# The ARCHITECTVRAL RECORD <br> VOLUME 60 

# MODERNISM IN ARCHITECTURE <br> ILLVSTRATED WITH A DESIGN <br> BY J BECKENING VINCKERS for A DOLYTECHNIC SCHOL <br>  

Technique, in all the arts, might be defined as the formulation of convenient methods for manipulating physical vehicles employed for externalizing an aesthetic content. All those unified directions for artistic impulse which we recognize under stylistic designations are identified with techniques. Each so-called style or type has evolved within a distinct imaginative sphere and is the means wherewith some self-contained artistic purpose is stated. The physical media, even when identical, employed in each type of expression, must consequently be endowed with pertinent significance through the manner of their utilization or, in other words, through the formulation of a distinctive technique. A norm in technique is inconceivable, as irrational as a norm in artistic expression. Artistic objective differs in each stylistic type; hence the difference in the manner in which inherent capacities in medium are developed through technique. It is through tech-
nique that vital abstract qualities are realized in effect ; techniques are not interchangeable in activities directed to unrelated artistic objectives.

When some novel view-point commences to actuate artistic expression, it involves the creation of new attributes in medium, and a revision of proportional relations in constituent elements. The movement passes through an experimental stage, during which every available factor is appraised from a new basis in accordance with its capacity to serve the new purpose, and achieve an unprecedented ideal. This applies to changes of direction for impulse in all the creative arts.

The technique of carving in archaic sculpture was regulated to convey the formal content in idea; at a more mature stage of artistic sensibility, it aimed to transmit those individual and characteristic plastic beauties to which the artist re-acted in living models; at still another period, technique was directed to

PLAN FOR A POLYTECHNIC SCilOOL
Designed by J. Beckening Vinckers
The buildings are grouped around a central court, from which six similar entrances lead to the six groups of
butdings, each devoted to a faculty of engmeering. These consist of Architecure, Civi Engineering, Mining,
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FIG. 2. A POLYTECHNIC SCHOOL
Designed by J. Beckening Vinckers
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FIG. 3


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FIG. 4
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A POLYTECHNIC SCHOOL
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the externalization of purely aesthetic quantities, such as the crystallization of light upon subleties of plane and form, as in the work of Rodin.

A distinct technique was instituted by the Greek potters to express the simple grace of ideal form, the rhythmic balance of mass within a measure of space in a two-dimension species of presentation. In the Middle Ages another technique was developed to meet the dominant leaning towards the precise delineation of form in connection with the decorative massing of sumptuous color areas. Then, subsequent to the seventeenth century, other techniques have evolved ; definitions of contour have given place to conditions of chiaroscuro as a main artistic objective.

The Modernist movement in European architecture has already clearly indicated its ultimate objective, and is employing familiar structural systems with an architectonic significance that is foreign to their traditional import in historic modes. This is wholly in accordance with precedent in stylistic evolution. We therefore find a new technique in the utilization of structual means, novel attributes developing, and a new basis for the aesthetic valuation of elements of effect.

One of the most important and interesting features of the movement is the complete disregard of perfunctory significance habitually attached to specific features; we refer to those conventions in decorative treatment intended to convey imaginary properties, such as strength or elegance. Where we find such symbols operative in effect, they have invariably been borrowed from some structural system in which they actually performed ostensible functions of which such attributes were integral factors. For the moment, we are unable to recall a single instance in original examples of a spontaneous or self-contained stylistic type, in which any important feature in composition justifies its presence by reason of symbolic significance. This could hardly be expected, as in such structural types decoration is in subjective relation to function, whereas
in the derivative types of design symbolic significance often takes precedence of the statement of actual function.

The Modernist movement cannot be construed as derivative from whatever angle it is considered, and for that reason we may not expect to find recognition of symbolic significance in any of its structural or decorative features. On the other hand, as normal structural means are employed in execution, we may expect to find features of obvious structural purpose invested with novel decorative properties through the manner in which steel, concrete or other physical media are utilized in design : the evolution of a new structural technique is bound to occur.

The ornamental development of the new manner will undoubtedly progress in an unconventional but strictly logical manner ; logic is so essential a part of the argument which precedes precise calculation in their structural design, that it is mainly responsible for the elimination of symbolic significance. If the relation of ornamentation to structural mass be studied in the various historic styles, it will generally be found to develop in two main directions, which are typified in the Classic and the Gothic. In the former, the practical purpose of decoration is to accentuate structural articulation and to beautify features which are not performing vital supporting functions. In the Gothic type, ornament performs a totally different function: the articulation of structural mass does not occupy the dominant position it does in the classic; embellishments of the surface and elaboration of silhouette are the designer's fundamental considerations.

The fascination of apparently monolithic mass in the Modernist objective makes articulation of the Classic order incongruous, and the dominant part which plain surfaces play with their rectangular silhouettes renders this Gothic principle equally unacceptable. In the Modernist manner we detect a tendency to regard a major structural area as the unit of space to be decorated. This will necessitate a revision of ornamental


FIG. 5


FIG. 6
A POLYTECHNIC SCHOOL
Designed by J. Beckening Vinckers


FIG. 7
technique, departing from those conventions previously identified with architectural decoration.

Wth towering masses demanding an ornamental scale adjusted to large areas and long range effectiveness, high relief as the formula for visibility cannot be resorted to, because of its disadvantageous reaction upon the dominant characteristic sought in structural mass. It will be necessary to devise a technique in ornament which has the capacity for a new decorative emphasis and for long range visibilty. This requirement causes us to feel confident that color will be employed. Color will render low relief capable of any exquisite measure of decorative force.

There seems no doubt that polychromy will prove the logical solution of the decorative problem, and the uncompromising premises which must necessarily control the manner of its application will produce a technique without precedent.

In illustration of the foregoing observations and forecasts we reproduce a design for a Polytechnic School by J.

Beckening Vinckers, a graduate (1923) of the Delft Institute of Engineering Sciences and Architecture. He started out to study civil engineering, but the strong appeal of the Modernist movement in Holland caused him to change his plan and study architecture under Professor Henri Eivers. Graduated at the age of twenty-six, he soon thereafter came to this country and was employed as field engineer by the Western Electric; he is now working in the office of William van Alen. A plan of the Polytechnic School is reproduced on Page 194, accompanied by Mr. Vinckers' description of it.

Each group is centered upon its library ; beneath this is the entrance to the inner court, around which lecture rooms, laboratories and drafting rooms are located. The ten-story ring around the inner court would contain a collection of models and other materials for study; these can be visited by the public without disturbing classes. In the main tower are an elevator hall on the ground floor; a monumental hall three stories high, with balconies around each story; and a large ex-


FIG. 8


FIG. 9. A POLYTECHNIC SCHOOL.
Designed by J. Beckening Vinckers
hibition room which may be passed through in going to the main auditorium. Small auditoriums are located on each floor on either side of the central hall. On the upper floors of this structure are the examination rooms, administrative offices, common rooms, a restaurant and roof-gardens; all elevators run to the roof.

The faculties of Civil Engineering and Mechanical Engineering are on either side of the main axis. As these departments need more room than the four other subjects, their lecture rooms are situated in secondary towers, and their laboratories and workshops on an outer court. On the ends of this axis are two power-houses, one supplying the equipment in the mechanical and electrical departments, and the other light, heat, and power for the institution.

The building was designed to obtain the maximum amount of light in all rooms in view of the amount of technical drafting that would be done. The top story receives direct sunlight regulated by curtains. The buildings have steel frames from the first story, which is a solid base of reinforced concrete.

By setting the steel columns back, and cantilevering the girders outwards, the former are eliminated from view.

We consider this design typical in every respect of the fundamental points of view and aspirations in effect of the new generation. In no detail can we discover any concession to blindly accepted precedent, and the conviction is imparted that inspiration has evolved through complete mastery of questions concerning ultimate efficiency as an educational institution. Throughout this interesting scheme we feel that function, whether structural or utilitarian, has been responsible for many of the most novel and interesting features. The manner in which internal convenience is met with passageways on the exterior not only conserves valuable interior space but has a decorative interest which neutralizes the cubical aspect of many concrete structures in this country. The manner in which the windows of the tower and main blocks are treated in long unbroken bands of glass, free of all the usual futile attempts at symbolic support, is one of the most significant features in this composition of the parting of ways.

## JUNIOR AND SENIOR HIIGH SCHOOLS By Guy Sundy

In estimating the degree of interest in general culture of one of our cities we could do no better perhaps than to take the public school system of that city and especially the High School Buildings as our best barometer; for it is in these buildings that the city has recorded unconsciously in brick and stone the degree of its interest in the cultural arts. When we think of the great High School buildings that have been erected within the past few years it seems almost as if our cities had vied with one another to possess a High School that would have no rival. Vast in their extent ; comprehensive in all their departments, these buildings appear to possess everything that is possible to put into a building. As great institutions they are inspiring, and one cannot fail to recognize that vision and courage of a high order were needed to bring projects of this magnitude to a successful conclusion. Fortunately, our public schools may look back upon long records of success rather than failure; they are records made possible by the long established precedent of electing men, only the highest type, to serve on our school boards. The result has been that the great majority of our school buildings have been built economically and if we compare their cost with any other type of similar public buildings we shall find that the cost of our schools has been considerably less. It is perhaps safe to say there is no other expenditure of public funds that gives more general satisfaction or pays better returns than that which goes into our schools.

The plan of the High School of today can scarcely be considered a plan of a mere building; it is indeed an extensive layout covering several acres. The great building in the center is surrounded by spacious lawns beautifully planted which frequently serve as experimental or botanical gardens, while to the side and
rear are extensive athletic grounds and stadium, features themselves that alone are by no means insignificant.

The two types of Schools known as the Junior and Senior High, while being similar in their requirements and general plan, each hold a distinctly different position in our educational system. For the last twenty years or more, progressive educators have recognized that the twelve years of a student's experience should be broken up into three rather than two divisions. The first period to be spent in the grade school, running through the first six grades; the second period in the Junior High for the seventh, eighth and ninth grades; the third period in the Senior High for the tenth, eleventh and twelfth grades. By the time the child has reached the seventh grade, he is no longer the same being that began in the first grade. A complete change, both physically and mentally, has taken place. His interests and his tastes have changed completely, and in order to meet those new conditions he should be placed in a separate school where his interests, his tastes and his needs may be properly met and provided. But at this age the child is not yet by any means a man; and as he is passing through that tender and sensitive period of adolescence he can only be guided properly if he is trained in a separate and especially adapted school, where he comes into contact with children only of his own age. That this can best be done in a separate school known as a Junior High School has long ago been proven to the satisfaction of all educators. Today the Junior High School is no longer an experiment for, over a long period of actual trial, it has fully justified itself. And to anyone who has had the happy experience of receiving his educational training in both a Junior and Senior High School, it will seem strange
to learn that there are still cities where this division has not yet been adopted.

The greatest difference in the plan of the Junior High School from that of the Senior is largely in the science and athletic departments and in the auditorium, these departments being more extensively and more completely worked out in the Senior Building. It is the Senior High School that has quite naturally been the building where the greatest development has taken place. It is the building that has received the greatest thought and effort on the part of the school authorities and it is here that the architects have been given a free hand to incorporate into their plans every detail that the science of modern education has suggested; here too has been put into actual practice every conceivable experiment in the use of building materials and school equipment. If one might take the necessary time, and has the physical endurance to make a complete tour of inspection of one of our modern High Schools which has been built to accommodate three or four thousand students, he will be profoundly impressed and amazed at the completeness of every department ; he will be tremendously interested in the elaborate detail of the science laboratories, the home economic sections, the shops with all their modern machinery and withal he will marvel at the conception of the plan and its execution and he will leave the building somewhat dazed and overcome by the extent of the whole.

With all the opportunities that the High School Building has enjoyed, and with all the intelligent thought and constructive criticism that our educators have given towards the development of the plan, there still remains considerable question as to what might properly be called the ideal plan for this school. It is perfectly plain that the architect is beset with serious problems and with almost unsurmountable difficulties as he attempts to solve the requirements of the complicated plan and it is probable that there will never be worked out a perfect plan for a building so large and so elaborate in all its component parts as one of our modern High Schools.

The form of the plan depends largely upon the location of the auditorium and the gymnasiums. In general, all of these buildings may be separated into two groups; one with the auditorium and gymnasiums grouped together-the other with the gymnasiums and auditorium separated and isolated from the rest of the departments. We might consider that there is a third group which is a sort of combination of the first two. In this plan the auditorium and gymnasium are both separated but are still an integral part of the building and not located in separate wings. There are obvious advantages and disadvantages to either scheme and neither can be considered as an entirely satisfactory solution. There are abundant reasons for placing the auditorium and the gymnasiums in separate and isolated positions in the plan, and if one might elminate all consideration of economy and practical school administration, we would probably say that these larger units should always be separated. The many varied uses that the auditorium is put to, especially when its full capacity is to be utilized, render this unit more serviceable when separated or detached from the other departments. Gymnasium work can best be conducted when separated and isolated as far as possible from the academic departments, so it is plain that the placing of the auditorium and gymnasiums in the center of the plan is unquestionably open to criticism. With the auditorium and gymnasiums located in different wings, the entire aspect of the general plan is changed; the plan becomes more of a group plan, with class rooms and science laboratories forming a central mass while the auditorium and gymnasiums are located in extended wings. Such a layout possesses many obvious advantages but it loses in a like number of practical details. Such a plan is more expensive to build and calls for far more acreage; in efficiency and convenience of school administration the plan is also objectionable, so that upon summing up all the practical considerations that are involved, it is debatable if the group plan will ever be widely adopted. Mr. Ittner has long held


YEATMAN HIGH SCHOOL, ST. LOUIS, MO. Wm. B. Ittner, Architect
to the theory that taking everything into consideration the best place for the auditorium and gymnasiums is in the center of the plan. General practicability, economy and efficiency in school administration are the principles underlying Mr . Ittner's theory of planning. And so general has his judgment been accepted as authoritative that the Ittner plan has become an accepted standard throughout the country. That Mr. Ittner recognizes many objections to placing the auditorium and gymnasiums in the center of the plan is shown by his use of numerous devices cleverly conceived and whose use is intended to overcome, if possible, those objections. The heavy sliding or folding partition, which may be let down, separating the auditorium from the gymnasium stage, is not always a complete success in stopping the noise from the gymnasium, and where such a partition is used, it should be of such a type as specified by an experienced architect. The scientific and intelligent treatment of the gymnasium walls and ceiling with
acoustical felt will also be found valuable. Where such acoustical treatment has been installed as with a properly designed curtain, there should be little or no difficulty in cutting out the noise. With the intense program for health now almost universal in our High Schools and with the development of the indoor games, there has come about a demand for a large number of seats for spectators. The combined gymnasium and auditorium seems to be the only practical solution for serving the public on such occasions. In 1908 at Gary, Indiana, Mr. Ittner first introduced the combined gymnasium and auditorium and so successful was this scheme, that it has been followed very generally throughout the country by many architects. Elaborating upon his original idea at Muskegon, Michigan, Mr. Ittner has placed two gymnasiums at the back of the auditorium which may be opened up and made into one and here bleachers have been arranged so as to be dropped down between the trusses to the floor level.


SOLDAN HIGH SCHOOL, ST. LOUIS, MO. Wm. B. Ittner, Architect
thus giving a large additional number of seats for spectators.

Careful study of a number of High Schools designed by different architects will reveal that their designers have been struggling with the economy of space. There is an evident desire to make the larger rooms such as the Study Hall, Auditorium and Gymnasium serve more than one purpose; yet in all these attempts there is scarcely one that can be called a satisfactory solution, and it appears that the adoption of any one of these schemes has been a question of economy rather than of desirability.
There is a well developed movement. of which Mr. Ittner might be said to be the leader, to plan the school so that all of the building will be in continual use. From an economical point of view such usage would be ideal, and if such an ideal is to be attained the building must be planned by an architect who is thoroughly familiar with every detail of the correlated departments and with the most modern school administration, and then only the most skillful marshalling of the classes by the principal will accomplish this result.

The principle of economical planning should not, however, cause the architect to lose sight of the necessary factor of elasticity that every school must have. Consideration must be given for a possible change in the tastes of the students in their choice of studies. There is obvious danger of over-economy in planning. Before the architect can undertake to lay out his first sketches, the school authorities should supply him with adequate data relative to all the requirements. No two schools are exactly alike. There are always some special features in the plan of any school that has made it a distinct problem of its own. All this special information must be given to the architect by the school superintendent. Where there is intelligent and close cooperation between architect and superintendent, the allotment of space and correlation of departments can be figured out to a nicety. There is no excuse for instance, in such an error in a High School designed for two thousand stu-
dents of supplying classroom space for but one thousand students, while there was laboratory space for fifteen hundred students; and yet we frequently find examples of similar planning in some of our most modern High Schools.
There is probably no other detail in the plan of a High School that has caused more annoyance and affected the general plan more as a whole than the question of the location of the lockers. Their location in the basement, once thought satisfactory, is today frowned upon by most superintendents, while their location in the corridors is but little more preferable. Here again, Mr. Ittner has come to the rescue with a simple and happy solution by providing alcoves in the corridors for these lockers.
Many different materials have been tried for the walls of the corridors, none of which has been totally free from objections. The most practical, however, is probably a glazed colored brick. It is, however, extremely difficult to obtain a satisfactory interior wall of brick and only a skillful use of well proportioned panels framed in the brick work with their centers filled with decorative designs such as tiles or plaster casts, will overcome the unsympathetic coldness of the brick, and even then, only a skillful artistic hand and a refined color scheme will accomplish the desired result.

Of the large number of high schools that have been built in the last few years, there are few that may claim more of our interest than the East High School in Denver, Colorado, by Mr. Williamson. (Pages 206-7.) While the façade of this building may be open to the criticism of being so long that it loses an indefinite something that a smaller building might possess, it has, nevertheless, a distinct claim upon our interest, due to the beauty of its architecture. The larger architectural motives of the façade have given dignity and a play of contrast to the composition, as a whole. Except for the lower portion of the central tower, as it rises above the main roof line, which appears to us unfortunately weak, the building is a strong piece of design. The materials have been well selected and are most


EAST HIGH SCHGOL, DENVER, COLORADO
George H. Williamson, Architect

pleasing. One cannot fail to recognize here the great power and effect of good architectural designs. That aesthetic character that we hold so essential for our schools is here obtained in a high degree. We recall no better High School than this that has been built within the past decade. The plan of this building is H shaped, with the auditorium in the center. It is here isolated and separated from the rest of the building. The two gymnasiums have also been separated and are located so that the gymnasium work does not interrupt that of the class rooms. In this plan the lunch room has been located on the third floor, an ideal location when once reached, but a location that seems somewhat questionable from a standpoint of accessibility. This lunch room is said to serve admirably purely social gatherings and especially for the student dances. This plan also provides for a private dining room for the teaching staff -a highly desirable feature for the modern High School. From a standpoint of light and air this H shaped plan is superior to most other forms. The H shaped plan is, however, obviously more costly in the building itself, and calls for much greater acreage.
While the development of the modern High School has been going on for more
than a quarter of a century, it is still in something of an experimental stage; not so much in the development of the details of the building but more in the general plan. It has been said that no two educators ever agree and so long as this condition exists, the problems of our schools will remain unsolved. Today it would seem that the greatest danger lies in the planning of too large a school. When four thousand pupils have been brought together into one building there can be no question but that the limit has been reached. Even three thousand students is usually considered too large a number to bring together. St. Louis has recently completed two modern high schools, each of which are to accommodate something over three thousand five hundred students. If we are to have schools as large as these, the Roosevelt High may be looked upon as a very admirable building. (Page 212.) As one approaches it, its immense size and the extent of the main façade are somewhat overpowering. Unfortunately here, the effect upon us is not produced by the charm and beauty of its scholastic or aesthetic character, but rather by its immense size. While the building has fine architectural proportions and reasonably good details, to the observer these all seem to lose their


JUNIOR HIGH SCHOOL, BEATRICE, NEBRASKA
J. H. Felt \& Co., Architects

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effect to the overpowering mass.
It is probable that fifteen hundred pupils constitute more nearly the ideal school. The unwieldly administration of the larger schools renders them uneconomical; and their great size renders them impractical from almost every point of view. But few principals can be found that can impress their personality upon a school of four thousand pupils. The High School of fifteen hundred pupils can possess character and individuality but when this number is doubled, the whole becomes a great mechanical institution void of a soul, into which naturally creeps many of the frailties and errors that follow in the steps of all the larger gatherings of the human race. From a purely architectural standpoint, the façade of either the Yeatman or the Soldan High Schools (Page 204), built two decades ago in St. Louis, by Wm. B. Ittner still represent what we may consider to be the ideal.


Entrance Detail
JUNIOR HIGH SCHOOL, BEATRICE, NEBRASKA J. H. Felt \& Co., Architects


The group of buildings that Mr. Ittner built in Greenfield, Ohio (Page 210), possesses every quality that we may expect in our schools. The group is decidedly scholastic, it is picturesque, it is dignified. Based upon the classic, the architecture is more what we would call scholastic rather than anything else and it is a frank and honest expression of all that comes into play with our modern scholastic life. One cannot pass over this design without noting the beauty of the whole, the richness of the brickwork whose velvet texture has been further softened by the English ivy which covers the walls.


TWO VIEWS OF THE HIGH SCHOOL, GREENFIELD, OHIO
Wm. 3. Ittner, Architect


GENERAL VIEW AND DETAILS, THE HIGH SCHOOL, ORANGE, N. I.
Ernest Sibley, Architect
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ROOSEVELT HIGH SCHOOL, ST. LOUIS, MO.
Wm. B. Ittner, Architect
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The Central high school, columbus, ohio
Wm. B. Ittner, Architect


HIGH SCHOOL, BEVERI.Y, MASS.
Adiden \& Parker, Architects

THE ARCHITECTURAL RECORD.



Entrance Detail
HIGH SCHOOL, NORWOOD, MASS. Ritchie, Parsons \& Taylor, Architects

There is still some dissention amongst the architects as to the proper design of our schools. Many of the eastern architects express a belief that the schools should fit more harmoniously into their general surroundings. In the East we find many buildings well designed in the Colonial Style where this principle has been followed with considerable success and from a purely architectural standpoint these schools are most pleasing; yet they seem to be somewhat lacking in scholastic character. The Orange High School in Orange, New Jersey, (Page 211) by Mr . Sibley is unquestionably a splendid example of architectural design. It is good pure Colonial architecture, but in character it is more collegiate than scholastic. The materials and motives are all admirably handled, while the auditorium and library are both beautifully designed. The Norwood High School or the Somerville High School (Pages 216, 217) by Ritchie, Parsons \& Taylor are also well designed buildings and may be
looked upon as good examples of architecture. The Somerville High School possibly is open to the criticism of being somewhat overstudied to the extent of the detail becoming hard and slightly mechanical. The Beatrice, Nebraska, High School (Pages 208, 209), by J. H. Felt, is a fine example of how the Tudor style lends itself to a modern scholastic design.

While the architects may never decide upon the proper form for their plans. nor the pedagogues arrive at the ideal size of the school, it is incumbent upon all that are instrumental in the building of our schools to see that they are not only well built but properly designed from an architectural point of view. Today there can be no excuse for anything but a beautiful building whose aesthetic influence will leave a lasting effect not only upon the pupils but upon the community at large. That this can best be accomplished by following the simple and eternal principles underlying all art seems evident. We can hope for


Main Entrance
JUNIOR HIGH SCHOOL, SOMERVILLE, MASS. Ritchie, Parsons \& Taylor, Architects


JUNIOR HIGH SCHOOL, SOMERVILLE, MASS.
Ritchie, Parsons \& Taylor, Architects


THE HIGH SCHOOL, NORWOOD, MASS.
Ritchie, Parsons \& Taylor, Architects


SOUTH JUNIOR IHGH SCHOOL, WALTHAM, MASS.


First Floor Plan
EAST SIDE JUNIOR HIGH SCHOOL, APPLETON, WISCONSIN Perkins, Fellows \& Hamilton, Architects


First Floor Plan
WEST SIDE JUNIOR HIGH SCHOOL, APPLETON, WISCONSIN
Perkins, Fellows \& Hamilon, Architects


Gymnasium-Auditorium
HIGH SCHOOL, BECKLEY, WEST VIRGINIA
Wm . B. Ittner, Architect



Gymnasium-Showing Bleachers at Side
SOUTH JUNIOR HIGH SCHOOL, WALTHAM, MASS.
Kilham, Hopkins \& Greeley, Architects


Gymnasium
EMERSON HIGH SCHOOL, DAYTON
Wm. B. Ittner, Architect


Study Room
HIGH SCHOOL, ORANGE. N. J.
Ernest Sibley, Architect


Auditorium
SOUTH JUNIOR HIGH SCHOOL, WALTHAM, MASS.
Kilham, Hopkins \& Greeley, Architects
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Daylight Class Room
SOUTH JUNIOR HIGH SCHOOL, WALTHAM, MASS.
Kilham, Hopkins \& Greeley, Architects


Library-Study Room
HIGH SCHOOL, GREENFIELD, OHIO
Wm. B. Ittner, Architect
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Entrance Detail
HIGH SCHOOL, BECKLEY, WEST VIRGINIA Wm. B. Ittner, Architect
but little new in architectural design, but we can expect good honest design. In these efforts we will probably find that the great historic styles will serve us best-the English Tudor and the Colonial styles being more suitable for our Northern States and the Spanish and Italian for the Southern States. Try as we may, no one has yet successfully worked in any other vein. Startling and


Entrance Detail
CENTRAL HIGH SCHOOL, COLUMBUS, OHIO Wm. B. Ittner, Architect
brilliant men have flashed their personalities upon the horizon of art, and for a time have cast an ominous shadow upont the historic forms, but each has run his little race without leaving a truly permanent imprint upon our art. For centuries, combinations of the forms of great historic styles have left on our subconscious minds an effect that no ephemeral flash of personal vanity can erase.

P O R T F O L I O CVRRENT, ARCHITECTVRE

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RESIDENCE OF S. L. VANDEVEER, ESQ., GREAT NECK, L. I.

L. VANDEVEER, ESQ., GREAT NECK, L. I,
LeRoy P. Ward, Architect

CATIIEDRAI. COURT APARTMENTS, HEMPSTEAD, L. I.
W. H. McCulloch and G. R. Thompson, Architects

The
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CATHEDRAL COURT APARTMENTS, HEMPSTEAD, L. I.
W. H. McCulloch and G. R. Thompson, Architects


CATHEDRAL COURT APARTMENTS, HEMPSTEAD, L. I.
W. H. McCulloch and G. R. Thompson, Architects
Tho
ARCHITECTVRAL
RECORD

THE FREEPORT NATIONAL BANK, FREEPORT, L. I.


THE FREEPORT NATIONAL BANK, FREEPORT, L. I.
Purdy \& Davis, Architects

The
ARCHITECTVRAL
RECORD


THE FREEPORT NATIONAL BANK, FREEPORT, L. I.
Purdy \& Davis, Architects


Plan of Basement


First Floor Plan
Y. M. C. A. BUILDING, SHREVEPORT, LOUISIANA

Clarence W. King, Architect
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Y. M. C. A. BUILDING, SHREVEPOKT, LOUISIANA


[^0]Y. M. C. A. BUILDING, SHREVEPORT, LOUISIANA
Clarence W. King, Architect

ARCHITECTVRAL
RECORD




Lobby


Men's Social Room
Y. M. C. Az BUILDING, SHREVEPORT, LOUISIANA

Clarence W. King, Architect


Men's Social Room


Boys' Social Room
Y. M. C. A. BUILDING, SHREPORT, LOUISIANA

Clarence W. King, Architect

## The NEW GENERAL MOTORS BUILDING NEW YORK CITY



Approaching the circle from Automobile Row, one is impressed by the steel structure rising majestically, tier upon tier, from the roof of the Colonnade Building. These columns and girders are to form the superstructure of the new General Motors Building and it is of the particular locations of these steel members with respect to the present structure that this article deals.

About four years ago, the three story and basement building situated on the truncated, triangular plot between Broadway, Eighth Avenue, Fifty-seventh and Fifty-eighth Streets was constructed with foundations for twenty-two additional stories. These upper stories were to take the shape of the letter $U$ with the court facing Eighth Avenue. A theatre was to have occupied the space at the base of the court.

The abandonment of the theatre permitted a change in plan and the firm of Shreve \& Lamb, architects, which had this problem under consideration, happily visioned the opportunity to change the original U plan to that of the letter H , an all-important change.

This problem appeared to have the following basic elements: 1. Maintenance of Structure; 2. The Retention of Tenants; 3. Economic Requirements.

Maintenance of Structure. It was necessary, first of all, to maintain the integrity of the present structure. The new plan called for the placing of a dozen new columns, for the reinforcement of eight existing columns, and for seven other existing columns to be replaced. In order to perform these difficult tasks, workmen were obliged to enter the basement, build foundations for the new columns, enlarge other foundations, cut floors and roof, remove old and insert new columns, make new connec-
tions to old steel and shore disconnected beams and girders. All of this and more was done with the three stories occupied and the basement used for automosile storage. This preliminary work, of course, had to be performed in conformity with the legal requirements of the City's various bureaus for the convenience and safety of the general public and the tenants of the building.
Retention of Tenants. The building had a number of important tenants paying a yearly rental of approximately $\$ 300,000$. No plan for altering the building could be wholly successful if it necessitated dispossessing the tenants, which it was believed would cost a large sum. In such case the owner would not alone have to pay this sum and lose more than a year's rental, but he would lose valuable tenants representing the motor industry, for which industry the building was to be erected.

The present building has its Broadway entrance one bay south of the center and its elevators and other service facilities slightly southeast of the center. (See First Plan on Page 259). The architects seized upon the center bay for the new entrance and the center of the building for the location of the new elevator service. It was found that this floor area could be had for working space together with one bay on Fifty-seventh Street and three bays on Eighth Avenue, giving entrée to the building from three sides for the contractor's use, as indicated by the hatched portion of the plan.

Fortunately leases with two of the lesser tenants expired permitting a slight shifting or exchange of floor space with several of the remaining tenants, which accomplishment was an important factor in making it possible for the owner to execute this plan.



THE GENERAI MOTORS BUIIDING, NEW YORT CITY
Shreve \& Lamb, Architects

Plan of New Second Floor
The Architectaral Record

Plan of Typical tiloor

The seizing of the central portion of the building was not only important for the above reasons but it formed the basis of an extremely simple and economic plan. (See Second plan, Page 259). The centrally located Broadway entrance runs directly west forming a T with the elevator lobbies, with the elevators symmetrically arranged. The two service stairs to the north of the entrance lead to the second story and the broad stair to the south runs to the basement, thence westerly. connecting with the spacious arcade under Eighth Avenue which is being constructed in connection with the Columbus Avenue Station of the New Central Park West Line. The patrons of the building therefore will be able to reach this, as well as the present Interborough Station via the underground arcade. thus avoiding the dangerous street crossings at the Circle.

The entire frontage, 740 feet in length, remains unobstructed for show window space, save for the Eighth Avenue entrance where for the Elghth Avenue entrance where
cars drive in and are taken to the basement for storage.

On the second floor (See Page 260) all the builder's operations are confined to tine center of the building, leaving the tenants in the space outside of the hall undisturbed. The present toilets remain, also the other service facilities, ex-

Reinforcing a Column

cept for slight rearrangement. This is true also for the third floor (Page 260). On this latter floor, however, it was decided to place the toilets and service rooms required for the employees. This is a departure from the usual arrangement by reason of the fact that the basement is used for automobile salesrooms.

Economic Requirements. It was necessary not only to maintain the present structure and to retain the tenants and provide for their needs and safety during the trying period of construction, but it was necessary to plan a building that would pay. The owner stood willing to expend a huge sum of money provided he could be shown that the plans called for sufficient rentable space to make the project a financial success. To find the plan best adapted to the site was therefore of the titmost importance.

We have already mentioned the change from the original U to the H plan. We must ascend to the typical plan to understand the true significance of this decision. (Page 261). We observe the elevator lobby with the service stairs at its north end and the toilets and fire tower at the south end, the minimum of hall, the absence of waste space and the row of well lighted rooms facing on a perimeter of light 880 feet in length.

At the eighteenth floor where the setback takes place, the H disappears, also


WORKING UNDER DIFFICULTIES-THE NEW GENERAL MOTORS BUILDING
the northerly bank of elevators. (Page 261). This, together witi several of the larger typical floors, is the future home of The General Motors Corporation. All of the space which it will occupy has been planned with special care for its need.

Simplicity is perhaps one of the most difficult elements of design for the student to grasp, although every seasoned designer appreciates its value in both plan and elevation. The experienced eye needs but a glance at these plans to asrecognized that the problem has been solved, for here is simplicity and economy of space. The plot is amply filled, yet each room has sufficient light. If this building spells not financial success, the fault must perforce lie, not in the plan, but in one or more of the other elements which the promotor must consider in the construction of a great business building.

It is evident, however, that the owner has considered all these elements. The plot, in the center of the automobile district, has a floor area of nearly 33,000 sq. ft . and the building will have a rentable area of $550,000 \mathrm{sq}$. ft. The General

Motors Building Corporation is to occupy the entire upper thirteen stories with $200,000 \mathrm{sq} . \mathrm{ft}$. at an annual rental of $\$ 700,000$. The lease extends for a period of twenty-one years and the total rental cost will amount to nearly $\$ 15,000,000$, which is said to be the largest lease ever made for office space. The securing of this lease by the syndicate was indeed the determining factor in proceeding with the building.

Many of the readers of the Record, however, would not be interested in tenants, floor space and rental values were it not for the fact that the economic element is the controlling one in the consideration of a business building; but it is hoped that all who scan these pages will be interested to see how the firm of Shreve \& Lamb took hold of an existing building, entered its basement filled with cars, plumbing and heating pipes and the ustual basement facilities and laid the foundation for a new plan which admirably adapted itself to the plot and greatiy increased its rental value, retaining the while $85 \%$ of its valued tenants.



# Harold Donaldson Eberlein, <br> Roger Wearne Ramsdell h Hill French. F $^{2}$ - 

X. Les Tourelles, Echinghen, and a Small Manor Near Lisieux

The farm of Les Tourelles, at Echoinghen, was once used as a shooting box by Louis XV. and was doubtless then in a more engaging state architecturally than it is now since the hand of the renovator has left its fell mark upon the fabric. It is discouraging to look at the windows, for example, and then think what the courtyard front of the dwelling might have been if only the obsession for "impprovement" that so often seizes upon the provincial Frenchman had been withheld. The doorway gives some indication of what the courtyard facade once was. The group in its entirety, despite the many mutilations it has suffered, still bears a distinguished aspect.
The most striking characteristic of Les Tourelles, of course, lies in its two towers with conical tiled roofs. The larger tower is circular for its whole height while the second, curiously enough, is circular for its first stage, which is built of stone, and then becomes polygonal in its upper stages, the material changing to a dark red brick at the same point with the change in shape. Otherwise, the material of the group, save for an expanse of recent stucco on the house front, is almost wholly the native limestone laid in the
local characteristic fashion, although all the chimneys are of brick, with occasional brick repairs in stone walls, and in the gable end of the long barn there is an area of weather-boarding, a material not largety employed in this region. A few of the old roofs, with small thin reddish tiles, still remain untouched, but most of the roof surfaces have been recovered with new tiles that cannot begin to compare with the old in regard to either color or texture.
Viewed as a composition, Les Tourelles is typical of the traditional vernacular manner and but for the polager, whose disappearance is much to be regretted, is complete in the caustomary appointments.
Of an altogether different species and quality is the little fifteenth century manor house near Lisieux, published in company with Les Tourelles. The traditions embodied in its structure are those of a differment part of the country, and its appeal is based on different grounds.

The walls of the ground floor are built of the native limestone while the upper story is of half-timbered construction with an overhang which is continuous all round the structure, save in the case of the low projection at the west. The chequered ef-







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fect of the western end of the house is produced by the introduction, in the alternate courses of ashlar, of rectangles of roughly squared small blocks of the same limestone, thus producing a most curious contrast by the form of the units and not by difference of material. On the north front the panels between the carved oak timbers are stuccoed while the corresponding spaces on the south front are plugged with bricks, some of them laid horizontally, some of them herring-bonewise. The steep-pitched roof is composed of thin little reddish tiles, similar to those on the old portions of roof at Les Tourelles.

In the buildings of a dilapidated little manor, on the road from Evreux to Lisieux, the same materials are used, though with some slight variation in the method of their employment. In this case,


CHAPEL-ON THE ROAD FROM EVREUX TO LISIEUX


COLOMBIER-ON THE ROAD FROM EVREUX TO LISIEUX
while the roofs of the dwelling, the colombier and the chapel are composed of the thin red tiles before mentioned, the roof of the long half-timbered barn is of thatch.

Both of these houses with their dependencies well exemplify the fifteenth and early sixteenth century vernacular manner of building practised before the influence of the Renaissance methods had produced any appreciable effect on the lesser provincial architecture of France. Although the range of materials employed is comparatively limited, the variety of effect often produced shewed not only considerable ingenuity but an inherent sense of fitness and an appreciation of the nature of each material that entered into the fabric.


The Architectural Record

## $\overline{\text { BOSTON DRY POINTS }}$



## VII. Office Buildings of the '90s-Part 2

Until the Custom House Tower was built on top of the old Greek temple which formerly sheltered Bancroft and Hawthorne, the Ames Building was the tallest Boston structure. It is a most distinguished building, thirteen stories in height, built of Indiana limestone. Its walls, like those of the Exchange Building, are massive and self-supporting. It was, in a way, the swan song of the Romanesque Revival of the 'eighties. This style possesses great virility, however, and seems to be in favor again now.

In mass, the Ames Building is imposing, and in detail, it shows a strong Richardsonian flavor. It is the work of Shepley, Rutan and Coolidge, successors to H. H. Richardson, who, when the building was designed, still retained in their employ men who had helped make the Old Office famous. Among these men may be mentioned Dick Schmidt, Louis Mullgardt, Ed. Maxwell, Brown, and a number of others whose names have escaped us for the moment. At the present time, Dick Schmidt is one of the big architects of Chicago; Maxwell and Brown, with the higher-ups of Montreal, and Louis Mullgardt, that gentle, sprightby, lovable genius than whom no more joyous and fascinating companion, assocate, friend and counsellor could be imagined, is holding up the oriflamme in San Francisco. When Louis designed the Fisheries Building for the Columbian Exposition of 1893-(H. I. Cobb was the architect whose name was appended to the drawings, but in conception, plan and
detail the work was wholly Mullgardt's) he became a national figure, as that building was and is still generally considered one of the outstanding achievements of a notable group.

Then Louis, after a sojourn in St. Louis, where he shortly had Eames and Young groggy, so that they had to send out S.O.S. calls to New York, Boston and Chicago, made an extended stay in London, completely upsetting the fraditions of Norman Shaw and paving the way for Harvey Corbett twenty years or so later. One of his recent achievements, subsequent to his brilliant success at the San Francisco Exposition, was the designing of a most remarkable bridge ten or twenty miles long, crowned with an amazing array of scintillating buildings of all kinds, a vast city of one street that soars loftily above the foam-tipped waters of the Hellespont that separates San Francisco from Berkeley or Oakland or some place or other. To our mind, Louis Mullgardt was one of the first of the "modens" and the greatest of pontists. He busted tradition wide open in the early 90's and has been playing with the pieces ever since.

It is not surprising, with such a personnel as this guided by the Richardson tradition and the finely tempered genius of Charles Coolidge, that the Ames Building is one of the outstanding monuments of SIXth Century American Architectare.

We didn't think so in the old days, for then there was great rivalry between the
leading offices, and while, as individuals, the draughtsmen of the various firms were most friendly, officially each considered the work of the other as paltry stuff. Today, a broader view prevails and there is much better team work all around. It is realized that Parnassus may only be stormed by serried ranks of shining hoplites struggling valiantly through the fogs and mists of the welter of plagiarism that obscure its radiant summit.

In detail the Ames Building is rich in a splendid variety of calathriform stone carvings, equally a tribute to the skill of John Evans who modelled and executed them, and to the genius of their designers. The great arches of the lower stories are recalled at intervals and there is a refreshing lack of repetition that is rarely seen in the so-called classic or Renaissance office building. The Ames Building is Romanesque without being archeological.

There is a fine monumental marble staircase that has an interesting slant due to the inequalities of the lot lines. It is brilliant in golden mosaic (there are silver treads among the gold), reminiscent of San Miniato and the Capella Palatina, and a constant thorn in the flesh to real estate men who hungrily begrudge a single square foot of unrentable space. It is a source of great pride to the owners and tenants, however, and amply justifies itself, even though it be rarely used. The Ames Building, as well as the Exchange Building, has never lacked for tenants of the highest standing, which is a more substantial tribute to their designers than the approbation of realtors.* The offices are light, airy, and flooded with sunshine, and the top story, since the building's completion, occupied by its architects.

Every big office possesses at least one faithful draughtsman who, as tradition goes, was found one frosty morning on the doorstep, taken in, nurtured and became a permanent fixture, like the first specification on which all subsequent specifications are based. In Shepley, Rutan and Coolidge's office this draughtsman was named John J. Ray Mulcahy. At

[^1]the time of the construction of the Ames Building, Mulcahy had become extremely adert in the making of full size details. In fact, that was his chief and only occupation in the office. Full sizing an ordinary building was nothing in his young life.

He occupied the first coop in the great draughting room, with a table so long and wide that it would take the full size detail of the largest cornice ever designed in the 'Nineties, and there were giants in those days. John J. would start in the morning with a 500 pound roll of detail paper, begin to draw at one end, and by night time, the full size details of an ordinary building would be all done, and the roll of paper shrunken to a few scraps suitable only for wrapping boxes. It it were a large building, it sometimes took two or three days and two or three rolls of detail paper, but his usual ration was one roll a day.

It took a large force of draughtsmen to keep Mulcahy supplied with material, and he was an extremely valuable man, doing the stint of a dozen ordinary detailers. He did his work with great skill and thoroughness, for while contractors were frequently raising questions on the scale drawings made by the best draughtsmen in the office, sometimes finding tiny little errors therein, it is not in the memory of man that anybody ever caught Mulcahy in a mistake.

Eddie Wait, who lives in Winchester now, enriching the town-beautiful with attractive domestic architecture of moderate cost, and only comes to the city on occasion (a Horace-Vitruvius-on-his-Sabine-Farm, as one might say) was, for a number of years, one of the staff of the Old Office in Exchange Street. The memories of youth are precious to Eddie and he recalls them with vividness, especially in sympathetic company when there is a bit of "juniper and orange juice" to help along the conversation. We are indebted to him for the details of the following distressing incident.

Louie Simon, whom we knew at Tech as a short, plump, rosy-checked boy, and who is now a member of the credentials committee and presiding Argus at Institute Conventions where his dignified, aus-
tere presence at the registration desk lends impressiveness to the ceremony, was once a cub draughtsman at $\$ 10.00$ a month for Shepley, Rutan and Coolidge.

One morning he was inking in the first floor plan of the Chicago Public Library. It was a large $1 / 4^{\prime \prime}$ scale drawing about four feet by six feet and Louie was stretched out flat on the drawing board ventre-à-terre, if one might be pardoned a misuse of the phrase. It was the custom at that time to use different colored hectograph inks, a most pernicious, vulgar and altogether damnable custom, subversive of all the niceties of architectural practice. Happily the custom has had short shrift in Boston.

Louie was hard at work amongst his ink bottles when, happening to glance up he saw Shepley approaching. Shepley was a tall spare man, always faultlessly dressed, very reserved, even distant on occasion, particularly so in times of excitement, when he immediately became frigid. Feeling his position on the drawing board might be considered undignified by the Boss, Louie started to slide off as quietly and quickly as possible.

The drawing board wasn't properly adjusted on its trestles for this manoeuvre and started to slide too, so that Shepley's arrival opposite Louie was beautifully synchronized with the collapse of the drawing table. The hectograph inks were catapulted to the ceiling, coming down again almost immediately, be-spattering the Boss with a terrible mixture of green, red, blue, brown, and purple splotches. Shepley said no words, his expression never changed, barely pausing he walked


Oid "Socrates," for many years Sergeant-at Arms in the office of Shepley, Rutan and Coolidge, sketched in after life by A. B LeBoutillier.
silently from the room leaving poor Louie shattered in spirit, in utter misery and desolation.

There was an organization among the draughtsmen in the office known as the Five Nations, representing the Great Tribes of Cherokees, Creeks, Seminoles, Choctaws, and Chickasaws. A grand Sachem presided at gatherings and festivals. The costumes consisted largely of cover cloths from the draughting tables, feather dusters for head gear, and Windsor and Newton's water colors for war paint. Old T. squares with one arm gone made fine tomahawks. Whenever all the Bosses were away at the same time, for the afternoon say, a festival was ordered by the Grand Sachem. The Tribes gathered and plans were laid for the various ceremonials which were always carried out in strict conformity to the old traditions that were handed down in their entirety from the days of H. H. Richardson himself.

Certain new features were introduced from time to time and one of these which proved extremely popular, was largely the creation of Eddie Wait. One Saturday afternoon when everybody was supposed to be working overtime, the firm being absent, there was an announcement by the Grand Sachem: "Gentlemen, we will now have the Te Deum." Immediately there was a rush to the far end of the room and a procession was formed of the Five Nations in full regalia. First came the leader, holding aloft the longest T square in the office; behind him came Eddie Wait with the city directory, on either side two men with
lighted candles, the chorus consisting of the remaining men in the office, with the exception of a few conscientious souls, followed in double file, with cover cloths draped like cowls over their heads. Eddie had the directory open at the page of Nulcahy's and in Boston, as everyone knows, there are many of that name. The procession moved slowly and majestically down the long aisle between the coops, toward the front office, Eddie intoning the Litany in a low, deep voice, reading the names from the book:
Eddie-"From Albert J. Mulcahy, sign painter, 216 Fifth Street, South Bos-ton-Good Lord deliver us!"
Chorus: (da capo)
Eddie-"From Annie M. Mulcahy, widow, 29 Dix Court, Dorchester-Good Lord deliver us!"
Chorus: (da capo)
Eddie-"From Bridget A. Mulcahy, dry goods. 1019 Main Street, Charlestown -Good Lord deliver us!"
Chorus: (da capo)
"From Cornelius J. Mulcahy, plumber

From Francis X. Mulcahy, physicianFrom Gertrude C. Mulcahy, seamstress -
After each verse, the chorus would repeat the lines in solemn recitative, gradually swelling in volume to a maestoso movement as the procession reached the end of the room. When they arrived opposite Mulcahy's coop, the chant had reached the proportions of an Oratorio in full cry. Spurred on by the Grand Sachem, everybody gave the full strength of their lungs to :-
"FROM JOHN J. RAY-HAY! MULCAHY! DRAUGHTSMAN,
GOOD LORD! DE-HE-LEHIVER! !-RUS! ! !’

The cacophony fairly shook the walls of the old building, causing truck horses to shy on Exchange Street and timid souls to falter on their way home. It was a very splendid and inspiring effort, thrilling everyone to the core. John J. gave no sign, but kept right on with his work, never missing a dentil or an astragal. Sic itur ad astra.


[^2]

The Traffic Congestion in Manhattan
The Mayor of New York, Mr. Walker, has recently appointed a large advisory committee, consisting of some hundreds of eminent citizens, and assigned to them the laborious and difficult task of telling the municipal government what to do in order to cure the intolerant congestion which now afflicts all kinds of transit and traffic in and out of the Borough of Manhattan. It need scarcely be added that these eminent citizens are wholly incapable of performing the job. The preparation of a plan whose execution will do away with the impediments to the movement of people and goods in Manhattan is a technical matter which can only be handled by traffic engineers and city planners. Of course Mayor Walker is fully aware of this fact. He does not expect the advisory committee of eminent citizens to devise a plan. What he hopes that they will do is to endorse and give prestige and authority to a plan which the experts will devise and by so doing help to overcome the obstacles to its execution.
Those obstacles seem to be almost insuperable. The provisions which were made for the movement of traffic in and out of Manhat$\tan$ were inadequate almost from the start and they have remained inadequate ever since. Manhattan is an island which is twelve miles in length and only a mile or two in width. The main streams of traffic on the island itself would naturally be longitudinal, but the original street plan of the Borough provided for twice as many lateral streets as it did for longitudinal avenues. This was the first grave mistake. Then the traffic from the island to the Bronx, Long Island and New Jersey always had to be provided for by special roadways and vehicles, and the provision made by private and public corporations has always lagged behind the demand. There has always been congestion. It existed on the busses, horse-car lines and ferry boats fifty years ago. It was continued on the bridges and the elevated roads,
and recently it has been more than ever intolerable on the tubes and subways. No less serious, however, than the crowding of the subways is the congestion of street traffic. The latter will soon require drastic remedies which cannot be applied without enormous expense. The situation is really critical. The Mayor's Committee is in a sense a Committee of Public Safety. It will take heroic measures to prevent the congestion from aiming a fatal blow at the prosperity of the city.

In dealing with this problem in the past the city government has failed uniformly to show either energy or foresight. So far as the street traffic is concerned, various plans have been proposed to cut through additional avenues and streets, but with one or two exceptions they have all been defeated. The municipal officials have consistently acted or attempted to act on the assumption that their job was confined to taking care that enough subways, tubes and bridges were built to handle the increasing traffic, whereas what they should have done was to adopt some means also of diminishing the amount of traffic to be handled. The tendency of cheap and speedy transit was not only to distribute population but to concentrate business, and the concentration of business was, of course, also helped by the indisposition of the municipal government to limit the height of buildings. It is this policy which has gradually resulted in the present critical condition. It is necessary to build more subways to enable the workers to get to and from their places of employment, but it will be fatal to limit the remedial efforts to subway construction. Some means must now be adopted to distribute business as well as population.

Disinterested people who have studied the problem are all agreed upon the necessity of framing a plan to be carried out under public authority to move some of the business which is now being transacted in Manhattan to the outlying districts, and Mayor Walker has ex-
pressty approved the idea. But when the municipal officials start to put it into practice, they will meet with powerful and resolute opposition. There is a rich and influential group of interests which profit by the concentration of business in Manhattan, and after having been favored by the municipal government so long and so steadily, they will not abandon their existing opportunities and franchises without a stiff fight. They are not saying very much now, but as soon as any particular plan is proposed they will stubbornly and in all probability successfully resist it. The existing congestion cannot be either continued or cured without causing immense losses to individuals and business interests, and naturally all businesses whose toes are stepped on will do their best to stand out from under. It remains to be seen whether the Mayor's advisory committee will either agree upon a plan or, if they do, exert enough authority to brush aside the inevitable opposition to it.

> Herbert Crol.y.

## A Tolerant Profession

Comparing the architectural with other professions, we find it the most tolerant to outside interference. Is this a trait to praise or blame? There is little to praise in the indifference or weakness which tolerance suggests, as it allows a low grade of service which no other profession would tolerate. Suppose the President should appoint a banker to the Post of Surgeon General of the Army or a grocer as Surgeon General of the Navy? The doctors would instantly raise such a disturbance that the whole country would condemn such appointments as a menace to the health of soldier, sailor and citizen. The anticipation of such a protest would be sufficient to prevent a President casting such a slur upon the medical profession. While it is difficult to imagine a Chief Executive appointing an architect Chief Justice of the Supreme Court or a builder Attorney General of the United States, it requires no imagination to picture the results of such action. The lawyers would spring into life from one end of the country to the other. They would appeal to the people to protect themselves, or they would appeai to the courts to protect the people from such an imposition. This appeal would be so far reaching that the appointments would be recalled. It is easy to appreciate the storm that w.ould blow like a tornado over the country if a realtor were appointed chaplain of the House of Representatives, or an actor chaplain to the Senate. Protests vividly depicting the dangers to be encountered by the body and the soul would be voiced from every pulpit of the United

States. Our legislative bodies would hastily countermand such impolitic appointments.
While other professions are intolerant, the architects are tolerant. They did not oppose the appointment of an engineer as architect of the United States Capitol, an office that carries additions to or modifications of this historic structure and designs for many detached Government Buildings. They have raised no protest against an army officer having charge of alterations and additions to the White House, sacred to the laity because of its occupants, and to the architects because of the noted designers, James Hoban and Charles F. McKim. The architects have made no protest against a lawyer as supervising architect of the treasury, in other words a lawyer as architect for the United States.
The present Congress authorized an expenditure in the next five years of one hundred and sixty five million dollars for the erection of Government buildings. Fifty million of this sum is to be spent on the much needed buildings in Washington. The future generations of the world will judge our present culture by the character of these buildings. It is important that we should offer them our best. These buildings should be designed by our most capable men. The undertaking is too great for one man. In the interest of the public, architects should not tolerate the design by a lawyer and his staff, as it is the greatest opportunity for good architecture the country has been offered. For some unexplained reason, being tolerant, the American Institute of Architects has not raised its voice against this serious danger to their art.

The action of the Institute years ago under somewhat similar conditions of danger might be followed at the present time. Years ago the integrity and beauty of the Capitol and the White House were menaced by incompetent designers. Plans and models for the contemplated additions were made for the Capitol in the office of the superintendent of the Capitol, and for the White House in the office of Public Buildings and Grounds. Neither of these executives was an architect. One had become superintendent of the Capitol through the clerical force; the other was an Army officer detailed as superintendent of the White House. The mode!s which they presented showed the unfitness of the proposed additions. As the doctors, lawyers or preachers would have done if the integrity of their profession were menaced, the Institute of that day became intolerant in action. They made a nation wide educational campaign through their chapters and local art and municipal societies. This intolerance brought protests from the


A hoU'Se in san antonio, texas
people against officials to which both Congress and the President paid attention. Good resulted in that the House and Senate offices and also the proposed extension of the Capitol were designed by Carrère and Hastings, a firm of standing, and the Restoration of the White House by McKim, Mead and White. Due to Charles F. McKim, the restoration of the White House was a most notable achievement, which let us hope will not be tampered with. In the early nineties the output of the supervising architect's office had become a reproach to the culture of the country. Aggressive men like R. M. Hunt, D. H. Burnham and John W. Root secured the passage of the Tarsney Act, 1893, and its enforcement under Lyman G. Gage, Secretary of the Treasury. This law placed the larger number of Government Buildings in the hands of selected capable architects. The effect of this act was a revolutionary improvement in the character of Government architecture. By the poor management of the architects and want of knowledge and foresight of the legislative branches of the Government, the Tarnsey Act was repealed, causing the character of Government architecture to again depreciate. It would be interesting to know why the Institute does not adopt the methods of its former successes.

Let it cease to be tolerant and become intolerant and aggressive for the public good. Let it bring the importance of the subject to the attention of the people, through the press, through their fifty odd chapters and the two hundred and more chapters of the Fine Arts Federation. Let them interest all art and municipal societies. The people of the United States want the best architectural effort of the period. Let them understand the conditions and Congress will respond.

## Glenn Brown.

## A Group of San Antonio Houses Showing Classic Influence

There are to be found in nearly every city and town of considerable age in the United States buildings possessing architectural or historic interest which merit some sort of graphic record. Few towns are of sufficient importance to warrant the preparation of special volumes of such records and many are so remote that their interesting features are never even discovered and sooner or later disappear.
The architecture of New England has been well looked after, judging from the wealth of books, pamphlets and magazine articles devoted to Colonial architecture there, but unfortunately this is not true of the South-


A house in san antonio, texas
west. The city of San Antonio, Texas, is a case in point. The Alamo and the other missions which the Spaniards built two centuries ago are visited and photographed by every student of architecture fortunate enough to visit that historic region. On the other hand, scattered through the old city, are interesting examples of its later growth that are quite overlooked. Few if any of these buildings possess outstanding historic interest, nor are their details of great merit, yet they are of a distinctive
type that marks them as indigenous to the South and as examples of this type and period should be recorded before they are destroyed.

The buildings illustrated herewith are classic in form and detail, showing in some cases evidence of Spanish influence. The details may be somewhat crude as compared with the best work of New England, but not so crude as might be anticipated when one considers that San Antonio in the early nineteenth century was a frontier



A HOUSE IN SAN ANTONIO, TEXAS
town. Existing in its frontier atmosphere was a culture which persisted and, inspired perhaps by the presence of the fine old

Spanish mission buildings, manifested itself in simple, well-designed examples of domesric architecture such as these.
I. T. Frary.


A house in san antonio, texas


## The American Spirit in Architecture. Vol13 of The Pageant of America."*

In publishing the "Chronicles of America" the Yale University Press had an educational as well as a commercial object. The commercial object was to put the Press financially on its feet by a popular success, and from the general acclaim of the work one presumes it was accomplished. The educational object was-I speak conjecturally-to replace more or less obsolete myths and prejudices by modern and more genuine history in the minds of as general a public as possible-a Yalensian form of university extension.

The popular success of the "Chronicles" inspired the production of successful films for the moving picture theaters, and this in turn presumably suggested "The Pageant of America," which is, I take it, partly a development of this educational idea, and partly in the line of a further idea, also educational, namely, to make the country's past more visually present, more actual to the mind by the help of the eye, than unimaginative reading can do; a purpose like that of the American Wing at the Metropolitan Museum and the volume "The Homes of Our Ancestors" reviewed in the May, 1926, issue of The Architectural Record. The Pageant of America is pictorial history. The volumes are coming out somewhat irregularly. Volume thirteen is the pictorial history of American architecture.

Pictorial histories are common enough, but they are not often edited by scholars. The eight hundred and thirty-two illustrations in this volume are all from modern photographs or old prints. There are no fanciful pictures here, except three at the end which are not fanciful either. They are studies in form, and represent the logical effects on architectural form of the New York zoning laws. There is prob-

[^3]ably no other single volume in existence containing a pictorial survey of American architecture at once so sweeping and so sound.

Our oldest architecture was not English but Spanish, in Florida and the Southwest. But for the most part, the earliest buildings everywhere were makeshifts which soon disappeared. The growth of settled wealth in the Northern states was mercantile and their provincial gentry largely merchants. In the South they were largely planters. It chanced that both these aristocracies flourished at a time when in England the architectural ideas which grew out of the Renaissance were reaching full fruition. These ideas and their resultant style, nowadays called "Georgian," fitted the mood of the upper classes of English colonial America, who had money, built generously and established the developed colonial style. But though they built with dignity and beauty, they never achieved the splendor of the work of their Spanish contemporaries in Mexico; and if Georgian architecture is still a living force in the United States, so also are the forms used by the early Spaniards.

The most notable movement of the early 19th century, it is suggested, may have had some connection with the growth of democracy. Rome had been a republic, but Athens a democracy. If the architecture of republican Rome expressed the ideals of the aristocracy which shaped the early destinies of the American republic, the Greek temple symbolized the aspiration of thoughtful American democrats. So in cities and in rambling country villages, the Greek temple became a court house, a church and even a dwelling. The traveller along the country roads passed many an isolated white farmhouse, with huge pillars reaching up two stories.

The main central part of the 19th century was architecturally chaotic. There were Gothic influences as well as Greek. There was even an attempt at an Egyptian revival. Whether the era of the mansard roof or the era of the so-
called "Queen Anne" cottage was the bottom of the descent is a matter of dispute. It was a chaotic time; populations went surging west; the civil war split the country; oid societies broke up or declined; new forces were getting under way; sprawling planless cities were springing $u p$ in the West. Art was never more buried under haste and makeshift utility. American society was something like a spring flood, headlong and turbid, and architecture in some sense corresponded to national and social conditions.

The early signs of changes for the better,
relatively competent, intelligent, and even creative. The classicism of McKim is quite a different thing from the classicism of even Bulfinch; the Gothic of St. Thomas' Church is both bolder and more subtle than the Gothic of Grace Church.
But there came at last a more significant development than these, an almost purely American contribution to architecture, whose importance cannot yet be determined, namely, the steel structure and its sheathing walls, driven upward into the "skyscraper" by the pressure of cities, and just now begimning to be shaped

(c) Kau Studios, Inc.

Illustration of a Pennsylvania Log Cabin from The Pageant of America. Vol. 13.
of a cuitural settling down, are more discernible now than they were at the time. In respect to architecture, two men, both with Beaux Arts training, led the beginnings of the recovery from the mid-century's architectural collapse, R. M. Hunt and H. H. Richardson. Richardson's romanesque was, however, not a very fruitful model for imitators. Hunt's work was mainly French and classic. The influence of the Chicago Fair was very great, and largely toward classic forms for public buildings.
But intellectual America was getting past the stage of imitation. The adaptations of old forms by the younger architects had become
by the pressure of zoning laws. The problems involved in this situation are perhaps the most important of those now interesting American architects.

Modern American architecture is eclectic, country houses are Georgian, Italian, Spanish and English. But two things give unity and differentiate that new eclecticism from the old chaos: First the houses skilfully planned to meet the complex demands of modern life; and, second, there is a general tendency toward aesthetic simplicity.

It is of course impossible to give any idea of the wealth of material in this volume. Every


A


B


C
Three Illustrations from The Pageant of America, Vol. 13, Depicting (a) Late Colonial, (b) Mid-Century Chaotic, and (c) Modern Types of Houses


THE NEBRASKA STATE CAPITOL
From The Pageant of America, Vol 13
one of the eight hundred and thirty-two illustrations is selected for a purpose, and separately criticized. The difficulty of covering so huge a field, of being at the same time readable and condensed, is a matter of wise selection. Mr. Hamlin has done his work well. how well one may discover by contrasting his comments with the kind of caption that com-

(c) Detroit Photographic Co.

AN OLD STATEHOUSE
From The Pageant of America, Vol. 13
monly goes with the illustrations in popular architectural periodicals. How much value the work may have for practicing architects one can hardly conjecture; its main intention is educational ; and for the purpose of giving general readers a visual panorama, or students in a school of architecture a preliminary survey, of the history of American architecture, it seems to be extraordinarily well adapted.

Charles Bulfinch, Architect and Citizen. By Charles A. Place, Boston, Mass.; Houghton, Mifflin Co., 1925. 1st Ed. xv, 295 pp. $81 / 4 \times 11$ in. Cloth. $\$ 15.00$.

A book of exceptional appeal to all who have an interest in architecture and in significant American personalities.

Historic Doorways of Old Salem. By Mary Harrod Northend, Boston, Mass.; Houghton, Mifflin Co., 1926. 1st Ed. xv. 96 pp. Ill. $51 / 2 \times 81 / 4$ in. Cloth. $\$ 3.00$.

Salem doorways, famous throughout America, are celebrated in this authoritative and delightful volume. In Salem, chiefly through the genius of Samuel McIntire, is found the pre-eminent record of the colonial craftsman. That the Salem worthies-the Puritan settlers, witches, India merchants-passed in and out through these doorways has made them historic, their intrinsic beauty of proportion and design has made them doubly famous. They have served as models for architects and builders in every corner of the country.

Architecture and the Allied Arts. By Alfred Mansfield Brooks, Indianapolis, Ind.; Bobbs-Merrill Co., 1926. 2nd Re-
vised Ed. v. 283 pp. I11. $51 / 2 \times 83 / 4 \mathrm{in}$. Cloth. $\$ 5.00$.
This volume sums up in an authoritative, entertaining and attractive manner the essence of what is innown about Greek, Roman, Byzansine, Romanesque and Gothic architecture, as well as much about the allied arts.-sculpture, painting, mosaic, stained glass and metal work. The illustrations-more than one hundred and fifty-are particularly apt, some of them new and rare and all selected with special reference to their peculiar fitness. The book was chosen by Richard F. Bach, Associate in Industrial Arts of the Metropolitan Museum of Art, for the reading course on How to Know Architecture, offered by the United States Bureau of Education. It was also placed on the Reading List of the American Federation of Arts.

## RECENT PUBLICATIONS

issued by manufacturers of construction materials and equipment.
[These may be secured by architects on request direct from the firms that issue them, free of charge unless otherwise noted.]

Ring Joints. "Get Into the Ring." Catalog No. 2. Ring Joints for all kinds of woodwork with particulars of use in various kinds of construction. Details of the Ring Joint Machine. W. L. Evans, 700 Block W., Washington, Ind. $4 \times 8 \mathrm{t} / 2 \mathrm{in}$. 24 pp . Ill.

Recess Medicine Cabinets. Pier-type structural mirrors and recess medicine cabinets. Catalogue of French plate glass mirrors and cuttings from famous Roman designs. Details of size and description. J. P. Eustis Mfg. Co., 12-16 Ames St., Cambridge A, Boston, Mass. $73 / 4 \times 101 / 4 \mathrm{in}$. 8 pp . Ill.

Douglas Fir. "Durable Douglas Fir, America's Permanent Lumber Supply," by Prof. Bror L. Grondal, M.Sc.F. A description of the development of Douglas Fir. Uses for the home. Tables of grades. West Coast Lumber Trade Extension Bureau, 5562-C, Stuart Bldg., Seattle, Wash. $7 \times 11$ in. 32 pp . Ill.

Showers and Bath Fixtures. A. I. A. File No. 29h3. Loose leaf catalogue giving complete line of shower and bath fixtures with description of action. Features of the Ampinco Valve and its parts. Roughing in and detail measurements. The American Pin Co., Division Scovill Mfg. Co., Waterbury, Conn. $9 \times 10.7 / 8 \mathrm{in} .56 \mathrm{pp}$. Ill.

Copper Roofs, Etc., "A Real Home." Interesting information on building or remodeling a home. Why copper roofs and pipes should be installed. Lighting fixtures and ornamental work. Comprehensive diagrams. Copper \& Brass Research Association, Room 1600, 111 Broadway, New York City. $8 \times 103 / 4 \mathrm{in} .48 \mathrm{pp}$. Ill.

Refrigerators. Catalog No. 97. Refrigerators for residences. Description of system and construction with measurements, capac-
ity, weights, etc. Tables for cooling and location of wall openings for outside icing. McCray Refrigerator Sales Corp., 662 Lake St., Kendallville, Ind. $7.3 / 8 \times 101 / 4 \mathrm{in} .48 \mathrm{pp}$. I11.

Linoleum, Composition, Treadlite and Cork Tile. A series of booklets showing standard colors and designs. The advantages and uses of Battleship Linoleum. Detailed account of cork-composition marbleized tile. Practical working specifications for installation. Bonded Floors Co., 1421, Chestnut St., Philadelphia, Pa.

Drains. Roof drains and accessories for every roof with specifications and prices. Installation information. The Josam Manufacturing Co., 4900 Euclid Bldg., Cleveland, Ohio. $3^{1 / 2} \times 61 / 4$ in. 16 pp . Ill.

Electric Refrigeration. New household models in various sizes. Specifications and description. Particulars concerning the machine. The Coldak Corp., Dept. A. R., 8 West 40th St., New York City. $61 / 4 \times 53 / 4$ in. 16 pp . I11.

Electrical Wiring Devices. Catalogue " S ." "H. \& H." switches, sockets, accessories and wiring material. Description and particulars regarding size, weight, packing, prices, etc. Latest designs and improvements. The Hart \& Hegeman Mfg. Co., 342, Capitol Ave., Hartford, Conn. $83 / 4 \times 101 / 4$ in. 123 pp. looseleaf. IIl.

Marble-ized Tile. A new cork composition floor with description and advantages of use. Looseleaf sheets of typical installations. Bonded Floors Co., Inc., 1421 Chestnut St., Philadelphia, Pa. $6 \times 9$ in. 12 pp . I11.

Tile. "Gold Seal Treadlite Tile." Advantages and description of material and installation. Looseleaf sheets of typical installations. Bonded Floors Co., Inc., 1421 Chestnut St., Philadelphia, Pa. $6 \times 9$ in. 12 pp. Ill.
"Safety 'Arktite' Plugs and Receptacles, Interlocking Switches and Plugs and Safety Hand Lamps." Folder No. 38. Special features. Methods of grounding portable devices through "Arktite" plugs and receptacles. Advantages and full description. Crouse-Hinds Co., Syracuse, N. Y. $11 \frac{1}{2} \times 61 / 4$ in. I11.

Fans. Bulletin No. 7003. American H. S. Fans. Distributing features. Specifications describing and illustrating the various parts of a complete Forced Draft Blower. Capacity tables. Detailed dimension sheets of the standard arrangements. American Blower Co., 6004 Russell St., Detroit. Mich. 81/2 x $11 \mathrm{in}$.28 pp . Ill.

"Almighty Spring"
From A Painting by Eugene F. Savage


[^0]:    Cafeteria Entrance

[^1]:    *Gordon Allen, who spent year before last in Spain, and who ought to know, tells us that "Realtor" is derived from two Spanish words, "rẹal," meaning royal, and "toro" (tor for short), meaning bull.

[^2]:    JONE—PENCHANT FOR CRAVATS

[^3]:    *The Pageant of America. Vol. 13. The American Spirit in Architecture by Talbot Faulkner Hamlin. Yale University Press. 1926.

