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AUGUSTUS SAINT GAUDENS

September, 1950

Standardization and Low-Cost Homes—II

Adam, Bdam, Cdam and the Slums—II

The Architect's Office Steps Out

Eliel Saarinen—1873-1950

A Reading Must

Greene & Greene of Pasadena

Confessions of an Architect—II

35c

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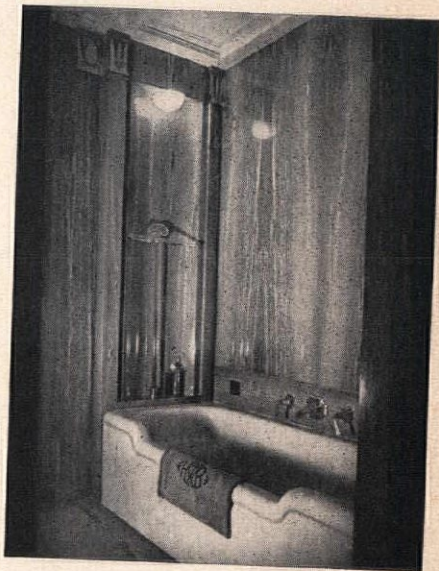
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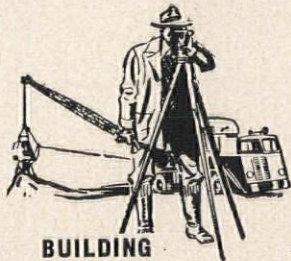
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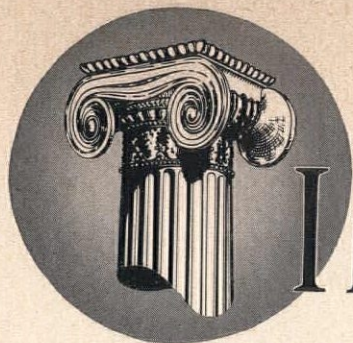
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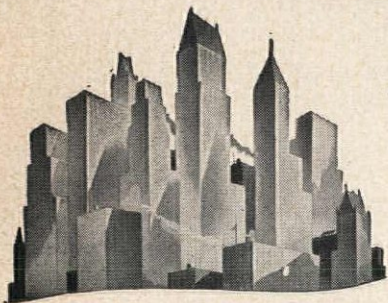
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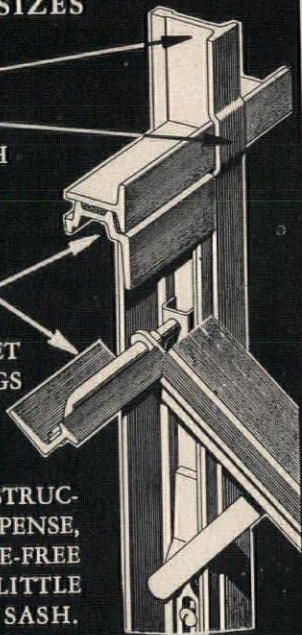
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· ALERT ·

THE FIRST MEETING of The Institute's newly formed National Defense Committee leaves no doubt that the problems we face go far beyond the immediate ones relating to the cut-backs in building credit, shortages of building materials, and the possible necessity of some sort of controls. These are as important as they are obvious. But whatever the outcome of the Korean situation, we shall have new and lasting responsibilities, as architects and as Americans. Our committee took that as its center line.

Our first job is to find out what we have to work with. A detailed survey is already under way to document the capabilities of the architectural profession. This will furnish our basic data for any Institute action affecting the manpower position of architects in any defense or war program, whether their draft status, their usefulness to the armed forces, or their ability to be trained for civil defense posts.

We must also be prepared to recommend sound courses of action concerning public building programs for the defense period. Our experience during the recent war leaves little ground for satisfaction, measured by what we know could have been done. This time we must consider not only the

architectural aspects of military, naval, and air installations, industrial plants, housing and community facilities, but a far wider range of problems related to urban decentralization and dispersal. New problems of plant and shelter design must be faced, in the light of information our Committee is already gathering for the use of architects. Most important, we must link immediate and long-range objectives in building and community organization.

Much of our work, particularly in civilian defense, will be local in nature. What, exactly, we must do is still far from clear. But one thing we do know. If our maximum contribution is to be made, architects everywhere must now place themselves securely

in positions where their professional advice will count to the full. In winning a position of leadership, joint action with other professional groups will be desirable. Each community will present its own

problem, and we must use the strong local organization of The Institute to deal with each according to its nature.

NATIONAL DEFENSE COMMITTEE,
A.I.A.

Adam, Bdam, Cdam and the Slums

IN TWO PARTS—PART II

By Stayton Nunn

Excerpts from a paper read at the Third Annual Symposium of Engineers' Council of Houston, Tex., May 6, 1950.

SO MUCH FOR THE BACKGROUND. Now for a quick summary of the adventure in eleven European localities having a combined population at that time approximately equal to the population of the United States. I am speaking of approximately the decade 1920-30. The public-subsidy devices used varied but in practically every case they consisted of some kind of additional rent subsidy.

In Switzerland, Zurich built 12,100 public housing units which rehoused 22% of its population.

In Norway, 5 big towns built 14,900, rehousing 14% of their combined populations.

In Sweden, 280 towns built 57,400, rehousing 13% of their combined populations.

In Denmark, Copenhagen built 35,000, rehousing 20%.

In Austria, Vienna built 62,000, rehousing 15%.

In France, Paris and environs built 100,000, rehousing 10%.

Belgium (not including war reconstruction) built 200,000, rehousing 12%.

Holland built 250,000, rehousing 15%.

Germany, (pre-Nazi, while Hitler was still in jail), built 2,500,000, rehousing 18%.

England and Wales built 1,180,000, rehousing 13½% of their combined populations.

Scotland built 176,000, rehousing 16½% of its population.

The combined populations of these eleven localities and countries was approximately 132,000,-

000. The total number of subsidized dwellings was 4,587,000. The percentage of the total population housed, at $4\frac{1}{2}$ persons per family on the average, was 15.7. Incidentally, these four and a half million public housing units represented about 70% of the total number of dwellings built in the localities during the ten-year period.

The world depression of the early 'thirties had the effect of practically stopping this European rehousing activity and of starting it in the United States.

Prior to 1933 activity in subsidized housing in the United States resulted in approximately 10,000 dwelling units, less than the number built during the same time in Zurich, Switzerland alone. Of those 10,000 none was available to a family below the upper half in economic rank. They did, however, keep the public-housing pot simmering in the United States until the advent of the "New Deal" in 1933.

It was the USHA form of public finance and subsidy, initiated late in 1937, which, in about one-third of the time of the American phase, was responsible for about nine-tenths of the urban public housing built in the United States after 1933.

World War II practically stopped public housing in the name of slum clearance.

Did the voting majority of Americans suddenly start feeling so sorry for the minority of their slum-dwelling fellow citizens during the New Deal that they wanted to dig down in their own pockets and rehouse them?

I do not doubt for a moment that the voting majority did feel sorry for the slum-dwelling minority. What puzzled me during the unfolding phenomena of the New Deal was the sudden apparent eagerness of the voters to dig into their own pockets.

I started trying to contrive for my own enlightenment some kind of national urban housing, taxing and voting picture to verify the apparent dawning of such a millennium. When I got the thing pieced together so that it looked like a fairly valid picture to me, it did not appear that the majority of the national voters had been eager to dig down into their own pockets to help the minority of slum dwellers, after all. The way the picture looks to me now in retrospect, the majority of the voters in the national elections were eager to dig down into the pockets of still another minority when they

sought to help the slum-dwelling minority.

Meanwhile, since 1936, the change in the local pattern which seems most significant is that there is now a larger percentage of small-home owners, therefore a larger percentage of local citizens who can vote on local public-improvement issues involving local public debt.

Meanwhile also there have been very significant changes in the national pattern.

Let's ask ourselves a timely question and then examine these very significant changes in the national taxing and voting pattern as affecting public housing.

Regardless of how we may view slums locally or seek not to view them, and regardless of how we may feel about "public housing": what chance may we reasonably suppose there is that the Federal Government will rehouse all our slum dwellers decently, convert or rehabilitate all our slum properties, and solve all the social and economic problems that will have to be solved to prevent their constant recurrence?

Considering the similarity between our present half dollars and the dollars of 1936, and considering the many tax changes, the

income tax has crept very much further down into the lower brackets. Because of this factor alone, the voting odds on Federal public housing have, in my opinion, diminished greatly since 1936. A much larger percentage of the national voters now know they will have to dig down in their own pockets to pay in part not only for what they vote to approve today but also for what they voted to approve in 1936.

These odds have diminished still more due to the relatively increased tax burden of this greatly broadened segment of the national taxpayers. The public-housing load we are carrying and talking of carrying seems trifling compared with the other loads we have taken on along the way. In addition to more guns, we are now carrying on our shoulders also more potatoes, more Europeans and more Gardens of Eden. And the "little man" is carrying on his shoulders more of them than he ever dreamed he would carry when he went to the national polls in 1936. As the big national tax load comes by natural gravitation to bear more and more noticeably upon the shoulders of those who supported public housing before the war, they might become less

and less enthusiastic about it in national elections.

Now lest the telling of this story arouse animosity toward the "little man" of 1936, let me point out that he had to turn to the Federal Government if he was to have an opportunity to vote for the improvements he wanted. He could not vote on them locally.

As to the future odds on Federal public housing, perhaps a glance at England may be timely. We should not try to draw too many parallels because many of our circumstances are not the same as those of the English. But, as to the effects of the huge national budget and the broadening of the national taxpaying segment of the voters, there are significant parallels. It is, in my opinion, significant that England, in much less than five years after World War I, was busily engaged in rehousing a large segment of her population in subsidized housing, with only a few voters presumed to be undertaking the bills. It is significant, by contrast now, more than five years after World War II, with the vast majority of the voters in England undertaking their "respective shares" of the national tax load, that it is a matter of grave concern to the Labor Government

that its supporters have observed for some time that the manifestations of public housing are not giving cause for animation.

Your guess as to the future odds on our Federal Government rebuilding both our urban and rural slums as fast as we can build them is, of course, as good as mine.

My guess is this: the Federal Government may in a few years be expected to find itself again in such position that it is not interested in challenging the cities to let it cure their slums through the mysterious operation of sporadic unnatural semblances of public philanthropy.

We will then still have our slums to challenge us.

I, for one, feel that we should begin to accept the local challenge of our slums now, whether we accept the current Federal challenge or not.

There are, of course, other ways to tackle our slum problems than by uncertain worldwide or nationwide rehousing movements interspersed with wars and depressions. We could be doing something every day. Slums grow every day.

We could, for instance, begin by working more on the drainage and surfacing of the back streets as

well as the front streets and the edge streets.

Even if I could tell you how we should go about accepting the challenge of our own slums, there isn't time. But I would like to leave these thoughts with you:

Any lasting abatements or cures which may be achieved will have to evolve through the free interaction of natural human forces.

There has been a great deal of time behind us during which our slums were born and bred. I, for one, feel in my bones that there will be a great deal of time ahead of us in which to try, and choose, and employ methods intended to cure our slum disease.

I, for one, feel that we have the

best pattern of government on earth today in which to try, and choose, and employ methods and means.

As action by the Federal Government is now being renewed in an apparent effort to face our slum challenge for us again, after the interruption of war and many intervening changes, let me suggest that our political strategy needs overhauling both nationally and locally.

Uncle Sam should stop trying to do it all.

We, locally, should try to find ways of diminishing the excuses which our good Uncle might find in the future for trying to do it all.

Confessions of an Architect

IN TWO PARTS—PART II

By *Joseph Hudnut*

Reprinted by courtesy of the Editor of *Tomorrow* and the copyright owners, Garrett Publications, Inc., New York, 17, N. Y. The essay appeared in *Tomorrow* for February, 1950.

ON THE NORTHERN SIDE of West Tenth Street in New York City there stood—and still stands, I think—a somber building of red brick which has been crowded with artists, and with the ghosts of artists, for nearly a hundred years. Tenth Street, which takes its leave of Fifth Avenue along the flank of a church that should have been built—and deserves to have been built—in the heart of Cornwall, and which ends in that fairy-tale police court, all

SEPTEMBER, 1950

oriel, finial, and crenelated tower, was the perfect *mise en scène* for the offices of a romantic—and promising—architect. A high ceiling room on the first floor intended for a sculptor served me as drafting-room, but to reach my own office one had to pass through a small reception room and ascend an escargot stairway of walnut. Both reception room and office were warmed by fires in white marble fireplaces and lighted by casements opening into deep embrasures; the floors were quaintly paved with black and red tiles; and on the first floor a pretty and very tiny secretary sat behind an antique desk to receive my visitors. Before I could paint my name on the glass-paneled door I had to remove the words, lettered in the ornamental taste of the 1850's, which announced its ancient fealty: "Ladies' Retiring Room."

This theater, which was half accident and half instinctive selection, was something more than a trap for sentimental clients. This street, these buildings, these curious trappings participated in our labors. Our love of them was genuine; they were more colleagues than accessories.

We designed and built—the street and I—quite a number of

buildings. All were developed from a historical precedent, Gothic or Georgian, and in one instance Greek Revival. Each had its source, as we knew, in an order of thought and feeling forever passed away, but our faith that we could recapture that order and build it into our present scene was absolute and imperative. We could imagine no higher excellence in architecture than the decorum, the conventional choice, the charm and universality which the styles of architecture seemed to offer a world grievously oppressed by its mechanizations and its dull traditions.

When I remember my life as a practising architect I remember first my gratitude to these styles, each of which laid colors upon my palette far brighter than any I could have ground for myself. After that I remember the hard work through which these were made serviceable to a clientele contemporary to ourselves. I am sure that no men work harder than architects, and none attain their moments of exaltation at a greater price. The making of blueprints and the supervision of constructions are operations which yield grudgingly those esthetic satisfactions and pleasures of the emotion

which are celebrated by the critics of our profession. I was fortunate in having associates who could supplement with a wider experience my somewhat tenuous competence in these matters, but even so there were long and exhausting hours of drafting and calculations, of struggles with the sadistic prejudices of steel and brick, and with the stubborn nature of clients, of vexations and disappointments no end. If the finished work embodied one-fourth of that which we at first intended, we were lucky; luckier still if the fees paid us covered the greater part of our expenses.

I am sure that it was the long struggle with ideas and material things which turned my speculations and no doubt also my sensibilities; if I may use that old-fashioned word, toward modernism in architecture. I could hardly have failed to perceive ultimately the burden which the styles laid upon my practice, or how, in spite of the crutch they lent to my imagination, they defeated my art. My clients, to be sure, shared my love of the old architectures and yet they were ever impatient of towers and porticoes and sexpartite vaults which got in the way of an immediate usefulness. Blithely

they laid upon me the task of reconciling the necessities of their hearts and the necessities of the work they had to perform.

Some architects are born modern, some achieve modernity, and some have modernity thrust upon them. I sometimes think that those who achieve modernity—among whom I unblushingly count myself—understand best that somewhat elusive philosophy. Their new faith is founded not on argument but on experience. Because we have lived with the illusions of our time, because we gave ourselves to these and were formed by them, we progressed with our time and that progress has given us that tolerance and humility which are the first essentials to a true perspective. These prohibit to us the role of hero and prophet but they prohibit also that fanaticism and extreme of creed which blurs the vision of our architectural messiahs; and indeed, if the principle of modernism demands a strict adherence of architectural form to the laws of structure, if indeed it requires that all spaces and the boundaries of spaces shall be molded by function alone, if it excludes from form all romance, fantasy and irrational preference, if ornament is a crime

and tradition a form of slavery, then I am afraid that I have achieved only a very tempered modernity. It would be a great pity if we had escaped the excessive urgencies of romance and the dogmatism of the academy only to submit ourselves to the narrower tyrannies of the technological mind.

I envy, but I do not admire, the picturesque hero of "The Fountainhead" who, clairvoyant from the cradle, alien at birth to all precedent and opinion other than his own, drew a unique modernity from the secret recesses of his soul; who practised through eight hundred breathless pages an eroticism and an architecture which he alone knew to be in harmony with his time; who was so lavishly rewarded with unfastidious love and the exquisite privilege of dynamiting the newest project for housing the underprivileged. The fellow was a monster of frightful portent to the social art of architecture. There are few legends more facile, I suppose, than that of genius against the world; none more hardy; none more false.

The essential ingredient in all art is the integrity of an artist and his artistry. So long as I believed

in romantic architecture my architecture was good. I mean that it was good romantic architecture. When I became discontented with my principle and my method, my architecture turned into tinsel.

There is only one sin for which an architect cannot be forgiven. That sin is the degradation of architecture into a technology merely or into a business merely. Architecture is an art and, being an art, is addressed to the spirit of man. The ways of art are many and diverse but its purpose can never be doubted: to reassure the spirit of its reality and its dignity, to reaffirm its beauty.

I am sure that Louis Sullivan, whose famous pronouncement is the lodestar of modern architecture, never intended to say, in effect, that excellence in architecture is a consequence of functional adaptations. Form follows function in order that it may gain vitality and realism. Function is the bridge over which contemporary life enters form; but form has nevertheless its own laws independent of use and circumstance. A form that follows function too absolutely will follow function into the grave of architecture—a peril too little understood by those very vocal persons who mistake

air-conditioning for an art of design.

The trouble with the imitative architecture with which we decorated our land in the 1920's lay not in its intentions but in its method. Of course I know that there were plenty of merchant-architects in those days who dealt with the styles in much the same way that one might deal in confectionery; but I cannot believe that such noble conceptions as the Washington Mall, the Boston Public Library, and the great nave of St. John the Divine sprang from the hearts of men whose only guide was a sentiment for the past. There are moments when the intentions of our art shines with such radiance through its outward clothing and conventions as to make these of little consequence.

Nevertheless it must be admitted that in the everyday and usual practice of our profession our excess of clothing and convention obscured the true intent and nature of our art; obscured it not in the public mind merely but in our own; so that great numbers of architects, like myself, became so intrigued with the adventurous processes of selection and adaptation that we became wholly engrossed with these processes, for-

getting that they could not, unguided by a deeper interest, either penetrate below the surface of a present reality or capture the secret of a beauty which, being integral to a way of life forever passed away, could not exist in our day except as escape and illusion. That is why our minds became accessible to the creed of modernism. We were tired of illusion, surfeited with romance. We were, besides, a few years older.

I associate the beginnings of my discontent with the styles with a competition in which I was awarded the first prize. I had assembled my design from a dozen or more Colonial buildings—a doorway from one, a chimney piece from another, dormers and cornices from still a third—and these I had skilfully fused into a certain coherence and harmony of scale and character so that to anyone unfamiliar with my sources, my design seemed original. In my trade we call such a process "stylization." I should not have been shocked then when, in front of an audience assembled for that purpose, the chairman of the jury handed me a prize, a check for \$1,000, with the explanation that it was awarded not for originality in design but for the author's

"very sensitive taste in selection." There was more than a drop of bitterness in that cocktail. It was not made less bitter when I reflected that the chairman's comment was as just as it was posterous.

By this time I had begun to give the greater part of my time to teaching. I did not have to defend the buildings I had built, being no longer dependent for my living on the reputation they had given me. A practising architect who has built half a dozen synagogues in the Moorish style might be somewhat embarrassed to declare himself suddenly a follower of Le Corbusier—our clients tie us to our completed masterpieces and come to us for more of the same—but the teacher is not thus bound. He who teaches must teach his convictions, and may, as a rule, do so without penalty.

I like to remember in this connection another competition—competitions being to architects what alcohol is to a drunkard. This time the competitors were asked to submit designs for a state penitentiary, equipped with all the newest humane devices of the science of penology, but which was to have an exterior in the form of a Norman castle. I had prog-

ressed so far toward a social functionalism as actually to write to the commissioners who were directing this competition and to suggest to them that the ideal of correction and regeneration for which their institution stood could not be accurately exhibited in crenelated towers. I thought that, even at some cost of scenic architecture, there might be established some reasonable, and therefore expressive, relationship between inward activity and outward form. The commissioners denied my petition—an intransigence which, by the way, seemed strangely improvident two years later when two of them were locked up in that very prison, the one for taking a bribe, the other for dissembling the price paid for brick. I must confess that I found a certain pleasure in this denouement, which also confirmed my growing faith in the new principle of design. I do not imply that my art might have been competent to capture that generous zeal for social health which, I believe, guides the directors of this modern prison, nor should I wish to set forth, even if I could, all the bewilderment and loneliness which are hidden in that dark theme, whatever may be their social relevance; but I am

proud that I refused to translate these into Norman battlements.

Modern architecture has at its heart two principles: the integration of form with structure and the integration of form with social use. The structure of a building—its materials and techniques, its disposition and energies are to be acknowledged in its appearances, undisguised by appearances inherited from the past, and the spaces which this structure encloses, molded by whatever fragment of society may inhabit or use the building, are to be as clearly acknowledged.

These principles are often exhibited in the historical architectures; but the modernist will insist that both structure and use must be of those of our own day. Through that relevance alone a building may gain a realism of form which, by making it part of their own lives, gives it a life of its own. The modernist will deny also the authority of academic laws—such as proportion, balance, or rhythmical disposition—to modify or mitigate the right of his principle to attain its absolute end; and the notion that there could be an eternal or abstract ideal of beauty operative beyond the range of his reasonable theory

is rejected with an emphasis too passionate to admit compromise.

I believe in these principles of modernism but not in the absolute sovereignty to which they pretend. I know that structural truth is a prime virtue in architecture and serviceable space the foundation of its dignity. We have had in our time to rediscover these fundamentals, and it is not surprising that that discovery has sometimes prompted us to forget a deeper source of architectural eloquence. Architecture, rooted in science and utility, is yet an art and, being an art, can only be created through the processes of art.

Proceeding from function and social relevance, the architect arrives at excellence in patterns whose meanings transcend both of these. His language is form, and to create form he must not merely transcribe shapes and relationships but invent them. He must be free to emphasize, suppress, eliminate, distort; to add or subtract; to place each part in harmony or dissonance to all other parts and to the whole. Form is not the language of reason; it is not tied to physical or biological law; it ignores both altruism and self-interest.

Space and mass, texture and

silhouette, shadow and light, color and line: these are the properties and incantations out of which the architect, like a sorcerer, raises his enrapturing spell; and that architect who does not create from his secret heart patterns individual to himself—who permits his patterns to be shaped by the calculations of engineers or by the formulas of the academy—throws away his magic wand.

Last summer I drove over to the town on the Passaic River in which stands my little church, the earliest of my architectural monuments, which I had not seen for twenty years. I must confess that this my eldest child looked somewhat self-conscious, to say the least, and not a little woebegone. It had become a period piece, definitely dated by its overquaint roof tiles and diamond casements of colored glass. The great tree which formerly took it so lovingly into

its arms had been cut down, and near the place where it grew the blank wall of an apartment house leaned over my arcaded belfry. On the opposite side stood a new drugstore, ablaze with all the brightest insignia of that peculiar culture of which it is type and symbol. And the good parishioners had not improved my design by the addition of a spherical lighting fixture of opaque glass balanced on the point of my Gothic doorway.

Nevertheless it seemed to me, in spite of all these ironies of time, that my little church was not wholly lacking either in dignity or eloquence. I did not feel ashamed of it. A building does not have to be functionally adapted to contemporary use and technique—does not have to be integral to a present and progressive social order—does not even have to be beautiful—in order to be addressed to the spirit of man.

Rome Prize Fellowships Offered

THE AMERICAN ACADEMY IN ROME is again offering a limited number of fellowships for mature students and artists capable of doing independent work in architecture, landscape architecture,

musical composition, painting, sculpture, history of art and classical studies.

Fellowships will be awarded on evidence of ability and achievement, and are open to citizens of

the United States for one year beginning October 1, 1951, with a possibility of renewal. Research fellowships, offered in classical studies and art history, carry a stipend of \$2,500 a year and free residence at the Academy. All other fellowships carry a stipend of \$1,250 a year, transportation from New York to Rome and return, studio space, free residence

at the Academy, and an additional allowance for European travel.

Applications and submissions of work, in the form prescribed, must be received at the Academy's New York office by February 1, 1951. Requests for details should be addressed to the Executive Secretary, American Academy in Rome, 101 Park Ave., New York 17, N. Y.



Eliel Saarinen

1873—1950

TO MOST AMERICANS, the story of Eliel Saarinen begins with the *Chicago Tribune* Competition. Although he was matured in his art, and his position of eminence in architectural thought and achievement had long been established in Europe, it was not until 1922 when his design for the *Chicago Tribune* Building had won second place and had evoked national interest by its superior beauty, logic and challenging originality, that his genius became well known to every architect and architectural student in this country. His past achievements were duly investigated and his name was soon associated with the Helsing-

fors Railroad Station, his designs for the Finnish Parliament House, his city plan for Reval and his plan for the decentralization of Helsingfors. Fortunately for us, his venturesome interest in the United States was likewise aroused, and his visit to this country the following year led to a permanent residence here and his eventual naturalization as an American citizen.

His influence on American architecture has been marked and varied. His executed work, his many studies and designs which were not executed, his writings and his teaching have all contributed immeasurably to the advance-

ment of a sound philosophy in architecture, and form an important chapter in the current development of architectural conceptions.

His first American residence was in Evanston, Illinois, where he worked for six months on a comprehensive plan for Chicago's lake front development. Then after two years as a guest professor in architecture at the University of Michigan, a happy fortuity brought him to Cranbrook where he was to spend the remainder of his full life. Here his first executed work in America—Cranbrook School for Boys—was built, and here gradually during the succeeding years he was to develop a unique and outstanding cultural center whose fame has spread throughout the world. His was the master mind which marshalled the array of varied talents within his own family and those of the other renowned artists whom he attracted to Cranbrook, to create and furnish in detail this imposing group of buildings, an unusually significant and comprehensive example of art collaboration.

The application of his genius, however, did not cease with the planning, designing and supervision of erection of these buildings. Into the routine curricula of these

schools, he built his philosophy of education. Each student must have a specific problem based on reality, so that in studying and solving it he delves into the actualities of life. For example, each student of city planning chooses for his problem some actual city, in many cases his own home town, in any case a city with which he is familiar or can easily become acquainted, and, thus possessed with an intimate knowledge of its defects, he sets about to develop a remedy. The method of teaching places emphasis upon self-expression, and here in the midst of creative art in its many forms, the student is imbued and inspired with the search for, and attainment of, beauty and truth in his work.



During these busy years, there was time to accept and execute commissions such as the Kleinhans Music Hall at Buffalo, Tabernacle Church of Christ at Columbus, Indiana, Crow Island School at Winnetka, Illinois (in collaboration with Perkins, Wheeler & Will), each a masterpiece in its field. Among the many projects designed but whose construction is incomplete or has been deferred, one thinks of the Smithsonian In-

stitute, the Milwaukee War Memorial, Antioch College, Stephens College, Drake University, and so on. In 1945, he generously offered his services to the members of the Detroit Chapter A.I.A. who formed the Architects' Civic Design group and under his tutelage made a comprehensive plan study of Detroit and its environs. In 1947, his firm was commissioned by the Detroit City Council to prepare a master plan for its Civic Center, and was retained as consultant.

Cranbrook measures and records the development of its author. The early buildings, conceived in a romantic spirit, are vibrant with countless nuances in the minor features of design, subtleties which are not instantly apparent but which reward the returning visitor with new and engaging discoveries as he strives to fathom the spell of their charm. Through the years and in keeping with the times, each succeeding building has been conceived in a simpler but no less effective idiom, until we finally arrive at the museum and library building, where sheer simplicity is glorified, and delicacy of line and color and shape acquire a quiet assertive strength to form a most

effective foil for the occasional ornament or sculpture which in turn profits greatly by this contrasting milieu.

Through all these buildings runs the spirit of Eliel Saarinen, his gentleness, his thoughtfulness, his meticulous honesty, his humanity, his profound love of beauty. By his own wish, his native Finland has claimed his ashes which were interred with highest state ceremony at Hvitträsk, the scene of his early successes and development, and his home for many years.

Eliel Saarinen was the product of a country of rigorous and simple honesty. This national trait provided an ideal background for the development of his clear convictions and theories of organic design. He was free from the overpowering complexes of architectural styles which flourished in the larger cultural centers, and which palsied current architectural freedom. A pioneer in his native country, he continued this role in America.



America will treasure the monuments with which he has enriched her land and the cultural philosophy which they so eloquently expound. Those who have developed

under the discipline of his absorbing theories and the example of his inspiring work will carry on

and spread the tradition of his thought and skill.

CLAIR W. DITCHY, F.A.I.A.

Greene & Greene of Pasadena

By L. Morgan Yost

HAVING LONG BEEN INTRIGUED by the illustrations of California bungalows in the old architectural magazines of 1905 to 1914, I took the first opportunity following the war to go to California to learn what I could about their origin.

From the old magazines I was acquainted with the name of Greene & Greene of Pasadena, and inquired of architects and residents there of the whereabouts of the Messrs. Greene. I soon discovered that never have architects been more highly regarded in their own community than are Greene & Greene. Their work today, 40 to 50 years old, is admired and respected. Older inhabitants remember them as being fine men—but none whom I asked knew where they were.

Finally there came a rumor of a daughter who lived in Carmel whither I journeyed and after half a day's search found her and her father, Charles Sumner Greene,

with whom I spent the afternoon. I learned then that his brother, Henry Mather Greene, lived in Altadena, adjoining Pasadena. Upon my return I called on him and he took me to see many of their Pasadena houses. He also arranged to take me through the R. R. Blacker home which their firm had built in Pasadena in 1907, and which they regard as their masterpiece.

Mrs. Blacker still occupied the house (1946) with the original furnishings just as they had been designed by the architects. The landscaping, too, more mature now, but just as the architects laid it out, enhanced the buildings. A time-machine could not have transported us forty years back more effectively. Many of the lighting fixtures were still equipped with carbon-filament bulbs. Through the years excellent care had been given both buildings and grounds, though nothing significant had been changed. This was an ex-

perience never to be repeated, as Mrs. Blacker died the next year, the property was sold, divided and disfigured, and the furniture dispersed.

Now I had facts to build on, and I transmitted them to Jean Murray Bangs who, with Los Angeles as a base of operations, decided to do a book on the work of Greene & Greene.

Before 1900 the call of California was the call of nature and health. Though wealth was present, many of small means migrated, buying plots of desert land on the promise that water would be available, and building shacks according to a local system. Two-by-six mudsills (though there was little mud) were placed on the ground and across them 2" x 4" joists were laid 30" apart. Redwood boards, rough-sawn and a full inch thick, were nailed vertically atop the mudsills and joined at the top by a girt. Battens covered the joints. There were no studs. A low gable roof, covered with building paper, completed the house. Interior finish awaited more money.

In the dry, sunny desert climate which then obtained in Los Angeles county (irrigation and smog from manufacturing has actually changed the climate since then),

this system worked so well that people of means adopted it for their winter cottages. It was such a cottage for Mr. Arturo Bandini that started the young brothers Charles and Henry Greene searching for a true expression of the California house. Coming from the East, these men learned to love California and sought to improve its houses, which, except for the shacks, were poor copies of what they had back East.

The brothers were born in Cincinnati and spent their boyhood in St. Louis where they went to manual training high school, a factor which they feel was influential in their later use and handling of materials. They studied architecture at M.I.T., were graduated in 1891, then worked for two years in Boston architectural offices. In 1893 their parents invited them to Pasadena for a visit. They arrived, liked it, decided to stay and their grandmother staked them when they opened their office.

Their early work avoided the prevailing stylish classic theme of the East, adhered more closely to the simple wood cottage style of Richardson's followers. It had no more, nor less, style than countless other inexpensive wooden houses the country over. In cast-

ing about to find themselves, they did some buildings in the stucco mission style which for a time was touted as the true California style. They obviously did not feel at ease with it, and when in 1903 Mr. Bandini appeared, asking them to design a good little house on the order of the prevalent redwood shacks, they seized the opportunity, doing a one-story redwood house around three sides of a patio, with chimney and fireplace of boulders gathered from the site. The patio idea caught on in the land of the sun, where people were preoccupied with outdoor life, and the architects developed it in later houses.

Continuing their search and experimentation, they started to use shakes of cedar and redwood, clinker bricks discarded from the kilns, roll roofing and other homely materials to bring a feeling of naturalness into their buildings. Architects criticized them for using "unworthy" materials, but they continued in their quest.

Their work from 1900 to 1905 consisted mostly of small houses—bungalows as they came to be called. The hunter's cabin type of boulder fireplace with redwood board-and-batten walls typified many of the interiors. Dark-

stained exterior walls were protected by broadly overhanging roofs, for in those days southern California had no trees and the house had to shade itself. Exposed beams and rafters supported the roofs, and great attention was paid to louvers and vents to circulate air under the roof and under the house for cooling. Casement sash were carefully grouped, and downspouts became part of the design, not a necessary afterthought.

Several important factors came together at that point in time to make Greene & Greene great. First, of course, was the design genius of the brothers, with their innate feeling for materials. Then, skilled and prideful craftsmen were available. Income taxes were in the future, so there was money for building and no mortgage lender dictated design. Fine materials, redwood, fir, mahogany and teak were to be had in any quantity. They learned to use them well and with expression, as boards and beams, not as falsely flush surfaces. Wealthy Easterners, coming to California to winter or to retire, saw in their work an indigenous expression of California, and commissioned Greene & Greene to build their houses. The work of Greene & Greene em-

bodied the highest expression of the culture, the economic and social conditions of the time in buildings solving the climatic and structural problems of southern California.

Though none succeeded to the quality of their work, their imitators were many. The characteristic brackets, frames and louvers became stock items in the mills, and all the speculative houses were soon being built in the style of the California bungalow. Surprisingly, it was so logical a manner that most of them were good, some excellent and they all looked like California. The bungalows of 1910 even now look more natural, more serene and comfortable under the California sun than any of the popular houses built since.

From "An Architect of Bungalows in California," by Arthur C. David, *Architectural Record*, October 1906, we learn the contemporary definition of the type:

"The California bungalow, both as a matter of design and as a matter of plan, has about it a certain practical and esthetic tendency. Its whole purpose is to minimize the distinction which exists between being inside and outside of four walls. The rooms of such a building should consequently be spacious, they should not be shut off

any more than is necessary one from another, and they should be finished in wood simply designed and stained so as to keep as nearly as possible its natural texture and hue. The exterior, on the other hand, should not be made to count very strongly in the landscape. It should sink, so far as possible, its architectural individuality and tend to disappear in its natural background. Its color, consequently, no matter whether it is shingled or clapboarded, should be low in key and should correspond to that of the natural wood. Its most prominent architectural member will inevitably be its roof, because it will combine a considerable area with an inconsiderable height, and such a roof must have sharp projections and cast heavy shadows, not only for the practical purpose of shading windows and piazzas, but for the esthetic one of making sharp contrasts in line and shade to compensate for the moderation of color. Its esthetic character will necessarily be wholly picturesque; and it should be both surrounded by trees and covered, so far as is convenient, with vines.

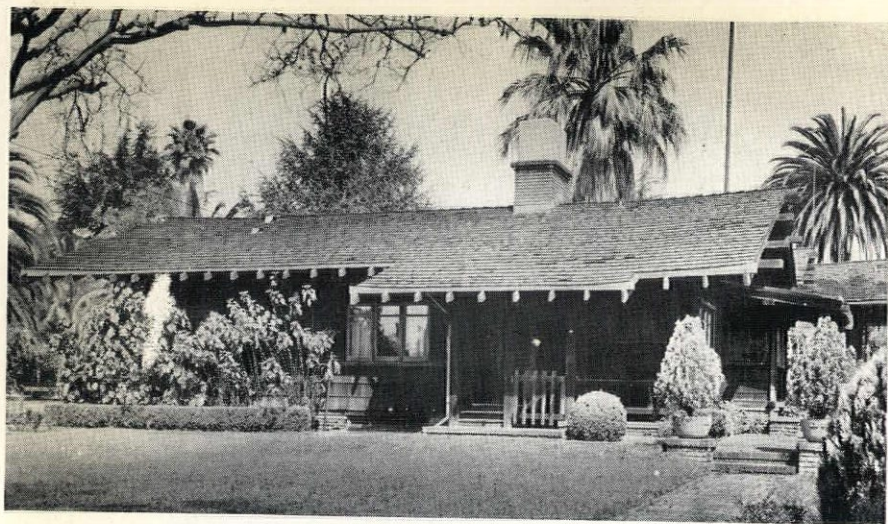
"... The type ... is most completely and happily fulfilled in the houses of Messrs. Greene & Greene."

Mr. David said further: "The houses (of Greene & Greene) are highly successful, largely because they so frankly meet the economic, domestic and practical conditions which they are intended to satisfy. All of their chief characteristics—



The R. R. BLACKER ESTATE, Pasadena, 1907,
regarded by Greene & Greene as their masterpiece

Photograph by Lloyd Yost



Gardener's cottage on BLACKER ESTATE



Flush ceiling-lights and integral curtain valances in the WILLIAM R. THORSEN HOUSE, Berkeley, 1908, are typical Greene & Greene details

Photographs by Lloyd Yost



The DAVID B. GAMBLE HOUSE, Pasadena, 1908

Photograph by Lloyd Yest



A bedroom in the GAMBLE HOUSE, with all furniture and fixtures by the architects

Photograph, about 1909, by Leroy Hulbert



In the CULBERTSON GARDEN, where Greene & Greene made shadows sing in their trellises

Photographs by Lloyd Yost

Even in rare cases where more traditional forms were used the handling and details were original as in the JAMES A. CULBERTSON HOUSE, 1905.



their lowness, their big overhanging roofs, their shingled or clap-boarded walls, the absence of architectural ornament, the mixture they afford of simple means with, in some instances, almost a spectacular effect—all these characteristics can be traced to some good reason in the actual purpose which this sort of house is intended to meet. Of course, in addition thereto Messrs. Greene & Greene must be credited with a happy and unusual gift for architectural design. Their work is genuinely original and if anything like as good has been done with cheap little houses elsewhere in this country, it has not been our good fortune to come across it."

But in 1906 when the above was written, their greatest works had not been built. They had yet to acquire their full expression, to win many clients who could afford the full devotion to detail which they longed to give.

A few years earlier, probably about 1903, there rapped on their door an itinerant bookseller. He had a set of books on travel. Idly Charles Greene leafed through the pages until his attention was arrested by pictures of Japanese homes and gardens. This is what he had been seeking. Here was that expression of post-and-beam construction, of articulated structure. Here too were the house

and garden as one, an informal yet carefully conceived whole.

Actually most of this was in his imagination but the spark had caught. No detail could be seen in the chalk-and-charcoal engravings of the time. But there was enough to start the flame of creation. From then on the work of Greene & Greene took on its highly personal character, those not-to-be imitated forms, that something that set it apart from all others.

After Charles Greene, that afternoon in 1946, had told me, most modestly, of the bookseller incident—so I would know he was not entirely original—he asked me if I would like to see that old book. Of course! He took it from the shelf, turned almost automatically to the page and remarked sadly that he had never gotten to Japan. Too busy when it would have been most useful, then when later years brought waning popularity, no business to support the trip.

Greene & Greene were innovators. They opened the house to the shaded patio with groups of French doors. They used flush ceiling lights, built-in cabinets as partitions and they divided rooms with sectional glass walls as early as 1906. They designed sectional

furniture and kitchen work-counters at a modern 36-inch height when most architects gave kitchens no heed. Clerestory windows brought in high light where needed and the larger window areas were protected from the south sun by overhangs—and where light was needed under such overhangs at a particular place the overhang was pierced, just as we do today.

The furnishings and gardens were their province in the later houses for the wealthier clients, and they produced a unity that has never been surpassed. Many gardens were Japanese in character. Others were symmetrical and formal, though softened by pergolas, pools and lattice fences. Gardens were always natural to the terrain. Greene & Greene made studious use of the rolling hills upon which many of their houses were built. Exposed rafter ends form dotted lines where harsh straight lines would not unite the buildings with the landscape.

Furniture was designed, not as stock pieces to be used in various houses, but individually. The characteristic details were repeated and carried through, but in each case the furniture was thought out as an extension of the design of

the house. Colors of hangings were natural—pongee, linens. Few of these fabrics remain. Indeed, many windows being of leaded glass in fanciful pattern and soft color required no curtains.

The hand-rubbed sheen of the interior woodwork is equal to the best furniture. All edges are rounded, beam ends are hand-carved. Corners are dovetailed. There are no veneers. Panels are thin sheets of mahogany or teak. Verticals are let into horizontals, and all dowels and screw heads are covered with ebony pegs. No nails are used—no puttied holes. Joints are emphasized and used as pattern. No piece comes flush with another in false continuity of surface. End wood is not covered but left frankly and beautifully exposed. (Why is it that modern cabinet-makers abhor end grain?) There is detail here to study for days. All lighting fixtures, usually of wood, become part of the house. Even switch plates are special with rounded contours pleasant to the fingers.

The time spent by the brothers on each of their later jobs must have been enormous. Every detail was obviously supervised in execution after having been individually designed. These are the

most perfect houses, I believe, that have ever been built. Photographs lack entirely the details and presence of the buildings themselves.

Charles Greene delighted in wood carving as he does to this day. He found craftsmen and carvers who could follow his lead.

As with the work of Frank Lloyd Wright and the influence of Stickley and *The Craftsman*, the fashionable appeal of the work of Greene & Greene waned early in the second decade of the century. For a while they kept going with some houses and alterations, garden structures and "auto barns" for houses they had done previously. But the tide of commercialism and progress was too strong. They dissolved the office in 1916. Though they did work after that, it lacked the quality and originality of their peak years.

In a partnership the question is asked, "Which was the designer?" Charles Greene doubtless took the lead in design. He was more sensi-

tive to detail, to the use of hand tools. But both men designed. One of the finest houses, the Crowe—now the Crocker—house, in Pasadena, is the work of Henry M. Greene alone.

Henry M. Greene had passed his eightieth birthday when I telephoned him a few weeks ago. His brother, Charles S. Greene, fifteen months older, is in good health. Both are pleased that a measure of recognition is now coming their way after so long a period of neglect. But there is no bitterness over the neglect. They accomplished much when they were busy and are happy in the recollection.

Theirs was not a machine architecture; it was the last beautiful bloom of hand craft. It was the perfect expression of that decade in California. Out of it came lessons in truth of construction, in the use of native and inexpensive materials, of considerate design that today can serve as inspiration for thoughtful architects.

The Architect's Office Steps Out

By Edwin Bateman Morris

INSO FAR as the physical location of architects' offices is concerned, one seems to observe a new

tendency to establish them, where circumstances permit, away from the central drag and the turmoil.

I observed this on a recent swing around, following an itinerary which, originally simple, had grown and spread in the beautiful manner of a wisteria over a Lally colum. I thus met and considered the habits and manners and customs of many architects.

To be very trite and unoriginal, I was impressed more and more on the trip with the businesslike appearance and talk of present-day architects. Gone is the flowing tie, the pointed beard, the grasping of a bit of intangible space between thumb and finger, the using of obscure French terms to describe simple American facts.

Gone also is that earlier office outer setting, with fumed oak wainscot, coach-lamp lighting fixtures partially visible when lighted, crown-glass leaded windows faintly translucent, refectory table with magazines artfully placed in precise abandon. Such reception spaces seemed more like places for prayer; and indeed when the nervous architect assembled there with client, they often actually became so.

Today, the architect, finding his profession closely concerned with practical manifestations, can no longer be just the temperamental artist. Precise coordination with

air-conditioning, elevators and other widespread engineering matters, and the necessity for making sure of exact performance in completed buildings, have made the architect a careful calculator.

His office now has that appearance. No more Chateau Blois. Rather, efficient spaces, emphasizing comfort, space, light. Architecture is still an art, but as well a smoothly thought-out business. In connection with this thinking-out and thinking-through, the picture comes to one's mind of Truman Mathews of Santa Fe, a magnetic, clear-eyed individual who, confronted with the fact that an increasing portfolio of jobs had made him more administrative than designing—a dreary condition facing many architects—had the efficient and businesslike idea of dismissing his office force and reorganizing, in the hope of regaining the small round feel of the pencil rather than the large round feel of the administrative telephone. I mention this as showing our latter-day trend of do-something-about-it.

This tendency to think before dreaming has become apparent in the location of so many architectural offices. Banks and department stores have discovered that

the simple matter of automobile parking is a prime factor in business success. Architects are finding that it is a potent factor in their business.

I found myself in Altoona, Pennsylvania, a pleasant up-and-down city with steps in the sidewalks to make progress from spot to spot possible. I went upon an expedition while there to the office of the architectural firm of Hunter, Caldwell & Campbell. I use the term expedition because the office was some thirty blocks from the business center.

I sank into a chair at journey's end, certain that I must now have traversed most of the distance to the Horseshoe Curve and other scenic aspects of the locality, but having no resentment because of the distance. The spot was serene and peaceful. I noted plenty of parking space; and conceived the idea that visitors, not having to drive dizzily around this block and that, hunting for a place to leave the automobile, might therefore enter the architectural office with their mental processes clear and unconfused.

The building was long and one-storied, devoted entirely to the practice of architecture. It had a nice abundance of inner space—

all straightforward with no attempt to be a reasonable facsimile of Haddon Hall or the Saint Chapelle. Far from the madding crowd, I would assume its quiet and simplicity might provide a sort of built-in salesmanship.

The philosophy of this kind of thing, I suppose, is that architecture, which is the science of prophetically projecting one's self, whether architect or client, into three-dimensional structures as yet unbuilt, and endeavoring to discover in advance whether they fill all needs, may thrive best where circumstances which distract either architect or client are reduced to a minimum.

It has been said that the best place to do architecture is on a tree-lined street in a quiet, not-too-large town. I have spoken of Santa Fe, which has a certain celestial sweetness. I think also of the college town of Lewisburg, Pennsylvania, where Malcolm Clinger, recently president of the Central Pennsylvania A.I.A. Chapter, practises architecture. Those of us who have spent our lives and labored, if we may use the verb without undue assumacy, in large cities, are impressed with the possibilities for consecutive thinking offered by the small town.

We like, therefore, in middle-size cities to find the effort to recapture in architectural offices some of the village quiet which tends to make easier the complicated thinking and planning which is now architecture.

At any rate, there is a definite quality to an office away from the horn-and-exhaust district. Such locations are perhaps not possible in the big king's-size cities, where the turbulence virus and the no-parking disease extends for miles. But in the one-hundred-thousand bracket, it is feasible and seems to offer a solution.

In Lake Charles, Louisiana, for instance (I was about to say the little city of Lake Charles, but it has actually tripled in size since I first knew it twenty years ago), I dropped in at the architectural offices of Dunn & Quinn, a nice one-story building of well-arranged plan devoted entirely to the architectural business of Dunn & Quinn.

The parking situation at this location in the busy town is not of the best, but its fluidity makes parking opportunities appear with greater frequency than in most downtown city locations. The still-existing trees give the building charm. There is a feeling of

security in such buildings, in that the architect knows that this place where he hangs his hat is his. The memory of the Depression is still present, and the owning architect feels that, come arid times, at least he will not be driven from this abode.

I like Milton Grigg's architectural building in Charlottesville, Virginia, a one-story structure, in the alluring Griggonian manner, reminiscent somehow of the Monroe law offices in Fredericksburg. I think also of the office of Carrol & Daeuble in El Paso, Texas. One is surprised to find in Texas a perfectly Maryland name like Carrol. But there it is. And there also is a convincing example of non-downtown office. Owned by them and skillfully designed, it occupies a leisurely position at the corner of two restful streets. You drive to it, put your foot on the brake and there you are. The curb space seems always to be hospitality provided.

One contrasts this with some of the breath-taking offices in big, breath-taking cities. The architects have to practise in such location; but to be successful such an architect has to be, I think, a reduplicated genius: a genius for being an architect plus a genius

for being an architect under difficult and handicapping circumstances.

Will Alban Cannon in Niagara Falls follows the pattern and has a nice pleasant, busy, efficient-appearing one-story building, removed from the roar of the Falls and from the busy heart-throb of the city. It has the authentic feel of an architect's office. It is not too far from Lake Ontario, where Mr. Cannon operates a thirty-five-foot sloop. I do not consider this maritime touch as absolutely essential to the fringe architectural office; but it does lend a touch.

Roswell Pfohl, president of the Buffalo A.I.A. Chapter, occupies one of these self-owned offices, with nice room and at street level. One remembers certain aforesaid drafting-rooms where it was necessary for two adjoining draftsmen, each preparing to draw a long line, to start and finish in unison in order to avoid elbow collision. These whole-building offices do seem to provide room, avoiding the necessity of wedging them in with Rockette-like closeness.

Pfohl has the unusual feature that he is in the downtown section, almost in the center of the business whirlpool. He purchased several houses in a certain perfumed

district, which had been vacated by request, and substituted virginal fluorescent lighting in lieu of a previous beckoning ruby glow. One of the houses he demolished to provide a parking lot, a fruitful idea, since architecture to an extent in these days is going hand-in-hand with what to do with the automobile.

I think of the office of Lester Hurd in San Francisco. A talented architect, one may wonder, perhaps, how he can do that stuff in the big-city whirl; but he does it easily, under conditions that sometimes exhaust the mere visitor.

His office in San Francisco is on Powell Street, a cable-car thoroughfare, which runs up to Nob Hill at a grade of something less than sixty degrees. Douglas Stone has another similar aerie around the corner facing the cable-cars on California Street. In approaching such an office there are two schools of thought. You either start from the upper side and slide down, grasping fireplugs on the way, hoping dubiously that you will be able to reduce momentum at the doorway; or you work up from the down-grade side, pulling on area railings and sidewalk gratings, finally chinning yourself over the threshold. When one

thinks of clients overcoming these hazards to achieve the architect, it seems an almost certain guarantee of talented efficiency.

In prosperous Albuquerque, architectural arcady sometimes called Bubblequerque, all architects are busy. Miles Brittelle, whom I met there, has an office away from the center of things in what, when I knew Albuquerque a decade or more ago, was a suburb. I gathered also that William Burke, bluff and entertaining ex-president of the New Mexico A.I.A. Chapter, is in a sense similarly situated.

I think the first time I came across the idea that architectural practice does very well when not embedded in zones of business was some years ago when I first met George Simonds of Oakland, California. I was surprised when he explained that his office was far from the center of the city. William Hays, formerly head of the University of California Department of Architecture, who boasts, erroneously I am sure, that he is 78 years old, carries on a brisk consulting practice at his home far from the marts of trade. My doubts as to Hays' near-claim to being octogenarian is based on the fact that

records always seem to be wrong about him. One publication of the University of Pennsylvania lists him as born in 1883 and graduated in 1893—a neat accomplishment.

Perhaps the farthest removed of architectural offices is that of Edward French at Napa, California. Napa is the northern spot where the California climate peters out and the inhabitants admit heat and cold. French's office is in a one-story building located on a dead-end street, at whose termination you could lie down and roll down the hill into the Napa River, if there were any pleasure or advantage in it. Here, since the number of persons desiring the roll-down is few, there are ample accommodations for automobiles. You can also look through the goldfish windows and see whether the architect is present.

Perhaps I may have exaggerated the importance of being far away from the high-story and parking-meter zone. But there are advantages, not the least of which is the easy feel, upon reaching such an office, of ozone and elbow-room. These two things are not necessarily a guarantee of top-drawer inspiration, but they are no hindrance.

A Reading Must

By Guy Greer

AUTHOR OF "YOUR CITY TOMORROW," AT PRESENT WITH THE HHFA.

This review is not an official HHFA opinion.

REVIEWING OF PLANS AND PEOPLE—Planning the City of Washington for its people and as a worthy symbol of a great nation. By the Committee on Urban Planning of the Washington-Metropolitan Chapter, A.I.A. 64 pp. 8" x 10½". Published by the Chapter. 50¢.

HERE IS an illustrated and clearly written booklet—about the size and thickness of a popular news magazine—of which The A.I.A. and the Washington-Metropolitan Chapter should be proud. It ought to be read and pondered by every architect in the country, by every member of the House and Senate in Congress, and by every other American as well. If it were, the chances are that before long something real and substantial would be done to change many physical conditions in Washington and its environs that are deplorably wrong. The city, including the fast-growing suburbs and satellites in Maryland and Virginia, would quickly begin to approach much closer than it is now to being in truth a worthy symbol of the world's greatest democracy.

The booklet appears in the hundred-and-fiftieth year of Washington's existence. Appropriately, it

is a contribution in words and pictures to the sesquicentennial celebrations scheduled for 1950, and it was printed in time for distribution during The A.I.A. Convention in May. But it is a great deal more than a *pièce d'occasion*. It is a rousing sermon on the theme of civic responsibility (addressed to the nation at large), and it differs from many sermons in that it indicates specifically what must be done.

After a brief, pungent account of unplanned city growth in America during the past hundred and fifty years, the authors point up the failures and the partial successes of planning in Washington. They give special attention to Pierre l'Enfant's original splendid vision, to the nearly-a-century of neglect of his plan, to the brave efforts of a few architects and planners fifty years ago to revive it, and to the mixture of magnificence and squalor that prevails in

the community today. They go on, then, to remind the reader of the commonsense reasons why Washington, as the only big city in the world that is essentially only a national capital rather than a metropolis in other respects, ought to receive from the country as a whole a degree of interest and support and affectionate nurture, far greater than it usually gets from Congress and the local government that Congress provides for it. To drive home the point, comparisons are made with other national capitals, notably in South America, very much to the discredit of Washington.

Sooner than the division of space in this brief review might suggest, the book tackles the fundamental planning problems of the Washington area. Chief emphasis is laid on the requirement for a sensible plan of land use. This, it is convincingly argued, is the basis for everything. This achieved, plans can be made and carried out for modern traffic, for a real solution of the vexed parking problem, and for all else that needs to be planned. The authors show that only after the land-use plan is in full force and effect, can zoning play its important role as the means whereby future develop-

ment is held within the framework of the plans as from time to time blueprinted or modified. To illustrate the planning principles involved, four separate schemes are presented in simplified form. All but one of these (the subway proposal) appear to have considerable merit, but only the ring-road scheme (or some modification of it) strikes this reviewer as being anywhere near adequate.

There is only a small amount of discussion of slum clearance and urban redevelopment. But the need for such activity on a very large scale is implied throughout, and note is taken of the opportunities afforded by Title I of the Housing Act of 1949. Compelling reasons are presented for over-all planning before any extensive redevelopment is started.

Probably the most valuable portion of the booklet is its outline of an agency—called for convenience the Washington-Metropolitan Planning Commission—competent to make plans for the area as a whole, without encroaching on the proper functions of agencies now or in future active in the District of Columbia and in neighboring municipalities or counties. No effort is made to describe in detail the laws that would be required

from the two States concerned and from the Federal Government. The principles and procedures, though, are so well set forth that any good lawyer should be able to sit down with a good planner and, without much difficulty, draft the legislation. Surely something like this new agency will be indispensable, if the recently rumored proposal of the National Security Resources Board, for the decentralization of Federal offices and

workers within a fifty-mile radius of the White House, is even partially carried out.

The needed legislation, of course, would have small chance of passing unless there were an enlightened public opinion demanding it. This the authors recognize, and the booklet ends as it began, with an eloquent plea for the sort of nation-wide understanding that will lead to action.

Standardization and Low-Cost Homes

IN TWO PARTS—PART II

By Lawrence A. Benenson

IN PART I of this article, which appeared in the *JOURNAL* last month, I described a phenomenon which characterized almost all of our low-cost housebuilding. Houses which are being built by private speculative builders for the middle-income groups are all very similar to each other. With few exceptions, each has four rooms and bath in almost identical plan arrangements. Although details vary widely, the basic room relationship is exactly the same. Oddly enough, the formula is not limited to any one part of the country, but characterizes house-

building everywhere. A few progressive builders have tried to vary the monotony by some "modern" touches, and several of the big operative builders, by virtue of reduced production costs, have been able to give a little better value for the same money. Nevertheless, these have proven a very limited exception to the general rule. If you examine the great majority of \$5,000 to \$12,500 houses in your neighborhood, you'll find that the great majority are fundamentally the same.

Now if so many of our low-cost houses are so much alike, I pointed

out, we should be able to turn the circumstances to advantage. Since there is so little difference in basic design, many of the same elements could be mass-produced for them all. Instead of fabricating each bathroom laboriously at the site, they could be manufactured as one complete unit, at a considerable saving. As the width of most of these houses is so alike (between 24' and 25' across) standard roof trusses could be made. Stairs are almost exactly alike among most of these houses—since the distance from floor to floor is determined by the 8'-high wall panel and the 2" x 8" floor joist. Chimneys need not be put together of small masonry units, but could, instead, be fabricated of long sections of asbestos pipe for economy. And so on down the line. Kitchen cabinets, plumbing stacks, doors, windows, even electrical systems, are a few other elements that could easily be standardized for mass production.

Let's analyze houses now being built from the point of view of their similarities. What parts could be universally designed to fit the great majority of low-cost houses now being built? Running down the list quickly, we would

find that almost all of them are concerned with the utilitarian functions, and very few of them with convenience or appearance. For instance, the average homeowner is not so concerned with the appearance of his stairs, as he is with the fact that they traverse the distance between the floors. I doubt if many really care about what their chimney looks like, as long as it carries up smoke. None of the items I've mentioned as being suitable for standardization is really fundamental to the individuality or convenience of a small house. What is ever so much more important to the average owner, I believe, is the size and arrangement of his rooms, and the appearance of his house from the outside.

Standardization of the utilitarian parts of a small house would not detract from individual freedom of choice, but would enhance it considerably. As I've been at some pains to point out, the majority of small houses now being built today are all quite alike in the fundamentals of room size and, to a lesser extent, external appearance. What I propose would be to transfer standardization from house plans to house parts, specifically those utilitarian parts

which are easily and economically mass-produced.

The cost of fabricating and installing the utilitarian parts I've mentioned is a large and tangible percentage of the total cost of a typical house. Let's assume, in the absence of authoritative statistics, that this cost is some 50% of the total cost of construction. Obviously, the cost of these items has been increasing constantly, with the advent of central plumbing better kitchens, and full electrification. In any case, let's set the figure at 50% for the purpose of argument. Let's say that if all the parts I've mentioned were completely standardized for mass-production, their cost could be cut 50% (another arbitrary assumption in the absence of real data). The over-all cut in cost of construction would then be 25%, ignoring any possible saving from the "shelter" items. I seriously doubt whether there can be any marked savings in the cost of the floors, walls, or roof of a house. The experience of prefabrication has shown quite conclusively that the small builder at the site can build the rooms just as economically as the big prefabricator can supply them. But there is no doubt at all that we could save a great

deal of money by standardizing on bathrooms, chimneys, stairs, and kitchen cabinets.

The solution to the present dismal sameness of most small houses is to standardize intelligently. This may seem contradictory, but on even a little thought it is apparent that if the prime costs of a house could be reduced, say 25% through standardization of interior parts which can be mass-produced without harm, then the builder would be able to give 25% more value in a house either in reduced costs or in better architectural treatment, or larger room sizes.

The building could, in fact, use the same savings of standardization towards making the shelter elements (which are important to the owner) more attractive, convenient and useful. Individuality could be gained in a very real sense, from an intelligently conceived standardization.

If mass-production of certain standard parts is the key toward lower costs in small houses, who will be the one to unlock the lock? The consumer, who is the one to benefit most, is in the position least able to accomplish anything. Being unorganized, and worse yet, uninformed, he can do nothing to

persuade the materials manufacturers to standardize utilitarian parts.

Builders are in much the same position. Although they probably would welcome cheap standard elements for houses (lower costs are sure to expand their market), they are singularly helpless in establishing a unified buying guide for manufacturers. They are too numerous, diversified, and badly organized to be of much help. Besides, they are far too occupied with the day-to-day problems of staying in business to contribute significantly to a long-range program of housebuilding improvement. Manufacturers of building materials, particularly those producing the utilitarian elements I described earlier, would be the logical ones to initiate a program of standardization. Unfortunately, up to now, they have been as deluded as the majority of public opinion into thinking that each house was "different" from every other and that little standardization is possible.

Probably the best agency for beginning this program of standardization would be the Government itself, with the aid of private architects. The Housing and Home Finance Agency has been author-

ized by Congress to conduct research into reducing the costs of small houses. So far, it has committed certain of its funds to different colleges which are expected to investigate better methods of heating, etc. Also, the Agency itself has been studying the functional standards of dwelling units, in a rather abstract way, as described by Henry D. Whitney, the Chief of the Architectural Standards Section, in a recent paper published in the *JOURNAL*.

The much more effective way of combating high costs, I believe, is to analyze the composite small house now being built by the million all over the country, and see what parts can be attuned to each of them. We have a standard house now, whether we like it or not, and the least we could do is to study its every detail with a view toward improvement. This house has the quality at least of widespread acceptance—whatever we may think of the public's taste in its low-cost small homes, we should have no doubt that this is what it wants, and by all indications, will continue to want for the next few years. It seems to me that the best start for the HHFA would be to dissect this house and, with the aid of architects, recreate

it using cheap mass-production parts wherever possible.

I believe that a research program sponsored by The A.I.A., in cooperation with the technical knowledge and resources of the HHFA, could both point out the need for standardized parts, and further, could design specific elements for use by interested manufacturers. As such sub-assembled elements were produced, perhaps first in small quantity for experimental use, builders would become aware of the savings inherent in mass-production. As the savings become more apparent through increasing use of such parts, the public would recognize the advantages and demand them. Competition between the building-product manufacturers would ultimately develop more such products, and greater use of standardized parts until the prices of houses were reduced to the point of good value.

We as architects, as the ones professionally concerned with America's home environment, should concern ourselves with cost reduction in small houses. By designing and sponsoring a high degree of standardization in the simple utilitarian parts which go into all houses, we can begin a great contribution to the art and

science of housebuilding. This may appear to run counter to our traditional concept that "custom construction is the province of architects," but in a larger sense we can be instrumental in helping small homes away from the deadly standardization which now characterizes the great majority of homes. With the cooperation of the Government, which now stands squarely in back of such research into cost reduction, we could be the ones to initiate progress into housebuilding.

I believe that a committee should be set up within The A.I.A. itself to study this solution to the problem, design sub-assembled parts, and to correlate its work and findings with the HHFA. Every other means of cost reduction has failed—prefabrication has proven a disappointment, the Producer's Council Industry-Engineered House, although helpful, has not proven the answer, and certainly modular coordination is not going to save the day. Standardization of unit elements has been suggested by many prominent architects at one time or another, such as Walter Gropius and Frank Lloyd Wright, or housing authorities such as Miles

Colean or Charles Abrams, but it has never been really tried out. No one up to now has thought that small houses could be sufficiently alike to allow their use. As it becomes apparent, however, that small houses are more than merely similar, they are now almost exactly alike, there is no need

to wait for mass-production of sub-assembled parts. We have the technical ability, the resources, and above all the will toward improving small-home design and lowering costs. It's time we of this organization took a hand in what could be a great service to the American people.



Architects Read and Write

Letters from readers—discussion, argumentative, corrective, even vituperative.



ELIEL SAARINEN AS A TEACHER

BY CARL FEISS, Washington, D. C.

THE DEATH OF ELIEL SAARINEN is a sad loss to all of us. Without attempting to summarize his great contribution to architecture, city planning, and education, and his great gift to the world of a highly personalized beauty in design, I feel that I owe it to him to jot down a personal memory.

Nineteen years ago he took me on at Cranbrook as one of his very first pupils. For the winter of 1931 I was the only student he had and was in continual daily contact with him on a most intimate basis. During the winter of 1932 I was one of seven students and the Cranbrook training program for architect-planners was well under way.

It is difficult to assess Eliel Saarinen's ability to inspire a

young man coming out of a highly limited architectural background. In my two years' association with him he never once sat down to a drawing and made a sketch of it. He would occasionally make minute and perfect sketch suggestions at the margin of a drawing, but for the most part he would just quietly sit, and with a very few, slowly spaced words, comment very often on allied subjects rather than the matter at hand. But somehow, his quiet gentle statement would sink in and for three or four days I would work on the problem without calling on him for advice. In fact, it was seldom necessary to call on him as he intuitively knew when I was in difficulties.

Gradually, out of the experience

of working with this type of guidance, I discovered that what he was doing was building up my confidence in myself, and even more than that, he was inspiring me to think on my own. Bit by bit, all the "pat" formulae of my previous formalized training fell away, and I found myself emerging as an individual.

Eliel Saarinen was never in a hurry; his approach was completely

timeless, since he made it clear that there can never be a time limit assigned to ideals and objectives. He also made it clear that there could be no compromise with them either.

I only wish that more people could have had contact with this great spirit, and I felt it incumbent on me at this time to make mention of this perhaps too-little-known phase of Eliel Saarinen's many great talents.

Calendar

June 24-September 4: Chicago Fair of 1950, dedicated to dramatizing achievements of science, agriculture, commerce and industry.

September 18-21: 52nd Annual Convention of the American Hospital Association, Atlantic City, N. J.

September 19-21: Fall Meeting of the American Society of Mechanical Engineers, Hotel Sheraton, Worcester, Mass.

September 20-25: International conference of the International Federation of Landscape Architects, Madrid. There is also a 3-day excursion arranged to Toledo, Segovia, La Granja y Cuenca, and a 9-day excursion to Sevilla, Granada and Cordoba. Details may be had from Viajes Melia, S. A., Plaza del Callao, 3, Madrid.

September 26: Second Research Correlation Conference of Building Research Advisory Board,

National Academy of Sciences, Washington, D. C. The subject: Fire Resistance of Exterior Non-Load-Bearing Walls.

September 28-30: Annual Convention of the California Council, A.I.A., Ahwahnee Hotel, Yosemite National Park, Calif.

September 29-30: 5th Annual Meeting of Pennsylvania Society of Architects, A.I.A., Pocono Manor Inn, Pocono Manor, Pa.

October 1-November 1: First Annual Exhibition of the Society of Contemporary Designers, California State Exposition Building, Los Angeles, Calif. For further details as to entries, address the Society at 914½ South Alvarado, Los Angeles 6.

October 12-13: Annual Convention of the Architects Society of Ohio, Commodore Perry Hotel, Toledo, Ohio. The Toledo Chapter, A.I.A. is acting as host.

October 13-14: Annual Conven-

tion of the Central States District, Joslyn Memorial Art Museum, Omaha, Neb. The Nebraska Chapter will be host.

October 16-19: 17th Annual Meeting of the National Association of Housing Officials, Hotel Statler, Detroit, Mich.

October 24-26: Regional meeting of the American Concrete Institute, Mayflower Hotel, Washington, D. C.

November 2-4: Annual Convention of the N. Y. State Association of Architects, Syracuse, N. Y.

November 9-11: Annual Convention of the Louisiana Architects Association and Annual Meeting of Chapter officers of Gulf States District, New Orleans, La.

November 27-December 2: 19th National Exposition of Power and Mechanical Engineering, Grand Central Palace, New York, N. Y.,

under auspices of the American Society of Mechanical Engineers.

January 22-26, 1951: 10th International Heating and Ventilating Exposition, Commercial Museum, Philadelphia, Pa.

September, 1951: Congress on Building Research, to be held during the Festival of Britain, London, with the purpose of reviewing the progress made in research in relation to architecture, building, and associated branches of civil engineering. Those interested in having further details may address The Organising Secretary, Building Research Station, Bucknalls Lane, Garston, Watford, Herts, England.

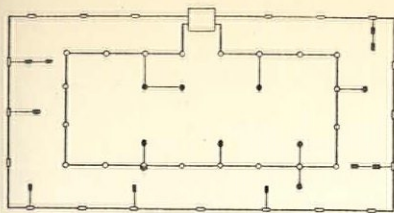
November 14-28, 1951: Building Exhibition, Olympia, London. For further details address the Managing Director, 4 Vernon Place, London, W. C. 1.

The Editor's Asides

WALTER R. HAGEDOHN of Los Angeles has tossed a hand grenade into the camp of the electrical engineers. He suggests that the horse-and-buggy days are still governing the thinking of the electricians in the wiring of dwellings. "Bigger, better and more conduits" seems their only answer, until it would seem that a reinforcing mesh of conduits must be necessary to support the structure.

A. B. Smedley, an electrical

engineer of Pasadena, catches the grenade and admits that something should be done about it. He blushes over the fact that we are now using 17000 lbs. of rigid conduit for every 1000 lbs. of copper wire—18000 lbs. for a pay load of 1000 lbs. of copper. As a starter to thinking he sketches a system with no branch circuits, and with No. 1 wire in 1½" conduit, dropping the 18/1 ratio down to 3.6/1. Codes are a stumbling-block at



○ LIGHT OUTLET WITH BREAKER
 □ RECEPTACLE WITH BREAKER
 ■ NO BREAKERS

present, but they can be changed. The sketch shows the simplified layout, which, Mr. Smedley insists, is merely a different, though not new, basic approach to the problem of devising a simplified wiring system. The magazine *Electrical West* for May 1950 gives a lot of space to details.

IT SEEMS STRANGE to hear called "Professor" our good friend George Howe, back from the American Academy in Rome and now Chairman of Yale's Department of Architecture. But Professor he is—"J. M. Hoppin Professor of Architecture," to give him the works. Over the radio recently he observed—as who hasn't!—that present airport facilities are proving inadequate, and new airports are being built in areas farther from the cities where land for expansion is readily available. At the same time, he added, plans have

been made for large helicopter landing stages in the cities.

"These trains of thought," Professor Howe asserted, "would seem to me to lead logically to the ultimate location of great regional airports in the country, serving several communities by shuttle helicopter busses delivering passengers, mail and goods to central city landing-stages. It is around such large regional airports that one might imagine new towns growing up.

"If architectural concepts are taken in a broad sense, automobiles have contributed the parkway, the express highway, the traffic interchange nucleus and the multi-story garage. These are all new. But, so far, no well-integrated communities have grown up around air-terminals or along motor traffic routes.

"Such communities have always appeared, in the past, on traffic lanes and crossings, rivers, trails, roads and railway lines, and it seems to me inevitable that the old process should repeat itself."

All of which suggests that when we are through we shall have moved the cities out to the airports. To save time and money we might clear out the decayed cores of our cities and move their airports in.

THOSE WHO MAY HAVE IDEAS as to how to reduce fire and smoke losses may want to participate in a competition being held by the National Fire Protection Association. There are prizes of \$500, \$250, \$100, and three honorable mention prizes of \$50 each. Further information and eligibility rules are available in pamphlet form from the executive office of the NFPA, 60 Batterymarch St., Boston 10, Mass. Closing date Nov. 1, 1950.

FOR FOURTEEN YEARS Carnegie Tech has been trying to teach the engineers how to speak and write English. Now they are going to see what can be done for the architects. Not just by main force. They've got a scheme—teaching English structure as a design problem.

There are interesting analogies to be worked out here: the staccato sentence structure of the user of isolated lengths of stark masonry walls; the flowery passages of him who loves cast-iron treillage; the contrived suspense of the cantilever; the brutal frankness of the glass wall; the total absence of adjectives by the designer who can't bear ornament. One type of student may worry the instructor, though. The involved-sentence

habit may be hard to break in the designer whose favorite motif is the kidney-shape pool.

CHARLES LUCKMAN, whose career as an architect was interrupted by his activities as president of Lever Brothers Company, has returned to our professional fold. With William Pereira, his former classmate at the University of Illinois, and with whom he took his first State Board Examinations to practise, he has now joined in the firm of Pereira & Luckman, Architects and Engineers, with headquarters in Los Angeles. To his original B.S. degree, the University of Miami recently added an LL.D.

DOWN IN RIO they have just opened what is claimed to be the world's largest stadium. It seats 120,000, with standing room for 30,000 more. What interests us even more than the \$20-million cost is the way in which they have protected the players and umpires from the spectators: a moat 9' wide and 9' deep, with the possibility of filling it with water when trouble is foreseen. Seems to indicate an astounding lack of knowledge regarding the pop bottle and the spectators' throwing-arms.



A Mistake Was Made

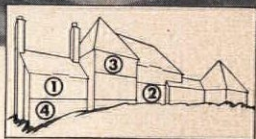
One thermostat wasn't enough!

The original builders of this lovely home spared no expense on the furnishings and equipment. But it seemed impossible to heat comfortably. When the living and dining rooms were just right, the recreation room was too cold. The bedrooms never got enough heat. When the temperature setting was raised to make the rest of the house comfortable, the living room was too hot. Honeywell control engineers were consulted — found the answer.

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If you are designing a home, don't hesitate to call upon Honeywell's specially trained staff of control engineers. They stand ready to assist you, without obligation, of course.

Write for the informative folder, "Residential Zone Control Applications and Specifications," reprinted from the Producer's Council Bulletin, A.I.A. File 30-E. Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Leaside, Toronto 17, Ontario.



This Type of Home
Needs 4 Thermostats

- ① In the Living Room Area
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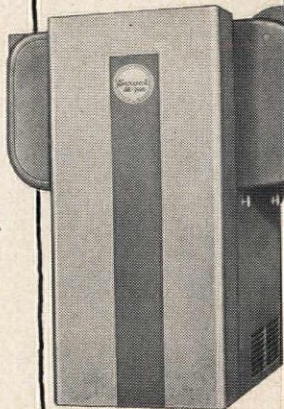
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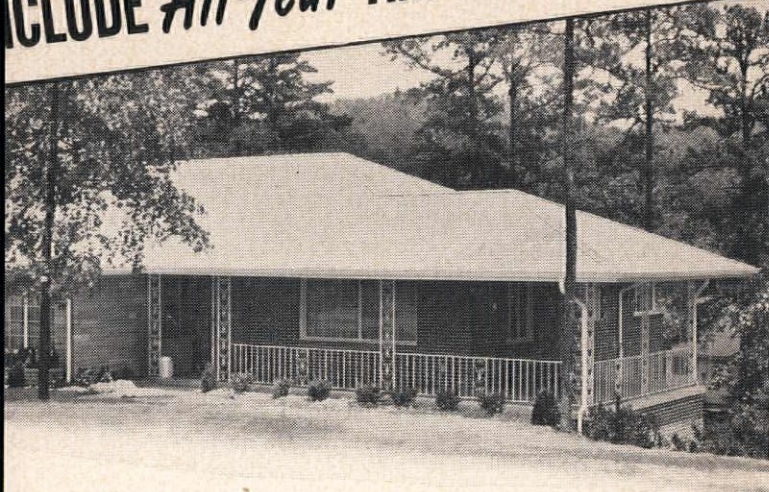
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The Handbook of Architectural Practice

Revised 1949 Edition

Prepared under the direction of WILLIAM STANLEY PARKER, F.A.I.A.

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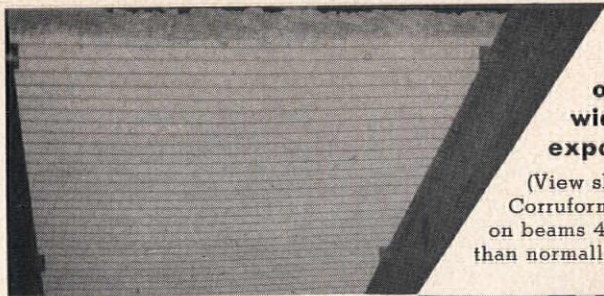
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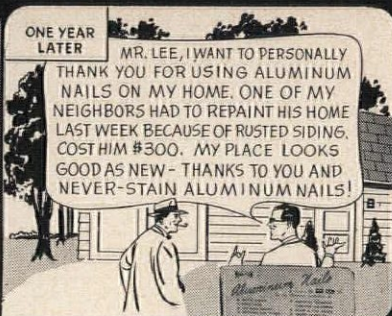


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