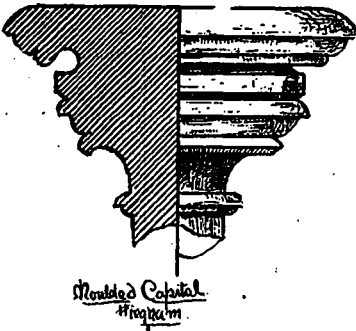


PROPORTION.



THE whole secret of design in architecture may be summed up in the terms Proportion and Expression, for the differences which mark off one style from another are those mainly derived from the form and

proportion of the openings, says *The Building News*. Professor Banister Fletcher, in his opening address to students of architecture at King's College, very appropriately alluded to the subject of proportion, which he illustrated by taking the openings of Somerset House, and by showing by model the effect of first a doorway of half its width in height, next making it a square opening, then adding one-third of the width to the height, and lastly, making the height twice the width.

Though the low opening may be really high enough for a doorway, the mind naturally reverting to the human figure as a standard of proportion, or, to the "fitness" of things, at once condemns the proportion as bad for a doorway. We sometimes, it is true, see wide entrances to the pits of theatres, drill halls and warehouses; but they invariably look out of proportion—that is, they appear awkward and offensive to our sense of fitness. Even in some Queen Anne houses we have seen doors of about a square, which looks contrary to our standard, because we naturally recall to the mind the human proportions, though, as a matter of actual use, the wide opening may be an advantage in getting in or out large pieces of furniture. The manner of teaching proportion which the professor adopted, has the merit of ocularily demonstrating one of the essential principles of design, for there are many people who imagine that a few inches more or less in the width of a door or window make no difference whatever. The same disregard, or ignorance, of a pleasing proportion is seen in the planning or selection of rooms, as if it made no difference whether the room was square or oblong, and that furniture of a certain size and shape could be made to look equally as well in a square room as in an oblong room. The window, like the door, has its own pleasing proportion. We can widen a window, as Prof. Banister Fletcher says, but we can easily spoil it by the operation unless we take care to preserve the unit of proportion by sub-dividing the width by mullions, as in a gothic window, or by bringing the eye to rest on proportion of one of the panes. But it is absolutely essential to preserve some unit or individual part in a wide window, or it would be quite as offensive as a wide doorway.

The lesson of proportion need not stop at windows and doorways, it can be applied not merely to plans of apartments and their heights, but to the art of composition itself. For example, Prof. Fletcher might have shown that into his first illustration of breaking up a plain building front into parts proportion enters. If, for example, we take a long, straight facade, perfectly flat of blank wall, or with windows in it, equally distributed, we may have a proportion that offends by its length and monotony. But break it up by projecting or recessing certain parts, say the two extreme ends and a wide centre, and the proportion of the whole is greatly improved, for although not an inch of height has been added the eye is arrested by the three individual parts into which the whole facade has been divided, and the extreme length, being broken by oblongs of the contrary direction, is rendered less fatiguing to the eye. By further dividing, or by making vertical lines, the proportions may be still more altered. The effect mainly due to the fact that the eye attends to the smaller individual parts instead of the whole. To take a concrete case, a continuous barrack front looks much longer than an equal length of houses forming a street of the same height, because each separate house being an upright oblong, arrests the eye, and the number of stories forms a scale to its real height. In design,

then, the value of proportion is in composing the individual parts or subdivisions by giving them the proper ratio of height to width, and so drawing the eye from the proportion of the whole mass to that of the individual parts. What better illustration of this can be found than in towers? We constantly hear people talk of the proportion; it is either said to be squat or too tall, referring unconsciously to a standard in their mind's eye, from which they cannot get away. Thus, for example, St. Paul's dome would look very squat after looking at a tower and spire like that of Salisbury, and many towers would look too short after seeing the Boston Example. The proper proportion of any particular tower can only be judged by the individual parts or stories of which it is composed. It may look exceedingly tall and disproportioned if the belfry windows are small, and a mere repetition in every stage, but by subdividing the height into stories of unequal height, and by making the openings small here, and large there, the proportions will be pronounced excellent. Therefore, proportion is not a matter of mass only, though, of course, we have to see our buildings through dense fogs sometimes, when they ought to look pleasing, but is chiefly to be studied in the smaller parts of design. Bad proportion in a window, a door or a fire-place, will always be an eye-sore in a room, however well proportioned it may be, the same want of pleasing ratio will spoil a wall paper, the panelling of a door or dado, or any ornament, though the eye in the latter cases would have to be more educated. The ordinary sense of fitness in proportion is, however, pretty general; and, roughly speaking, we may say, that it exists amongst people almost as strong as the sense of harmony or music. As a discordant note jars on the faculty of hearing so we find a glaring disproportion, or want of fitness, produces an unpleasant sensation on the mind.

Proportion is, however, not confined to ratios and dimensions; we experience its influence in the right proportion of mass to detail, of plainness to ornament, and these are quite as necessary to learn by those who are studying artistic kinds of expression. The value of models or illustrations in the designs of carpets, wall papers, decoration applied to furniture and metal work is apparent. We often see patterns offensively obtrusive and distracting, owing to the want of quiet surfaces or a due intermixture of ground and pattern; furniture full of unrestful twists and turns and carvings that distract rather than please; because the artist has not realized a sense of proportion between the plain parts and the ornament. These are things that can be taught by showing how much ornament can be placed on one part without overloading it, what surfaces or members should be plain, and which may be enriched. The whole question of ornament is one of "more or less." The amount of ornament on a surface must indeed be in inverse ratio to the height of relief. Thus every square quarter inch on a Benares brass bowl may be occupied with incised ornament without offence to the eye, for the lines are narrow and the relief exceedingly low; but in repousse work of massive relief in the same metal, anything beyond a simple device broadly treated is felt instinctively to be intolerably coarse. To teach applied design on rational principles, the student is in need not merely of examples in the art he is studying, but of demonstrations or models that will show him the most agreeable combinations. He should not be taught to copy furniture and decoration of various masters and styles, but be taught to realize for himself the due proportion between structures and forms of the plainest and most direct kind and the ornament that should accompany them. It is in these more extended ways we may learn the values of proportion in the arts of design, and not merely in regard to the heights and widths and openings, the proportions of columns and entablatures, and of apartments, which appear to be the only kinds of proportions that are recognized by the Classic revivalists.

MAKING BLUE PRINTS.

According to the *Brickmaker*, the following formula can be used for preparing a quantity of blue print paper at once, and which can be laid aside to be used as wanted: Mix in one bottle a solution of two and one-quarter ounces of water to each ounce of citrate of iron and ammonia, and in another one ounce of red prussiate of potash to each eight ounces of water; these solutions if well corked will keep indefinitely. To use, mix one part of the iron solution with two parts of the potash just before using, and with a soft sponge flow over the surface of the paper a heavy coat and remove the superfluous liquid, stroking in one direction, dry the paper quickly and hang it in the dark. When dry it will keep well in a dark box, and will make clear, bright prints.