

## DRAWING AND ARCHITECTURE. —I.

BY PROF. PERCY E. NOBBS.

NOTE BY THE AUTHOR:—These three short papers on (1) Drawing and Architecture; (2) The Styles of Architecture; (3) Material and Design; are intended as an introduction to the study of Architecture for students assumed to possess no knowledge of the subject, and the themes are treated with regard to their bearing on study only. They were delivered at McGill University this September.

As a beginning to our first winter's course in Architecture, we shall devote three lecture hours to the consideration of what may be called the first principles, not of Architecture, but of Architectural Studentship, before taking up our studies in Construction, Theory and History. It is not likely that my students will at once fully understand all these principles imply, for it is very difficult properly to express any ideas connected with our art in words,—written or spoken.

In the "Elements of Drawing," Ruskin says to his reader:—"If you wish to learn drawing, that you may be able to set down clearly and usefully, records of such things as cannot be described in words, either to assist your own memory of them, or to convey distinct ideas of them to other people, \* then I can help you, or which is better, show you how to help yourself."

Now it is with "such things as cannot be described in words," that we have to deal,—after all a specification gives a very poor idea of a building, even to the expert. But happily we have in drawing, a way of expressing architectural ideas and a way capable moreover of the utmost refinement of expression.

To-day we shall make a short enquiry into the relations which subsist between the art of drawing and the art of building.

The modern architect must draw, and draw well. We shall have no difficulty in coming to that conclusion. Before going further, however, I would impress it upon you as students, (and this will be the burden of my song, till such time as I have done with you,) that we must never regard drawing as an art worth cultivating for its own sake. Let us take all the pleasure we can in drawing well, and the more pleasure we find in it the better we shall draw; but we must never forget, that it is the rightness of the subject matter alone that is of any importance to the architect. True, a neat clean drawing is more pleasant to handle and peruse, than a dirty or careless one; but it is only so far as the facts on the paper are unimpeachably true, are easily understood, and have reason in them that the drawing is worth anything. The very great majority of students' drawings are worth less than half the value of the paper they are on, because both sides have probably lost their original whiteness by the time the drawing is finished. When we have come to regard our drawings in this light,—as damaged paper in no way beautiful, certainly not decorative, but, possibly a little useful,—then the first step has been reached on the stair which leads to the halls of architectural learning, and not until then.

Truth in a drawing is the only thing worth paying for, and he is paid best who puts most truth, with given labor, on a given area of paper. Speed in drawing is the only thing that makes it possible to earn a living as a draughtsman, and we may here remember with profit, that on leaving McGill we have several years to live as draughtsmen, before we can design so simple a thing as a rabbit hutch in the really, best possible way. Success in this profession, on which we have embarked, possibly with a very light heart, depends to a great extent on our drawing; for unless by this means we can be of real use to an architect on leaving college, our progress will be slow, and practical experience will come in a meagre measure, even in spite of enthusiasm and intelligence. In a word, on the lower rungs of the architect's ladder, there is no room for the man who cannot draw.

Now it is the practical experience that we gain in an office that is the really essential thing for the designer—that and the study of the work of those who have gone before us. Accomplished draughtsmanship is only accidentally essential—it is the means by which we attain to the really essential things.

George Edmund Street in one of his Royal Academy lectures commented on the fact that "Men built magnificently when they drew but poorly." It was only in quite modern times that it became necessary for a paper version of what was proposed to be built, and our business today consists very largely in the manufacture of paper versions. When we study the history and development of Architecture we shall realize how tremendous was the change which the Art of building underwent owing to the substitution of this indirect process, (by which one man makes himself responsible for the form and size of every part of a building from a tower to a turnbuckle), for the simple methods of former times.

We must not understand by this that the Gothic constructors did not scheme things out on paper or even that they did not use scale drawings but extant specimens of drawings and work show how very little attempt was made to make paper drawings give anything like a true idea of the real buildings. Drawing was unnecessary then and architecture had certain qualities as a result to which it is beyond the power of modern methods to attain. We must not let our reverence for ancient things blind us to the fact that something also has been gained by the genesis of the architectural draughtman. The men who were responsible for the Mediaeval Cathedrals did not sit on a three legged stool in a city office and superintend a score of buildings at once—some of them hundreds or even thousands of miles away.

George Edmund Street somewhere in the inspiring set of lectures above referred to denies that the pencil has any magic power to help the designer when ideas run out or refuse to curdle into form before what the Scotch call the "mind's eye." His experience is not that of the rest of us, and it has even been hinted that had he allowed the pencil to guide him occasionally instead of guiding it so strongly his designs would not have suffered.

The point we are endeavoring to make is this, that facility in drawing—speed in execution, accuracy and sympathy in delineation—is an enormous help in design by the indirect process of paper drawings. This is especially so when we have recourse to the method of trial and failure i. e., drawing in and rubbing out till we satisfy ourselves that the parts of the thing are of the right size to give the impression we desire our work to convey (for the face of a building is like the face of a man in this that the least appreciable displacement of its eyebrows or the exact curl of the brim of the hat alters the whole expression). Even at the initial stage of a design drawings to scale conveying vividly to the practiced mind the idea of the actual bulk of what is under consideration are of utmost use, as till we can realize the size of the whole it is useless to materialize the proportions of the parts. And the longer we work the more we shall realize that design is a question of proportion,—of the sizes of things in relation to one another, and that that indispensable but subtle instinct called the sense of scale, can best be cultivated by drawing.

Ruskin says in the work above referred to which it were well for all to read. "Do not therefore think that you can learn drawing any more than a new language, without some hard and disagreeable labor. But do not on the other hand, if you are ready and willing to pay this price, fear that you may be unable to get on for want of special talent." It is indeed true, that persons who have peculiar talent for art, (and by art Ruskin usually means drawing only.) Draw instructively and get on almost without teaching, though never without toil. \* \* \* But I have never yet in the experiments I have made, met with a person who could not learn to draw at all; and in general there is a satisfactory and available power in every one to learn drawing if he wishes, in a decent and useful degree, if his lot in life requires him to possess such knowledge."

Given patience on the one side, and right teaching on the other, the draughtsman can easily be made if he is not born.

To speak personally, my function here is to see that you draw the right kind of things, rather than that your drawing is well done; but incidentally, I shall, I hope, be able to give you such hints with regard to manner and method of work, as may help you to get the utmost good from the subjects you will study graphically. Later on when the ABC of our architectural language has been learned, in the only way in which an ABC can be learned,—by putting it down on paper,—later on, I say, we shall group the letters into words, and the words into sentences—grammatical sentences, I hope, with meanings in them.

The things that we shall study are the works of our predecessors from "Delos up to Limerick," and to that end we have here a truly magnificent collection of slides, photographs and books, for which we have to thank the wise generosity of Sir William McDonald, and the deep scholarship, sound taste and energy of Professor Capper.

Now we might exhibit, peruse and dilate upon the beauties represented in this collection for weeks on end, without getting further than a general agreement as to the wonder of all this fine old work. The moment we begin to draw examples however, we begin to solve the mystery of how the effects we admire are obtained and what are the real relative proportions of parts which look perhaps equal in our views upon the screen.

Moreover, it is only by drawing that our knowledge of the detail and mouldings of various periods attains to that definite