

AMERICAN ARCHITECTURAL METHODS FROM THE STANDPOINT OF A CANADIAN.

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DOMINANT influences in architecture in all countries have, as a rule, spread from their largely populated and wealthy centres, and what is done in these may be taken as an index of the taste of the nation. In the United States it will be found that this rule applies in the cases of New York, Boston and Chicago, the former being, perhaps, a mean between the two latter.

In no country or city, however, is work carried on under smaller cities, where the same system; and I venture to say that here in the United States their office methods are as varied as the external character of their buildings; and while it is without dispute that there is work to be found here as bad, in fact worse, than in any other country, these remarks must be taken to apply to the better class of offices and the higher grade of work.

The methods pursued in these large cities are in a very great degree (though not wholly so) a system which has become necessary to meet the demands of such wealthy and fast living communities. No principals of a firm having a large practice can devote such a proportionate amount of their time upon building as smaller cities, where the practice of the architect is much more limited, where more time is naturally given to the erection of their structures, and where the drawings are made by the ordinary office staff.

In these extensive communities there are always to be found a considerable number of migratory draughtsmen seeking experience to add to their store of knowledge; and it is comparatively easy to employ, and at a sufficient number of these to assist in carrying out a high class of work. These extensive buildings which require such a large amount of labor concentrated upon them. (It is very amusing when seeking for a position to be frequently asked by one's interrogator whether he is a good man or not—a capable one—and should the applicant happen to possess some modesty in regard to speaking of his capabilities—recognized by us as a commendable trait—he must always avoid making the remark which might at all be interpreted to mean that he was in some degree doubtful of his ability. Should he be so unwise as to thus commit himself, he would receive no further hearing.) Out of these professional nomads the more experienced are retained to become permanent assistants to take charge of the office work of any building under the occasional direction of the office superior.

In making the drawings of a large city building the following is somewhat of the general mode pursued.

After the architect has decided upon the plan roughly drawn to scale (perhaps upon paper ruled in squares an eighth of an inch each way) it is given to a competent man—the one usually who will have the work under his care should the building be erected—to lay it out, to say, an eighth scale. While this is being proceeded with the architect may be occupied in working out in a similar rough manner the elevations which he had in his mind while blocking out the plans, to hand over to his assistant as he did the latter; for in those lofty buildings, the plans of the several floors above the street level being practically the same, because the points of support must necessarily be continuous from foundation to roof, it is not therefore very often necessary to work out both plan and elevation simultaneously. To find the thickness of the walls it is but necessary to turn to the building law, as these dimensions are there regulated by the height of the wall. While these drawings are in progress the "practical man" or "engineer" is called upon to look into such matters as the sizes of columns, piers, girders, and any special constructional problems which may need to be solved in carrying out the proposed scheme, as well as to the position of boilers, engines, and the many apparatus which have become the necessary adjuncts of such buildings. When these preliminary drawings are nearing completion, a perspective of it is often outlined (perspectives are sometimes worked out upon an ordinary piece of paper, and the drawing transferred to the sheet selected for the finished drawing) and if there is not a draughtsman on the staff whose chief duty is to finish this class of drawing, it is sent out to one of the many well known men whose special line is to do this sort of work. Of late the colored drawing is coming very much in vogue, as can be noticed particularly in the exhibitions which are being constantly held; and a chief reason evidently being that the color is found to possess more points of attraction to the eye of the client than the drawing rendered in pen and ink. Should the erection of the building be decided upon, a similar mode of operation is again resorted to, and the weights of floors, walls and piers, are now carefully calculated to obtain the dimensions of the latter, and to make a proper plan of the foundations; girders, beams, and columns are accurately figured, and every point of detail, both in plan and elevation is most thoroughly worked out by the draughtsman, while the chief draughtsman, assisted by his less experienced associates, while the former is always working under the direction of his chiefs.

In order to facilitate the completion of a set of plans it is the general practice after the principal floor or elevation has been outlined on stout paper, to work the others from these on transparent paper or tracing cloth, all changes and rough studies of the various parts being made upon similar material—a practice well worth adopting. When all are completed, the joints trace that in ink for the various processes of reproduction. Several sets are obtained, and afterwards colored if the plot is black and white. I have never yet seen a set of plans inked in and colored on paper for contract drawings as is our custom.

In New York the large ironwork firms do a great deal of their own detailing for constructional ironwork from general scale drawings given to them by the architect, which details are submitted for approval or correction to him before proceeding to carry them out.

It happens that under this office system young men are kept almost continually at such work as their shrewd overseer perceives they have the most aptitude for, so that they may be of the most pecuniary advantage to their employer. Thus one may be kept altogether working on sketch plans or perhaps tracing the work of better men, or figuring up the weights of walls, piers, columns, etc., or working out the strains in beams and trusses; others may be chiefly occupied in making drawings for foundations after other men have made the plans of the floors above and the elevations have been decided upon; while still others may be confined to general details, or may work wholly on inside finish. So the work is divided for each to carry his branch to the highest point in the shortest possible time through working entirely at one sort of work, and so producing the architectural specialist so often found in the more populous cities. Hence it is not difficult to find numbers of men who are exceedingly good on some branch of work,

while on others they are as dull as the first year student of our Canadian offices; their ability on the one hand being in strange contrast to their dullness on the other. In illustration of this I may say, that I have met draughtsmen quite expert on working out the plans of tenement or apartment houses, and receiving a considerable remuneration for their services, who seemed to know scarcely anything about making a full size drawing, and who would be as much out of their sphere in making the drawings of a house as I would be if they would be called upon to do so. But the man who has been wise enough to show himself very apt upon such branches of work as he desires to pursue to his own advantage, and has thereby in spite of restrictions succeeded in obtaining a wide experience by his going to and fro, is one that is always in demand where there is any important work in progress. While the ordinary office education of young men is therefore considerably more limited than I think is the case in Canada, yet this is being obviated in some measure by the excellent opportunities afforded by the architectural schools, which give their pupils a general all-round training previous to their being brought in contact with the restrictions of this system of office routine. I once heard one of the professors of the foremost American architectural college say that no better training in proportion and refinement can be had than by the eye, in addition to the study of the "orders" and a good drilling in drawing in the cost; and this is becoming more and more a prominent part of the course of instruction which a pupil receives at these places. A good education will not accomplish much if there is not a great deal in a young man, yet when there is, tuition will bring it to its greatest possibilities, and the result of this is seen to-day quite plainly by the work of the best trained men exerting a very great influence all over the country upon the work of their less fortunate confreres.

One decided advantage which is to be met with in these large offices is the frequent occurrence of detail drawing of good and elaborate work, and I cannot help but think that if we Canadians spent more time in training ourselves in ornamental work in order to have it, as it were, more at our finger ends, notwithstanding the somewhat limited expenditure of our clients, we would find it easier to occasionally introduce it in our work than when we are asked to produce it. This education, and consequently so often paid the matter over by concluding that it is altogether because we have not the money to spend upon it. Yet let us ever remember that as the enrichment of a piece of detail work brings it more prominently before us than if left plain, there is therefore the greater need of the whole work being good.

These remarks are not intended to imply that a piece of work well studied in detail as to veins and surfaces does not very often look infinitely more than many a highly ornamented building not so studied. As a matter of fact there is a red brick printing house on Lafayette place, New York, which certainly belongs to the former class, and everything has been so thoroughly studied and made appropriate to its position, that it has become to the writer one of the most instructive buildings he has ever seen.

I was greatly surprised to find such an amount of rivalry existing here between professional men. The principle upon which business is apparently carried on is the "principle of the prize," and the competitors refrain from giving to others all you possibly can—in the race to climb above your fellow and score a point ahead of him. It is this spirit which no doubt led them while formerly restricted at home, to ransack every country for ideas and suggestions to modernize and produce from them something beyond the attainments of their professional competitors. Even their own journals, which Canadians prize so much—too much, I think at the expense of others who are scarcely ever looked at for suggestion, have a similar attitude of consideration; in fact no instances of this has ever come under my notice in the better class of offices. The idea seems to be to get the home productions to know what you will have to avoid and surpass, while on the other hand illustrated books, and elaborate plates of European buildings from practically the time of the ancient Greeks are eagerly purchased in the rush for old ideas and new ones.

In reference to this matter of foreign illustrations, I have seen one of those exceedingly simple, and at the same time, exquisitely tasteful French domestic buildings of the twelfth or thirteenth century—which would unfortunately be put aside by some of us as too unsuited for modern work—serve as the keynote for the design of a block of modern houses which would be a credit to any city in the world. In this respect it would be well that we men like the Americans, in that instead of so often reproducing the works of others, we more often adopted the modes of procedure which have enabled them to produce such excellent results.

When we consider the architecture of the two countries and find that the difference between them is so very slight, we will be forced to admit that in some respects we are very fortunate, but in others quite the reverse. The former is due to it is good for a people to have a good example of the work of its neighbor through their enterprise and industry, the latter on account of the natural inclination of the less self-reliant one of more limited means to rest too much upon the attainments of the larger and more progressive, rather than to seek from them suggestions to facilitate their own self-development. I am persuaded that this is a falling of ours, though there may be considerable cause for it, for being comparatively limited in our wealth and means, we are more conspicuous and conspicuous in our country in the world; and being within easy reach of their principal cities, we have accustomed ourselves, till it has become a habit difficult to break, to go so far further than these in our researches for material to awaken new architectural thoughts and inspirations within us when a world lies before us. The American was never similarly situated, and not being able to look for suggestions from his neighbors, he had to seek for them in the distant corners of the world. Not being entrained by the prejudices and jealousies which European countries are necessarily free to, he was comparatively free to seek from all of them those hints and ideas which became to him an incentive to produce through their aid something distinctively his own; and it is chiefly to this fortunate position in which the lot of the American people has been cast, I attribute their success, rather than to any inherent superiority over their northern neighbors, or to any material advantage. Should we still persist in not being wise enough to follow their example in respect of gathering information from all countries, my fond hope is, that by some means, if not through a rigid commercial policy, they (the Americans) may at last succeed in forcing us to awake to the fact that besides living in America we live in the world. May not our Provincial Associations which have already done such valuable work, go still further by turning the mind of the rising generation under their care in this direction, and good shall certainly result from it both to themselves and their students, and hence to the country at large. One of the most noted writers of the day has made the assertions, "There is no art among a shepherd people if it remains at peace," and "There is no great art possible to a nation but that which is based upon battle." In this latter, so this is true, we live in a world in which to purchase art, no matter how desirable the may be, at so great a price. Upon close examination of these statements it will be seen that it was not exactly war that produced art, but as war was essentially the ancient means through which one nation after another sought and succeeded in asserting its superiority over its neighbor, it therefore afforded the opportunity for the development of art, and, and individuality which would otherwise have remained dormant and unexpressed, as in the case of