

THE TRAINING OF ARCHITECTS.

At a recent meeting of the Philosophical Society of Glasgow, Mr. Henry Dyer, C.E., read a paper on "The Training of Architects," and referred to the subject chiefly from a scientific and engineering point of view—thus supplementing a paper which had been read by Mr. Newbery, the head master of the Glasgow School of Art, during the previous session, on the artistic side of the training required by architects. As we think that hitherto architects have been almost entirely artists, and, consequently, unable to deal with many of the scientific questions arising in the course of their practice, we will shortly mention a few of the points raised by Mr. Dyer. He commenced by insisting that the first duty of an architect was to make his building suitable for the purposes for which it is intended, and having done that, then to make it as beautiful as circumstances will admit, and he supported his position by quoting the opinion of Sir Gilbert Scott to the following effect: "Architecture differs from her sister arts of painting and sculpture in this—that while they directly originate in a sense of beauty, and are either wholly independent of utility, or only accidentally connected with it, architecture results in the first instance from necessity, beauty being a superadded grace. The element of beauty may increase in its relative importance with the nature and objects of the building in proportion as the building becomes more monumental in its character; but in no class of building can beauty consistently be allowed to interfere in any degree with the efficiency with which the structure provides for and carries out the primary object of its erection, whatever that may chance to be. No class of building is so completely the result of necessity as our houses—our existence is dependent upon them, and health, comfort, and convenience require that they should be constructed with all possible regard to the demands of our nature and the customs and necessities of the state of society in which we are placed. We may superadd taste to any extent, but if it interferes with any of these primary requirements it (just so far) defeats the objects for which domestic buildings are erected, and becomes a nuisance instead of a luxury. It follows that no style of architecture is good for anything which demands that utility should in any degree be sacrificed to taste. It has consequently been in all ages the aim of good architecture not only to add beauty to utility, but as far as possible to make it grow out of and result from the uses and construction of the various parts of the building—an object which becomes doubly urgent in those buildings on which our life, health, happiness, and convenience are in so great a degree dependent."

After illustrating some of the shortcomings of architects in the construction of buildings, Mr. Dyer proceeded to show that if architects would confine their work to the province assigned to it by Ruskin, that is, to "so dispose and adorn the edifices raised by man, for whatsoever uses, that the sight of them contributes to his mental health, power, and pleasure," they would make their profession a very limited one indeed, as it was impossible to draw a strict line between architecture and building construction. Moreover, as the majority of structures are intended to be lived in, either as places of residence or of occasional meetings, and if they are so arranged that bodily health suffers, mental health, power, and pleasure are not likely to be in good condition. While admitting the artistic side of architects' training should always predominate, Mr. Dyer, pointed out that the scientific or constructive should receive more attention than has hitherto been the case. Architects should know sufficient mathematics to enable them to understand the principles of construction of such buildings as

fall within the range of ordinary practice. There is no necessity for much of their time being taken up with this part of the course. What is required is a clear perception of the general principles, rather than an intimate acquaintance with details of methods, as a little practice and the study of standard works would soon enable them to design sufficiently exactly, without requiring to go into elaborate calculations. They should have a fairly good acquaintance with physics, at least with those parts which are connected with the acoustics, lighting, heating, and sanitary arrangements of buildings. There are few public buildings in which a speaker can address a large audience with any degree of comfort to himself or his audience, and fewer still in which the arrangements for ventilation are even passably good. The subject of protection from fire should receive more attention than it does at present. Many buildings are little better than match boxes, and even in those in which special precautions have been taken we very often find some defect in construction or arrangement which practically nullifies all these precautions.

Although the object of Mr. Dyer's paper was not to take up the art, but rather the engineering or scientific side of the training required by architects, he pointed out that more attention should be paid to some of the relations of architecture to the sister arts of painting and sculpture, and dwell on the necessity for there being more sympathy between the architects, the painters, and the sculptors. These preliminary observations led up to the main purpose of the paper, which was the development of a scheme of education specially suited to the circumstances of Glasgow, but which, with a few slight modifications, would do as well for any other locality. Mr. Dyer pointed out that it is highly necessary in architecture, as in every other profession, that the students should first of all receive as liberal an education as possible, not only in general subjects, but also in those branches of science which are necessary as a foundation for their scientific training. In the Glasgow and West of Scotland Technical College, in conjunction with the School of Art, complete courses of study, both in the art and science of architecture, have been arranged, and no doubt many young architects will find these sufficient for their wants, as they cover pretty well the ground gone over in the examinations of the Royal Institute of British Architects. Mr. Dyer proposes that a suggestion which was made by Professor Roger Smith at the conference which was held under the auspices of the Royal Institute of British Architects about two years ago, should be carried out, and what he calls an architectural studio or drawing office be instituted in connection with the college, in which students would get a very good introduction to the practice of their profession. The work done would consist of lectures on the different departments of architecture, and designs in illustration of these, supplemented by such practical work as is to be picked up by architectural students regarding specifications, estimates, quantities, &c. The students are supposed to enter on this course of study, which extends over three years, when they are 16 years of age; and Mr. Dyer suggests that those who complete the course, and receive the diploma of the college, should only be required to a three instead of a five years' apprenticeship. On the other hand, he suggests that those evening class students who complete the advanced course of study should serve four years, the junior course being the minimum which is compulsory on all students. Such arrangements would be sufficient to meet the wants, capacities, and opportunities of the different classes of students. Mr. Dyer is of opinion that all proposals in education should have for a crown a University degree, and arrangements are now being made for connecting the Technical