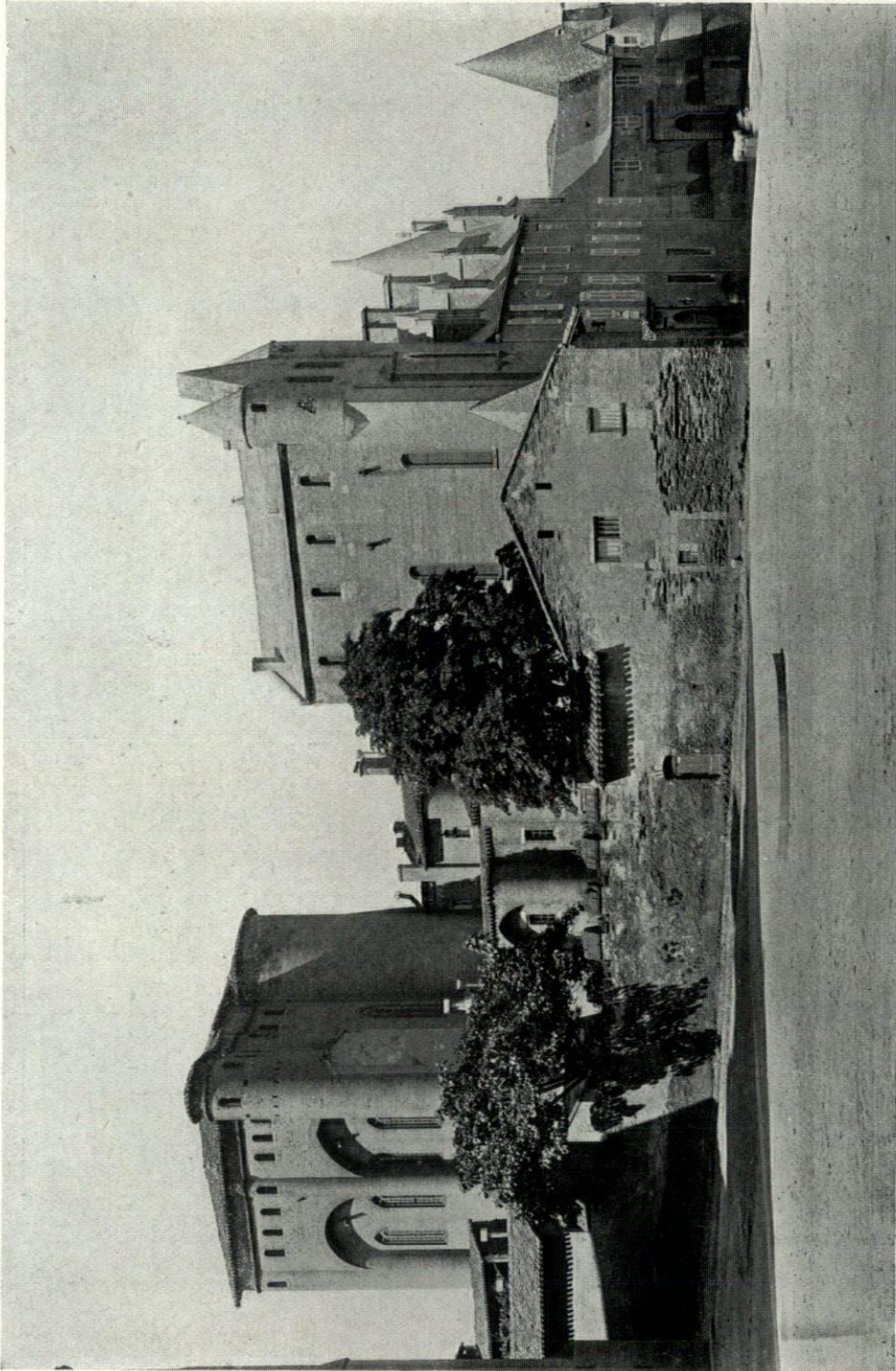
Of the many exquisite towns which ornament France, Albi is perhaps the most arresting, a fact which is partly due to its site and partly to the peculiar individuality of its architecture. Like most little French towns it is situated on a river, in this case the Tarn, which may be described as "slightly navigable" as far as Albi, and like most French towns of its age, it was at one time strongly fortified and still retains traces of its fortification. It is an old town; most towns in France are old, but this is one of the oldest, and in its museum are Gallic antiquities which antedate the Roman occupation. The first mention of the town under the Roman Empire appears in the Fifth cen-



The Architectural Record

THE CATHEDRAL OF ST. CECILIA, ALBI

June, 1925



The Architectural Record

THE ARCHBISHOP'S PALACE, ALBI

June, 1925



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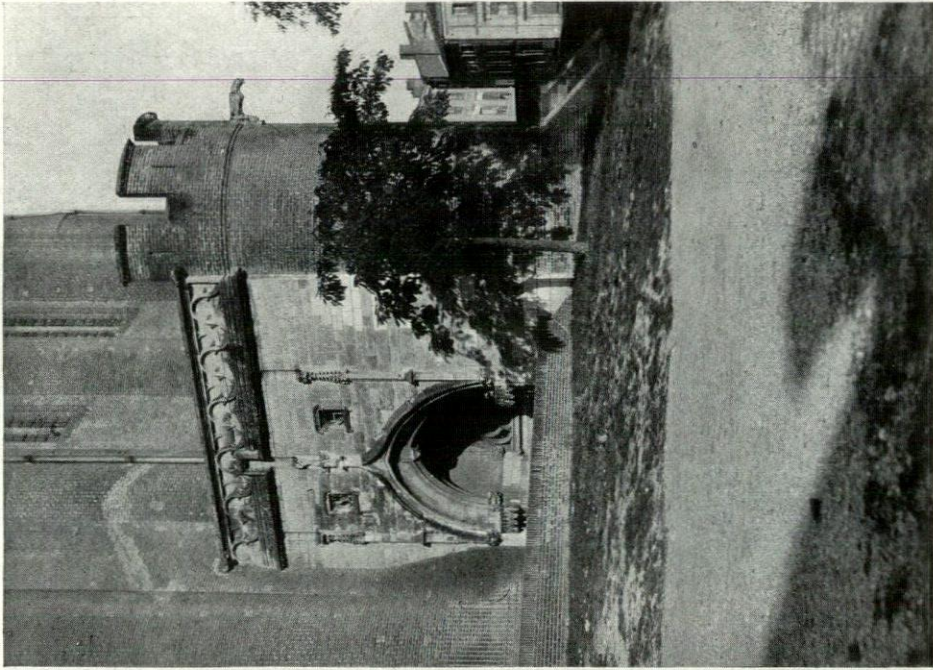
DOOR OF THE MAISON ENJALBERT, SIXTEENTH CENTURY, ALBI, FRANCE



The Architectural Record

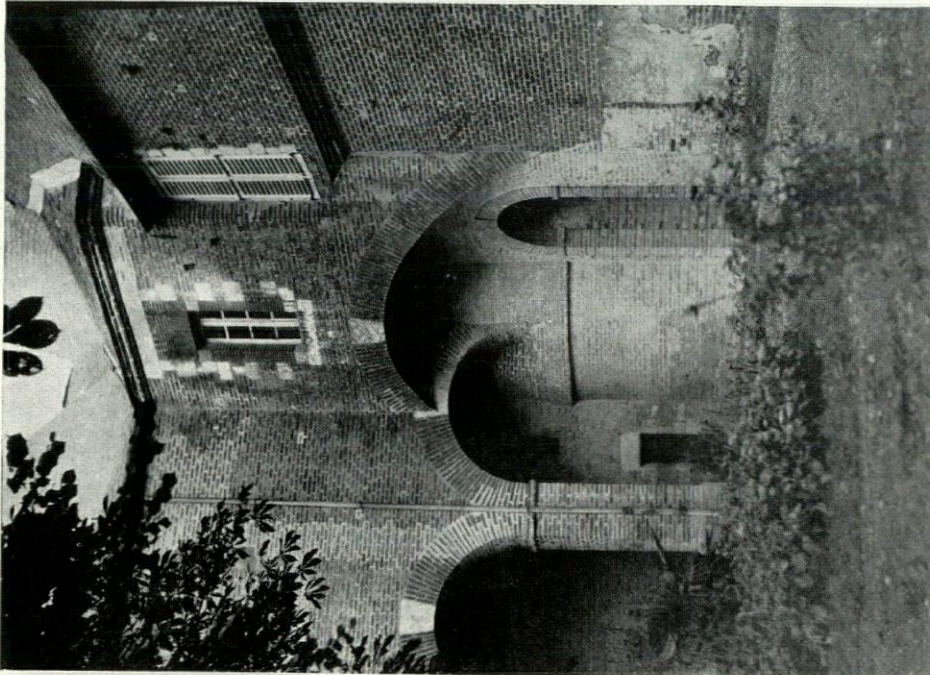
June, 1925

A STREET IN ALBI, FRANCE



June, 1925

PORCH OF THE CATHEDRAL OF ST. CECILIA, ALBI, FRANCE



The Architectural Record

A CORNER OF THE ARCHBISHOP'S PALACE, ALBI, FRANCE

tury, in the notices of the Empire as "Civitas Albigensium," and as a Christian town it was made the seat of a bishop in the third century under Saint Claire. In the course of the last sixteen hundred years it has slowly grown to a population of nearly twenty-five thousand.

Owing to the peculiarly inaccessible position of the Cevennes, it has not figured largely in the history of France, although one of the greatest events of the religious history of the Midi during the middle ages takes its name from Albi—the wars of the Albigenses, fierce religious wars of persecution, and the subject of Milton's noble sonnet beginning:

"Avenge, O Lord, thy slaughtered saints,
whose bones
"Lie scattered on the Alpine mountains
cold;"

Toward the middle of the twelfth century the many abuses apparent in religious affairs, the corruption of the clergy and the scandalous conduct even of the Pope led to the formation of various religious bodies who were determined to reform the church. These bodies had as their center Albi; they became known as the "Albigenses." Against them was directed in 1179 the most terrible of the religious weapons—general excommunication, which not only cast them out of the pale of the church, but carried with it the confiscation of their property and put them below the beasts of the field in that they might be freely killed by anybody. Active steps were not immediately taken because the protectors of the Albigenses included some of the most powerful nobles of the Midi, but in 1208, one of the Albigenses assassinated the Pope's legate as he was about to direct particular excommunication against the most important of their chiefs, Raymond VI, Count of Toulouse. The Pope, infuriated by the assassination, ordered a crusade against the Albigenses. This was carried out as if the Albigenses were less than heathen; an army of fifty thousand crusaders, actuated partly by religious zeal and partly by a desire for spoil, carried fire and sword through the devoted country, killing in the year 1209 more than sixty thousand of the inhabitants regard-

less of age, sex or even of religious faith, the Pope's legate instructing the crusaders to "Kill everybody—God will recognize his own." In 1217 the courageous but cruel captain, Simon de Montfort, Count of Leicester, an Englishman, was given command of the crusading forces. Aided by monks of the Dominican order instituted in 1215 to exercise the power of the "Holy Office of the Inquisition," he caused the destruction of many more thousands of people, among whom were numbered both heretics and faithful.

Still another crusade commanded by the son of Philip Augustus of France took place in 1219, which practically wiped out the remainder of the population so that the very name of the Albigenses disappears from history toward the end of the thirteenth century. A few of the sect, however, having fled into the inaccessible valleys and mountains of the Cevennes persisted under the name of "Vaudois" and these account for a not inconsiderable proportion of the Protestant population of France even at the present time.

In the course of these wars most of the ancient buildings were destroyed, certain portions of the church of Saint Salvy, built in 942 by the Bishop Miron and the Abbé Gausbert, being the only recognizable remains. In spite of the succeeding waves of slaughter which surged over the city, those of the inhabitants who remained retained their fierce and turbulent spirit, and Albi is almost unique in mediæval history as a town in which the people revolted time after time against the rule of their bishop. Such revolts resulted in the great cathedral of Saint Cecilia and the noble bishop's palace (which remain the glories of the town) being built not as open meeting houses for the inhabitants of the city but as strong castles to defend the priests against the assaults of their parishioners.

It is probably these two buildings with their vigorous military character which mark the town as different from all others in France. The city itself is fascinating enough, but, dominated by these tremendous piles of brick, almost unrelieved by stone decoration, the aspect is of an unsurpassed picturesqueness from any

part of the surrounding country, and especially from the opposite bank of the Tarn.

To those familiar with the rest of France the town seems as if it were part of a foreign country. The general character is certainly Italian or Spanish rather than French. The narrow, winding, sharply sloping streets are bordered on both sides by tall houses with heavy overhanging eaves and tile roofs, and very many of the houses have the uppermost stories open to the air on both sides so that a sort of veranda is formed where clothes are dried in the winter time and where the families sleep in the summer. Although some of the houses are of stucco or of stucco with brick ornament and trim, the mass of the city is of brick—brick of a peculiar sandy pink color, and as all the roofs are of tile of the same color, the town appears to be overhung by a tawny haze. Piling up as it does, a great orange mass against the brilliant

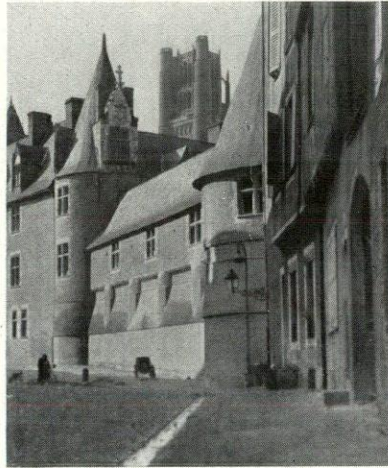
blue southern sky, it is the color as much as the architecture of Albi which astonishes and delights the visitor. And the series of wonderful pictures it presents from all sides does not, as is often the case, lose interest when one enters the streets themselves. Albi fulfils its promises. The steep crooked streets of the old town are full of interesting buildings, one after another, and many have unusual beauty of design and are magnificent in execution. The old church of Saint Salvy has an entrance door and a tower of extraordinary character, and among the private houses there are in Rue Timbal two gems of Renaissance architecture, the Maison de Guise and the Maison Enjalbert. The Maison de Guise was built by Roger de Raynes between 1528 and 1532; the comparatively low street façade with its curious dormers has been seriously in-

jured by the show windows built into the first story, but the old courtyard with a two storied open loggia on the left and the dummy windows on the right, retains its ancient appearance. It is of an uncommon type of Renaissance architecture, extremely heavy, following no set rule, decorated almost to the point of over-decoration and yet with a peculiar personal quality such as few houses of more regular design possess.

The Maison Enjalbert is an example of brick filled half timber, the half timber liberally carved and the door one of the richest pieces of wood carving in France. While these are two of the most interesting, every little street has something worth looking at, and it does not pay to neglect any of them in passing; for example, the narrow entrance back of the church of Saint Salvy leads into the Place de la Cloitre, where an arcaded first story supports buildings of various heights above, making one of the quaintest imaginable

little squares; and always wherever one wanders one sees rising at the end of the street, above the roofs of the houses, the enormous tower of the cathedral or the almost equally enormous keep of the bishop's palace.

It is hard to say exactly how much of the bishop's palace remains, and it is equally hard to say how much of it is in its original condition, because, like all structures occupied for a long period of years (it was begun in the XIIIth century) it has been frequently altered, added to, torn down and rebuilt, and no records have remained. Unfortunately no photographs can give any impression of the tremendous size of the building. Perhaps that one of the photographs which most nearly shows its size is one taken on the interior of the court showing the staircase tower of the main keep; and this

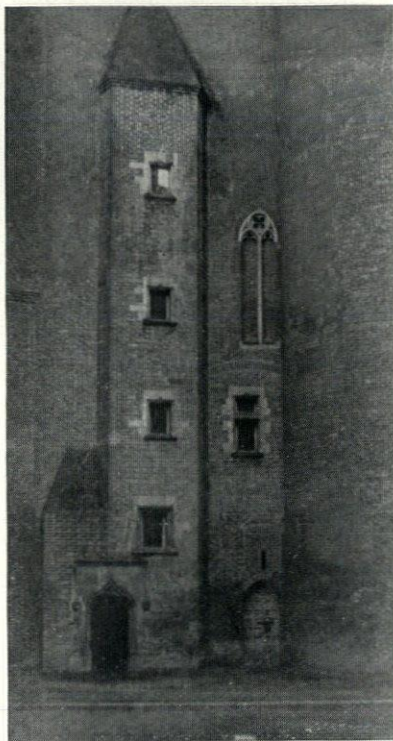


THE ARCHBISHOP'S PALACE,
ALBI, FRANCE

photograph includes less than half, perhaps not more than a third of the height of the building. The material is almost entirely brick and unrelieved except for occasional window trims of stone, with few and small openings, yet the enormous brick surfaces are so broken up by towers, buttresses and reinforcement piers that the building is neither stupid nor ugly and gives the impression of terrific power and enormous strength. Its beauty is not that of a flower, but rather that of a splendid locomotive; and the manner in which arch is sprung from arch and arch from tower to tower is unique in architecture. The people who built Albi were masters of brick work such as no country has had since Roman times; apparently they found no form difficult to construct in brick, no weight which their brick arches could not hold.

The bishop's palace is rather a series of buildings than a single structure. Erected at various times over a period of 600 years, it still has a feeling of unity, due in part to the use of the same material in all structures and in part to the preservation of the same scale throughout the entire construction.

Of the cathedral one can speak only in superlatives. It is perhaps the most enormous single mass of brick work in the world and is unique in design. There is open ground for controversy as to whether Rheims or Amiens or Canterbury or Beauvaix or Milan is the most beautiful Gothic cathedral in the world, but with these Albi cannot be compared any more than it can be compared with the Renaissance cathedrals of Italy. It is a solitary example of its kind: the cathedral



COURTYARD OF THE ARCHBISHOP'S PALACE, ALBI, FRANCE

of Albi and nothing else. The building was of course executed in the Gothic period and must be included in the list of the world's great Gothic structures, but it bears none of the customary features of the Gothic school except the vaulting, the ambulatory, and the great north door. The approach is a curious one—by a sort of inclined stairway, passing under a portcullis of beautiful carved stone supported at one end by the cathedral and the other by a low brick pier. The doorway is a projecting porch almost square in plan, of stone magnificently carved and (for a Gothic work), gigantic in scale, without loss of the fine quality of Gothic architecture. The great

stepped tower of the cathedral, supported on small towers like legs with arches thrown between them, resembles no other in the world, and the whole structure is so enormous in scale and yet so thoroughly in harmony with itself that the effect is one of impressive grandeur. The interior is simple in form but enriched to a degree only surpassed by Chartres in the rood screen and the screen between the ambulatory and the choir. These are of no soft chalk stone, like most of the cathedrals in France, but of a hard white granite, and the daring of the sculptor or stone cutter who could cut forms of such lace-like delicacy from a material so hard and brittle will remain always the admiration of the world. Yet appreciation of its splendor is of modern times, for a description of the building given by an old French writer more than a century ago, reads as follows:

"The construction of the cathedral at Albi goes back to the end of the XIIIth century; begun in 1277, it was not com-



MAISON DE GUISE IN RUE TIMBAL, ALBI, FRANCE

pleted and consecrated until 1480. It is three hundred and forty-eight feet long and one hundred and two feet wide. The architecture is of the simple Gothic style with pilasters.

"This is the interior arrangement of the church; two side entrances, a choir closed in not only by columns and grilles

as in the churches in the north of France, but also by a sufficiently high wall; a great altar facing the choir; chapels all round the nave and the choir.

"The church seen from the exterior offers only a mass of a sufficiently sad appearance. It is entirely built of ruddy brick. Its tower is only remarkable for



COURTYARD OF THE MAISON DE GUISE, ALBI, FRANCE

its height. It is composed of two towers joined one to the other by a wall without any ornaments—”

This writer goes on to quote another traveller:

“The town of Albi has not found favor with the witty writer who has preserved to us the story of his walking trip from Paris to Bagnières. ‘Albi,’ he says, ‘is certainly the ugliest archiepiscopal town that exists in France without even excepting the very ugly archiepiscopal town of Bourges. It is necessary to have practiced on the pointed pebbles of the pavement at Rodez so as not to fall down on the pavement at Albi. The streets are a little less narrow than at Rodez and it is not so common to see the upper stories invading the domain of the streets, but all the houses are of brick, which makes their aspect somber and sad. The Tarn in front of Albi is a very much boxed in river. Its

waters are ordinarily clear and limpid, but in flood and after rain it becomes red like the brick. It is the color of the ground and of all the neighboring hills.”

Apparently the same diversity of opinion which makes horse races extends to architecture.

The man who wrote this description belonged to the time when mountain scenery was considered offensive to a person of good taste. It was the era when the delicate and febrile style of Louis Seize was evolved, and grandeur and nobility in architecture or character were alike condemned as belonging to the lower classes. Yet it is curious to find even in that day one so little capable of understanding the splendor of the little city of Albi. To the student of Gothic architecture, it will furnish a new chapter for his studies, and to the artist it will remain a series of unforgettable pictures.

THREE CENTURIES OF AMERICAN ARCHITECTURE



By Fiske Kimball

AN ADDRESS BEFORE THE NEW YORK BUILDING CONGRESS, MARCH 11, 1925

THE OLD VIEW of the three centuries of American Architecture was that they represented a steady degeneration—that in the Colonial period the work was rendered very original, as compared with English work, by the difference of materials; wood in this country being the primary material. The idea was that with the Revolution and the classical inspiration which came after it, there was a dearth of traditional craftsmanship and art, and that a steady decline set in, which lasted more or less until the present day. Even the work of the latest period was not excepted, because it was felt that a great deal of it was borrowed from the earlier styles, and represented a disguise or veneer to hide or cover up the actual facts of construction.

This view was the outgrowth of a very definite point of view, essentially that of Ruskin and William Morris, who exalted the expression of material and the pride of handicraft as the supreme merits in architecture. The nineteenth century was so completely under the domination of the conceptions of science, including especially the conception of biology as to adaptation of forms to environment and function, that it did not realize there was anything in the art of building except such conformity to practical and structural requirements and those of material.

We do not depreciate those merits for a moment, but we realize that they leave untouched the specifically artistic merits. Ruskin denied there was such a thing as beauty of proportion or beauty of abstract form. He certainly was incapable of recognizing the beauty of any building that was not richly adorned with precious materials or with figure sculp-

ture embodying a religious inspiration. He could not, of course, admire the buildings of the Renaissance; he could not admire the buildings of Rome, and very naturally he could not have admired the old or the modern examples of American architecture.

I need scarcely say that I do not subscribe to that view of the three centuries of American architecture as a process of degeneration. I would like to present them under a little different light. I do not think even the interpretation of the early period was the correct one. After all, in the Colonial period down to the Revolution we were Colonists, we were provincial. England was home, the thirteen colonies were so many shires of rural England. The shires of rural England differed from one another in their buildings as they differed from the work in the capital. The work in America differed from the work in the capital and the other English shires as much as they differed from one another—and little more. At that time in England there was still a great use made of wood. At that time in America there was a large use already made of brick and stone. I do not see any fundamental difference there. The more we study English buildings the more we find that almost every feature of the Colonial style was the stock-in-trade of the minor English buildings of that time, and did not involve fundamental originalities. It was provincial work that followed the styles of the home country with as much modification, and no more, than the different phases of that style at home.

The Revolution brought a great change in the American point of view. The

fathers of the Republic were eager to slough off that provincial dependence, to throw off colonialism. They wanted to do that in language—that was what Noah Webster's dictionary meant. They wanted to do it in art; they had a man who knew something about art, a great deal about art, and he was the author of the Declaration of Independence, Thomas Jefferson. He wanted to make an artistic Declaration of Independence as well. He was qualified to do it, qualified first by his encyclopedic mastery of all the arts and sciences through books, and he had the finest library in the colonies. He had an architectural library which would shame many offices today. Secondly, he was qualified to do it by his long residence in Paris, the center of all arts.

We have not thought very much, in thinking of the patron saints of the profession of architecture and the art of building here, of Jefferson as one of those. He was our first Paris-trained architect. I have to laugh sometimes at the students, recently returned from a year or two there, who depreciate Jefferson's ability in architecture. He was there five years, and one has only to read his pocket account book to see that no week passed, and scarcely a day passed, without his systematically visiting the buildings. He consorted with Clérisseau, with Legrand and Molinos, who were among the leading architects of the times. He consorted with these men not merely as a learner but as an equal.

He came back to America with the idea—indeed, while still abroad he formed the idea—of turning American architecture into a broader channel. Perhaps we do not all approve of just the channel he chose, but we must respect his choice under the conditions. He wanted to render American architecture more than a mere copy of contemporary foreign styles—even the French that he admired so much. He wanted to have the respect of the foreigner but not to copy him.

He turned for his inspiration to the monuments of Rome. He was the real author in America of the classic revival, one often so greatly reviled, yet which we will find, I believe, to be a movement

responsible, even today, for much that is best in our work. He wanted to turn American architecture into a monumental channel that would be worthy of these new independent states, soon welded into the great and powerful nation of the United States. He had an unequalled opportunity to carry through such an architectural program—an opportunity that any architect would envy. He was successively Director of the Public Buildings of Virginia, Secretary of State charged with the responsibility for the building of the city of Washington, Vice-President, President, and Rector of the University of Virginia. In every one of those positions he took an active interest in building. He designed the Virginia capitol, the first great monument of the classical revival in a strict sense either abroad or here. We think of the Madeleine at Paris, built under Napoleon's inspiration in 1807, as the greatest affirmation of the classic in modern art. The Virginia capital was designed in 1783. Jefferson wrote the program of the competition for the Capitol and the White House, and he submitted a design for the White House anonymously at a time when people thought that no worthy designs were coming in. He gave official patronage to the first *professional* architects, men of the finest training, such as Stephen Hallet, an *architecte expert juré du roi* who came here with the French Revolution; such as Benjamin Henry Latrobe, who was able by his personal stamina to overcome the hostile forces by which Hallet was borne under, and who established the first professional office of an architect in the United States.

In his building of the University of Virginia that movement reached its crown. It is a superbly-disposed group of magnificent classical buildings, dominated by the great rotunda—a group which has been the inspiration of the finest university groups of later times, such as Columbia and the New York University group. He furnished the basis for that ingrained love of the austere, dignified, refined and chastened in architecture that underlies the spirit of contemporary work today.

A welter of new influences bore that movement down in the midst of the nineteenth century, and it was momentarily obscured, but it rose again in a marvelous new birth in the work of the generation immediately preceding and following 1900.

I wonder if we realize how solely American was the genesis of that neo-classical revival which we associate here with the names of McKim, Mead & White. There was nothing comparable to it going on abroad at the time. It was not a movement derived from contemporary European artistic movements. I do not think it is to be regarded as a survival of the eclecticism of the nineteenth century, which was ready to choose from all styles, classic being one. It was rather an affirmation of a new unity of style. It used classical elements, to be sure; nevertheless it was not merely imitative, but based on the classical spirit of form: unity, uniformity and balance. That is one of the two great phases, I think, of contemporary work in America today. It is the foundation that was given it by the early classical work of the Republic that has made the movement a national one, made it vital.

Its adoption abroad was very much later, but it is now becoming a world movement. The French came over in 1893 to laugh at the plaster colonnades of the World's Fair in Chicago, screening buildings that were hastily constructed of wood and steel. They adhered to the old view; they did not realize that there was another phase, the one of formal beauty, which could be independent of construction, as it was often in the old days; but they went back to Paris and in 1900 they fronted their exposition buildings with classical colonnades. If that was not American influence, I don't know what was.

The English have been the first and most generous to recognize American initiative in this field, and the chorus of praise that followed the erection of the Bush Building in London was an acknowledgment that in architecture, American supremacy was won. The British colonial work in Canada, Australia and New Zealand, which they showed at their

Empire Exposition in London last year, was American in its style.

I do not want to neglect the other phase of this wonderful American development in architecture, and that is the economic and structural phase, because that is of enormous importance. The nineteenth century was looking for new achievements with new materials. Steel and glass were modern materials. They were tried in the Crystal Palace. They were tried in other sporadic instances, but the fact was that in Europe conditions and problems had not changed enough to call forth a great new structural system. It took a new continent, a new society, and a new country to do this—and that was America.

In the great new cities of Chicago and New York, commercialism and industrialism developed unrestrained by the hampering restrictions of the old European city. Exploitation of urban land placed a premium on going into the air. There was evolved that new type—the high office building. Perhaps Chicago had the most to do with this type at the very start. William L. B. Jenney, so far as I know, first devised the modern steel frame carrying the walls. Louis Sullivan was the first to give it artistic form in his Wainwright Building in St. Louis, and in his Prudential Building in Buffalo. The Wainwright Building looks modern today—it was designed in 1890, far earlier than European attempts to do something on the same lines.

Louis Sullivan felt that to be modern he had to eschew all historical forms. He was a child of the nineteenth century to that degree. But he was superior to his theory, and his buildings stand today the test of unified form quite as much as they stand the test to which he himself subjected them—because he was a great artist. I do not believe that the only way to treat the sky-scraper is to reveal on the exterior the lines of the structural frame, and when you come down to it, Sullivan did not act on that principle. The Wainwright Building and the Prudential Building have a uniform appearance of piers on the exterior—two to an office. Actually there is only one steel

pier to an office. Every intermediate one contains no steel, and yet is treated in just the same way. He was superior to any rigid theory. He imposed on a heterogeneous problem a unified artistic form. There are no fundamental differences in style, in my opinion, between his buildings and the buildings of men of different convictions as to forms of detail. There is no fundamental difference between the treatment of his buildings with vertical lines and vertical stripes in the twenty years from 1890 to 1910, and the treatment we have today in the great Fifth Avenue apartments and the Federal Reserve Bank and so many others. There we have the return to masonry, because after all the enclosing wall, the curtain wall, is masonry, and stone is the finest material for a wall, as it always has been. There, there are horizontal cornices, and horizontal belts, and horizontal lines.

All those buildings, those recent examples that employ classic forms, are not copies. Every foreigner realizes that he has never seen anything like them before. The buildings are fundamentally novel and original, the product of American tradition and the fruit of American style. Call it the American Renaissance if you like. It is not merely a rebirth of something old and dead, but is vitalized by the novel elements of American economic life and a new structural system. There has not been a new structural system such as the steel frame invented since the Gothic was invented. It is the greatest structural achievement since the invention of the Gothic vault and the erection of the Gothic cathedral. You can say, if you like, that the American office building is a cathedral or temple not to God, but to Mammon. Two or three centuries later, looking back at the great works of the past, no one asks to whom the temples were erected. They *look* at them, and they see an achievement unparalleled since the erection of Rheims, and Chartres, and Beauvais.

The spirit that has come into the design of these new buildings with the structural system of steel, has been the spirit of order and uniformity and balance.

That was fostered by Jefferson, the classical revivalist, and then by Wells and McKim and White, the neo-classic revivalists. The great American office building would not be what it is today if it were not for the spirit of form that was developed in the low buildings of traditional construction that were erected here in the early days of the Republic and the last years of the nineteenth century.

The zoning regulations which have put a premium on broken masses did not necessarily produce that composition of mass which we see and admire today. It might equally well under different conditions produce a picturesque variety of massing, the continuation of what we see, let us say, in the old Waldorf. Take the Shelton, which many people think of as an affirmation against the classic—it is one of the most classic buildings in New York, because it is centralized in the up-building of uniform masses, of the utmost geometrical simplicity. The essential thing in it, the classic thing, is that balance, and that geometrical simplicity, bounded by unbroken lines of the simplest geometrical form. The building that is most like it is the Pharos of Alexandria, but I do not suppose that example ever entered the head of the designer. With its fellows, the Shelton may stand as a wonder of the modern world as the Pharos did of the ancient.

Collectively, these buildings are enormously impressive. I do not think it is irrelevant to emphasize their picturesqueness as a whole, even though Manhattan as a whole was not designed, except by the play of economic forces, building in a great pyramid on the preferred commercial locations. Neither were many of the older cities—Florence, for example. Half the beauty, half the magnificence of the old was the picturesque result of accident and external forces such as ours. Who will deny that equal achievement has been made? Foreigners will not deny it. They testify to it, diplomats, journalists—Lord Curzon, Birkenhead; architects, men who know a great deal about it—Atkinson, and Richardson, and other Englishmen who are coming here to study

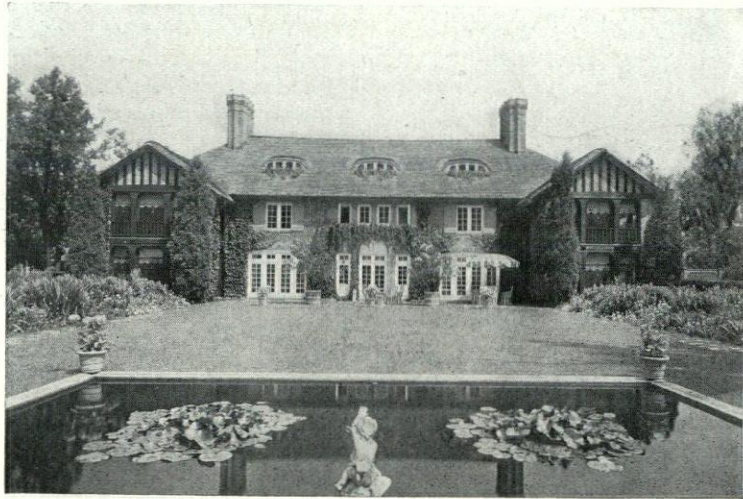
architecture. There has been established in the Royal Institute of British Architects the Bossom scholarship to send annually a fellow of the Royal Institute to study architecture in America.

The balance of international trade in architecture has turned, and well it may. These men come up the Bay, and they see that wonderful man-made mountain cleft through by Broadway, and they go over on Columbia Heights at night and look at that fairy tower of lights and fairy city. No wonder they go back to say that something new has appeared under the sun in America.

Now I am not an indiscriminate glorifier of things American. I cannot see that our achievement in the other arts is comparable or equal to what we have done in architecture. That is perfectly natural. Few nations have ever made a uniform achievement in all the arts. There was a great art in Holland, at the period of its world supremacy, and that was the art of painting. England, when

it achieved its world supremacy, in the eighteenth century, created a new and great art which was known as landscape gardening. Everyone recognizes that was their greatest contribution and achievement. The great achievement of Rome was the art of architecture. The Romans were practical people. This does not mean they were not artistic, but that they embodied their artistic feeling in the practical channel of architecture. The same may be said of our own country, America. To me it appears very natural that America is the country to take the lead in modern architecture, and that architecture should be the great artistic expression of America.

I believe that, looking back a century hence, the achievement that has been made right around us here on Manhattan, symbolizing American architecture, will be regarded not merely as one of the wonders of the history of art and of architecture, but as one of the crowns of human endeavor.



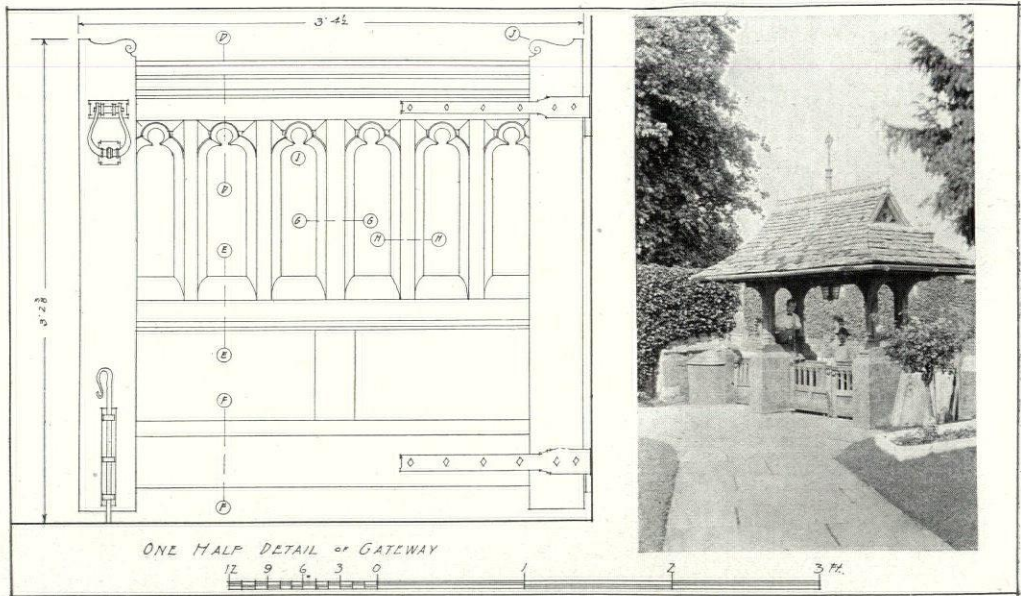
~ The ~ ENGLISH PARISH CHURCH AND ITS DETAILS

By
Robert M Blackall
Measured Drawings and Photographs by the Author

THE LYCH GATE OF THE CHURCH AT ADDERBURY IN OXFORDSHIRE, ENGLAND

The lych gate of the church at Adderbury in Oxfordshire is modern, having recently been built to replace one decayed with age. It is in the Gothic style, perhaps a little ornate, but being an entrance way to a Gothic church it is in

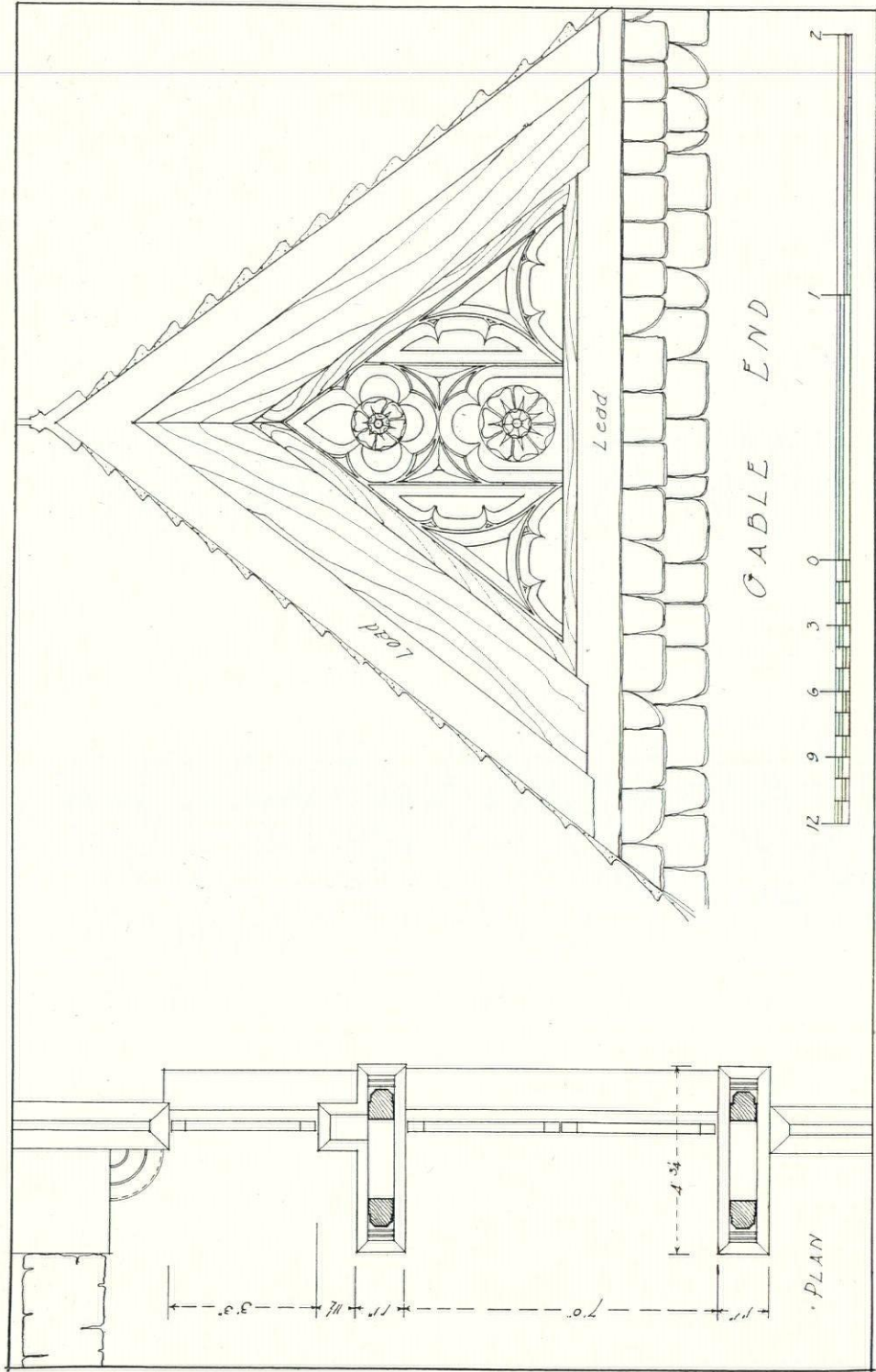
keeping with the latter structure. In plan this lych gate is unusual as there is no enclosure with the usual seat, so that it simply serves for a shelter under which one could spend a few minutes before going into the church. The lower part is made of field stone smoothed with a hammer, the upper part is carved wood work. The roof is covered with very thick slate.

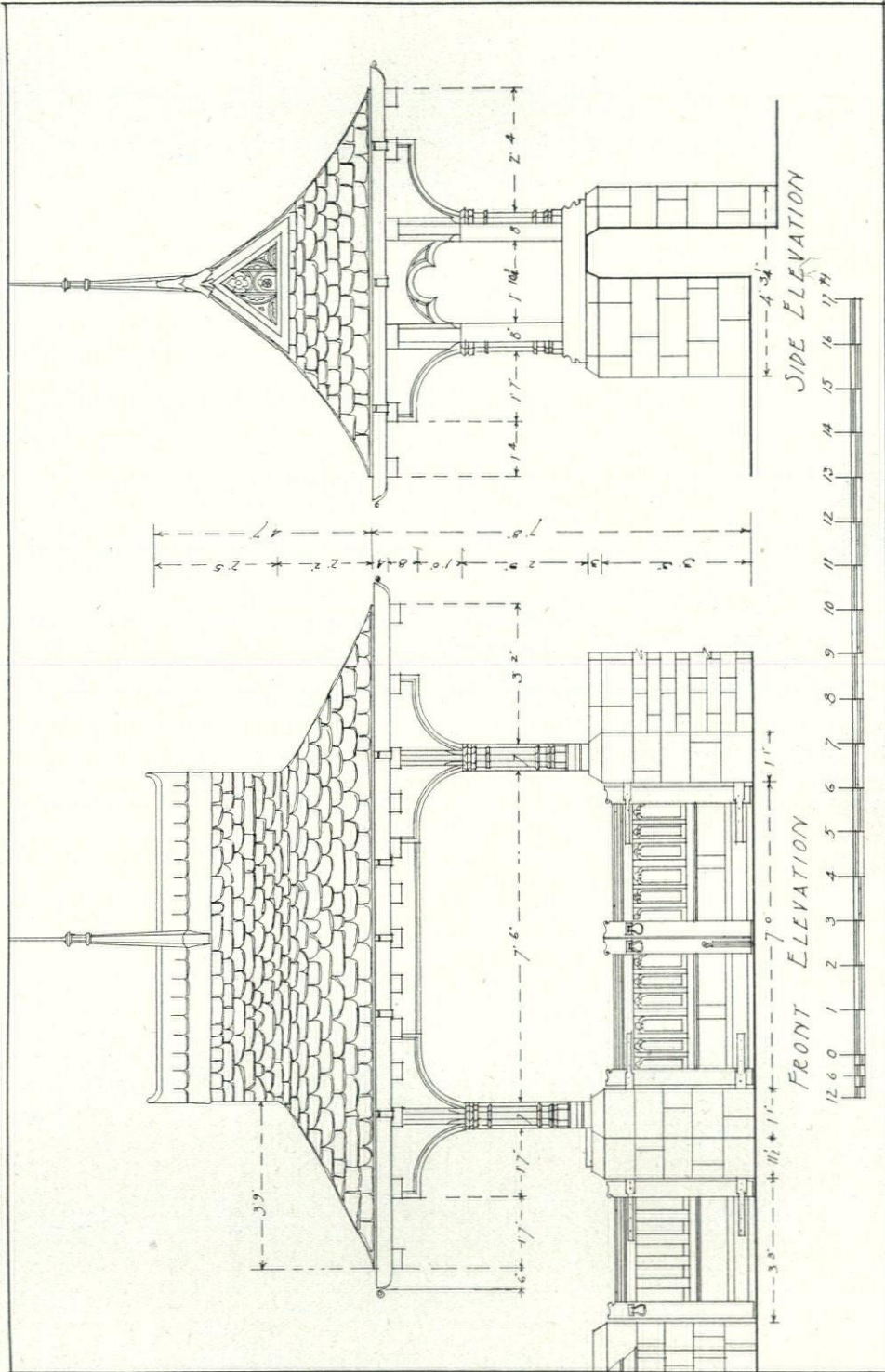


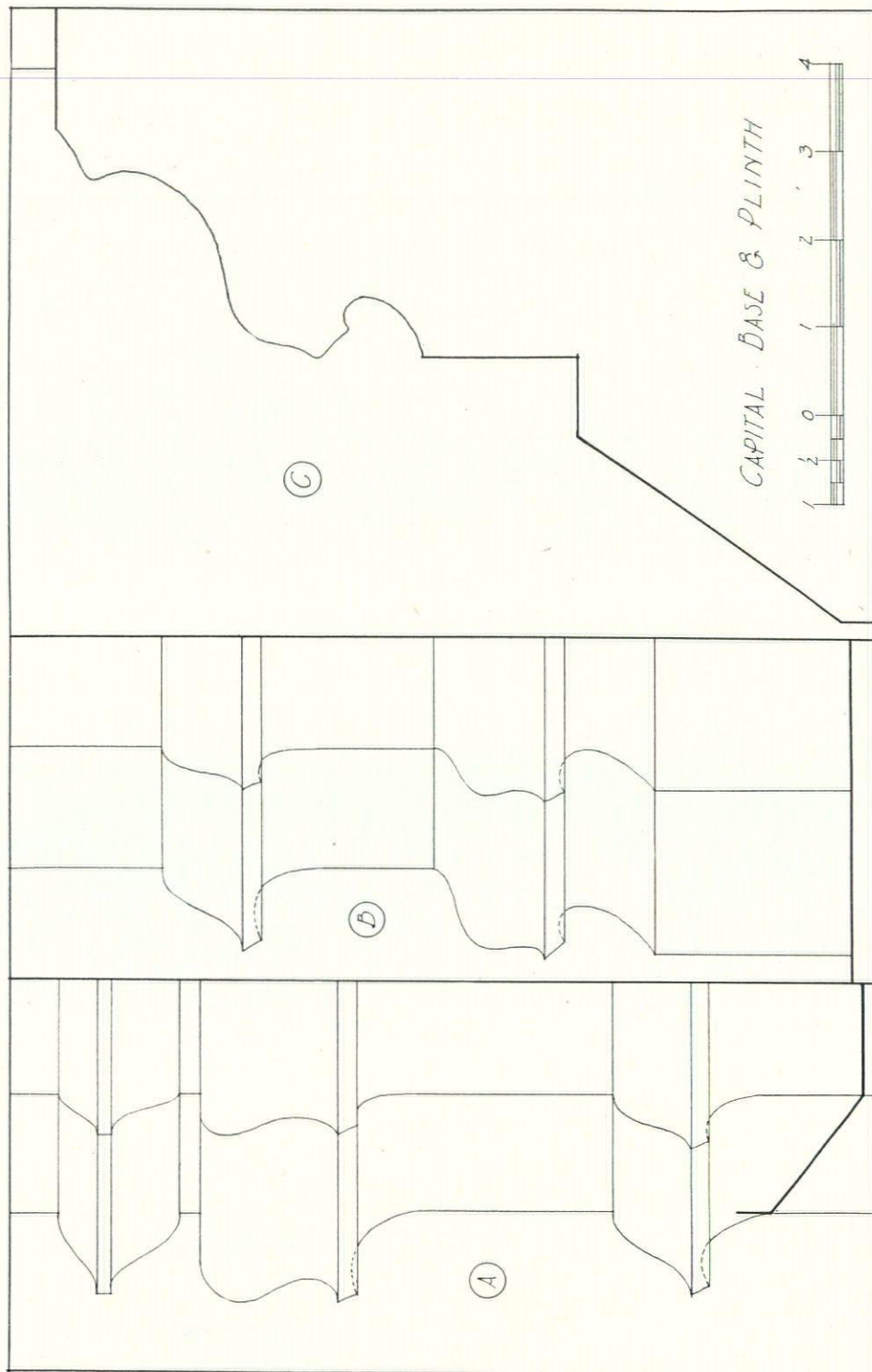
Lych Gate

CHURCH AT ADDERBURY, OXFORDSHIRE, ENGLAND

Measured and Drawn by Robert M. Blackall







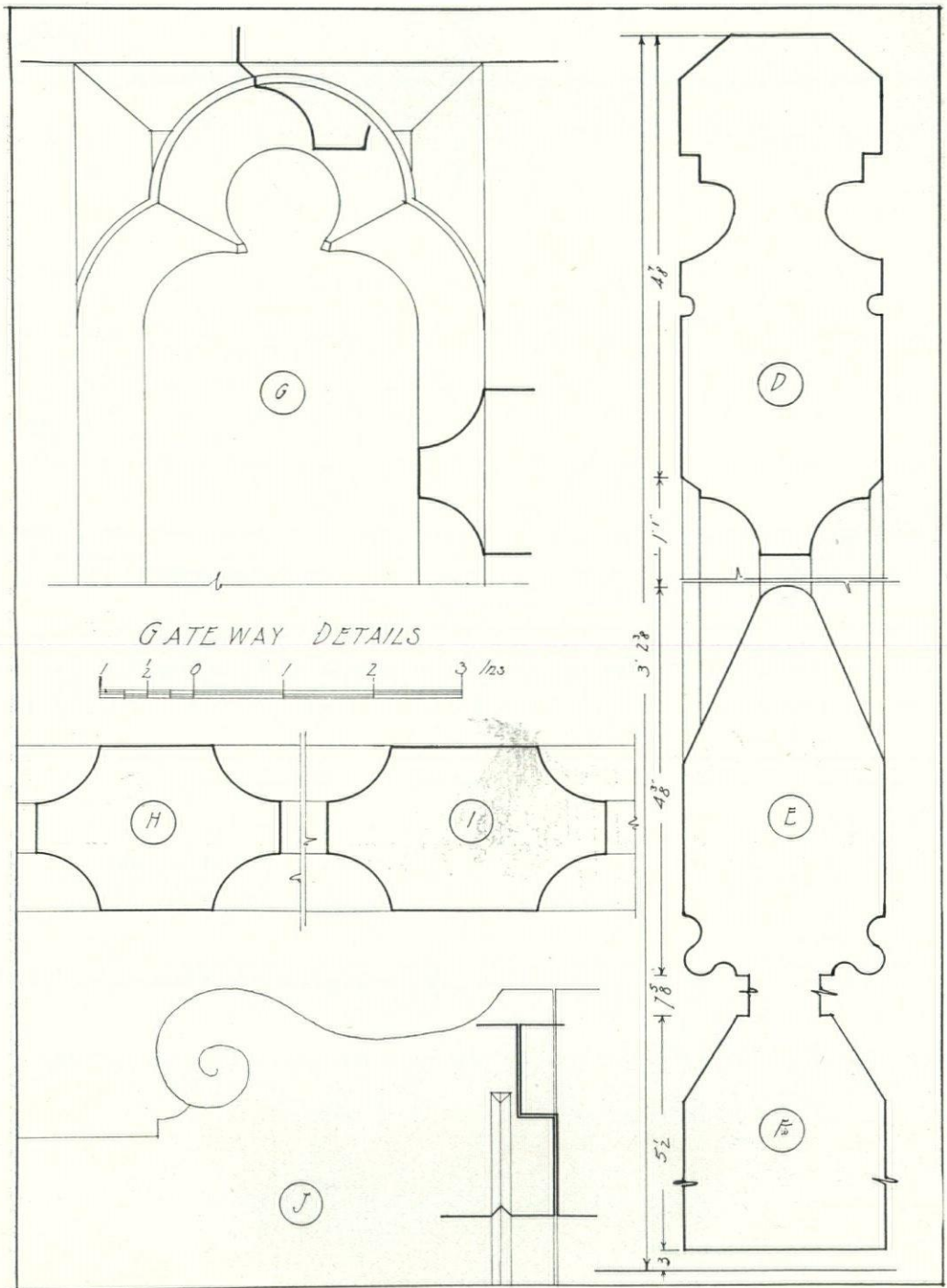
The Architectural Record

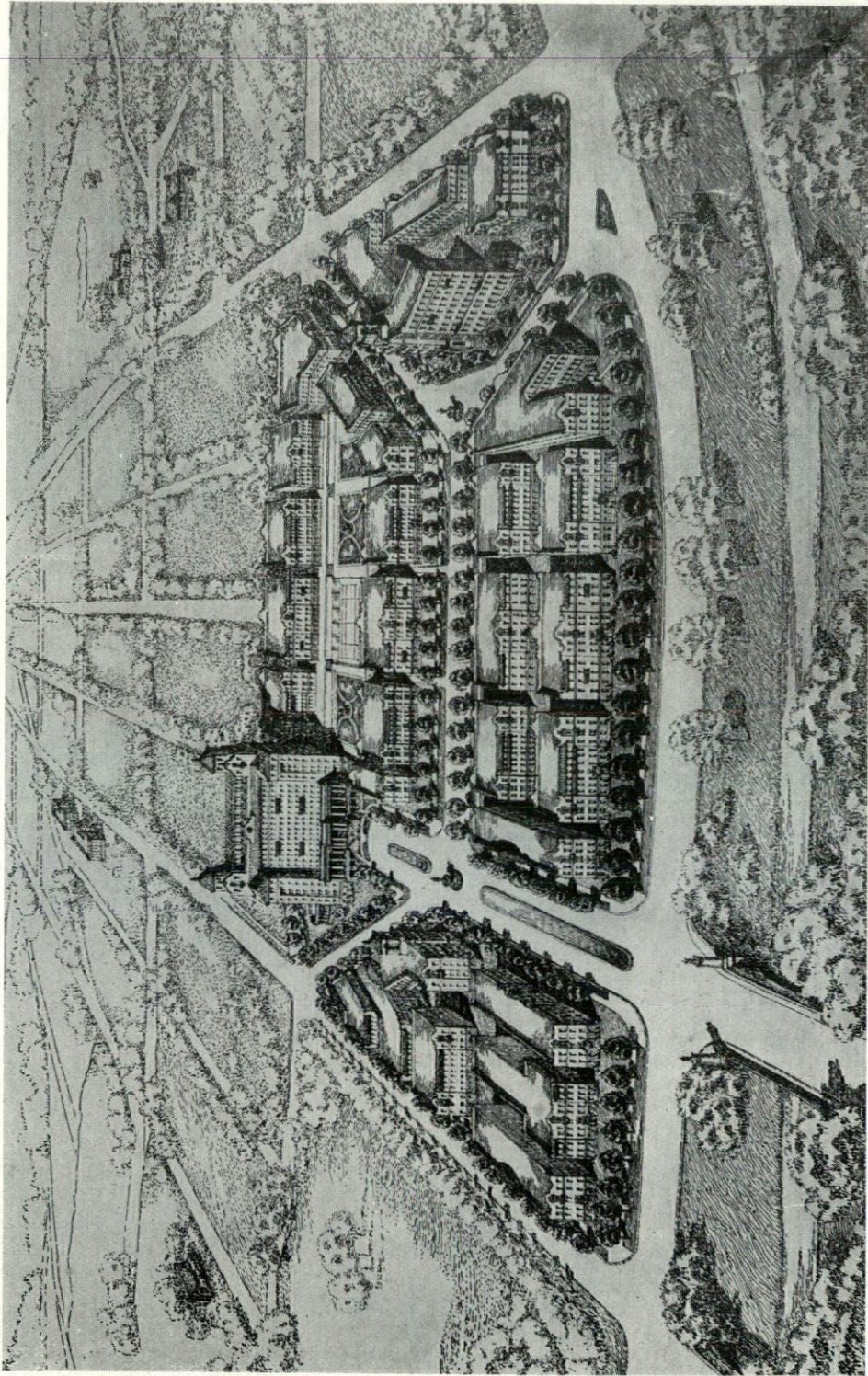
Lych Gate

CHURCH AT ADDERBURY, OXFORDSHIRE, ENGLAND

Measured and Drawn by Robert M. Blackall

June, 1925





The Architectural Record

FIRST PRIZE PLAN FOR NEW SUBDIVISION IN COUNTRY CLUB DISTRICT, KANSAS CITY, MISSOURI

June, 1925

FIRST-PRIZE PLAN for NEW SUBDIVISION IN COUNTRY CLUB DISTRICT, KANSAS CITY, MO

A. W. Hertz, N. L. Wilkinson and R. E. Crans
— *Associated Architects* —

A RATHER UNUSUAL architectural competition has been recently conducted in Kansas City, Missouri, by the J. C. Nichols Development Company and has been participated in by a number of the local architectural firms.

For the past fifteen years this company has been developing the Country Club District of Kansas City, which has become noted as one of the largest restricted residential areas in the United States. Within the three thousand acres covered by this development the finest homes of the city are now included. Having built up this great residential section, it became a necessary part of the program of the operating company to supply nearby shopping centers for the convenience of the community. For this purpose limited areas at strategic points were reserved within the district itself.

The most important of these shopping or business sections is situated at the northern extremity of the Country Club District and lies between this district and the remainder of the city.

Just to the south of this business district and separated from it by a parkway and water course, is situated an irregular tract of land approximately fifteen acres in extent. This property lies on a hillside sloping upward from north to south eighty-eight feet in a width of four hundred and sixty feet and from east to west thirty feet in a length of twelve hundred feet.

The tract is bounded on the north, east and west by arterial highways and will be directly connected to the business center by means of a new bridge and roadway built across the intervening parkway so as to give that section the full benefit of any expanded trade which would naturally follow an increase of population in the surrounding territory.

The object of this competition was to discover the best solution for the devel-

opment of this unimproved tract of land into a restricted apartment house area, providing a scheme to house at least one thousand families within its boundaries.

Beside the housing of these families upon the site, the program as presented to the architects also required ample storage space for automobiles belonging to the residents; circulation by means of roadways through the entire tract of land; ample light and air for all apartment buildings; and a scheme that would take advantage of the splendid views to the north, the northeast and northwest afforded by the unusually sightly location of the property. All the buildings within the district had to conform with the city building restrictions and zoning laws and no building which exceeded a height of eight stories could be erected.

In the solution of the problem consideration had also to be given to the provision of a circulation which would develop roads of easy grade and which would produce a maximum amount of front footage for building purposes without requiring so much grading on the site as to render the improvement financially impractical when viewed from the standpoint of the promoter.

The contestants in their presentation of the project were required to submit a plot plan showing the roadways and the disposition of the various building units within the tract. Floor plans of the individual buildings were not called for but each unit was designated as to the number of families it would house.

In addition to the plot plan a pen-and-ink bird's-eye perspective and various sections through the property showing the necessary grading to be encountered completed the list of drawings to be submitted by the contesting parties.

The competition was participated in by fifteen local architectural firms and awards were made by a jury composed

of an architect, a landscape architect, and the officers of the company conducting the competition. The drawings reproduced here were submitted by A. W. Hertz, N. L. Wilkinson and R. E. Crans, associated architects, and were awarded the first prize.

This solution calls for a new double roadway as the principal axis,—continued from the proposed new bridge south to the base of the main building—a large hotel situated upon the highest point of ground and forming a focal point for the entire scheme. Parking space in front of the hotel and beyond the main line of travel is provided in the layout of this roadway. A thoroughfare running east and west in the center of the tract forms a secondary axis with important buildings located at either end. At the west end this thoroughfare divides into two narrower streets which follow the natural topography and give complete circulation through the property without extreme grades. At the east end this thoroughfare bends to the southeast corner of the tract, thereby inviting traffic from Main street—the principal highway from the south part of town—through the property and northward across the proposed bridge into the heart of the business section of the district.

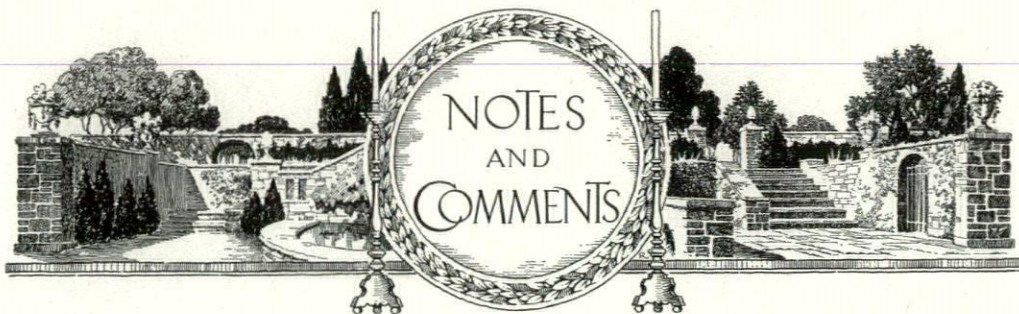
The various buildings are arranged on the site so that the shorter sides parallel the steeper grade and one tier of buildings will rise above another in successive

stages commanding a maximum amount of air and light and taking full advantage of the long distance views which are to be had from the point of the north, northeast and northwest sections of the city.

Provision is made for automobiles by the construction of a large fireproof garage in the rising ground between the two rows of apartments on the south half of the property. It is proposed in the scheme to cover this garage with a cushion of earth and provide a courtyard and playground on the roof for the use of the inhabitants of the neighborhood. Access to the garage is to be had by means of three entrances, one on the east leading out in front of the large hotel and two on the north, leading between apartments directly into the main east and west thoroughfares.

The buildings of the adjacent business district across the parkway have already been developed and the same general type of architecture has been reflected in the elevations of the buildings of this new development for the purpose of preserving harmony in color, materials and design.

The competition aimed at promoting a greater interest in better apartment house architecture and producing a scheme for a large apartment house development which might form the basis for restrictions and the proper protection of the various prospective builders who will become investors in this property.



THE SOUTHWESTERN BELL TELEPHONE COMPANY'S BUILDING ST. LOUIS

Mauran, Russell & Crowell, Architects

The building for The Southwestern Bell Telephone Company in St. Louis, now in course of construction, gives every promise of real architectural achievement along rational lines freed from the shackles of traditional "classic" influence. Here is an amazing endeavor which grasps the potential possibilities of a modern commercial problem and presents a comprehensive example of a tall building covering an entire city block, designed on the set back principle, pointing the way to a logical ideal solution of a typical American structure.

The site, bounded by Pine, Chestnut, Tenth and Eleventh streets, has an area of 52,075 square feet. The building, which has a total floor space of 965,000 square feet, reaches a grand mass of 11,967,000 cubic feet, aspiring upward in the form of a pyramid of monumental grandeur to the height of 357 feet above the street.

This brilliant mass fills us with a warm glow of satisfaction and we do not hesitate to predict for it a future wide-spreading influence of high achievement where skyscraper architecture is concerned.

The original requirement of the owner called for a building in the down town section of sufficient size to take care of his needs for the next twenty-five years. He wanted one that would provide for the Telephone Exchange with its manifold mechanisms located in the lower stories and, above that, a sufficient amount of office space to take care of the administrative forces for the entire district.

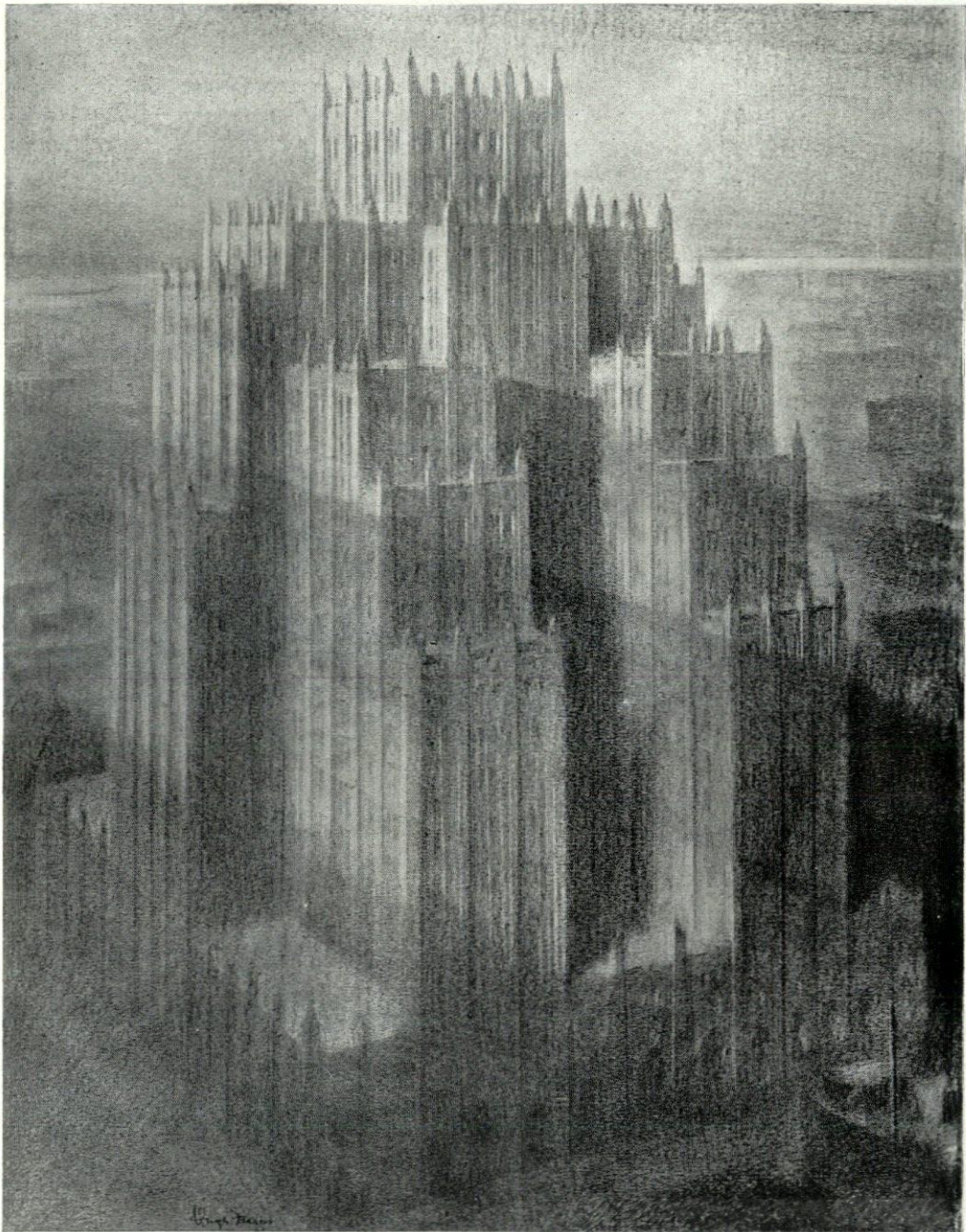
In the ordinary way such a problem resolves itself into a structure nineteen stories high, of the customary base shaft and crown treatment with the top looking as if it has been cut off with a scythe. This, of course,

would give the maximum amount of floor space for the minimum expenditure but would result in little, if any, appeal to the imagination of beholders.

The Telephone Company being a public service corporation depending upon the good will of the public and profiting thereby, it seemed to the owner advisable to construct a building that would not only serve its material needs but would give more desirable office space, impress the public with the importance of the organization, and be a source of pride to the citizens as well as to the owner. This, then was the problem presented to the architect.

How could he make it impressive? With materials, color, or form? Happy, indeed would he be if he could combine all three! And with this idea in mind he began cutting off at the sides and piling on top until he had the equivalent of the nineteen floors, in a building that was about forty stories high—decidedly impressive but too extravagant. Besides this, there was a City Ordinance which prohibited him from having a building over 250 feet high and also a Zoning Law that had been knocked out by the Supreme Court, but which still remained in the affections of the people. So the owner decided that he would get along with less than his nineteen stories of required floor space, reduce the height as much as possible and still retain the spirit of the original. Study after study was made until a form was evolved that seemed mutually satisfactory.

The next step was to find out whether or not it could be erected, because the City Building Ordinance remained in effect and it would be necessary to convince the city officials that while it was a good advertisement for the owner it was an equally good one for the city, and the owner in this case was not trying to get more than the law allowed in floor space or in cubical content but was really trying to improve upon



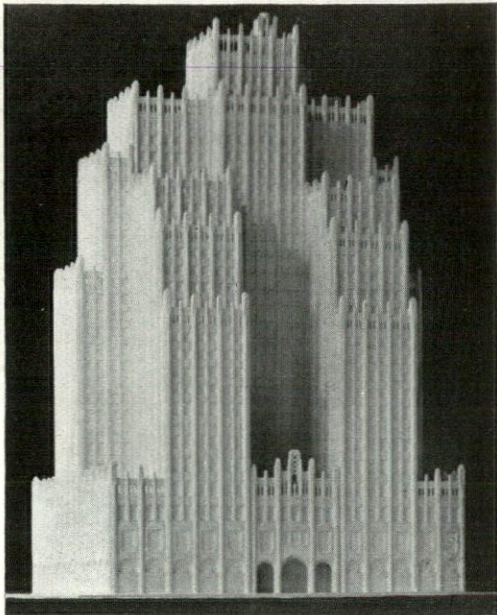
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THE SOUTHWESTERN BELL TELEPHONE COMPANY'S BUILDING, ST. LOUIS, MO.

Mauran, Russell & Crowell, Architects

Drawing by Hugh Ferriss



MODEL OF THE SOUTHWESTERN BELL
TELEPHONE COMPANY'S BUILDING
ST. LOUIS, MO.

the conditions as laid down by the law. While the building is actually twenty-six stories high it contains the equivalent of only seventeen stories of the owner's original requirements. In addition to this the structure is cut away from the building line and in stepping back does infinitely less harm to the properties across the streets because there is less obstruction of light in a structure of this type than there would be in a straight up and down building of nineteen stories. The city officials agreed with the point of view of the owner and not only granted the permit but were so impressed with the possibilities that they decided to use the principle established in working out their contemplated new zoning law. Hence that rare condition exists where everyone is not only satisfied but pleased.

Next came the question of material, as the steel skeleton had to be clothed and all materials suitable for the purpose were considered. A number of large samples of brick were laid up and met with favor, but the design was so simple and singularly free from ornament that stone was not out of the question, and when it was found that the increased cost for this material was not insurmountable, Indiana Limestone was selected. Thus the three elements of form, material and color were achieved.

It is, of course, too early to judge of the results, but the careful study devoted to nicety of design—brought out in drawings made by Hugh Ferriss, and plaster models made by Victor Berlendis—shows an unusual structure that is perfectly logical and at the same time decidedly monumental. The building itself will be completed during the middle of the year 1926, and then can be judged by everyone. In the meantime the architects give striking evidence that they have begun it wisely and well and are courageous enough and willing to face public opinion with some degree of equanimity. Both the owner and the architects of this inspiring work are to be congratulated for a noble effort in the right direction, expressing the high romance of steel.

A. N. REBORI

THE U. S. PATENT OFFICE GAINS BY THE INFLUENCE OF A NEW ENVIRONMENT

Architects, individually, and as members of a creative and supervisory profession, have, through a span of years, debited many administrative grievances against the U. S. Patent Office. There is, therefore, subject for rejoicing on the part of the average architect in the executive order of President Coolidge which transfers the Patent Office to the jurisdiction of the Department of Commerce. Especial satisfaction arises from the circumstance that, for the time being, this clearing house of industrial property passes under the direction, sympathetic and understanding, of Mr. Herbert Hoover, who, in his capacity of Secretary of Commerce, has already proven, in his policies with respect to housing, a grasp of practical architectural problems.

It was not an inapt characterization that Secretary Hoover put upon the Patent Office as an "orphan" among Governmental institutions. In the Interior Department it had neither the stimulus of association with scientific bureaus nor that of recognized relationship to the whole cause of commercial and industrial progress. In the Department of Commerce, the Patent Office is brought into closer association with the other government bureaus—notably the Bureau of Foreign and Domestic Commerce and the National Bureau of Standards—with which its activities in some degree, interlock. More than that, it becomes a participant in a broad administrative policy which seeks development, improvement and progress in the entire sphere of material affairs.

The first recompense for the transfer of

the Patent Office—the project to simplify and quicken the whole fabric of administrative routine—is one that will cause rejoicing among architects, because architects, in both their direct and indirect contacts with the Patent Office, have suffered most from what has passed for a combination of official red tape and chronic deliberation. The architect who, conscious of the novelty of an ornamental form or outline of his inception, has desired the protection of a design patent, and the architect who sought the shelter of a process patent for, say, a distinctive method of handling monolithic concrete, have found their patience tried by the inordinate delays of examination and certification at the Patent Office.

On the other hand, how often has an architect learned, via the underground channels of professional news, of a new invention in plumbing, or roofing, or window sash mechanism, or what not, which he is impatient to specify but which is held out of his reach for what seems an interminable period because the inventor has been delayed in securing his patents. Indeed, it is no exaggeration to say that the stagnation at the Patent Office, which has many times imposed a gap of years between the completion of a valuable invention and its appearance on the commercial market, has acted as a burden and a handicap to the entire building industry of the United States. And this without separate reference to the havoc of Patent Office delays in the matter of credentialing trademarks and labels.

Blame for the conditions of the past decade and more at the U. S. Patent Office, should not be placed indiscriminately on the shoulders of administrative officers. There is extenuation in the circumstance that, until the past year or two, the Patent Office was, by neglect of Congress, hopelessly understaffed and overworked. It was in this dark age, when many of the trained and experienced examiners were alienated from their poorly paid positions to more remunerative berths in the commercial field, that the divisions of the Patent Office that most intimately serve architects, became more than a year in arrears.

When Congress tardily came to the relief of the clearing house of invention and increased the personnel to more than one thousand, at the same time authorizing salaries more commensurate with the ability of veteran specialists, the corner was turned. With the best will in the world, however, recovery has been slow.

Improvement of the physical appointments

of the Patent Office is a pledge that, by implication, attaches to the merger. For years on end, the inadequacy of the working quarters at the Patent Office has been one of the scandals of official Washington. No other branch of the government has been so inappropriately housed. All this has been the more of a reproach because the Patent Office is unique among Government institutions in that it is virtually self-sustaining, thanks to fees collected, and, by any equitable system of bookkeeping can show to its credit in the U. S. Treasury a sum sufficient to provide a home suited to its peculiar needs.

The cramped conditions at the Patent Office have had the effect of slowing down service for the architect who desires to conduct a search to ascertain the state of an art or who wishes to purchase copies of patents in force as a means of acquainting himself with the achievements of his rivals or the progress made along any given inventive path. More serious, if possible, is the other horn of the dilemma presented by the present Patent Office plant. This reveals the storage on wooden shelves in a building that is a veritable fire-trap, of records that are literally invaluable. It is trite to say that any document which cannot be replaced is priceless but when it is explained that the Patent Office archives, menaced by vermin and fire, embody all the original deeds of assignment covering patent rights which have changed hands, it may be surmised that something approaching chaos in business might indeed be precipitated should these proofs of equities be wiped out.

If Secretary Hoover, who has proven singularly persuasive of Congress, can induce the national legislature to provide a suitable habitation for the Patent Office he will, by this single act, have justified the merger. Additional to that, however, is the ambition of Secretary Hoover to render the Patent arm of our government articulate in behalf of the needs of American inventors and users of patented material. As the first move to that end he will seek to relieve the condition whereby U. S. citizens are at the mercy of all foreign powers which have "working clauses" in their patent laws, with no opportunity for retaliation by the citizens in this republic.

Instances have been multiplied in recent years in which, from every consideration of costs, quantity production, etc., the owners or fabricators of inventions of U. S. origin would have preferred to centralize production in this country, but have been deterred by limitations of foreign law. The usual

technique of a foreign power is to require manufacture of the patented invention within its territory on pain of forfeiture of patent rights. While U. S. firms have been thus compelled to establish branch factories in foreign countries, the laxity of the U. S. patent laws has not only relieved foreigners from the necessity of manufacturing here but has made it possible for a foreign patent owner to completely suppress his invention here, if it be made to his advantage to do so. Effort will be made at an international convention at the Hague in the autumn of 1925, to secure for the inventors and manufacturers of the United States more equitable status. Failing that, Secretary Hoover has indicated that he may recommend the rewriting of the patent laws of the United States to meet the situation.

Vigorous, self-centered administration of the Patent Office, with a championing and interpretative voice in the President's Cabinet and in the committee rooms of Congress, is counted upon to eradicate one evil from which architects, in company with other serious patrons of the Patent Office, have suffered. The congestion of recent years at the Patent Office has been measurably increased as a result of the systematic exploitation of amateur inventors. By means of energetic and adroit advertising campaigns, which have painted vividly the supposed rewards of invention, thousands of credulous persons have been incited to submit to the Patent Office so-called inventions lacking in merit as in patentability. The effect has been no net benefit to the cause of American invention but a further strain upon the channels of patent administration.

The occasion is well timed for modernization of the Patent Office in that an exhaustive survey of the needs of this institution has lately been undertaken, on request of the government, by a committee composed of representatives of the American Engineering Council, commercial organizations, associations of manufacturers and patent law bodies. Seeking means of simplifying procedure at the Patent Office and expediting the work, the committee has already made preliminary recommendations. Discouragement of undue multiplication of claims on the

part of inventors is one important remedy advocated by this advisory body. Architects will be especially interested, too, in the suggestion that a system of registering or recording original designs would be preferable to the present procedure of granting design patents. Finally there is the tentative promise that a more virile administration of the Patent Office will evolve some instrumentality whereby neglected and "unworked" patents may be brought to the attention of the industries that should be interested and whereby industry at large will be systematically appraised upon the expiration of each patent that, by lapse of monopoly, places a valuable or useful invention in the public domain.

WALDON FAWCETT

COLOR IN CITY PLANNING

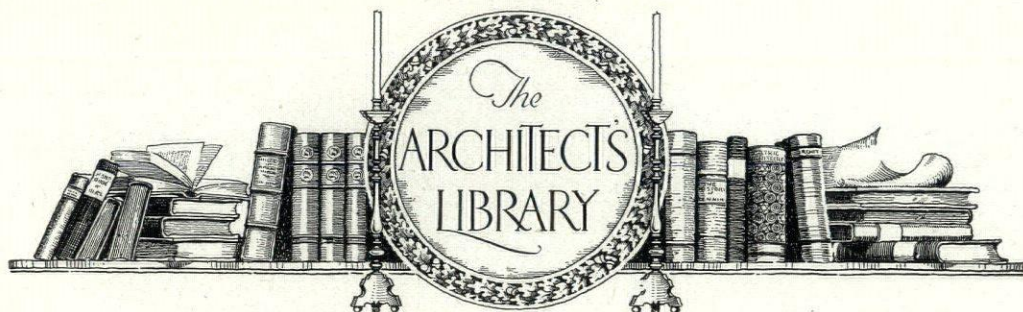
The problem of color is of no insignificant importance in city planning, Prof. Sverre Pederson, chief architect of Trondhjem, Norway, stated in a recent address before the International City and Regional Planning Conference held in New York.

In Norway, considerable progress has been made toward controlling the painting even of private houses. This is especially true with regard to villages and smaller towns.

"It is particularly the love of white paint," said Prof. Pederson, "which creates difficulties. Small white houses lying on a rough and steep land against a dark background of fields or forests are very conspicuous and often have a discouraging effect. Their lack of color seems hard against the soft blues of the background.

"The problem of housepainting is a study which is making progress in Norway. It is the landscape which is determining this. On the coast, where the houses are on rocks and islands without any vegetation worth mentioning, the white paint may even be good. But against a somewhat darker background it does not always do well.

"A certain moderation in color seems to be favorable. Too dark colors such as dark brown, people do not like, though it holds well to many kinds of landscapes. But the intermediate tones have a rich scale of tan, grey, green and red. The window frames, the cornices and the barge boards are emphasized by another color, darker or brighter."



A NEW AND NOTABLE BOOK ON
SPANISH ARCHITECTURE

THE BYNES have lived for many years now in Madrid, and the growth of interest in Spanish architecture in this country is closely associated with their books, already considerable in number, all important and authoritative, all useful for an architect's library, and none more so than this,* which is a folio of 190 plates.

The title "Provincial Houses" was chosen instead of "Country Houses" because country life as we understand it hardly exists in Spain. "The land is still medieval and now as always vast areas have few rural houses, while crowded little towns hover under the shadow of the seigniorial castle or the cathedral." But many of the rural and small town dwelling houses are highly picturesque.

There is great variety in Spain both of climate and building material. The Basques have bitter winters on their forested hills; hence wood and half timber. Castile is a granite country. Aragon has little stone, but much clay for brick-making. The Catalan used stone and stucco, the Andalusian rubble and adobe covered with stucco. The northern house centered around its fire place, the Andalusian around its patio. In either case the climate determined the center. Whether called a peristyle, or cloister, or patio, the open court within is the immemorial characteristic of dwellings around the Mediterranean coast.

In its practical arrangements for living the Spanish house is too simple for American use without adaptation, which must needs be intelligent or even subtle,

or it will lose its peculiar distinction. But it has a style which makes small demand for expensive material or expert handicraft, and this feature gives it an advantage for use in America where materials are costly and good craftsmanship relatively scarce.

Spaniards "conversant with modern American domestic work in California and Florida have remarked that nothing quite so intensely Spanish can be found in the mother country. . . . Spanish dwellings are reserved; those in the New World expansive. . . . The Spaniard in his house is a cautious traditionalist. . . . The Andalusian cortizo has remained the same simple white-washed structure since the missionaries carried the type to America."

It was more the Andalusian type than any other which was so carried. The stucco cortizo, or collection of farm buildings, "is the prototype of the Mexican *hacienda* and the adobe ranch house of the American Southwest. . . . Nevertheless, to the rest of Spain, Andalusian architecture is exotic." Its buildings are long and low, of rubble or adobe, stuccoed and whitewashed, sometimes with colored tile roofs and bands of Pompeian red or ultramarine blue.

Where the owner's residence is included in the group, it is apt to be less austere. The patio may be paved with parti-colored pebbles in design (pl. 27). The façade is varied with door hoods, and with grills for the lower windows and balconies for the upper (pl. 25). The simplicity of the Andalusian type makes it easy to imitate, but not easy to recreate with its peculiar values. It was the art of a people who understood good proportion, who felt the special impor-

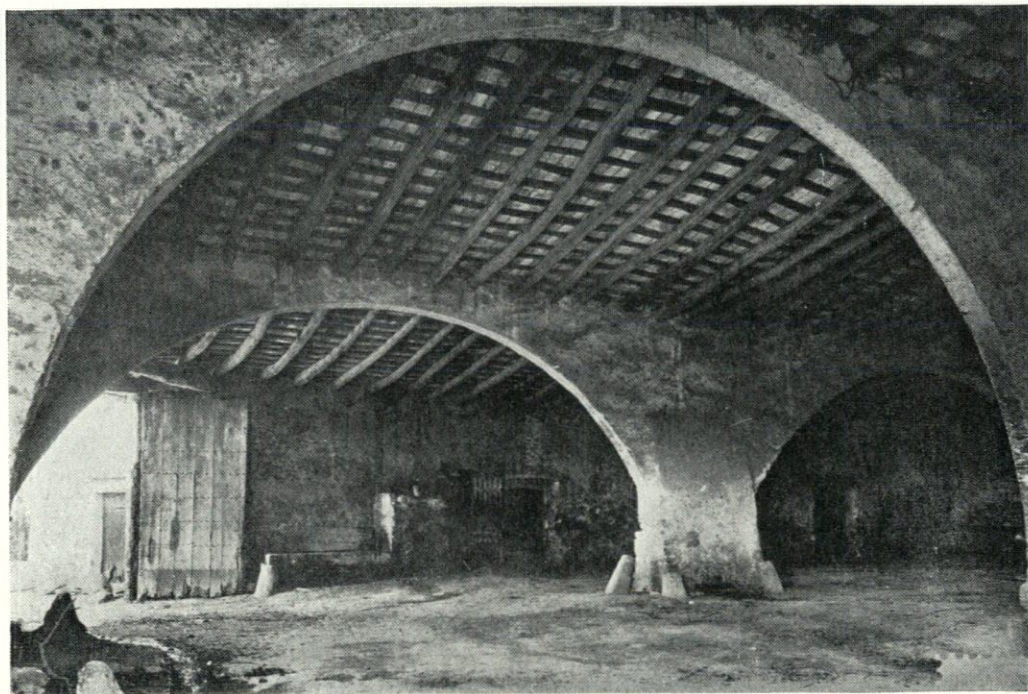
*Provincial Houses in Spain, by Arthur Byne and Mildred Stapley. New York: Wm. Helburn, Inc., 1925. \$25.00.



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CASA DE DONA MARIA LA BRAVA, SALAMANCA
(Illustration from "Provincial Houses in Spain")



INTERIOR OF A FARM BUILDING AT FLASSA, PROVINCE OF GERONIA, CATALONIA
(Illustration from "Provincial Houses in Spain")

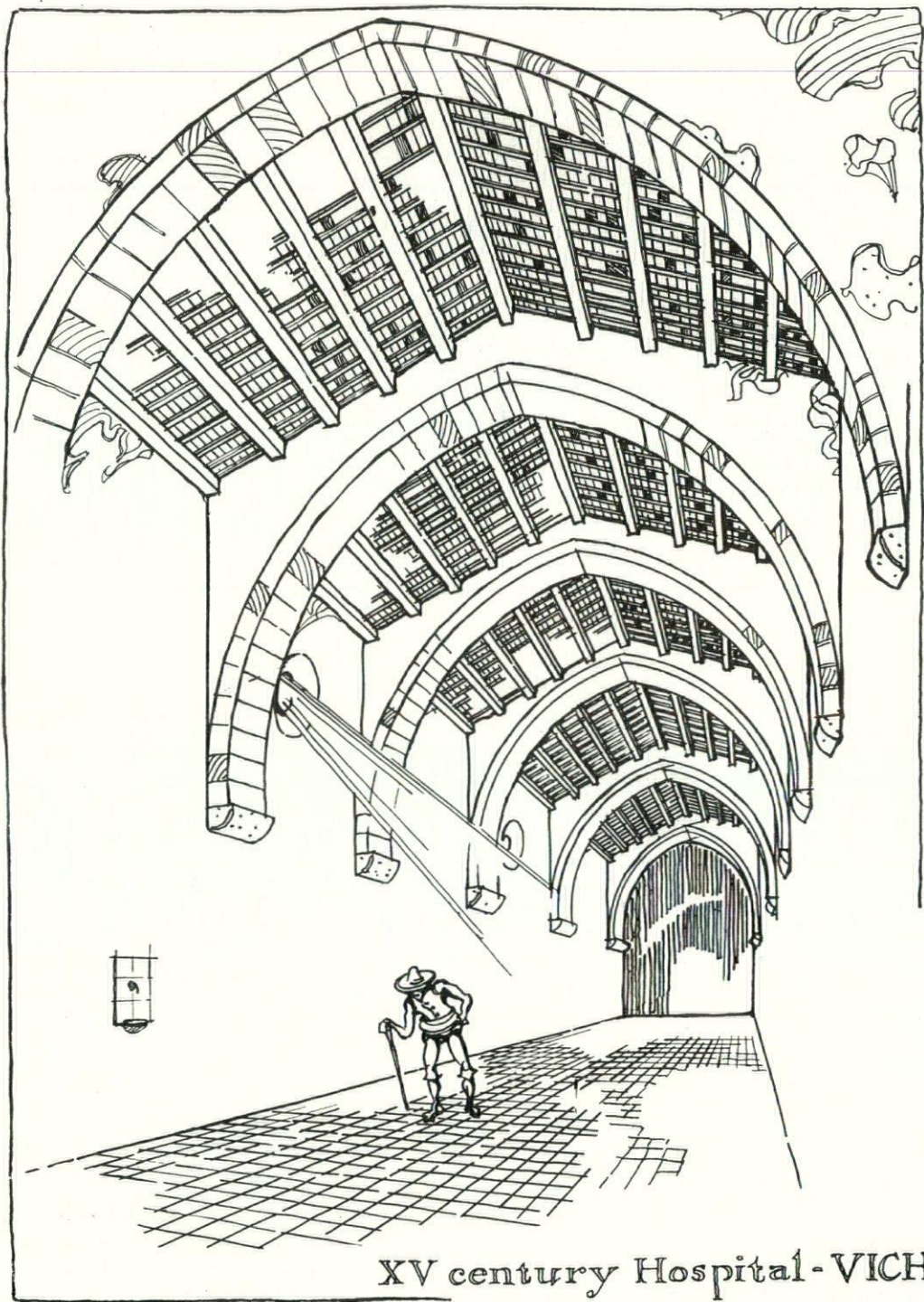
tance of the roof on their long low buildings, and how to be lavish in the right place with the intricate grill or a panel of colored tiles.

Catalonia had a wealth and a flourishing architecture when Castile was still battling with the Moors; but it fell into obscurity during the Renaissance; hence its interesting houses are Gothic. A distinct type of country house, a rural Gothic traditional with local masons, is found there. The old semi-fortified manor and farm houses often suggest a church. The patio is not a living room, as in Andalusia, but a farmyard. The lower stories are heavily vaulted. Valencia, lying south from Catalonia along the coast, is said to have more Moorish blood than any other province in Spain, but the important architecture seems to be largely Renaissance. It is the only province in which thatched cottages are found. Aragon for the most part is a bleak, arid region. Brick work prevails, with modern cornices and eaves. The

most interesting types of its country houses are in the Pyrenean foothills, and show steeply sloping roofs and great funnel-shaped chimneys. Majorcan monumental architecture is largely Renaissance of the 15th, 16th and 17th centuries. Contrary to the Castilian patio, which is wholly open to the sky, the Majorcan patios are partly built over, and have imposing open stairs on flat arches, and stair loggias. The country residence shows more Italian than Spanish influence. The Majorcan masons, like the Catalan, are skilful workmen. The house walls are stuccoed, but not white-washed, as in Andalusia. They are effectively finished in an ivory tone, with bands of dull red.

The Basque farm house is related to the mountain chalet of northern Europe. It has thick masonry and half timber walls, wooden balconies and wide, gently sloping roofs, for this northern coastal climate is relatively mild.

From whatever point you enter the



XV century Hospital - VICH

The Architectural Record

June, 1925

FIFTEENTH CENTURY HOSPITAL AT VICH, CATALONIA

(Illustration from "Provincial Houses in Spain")

Spanish peninsula, you pass almost at once into a region of hills; then a labyrinth of valleys, gorges and ravines; and finally emerge on a great central tableland, barred by the naked Sierras. This tableland is Castile, the land of castles. The Sierras cut it off from the tempering winds of the sea. The winters are long and hard, the summers short and fiery. "Nine months of winter and three of hell," is a native saying.

The Spanish character, says Havelock Ellis, "has impressed itself on Spanish architecture with more complete and overwhelming force than it has manifested in any other art, although the essential ideas of this architecture have all been borrowed." There is something hard, vigorous, virile about the Spaniard. He has a natural predilection for working in iron. His painting is full of violent effects and strong colors. His provincial architecture is as varied in style as his varied climate, and borrowed from all directions, but it is always Spanish, and the most Spanish part, as well as the main bulk of Spanish, is Castile.

Spanish building is perhaps more suggestive to American architects in its decorations and details than in its traditional structure. "Provincial Houses in Spain" is especially rich in those details. The photographic work is remarkably distinct, and there is an abundance of scale drawings.

ARTHUR W. COLTON

Concrete and Reinforced Concrete, by Walter Loring Webb, C.E., and W. Herbert Gibson, B.S., C.E. A Condensed Practical Treatise on the Problems of Concrete Construction, Including Cement Mixtures, Tests, Beam and Slab Design, Construction Work, Retaining Walls, etc. Chicago: American Technical Society, 1924. x, 240 pp., illus. 4½x7 in. Leatherette. \$2.00.

Steel Construction, by Henry Jackson Burt, C.E. A Text and Reference Book Covering the Design of Steel Framework for Buildings. Chicago: American Technical Society, 1924. viii, 372 pp., illus. 4½x7 in. Leatherette. \$2.50.

This book gives the facts and formulas needed in designing the structural steel framework for buildings.

English House Grounds. Photographic Views by Mabel Parsons; Text by Clarence Fowler; Editor, Eugene Clute. 15 East 40th Street, New York: Mabel Parsons, 1924. 99 pp. 9x11¼ in. Bound in Boards. \$7.50.

Suggestions for the grounds of small and medium-sized homes with 40 full-page illustrations from English examples; with descriptive captions and text addressed to the layman. Planned by Samuel Parsons, formerly Landscape Architect, Dept. of Parks, New York City, and completed by his daughter in collaboration with Clarence Fowler, Fellow American Society of Landscape Architects, and Eugene Clute, Editor.

Wood-Finishing, by Harry R. Jeffrey, M.A. Peoria, Illinois: The Manual Arts Press, 1924. 177 pp., illus. 5¼x8 in. Cloth. \$1.50.

The American House—Being a Collection of Illustrations and Plans of the Best Country and Suburban Houses Built in the United States During the Last Few Years—edited by Charles S. Keefe, architect. New York: U. P. C. Book Company, Inc., 1924. 24 pp. 219 plate illustrations. 9¼x12¼ in. Cloth. \$7.50.

Farm Houses, Small Chateaux and Country Churches in France, by Antonio Di Nardo. With a Preface by Paul P. Cret. Cleveland: J. H. Jansen, 1924. 176 pp. Photographs by C. D. Arnold and A. Di Nardo. 12¼x16½ in. Cloth. \$18.00.

Picturesque Scandinavia — Denmark, Sweden, Norway, Finland—Architecture, Landscape and Life of the People. With an Introduction by Valdemar Rordam, Ernst Klein, Theodor Caspari and Johannes Ohquist. New York: Brentano's 1924. xxxiv, 272 pp., illus. 9½x12½ in. Cloth. \$7.50.

Picturesque North Africa — Tripoli, Tunis, Algeria, Morocco—Architecture, Landscape and Life of the People. With Introduction by Ernst Kuhnel. New York: Brentano's, 1924. xiv, 240 pp. Photographs by Lehnert & Landrock. 9½x12½ in. Cloth. \$7.50.

The Churches of Rome, by Roger Thynne. New York: E. P. Dutton & Co., 1924. xxxii, 460 pp., illus. 4½x7 in. Cloth. \$5.00.

An interesting, chatty and well-informed tour of the Churches of the City of Rome, describing the principal tombs and works of art in each, and the historical associations, as well as the architectural beauties and peculiarities.

Manual of Office Practice for the Architectural Worker, by Frederick J. Adams, A.I.A. A Concise Tabulation of Instructions Covering the Routine of an Architectural Office for the Information of the Workers Therein and All Others Having to Do With Building Construction. New

York: Charles Scribner's Sons, 1924. x, 96 pp., illus. 5x7 $\frac{3}{4}$. Cloth. \$1.25.

This book is the result of many years of active practice in the office of McKim, Mead & White. It provides a formulated system for production through a series of skeletonized instructions, arranged in approximate sequence, to cover each step from inception to completion. The methods are the successful survivals of many which have been tested by actual application on work of all kinds, under all sorts of conditions. It should prove of the greatest usefulness in the offices of architects everywhere.

Heat Transmission of Insulating Materials: Report of The Insulation Committee. New York: The American Society of Refrigerating Engineers, 1924. Annual Meeting, 1922, Revised. 114 pp., illus. 8 $\frac{1}{2}$ x11 in. Paper. \$2.00.

A general valuation of the book may be gathered from the following excerpt from Section I, the introduction to the Committee's report: "Whether any single individual or any set of individuals will ever give either the complete or last word on heat transmission in installation is, of course, subject to conjecture. But this report is a step in the right direction; the equivalent of the combined information contained in the several sections of this report cannot now be found anywhere between the covers of any single publication, nor in such ready-to-use form. This report should, therefore, prove of decided value to the profession."

John Francis Bentley, by W. W. Scott-Moncrieff. New York: Charles Scribner's Sons, 1924. Masters of Architecture Series. 28 pp., 35 illustrations from photographs by F. R. Yerbury. 7 $\frac{1}{2}$ x10 in. Bound in Boards. \$2.50.

Etchers: And Etching, Chapters in the History of the Art Together with Technical Explanations of Modern Artistic Methods, by Joseph Pennell, N.A. New York: The MacMillan Co., 1924. 2 ed. xxix, 344 pp., illus. 9x12 $\frac{1}{4}$ in. Cloth, \$12.50.

The volume is two-fold in character. The first part is devoted to trenchant and independent criticism of some of the great masters in the world of etching, and the second to a discussion of the technique of the art of etching itself. Both the critical and technical parts of the book are copiously and beautifully illustrated. There are twelve Whistlers, nine Rembrandts, and nine Pennells among the more than fifty etchings reproduced by half-tone and photogravure.

London, by Sidney Dark, with illustrations by Joseph Pennell. New York: MacMillan & Co., Ltd., 1924. xii, 176 pp., illus. 6 $\frac{1}{4}$ x10 $\frac{1}{4}$ in. Cloth. \$7.50.

There are many interesting books on London, but this is the one London book illustrated by Joseph Pennell. The drawings were made in 1908, but have not been reproduced before.

American Colonial Architecture — Its Origin and Development—by Joseph Jackson. Philadelphia: David McKay Co., 1924. viii, 228 pp., illus. 5 $\frac{1}{4}$ x8 in. Cloth. \$2.00.

American Landscape Architecture, edited by P. H. Elwood, Jr., A.S.L.A. New York: The Architectural Book Publishing Co., Inc., 1924. xx, 194 pp., illus. 10 $\frac{1}{2}$ x13 $\frac{3}{4}$ in. Cloth. \$20.00.

[The following may be secured by architects on request direct from the firms that issue them, free of charge unless otherwise noted:]

Flooring Oak. "Superior Brand 'America's Finest' Oak Flooring." Superior Oak Flooring Company, Helena, Arkansas. 8 $\frac{1}{2}$ x11 in. 24 pp. Illustrated.

Plants. "Better Plants—by Farr." Third Edition, 1925. Bertrand H. Farr, Wyomissing Nurseries Company, Wyomissing, Pennsylvania. 6 $\frac{3}{4}$ x9 $\frac{1}{8}$ in. 48 pp. Illustrated.

Lighting Fixtures, Exterior. Union Metal Exterior Lighting Fixtures, Entrance Standards, Brackets and Newels. Book No. 54. The Union Metal Manufacturing Company, Canton, Ohio. 8 $\frac{1}{2}$ x10 $\frac{1}{2}$ in. 44 pp. Illustrated.

Organs. "A Periodical Presentation of Pipe Organ Progress." Skinner Organ Company, 677 Fifth Avenue, New York City. 8 $\frac{1}{2}$ x11 in. 24 pp. Illustrated.

Fans and Blowers. American "Sirocco" Fans and Blowers. Bulletin No. 1801. American Blower Company, Detroit, Michigan. 8 $\frac{1}{2}$ x11 in. 72 pp. Illustrated.

Furniture, Built-in. "Architects' Hand Book Peerless Built-in Furniture." Built-in Fixture Company, 2608 San Pablo Avenue, Berkeley, California. 9x11 $\frac{3}{4}$ in. 22 page Looseleaf Folder. Illustrated.

Chimney Pots. "Chimney Pots of Atlantic Terra Cotta." Atlantic Terra Cotta Company, 350 Madison Avenue, New York City. 8 $\frac{1}{2}$ x11 in. 12 pp. Illustrated in Colors.

Linoleum. "Pattern Book 1925." Armstrong's Linoleum—Felt Base Floor Coverings and Felt Base Rugs. Armstrong Cork Company, Linoleum Division, Lancaster, Pennsylvania. 3 $\frac{3}{4}$ x5 $\frac{7}{8}$ in. 216 pp. Illustrated in Colors.

Wall Finishes. Lucas Lu-Co-Flat—A Flat Interior Wall Finish. John Lucas & Company, Inc., Fourth and Race Streets, Philadelphia, Pennsylvania. 3 $\frac{3}{4}$ x8 $\frac{3}{8}$ in. 8 pp. Illustrated in Actual Colors.

Boilers. "Kewanee Firebox Boilers in Omaha Schools." Kewanee Boiler Company, Kewanee, Illinois. 6x9 in. 16 pp. Illustrated.

Consoles. "The New Luminous Stop Console." Estey Organ Company, Brattleboro, Vermont. 6x9 in. 16 pp. Illustrated.

Racks, Steel—"The Maforco Line of All Steel Racks. Market Forge Company, Everett, Massachusetts. 8 $\frac{1}{2}$ x11 $\frac{1}{4}$ in. 40 pp. Illustrated.

Hardware—"Sliding and Folding Partition Door Hardware." Catalog No. 40. Richards-Wilcox Manufacturing Company, Aurora, Illinois. 8 $\frac{1}{2}$ x11 in. 32 pp. Illustrated.