

UNIVERSITY EDUCATION  
IN  
ARCHITECTURE

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# University Education in Architecture

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ARCHITECTURAL Education having for many years past been a question; and lately become a vexed one, it is in order that any who would venture to discourse thereon should first make his position clear. A confession of faith is thus due as to the natures both of architecture and modern practice. Without it, what has to be put briefly in the allotted space might, for lack of a touchstone, add to, instead of subtracting from, the confusion which besets the subject.

## I. PRACTICE OF ARCHITECTURE

First, let us consider practice as it is. This throws some light upon those duties of organized architectural teaching designed to equip young persons mentally with respect to a means of livelihood. In old, established, care-free communities—such as existed in pre-war England and are beginning to exist in certain social strata in the United States—architects have occasionally achieved success in virtue of artistic power being enlisted in the service of an aristocracy primarily interested in the very fine art of living, a discriminating clientele. The belief that architects can make a living or gain recognition by sheer artistic facility or felicity in the world at large is, however, an illusion. In ninety-nine cases out of a hundred architects give their services and the public gives remuneration, with or without a benediction, on a perfectly different basis. The position may be summarized as follows:—

The architect, in his quality as artist, is impelled to seek control of the vast and expensive raw materials and energies he requires, but cannot buy, or borrow—acres, brick-stacks, quarries, labour, power. This forces his dependence on a client in a way the sculptor may faintly appreciate, but the poet and the painter wot not of. Furthermore, paper design is not architecture. The A B C of that art must be apprehended out of doors in contact with operations and ruins. The architect may seek consolation in a drawing; but cannot find full satisfaction in creating anything he cannot walk around, or walk into. The profession is founded on a series of polite illusions and patent paradoxes, the chief among them being that architects are remunerated for spiritual values emanating from their accomplished work.

The architect, before the law, is an agent engaged in the economic improvement of real estate—the contrivance of adequately lighted floor area is his main business. For such service he is adequately remunerated, but for the production of works of art his rewards are on all fours with those for virtue. Æsthetic value is something he gives, and gives gladly if he has it in him, and sometimes buys from an assistant, or steals from a rival, that he may have the credit of the gift. The reward of a large practice has little or nothing to do with having this thing to give, or the giving of it. Integrity, charm of manner, family connection, or religiosity are the potent factors in a professional success. This being so, an architect's architecture is something between himself and the general public, rather than his client, on whom he inflicts or bestows it. The

immediate client, as he pays nothing for the architecture—if he did, he would pay at higher rates for the better kinds, as he does where pictures or wine are concerned—has very little right to an opinion on the matter. Large commissions are often regarded as involving reward at a higher rate. They are more remunerative, but largeness and excellence have nothing to do with each other. The master and the monster draw the same commission on a like expenditure for a given purpose, and the master probably makes the less profit. Masterpieces, old and new, are pulled down every day to make way for less worthy structures of greater content. We are not complaining, or arguing that this should not be so; we point out that it is so, and consideration must be taken of the fact.

It may be urged that competitions are embarked upon and entrusted to assessors by a public confessedly incapable of recognizing merit in architecture still disembodied in drawings, but desirous of adorning and enriching its corporate existence by means of fine building. The opinion of many experienced assessors disparages the view that the public is greatly interested in anything but accommodation. Public bodies meet the profession more than half-way in delegating the responsibility of selection less from cultural aspiration than from political sagacity in the avoidance of responsibility, and finally, assessors are derelict in their duty if they base their awards on spiritual values and emotional contents. To their employers, and the competitors, they owe decisions based on cost, cubage, and convenience. Using the word "plan" in a wide, organic sense, there can only be one best plan for a given problem. For any plan in the present state of our traditionless art, a myriad equally good exterior treatments are possible. The bond of a tradition between artist and public will be referred to later. As things are, the architecture a man produces is his own affair, so long as it does not interfere with practicalities. Poets and portrait painters are not readily stimulated to meritorious artistic production by competitive zest, and neither are architects in their quality as artists. As hungerers for opportunity they may, in competition, achieve prodigies of ingenuity, sagacity or finesse.

The bearing of this review of the professional situation on the educational problem is this: that any system worthy of the name must frankly recognize the nature of the game involved and equip every potential artist it produces with such science as he can exchange in the world's mart for a livelihood and his æsthetic opportunities.

It is not proposed, in what follows, to enlarge much on instruction in the practical beyond thus pointing out that no student or school can afford to run the risk of æsthetic stultification by ignoring instruction in such matters as hygiene, law, economics, mechanics and administration, to say nothing of reading, writing and arithmetic. The architect must be a good agent before he acquires the right to exercise æsthetic activity—that is, presume to use other men's land, stone and labour to express his personal outlook on life.

We now turn to that part of the confession of faith which touches architecture as art. We have stated how the occasion, excuse or opportunity becomes available as an element in the reward negotiated for practical services. For what and how does the artist use it? Recent philosophy is rather apt to identify, and possibly to confuse, this "what" and "how"; we shall, however, consider them apart.

The "vague knowledge" of the 'sixties became in turn the "feeling," the "emotional content," and last the "intuition" of to-day—words which have meant very much the same thing referred to above as "personal outlook on life." This is sometimes spoken of as sentiment, and the shortest word is *mood*, when we would speak in a nutshell of the fundamental all that art is concerned with. That is our answer to the "What?"

As to "How" mood is communicated, the principle is identical in all the arts in that the physical is enlisted as a bridge between spirit and spirit, artist and public, and used as a means of evoking what is, in the last analysis, rhythmic stimulation of sense. The word "arrangement" can be used to connote at once the physical and conventional basis of artistic technique.

Without sight there is void, with it a universe of form and colour—a universe in which the artist is privileged to interfere, arranging matter and energy to generate specific mood. The creation, representation and perception of the unrhythmic is ever outside the realm of æsthetic activity.

Æsthetic has been stretched of late to embrace all expression necessitating the admission of a sub-category of "what is generally called art." The identity of æsthetic and linguistic seems to break down if thereby the map of Sicily and the Sistine frescoes are made to differ only in degree. We are content that architecture find a place in this sub-category. Between calling for beer in a pewter, and chanting "Gae, bring to me a pint of wine and put it in a silver tassie," there is a difference beyond that between pewter and silver, brew and ferment, quenching thirst and offering libation. The one informs of a requirement; the other invites participation in an emotion by images which would be not less but differently potential if changed in sequence and bereft of scansion.

### III. SOME PROBLEMS OF THE UNIVERSITY COURSE

Our view has now been sufficiently defined as to the dual aspect of the vocation for which Architectural Education seeks to prepare those who subject themselves to it—the economic improvement of real estate and the opportunities for æsthetic activity incidental thereto. The question of a curriculum is now to be considered.

A degree in Arts (B.A. or M.A.) followed by pupilage under a competent master is an affair of seven years. Provided the degree is broadly based, and the master able, honest, and a teacher to boot, this cannot be improved upon. The problem is to assure such instruction and economize in time, if possible. The assumptions are made in what follows that five years are available and that a university is better able to find instructors with the requisite degree of ability, honesty and pedagogic flair than the ordinary parent or guardian.

Apprenticeship—a device for the over-recruitment of draughtsmen—has proved abundantly futile. Draughtsmen can be trained to higher attainment in less time by almost any other conceivable method. Of course, architects and highly competent assistants have emerged in spite of this system. It is not a question for education but for professional organization that the door should ever be kept open to those who attain ability outside the recognized academic channels of professional training.

Our business is with the training of architects. Incidentally, at a certain stage in their careers, they must be draughtsmen of ability, or practical experience in the technique and the business of building will be denied them. The university course is, from the nature of things, unable to provide much direct contact with these matters, so it must turn out reasonably useful draughtsmen. There is nothing easier, however, than the sacrifice of the future architect to the immediate draughtsman. Against this temptation university teaching has not always been proof.

The university course, then, is to be considered as a compromise to furnish the advantages of an Arts course and a pupilage. All compromises have their disadvantages; such as are here involved may be very fully counterbalanced by the opportunities afforded regarding two matters the Arts course and the pupilage barely touch. These are the scientific aspect of construction and the training in the solution of problems in design at an earlier stage in the student's career than would otherwise be possible, and under highly stimulating conditions of companionship and competition. The university course is, of course, built round this last-mentioned element of the curriculum, Design. The tendency in English architectural education for the last century has been to approach design through history. The object of the present writing is to suggest that the time has come when science and philosophy should claim at least equal importance as avenues of approach to the problems involved in the discovery of form.

Before taking up the various elements of a curriculum in order and succession, a few words on the views current in the profession at large on the problem of architectural education may, even if irritant, serve to clarify our position. Members of the profession who do not teach commonly hold the most extraordinary views on the function and efficiency of the schools. They want competent assistants and they do not greatly desire young persons who, by virtue of a superior education and training, will progress rapidly, from strength to strength, unless it happens that they are, besides being members of the profession, the fathers of matriculated students. Such are apt to expect of the schools a full-fledged, potential partner on graduation.

One of the vices of our age, specialization, may encourage a tendency in the school of architecture attached to a university to be over self-contained, and thereby occasion waste of energy, opportunity and endowment. Architecture is a profession of the widest scope, and the several faculties and departments of any university worthy of the name offer it much besides a mere rounding off of the general education with physical sciences, classics, history and the like. The medical faculty can provide instruction in hygiene, the engineering faculty instruction in construction and mechanics, now become

so important an element of the building problem, and the faculty of law can deal with agency and contracts. Apart from the authoritative teaching thus obtainable, the architect in the making comes thus in contact with lawyers, engineers and doctors in the making—a liberalizing experience for anyone. Against such ramification of the course it may be urged that "Life is short and Art long." Five years spent with one group of associates, under one coterie of instructors, digesting one set of ideas, however, is long enough to make prigs and pedants—the negation of the university ideal.

To the disappointed expectation that blames the architectural education of the universities for not producing more genius, we might say that if these schools do not destroy such genius as may honour their portals, they do very well. They exist to enlighten such as enter on the principles of art in general and of architecture in particular, and set them on their way with a reasonable technical equipment for earning a living in the world as it is, and in numbers not in excess of the demand. It is also the function of the university school of architecture to discourage the inadequately gifted. On the other hand, the sacrifice of the interest of the general body of students to the few of marked talent is not in the competence of the university school. Institutions consecrated to such a purpose do exist outside the universities, and the world is the better for them.

In passing from the cultural and technological elements of a curriculum a word is due on the difficult subject of the standard in mathematics. Architecture has never involved problems which engineering regards as other than elementary. Generations of practitioners have thriven and achieved fame in ancient and modern times with nothing more in the way of a mathematical equipment than simple arithmetic and enough of a geometrical sense to visualize with assurance the interpenetration of figures. The phenomenon of the student unable to do anything with an examination paper in mathematics, yet very highly accomplished in geometry, as long as it presents itself in concrete ideas—roofs, piers, vaults, or even shadows—is not uncommon. A high standard in pure mathematics is, in many obvious ways, very desirable, but provision is required for exemption in the case of any exceptionally gifted in architectural subjects who can besides achieve some alternative equivalent such as philosophy or natural science.

#### IV. THE HISTORY OF ARCHITECTURE

We turn now to the History of Architecture, which throughout last century furnished the main introduction to professional instruction in the English-speaking world. That century has witnessed the destruction of a uniform and abundantly consistent tradition, and this calamity must either be laid at the door of historical research itself or of the spirit in which the fruit of this research has been presented. We interpret the situation in the latter sense. On the authority of publishers the "crib" value of the illustrations is the selling factor of any book on architecture in our language.

It has been the delight of English architectural scholarship to make laborious compilations better adapted to be the solace of the retired practitioner than the inspiration of youth. These are the products of a period of unstable thinking on the fundamentals of æsthetic and fantastic application of such loose thinking as there was to the problems of design

involved in the material reviewed. This, of course, is pure accident, and no blame attaches anywhere.

Our architectural historians have been full of zeal, like those gun-pulling reformers who shoot first and think afterwards, if at all. We have to confess ourselves in their debt, at least for a preliminary survey of the work of the past—the premises—on which the thinking is now a little overdue. Meantime, we, the victims of the historical method, will continue for the rest of our lives to suffer that derangement whose symptom litters our streets with fragments of the undigested past. Until this thinking has been attempted more seriously than heretofore, the uninitiated who approach architecture, history book in hand, are assailed with a myriad manifestations selected to exemplify what is typical within the lesser groups. The evidence for the deduction of first principles is thus unduly obscured. The amazing "Gothic" elasticity in Greek hands of those Doric forms so rigidly manipulated by revivalists is never hinted at. The truly "Greek" disrespect for the logic of origins manifested in the evolution of mediæval building forms is strangely disregarded. The broad result has been a stressing of immaterial differences. Very little reliance should therefore be put upon the many general histories and the still more numerous histories of this period or of that, until the student has apprehended first principles.

A copious review of lantern slides, supported by the dissertations of instructors with first-hand experience of archæological research and the historical sense that gives interpretation to form, should precede serious reading.

The most important chapter in the history of architecture for future architects must ever be that of the last fifty years; all else is valuable just in so far as it can serve as interpretation and explanation of that. What the student of design requires is such a review of the evolution of past traditions in his art as will enable him to realize that the good in architecture is the result of the application of certain principles to design—the same for Phile, Nike-Apteros, Prior Crawden's Chapel and Mr. Pierpont Morgan's library. Two results might be anticipated from such a teaching of the history of architecture, neither of which, it will be readily admitted, has followed the current approach. Firstly, the student would realize that, in all periods, there has been a great deal of worthless and inconsequent design in building; and secondly, that he is enlisting himself in an evolutionary process, majestic and relentless—that form is ever a synthesis of purpose, material, process, environment, economy, culture and social organization. The continuous reinforcement through archæological studies of our present *multiform* historical traditions is in reality detrimental to that evolutionary process which we conceive to be the natural matrix of architectural ideas. That historical teaching is misconceived which sends the student forth appreciatively convinced, as is too often the case, that a pure "Ionic" volute or "Decorated" archmould is legal tender in modern currency. It does both him and his generation a disservice.

#### V. THEORY

Long contact with a Faculty of Applied Science may have engendered in the writer an undue faith in underlying sciences. As physics is prerequisite to the study of engineering, so æsthetic may have its applications to architecture. Of course, the

philosophers will not admit this, preferring to regard architecture as phenomenon for æsthetic research. There is, however, a sense in which all sciences can be "applied." Now, our archæological friends are a little apt to offer their categories of information with the assurance that all the artist needs to know is there for the finding; but they are apt to forget that it is only to themselves that all ancient things are beautiful and that artists are concerned with new things. Natural scientists are inclined to side with the philosophers out of contempt for the artistic intellect, as fit only for empirical instruction. All readily unite in pointing out that in the epochs of the great artists, and in the epochs of finest general taste and highest craftsmanship, neither artists nor public cared much for æsthetic, and what they knew is now become most manifestly and demonstrably erroneous.

We would observe, in the first place, that Greeks, Italians, Middle-Englishmen and Frenchmen of the seventeenth century all had the advantage of living and working in times when æsthetic controversy was negligible; when public and artists were united in the profession of such erroneous æsthetic faith as there was. Æsthetic science can contribute considerably to the technique of art, æsthetic controversy can destroy its very possibility. They were free of controversy; we are not.

It is not very difficult to trace the architectural misfortunes of the nineteenth century to the controversies of the eighteenth. The philosophy of one generation gives rise to the shibboleths of the next, and the rules of thumb of the next again. The "line of beauty" was the easy-virtued grandmother of the "dynamic" nonsense which has bewildered some of us of late. But the world grows up, and this is a self-conscious age. The embryo architect (in Canada at least) wants to know why. He is bewildered with a multitude of broken traditions amongst which to exercise a selective taste. The story of æsthetic thought enables him to appraise, and at times discount, the "hard sayings" in the literature of his subject. Moreover, the recent developments of æsthetic theory can afford him some assurance in the exercise of his critical faculties. Such is the case for instructing young architects in the philosophy of art.

We now proceed to a discussion of what this involves. By "theory" for architects is often meant those rules of thumb—"groups of three," "dominant proportions," etc.—which we most habitually apply in composition with respect to buildings of normal size, in normal material, for normal uses—a body of doctrine diluted with much superstition. It is something rather more serious than we have in mind.

Philosophy has not been insensitive to the impact of the enormous scientific advance of the last generation, and as a consequence æsthetic has moved to a new plane of thought. The general problems of artistry cannot to-day be stated without reference to many sciences—physics, physiology, psychology, hedonics, among them.

Incidentally, it may be mentioned that the mechanistic aspects of sound and colour are now well within the realm of hypothetical thought. Form still remains illusive in so far as there is neither physical nor physiological hypothesis yet attempted, which

suggests hedonic values independent of understanding and memory. Now a good deal of serious architectural theorizing has been done on the assumption that one shape was more agreeable than another *per se*, hence the lucubrations of such light-hearted astrologers as Vitruvius, Serlio and Hambidge.

Much theoretic instruction, of which the student of architecture is regarded as the legitimate victim, fails to recognize that such a problem with respect to the appreciation of form exists at all. It is, after all, only the accidental facts that Greek columns are of the shapes they are and that there is a profusion of them that make the calling of any more into being artistically worth while, and the same would be equally true if the accidental facts had resulted in complete inversion of caps and bases. Only very primitive words, after all, retain their onomatopoeic character: so with architecture, forms are generated in use and then absorbed in linguistic.

An appreciation of the several limitations of the practical, the æsthetic and hedonic compels the acceptance of the last as the sole field in which an architect's artistic training can be the subject of precept. The teacher can do little to implant a well-filled mind rooted in such depth of character as the student possesses beyond contriving adequate time and opportunity. The reading of poetry may here be quite as useful as the measuring of monuments. As to the practical, the position of the architect is precisely the same as that of the civil or mechanical engineer and of the Creator of the Universe, for that matter. What the practical provides is the raw material—cells of certain shape, size and structure, functionally related, to be arranged, distributed, counterposed, and so become eloquent in form. The architectural problem is ever solved in terms of engineering, or pure design—synthesis of function, material and process—before it is the raw material for artistry. If such a discipline is to be imposed in the training in design a little philosophical study will be helpful in opening the student's mind to its acceptance.

Now that æsthetic is at last out of the realm of "quintessential phantasy" there is a further usefulness for it as an essential subject of an architect's education. It is very usual for the student in embracing his professional training to find his interest in architectural monuments superseded by interests in how they were built, how they were drawn, thought out, planned, and conceived. Now, it is one thing to be overwhelmed by the sight of a ship or a cathedral in silhouette, let us say, and quite another to be overwhelmed by the sense of its intricacy, its laborious growth, its stresses and strains. The student is apt to mistake this awakened interest in artistry for an improvement or development of his interest in art—his power of response to modulated matter. Of course, great artists are often miserable critics, but there is, nevertheless, much to be said for keeping the student alive to æsthetic satisfaction. The man in the street that is his ultimate public can only appreciate architecture, if at all, in this simple and direct way for which habituation to a tradition is a help, but an open heart is an essential.

Now, an acquaintance with the æsthetic problem does help the student to realize this difference between art and artistry. The mechanism for the production of power, and the power itself, are more often confused in the matter of a picture than a pulp mill.

The school has the advantage of the office in affording training in design, within certain limits, however. The school designs will not be executed—there is, therefore, all the more reason why the final drawings should bear some verisimilitude to solid objects under atmospheric effects and natural illumination. The school design will never be tendered on; there is therefore no reason why the exuberance and spaciousness of youth should not have full play, more especially as economy of effect is something we come by only with long experience. The school designs will enshrine the masters' instead of the students' ideals, if evolved with that oscillation of attention and balancing of considerations so usual in actual work; the artifice of the preliminary sketch done in seclusion is therefore enjoined. If the result is frequently balderdash, at least effort in concentration is stimulated.

One thing the school can do very well is to habituate the student to work in stages. The stages the school prescribes may not be the stages the graduate will follow, but the habit of clean and clear thinking fostered by a rigid mental discipline is an asset in after life—procedure, step by step, towards solution, and thence step by step to execution.

The stages recommended (as far as the idiosyncrasy of the subject and of the student will permit) are as follows:—

1. *The sketch*, in seclusion with previous announcement of the subject in the case of advanced problems. It may be observed that no problems can arise which could not be set forth within the framework of the following headings:—Subject, accommodation, site, materials, climate.

2. *The review*, at which the whole class hears a frank discussion of each solution offered, the student explaining his intentions and the instructor acting the part of captious client or devil's advocate.

3. *The revision* of the sketch, embodying the specific advice offered and the more general understanding of the various bearings of the problem derived from the review. In the case of an unsatisfactory first sketch this is a fresh attempt and marking accordingly. Up to this point the problem is worked for the most part in plan, only the roughest indications of section and elevation being employed.

4. *The development* of sections and elevations from the revised sketch plan.

5. *The modification* of plans and elevations to harmonize.

6. *The conversion* of the drawings into terms of construction—points of support, bays, trusses, etc.

7. *Documents* likely to be suggestive are next sought out, the solution being now quite established. When the student can't or won't find what will help him the instructor does so.

8. *Working out* is now possible, and it often happens that wholesome neglect to enable the student to find his own way is the best method of instruction at this stage. Some final expurgation and amendment is, of course, in order.

9. *The preparation* of the finished drawings may often be regarded as a separate undertaking from the design. A time limit is essential; it should be

brief. To draw well a man must draw fast, and there is only one way to learn and that is to try.

As to the problems for a course of four sessions, covering the second, third, fourth and fifth years with increasing weekly time allowances, the following disposition suggests itself:

*Second year*: Simple monumental problems, large and small, but many.

*Third year*: At least a dozen domestic problems, worked in plan only, ranging from workmen's houses to mansions, followed by three problems worked out in plan, elevation and section.

*Fourth year*: Six varied minor public building problems—say three in plan only, the rest in plan, elevation and section, and one of them carried into working drawings.

*Fifth year*: Two or three varied problems on difficult sites and one large problem involving grouping of many elements, and last of all a one-week test design without assistance.

It is, in the writer's experience, far more desirable that numerous problems should be carried to the point of solution by a systematic process involving tabulation of dimensions, diagrams of connections, arrangement relative to aspect and prospect, translation into structure, and so on, than the complete and thorough working out of a lesser number. This multiplication of problems and the reviewing it involves is, of course, exacting on the fertility of resource of the instructor.

Working drawings are not the affair of a school of architecture except in so far as their preparation may be used to teach construction. The office is the only place in which to become expert in this. So with specification writing and practice, the principles only can be expounded; skill is to be obtained through office experience.

But in the design of buildings the school may seek to develop a real skill in solution and a tolerable standard of presentation. Without some facility in draughtsmanship there can, of course, be no admittance to the training in design.

In conclusion, we will put in words what the reader has no doubt already perceived to be our view as to the strict limits within which instruction in architectural design can be helpful. We regard the set problem as the excuse, occasion, opportunity for æsthetic activity. Its practical and graceful solution is a matter almost entirely of engineering in which imagination is bound by practical limits. Assistance to a rational solution is in order, to the point of providing a rational solution if necessary. In the development of the solved architectural problem into what can be seen by the man in the street, or inside the structure, the student follows his own bent, taste, whim, inspiration—call it what you will. That is his affair, and the result is mood. Till the instructor can apprehend some mood in the student's work he must stand aside, but as soon as it is palpable he must use his superior technical experience to give it emphasis, force, and character.

The teacher in architectural design has to make direct contribution to the logic of the student's opportunity, and to the hedonic of the student's materialization, but the æsthetic of the student's experience should only be very indirectly stimulated if at all.

It may be possible to demonstrate from the past and from the present that this element is a most potent thing in human life; on occasion one may even invoke philosophy and science to satisfy an aspirant that he has mistaken his vocation. Style teaching is useless, for then both the true content and the materialization are prescribed and the occasion or opportunity alone requires solution. *The problems of a current style must be solved outside the walls of the schools.*

#### VII. ORNAMENT AND DECORATION

Ornament and decoration, as æsthetic phenomena of the past, are of course susceptible of study by the historic method. This approach reveals a continuous natural evolution of the sentiment which is the impulse of decorative effort, of the technical methods for embodying motif in material, and of the generation of decoration from process itself. From these phenomena a philosophy or theory of ornament and decoration can be deduced. But the historical approach also reveals another agency at work—artificial influence, through commerce, war, migration—the reactions of cultures. These two agencies will continue to operate as long as human hearts beat.

Now the young ornamentalist cannot be too well trained in the appreciation of these natural aspects of the ornament of the past, and in the critical analysis of the ornament of to-day in the light of the principles of significance and technique.

A familiarity with the chronological cycles of cultural reaction is of little or no value to him in his vocational life, whatever it may be for the tradesman, the connoisseur and the archæologist. It is, indeed, a pity that Mayer's *Handbook of Ornament* was ever compiled. The most precious thing in the English tradition of our time is that material sensitiveness of which William Morris and Professor W. R. Lethaby have been the exponents.

We cannot too emphatically state our view that the problem for the ornamentalist is not merely the apportionment of enrichment aptly distributed in relation to fabric or object, but that it involves the acceptance or the conception of a sentiment followed by its appropriately ordered elaboration in theme and materialization—rhetoric, in a word. Now rhetoric in shaped stone or spoken word does not permit of vain repetition, far less of promiscuous quotation. The classical dictionary and the lives of the saints have their counterparts in ancient buildings.

Poesy has long since shed the habit of the inane classical allusion, but in architecture it lingers under the name of "tripe," and we have an unphilosophical historical method to thank for the nauseating frequency of its occurrence. Rickards, with all his genius in design, was trashy as an ornamentalist.

The artist's approach to the study of ornament and decoration is through craft and trade and materials—granite remains granite, whether in Egypt or Quebec—whether 1900 B.C. or 1900 A.D., and chisels, brushes, hammers and modelling tools remain more potent than historical knowledge in the determination of detailed form.

#### VIII. THE CANADIAN STUDENT

At this point, and it may be in explanation of what has been said above, the reader's attention is invited for a few moments to the problem of the Canadian student. The teaching of the principles of architecture for Canadian purposes presents some

interesting difficulties. Neither what is done in England, nor in Europe for that matter, nor what they do in the United States (nor even those glorious achievements in design which are in England erroneously believed to be typical of all that is done there) will apply to our Canadian problems without serious modification. The architectural past is all but negligible in Canada, the architectural present is quite important in terms of tons, dollars and cubic contents per head of the population, and the architectural future is full of interesting problems and possibilities. We must admit that our contact with the full tide of American culture is at once overwhelming and disruptive.

The students we have encountered here usually come to college utterly unsophisticated in their architectural taste, quite inexperienced in the graces of environment, yet most ready and willing to work their heads off at their allotted tasks in design. That time soon comes for most of them, before they have realized what design means, when an alternative treatment of theme has to be suggested or imposed by those charged with this great responsibility.

Instructors in older lands, when called upon to do this thing in the course of their teaching, usually find the victim acquiescent, perhaps appreciative. His mind is impregnated with some familiar system of expression in form in virtue of which he accepts a better syntax. But we have had to do with industrious, alert, and wholly lovable young artists who frequently receive our first suggestion with a look of bewildered disappointment, and being brought up to take nothing for granted, and to get their money's worth, they ask "Why?" Life in contact with these "whys" breeds a certain contempt for all empirical doctrine, and a sense of impatience with the *petitio principii* and *obiter dicta* appropriate to a like occasion where a more docile breed is concerned. With such it may suffice to invoke the monuments of the past. "Why?" and we have been compelled to ransack a dozen occult sciences for an answer; "Why?" and the founts of human emotion and the main-springs of human action have had to be investigated; "Why?" and we have been compelled to explore the nature of light and the machinery of the eye for an answer.

Oh, for the brazen assurance of Cellini and his friends, with their "rules of art," or that academic digestion competent to deal with a Vignola swallowed whole, and only feel the better for the gulp. No, there is nothing for it. Every time one takes up impious blue pencil to desecrate the first fruits of the untutored imagination essaying monumentalities there will be a "Why," and these whys need answers in accord with their sincerity.

Historic precedent means little to those who have never clapped direct eyes on one of the masterpieces of the seventeenth century giants, but cold reason, natural science, and, in obdurate cases, the rhetoric of Croce as a last resort, have all been found effective in restoring such discipline as is necessary in order that the work may continue.

Thus do we professors maintain ourselves in the likeness of Olympians in what the non-teaching members of the profession fondly suppose to be our "quiet seats above the thunder, in undying bliss and knowledge of our own supremacy" while exploring the gulfs of our ignorance.