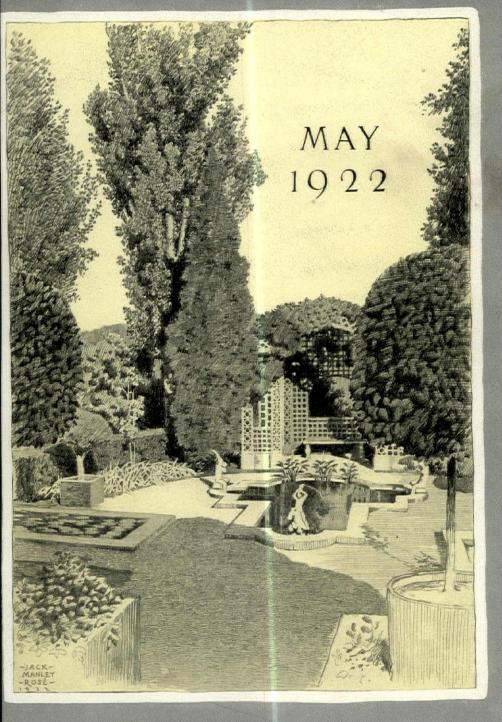
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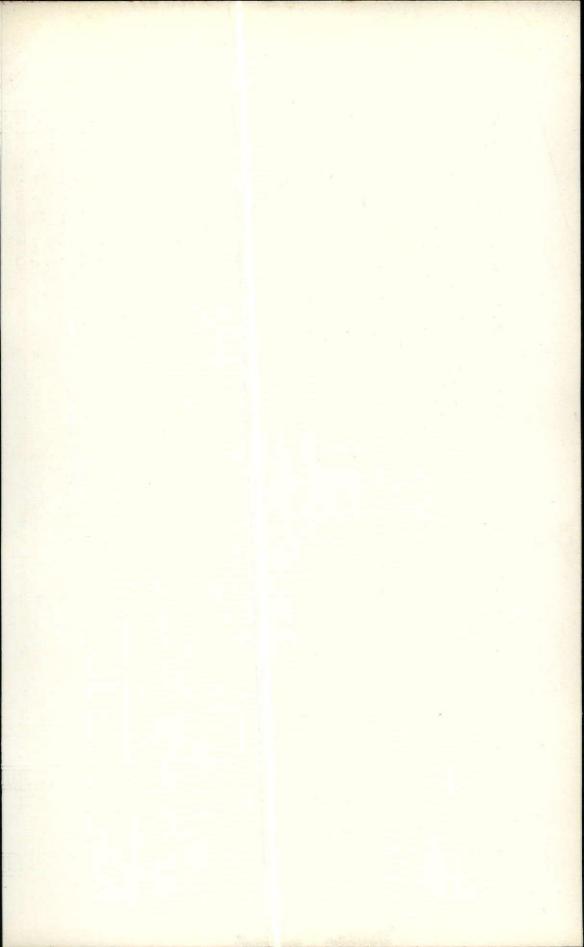
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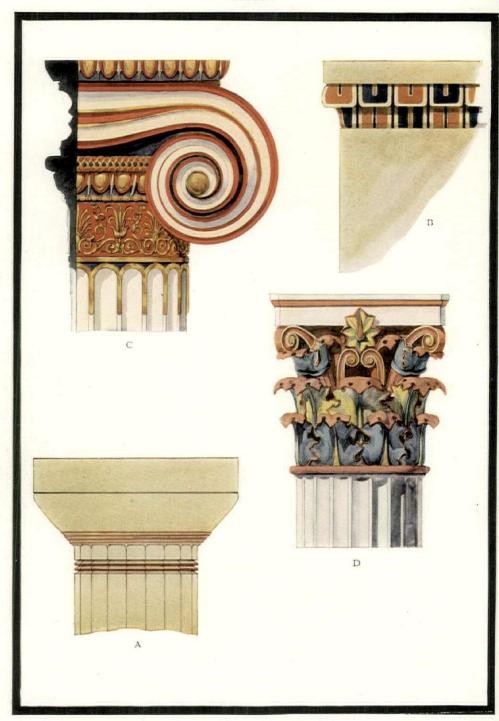
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- Doric cap Aegina "Nieu Tample" Fürtwangler's restoration. Typical Doric treatment of pilasters or piers. Capital of the Erectheum, gold, red and blue. Corinthian cap in terra cotta from Olympia.
- A. B. C. D.



1. POLYCHROME GARGOYLE, OLYMPIA.

ARCHITECTVRAL POLYCHROMY

BY LEON V SOLON

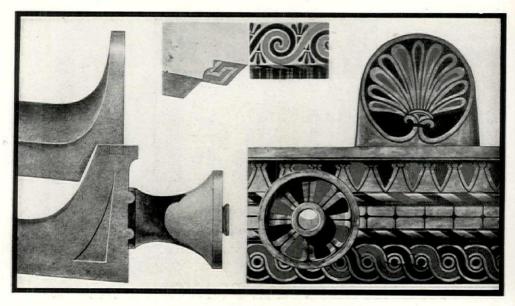
PART V

The Color Treatment of the Capital, Cornice and Other Architectural Items

HE coloring of the various types of Greek capital is a subject worthy of greater elaboration than our space permits. Typical examples of the three orders have been selected to demonstrate the general principles of color location. In the Doric capital color figures to the minimum extent, despite the fact that it constitutes so prominent a feature in authenticated restorations of edifices designed after that manner. Theoretically, this is to be expected, and is consistent with the observation that the presence of color depreciates the appearance of structural strength; the stalwart character realized in the columns of this order would necessarily have been diminished had polychrome enrichment of a more elaborate character been developed. Archæological research records red to have been the only color used on the echinas; where there is repetition of the channeling in certain examples, at the top of the shaft, a similar color treatment was adopted, as is shown in Diag. A (Plate

V.); this constitutes the maximum extent of color decoration in the majority of instances. As the piers (B) have a lesser structural significance, greater color elaboration was permissible; our illustration is a typical example taken from the Temple of Zeus, Olympia; the piers of the Parthenon were treated in much the same manner. (See Collignon.)

Our illustration of the Erectheum capital is rendered after the restoration of Dr. Josef Durm, which shows the Ionic capital in all its magnificence. The colored volutes were treated after two fashions; in certain examples (e. g. Temple of Apollo Epicurus) a full torus forms the outer edge; this developed a wide range of tones in the red decorating it; its sharp shadow projection accentuated the brilliancy of the color. In the Erectheum capital a sharp angled channel replaces the torus, which, from the point of view of color development, is vastly superior. As the volute turns, the



2. POLYCHROME CORNICE TREATMENT.

color upon the planes which form the inner and outer faces of this incision, changes in strength, from the deepest tones possible under the circumstances of illumination, to the lightest. The color on the plane inclined from the light at the top of the cap starts in shadow; by the subtlest tone gradation, the deep tone gradually progresses to its maximum purity, as this plane becomes inclined to the light. The two planes forming the channel produce tone contrasts throughout the greater part of the volute, by reason of the difference in their angles to the sun's rays. The eye of the volute is supposed to have been gilt in the majority of cases.

The Corinthian cap in our illustration was exhumed at Olympia in comparatively good preservation. It is difficult to find data upon this subject, and this example is of particular interest, inasmuch as it demonstrates the application of the decorative principles of color alternation, and color separation. The foliated husk of the angle volutes and the lower tier of leaves are painted blue; the centre tier is painted yellow;* the

yellow is also carried into the centre of the rosette, and on the stems of the lower leaf tier, realizing, as nearly as the motif permits, the appearance of alternating color. Unity in color effect is achieved by the method of separating bright colors with a fillet of another color, red serving this purpose in its outlining of the detail. This well-balanced distribution of red contributes much to the stabilizing of effect.

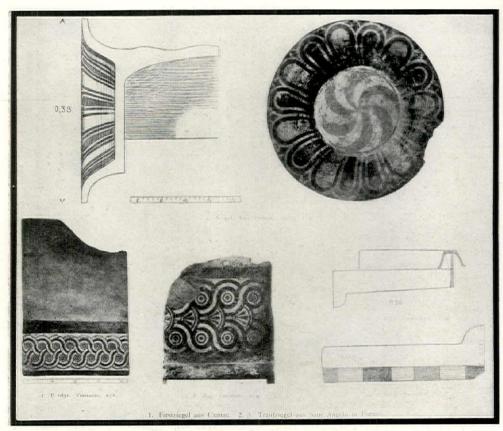
THE COLORING OF THE ROOF.

Owing to the great variety in roof designs it would be as difficult to generalize in treatment of this feature as it is upon the coloring of the capitals, were it not for the rigid adherence of the Greeks to fundamental aesthetic principles. Color elaboration and ornamental ingenuity were lavished upon the essentially decorative features. Polychrome and single color designs were developed upon the ridge tiles frequently adorned with antifixae; the cornice antifixae; the akroteria, and the vertical edge of the lowest row of roof tiles; when the latter projected beyond the face of the structure, the under side also was ornamented. The tiles of semicircular or rectangular section which bridged over the joints of the pantiles were occasionally treated with

^{*} This yellow may have been a substitute for gold, as was the case in certain pediment sculptures; it is not improbable that these parts were subsequently gilt.



3. POLYCHROME CORNICE FROM THE TREASURY OF GELA.



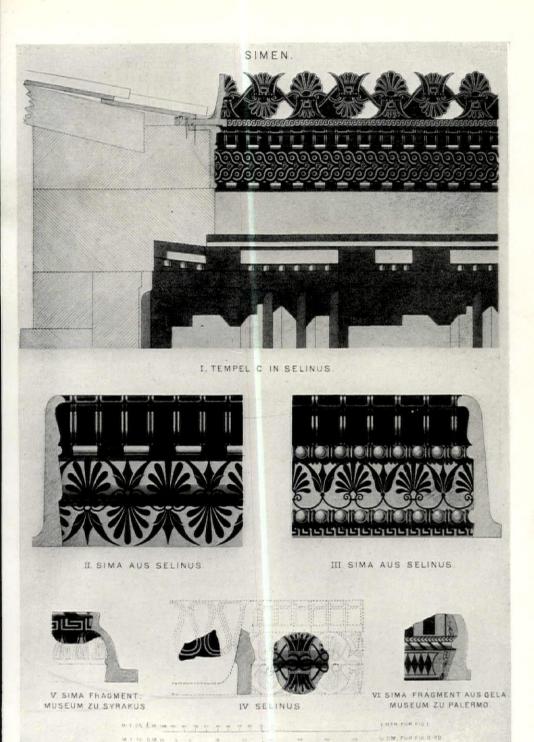
4. DETAIL, POLYCHROME ROOF TILES.

simple ornamentation. A great variety of decorative roof-tile is reproduced in Dachterrakotten aus Campanien, by H. Koch.

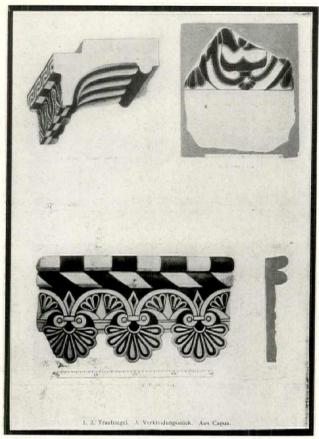
THE COLORING OF THE CORNICE

The treatment of the cornice in polychrome is one of the most difficult problems encountered in the planning of color for architectural effect. The designs developed upon each item must naturally be individually effective. By reason of the contiguity of the architectural members to be similarly treated, the design upon each must possess the quality of contrast, but must be devoid of competitive interest. The architectural integrity of each member must be preserved in decoration; that is to say, decorative values, or color values which have a mutual affinity, must not occur upon adjacent members. Finally, when viewed in mass, these varied design elements must constitute an entity of effect.

No better example could probably be found, embodying these complex design requirements, than the terra-cotta cornice of the Treasury of Gela. Great brilliancy in effect, combined with subtle color quality, is achieved by a very skillful use of two colors only-red and black, upon a buff terra-cotta ground. Despite the virile strength of each of these superimposed bands of ornamentation, no confusion is sensed architecturally. due to the skill with which distinct design and color values are established upon each architectural unit. With the aim of keeping each molding distinct from its neighbor, our first impulse in design would probably be to vary the scale of proportion of detail upon each. simple solution was deliberately avoided by the designer of this cornice. We find



5. POLYCHROME CORNICES FROM SELINOUS.



6. POLYCHROME CORNICE DECORATION.

the broad lines which figure so prominently in each of the superimposed details to be of uniform width, and realize how important a factor this becomes in the ultimate unification of the grouped designs.

The proportionate use of the red and black is manipulated most skillfully, with the purpose of preserving the identity of each architectural unit. This is achieved in the simplest manner. The detail of the guilloche decorating the frieze is almost entirely in black, the minimum amount of red being introduced only upon the three small petals which occur at the interlacing of the bands. In the rectangular pattern above the guilloche, red prevails, black being used as a strongly contrasting note. Above this decoration, we find a design so contrived that red and black are employed in alternation in equal propor-

tions. Surmounting this group of patterns, the black fret is used, unrelieved by red, the obvious purpose being to create a border of sufficient strength to withstand the strong light against which it is placed. The manner in which the tori, which separate these varied designs, are decorated, is well worthy of study; no more effective or simple treatment could have been devised than these bands, chevrons, and spirals.

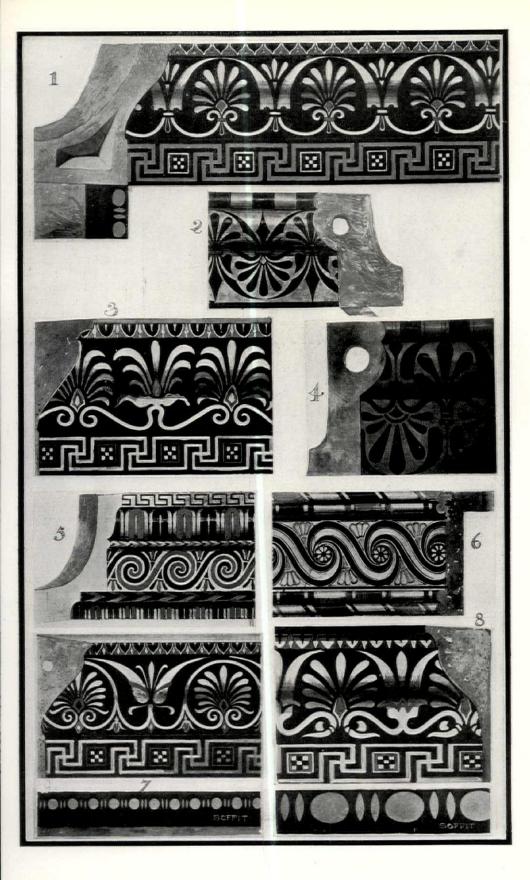
In Temple C. of Selinous a corresponding quality is realized; this, unfortunately, does not show in our illustration, which was taken from a color plate, the black and red having photographed the same tone. In this example the leaves decorating the cyma are treated in color alternation after the manner of Diag. E, Plate III. Refer to Parts I and II for illustrations showing cornice treatments of other types.

Colored Ornamentation Upon Moldings

The following is a description of the color treatment of the ten examples illustrated:

No. 1. Cyma. Pointed black leaves upon a red ground decorate the upper member; these colors are separated by a white line. The principal motif is silhouetted in white upon a black ground; the husks of the anthemia and the bands connecting the scrolls are enlivened with red. The fret is red upon a black ground; the square motif is black and white.

No. 2. Cyma. Upper member; black leaves upon a red ground; outline and bud in white. Principal motif white on black; red outlines the husk of the central palmette in our illustration, and also outlines the centre of the other palmette. Fret, red on black; a red outline frames the square motif, which is in black and white.



No. 3. Cyma. Black ornamentation upon a red ground.

No. 4. Cyma. A black fret decorates the topmost fascia. The leaves below the fret are treated with red and black in alternation; the lines separating the

leaves are black and the ground buff. Torus; Chevrons in red and black alternately, upon a buff ground. Scrolls and flower petals; red and black in alternation. Fascia; black chevrons on buff. Leaf decoration on lowest member, red and black alternately.

No. 5. Cyma. Red and black are arranged in alternation upon the leaves and palmettes; ground, buff or ochre.

No. 6, Frieze. The ground color of this molding is a terra-cotta buff

a terra-cotta buff. Tori; bands of red and deep mulberry in alternation in the horizontal direction, but not in the vertical. Scrolls, mulberry, with floral motif outlined in red. Red and mulberry on the two lower Tori in complete alternation.

No. 7. Cyma. Practically a replica of the color planning in No. 1.

No. 8. Cyma. As No. 1.

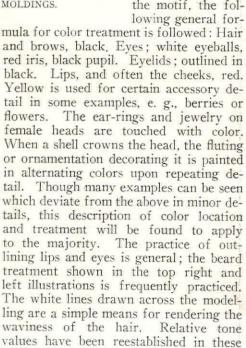
No. 9. Triglyph molding. (a) Dark blue. (b) "Eggs" light blue and yellow, black used to indicate the upper fullness of the eggs. (c) Fret, red and blue; frame of square motif yellow, chequers in centre of square light blue and black. (d) Light blue and white upon a red ground. (e) Dark blue.

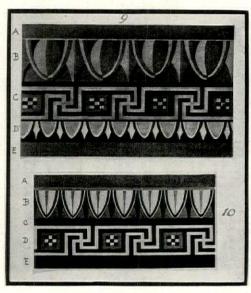
No. 10. Triglyph molding. (a) Light blue. (b) White leaves, blue centre line; inner outline of leaf red; dart, red; ground blue. (c) Dark mulberry. (d) Fret, red and white; frame of square motif yellow, chequers black and white. (e) Dark mulberry.

ANTIFIXAE.

There is an enormous variety of interpretations of this detail. In Part III a few examples are reproduced of the simpler type, in which two colors are used in alternation upon the palmettes. The

full-page illustrashowing tion variety of subjects, represents only a fractional part of the data which is available, and barely gives an impression of the latitude that the Greeks allowed themselves in design. Many of these have been taken from Van Buren's Figurative Terra-Cottas: a great variety can be seen in the H. Koch's Dachterrakotten Aus Campanien, Where the human head forms the motif, the fol-





8. TRIGLYPH MOLDINGS.

cuts.



9. POLYCHROME ANTEFIXÆ



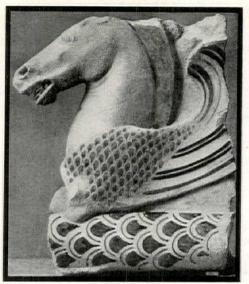
FRAGMENT OF POLYCHROME AKROTERION.



POLYCHROME AKROTERION OF LARGE TEMPLE—HEIGHT M. O. 98.

THE AKROTERION. Comparatively recent discoveries by archæologists reveal to some extent the degree to which the Greeks regarded the designing of this item as an opportunity for imaginative effort. The symmetrical designs. such as those found at Aegina and Olympia, represent only one phase of treatment. The beautiful akroterion of Eos and Kephalos comes, in all probability, from a large temple, as it measuers m. o. 98 in height. Van

Buren describes its coloring as follows: Eos; hair, brownish black; chiton, cream with a dark border; ear-rings and diadem, dark red with designs in cream and black. Kephalos; flesh, red; hair, brows and eyes, black. The ground is blue. The



10. POLYCHROME AKROTERION FRAGMENT, BASE DETAIL OF GROUP.

spirals on the reverse side are red and black upon a cream ground.

Horse. This is a fragment from the lower part of an akroterion group. Head and neck. cream: mane, red; small feathers upon the shoulder of the wings, red outlined in cream; long wing feathers, inner row black and cream alternately; outer rows cream and red alternately; torus, black imbrications with a double outline in cream.

detail is intricately colored in black, red

and cream.

With subjects of this character it is obviously impossible to generalize, but from the above description a fair impression of color effect may be gathered.

(To be continued)



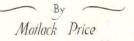
ENTRANCE FRONT—RESIDENCE OF JOHN L. BUSHNELL, ESQ., SPRINGFIELD, OHIO. Lewis Colt Albro, Architect.



A **COUNTRY HOUSE IN**THE ITALIAN MANNER



RESIDENCE & JOHN L BUSHNELL, ESQ. — SPRINGFIELD, OHIO - LEWIS COLT ALBRO, ARCHITECT -



UROPEAN derivation in the matter of style, as a point of departure for the American country house, is by no means a new thing. French châteaux, English manors and cottages, and Italian villas have been built in this country for these many years past, and for some time the only very noticeable advance made by the adapters was the choice of the models they copied. They graduated, that is, from copying Swiss châlets and a particularly atrocious variety of nouveau riche French villa and maisonette, and became far more careful in their selections. But for a long time they did not seem to feel that there existed, in the American house of European derivation, any opportunity for individual thought

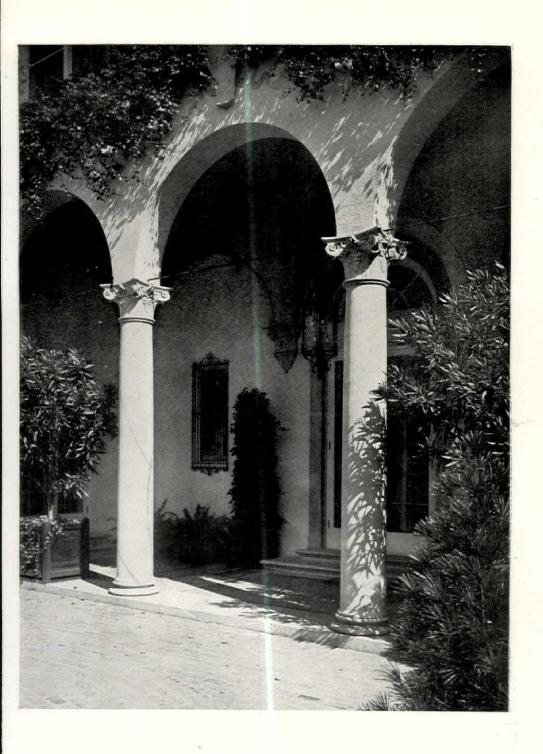
or creative architecture. When architectural copies were not literal and unimaginative, they were often debased and unintelligent.

But today the stylist works very differently. To begin with—he thinks. If the thing required of him, for example, is an Italian villa, he does not seek a complete villa to copy, ruining, perhaps, a beautiful model by arbitrary enforcement of its form upon a totally unsuitable "replica," or pseudo-adaptation. He approaches his problem in a far more intelligent manner—in the only manner, in fact, through which truly architectural results can be achieved in transplanting to the present-day United States an architectural style of another land and another age.

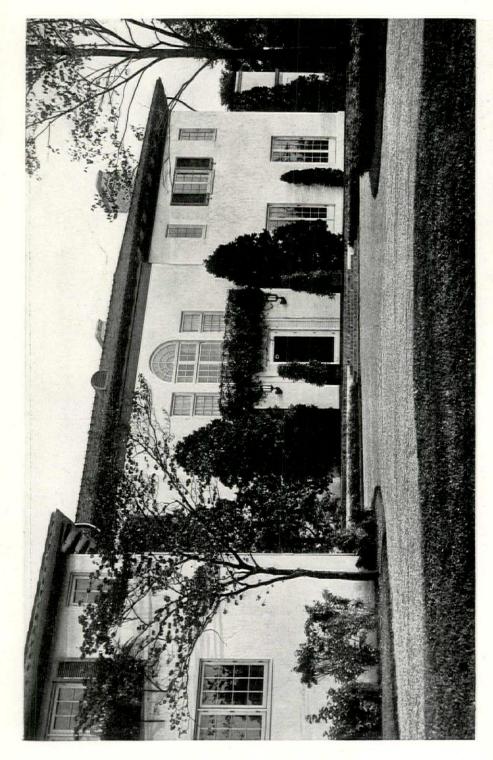


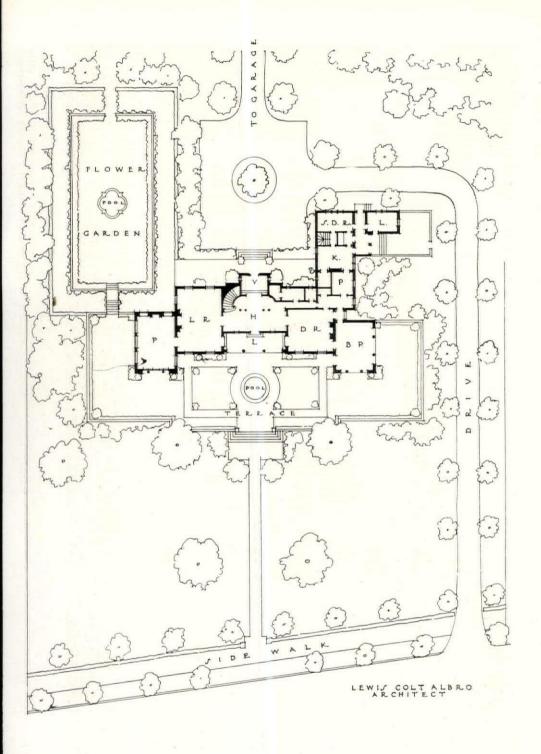
SUN ROOM-RESIDENCE OF JOHN L. BUSHNELL, ESQ., SPRINGFIELD, OHIO. Lewis Colt Albro, Architect.

The architect of today, in designing in a historic style does not take a given European building and a modern American plan, and by destroying each in an effort to bring them together, effect a miserable architectural compromise which is neither a beautiful dwelling to look at, nor a comfortable and convenient one in which to live. His procedure is to take the plan, highly developed along modern American living requirements, and from that point to design the threedimensional aspect of the house as nearly as possible in the manner of, for example, of an architect of Renaissance Italy. In this way an architectural expression is achieved which possesses real merit because it is logically developed and intelligently reasoned. An Italian villa of this kind is not an affectation and not a compromise, because the vital requirements of the problem have not been sacrificed to an arbitrary scheme of design or to an arbitrary plan. The validity of this thesis seems to be strongly demonstrated in a recent house designed by Lewis Colt Albro for Mr. John L. Bushnell, at Springfield, Ohio. I have, intentionally, not called it "an Italian villa," because it is not a villa and it is not Italian. Nor, by this, do I mean any disparagement whatever of the architect's ability-I only mean that he is an American and that Springfield is in the United States. It is a country house in the Italian manner—and by this no mere academic quibble is intended. Perhaps it is largely because we have spoken carelessly of Italian villas, French châteaux and so forth that we have come to think of them as mere misapplied replicas, even when they were not, and because we have failed to bring out the thought that only the style, or manner of design, and not the complete house is, as the case may be, either

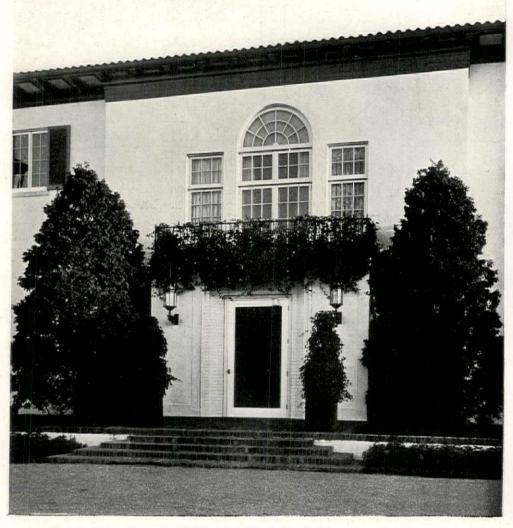


DETAIL OF LOGGIA OR ENTRANCE FRONT—RESIDENCE OF JOHN L. BUSHNELL, ESQ., SPRINGFIELD, OHIO. LEWIS COLT ALBRO ARCHITECT.





BLOCK PLAN—RESIDENCE OF JOHN L. BUSHNELL, ESQ., SPRINGFIELD, OHIO. LEWIS COLT ALBRO, ARCHITECT.



DETAIL OF ENTRANCE—RESIDENCE OF JOHN L. BUSHNELL, ESQ., SPRINGFIELD, OHIO. Lewis Colt Albro, Architect.

Italian or French. This careless designation has helped to obscure the all-important recognition that, in the European adaptation in this country, "style" cannot and should not be swallowed in toto, but it is better regarded as something like a building material. "Style" is not the whole thing, it is simply the manner in which you elect, or are required, to design the house, just as you may elect, or be required to design it in frame construction or in brick. Style, of course, may modify a plan to some

extent, but one point to be brought out is that the present tendency (fortunately) is to build a house which is first a modern American dwelling, and second an adaptation of a European style: not to build a house which is first an adaptation of a European style and second, if at all, a modern American dwelling.

The fortunate part of the new tendency, as far as the architectural standard is concerned, is that it is possible to make a house far more Italian, in essence and spirit, when the Italian man-



ENTRANCE FRONT—RESIDENCE OF JOHN L. BUSHNELL, ESQ., SPRINGFIELD, OHIO. Lewis Colt Albro, Architect.



STABLE AND GARAGE—RESIDENCE OF JOHN L. BUSHNELL, ESQ., SPRINGFIELD, OHIO. Lewis Colt Albro, Architect.



ENTRANCE HALL—RESIDENCE OF JOHN L. BUSHNELL, ESQ., SPRINGFIELD, OHIO. Lewis Colt Albro, Architect.

ner is used (and far more intelligent), than if an attempt is made to literally reproduce an actual Italian villa. This, I think, is apparent in Mr. Albro's country house illustrated in these pages.

The plan is a symmetrical one, and the house and its setting together show a certain well-disposed spaciousness and largeness in arrangement and treatment. Although the house is not on a large estate, its seclusion from the road and from the adjacent properties has been admirably managed.

A long brick wall from the street leads to a formal terrace, also of brick, with terra cotta water-jars and a circular pool. The design of the front which faces this terrace is of the symmetrical character of a "garden front," with its gracious loggia and balanced masses to right and left.

The color of the stucco is a quiet cream tone, and the ironwork is detailed with pleasant simplicity. The picture is completed by blue-green shutters and an overhanging wood cornice, stained brown and polychromed. A distinct note of interest is added to the loggia by the coloring of the plaster vaulting in blue.

The entire width of the loggia is taken up within the hall, which is treated in a peculiarly dignified and restful man-



DRAWING ROOM—RESIDENCE OF JOHN L. BUSHNELL, ESQ., SPRINGFIELD, OHIO. Lewis Colt Albro, Architect.

ner, with travertine walls and columns, and an unusually graceful iron stairrail. The living-room, with an enclosed porch or pavilion opening from it, is at the left of the hall, and at the right the dining-room and breakfast porch, with a long, irregular service wing disposed at right angles behind them.

The driveway, which runs in to the right of the house, carries past and around this service wing, to a turnaround, where steps and a terrace lead up to the carriage entrance, which is at

the back of the hallway within.

Further back on the property is the garage, which offered the architect, in its broad wall expanses, an excellent opportunity to make a decidedly Italian exterior, with picturesque tiled ventilators and a better opportunity for pure stylistic rendering than is afforded by the fenestration of the house.

There have been many larger and more pretentious houses in the Italian man-

ner, or purporting to be, but this one seems pleasantly adequate as a semi-country home. There is ample space, and even spaciousness—but not too much. It seems to reflect a high degree of architectural good taste and restraint, a new architectural sincerity that has grown increasingly apparent in this country during the past ten, or even fifteen, years.

This new sincerity has been evidenced, among other indications, by a decline, almost a reversal, of the old idea of building an elaborate and ornate "show place." The reassuring aspect of this, sociologically as well as architecturally, is found in the fact that even people who can well afford to build a "show place" do not want one. It is out of tune with the times

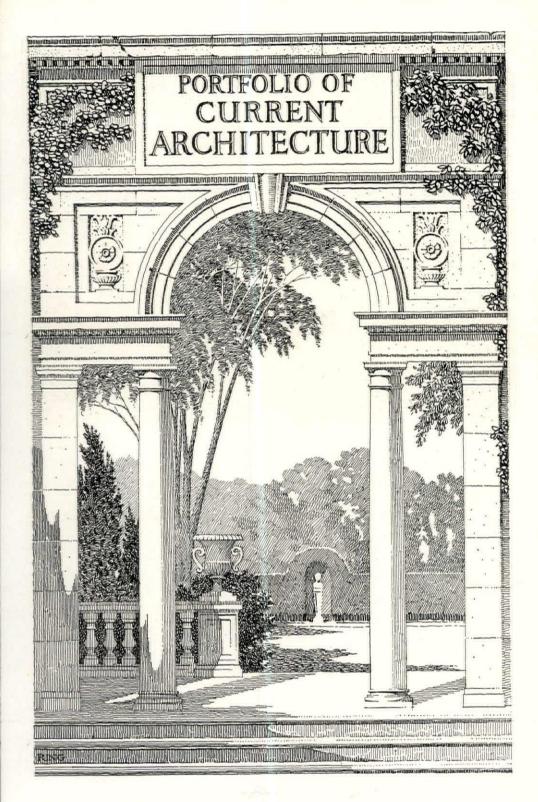
Inside and out, the home has undergone a remarkable and almost a complete change for the better. Architectural environments—interiors—in good

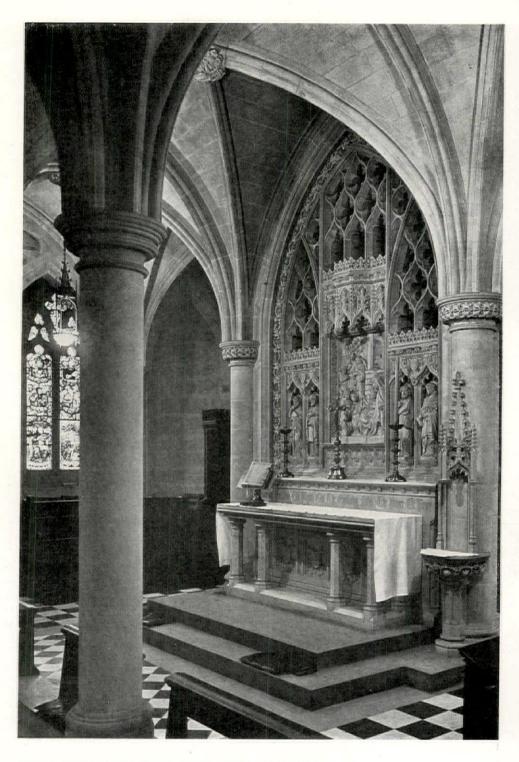


DINING ROOM-RESIDENCE OF JOHN L. BUSHNELL, ESQ., SPRINGFIELD, OHIO. Lewis Colt Albro, Architect.

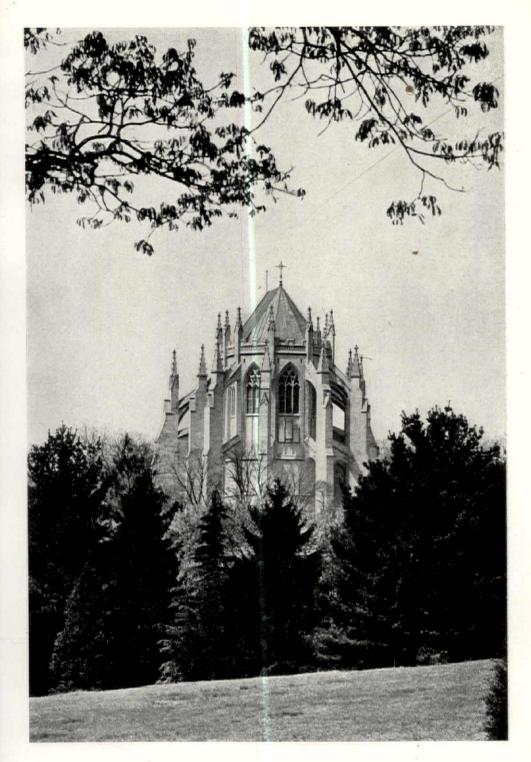
taste gradually but insistently demanded planted more sophisticated and overfurniture in good taste. Furniture has improved so far in character that it now, in turn, demands a fitting architectural environment. People want good things, but they are far more particular about the things being good than being showy and ostentatious. Honest oak and walnut and mahogany have largely supplanted gilt and ormolu, and honest brick and stucco and plaster have largely sup-

wrought materials. If this is not a new architectural sincerity, it is something so nearly like it that all sincere architects cannot but take heart, and feel a growing conviction that the recent interruption suffered by building in general may perhaps have resulted in the very real compensation of doing away with an awful lot of sham and insincerity and many other forms of architectural nonsense.

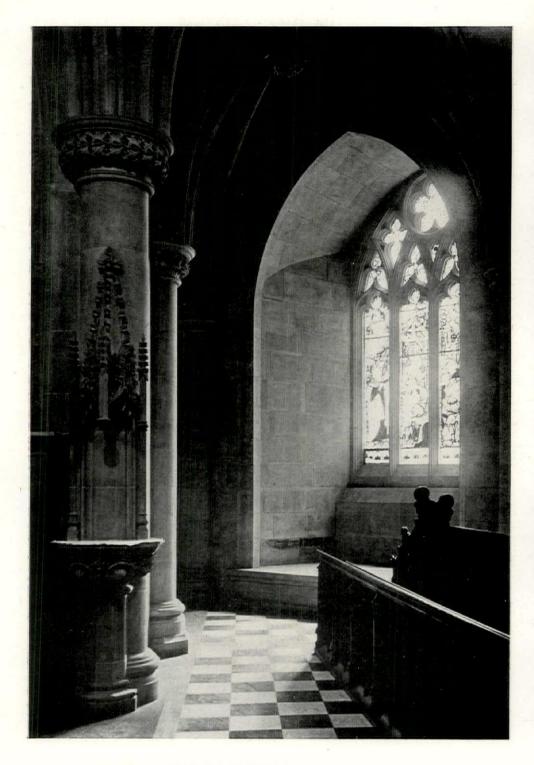




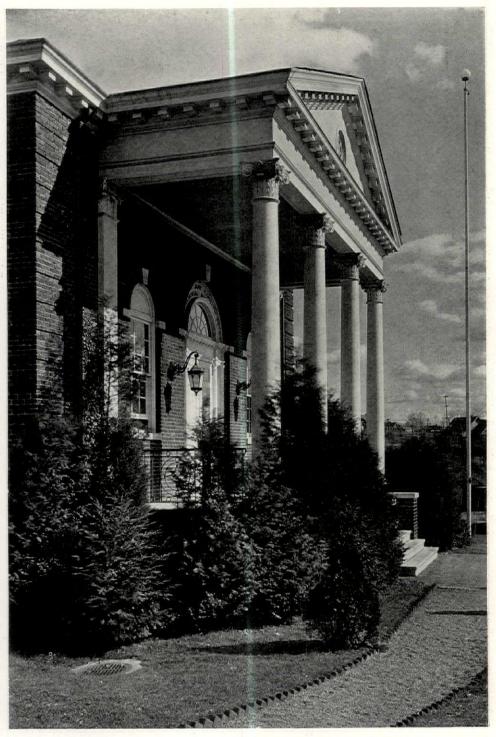
ALTAR—BETHLEHEM CHAPEL, WASHINGTON CATHEDRAL, WASHINGTON, D. C. HENRY VAUGHN, ARCHITECT.



GENERAL VIEW OF APSE—WASHINGTON CATHEDRAL, WASHINGTON, D. C. HENRY VAUGHN, ARCHITECT.



BETHLEHEM CHAPEL, WASHINGTON CATHEDRAL, WASHINGTON, D. C. HENRY VAUGHN, ARCHITECT.



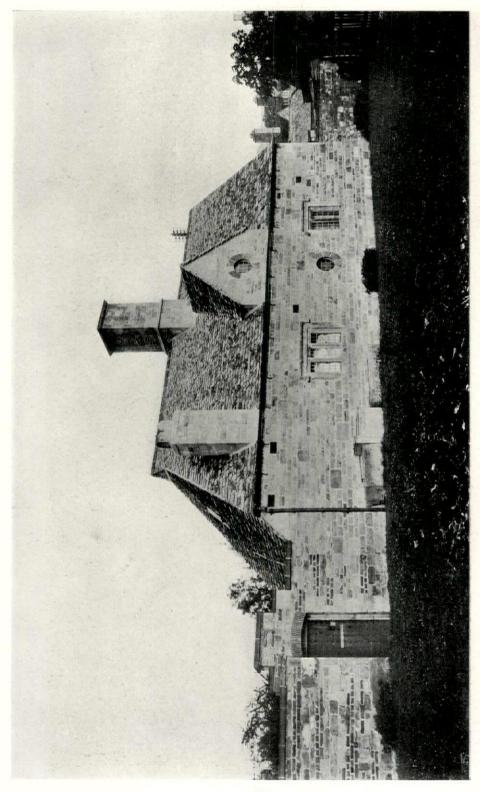
FRONT OF AUDITORIUM BUILDING—HALL SCHOOL AND CONVENT, BERNARDSVILLE, NEW JERSEY. WILLIAM WHITEHILL, ARCHITECT.

TOPKLY

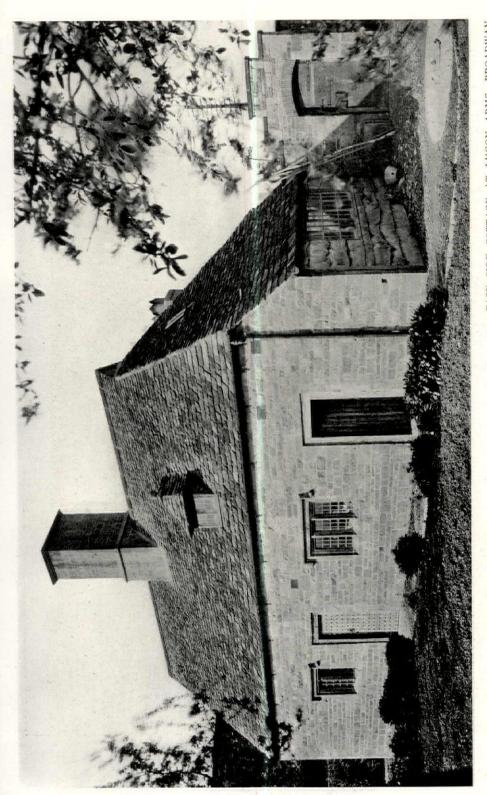
HALL SCHOOL AND CONVENT, BERNARDSVILLE, N. J. WILLIAM WHITEHILL,

A SMALL HOUSE, PELHAM, N. Y. LAWRENCE M. LOEB, ARCHITECT.

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WEST SIDE—COTTAGE AT LYGON ARMS, BROADWAY, WORCESTERSHIRE. E. S. CARPENTER, ARCHITECT.



EAST SIDE—COTTAGE AT LYGON ARMS, BROADWAY, WORCESTERSHIRE. E. S. CARPENTER, ARCHITECT.



SOUTH AND EAST SIDES—COTTAGE AT LYGON ARMS, BROADWAY, WORCESTERSHIRE. E. S. CARPENTER, ARCHITECT.

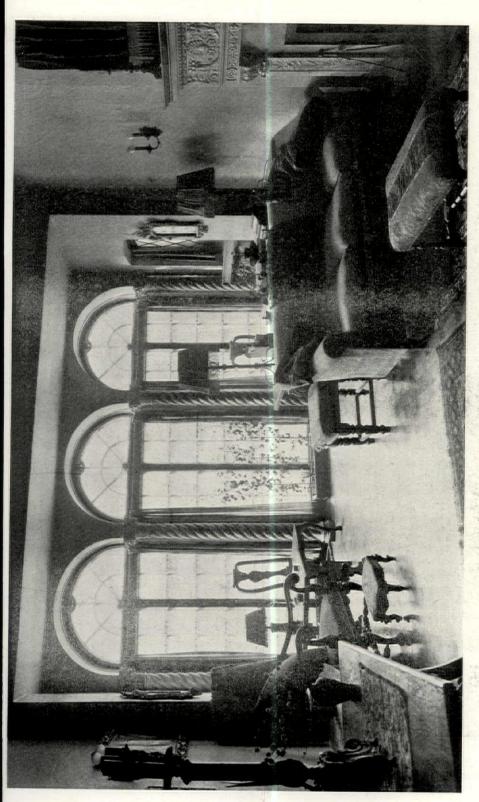


GENERAL ELEVATION—RESIDENCE ON 75TH STREET, NEW YORK CITY. HARRY M. CLAWSON, ARCHITECT.

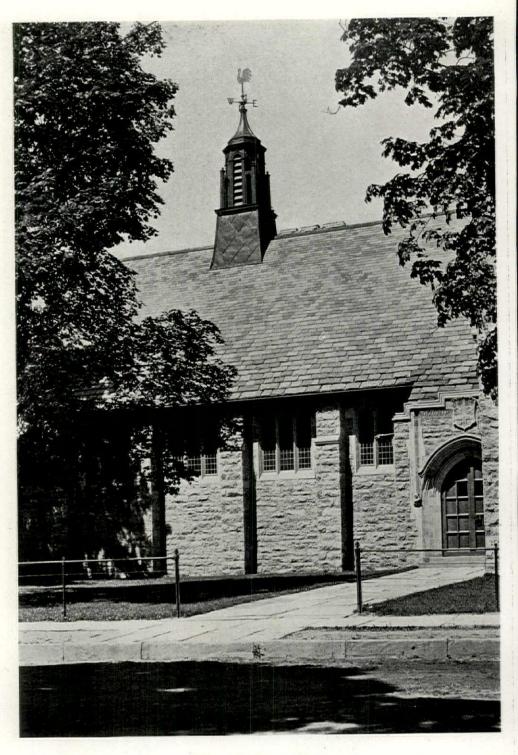
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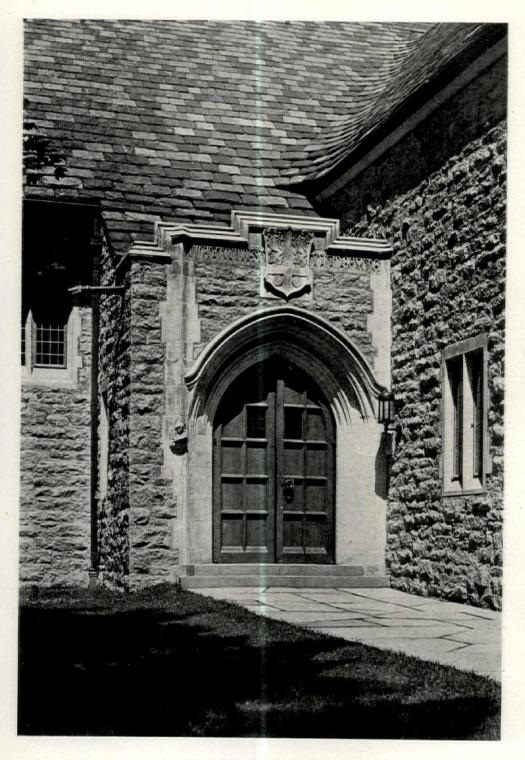
ALCOVE IN LIVING ROOM—RESIDENCE ON 75TH STREET, NEW YORK CITY. HARRY M. CLAWSON, ARCHITECT.



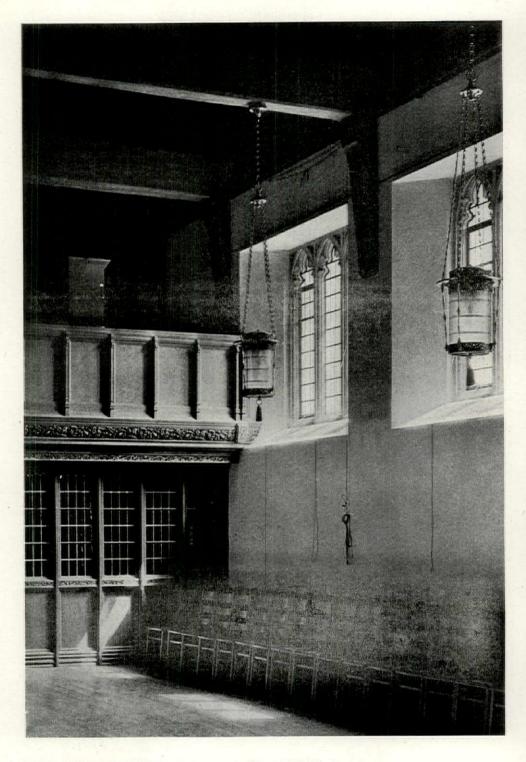
LIVING ROOM—RESIDENCE ON 75TH STREET, NEW YORK CITY, HARRY M. CLAWSON, ARCHITECT.



FRONT — PARISH HOUSE OF ST. PETER'S CHURCH, MORRISTOWN, N. J. BERTRAM G. GOODHUE, ARCHITECT.



ENTRANCE DETAIL—PARISH HOUSE OF ST. PETER'S CHURCH, MORRISTOWN, N. J. BERTRAM G. GOODHUE, ARCHITECT.



HALL — PARISH HOUSE OF ST. PETER'S CHURCH, MORRISTOWN, N. J. BERTRAM G. GOODHUE, ARCHITECT.



TVSCAN LAVABOS AND FIREPLACES

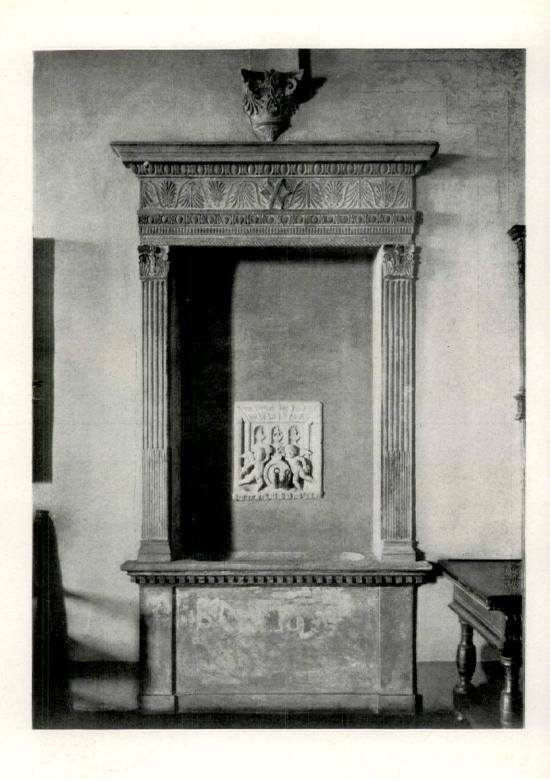
BY

HAROLD DONALDSON EBERLEIN & ROBERT B.C.M.CARRÈRE

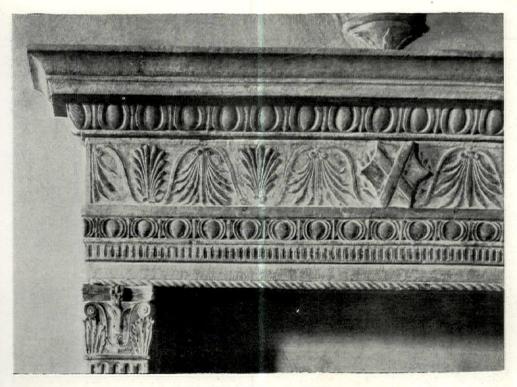


Detail from Lavabo, La Pietra

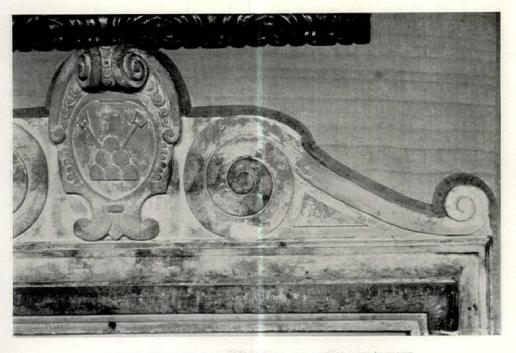




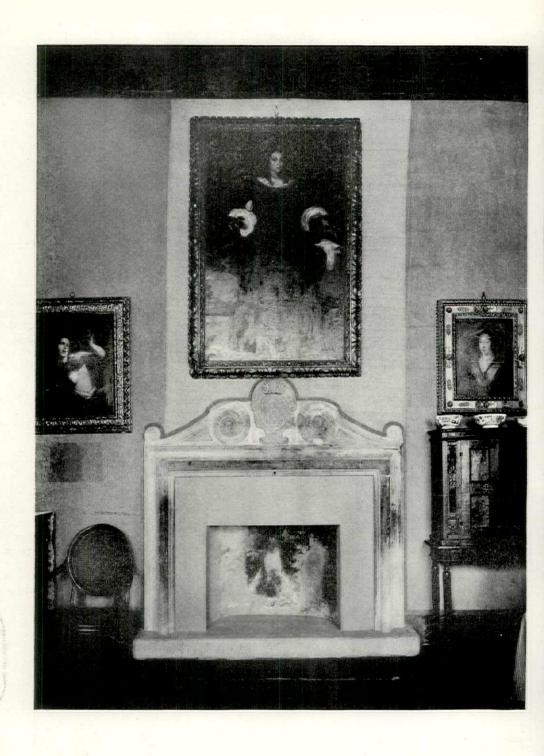
LAVABO-DINING ROOM, LA PIETRA, FLORENCE.



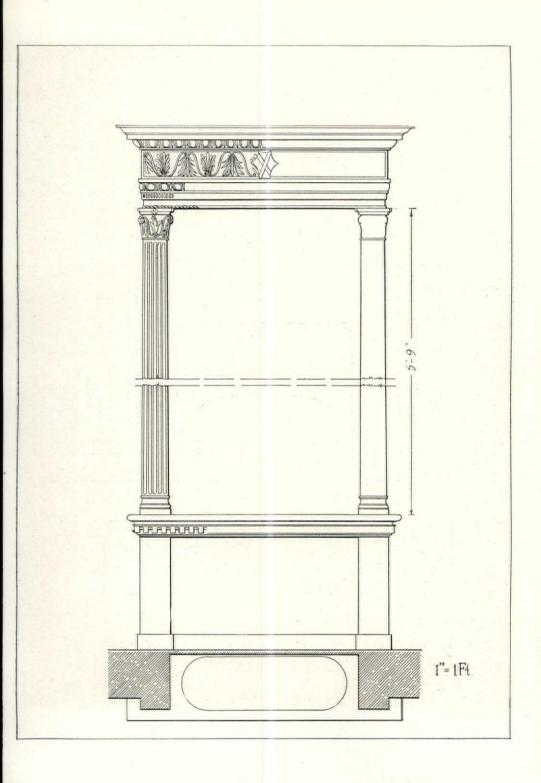
DETAIL OF LAVABO, LA PIETRA.



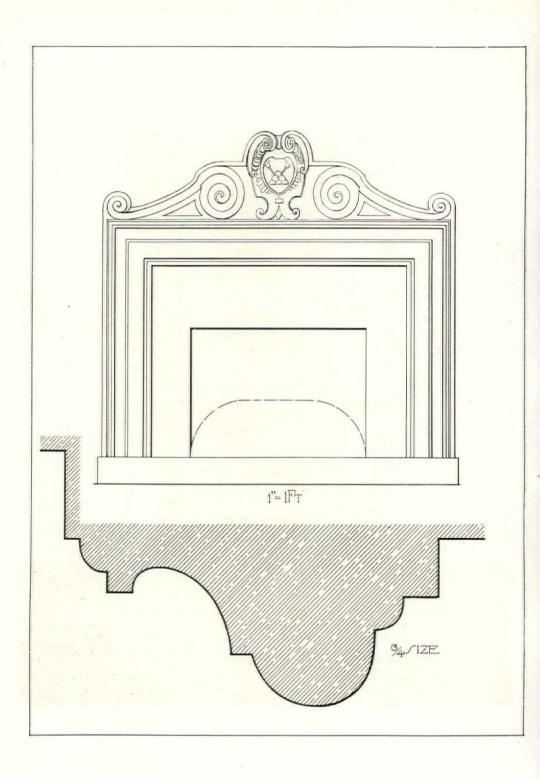
DETAIL OF FIREPLACE-BEDROOM, LA PIETRA, FLORENCE.



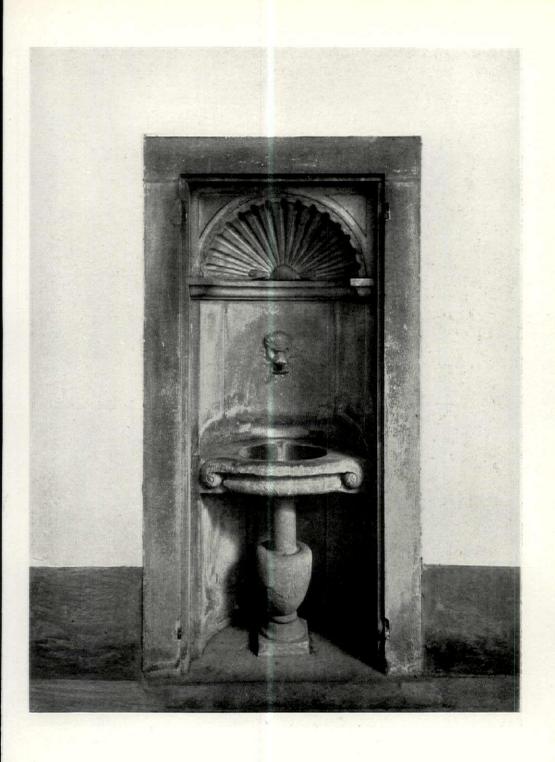
FIREPLACE — BEDROOM, LA PIETRA, FLORENCE.



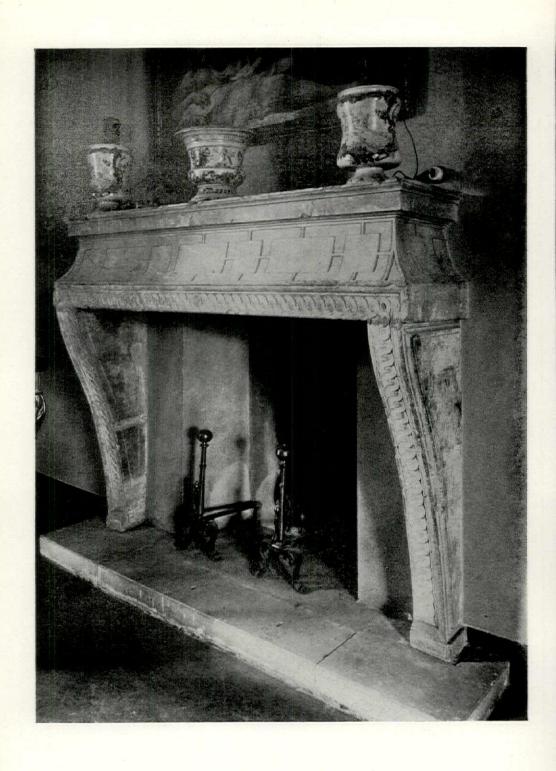
LAVABO—DINING ROOM, LA PIETRA, FLORENCE.



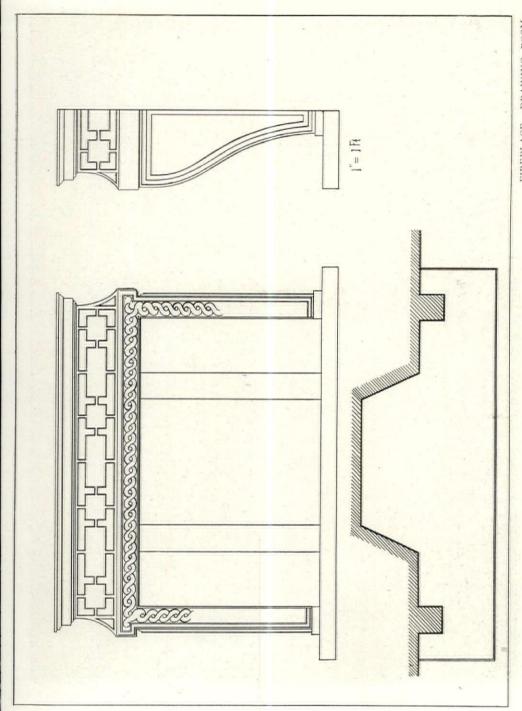
FIREPLACE — BEDROOM, LA PIETRA, FLORENCE.



LAVABO-CORTILE, LE CORTI, S A N C A S C I A N O .



FIREPLACE—DRAWING ROOM, VILLA SASSETTI, FLORENCE.



FIREPLACE - DRAWING ROOM, VILLA SASSETTI, FLORENCE.



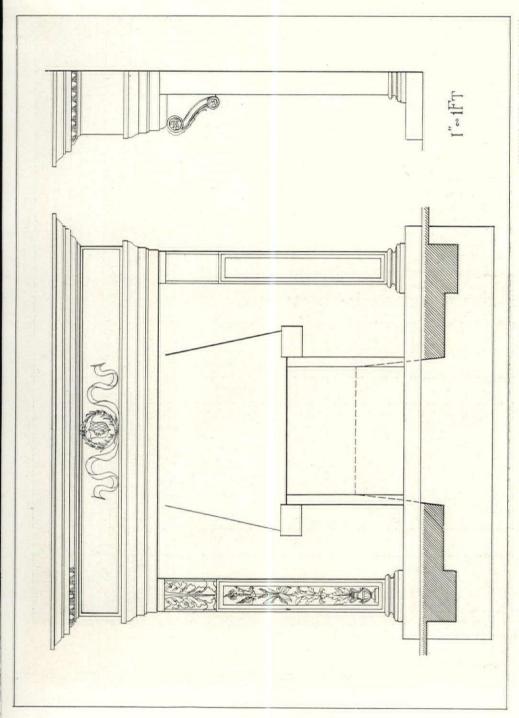
FIREPLACE—DINING ROOM, VILLA COLLETTA.



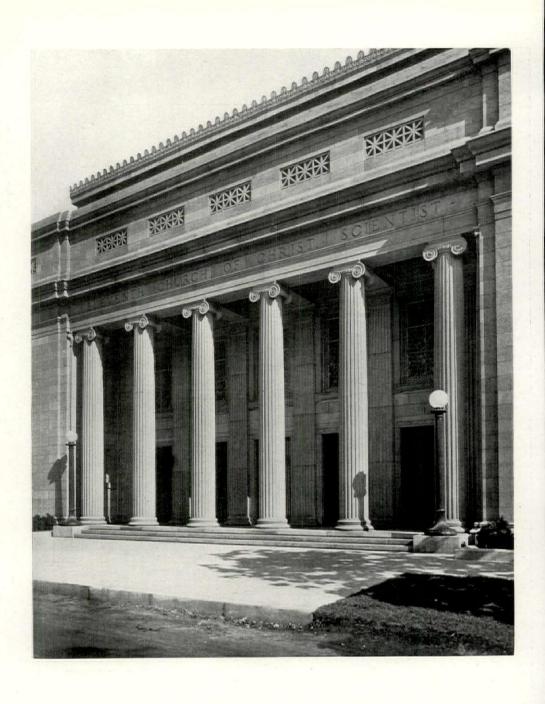
FIREPLACE—BALL ROOM, LA PIETRA, FLORENCE.



FIREPLACE—DINING ROOM, LA PIETRA, FLORENCE.



FIREPLACE—DINING ROOM, LA PIETRA, FLORENCE.



PORTICO—ELEVENTH CHURCH OF CHRIST, SCIENTIST, CHICAGO, ILL. L. E. STANHOPE, ARCHITECT.

The

ELEVENTH CHURCH & CHRIST, SCIENT IST CHICAGO, ILLINOIS



By Robert H. Moulton

HE growth of the Christian Science movement in the United States has resulted in recent years in the erection of numerous church edifices, designed almost without exception on classic lines and forming one of the most notable groups of houses of worship in the world. Among these structures few excel in simple beauty and harmonious design the recently completed Eleventh Church, Chicago, of which Leon E. Stanhope is the architect. This church, occupying a prominent corner on Logan Boulevard, covers an area of ninety by one hundred and twenty feet. It is fifty feet in height to the top cornice, exquisite in proportion, dignified yet dominating in mass, and pure Greek in detail. The entire exterior is of buff Indiana limestone; harmonizing with this are a low, hipped roof of standard gray shingles, and steel window frames glazed with a delicate shade of golden opalescent glass.

The most striking frontal feature is a wide portico supported by six Ionic columns. The shafts are monoliths and the total height of the columns is twenty-five From this portico one enters through one of five double doorways into a vestibule forty-five feet in width and eight feet in depth. On the fover wall, directly opposite the middle doorway, is a mantel and fireplace of remarkable beauty, trimmed in pavonazzo marble, and in each end wall are three wide stained glass windows. The flooring of the foyer consists of tessellated mosaic tiles in black and white. The main auditorium lies above this fover and is reached by four broad staircases, each seven feet in width, two of which are placed in tunnels and two in well-lighted stair halls.

The auditorium is a magnificent room

eighty-five feet in length, ninety-five feet in width, and thirty-five feet in height. designed in a classic style to be in keeping with the exterior. An eight foot aisle runs around the four sides, separated from the main audience room by thirty concrete monolithic Ionic columns. ceiling is barrel shaped, pierced with stained glass ceiling lights, and the decorations are in putty shades with blue and gold high lights in the ornament. Brown carpets and genuine American walnut seats and furniture are employed ex-The artificial lighting in the auditorium is derived from a series of indirect reflectors placed in the top of the main cornice around the four sides of the room, the result being a wonderfully efficient, soft, pleasing illumination, free from spots, objectionable shadows and

The readers' desk on a platform at the north end of the auditorium is quite unusual and striking in design, while at the same time in thorough keeping with the rest of the room. An arrangement of both natural and artificial light overhead is such as to bring out its design and details from every viewpoint.

As a matter of fact, from every seat in the room, of which there are twelve hundred on the floor and three hundred in a cantilever balcony at the south end, a perfect and unbroken view of the entire platform is presented. This feature, combined with the unusual acoustic qualities of the room, makes the auditorium practically perfect for the uses to which it is put.

In the wall behind the platform is a magnificent pipe organ, operated by electrical control from a keyboard placed at the extreme northwest corner of the auditorium, the same control also operating an echo organ and chimes in the south wall over the balcony. The organ front consists of panels of pierced ornament above and below the main cornice.

The private rooms for church readers, such as are usually provided in buildings of this character, are at the north end of the building, back of the partition behind the readers' platform, and are decorated and furnished with studied simpli-Two doors in the partition referred to, lead from the readers' quarters to the platform, and two other doors, placed at the corners of the room, and each four feet in width, serve as emergency fire exits.

The officers' and business rooms of the church are placed over the main auditorium and are reached by two private stairways in the extreme southeast and southwest corners of the building. There is a board room, fourteen by twenty-two feet; an usher's room of similar dimensions; a treasurer's room; a clerk's room; a fireproof vault, and storage rooms for folding chairs to be used in overflow meetings. These various rooms are decorated in putty shades, with brown carpets and walnut furniture. There is no wood trim in the building with the exception of the doors, all of which are walnut in harmony with the seating and the furni-

The Sunday school room, with a seating capacity of five hundred, is on the ground floor directly back of the foyer. The ceiling of this room is twelve feet high, and perfect natural lighting is secured through large stained glass windows in the east and west walls. Sunday school room, as well as the fover, is provided with ample locker space where hats and coats may be checked, and under the fover are commodious retiring rooms for men and women, with toilet facilities, in connection with the Sunday school, for boys and girls.

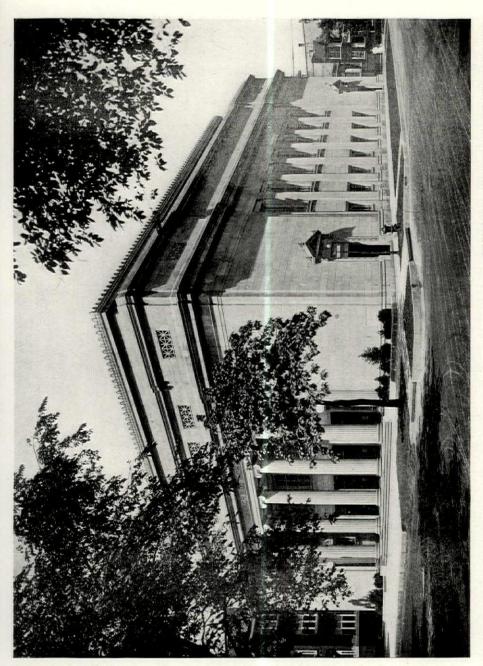
A unique feature heretofore neglected in buildings of this type, is a room seventeen by thirty feet located at street level back of the Sunday school for the use of the distributing committee of the church.

This room is entirely walled with large magazine and book shelves from floor to ceiling, and is equipped with folding tables which can be drawn out from the side walls when desired by members of the committee. This room is separated from the Sunday school room by a folding partition, the intention being to use it on Sundays for the primary division of the Sunday school.

The construction of the building is strictly fireproof and exceptionally solid and massive. Reinforced concrete foundations extend to a depth of twelve feet below the street grade at the north end and eight feet below grade at the south Above the foundation the outer walls, entirely self-supporting from foundation to roof, are of brick masonry faced with buff Indiana limestone bonded into and forming a part of the walls. At a point nine feet on the inside of these walls and extending around the interior of the building, is a continuous colonnade of steel columns encased in ornamented concrete facing. These columns support the floor construction of the main auditorium and above that the entire roof construction, no loads from the roof trusses coming upon the exterior walls. The entire skeleton framework of the building is of steel, fireproofed with concrete. Six complete changes of heated air per hour throughout the building during the winter months, and cool air in summer, are obtained, respectively, by means of a battery of down draft smokeless boilers and two large electrically operated ventilating fans located in the basement under the north end of the Sunday school room.

Prominent officials in the Christian movement have pronounced Eleventh Church, Chicago, to be the most solidly constructed, the most complete in equipment and furnishings, the most harmonious in detail and decoration, and the most perfect in the matter of lighting, heating, ventilation and acoustics of any of the branch churches. In these respects it is possibly only surpassed by the

Mother Church in Boston.



ELEVENTH CHURCH OF CHRIST, SCIENTIST, CHICAGO, ILL. L. E. STANHOPE, ARCHITECT.

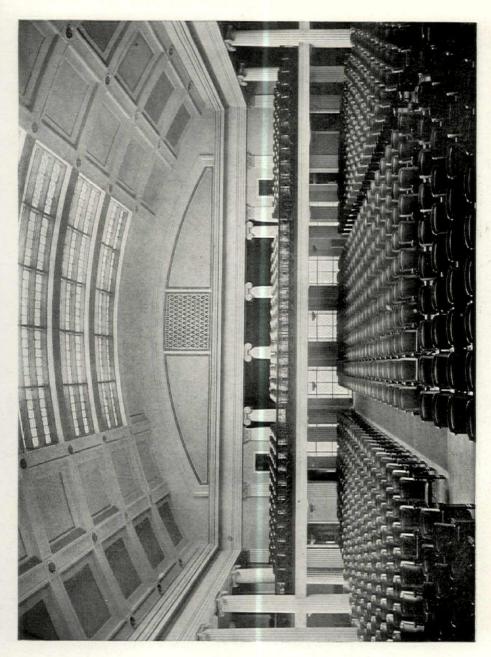
FLOOR PLANS—ELEVENTH CHURCH OF CHRIST, SCIENTIST, CHICAGO, ILL,

1. E. STANHOPE, ARCHITECT,



READERS PLATFORM, WITH ORGAN WALL BEHIND—ELEVENTH CHURCH OF CHRIST, SCIENTIST, CHICAGO, II.L. E. STANHOPE, ARCHITECT.

AUDITORIUM, LOOKING TOWARD READERS' PLATFORM— ELEVENTH CHURCH OF CHRIST, SCIENTIST, CHICAGO, ILL.



REAR OF AUDITORIUM—ELEVENTH CHURCH OF CHRIST, SCIENTIST, CHICAGO, ILL. L. E. STANHOPE, ARCHITECT,

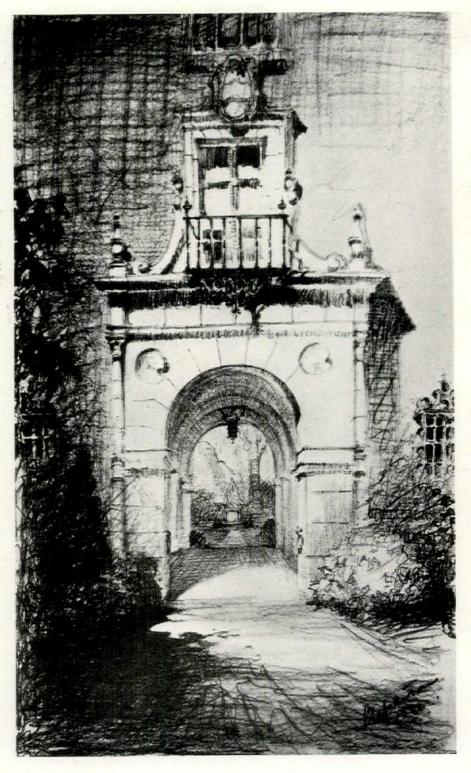


FIG. 142—DETAIL SKETCH OF ENTRANCE—APARTMENT HOUSE AT 190TH STREET AND MORRIS AVENUE, NEW YORK CITY. ANDREW J. THOMAS, ARCHITECT.

TENDENCIES IN SAPARTMENT HOUSE DESIGN

~ The Unit Apartment Building and its Grouping ~



BY FRANK CHOUTEAU BROWN.

HOSE who have followed these articles thus far in their attempt at an analysis of a type of community dwelling still in the fluid state, will probably agree with the writer that, in the gradual tendency toward the accretion or clustering of dwelling units, a point has now been reached where it is hardly possible to increase the size of the architectural structure in which these units are contained without injuring both the comfort of the occupants and the rental value

of the property.

We will not find it easy, however, to present any generally acceptable point where an agreement may be reached that, from this exact dimension, property is either injured or appreciated by increase or decrease in the size of the structure. It should have been apparent, nevertheless, in the previous articles, that the architect has constantly had either to adopt a plan idea, based on the use of a long public corridor to connect a single central elevator point with a number of individual apartments upon each floor, or to increase the number of staircases or elevators, and from these reach, without waste corridor space, only a few apartments on each floor-two, three or, at the most, four.

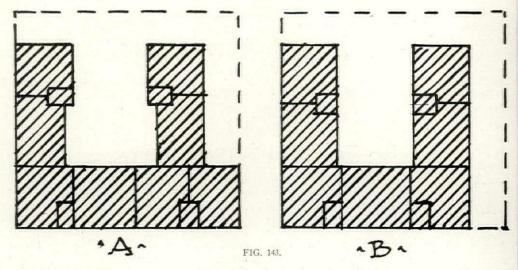
As a rule, we have found that the former method is best and most easily adapted to the building with large apartments, and the latter to the building with small apartments. A further analysis will disclose the companion fact that the structure containing these large apartments—while apparently of large size, must (unless the apartments are of the "Duplex" type) necessarily have only a small number of apartments to each floor-say two, three or four, in the majority of cases.

It will be equally apparent that a building covering the same amount of area, if given over to smaller apartment units, will contain some three or four times as many apartments to the same floor area—a number rather more than might have been expected; due to the great savings in waste hall and passageway space, and the rather smaller size of the room units appropriate to the more modest size of these smaller apartments.

The matter of building height will probably here enter to complicate the With a building of three stories, and the smaller apartment unit. there exists no serious objection to the elimination of the elevator; by dependence upon a greater number of separate front staircases, it is both easy and economical to subdivide the floors into correspondingly small units of apartment groups. With higher buildings the ques-

tion is less easily decided.

In or near a large city—such as New York, for instance—the height of the building easily rentable without elevator service increases naturally to five, or, in the lower rental "walk-up" apartments, to even six stories in height. In any favorite suburb (such as Cambridge) near a large city, a height of four stories without elevator is already accepted, and a possible five-story height is not very far over the horizon. Of course, the greater the rental expected the greater the amount of service that will be demanded, and the lower the height of the building in which an elevator would be required for service to at least the front



entrances of the apartments. As was evident in the last instalment of this series, however, the service approach to these same apartments can avoid elevator service for probably two additional stories.

One further fact should be recognized. The apartment with a large number of rooms, eight to twelve, or over, if on one floor, is generally part of a plan whose outline (around courtyards or owing to its location on external angles of the plan) is irregular enough to contain a sufficient number of cross angles to supply ample draught and ventilation comfort; this factor is certain to be lacking in the plan providing only two, three or four room apartment units. Therefore it becomes all the more necessary for the latter type of building to cluster a small number (two to four) of apartments around each main staircase or elevator approach.

Having reached this point, and likewise acknowledged that by far the greater number of apartment buildings with which we are concerned, do not much exceed the apartment unit of six room size, we must determine how many of these "staircase units" (referring to each separate group of apartments reached on a floor from one staircase) it is economical or desirable to include within a separate architectural structure, this being a point we have not yet con-

sidered. A decision on the matter becomes more imperative, because the logical development of the course of analysis we have been following indisputably points to a constantly growing size of the land plots to be developed. We must either continue to improve these with larger and larger structures, or with a number of smaller apartment units, separately contained and grouped, with some pre-determined relation to each other and the community as a whole.

It is perhaps best next to turn to some concrete example of a type of structure indicative of progress in the solution of this problem. Such a structure we can find in a building that has been recently started in New York. (Figs. 142, 145, 146 and 147.) This plan contains seven apartments on the floor, with four staircases, and is of six stories height—about the extreme limit for a "walk-up" type even in as large and crowded a city as New York—although the first story is only partly utilized for rental purposes.

This building is of the "U" shaped "Open Court" type, but the courtyard is intentionally turned away from the street frontage and, by its planting and development, made to become an asset in the occupancy and rental of the building. In other words, while we are again dealing with the "Open Courtyard" type, we find that the plan has been again turned

about, and that it has once more come to resemble in its general outlines the earlier building shape with a service courtyard on the back, from which the courtyard turned to the street frontage was a distinct development.

This older form, however, was generally given to apartments of larger size, whereas we now find that the favorite type in general use (at least in the vicinity of New York) is consistently of the smaller apartment type. This means, among other things, that the opportunity to use a rear court for service room frontage is no longer possible, because in these apartments, consisting of a small number of rooms, there are none that we can place in that category—all rooms are front rooms once more. Therefore, in turning the plan outline about and placing the opening of the court upon the rear, it is essential that this courtyard be made attractive to the occupants by planting and other devices, so as to be as much a "front" exposure, as the one actually upon the street.

The wider the court the better suited it will be to this form of development. These last few months, accordingly, an intensive effort has been made in New York City to work out a form of plan that would throw into one general area all the courtyards or light wells previously scattered around the type of plan generally acceptable in the past to apart-

ment occupants in that city.

As between the long connecting corridor on each floor, and the separate stairway approaches reaching only two or three apartments on each floor, but permitting of cross draught through all the apartments, the latter has been unhesitatingly selected, and we can see at once how the inner courtvard increases in its value in a plan of this type. All the apartments, no matter how few the number of rooms to each, obtain a frontage upon both faces of the building. A number of the plans actually leave considerable choice in the use of the rooms to the individual tenants, so that they may use as living or sleeping rooms either those upon the inner or outer face of the building. This is a matter of considerable importance, particularly where the structure is located upon a noisy thoroughfare.

There is another matter locally accepted as a determining factor in these New York studies, though one that need not necessarily limit the problem in other communities.

In New York the endeavor has been recently directed toward finding the best arrangement possible on a lot of practically square proportions and of approximately one hundred feet frontage and depth. The reason for this is that in the type of "gridiron" plan imposed upon the development of that city, it happens that one hundred to one hundred and ten feet is the average depth of the lots, and by the purchase of the four or five lots coming upon an intersecting street corner, a frontage of practically one hundred feet may be obtained. Therefore these dimensions, after careful study, have been found adaptable to a plan development based upon the premises just explained, which at the same time produces a court of the minimum practicable width for a "Garden" type of treatment.

There are, however, other conditions which affect the problem. Sometimes an arm or wing faces upon a side street at right angles with the frontage, and occasionally there is an alley or passageway at the other side of the property parallel to this side street. But when neither of these is the case, the designer must decide whether to extend the arm down the party wall upon the extreme verge of the land, or whether to set it back from the property boundary.

In the former case he would have to abandon the two-room width ell (although he might adopt one of the several possible treatments shown in the March instalment, Fig. 107), or, if the lot to be developed were 20 feet or 40 feet narrower, he could cut the plan in half (March, Fig. 108) though with some

sacrifice of his courtyard area.

If, however, the decision is made to complete the "U" shape of the plan, without regard as to whether or no a public passageway exists upon the inner side of the property, the designer must then do one of two things. He must keep his building away by at least six to ten feet from the inside lot line, leaving an open court down that side, if he is to retain the two room width of the plan scheme he has adopted—and he may either carry this courtyard space entire-

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FIG. 144.

ly through to the street frontage of the lot (B-Fig. 144) or he can—as has generally been the previous best practice - close in the street end of this court by carrying the two room depth of the front portion of the plan across it to the property line (A-Fig. 144). thus inclosing that end of the side court - and, if he so desires, continuing the plan arrangement around another court, making the full "E"-shaped plan (as at B in Fig. 144).

In New York the decision has been made by some of those most concerned with this study to carry this side court out clear to the street, and, if more property is owned and another apartment plan is to be built upon the next adjoining lots, to again begin a separate and independent development upon them, leaving a strip of unoccupied land from ten to eighteen feet wide between the two separate buildings that have thus been secured. (C-Fig. 144.) This type of plan is illustrated in detail in Fig. 145. The fully developed older arrangement was shown in March in Fig. 106.

If the designer accepts the fact that the ell upon the inner side of the "U" is the most economically practical development possible of his land, the only fair treatment of the tenants who will occupy the apartments next the enclosed side of the property

is to keep this court open to the street. These apartments will, at any rate, not be considered as desirable for rental purposes as those between the court and the street, but by carrying the open space existing between the building and the adjoining party wall, or the building and the next, through to the street, an opportunity is provided for a free movement of air between these walls, thus completing the cross circulation through the two room width of the structure that has been accepted as so important an essential of this plan.

If the end of this court toward the street is blocked by extending the front

section across it to the party line (A-Fig. 143 or A and B in Fig. 144) the apartment placed across the end of the court will always receive good cross ventilation from street to court, or vice versa; but, unless its windows are open, the entire court has its movement of air partially restricted; and even when the windows in the obstructing apartments are open, the movement can never be as free and complete as when the end is left open and entirely unobstructed. There is, therefore, a distinct advantage in planning to obtain the fullest possible air movement between these

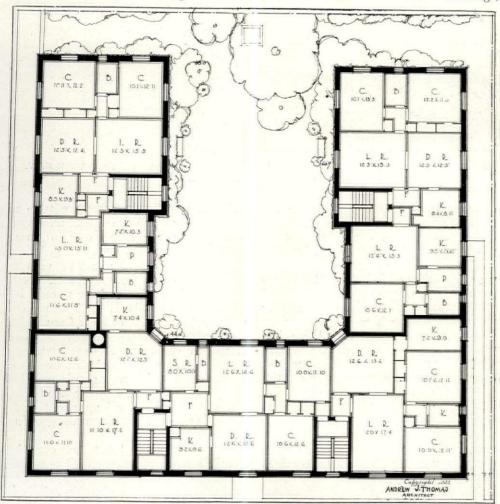


FIG. 145—TYPICAL FLOOR PLAN OF APARTMENT HOUSE, 190TH STREET AND MORRIS AVENUE, NEW YORK CITY.

Andrew J. Thomas, Architect.



FIG. 146—APARTMENT HOUSE AT 190TH STREET AND MORRIS AVENUE, NEW YORK CITY.

Andrew J. Thomas, Architect.

whenever it is possible to provide the space necessary for their separation after this fashion; and, if a series of buildings is concerned, and the space between buildings can be as much as eighteen feet or thereabouts, it is probable that no appreciable diminution in the rental value of the apartments on these inner sides would be noted.

And it is this point that is being featured in the pursuit of these new studies of the apartment house planning problem. It is now considered that, after all, the value of the investment is lost or jeopardized if, in planning, the space is so restricted as to be the cause of future vacancies. It is better business judgment to plan the apartments so spaciously now that they will be able to continue to hold their tenants in the future, when the many new apartments then available will be drawing their occupants from the less desirable buildings of the older type then existing. They thus will, in the

end, prove to be the more profitable to their owners. With this important thought in mind, let us examine more specifically the plan shown in Fig. 145 as it appears to those who have been studying the problem from the New York point of view. As we have already indicated, while this is not at present necessarily the point of view from which the problem will be viewed in other American communities, experience has often in the past proved that the New York solution of such a problem as this is the one that will, at some later time, come to be adopted either in part or in whole in other of our larger and growing cities.

This plan is the latest developed by Mr. Thomas, and he regards it as an improvement in many ways over any that he has hitherto devised; although it is merely to be considered as a more compact and economical working out of the same sort of plan solution that he has

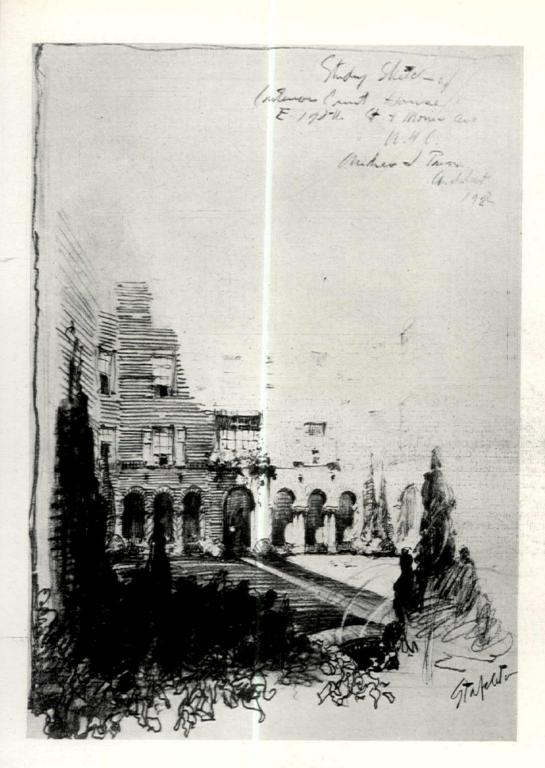


FIG. 147—SKETCH OF CORNER OF COURTYARD—APARTMENT HOUSE AT 190TH STREET AND MORRIS AVENUE, NEW YORK CITY.

ANDREW J. THOMAS, ARCHITECT.

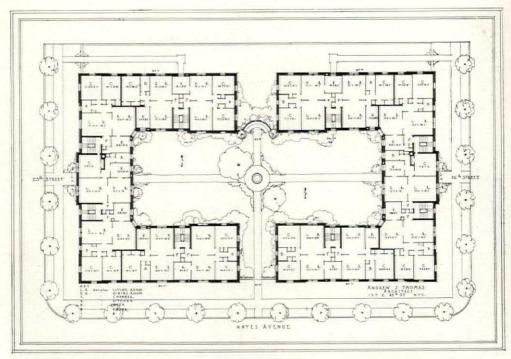


FIG. 148—FLOOR PLANS—TWO GROUPED APARTMENT BUILDINGS FOR THE HAYES AVENUE APARTMENTS, INC., JACKSON HEIGHTS, NEW YORK CITY.

Andrew J. Thomas, Architect.

earlier endeavored to achieve. It is planned for a lot of substantially 10,000 The portion of square feet in area. the lot occupied by the building is 6,200 square feet, or 62% of its area. In that respect it is a more successful solution than an earlier plan of similar type developed during the earlier years of the war, which covered 7,900 feet. In cubical contents the comparison would be between the 370,000 cubic feet of the present plan and the 472,000 cubic feet of the earlier plan, a difference that would obviously effect a considerable saving in the construction cost-while the new building contains even a few more rooms -and those of larger size and better proportions—than in the earlier scheme.

It should also be noted that these rooms are far better arranged than in the older plan. The large "Garden Court" also—in itself about the width of the New York city street between building lines—does much to add to the liveableness of the apartments, its pleasant, quiet

outlook being an undoubted asset to the tenants. This courtyard makes it further possible to remove from the street frontages all unsightly fire-escapes, and locate them within the courtyard, where they may be better taken care of and are less obtrusive. All the apartments have good ventilation and variety of outlook, and much more sun as well as air is given all the tenants. The apartments all have two exposures, and many three.

The arrangement of the apartments themselves has also been carefully considered—the separation of the chambers from the living rooms, the conveniently arranged kitchen—while the fact that the staircases each serve comparatively few apartments, is an important factor toward securing privacy for the occupants.

The savings in area and cubical contents incorporated into this plan mean much from an investment point of view. All the space saved was undoubtedly waste space. Any further increase in



FIG. 149—TWO GROUPED APARTMENT BUILDINGS FOR THE HAYES AVENUE APART-MENTS, INC., JACKSON HEIGHTS, NEW YORK CITY. Andrew J. Thomas, Architect.

the floor area of the building is, in the opinion of Mr. Thomas, rather a liability than an asset. While it is true that the New York Tenement House Law permits of 70% of the area of the inside city lot being covered with the building, on a lot of the approximate total area of the one here considered it is neither economical nor desirable to cover more than the proportion that has actually been utilized. Such larger building would merely further crowd and congest the lot, interfere with the light and air of all the occupants, and add once more to the plan much of the waste space now utilized. This building of larger area would cost much more to build and maintain, and the depreciation would be greater; and while it would be possible to obtain a few more rooms to the floor, the average rental per room for the entire building would have to be lowered to a point where the total rental value would drop below that of the slightly smaller build-

ing here shown—because of the actually less desirable and livable apartments that would result.

But it is not alone to be argued that the actual rental of the more crowded building would total less, on an investment of considerably more, but it must further be borne in mind that this more congested type of building would sooner become obsolete, and the loss of revenue from vacancies would total a considerable sum once the housing situation reached a less restricted stage than is the case at present. Then the only way to retain the building's occupants would be by lowering the rents, thus once again reducing the return upon the investment involved. All these factors are, it is believed, bettered, if the apartments are originally arranged upon a more ample and comfortable scheme, and the saving in initial cost thus capitalized for the best benefit of all those concerned in the transaction.

Let us now return to the consideration of the duplication of these apartment building units. In Fig. 144 is shown a diagram of several possible developments of a plot of land about one hundred feet deep by two hundred feet front. In C

will be found two apartment buildings of the kind now being discussed, located side by side upon this land with a fairly spacious area between the two structures, extending entirely through from the street to the garden space at the rear. Seven families would be accommodated upon each floor of each building, or fourteen in all on each story. In A and B are shown two other possible arrangements of buildings on the same area, containing fifteen families to the floor level. additional apart ment is only obtained by filling iin between the two

structures, thus enclosing the central court at either one end or the other.

It is true that the additional courtyards thus secured are no more "shut in" than is the case with either of the courtyards shown at C, in the plan now largely advocated in New York; but it is also true that the two apartments on either side of this connecting section have not quite as much frontage and outlook as in the other suites in the plan. This defect could, however, be somewhat corrected by slight variations easily made in the next adjoining apartment plans.

In both the plans shown at A and at B, the additional apartment is secured without *any* increase in the number of staircases, or hallways, over the two

buildings shown at C. In other words the extra apartment would be secured at a very slight additional expense.

As between A and B, the principal practical difference in arrangement would be that in A it would be possible

to place all the staircases on the street faces of the building — p a r -ticularly if the lot was one at the end of a block, with streets bounding the property at both ends - whereas in B it would be necessary to cut up the lowermost story somewhat with hallways going through to the inner face of the building in order to connect with the entrances to the staircases located upon the courtyards. The scheme for either one of these plans, A or B, is capable of indefinite extension in either direction. to include any possible or desirable number of

FIG. 150.

apartments.

In C or D we have the type plan developed by Mr. Thomas, shown in two different relations to other buildings of the same plan. In C is shown the duplication of the plan used at Jackson Heights to the number of six units on one street and an equal number on the street behind, thus completing the filling in of a block, with a large garden down the center of the block between the backs of the apartments—an arrangement that gives ample space for light, air and privacy around all the structures. In that particular example, however, the court in the rear of the building has, upon the basement floor, been filled in with some garage units that detract from the use of the garden because of the unavoidable roadway back of each line of apartments and the space necessarily given up to it, and also introduced an unfortunate element of noise and dirt into the group. In D appears an arrangement placing the units back to back instead of side by side, on the end of a block, thus giving both buildings and their tenants the additional value of the length obtained in the two courtyards, placed end to end. The detailed development of this idea, as it was worked out by Mr. Thomas, is shown in

Figs. 148 and 149.

In the rapidly approaching countrywide zoning of our cities we will no longer allow each community to grow either uncontrolled, or at the sweet will of the real estate speculator who lays out his "Division" to suit himself. Sections will be laid out for apartment development and restricted to that use alone. Therefore we should already be interested in the related grouping of apartments, although as yet little has been done along this line. Nevertheless, if we accept the separate building as a "unit apartment building," and realize that, under some, conditions, it possesses advantages over the continuous structure, we must at once accept the fact that there exists a whole new series of problems in the proper relation of the units to themselves, and to some possible central Garden or Park.

Mr. Thomas has already built one such group, following the line of most obvious relationship.* It is arranged around the outlines of a block, the interior of which is filled with a "Common Garden" treatment down between the backs of the buildings. But larger and less conventional groupings than this are already in the air. In another study, with apartment building units arranged over nine city blocks, it was estimated that, with property values on a basis of \$3,000 the lot of twenty-five by one hundred feet, it would be possible to leave one block free of buildings, for recreation purposes, at a cost of only 30 cents

per year additional rental per four-room apartment: At this price who would not undertake to make the reservation of one block in nine for a playground, when we realize how the intensive building up of property to apartment uses increases the demand of tenants for space for their own exercise and the play of their children.

It has been said that the tenement House Law permits of building over 70 per cent. of the area of a lot on interior lots and 90 per cent. on corner property. In this connection it is Mr. Thomas' claim that the property cannot economically and successfully be built up as close as that. He regards the maximum for suburban locations to be 45 to 50 per cent.; on city interior lots with 100 feet frontage by about the same depth, 55 to 57 per cent., and on corner lots about 62 to 65 per cent. On lots of smaller area the proportion can be somewhat increased, depending upon the dimensions and street frontages of the property, possibly even up to 70 per cent., but the results obtained are more than likely to prove in the end undesirable to both tenants and owner.

He also believes that the four-room apartment should be the minimum standard desirable for family occupancy, and that no bedroom intended for use by two people should be smaller than nine by eleven feet. This is, of course, a better standard than many people in this country now enjoy. Probably it can never be applied to low cost tenement housing, but in the latter connection this matter of standards and room sizes will be taken up and considered from a somewhat different and more novel angle in a following article.

We have so far considered these plans only from the point of view that obtains in New York, where their possible relation to a lot of a particular size and proportion, and on land of very high cost, are the major considerations. How much of the idea may be utilized in smaller, less congested cities; or even in suburban communities?

Such variations as appear in A and B in Fig. 144, are especially adapted for less valuable land, and to suburban loca-

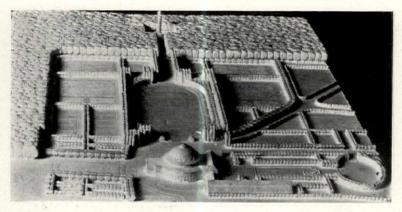
^{*}This subject is discussed by Mr. John Taylor Boyd, Jr., in two articles, entitled "Garden Apartments in Cities," in The Architectural Record for July and August, 1920.

tions. The only consideration would be that the courtyards would then widen out, and the apartments at the corner angles would be favored by being given probably one or two more rooms, to appeal to tenants who want a little more space and are willing to pay for these more favorable situations. Under such relaxed limitations these plans would develop to meet suburban conditions most advantageously. The buildings themselves would not have to crowd so close to the lot lines, and planting would be utilized upon the street as well as on the courtyard side of the buildings.

The exterior treatment would also be considerably affected. The roofs would appear in evidence, and slate or tile be allowed to add their picturesque values to the architectural composition. true suburban surroundings the longer, lower ranges of connected buildings will better meet and please the eye, while the processes of elimination by which we determined the type of plan in the opening portions of this article apply as well to the suburban as to the city problemadding only the two or three considerations modifying plan or exterior that have been mentioned in this and the preceding paragraph.

Now how about the composition of the type plan itself, with the utilization of which as a base unit we have now been principally concerned? Let us next refer to Fig. 150, where we can view in direct contrast the plan as developed for the New York typical corner, using five twenty-foot or four twenty-five feet wide lots, 100 feet deep (A-Fig. 150)

and the same plan with the court widened by the inclusion of another twentyfoot lot to the property to be developed. (B-Fig. 150.) Little change has here been suggested in the idea or arrangement of the ideal type plan shown in Fig. 145. The additional twenty feet of width is all added to the court, increasing it by about 50 per cent. increase makes it possible to obtain another apartment on each floor along the front of the building and between the two staircases shown in the original plan, without adding to the number of staircases in the structure. This larger building still contains only the same number of staircases (four) as did the other plan, Fig. 145, but eight families on each floor are now served instead of seven. If the arguments advanced for the more spaciously arranged rather than the more crowded plan in New York City are accepted, it would appear equally logical to advocate this slightly enlarged type group as being even more economical in its investment aspect, and as being 50% more attractive to the occupants because of the greater size of the "Garden Court" itself. It would undoubtedly well repay the extra land cost because more certainly ensuring the continued value of the investment, even in New York City. In smaller American cities, or in suburbs, with more land around the exterior of the structure, and the advantages of the planting it would allow, this adaptation would offer even more advantageous possibilities than the plan we have here previously considered as most desirable for the purpose.



The Stadium at Hanover, designed by Paul Wolf, architect, has a seating capacity of fifteen thousand. At the entrance is the City Hall and beyond, extending into the city park, is an open garden dedicated to the memory of the soldier dead.

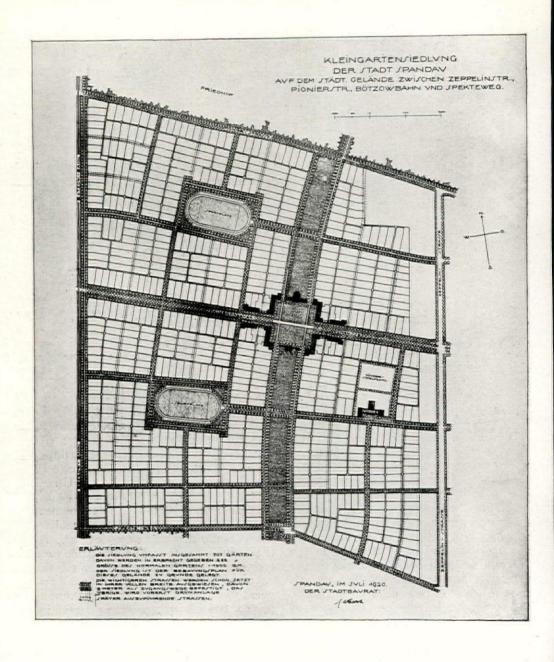
RECENT PARK PLANNING IN GERMAN CITIES

Dr Hugo Koch

EFORE the outbreak of the war, the governmental and community authorities in Germany, and the German people themselves, were awakening to the importance of public grounds. This was due largely to published information of park accomplishment in other countries. A number of German cities already possessed great treasure in the old and splendid park creations of the princes, which they now began to see in a civic aspect. A new ideal of landscape art comprehended gardens as a part of dwellings for high and low alike, and directed attention to the development of lawn areas. The value of open spaces for recreation in general became more and more realized as illustrations were seen of the recreational parks and playgrounds in American cities. All conditions were thus favorable to the development of recreational parks in German cities, in addition to the Spielplatz, Kindergarten Volkgarten and Promenadeplatz, such as they already enjoyed. The most striking expression of the new order

was the development of the large city park in Hamburg with all the facilities for outdoor recreation which were to be found in the city parks of the United States.

But the war put an end to development so promisingly begun, and the establishment of new city parks soon ceased. At the beginning of the war a few plans were undertaken as work of necessity for the relief of the unemployed. Soon, how-ever, there were no longer any unemployed, for the army and the essential industries demanded all who were able to The increasing scarcity of provisions led to the establishment of sma'l gardens, in promoting which the government and communities joined. little space of ground not otherwise occupied was utilized in raising vegetables and other articles of food. But even in this it was attempted, wherever possible, to combine play and sport places with the colonies of small gardens. The value of little houses with little gardens became more and more widely recog-

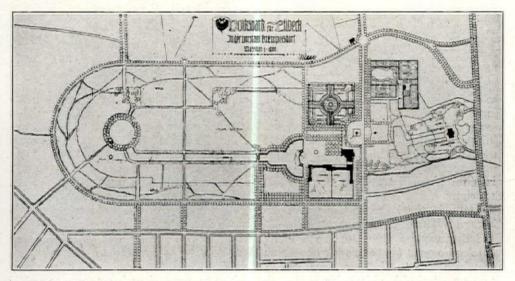


Plan for Colony near the City of Spandau. This colony embraces over seven hundred homes, of which six hundred and thirty-eight are in hereditary lease, each with garden plot of about one thousand square yards. Ample spaces for play and athletics are incorporated in the layout.

nized. The movement "to every resident a house with his own garden" already begun before the war, found constantly more supporters. The new home ideal of "house and garden" was everywhere fostered.

The outcome of the war put an end to idealistic plans. Although the raising of hardy young people may be accomplished in large cities only by promotion of play lect or injury to these historic creations, and thus preserve them forever for the enjoyment of the people.

The financial stress in cities that are now very much in debt will probably prevent for some time park and landscape development of all kinds, unless the conditions of non-employment shall compel communities to provide work for the laboring classes. It is clear, however,



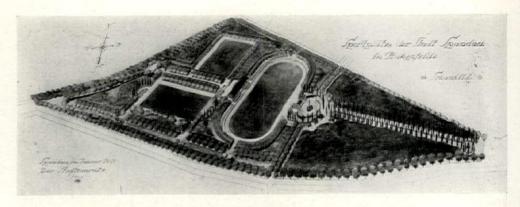
The new City Park at Lubeck adjoins the old park and connects with a large school, which has been laid out with playgrounds and children's gardens. The design includes a community house, bath house, rose garden, boating canal, picnic groves and other recreational features.

and sports, yet the constantly increasing struggle of the people for existence has prevented the realization of far-sighted projects. During the days of the revolution it became necessary to protect from the attacks of the rabble the costly garden treasures developed by the German princes; it is hoped that in due time the gardeners formerly employed in the royal gardens may be recalled to prevent neg-

*The interchange of ambassadors between this country and Germany makes opportune a review of the park situation in German cities. La Vie Urbaine, the leading French magazine devoted to the subject of city planning, publishes in the February issue an article of thirty pages on "La Crise de Logement en Allemagne". Dr. Hugo Koch, a city planner of Leipsic, visited the United States in 1913 and upon his return published the book "Gartenkunst in Stadtebau," in which appeared many illustrations of American parks. From the accompanying article it is evident that American ideas of comprehensive park planning are exerting an influence in the development of German cities, and conversely we may reap a benefit by the infusion from other countries of park ideals applicable to American conditions—GEORGE BURNAP.

that the demands for parks should receive first attention, whenever possible, for they serve as places of recreation for the mass of the people. Hamburg immediately after the close of the war resumed its park program by laying out a large sport field in connection with its monumental water tower. Lübeck developed a people's park. Hanover built a stadium according to the design of Municipal Architect Wolf. Spandau laid out a playground according to the plans of City Architect Elkhart. Many other cities have planned or commenced work on such recreational grounds.

The development of city parks during the next few years will provide especially play and athletic facilities. It is gratifying to observe a constantly growing recognition of the value of play for the people in general. This movement is fostered by

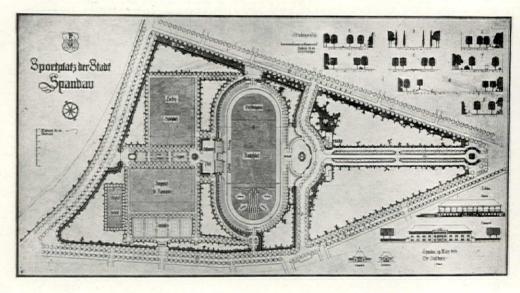


PERSPECTIVE OF ATHLETIC GROUNDS FOR THE CITY OF SPANDAU.

Designed by City Architect Elkhart.

the Commission of the State Board of Corporal Exercise, and endorsed by clear-sighted educators. The plan of combining the school with the playground is finding more and more adherents. These ideals have been realized in recent plans for city structures in Hanover, in the communities of Gross-Berlin, and especially in the large building plan for Cologne by Fritz Schumacher.

The principal features of the building plan for Cologne (in the close competition for which Schumacher was successful) form an admirable object for study, although the majority of even the larger cities of Germany, for lack of means, can not execute plans of such magnitude. The plan of extension of the Cologne Rayon district was in many respects an unusual one. It was not, as in many similar cases, a proposal to develop a suburban circle around the city proper, but rather to introduce such a circle within a large town. Through the farsightedness of the first mayor, Dr. Adenauer, a legal verdict was obtained which enabled the community to take over private property for the purpose of devoting fifty per cent. of such property to public playgrounds. With the help of these laws

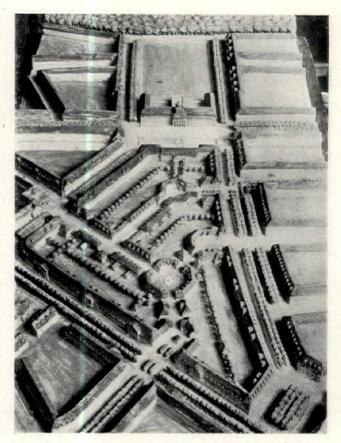


PLANS FOR ATHLETIC GROUNDS FOR THE CITY OF SPANDAU.

Designed by City Architect Elkhart.

authorizing extensive changes, the creator of the Cologne plans was enabled to solve in a large measure the problem of co-ordinating parks. Instead of small, disconnected open spaces, a continuous encircling parkway has been outlined, which, as a large channel of traffic for foot passengers reaches from the Rhine to the corner of the Luxemburgerstrasse and, dividing or forking in the middle, embraces on one side the cemetery of Melaten, which is to be converted into a park, and on the other forms green plots, connecting with the existing city park. Thus an extended pleasure ground about seven kilometers in length has been created such as few German cities may boast of. In this ring of verdure municipal buildings, schools and other pubbuildings have been located in such a manner as to bring about an effect of unity and beauty. Agreeable views are obtained through-

out the large pleasure ground by means of characteristic motifs placed between each two radial streets crossing the grounds. A large fountain, the basin of which is two hundred and fifty meters in circumference, serves as a main decoration of the grounds. The green plots are to be developed as neighborhood parks; these are so placed as not to interfere with the passage of pedestrians and are adorned with flower-beds, secluded seats for the weary, and sheltered places for mothers and children. The main grounds for organized games and sports are wisely placed on the other side of the Kanalstrasse. Two schools are immediately connected with them, thus making it possible to give the youth physical and mental training conjointly. In this undertaking an important factor will be the

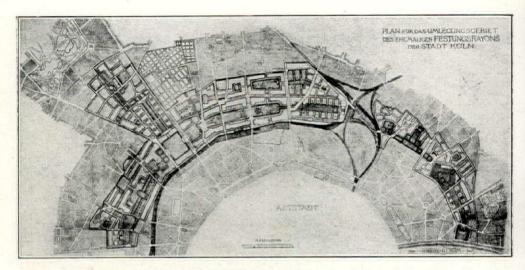


A large playground attached to a prominent school building is a feature of the settlement of small homes for Hanover-Kleefield. Paul Wolf, Architect.

practical and at the same time artistic way of keeping up the playgrounds.

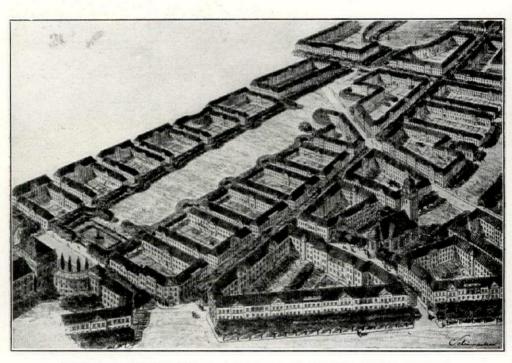
Hardly another German city of today will attempt such large plans as Cologne. Under present conditions members of the creative professions might despair were it not for the fact that smaller tasks are at hand for their endeavors. Every city, every small community, is eager to erect some monument to the memory of its dead. More and more the people realize that ostentatious or showy monuments are entirely out of place and that simple tablets, designed by the hand of an artist and placed in proper surroundings, may far better express their sentiments. Parks in themselves are seen as a highly commendable form of soldier memorials.

Great economy in all things—the first duty of German citizens today—must be



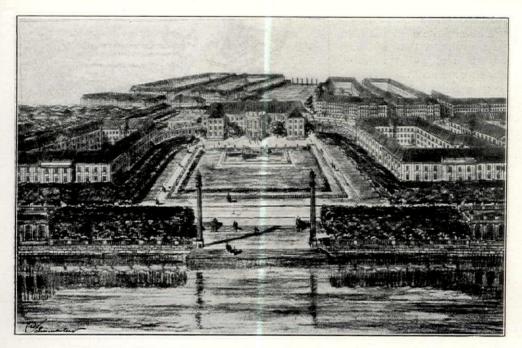
GROUND PLAN FOR BUILDINGS WITHIN THE COLOGNE CITY LIMITS.

By Dr. Fritz Schumacher, Hamburg, Architect.



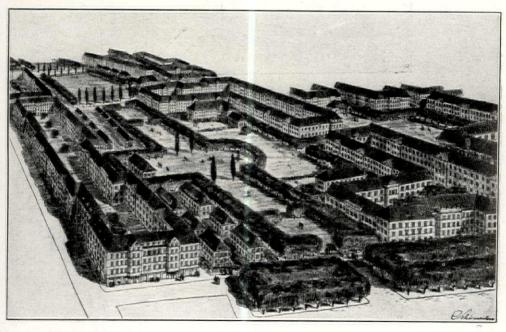
BIRD'S EYE PERSPECTIVE OF PLAN FOR THE COLOGNE RAYON DISTRICT.

By Dr. Fritz Schumacher, Hamburg, Architect.



BIRD'S EYE PERSPECTIVE OF PLAN FOR THE COLOGNE RAYON DISTRICT.

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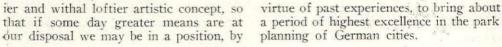


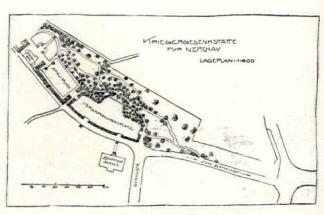
BIRD'S EYE PERSPECTIVE OF PLAN FOR THE COLOGNE RAYON DISTRICT.

By Dr. Fritz Schumacher, Hamburg, Architect.

THE ARCHITECTURAL RECORD.

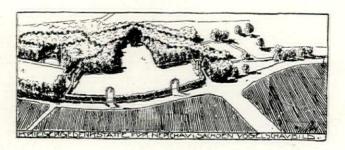
observed in a sterner measure by the official landscape architect than by the private one, but this enforced economy may bring about a resurrection of the truest artistic spirit. The necessary simplicity o f German life, with all its restrictions, may create a simpler but at the same time a purer art, an art which considers the minutest detail. Indeed, it is hoped that much good will come of this enforced limitation in our work; a health-





PLAN FOR A MEMORIAL PARK. Dr. Hugo Koch, Architect and Engineer.

virtue of past experiences, to bring about planning of German cities.



PLAN FOR A MEMORIAL PARK. Dr. Hugo Koch, Architect and Engineer.



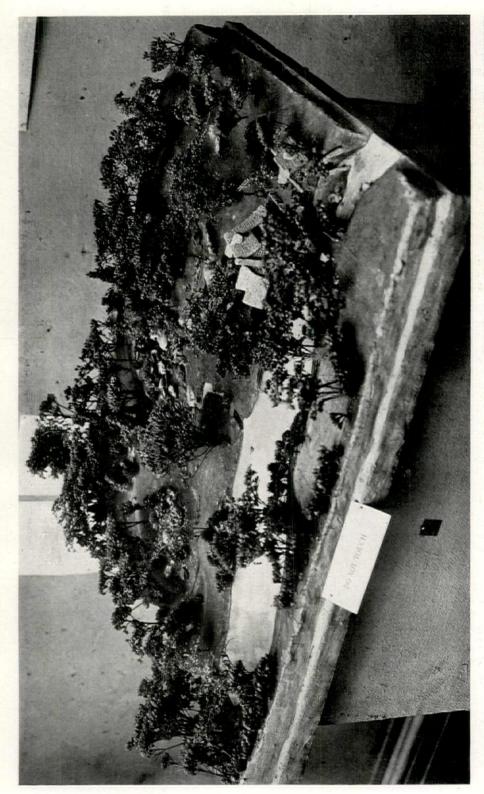
Current Competitions in Garden Planning During the past few months there has been a trio of garden design competitions, one of which has been a quintet in itself. Will this result in a concert of garden building during the coming summer?

Gardens designed hypothetically without a local habitation and a name give play to fancy and free fashioning, with none of the sodden handicaps of practical application. They represent the difference between student ideals and client ideas. Even practicing artists who make submissions in such competitions do so with a whimsical pencil, consciously forgetful of the grinding limitations inevitably accompanying such problems in actual experience. The occasion is one for agreeable laying off of responsibility, for doffing of business jacket in favor of carefree smock. Who has not secretly envied Mr. Goodhue his Villa Fosca and does not thrill to an orthodox opportunity of dream possessions likewise? The architects and land-scape architects who fabricated gardens for these various competitions surely returned to the actual problems of the office with a freer vision. Unfortunately too few experienced artists availed themselves of the invitation. The heads of the office could have led in the merrymaking. But the majority of the solutions show hard and painstaking labor on the part of junior draftsmen unaware of the opportunity offered for a good time. It was an occasion for shadow design and too many of the participants got really serious about it.

A most casual reading of the various programs should have revealed that these were but practice matches, a series of quintain contests. Lances were not set against business rivals, for few of the conditions governing properly conducted competitions were to be observed. In the competition conducted by the Women's National Farm and Garden Associa-

tion, the designers names were to be signed to drawings instead of the customary nom de plume and no guerdon was at stake worthy the prowess of professionals. The game was the fourteenth century one of tilting at a cross piece set on a post, with a board at one end and a sandbag at the other, the feat being to strike the board and to get away so quickly as to avoid being struck behind by the sandbag. Success in these competitions was, therefore, for the one who could strike most lightly and thus create least after-swing. In the Philadelphia competition, for example, he who regarded the fact that the foreground was necessarily a "kitchen yard" and conscientiously included this in his sketch could not hope to compete with one jauntily omitting such avant-scene and annexing rather a liberal entourage of neighbors' territory. If the lance were pointed at such inconsistency as preserving the house arrangement unchanged "to avoid other than moderate cost" while engaging upon expensive "walled-garden" construction, one could not hit the board at all. And the winning design seemed to have been successful by escaping the sandbag rather than by striking the mark. The design given second place starts le axe majeur from a cellar door, and borrows a luxuriant setting; the third prize winning design includes two pools and a water rill in bland disregard of the edict against "elaborate water effect." Only by fanning the mark did either one of these contestants escape a smack by the sand-

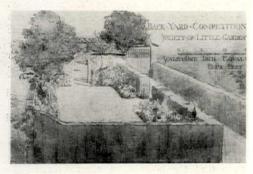
Some entered the lists in office panoply; some knights seemingly assumed the disguise of their serving men. From examination of the names and addresses of the winners in the various contests it is impossible to determine whether draftsmen are now domiciled at the office like old-time apprentices or whether masters are trying out their hand surreptitiously. To which ones shall we give credit for premiated designs? Shall the head of a professional



COMPETITION IN LANDSCAPE AND GARDEN DESIGN, CONDUCTED BY THE WOMEN'S NATIONAL FARM AND GARDEN ASSOCIATION, PROBLEM I. MODELS SUBMITTED BY STUDENTS OF THE DEPARTMENT OF LANDSCAPE DESIGN, UNIVERSITY OF MICHIGAN. DESIGN BY TEALDI.

office share the prize if he shirks the responsibility of open entry?

The several competitions attracted wide interest. The Society of Little Gardens in Philadelphia received three hundred applications for



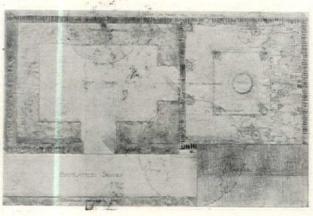
Competition for the Design of Garden Treatment of the Typical Suburban Back Yard, conducted by the Society of Little Gardens, Philadelphia. First Prize Design by Prentiss French, care of Olmstead Bros., Brookline, Mass.

the Back Yard program, from twenty-three states besides England and Canada; the Women's National Farm and Garden Association had entrants from both coasts; the Own Your Home competition attracted a wide range of entrants. The quintet of the National Farm and Garden Association were written by artists selected from different sections of the country; this, curiously enough, resulted in a parallelism of awards: The problem written by a landscape architect of New York City was won by competitors from that state; that written by a mid-Western group of landscape architects was won by a Cleveland man; the program prepared in New England, by New Engrand

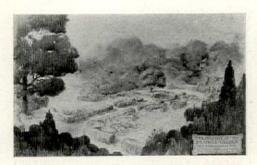
landers. And, stranger yet, the program for a city back yard garden design, written by Ellen Shipman, attracted only women entrants. Unfortunately, the New England-made program, the design for a suburban or country-town lot, was so loosely written as to permit the two winning designs to orient the house with side elevation toward the street, which free interpretation of conditions, in fairness to the other contestants, could well have rendered hors de combat the two Cambridge competitors with synonymous ideas. The design submitted on this problem by Harry Grall Newton, of Berkeley, California, was an able contribution. The similarity between the designs exhibited by the students of the Lawthorpe School of Landscape Architecture at Groton, Massachusetts, suggested a master's hand; possibly a single submission would have brought equal distinction to the school.

The great unsolved mystery is how architects of as great wisdom as those acting as professional advisers to the Society of Little Gardens could have prepared a program so prejudicial to a "house and garden" composition. Even for a design of moderate expenditure the link harmonious between the garden space and the living rooms of the house should not be precluded by a fixed location of kitchen annex. The problem of back yard garden design in the Women's National Farm and Garden Associations competition granted sufficient freedom in allotment of the essentially service area to permit a harmonious relationship between the dwelling and the garden. The garden competition of the Own Your Home Exposition allowed the greatest leeway in the co-ordinating of the house and garden design; with the result that the winning design, by Elizabeth Leonard Strang, is a criterion in close harmonizing of terraces, gardens and lawns with the porches and living rooms of the house. It is not unlikely that rigidity of program may have been the reason for such an unfavorable showing by the same artist on one of the other problems. A delightful, informal arrangement proposed in a miniature model submitted by two students of the Landscape Department of the University of Michigan failed to qualify under the same program.

An attempt to design a back yard garden after a house is already built, with no privilege of adjustment in the house arrangement, rarely

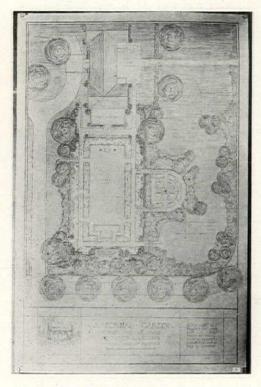


Competition for the Design of Garden Treatment of the Typical Suburban Back Yard, conducted by the Society of Little Gardens, Philadelphia. First Prize Design by Prentiss French, care of Olmstead Bros., Brookline, Mass.



Competition in Landscape and Garden Design, conducted by the Women's National Farm and Garden Association, Problem I. First Prize Design by Norman F. Newton, Sherwood Holt and Walter G. Jameson. Office of Bryant Fleming, Wyoming, New York.

produces very harmonious results. It is too nearly a problem of supplying the missing member to a bob-tailed cat. At best, it is hard to match up a house with a garden. The one should occur with the other in the natural course of building. A formal garden designed independently and "attached" to a house has provoked more than once the thought "what a monstrous tail our cat has." It is hard to be-

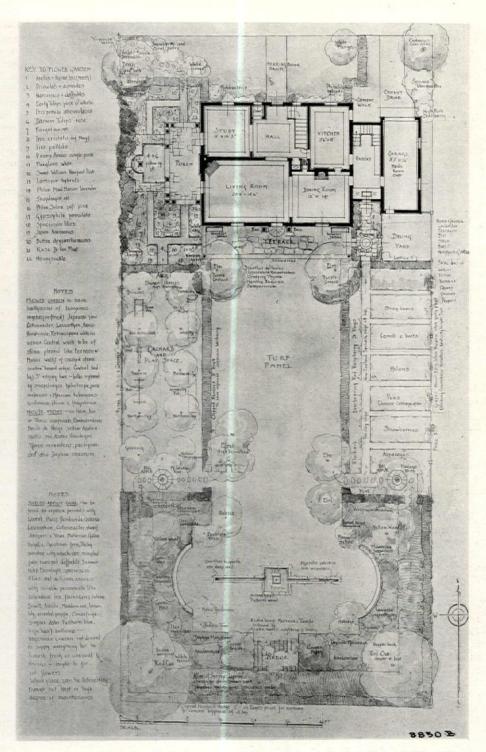


Competition in Formal Garden Design, conducted by the Women's National Farm and Garden Association, Problem II. Second Prize Design (no First Prize awarded) by A. F. Ingalls, Cleveland, Ohio.

lieve that many of the gardens presented in this competition would accomplish what Ernest Flagg so fervently invokes in his recent book, "Small Houses"—"that kind of garden which the European loves, where one may sit in privacy under his own vine and fig tree." Such garden is a part of daily living. "The European of limited means places his house on the line of the road where it politely presents its ceremonious front to the passerby; but the other front-le côté intime-is screened from public view, for the garden is sacred to family life." Every contestant in these competitions should have been privileged to read Ernest Flagg's chapter on "Gardens", inevitably he would have turned to the following chapters on "Surroundings," "Topography," "Open Air Shelters," "Dependencies," and finally would have read the book from cover to cover to enjoy in full the refreshing atmosphere permeating both text and drawings. But had this occurred, there would have been no submissions in the competitions, for houses and gardens of the sort portrayed by Mr. Flagg are inseparable, and, conversely, they may not be created independently of each other.

Few architectural draftsmen entered the competitions, although any number would have devised charming gardens as a part of a small house competition. Their reluctance was hardly due to the auspices under which the competitions were held, but conceivably was because of a sense of something lacking in the program—a condition brought about by architectural leaders, in separating the tail from the cat.

There is a weak spot in competitive garden design that the architects can strengthen. Summer competitions in actual gardens, conducted by local improvement societies, become posey growing contests. Competitions of the sort above recounted produce an assortment of cat tails. Will not the architects enter upon a competition of garden designing and garden building not as a spring revel but as a summerlong carnival? Will not the architects regard gardens as a regular accompaniment of small homes, even the very modest dwellings that can afford little more space than the "back vard"? Architectural thought in arranging the rear of the house to anticipate a garden, architectural consideration of the house "as a screen to protect the garden from the inquisitive gaze of the passerby" and architectural effort at the time of building "to enclose the other three sides of the plot sufficiently to secure the degree of privacy to which every family is properly entitled" will effect a condition that in comparatively short time will render a back yard or small garden competition an occasion for



Competition in Arrangement of Grounds for a Typical Home Building Site, 75x150 feet, conducted by the Own-Your-Home Exposition at the Chicago Coliseum. First Prize Winning Design by Elizabeth Leonard Strang, Leominster, Mass.



A and B Competition in Arrangement of Grounds for a Typical Home Building Site, 75x150 feet, conducted by the Own-Your-Home Exposition at the Chicago Coliseum, First Prize design by Elizabeth Leonard Strang, Leominster, Mass.

submissions of completed work, for display of photographs of little gardens realized. It will surely be as pleasurable and vastly more profitable for all concerned to stage tournaments in garden making instead of quintain contests in garden planning.

GEORGE BURNAP.

The Boston Architectural Club Exhibition

The current exhibition of the Boston Society of Architects and the Boston Architectural Club, held in the main Exhibition Hall of the Rogers Building of the Massachusetts Institute of

Technology, from March 21 to 31, differs from other exhibitions in two or three definite ways. It is first of all, and most obviously, a showing of sketches for work, probably mostly projected and-in some cases-undoubtedly abandoned, representing the comparative dullness in the field of building that has persisted for the past two or three years. This year, it also lacks the coöperation of the Society of Landscape Architects, which for several past years has been associated with the exhibition. It is, finally, more simply arranged and presented -the last being in every way an advantage from the point of view both of the public and the exhibitors-as it has resulted in giving each exhibit sufficient wall space so that it is easy to see and appreciate the material shown, without conflict with adjoining frames.

It is a relief to see architecture exhibited free from the rather overwhelming display of textiles and stuffs in which the architectural part of one or two of the New York shows has recently been almost lost to sight. The exhibits of the decorators contained in the gallery have been well arranged to display both their drawings and the furniture produced by their shops, placed in a few well adjusted groups in the alcoves, or at the ends of the hall, with tables disposed down the length of the room. A "safe and sane" exhibit, therefore, this year, from more than one point of view.

Another supplemental art, stained glass work, is well and restrainedly shown in the two or three window alcoves opposite the entrance. The principal displays are made by Messrs. C. J. Connick and Reynolds, Francis & Rohnstock, and both have made an interesting and instructive exhibit, including details copied from mediaeval windows, as well as new work executed in the same manner. Mr. Connick also shows an unusual domestic window group on the subject of "Treasure Island."

Turning to the walls themselves, the first impression is of a large number of well drawn perspectives-a few even going to the extreme of being too well drawn, from the prevalence of work by one or two men who have developed the forms of leafless trees in their foregrounds so anatomically and well that the spectator is carried away by the patience and skill shown in the portrayal of this incidental accessory more than he is by the architecture it has partially screened. This is a temporary mannerism that will probably soon pass-evidently a reaction from the former poorly studied and unnatural foliage in which our architectural studies have been framed for so many years.

Other interesting groups of sketches are by O. R. Freeman, of details by Kilham and



An example of Backyard "Garden Making," accomplished by one architect for his own enjoyment.

Hopkins; by C. M. Baker of some houses and other work of his own design; by R. H. Doane of schools and other domestic buildings; by H. deV. Pratt in water color; by Mr. Connah of a church interior by R. C. Sturgis and William G. Perry, and a large group of renderings (in pencil, water color, and pastel) by Birch Burdette Long, and of work by Benno Janssen of Pittsburgh. In addition, the exhibit shows some charmingly spontaneous water colors of different European scenes by M. Haffner, who has recently come to Harvard, some sketches in colored crayons by Walter Kilham, made in Mexico-other water colors of European scenes by Hubert Ripley, and some crude and "postery" renderings of a "War Memorial" scheme combining the Springfield Municipal group with a repetition of the silhouette of the Custom House Tower, relocated in the center of Harvard Bridge.

Other memorial ideas also appear in this year's show. One is a huge four-square Triumphal Arch, also shown in this same location, but even more lacking in the contrasts of necessary surrounding natural accessories than the other scheme. best presentation of the former appears in an attractive water color in Mr. Howard Walker's old manner, to which he has added, however, about five times the area of island and tree background shown in the actual plan itself.) A well presented Memorial Tablet at Belmont, by Little & Russell, and several groups of various related buildings for neighboring communities also appear to fall within this same category.

Three or four designs for churches are presented. Cram & Ferguson's very scholastic English scheme for Princeton Chapel is shown in photographs from several of Mr. E. D. Robb's careful renderings. Allen & Collens are represented by two frames (unfortunately far separated by the hanging committe) of a Congregational Church at Holyoke, that, from the interior views, appears to indulge in all the panoply of a full vested choir. Two other designs, by C. M. Baker and by Hutchins & French, are of brick Colonial churches with a several-storied tower and spire, a type that has of recent years tended to become popularly accepted in New England. Messrs. Coolidge & Shattuck's competitive design for a church in Washington, D. C., while more classic in treatment, also tends toward the same type of silhouette.

Among studies in the Gothic style is a group scheme for a Seminary at Hartford by Allen & Collens; a Woman's Recep-

tion Building at Chicago by Shepley, Rutan & Coolidge, and a Study for a Building in the University of Pittsburgh by Benno Janssen. An unusual exhibit is of several groups of sketches and a model showing various studies and schemes for the N. E. Baptist Hospital, on a most irregular site on Parker Hill. These studies appear to be of different designs made by Derby & Robinson, E. S. Read, H. F. Kellogg and Charles Everett, for the same problem, all appearing to have been associated in the later work. The model shows an irregular development of the individual "Cottage" system, extended on diagonals and rectangles in order to properly orient the different units. This is interesting architecturally, but appears to contain elements of difficulty and expense in administration.

A domed Synagogue and "Office Building" at Cleveland is shown in a model and plan by Charles R. Greco, while another model shows a development being made for the use, in 1925, of the "Lexington Pageant," on a portion of J. Willard Hayden's estate, with seating tiers, and a landscape stage, by Stanley White. Two bridges are shown in perspectives, one for Neponset River at Quincy, the other over the Charles River at Cottage Farms, both by Haven & Hoyt.

Little domestic work appears in this exhibit. Some sketches for small houses by E. S. Read; two plaster houses by Ripley & Le Boutillier; rather an unusually successful stone house at Warren, R. I., by Harold B. Willis; some houses and suburban store buildings in the Shawsheen Village development near Andover by Adden & Parker, along with a half-dozen different enlargements of photographs and interiors, practically completes the list. This is a notable shrinkage from the amount of material in this department generally shown in these spring exhibitions.

The landscape work is limited to a few sketches by Bremer W. Pond, and some enlarged views of work by Arthur Shurtleff and Harold Hill Blossom. The former shows the Burdett Garden and a view looking down upon the Fenway entrance at Westland Avenue; the latter, a number of attractive views in the gardens of John Nicholas Brown at Newport, and work on the estates of Donald Murray at Springfield and William Ellery at Brookline.

Strickland, Blodgett & Law show several store interiors, and a garden gateway, and—as has been done on several previous occasions—a special exhibit of the work of Mr. Janssen of Pittsburg was invited. This

includes a number of large municipal buildings, along with several picturesque and extended designs for houses and country clubs.

Some charmingly modeled portrait medallions and heads by Wheeler Williams should also be noted.

One of the most important of the actually executed buildings, shown this year by means of three enlarged photographic views of the exterior, is the new Federal Reserve Bank by R. Clipston Sturgis. This design differs from much recent bank architecture by being worked out in a very domestic type of Renaissance treatment, utilizing a small scale unit instead of adopting a scale commensurate with the dimensions and importance of the building.

While the whole show this year is small, it has undoubtedly served its purpose of interesting the general public and giving them the opportunity to keep in touch with what has been done in local architectural offices during the year that has passed. After all, what better purpose can there be for an architectural exhibition than this? If it so happens that the work done has been small in quantity, it should, perforce, be expected that it might be the better in quality, while the public responsible for the lack of work are reminded of that important fact in this gentle if still unescapable manner

If there exists any reason at all for the annual Architectural Exhibition (and, personally, we believe there does) that reason should be equally effective, whether the amount of work happens to be large or small. Indeed, in the latter event, perhaps a public showing is even more pressingly important, for it is then the architects should benefit most from the advertisement of their profession thus dignifiedly made. When it redounds, as in this case, to make a clearer, more logical showing possible, the profession and the public must both equally benefit.

Plan" for Ob-Wellation in Designing School Buildings.

Editor of the Archi-"Columbus TECTURAL RECORD: It occurs to me that easiest and most direct Rounded Cooper- way to reply to your request for a descriptoin of the so-called "Columbus Plan" of rendering architectural service to

the Board of Education in its present extensive building program, would be to set down for you a brief outline of the facts and circumstances which have developed the

Columbus, not unlike all other communities of the country, was forced to hold up the building of school houses to let the less peaceful procession of world conflict pass by. The same tragedy of "no new buildings in six years" was enacted on this stage as on many stages throughout the country. In desperation, at the peak of building costs an attempt was made to erect some seven or eight buildings, using the professional machinery at hand in the School Architect's office which has been so faithful and fairly successful for twenty years in keeping up with natural growth.

The result of this effort naturally fell short of expectations and only three and one-half of the eight proposed buildings materialized. An enlightened electorate, however, in response to a just appeal met the situation by authorizing a bond issue for eight additional grade schools and four new high schools.

Realizing the possibilities of the situation in a manner not always common in our Boards of Education, the local Board sought the advice of the Columbus Chapter of the American Institute of Architects. This advice was sought particularly with reference

to the method of procedure for the four high schools.

After a careful, and as it is viewed now. an unusually unselfish study of the situation, with due consideration of the Buffalo, New York, Chicago and St. Louis plans, the Chapter submitted two recommendations.

Of course the Chapter deliberations brought out the familiar problems; first, "shall all home talent be insisted upon because of better knowledge of, and sympathy with, local conditions and in spite of probable lack of perspective and ingrowth of ideas?" or second, "shall all outside talent be sought to bring the best ideas and the advantages of special experience, in spite of probable ignorance of, and possible lack of sympathy with, local conditions?"

The first recommendation was that the Chapter submit to the Board a list of names of architects, any of whom could by reputation be depended upon to give satisfaction to the Board and to the Chapter as well.

The second recommendation, and the one which the Chapter felt to be the stronger of the two, proposed that a supervising or consulting architect be appointed from a list of men, composed of William B. Ittner, D. H. Perkins, J. O. Betelle, R. C. Sturgis and

F. L. Packard, and that the Board, with the advice of this supervisor, retain four architects to render full architectural service for the new school buildings. This proposition, of course, differed from the Buffalo plan in that the Buffalo architects' efforts and interests were syndicated and an expert or school specialist was then called in to establish standards in plan, equipment, etc.

The Columbus Board of Education, however, did not accept this recommendation as proposed, but "countered," as it were, with a scheme which no group of architects would have been bold enough to suggest. This proposition contemplated the direct retaining of four architects, one for each of the new high schools, with the provision that, in addition to rendering professional services, each for his own building, they should act as members of an advisory board or commission together with "such other persons as the Board might designate" to deliberate and advise upon all four buildings.

Thereupon contracts were entered into upon such a basis with William B. Ittner of St. Louis for the Washington Gladden High School, Frank L. Packard of Columbus for Edward Orton High School, Howell & Thomas of Cleveland for Joseph Sullivant High School, and Richards, McCarthy & Bulford of Columbus for Abraham Lincoln High School.

The amounts budgeted for these schools were as follows (totals including equipment and commission):

 Washington Gladden
 \$1,244,250

 Edward Orton
 997,500

 Joseph Sullivant
 944,500

 Abraham Lincoln
 813,750

Just what "other persons" were originally intended to be added to this advisory commission is not now clear, nor was any particular method of procedure designated. It seems to have been assumed that the existing administrative organization known as the School Architect's Office would continue to function separately on all grade school work and rehabilitation included in the program.

Lacking definite constitutionality, the work progressed along rather individualistic lines until the matter of approval of plans came up for consideration. At this point the natural professional, if not human characteristic of aloofness to public criticism of another's work came somewhat into evidence.

This condition may or may not have been due to the individual hope for reciprocity on the part of the architects, but the Board's determination to arrive at the truth and to make or approve decisions which were presented only after concourse of thought and discussion, dissembles the idea that the advisory commission is a "mutual admiration society."

As the work has progressed, therefore, this advisory commission has taken on varying complexions. It has always consisted of a representative of the four commissioned firms, the school architect, the Superintendent of Schools, and the President of the Board, or the Chairman of the Building Committee. Parts of it have functioned separately at times and quite effectively.

Private conferences between representatives of the four firms have been held, which have resulted in the bringing of uniform recommendations as to standards, or of reasonable deviation therefrom. The advisory board has been enlarged from time to time to include the principals of the schools involved, and oftentimes the supervisors of educational departments, and other school people particularly fitted to be of assistance in special instances.

And so the "Columbus Plan" may now be considered to be a sort of "peace conference" with its main body or commissions and its sub-committees or sections, all working to the common end of arriving at the truth, determining definitely first, just what is the educational problem and then conscientiously and thoroughly to solve it.

To this commission, the Superintendent of Schools and his forces have brought an intimate knowledge of educational conditions and needs, and the Board of Education has brought determination to build the best possible buildings, from the standpoint of utility, economy and beauty. Each of the four commissioned firms has brought the share of assistance for which it is peculiarly fitted. Mr. Ittner and his assistants bring the benefit of their twenty or more years of experience as school building experts and as collaborators with groups and individuals of the National Educational Association. Howell & Thomas have contributed to the group their very high appreciation of the value of simplicity, and purity of design. Mr. Packard and Richards, McCarty & Bulford, both local firms of well established reputation through large and varied practice, have given to the commission valuable assistance as to local pride and sympathy which has been quite helpful. The Board's own architectural organization has acted more or less

as a clearing house and at times as professional advisor.

This is hardly the place to present the plans and elevations of the four new schools. But that the "Columbus Plan" is capable of producing results may be evidenced, for instance by the fact that Mr. Ittner's first two attempts to solve his problem by the presentation of one of his typical so-called Elizabethan creations were somewhat boldly turned back by the Board and the Commission. This, of course, was due largely to the fact that the new Washington Gladden School is to be the first and most important unit of Columbus' new Civic Center. Be it to Mr. Ittner's credit, however, that he has produced, with the insistence and assistance of the advisory commission, his first school in the classic style, a building of which he now admits himself proud.

Similar evidence of the effectiveness of the plan may be found in the fact that the Joseph Sullivant School, by Howell & Thomas, an interesting architectural creation of Greek persuasion, will be as practical, as complete and as effective educationally, as any school of its size in the country, even though it is the first large school commission ever executed by this firm.

Edward Orton School, by Mr. Packard, and Abraham Lincoln School, by Richards, McCarty & Bulford, do not lose the individuality of expression which every good architect cherishes for his own work, but have assimilated the good which has come from association and coöperation with independent firms of equal standing.

The workings of the Commission may well be explained by relating a little incident which occurred at a joint meeting of the Board and the Commission on December 16, 1921, when the first line drawings of the Washington Gladden School were presented for approval. Public expression of opinion was solicited from all architects present which elicited a few points of rather severe criticism. Mr. Ittner, the last to speak,

addressed the Chairman of the Building Committee somewhat on this wise "You, sir, as a lawyer, would hardly relish the calling in of three lawyers, not of your own choice, to tell you how to handle a case in court, nor would it be considered quite the orthodox procedure in medicine. Incongruous as this present proceeding may seem, I believe, sir, that your Board is getting away with it."

It is my notion that the "Columbus Plan" as fostered by the present non-political and somewhat unusual Board, is producing a group of high schools which will be architecturally and practically as good as any in the country. A discussion of some of the interesting developments in planning is a story in itself.

HOWARD DWIGHT SMITH.

An Appreciative Correction Mr. John Taylor Boyd, Jr., in his March article in The Architectural Record on the 1922 Architectural League Exhibition, referred to the Model of the Convalescent Home at Cortlandt, N. Y., as "slightly

more formal than the Oakland Country Club, but very interesting and of perfect grouping." V. R. B. Higgins, of the firm of Delano and Aldrich and Charles H. Higgins, architects for the Valeria Home, writes: "We note with pleasure, on page 284 of the March issue, Mr. Boyd's comment on the Model of the 'Convalescent Home' at the Architectural League Exhibition. This is the Valeria Home, by Delano and Aldrich and Charles H. Higgins, architects (please note correction), and is now under construction in the Township of Cortlandt, Westchester County, New York."

Christ Church Parish House illustrated on pages 315 and 316 of the April number and attributed to Delano and Aldrich, should have been attributed to Delano and Aldrich, and Philip L. Goodwin, Associated Architects.

SECOND CONFERENCE ON STATE PARKS.

A movement no longer in its infancy but growing with the prodigious rapidity of adolescence is the establishment of State Parks. A number of states have already purchased and improved areas of scenic beauty or historic interest, notably Iowa, Indiana, Illinois, Michigan, Wisconsin, Pennsylvania, Connecticut and New York; and many others are preparing to follow suit. The first National Conference on State Parks, held last year at Des Moines, Iowa, was well attended. The second National Conference is called by the Chairman, the Honorable John Barton Payne, to assemble on May 22-25, 1922, at Bear Mountain Inn, Palisades Interstate Park, the thirty-six thousand acre playground of New York and New Jersey.

Besides a two-day program of interesting and varied sessions on the business of State Parks an unusual inspection trip is in prospect for those who attend the conference. A journey through the Palisades Interstate Park, a visit to the Military Academy at West Point, a tour along the new state highway, the Bronx River Parkway, and through the New York Zoological Park will afford a unique panoramic view of state, national and city owned areas, made accessible and improved by man's skill in engineering, reclamation, park building and architecture. It is a conference to which any professional man can well afford to devote the two or three days necessary.

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