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ARCHITECTURE AS A SCIENCE.*

(With special relation to Construction, Engineering and Modern Requirements.)

BY A. T. TAYLOR, M.R.I.B.A.

(Continued from page 67.)

The late Mr. Street has well said, "The best thing in Architecture is always that which combines the most sagacious use of the materials, the soundest construction and the most convenient adaptation to the requirements, with thoroughly good artistic character and proportion in the masses and in all the details, and some evidence of imagination in the design."

We see, therefore, that Architecture spans two hemispheres, that of mechanics and the industrial arts on the one hand, and the fine arts on the other. She has two expressions—prose and poetry. It is the former of these that we shall chiefly consider to-night.

As building was the forerunner of architecture, so the useful must ever take precedence of the ornamental.

It is an axiom, which may appear self-evident, but which is often forgotten, that a building should be perfectly suited for its purpose. No building, however beautiful, is architecturally perfect which ignores this. It is, therefore, and must be utterly wrong to set down exact copies of Pagan temples, or Moorish mosques, or mediæval castles, all of which were doubtless well suited for their time and for their purpose, but with our entirely altered circumstances, are now quite unsuitable.

This, however, is what was done not so very many years ago, and we have yet pitiable examples of the practice. Temples of rectangular shape, with studied invariable proportions, and balanced parts which required no windows (such light as they needed being received from the roof), and no chimneys, were made to do duty for modern churches and dwellings, and all sorts of devices were resorted to in order to conceal the windows, chimneys, and other necessary adjuncts to modern

*A lecture delivered before the Faculty of Applied Science, McGill University.

houses. The mediæval castle, with its machicolated battlements intended to protect defenders and present embrasures from which cannons could be fired or missiles discharged, the overhanging spaces, down which molten lead could be poured on the besiegers below, and other features very necessary and desirable for the times in which they were built, are surely hardly suitable in our peaceful times, when the only projectiles flung from the housetops are frozen snow and ice, and the only warders "tuning their footsteps to a march" behind the battlements, are sundry predatory or amatory members of the feline tribe.

We have also in England and Scotland many examples of buildings sacrificed to a mania for external uniformity, regardless of convenience within, and I have often seen cases in which it has been necessary to enlarge the house by adding on a wing at one side, a screen wall, corresponding with this wing being placed on the other side for the sake of uniformity. The door and portico were fixed in the middle, and windows were ranged in solemn array on each side, no matter whether they were wanted or not, of exactly the same size and height. If there was a plain surface of wall, the most original idea which could occur to the builder was to put in a blank window, and paint on the cement the window frames, the glass, and even window blinds and red tassels, all so like life as to be very deceptive—a long way off.

From an utterly false idea of art everything had to be balanced by perfect similarity, somewhat after the manner of the old Scotch gardener who had a summer house at each end of a long walk in the garden, and having caught his master's son pulling apples had shut him up in one of the houses, where his father discovered him. On his going to the other house at the other end of the walk he found his other son in durance vile also, and asking if he also had been pulling the apples, the old gardener said "No; but he had put him in there for the sake of symmetry!"

It is true there must be a balance of parts in all good compositions, but this by no means needs to be by exact similarity. The old builders of our English, and especially of continental cathedrals and churches understood this, and if you will carefully examine them you will find that where, for example, there are two towers or spires at the one end, they are generally not only of