

The New

PENCIL POINTS

JUNE · 1942



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REVEILLE OR TAPS?

With this issue we begin a new era in the career of this magazine. The mode of architectural practice, "styles," professional ideas—all have changed irrevocably within the lifetime of PENCIL POINTS. Frankly, our readers have changed too. And the Editors—determined to continue the service that has distinguished this magazine—have now rolled up their sleeves to tackle the new problems! Courage, acceptance of the new rules of the game, faith in the success of wise planning—all are weapons we must wield together.

Winning the War comes first in importance to every one of us. Those who are called upon, those who can help directly or indirectly, must do so. There is no higher responsibility today.

After the War will come peace—of some sort. It can take many forms—any of which will present problems at least as difficult to solve as those we are fumbling with now.

Architects as individuals, as groups, as a profession, are contributing heavily to the urgent building program. They will continue to do so. As individuals they will also serve as needed in the armed and technical forces of democracy.

But beyond these things lies a duty to society that must be performed. There must be formulated **clear objectives for a peace worth fighting for**. Plans must be made. The civilization that is to rise from the ashes of this one must not arrive accidentally. It must be designed, and that design can only be a collaboration in which architects can have a vital part—if they are ready.

The job will not be done by those who think in terms of dinky little period houses, of real-estate subdivision, of ornate and blatant commercial buildings, of smug monuments recalling ancient glories and revealing present emptiness. It will be done by those who are awake and alive to the realities of today; those who are willing to look with clear and unprejudiced eye at the power age in which science and technology are expanding horizons and transforming ways of life at breakneck speed; those who can understand that the only valid limiting factors of the future are material resources, processes, and the energies and ideas of people—not money and bookkeeping.

ON THE EVE of meetings this month at Detroit (which may turn out to be "just another Convention," or could be the first real constructive national gathering of the architectural profession) PENCIL POINTS presents on the following pages a group of serious discussions of subjects to be dealt with out there. They are provocative. They were written by vigorous-minded architects and planners—led by **Ralph T. Walker**, and comprising **Roland Wank, Walter Curt Behrendt, Clarence Stein, Arthur C. Holden, Leopold Arnaud, Willis A. Vogel, and A. D. Taylor**.

We urge that you read them. These are not times to maintain that deliberately illiterate pose assumed by those architects who confine their reading to a mere scanning of pictures and captions. These are times when men of brains must wake up and read and study and ponder as never before. There must be **discussion**, there must be **controversy**, there must be **productive thinking**, before there can be planning. So read, and if you disagree with our distinguished authors let us have it with both barrels. If you agree, work for what you believe in. But for the love of America, develop some passion for its future!

Kenneth Rice



BY

Willis A. Vogel

Vice President of Toledo Chapter, A.I.A., and of the Architects Society of Ohio, stationed in Washington by PENCIL POINTS to serve Architects by advocating their employment in the War Effort.

Your Technical Personnel Adviser came to Washington thoroughly convinced of the architectural man's manifold skills and of his adaptability. Experience of the past two months and a half justifies that confidence in many instances but emphasizes the necessity for yet a large number of architects to become acquainted with their own strength—and weaknesses. In these times of rapid change, **the architect must be willing to fit himself in wherever he can and to do the things that need to be done.**

I am glad to report that progress continues to be made in the placement of architects in real jobs in the Victory effort. To give exact tabulated figures at this time is not possible, but indications and a general check show that we may fairly estimate over 200 actual assignments. There is sufficient evidence to prove that the effort of salesmanship (if the term be permitted) in presenting the architect and his technical talents will continue to pay dividends and to get results.

That part of my work which consists of persuading lay and military officials that architectural men have basic training and habits of thought that make them quickly adaptable for various kinds of planning, coordinating, and administrative jobs, or for

such functions as procurement, inspection, etc., produces intangible results which are nevertheless greatly to the benefit of the profession.

I have contacted high executives and placement officers in practically every department of the Federal Government into whose activities architects might fit. I have supplied them in the aggregate with many hundreds of names from our available list. Not every one of these names has been acted upon, but there are enough who have been approached or hired to more than justify the activity.

As effective reorganization and decentralization goes on, the general policy is to retain in Washington the overall administration of each agency and to assign the detailed execution of its program to regional centers. Regionalization facilitates efficient placement of men to work in war activities nearest their homes.

The draft registration of older men, the organization of the new Man Power Commission, the opening up to civilians of the Army Specialist Corps, the increasing use of the Roster of Scientific and Specialized Personnel, the broadened Civil Service with unassembled examination, all show growing recognition of the shortage of technical skills foreseen by PENCIL POINTS and acted upon last February. Nothing has disturbed our faith that the architect, in general, is broad enough and versatile enough to fill a substantial part of this need. Let us, therefore, drive ahead and go at the appointed task, no matter in what capacity, even if at a hardship while we are in the War, until we complete the Victory Program.

ARCHITECT'S STATUS TODAY



BY

R.D. Taylor

Town Planner, Landscape Architect, and Author, of Cleveland, Ohio, whose periodic Washington Reports have served to keep our readers in touch with Juggernaut's Progress since September, 1940.

IMMEDIATE NECESSITY

With the tempo of war activities rapidly accelerating, it is becoming increasingly evident that members of the Technical Planning Professions soon will have little or no work in their private offices, except such work as relates directly to the War Effort. This is already the fact in some parts of the country. There is no question about the immediate necessity for them to adjust their thinking!

Signs of imperfect adjustment are readily found. It seems unfortunate, for instance, that there should be so much open competition between offices in private practice (and between Government agencies and some of these offices) for the services of qualified men; often expressed by procedures which, under normal conditions, would not be accepted as entirely ethical. Authorities in Washington recognize this condition, but have determined neither the extent nor the method of control.

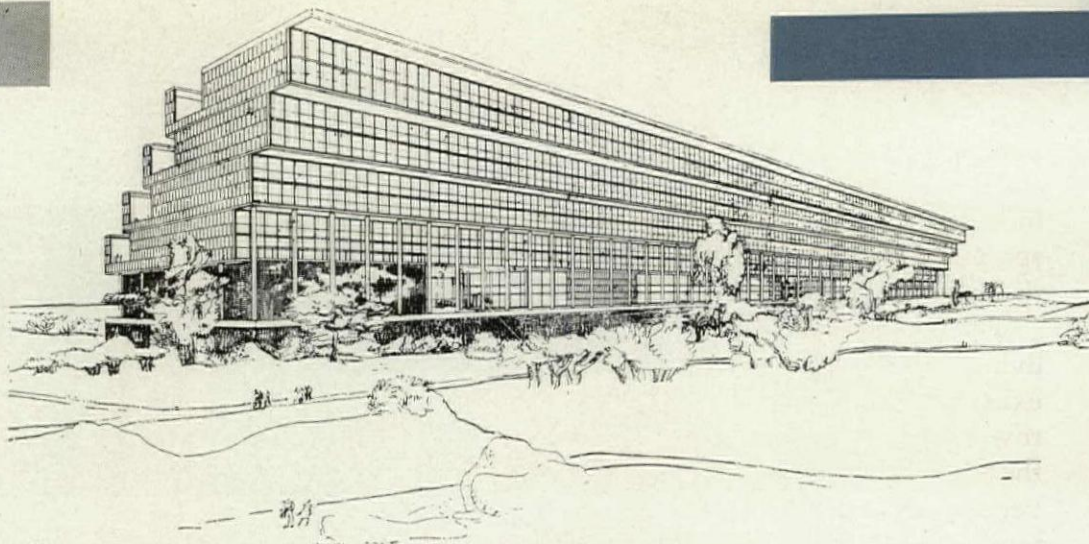
Deferment Restricted. Technicians are asking about the possibility of deferment under the Selective Service Act, because of em-

ployment in war work. Unless such work is most vital to the war effort and unless the individual cannot be replaced there is little chance of deferment.

Housing For War Workers continues to gather momentum. The major part of this program seems to be confined to factory-fabricated housing (limited by the capacity of the manufacturers who are producing this type of dwelling unit), site-fabricated housing, and temporary dormitory type of housing. Unfortunately, in some locations the construction of housing for war workers is lagging behind the production schedule. The necessity for efficient planning and supervision to produce this housing in minimum time is **a challenge to the technical ability in the Planning Professions**, as well as to those charged with production.

The desire—the necessity—to produce the maximum area of shelter at minimum cost is responsible in part for a tendency to increase heavily the density of population in these housing projects. This has resulted in a dormitory type of structure (with the understanding that the greater part of this housing will be dismantled when the emergency passes), and there is every indication that the **need for this temporary housing type will continue to expand** with the development of major war production plants.

Specific Information of interest to the Technical Planning Professions can no longer be published, if it relates to vital war projects. But there is much that technicians can obtain and study.



PLANNING FOR THE PEACE



BY

of Voorhees, Walker, Foley and Smith, M.I.T.—1911, distinguished architect and F.A.I.A. whose work has included industrial cities, military bases, and imposing commercial and financial monuments.

THE war against the Axis will be won. But when the necessary military effort is over there will remain another and far more difficult war—the war against **want** and the unreasonable inequities in the distribution of our enormous resources. This latter war has been going on ever since the machine and its techniques of production first made it evident that the exploitation of our national wealth **could make a nation happy rather than just a few men rich.**

Our war effort against the Axis is the greatest ever made by mankind and, here in our United States, this effort will employ well over thirty millions of workers and soldiers. This enormous number of people must be finally re-employed in making a peace as effective as the war effort. These millions of people are therefore a great reserve of skills which can and must be used as a powerful force in creating a higher standard for living for our entire nation.

Meanwhile, however, practically all building has stopped. This means housing, all public works, all commercial building, and practically all industrial structures, all except those vitally needed to make war material. Soon these too will be completed.

Meanwhile, too, all consumers' goods, ex-

cept the barest of necessities, are dropping out of the markets one by one—all the factors that lead supposedly to the superiority of the American way of life are being eliminated and the materials made into planes, guns, more planes, agents of destruction.

The after-war need for the re-employment of these millions, the continued stoppage of all building, the practical elimination of consumers' goods, will create a condition, unless guarded against, where a sudden helter-skelter desire will lead to a confusion of effort—all of course heightened by an all out advertising campaign directed against the "savings" of workers whose appetites have been frustrated so long.

These remarks might be stretched into many books, but the result indicated by all would be the necessity of planning, **the necessity of thinking for peace**, together with the realization that it is not only vital, but is a common-sense use of our effort and our resources. We have drifted—no, muddled—into war; let us not **muddle** into a possible promised land of peace ahead.

In the peace intervals during this century when it was possible to have well fed and properly housed a nation, and to have offered it security, at least fifty percent of our people have had so little of this world's goods as to have the right to question whether there is an "American standard of living."

Lack of planning has permitted the growth of the slum, the development of the large

blighted areas evident in every city large and small throughout the country. It has promoted the serious loss of the individual's responsibility in his community, and a parallel rise of mass irresponsibility.

The cities, instead of being places of good living, have become places where a mere existence is an experience made more narrow by the mass of ugly bricks and stone, the increasing number of vacant lots bare of vegetation, and the enlarging areas where buildings are plastered with "To Let" signs.

FOR THE FIRST TIME in relation to any war there has been a growing awareness of the need to create a goal of a better future, a future all thinking people believe possible under our abilities to produce. This is but one of many thousand present demands to plan for its accomplishment.

A good reception to post war planning will be increased in ratio to the length of the war, for as the war lengthens more and more intelligences will seek and demand a future more secure than the uncertain present in which we now live. Already groups like The Urban Land Institute, normally conservative, have made the first steps forward demanding the rehabilitation of urban land. The Urban Land Institute has published reports on blighted areas in New York, Philadelphia, Boston, Milwaukee, et al. Here is a paragraph from one of its broadsides:

"New modes of transportation and new ways of life have disjointed city growth and thrown our cities into

disorder. Past methods of control over land utilization and past city planning practices have failed to break the shock of these changes or to bring the needed balance into city development. In many of our cities large sections have lost populations, suffered loss of business volume, become drab and decadent. Those who can are leaving the cities to such an extent that the growth of the suburbs in the past decades has been phenomenal. This attempt to escape the problems of the city has only intensified them. Today blight is a creeping sickness that every type of city must combat. Scattered ribbon development on the peripheries of our cities, unsupervised as it ordinarily is and frequently of a character inviting new slums and blight, will only spoil more land, necessarily increase governmental costs, and solve nothing. We need a new and more practical approach to the whole problem of replanning cities."

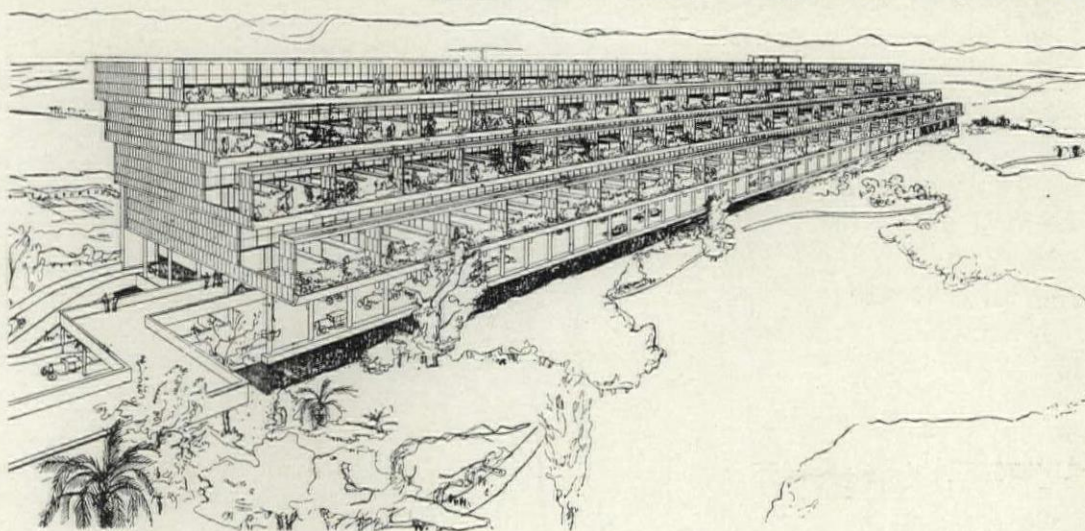
Also in a paper published by The Urban Land Institute, and written by Harland Bartholomew, the well known city planner from Cleveland, the following reason for this interest is noted:

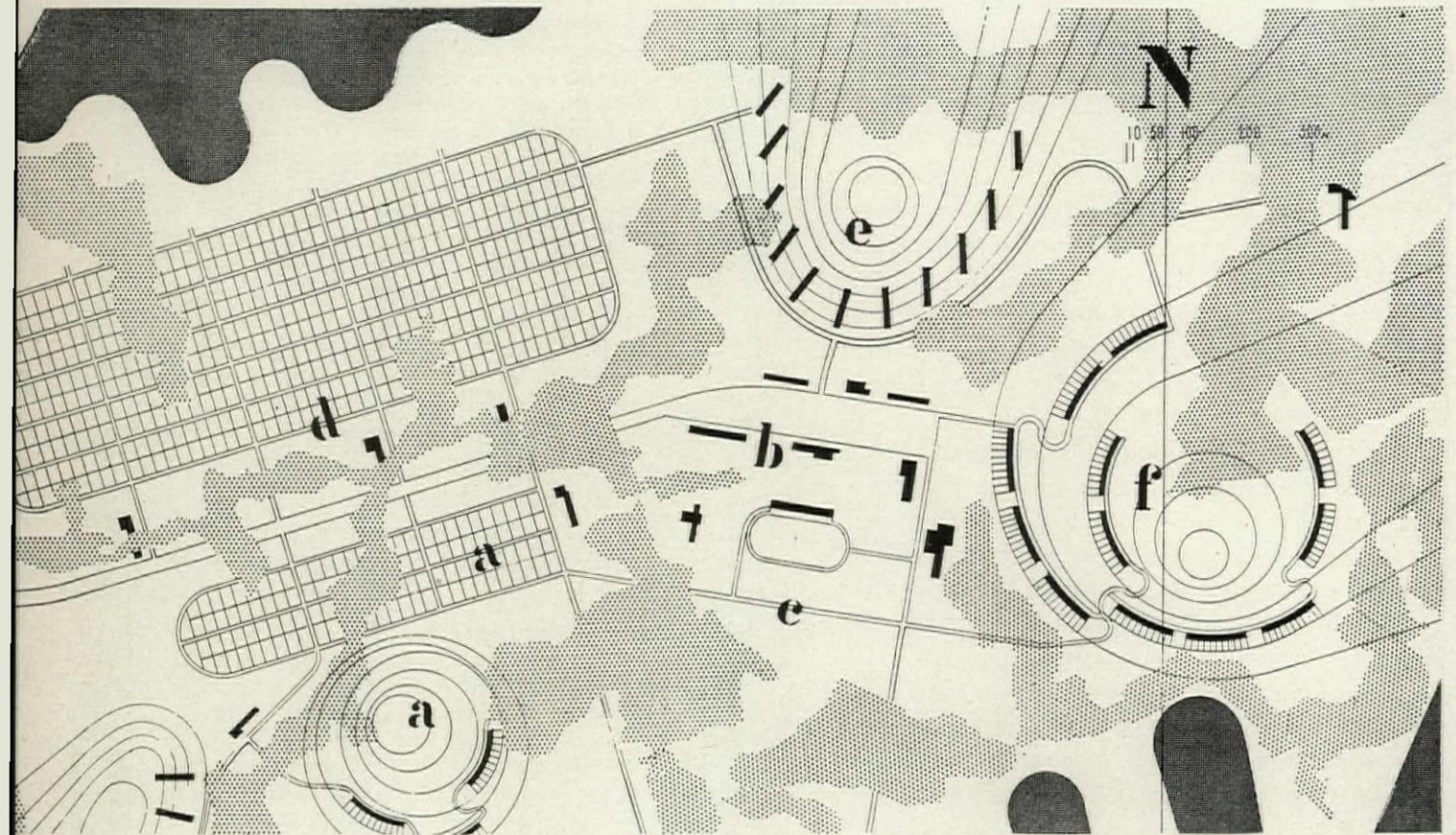
"The presumably pleasant suburb of ten, or even five years ago is now quite a little way in from the latest suburban fringe. This explains why thirty-five to forty percent of the total area of our central cities is vacant and has never been occupied. The close-in suburban fringe about every large city is fifty percent unoccupied and undeveloped. This percentage of unused land increases as the outermost suburban fringe is approached."

There are times when I wonder why we weep for the land unused for buildings, and why we do not weep that it does not have a natural use for beauty and recreation.

THE CITIES NEED PLANNERS—men who will see the necessity of devoting their attention and gifts and lives to the promotion and the attainment of better living conditions in city and country. This is impor-

CORBUSIER—Find the citizen. A hive of the irresponsible. Shelved community ready to swarm to the charms of a Hitler. "Stupendous Megalomania"





tant to us, for planning these betterments lies within the abilities of the architect.

There is no mystery to planning. The only mystery lies in the stupidity of man's careless acceptance of disorder when, with only a little less inertia on the part of our people, he can achieve the charm and directness of early New England towns.

For planning means a straight-forward use of land for the benefit of all, an imposition of the discipline of a social ideal on the erratic forces of speculation so that profits may not be made, as they have, on the creation of slums and blighted areas.

Planning does not mean putting things on paper. It means growth. It means supervision, because planning without the power of enforcement results in frustration. The obsolescence found in our cities needs more than rehabilitation. It needs an understanding of the need of a new urban flexibility.

The ideal of an orderly society comes to fruit only through an understanding of changing trends.

The more you study the history of urban growth the more you are aware that the life of a city is being constantly influenced by the thoughts and reactions of the times. The

job of the planner is first to understand these forces and then to control them.

These are jobs we architects can do now in planning for the peace after the war:

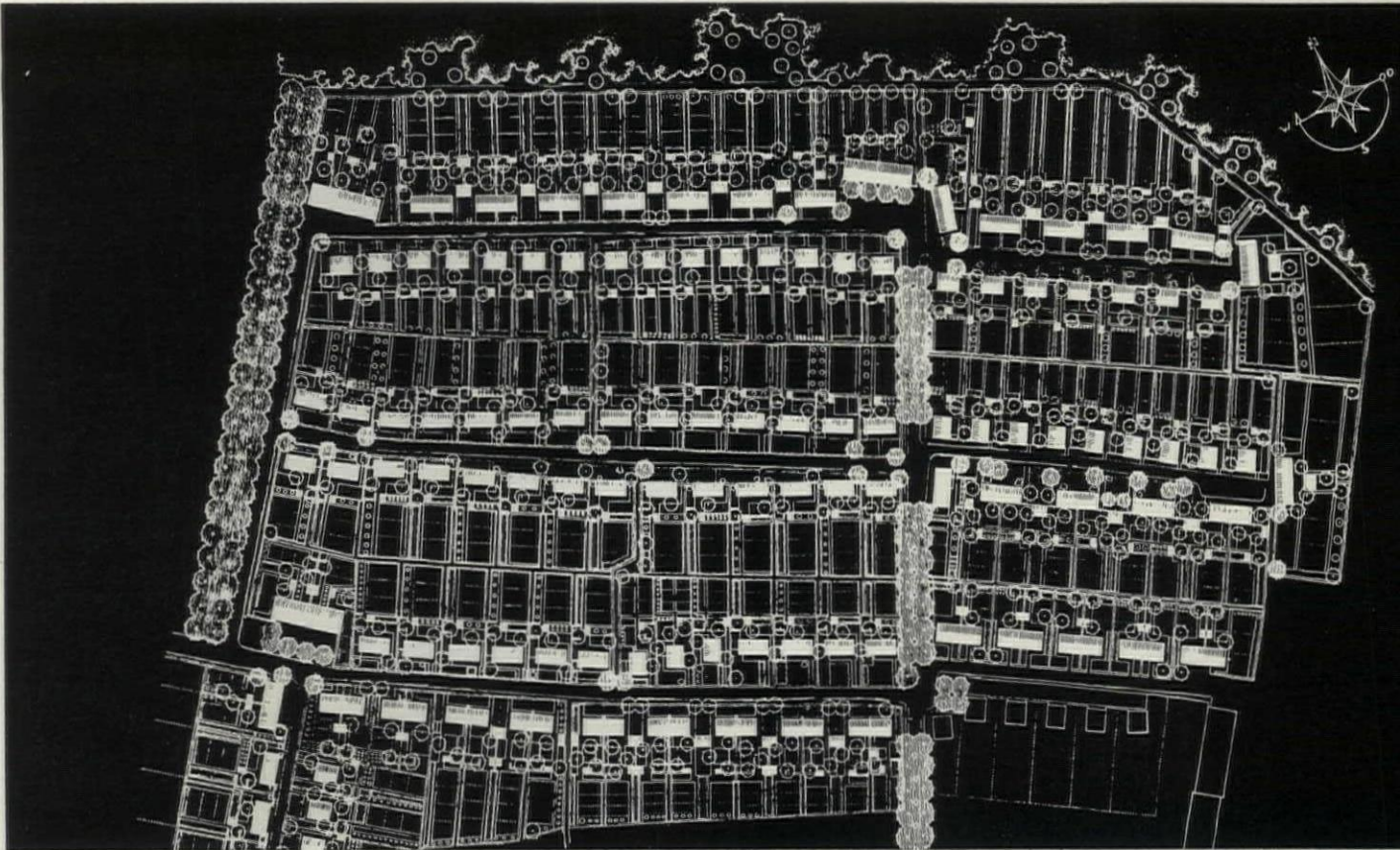
1. Talk about and insist upon the need.
2. Insist that The American Institute of Architects take a positive stand for a better society—for the leadership of the architectural profession in the planning of the peace time. This is a matter for a national effort because the work will be done under the central direction of the Federal Government.
3. Insist that The American Institute of Architects help promote and back up Federal legislation for a public work reserve, rehabilitation subsidies, and other proposals for the present planning of future needs. If pressure is needed the Institute should organize it.

The individual architect should:

1. Insist on replanning the slum and blighted areas of the city in which he lives.
2. Study the relation of the city to its immediate region, attain dispersion in contrast to congestion.
3. Help the engineers plan roads and streets so as to develop communities and plan communities so as to reduce the absurd, terrible toll that America pays each year in automobile accidents.

VILLAGE IN SAXONY. Modern thinking does not necessarily breed ugliness. This plan provides amenity

REVEILLE OR TAPS?



4. Plan communities for democratic living and not for speculation—citizen communities, not builder communities.
5. Plan the necessary good housing.
6. Plan the needed public works—hospitals, clinics, schools.

Things architects can do to help clear the way for the planning of specific projects.

1. Review building codes and help organize them so as to make them flexible.
2. The individual architect can easily show the absurdity of most zoning ordinances, especially in relation to the size of areas devoted to business and to multiple story living. Again quoting Harland Bartholomew, in the paper published by The Urban Land Institute: "Broadly speaking, the great majority of people seek a single family home with a certain amount of ground around it, with trees, grass and flowers, so located that the open country lies to one side and the city on the other. Thus we reason that we can daily leave behind the city with its smoke, noise and congestion, and live on the edge of pleasant open spaces."
3. Study local city government and help replan the overlapping municipalities that exist in all our cities. Work with other social-minded groups.

Here is a village plan, extremely economical in utility layout, each house spaced on the amount of land the family can easily manage. Each family is surrounded by all the amenities of a possible vital community life in which it maintains its own individuality. Such a community separated by green playing fields from its neighbors, insulated by other green areas from super-speed highways, would be a place where normal life might be lived

Remember! In the architect lies the imagination, the ability, and the knowledge to plan a humane civilization—one that will result in an urbanism that is not made of slum mindedness and blighted lands.

Do not be afraid to appear radical. The airplane will make all past revolutions in city design seem pale in comparison.

The time for post war planning is now and not after the war. The nation drifted into this, and all our other wars, unprepared, and has built our cities so unplanned that slums and blight have cost us more than if we had used the planning ability we possess.

Order is less expensive than chaos.

Study planning—talk planning.

Talk communities—insist on better ones.

TIME TO CHOOSE OUR

PLANNING OR DISINTEGRATION?



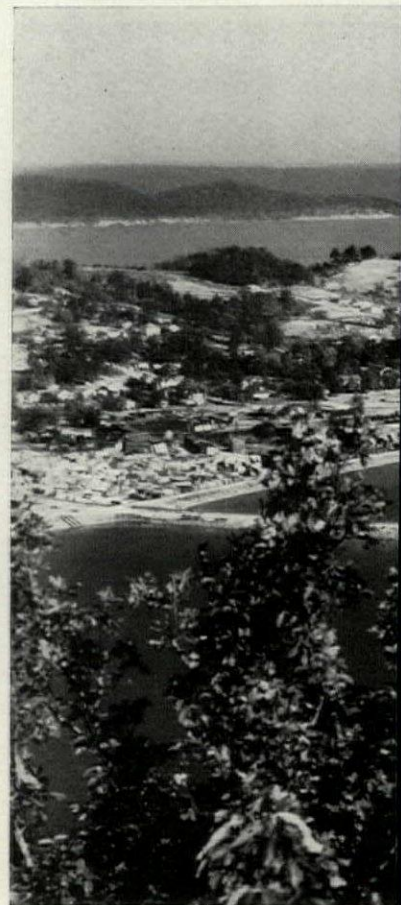
BY *Roland A. Wauk*

TVA Chief Architect since 1933. A native of Budapest, he was trained before World War I and rose to be Chief Architect of an international construction firm before coming to America in the Early 20's.

NO, this is not a discussion to define planning. Nor to classify it as social, physical, and so forth. Let's assume that planning means just what it says, and that like war or peace it is all-inclusive, indivisible and world-wide. And let's also assume that these tough years have hammered into us awareness of its utter necessity. To survive as a nation, we adopted — although with reluctance — wholesale directive planning for the duration, its branches spreading over every department of life.

But what about the roots? We accepted planning because for once we had a powerful and united will and purpose: to survive. But how about our mental reservations? And how much purpose will we have left when survival appears assured at the conclusion of a victorious war—and I use "appears" advisedly.

Whatever it is we are fighting for, it isn't a world status quo. One cannot fight for the memory of something that has gone forever. Something that disappeared when vanquished millions were starved, chased or kidnapped off the maps of their countries; when industrial plants and traditions were transplanted en masse to the victors; when invention and industrialization swept feverishly into brand-new or placidly backward fields of production and into traditionally primitive countries; when empires, institutions, habits and loyalties crashed around the globe. **This time the future can neither be reestablished in the image of the past, nor safely left to happy accident.** The accidents are not likely to be happy. Mankind, having struggled since the stone age toward conscious direction of its destiny, today confronts the staggering necessity to do just that, **now**. The tools are here, at last—chaos and death are the penalties of failure.



TVA

Striking example of municipal planning is the town and harbor at Gunterville, Alabama. Petroleum products, grain, and other commodities now reach Gunterville and the adjacent area by water

DESTINY



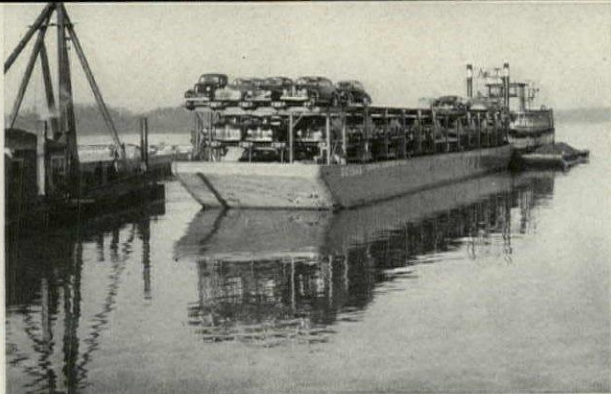
Our reluctance may be explained by psychologists who have a name for the terror of facing up to the future and for the soothing solace of the past, familiar even if imperfect. To that, add the rankling recollection that large-scale peacetime planning was born in Russia and raised in totalitarian countries which now comprise the Axis. Many among us conclude that being so associated with loathed policies, planning per se must be inimical to democracy. It is easily forgotten that planning is not of itself a policy but a tool of policy, which would make it equally logical to reject air attack, rubber substitutes, or conscription because they were successfully used by the enemy.

Not for democracies? Let's be mindful of public education, social security, and the hundred-odd other ideas which time and

again were supposed to sound the death knell of democracy. **It is insecure faith indeed which doubts the capacity of our way of life to scale the steps of history as they are reached. No system can endure unless it absorbs and digests the trends which can be neither stopped nor reversed.**

Unbuilt pipe lines and steel mills, inflammable slums, neglected railroads, rundown soil, food unraised and uneaten, skills forgotten or never learned are the gaps in our armor in this war, just as they were the creeping paralysis of our peace. But here and there was planned expansion too, and strength was made to grow where none was before. For a few examples, let me cite this nation's original contribution to democratic planning, the Tennessee Valley Authority.

Here was an area the size of England, peo-



Commercial traffic on the Tennessee River (TVA) has jumped millions of ton-miles in one decade



For war-time workers in the Valley, the Authority built communities of modern demountable houses

pled by a proud race with fighting hearts, but almost a textbook example of confused havoc left by the exploitative economics of self-interest. Eroded hills, retarded industry, markedly inferior opportunities for health, education, careers. Then came an organization backed by the power of the nation, with a program of partial reconstruction through great engineering works, and with determined leadership for economic expansion about which there was nothing partial. Leadership to make more wheels turn, more green things grow, for better houses, more health, recreation, knowledge, and hope — more power. TVA had no dictators' tricks in its bag. But it possessed the ability to see all of a region's problems as one interrelated whole, had its own works for demonstration, and had the persuasiveness of a creative idea. After nine years the results are evident — and conclusive. Decline and devastation came to a halt; powerful new prime movers have been set in motion; economic oppor-

TVA



Since it was opened in 1936, Big Ridge Park has been enjoyed by thousands of vacationists. It was developed as a demonstration park by the CCC, TVA, and National Park Service

tunity has been thrown open for men of energy, resource and daring. New plants, some enormous, sprawl alongside the old; green sprouts on barren hillsides; river transport jumped from an occasional tow to millions of ton-miles; electrification spread to the remotest rural corner; the Valley is alive with hope, energy, determination.

As architects, it would be natural to ask: what is our special concern with planning, and in what ways, if any, would the practice of our profession be affected in the kind of world of which TVA may be a first token?

Now it seems obvious that architects don't thrive on depressions, wars or social struggle. Perhaps more than other groups, they thrive on two conditions implicit in the success of any planning program: **stability** and **expansion**. It would be natural for us to become spreaders of the gospel of planning.

But it may be well also to guard against a facile delusion sometimes connected with support for the idea: that we (or any other group, for that matter) have proven special claims as technicians or directors of the planning process. True enough, we are trained in the simultaneous weighing of many different factors; also in seeing the yet unborn and unbuilt as if it were there to be viewed. And dealing with a product for direct human use, subject to direct human reactions, we may have a head start on statisticians or engineers in the matter of rapport with the public mind, which is essential. But **how many of us have real background in technology, transportation, economics, public administration, land use and innumerable other disciplines which should be familiar to anyone claiming special qualifications as a planner by virtue of knowledge and experience?**

By and large, planning is likely to be a group effort. The utility and standing of architecture may be determined by the understanding of other professions, evidenced by the architect's skill in shaping his special component of the collective creation to the pattern of the whole. To be sure, group planning does not exclude leadership by the special genius of persons who may fittingly be called simply "planners" (and here is hoping that many of them will be architects) but it would be injurious to the profession to assert that its practitioners, per se, possess the necessary qualifications.

Lastly, what changes would the crystal indicate for the business of architecture—if we had a crystal? Probably destined to swap independent achievement for contributions to a greater whole, the architect may be led into yet another kind of group association within his own craft also, either by preference or necessity. The ideal of a shingle, a roomful of drafting boards and a pretty secretary in the hall may give way to large professional organizations in an age typified by fewer units. There is little need to elaborate upon the competitive advantage conferred upon the large unit by modern technology, not only in the commercial, but also in the social, or national, or military sense.

The moral for the architect seems obvious. Among his clients will be fewer individuals asking for individual buildings. There will be for him less assurance of receiving his share, through the law of averages, out of a limitless supply of unrelated projects, large or small. Public works can hardly fail to grow in percentage of the total national job; and even if the actual putting up of other projects remains the task of private enterprise, many decisions may have been made ahead of that stage (as forecast by current proposals for urban redevelopment) or may be centered in very few hands (as suggested by the emergence of prefabricated houses, the ascendancy of chain businesses, and integration of the building industry itself).

While he transmutes into a participant or employee of large professional organizations to deal on equal terms with large clients the architect may also have to meet and learn more about the little people who are likely to be his ultimate patrons represented by PWA, by the prefabricator, or what have you; whose interests were always too small to warrant the employment of an architect, so small in fact that they were referred to collectively as the **public interest**.

The future is unpredictable, to be sure, but not because it is shaped by any mysterious and overwhelming forces of nature. On the contrary. If the technological revolution means anything, it means that we learned the rules of the game whereby **nature can be made to yield any kind of destiny we want badly enough.**



WHAT retards Urban Reconstruction?



BY *W.C. Behrman*

Lecturer on City Planning and Housing at Dartmouth College since 1940. This distinguished German planner, Housing Authority, Doctor of Engineering, Author, Lecturer, has lived in America since 1934

WE know the physical structure of our cities, large and small, is obsolete. We know that our cities have not kept pace with the advance of technology. Many a city, after rapid and extensive growth, still shows, particularly downtown, the same street pattern which was developed to meet the needs of its horse and buggy youth. On these streets, laid out to give access to low residential structures, there were later erected, unscrupulously, tall office buildings and skyscraper apartment houses, buildings causing a tremendous traffic congestion in their neighborhood. The original street pattern has neither been adjusted to the manifold changes in the use of land, nor has it been adapted to the new needs of motor traffic.

In almost every section, our cities show striking symptoms of obsolescence: their streets are congested with traffic, their downtown districts reveal sign of decline, their residential sections are infested with slums,

and many an area is suffering from blight and decay—conditions harmful to humanity, detrimental to social life, and destructive to the municipal budget. The municipalities, under public pressure, try to alleviate these conditions by providing more and better administrative services — which involve increased expenditures. At the same time, they face diminishing tax returns. The tax revenue constantly shrinks because the city's rate of population growth is slowing down. Besides, a considerable flight from the city is under way: those who can afford to escape the present deficiencies of the urban structure, move to suburban districts. So the city is left with many blighted areas which, though still assessed at high valuations, do not yield expected revenues. And slum districts, with multiplied needs for fire, police, and sanitary protection, are a heavy drain upon the municipal budget.

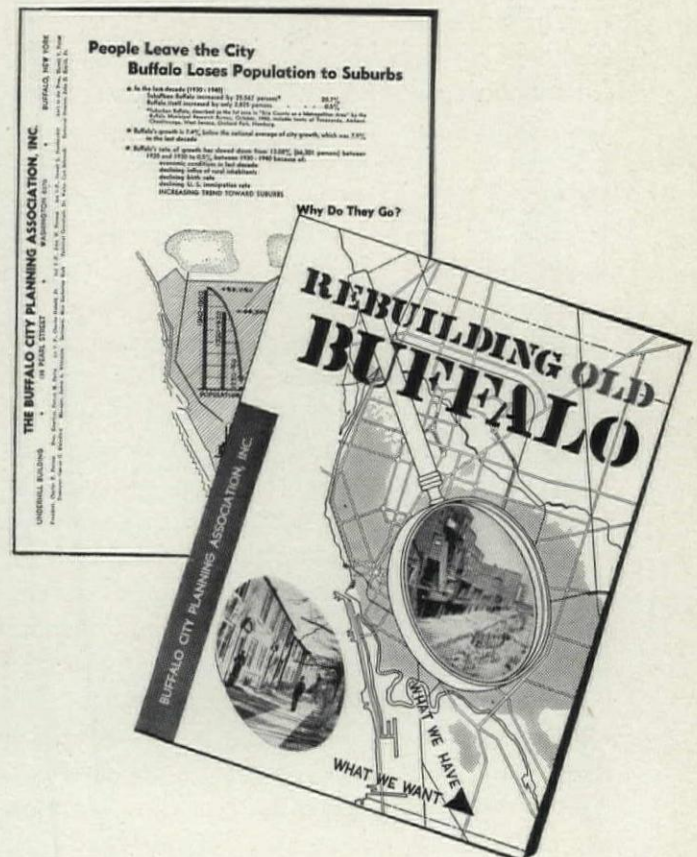
We know that such conditions, resulting from the impact of obsolescence, cannot be endured for long. In view of the important part the cities play in our social, economic, and cultural life, we have to face the problem of urban reconstruction: a problem most urgent and not to be put off, needing for its solution our best talents and strongest efforts.

REVEILLE OR TAPS?

Some of these new patterns have already been tried out on virgin soil or under other conditions favorable to experimenting. In almost every case, these experiments have proven successful. Now, if the new schemes of physical planning which we have developed have proven feasible, why are they not commonly followed in practice? What stands in the way of their general adoption; what retards the process of reconstructing our cities on a large scale?

TO answer this question, we must look back at the history of the American city. We must remember that the main and decisive force in our urban development, in the last hundred and fifty years, was not the municipality but the **realtor**. As a matter of fact, in the history of American civilization the realtor plays an important part: such a momentous part, indeed, that the type was celebrated with Sinclair Lewis' master novel on Babbitt, who came to full glory in Zenith, the city of his own making. The part the realtor played in modern urban development is properly described in the following statement from one of the numerous books on Real Estate, written in the flowery and boastful language that is one of the special characteristics of this trade. "Real estate men," the author says, "became the city builders of modern times! Assuming the place of kings and emperors, who in ancient times fostered the rise and growth of cities, the real estate subdivider and the business district operator now sway and direct the future of cities in the making."

Section after section was laid out that way, and any city map will reveal, by sudden and arbitrary changes in block and street arrangement, where one developer's field of activities ended and another's began. These arbitrary changes, which often became detrimental to traffic movement by causing too



Printed matter, highlighting and dramatizing community planning needs, is a useful instrument for gaining public support for urban redevelopment

many intersections along main thoroughfares, indicate that no municipal control or regulation of subdivisions was exercised.

Credulously accepting the general assumption that land is an ordinary commodity, the municipalities failed to apprehend that the use of land is vested with a public interest. And following the established principle of *laissez faire*, they permitted a vast and unrestricted course of land gambling, resulting in largely inflated valuations and over-intensive land utilization: **factors which now, in the form of a tremendous debt structure, present one of the main obstacles for urban reconstruction, making building almost prohibitive.**

IV

RECENTLY, a suggested scheme offers a way to overcome this obstacle of high land charges which hinders our efforts toward urban redevelopment. This suggestion, published by the National Planning Association (Pamphlet No. 10: "Urban Redevelopment and Housing"), comes from two leading economists: Alvin H. Hansen, Littauer Professor of Political Economy at Harvard University, and Guy Greer, Senior Economist of the Federal Reserve System.

The authors' suggestion is to remove the obstacle of high land charges by having the land acquired by the municipalities with the financial aid of the Federal Government. Federal funds should be advanced, if need be, up to the entire cost of acquisition. The land so acquired would then be leased by the municipalities to private enterprise for use: such use being determined in regard to the best interest of the whole urban community, as indicated by the master plan, irrespective of the acquisition cost of the land. The authors have surrounded their proposal with many conditions which we will not discuss here beyond mentioning that provision is made for having the municipalities repay to the Government, over a period of years, parts of the income obtained from leasing the property.

The idea involved in this proposal—of charging the municipality with the function of a public land agent—is by no means new. In European countries, many cities, for long times past, own large real estate holdings, administered by special departments under expert and responsible officials. It is by virtue of this municipal land policy that Euro-

pean cities, again and again, were able to overhaul and rebuild obsolete parts. In Britain today, when replanning is discussed, municipalization or even nationalization of urban land seems an accepted notion. And those who are talking that way are by no means communists but Honorable Lords and Members of Parliament, Laborites as well as Tories. For this country, the conception of a municipal land policy is still new. Only recently has such a policy been publicly discussed and officially recommended by the Federal Government as a measure well suited to help us in our need for urban reconstruction.*

Now, the Hansen-Greer scheme, if workable, would help to solve the most difficult part of the problem of urban redevelopment—the financial rather than the technical part. It would relieve the initial investment needed for redevelopment projects from assuming the cost of land to be acquired: a burden which, as yet, was generally prohibitive for their realization.

The intention of facilitating the reclamation of blighted areas by relieving the cost of investment underlies, by the way, the so-called Urban Redevelopment Acts, adopted by various States, and permitting partial tax exemption over a limited period of years. The Hansen-Greer proposal, however, is more radical and, therefore, more promising. It will make all the difference in the world for our rehabilitation projects whether we can lease the land on reasonable terms for use, or whether we have to buy it and then figure on densities to meet the high, though fictitious, land values still maintained in substandard and blighted areas. What the authors of the proposal have in mind is clearly expressed in their statement that "the public acquisition of land would be a by-product of the job of clearing away the obstacles to redevelopment, and any portion of the acquisition cost not subsequently recovered would simply be written off, as the price to be paid for the errors of past generations."

To put it bluntly, after we have, during the past, permitted the gains to flow into private pockets, we now discover that we will have to socialize the losses before we can make headway in our attempts toward urban reconstruction.

*National Resources Planning Board: Public Land Acquisition. Part I: Urban Lands. Washington, D. C. February, 1941.

THE preceding goes to show that all planning today is social and economic. All the patterns and schemes of modern planners anticipate, in our society as it is, the pattern of a new social order and the needs of a society to come. All these new plans and projects bristle with social and economic implications: then suggest new forms of social and economic behavior, of community organization, of public administration — in short, of a new pattern of life and work, revising the whole social fabric.

It follows that all progress in physical planning requires changes in social thought. Before the schemes and projects of modern planners can be realized, there are needed modifications of the existing social order, adjustments of our prevailing institutions. This regards not only our habitual attitude toward land and land valuation, but is also true for our administrative practices and our traditional methods of private and public financing which, until now, have completely neglected the factor of social accounting. Obviously, it is beyond the power of the individual planner or any individual to bring these necessary changes about. These can be achieved only by collective action, by a common effort of society. However, as long as these changes are not achieved, the planner, again and again, will find his projects frustrated. It reflects the day-by-day experience of every planner, I believe, when Harold Laski, in a recent book, points out "a deeply-seated sense of frustration evident among technologists as well as scientists, who declare that their power to lessen the burden of mankind is thwarted by the economic and social institutions of our time." As a matter of fact, what retards our progress in planning is the surprising and depressing discrepancy between our ingenuity and technical skill in physical planning and our capacity of social assimilation. While our technological advance strides in seven-league boots, our sociological initiative still proceeds in pedestrian fashion.

Now, in times of social change, such as ours, it becomes the task of democratic government, established to provide the greatest good to the greatest number, to take a strong leadership in the efforts for social renovation and to bring about, by legislation, such adjustments of our social and economic in-

stitutions as are needed to fit our new concepts. Such governmental leadership is implied in the Hansen-Greer plan.

The government, however, even with active leadership, even if it is imaginative enough to see the need for establishing a new program of social policy, cannot push its action further than public opinion will permit it to go. The mechanism of democratic government, as the political scientists tell us,* can only be called into action when a free agreement, when an effective consensus of public opinion has been reached.

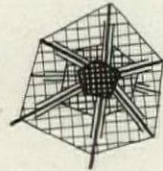
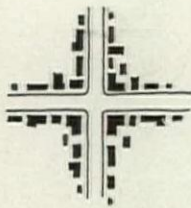
City planning is a social art, and planning for urban reconstruction is only part of the greater problem of planning for social renovation. As a planner, the architect in these times is called to join the craft that is about to build a new society: a call which sets him a great, a noble, a thrilling, and a most fascinating task, and also a most difficult one—a task that involves great responsibilities, and requires a most comprehensive preparation. And yet, not one of the planner's prospective ideas can be realized until society is ready to accept the premises on which his plans are based. **The first thing that has to be done to put our plans into effect is to create a public opinion ready to endorse those premises.**

To build up such a public opinion is a vast challenge to education, demanding its best and strongest efforts. It is not enough to hold out the promise of a better way of life as demonstrated in our projects: the average citizen will gladly accept these projects, for his own benefit and that of his children. What is needed, first of all, is to win him over to accept the social and economic changes involved, and to make him understood what he and his fellow citizens have to do to bring our plans into realization.

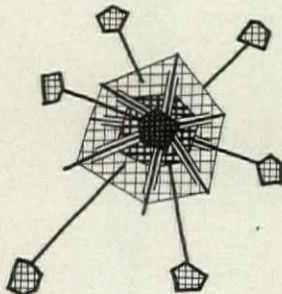
Only if our plans are supported by an enlightened and well-informed public opinion, a public opinion strong and militant enough to engender, or even to enforce action, can we hope to make substantial headway in rejuvenating our cities by large scale reconstruction.

*A. A. Berle: *New Directions in the New World*. New York, 1940.

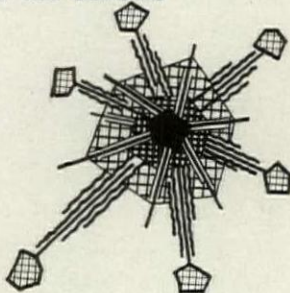
CITY PATTERNS . . . past



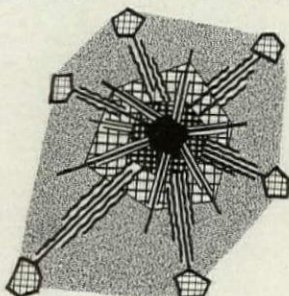
The city started at the crossroads. It grew out from the center: overconcentration, decay started at the center



The auto permitted escape of people and industry into the suburbs



The urban backwash; highways became slums



The city engulfed the suburbs; realtor and developer filled in open spaces

BY

Frederic B. Stein

Recognized authority on housing, regional and town planning. Recipient of many professional honors, Stein began to practice after service in World War I. He is now busy with defense housing.



THE old city pattern consisted of an endless repetition of similar rectangular lots and blocks divided by a gridiron of streets that ran to infinity. The gridiron pattern of small blocks and narrow deep lots is a convenience for trade in land—not good living.

The conventional city plan destroys community life. It cuts neighborhoods into small islands separated by dangerous flow of traffic. It loses the identity of neighborhoods in the pattern without limits or end. It has no focal center or boundary.

Modern urban life requires a completely different plan based on

1. A setting for neighborhood community life cut off from the flow of city activities, where all can develop their individuality by actively participating in the common life. Only so can the democratic way of living be preserved.
2. Spacious living—plenty of light, air, broad vistas of nature; large, natural spaces for leisure, safety; and conveniently reached from all homes.
3. Economy in the unessentials, so as to permit complete equipment for healthful, wholesome individual, family, and community living.
4. The use of the automobile with complete freedom and safety, and protection from the annoyance and dangers of the automobile.
5. The use of the airplane, which will determine the form of the future even more than the auto indicates the need of the present. All we know of the future is that we **do not know** just what technical change will determine its detailed pattern; but we do know that the requirements of human needs and human desires for closer contact with nature, as well as the necessity of flexibility to meet changing techniques, indicate the pattern of limited-size units surrounded by open spaces close to all activities.

Essential Physical Differences—Old and New Patterns

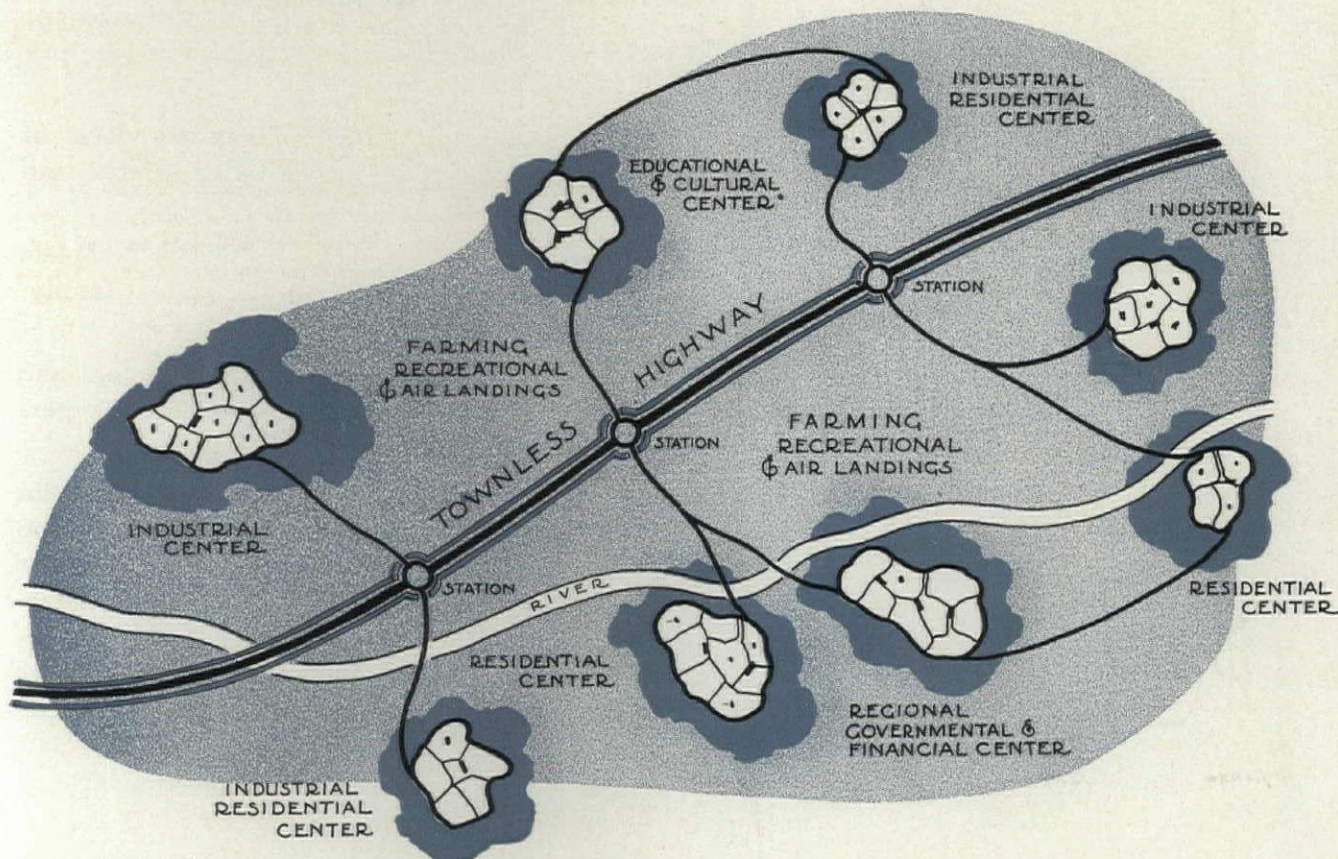
Basic Unit. The region and the neighborhood form the basis of design and operation in the new—the lot and the city in the old.

Regional City vs. Metropolis. The old metropolitan city is a limitless agglomeration, with a dominant center. The new Regional City will be a constellation of small or moderate-sized towns (or communities) separated by great areas of natural green, but bound closely together by “townless highways” or parkways.

City-Country. The new consists of communities of limited size integrated into a regional pattern of closely related urban and rural life.

Neighborhood Communities. In the formless mass city of the present, community life and face-to-face democracy have been submerged and lost. New communities should be small enough to permit neighborliness and participation of all members in common concerns, but large enough to allow a rich and varied community life and to support

THE REGIONAL CITY. The Regional City consists of a group of communities which, in aggregate, should be large enough to support economically the essential equipment of a modern American city. Each community, in addition to its residential function, may serve one or more specialized functions required for the group—industrial and commercial, cultural and educational, finance and government, entertainment and recreation. Community character is permanently established by a surrounding protective area of natural green. The open spaces between communities are kept permanently open for their related uses as farmland, recreation area, or natural woodland. Because the unit of scale of the Regional City is the free, safe use of the automobile and the airplane, the residents of any community within the City are as near in time to the other communities and to the open spaces between them as the residents in the outlying areas of the sprawling metropolis are to the center



adequate communal facilities economically.

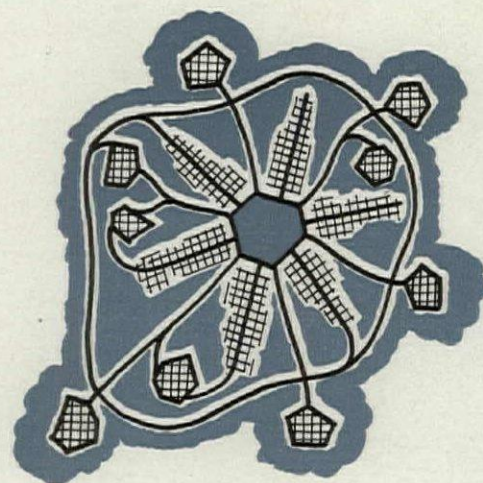
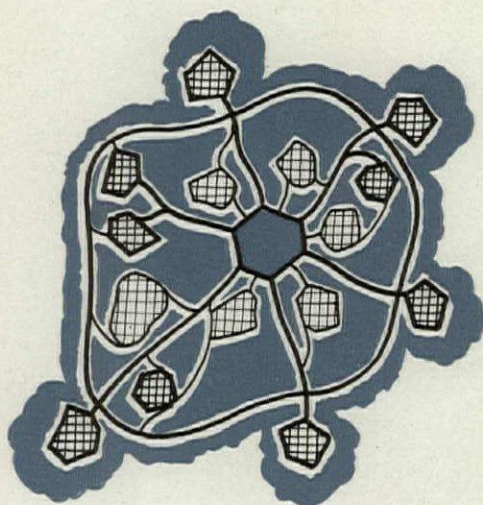
Towns. The consolidation of a number of neighborhood units into a community or town for the purpose of carrying on common functions (high school, market center, etc.) more efficiently and economically, can be organized without loss of the individuality of the neighborhood.

Open Spaces. Openness is the main characteristic of the new pattern; the skeleton street plan dominated the old plans. The central framework of the new is not solely highways as in the old, but a related system of roads and parks that fit together so as to give freedom for movement and protection for repose.

Blocks and Super-Blocks. Specialized super-blocks with central areas of park replace the monotony of small standardized blocks. In-

stead of shaping individual houses to fit predetermined lots, the form of blocks is molded around the requirements of living. The topography of the site and the desired grouping of houses, community buildings, stores, and open spaces determine the pattern of roads.

Circulation. Roads serve instead of dominating. Streets and paths are located to fit the most desirable arrangement of buildings and open places. Each means of circulation has a specialized form and construction. Freeways, or Townless Highways for high-speed through-traffic, pass between but never through towns. Distributing and Neighborhood Highways collect and distribute traffic in the town. Access to properties is solely by lanes designed to discourage through-traffic. Paths are completely separated from roads. All parking is off roads on adequate areas specially designed and paved.

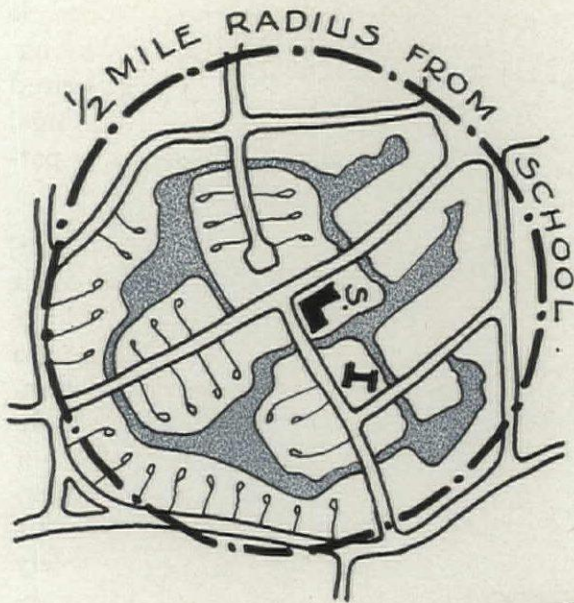


Metropolitan Reconstruction

Salvage: Alternate methods of eradicating the most decayed areas, stopping further blight, improving and freeing circulation in the existing metropolitan complex through application of the principles of the Regional City

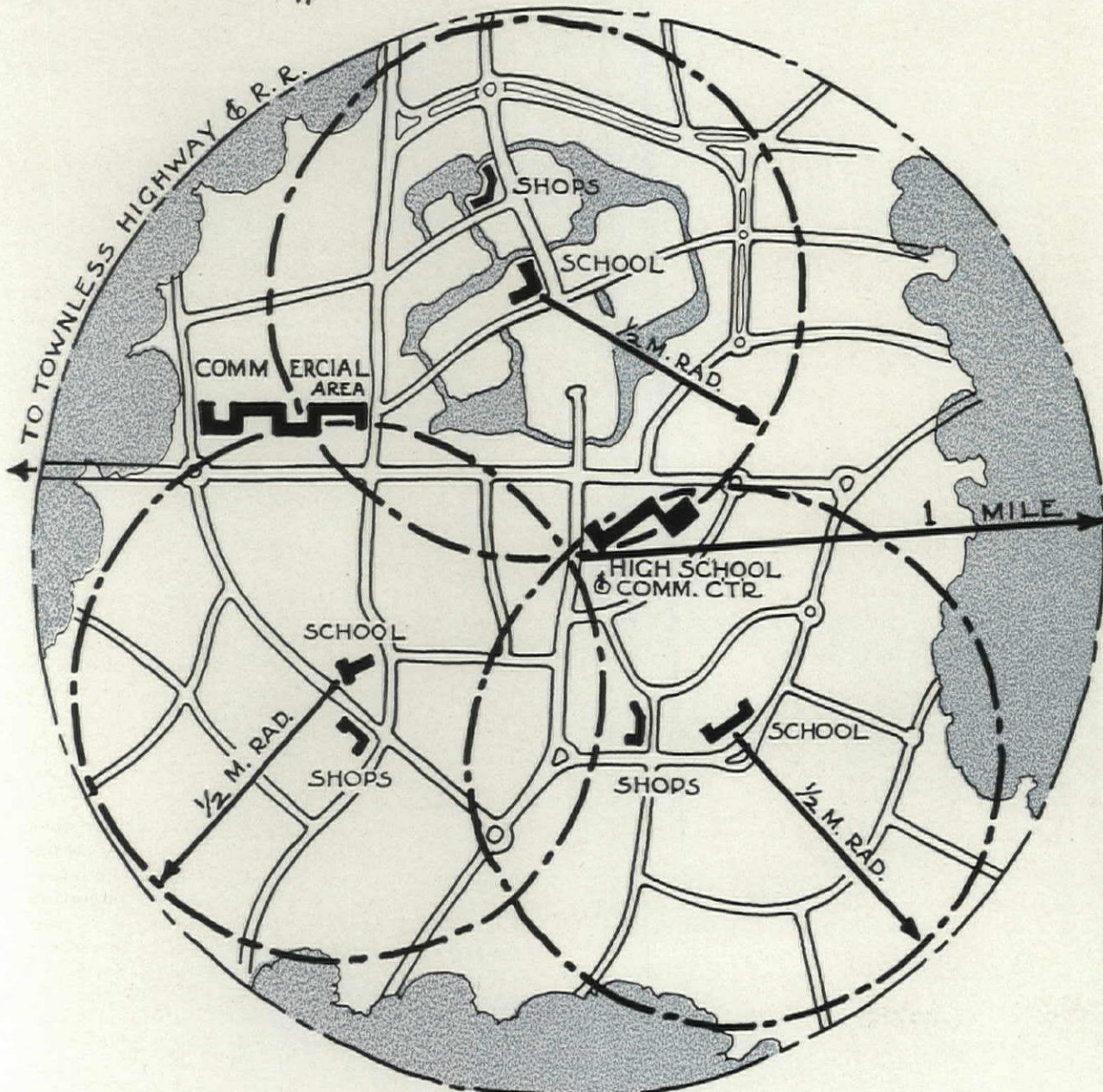
← The theoretically ideal method of attack: decay at or around the core replaced by green area, outlying secondary centers largely preserved and connected by the circumferential high-speed parkway; intermediate areas preserved in well-defined neighborhoods and protected against further blight by careful interweaving of green open spaces; a new system of secondary roads connects these with the center and with the circumferential parkway, but roads do not bisect any residential or commercial areas

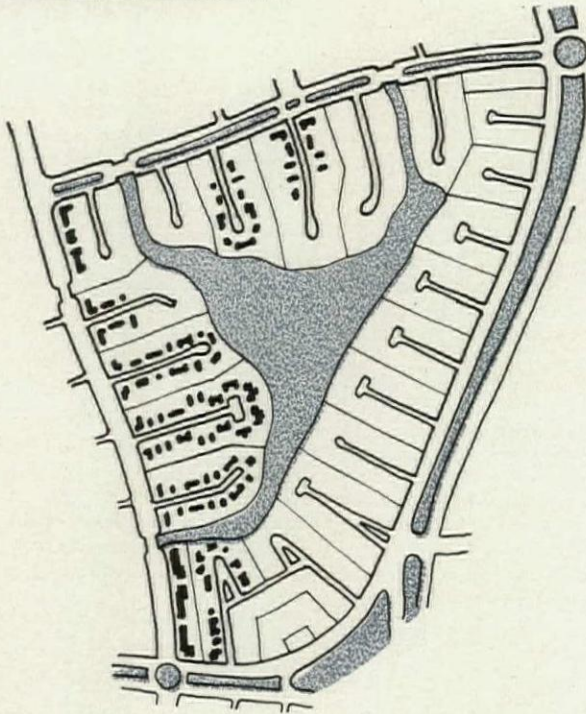
← The expeditious method of attack: decay at the core is also replaced by green; but the main areas of development around important arteries are preserved, interwoven with a system of parks and open or recreation area; and outlying centers are connected by a new circumferential parkway which links but does not intersect them



THE NEIGHBORHOOD is the natural basic planning unit which permits the greatest economy and freedom in the layout of blocks, streets, shopping centers, schools, recreation spaces, houses. It centers around communal interests, whose focal point is the elementary school. Ultimate size of each neighborhood may be measured by the number of families whose children will fill an efficiently-run school. Each neighborhood requires well-defined borders to preserve and protect its unity and special character. Topographical limits or planted areas may determine these

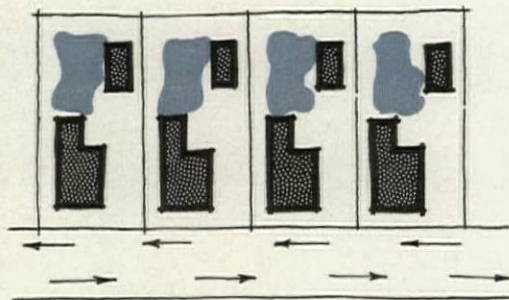
THE COMMUNITY is composed of one or more neighborhoods separated by open green spaces, but bound together by secondary roads. The development of a community requires common interests vital to residents. Size depends primarily on predominating interest or need—usually high school community center—and on the most workable and economical organization for that function.





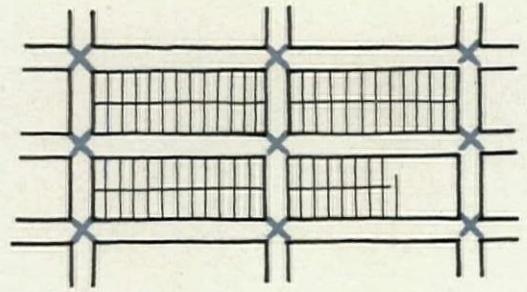
THE SUPERBLOCK: Open Spaces—Safety—Green City.

Planned for peaceful living and privacy, houses face on quiet spaces and are oriented to receive the maximum amount of light, air, and sunshine. They are safe from the danger and annoyances of traffic because they are reached by specialized paths isolated from traffic highways



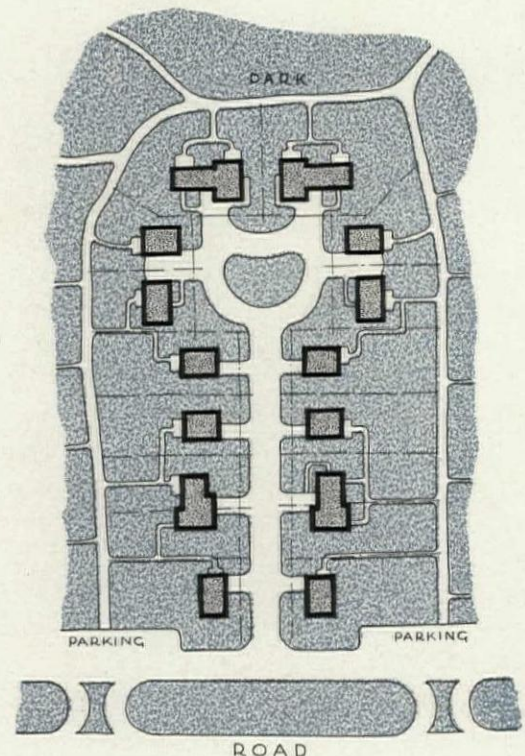
GRIDIRON GROUPING

Each house fronts on the street which serves all purposes—through-traffic, local traffic, parking, deliveries, and sometimes recreation—and is confined not only within the prison bars of streets but of narrow lot lines. The pattern of roads and utilities is uneconomic, and, for living purposes, the land is largely wasted



GRIDIRON: Prison Bars—Gray City

Buildings and lives cramped into a predetermined framework of roads and lots. Ownership for speculative profit has led to ever-increasing land coverage, congestion, shadows, gloom, foul air, and disappearing open spaces and natural green. The same sites for houses, stores, factories, and even monumental buildings



PREFERRED GROUPING

Houses and other buildings, instead of being cramped into standardized lots, are organized in groups so that each may have maximum advantage of air, light, open spaces, at minimum cost. The living quarters of houses face on gardens, grouped around large central parks. The service entrances are accessible to local service roads and parking areas, but do not face through-traffic highways. Pedestrian paths are on the garden side of the houses and run through the parks

Training Architects For The Future

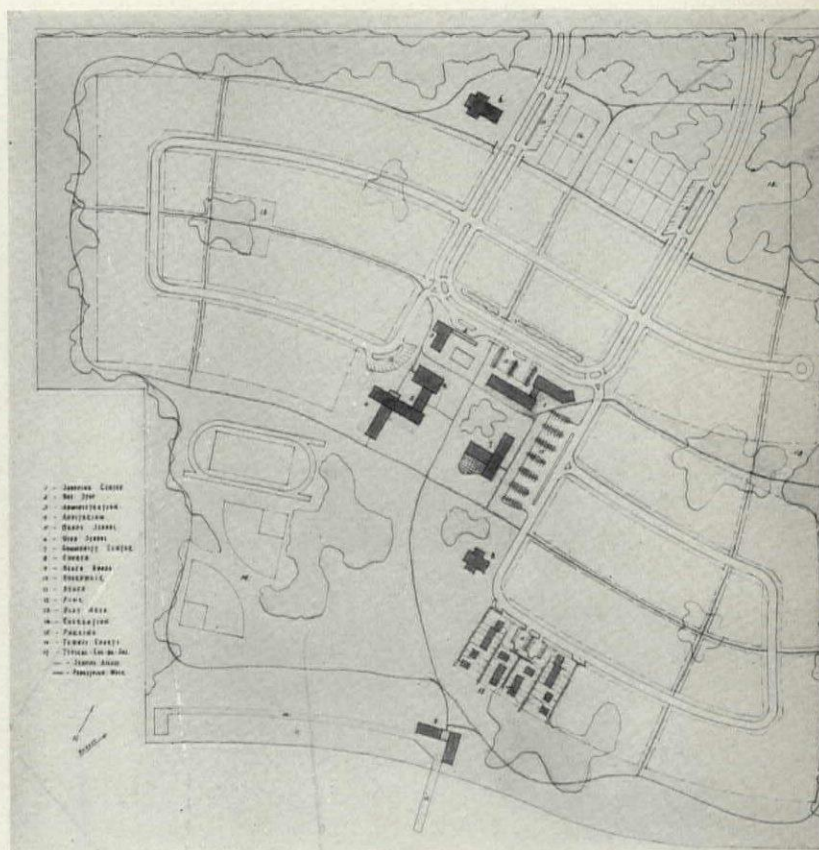


BY *Leopold Iruand*

Dean of the School of Architecture, of Columbia University and recently named Ware Professor of Architecture. He is head of the Association of Collegiate Schools of Architecture

THE profession of architecture, as we have known it, no longer exists. But this qualified statement does **not** mean the profession is extinct, or that its future is sad or hopeless. The need for architecture and for those who produce it is as enduring as human society. This seemingly trite assertion is today not generally accepted, and it is my conviction that it must be stoutly defended. There will be changes in nomenclatures, problems, and conditions of practice. It is the role of the architect to be sufficiently clear-minded to recognize the changes, and sufficiently flexible to devise methods for coping with them. This is a challenging prospect; difficult but not discouraging.

The complete cessation of private practice that we are witnessing today is impressive, but not surprising. The history of society is the history of architecture, and for the past three decades it has been grotesque; war, boom, depression, war. This sequence of four varieties of chaos inevitably brought about the breakdown of existing systems. During the depression especially, it was obvious to the far-seeing that the day of patronage was done and that another system would take its place. The war has completed the transition with such rapidity and completeness that we are still shocked by the crack-up. But with increasing realization of the accomplished change, we must speculate about the future to prepare for it and mold it insofar as possible.



At Columbia University architectural students are regarded as "inheritors of the profession," and the problems set for them suggest possibilities of Tomorrow. Above is shown a portion of the design for a defense housing community that recently won for Hayden Johnson, '41, his second Henry Wright Memorial Prize

It can be assumed that in the post-war era the architect will build for a community or group. Consequently, his client will not be an individual, and the architect will function as a member in a team of specialists. The problem will be highly complex, because a **group** of individuals or a large scale endeavor will be involved, and because technological demands are developing continuously. These complexities will make the collaboration of specialists an absolute necessity.

Both the architect and the engineer will be among the members of the team, and they will have to learn that they must complement, **not supplement**, each other's work.

The role of the engineer is to develop the methods of structure. (The details of his contribution cannot be explained in this short comment.) The role of the Architect is to interpret the requirements of the problem in terms of space and mass and structure, to interpret materials in terms of form, to coordinate the functions of the various specialists, and, above all, to create a design that will fulfill all practical needs but that will at the same time mold utility and economy into an esthetic composition. To do this, the architect must have trained taste, and be endowed with sensitive perception and creative capacity. But he must also know the science of structure and the capacities of materials. He must have a good measure of the engineer's training which, however, would not be an overlapping, but rather a common basis for the concerted efforts of these two specialists.

What can the schools do to prepare professionals for this type of work?

We believe that the schools are already doing a great deal. A comparison with the past will prove it most dramatically.

Professional training should be based upon some general study; general studies must be required therefore as a preliminary, or included in the curriculum. The extra-professional work should include a serious preparation in the sciences (mathematics, physics, chemistry) and some history, economics, sociology. The student should be familiar with the world—both scientific and human.

Having in mind that the future architect will be primarily a planner and coordinator,

he should be developed accordingly. Design in all its potentialities should be the nucleus of the training. While learning to design, the student must learn how to study the specific requirements, social or technological, of his problem, and he must be trained to collaborate not only with building specialists, but also with industrial technicians, sociologists, and a variety of civil authorities. The study of design must also be integrated with courses in construction so that the student will have a practical (though not a specialized) knowledge of structure, materials, and mechanical equipment.

The schools, while primarily for architects, should also provide for town planners, industrial designers, interior designers, landscape designers—specialists whose basic training is similar to that of the architects. By architects, I mean the men who will inherit and carry on our profession. But they may not be called by that name, as its continued use may be impracticable, implying to the layman an outmoded form of practice. The present situation is highly significant. While there is an urgent appeal for "architectural-engineers" and "construction-draftsmen", the men in government offices cannot be made to understand that a large part of the war construction can best be done by the men who have architectural training and experience.

Whatever the name, the profession is indispensable, and it must have its disciples. We cannot foresee in detail under what conditions they will function, but the changes in store for the architects are perhaps no more drastic than those that will come to the doctor, the lawyer, or the business man. But this is a challenge, not a cause for regret or defeatism. The profession has before it a thrilling future.

Building activity will be tremendous in scope, and for the very reason that the changes will be drastic and general, it should be a period of great creative fecundity. New methods, new materials, new problems, new social and economic requirements; not only a new era, but also a new physical world!

Those in intimate contact with youth can sense, in spite of a certain inevitable amount of restlessness and confusion, that the young generation understands the possibilities of the future, and faces them expectantly.

The young are not afraid, but the schools must fit them for their task!



GRAND COULEE

The Brunner survey was to include the country's power plants and dams and Grand Coulee was a "must" for obvious reasons. Being an accomplishment of the Department of the Interior, a note from Secretary Ickes was of assistance and Major Hutton of the Reclamation Bureau gave several hours, on two days, to conducting the party over the site. A peculiarity of Grand Coulee is the difficulty of grasping its magnitude; there were two grandstands placed before the spectacle to permit the public (at least in peacetime) to gain a comprehensive view; even here, however, it was difficult to realize that the power house (lower right, in the drawing) is as tall as the Architects Building in New York—18 stories. In the sketch, two dots may be seen just to the left of the power house; from the grand stand, they looked like "flies" on the spillway; actually, they were two men working on a scaffolding let down from the crest.



It seemed that the scale was appreciated most clearly from a viewpoint as near water level and as close under the power house, as possible; therefore it was sketched from the viewpoint shown, using Pluvius pencil and pad of tracing paper. The final drawing 16" x 22" was made on return to the studio—

Wolff crayon, paper stump, kneaded eraser, Devoe & Reynolds' illustration board.

Hugh Ferriss

POWER *of America*

by HUGH FERRISS

The drawings made by Hugh Ferriss while traveling 18,000 miles through the United States as the Arnold W. Brunner Fellow of 1941 portray noble qualities of our Contemporary Architecture that are unrealized—or ignored—by too many observers. The trans-continental Brunner trip was made by this distinguished New York Architect and Delineator seeking "the architectural record of the Late Thirties and Early Forties" and he came back inspired by what he saw. It is the privilege of PENCIL POINTS to reproduce four of his remarkable collection of drawings, of which the view of Grand Coulee in this issue is the first. Below is a transcript of some remarks by Ferriss at an Architectural League of New York dinner that opened the first exhibition of the Brunner drawings.

One cannot travel far in this country without realizing that this war, to a surprisingly large extent, is being waged in buildings. It should be obvious that we could have no aircraft without the aircraft plants; that factories could not operate without power plants, and could not be manned without the projects to house the men; that materials and orders could not be forwarded without the structures of the transportation and communication systems. To list even the types of buildings used by Government, Army, Navy and War Industry has taken pages. Yet one has to go through the country, seeing things at first hand, to realize the true enormousness of the war-construction effort.

Although most of these drawings illustrate buildings now used in war, I have of course barely touched the fringes. Perhaps one will have an opportunity to pursue the matter further at a later date. Speaking to Washington, I think it could be pointed out that the public reads and hears a lot about the construction program but does not visualize it. No one wants the public to visualize it in specific and secret detail. But to bring home **a general, dramatic, and inspiring sense of it would be a national asset.** I, for one, came back with so inspiring an impression—inspir-

ing one to join, with all his energies, in a venture so vital and having every earmark of success—that I would like to pass the impression on to others.

To anyone who has seen buildings actually in war operation and who knows that an architect figured in each of them, the assertion that architects are non-essential in war time seems simply untrue. Where would we be without these buildings—without the contribution of architects?—a bivouacked nation with full war-preparedness? Impossible.

Such buildings as I have portrayed **show how we do a certain part of the fighting; also show what we are fighting to defend.** Architecture is more than "the science and art of building." It is a record of civilization. Our way of living is shown, in large measure, by the kind of buildings we build.

This is, of course, no new thought. The stones of the pyramid, which have always to a student of architecture made up the handsome mass, have also to the sociologist memorialized the slaves. The ruin of a baron's castle, dominating the village at the foot of the hill, is a picturesque composition: it is also a perfect social document. In our own land, a few white houses of a certain style, set under elms around a Green of a certain size, explain (in their brief and beautiful architectural prose) how our Colonial ancestors spent their daily, independent lives.

I remember the day when this idea of **architecture being history** first came home to me. In 1930, standing on a parapet on The Architects Building: behind, a studio destitute of jobs: below, a strangely quiet Manhattan with riveting machines silenced. Like others, I had been enchanted by the New York skyline. Now the scene was appearing its true, and rather sombre, colors. Those towering masses seemed monuments

to the rugged individualism of the period; their topmost, unnecessary floors and gilded spires, to the conspicuous waste and rampant advertising; their long shadows across slums at their feet, to the exploitation.

IF that, or something like it, was the architectural record of the Twenties, what, I have wondered, is the architectural record of the Late Thirties and Early Forties?

I think the dams are pretty clear evidence of a nation in its age of power.

The railroad terminals, highway projects, and airports record the stage of mobility.

The post offices, telephone and telegraph buildings, and broadcasting stations indicate and explain national intercommunication.

Closely connected with the foregoing, we have built up a nationwide industry whose story is clearly told by the plant.

This administration, whether you like it or not, has recently erected an architectural monument to Government that stretches from the Atlantic to the Pacific.

American concepts of public housing, health, recreation and progressive education are clearly revealed by American buildings.

Please note that our publishing plants, auditoriums and other places of assembly, and our churches, are, in their multiplicity and diverse character, the concrete signs of our Freedom of the Press, of Speech, of Assembly, and of Worship.

I have not forgotten that certain buildings not included in this survey—say, Independence Hall—are the outward and visible sign of the American spirit.

Historians and commentators, in describing American ideals, use many words, often controverting one another. **In Architecture, we have the witness that is absolutely silent and absolutely convincing.**

THE foregoing considerations suggested to me, in going over material collected on the Brunner trip, certain categories of buildings. I wanted to find, for each, at least one building that had the further characteristic of being good architectural design.

On this subject, I want to say, it has not been my conscious intention to be a special pleader for any particular Style. I was interested in something that seems to me more important; namely, the falling out, in our

time, between Engineer and Architect and (or so I believe) their imminent reunion.

We have always defined Architecture as "the science and art of building;" but I believe it has been a great mistake to accept so widely the word "art" in that definition to mean merely "skill." **A real architect is an artist in the widest and best sense of the term.** Thus, what the definition means, really, is that an architect is both a scientist and an artist. And these two frames of mind do not oppose each other, nor compromise, nor merely work side by side. In a great work of architecture, they are as definitely present, if as mysteriously blended, as are hydrogen and oxygen in H₂O.

A pretty theory, perhaps? In actuality, when most of us got to the University, we found the engineers on one side of the campus, and the architects on the other. And after dark they threw stones through each other's windows.

They have been doing so ever since. **I still know some architects who think an engineer is a sort of hard-boiled item to call in at the last minute to hold up their facades; also engineers who think an architect is a sort of silk-tied booby-genius to call in at the last minute to add a cartouche.**

The falling out was not altogether surprising. The very duality of the architect's role made it likely at any period of history that individuals, according to mere personal temperament, would overstate either of the two interests—technological or artistic—at the expense of the other. But with the oncoming of an "industrial revolution," an "age of science" (we never call this the "age of art") a split became almost inevitable. The esthetes of the profession, surprised and thus easily mistaken, saw no possibilities for beauty in this scientific deluge. Like King Canute, they "forbade" the tide to rise. A younger generation took to it like ducks to water. But tired of the sentimentality of their elders, they threw overboard all true architectural sentiment to boot. **We got "machines to live in" that seemed intended to be lived in by machines.**

In starting out on the Brunner trip I thought that perhaps enough time had already elapsed for the first signs of beauty to appear in this new world of precise forms—for the **reunion between scientist and artist** to begin. I offer these drawings in evidence that a reintegration is well under way.

Prefabricate . . .

PRE, a prefix denoting priority; FABRICATE, to make according to standardized specifications (Webster). Photo shows a prefabricated concrete house built about 1918, one of numerous attempts at prefabrication in metals, masonry, and wood



Prefabrication, under stimulus of war and expert publicity, has sprouted a confusing, weedy terminology. More uncertainty develops when, to one practitioner, prefabrication involves construction only, while to another it must include heating, electrical, and other stationary equipment as integral parts of the structure. And these are only the bare, elementary concepts. To explore further leads us to discover beliefs which, we hear, may revolutionize architecture. One aspect they all have in common: they are not new; but the cry is that today's technical possibilities are far beyond the

demonstrated capabilities of the average architect. Too, there is danger that prefabrication, being of relatively recent acceptance, may become a hobby horse for pragmatist and theorist alike to ride full tilt into a premature grave.

Toward Architecture— OR MASS-PRODUCED JERRY-BUILDING?

Shoddy results and unfulfilled promises may burden us with speculative evils and bury a promising industry under public indifference.

So, not only to clarify a situation, but also to fortify ourselves, we must comprehend claims and counter claims. In some detail, though not adequately, individual theories take form somewhat as follows:

Conventional construction works; therefore, prefabrication should be as like it as possible.

Conventional principles work; but wasted materials, inefficient methods of repairing or maintaining the structure, demand that they be modified.

Only with radically new types of construction can full benefit of machine methods be achieved.

Complete familiarity with chemical and physical properties of all materials used is essential.

Savings in cost and operation of mechanical equipment so far outweigh mere structural savings that no system which neglects mechanical equipment is any good.

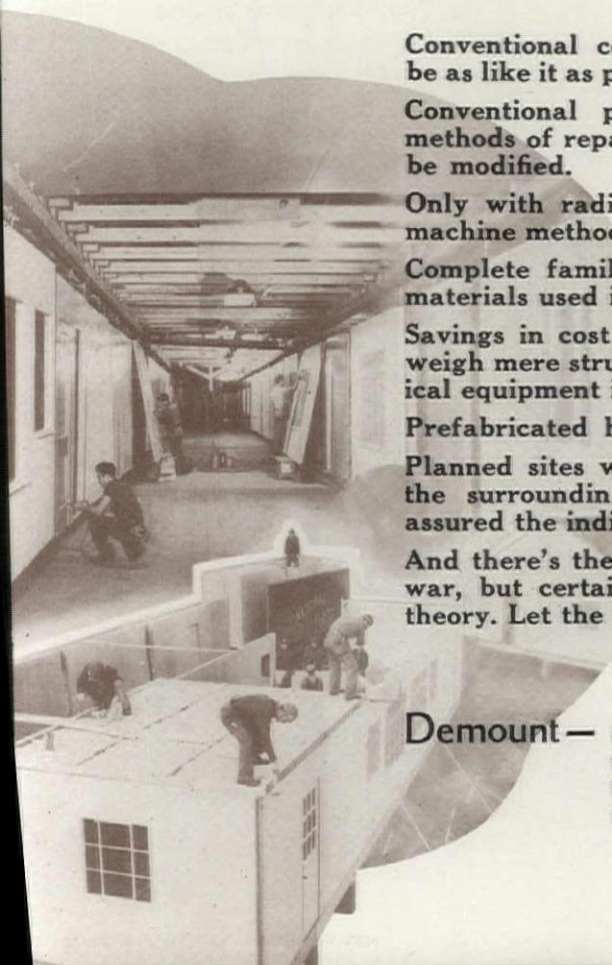
Prefabricated houses are not enough. We need pre-planned sites.

Planned sites won't work either, unless the site is compatible with the surrounding community, and satisfactory economic status is assured the individual house occupant.

And there's the fabricator who says—not openly, because we are at war, but certainly in his methods and products—"To blazes with theory. Let the buyer, governmental or individual, beware!"

Demount —

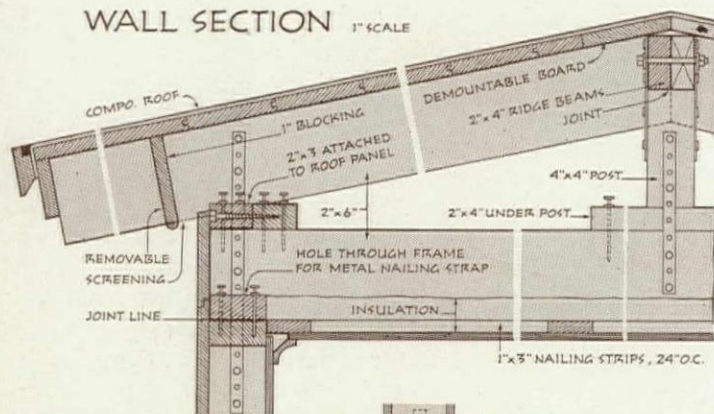
to disassemble; adj.—DEMOUNTABLE (Webster). Washington now disavows the word. Photos show monorail production in the plant and field assembly of National Homes Corporation houses. Wall, ceiling, and roof panels are transported in one truck; floor panels are transported in half another truck.



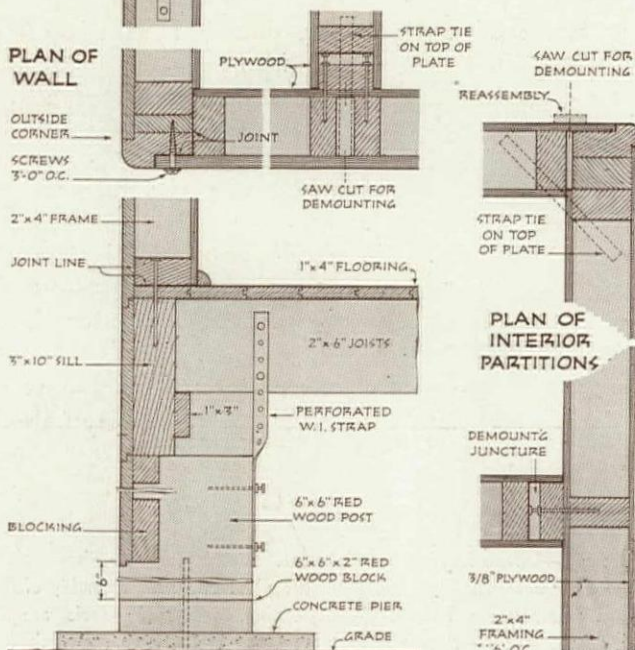
CONVEN

Standard Demountable system, Paul R. Williams, Architect, shipped its first batch of war houses to Nevada. Houses shown in drawing, 1-bedroom and 2-bedroom plans were developed for FWA; 3-bedroom plan and details for private enterprise. Though not the ultimate in materials economy, much attention has been paid to design and plan. Siding and interior plywood are nailed to framing panels

WALL SECTION 1" SCALE



PLAN OF WALL



PLAN OF INTERIOR PARTITIONS



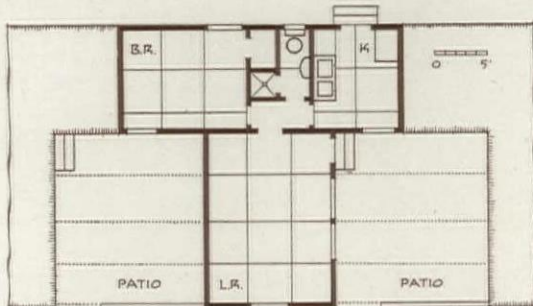
Adaptations of conventional construction to prefabrication have resulted from the "ready-cut lumber" attack, which is concerned mainly with reducing manual operations to a minimum. It is not vastly different from the methods of some operative builders, who first used pre-cut studs, perhaps shipped to the job in packaged units; then pre-assembled certain portions of a house and delivered complete sections to the job as needed. This type of prefabricator is concerned with the house shell only—walls, roof, floors.

Another type of attack is based on exhaustive research. Some prefabricators, after years of applying cold logic, decided that the ultra-logical modern house of, say, steel and glass, had to give way to wood. Their reasoning is based partly on public acceptance, partly on ease of obtaining and working the material. American Houses' system, for instance, is now wood partly because it is suitable for structure, surface, and finish, because many parts of the house come from one source and can be fashioned by one kind of labor, thus eliminating headaches.

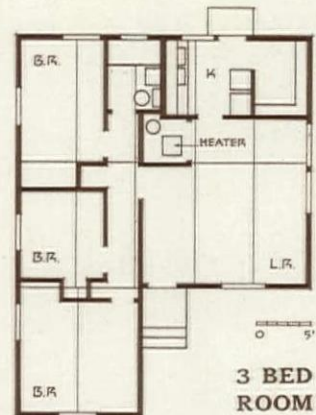
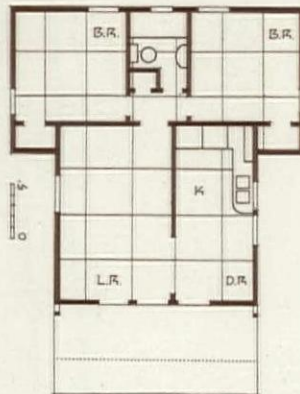
TIONAL CONSTRUCTION ADAPTED ..

ACHIEVES VARIABLE RESULTS

1 BED
ROOM



2 BED
ROOM



Left, the Houston Ready-Cut House system's FHA-approved house, similar to the minimum dwelling approved for war housing. Right, the Illinois Lumber Manufacturing Company developed a system essentially conventional, but pre-assembled into panels held together by wood gussets and twin-headed nails. Joints are covered with slip shingles



The Green Lumber Company's system uses conventional studs on 16-inch centers, made up into panels faced with plywood inside and plywood or siding on the outside. With local virgin timber exhausted, this company some years ago turned to prefabricated houses. Is this a precedent for war industries when peace comes and vast plants may be idle?



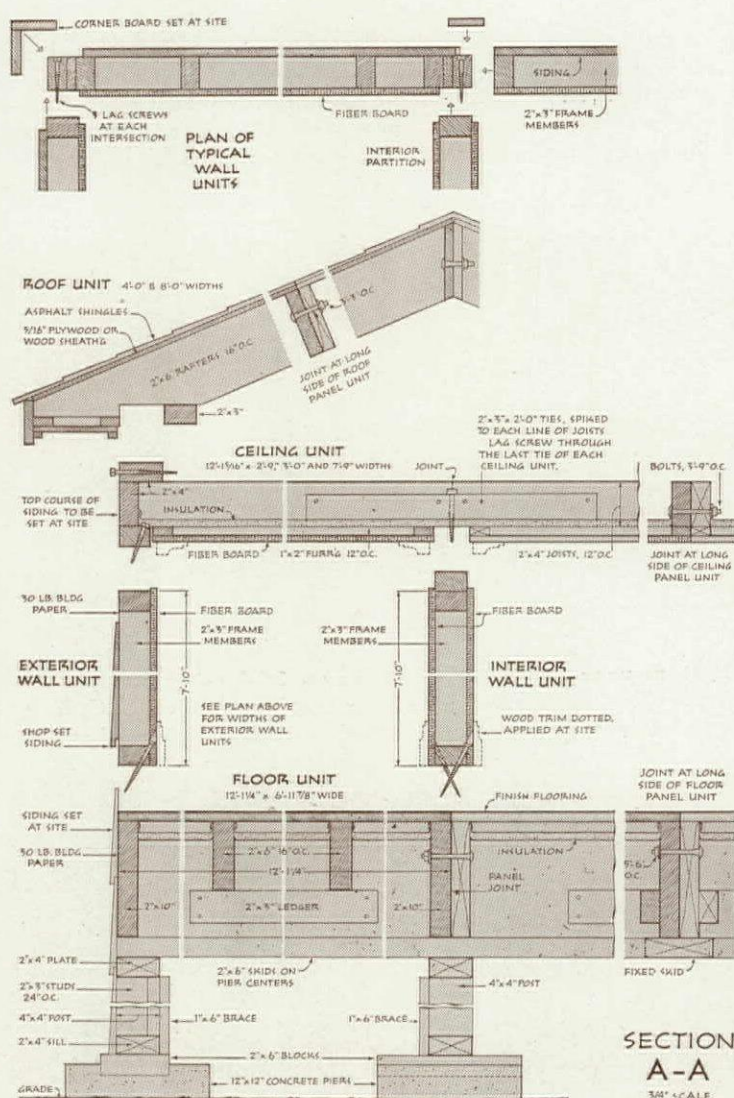
FOLTZ STUDIO



...and FURTHER MODIFICATIONS



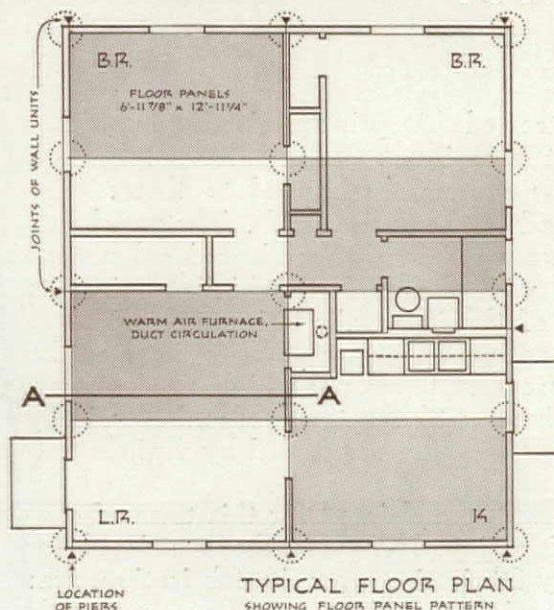
The Precision-Built system uses fiber board in large sizes to form room-size wall panels with doors and windows factory-inserted. War housing plan (illustrated across-page) shows floor panel layout



Precision-built houses, detailed at left, have been built at Ft. Leonard Wood, Missouri; Portsmouth, Va.; Vallejo, Calif.; and other localities

Many prefabrication systems use framing members of reduced size and increased spacing, thus eliminating some waste; others are designed for materials easily obtainable locally; still others, like the PHC Housing Corp. system, which is not yet on the market, use patented devices which fix materials in place flexibly, to allow for normal expansion and contraction as well as repairs, replacement or ordinary redecorating. All these systems use "dry" construction, with at least interiors of plywood, or gypsum, or fiber board.

OF THE CONVENTIONAL ...



PHIL STROUPE

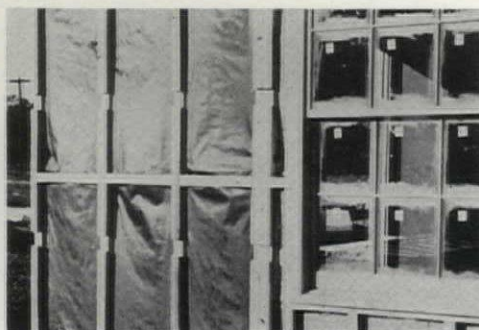


ANKERS & YOUNG



3

1—Precision-Built homes, Vallejo, Calif. 2—Speedwall homes use jumbo plywood sheets, fabric covered if desired, for interiors; walls are jointless except at room corners. 3—General Fabricators' houses have semi-conventional framing with horizontal nailers for horizontal or vertical exterior finish. 4—Hardin & Ramsey's wood sectional "Econo-Bilt" house also has wall panels framed horizontally



BLASINGAME



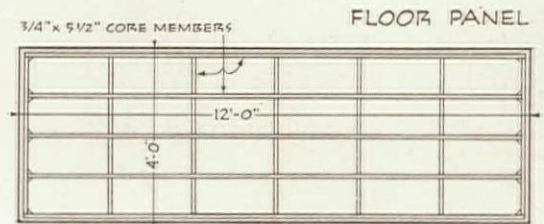
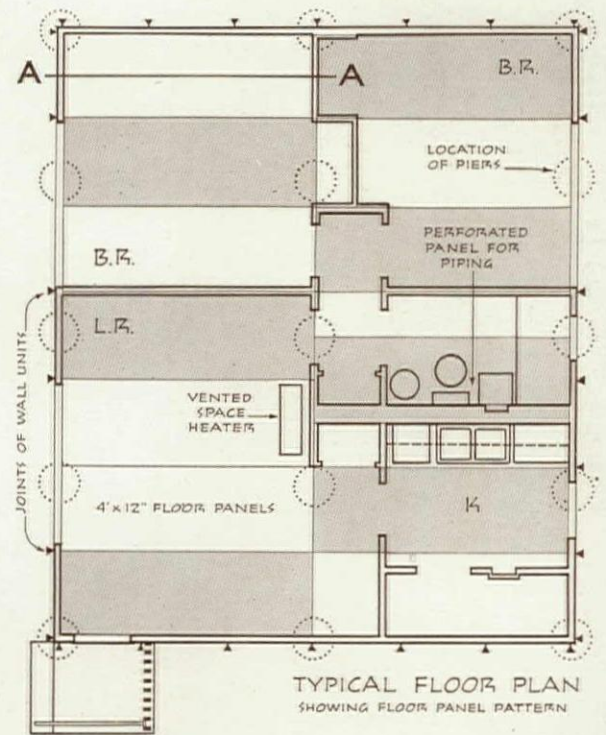
4

...PLUS UNCOUNTED VARIATIONS

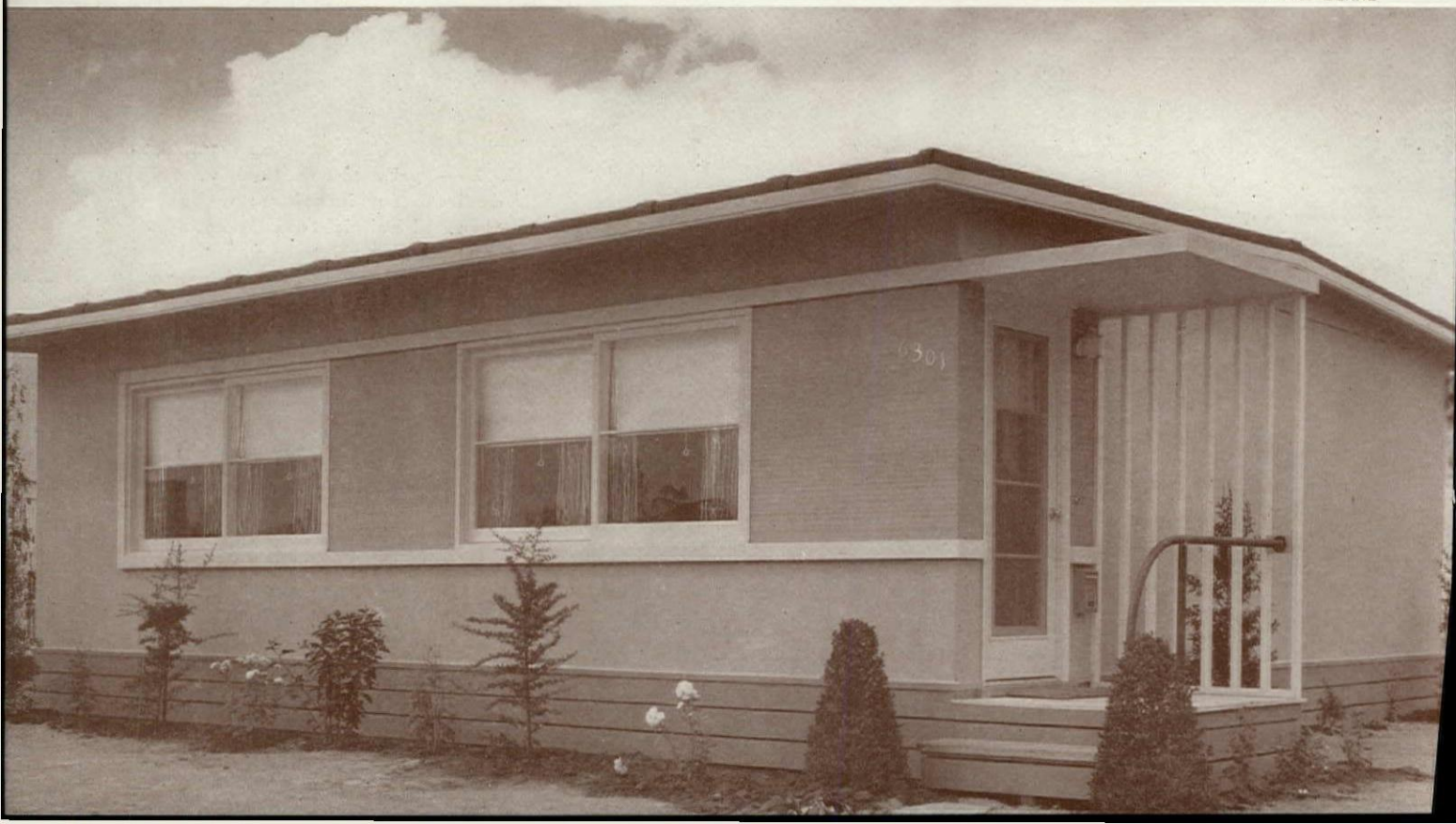
The stressed-skin principle is simple: Light-weight framing members have plywood sheets permanently bonded to them. The plywood serves as the finish. The panel acts structurally like a hollow boxed column or beam, with the surface "skin" bearing its share of the "stress." Nailing plywood to the framing does not suffice; it must be pressure glued, often at high temperature. The glue must be waterproof and chemically inert. Panels are assembled by various patented means.

Advantages claimed for this type of construction, in addition to those claimed for factory fabrication over site fabrication, are: Light weight; elimination of waste material; high resistance to fungus or insect attacks; elimination of shrinkage; elimination of nail holes; reduction of skilled labor needed.

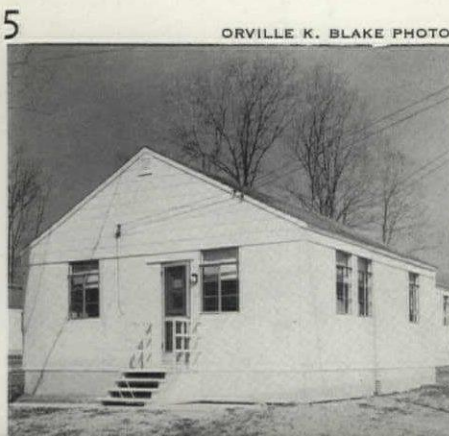
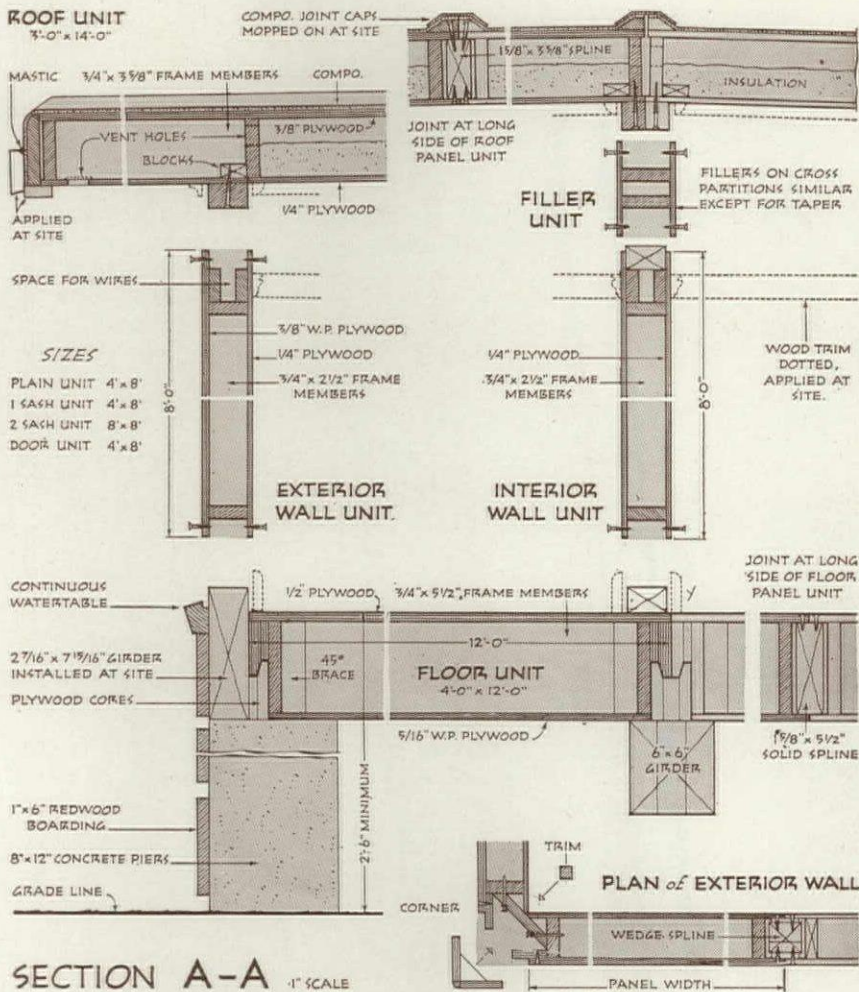
Plywood Structures' system, typical of many, uses stock 4 by 8 foot plywood sheets made up into stock 4 by 8 foot stressed-skin panels, also half panels and door, window, floor and roof units. Panels, with wiring factory-installed for interconnection in attic space, are assembled with wedged splines



MILES BERNE



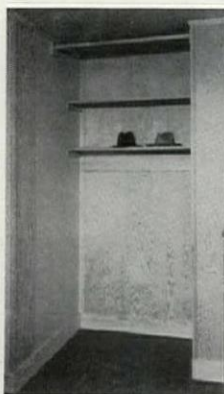
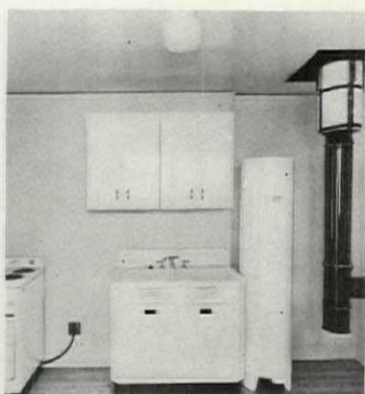
ON THE "STRESSED SKIN" ...



1—Bates Prefabricated Structures. 2—Gunnison Victory Homes. 3—Home Building Corporation. 4—Willis-Way System. 5—Standard Houses. 6—Better-Built Homes. All are variations of the stressed-skin principle, some with conventional materials factory-applied to exterior surfaces. In this case, exterior joints are covered with slip shingles, etc. Some are nationally distributed, others not. Many are almost completely prefinished; Gunnison, for example, has developed a method of rolling interior finish on the panel surfaces

ORVILLE K. BLAKE PHOTO

... some are **DESIGNED AROUND A**



For economy's sake, governmental requirements for placing plumbing fixtures back-to-back, may lead to sterile simplicity in war housing. Closet doors are banned



The Tennessee Valley Authority's sectional house has been slightly modified to meet FWA requirements. After being built complete with equipment, the house is separated into three or more slices. Each is carried by truck trailer to the site, where it is rolled onto track-like sub-framing, bolted to other sections. When utilities are connected, the housewife can place furniture

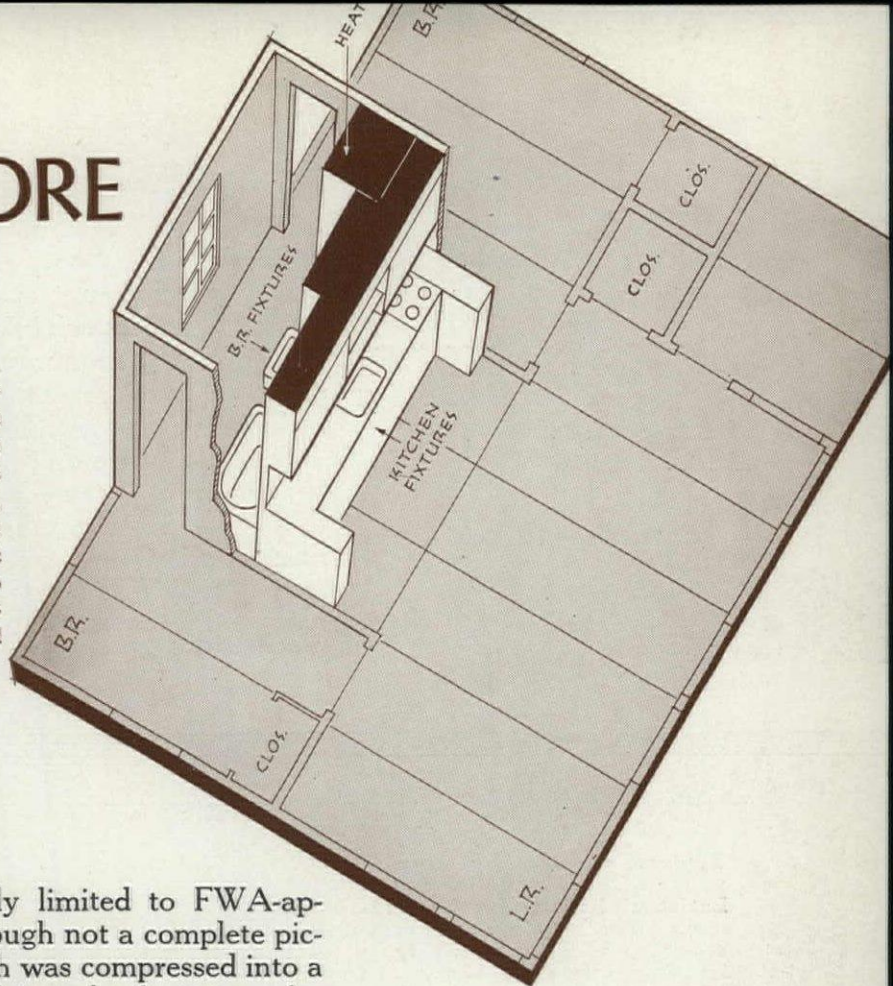
As the photographs above indicate, mere insistence on mechanical simplicity and economy does not always result in an efficient or even passably satisfying house. Some design knowledge has to be applied to the problem. But for war purposes, with production of many kinds of equipment curtailed or shut off, there may be some excuse for the poorly organized kitchen-bath-heater arrangement shown.

Such practices, however, do not affect the validity of the argument for treating equipment as logically as structure. Teague's system provides the purchaser with more than an integrated plumbing-heating-cooking unit; this unit controls the plan as well. Practical considerations—access to the bath, circulation to bedrooms—may limit the variety of planning possible.

But it would seem that a major purpose of the mechanical-core prefabricated house is to offer would-be home owners more and better equipment and greater convenience than they could afford in any other kind of house. Surely the amenities are part of this program. Else why has the farm kitchen-living room been displaced in the conventional home by two distinct areas, in one of which the household can forget cooking odors and dirty dishes?

MECHANICAL CORE

Walter Dorwin Teague's house is of interchangeable stressed-skin plywood panels surrounding a mechanical unit which contains necessary kitchen and bath fixtures plus the heater. Teague claims the house can be economically enlarged, reduced, transported from site to site; has low upkeep cost; and is not too standardized because arrangement can be varied. It is intended for sale direct to consumers, and system will be available to licensees; but designers can not specify standard units to suit individual plans



The preceding illustrations are intentionally limited to FWA-approved "demountable" house systems. Though not a complete picture, they epitomize a construction era which was compressed into a few months. Now the word "demountable" is to be forgotten, for none can agree on a definition. It should be noted that of 46,588 prefabricated dwelling units originally allotted to 68 projects, for which "letters of intent" were issued to 56 manufacturers, 32,298 units in 43 projects were contracted for on April 29th, and 2,630 houses in 12 localities had been canceled due to changes in military programs. At that date none had been occupied.*

Changes in policy, and consolidating housing efforts under the National Housing Agency, have helped and hindered war housing. About the first of May, regional offices were empowered not only to select site architects, but also to determine local needs and purchase houses locally. And wherever houses are not bought as stock units but as adaptations of prefabrication systems to local needs, chances for architectural control seem vastly improved. Also, NHA has decided to choose between prefabricated or conventional houses on the basis of how much skilled building labor is available locally.

Considering the emergency, all this seems sensible. Still, some prefabricators, interested in maintaining their products' integrity, have held Federal "demountable" standards—which willy-nilly have affected the industry—to be neither good enough nor poor enough. Of course, initial requirements may have been somewhat unsound, and misinformation may have led some ingenious prefabricators almost to bankruptcy through premature expansion. Nevertheless, so essential a program had to proceed in some fashion. More important, it is unfortunate that more conscientious prefabricators have not competed directly with slapdash contractors. War-housing eyesores (which might have been improved) may symbolize prefabrication to the public.

But FWA-approved systems are only part of the prefabricated war-housing program; other private and public agencies have used prefabrication, usually with less fuss. As a whole, the program pro-

WHAT DOES THIS MEAN to . . .

- THE COMMUNITY?
- THE INDIVIDUAL?
- THE ARCHITECT?

*In May, military departments seem to have cajoled WPB into letting them seize all wholesale lumber stocks for 90 days, thus bureaucratically slapping down prefabricated as well as conventional war housing

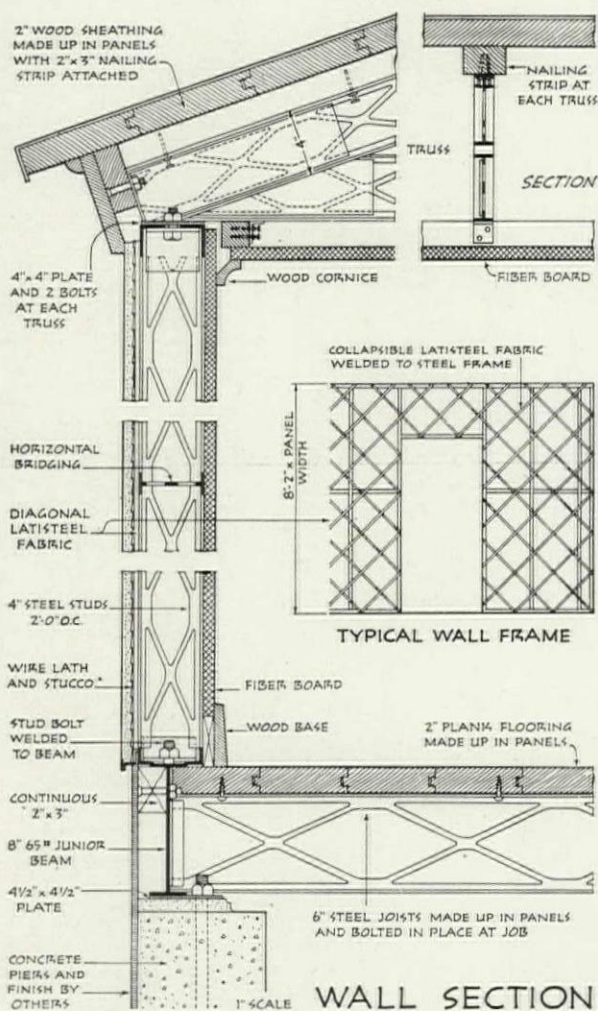
What does the future hold?

vides at least adequate houses, sometimes houses above the occupant's previous level. And some are sad. **Albert Mayer** has helpfully criticized in *PENCIL POINTS* (May 1942) the generally unsatisfactory site plans. **Arthur Holden**, architect and prefabricator, writes in "*The Octagon*" (April 1942) that architects must recognize expansion, not curtailment, of their design function with the advent of large prefabricated units. Design has also to be humanly domestic, not monumental. The more flexible the prefabrication system, the more easily is pleasant variety achieved by logically, rationally fitting each house to its problem and to the whole.

Individual house occupants will have to get something better, as well as cheaper, than conventional construction offers, or one by one they will abandon prefabrication. Even the Model T Ford, publicized as it was, gave way to more-car-for-the-money. The community may fare worse; thoughtless mass production can spawn as many slums as conventional construction!

SOME FUNDAMENTALS AWAIT ACTION

Typical of another current phase of prefabrication is the Latisteel house, detailed below. For special circumstances, with approval from housing agencies, these are being turned out on production-line basis for military projects having A-1-A priority



Prefabricated houses can not be much better until conflicts between individual prefabricators—and between prefabricators, labor and the public—are resolved. There are, too, changing habits and levels of taste which, though outside the field, yet affect it. A few arguments:

If building activity declines or is forced into abnormal operations, the break-up of organizations, dispersal of labor, and increasing staleness of unused skills may give prefabrication a real chance.

Opposed to this are public acceptance of tried-and-true Cape Cod Cottages, and potential resistance of strong labor organizations as well as the public to unfamiliar methods and types of design.

With cheap transportation the individual is not restricted to owning one fixed home. Is this an opportunity for the portable home, financed like an automobile, which can be turned in on a new model either as a whole or room by room?

The individual wants to own property—a habit, rooted in agricultural civilization based on land as the productive source, which still controls our tax structure. Will war show us greater worth in possessing productive capacity than in owning land?

Mass production for war of such materials as magnesium, resins and plastics—some new to building and some changing recognized materials into new forms—may make available new, economical construction techniques.

Codes based on the tried and true usually hinder developments. Even performance standards need periodic revision: For instance, with improved artificial lighting, are accepted minimum window area requirements valid?

Power, light, heat and refrigeration can be made to emanate from structural members rather than from job- or plant-assembled units made of materials incompatible with the structure.

Existing manufacturing machinery and organizations are designed for publicly-accepted equipment, and education to enable the public to appreciate intangible, greater values and comforts is costly.

Mass production can lower costs by standardizing, by taking a low profit per unit.

Does standardization mean monotonous rows of houses? We want individuality!

After the war, plants will be available in almost numberless locations. Factory-built houses may save the day.

What becomes of the materials supply industry, with its intimate knowledge of house building customs?

Prefabrication frees the architect from responsibility for niggling, time-wasting detail.

In many cases esthetic satisfaction depends on detail, and on tireless supervision.

A house can be too good. Why put permanent roofs on temporary structures?

The architect designs for owners who build to keep up with the Joneses.

Prepare to Meet your Client



BY *Arthur B. Holden*

Architect and member of Holden, McLaughlin & Associates. For years, active in New York City Planning and Civic affairs; Chairman, Land Utilization Committee, of New York Building Congress.

"There is a certain relief in change, even though it be from bad to worse; as I have found in traveling in a stage coach, it is often a comfort to shift one's position and be bruised in a new place."

WASHINGTON IRVING, 1824

Understanding the Job. Although most men are aware that continued change is an inevitable consequence of a developing society, few have enough fore-knowledge of the probable direction of change to alter their own position so as to escape being bruised by the jolts to which even a well-ordered society is subjected. Architects are no exception to this rule.

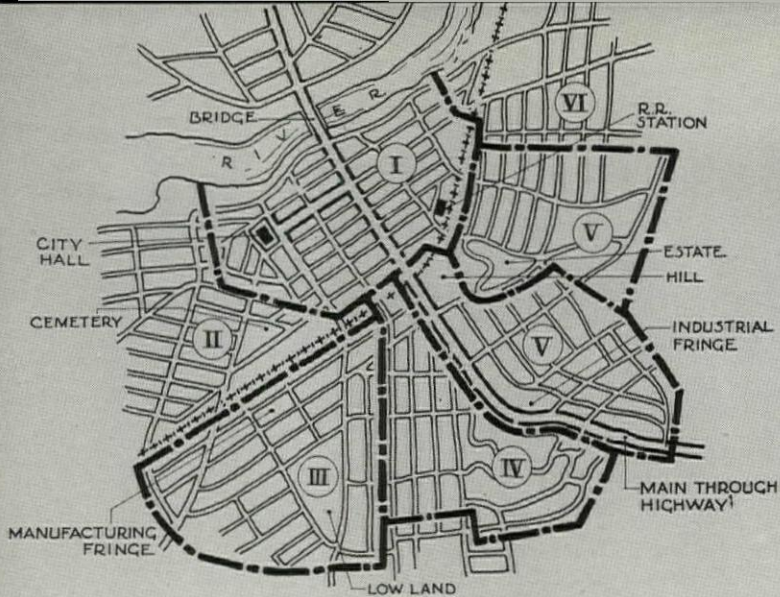
During the long years when America enjoyed a physical frontier expanding to the westward, opportunity lay self-evident before the building industry. The frontier has disappeared only in its physical aspect. Opportunity always lies open to those who can recognize it.

Scarcity and Urgency as Motives. So far as our fathers were concerned, scarcity impelled them to build; urgency of need caused the construction industries to grow to enormous proportions and to play an important part in the development of America. Somehow the things that were needed got done, often without apparent forethought or design. Frequently, the pressure of demand made urgency seem so great that little consideration was given to whether the facilities furnished would outlast their immediate usefulness, or whether they could be adapted to new uses as the needs of society changed.

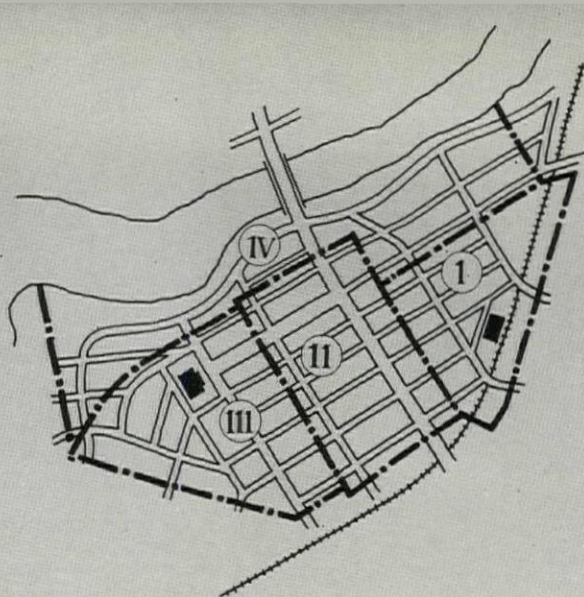
For at least a decade the profession has been living in the remembrance of things past, discouraged because the ways and methods of our forefathers do not seem workable for ourselves. At first the challenge to national defense seemed to open new opportunities because it created an old-fashioned recognizable "urgency." For the moment, at least, the old ways of doing things again seemed practical. The factors of haste, scarcity, and the threat of rising prices have impelled us to "build for defense" at any cost. We have only vague ideas of how long the facilities which we are creating may serve us. We have only vague ideas of how we may discharge the obligations assumed to pay for the work done.

While the opportunities opened up by war work are very real, we shall consider here primarily the future needs of society, because it is primarily upon the ability of the construction industry to serve society that the progress of our profession depends.

It is necessary to think about what sort of clients architects are to have



CITY INTO QUARTERS



QUARTERS INTO DISTRICTS

Though architects have habitually applied their skill to improving the arrangement of the "cells" or rooms out of which buildings are composed, few of them have concerned themselves with the cellular organization of the city, which is naturally divisible into "quarters." Though these quarters do not have precise legal boundaries, they are determined by topography, by the character of the activities within them, and by the lines of communication. Every quarter of a city can be considered as made up of districts, which in turn are divided into sub-districts or neighborhoods. Neighborhoods are com-

in the future. In the past, Architects knew that they had to go to people with money, able to pay for the things which they thought worth doing. Must architects in the future wait around for men who have money, and must they continue to wait until men with money become convinced that there is such a scarcity of buildings that it is worth while risking construction? After the boom of building for defense, is there likely to be need for further construction?

We lack a clear understanding that all work and all human services are part of a great system of interchange which differentiates civilization from predatory barbarism.

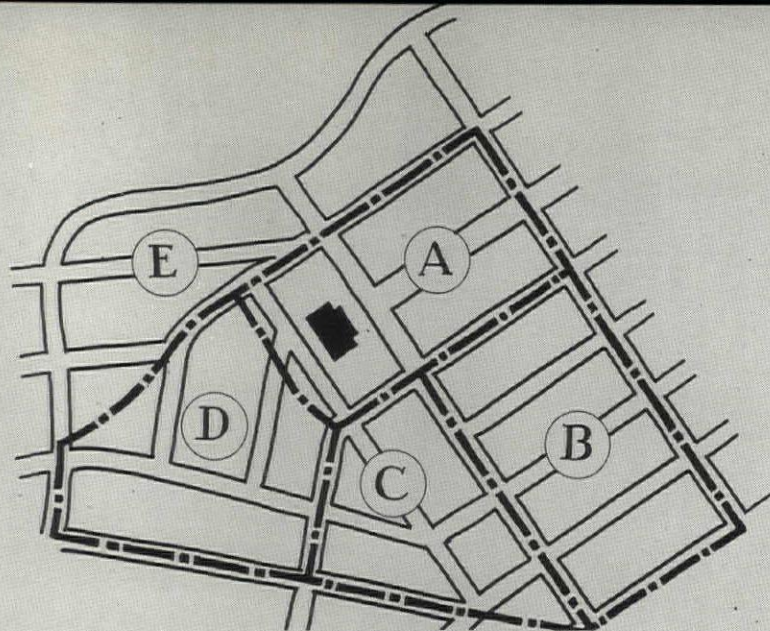
Our increased productive capacity has wiped out the necessity for scarcity. The concept of value based upon a relation between scarcity and desirability is now inadequate. Supply and demand are no longer measured in terms of urgency but in terms of ability to assign and interchange services. The problem of the future is how to manage and direct our potential productive effort.

We Must Adapt Ourselves. The architect in this modern day faces a dilemma. Like the traveler in the stage coach hurrying over inadequate roads, the architect has been subjected to "jolts and bruises" from

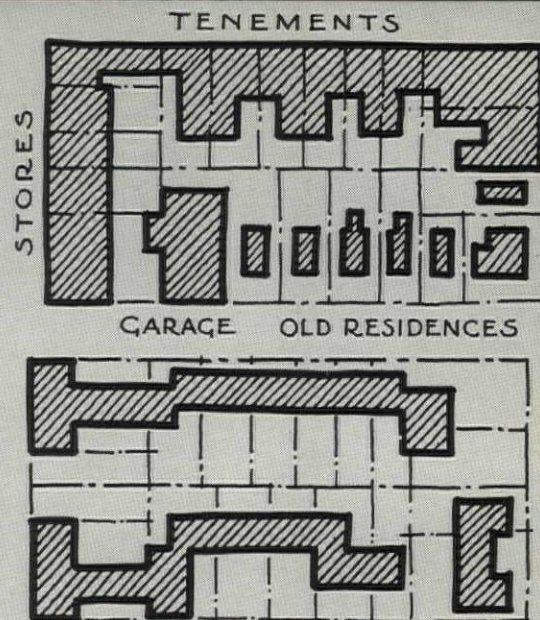
unexpected directions. But like Washington Irving's traveler, he still has it in his power to shift his position. The architect of today is better trained than the architect of any previous time. He is technically better equipped to serve society, and he has developed perhaps a greater sense of social responsibility. Full use cannot be made of this increased competence unless architects are alert to adapt themselves to changing conditions and to arrange the terms on which they serve so that the public can both appreciate and afford their services.

Today our cities are built. There is no quantitative lack of shelter. There is much vacant space. There is waste space within buildings; there is waste due to bad relationships between buildings, and the economic use of land. Because of obsolescence and depreciation, there is a great deal of space obtainable at prices lower than prices needed for new work. Although there are always a few who can command the best and pay the current price, the great majority of people seem doomed to the use of makeshifts. Hence the trouble is reduced demand.

It is no answer to mutter the mysterious catch words, "supply and demand," with the implication that the supply of architects must inevitably be cut down to the number that



DISTRICTS INTO NEIGHBORHOODS



BLOCKS INTO BUILDINGS

posed of city blocks and the blocks themselves are made up of the cells known as plots of property which have legal boundaries. Actually, the cellular divisions of the blocks are three-dimensional buildings and the voids between them. Shown above at right is a rundown block and a redeveloped block in which solids and voids have been rearranged for greater amenity. In the replanning and redevelopment of our cities architects need to consider the several intermediate stages of the cellular development, both for purposes of planning and for organizing the life of the city

can be maintained by the willingness or ability of a few to authorize new construction. The building industry has the technical capacity to create facilities, to satisfy changing modern needs. Because old methods of profit as a result of scarcity are gone, must the public accept declining standards, and must the construction industry languish? This is a challenge to the architect, even if the fault is economic and lies outside his accepted sphere of usefulness. Technical men have been active in pointing out the things that might be done and, indeed, the things that **ought** to be done, but technical men have not yet succeeded in showing the present generation **how** to obtain the great capital improvements which are now desirable.

Understanding, A Prerequisite of the Modern Pioneer. Opportunity has always been open to the pioneer. It is still open; but the direction which pioneering must take can no longer be explained by such easily understood catch phrases as, "Young man, go west!" There is a Biblical injunction which suggests the necessary preparation for those who would pioneer today—"My son, get understanding!"

The architect knows that before the days of rapid transportation, it seemed necessary

to crowd urban inhabitants into tightly-built shoddy tenements and to sacrifice light, air, and space. He knows that the sort of suburban homes which were practical forty years ago are obsolete now that the automobile has changed family mobility. The architect knows, too, that economic and social changes have taken place. Families are smaller, and a smaller proportion of the things upon which the family depends are produced within the home. Residential communities are less closely related to churches and more closely related to schools, new movie houses, and the essential nucleus of service stores. Business communities are more separated from warehousing and physical trade than they used to be; manufacturing communities have increased in importance, and wholesaling and retailing centers are becoming more sharply defined.

When an industrial plant moves from the city to the suburbs it induces changes in the business life of the community into which it moves. New housing may be needed for its workers and perhaps new facilities for transportation. At the same time, the facilities which are abandoned in the city must be adapted to new uses. Changes in habits of life on the part of the well-to-do affect the future of whole communities.

The continued change in the organism of both city and country life clearly creates building jobs which ought to furnish opportunities for architects. Often the need which the architect can satisfy goes unrealized. Why is this?

Surely, the architect has taken the lead in criticizing the shoddy appearance of urban communities and the lack of harmonious neighborhood design. **But the emphasis which the architect has placed upon the aspect of buildings has proved to be the boomerang which has cleft the profession and delayed a popular understanding of the part which the architect might play in the organism of design.**

How, then, can the architect—who has an analytical, creative, and orderly mind—go about rectifying the situation?

First, the architect must know where to direct his appeal; next, he must know how to apply his powers of visualization in such a way as to arouse the desire for realization. In doing this he must, above all things, keep contact with reality, so as not to risk the dismissal of his ideas as impractical dreams. **The architect must not only visualize but he must be ready to demonstrate that ways and means can be found to achieve the results desired.** There are, of course, many who contend that architects should confine their talents to the task of modeling or styling construction so that it will be well-planned and beautiful. If this be true, the place of the architect may soon be subordinated to the decisions of men who measure possibilities in terms of outworn standards.

If architects consider their place in society one of leadership, they must realize that they must depend solely upon themselves to establish and confirm it.

To exert this leadership there are three essentials as follows:

1. Architects Must Recognize and Understand the Functions of the Various Groups Which Compose the Community.

The architect must, on the one hand, understand the functions which are performed by the diverse groups of which his own industry is composed and, on the other hand, understand the requirements of outside groups, so that he can mold the processes of his own building industry to satisfy the needs of the outside groups which it serves.

Only by a thorough understanding of function can an architect satisfactorily analyze the problems which are presented to him. Only by recognizing their economic and social functional significance can an architect master the physical forces which must be utilized to reach a solution.

2. Architects Must Recognize Their Immediate Clients and Win Their Confidence.

(a) While a certain amount of work may continue to depend upon a wealthy group of patrons, the number of architects who can depend upon this character of work will, in all probability, be greatly reduced.

(b) In contrast, the proportion of public works and public buildings is likely to increase. Architects here must face the inclination of public officials to build up politically dependent technical staffs rather than to call on the independent practitioner.

(c) Since the depression, there has been less promotional or equity capital available. The architects of the future must seek, perhaps even help to create, new types of entities which will be able to develop projects to meet future needs in the residential and in the business and industrial fields.

(d) Due in part to properties taken back on foreclosure, a much greater responsibility for initiative is likely to rest with the real estate departments of the savings banks, insurance societies, and other fiduciaries. Architects must study how to serve this new type of client.

(e) The man of moderate or small means has learned to assert himself and insist that he should enjoy the benefits of improved technical capacity. Architects should study how best to meet the needs of the low-income groups in the cities, the suburban areas, and on the farms.

3. Architects Must Interest Themselves in the Public. They Must Convince Their Fellow Citizens:

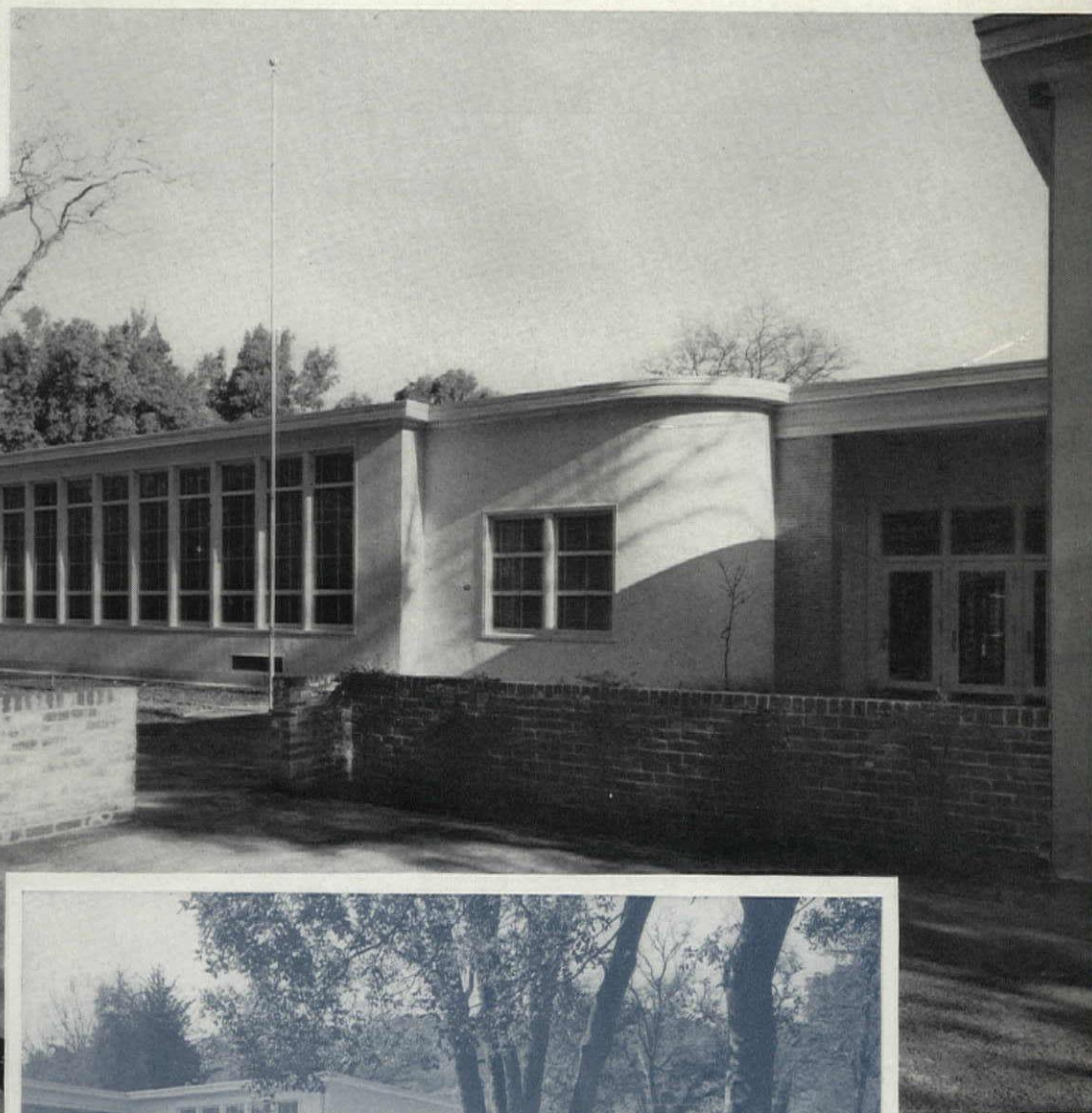
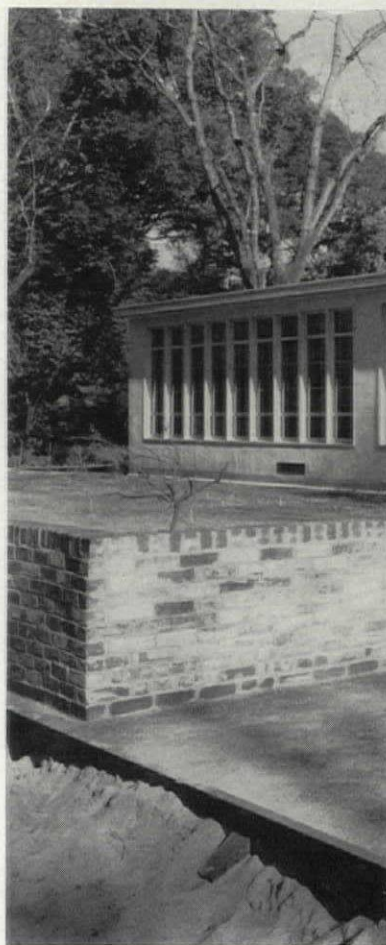
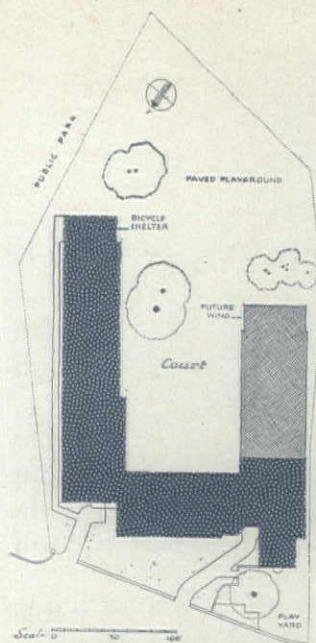
(a) That it is not only possible but advisable to think ahead and plan for construction in advance.

(b) That the best and most economic construction is produced by thinking ahead and proceeding according to an orderly plan.

(c) That the public can afford constant improvements if these are well conceived, waste eliminated, and the work executed according to an orderly plan.

THE ROSS SCHOOL

Carl F. Gromme, Architect, San Rafael, California



THE NEW GRADE SCHOOL in Ross, California, exemplifies a type of unaffected building—of materials readily available there—whose plan and structure reflect care for the health, happiness and safety of children. It was built by Carrico & Gautier, San Francisco, and Harold M. Engle, Structural Engineer, also of San Francisco, was Consulting Engineer

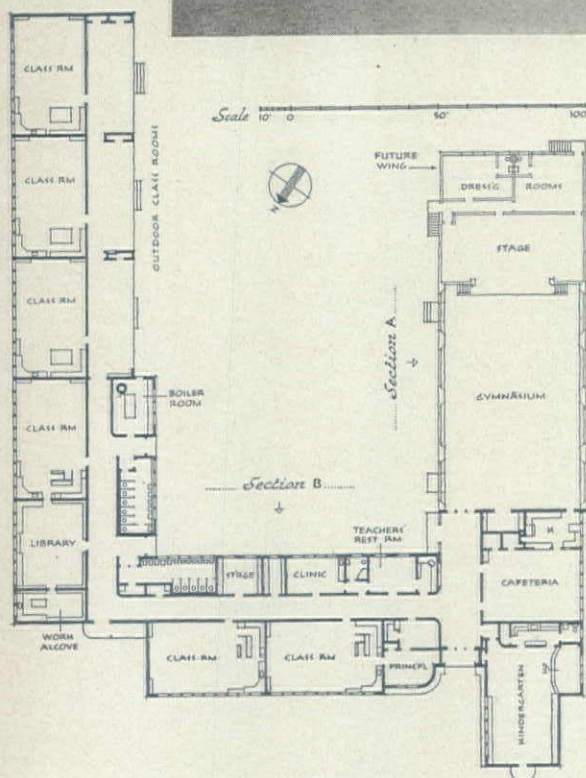


ESTHER BORN

OUTDOOR
CLASSROOM
wing can be seen
through the court-
yard door of the
Entrance Lobby. The
mural is by J. Moya
Del Pino, of Ross

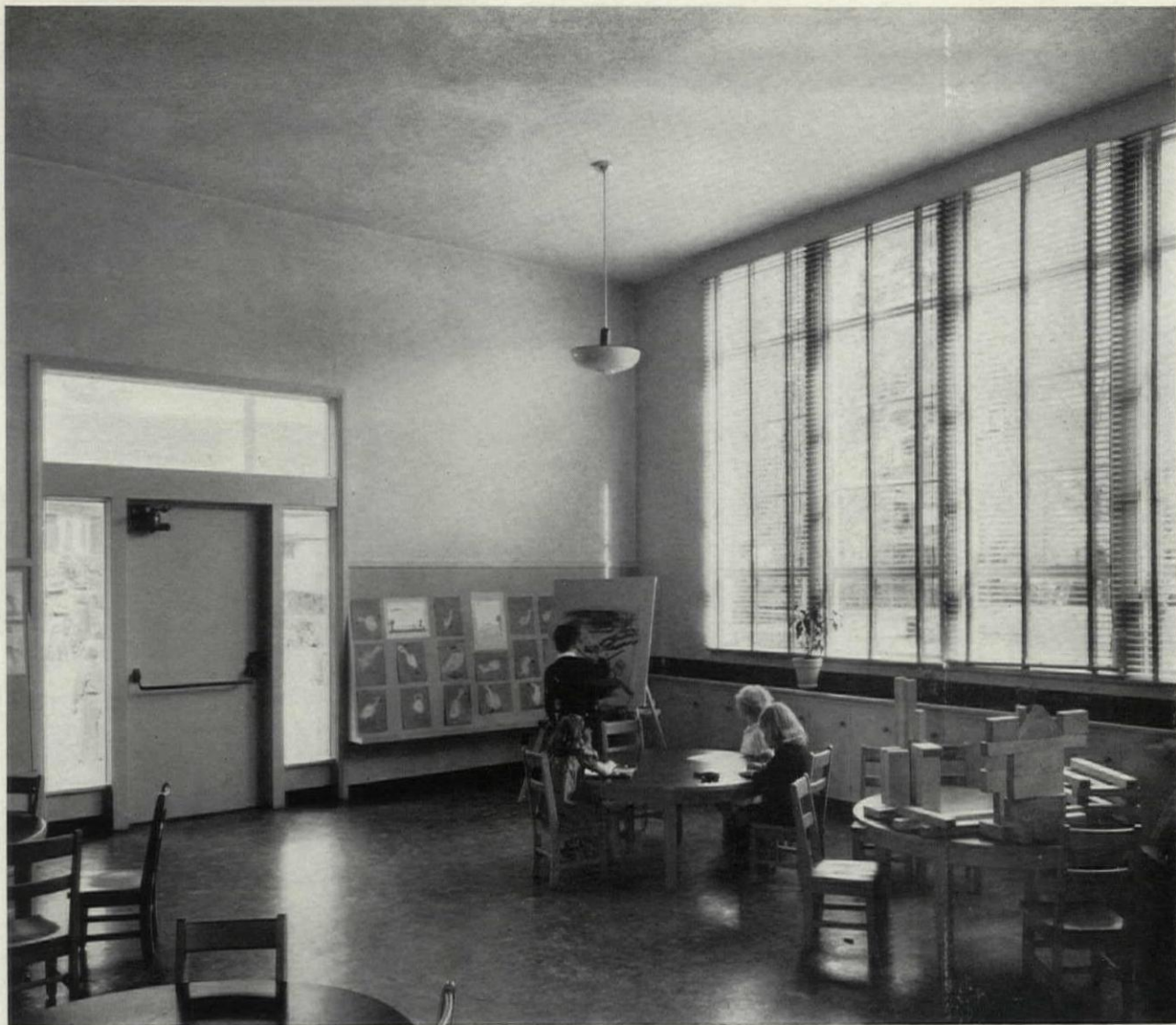


ESTHER BORN



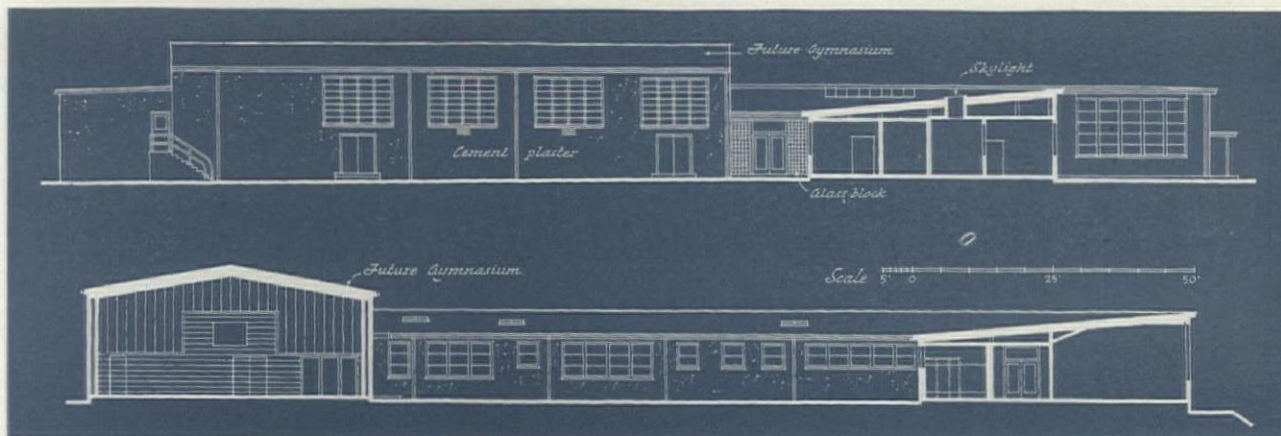
The school had an average daily attendance exceeding 200 this year and is expected to accommodate 250 next year. In a future wing directly behind the Entrance Lobby there will be facilities for assemblies, dramatics, and gymnasium classes (plan at left). The designed relation of this wing to the present building may be judged by the sections shown across-page. The exterior is light buff stucco with wood trim painted off-white—the doors painted a cool, medium blue to make an agreeable color accent. Note the convenient provision for bicycles (above)

DWELLING UNITS ALONE

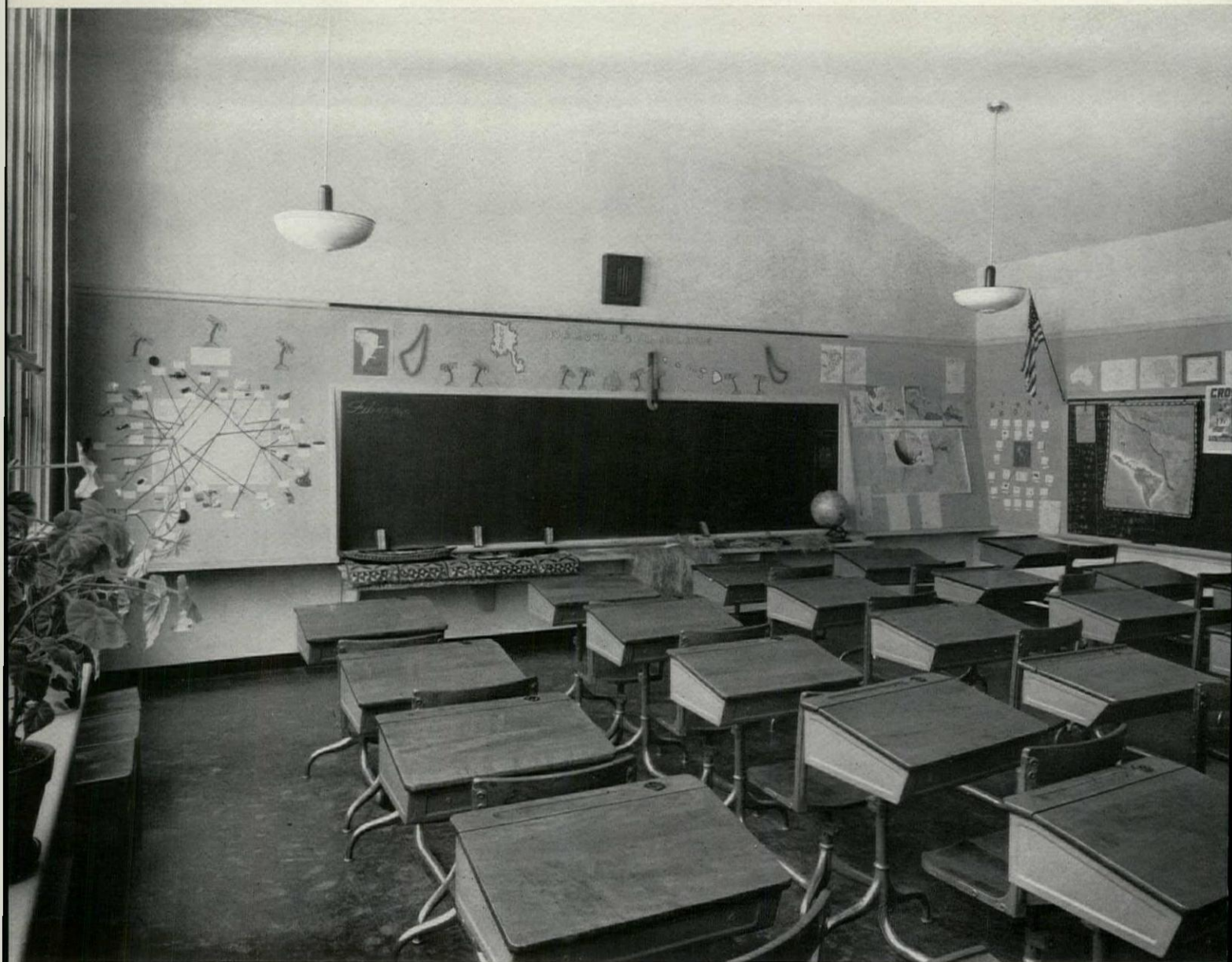


ESTHER BORN

Thirty-five children work, play, and rest in the KINDERGARTEN

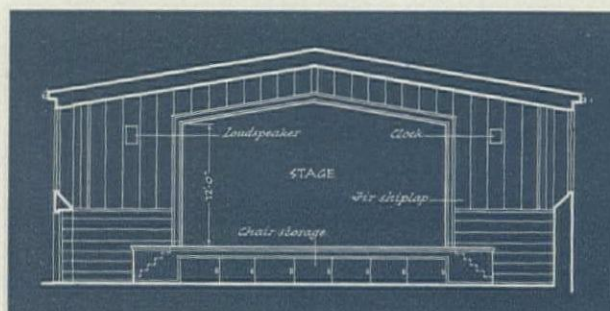


DO NOT MAKE COMMUNITIES. THERE MUST BE SCHOOLS . . .



ESTHER BORN

TYPICAL CLASSROOM is planned so that the front is free for instruction and demonstrations—storage space, laboratory counter, and teacher's desk being placed behind the pupils' desks (photos above and across-page). Color scheme in Classrooms: gray-blue walls (brightened to greenish-blue in rooms facing north); gray-blue trim, cabinetwork, and cork board; white ceilings; dark brown floors; black base finish throughout



When a **GYMNASIUM-AUDITORIUM** is added to the school it will be equipped with a stage, simple back-stage facilities, and chair storage beneath the apron—this section and those across-page

MATERIALS AND EQUIPMENT

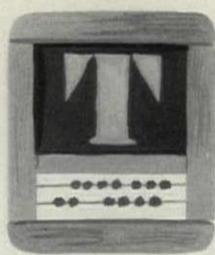
Footings	REINFORCED CONCRETE
Foundation Walls . . .	REINFORCED CONCRETE
Terraces	BRICK or CONCRETE
Wall Insulation	INSULATING AGGREGATE in stucco
Wall Construction . . .	2" x 6" STUDS, sheathed, STUCCOED; PLASTER inside
Floor Construction . . .	CONCRETE SLAB on grade or crushed rock fill
Roof	BUILT-UP, 5-ply, graveled
Roof Insulation	4" MINERAL WOOL
Sheet Metal	STAINLESS STEEL, 18.8, 26 ga.
Glass Masonry	GLASS BLOCK, 8" x 8"
Windows	PROJECTED STEEL SASH, SSB glass
Finished Floors	ASPHALT TILE laid on slabs; rubber base
Interior Walls	KEENE'S CEMENT PLASTER, colored
Ceilings	Acoustically treated
Plumbing	CAST IRON soil pipes; COPPER water tube supplies; institutional type fixtures
Heating	UNIT VENTILATORS, convectors; full automatic control
Hardware	OIL-RUBBED BRONZE equipment; panic bolts
Electrical	RIGID CONDUIT; institutional type fixtures
Painting	ENAMELED woodwork on interior, PAINTED woodwork on exterior. (No paint on walls or ceilings)
Other Equipment	SHEET CORK tacking strips; electric clock system; intercommunication and loud speaker system





ESTHER BORN

LIBRARY of the Ross School provides a quiet, restful background for study or collateral reading: its fresh coloring the same blue-and-cream scheme used in the Classrooms. Corridors of the school are painted a light cream color and the Principal's Office and Teachers' Rooms are pale buff. Brown asphalt floor tile in several shades is used throughout, except in the Kindergarten where blue asphalt tile adds to the gaiety



he NEW schools

By TALBOT F. HAMLIN

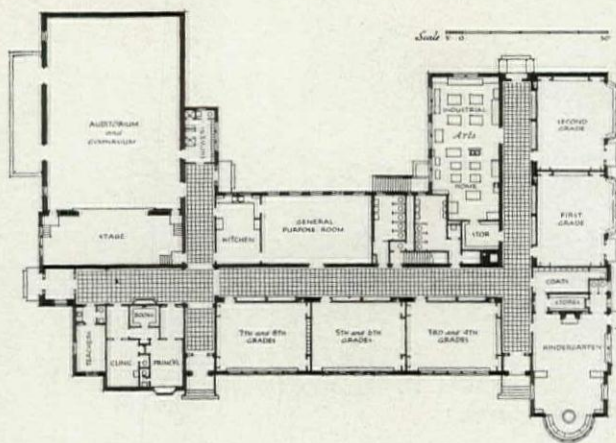
Two elementary schools of similar program and similar scope built recently in different parts of the country show how completely different the results can be within the same type of program, when it is approached in different ways. The resemblances between the two schools are in many ways obvious. Each is for six grades and a kindergarten; each is one story in height; each is designed with a combined gymnasium-auditorium; each has a roughly U-shaped plan. But there the resemblance ceases. In every other respect these two schools seem to come from different worlds. In appearance, both outside and in, they reveal such a **striking opposition in basic assumptions and points of view** as to make one wonder how both could be American schools of the 20th Century! What could be the effect on a child who had part of his education in one, part in the other? What suppositions would he be led to make unconsciously about Life and the two communities?

ROSS SCHOOL in California is a characteristic example of a large class of schools now found in the West. **Manifestly unostentatious, it seems to be designed primarily for its usefulness to children.** Its esthetics are those which result from this basic choice, and the quiet way it takes its place among the trees on its site—becoming not a monument but a piece of the landscape itself—seems to be expressive of a kind of fundamental modesty on the part of its designers, which is an appealing and encouraging note in American architecture. Large windows and simple horizontal lines, both in the interior and on the exterior, everywhere control the design. The result is a pleasant clarity restful to the eye, suggestive of ease and pleasant repose. One

feels that children in such rooms as these are very much themselves; take these quiet rooms with their simple areas of clear color and make them their own without strain. These are rooms children would come to love. Such simplicity and quiet attractiveness in their work home tends to stimulate in pupils cooperation rather than competition, pleasantness rather than "naughtiness."

The basis of the classroom plan is that concept of **combined work and study** which we associate with so-called Progressive Education. Each classroom is really in two parts: a working portion at one end, with long horizontal cupboards, drawers, and working areas; the other end free for the placing of school desks and chairs, fundamentally conventional in pattern, yet movable. Characteristic of this new feeling in education, the teacher's desk instead of being at the front of the room is at the rear, acting as a "connection" between the two portions. Even the blackboards and bulletin boards in these rooms are more interestingly composed and more thoughtfully handled than in the usual schools! One notices slanting exhibition boards at the front of the room on each side of the blackboard, designed to give the maximum visibility and the best light.

All of this is contrived, of course, to achieve workability; but the whole building is **more than a functional machine.** It seems most carefully studied to give especially within, proportions that are lovely. There is a real sense of the value of the related rectangles of different colors. The ceiling surfaces all slope to follow the pent roof, giving windows of unusual height; but any tendency toward restlessness is counteracted by stressing horizontals everywhere else. Actually this slope seems only to give a kind



The accepted elements of "charm" in the carefully-tended Early American neighborhood of the JERICHO SCHOOL, on Long Island, seem to be whitewashed brick, painted blinds, picturesque roof lines, hewn timber fences, and other rustic cliches. This school, designed by Godwin, Thompson & Patterson, New York, and built by Andrew Weston Construction Corporation, New York, has all of these; but at the same time meets progressive school standards as interpreted by Dr. N. L. Engelhardt, of Columbia University Teacher's College, who served as Educational Adviser to the Architect. The plan (left) shows how the exterior reflects the various elements of building—the auditorium-gymnasium at the rear, the Intermediate grade rooms across the front, and the Primary Department off in the east wing



WURTS BROTHERS

of living quality to the rooms without in the slightest disturbing their quiet balance. The same quality runs through the attractive library and the kindergarten, with its raised platform and its door leading directly out to the kindergarten playground. (See page 79.)

The plan itself shows an admirable arrangement of the school necessities—the principal's office and the teachers' room close to the chief entrance; and the children's toilets centrally located for use from either the classrooms or the outside playground. The whole sense of the plan is open and the plan seems to be the reverse of that of the old-type, carefully disciplined school with its centralized entrance. Everything seems to be done, in fact, to tie together the outdoors and the inside. Of course this is a kind of adjustment which is the direct result of the California climate, where outdoor teaching and outdoor playing can be carried on through most of the school year. In colder climates a different plan would undoubtedly result;

what seems in this Ross school a thing for architects to study and adopt is the attitude of **complete acceptance of the conditions of the problem as the elements of the design.**

The exterior is perhaps less distinguished than the interiors. There are perhaps unnecessary complications in the moldings at the eaves, and the curved office of the principal seems slightly intrusive. Even some of the details on the interior may not be great art. But none of these destroy the basic effect or diminish the essential appeal of this building as a building designed for children; one which will actively serve to stimulate their social and esthetic development.

JERICHO SCHOOL, on Long Island, was planned with the best and most progressive technical advice. Its standards of room area are as stringent as those of the California School though the "activities" have been removed from the classrooms themselves to a separate room, one end of which is designed

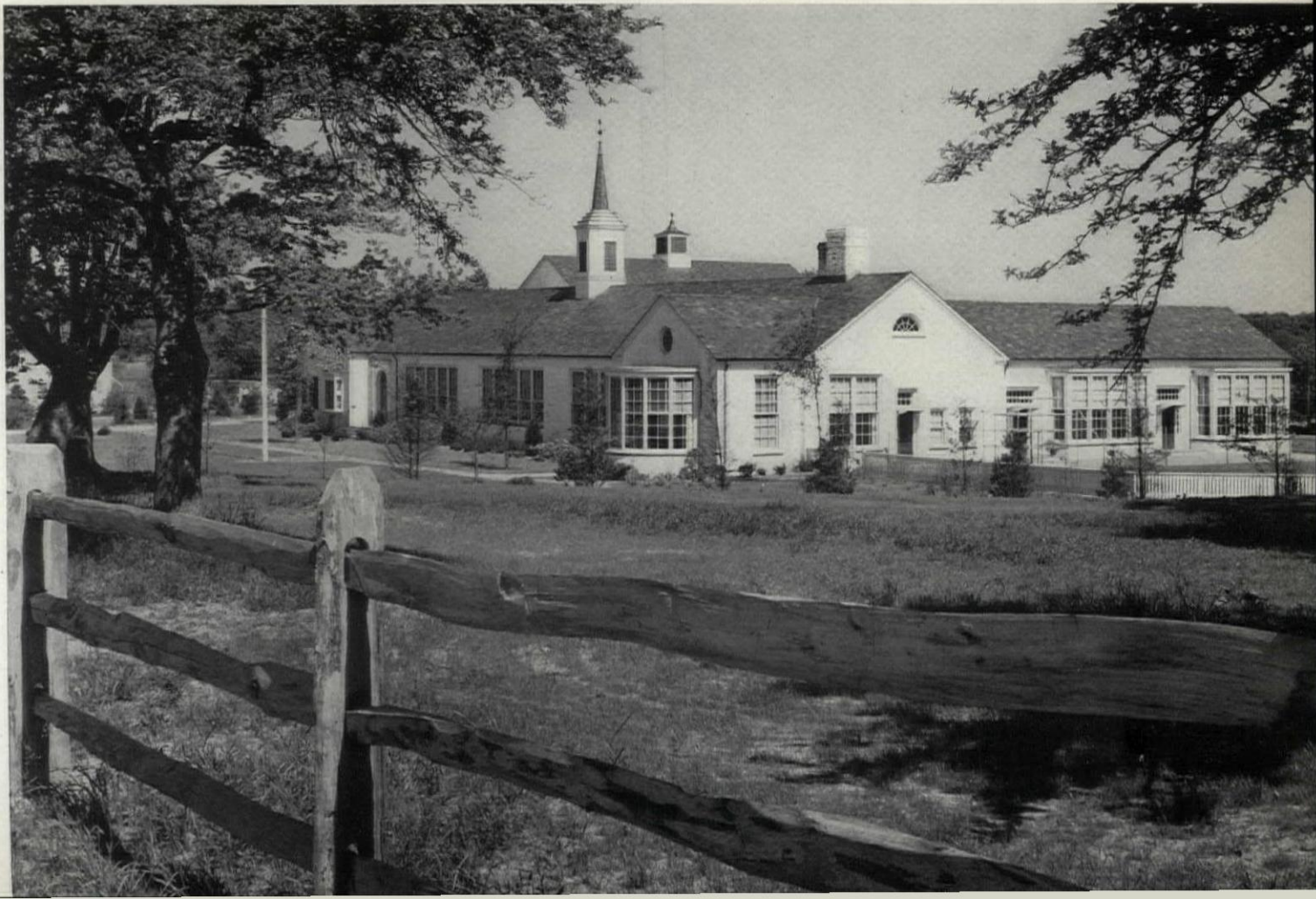
for home economics and the other for handicrafts. The Jericho school, like that at Ross, has movable desks and ample storage.

And yet how totally different are these two buildings! For in the case of the Jericho school one feels at once the impact of alien **imposed conceptions which have nothing to do with children or education.** Seen from a distance, the school has forms of a farm group, and this effect, pretty enough, is emphasized by the rustic hewn-timber fence that surrounds its grounds. The auditorium-gymnasium becomes the stable or the barn, the adjacent corner would make a good farmer's cottage of 15 years ago, and the rest looks like sheds for smaller stock and for storage—into which large windows have somehow happened to be punched.

This resemblance may be a pure accident, yet the form of the two cupolas—the square one over the gymnasium and the tall, thin one over the lower portion—and the whole massing of gable and roofs which together make up this effect are not accidental. They are carefully composed. If the desire to imitate a farm group was not consciously present, at least this combination of forms was strongly fixed in the architect's mind—probably under the headings of "picturesqueness" and "harmony with the landscape" and "harmony with the surroundings"—so that

the resemblance in the final building is obvious. With its long roofs and its white walls **it is a pretty bit, but it is not a school.** That children pour out of the doors instead of horses or sheep is an anomaly.

A similar kind of psychology—the design of pretty bits instead of the design of a school—has affected the entire building outside and in, kindergarten, classrooms, and auditorium alike. I also perceive that one can trace accurately in these interiors the actual impediments to design which such preconceived approaches bring with them. The picturesque exterior somehow, despite the best will in the world, gets into the inside of the building, and the **simplicity and clarity I take to be the fundamentals of designing for children** are almost inevitably destroyed. Little windows designed for domestic effect or appearance, or in order to create symmetrical Colonial compositions, frequently look queerly out of place within. To cite but one example: the little octagonal windows on either side of the gymnasium-auditorium door. Similarly the breaks in the wall-line necessitated by the exterior composition create interior difficulties. For instance, in the kindergarten the whole charm of the curved bay is compromised by the breaks in plan which lead up to it and, if one may judge from the furniture shown in the photographs, have created





TYPICAL CLASSROOM is well-lighted (white Venetian blinds of metal help to diffuse light) with closets and an alcove provided at the rear for storage and display of class work, leaving the front clear for teaching and demonstration. Each teacher was consulted on the color scheme for her room. The inexpensive window draperies were included as agreeable color accents



KINDERGARTEN has a fireplace, a large and light bay window around an indoor garden, a linoleum floor with patterns for elementary games, and a cheerful color scheme. **AUDITORIUM** chairs are stored on trucks under the stage when the room (left) is used as a **GYMNASIUM**. The 7-foot wainscoting is cork tile. Walls of concrete block make an interesting pattern



MATERIALS AND EQUIPMENT

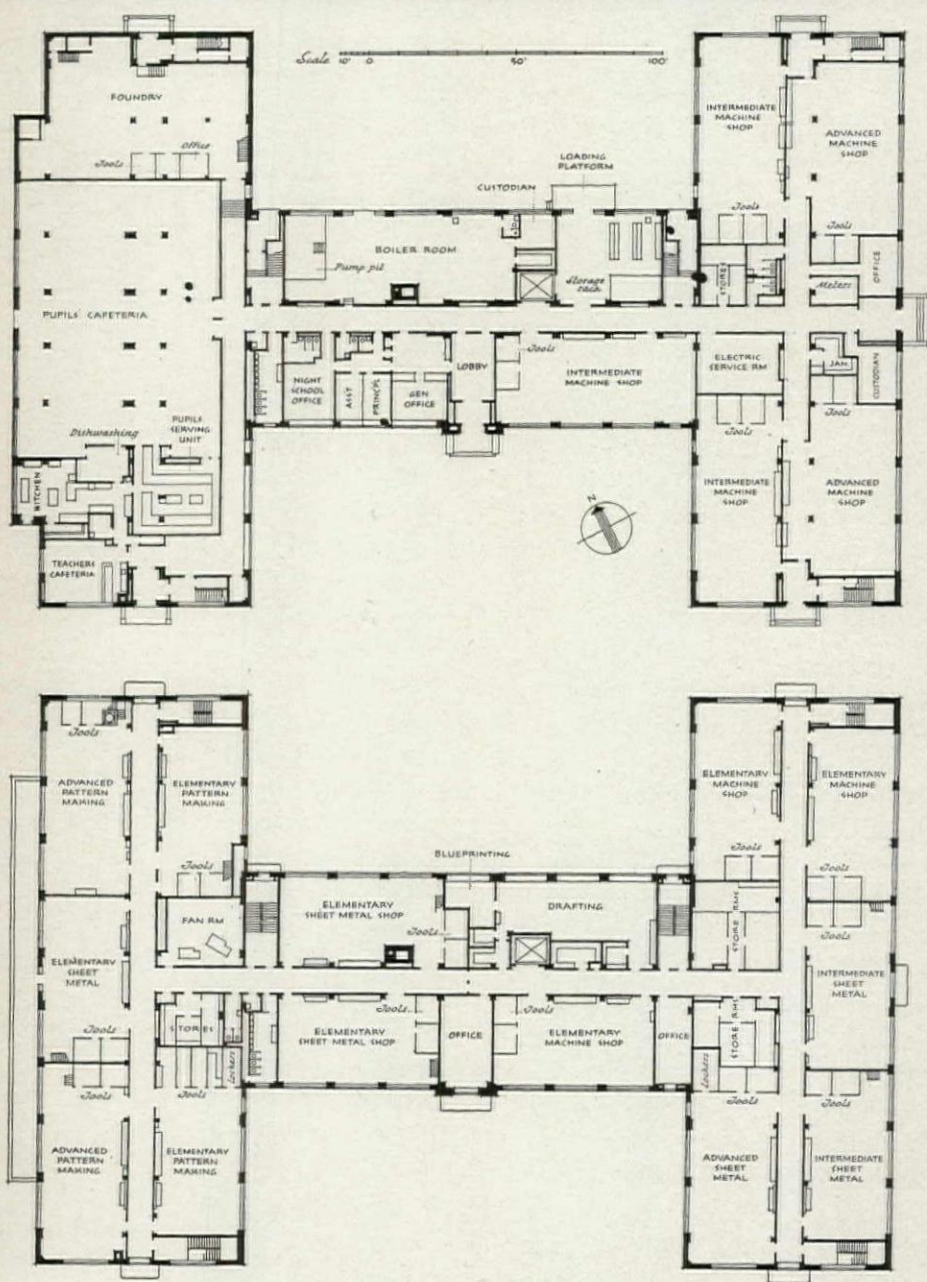
Footings	REINFORCED CONCRETE
Foundation Walls . . .	REINFORCED CONCRETE
Waterproofing	PREFORMED DAMPPROOFING UNITS
Exterior Wall	COMMON BRICK, whitewashed
Floor Construction . . .	REINFORCED CONCRETE with WOOD FLOOR over
Floor Finish	LINOLEUM (kindergarten); RED BEECH (classrooms and auditorium); ASPHALT TILE (corridors); CORK TILE (principal's office, waiting room, clinic, book room, teachers' room)
Interior Wall	CONCRETE BLOCK
Interior Wall Finish . .	CORK TILE, 7' high with PAINTED CONCRETE BLOCKS to ceiling (auditorium); handmade GLAZED TILE dado with CORK STRIPS above (corridor); PLASTER (principal's office, classrooms, waiting room, clinic, book room, teachers' room); CEMENT FINISHED (basement)
Roof	VERMONT BLACK SLATE; BUILT UP; also, BUILT-UP OVER CINDER FILL and 4" concrete slab
Ceilings	Acoustically treated
Sheet Metal	COPPER flashing and gutters (exposed copper is lead coated)
Glazing	CLEAR GLASS (double hung and fixed sash used)
Terraces	FLAGSTONE (also used for entrance porches)
Hardware	Institutional type
Lighting	BX CABLE; school type fixtures
Plumbing	CHROME STEEL built-in lavatories (all classrooms); STEEL and BRASS pipe
Heating, Ventilating . .	One boiler divided into two sections—one controls the heating and ventilating of auditorium, the other covers the rest of the building; direct heating by means of radiation, high velocity outlets in each room, lock thermostats, boiler and oil burner
Other Equipment	Reversible blackboards and bulletin boards, movable furniture, metal Venetian blinds, figured draperies, enameled lockers built in corridor walls, fireplaces in kindergarten, program clock and bell system, septic tank, wood blinds with fixed slats on exterior

definite difficulties in room arrangement. The result, too, in matters of detail has been a complicating element. Thus the arched recess in each of the classrooms, with its little carved impost and key blocks, seems to have been designed as an acceptable Palladian elevation rather than as part of a classroom; it seems somehow so manifestly out of harmony with the big windows, the lighting fixtures, and the blackboards and bulletin boards as to form discord rather than beauty.

One may ask why in a rich farming country a school should not look like a farm group; provided it had good composition and formed an attractive note in the landscape. Does it seem forced to suggest that the reason lies in the fact that **this resemblance is not fair to the children?** Is there not a possible beauty inherent in the whole concept of elementary education itself, or in the highest ideals of modern education, which is more inspiring, more human, and more noble than the inspiration to be derived from imitating,

even adroitly, other types of buildings designed for other uses?

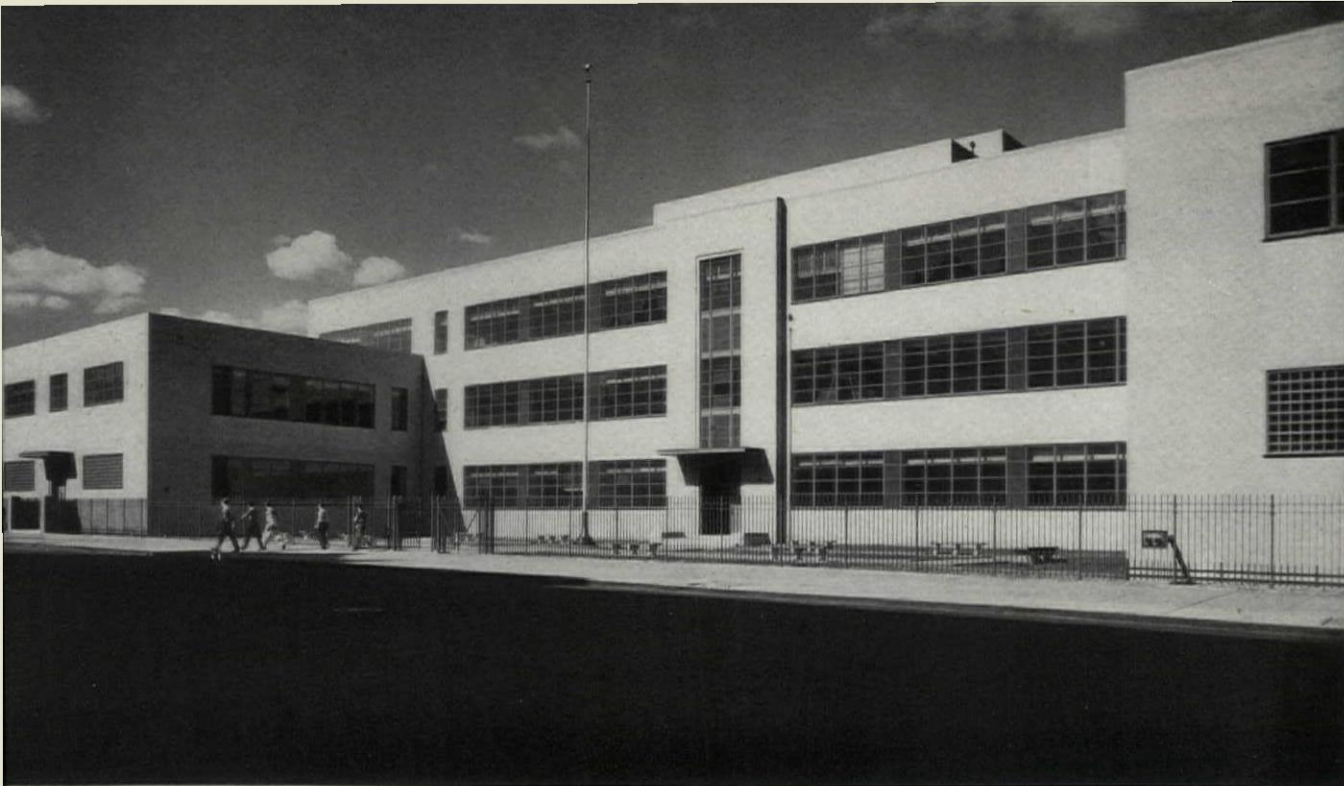
MACHINE AND METAL TRADES HIGH SCHOOL on First Avenue in New York City is an achievement of an entirely different sort. Here is perhaps the most effective, even the most beautiful, of New York City schools built within recent years. The long horizontals of its First Avenue front and the simple patterning of its masses, the attractive studied feeling of all its details are an almost perfect expression of its problem. It is slightly factory-like, yet not at all a factory; it is slightly school-like, yet by no means the ordinary secondary school. The openness and the horizontality of the windows of its shops somehow express the big areas within. The clean neatness of its detailing has some of the quality of good machines. The material is pleasant, the handling of the projecting slabs over the smaller doors direct, simple, and well-proportioned, and the metal letters



along the First Avenue front are agreeably spaced and tell their story with direct simplicity.

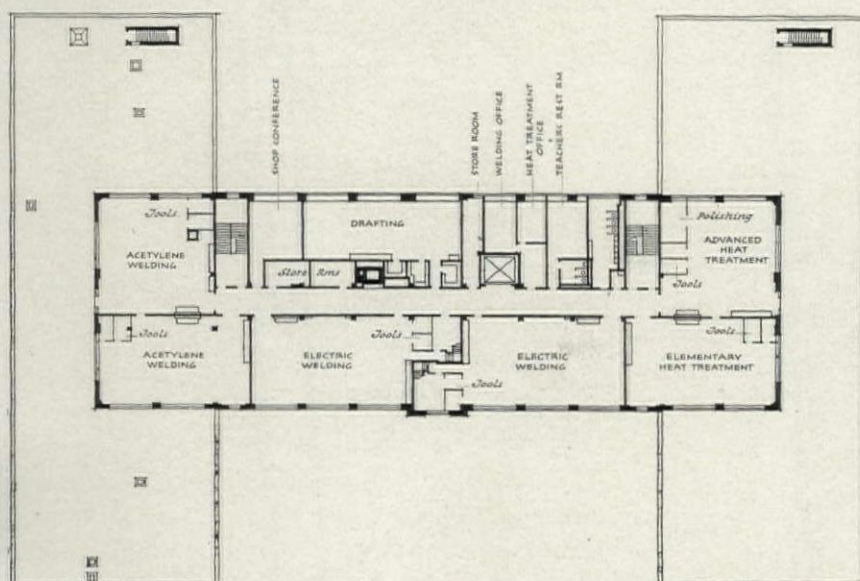
There is a quite beautiful sense of abstract proportion to be seen in the relation of the long windows to the spandrels and coping; in the vertical dimensions of windows and wall throughout. The smaller windows of the toilets and minor rooms are attractively placed to tie together the higher central portion and the wings, and the exterior reads as a perfectly simple externalization of the plan. It is this organic quality which is more than anything else responsible for the reality—one might almost say the authority—of the result.

With all of this creative and forward-looking beauty, it is the more unfortunate that there remains one sign of **conventional, leftover, imposed patterning**. That projecting vertical central entrance motif, with its small windows connected by dark spandrels, seems to express a vertical element. The idea that a building as large as this demands an impressive central pavilion is one of the old-fashioned ideas last to be discarded by architects. A comparison of the south face (across-page) with the east elevation on First Avenue (above) will show at once the additional power and beauty where the central emphasis is subordinated.



MACHINE AND METAL TRADES HIGH SCHOOL, New York, designed by Eric Kebbon, New York City School Architect, is "slightly factory-like, yet not at all a factory; slightly school-like, yet by no means the ordinary secondary school." This clean-cut building of pale buff brick, accented with dark green terra-cotta pier facings, on a prominent site clearly has authority

MATERIALS AND EQUIPMENT



Floors	REINFORCED CONCRETE
Foundations	REINFORCED CONCRETE
Wall Construction	BRICK on CONCRETE BLOCKS
Wall Finish	GLAZED TILE WAINSCOTS with painted CONCRETE BLOCKS (kitchen and serving units, dishwashing room, boys' toilets); ARCHITECTURAL TERRA COTTA FACING (lobby and three entrance vestibules); ARCHITECTURAL TERRA COTTA WAINSCOT and PLASTERED walls (five entrance vestibules); other walls of painted CONCRETE BLOCKS
Roof	BUILT-UP, with slag, over concrete insulation
Sheet Metal	COPPER FLASHING
Floor Finish	HARD WOOD (shop conference room, teachers' rest room, drafting rooms, office, first and second floor shops); ASPHALT TILE ON CEMENT (pupils' and teachers' cafeteria); CERAMIC TILE (toilets, dishwashing room, kitchen and serving units); NON-SLIP TILE (foundry shower room, foundry drying space); all others are CEMENT
Interior Partitions	4" hollow CONCRETE BLOCKS (corridors)
Ceiling	PLASTERED hung ceiling (toilets, lobby and entrance vestibules, corridors); PLASTERED ceiling furred or hung (teachers' rest room, kitchen and serving units, dishwashing room, offices); ACOUSTICAL TILE panels (pupils' and teachers' cafeteria); other ceilings have PAINTED SLABS and BEAMS
Windows	STEEL SASH (wire and clear glass used)
Ornamental Metal	STAINLESS STEEL, BRONZE
Other Equipment	Venetian blinds, cloth shades, kitchen equipment, elevators, sprinklers

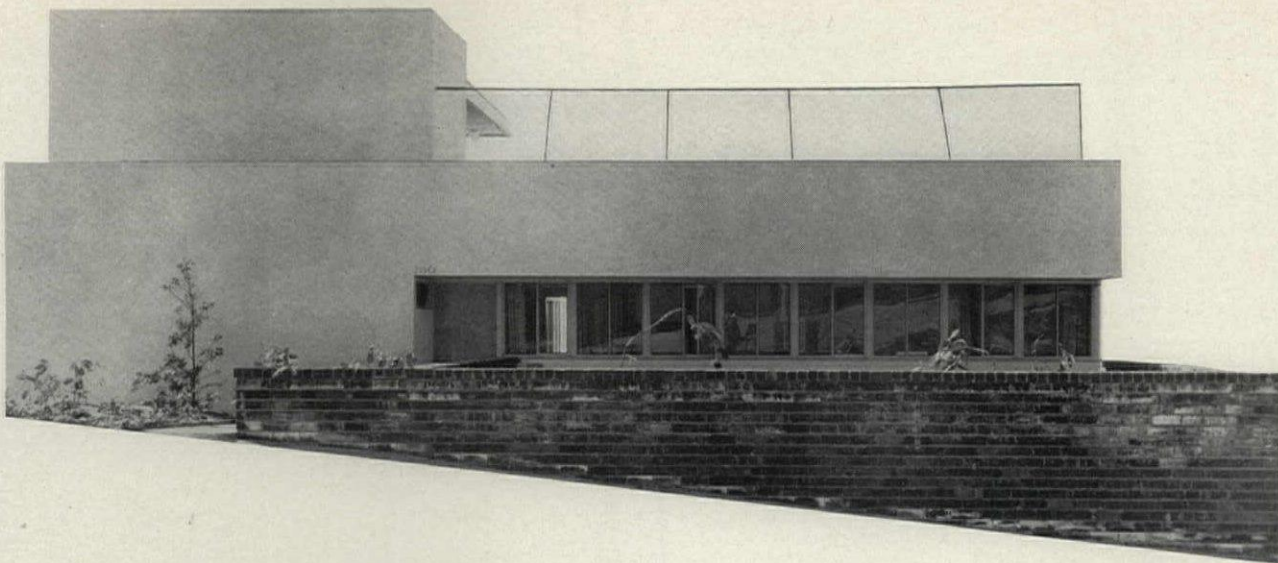
In a BUSINESS BLOCK on Lexington Avenue, New York, the late Thomas W. Lamb created, with a limited budget, an acceptable addition to the metropolitan scene. Exception has been taken to the ponderous central motif, but the general scale of the building seems "right" amid tall buildings of that neighborhood



THIS FANCIED NECESSITY for a central motif is one of the most insidiously destructive persistences in modern design. It has spoiled the direct beauty of many industrial buildings, and it happens that in a new business block on Lexington Avenue its destructive effect can be clearly seen. This building, designed by the late Thomas W. Lamb, is in other respects one of the most carefully detailed and pleasantly proportioned of any of those recent two-story tax-payers that have become an increasing note in most of our cities. Its upper floor, used for bowling alleys, has long continuous windows, and the shops below re-emphasize this horizontal note. The end elevations on the side streets are pleasantly proportioned, and the detailing throughout is unusually polished. Especially effective are the moulding beneath the coping, the slightly projecting drip stone over the upper windows, the bold and effective use of metal lettering for signs. The length of the whole

and the repose inherent in its stressed horizontal lines form a most happy and necessary esthetic element in our overstaccato city. With all of this excellence, it is definitely a shock to come in the center of the Lexington Avenue front upon a monumental central pavilion. Without even the excuse of a door to justify it, it rises in the most structurally inconclusive and esthetically meaningless way, over the middle of a show window, to an absurd parade of decorative cresting; then returns down the sides with heavy stonework supported over nothing.

This fear of quietness, of serenity, and of the horizontal is a symptom, I believe, of a much wider timidity on the part of most American designers. **It is a false fear of overstatement.** Having hit the note of horizontality, they fear to be definite in their statement; they compromise and qualify by these sudden inexplicable central pavilions! The greatest buildings in the past have made their esthetic statements with magnificent power.



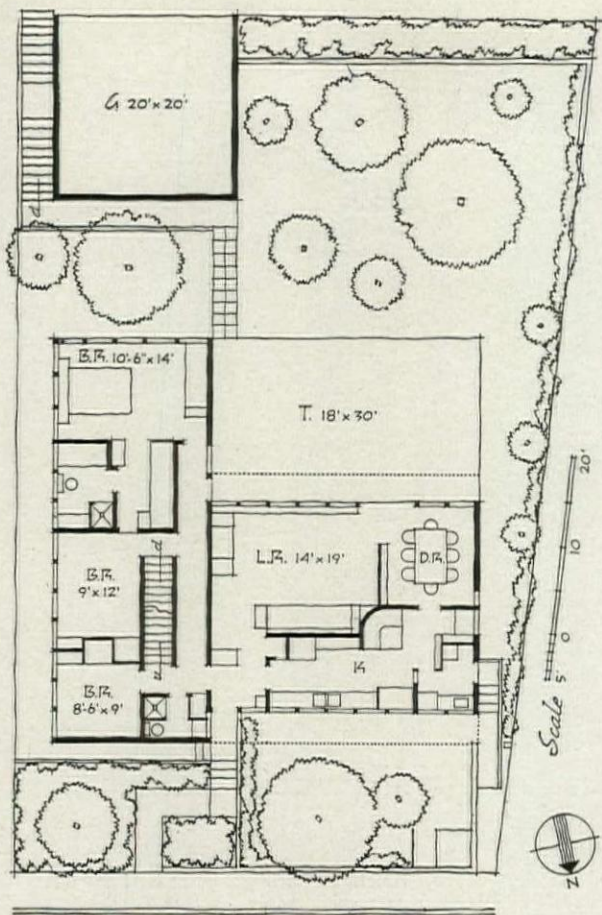
HOUSE ON A HILLSIDE



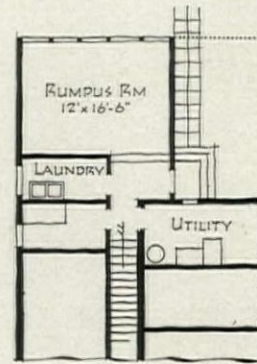
Raphael S. Soriano, Designer, Hollywood, California

From Rhodes, in the Aegean, Soriano came to America in 1924. He studied architecture at USC and was associated with Neutra just after graduation. His first house was exhibited in 1937 at Paris International Exposition and his later work—commercial as well as residential—has been widely published



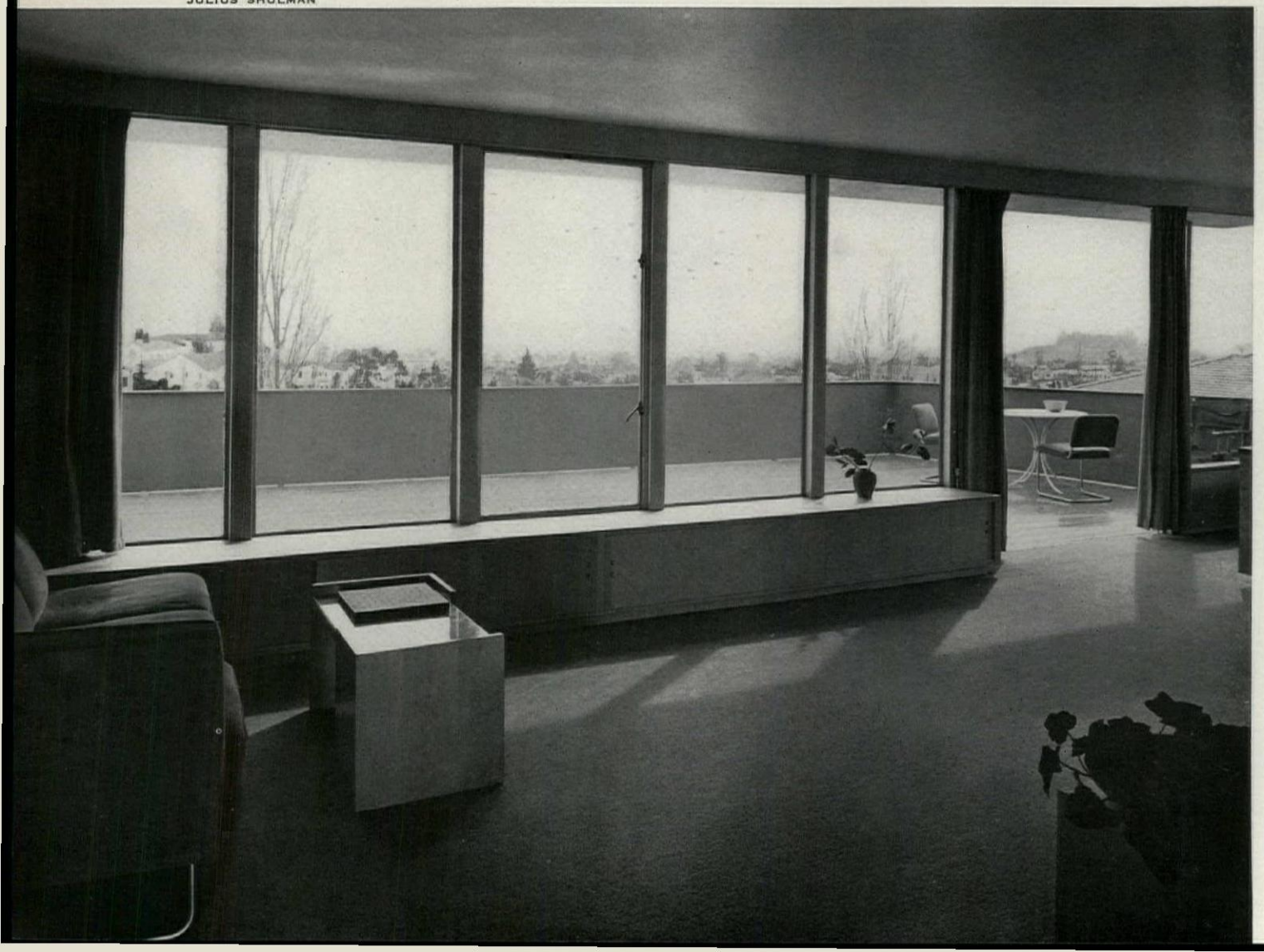


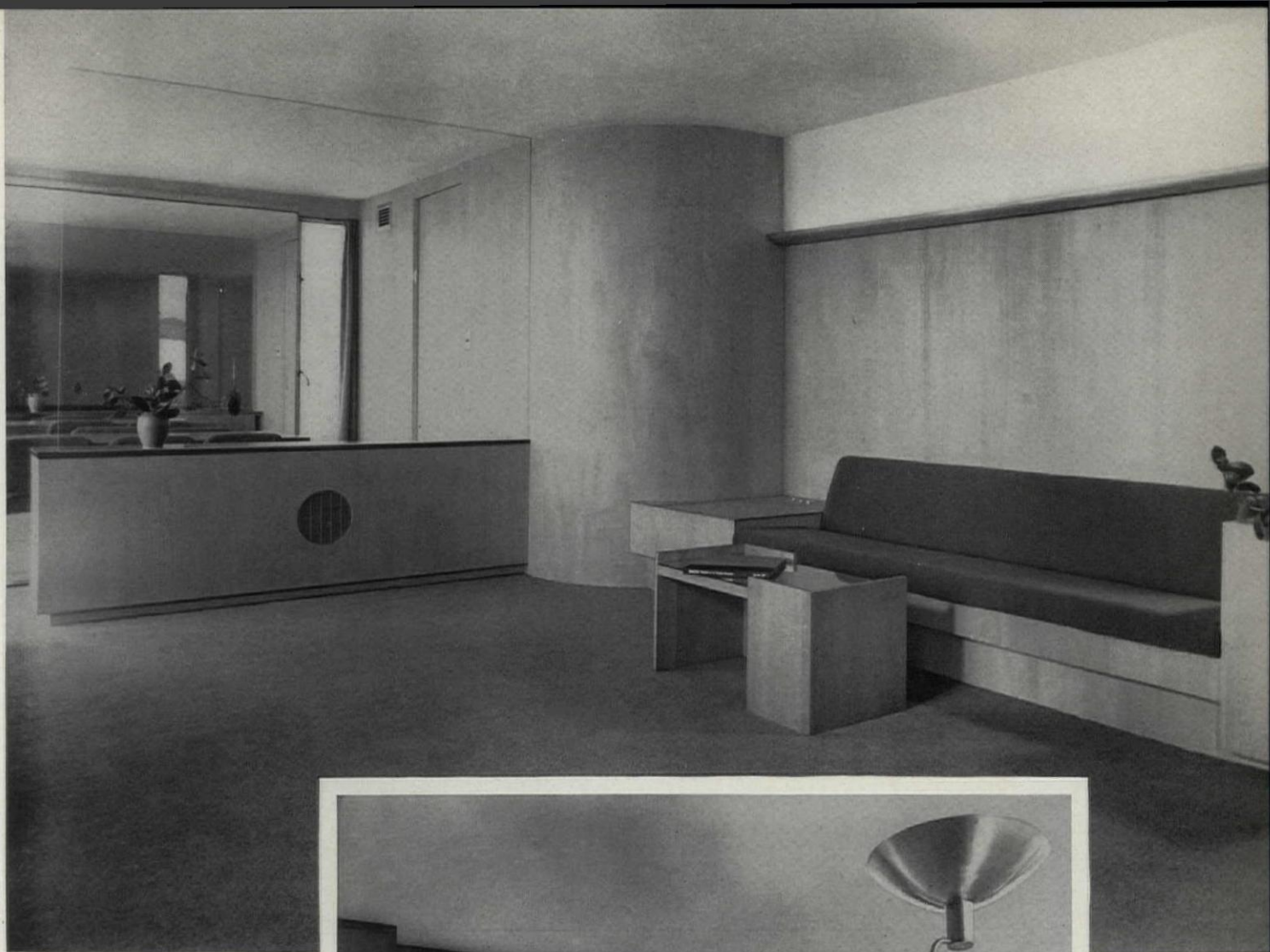
Severity of the street front of the house of Dr. and Mrs. Louis J. Gogol, Los Angeles, is relieved by the color scheme of light beige stucco and walls of Indian red brick (photo over-page). The plans here and the view of the garden front (over-page) show how the designer has utilized a sloping site. The spacious deck on the south side of the house is used for sun bathing, as an outdoor playroom for the Gogol's baby and—since it is



well integrated with the indoor living space—for outdoor dining and entertaining (photo below). The deck enclosure is $\frac{1}{2}$ " plywood bolted to iron uprights. LIVING ROOM walls and built-in furniture are finished with $\frac{1}{4}$ " plywood of an exotic pattern. Indirect lighting is from a tubular incandescent light trough above the sponge rubber couch (across-page) flanked by built-in units

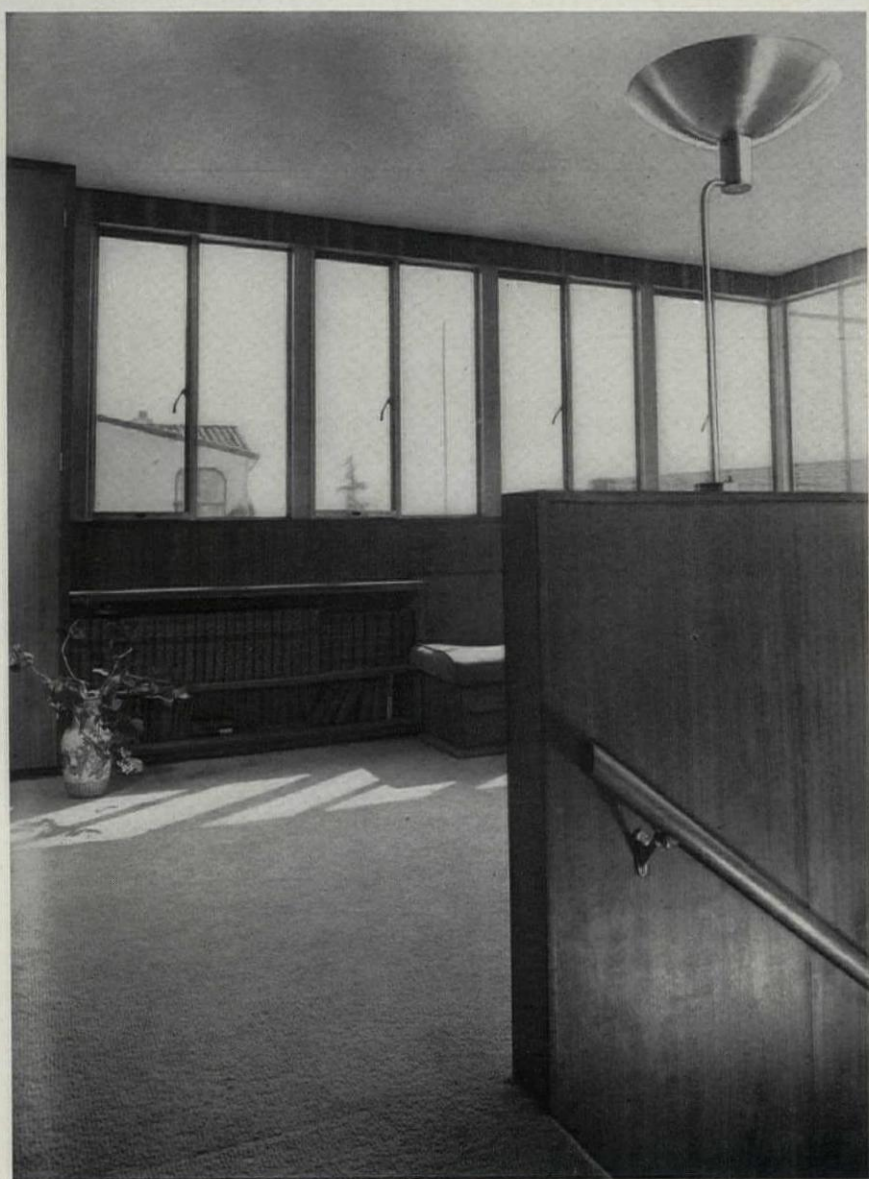
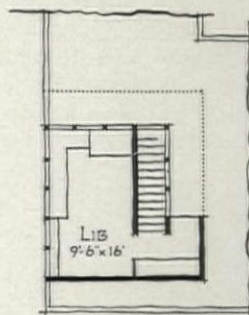
JULIUS SHULMAN

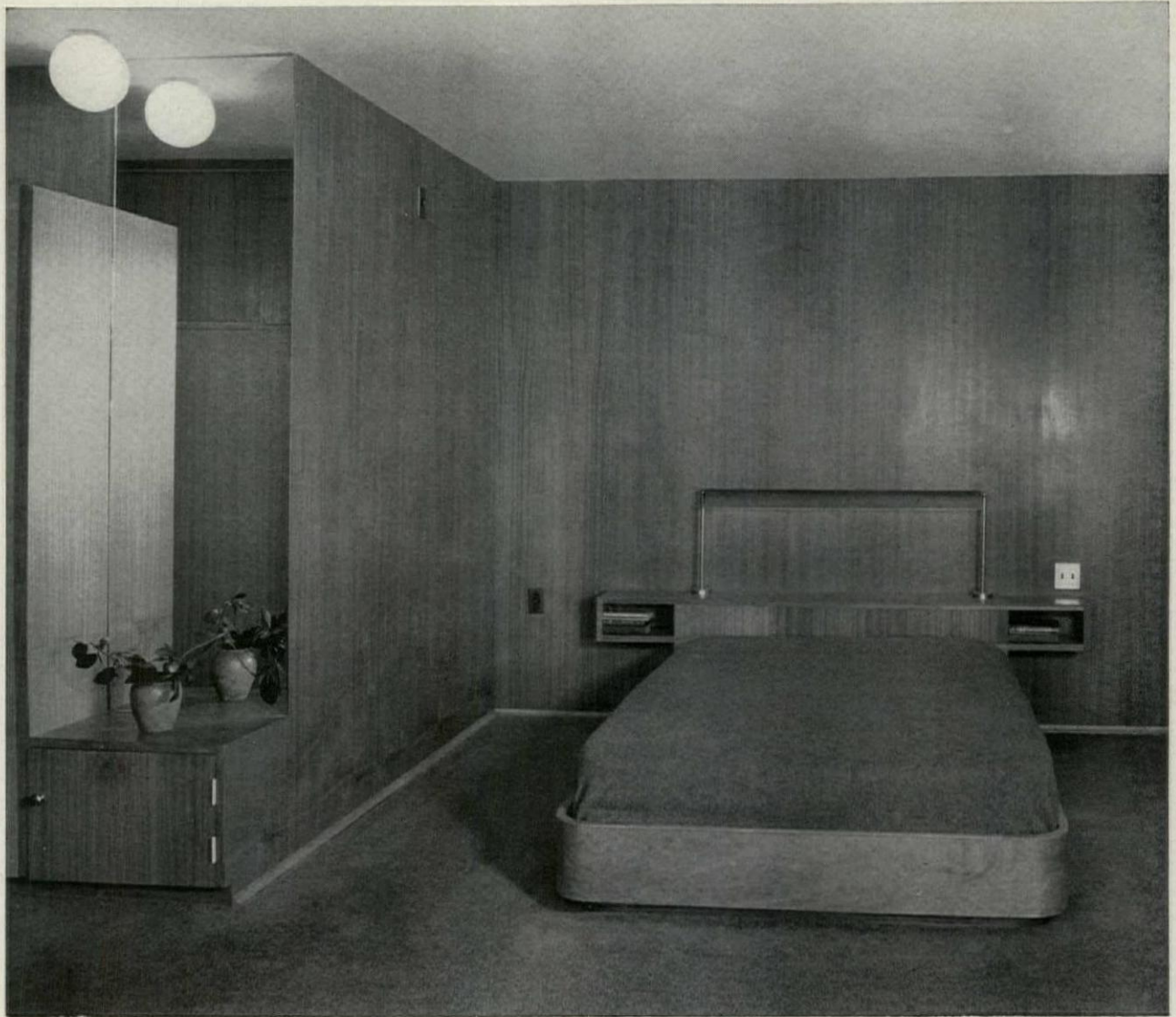




JULIUS SHULMAN

The buffet and radio speaker unit with peach colored screen of $\frac{1}{4}$ " plate glass (above) is between the living and dining spaces. The entire end wall beyond is covered by a mirror. On the top floor is Dr. Gogol's LIBRARY (right) commanding a fine view to the South





MATERIALS AND EQUIPMENT

Footings	REINFORCED CONCRETE, 1:2 ½:3 ½
Terraces	2" x 4" PLANKS, ½" apart, over heavy planks (deck off living-dining room); INDUSTRIAL ROOF SURFACING (roof decks)
Wall Insulation	1" RIGID BOARD insulation on ceilings and walls
Wall Construction	4" x 4" REDWOOD POSTS, 3 ½' o/c; stuccoed outside; plastered inside
Floor Construction	2" x 12" and 2" x 8" WOOD JOISTS, 16" o/c, with ¾" PLYWOOD over subfloor
Roof	ASBESTOS, three layers
Waterproofing	2 coats of HOT PITCH
Sheet Metal	GALVANIZED IRON, 24 ga.
Windows	STEEL SASH, casement-type, DSA glass; COPPER SCREENS. Steel frame doors have PLATE GLASS
Finished Floors	CARPETING in all rooms except kitchen service and bathrooms where LINOLEUM is used
Interior Walls	PLYWOOD PANELS, 4' x 8' x ¼", with finishes of rare woods: Magnolia and Ailon (Living Room); Bayotte (Master Bedroom); Duali (Child's Room); Walnut (Library and Stairs)
Plumbing	CAST IRON soil pipes; GALVANIZED IRON water pipes; VITREOUS CHINA fixtures (Master Bedroom); ENAMELED IRON fixtures elsewhere
Heating	FORCED AIR SYSTEM with filtering and humidifying systems controlled by thermostat
Electrical	CONDUITS. CHROME FIXTURES
Hardware	SATIN FINISH CHROME
Other Equipment	Electric refrigerator, gas range, washing machine, built-in furniture using sponge rubber