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DRAWING BY JOHN DI MARIANO.

ARCHITECTVRAL RECORD

VOLVME XLIII



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JVNE, 1918

The Sixtieth Street Branch of the Guaranty Trust Company of New York Cross & Cross. Architects By Charles Over Cornelius

N the evolution of local types of buildings geographical conditions have always been one of the controlling factors. This relation between architectural expression and geographical influence may be observed throughout the development of the art of architecture and has been repeatedly emphasized by historians of the subject. Nowhere is this influence more striking than in the character of building in the city of New York, where the scant breadth of the island has forced upon business, great and small, that continuously uptown movement so noticeable in the last few decades. The impossibility of lateral expansion has resulted in the rise of great buildings which soar to heights undreamed of in past ages; while many firms, finding themselves cramped beyond endurance in their original quar-

ters, have of necessity moved in the one direction where expansion was yet possible—namely, uptown.

The invasion by business of sections long held sacred to the home has caused much trepidation, which has found expression notably in the zoning ordinance of 1916. The zoning ordinance, however, leaves certain marginal areas which are at present residential in character, but in which business buildings are permitted. In such areas it is desirable that the new commercial buildings shall disturb the residential atmosphere as little as possible. Fortunately, not a few business houses are in sympathy with this ideal, which conforms to the modern conception of the relationship of business to the community; today many business organizations regard themselves as servants of the public and so

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direct their service as to render it of the greatest benefit to the greatest number.

Exemplifying both of the above tendencies, which may well be termed characteristic of twentieth century New York, is the small banking house lately completed at Sixtieth street and Madison avenue, from the designs of Cross and Cross, for the Guaranty Trust Company of New York.

Here we find a business building standing on a commercial thoroughfare in the heart of a great residential district, not stark and gaunt like a stranger in a strange land, but adapting itself in size to its surroundings, while at the same time sustaining to a remarkable degree the dignity of its use. Built primarily as a branch of a large organization, its purpose is to serve those whose daily life lies close about it; and its location, readily accessible to its clients and within easy reach of the main shopping district of the city, is a merit in itself.

A nice discrimination is shown in the choice of the Adam style, which with modifications has been used. The Brothers Adam were in their greatest vogue during that period of the eighteenth century when our relations with our mother country were strained to the breaking-point. As a consequence, we find among their American contemporaries but little work in architecture and furniture strongly tinged with their very refined and sophisticated influence. At the time of Robert Adam's return to England from his continental tour and his almost immediate elevation to the leading position among the architects of the day, the currents tending toward the Revolution in America had set in strongly, resulting in a constant decrease in the importation of European ideas in the arts and an almost complete suspension of such importation for a time covering the last quarter of the century. When friendly relations were finally resumed, the Adam mode had given place to its successor, and thus its use finds here in America a certain freshness which is lacking in many another style of European origin.

Although in the present object of our attention this definite style has been adopted and quite consistently carried out

in detail and motif both in the interior and exterior elevations, in the plan the Adam arrangement of spaces has in no sense been followed. Here we find a very definite division into two distinct units: the great square banking room on the corner, with high windows facing south and east, and a smaller ell which contains the luxurious and inviting department for the ladies, who will form a major part of the clientele. On the exterior these two units are very markedthe banking room dominating in both its scale and dimensions, the ell contrasting by its more intimate scale and informal motif.

In connection with recent experiments in obtaining laws for proportion from geometrical formulae, it is interesting to note the part which the square plays in the composition. This figure forms the basis for the plan of the great room and is repeated in the general mass of the main façade as well as in both the large and the small window openings.

The exterior is a most successful bit of stonework in a soft-toned Tennessee marble. The carving and moldings are restrained in design, yet crisp and beautiful in execution. There is a certain almost Greek quality about the doorway, albeit without the naiveté of an Attic piece. By cutting off the corners of the main building, the necessity of four additional windows on each façade-two in the attic and two in the lower storyhas been eliminated and at the same time the importance of the dominating main room is emphasized. The wrought iron grilles of the windows have the soft brown color given by the "boiled in oil" protective finish. Large silver medallions simulating coins relieve the severity of the vertical bars, which flower into a delicate cresting in the arched window of the ladies' room.

The entrance from Madison avenue leads directly into the main banking room, which is given a cruciform shape by the reserving of the corner spaces. The barrier separating the public from the banking space forms in plan a stilted semicircle, which springs from the corners at right and left of the door. Behind the barrier, directly opposite the en-



SIXTIETH STREET BRANCH OF THE GUARANTY TRUST COMPANY OF NEW YORK, CROSS & CROSS, ARCHITECTS.



MADISON AVENUE ELEVATION, MAIN BANK-ING ROOM-SIXTIETH STREET BRANCH OF THE GUARANTY TRUST COMPANY OF NEW YORK. CROSS & CROSS, ARCHITECTS. THE ARCHITECTURAL RECORD.



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SIXTIETH STREET BRANCH OF THE GUARANTY TRUST COMPANY OF NEW YORK. Cross & Cross, Architects.



SIXTIETH STREET BRANCH OF THE GUARANTY TRUST COMPANY OF NEW YORK. Cross & Cross, Architects.



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ENTRANCE VESTIBULE, SHOWING STAIRWAY TO SAFE DEPOSIT DEPARTMENT-SIXTIETH STREET BRANCH OF THE GUARANTY TRUST COMPANY OF NEW YORK, CROSS & CROSS, ARCHITECTS.



VIEW OF MAIN BANKING ROOM FROM ENTRANCE-SIXTIETH STREET BRANCH OF THE GUAR-ANTY TRUST COMPANY OF NEW YORK. Cross & Cross, Architects.

trance, are the desks of the officials of the branch; to the right the banking windows of paying and receiving tellers, and to the left those of the trust department.

The spaces reserved in the corners have been cleverly utilized. The one to the left of the entrance contains the stairway leading down to the safety deposit vault; while that at the right forms an entrance lobby to the ladies' banking room, which is served by its own elevator to the safe deposit department. At the left, in the rear, is a conference room. and at the right are the service stairs and an elevator.

The coloring, or rather absence of coloring, in this lofty room is a matter of congratulation. The material chosen for the grilles, the desks and the entrance vestibule is a highly finished gun-metal, decorated with silver copies of Greek coins in the case of the Ionic colonnade of the barrier, with typical Adam ornament in the case of the central circular desk. The base of the barrier is of a highly polished black, onyx-like marble.

which harmonizes remarkably with the gun-metal above. The floor tiles are alternating squares of black and white marble. The wall space is divided by flat white marble pilasters, whose chaste capitals support an elaborate entablature below the coffered ceiling; while the panels between are painted a creamy gray, approaching a putty-color, whose warm and restful tone is relieved by the metallic Greek fret which forms the border. This same color is repeated in the ceiling, although in different tones, and the decoration in each octagonal coffer is picked out in silver. Simple crystal bowls, mounted in black and silver, serve for lighting fixtures.

The ladies' banking room, to the right of the entrance, is entered directly without crossing the main banking floor. This room is remarkable in its creation of a quiet and leisurely atmosphere, where in comfortable chairs and at well-appointed desks the matter of money, so distasteful to many women, may be discussed at ease. Two large banking win-



MAIN BANKING ROOM—SIXTIETH STREET BRANCH OF THE GUARANTY TRUST COMPANY OF NEW YORK. CROSS & CROSS, ARCHITECTS.





LADIES' BANKING ROOM-SIXTIETH STREET BRANCH OF THE GUARANTY TRUST COMPANY OF NEW YORK. CROSS & CROSS, ARCHITECTS.

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FIREPLACE IN LADIES' BANKING ROOM-SIXTIETH STREET BRANCH OF THE GUARANTY TRUST COMPANY OF NEW YORK. Cross & Cross, Architects.

dows open into this room from the enclosures of the receiving and paying tellers.

Here is the extreme of simple elegance, with the white woodwork typical of the Adam style, soft toned walls, and carpets and upholstery of a neutral shade. The mahogany furniture carries out the spirit of the room with comfort and dignity and the details of brasses and hardware bear close inspection. The chandelier, pendent from its silken cord, presents a tasteful adaptation of the historical style to the requirements of modern illumination, black and silver combining with crystal lustres to produce a subdued brilliancy. In the side-lights, the crystal and black are repeated, forming the setting for the silver coin at the base. The design and execution of the plaster ceiling also deserve special mention. Furnished in conformity with this room is the small retiring room for visitors, entered by a door at the right of the fireplace. In both of these rooms the appointments of desks and dressing table are arranged

with the utmost nicety both as regards convenience and taste.

From the small entrance lobby of the ladies' banking room an elevator descends to the safe deposit department. Here, warned by an electric signal, the official in charge is ready to open the grille and admit the visitor. This floor is particularly interesting in that the care bestowed upon its arrangement and decoration is frequently lacking in similar departments of other banks. While all the decoration is quite subordinate to the purely utilitarian purpose, the general scheme is well worked out. The central vault is surrounded by its circulation, from which open small cubicles furnished with tables, chairs and telephones.

A second floor above the main banking room contains the working space of the staff and the necessary stock room, while two so-called mezzanine floors in the ell are devoted to locker rooms and lavatories for officials and staff.

The introduction of steam heat and electricity from the outside has made





LOBBY TO SAFE DEPOSIT DEPARTMENT-SIXTIETH STREET BRANCH OF THE GUARANTY TRUST COMPANY OF NEW YORK.



ENTRANCE TO CONFERENCE ROOM-SIXTIETH STREET BRANCH OF THE GUARANTY TRUST COMPANY OF NEW YORK. possible the reduction of the machinery room to a minimum with a proportionate elimination of dust and dirt. The finish of all the service dependencies is simple and workmanlike.

The building suggests to the casual observer, at the first glance, another bank building far downtown—the great house of J. P. Morgan and Company. There is a similarity in the treatment of the corners and in the windows, while the material used in both cases is identical. The impression created is that of a replica in reduced size; an impression, however, entirely dispelled by closer observation, which shows the scale to be as delicate as that of the Morgan Library. Thus we find here a striking combination of qualities suggestive of two such distinct types—as a great downtown banking house and the cameo-like library of a connoisseur. This union in one building of the two extremes of business and leisure provides us with a means of estimating the extent to which the structure gives architectural expression to the modern ideal of public service in its particular community.









HE four country houses designed by William Adams which are illustrated in the following pages are an interesting study, because while differing from one another they are nevertheless solutions of the same problem and exhibit in common certain features of plan and qualities of design characteristic of Mr. Adams's work. These characteristics are: (a) Adaptability of the plan to the conditions of the site and of the exposure; (b) straightforward and commonsense arrangement of rooms and adaptability to the requirements of the household; (c) good proportions of rooms; and (d) appropriateness of design and of details.

The houses are those respectively of Howard S. Kniffin at Cedarhurst, L. I. (Figs. 1-4), of John F. Scott at Hewlett, L. I. (Figs. 5-10), of Norton Perkins at Lawrence, L. I. (Figs. 11-17), and of Frederick L. Richards at Great Neck, L. I. (Figs. 18-20).

It is to be noted that all of these houses are designed for the low, flat landscape of Long Island and for clients in about the same social sphere, so that the conditions are alike in all cases. How they are varied in each case to meet the particular requirements of the site is interesting.

(a) Adaptability of the plan to the conditions of the site and of the exposure. Too often architects are tempted to place their houses with the principal façade facing the main road or street. regardless of the view or of the exposure to the sun. In all of these plans, however, the main living rooms are so arranged as to face the most sunny and pleasing prospect and the one receiving the most favorable breeze in summer, which on Long Island is generally southwesterly, regardless of whether the house faces the road or backs upon it. Thus, in Mr. Kniffin's house (Fig. 2), the front 6

of the house is really the back, the entrance front facing the road, which is toward the north. Most designers would have pushed the service wing farther to the south, in order that it would not protrude from the front; but this would have cut off the early morning sun from the dining room and the rest of the southern exposure, and therefore the present arrangement was adopted. Privacy is secured by a heavy planting of shrubbery, which conceals the service wing from the main drive.

In Mr. Scott's house (Fig. 5) the service wing faces the main road, but observe how it has been hidden by a fir plantation and how cleverly the entrance drive has been placed so that no prospect of the house is seen until the front springs into view. This arrangement gives the desirable southern and eastern exposure for the dining room, a southern exposure for the living room and a southern and western exposure for the sun parlor. Moreover, it gives sunlight and favorable breezes to all of the master bedrooms save one, which must be content with a northerly exposure.

The site of Mr. Perkins's house (Fig. 11) presents a different problem. Here the principal facade faces the main road, but it is not parallel with it because of the topography of the ground, which consists of a high ridge running northeast and southwest, on which the house was placed, allowing the land to fall away in all directions and giving the most favorable exposure for the rooms. The sun porch (Fig. 17) faces the south with east and west exposure; the living room also has sun the entire day through eastern and western windows, the dining room has the desirable eastern exposure and the majority of the master bedrooms are exposed to the sun and to the breeze.

In Mr. Richards's house (Fig. 20) the

entrance is on the north, and all of the principal rooms face the south. This house, while somewhat larger than Mr. Kniffin's, has the same general arrangement of rooms; but observe how the service wing has been pushed upward to obtain the maximum amount of light and air. Had Mr. Kniffin's arrangement been followed blindly, the service wing below the main body of the house would have The cut off much of the sun and air. failure to recognize that a plan suitable for one site cannot be blindly followed on all other sites has spoiled what would otherwise have been many a good plan. A notable example of this is a fine old house on a southwest corner facing Gramercy Park, in New York. The entrance hall is on the left, back of which are the stair hall and pantry. On the right is the living room and back of that the dining room. This plan was made originally for a southeast corner, which gave windows along the eastern side for the living and dining rooms. When the plan was used for the southwest corner the builders did not realize that it should be reversed, and the result is that the hall. stairs and pantry have windows facing the east, while the living and dining rooms are alongside of a brick wall and receive light only at the ends. The foregoing analysis of Mr. Adams's plans shows that he has correctly located his houses and made the most of all of the advantages of the site.

(b) Straightforward and commonsense arrangement of rooms and adaptability to the requirements of the household. An examination of these four plans shows that they are composed of three elements: first, the main body of the house, containing the living room, stair hall, dining room and master bedrooms; second, a wing devoted to the lounging quarters, containing the sun parlor, billiard room, porch, piazza, etc., and, third, another wing for the service, comprising the kitchen, pantry, servants' hall and maids' rooms.

In the main body of the house are the living and dining rooms, separated by a spacious hall, from which they are entered by wide doors placed opposite one another and giving a long vista and a

sense of ampleness and spaciousness. At each end is the fireplace, appropriately terminating the vista. The main hall in all cases runs through the house, with broad doors and side lights at each end, affording a view of the garden and making the first floor light and cheerful. One's first impressions upon entering a building are the most lasting; and the nobly proportioned halls of Mr. Adams, with their broad and comfortable stairs (Fig. 16), impress one with a feeling of dignity and hospitality. Depending upon the exposure of the house, the entrance is under the stairs or opposite to it. In Mr. Kniffin's (Fig. 2) and Mr. Scott's (Fig. 7) houses the entrance is under the stairs, which are placed on the north side, so as not to occupy the valuable southern exposure required for the liv-When so planned the ening rooms. trance always opens into a vestibule to shut off cold draughts in winter weather. Also notice that coat closets and lavatories have been provided (Fig. 17) which are entered from the hall. All of the second floor stair halls are provided with outside windows, flooding all parts of the house with light and sunshine and banishing dark and gloomy corridors. The bedrooms are generally provided with fireplaces and windows on two sides, insuring cross-draughts and good ventilation. All bedrooms have ample closets so planned as not to encroach upon the bedroom space, and, above all, most of them are connected with a private bath. Mr. Adams has been unusually liberal with his bathrooms, the ratio being three bathrooms to four bedrooms.

The service wing contains a pantry, a kitchen, a laundry and a servants' dining room or hall, the last mentioned room being the most important. Anyone who has employed a man on the premises, as gardener, coachman or chauffeur, knows that it is difficult to keep a cook when the men have to be fed in the kitchen. The separate laundry is also a good feature of these plans. Another excellent feature is the servants' porch, which is always on a side of the house invisible from the principal rooms and approached generally, as in Fig. 20, by a separate service drive. Housekeepers will also



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FIG. 1.—ENTRANCE—COUNTRY HOUSE OF HOWARD S. KNIFFIN, ESQ., CEDARHURST, L. I. WILLIAM ADAMS, ARCHITECT.



FIG. 2.—FLOOR PLANS—COUNTRY HOUSE OF HOWARD S. KNIFFIN, ESQ., CEDARHURST, L. I. WILLIAM ADAMS, ARCHITECT.

THE ARCHITECTURAL RECORD.



FIG. 3.—COUNTRY HOUSE OF HOWARD S. KNIFFIN, ESQ., CEDARHURST, L. I. William Adams, Architect.



FIG. 4.—COUNTRY HOUSE OF HOWARD S. KNIFFIN, ESQ., CEDARHURST, L. I. William Adams, Architect.

appreciate the larder or ice room entered from the porch and communicating with the kitchen, making the delivery of ice through the kitchen unnecessary and the frequent complaints of muddy floors un-The same thought and care known. have been expended in planning the maids' rooms, the majority of which have closets like the master's rooms. There is no passing through one room to get into another. All open into a light, bright corridor (Fig. 20), and ample bathrooms and toilets are provided in all cases. Another good arrangement is that the cellar is approached from the service stairs adjacent or near to the kitchen, and not from under the main stairs, a common arrangement in many plans.

(c) Good proportions of rooms. The architects of the Georgian period paid particular attention to the proportions of their rooms, and these were often known as cube rooms or double cube rooms. Mr. Adams's proportions for his large rooms are a cube and a half; that is, the rooms are about once and one-half as long as they are wide. The living room in the plan at Fig. 17, where the fireplace does not project into the room, is superior to the others. Projecting fireplaces and chimneybreasts very frequently spoil the effect of spaciousness by narrowing the room at the place where it is most frequently used, thus making the room appear cramped and crowded instead of large and spacious. Mr. Charles A. Platt recognizes this, as a study of any of his plans will show. Another good feature of all Mr. Adams's work is the simplicity of it. No forced arrangements are made for the sake of introducing some "feature" or producing a "unique effect." Note the absence of inglenooks, alcoves and bays. His rooms are all set firmly on their foundations, with their "four sides squared to the wind."

The same care is taken with the proportions of the maids' rooms, which are not mere cubbyholes of the minimum area permitted by the New York Building Code, seventy-two square feet. In addition to the servants' bath in the plan at Fig. 20, which is centrally located and accessible to all maids' rooms, the rooms themselves are provided with lavatories. It is safe to say that housekeeping in Mr.



FIG. 5.—PLOT PLAN—COUNTRY HOUSE OF JOHN F. SCOTT, ESQ., HEWLETT, L. I. William Adams, Architect.



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FIG. 7.—FLOOR PLANS—COUNTRY HOUSE OF JOHN F. SCOTT, ESQ., HEWLETT, L. I. William Adams, Architect.

Adams's houses must run along very smoothly and that there will never be any occasion for maids to leave because of dark, dismal and uncomfortable rooms, nor because every convenience for their comfort has not been provided.

(d) Appropriateness of design and of details. All of these houses are built on Long Island, where the characteristic landscape is low and flat. The designs seem to blend into the landscape and are all broad, long and low, resembling in this respect their prototypes, the long, low, shingled Long Island farmhouses. In our native American architecture certain types have been developed which seem best suited for certain localities and which persist through all changes of style and fashion. What is more appropriate in their respective localities than the one-story, gambrel roof, brownstone

farmhouse of New Jersey, the hipped roof quarterdeck mansion of Salem, Marblehead, and other New England seaport towns, or the long, low, Dutch farmhouse of Long Island? Mr. Adams has preserved the best traditions of the Long Island type in his houses. They all look as though they belonged to their site and were married to it, and do not impress one as being foreign importations uncomfortably settled amidst uncongenial surroundings. While the spirit of the old designs has been maintained, the materials have been changed in keeping with modern tendencies. The original Long Island house was of frame, covered with deep hand-split shingles, with an exposure of about eleven inches. Years ago, when wood was cheap and abundant, it was easy to obtain these shingles, which, because they were split out of the





FIG. 9.—HALL—COUNTRY HOUSE OF JOHN F. SCOTT, ESQ., HEWLETT, L. I. WILLIAM ADAMS, ARCHITECT.



FIG. 10.—DINING ROOM—COUNTRY HOUSE OF JOHN F. SCOTT, ESQ., HEWLETT, L. I. WILLIAM ADAMS, ARCHITECT.



FIG. 11.—COUNTRY HOUSE OF NOR-TON PERKINS, ESQ., LAWRENCE, L. I. WILLIAM ADAMS, ARCHITECT.



FIG. 12.-COUNTRY HOUSE OF NORTON PERKINS, ESQ., LAWRENCE, L. I. WILLIAM ADAMS, ARCHITECT,



FIG. 13.—ENTRANCE — COUNTRY HOUSE OF NORTON PERKINS, ESQ., LAWRENCE, L. I. WILLIAM ADAMS, ARCHITECT.



FIG. 14.—ENTRANCE FROM GARDEN—COUNTRY HOUSE OF NORTON PERKINS, ESQ., LAW-RENCE, L. I. WILLIAM ADAMS, ARCHITECT.

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FIG. 15.—LIVING ROOM—COUNTRY HOUSE OF NORTON PERKINS, ESQ., LAWRENCE, L. I. William Adams, Architect.



FIG. 16.—HALL—COUNTRY HOUSE OF NORTON PERKINS, ESQ., LAWRENCE, L. I. William Adams, Architect.

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FIG. 17.—COUNTRY HOUSE OF NORTON PERKINS, ESQ., LAWRENCE, L. I. William Adams, Architect.

heartwood, were very durable. At the present time, however, owing to the increasing scarcity and expense of wood, shingles are difficult to obtain, and, moreover, since they are generally sawed and seldom split from the log, they are crossgrained, full of sap, warp and check badly and require frequent painting to preserve them, and even then they are not so durable. Mr. Adams has, therefore, faced his frame with brick instead of shingles, which has the advantage of requiring no upkeep. The change of material has not, however, destroyed the character of the architecture; and Mr. Kniffin's house (Figs. 3 and 4) maintains the charm and best traditions of the Long Island farmhouse. The long, low roof, the proportions of the windows

and the fenestration are all reminiscent of the older type, and, if shingles were substituted for the bricks, it would be difficult to tell that this is a modern house.

As before mentioned, this house is of frame construction, sheathed and papered like the shingled houses, but lined on the outside with four inches of brickwork instead of shingles. A further advantage of the brick lining is that it is warmer in winter and cooler in summer than a shingled frame would be. The other houses (Figs. 8, 12 and 18) have solid brick walls. Note how this difference is expressed in the treatment of the gable ends. Fig. 8 suggests the coping of a masonry wall, while Fig. 3 is characteristic of frame construction.

Not only are these houses remarkable





FIG. 19.—COUNTRY HOUSE OF FREDERICK L. RICHARDS, ESQ., GREAT NECK, L. L. WILLIAM ADAMS, ARCHITECT.



FIG. 20.—RESIDENCE OF FREDERICK L. RICHARDS, ESQ., GREAT NECK, L. I. WILLIAM ADAMS, ARCHITECT.


FIG. 21.—GARAGE AND GARDENER'S COTTAGE—COUNTRY ESTATE OF FREDERICK L. RICHARDS, ESQ., GREAT NECK, L. I. William Adams, Architect.

for judgment in the choice of material, but they are also remarkable for simplicity in design and sound workmanship. What, for instance, could be more simple and dignified than the entrance to Mr. Kniffin's house (Fig. 1) or that of Mr. Perkins's house (Fig. 13); also the cornices of Figs. 3 and 18 and the dormers of Fig. 12? In fact, all of Mr. Adams's work is full of taste and is remarkable for its fitness and restraint. His detail is all reserved, but never austere. Most of it is confined to his porches, where sometimes, as in Fig. 14, he will permit himself a balcony. His interiors, of which unfortunately we have only a very few illustrations, are characterized by the same simplicity and taste. Recall the average pretentious house, which is more like a museum-and a very poor one at that-than like a home, and compare it with the well appointed and refined

charm of the interiors of Mr. Perkins's house (Figs. 15 and 16).

The same thought and study expended on the house is given to the surroundings and outbuildings—the broad and hospitable approach to Mr. Richards's house (Figs. 18-20), and the charming and picturesque garage and gardener's cottage (Fig. 21).

In short, Mr. Adams sees his problem steadily and sees it as a whole. His houses, which begin by fitting their sites, have invariably a quiet, refined and distinguished air. Good proportions have been at the bottom of this unbroken sequence of beautiful houses. The broad masses of his composition, the placing of his doors and windows, always admirably expressive of the plan within, and the thoughtfully arranged lines of his façades, will ever continue to be a source of pleasure and enjoyment.

PRINCIPLES OF POLYCHROME A IN SCVLPTVRE BASED ON GREEK PRACTICE

TEXT AND DRAWINGS BY LEON V SOLON

F we assume that the treatment of sculpture with polychrome is a distinct art, we must at the outset credit it with the capacity to realize a specific expression of beauty differing from any attainable with other means. The beauty inherent in a decorative method is only appreciable when the aggregate circumstances of its peculiar constitution are viewed at a given angle. A change of objective in the completion of any work in the arts is not conducive to satisfactory results. The sculptor who applies color to a carving which was conceived without that feature has an equal chance of success with the painter who uses an engraving on which he applies color in the hope of producing a painting. The basic plans for constructing an effect in light and shade and an effect in color differ in essentials; the elimination of all that is unessential to the desired effect from the superabundant data in nature determines their adequacy.

Modern polychrome sculpture in the majority of cases proceeds no further than to create a condition of mental expectancy. The proof that a method of procedure is fitting and that the conception is aligned on its objective is that a homogeneous result is obtained from which no integral part may be separated or eliminated without a sense of incompleteness resulting. This test is applicable to any effect produced by complex decorative methods. If, by the elimination of the main characteristic, a complete and undepreciated work remains, we may assume that the work was not impelled solely by that specific decorative intention.

The sculptor who would create works

of the polychrome type must subject both conception of scheme and method to the stringent exactions of color if he would convert the grave risk attending its use into an assured benefit. In the first place, the subject must be selected and the composition controlled with the object of "carrying" color, as any accidental grouping of tint may be detrimental to decorative balance. Experimentation is obviously necessary to evolve the technique best fitted to the artist's individual expression, the data available in antiquity being often too remote from our conventions for complete The relation of reliefadaptation. that is to say, light-to color must be determined; experience will devise means whereby variation of tone may be produced from a flat color, through methods belonging to the sculptor's art, without resorting to meretricious practices of color manipulation.

Gradation of tone from light to dark is not compatible with the dignity of sculpture. It is therefore essential that the inherent harshness of the flat tint be neutralized by other means. The attainment of this result will necessitate an analysis of the effect on color resulting from a variety of causes, such as the influence of sharply defined or subdued detail underlying it; the treatment of boundaries or edges of tint to neutralize the detached appearance of a flat color mass; the apparent change which occurs in tone value from its varying area or association with another color; the enrichment resulting from alternating and inlaid colors, and the decorative value of various tones of one color. These and many other considerations must be examined and applied to practice before polychrome sculpture can boast a basic technique such as is available in other arts.

Exterior circumstances have exerted an adverse influence reacting against the expansion of this art. Precedent, the safe-conduct of the artist, is in this case so remote and difficult of access that it is almost an unknown quantity. This practice, which in Greece would have been most remarked by omission, is in our day open to the imputation of eccentricity or réclame. The various forms of realism that of recent years have taken possession of the plastic arts have militated against the evolution of a color technique in sculpture. Polychrome and realistic sculpture travel on intersecting lines, diverging at that point at which the artist leaves the accidents of nature to interpret form.

AN OUTLINE OF GREEK PRACTICE.

Sculpture during the classic period of Greek art had not the independent existence it enjoys today; to a considerable extent it was a direct accessory to architecture. The history of Greek polychrome sculpture reveals not only the point of contact between two arts, but also their relative positions. It proves architecture throughout the evolution of its orders to be the power instituting conventions and compelling their adoption in sculpture. The purpose of sculpture was subordinate to that of architecture, with the function of contributing beauty to a major scheme; it was not then permissible to regard the edifice in the light of a setting for the sculptor's work.

The Greeks attached an extreme importance to the relative capacity of materials for rendering subtleties of plane



POLYCHROME TREATMENT OF EARLY FIGURE AND SEAT IN ACROPOLIS MUSEUM.

and precision of detail. This consideration exercised a direct influence on the development of polychrome treatment and was responsible for the two distinct types into which polychrome sculpture divides itself.

In many districts of Greater Greece a



POLYCHROME HEAD OF ATHENE PARTHENOS. BERLIN MUSEUM.

tufaceous stone was used as the principal structural material when wood was discarded for building purposes; it was coarse in texture and did not come up to the requisite standard for rendering delicately carved detail. To obviate this defect stucco and faience were used as revetments for certain architectural items in those districts. Where the human figure had to be carved from this stone, such alternatives were naturally out of the question; the natural coarseness of the material was consequently disguised by the application of pigment, which covered it entirely. The theory that the adoption of this type of polychrome decoration was to a great extent due to dissatisfaction with material is endorsed by a drastic revision in the manner of color treatment as soon as marble, the ideal medium, came into general use. A new spirit in decoration evolved with the advent of marble among the recognized materials. The necessity for color as a cloak or disguise no longer existed; it now fulfilled a new function, emphasizing the natural beauty of this stone, by inlays of delicate ornamentation brilliantly colored.

Architectural precedent was probably responsible for the lack of color variation in the background of sculptured reliefs. A strict convention ruled the application of certain colors to certain sections of buildings; for the field of friezes, metopes and pediments it was decreed that red or blue only should be used. This convention probably influenced the choice of those colors for reliefs which were not parts of buildings.

The palette available for the sculptor was identical with that adopted by the builder. It was composed of colors derived from mineral bases, which were used to the exclusion of all other derivatives on account of their immunity from the action of light. Many of the examples exhumed in our day are very brilliant in color when first exposed to the air, but rapidly lose their intensity and purity through oxidation caused by change of atmospheric conditions, after centuries of burial.

The colors found on sculpture are blue (turned to green), yellow, shades of red, reddish and purplish brown, black, and white. Pigment is invariably applied flat, without any attempt to gradate or break up the tint.

The polychrome pediment sculpture group of Hercules and the Hydra is representative of the color treatment of tufaceous stone. The entire surface of these carvings is covered with pigment; this is always the case in sculpture executed in this material. The colors noted by Lechat are arranged as follows:

Dark Yellow—The body of the Hydra. Red—The nude parts of the bodies of Hercules and Iolaos; the cuirass of Hercules; the horse's mane; the interior of the Hydra's jaw.

Black—Quiver and trappings; beard of Hercules; eyebrows, eyelashes and pupils of eyes; markings on the tongue of the Hydra.

Blue-Garment of Iolaos and his hair; this color has now turned green.

White-On globe of eyes of Iolaos only.

Brown—Certain parts of the Hydra, the chariot and the reins.

On the polychrome pediment group of the sixth century B. C., known as the Triple Typhon, the location of the colors, according to Lechat, is as follows:

Red—Men's torsos and faces; scale on serpents arranged in longitudinal stripes, one stripe red between two blue; alternate feathers in Typhon's wings; bodies of lions (light red); bull's tail; interior of its mouth and tongue; streaks of red on body to represent blood drawn by lion's claw.

Brown-Rings around nipples; lion's mane (reddish brown).

Black—Eyebrows; edge of eyelids; pupils; spots on bull's muzzle to represent hair; hairs round claws indicated with black lines.

Blue—Beard and hair; iris of eye (now quite green); scales of serpent and feathers, alternating with red; body of bull.

Yellow—Globes of eyes; muzzle of bull; head of Typhon, of pronounced orange tone.

The manner in which the colors are disposed on these two groups is repre-



POLYCHROME TREATMENT OF WINGS.



BULL'S HEAD FROM PEDIMENT GROUP. TUFACEOUS STONE WHOLLY COVERED WITH COLOR.

sentative of the tufaceous material and the period. The blue beards, etc., are ample evidence to establish the artist's independence of nature as a source of color inspiration.

In analyzing the rearrangement or reconstruction of the pediment groups, it would appear that color was located on their various component parts to produce a color arrangement subordinated to that which convention had established on the exterior, distributing the colors in such fashion that the equation of color forces, so admirably adjusted in the façade, would remain undisturbed.

The practical benefit that might accrue to the modern sculptor would probably be derived from a study of special treatment of ornamental detail or of parts of the human figure, such as the hair, mouth, eye, etc., which were contrived especially for the addition of color. There are also useful instances of edge treatment to modify the harshness of bright tints. Where repeating detail is found ornamenting drapery or accessories, its color treatment conforms to the principle laid down in architectural polychrome detail, viz., that repeating detail shall be colored with alternating colors where two tints are used; or where more than two occur, they shall recur in regular sequence.

Suggestion for color treatment gathered in the tufaceous class is more likely



EARLY DRAPED FIGURE DECORATED IN POLYCHROME SHOWING COLOR ALTERNATION IN DECORATIVE BORDERS. ACROPOLIS MUSEUM.

to apply to work executed in glazed clay than to marble, as the necessity for covering the biscuit surface with the glaze corresponds to the original circumstance.

The draped figures found on the Acropextremely interesting constitute olis documents in the history of polychrome sculpture. They date from the sixth century, and mark the transition of decorative treatment resulting from the abandonment of tufaceous stone in favor of marble. These figures reveal the intense delight of the sculptor in a sympathetic medium capable of yielding any subtlety genius could conceive. The quality it possessed was so precious that the interpretation of form and the conception of decorative detail were centred on realizing the full content of this beauty. Where color had been previously used to disguise defects in texture, its function was now to enhance its beauty. In the former case, circumstances ordained that the color scheme should completely cover the surface; in the latter, the substance was so admirable that it constituted a considerable supplement to the beauty of the statue.

When first exposed to the air the colors recovered by archeological research are in their original condition of brilliancy, but soon tarnish with exposure. The colors were yellow, black and gold, with red and blue predominating. The color illumination occurs on the hair, head-dress and costume. The location of the colors, according to Collignon, is as follows, there being no color on the flesh:

Red—Hair, lips, and in ornamentation on costume.

Black—Eyebrows, eyelashes, pupils of eyes, with a yellow circle round the iris.

Blue—(Now greenish in tone) decorations on head-dress and costume.

Costume—There is no trace of color covering the draperies. It is used solely as decoration to render the effect of embroidered trimming. The only part painted solid is the chiton, and that only where it is almost entirely covered by the himation, in which case the chiton is blue. The ornaments forming a band at the collar and lower edge are in red. The ornamentation is sharply incised,

the pattern being traced and filled in with the brush in red and blue.

The intensity of the white marble presented another consideration for the Greeks-the necessity to modify it by some means, to prevent the apparent detachment of the color through the disparity of tone quality which existed between the pigment and the ground.

The practice of applying a species of patina over the entire surface was instituted and appears to have been entrusted to the painter as appertaining to his craft. The process is described by Vitruvius. At Delos an inscription has been deciphered, which enters into comparatively minute

tific advancement of our time may serve the artist.

The choice of a suitably composed pigment is also momentous, as the necessity for penetration of the marble by heat will adversely affect any vegetable or madder color. The writer, some years

ago, had occasion to experiment with colors, under similar conditions, on other materials and encountered many difficulties. The obstacles were overcome by the fortunate i d e a to use the powder colors of the china painter. These are not affected by the comparatively low temperature necessary for burning in and could conveniently be mixed with wax, being ground to an impowder. palpable Their color range is very extensive; their tone character is on the order of the pastel, having delicate brilliancy and a velvety appearance.

INSTAL OF POLYCHROME HIS MATERIAL. MUSEUM. base must not be overlooked. The

detail, describing how a coat of wax was spread on the surface of the marble or oil rubbed in to give a warmer tone and to serve as a protective coating for the encaustic color decoration.

To the modern sculptor contemplating polychrome, this accessory effect is one of great importance, as it performs a function relative to that of the varnish on the oil painting, completing the final adjustment of untuned tones. This is one of the instances in which the scienillustrations show a few treatments of pedestals for statues. The variety of design is so great that it is hardly possible to make a selection that is in any way typical. No. 1 exhibits an interesting use of three-color decoration on scales, the colors recurring in regular order, probably recalling some similarly detailed accessory to the statue.

It is interesting to note how diametrically opposed to our views were those of

ARBLE FIGURE, TYPICAL OF POLYCHROME TREATMENT OF THIS MATERIAL.

ACROPOLIS MUSEUM.





PEDESTALS FOR SCULPTURE TREATED IN POLYCHROME.

I. Pedestal of statue of Evenor. II. Base of ex-voto found on Acropolis. III. Base of statue with signature of Anthenor inscribed. IV. Base of ex-voto dedicated to Athene.

the Greeks, with respect to the manner in which letters and words were to be arranged in inscriptions when used in connection with decoration, sculpture or architecture.

Regularity, alignment and spacing are the first requirements in our standard; but the Greeks, who placed symmetry in the foremost rank of quality, regarded an inscription as a free decoration independent of axis, to be treated with the same spontaneity of spirit as guides the hand of the Japanese artist, when he traces the free-growing spray over a silken panel.

The problem confronting the sculptor who contemplates polychrome decoration, as a feature of his future work, may well be described as abstruse. Color inspiration in painting claims nature for its foundation, its boundary line, even in decoration, resting on probability. Adverse criticism is not to be expected because the painting is to a great extent the counterpart of an object in nature which has obviously provided color data for its execution. The same influence, equally apparent, in a color treatment of sculpture, however, assumes an appearance of realism inconsistent with the major aims of sculpture.

This problem is only for those of the stature and virility of the pioneer; the land is rich, but difficult of access. Principles deduced from the experience of classic times, when this art was inseparably connected with sculpture, provide us with the necessities for its future life. If it is to become an art identified with the American race, it must have other sustenance than the dry roots of archeology.

It may be that progress in this art will depend on the re-establishment of those relations between artist and craftsman which have existed in all ages previous to our own. If the sculptor's work is not to suffer in ornamentation, the distribution and devising of the illumination must be conducted with a skill equal to his own by one specially qualified, as ornamentation and color design need long apprenticeship and a special gift. It might be opportune to recall the Greek legend concerning Praxiteles, who, on being asked which of his works gave him the most complete satisfaction, replied, "Those which Nicias has painted."

Att Dista Tak .

LIBRARY-QUEEN'S COLLEGE.



English Architectural Decoration Text and Measured Drawings by Albert E. Bullock

Part VII.

THE study of ceiling design and plaster work is one of the most engrossing subjects of decoration, the origin of ornamental plastering being very early, emanating chiefly from Italy, where the art attained a high state of perfection during the early years of the fifteenth century.

Ceiling decoration was practiced in Etruscan times and during the Aegean age in Greece—to wit, the tomb of Agamemnon at Mycenae and the beehive tomb at Orchomenos in Boeotia, not to speak of Egyptian and Pompeian decorations. At Rome, the ceiling of a tomb in the Via Latina is an excellent example of geometrical ribwork, with interesting ornament and reliefs based upon ancient legendary subjects.

The palaces of Italy contain work of much magnificence by Giulio Romano and his school. One of his assistants, Francesco Primaticcio, went to the Court of Francis I in 1516 at the age of twentysix years to assist Il Rosso at Fontainebleau. By the year 1540 much activity in decoration developed in England at Hampton Court Palace, where Lucca Penni was employed by Wolsey and Hans Holbein at St. James's Palace by Henry VIII. Nonsuch Palace was in building at this time and doubtless engaged the attention of the more famous European artists then in England.

During the period of Continental development in plaster wor kthe English productions were of a mediocre nature, and Tudor designs obtained some time after the general adoption of Renaissance principles.

As regards the medium used and the various methods adopted, one has to traverse the history of the craft for the origin of its conception, from Grecian days when the marble temples were covered with a plastic surface upon which a colored decoration was applied, to the Italian sgraffito work of the fifteenth century or the majolica work of Girolamo della Robbia and his school. In sgraffito work a colored ground was applied and upon it a plastic covering was put, which latter was removed to reveal the colored ground beneath in selected patterns, which received some additional modeling. Sgraffito was used both on the exterior and in the interior of buildings.

There is a certain similarity between this method and that adopted in England under the name of stucco-duro which was practiced at Nonsuch Palace and other sixteenth century mansions. There are examples extant of wattle-anddaub work and of pargeting, which succeeded it, on the exterior of cottages at Wyvenhoe, Essex; Barnstaple, Devon; Ipswich, Suffolk, and elsewhere.

The paneled work at Riddlesden Hall, Keighley, Yorkshire, and that at Wolsey's Closet, Hampton Court Palace, apper to differ from this practice, taking the form of papier maché impressions of molds repeated in alternate array.

The earlier Jacobean ceilings were, however, of plaster composed of lime, sand and hair, and in design were mostly geometrical, with patterns which were repeated in far-distant districts, indicating the existence of a guild or governed craft operating upon common lines.

During the latter part of the reign of James I and early in that of Charles I, Inigo Jones introduced modeled decoration to ceilings and walls in a form of composition which was applied to salient surfaces. This obtains at Greenwich, Wilton House and other of the larger mansions of the period. In Georgian times, however, the greater projection and undercutting of features necessitated a skeleton framework or building up with hazel twigs and wooden pegs similar to the method used in clay modeling by sculptors. Small reeds and pine sticks with metal wire were frequently resorted to, being used as mediums to this end in order to attach the figures, flowers, birds and fruit to a ceiling surround.

It will be gathered that the labor involved was considerable, remarkable, skill being attained, especially in certain ceilings at Dublin and Edinburgh.

With the Chippendale and Adam periods the ceilings became flatter and the necessity of subsidiary assistance to support the weight of heavy plaster forms was thus avoided. It was possible

to execute a ceiling or wall decoration more quickly and at less cost, in consequence of which the art was more universally adopted.

The treatment of ceilings is essentially a matter of relative style between that of the walls and the ceiling. There is to my mind nothing more disappointing than a fine room with an inappropriate ceiling out of harmony with its environment, or no ceiling at all. There are, unfortunately, too many period rooms in England, suitable ceiling ornament is the one note incompleteness of

be concealed behind the architrave of the window, and the blind roll should likewise have its own boxing, and thus combine with other elements to please the eye.

Moreover, the theme of decoration should embrace certain similar motifs in the design of the ornament both on walls and ceiling and, if practicable, in the furniture and hangings, which at once indicates that the composition was the result of one mind and not a series of



where the lack of ANGLE OF CEILING FROM THE MAYORALTY suitable ceiling ornament is the one note CAT," EXETER, 1759. NOW OWNED BY CHARLES ROSS, ESQ.

which renders the apartment in this respect a failure. One would, however, prefer it thus, rather than be tortured with a composition which is in bad taste and perhaps equally badly modeled.

What enhances the best period rooms is the harmony of paneling with ceiling; next to which a good parquet floor or surround to the carpet is the final expression of completeness from the point of view of structural decoration. The furniture, hangings and lighting arrangements should correspond in style, to give an effective finish.

As to the method of hanging curtains. the rods supporting these should rightly Deysbury, near Liverpool. In the former case he worked in combination with fellow artists, and the result is a confusion of ideas, although each individual effort, taken apart, may be admirable. Directly he is given a free hand the untrammeled genius of the man asserts itself and he produces a lasting work of art.

It will be seen how essential it is to start with a scheme having a rhythmic movement throughout. This was, I firmly believe, the main principle which governed the early designers whose works are now treasured and admired.

For this reason I have a rooted ob-

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chaotic inspirations emanating from different sources. If these principles are observed one is more than half way on the road to success in the achievement of a satisfactory combination.

I say more than half way advisedly, because the desired goal is chiefly dependent upon the design chosen and is not infrequently due to accidental or unconscious individualism of the artist employed. Take, for instance, more modern work than of the periods already dealt with, as that of the late Alfred Stevens at South Kensington Museum and at



Bull Store Stand President Store



TRINITY CHAPEL.



with comments.

ALS BURG

QUEEN'S CHAPEL.

A Manager of States - Conservation and the



DRAWING ROOM CEILING— BRYMPTON D'EVERCY, SOMERSET.



COMMONS ROOM-JESUS COLLEGE.

Weindamas."

THE REAL PARTY

and Palace

17.58/15



From a Drawing by T. Frank Green.





CEILING OF CHAPEL, ROYAL MILITARY HOSPITAL, KILMAINHAM, IRELAND, 1680.



CEILING IN LADY HOYT'S DRAWING ROOM.



CEILING IN BOARD ROOM, NEW RIVER COMPANY'S OFFICES, LONDON.



LONG GALLERY, END BAY.

jection to museums which house isolated examples of art shorn from their original surroundings—in a foreign atmosphere—and often placed in juxtaposition to another object at once equally at variance with both its surroundings and its neighbor. Picked of its paint, robbed of its hue, what is left beyond the bare joiner's work?

Perhaps it has advantages for the student who studies detail; but what can he know of the complete scheme, or how can he solve the riddle of the principles which governed the motives of the original artist?

A good work is likened unto a fugue, having a subject which is gradually developed until its completeness so satisfies the eye that the beholder finally leaves the apartment with a sigh of satisfaction at the genius displayed. Such work is not impossible today; it is the result of the expression of skill and genius, and there are many examples extant, both in France and the British Isles, which attain to this degree of perfection.

Owing to the different character of the materials employed in ceilings and walls it is not always practicable to repeat motifs on both areas, nor was it always done; but where this was so, the main lines frequently carry round or have some relative or proportionate value to the other media.

Early Jacobean work in England was somewhat clumsy; although many interesting geometrically ribbed forms were practiced, of which perhaps the several examples at Knole, Kent, are among the most interesting. Next come the Charles I examples, as at the Customs House, Exeter; The Pynes, Devon, and many examples by Inigo Jones, as at Coleshill, Raynham, etc.

At Ashburnham House, Westminster, a somewhat later period is represented in the library ceiling; while the drawing room retains the heavy cornice treatment common to the work of Inigo Jones at the Queen's House, Greenwich, and elsewhere.

The Wren era comprised the period embracing the reigns of Charles II, William and Mary, and Queen Anne, of which some of the most interesting

examples are those executed during the reign of the two brothers, Charles and James, consequent upon the fire of London, and the many new churches and larger mansions which were then erected. Wren's work at Belton and Hampton Court Palace and Talman's work at Chatsworth were of this period. Wren's later work at Hampton Court Palace for William and Mary and the board room of the New River Company at their offices in Rosebery avenue, London, were con-temporary. Illustrations from these examples have been given in former articles, including the ceiling from the Ward School, Love Lane, reputed to have once been in the occupation of Sir Christopher Wren.

The example cited in a former article as from Clare Market of the date 1670 is an heretical instance of no distinct style and is very probably of a much later date than that given by the authorities of the Victoria and Albert Museum.

Hawksmoor and Payne practiced a debased art in decoration, with plasterenriched scrolls to picture-framings on walls, until James Gibbs exhibited much taste in work at the Radcliffe Library, Oxford, and some smaller houses largely based upon classic lines and executed by Artari, who often worked with his colleague, Bagutti, on the decorations designed by Gibbs. About this time a style based upon French design, coinciding with the work of Chippendale, was largely developed by contemporaries of Sir William Chambers. The style referred to will be illustrated in the next article by various details from chimneypieces and ceilings. It attained great freedom of execution and offers possibilities of future expansion in advance of any other of the set styles described. This was founded upon the scroll designs of the French metal workers under Boulle, and was adapted to furniture, ceilings, mantels, and cast-iron chimney backs to dog grates, etc.

Two examples are here given from Exeter and Abchurch Lane, London, illustrating the freedom of design and execution of this style.

Under the auspices of Lord Burlington a new school arose for developing the purer classical lines, with Colin Campbell, William Kent, Archer, Ripley and Wakefield, and the more pronounced exception of the work of Leoni at Moor Park, which is in distinctly rococo style. Kent favored a revival of the work of Inigo Jones, and actually reproduced much of his detail at the Treasury Offices, Whitehall; while Holkham Hall represents a studied example, which was produced by the combined efforts of the school with a view to producing a building of palatial magnificence of an entirely original character.

During this period it was natural that previously developed detail should creep into the design; hence, ceilings often represented a classical basis of design in the groundwork of the panels, with modeling of French motifs.

Seeing the confusion to which the art had attained, the Brothers Adams evolved a new and original style known by their name, which for lightness and grace will go down to posterity as unique.

The combination of delicate Wedgwood cameo with painted panels by Angela Kaufmann and Antonio Zucci was a happy blending which found much favor for state rooms and libraries where a light decoration was desired. But, as has been previously stated, the depth of the authors failed to maintain the purity of the detail and repetition of ornament eventually killed the style.

Thereupon a return to the classical was again attempted in work by Sir John Soane and his pupils; but for the most part they strove after features which lacked the essential elements of originality and waned in due course. Since then the older styles have been repeated by George Devey and his immediate followers, each bringing in certain eccentricities of personal predilection, which failed to hold public appreciation.

Decoration, therefore, has in most instances lapsed into a system of copying periods more or less suitable to the furniture chosen, or vice versa, and there is as yet no light thrown upon the trend of future events. Certain it is that set repetition fails utterly to satisfy this want—an original unfettered art is needed, which will alone survive this time of stagnation, and we await such expression as may yet charm the minds of those who seek for the beautiful in the art of the plasterer and of the artist in decoration.



FRIEZE IN GREAT DRAWING ROOM, ASTON HALL, 1608.

·INDVSTRIAL · HOVSING · DEVELOPMENTS ·IN · AMERICA ·

By LAWRENCE VEILLER

Secretary of the National Housing Association.

PART IV · A COLONY IN THE BLUE RIDGE MOUNTAINS at ERWIN, TENN.

Grosvenor Atterbury, Architect and Town Planner

usual association with the housing of railroad employees engaged in construction and repair work is the typical labor camp in which the construction g a n g s are housed, consisting as a rule of

old freight cars, with the wheels taken off, set upon the ground and used as bunk houses.

ERWIN TENN

We do not instinctively associate with the housing of railroad employees a Garden Village or model town.

It has remained for a southern railroad, the Carolina, Clinchfield and Ohio Railroad, to set an interesting example in this respect. Down in the Blue Ridge Mountains at Erwin, Tenn., this railway winds leisurely through attractive hill country rich in minerals. Here sheltered in a very beautiful table-land enclosed by high hills on three sides is a little settlement, in which the railroad has established important machine shops. Up to two years ago this settlement had reached a population of about 3,000, a considerable growth in the ten years since the railroad came through. Two years ago it was like a thousand other country villages, of hit or miss construction, with architecture of a nondescript character and with nothing to attract one's attention to it or differentiate it from hundreds like it.

In the Summer of 1916, some of the men financially interested in this railroad, wishing to develop the town along fundamentally sound lines and to provide for the increased growth which they foresaw. called into consultation Mr. Grosvenor Atterbury, the New York architect, and invited him to visit Erwin and make recommendations to them as to the type of development that could be given to the town. The result of this visit of Mr. Atterbury is a new Garden Village now springing into existence. It required a good deal of vision for a little community like this, tucked away in the mountains of Tennessee, without even a "cattle law" to keep the cows off the public streets, to see the advantages and possibilities in wellordered development along modern town planning lines, but these gentlemen had it and this is what has come to pass. Already an area which will eventually take care of 30,000 or 40,000 has been laid out.

The problem which confronted Mr. Atterbury presented many interesting questions. In the first place he did not have completely new territory to work with. The fundamental lines of the community had already been established and much of the property was unavailable for the right kind of development, being adversely held by other owners. Notwithstanding this, as will be seen by reference to



THE COUNTRY ROUND ABOUT ERWIN.

the general plan shown on page 549, Mr. Atterbury has with much ingenuity and skill worked out an extremely interesting treatment, substituting for the commonplace and unimaginative gridiron plan, with which the community had started, an attractive, modern and scientific layout along modern town planning lines, with curving streets and irregular shaped lots, combining variety of treatment and harmony of design throughout.

As a result of considerable practical experience, the curved streets have been used principally for long, sweeping boulevards and driveways and such have been avoided in the short residential streets and lanes.

The kind of variety and interest that is obtained by curving streets is not essential in the short, narrow streets where the vista is closed within a block or so.

The tendency in many of the new developments is to over-exaggerate and misplace the curvilinear element, forgetting that where the radius is short, as is necessarily the case in short streets, the lotting problem, and consequently the building problem, is enormously complicated and considerably increased in cost by irregular and curved plots. On the other hand where, as in this case, the curves are confined to the larger thoroughfares which have greater sweeps, with correspondingly greater curves, this practical objection in the lotting and building is largely avoided.

These practical considerations have influenced the layout of Erwin, as will be seen from the accompanying plans. Of course, the topography of the site is also contributive in this respect.

The system of main boulevards was laid out to satisfy the demands of future travel from the three valleys opening out from the town site. The reservation and use of a stream as a parkway along the greater part of the boulevard, which makes a circuit of the town, will preserve a very beautiful, natural feature and supply a large park area for the future town.

At the beginning it was the plan of the company to sell the property in undeveloped lots as rapidly as possible. As a result of Mr. Atterbury's work, the owners reversed their original policy after the new development was started and said that it would not do to spoil the proposition by selling unimproved lots at least until such time as the entire development had been given a start and an example set for its future extension.

It is an interesting commentary upon the wisdom of controlled development upon a carefully thought-out plan that, from at first viewing the idea of any restrictions at all with much hesitancy,



GENERAL PLAN OF THE DEVELOPMENT.





PLOT PLAN.





THE FIVE-ROOM HOUSES.

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A SIX-ROOM HOUSE.



SEVEN HOUSES GROUPED AROUND A GREEN.

the promoters of the enterprise should have become converted, as the work progressed, to the belief that proper restrictions would greatly enhance the value of the property. They finally changed their whole point of view and decided that they would not attempt to market unbuilt-on lots and so lose control of the architectural element; that they would build no houses for sale, but, instead, hold and manage them on a rental basis.

Obviously they do not expect to build all the houses for a town of 40,000 or 50,000 people, which Erwin is likely to become before many years, but they will have given direction to the character of the future city and, as it progresses, the same wisdom will continue to guard its best interests by wise property restrictions.

In this very attractive little settlement, with the railroad tracks and shops lying in the foreground, there have been built up to the present time from Mr. Atterbury's designs some 50 cottages of frame construction: some of them stucco, others shingle, a few shingle and stucco. The houses are mostly two-story cottages with sloping roofs. There are one or two bungalows. The majority of the houses are detached, though some are group houses of an interesting character of four houses in a group.

The group of houses shown above, and known as "Holston Place," illustrates most effectively the great possibilities, hitherto undeveloped in this country, of the group plan and the charming results that are to be obtained in arranging houses around small neighborhood gardens or parks, thus getting away from the stereotyped arrangement of houses in more or less straight rows, set back a uniform distance from the street and presenting an extremely monotonous appearance.

With a frontage of approximately 350 feet the architect has grouped on this plot seven houses around a very attractive small green square. How much more delightful this treatment is than the usual one will be seen if one merely imagines what these same houses would look like on the same plot of ground, placed one after another and side by side on lots 50 feet wide.

The houses are of four, five, six and

seven rooms and are extremely attractive in appearance as the elevations show.

An interesting feature of these houses. which is applicable to other sections of the South, is that they are adapted to the local custom of building without cellars. In such cases it is necessary to provide an additional room on the ground floor in the shape of a large storeroom immediately adjoining the back porch. The rooms are all of generous size and every house is provided with an open fireplace with a regular chimney and hearth intended to burn wood logs, which are plentiful and comparatively cheap in that part of the country. All houses are provided with bathrooms and with all modern conveniences.

There are a number of interesting features to this development, which are quite characteristic of Mr. Atterbury's work and which are not to be found in the usual development. One of these is the delightfully quaint variation in the style of designs for decorations of the outside shutter panels shown on page 559. Another is the very interesting street lamp posts of wood, which Mr. Atterbury has felt it worth while to design

in order to preserve a harmonious development. The planting plan shown on this page has many interesting features, especially the utilization of fruit trees as part of the landscape treatment around each house. This is not only a very decorative and artistic treatment, but a very practical one as well-one not sufficiently employed by other developers. Fruit trees cost comparatively little to plant; are attractive at all seasons of the year, and are a source of enjoyment and ultimately of revenue to the occupiers of the houses. They are greatly appreciated by workingmen and should be a feature of every workingman's colony.

Figures as to costs of workingmen's dwellings, as we all know, mean very little unless we have at the same time a statement as to the methods by which they have been ascertained and the conditions under which contracts were let and materials furnished. They vary infinitely in different parts of the country and are, of course, different today from what they were yesterday. It is interesting, however, to learn that a year ago it cost only 10 cents a cubic foot to build these very attractive and artistic cottages.



PLANTING PLAN. Note the Use of Fruit Trees.



A GROUP OF FOUR HOUSES.





ONE OF THE BUNGALOWS.







AN EIGHT-ROOM HOUSE-THE GARAGE A PART OF THE HOUSE.

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DESIGNS FOR CUTS IN SHUTTER PANELS

ONE WAY OF GETTING VARIETY.

Of course this could not be repeated in the North and in these war times.

This development at Erwin is especially significant as showing the possibilities of well-ordered, harmonious and attractive designing in the development of

[We trust that the members of the architectural profession have not been misled by a very inaccurate editorial in the April issue of the Journal of the American Institute of Architects, on the subject of the new Governmental Housing Standards.

Our readers will recall that we published in our April issue an article not only giving the text of these "Standards," which we stated had been adopted by the Federal Government through the Department of Labor, but containing also an illuminating commentary on them by Mr. Lawrence Veiller.

The Journal of the American Institute of Architects gives the impression that the "Standards as presented in THE ARCHITECTURAL RECORD were:

(1) Tentative.

(2) Not yet ready for publication.

(3) Had not been officially adopted by either the Department of Labor or the Shipping Board.

(4) Were a hasty draft given out in proof form only.

(5) Had been considerably revised

what is ordinarily so sordid a thing as a railroad shop settlement, and illustrates anew the great advantage of employing for the development of even the humble workingman's dwelling the best expert advice and direction.

already from the form as published in THE ARCHITECTURAL RECORD.

Mr. Eidlitz, writing as recently as May 15th, states that the "Standards" as published in the April issue of THE ARCHI-TECTURAL RECORD were:

(1) Not tentative.

(2) Had been ready for publication for some time before appearing in THE ARCHITECTURAL RECORD.

(3) Were officially adopted by the Bureau of Industrial Housing and Transportation of the United States Department of Labor on March 7th.

(4) Were not a hasty draft given out in proof form only but "were issued after careful consideration" * * * and that they "represent the best thought of those who co-operated in preparing them."

(5) That they had *not* been considerably revised since published in THE ARCHITECTURAL RECORD, but, on the contrary, "they appeared in print early in April substantially in the form printed in THE ARCHITECTURAL RECORD, and that only two changes have been made since then.—Editor.]

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ORPHEUM THEATRE, ST. LOUIS, MO. G. ALBERT LANSBURGH, ARCHI-TECT; LEO LENTELLI, SCULPTOR.








ORPHEUM THEATRE, ST. LOUIS, MO. G. Albert Lansburgh, architect; Leo Lentelli, sculptor.



ORPHEUM THEATRE, ST. LOUIS, MO. G. Albert Lansburgh, architect; Leo Lentelli, sculptor.



FIRST FLOOR PLAN-ORPHEUM THEATRE, ST. LOUIS, MO. G. ALBERT LANSBURGH, ARCHITECT.

Wist No.





No wast



RESIDENCE OF GEORGE HILL, ESQ., STAM-FORD, CONN. PAUL R. ALLEN, ARCHITECT.





FIRST FLOOR PLAN—RESIDENCE OF GEORGE HILL, ESQ., STAMFORD, CONN. PAUL R. ALLEN, ARCHITECT. SMALL PLAN SHOWS OLD HOUSE BEFORE AL-TERATIONS AND ADDITIONS WERE MADE.

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RESIDENCE OF GEORGE HILL, ESQ., STAMFORD, CONN. Paul R. Allen, Architect.



RESIDENCE OF GEORGE HILL, ESQ., STAMFORD, CONN. Paul R. Allen, Architect.



THE ARCHITECTURAL RECORD.



RESIDENCE OF GEORGE HILL, ESQ., STAMFORD, CONN. Paul R. Allen, Architect.



RESIDENCE OF GEORGE HILL, ESQ., STAMFORD, CONN. Paul R. Allen, Architect.

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RESIDENCE OF GEORGE HILL, ESQ., STAM-FORD, CONN. PAUL R. ALLEN, ARCHITECT.



DRAWING BY JOHN DI MARIANO.



WAR BOOKS OF THE CATHEDRALS By BARR FERREE

III. Arras, Cambrai, Châlons-sur-Marne, Laon, Meaux, Nancy, Noyon, Paris, St. Dié, Senlis, Soissons.

THE list of French cathedrals directly affected by the Great War is, shown above, formidable. as Other cathedrals are so close to the war zone as almost to warrant inclusion in a complete list; but for the present, at least, we are fortunate in not being compelled to add others than those named here and previously. The record as it stands is already too grievous, containing, as it does, some of the most notable and beautiful of the churches of France, and it is to be hoped that the list will not be too extended. Of the churches unduly named above, Nôtre Dame at Paris calls for no further mention save to recall that its roof was slightly injured by an aerial bomb early in the war. The injury was but slight, and naturally has produced no literature.

Of the other churches, several have been mentioned in one or another of the books noted in the earlier papers of this series. The best general book on the cathedrals, as a whole, is *Les Allemands Destructeurs de Cathédrales et de Trésors du Passé*, which reviews in an adequate manner the earlier mishaps to most of these churches. Meaux, Senlis and Soissons are treated by Paul Ginisty and Arsène Alexandre in Le Livre du Souvenir; Soissons, Laon and Senlis in Jean de Bonnefon's Les Cathédrales de France devant les Barbares; Senlis, Soissons, Arras and Nancy by Marius Vachon in Les Villes Martyres de France et de Belgique; and Soissons, Senlis and Arras in The Martyred Towns by André Michel.

The cathedral of Arras, like most of that interesting city, has practically disappeared through the shelling of the German guns. It is but the simple truth to say that the loss to art in its destruction was not great, for it dates only from 1755 and was added to from 1814 to 1833. Its destruction, for it is now only a mass of ruins, was wholly without excuse. Built on a high elevation, and approached by a long flight of steps, it offered an easy mark to the barbarian.

From an illustrative standpoint the most interesting publication on Arras is Arras, 1914-1915, by Madeleine Wartelle, included in Les Champs de Bataille, 1914-1915: Les Cités Meurtries. The author treats of the early days of a bombardment that has lasted almost uninterruptedly throughout the war, and gives illustrations of many buildings, before and after bombardment. Copiously illustrated also, and a good summary of the bombardment as far as it goes, is Arras sous les Obus by the Abbé E. Foulon. It includes a preface by Mgr. Lobbedey, bishop of Arras, under whose editorship was published La Guerre en This latter book deals largely Artois. with the work of the priests and ecclesiastics in and around Arras. Arras avant la Guerre is a brief review of the city, now practically no longer existent, by Camille Enlart, copiously illustrated with photographs of structures human eyes will see no more. La Pentecôte à Arras, 1915, by Joseph Schewæbel, is a sympathetic account of a visit to Arras in the midst of the siege. A chapter on Arras is included in D'Oran à Arras by Henry d'Estre, a book of war impressions by an African officer; he includes a chapter on Soissons.

Arras has not been fortunte in its cathedrals. That one just destroyed by the Germans may rightly be designated as "modern"; but before the Revolution it had an older and larger cathedral, dating from the twelfth, possibly in some parts from the eleventh century, with additions in the thirteenth, fifteenth and sixteenth. It was much larger than its successor, having a length of 348 feet and a tower 240 feet high. Sold in the Revolution as no longer desired, it was gradually torn down, and finally destroyed by the orders of Napoleon by means of mines and artillery, a singular forecast of the fate of its successor! The history of this older cathedral has been preserved by Auguste Terninck in his Essai Historique et Monographique sur l'ancienne Cathédrale d'Arras (1853).

Cambrai, like Arras, lost its Gothic cathedral in the Revolution. As at Arras, the older building was a large and splendid church, with a single tower at the entrance end, surmounted by a high spire. It was first adequately described by A. Le Glay in his *Recherches sur l'église métropolitaine de Cambrai* (1825), a quarto, with numerous lithographic plates. A thoroughly modern book is the *Histoire artistique de la Cathédrale de Cambrai*, by Jules Houdoy, which forms volume 7, 4th series, of the Mémoires de la Société des Sciences de l'Agriculture et des Arts de Lille (1880). The author draws copiously on the accounts of the cathedral. A later Monographie de l'ancienne Cathédrale de Cambrai, by the Abbé A Pastoors, appeared in the Revue de l'art chrétien for 1904.

Cambrai has long been in the hands of the Germans, who have occupied it from the early days of the war. No one knows what has happened in the city in that time. The cathedral was originally the church of the abbey of the St. Sépulcre. It was built in the eighteenth century, and was partly burned in 1859; after which date it was rebuilt and extended in size. No books, at this writing, have appeared on the doings of the Germans at Cambrai.

Events at Châlons-sur-Marne have been chronicled by Mgr. Tissier, bishop of Châlons, in the book La Guerre en Champagne au Diocèse de Châlons, which was published under his direction. It covers the year from Sep-tember, 1914, to September, 1915, and has reached five editions. It presents the war from the ecclesiastical side. Châlons en 1914 is a diary reprinted from the Journal de la Marne, beginning with July 29, 1914, and concluding with December 4 of that year. It is not a daily diary, only those days being mentioned which included some incident worthy of record. Châlons-sur-Marne pendant l'Occupation Allemande, by Maurice Pierrat, is concerned with the uncomfortable month of September, 1914, when the barbarians occupied Châlons.

The cathedral will be recalled as an interesting monument of the thirteenth century, with later additions, including a frontispiece of the eighteenth century. The literature relating to it is not rich, although the building is frequently referred to in artistic and architectural his-The Diocèse ancien de Châlonstories. sur-Marne, histoire et monuments, by Edouard de Barthélemy, 2 vols. (1861), is an ecclesiastical history; the second volume contains a brief historical sketch of the cathedral. Eglise Cathédrale de Châlons, by L. Grignon (1885), is a brief but useful account. The latest account

of the cathedral, by L. Demaison, forms part of the admirable *Guide Archéolo*gique du Congrès de Reims en 1911, accompanied with a dated plan.

Laon, like Cambrai, has long been in the possession of the Germans. Nothing is known as to what has transpired there. Some photographs showing the use of the cathedral by the Germans, the latest depicting it as a hospital, have appeared in the American newspapers as recently as the present year. With their later vindictive destructiveness one can but await the expulsion of the Germans with bated breath.

Notwithstanding the importance of the cathedral of Laon in the history of French architecture, and its own great inherent beauty, very little has been written about it. The Essai historique et archéologique sur l'église cathédrale de Notre Dame de Laon, by Jules Marion (1843), is a brief pamphlet. An extended account of the cathedral, with many illustrations, forms the larger part of the third volume of the stately Antiquités et Monuments du Département de l'Aisne by Edouard Fleury (1879). A competent account of the cathedral is supplied by the Abbé Auguste Bouxin in La Cathédrale Notre Dame de Laon (1890). Both the cathedral, with a dated plan, and the other monuments of Laon are adequately treated by L. Broche in the Reims Guide noted above.

Many general books on the war contain reference to Meaux, as it occupied a pivotal position in the great battle of the Marne. Its cathedral three times, in 1915, 1916 and 1917, witnessed thanksgiving services for this colossal achievement of French arms. Mgr. Emmanuel Marbeau, bishop of Meaux, has written an admirable little book Souvenirs de Meaux, avant, pendant et après la Bataille de la Marne, accompanied with maps and illustrations. His activities at the time of the battle were very great, and he was particularly helpful to the thousand or so of the population of 14,000 that remained in the city after it had been abandoned by the civil authorities. Georges Montorgueil also treats of Meaux in the superb Les Champs de Bataille, 1914-1915: Les Cités Meurtries. copiously illustrated, like all sections of this sumptuous work. Very satisfactory, and also abundantly illustrated, is the first volume of the new *Guides Michelin*, dealing with the battle of L'Ourcq. Maps and many half-tones supplement the text, which in briefest form tells of the battle and describes the monuments of the much-tried city.

Dating from the beginning of the thirteenth century, and completed in the sixteenth, the cathedral of Meaux, which in the last three years has taken on new memories of sadness and of triumph, supplies a chapter to the *Histoire de Meaux* et du pays meldois by A. Carro (1865). A more ambitious account, dealing exclusively with the cathedral, is the Notice historique et descriptive sur la Cathédrale de Meaux, by Mgr. Allou, then bishop of Meaux, of which the second edition appeared in 1871. A review of the cathedral appeared in the first number for 1899 of the Bulletin de la Conference d'histoire et d'archéologie du Diocèse de Meaux, and another general survey, by Emile Lambin, in the Revue de l'art chrétien for January, 1900.

Nancy, like Meaux, is copiously represented more by references in general publications than by separate books. M. René Mercier has published Nancy Sauvée, describing the pre-war period in the city and bringing the story, with freedom from the German peril, down to September 13, 1914. As, however, Nancy has been subjected to aerial bombardments almost to the present day, there is still much to be written as to events. there. M. Mercier is the editor of *L'Est* Républicain, a newspaper published at Nancy. He was so unfortunate as to bring his wife and family from safety in England to Nancy at the very beginning of the war, a circumstance, with the difficulties of getting out his newspaper under fire, that gave him infinite concern later on. The cathedral of Nancy dates from the eighteenth century, and is by nomeans the most interesting building of that charming city. It is the subject of a superb Monographie de la Cathédrale de Nancy by Ed. Auguin (1882). An accessible and brief account is supplied by-La Cathédrale de Nancy: Notice descriptive et artistique by the Abbé Guillaume (1870).

Although Noyon has been evacuated by the Germans for some time, little has yet been published concerning it. L. de Brunier contributed two articles of reminiscences of the occupation to the *Revue de Paris* in the issues for July, 1917, and the Comte de Caix de St. Aymar has prepared a book *Autour de Noyon sur les traces des Barbares*. It covers the whole of the surrounding territory, and is one of the most stirring stories of German barbarism yet printed. The territory has since been overrun by the Germans for a second time; perhaps a new series of horrors are to be looked for.

No student of French architecture needs to be reminded of the value and interest of the cathedral of Noyon. The Monographie de l'église Notre Dame de Noyon (1845), by L. Vitet, with its atlas of mammoth plates, has long been a classic. The book by Alphonse Dantier, Description monumentale et historique de l'église Notre Dame de Noyon (1845), is less pretentious. One or two other minor and early works have also dealt with the cathedral; but it was not until more than fifty years after the appearance of Vitet's great book that the cathedral received adequate modern treatment. This was given it by Eugene Lefèvre-Pontalis in his Histoire de la Cathédrale de Noyon (1900). There is no more competent architectural historian in France than this distinguished director of the Société Française d'Archéologie, and his book, although published without illustrations, is a thoroughly satisfactory account of the cathedral.

St. Dié, that remote French city with its double cathedral, still awaits the historian of events during the war. The meagre references that have been made to it may be found in general books like Gerald Campbell's Verdun to the Vosges; E. A. Powell's Vive la France!; Eugene Griselle's Le Martyre du Clergé français; Maurice Barrès's Pages choisies, and Arnold J. Toynbee's The German Terror in France. The most extended account of the ravages of the Germans at St. Dié is contained in Les Barbares à la Trouée des Vosges by Louis Colin. The cathedral group of St. Dié is unique, consisting of the cathedral, the former collegiate church of St. Maurice et S. Dié, and the older smaller church of Notre Dame, with a connecting cloister. The best, as well as the latest, account of these churches is supplied by Georges Durand in his *Eglises romanes des Vosges* (1913).

Senlis, that delightful little city, whose martyrdom so outraged France, and the assassination of whose mayor in the early days of the war horrified civilization, looms large in the great tragedy. The story of the dreadful doings at this peaceful place have been told more than once. They are summarized by L. Fautrat in his Senlis, and by Loup Bertroz in Senlis pendant l'invasion allemande. Le Drame de Senlis, by the Baron André de Maricourt, is a daily diary of life at Senlis from August to December, 1914; and in addition to the author's own impressions, reproduces many documents and accounts of evewitnesses of German horrors. The same author reviews the critical days from September 2 to 9, 1914, in Les Champs de Bataille, 1914-1915: Les Cités Meurtries: Senlis. Another diary, by Henri de Noussanne, La Guerre dans l'Ile-de-France: Journal d'un Bourgeois de Senlis, is a further record of personal experiences during days of deepest darkness. Chapters on Senlis and on St. Dié are included in Prouesses allemandes by Arthur Cluquet.

La Ville au bois dormant, by Georges Audiger, is a book of poems, about half of which are grouped under the subtitle Les Pierres de Senlis.

A very complete summary of the art treasures of Senlis, with numerous illustrations, is supplied by the *Guide Michelin*. *I. L'Ourcq*, which also summarizes the events of the German occupation. *Le Brûlement de Senlis*, by Jacques Bonzon, is an eloquent address before the War Council of Paris.

Notwithstanding the human horrors carried out by the Germans at Senlis, its beautiful little cathedral escaped without serious damage, although injured in more than one spot. It is the subject of several books. *Senlis: Monographie-Guide* by Ernest Dupuis (1900) is a brief guide to the city; Senlis by Marcel Aubert constitutes one of the volumes of the Petites Monographies des Grand Edifices de la France. It is, in a measure, a condensation of the same author's Monographie de la Cathédrale de Senlis (1910), in which the history and description of the cathedral are admirably presented with great fullness.

Soissons has been so long under the fire of the German guns that it is a matter of amazement that anything should be left of the cathedral or, indeed, of the city. As a matter of fact the cathedral has been seriously injured, so seriously that the harm done to it ranks closely after the destruction wrought at Reims. It forms the subject of a notable chapter in M. Emile Mâle's fine book L'Art allemand et l'art français du Moyen Age. This chapter, while noting the earlier destructiveness, was written in March, 1915, and takes no note of later disasters. The cathedral and other architectural monuments of Soissons are very adequately treated in the Reims Guide by E. Lefèvre-Pontalis.

Soissons avant la Guerre, by Etienne Moreau-Nélaton, is a useful summary of the artistic resources of the city.

This rapid review of some of the more recent French books on the cathedral cities of France shows very clearly that the architectural survey of the results of the German horror has yet to be prepared. It shows also how very widely diffused must be any future collection of books on the cathedral. Books of no architectural interest whatever must now take their permanent place in such collections. For, notwithstanding the later religious vicissitudes of the French Republic, the cathedral, in nearly all French cities, is their most important architectural monument. Injury to the cathedral affects the civic life as few other injuries do. The city and its cathedral are nearly identical in the popular mind, and what affects the one affects the other. Hence the battles around the cathedrals are personified in the churches themselves.

It is dreadful to think this should be so; and it is dreadful to realize, as one must, that for all future time the horrors of the Great War must be recalled and reviewed in any study of French buildings. Yet such is the result of Kultur as practised by its modern exponents.



Peter Harrison, a Pioneer American Architect. Like many another character in the history of the fine arts, Peter Harrison has been favored with various and varied chapters of life which did not form part of his own. He has

been made out a pupil of Sir John Vanbrugh; in fact, he has been set down as one of Vanbrugh's assistants in the building of Blenheim Castle for the Duke of In like manner he has Marlborough. been considered a companion of Bishop Berkeley on his journey to Rhode Island in 1728. It so happens, however, that we have the humble element of actual fact to show that Peter Harrison first saw the light of day when the cornice of Blenheim Castle was being set, which would make Harrison a mature architect of ten at the time of Vanbrugh's death. Berkeley's voyage to America took place only two years later.

It is sometimes a very salutary thing for Herodotus and his ilk to make careless statements, for the keen-sighted reader is prompted by such means alone, it seems, to seek out the real facts. The effort at refutation brings on an access of archeological energy, which has made out of many a mere student a real scholar. So in the case of Peter Harrison, the original misstatements, which had been quoted and requoted in a round dozen of our most respected historical and other journals of accepted standing, inspired a member of the Massachusetts Historical Society-Mr. Charles Henry Hart-to make a painstaking search of existing documents in order to establish the facts as to that pioneer architect's life and practice. This investigator was able to discover in past records of proceedings in English courts that Peter Harrison came to America in 1745, during which year his brother Joseph was Comptroller of the Customs at Boston. He also

offers the information briefly noted below, only a small part of which has been hitherto generally known to us:

Peter Harrison, architect, was born June 14, 1716, and was the son of Thomas Harrison, Jr., and Elizabeth Denison Harrison, of York, England. What education as an architect and engineer he had in England we do not know, but the earliest mention that we have found of him and of his brother, Joseph Harrison, in America is in the year 1745, when on April 3 Joseph Harrison, of Newport, was ad-mitted a freeman of the Colony of Rhode Island. On September 28 of this same year the Assembly "Voted and resolved that his Honor the Governor be requested to send for Messrs. Joseph Harrison and Peter Harrison, who have presented this Assembly with a handsome draught of Fort George and the harbor of Newport, very ingeniously drawn, and give them the thanks of this Assembly." A month later-October 27-the Assembly "Voted and resolved that the committee that was appointed to procure a plan of Fort George and the harbor of Newport procure another draught or plan of said harbor, exactly as the same now are, and present the same to his Honor the Governor, to be signed by him and the Surveyor, to be sent home . . . and that the said committee procure a piece of plate to the value of £75 and present the same to Mr. Peter Harrison for his trouble in surveying and making a draught of said fort and harbor." This was a naïve kind of recognition that would not come amiss in many a modern instance, but communities have not seen fit to continue this graceful form of tribute to those that render them safer or more attractive.

Peter Harrison is known to have been married on June 6, 1746, to Elizabeth Pelham, a great-granddaughter of Benedict Arnold, the first governor of Rhode Island. The old Harrison house still stands on the ground of the original Harrison Farm, by which name the property Peter Harrison received through his wife came to be known.

In 1746 we find another minute of the Assembly, authorizing the improvement of the fortifications of the town. The committee placed in charge of this work again includes Peter Harrison and his brother Joseph.

Here we come to a queer bit of confusion of a kind which seems to be quite the logical thing to expect in old documents, and which no doubt will be discovered in our own legal instruments of today if our descendants should ever find them worthy of close scrutiny. We have a "Contract-Erection of Library Building"-dated August 9, 1748, and concerning the Redwood Library, which states that a new structure to house books given by Abraham Redwood is to be erected on land given by Henry Collins according "to a plan or draught drawn by Mr. Joseph Harrison." Six months later another paper, "Articles for Building the Library," which concerns additions to the original contract, stipulates that the changes are to be made according "to a plan or draught drawn by Mr. Peter Harrison." Was this a slip of the pen, due to some psychologic association on the part of the scribe, as Mr. Hart believes, or was Joseph the more important brother politically and had his name appeared so much more often that the scribe automatically wrote it in, thinking he had written Peter? Granted that architects are chiefly known by their works, it may be assumed that Peter Harrison was content to sing small and let his brother carry the burden of praise. Then, of course, there is the other possibility that Peter may have been commissioned for the alterations or additions, which in this case is tantamount to saying that he was to do the whole. In view of the fact that the articles were later legally incorporated in the original contract it would seem that both men might have been concerned in the task. Mr. Hart gives us no further light as to this aspect of the difficulty.

The Redwood Library building was opened in 1750, a monument to the Classic Revival and an enviable example of careful study on the part of its designer. We have come to feel since Mr. Kimball's monumental study of that gentleman architect, Thomas Jefferson, that the best classical influences in this country at that time radiated from his severe personality. However, Harrison would seem to have compassed the classic with a like diligence, though no doubt with less financial freedom. At any rate his conviction of the interpretative value of classic building forms was as firmly fixed as Jefferson's.

During the erection of the library he was invited to make plans for the rebuilding of King's Chapel, Boston, which plans he submitted in about five months' time. These were found acceptable, and the time required to prepare them offers an interesting comparison with methods of today. At Newport Peter Harrison also designed the Brick Market House, built in 1761. This later became the City Hall; still later again to be used for commercial purposes. The Jews' Synagogue, dedicated in 176. still stands intact. In 1761 he also completed Christ Church, Cambridge.

In 1768 both Joseph and Peter Harrison migrated to New Haven, where the latter became Collector of the Customs. Peter Harrison died on April 30, 1775. Mr. Hart regards him as the first professional architect in America. As to this there may be some doubt if for no other reason than that we would have first to determine the professional character of architectural services generally at that time. The truly professional nature of architectural ser-vices as we understand them is a fairly recent matter. It is interesting to note that Peter Harrison's architectural work was not so pressing but that he could also function as a dealer in molasses, mahogany, wines and rum.

RICHARD F. BACH.



A few years ago Edwin F. Brown, a Chicago banker, set about the task of designing for himself a houseboat. As the plans of his boat developed he worked out many novel features to

be included in its construction. The real inspiration, however, came one day when Mr. Brown was taking a spin along the shore of Lake Michigan in his high-powered motor car. He was just as fond of motoring as he was of houseboating, and it seemed a pity that the pleasures of the two recreations could not be combined. Then the thought occurred to him that he might make a place on his boat for the car.

Mr. Brown admitted to himself that the scheme was a likely one—but couldn't it be improved upon? Certainly. He would make the motor car earn its passage by furnishing the power to propel the boat. And so was born this unique combination



THE "DRIFTWOOD" MOORED ON A CANAL, THE GANGPLANK AT THE REAR WAS THE ONE OVER WHICH THE AUTOMOBILE WAS DRIVEN ON AND OFF THE BOAT.

of land vehicle and water craft; a webfooted roadster or a pneumatic-tired river packet, whichever one preferred to call it. Mr. Brown himself called it simply "Driftwood," for that was the name he gave his boat.

A few months later residents along the north shore of Lake Michigan in the vicinity of Chicago were startled by the appearance of a palatial houseboat which moved up and down the lake at a speed entirely inconsistent with all traditions for this particular kind of vessel. There was not a sign of smoke nor any sound which indicated the presence of an engine aboard, and yet the two paddlewheels on the sides of the boat were churning up the water as the craft proceeded on its course. The mystery remained unsolved until, a little later, Mr. Brown ran his boat to shore, when it was seen that on the aft deck, between the paddlewheels, reposed an automobile and that the engine of the car was chugging merrily away.

The mechanical arrangements by which Mr. Brown transformed his automobile in less than ten minutes into a marine engine were simple enough. He first ran the car aboard the boat over a gangplank which connected with the lone overhanging aft deck. It was then guided along a couple of grooved runways, running from end to end of the deck, and brought to a stop between the two eight-foot paddlewheels. The rear axle of the car was then jacked up so as to lift the tires clear of the deck, and finally connection was made by means of link-chain belts between spurred sprocket wheels attached to the rear hubs of the car and similar but larger sprocket wheels which were keyed to the ends of the paddlewheel shafts.

The paddlewheels were constructed so as to be independent of each other. When connected with the automobile the emergency brake of the car was disconnected from one driving wheel and the foot brake from the other. By this ingenious device one of the paddlewheels could be revolved while its opposite remained stationary, or both could be turned at the same time. This arrangement made it possible to steer the boat without recourse to the rudders -of which there were two, each six feet long and two and a half feet wide-since if the port paddle was revolved while the starboard was held still, the bow of the houseboat was shoved around to starboard, and vice versa. In addition to its two rudders the boat also had a couple of drift-



THE BUNGALOW AT EVANSTON, ILL. THE FORWARD DECK OF THE HOUSEBOAT WAS CONVERTED INTO A SUN ROOM AND THE ROOF GARDEN INTO A SECOND STORY.

boards, each ten feet long and three feet wide, to counteract the tendency of a flatbottomed boat to drift sidewise.

Not only was the "Driftwood" remarkable in its mechanical arrangements, but as an example of marine architecture, both inside and out, it was unsurpassed. There was practically every convenience that is afforded by a modern steam-heated, sixroom apartment. All of the rooms were equipped with radiators, placed in out-ofthe-way spots, the heating plant being located in the kitchen. This plant also supplied hot water for the bathroom, which was a model of its kind, with porcelain tub, tile floor, nickel trimmings and shower bath. The boat carried a gas-making machine, which supplied gas for illumination and cooking, and a water filtering system which could completely clarify the water of the muddiest stream, making it suitable for lavatory and kitchen purposes, while a water-still rendered it drinkable.

The kitchen had a back porch, where were found a refrigerator, a laundry, clothes dryer and other conveniences. Next to the bathroom were four sleeping rooms, all of a good size, and then came a large combined living and dining room, while the spacious forward deck was fitted up in the style of a screened summer porch. The entire top of the house proper, which was fifty feet long and sixteen feet wide, was converted into a roof garden, with swinging seats, chairs, tables and potted plants. The roof garden was covered by an awning, which could be folded flat to permit the boat to pass under low bridges.

The "Driftwood" measured seventy-five feet over all, with a width of sixteen feet five inches. Its owner made an exhaustive examination of the size of canal locks all over the United States before deciding upon these dimensions, as he wanted a boat which would pass through any canal in the country. The entire weight of the boat was thirty-six tons, and it drew sixteen inches of water. The hull was constructed of tank pine and Oregon fir, and a novel system of ventilation which kept a current of air constantly passing through it prevented even a suspicion of dampness.

To conform with the name of the boat, "Driftwood," a scheme of color decoration, including French grays, water green and river browns, was adopted and used in connection with the wall tints, the window glass, gas fixtures, rugs, curtains, hangings and furniture.

The owner of the "Driftwood" put his scheme, and incidentally the practicability of the houseboat for living purposes, to a thorough test. Day after day, throughout the summer and fall, he and his family cruised over lakes and streams and through canals, stopping wherever the banks looked attractive. Many a time they moored at a convenient spot, ran the car ashore and toured the environs, feeling like discoverers. Occasionally they spent several days in one place. When they tired of automobiling they returned "home" and continued their water journey.

Then came a day when Mr. Brown's daughter was to be married, and the houseboat, having cost something over \$25,000, together with its furnishings, seemed an acceptable wedding gift, as well as a delightful place on which the young couple might spend their honeymoon trip. So satisfactory, indeed, did this arrangement turn out, that Mr. Brown's daughter decided she would like to spend the entire winter on the "Driftwood." Accordingly the boat was pulled on the lawn of the Brown home, and after all necessary light and other service connections had been made, it proved, even in the severest weather, just as comfortable and convenient as any of the neighboring residences.

Finally there came a time when it was decided that the "Driftwood's" days as a water craft were ended and that it should be turned into a regular and permanent bungalow of concrete. This bungalow still retains all the outlines of the original craft, even to the paddlewheel boxes at the rear and the curves of the prow and stern, the only substantial changes being the transformation of the forward deck into a sun parlor and the roof garden into a second story, and the addition of an entrance porch. The result is a structure which is at once convenient and artistic, and one whose counterpart probably does not exist. ROBERT H. MOULTON.

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The other day, having Influence of the Masonic Temple in Brooklyn on Later Temple Architecture. In Containing an in-teresting and well illus-teresting and well illustrated article on the sub-

ject of Masonic Temples. The author characterizes the Masonic Temple in Brooklyn as "undoubtedly one of the most successful, from an architectural as well as from the Masonic utilitarian viewpoint." He goes on to say: "This building has been published so frequently that we will not again reproduce it; but the typical lodge plan is here repeated and needs only a glance to see its beauty. Simple in arrangement, with proportions carefully studied, it is without question one of the very best illustrations of the ideal Masonic Temple lodge plan." It is interesting to note the great influence which the design of the Masonic Temple in Brooklyn has had on the designs of succeeding Masonic Temples. This building, with the Masonic Temple in Washington, which was in some ways its prototype, set a new standard of design, and the influence of its architecture is clearly seen in the Masonic Temples at Indianapolis, Atlanta, St. Paul, Mr. Shea's Masonic Temple in San Francisco, and last but not least Mr. Knowles's very beautiful design for the Masonic Temple at Toronto, Ontario. Some others, while not so reminiscent, give evidence that the Brooklyn building, or a cut of it, was fresh in the memory of their designers. The Brooklyn Masonic Temple is a most successful essay in polychromatic architecture, and consequently extends its influence into that almost virgin field as well as into that of the typical building for the Free and E. D. L. Accepted Masons.

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