

to have invented were perfected in the structures of lower animals long before he came into existence. In all these things man has been an assiduous learner from nature, though in some of them, as for example in the art of aërial navigation, he has striven in vain to imitate the powers possessed by other animals. But it may well be doubted whether man is in this respect so much an imitator as has been supposed, and whether the resemblance of his plans to those previously realized in nature does not depend on that general fitness of things which suggests to rational minds similar means to secure similar ends. But in saying this we in effect say that man is not only a part of nature, but that his mind is in harmony with the plans of nature, or, in other words, with the methods of the creative mind. Man is also curiously in harmony with external nature in the combination in his works of the ideas of plan and adaptation, of ornament and use. In architecture, for example, devising certain styles or orders, and these for the most part based on imitations of natural things; he adapts these to his ends, just as in nature types of structure are adapted to a great variety of uses, and he strives to combine, as in nature, perfect adaptation to use with conformity to type or style. So, in his attempts at ornament he copies natural forms, and uses these forms to decorate or conceal parts intended to serve essential purposes in the structure. This is at least the case in the purer styles of construction. It is in the more debased styles that arches, columns, triglyphs, or buttresses are placed where they can serve no useful purpose, and become mere excrescences. But in this case the abnormality resulting breeds in the beholder an unpleasing mental confusion, and causes him, even when he is unable to trace his feelings to their source, to be dissatisfied with the result. Thus man is in harmony with that arrangement of nature which causes every ornamental part to serve some use, and which unites adaptation with plan.