

TRADITION AND MATERIAL IN ARCHITECTURE.*

THAT material is essentially a part of architecture at once marks out that art from others, sculpture in nearest degree resembling it; but painting, music and poetry are almost free of the practical limitations that the use of material implies. Architecture is not so ethereal an art as any of these; like these it appeals to the mind of man, but in addition it supplies a bodily want, and this is a dual service attempted by no other. The architect's cognate worker is the clothier whose service to man is the same in kind, differing in degree for use and beauty; architectural style is pretty much fashion writ large.

That mere mass of material should be of account at all in an artistic appreciation of architecture is repugnant to some, still the fact is unquestionable that bulk produces a sense of awe. The Parthenon is now surpassed in size by many a factory, yet even its influence in the expression of majesty was not a little owing to substantial size; in its day it was amongst the biggest of contemporary buildings. True art will recognize this common instinct, and will with least material give the sense of greatest extent. If it be argued that it is not possible to magnify appearances, then, negatively, an artistic aim will be to prevent the belittling that results when features are measured that by association have a certain magnitude attached to them—St. Peter's, for example.

I would direct attention to some of the materials used in building, with the object of showing that, though an essential constituent of architecture, material shares place with another influence, tradition, that is yet more powerful. Mind has influenced matter by a greater degree than some are disposed to admit. If on the one hand we must differentiate architecture from sculpture and painting, by whose canons it is so often mistakenly judged, on the other hand we must avoid excess in our materialistic belief in the potency of materials recently or yet to be discovered and applied in buildings.

We may well surmise that at the beginning the materials of a country or locality strongly influenced its architecture; but it is not so easy to get direct evidence of the fact, and the day has passed for the calm assumption of certainty as of the methods, not to say motives of the men of old; to gratuitously assume, as not so long ago was the custom, that primeval man took Nature in the fields and woods as his tutor in columnar construction, is unwarranted. The resemblance between trunk and column all may see, but not everyone may settle how much is coincidence and how much conscious imitation.

However interesting ethnographically may be the study of man as cave-dweller or erector of tent and hut, for practical purposes we may date the beginning of architecture from when we see evidently that, coincidentally with provision for material wants, an elementary desire for beauty has been met in a traditional treatment or style. The earliest of Greek and Indian remains that we have are far removed from the beginning of things architectural, and notwithstanding what evidence may yet come to light, it is hardly probable that we shall ever get much nearer the beginning; but rightly directed research may enable us to predicate with some measure

of certainty as to what that beginning was. Though the earliest remains are of stone, they show forms that have such a resemblance to wood construction that from the masonic evidence alone we should be justified in affirming the fact, even without the confirmation of pottery and painted and carved decoration. I do not suppose there can be any room for doubt that many features in Indian work are clearly imitative or reminiscent of wood construction; the trellis work of stone beams, the corner bracket from columns like a fork of a bough, mortises and tenons, etc. But is it equally clear that the Greek Order is also an immediate survival of previous timber construction? Many are of opinion that it is otherwise—Viollet-le-Duc in his lectures, for example—and maintain the Order to be specifically designed for stone. They bid us note that the Doric abacus is of a size not easy to get in wood; while the derivation of triglyph and mutule from ceiling beam and rafter respectively is negatived by their appearance at the gable ends, where in their alleged prototype they could not have been. Even the shaft, they argue, does not appear to come at first hand from the tree trunk, for the further back we go the stumper they are and the least like trees; while it is noted that a square prism of stone is most naturally taken from the quarry with its four corners cut off, and these again chamfered give the sixteen-sided column of the earliest Greek type. All this notwithstanding, I think the Classic order does show a reminiscence of prehistoric wood construction. In the case of the abacus, the timber prototype has entirely been departed from, and it now shows the qualities proper to stone, but in other parts this influence of material on design is absent. Tradition has been more powerful than logical consistency, and wood forms are perpetuated in stone.

It is obvious that big stones are required for lintels; smaller will do for arches. So in Greece the abundance of Pentelic marble has permitted of, if it did not suggest, a trabeated style; but Egypt also employed the lintel, though with the greatest difficulty. She had to hew the hardest of granite and transport it long distances. Why, we wonder, did not the excellent bricks suffice for arches that would have proved hardly less enduring than the granite beam? And in the lintel an arch form has here and there been found, proving, apparently, that a religious sentiment led to the use of the material conceived to be most lasting, while an architectural motive, gratified at the expense of logical treatment, led to the arch form in a lintel. Let three thousand years pass, and in, perhaps, the oldest type of building we have in Scotland—the Round Tower at Brechin, for example—we have large masonry generally, and a large lintel with the arch cut out of it. Opinions may differ as to the origin of the prototype, but there the arch is a notable instance of tradition being more influential than material. Early Romanesque work has generally larger sized masonry than Gothic, yet the same quarries were drawn upon at the different periods, hewing implements and mechanical means of transport all improved, but the later builders' inclination did not go out to Cyclopean work, when it might quite easily have been gratified. Hence, throughout the whole Mediæval period in Britain I question if a stone has been built exceeding a couple of tons in weight. About Oxford I have noticed in places a soft stone in large sizes, but singularly enough the forms cut are plainly those traditionally in vogue when smaller stones were used. Late arch-labels in the

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