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Planning Projects Upon City Planning
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THE OCTAGON

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The Architect in a Modern World

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BY R. L. DUFFUS

A LAYMAN conversing with architects, or thumbing through their magazines and books, or, as I have just been doing, studying their replies to a questionnaire, discovers at once that they are uncertain about the future of their profession. Some are apprehensive and some are expectant, but none, so far as I can find out, is sure.

The profession may be about to be tamed and absorbed by business enterprise, like a kind of aesthetic Ethiopia. It may, on the other hand, be moving toward a re-assertion of its independence—even toward a dominance never previously attained. I don't pretend to have an answer. I would like to present the dilemma, largely as the architects themselves see it, and then suggest a layman's reaction to it.

I think we may start from one point of certainty. Whatever may happen to architects and to architecture, both will continue to exist in some form as long as civilization lasts. An architect, as the Greek roots which make up the name say, is simply a master builder. There will continue to be building and some group of men will be the masters of it. They may or may not be the men we call today by the heroic name of architect. If bankers, real estate developers, industrialists or politicians determine how we are to build they will be the real architects, even though they hire draftsmen and engineers to give shape to their ideas and stability to their build-

ings. The result will be good architecture, mediocre architecture or bad architecture, the architecture of truth or the architecture of falsehood. But we cannot avoid having architecture.

I should broaden the definition of architecture to include much more than the forms and functions of buildings. It enters into the shape, the color, the texture, the fitness of all the physical man-made things we have and use. It is the outward form of our civilization. It affects and is affected by our political, social and economic institutions. It swallows up the plastic and graphic arts and I believe has more to do with the way we think and feel than either music or literature, or both together.

The ugliness and confusion of most parts of most of our cities, the drabness of factory towns, the slovenliness of many of our country villages, the shrieking falseness of many of our suburban developments ("improved real estate," God save the mark!), are the architectural expression of a defective society. I like to think of the architects some day rising in rebellion, not with guns in their hands but with pencils, drafting boards, modeling clay, and all the instruments of the builders' trade, to build them nearer to the heart's desire.

Some one is sure to ask, why put this burden on the architect, who is, after all, only a man with some technical training and experience, trying like the rest of us to earn a living and, like most of the rest

of us, not making too good a fist of it just now? The answer is that all who will assume any part of this burden, whether or not they hold degrees or licenses, are sharers in the great adventure of architecture.

Yet, speaking always as a layman, I do not propose that the architect shall be let off easily. At the center of the movement there must be the men of degrees and licenses, who can conceive and construct, and so give form to the dreams of their generation. All civilizations are embodied dreams—or nightmares. At the climax come the master builders, speaking truth in stone and wood and, in these latter days, having the potentiality of speaking truth also in metals, alloys and plastics.

The architect has never been, will never be, allowed to build without interference. He must have land, he must have materials, he must have labor to assist him. He must call in his brother, the engineer, though why a sharp distinction should be made between the two I find it hard to understand. Under credit capitalism he must satisfy the banker, who is thinking not of good building or beautiful building but of stable market values. Whether he builds a summer cottage, a factory or an office building he must deal with owners, whose taste may have been spoiled by their education, their environment or their way of life.

These are the crosses he must bear. But he is no master builder if he merely achieves a reasonable compromise among them. Over and beyond his duty to his associates, to his clients, to those who find the money to make his work possible, he has a duty to society. He owes it to his fellows to have no part in creating slums, in intensifying urban congestion, in vulgarizing the countryside. If he meets these problems he may produce good architecture without ever asking himself whether it is also art. But the final challenge to every generation of architects is to produce great architecture—and by great architecture I suppose one means that which will truly express the dominant aspirations of a period, all the soaring quality, all the beauty that is in them. By means of great architecture a generation of men says: "This may not be what we are, but this is what we wish to be."

Perhaps we are not yet ripe for a great architecture, which demands, to quote from an article by Albert Mayer in the *Nation*, "first a generally

accepted background of life and aspiration of sufficient significance so that the artist and the creator can believe in it with passion and assume with serenity that it exists; and second a position of authority for architecture and the architect commensurate with his importance in a vital civilization and with the extraordinary demands made upon him." But whether ripe for great building or not we are either moving toward it or away from it.

We are moving—of that there can be no doubt. The basic assumptions of our civilization are shifting. Professor Charles W. Killam of Harvard has defined "the principal function of the architect today" as being "to plan and direct the execution of building projects so as to produce convenient, safe, economical and durable inclosures for our manifold activities." One would not quarrel with such a definition. But the activities are changing, and with them the personnel of those taking part in them. New groups and classes are knocking at the door, asking as of right what used to be the privileges of the few. Decent housing for all, adequate recreation facilities for all, light and air in working places, spaciousness—these are ideals which change the nature of architectural problems at the very moment that architecture is arming itself with new methods and new materials. Cities are dissolving into the country. In the automobile we have traveling homes or offices.

Yesterday's buildings and yesterday's ideals are less and less satisfactory. At no time in history has a merely imitative and traditional architecture been so inadequate, so incongruous. To express his own time the architect must make a fresh start. To make a fresh start he must be trained to an awareness of his own time. The problem is educational—education of the architect, education of the public to understand its own needs and, even, its own half-realized desires.

Before considering what this education might be we will do well to inquire what the architectural situation now is. I shall make use, here and later, of the results of the questionnaire I have been examining, and of other opinions currently expressed by practicing architects.

The practicing architect is but one link in a chain of influences and agencies which cause a particular building, of a particular sort, to be built on a given site at a given time. He is subjected to pressures

of many kinds, affecting all phases of his life and work. There are long-term and short-term trends, and trends economic, social, political and aesthetic. Technology changes between one set of specifications and another.

It is not putting the profession in an undignified light, however, to say that the first test of its position is whether its capable and industrious members can earn a living. If they cannot, something must be wrong in the relationship between the profession and the community. It is easy to see that something has been wrong during the past six or seven years, with building operations at a fraction of their former volume.

Not only did the total available commissions decline, but there appeared in the building industry, as in other industries, various methods and devices intended to cut costs. There was a growing tendency among speculative builders to use standardized house plans—often prepared by draftsmen working for small fees; manufacturers offered plan services with their goods; the “talented younger university men” were exploited; there was some increase in the use of fabricated parts; and although the prefabricated house is still a rarity a determined drive is being made to market it. These encroachments were probably inevitable, but the depression certainly accentuated them. They would have seemed less important during the boom days when new office buildings, multi-family apartment houses and factories were offering profitable commissions to the more successful architects. Competition in the comparatively neglected residential field stiffened just as that field was being invaded by agencies which had little use for the architect.

Government offered the architect a certain amount of work through the PWA. It endeavored to stimulate repairs, remodeling and new home construction by broadening the mortgage market. It aroused interest in slum clearance, although the failure of the Wagner Housing Bill in the last session of Congress reduced that activity to a few isolated demonstrations. Building operations rose from about one-tenth of their former volume to one-third or more, but this rise could not restore to the architect his former prosperity—such as that was.

Architectural opinion is by no means unanimous as to the value of the Federal operations: “The chief advantage has been to the speculative builder,” says

one man; they have tended, says another, to “encourage the speculative builder . . . who operates at cut rates, chiseling down all labor costs and professional services to the detriment of the private architect”; a third declares: “Practically all of the FHA architectural work is done by operative builders, contractors and material supply houses, resulting in poorly planned and designed houses of the ‘mongrel’ type.” But at least a majority of architects seem to agree with the A. I. A. member who said: “I believe these agencies have increased public recognition of architectural services—at least they have tried hard enough.”

Public opinion in the United States seems to be waking up slowly to the crying need for better housing—one might say, for a minimum standard of decency in housing—and in this field the architect may find opportunities which will outlast the depression. But it is obvious, and replies to questionnaires bear out the conviction, that under present conditions the architect can rarely afford to serve the small-income group which really needs his help most. As I run through my pile of questionnaires I find some evidence of successful ventures: young architects may cut their eye-teeth on small houses; architects have responded favorably to government proposals for limited services on moderate-cost houses; “the technologically backward residential field still offers a comparative freedom for the free lance architect”; “the small office, with young draftsmen, is the answer”; “architects having low overhead can profitably do small-house work on the basis of the fees recommended by the A. I. A.”; “the opportunity is unlimited—none of us yet has found the way to take advantage of it”; “our own firm has now under construction or on the boards six houses costing under \$10,000, and we consider them well worth the effort, even though the net return is very small.”

As a rule, however, the small house as an individual, full-time field, arouses only what may be called a sacrificial enthusiasm. Restricted service does not satisfy the man who wants to do a thorough job, and who really enjoys solving the variety of problems that small houses offer. “The profession should work out ways and means of producing designs for moderate-cost houses at a lesser cost,” one architect believes, “provided such cuts do not affect the quality of the design. We suggest closer

cooperation between manufacturing and producing companies and the architects. Produce a more flexible system of stock units, which would allow the architect to specify without such expensive drafting." But the drift of opinion seems to be that the designing of individual small homes by individual architects is a losing game for all concerned. It has a romantic appeal, but it cannot easily be made to fit into the pattern of contemporary society.

Yet people must be housed, no civilization can be considered a success which does not house them adequately, and they cannot be housed adequately without the employment of precisely those qualities and abilities that the good architect possesses.

The solution evidently lies in better organization, in improved techniques, in closer cooperation. Lewis Mumford sees a future for "group designs, where the architect can think and plan in terms of economics and layouts and adaptations." From Paul P. Cret's office John M. Harbeson writes: "The high and continually rising costs of labor indicate that the future of low-cost homes will depend on more and more quantity production of essential parts: these parts should be designed by architects; when they are developed an architect is best fitted to arrange assemblings of them, which must be done at fees much less than 'six per cent of the cost of the job.'" The samplings indicate group practice, with each man having his specialty, and a better working understanding with manufacturers of stock parts and materials, as favored possibilities. In part this attitude may be defensive: if the architect does not assert himself he may find that industry and the speculative builder have destroyed his liberty, reducing him to the status of an office clerk. But the social point of view is not lacking. I believe there are many who would agree with Edward D. Pierre that "the small home is one of the architect's greatest obligations to society."

Domestic architecture is undeniably important as a possible remedy for the architect's economic problems, as an incentive to new forms of organization and operation, and as a fulfillment of a duty to the community. Its success or failure means more to our civilization than does the erection of monumental public buildings, of quarter-mile-high skyscrapers (don't be too sure the next boom won't breed another crop of them), or even of factories, motion-picture theaters and churches. But domestic

architecture involves relationships between homes, on the one hand, and schools, libraries, churches, theaters, stores, and public buildings, on the other hand.

The architect is being forced to overcome the obstacles in the small-house field. But the smaller the house, I begin to believe, the larger the architect ought to be, for he must see his house set rightly into the community and cannot do his work to best advantage unless his understanding runs all the way from the layout of streets and parks to the proper composition (not too brittle, not too slippery, not too absorbent) for the drainboard of a kitchen sink.

If one sits down to write specifications from which to construct the ideal modern architect ("modern," not "modernist," please note) one finds himself describing one of those effulgent Titans of the Renaissance, a Da Vinci who can be painter, sculptor, writer and musician as well as architect. How near can the American architect of 1936 come to this description? How near does he think he can come?

Two years ago the A. I. A. sent out a questionnaire, to which it received 240 or more replies. Of the 226 Institute members who tried to classify the architect 187, as Director William T. Warren analyzed the returns, saw him as "a professional man whose idealism carries him beyond the customary thought of the interests of the client coming before the interests of the architect, carries him to that rare and lofty pinnacle where fairness and justice come before the interests of either architect or client."

This is admirable, but in practice what does it mean? An architect must be more than fair and just. He must have sufficient knowledge to do a great many things, sufficient wisdom not to try to do too many. In THE ARCHITECTURAL RECORD'S questionnaire, now lying on my desk (or, to be more precise, arranged in four or five piles on my floor), there were three queries bearing on this point: "Can the services rendered by the architect be enlarged and, if so, in what new ways? Do you consider the architect capable of undertaking commissions in such fields as community planning, industrial design, furniture design and interior architecture? Can we assume that architects, as users of building materials, should work more closely with industry in improving and producing materials?"

The answers, like most of those in questionnaires deliberately intended to encourage the recipients to be voluble, do not lend themselves to tabulation. They do suggest, however, that the majority of architects are at once anxious to avoid a narrowing of their historic field (which is certainly vast) and puzzled as to just how they shall meet not only the old but the new requirements. The architect would like to think of himself as capable of designing and executing every detail of a building, including the furniture. He can hardly avoid a sense of responsibility for community design, in which the nature, use and spacing of buildings is a major factor. He shrinks from being called an "interior decorator"—why should a well-designed interior have to be "decorated"? He realizes the importance of industrial design, but is not sure that without special training he dare undertake it. In his boldest moments, however, he considers nothing in the field of design alien to him.

Here are some of the answers to the three questions: "The architect must be more flexible in his methods and not conduct his profession as a luxury profession"; "Like other designers, he will, I think, tend to become absorbed by industry"; "He should be the Master Architect of cities and not parts of cities" (Edward D. Pierre); "By definitely integrating his services with a qualified landscape architect, and interior architect, contractor, etc."; "Every architect should have a fundamental sense of design, which makes it possible for him to enter any field requiring design after he has mastered the technical details of that field" (Harvey Wiley Corbett); "Community planning must be a group enterprise, of which the architect must be a part"; "The same architect would probably not do both industrial design and furniture design equally well, but the profession is broad enough to include both types of design"; "I not only see no reason why architects should not enter these fields, but feel it absolutely necessary for the continued life and importance of our profession that they do so"; "All the above fields are integral with architecture, and the young architect's education should be remodeled to assist his participation in them" (Lewis Mumford); "Architecture is one of the worst fossilized of the professions, and it will require great energy, from within, to overcome this handicap."

As to cooperation with industry I pick the fol-

lowing out of a number of pertinent answers: "Without better technique the architect can contribute nothing of value"; "A good architect might be well qualified to do this type of work, but he would be giving up architecture to become an engineer"; "Architects should be the leaders of industry"; "This should be an automatic relationship"; "The architects have been the factors in most all instances in the improvements and developments in building materials, not the manufacturers—this is not generally known, but can be substantiated"; "The Bureau of Standards and other disinterested agencies should cooperate with the profession in setting up standards and facts relating to building materials"; "By employing architects, on a very, very nominal fee basis, in various sections of the country, to prepare designs, details, their ideas, etc., incorporating uses of manufactured materials, products, etc.—such ideas to be massed together by the producer and standardized as far as possible"; "Industry in the long run will manufacture what the architect and the building public really need"; "Closer cooperation could be effected (a) if the average architect had more time for the investigation and observation of manufacturing processes, (b) if the material producers could agree among themselves on standardization in some lines and in acceptable practice, (c) if the average architect had the results of more good research available on all materials and construction in which he is interested" (A. R. Clas, Director of Housing, Federal Emergency Administration of Public Works).

C. Theodore Larson, Technical News Editor of THE ARCHITECTURAL RECORD, makes this suggestion as to close cooperation with industry: "Metallography, alloying and modern methods of machine production have already made possible materials which are designed to serve specific purposes. There are over 2,000 registered trade names for plastic compounds. Practically as many different steels and alloys are available commercially. . . . The main job is not the production of more materials but the design of new structural forms which are being made possible through the progressive elimination of old restrictions in fabrication." And that, nobody can deny, is a job for the architect.

In architectural publications there is an enormous amount of material bearing on this question of the architect's capacities and responsibilities. The whole

discussion, I believe, proves that the profession is in a state of flux—it is either waking up or dying, no one is entirely sure which, though one may have his hopes. That is to say, it is either waking up to new independence and authority, or dying into an uncreative dependency. "There can be no doubt as to the future of architecture as a fundamental human activity—a necessary function of civilization," writes Sherley W. Morgan in *THE OCTAGON*. "There may well be a question as to whether this vital service will be performed by architects, such as we now know them. It depends on how well the present members of the profession acquit themselves in the next few decades, and on how successful their performance shall be in attracting to their ranks recruits of ability and vision."

It may also depend on the extent to which we allow the blight of salesmanship to invade the field of architecture and design, as it has invaded so many other fields. I tremble for the future of architecture, as of design, when I read such passages as this (quoted in "Industrial Design and the Future," by Geoffrey Holme):

"Industry wants designers of talent and ability—but they must also have a knack for understanding more than the abstract problem of design, they must have commercial sense or instinct. Industry is only interested in those designs that there are good business reasons to manufacture."

I do not believe that "good business reasons" ever produced a great building, a great book, a great picture or a great piece of music. The architect will win his fight only if he is stronger than the "business reason." The "business reason" has given us the sort of architect that Prof. Killam describes:

"Most of our buildings are so inefficiently and uneconomically planned and built that we cannot afford to live, to do business, recreate or worship in worthy surroundings. The homes of nine-tenths of our people lack comforts. They are unbeautiful if not ugly; they are unkempt inside and out, often insanitary and unsafe. Half of our school buildings are out-of-date, musty, poorly lighted, not entirely safe. Our churches are often the largest and ugliest buildings in our villages, less dignified than our pumping stations."

There is a job for the architect to do. There will always be a job. The question is, first, whether society as it is now organized will permit him to

do it and, second, whether he himself can meet its exacting demands. And so we come to the crux of the whole matter. We return to the problem of the architect's education. He will not succeed if he is trained to imitate and to obey. He must force building into the mold of his own time. He must make it express the aspirations of a whole people. He must build into it justice, democracy, truth. He must emulate the great tradition—not copy its forms. He must be stronger, in knowledge, in aggressiveness, in character, than the influences that will try to subdue him.

Are the schools preparing him for this battle? Can they do so?

I turn first to *THE ARCHITECTURAL RECORD*'s questionnaire. I find some damning comments on architectural education, and I shall begin with them: "Not thorough enough in school and too unorganized afterward"; "The fundamentals of the practical make-up of the building are not generally stressed enough"; "Inadequate on the social and economic side, backward in technical integration with (a) engineering, (b) community planning" (Lewis Mumford); "Lacking in basic science, which not only is neglected but scorned—too much design—too much on paper and too little in the round, i.e., clay—too much emphasis on such artificial devices as *hors concours*, which never come up in practice" (John Ely Burchard); "It could be stuffed down the drain and never missed"; "Lousy" (this succinct and forceful answer occurred twice); "On the whole, stupid and weak, fawning and dependent"; "Unless it is a whole lot different from what it was fifteen years ago, it is practically worthless" (Miles S. Colean, Technical Director, FHA); "Too theoretical, without enough attention paid to the actual problems which present themselves to the profession" (a typical criticism); "Architects should be fundamentally engineers rather than artists"; "Still, generally, in the horse-and-buggy era."

Few architects seem completely satisfied with architectural education, but many are more indulgent than those I have just quoted. For example: "Good on the whole, but the less we look at the Ecole des Beaux Arts, the better"; "With such faults as it may have, it still is an excellent education" (John M. Harbeson, office of Paul P. Cret, Philadelphia); "On the whole intelligent, desirably conservative in taking up new trends, many only

passing symptoms, but steadily developing, through cooperation of the leading schools, so as to meet the needs of the times" (William Stanley Parker, Boston); "Believe it is getting better and better"; "Improving all the time—more emphasis should be given to structural engineering"; "Good in recognized colleges"; "Doubtless the method of the schools might be modified to advantage in some instances, in many respects, but, after all, they have sent a good many men on the right road."

As is, perhaps, usually the case, the criticisms are more specific than the commendations. The basic criticism in the answers to the questionnaires is that the schools are out of touch with reality. What do the critics propose?

Let us run through a few more answers: "The need is for an entirely new system of education, which will conform more closely to the demands of industrialization" (C. Theodore Larson); "In general, the practical side of architecture should be more thoroughly learned"; "Complete renovation, beginning with pre-vocational education" (Lewis Mumford); "A closer integration of the practice with the teaching of architecture"; "A realistic approach to architecture as a part of life, instead of a sentimental attitude toward it as a dream world"; "More practical experience and knowledge of shop work and materials"; "I would favor a course or courses which would cover fields in which it is difficult to get guidance or information after graduation, such as the underlying principles in writing specifications, the practice of architecture, its business and legal side, etc." (Waldron Faulkner); "A real business education, stressed as greatly as design and construction"; "More engineering and mathematics and more economic, political and social training"; "Greater understanding of economic and social conditions" (Miles S. Colean); "The use of models in the study of design"; "The education of the young architects in civic affairs, city planning, etc., should become a part of the educational system"; "Schools should impart (1) knowledge of materials as used in the field, (2) knowledge of construction techniques, (3) knowledge of modern as opposed to eclectic design."

So much for the questionnaires. What are the answers of the schools? What, in fact, are the schools doing or planning to do? Obviously I cannot, within the reasonable limits of this article, ana-

lyze the work of even our most important architectural schools. I have selected a few schools and teachers, more or less at random, and will let them interpret themselves, within the brief space available. I think it will appear that in some, at least, of the architectural schools there is a recognition that changing technological, economic and social conditions will force a new architecture upon us—are, indeed, already doing so—and that the schools will fail if they do not prepare their students for this transformation.

Joseph Hudnut, former Dean of the School of Architecture at Columbia, now Dean of the Faculty of Architecture at Harvard, hammered home this point of view most vigorously in an address before the Boston Society of Architects last October. Dean Hudnut had some stinging comments to make on a system of education under which young men who "are to make the environment in which millions of human beings are to spend their lives and in which the children of the next generation are to be born and reared are being trained for this crushing responsibility by the making of a wonderland of drawings, the major intention of which is to 'stimulate the imagination.'" Dean Hudnut went on:

"I think we all recognize that the central problem in architecture today is the creation of some harmony between our technology and its applications on the one hand and our expression on the other. . . . I hold it essential that from the beginning of architectural education we should devise some method whereby the creation of practical buildings and the discovery of beauty may be made integral parts of a common process. I conceive it to be our responsibility as teachers to discover and exploit such a process. . . ."

"I shall dare to add to this objective still another: namely, that of giving to our students some awareness of the social implications of their art. If the business of an architect is to discover some attributes of beauty in the life of his time and to express this beauty by a harmony between his constructed forms and the life that flows through them, then it seems reasonable to expect that every student of architecture shall attain so far as it is possible a clear and objective view of the world around him; of the structure of society and the intellectual currents that determine that structure. I think that such an awareness might reasonably be encouraged

in our courses in design, where every program should imply some necessary relationship between the building to be designed and the purpose which it is to serve in the social scheme."

Prof. Killam, already quoted and also a member of the Harvard faculty, writes that: "We have for years at Harvard required the student to write his own program in the case of his graduating thesis. He goes to the documents; he goes to buildings in use; he talks to the men who use the buildings. He acts exactly like a real architect. Then he writes his own program. . . . I would extend this system throughout his whole work in design."

Harvard has now worked out a new curriculum for its graduate students of architecture, under which "a student will study, as parts of a single problem, not only that organization of space and of mass usually spoken of as 'design,' but also the design of structure and the professional aspects of the problem, including finances and the relation to industries and to law. The students who take this course will not take 'projets' nor will they be trained in competitions and renderings. . . . [They] will take only one subject, namely, *Design*, but this subject will be taught by all the members of our faculty."

Columbia's School of Architecture, under Dean Hudnut for the two years ending in 1935, moved toward closer integration of the teaching of architectural design with the study of construction. In cooperation with the School of Engineering a practical laboratory course is offered which enables students to gain experience with "the basic materials of structure." Two years ago the School sponsored housing studies carried out with CWA assistance under the direction of Dr. Carol Aronovici. There is a "town planning studio," and students have made a survey and proposals for the improvement of the densely settled area lying north of the University.

The present-day ideal of Columbia was probably well expressed by Prof. Leopold Arnaud, chairman of the School's committee on administration, in an article contributed to the *Columbia University Quarterly* last December:

"For generations architectural students have begun their training by drawing the Five Orders as given in Vignola's, compilation founded on Vitruvius. . . . This method, followed in almost all schools, both European and American, has done

more than any one thing to hamper the free development of architecture. In order to express himself in the vocabulary of his own age, the student of architecture should *begin* to design without any special knowledge of historic forms. . . . Only after this general introduction through current history should the student begin his study of the past; then he will learn the Orders in their proper chronological place. . . . For all our steel beams, electric wiring, structural glass and bakelite our contemporary architecture has its foundations grounded in the bed-rock of the past."

At New York University the dominance of the subject was recognized when the College of Fine Arts was reorganized as the College of Architecture and Allied Arts. Under Dean E. R. Bossange the College has modernized its courses: graduate architects and engineers may study low-cost housing in the Modern Housing Institute, and there is also a summer course in the same field; there is an exhibition room for showings of housing designs, and there is a museum of building materials, both structural and decorative. A course in community planning is given by Dr. Aronovici. The student may take as long or as short a time as he pleases for his work, provided he is able to pass comprehensive examinations, covering the whole course, at the end. Contacts "in open atelier with other students, including those following painting, sculpture and decorative design curricula," are believed to be of advantage to the budding architect. Construction is emphasized, in order that the architect may not become a mere "building beautifier," a sense of the third dimension is developed by modeling and designing in clay and plaster, and "the student is trained in history, not to supply him models for imitation but as a source of inspiration." "The work in the elements of architecture, instead of being a survey of the orders and other isolated features, is an integrated study of architectural forms based on the major types of construction, including the modern. . . . For all design problems a construction critic is appointed to insure buildable *projets*."

It is Dean Bossange's belief that "the failure of many ventures that were purely utilitarian in character proves that the public insists on aesthetic appeal." Not all modern architects would accept this dictum as expressing the whole truth. Some of

them would say that the "purely utilitarian," perfectly conceived and executed, would inevitably have "aesthetic appeal." It depends, perhaps, on what one means by "utilitarian." But Dean Bossange's conception of the role of the modern architect would undoubtedly find wide support:

"Besides understanding traditional architecture, the architect of the future must be familiar with new materials and make full use of their qualities. He must be master of the new construction systems so that they become tools to express his aesthetic concepts. That most of his buildings will be 'functional' in character is beyond doubt, but it will be a broad, human conception of function. Thanks to science the architect is liberated from many limitations and more free to dream than ever before. He must have creative imagination and a broad viewpoint. He must be more conscious of community requirements and social conditions, of problems of transportation and circulation. But, above all, he must be capable of sensing and idealizing the human need."

I feel like italicizing the last sentence as a summary of what we have a right to expect of the architect. Doubtless Dean Everett V. Meeks of Yale's School of the Fine Arts would agree to the sentiment, but he fails to express it in his account of the aims behind his sound but certainly not radical instruction in architecture. Yale does emphasize instruction "on both the design and structural sides" during its five-year course. But five years is not a long time. "We therefore confine ourselves," says Dean Meeks, "to fundamentals and avoid extremes of fads, either of an ultra-revolutionary or, on the other hand, of an ultra-conservative nature. Our students, as they go out into practice, have a basic training which we hope will enable them to develop along the lines where inclination leads, free to follow the recognized trends of contemporary architecture."

From the University of Pennsylvania Dean George S. Koyl of the School of Fine Arts writes: "While new problems influenced by current economic and social conditions enter the present-day practice of architecture, such problems do not merit drastic changes in the educational policies at this time. . . . The architect has . . . at his disposal an assortment of servants to do his bidding such as never before, so much so that if not properly trained

he may lose sight of their relative importance and be carried away with their novelty. The proper education of an architect attempts to relate the new with the old. . . . We have maintained an open mind toward innovations in design and construction, which must prove their merit before being finally and unequivocally accepted." Pennsylvania offers for the senior or graduate year a construction thesis "under supervision of the practicing architects on the teaching staffs in design and construction, thus bringing office experience into the school without disturbing its traditional policies which provide a broad cultural and technical education in architecture." There have been "no radical changes in general organization" during the past three years, although the courses in the history of architecture have been simplified and there are "courses in construction and mechanical equipment of buildings, augmented so as to include a more complete knowledge of the modern scientific aspect of buildings."

For thirty years the College of Engineering and Commerce of the University of Cincinnati has operated what is called a cooperative plan (fathered by Herman Schneider, dean of what is now the School of Applied Arts), under which students put in five eleven-month years, spending seven weeks at college and seven weeks in private employment alternately. Architecture came into the picture in 1922. The architectural candidate ordinarily begins his practical experience as a workman; from this he is promoted to the drafting room; and toward the completion of his course he gains some insight into the actual workings of an architect's office. Aside from the cooperative system a distinguishing feature of the work at Cincinnati is, Dean Schneider points out, "the greater extent of background training in the arts in general"—painting, sculpture, landscape architecture, and historical material.

In his booklet, "Thirty Years of Educational Pioneering," Dean Schneider sums up some of his conclusions:

"Art is expressed in things. Things are made of all sorts of materials—stone, wood, brick, cotton, wool, iron, clay and a host of synthetic substances. Each one of these has its distinctive art quality. This quality must be known to the designer using it. . . . Our School differs in its conception and plan from the usual American schools in that its work is based on principles rather than periods, on

creation rather than copying, on the adaptation of design to function and to materials, and particularly on the application of art to everything we use."

From Princeton Prof. Sherley W. Morgan, director of the School of Architecture, writes to announce, first, that "we do not claim to have found a formula for salvation, in architectural education, nor even a personal devil, denunciation of whom will start us on the road to heaven." He does, however, sum up significantly the changes in the School "since the depression descended":

"1. A more integrated viewpoint of architecture as a social art. . . .

"2. A more realistic approach both to design and materials. Many inspection trips to plants, actual work with hammer and trowel, constant pressure not to draw a line without realizing its meaning in three-dimensional construction.

"3. Emphasis on space organization. The organization of the site and its relation to its neighbors and its community. Circulation outside the building as well as within it. The architect, conscious of his duties and opportunities as a member of society, rather than merely responding to the whim of the individual owner.

"4. Analysis and research. Our creative problems begin with the reasons for the program, social, economical or psychological. . . . The student . . . has to write the program, supply the answer and justify it before a jury. . . . In order to graduate he must successfully demonstrate his solution before a group of practitioners, who are free to question him on any phase of his project, not merely on its aesthetics."

Princeton's is a graduate school, with the degree of Master of Fine Arts in Architecture offered after two or more years of graduate work. "Better than average performance" in one or more subjects is required before the student can undertake a thesis, and he receives his degree only if the thesis passes rigorous tests and is accepted. The Princeton School is still plastic: it is only seventeen years old and the present program did not go into full effect until 1933.

Outstanding at Cornell University are the course in Regional Planning, sponsored jointly by the Colleges of Architecture and Engineering and open to non-professional students; the close relationship between the teaching of architecture and landscape

architecture; and the attempt being made to "correlate instruction in design and construction." At the University of Illinois the student in design works "under the instructor in Technology of Materials as well as under the direction of the patron in Design," and is expected to acquire "a working knowledge of the equipment and appliances for lighting, plumbing, heating and ventilating, and the many other mechanical contrivances which go into modern buildings." "A substantial amount of construction" and more and more coordination of construction with design are reported from Michigan. At the Massachusetts Institute of Technology the "freshmen and sophomores study, plan, contract for and supervise the erection of a small house."

At the University of Oregon, as Dean E. F. Lawrence of the School of Architecture and Allied Arts, writes, there are no competitions, medals or honors. There are, however, "individual programs, and collaboration among architects, landscapers, interior decorators, painters, sculptors and craftsmen." The "use of materials and construction are stressed as a part of design." There is a course in city planning, a final thesis and comprehensive examinations. Freshmen begin by designing small structures, visiting building under construction and making weekly reports. "Wherever possible," Dean Lawrence says, "we give application before theory."

"Emphasis has been shifted," says Prof. Roy Childs Jones of the University of Minnesota, describing changes carried out during the past three or four years under the leadership of Prof. Frederick M. Mann, "from pictorial and decorative values to special, functional, structural and social values. Students start immediately to exercise themselves in realistic problems that involve the whole of architecture in however small a compass, rather than on 'orders,' 'elements,' highly artificial academic subjects, or 'rendering.' Serious efforts are being made to bring so-called 'construction' and so-called 'design' together in single problems."

From Prof. W. F. Hitchens, head of the Department of Architecture at Carnegie Institute of Technology, comes a summary of two major changes in curricula which he believes to be general:

"A new approach to the study of design tends toward broadening the viewpoint of the student in three-dimensional design and in giving greater real-

ism to his work by a closer correlation of design, construction and materials.

"The second change intends giving the student a clearer understanding of the significance of buildings as related to the community through city planning and research into the programs of single structures."

Finally, I have some illuminating comments from Prof. Roy Childs Jones, referring this time to the general situation in American architectural schools. Prof. Jones wrote as president of the Association of Collegiate Schools of Architecture. To him it seems that there is in American schools today "a nearer approach to mature self-realization than they have hitherto arrived at," a tendency to shake off the "vener of decorative non-essentials" and to emerge from the "haze of pictorial and competitive artificialities." Educationally, the architectural schools are using their position as "integral parts of universities and technical schools" to teach not only their own young specialists but the lay public. A dozen or more schools have escaped from cramping subservience to engineering or fine arts departments, without losing the chance to cooperate on even terms with these related agencies. As to teaching methods:

"By one device or another, the teaching of architecture is being brought to stress the unity of all its phases. Problems become 'architecture' rather than 'design,' 'construction,' 'decoration,' 'rendering,' etc. Programs invite realistic research rather than pictorial display. Criticism becomes inclusive of all kinds of expert advice. . . . Artificialities like the '*esquisse en loge*' are tending to disappear. The decorative approach to architecture, so long clung to in the shape of the '*analytique*,' is sharing a like fate. Inclosed space to meet functional need—in brief, plans and sections of complete buildings—start the student along a more revealing path. . . . The use of the thesis as a final, independent and all-inclusive proof of the student's capacity is increasing."

I think I have given enough samples of professional thought to prove that architectural education cannot be dismissed as "lousy" or as "good as far as it goes," or by any other simple generalization. Like all higher education in this country it is changing, and the effects are spotty. It is fair to say that it is beginning to catch up with the times—fair, also,

to say that it has not, on the whole, caught up.

The issue is obviously clouded in many minds by a confusion between modern education and "modernist" architecture. "Modernist" architecture may be anything under the sun, except classical. Its exact meaning depends on who is using the word. My own impression, as I think back over the evidence I have here tried to summarize, is that the word "modernist" is, paradoxically enough, a hang-over from the eclectic period—it implies that if the architect stops copying old styles he must at once make himself a definite new style for somebody else to copy. If I am not mistaken in my deductions the modern drive is not immediately toward a style but toward freedom to experiment. It is this freedom that the schools might well strive for rather than for a species of "modernism" which may all too soon become as stultifying as the slavery of the Orders.

I had hoped and intended to carry forward this discussion with an analysis of the architect's relation to his public, but I believe that nearly all that might be said on that score has been suggested by the inquiry into his education. Similarly, the plight of the draftsman is at bottom an educational problem. The making of a whole, all-around architect is not a matter of four, five or six years in school—it comes near being a lifetime job. If architects wish their profession to continue and to be influential they will not only have to look to the schools—they will have to see to it that the apprentice architect is given every opportunity to learn and to develop his abilities, and they will have to have enough discrimination and farsightedness to pick creative talent and push it. They must produce successors, even at the danger of producing rivals.

There is no agreement among architects themselves as to whether they have gained or lost in public estimation during the past few years. I doubt that the question needs to be answered in precisely that form. The public needs builders. It will turn increasingly to the architect if he can give it what it wants. It will turn thumbs down on him if he allows himself to become the mere window display for acquisitive business enterprise.

His future depends, I believe, on character as much as on native ability and good training. He must love beauty but he cannot be the ineffectual

type of aesthete and still survive. He must bring to the quest for a sound and fit architecture the courage, the determination and I might almost add the remorselessness that have been devoted in this country to the pursuit of wealth.

He must have no timidity in the presence of wealth and power. Why should he have? He is at heart not their servant but the community's. He must not be the retainer of a snobbish, genteel and obsolescent profession—a little more independent and having a higher social status than the butler, not taken into confidence like the banker. He must not degenerate into a mere technician, selling his services to the highest bidder. He must not take on so much of the business man that though he retains the name of architect he ceases in fact to be one.

He must hold fast to the literal meaning of his proud and ancient title: he must be a master builder. For such architects the streets of our cities, the green squalor of our suburbs, the stuffed archaism of our public buildings, cry out.

The economic system will not, it may be argued, permit the master builder to step free. If that is so, so much the worse for the economic system. I hold to no "ism" and contemplate no barricades, but I do believe it to be self-evident that there is no higher right in our society than the right of decent, fit and eventually beautiful housing for all the activities of all the people.

The architect, if he is true to his name, will be a rebel when he has to be.

Effect of Certain Significant Characteristics of City Planning Projects Upon City Planning Procedure

Paper presented at Conference on Planning, Richmond, May 4, 1936

BY FREDERICK BIGGER, A. I. A.

HOUSING projects in cities are necessarily elements of the city plan. Each project is "a group of dwellings"; but, between housing projects, there are significant differences which of themselves raise questions of some importance to the planner.

We, as students, and the general public as the bewildered victim, do not have any very specific and accepted picture in our minds when we use the phrase "housing project." For the purpose of this discussion, two major classifications are in order. That which concerns only physical characteristics is a more obvious one, and may be laid aside until we examine the other, which concerns ownership and its social and pecuniary objectives.

Category No. 1. I would limit this to a housing project which is designed and built as one thing but is destined to be sold off, dwelling by dwelling, to future individual owners. To design this sort of a housing project is to design something as an entity which will not remain an entity afterward. The individually owned small properties, into which

the project will have been converted, are hardly likely collectively to retain intact the wholesome characteristics of the original unified design. Each of the individual owners will be subject to the vicissitudes and hazards of small property ownership, to which in the past our communities have been altogether too oblivious. Changes in the family financial status, or sale of a property to another family with a different point of view or different mode of living—these and other unpredictable conditions will tend to break down the original layout and character of the planned project. Therefore, from the point of view of the general public interest, the kind of project here discussed is not an unqualified blessing if the hazards of the future are considered. (It cannot be emphasized too strongly that these hazards are real and serious.)

Category No. 2. Here may be included a housing project designed as an entity, but destined to be rented to many individual families, at the generally prevailing rates. This is a commercial venture, in which one or the other of two alternatives must be noted: (a) either continuity of ownership is implied, with the housing project representing a long-term-high-class investment; or (b) the ownership may shift from time to time, possibly quite frequently,

EDITOR'S NOTE: Some excerpts from this paper appeared in the August number of THE OCTAGON. They were not entirely adequate in presenting the case which Mr. Bigger wished to make. Therefore, the complete paper is here published and commended to architects interested in Civic Design.

with either gain or loss to the seller—in which case the method of handling the project makes it a venture of *speculation*.

In the case of the housing project which is an investment, the problem of the designer is to make a design for living—the conveniences and amenities for the occupants of the dwellings being a major consideration in order to prevent vacancies and to preserve tenant satisfaction and stability of income. In the case of the venture which is speculative, although the designer may have had comfort and amenity as one of his objectives, the actual manipulations of speculative ownership have converted the project into a mere *commercial commodity*, and the comfort and well-being of the occupants of the dwellings will in varying degree have less consideration than the primary pecuniary objective.

Category No. 3. In this group may be included all housing projects which might be carried out by a limited dividend housing corporation or by a housing authority, wherein rentable dwellings are produced, calculated to serve people of modest or low income, and under a policy of limitation of rent and return on the invested capital. In this case there is a social objective, the promise of which is implied by the very undertaking itself; and the designer will provide all the comforts and conveniences that he can reasonably furnish with the money which is to be expended, and with a careful calculation of the probable rental that can be secured from modest income and low income families. The difference between this limited return on the invested capital, and the return upon ordinary commercially invested capital, represents the premium that is paid to achieve the social objective. This type of housing project, in theory at least, and, of course, if well designed, is a permanent asset as a part of the city pattern. However, it might very well be that such a project would be but one attractive oasis set down in the midst of other housing which is completely subject to commercial manipulation. In that event there would undoubtedly be a constant tendency for the desirable housing project to break down and become less desirable because of the conditions existing in the surrounding neighborhoods.

Category No. 4. In this group we must include all projects which are similar to that described above under Category No. 3, but different only in that the

ownership is different, i. e., the ownership here being vested in the occupants of the houses—each renter being also a part owner of the entire project. This is the same idea that we know as the traditional English “co-partnership housing,” and it is not essentially different in its principle of ownership from that applied in the familiar “cooperative apartment buildings.”

These four classifications, when reviewed, drive home to us the importance, to the planner, of knowing (a) whether a housing project is to be split up for ultimate sale to individuals; (b) whether it is to be utilized as a manipulated profit-and-loss commodity only, regardless of a paramount interest of the occupants of the dwellings; (c) whether there is a social objective contemplated, and in a measure secured by an effective limitation of income and of rent levels; and (d) whether or not the occupants of the dwellings are themselves the owners of the group of dwellings. The issue is a vital one, even if we look at the entire matter without any bias favoring housing projects based on social objectives as contrasted with housing projects based on pecuniary objectives.

The Joker About Ownership. The possession of a title deed, and the complete freedom of a property from any lien or mortgage, may be called real ownership, since it involves complete control or opportunity to control on the part of the owner. On the other hand, if one holds a title deed to property, but continues to be obligated to pay considerable sums on a mortgage or a note of any kind related to that property, then the so-called owner is not free to control. He may not be able to meet the financial obligations upon his dwelling; he may very well have to give it up and turn the property over to someone else who can pay to the money lending institution the monies that are due. In hundreds of thousands of instances of presumed ownership the ultimately effective and therefore the “real” owner has been the holder of the mortgage. Many who lost their homes never recognized this joker until too late.

Relationship of Owner's Objective to the Problem. Obviously those who hold an equity in property, those who hold a financial interest in it, are owners. If these owners are not identical with the occupant families in the project, then we have divergent forces. The needs of the occupants for

more space and better living pull in one direction; while the demand for return on investment, or profit from speculation, pulls in the opposite direction. It is necessary for the planner to know the purpose of parts of the city if he is to plan the relationship of the parts that make up the whole.

Projects as Assets and as Liabilities. We have seen, that of the four categories of housing projects listed in the beginning, number 1 (that which becomes a multitude of separate ownerships later) and number 2-b (commodity housing on a speculative basis) might very well be said to promise no permanence and no stable contribution to the community. Those types might be thought of as leeches whose nourishment is filched from the more stable parts of the community. That would be a fair assumption, in the case of one because individual owners have no ability to cope with the disintegrating forces which surround them; and the speculative one because its obvious intention is to get the most out of the community, with the least possible contribution by itself.

On the other hand, long-term investment housing, co-partnership housing, and limited-dividend-and-rental housing all share the need for certain stability and continuity of existence. The urban pattern must be adapted to meet this need, if the municipality is not to be wrecked by its admittedly

sketchy financial procedures. So we have good reason, as planners, to look with especial favor upon basically long-term and stable housing projects. Every one of these good projects should be completely surrounded by ample park areas which will be effective protective barriers against the malign influences of speculative housing or of other neighborhoods in more or less advanced stages of blight.

Physical Characteristics of Housing Projects. In the beginning of this paper it was agreed that one of the major classifications of housing projects would concern their physical characteristics. That is the aspect usually discussed and I would be the last to minimize its importance. Since I am concerned here to stress the profound significance of ownership and its objectives, it is neither proper nor permissible to describe either the physical characteristics of what ought to be done, or the multitude of cases that could be imagined. I do assert that a generous amount of open space, generously distributed, is a basic element in planning a housing project if that project is to be a socially desirable one, and if the financial values in the project are to be stable and reasonably permanent. That is why, previously, the preference was expressed for those types of housing projects which, judged by the type of ownership and the objectives of the owner, promise more stability.

An Invitation

REGIONAL CONFERENCE OF THE GULF STATES DISTRICT

EACH and every Member and Associate of The Institute is cordially invited by the North Texas Chapter, and by the Regional Director of the Gulf States District, to attend a Regional Conference of the Gulf States District to be held in Dallas, Texas, on October 16 and 17, 1936.

The Conference will be an informal one. The main purpose is to get together, discuss conditions and future prospects of the profession, have a good time, and see the Texas Centennial.

The President of The Institute and other national officers, will be in attendance—on their own condition that they be allowed to do more listening than talking.

There will be ample opportunity to see the high

spots of the Fair, under the guidance of the Texas men.

The sessions will be held in the Hall of State on the Fair grounds. While the meeting will be largely devoted to the interests of the Gulf States District, participation in the discussions will be limited in no way. No matter what your chapter, you will receive a cordial reception at this party.

Greatly reduced railroad rates are available on account of the Texas Centennial.

Information concerning the program, the hours of the various meetings, hotel accommodations, etc., will be sent to all Members and Associates in the Gulf States District, and may be had, upon request addressed to The Octagon, by Members and Associates in other Districts.

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