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### DAYLIGHT *in* BUILDINGS

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**A**RCHITECTURE may be regarded in many ways all equally truistic; for the present purpose it is to be considered as the art of assembling and arranging the diverse productions which are the concern of the lesser arts and crafts, in such ways as may result in distinctive ocularly perceived impressions.

In the internal structure of a building more trades, arts, call them what you will, are as a rule involved than on the exterior, where wall materials,—stone or its substitutes—window materials,—glass in frames of wood or metal—and roof material,—sheets of metal, mineral or makeshifts for these—are all but exhaustive of the list and consequently of the techniques. But in the interior, choice of means to our ends is vastly freer and the combinations infinite.

In exercising our selective tastes as masters of every trade we architects may be influenced by a connoisseurship of ancient ways of doing things; by a conscious loyalty to a tradition, national, or cultural; by an exalted self-sufficiency of inventiveness; by a spirit of willing compromise with the idiosyncrasies of our clients, or by a clear perception of the fundamentals of problems as problems;—by all and any of these and by a hundred

other sentiments. Yet whatever the light and shade of our motives in the resultant assemblage of material made eloquent through form and color (whether in being, or only potentially set forth in drawings, specifications contracts and purchase lists), the revelation of æsthetic content, if any, depends on *eyes to see with* and *light to see by*.

So we find that ultimately the value of the arrangement of parts and things is conditioned by the arrangement of the windows. These have a dominating importance not only in virtue of their own inherent uses, but as affecting every other internal element of a structure in its architectural, as distinct from its engineering, aspect.

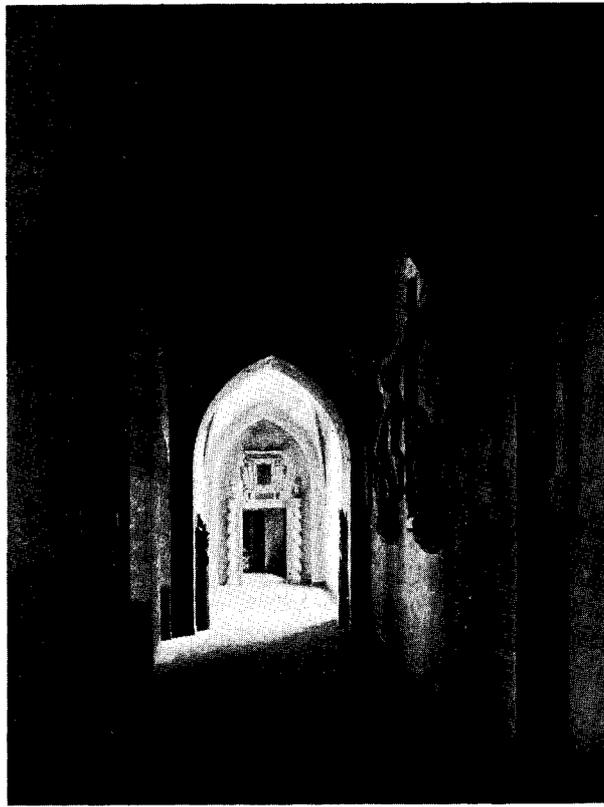
Mere efficient planning is a matter of engineering talent—synthesis of use, prospect, aspect, construction. But planning may be art as well as engineering and without detriment to efficiency in virtue of inherent graces of solution. Our mathematical friends assure us that their problems have solutions in mere mathematics and, by virtue of grace, solutions in purest poetry. But the grace of solution of plan is of a rather superficial kind if it result only in pattern on a drawing, and in inanity of ocular impression in the executed work. In these days of academic teaching



Staircase, 24 Friedrich-Karl-Ufer, Berlin

and meretricious draftsmanship, pattern in plan without visualization of the result of the pattern is all too common.

Of course, regularity of fenestration furnishes an easy basis for monumental quality and often provides incidentally for an even and practically effective distribution of light over floor areas, but in the case of the larger and more highly organic internal cells of structures this often results in utter dullness. The most harmonious proportions, the happiest decorations, the choicest materials and the most cunning craftsmanship will produce a mere assemblage of dissociated entities or a won-



An aisle, Markisches Museum, Berlin

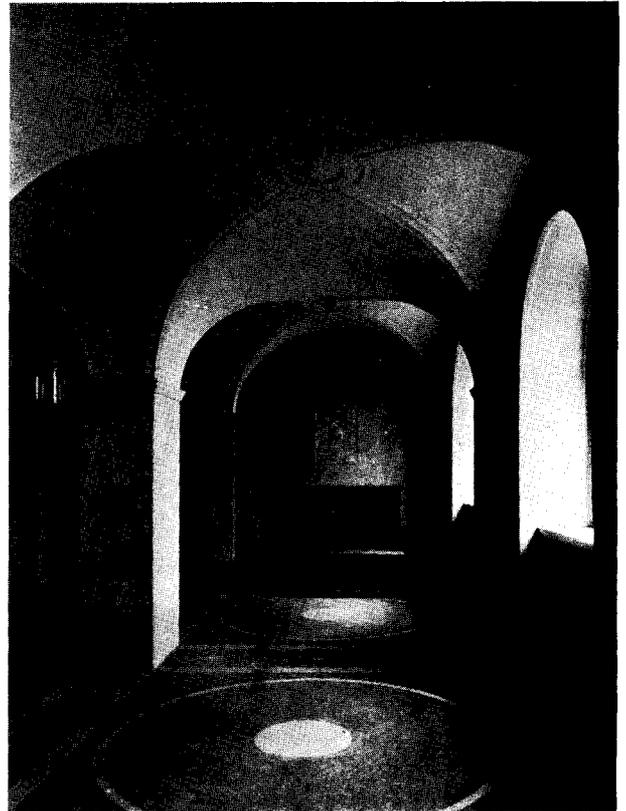
derland of delight, depending on how the light deals with them.

The eye does not require a great deal of light to see by in comfort; it does require a fine quality in the matter of shade and shadow. This continent is full of rows of large windows stopped off to 80 per cent with blinds, shades, awnings, sash-cloths and curtains and other encumbrances.

It is particularly in the churches that the greatest possibilities occur for composition in terms of light and shade yet how often, even in these, the very shapes of things so sedulously elaborated on the drawing board turn out "without form and void"



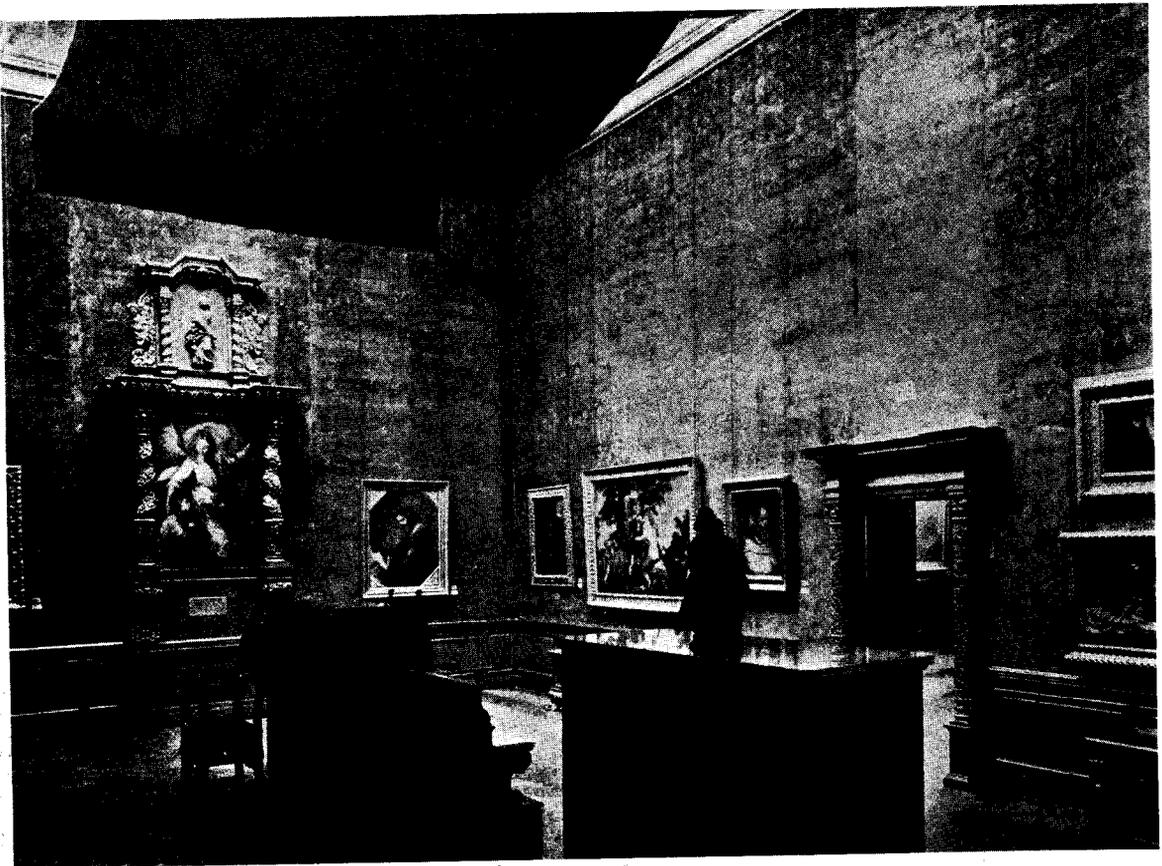
Sculpture Gallery, The Museum, Darmstadt



Anteroom, Municipal Building, Berlin



Portrait Room, Markisches Museum, Berlin

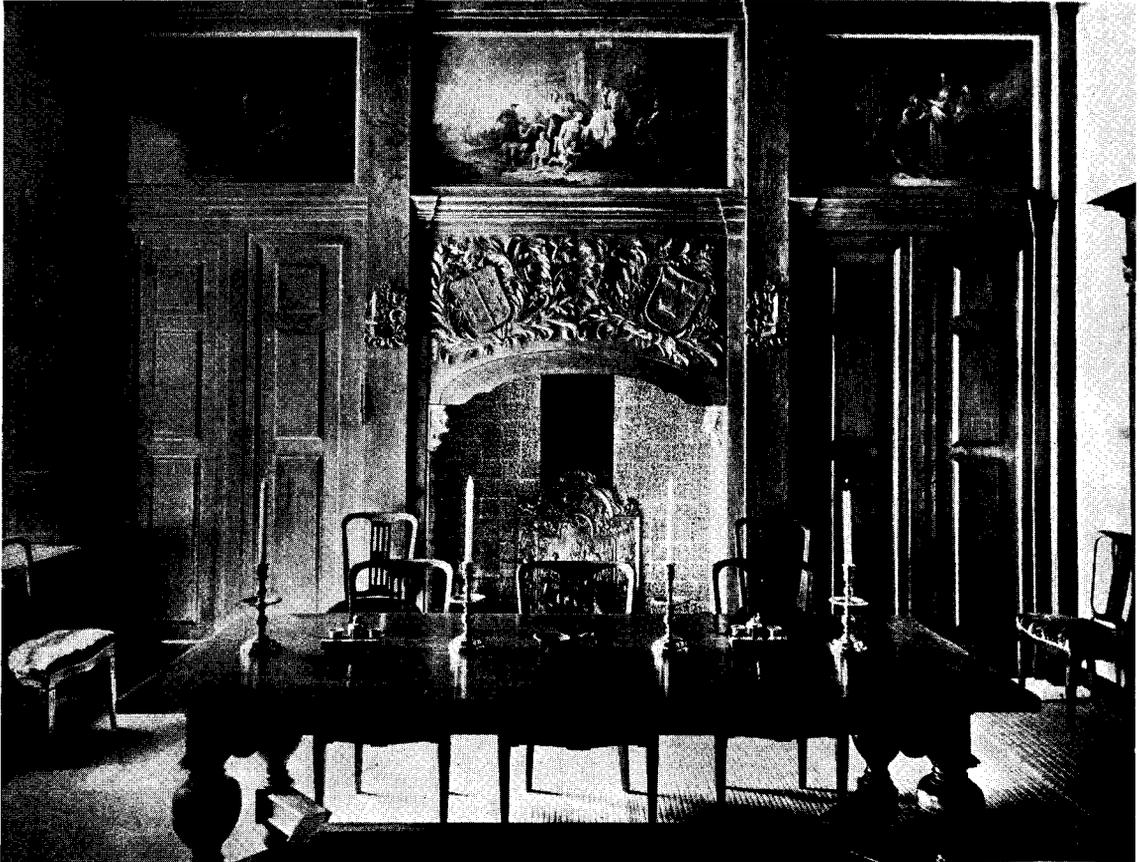


Picture Gallery, The Museum, Darmstadt

through the contrivance of fenestration with a view to external effects only;—that is, through unimaginative planning. Experimental as much of his work was, Wren nearly always succeeded in bringing about some miracle of loveliness through the disposition of his windows in relation to internal elements. It is in this sense that we may interpret Lady Dilke's most happy phrase, "the calculated effects of architecture."

The extending use of artificial light, even artificial daylight, tends to make us careless in these matters. The ideal of even distribution of light

deadly dullness and inefficiency of the lighting of the Louvre galleries is often cited as an argument for an equal dullness with efficiency. In Messel's work at the museum in Stuttgart there is efficiency without dullness and variety of lighting to suit variety of objects is contrived with a view to fine general effects. His methods are worthy of those sincerer forms of flattery which constitute so large a part of the technique of architecture throughout North America. He knew well that the "delight of the eye," to say nothing of its common comfort, when functioning needs



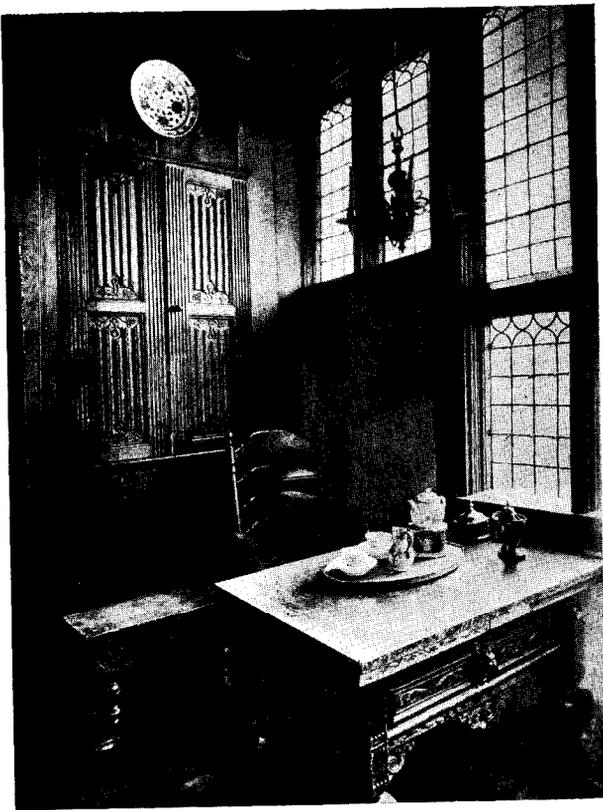
Main Committee Room, St. Elizabeth's Hospital, Harlem

is right enough in the departmental store, the school, the factory, but this is not the subject under consideration. It is not light to reveal objects seen in the hand, but light to reveal the place as a whole that is under investigation. Picture galleries and museums are places where the objects within the rooms exceed in interest the rooms themselves and some uncomfortable, rich men's houses are like that. In churches and in most houses, however, interiors exist more independently. But even in museums efficiency is not incompatible with a qualitative arrangement, as well as a quantitative distribution, of light. The

backgrounds of qualified shade and on occasion gloom.

Now considering a window as a source of light;—like any other source the intensity of light derived from it falling on objects depends in an acute ratio upon the distance. But the light diffused from a large window veiled with muslin is exquisite in one way, while the definition derived from a small clear opening of equal total candle power may be exquisite likewise, but quite differently; each has its uses, its potentialities for magic.

The tricks of interior lighting habitual to the



Room in the Museum, Edam



Council Chamber, Town Hall, Ballenstedt

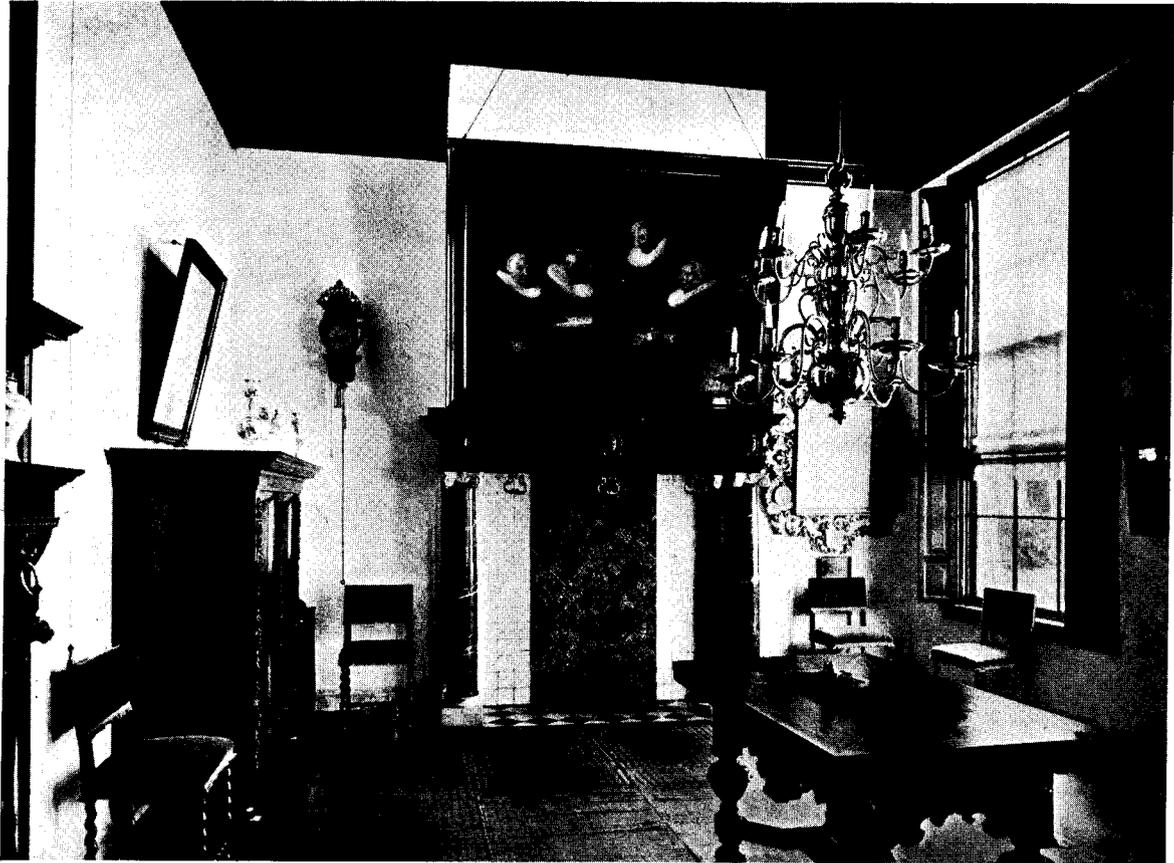


Hall III, Municipal Building, Berlin

contemporaries of Peter de Hooch and practiced before and since his time are in reality very simple. One may make two main classifications of interior views. Those in which the source of light (sky seen through glass) is visible and those in which it is not. The latter are subject to varied manipulation, the former to mere amelioration, for one cannot see much of color, or of form, with a strong light in one's eyes. Views, of course, are outside our consideration; when a window exists to be looked out of, it is vain to compete with the interest of nature.

Now the less visible the sources of light, the more visible will be the interior. Deep bays, embrasures, transepts, are devices to that end. But when the interior view involves a source of light, there is nothing for it but to make that source itself the interest as is often done with tracery, and stained glass, or to raise it high enough not to interfere unduly with visibility at the floor level, or to neutralize the asperity of the seen source by the admission of floods of cross lighting—all common practices in pre-reformation parish churches in England.

*(To be continued)*



Ladies' Committee Room, St. Elizabeth's Hospital, Harlem