

THE AMERICAN ARCHITECT

VOL. CII.

WEDNESDAY, NOVEMBER 27, 1912

No. 1927



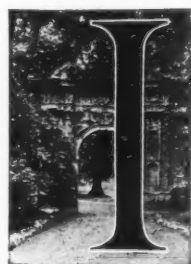
CHARLECOTE PARK AND GATE HOUSE

A splendid example of well-studied grouping by which the garden becomes an extension of the building plan.

THE ARCHITECTURAL GARDEN

PART I

By HENRY PRESTON WHITE, *Landscape Architect*



IN the published works of Edgar Allan Poe, that most interesting experimenter in literary fields, there is one essay, little read, which is a kind of descriptive prose poem under the title, "The Landscape Garden." We are all familiar enough with the terms "landscape gardener" and "landscape gardening," but "landscape garden" is a term one rarely hears. It is logical enough and no doubt would be in common use if the work of the landscape gardener were definite enough to come under the restriction of a single name. This is not the case, and besides, the term "landscape gardener" has itself fallen into

disuse through having been generally superseded by the higher-sounding title, "landscape architect." Poe, however, set his own limit upon the landscape gardener's work and so justified the use of his term. His essay tells of a man who, coming suddenly into enormous wealth, and who was too serious-minded to use it for trivial pleasures, and who therefore wanted to use it to accomplish some grand and noble end, chose as his life work the improvement in detail for man's view of the broad effects of Nature, which he believed lacked detail which he could supply because they were formed to be perfect in the view only of one at a great distance, that is by God Himself. All this was of course merely introductory to what Poe intended to be a description of purely imaginary beauty in landscape



A garden where the main axis is established by an opening in the woods

forms finer than Nature ever could produce, but within the power of man, a supernature made possible by the ability of man to set aside the law of "survival of the fittest" in plant life. He gave to the term "landscape garden," a connotation of garden design on a vast and majestic scale.

Let us hope that Poe's dream may be realized, together with all dreams of serene and perfect beauty which is unbounded and without the restraint which limits of area and, I fear, genius, put upon the works of landscape architects of today. We can at least adopt his title, and as our works are smaller, so properly can we restrict the term. It gives us a very satisfactory word for use in place of the vague and negative one "informal."

"Garden" connotes that part of a landscape of which the dominant effect is produced by masses of flowers. Where the flowers are in beds of geometrical shapes grouped in definite relation, there is what has come commonly to be called a "formal garden"; all not so arranged becoming

negatively "informal." Let us call these others "landscape gardens."

According to an old description of landscape, it is the whole universe visible to a man who stands upon the earth's surface. Now we readily accept the idea of including bridges, towers and other buildings in the landscape where they are clearly subordinate to the natural elements of the view, but we cannot think of a view as landscape which consists mainly of buildings. Thus painters distinguish between "landscapes" and "street scenes." Similarly a garden which has a geometrical plan and which exhibits no naturalness in its shape or location, does not seem properly a landscape. The geometrical arrangement of a garden brings it naturally into the category of architectural design. Symmetry becomes desirable, and that implies axes. Axes in turn imply terminations, and terminations need to be visibly marked by definite features. Natural forms are too changeable and too vague in masses to serve in important positions as terminals, so architectural forms come inevitably to be used for the purpose. "Formal garden" is a remarkably nondescript name for this. "Architectural garden" is certainly better.

Straight lines have no part in Nature's works, though the beauty of the subtle line of natural scenery can often be enhanced by contrast with the straight lines of architectural forms, but only when the straight lines act as a partial or complete enframement. Thus a new building, with its lines unbroken by age, or unsoftened by natural growth such as vines, that is, when untouched by any of Nature's processes, would not be an element of beauty in a landscape. A new balustrade or parapet over which to look, or a new column to look by, might considerably increase the beauty of the view. Similarly an architectural garden, visible as such, might be a very ugly blot in a view, but it might be a very excellent place to see the view from, or, if it were in so immediate a part of the foreground as to serve in part as an enframement of the view, its use would be justified. This is one of many reasons why the architectural garden should come in very close relation with the buildings, preferably and for obviously practical reasons, with the house on all home estates.



Garden shelter occupying an effective corner position, one chosen for its command of an exceptional view.

It is not sufficient that the architectural garden should be nearly connected with or attached to, or against the house; it should be a part of the house, being, if it is there at all, precisely as much a part of the general house design as any of the rooms, verandas or porches; and so, just as no room in a house should be designed as to doors, windows, fireplace, size or shape, independently of adjoining rooms or of the external façades, so no house should be designed independently of an adjoining garden. The inclusion of the architectural garden as part of the house plan has, unfortunately, some attendant difficulties. The use of a garden primarily is to supply the best possible place for plants to grow and display their beauty of foliage and bloom. Architects are not ordinarily possessed of a sufficient knowledge of plants to properly provide for that function of the garden. This knowledge of plants also is commonly believed to be possessed by persons who know practically nothing of architectural design. Any well trained landscape architect, however, would possess sufficient familiarity with architectural design to work efficiently in co-operation with the architect of the buildings, and the architectural garden is one of many meeting points on an estate where the architect and landscape architect, though working independently

each in his own province of design, should come together for consultation and mutual assistance. Their common problem may lie in any part of the whole work of making a home, from the initial choice of a site for the house to the final details of the house itself. Not often in places of any complexity can architect and landscape architect follow lines which do not at some points come together.

Where an estate has an area of ten or more acres, it is usually possible to place the garage, stable and smaller buildings connected with the administration of the property so far from the house that they can be designed independently, and may indeed not come in any view from or with the house. This seems to be much desired by most American owners, though it is questionable whether the English practice of grouping the buildings into one architectural unit is not better, both for convenience and for architectural effect. Whatever the merits of the American practice may be, it is evident that it is not adapted to small properties, yet because it is usual for the features of large work to be imitated in the smaller, the same practice is very often employed in the arrangement of buildings on small estates, often with the result of the com-



Fine harmony between natural and architectural features.

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An attractive garden marred by the fact that there is no vine growth to offset the too obtrusive line of the trellised arch.

plete loss of any convenience or proper realization of such opportunity for charm as the place might have.

The grouping of the buildings presents a problem which should be studied in common with that of the architectural garden, for any wall is a possible garden wall, whether it connects two buildings or forms a part of one, and a hedge which screens a laundry-yard on one side may shelter from the storm winds a garden on the other. If the house by necessity stands upon a steep slope, the roof of a garage or stable may become part of a terrace, or it may have a superstructure which is an effective shelter at the end of the garden. By properly studied grouping of the buildings, the architectural garden may frequently be supplied

with two or three, or even four side walls, each one of which serves some other purpose as well.

The economy of making one wall serve two purposes has an evident advantage, but the æsthetic gain is often greater. One of the fundamental laws of landscape architecture, as of architecture, is that no part of the design shall be without use. No area in the grounds, or space in the buildings without a definite, studied function of use or beauty. The design is perfect only when the designer has intended every element of it. This rule cannot be too rigidly observed, and is, I think, well obeyed by American architects of today, and if it is otherwise with landscape architects, it is because they so generally work under a too narrow limit of expense. Americans have come to expect the observance of the rule, and even demand it in their architects, but their interest in their grounds has been too scant to have even learned that the same rule could be applied to the design of estates. The public is learning rapidly, but it still sees in the ground of an estate only the setting, more or less broad, for the house, and in size of area only the single value of making that setting as broad as possible. That the rule of "definite intention" can be followed in estate design is readily proved by examples found in modern French, German, and, to a lesser degree, English landscape architecture. It is only beginning to be followed in America. Where this rule is not observed we find the commonest faults of bad design, such as odd, irregular, or meaningless spaces and awkward duplications, or indecisive separation of architectural features, as where a pergola terminating a garden is placed near but not at the wall of a stable; or where a wall about a garden comes within and at such a distance from the boundary wall of the property that the intervening space is too great to be entirely filled with trees or shrubs, and too small for any other purpose.

(To be continued)

EXAMPLES OF MODERN LIGHTING PRACTICE

CONCEALED LIGHTING

By EDGAR H. BOSTOCK



THE best light for an auditorium or large room would of course be?

Continuous daylight!

Which would be best defined as light of sufficient intensity for purpose needed permeating the room from *without*.

If we accept this as correct, then a definite basic fact is at hand upon which to work in seeking the best results in artificial lighting.

In approximating daylight, the salient facts to be considered with particular reference to each installation are the strength of light source, and the placing and character of the medium through which the light must enter the building.

Probably the most efficient way to attain the object sought would be to permit light rays to enter so that they may be projected vertically upon entire floor surface, and to do this through dome lighting if possible, making the entire ceiling a distributing medium.

Architecturally, this is not always possible, and we must concern ourselves with the best means at our disposal.

Liberties may have to be taken with architecture; indignities perhaps offered to decorative schemes, and new constructive methods called in; but does not good lighting justify the end, and if so, then should not ceilings be designed with a maximum of space to be used for lighting purposes until perhaps we reach that ideal room which shall contain no interior light source?

The light source available may be either gas or electric in units of high intensity, though gas is handicapped heavily by the necessity for ventilation which cannot be met in dome lighting, only in exceptional instances where there is an unusual amount of head room; and in electric work arcs are also somewhat inconvenient, and the best results heretofore have been attained by metal filament lamps of high intensity.

The glass through which, if we adopt a system of dome lighting, we must transmit the light is perhaps the greatest problem, but fortunately, this is a mobile material, and adapts itself to new types and forms readily, as it must needs do; when we seek in the same material maximum diffusion with minimum absorption, and ask at the same time that it transmit a "white" pleasing light, and yet have its mosaic effect in harmony with the varied decorations surrounding it.

There are numberless types of sheet glasses made in large size sheets from which panels may be cut to fit openings such as would be used in the average dome.

Some of great deflecting power and very low absorption for use in high ceiled rooms; others of higher absorption for closer view; some to project light in definite angles; some that combine with these colors a corrective color value; some that get all good qualities of "sanded" or "etched" glass without its dirt-gathering qualities, and a host of others for special needs.

The inception of this idea probably came from instances where light was used above art glass domes as a means of bringing out their design and beauty, and possibly the first instance of the employment of a glass ceiling or screen solely for the purpose of lighting is the Engineering Societies Building, New York City.

This was a difficult problem, as no particular thought was given to the lighting until after the plans were matured, but when placed in the hands of the engineers, was studied, and a scheme evolved that has been the subject of much favorable comment, and shown the way to others.

The structural problem was in itself a difficult one to solve if dome lighting was resorted to.

Two sets of girders were used dividing the ceiling of auditorium into three panels, and these panels faced with the glass panels. The maximum distance between bottom of floor beams and glass

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panels was 17 inches, in which confined space only shallow incandescent lamps were used so as to remove actual light source as far as possible from face of glass panels, and to allow the use of glass with low co-efficient of absorption, and get good distributive qualities. After trying a large number of samples of glass under conditions approaching those actually to be used, a silver ripple glass was selected and placed in the panels with splendid results.

The glare problem was entirely done away with, good light procured at even less cost than originally figured, and it seemed as if in use the dome lighting gave a feeling of space to the room that added to its beauty and comfort.

The project when finished gave even better results than had been hoped for, but was so much a step in advance that four years elapsed before any large work along same lines was undertaken.

This was a rather more ambitious undertaking, the lighting of the banquet hall in the new Allegheny County Soldiers' Memorial Building, Pittsburgh.

In this case, the engineers decided in favor of lighting the banquet hall entirely through the glass sash in the ceiling, and furthermore, that nothing in their appearance should let anyone determine the given points above at which the light originated; the problem was made more difficult by the fact that very high intensity of light was to be used to bring out the peculiar beauty of the decorative scheme.

It might almost be said that the color of the decorations demanded some such equitable distribution of the light as intense shadows and unequal lighting would have destroyed the beauty of the hall.

Very thoroughly did the engineers study this matter, and finally had built an installation corresponding with one of the actual sash to be installed, and after numerous tests settled upon one form of glass known now as "Deflex" as sash facing in combination with a defective trough of same glass; as a warm golden light seemed to

best harmonize the interior of the hall, and at the same time give a cheerful light, this facing glass was made in a slight amber tint, No. 1½ Deflex.

High intensity Tungsten lamps were used mainly, though some enclosed arcs and some vapor lamps were placed in series so that combinations of color might be obtained.

In dome lighting, engineers had often considered the use of alabaster as a transmissive material, but its almost prohibitive cost has kept it beyond their means usually, and in searching for something very near it, turned to the glassmakers who produced the alabaster type of glass now coming into use.

The first use of such glass in domes was in the palm room of the Ritz-Carlton Hotel, New York, and anyone entering this room is at once struck by the quality of the transmitted light.

The type of glass used here is very efficient. It diffuses and transmits light by virtue of a peculiar condition whereby it carries in suspension numberless small crystals which break up light during its passage, thus giving very low absorption in combination with great diffusive power and a clean surface. Various types of this glass will undoubtedly be used very much in future.

As the use of dome lighting grows, it is presenting peculiar problems. For instance, one recent installation in which it was desired to get fairly strong light with high intensity lamps had only 15 inches room in which to place installation; this was overcome by using a denser alabaster type glass known as "Equalite."

Undoubtedly, the future holds in store great things for this style of lighting, but it must yet solve a good many problems to attain its highest results.

There must be developed shallow lamps of high intensity that require little ventilation; new glasses that will diffuse and direct light as wanted, and the design, bend and shape to domes themselves that will keep in touch with architecture.

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Founded 1876

PUBLISHED EVERY WEDNESDAY BY

THE AMERICAN ARCHITECT (INC.)

No. 50 Union Square, New York
(Fourth Avenue and 17th Street)

G. E. SLY, PRESIDENT

E. J. ROSENCRANS, SECRETARY AND TREASURER

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TEN DOLLARS PER YEAR, POSTAGE PAID
ALL OTHER COUNTRIES . . . \$12.00 PER YEAR
SINGLE COPIES (Regular Issues), 25 CENTS

Entered at the Post-office, New York, as Second-class Matter

VOL. CII NOVEMBER 27, 1912 No. 1927

THE CLAUSE "OR EQUAL" IN SPECIFICATIONS

IN another column is printed a communication from Mr. J. C. Clow, recommending a substitute paragraph in plumbing specifications for the "or equal" clause, which has from time immemorial occupied a place in the great majority of specifications, not only for plumbing fixtures, but for all classes of apparatus and equipment entering into the construction of buildings.

The arguments put forth by Mr. Clow in favor of substituting the paragraph noted will merit most careful study by every architect. Moreover, what is proposed for plumbing specifications seems with little modification to be equally applicable to specifications in general.

That any specification which permits the substitution, after contract is let, even with the architect's approval, of other goods for those specified, is not conducive to best results, is generally acknowledged. It demoralizes competition in the bidding, it leads to endless discussion, annoyance and trouble during the progress of the work, and the completed structure in probably nine cases out of ten will contain equipment which, while possibly answering the purpose, will represent something less in actual value to the owner, as well as cost to the contractor, than would have resulted from a definite and inflexible determination

of goods to be used before contract was let. Perhaps it is possible to devise a plan that will be more acceptable than that proposed by Mr. Clow for overcoming the objectionable clause under discussion, but unless and until such plan is presented, it would seem that a distinct advance over present practice would be gained by accepting the proposed paragraph and incorporating it in specifications wherever applicable.

We believe that the closing statement of the communication, namely, that "the 'or equal' clause is an unmitigated and removable mistake," will find general agreement. It is to be hoped that this matter will receive renewed attention from architects and manufacturers who have realized the shortcomings of methods in general use for years, and that a free discussion of the subject from which may be expected to develop suggestions of much value, will follow.

ANOTHER PROJECT FOR PARK INVASION

THE latest proposal looking to the perversion of a portion of Central Park is credited to Mr. James E. Sullivan, whose interest in amateur athletics has apparently prevented him from becoming acquainted with the sentiment of New York citizens regarding park invasion. It is stated that Mr. Sullivan has a plan for building a five-million-dollar stadium in the northerly portion of Central Park.

In spite of reported approval of the scheme in certain official quarters, it does not appear that the prospects of success for this, probably the most inexcusable and indefensible scheme for park encroachment among all that have been advanced within recent years, are particularly bright. It is inconceivable that such a plan could receive the necessary approval of the Park Commissioner, the Aldermen, the Mayor, and others necessary before it could be considered in any sense adopted, but even with all of these, it is probably safe to assert that the people of New York would find a way of preventing its execution. This fact will doubtless become plain to Mr. Sullivan before he has had an opportunity to waste a great deal of time or energy on so unpopular a plan.

RECENT LEGAL DECISIONS

OWNER'S DUTY AS TO PAYMENT OF INSTALLMENTS

Relatively to a surety on a contractor's bond, the owner of a building is not bound to withhold payments to the contractor, as stipulated and agreed in the contract, on the ground that the contractor is in default with the materialmen. Under the contract in this case, the contractor was to be paid in monthly installments, and the amount of the installment was to be fixed by the value of the materials and labor which entered into the construction of the building during the previous month, plus the agreed commission. The surety on a contractor's bond for the faithful performance of a building contract is not released because at the time of the payment of the last installment of the contract price, pursuant to the terms of the contract, the work is incomplete and there are unpaid sub-contractors and materialmen.

Massachusetts Bonding & Ins. Co. v. Realty Trust Co., Georgia Supreme Court, 73 S. E. 1053.

BLUE PRINT AS EVIDENCE

In an action to recover for extra work and material, the petition alleged that the basement of the building was made one foot and four inches deeper than called for by the plans and specifications. A blue print called "plans" was offered in evidence, the witness stating that this was the plan on which he made the bid and by which he worked, and afterwards that the basement was made three feet deeper than called for by the blue print. An objection to the blue print on the ground that it was incompetent, irrelevant and immaterial, no foundation being laid, was held properly overruled, as it did not appear whether any other portion of the plans and specifications had reference to the basement, and as the defendant might have required production of them all.

Watkins v. School Dist., Kansas Supreme Court, 118 Pac. 1069.

CONSTRUCTION OF PROVISION FOR DAMAGES FOR DELAY

The contract of sub-contractors for brick-work, terra cotta, etc., made with the general contractors provided for the completion of their work within fifty working days, the former agreeing that if they should delay the progress of the work so as to cause loss for which the general contractors should become liable, they should reimburse the latter for such loss. The building was not completed until 115 days after the date set. By some compromise between the owners and the general contractors the amount of damages to be paid was liquidated at \$6,800, which the general contractors sought to recover from the sub-contractors. It was held that the latter's obligation was not to pay anything that the general contractors might be obliged to pay, but only such loss as the sub-contractors themselves might cause. The evidence tended to show that they did unnecessarily delay their work, but not that they were wholly responsible for the loss to which the general contractors were put, nor how much of that loss was properly chargeable to them. There was, therefore, no basis upon which to estimate the amount which should be allowed, if any, as damages for the sub-contractors' delays.

Murphy v. No. 1 Wall Street Corporation, New York Appellate Division, 127 N. Y. Supp. 735, reversing 119 N. Y. Supp. 693.

SECOND BIDDER'S EVIDENCE AS TO COST OF BUILDING

In an action for breach of a building contract it appeared that the contract was let by bid. After accepting the plaintiff's bid, the owner breached the contract and employed another bidder to erect the building. It was held that the second bidder might testify as to the cost of erecting the building, both contracts calling for the same specifications.

Roland v. Nall, Arkansas Supreme Court, 140 S. W. 138.



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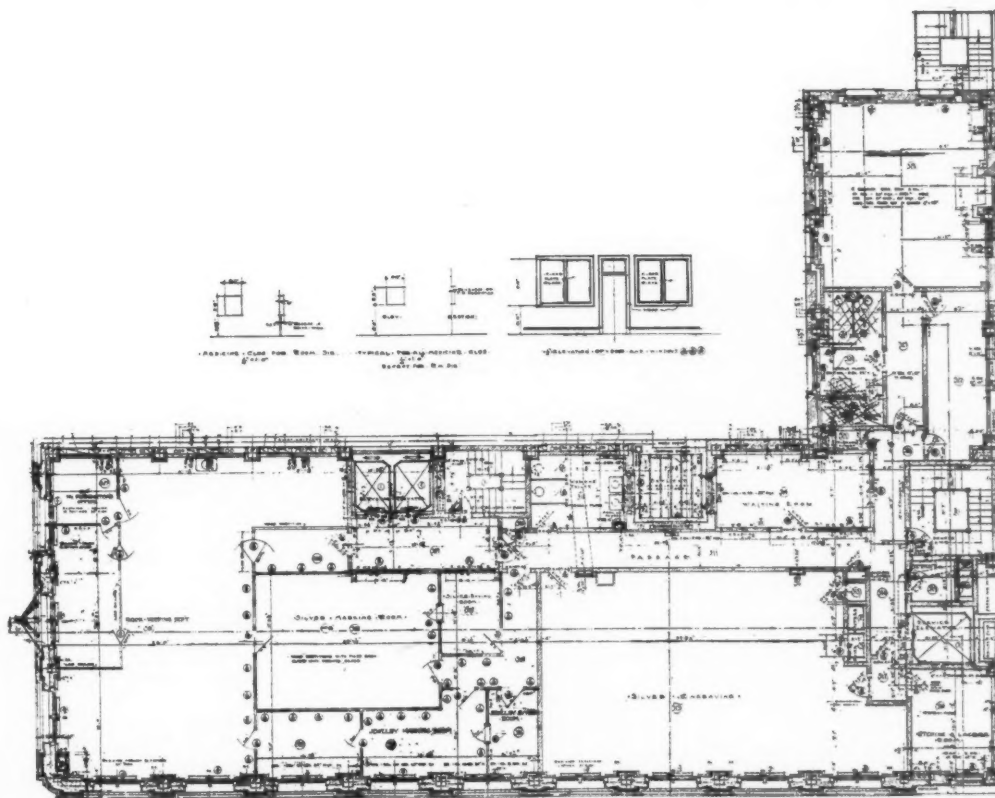
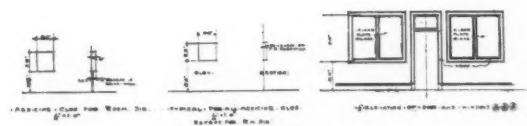
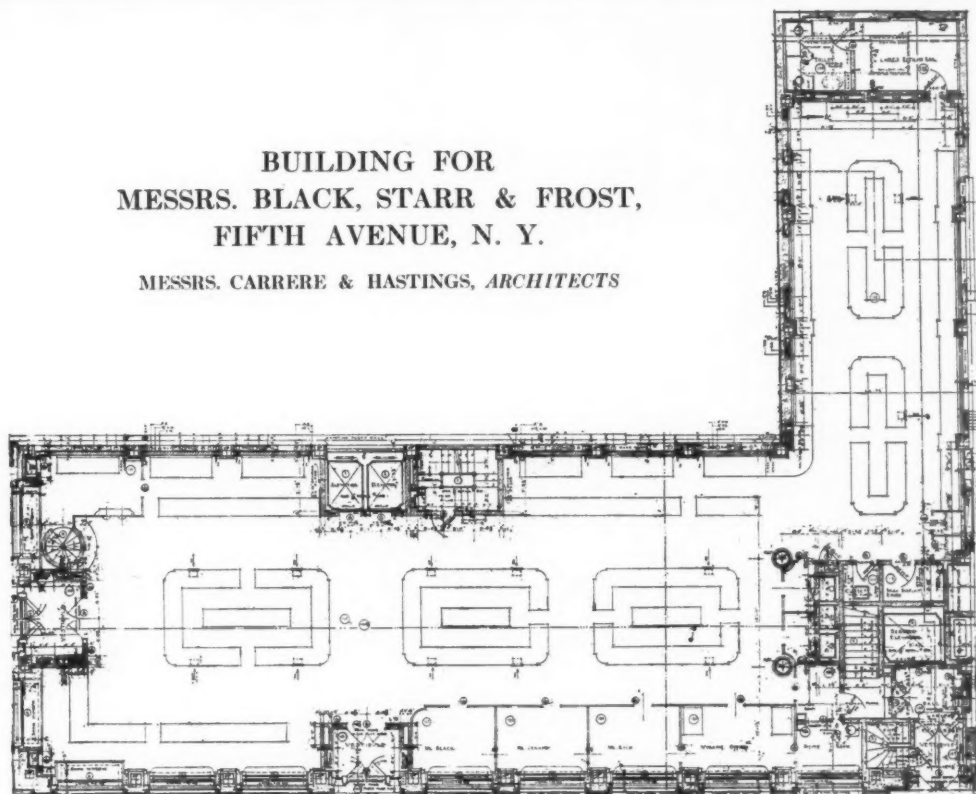
DETAIL OF PRINCIPAL ENTRANCE

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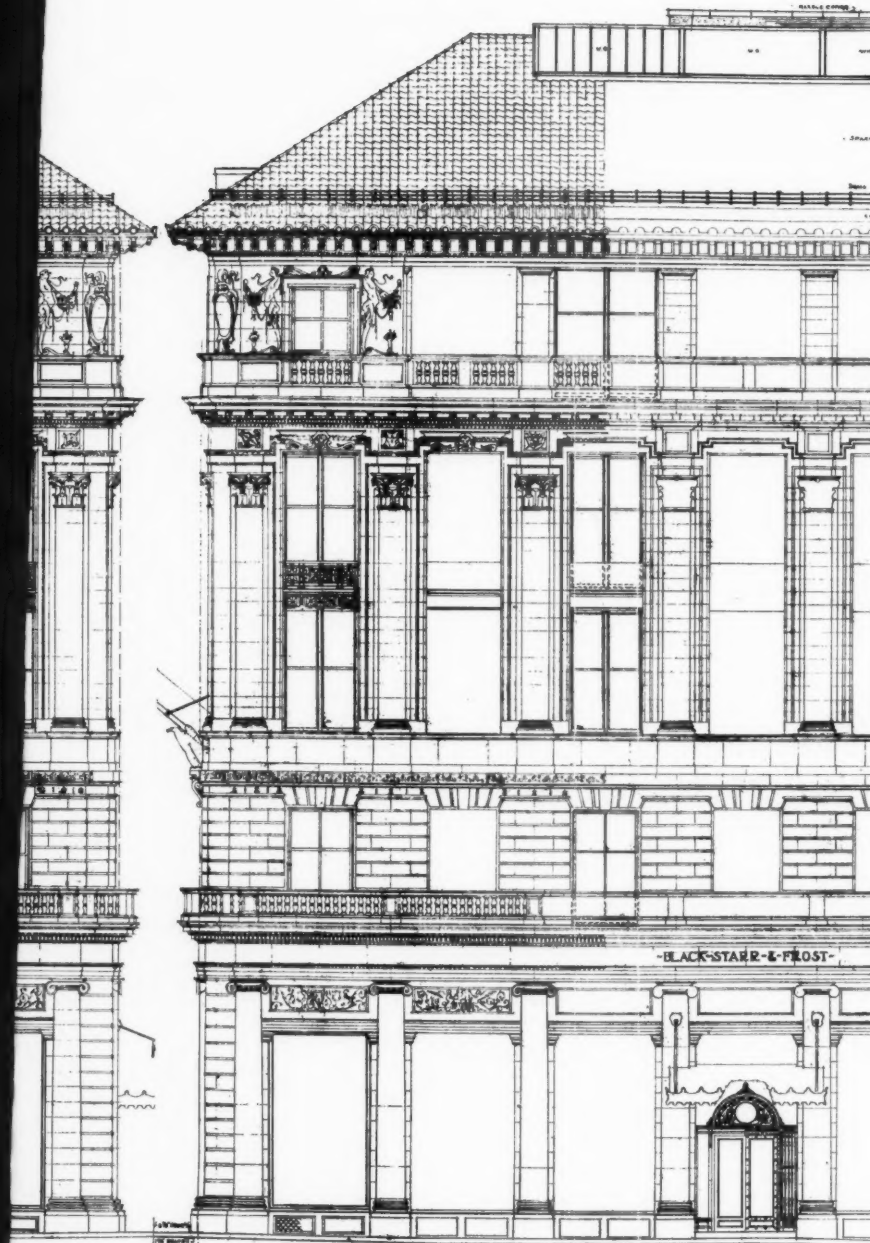


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AVENUE, N. Y.

R. & FROST

STAIRS

ELEVATOR

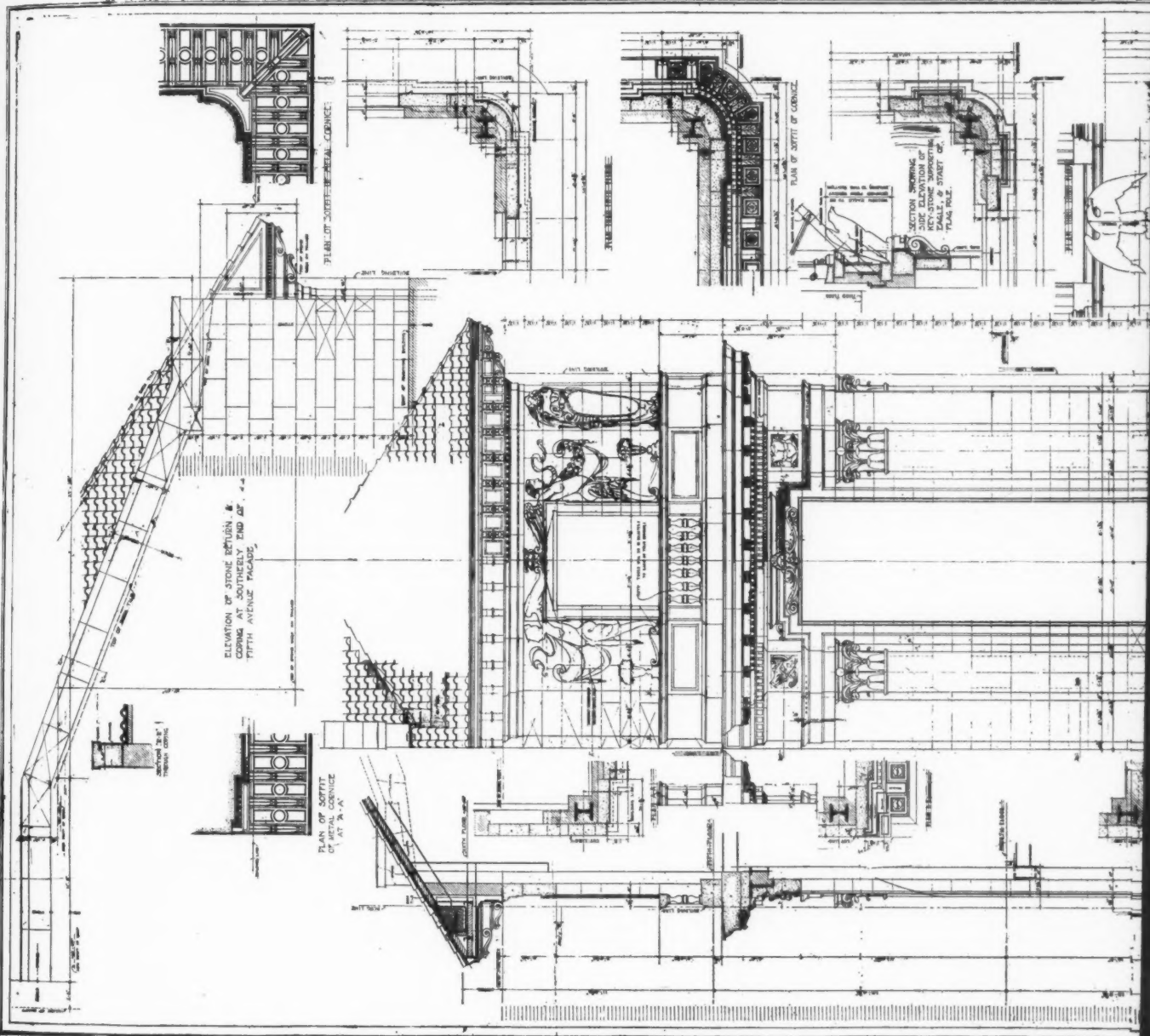
ROOF

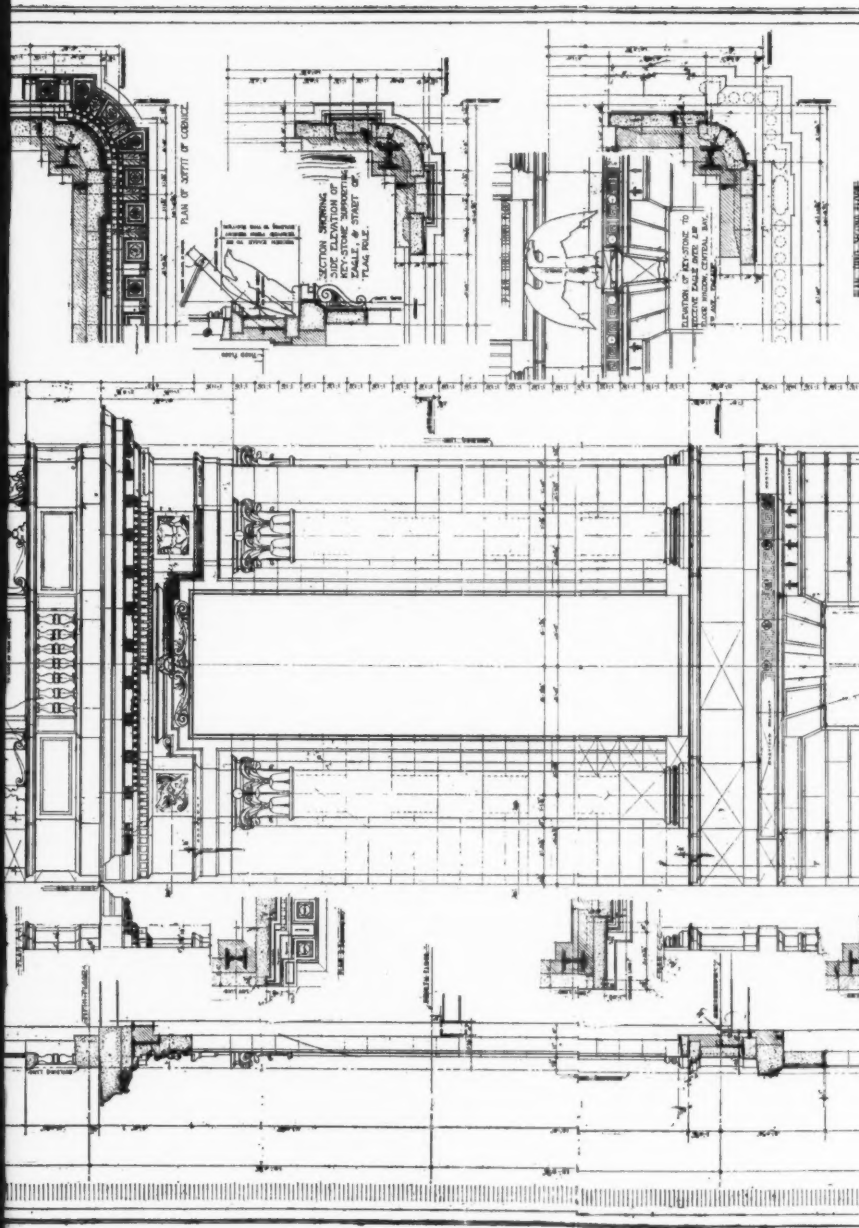
FLOOR

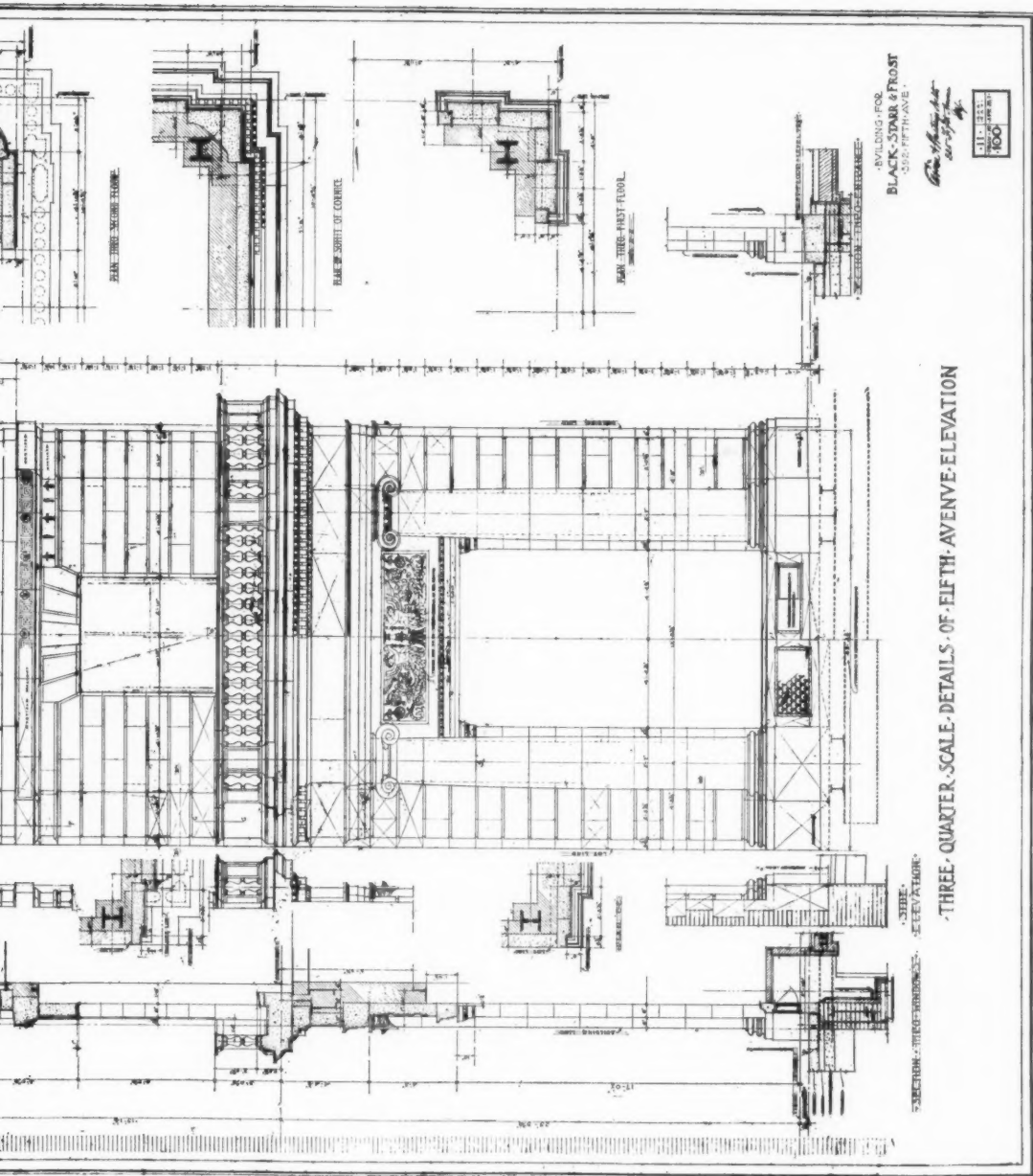
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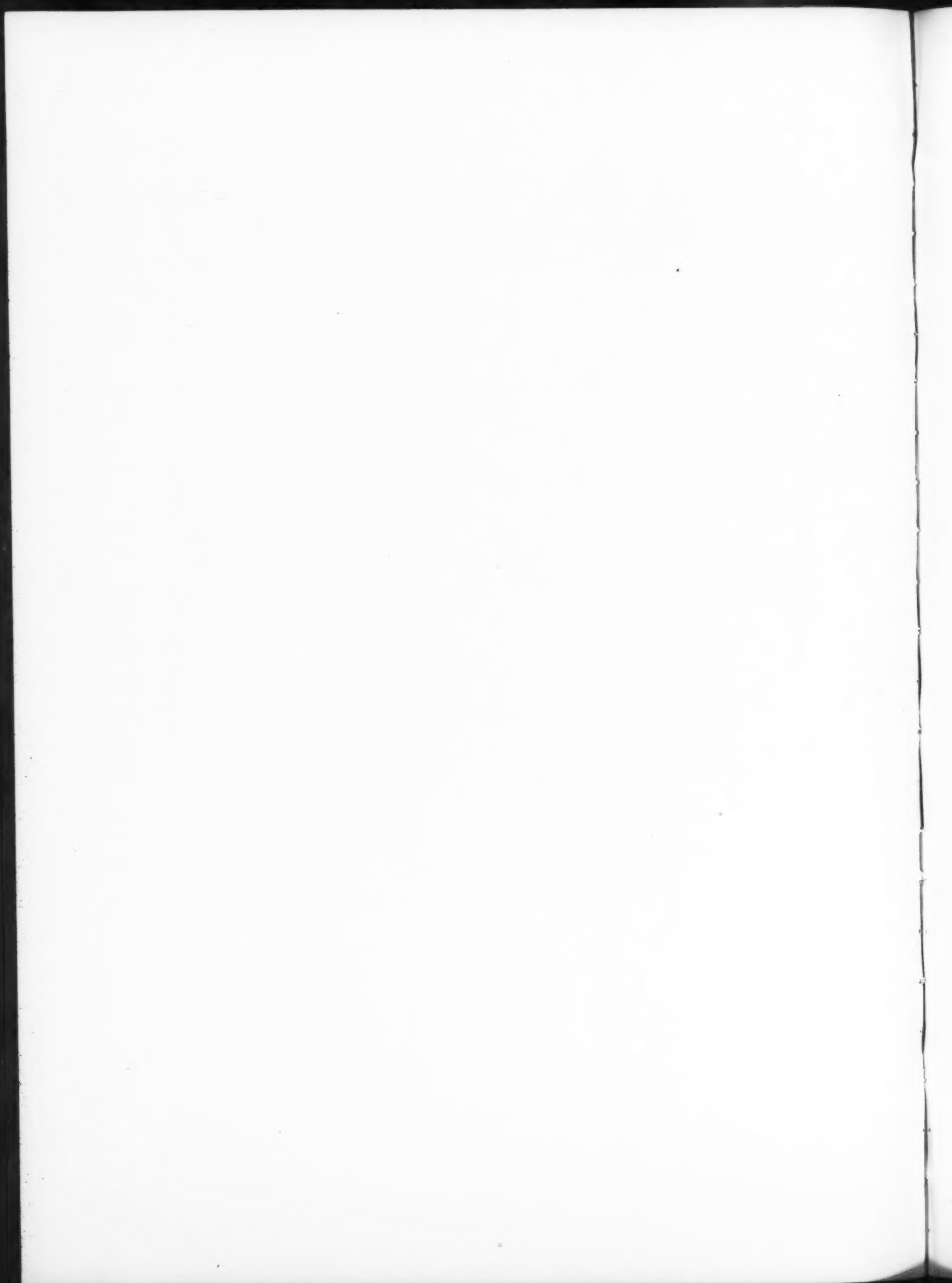




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DETAIL OF PRINCIPAL ENTRANCE

THE BASILICA OF ST. ANDREW, MANTUA, ITALY