

SEPTEMBER, 1957

FAIA

*Journal*  
OF THE AMERICAN INSTITUTE OF ARCHITECTS

HOW A WIFE CAN HELP HER HUSBAND  
BECOME A GOOD ARCHITECT  
By Dione Neutra

INDEPENDENCE HALL AREA:  
REBIRTH OF THE OLD CITY  
By G. Edwin Brumbaugh, FAIA



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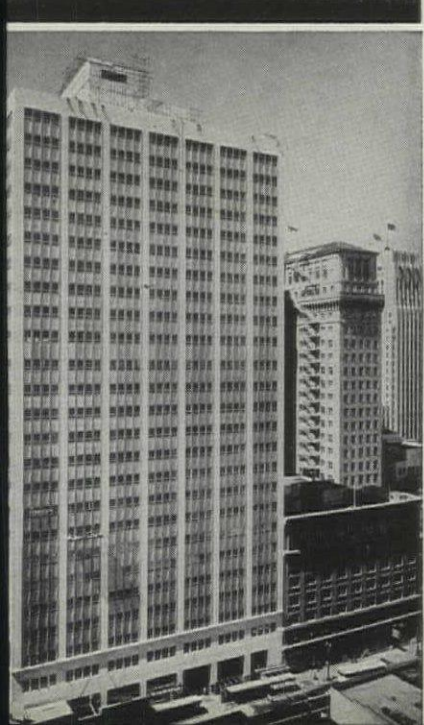
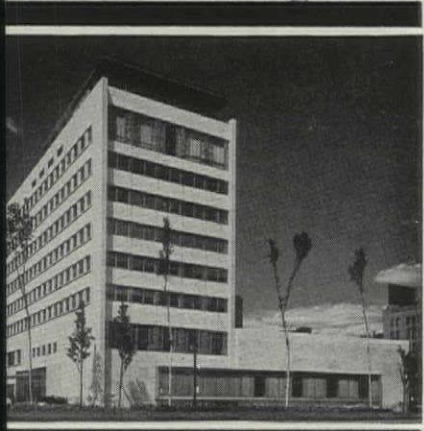
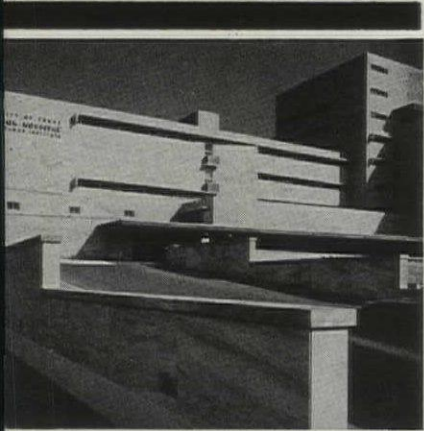
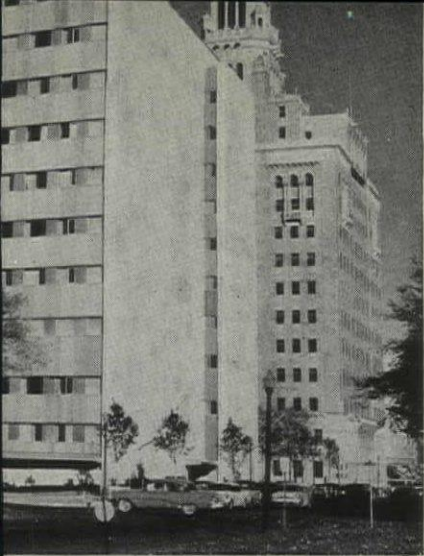
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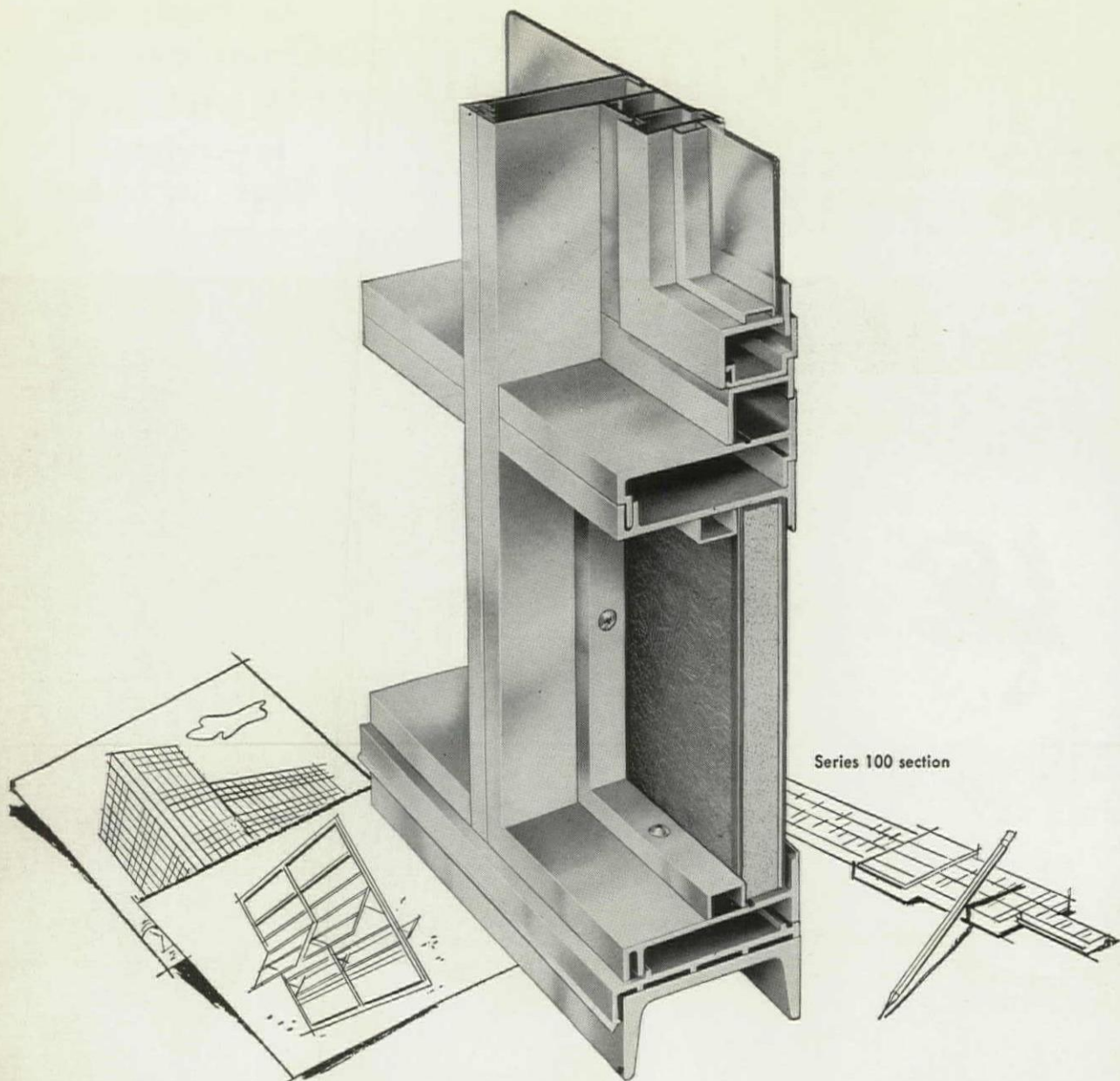
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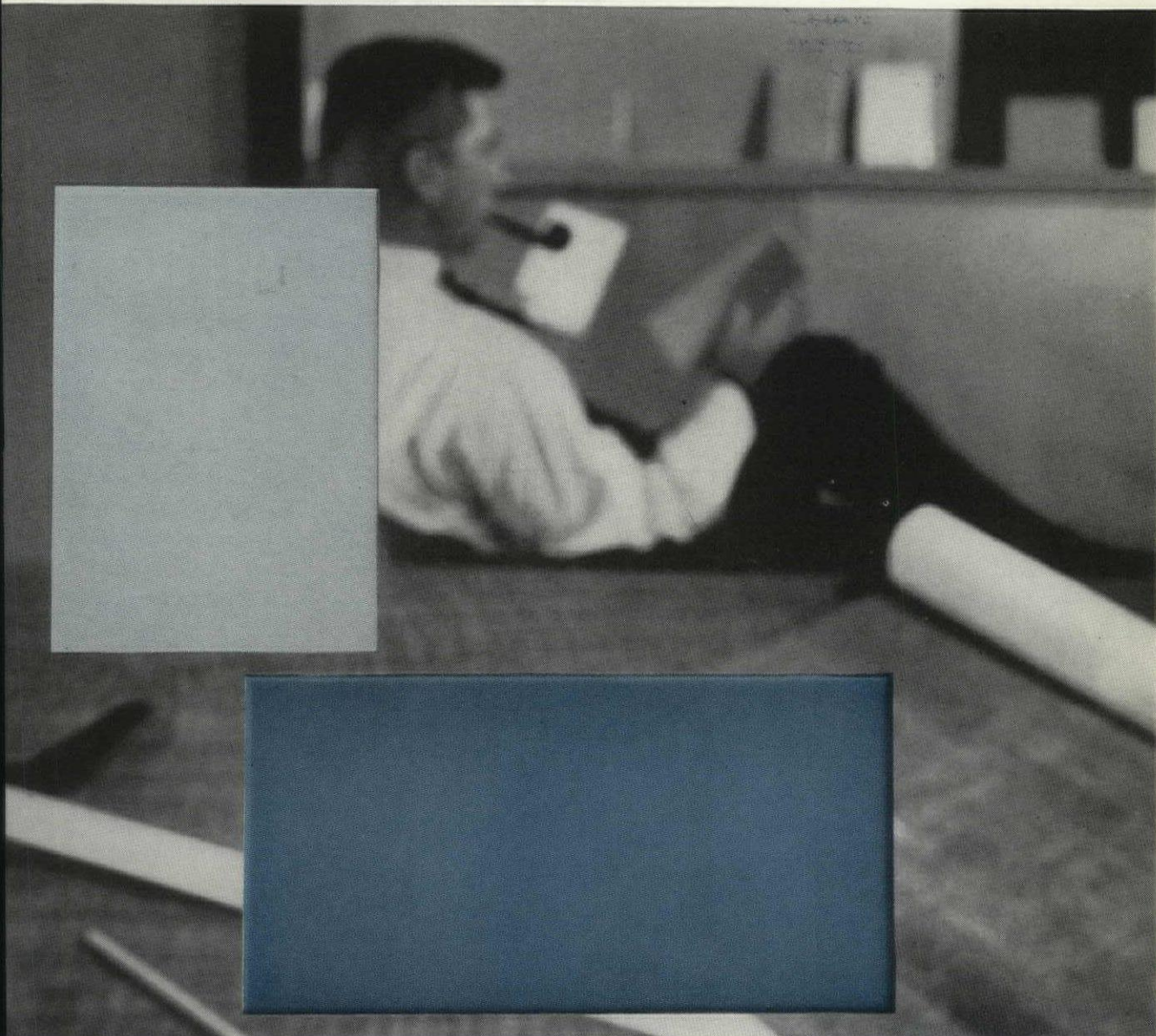
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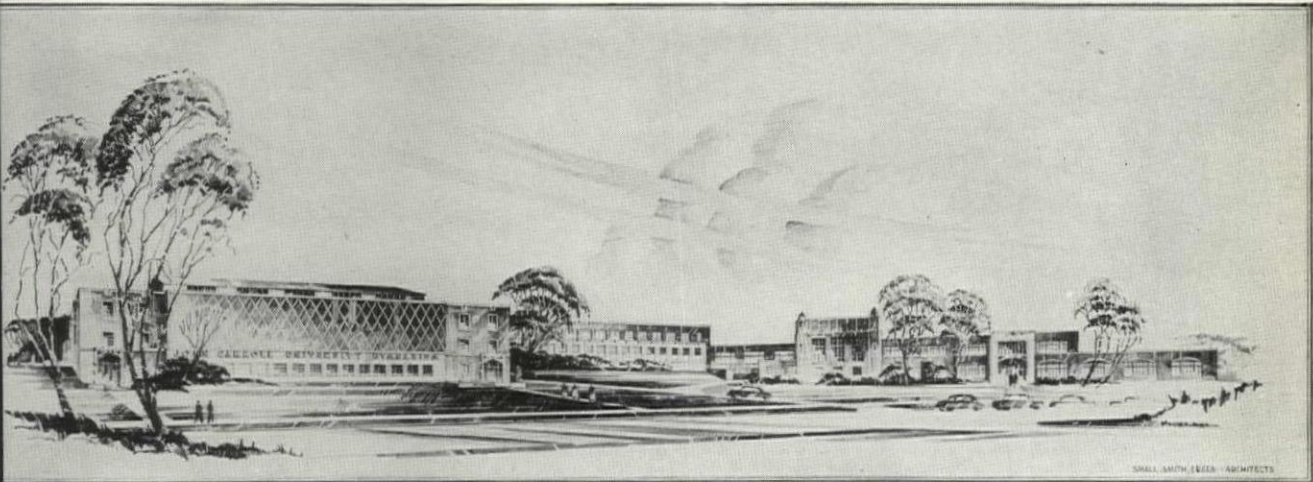
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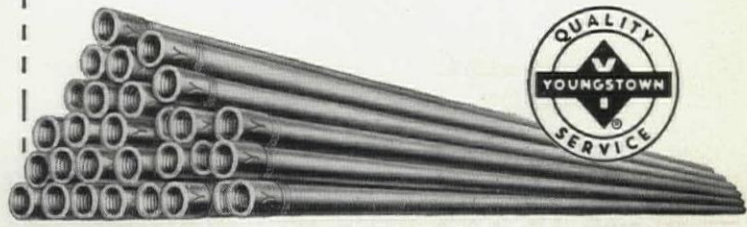
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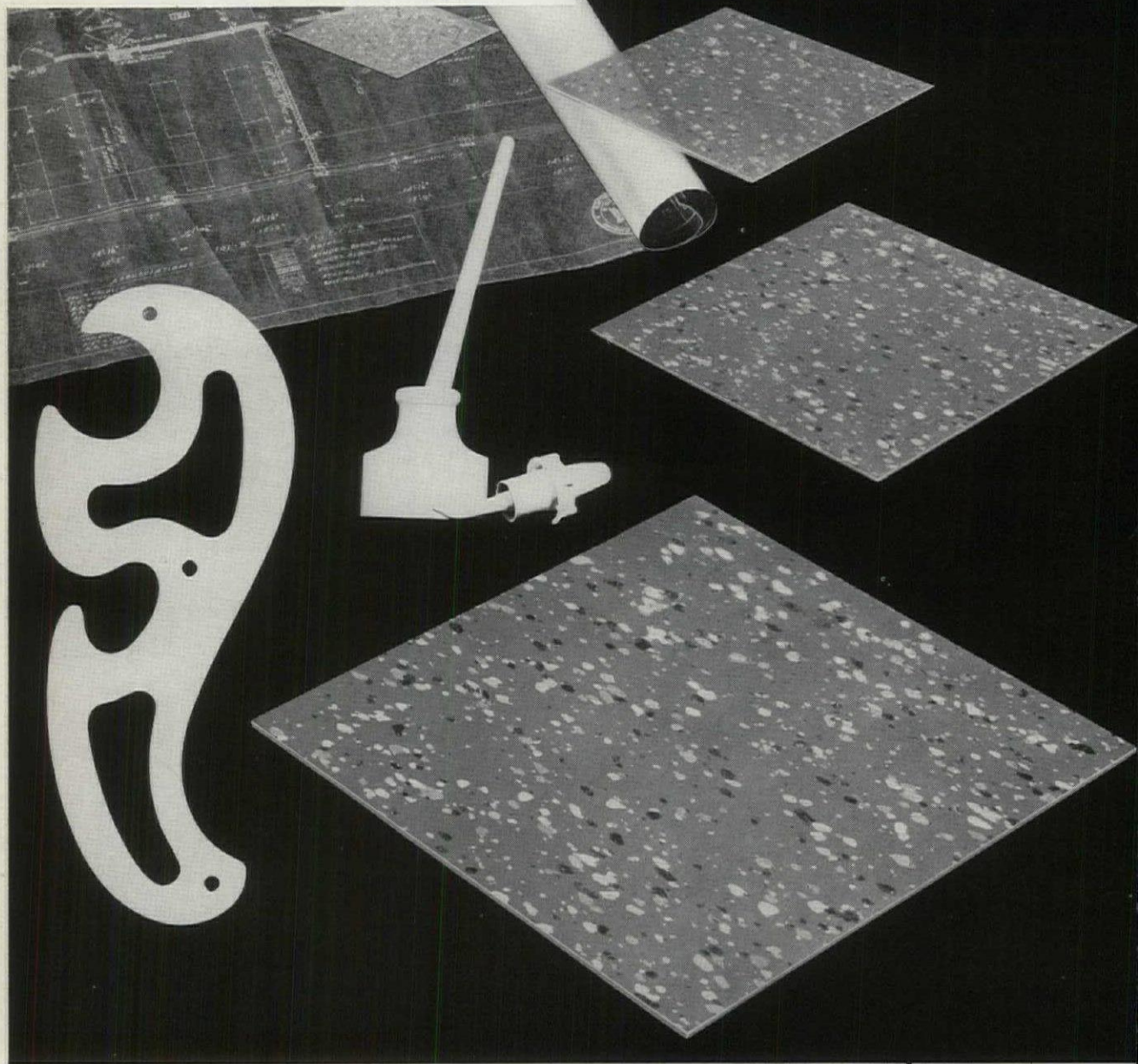
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## NOW—A wide choice of resilient floors for on-grade concrete

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Due to the presence of alkaline moisture, almost all other resilient flooring materials formerly available—such as linoleum, rubber, cork—were susceptible to deterioration of the flooring material itself, or breaking of the adhesive bond, or both.

In recent years, extensive research has been undertaken by the Armstrong Cork Company into new flooring materials, adhesives and backings, with the result that, today, architects enjoy almost the same freedom of choice of resilient floors for use on grade as for suspended subfloors.

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Excelon Tile is a vinyl-asbestos floor. While it costs only a few cents more per square foot than asphalt tile, it offers many advantages. Highly resistant to grease and alkali, Excelon Tile is also very durable and easy to maintain.

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### New waterproof adhesives

New adhesives further widen the resilient flooring choice by permitting architects to specify Armstrong Rubber Tile, Armstrong Cork Tile, and new Armstrong Custom Vinyl Cork Tile for installation direct over grade-level slabs. It is important to note, however, that in specifying Cork Tile and Custom Vinyl Cork Tile, the top of the slab must be at least 1" above grade level, and the grade must slope away from the foundation.

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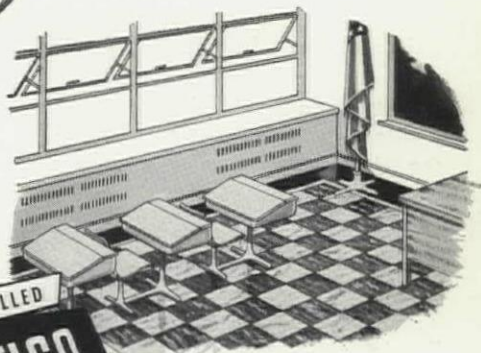
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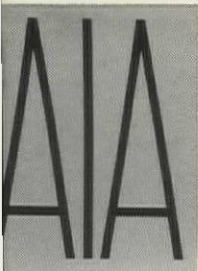
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# TRAINING IN LEADERSHIP

*From an address by GONTRAN GOULDEN, A.R.I.B.A., upon the occasion of his acceptance of his election to the presidency of the Architectural Association of London. Reprinted from The Contract Journal.*

UNLESS SOME FORM OF TRAINING in leadership is given to young architects, the battle for good architecture will never be won; instead, it may very soon be lost.

Success and promotion in industry go to those who can exercise leadership. Make no mistake, not only architects think that the architect should head the building team; engineers, quantity surveyors and builders have their own views.

When the architect is spoken of as head of the building team, much is made of the need for him to know everyone's job so that he can the better co-ordinate the work of all branches. Admirable though such a situation would be, it is not vital to the success of the enterprise. Whereas the power of leadership is vital.

I hesitate to suggest that an effort should be made to cram anything more into the students' five already overtaxed years, but it seems to me that some training in leadership is vital for the young architect if he is ever to attain the position in the building team which is properly his.

In answer to the objection that leaders are born, not made, I reply, so are designers—but even they need training.

All this time the leaders who are not good designers have been putting up buildings, at the right price, by the right time. They will continue to do so. We have no time to lose.

Aptitude for leadership could and should be taken into consideration when applicants for places

in schools are interviewed. Educational and artistic qualifications are not enough.

What can be done for the qualified architect interested in leadership and in learning the ways and language of the wicked world of commerce? I suggest a staff college where courses not only in leadership, but in business subjects would be taught. Such a staff college should include all branches of the building industry and should be an independent organisation financed from the profession and the industry but with the blessing—more or less munificent—of the Ministry of Education.

I do not suggest that the school of building management, which has been so long discussed, should be a part of the staff college. I am convinced that the place for the leading school of this kind is here, and I am extremely sorry that so far no suitable formula has been discovered for its foundation.

This variation has been hard going; it will be unpopular with many of you. I shall be dubbed an insensitive businessman and one who puts first things second. If you really think this, and feel that the world of big business is not for you, I beg of you to think of the alternative.

As I see it, if the good architect—and I mean the top designer—does not automatically become the leader of the team, the fight for good design will be lost. The choice before us is clear cut. We can either aim to become leaders or bumble on as we are. If we choose the latter course we shall never change the face of London or any other town.



# How a Wife Can Help Her Husband Become a Good Architect

*The wife of one of our most prominent architects tells of her experience during the early years of her husband's career*

I HAVE BEEN ASKED TO WRITE down my thoughts regarding the role the wife of an architect can play in her husband's life. Having been married for thirty-four years I may perhaps be considered to have some ideas on that subject. Let me start from the very beginning. I was eighteen, the oldest of four daughters living in Zurich, Switzerland, studying cello and voice. When my youngest sister begged my mother to invite the dashing young foreigner she had met, raving about his charm and good looks, I was quite determined not to join the procession of admirers, especially because somehow my idea of an architect has been colored by the architect who had built my parents' house. He was an insignificant yes-man and how my parents talked about him must have tinged my ideas about this profession.

Richard Neutra had been an officer in the Austrian army. He had managed to escape the drab, hopeless atmosphere of a defeated country and, although he was not able to find work as an architect, did the next best thing, he worked for the best landscape architect, earning just enough to pay his room and board. It took only a few weeks before all my sisters, our girl friends and myself included were hopelessly in love with this young man who was so different from the Swiss. We met in April and

by September my mother thought it was high time to put distance between us, as this young man had no job, no money, apparently no prospects to be a suitable husband for their talented daughter. So I was sent to Vienna to continue the study of cello and imbibe the cultural and musical atmosphere of that city. What she did not know was that the decision had been cast already and although no word of marriage had been spoken, I was willing to wait ten years, if necessary, until that was possible.

Now started a correspondence where I was slowly initiated in all the ideas, hopes, expectations and convictions my hero had at that time. Recently we read together a letter I then wrote him, in which I outlined what kind of a wife I thought he would need. We were amazed how well I had guessed so long ago. I realized then dimly that I had met an unusual human being. One with high aspirations and I felt I would like to help him realize these aspirations. I felt he needed someone who would be a good listener, not conventional, ready to pull up stakes and go wherever he wanted to go. I resolved that he would always be more important to me than my children, as I had seen too many marriages where husband and wife had lost their initial closeness and were hopelessly separated in spirit and understanding by the time their children had grown up and



they were again alone together. Yet we both love our three boys.

I felt it was wonderful to be permitted to share and slowly learn to understand my young man's thoughts and ambitions.

Of course I had a hopechest in which I collected odds and ends for our future housekeeping. I recollect that someone gave me a pair of goggles and I still remember how horrified my future husband was at my extravagance to think he ever might be able to afford an automobile! I must confess that at that time it did look like a fantastic idea.

Our correspondence lasted for four years and I am ever grateful for this long and slow initiation and gradual understanding of my future husband's mind. Being an Austrian, a foreigner in Germany where he then worked, he was not entitled to ask for a house or an apartment. However, he was able to persuade his landlady to let him build out the attic in a housing project, simulate a sink where I could wash the dishes, carry down the bucket of water standing beneath the sink and empty it in the toilet bowl a steep flight of stairs lower down; from there I could fetch water from a faucet. Of course I had no refrigerator, only a bathtub in the basement where I floated eggs and butter during the hot summer months. The grocery store was half an hour's walking distance and I found it quite natural to fetch my groceries in a knapsack. It never entered my mind to ask my husband to do this for me. He had more important things to do and as I was young and strong and had time on my hands why should I divert him from spending as much time as he wanted to spend on his idea of architecture. I know that these thoughts were not conscious but came quite naturally because I loved him and wanted to help him.

When we realized that we would have a baby and could not stay where we were, he renewed his attempt to emigrate to the United States which had been his ambition even before World War I. I agreed to stay with my parents and not to burden his start in a strange country whose language he hardly spoke and so, three months before the birth of our first son he left for New York. When I tried to follow him eight months later, my quota was closed and only after much harrassed letter writing was I able to obtain a professional visa as a musician. However, walking up the gangplank, with my five month old son in my arms, presenting my passport to the official, which read: "Dione Neutra and son" he said curtly: "Sorry lady, your son was born in Germany, the German quota is filled and therefore you cannot take him." What to do? If I stayed with our son it was problematical when I could join

my husband and so, after a pleading look at my good mother, always so ready to help me out, she agreed to keep the baby until we could find a way to bring him over.

Descending the gangplank in New York, the immigration official looked again at my passport and asked to see my credentials to prove that I was indeed a musician. "I have my cello along, I can also sing and play the piano, but I have no official proof that I am a musician," all this in a very halting English. "Sorry lady, we have to intern you on Ellis Island until your husband can prove that he can support you." At that time he was working for Holabird and Roche, as the firm was then called, and hastened to take a train from Chicago to New York. Court was held Thursday and Monday morning and as my ship had docked Thursday evening, I had to wait until Monday morning, cooped up with 25 people in one room, sleeping in double bunks, watching during the day from a balcony the arrival and arbitrary separation of families.

Finally Monday came, I was led into the court room, saw my beloved again after so many months of separation, rushed towards him, only to be halted by the arm of a policeman who sternly said, "LATER." Fortunately he was able to give satisfactory proof that he could support me and I would not be a burden to the United States. He also heard one judge whisper to the other "I think we should let her in, she will make a good citizen."

And thus started my life in the United States. I had never had English in school and thus could hardly speak it, much less understand the language. Richard had rented a room with a young couple in Highland Park, leaving at 7 a.m. in the morning and returning around 6 p.m. I think I made breakfast in our room, we both ate our main meal in a restaurant, he in Chicago, I in Highland Park and as our attic room was unbearably hot, I bought some Japanese crepe and made a little room for us in the cool basement, enough space for a card table and two chairs where we had our simple supper. Naturally, after being alone all day I expected my husband to spend the evening with me, but very often that was not the case. He had started to make drawings and write his first book "How America Builds" in which he predicted without proof in 1927, that this country would have the greatest volume of "modern architecture," as it then was called. I must confess that it took many a solitary walk around the block to get me to understand why he could not devote the whole evening to me. He lovingly and enthusiastically let me share in his thoughts and ideals and they became my ideals too, and I started to type his manuscript while he worked on



his drawings. I forgot to mention that he once gave me a typewriter as a Christmas present before we married, and I gave him as a wedding present all the exercise papers as a proof that I had learned to type. I can still see his bewildered face when he opened the neatly packaged bundle and tried to read its contents!

In order to learn English, I offered to help our landlady with her housework and the care of her baby. I was amazed to observe how she made her husband do the dishes and the laundry when he returned from his day's work. My family feels that I have spoiled my husband because I do not ask him to get me groceries from the store, fix a tire, a plug, wash the dishes, mow the lawn or what have you! If he sat in an easy chair, reading the newspaper, I would say I have spoiled him, but freeing him from all these chores, making it possible for him to express the multitude of ideas in a 24 hour day became my privilege and pleasure.

After five months waiting we were able to get our son to this country. Again my good mother brought him to us and soon a second son was born and we had moved to Los Angeles. There I typed the manuscript not only for the first book, but also for the second one "America, New Building in the

World." For many years I was the only secretary typing specifications for the few jobs we had, taking care of the two boys and still finding time to practice my cello and my singing. All the time my husband was able to make me more and more enthusiastic toward his approach to architecture and the way he talked to his clients. Although he started without money, without connections, advocating a type of architecture that had hardly any precedent at that time, he slowly built up his reputation and his practice by making people happier. It is not within the scope of this article to write a story of his life as an architect or our life as a family, but I was asked how a wife could help her architect husband. I think that any girl in love would like to help her chosen one to achieve his aspirations especially if this ambition is to make a better world and not only to become rich and influential. There must be enough idealism and enthusiasm in the young man to make it worthwhile for the girl to forego all sort of amenities, to expect and understand why he is late for meals, why he cannot come along to a dance party, a dinner, a picnic. It will take some doing on the young man's part to lovingly explain his needs and she will be proud and happy to have helped him towards his goal.

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## PIER LUIGI NERVI

### Awarded Fellowship

ON MAY 26, OUR FIRST Vice President, John N. Richards, presented an Honorary Fellowship to Pier Luigi Nervi, of Rome, Italy. The presentation took place in the living room of the American Academy in Rome, Sig. Nervi having previously received his citation by mail.

Following the formal presentation, the members of the 1957 Architects' Trek arranged a reception in honor of the occasion, with sixty persons attending, including the fifteen members of the Institute and their wives, the Director of the American Academy in Rome and his wife, members of the Consiglio Nazionale degli Architetti, including Giulio Roisecco, President of the Architects' Association of Rome and his wife. In addition, there were several architectural students from Denmark, Sweden, Norway and Finland.

Sig. Nervi, who is President of the Union des Architectes Internationales, accepted the Fellowship with humility, and indicated that he considered the award a great honor to his fellow architects and to himself.

Sig. Nervi (right) is shown in the photograph in his Rome office as he receives the award from Mr. Richards. In order to obtain a permanent record of the event, the presentation was repeated the following day for the photographers.

During the course of his Rome visit, Mr. Richards reviewed plans for Sig. Nervi's latest project, the new Rome Stadium, which will be built for the 1960 Olympic Games in Rome.







INTERIOR OF  
ST. STEPHEN'S CHAPEL  
Austin, Texas  
Fehr & Granger,  
Architects

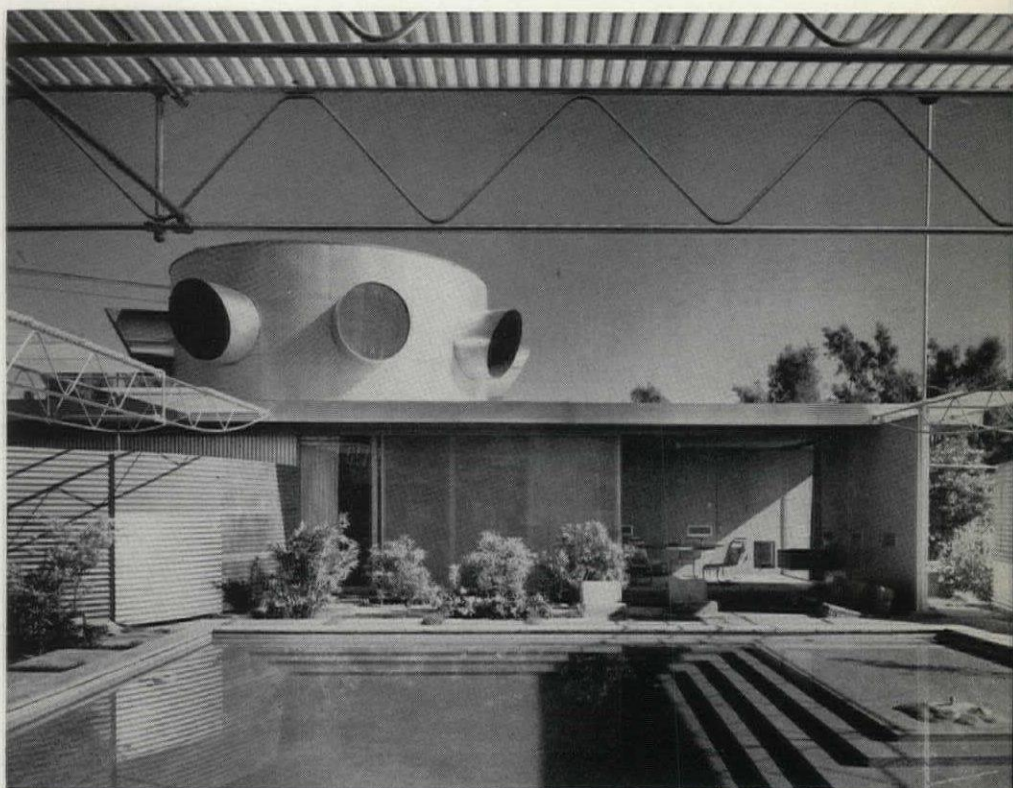
ARTHUR FEHR, FAIA

*Photo by Dewey G. Mears*

## FAVORITE FEATURES OF RECENTLY ELECTED FELLOWS

ALBERT FREY, FAIA

ALBERT FREY HOUSE  
Palm Springs, Calif.  
Frey & Chambers,  
Architects



*Photo by Julius Shulman*



# From the Executive Director's Desk



THE OCTAGON PLAYS HOST TO an unending stream of visitors from all over the United States and, in fact, from all over the world. It is the recipient of thousands of long distance telephone calls. It is the scene of meetings, conferences, seminars and discussions—large and small, lengthy and short, sometimes tedious but seldom boring. It is the recipient of bags of mail, letters from everywhere on every conceivable subject and it is the fabric that houses a teeming collection of activities. It is a lively and fascinating headquarters of an active society.

Not everything comes to the Executive Director's office, although it sometimes seems that way. Arriving at a reasonably early hour in the morning I seldom find a moment to catch my breath before happenings start; members of the staff with questions on their minds, members of the Institute from all over, people from without the Institute for a multitude of reasons.

The President of the Architectural Society of Southern Korea will appear unannounced. He is seeking desperately for something, but my knowledge of his language, which is nothing, is almost up to his knowledge of English. By gestures, signs, pointing, and occasional words we learn that he wants a full set of our documents to take back with him to his homeland to assist him in organizing his own society. But there is something else on his mind which he cannot seem to get through the now impenetrable barrier of lack of knowledge of his language. So I escort him to Walter Taylor who, having spent three years in China, is assumed to be fluent in every language and dialect on the other side of the international dateline. Walter fares somewhat better and we learn that our visitor wants to see a school. Back in the office I find an attorney or a group of architects who are troubled by the terms of a contract that a public body wishes to impose upon them. What do we do in a case like that? What are the precedents? What are the citations? Then there is the member who is about to call on a Federal agency to argue about his contract or some inequity,

real or imagined. We give him the benefit of our experience and of our personal knowledge of the government official upon whom he is to call.

Then an architect from England appears with a letter of introduction from our good friend B. Spragg, Secretary of the R.I.B.A. Can we tell him where to go to see certain buildings? Would it be possible for him to call on Frank Lloyd Wright? Can we pave the way to Taliesin for him? Will we give him a letter to Eero Saarinen?

Then there is the insurance Consultant on matters of A.I.A. programs, or maybe the pension plan for the employees.

All of these visits are punctuated intermittently by telephone calls—mostly from a distance. Telephone calls are rarely social but brought on by trouble, difficult problems, ethical questions, the answers to the last of which we do not give over the telephone but refer to the Secretary for reply. Typical of the problems that come my way, a chapter president called the other day to say that the grand jury in his city was asking him to appoint an expert architect to investigate a situation and write a report having to do with the physical failure of a public building. We advised the chapter president to nominate half a dozen members but to demand that the grand jury make its own appointment.

Or there is a call from the White House to arrange a conference for the Coordinator of Public Works, or from a government agency. The problems with which they confront us may concern one architect or it might be a matter of policy concerning the profession.

Or there might be a call from Capitol Hill saying hearings will be held on such and such a bill. Can we produce witnesses by the day after tomorrow? We say, "yes, we can" and then scramble around to find one. If we cannot find a non-staff witness, it generally falls upon the Executive Director to appear and testify. The Institute is asked to testify may as often as a dozen times a year. I am generally lucky and able to find a willing Institute member



witness so that I seldom have to appear more than once or twice a year. Witnesses are always accompanied by myself and generally by Ted Morris or Billy Shackleton. A statement has been prepared, and questions of a Congressional committee have been anticipated and appropriate answers are discussed. A press release is written, copies of the statement are made available for the press and for the committee. It is not often that we have much time for preparation and sometimes virtually none at all. Two years ago on the Air Force matter, although we had about a day to prepare for the Senate, there was no opportunity to prepare for the House. Within an hour after receiving the call from the Secretary of Air to assist him in the presentation, I found myself on the stand testifying off the cuff.

Recently, we testified on the Bill for the Advisory Council on the Arts. Fortunately Samuel E. Ramsey, FAIA, of Wilmington, Delaware, one of the Institute's representatives on the Committee on the Government and Art, was able to appear for us. He gave his statement, answered his questions well, and even as I had accompanied him I found myself on the stand. It was a friendly hearing.

An instance last year, when appearing before the Appropriations Committee of the Senate, I found myself supporting an Institute policy which was completely opposed to the thinking of the Senators before me. The result was as expected and immediate. The hearing took on the character of an acquisition with myself on the rack.

It is all in a day's work. In Washington arguments and differences of opinion are mostly impersonal. One can dispute violently on a subject with a government official or with a member of Congress, or with another representative of the construction industry without damage to friendship. One is accepted for what one is, the representative of one's group, one's constituency, and is bound by established policies.

Then there is much that is pleasant and thrilling. The architect of the Capitol and a member of the Institute want to arrange an exhibit of the drawings of the Capitol in that building. Can I come up to get them and talk with the Speaker of the House? That is done. The exhibit is now in place and much admired.

Or an issue is suddenly before the construction industry. Certain elements of the industry are concerned, possibly it is the architects and the contractors. Meetings are arranged hastily, we agree upon a plan of campaign.

Our Committee of the Institute on the Brussels Exposition, which has been taken over by the State Department, is called into session by the State De-

partment. Can we arrange to hold the meetings in The Octagon? Can we set up a luncheon in The Octagon? (The United States Government to act as host.) The Committee assembles from all parts of the country—California, New Orleans, Philadelphia, New York, Michigan. The Deputy Commissioner for the Exposition is flown in from Brussels, a man from the State Department desk appears, President Leon Chatelain is in town fortunately and can come over. The architect, Edward D. Stone, shows the drawings and explains the problems. The drawings are beautiful; the design exciting. The problems have been fascinating, both architecturally and politically. Our building is to be opposite that of the Soviet Union and that country, fully cognizant of its vis-a-vis, is extending itself. Ed Stone is on his mettle and will come out on top.

The meeting is interesting, discussion is lively (luncheon in The Octagon is perfect). The members of the Committee and the people from the State Department come later on for cocktails in a Georgetown garden. Other people come to join with them from the Museums and from the State Department. It is all very pleasant; the conversation is good; the exchange of thought is stimulating.

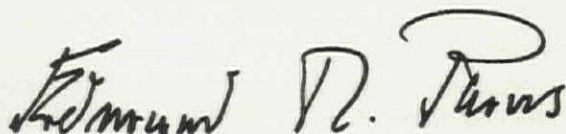
Or the French Ambassador is leaving and decides to have a reception in his garden. Fortunately we are among his friends and it is a lovely occasion; drinking champagne under the trees.

Now it might seem as if one's life is not skittles and beer but champagne and small talk. Pleasurable highlights are nice to recount.

We are confronted day in and day out with difficult problems; bitter controversies; misconceptions on the part of the membership; dealing with resolutions passed by conventions in the throes of excitement which, after the dust dies down and the smoke of battle clears away, turn out to be ineffectual or impose ridiculous appearance in implementation.

One time some years ago I was charged with carrying out the mandate of a convention. The mandate, adopted with cheers, was to direct the Administrator of the Housing and Home Finance Agency (practically a cabinet office) to delegate to chapters of the Institute the establishment of governmental criteria. The convention had assumed the status of an arm of the United States Government, apparently unaware of the limits of power and jurisdiction of a private organization. Fortunately, the Administrator was understanding.

There are always problems—and I love them.







## The President's Page

IN 1935 THE NATIONAL BUREAU OF STANDARDS proposed a project for coordinating building material sizes, afterwards endorsed by A.I.A. and other groups. Among the early names identified with the resultant studies attached to standardization of parts through modular design were Messrs, Adams, Bemis, Burchard, Agnew, Laurence, Jones and Ainsworth. In 1938 this group and their advisors requested The American Institute of Architects and the Producers Council to sponsor an organized program from which has grown an extended interest in standardizations under the style of "Modular Coordination."

This work, closely identified with American Standards Association, has proceeded since 1946 under the able ASA A62 committee chairmanship of M. Edwin Green with an ever-widening interest in the United States, Canada, Great Britain and the continent of Europe. Some say the organizations in Canada, Britain and several European countries begin to outstrip in results the considerable progress made in the United States. A service contract between American Standards Association and the European Productivity Agency presently is under consideration for suitable technical exchanges, 4 inches and 10 centimeters being the respective units adopted for modular measure under the two systems of linear measurement.

The advance of interest in Modular Measure has grown beyond the stage of committee management, indeed has developed the necessity for a separate corporate entity with contractual authority. Under the sponsorship of The American Institute of Architects, The Associated General Contractors of America Inc., National Association of Home Builders and Producers Council there has been formed the Modular Building Standards Association, a District of Columbia corporation.

Modular Building Standards Association is a national non-profit membership organization dedicated to the promotion, by education and other means, of the acceptance and application of the principles of Modular Measure, as applied to the field of planning for construction, and the dimensioning of the materials, appliances and items of equipment employed in construction and related activities. Any person, association, firm or corporation in sympathy with these objectives is eligible for membership.

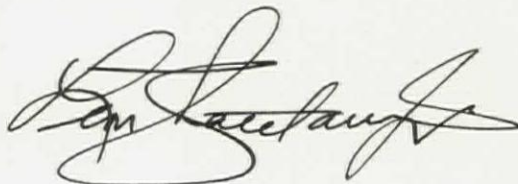
Manufacturers of building materials, through the Producers Council, have urged the formation of this corporate device as a means for closer coordination of their separate endeavors at standardization and already are furnishing, with National Association of Home Builders, strong impetus to acceleration of the work of the various standardization study committees. The interest and statesmanship of The Associated General Contractors of America Inc., attested by their enthusiastic inclusion as one of the original four sponsors of MBSA.

Modular Building Standards Association has won the unique privilege of establishing by contract a Secretaryship for Modular Measure in the New York office of American Standards Association. The terms of contract are now under review. No other American agency presently enjoys this opportunity of close coordination with the ASA technical facilities essential to prompt adoption of standards of this internationally recognized august body. It is expected that this headquarters secretariat will disseminate, upon request, Modular Measure information essential for application of the system to every type of building material and method. For many years this has been an unrealized ambition of building materials manufacturers and suppliers, contractors and architects.



C. E. Silling, of Charleston, West Virginia, has succeeded M. Edwin Green as Chairman for ASA 1962 committee under the guidance of the four sponsors of MBSA. The corporate organization of MBSA is complete. Its financing is well under way, and your nominal fee membership as an architect is invited. Memberships from each of the other three sponsoring organizations are expected. Special emphasis is laid upon solicitation of memberships among building materials producers and suppliers.

MBSA is an organized effort by the vital four elements of the construction industry to build better for less cost, and improve the competitive position of the building industry for a continuing healthy part of the consumer's dollar.



## I. A. B. P. A. I. Scholarships

THE INTERNATIONAL ASSOCIATION of Blue Print and Allied Industries, by presenting a gift to the American Architectural Foundation, has established the I.A.B.P.A.I. Scholarships to aid students in their study of architecture. The award is based on the recognized ability of the student, who is completing his final year of training, and in need of financial assistance. Application for these scholarships should be made to the Committee on Awards and Scholarships no later than April 15, 1958, through its regional member, or the appropriate Regional Director of the Institute, or by the department head of any member school of the Association of Collegiate Schools of Architecture. The Regional and National Awards and Scholarships Committees will review the applications and make recommendations to the American Architectural Foundation. Presentation of the award will be made by a representative of the International Association of Blue Print and Allied Industries.

Shown in the photograph are Mr. Peter M. Maggi (left) and Mr. William F. Blocher (right), both of the I.A.B.P.A.I., making the presentation to Mr. Edmund Purves.



Photo by Leet Brothers

## Some Antics with Semantics

Mortimer E. Freehoff

When romantics get pedantic with semantics,  
 un-phonetic, un-esthetic, un-genetic,  
 grow frantic with their fancy-pantic antics,  
 their prattle un-poetic is pathetic.  
 Their prolific terms are far from scientific;  
 the more they grow ecstatic or emphatic  
 the less they are terrific or specific,—  
 just erratic sounds of static in the attic.  
 Some injunction makes a secret of our function,  
 A chronic state, laconic and ironic)  
 but with unction there is mention sans compunction  
 of the "architect" of some colonic tonic.

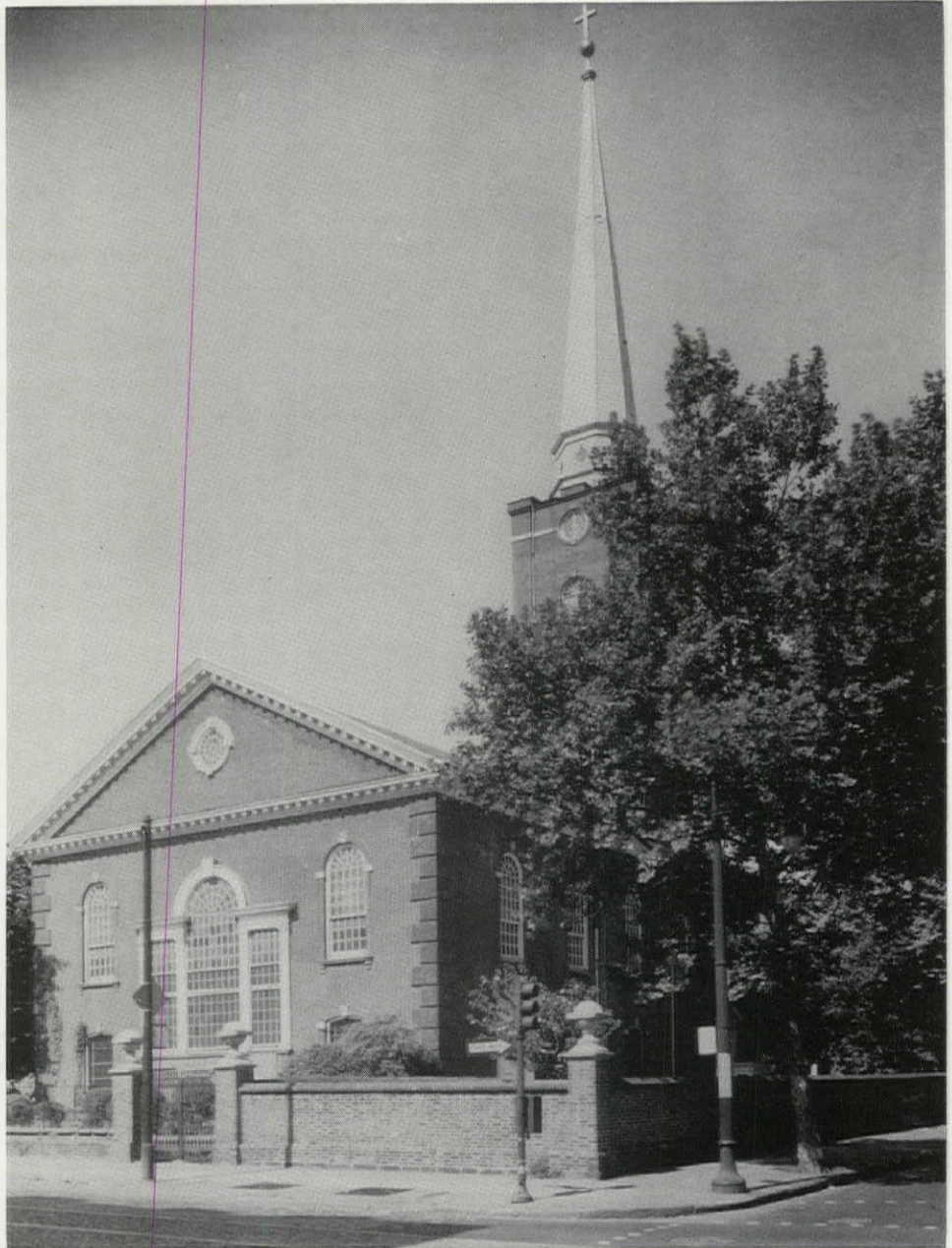
Iconoclastic action that is drastic  
 Should prohibit the defiling and exiling  
 Of what was once "design," now so elastic  
 The lingo they're compiling makes it "styling."  
 On persons super-laic and archaic  
 I could do a fistic rendering artistic,  
 When they use (it's hardly onomatopoeic)  
 That euphuistic label, "modernistic."  
 Shades of Shakespeare and a bow to Yankee Doodle,  
 Such antics with semantics drive me frantic;—  
 Off my noodle;—may the whole kit and caboodle  
 Take a deep, gigantic leap in the Atlantic.



# INDEPENDENCE HALL AREA:

## Rebirth of the Old City

BY G. EDWIN BRUMBAUGH, FA



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ST. PETER'S EPISCOPAL CHURCH (1761),  
PARISH CHURCH OF SOCIETY HILL



THE SECTION OF THE OLD CITY surrounding Independence Hall, has its own individual story.

Before William Penn left England on his first trip to Pennsylvania, being possessed of 26,000,000 acres of land, some very real obligations and the prospect of large continuing expenses, it was only natural that he should wish to dispose of some of his real estate. And his efforts were unusually successful. One of the very first large purchasers was a group of gentlemen of London, Bristol and vicinity, whom we would call today a speculative syndicate. In the seventeenth century, they called themselves the "Free Society of Traders." William Penn chartered them in 1682, with authority "to buy and sell lands, to establish manufactures, to conduct trading operations and to carry on an extensive system of agriculture,"—quite an inclusive program.

Their purchase consisted of 20,000 acres, and, in consequence, they received 100 appurtenant acres on the southern edge of Philadelphia and 400 acres on the "Liberties." The appurtenant acreage to the south began at Spruce Street, ran south to Pine, and extended from the Delaware River to the Schuylkill. At the eastern end of this long, narrow strip of land, was a hill with its summit near Front and Pine Streets. Northward, it sloped down to the shores of Dock Creek. That important little stream had its principal source in a duck pond at Fifth and High Streets (Fifth and Market we call it today), then it meandered diagonally across the even pattern of Philadelphia streets and entered the Delaware River just north of Spruce Street. The southern slope of the hill leveled off more or less about on the line of the present Lombard or South Streets. And from the very first, this hill was called "Society Hill," after its principal owners, the Free Society of Traders (they happened to own the side of the hill which was clearly visible across Dock Creek from the new city that was rising along Front Street and Second Street). Also the Society's president, Nicholas More, built his house down the slope of the hill near Dock Creek (specifically, on the lot at the southeast corner of Second and Spruce Streets, where there is a little triangle in the paving of the street today, which marks the location of a tributary of Dock Creek, which was in existence at that time), and there he conducted the business of the society. It was not long before all of the area from the Dock Creek southward to the Swedes' Church came to be known as "Society Hill," and in this area, the ancestors of many of our well-known Philadelphia families built their first humble dwellings. A goodly number of these simple, brick houses are still standing, battered and mutilated,

marred by defacing alterations, crowded and jostled by buildings of later vintage, which speak a different language. But the important thing is that they are *there*.

The questions are: Can a sufficient amount of the early character be restored to this neighborhood? Is it practical and worthwhile to try to save these old houses, and others which are not inharmonious with them, restore them sympathetically and surround them with something of the setting which they enjoyed in happier days? The answer to all these questions is a qualified "yes." Yes, if the direction and scope of the project are both adequate. This is a large order, especially the financial side.

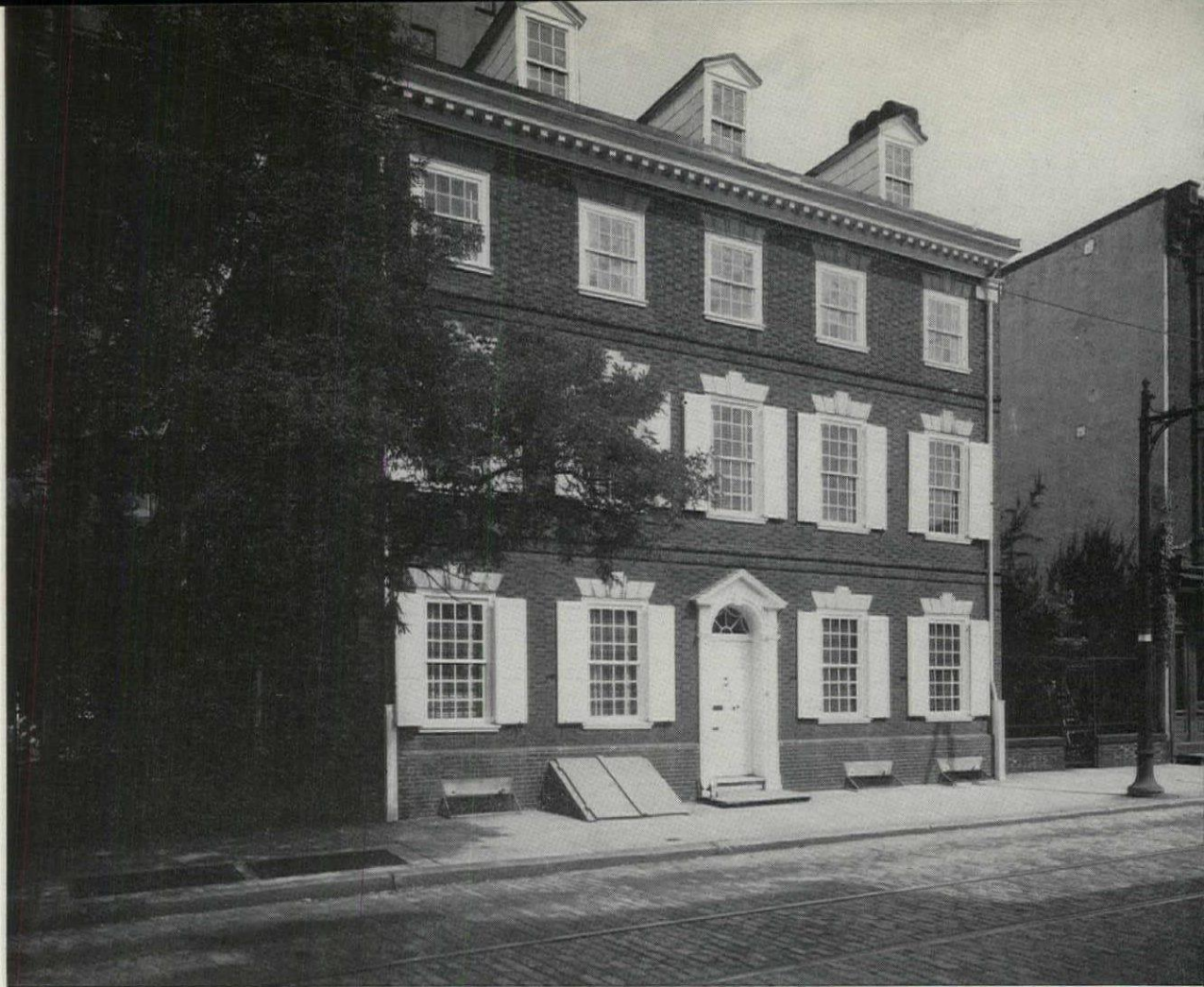
But if effective restoration is to be any part of the plan, the first necessity is to decide just what it is that you are trying to do, what you will not do, and why. Then the implementation of that purpose must be competent. Restoration happens to be the most specialized and sensitive task in the entire field of architecture. Competence means years of study, research, experience, and complete dedication. Mistakes in the ordinary practice of architecture are unfortunate enough, but mistakes in restoration can, and not infrequently do, defeat the entire purpose.

And the scope is important. What we are talking about is no mere paint-up, clean-up campaign. It must cover enough territory and be well enough done to achieve a definite character in the neighborhood and at the same time erase those features which are presently undesirable, even dangerous.

If there is anything which I can contribute to this discussion with anything approaching finality, it is this, that restoration should never be undertaken with one eye constantly on a balance sheet, weighing the cost against the potential returns; unless you are willing to place on the scales some factors which cannot be measured in dollars. Then, and only then, can restoration seem worthwhile and practical. If this seems too ambitious, and the usual cry is raised that this is not Williamsburg, let me agree. This is Philadelphia, but the nearer we come to the scope and the quality of the work of Williamsburg, the more likely we are to achieve permanent success.

We have seen what private initiative and private resources, with the cooperation of civic authorities, are doing to give Washington Square its proper recognition as a national shrine. Actually, Philadelphia has here an opportunity, fast slipping through her fingers, to do something absolutely unique in the annals of American cities, and later on, I am going to tell you why it is unique. Suppose nothing of the sort is done. What then? What are the alternates?





THE MORRIS HOUSE ON EIGHTH STREET. PERHAPS THE FINEST SURVIVING TOWN HOUSE IN PHILADELPHIA. BUILT IN 1787, BUT SOMEWHAT EARLIER IN CHARACTER, IT IS NOW BEING RESTORED BY THE WRITER.

Allow the area to continue to down-grade until it becomes a first-class slum? That means a steadily diminishing tax return and a steadily mounting administrative cost—police, fire protection, prison and institutional expense. And it isn't going to help the value of contiguous property. Things like that are very much like the spreading ripples on a pool of water caused by some disturbance at the center; they spread and spread.

Of course, the use characteristics of the neighborhood might be changed, artificially, perhaps to commercial or industrial use, in whole or in part, in an effort to stay the ultimate ruination of the area. But why seek to lure shoppers to this particular spot, with millions of dollars invested in modern stores and first-class commercial establishments a few blocks away in center city—to say nothing of the growing shopping centers, strategically located between the city and the suburbs, with parking space for thousands of cars. Industry, on the other hand, is gregarious. It tends to congregate near available sources of effective labor supply, like the great

Northeast, with its endless rows of clean, new two-story houses. And industry is beginning to lick its elbow room, for expansion and parking.

We can scarcely expect the insurance fraternal societies to move all their offices into these houses and save the community. In the first place, the houses are not suited to that, and secondly, there are not enough companies or agencies to undertake the task. And why expect doctors, lawyers or other professional groups to relocate there? There is no earthly reason why they should.

If, then, the area is to remain predominately residential, as it now is, we could, of course, level whole blocks and put up subsidized low-income housing; which by the very nature of its extravagant conception becomes high-cost, low-quality housing, a potential slum of the future. This writer finds it difficult to follow the current thinking on this problem; but that's another matter, beyond our scope today.

There is another solution, embodied in the report of a special committee of the Philadelphia Chap-



ter, American Institute of Architects, a report to which the Chapter's Committee for the Preservation of Historic Monuments took immediate and sharp exception. Let me read a passage or two from this report, which is impressively titled, "A Statement of Principles as to the Architecture about the Independence Hall Mall Areas." After mildly excoriating any architect who might, in the future, erect a building in the area inspired by our native early American architectural tradition, the report has this to say, and I quote, "Further, it must be noted that, while there are distinguished colonial buildings such as Independence Hall, Carpenters' Hall, there is also distinguished work of the early Federal period, of the Classic revival, of the romantic revival, of early iron-front structures of historical importance, and also Victorian buildings of historical value; these fine, 19th Century buildings should be preserved so long as they are structurally and economically sound, as many of them now are. These nineteenth century buildings, as they are, do harmonize with the old buildings being preserved in the Historical Parks. They harmonize with them by right of historic contrast and creative evolution."

Suppose we just say that I do not agree with that.

Next the report goes on to recommend, in the area, the construction of business buildings, and I quote again. "It is not only inevitable, but also desirable, that the Mall and Park be surrounded by prosperous business structures," which, it states, "should be modern in design, as that term is comprehensively understood, and tall within limits."

If we follow this guidance, the area will be no different from any other part of the city, and we need no Statement of Principles to achieve the result. If we simply let it entirely alone, completely unregulated, it will develop in just that way.

Of course, there are many good people who do not think that old houses should be saved. To them, an old house is simply an obstruction standing in the way of progress, perennially in need of expensive repairs. They can see nothing of value about an old house except the second-hand value of the stones and bricks—the physical structure. There is so much more of value there, that we might say of them in Bible language, "Having eyes they see not, and having ears they hear not."

Remember, back in Truman's administration, the White House was found to be structurally unsound. And so the Congress of the United States weightily debated the question of restoration. The people who see only bricks and stones were properly represented in that august body. And it's interesting to note that the principal opposition to restoring

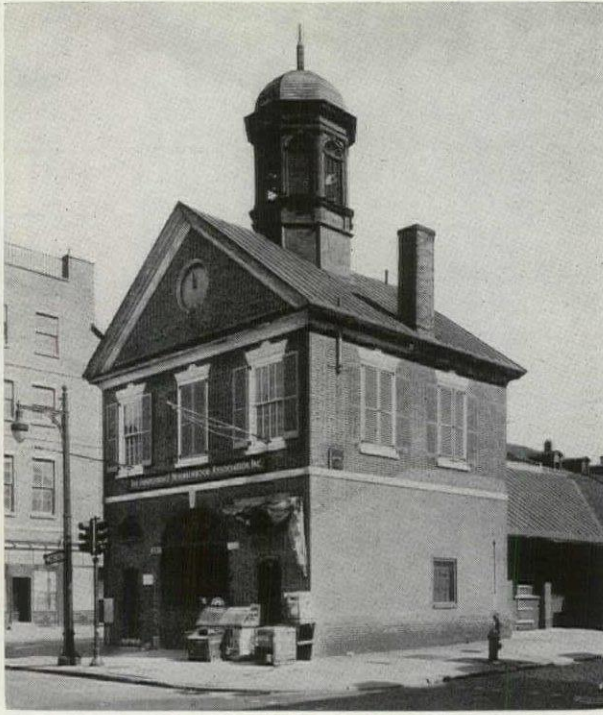
the original White House came from the cost angle. It was even stated that to restore the White House would cost 60% more than to build a new executive mansion. This group was united behind one proposition—tear it down and build a new executive mansion, an exact replica of the old one, but this time build it of good, new, enduring, modern materials. Well, in the end it was found that the cost of restoration turned out to be nearer 5% more than the cost of a new structure; and after the votes had been counted, and the preservationists in Congress had prevailed, one of our daily newspapers carried a most perceptive editorial. "The White House," said the editor, "is going to be restored, not replaced . . . a restored White House will be worth immeasurably more to the nation than could even a magnificent facsimile thereof. Why? What's the difference between the old sandstone walls and new ones which might look just the same? Well—it's an intangible distinction, hard to describe but easy to feel. Like the difference between standing respectfully before the original documents, signatures and all, of the Constitution and the Declaration of Independence and looking at photostatic copies, no matter how perfect."

Old buildings acquire something from their contact with people and events, something which enables them to dramatize the facts of history,—to make its actors real people, as nothing else can do.



A FINE, UNRESTORED EARLY FEDERAL HOUSE. THE SMALLER HOUSE ON THE LEFT HAS BEEN RECENTLY RESTORED.





HEAD HOUSE, SECOND STREET MARKET, EARLY FEDERAL. RESEARCH HAS NOW BEGUN FOR RESTORATION BY THE WRITER.

Not all history is military history, and old houses are pre-eminently qualified to tell the rest of the story of America, a story that desperately needs to be told,—a story of courage and fortitude, of industry and resourcefulness, faith in God and love of liberty. These are things we dare not forget. They are as important in the fabric of the nation today as they were when our forefathers cleared the wilderness. And if our history is worth recalling, because of the lessons it can teach, never forget that old houses are graphic history, like the illustrations in a book, sometimes more readable than the text.

A restored Society Hill could be graphic history, speaking to us of the origin and the beginnings of Philadelphia's earliest architecture. Sometimes we forget that only fifteen years before Charles II made his famous grant of land to William Penn, a terrible catastrophe stirred all England. The great fire of 1666 swept away block after block of the wooden, framed houses of the Middle Ages that crowded narrow, twisting byways of old London. And, as the city was rebuilt, Englishmen saw a brick Renaissance city rise from the ashes, on straighter and wider streets, under the genius of such men as Sir Christopher Wren, Inigo Jones, Sir Roger Pratt. And they remembered.

Robert Turner, the great Irish Quaker, friend and confidant of William Penn, writing to the Proprietor from Philadelphia in 1685, reported that "The towne goes on in planting and building to admiration . . . Bricks are exceeding good . . . and

brick houses are now as cheap to build as wood." Speaking of his own brick house, he said that he designed it "after a good manner to encourage others . . . and some that built wooden houses are sorry for it." John Day had built, reported, "a good house, after the London fashion, most of brick." And in 1698, Gabriel Thomas, the historian, described the houses of Philadelphia as "of brick, generally 3 stories high, after the mode in London."

We cannot return to the long gardens a block in depth, which graced the earliest houses. (The lots on Front Street went through to Second Street and had just one house on them at first.) And we can't eliminate modern traffic from the streets. Many houses in the area that were built toward the close of the eighteenth century should also be preserved because they are congenial with the earlier examples. After all, that should be the standard, the measure by which you determine what you're going to save and what you are going to remove. Is it congenial? Will it produce one picture when you are through,—one effective and consistent picture?

Finally, let me tell you why this opportunity is unique. Other cities have important isolated historic shrines, but no other city has Independence Hall, where both the Declaration of Independence and the Constitution were debated and signed; Congress Hall, where the very first sessions of the Congress of the United States were held and national legislation was first framed; the old City Hall, where the first sessions of the United States Supreme Court met; Philosophical Hall, built in the closing years of Benjamin Franklin's life, where his American Philosophical Society is still holding its meetings; Carpenters' Hall, where the first session of the Continental Congress met, when Patrick Henry, you remember, prophetically and eloquently told the delegates that they were no longer New Englanders; Pennsylvanians, and Virginians, they were Americans; Christ Church, where so many of the founding fathers worshipped; and old St. Peter's, parish church of Society Hill with its lovely brick wall surrounding the graveyard; and Washington Square, burial place of more than two thousand unknown soldiers of Washington's Continental Army. And no other American city also possesses the opportunity, within easy walking distance of these priceless shrines, to preserve a section of the Old City complete with trees and gardens and the actual houses where the people lived who witnessed, day by day, the shaping of our nation. This opportunity can never recur. The battered remnants of these oldest houses happen to have survived to our generation; but their time is fast running out. I wonder if we care enough to do something effective about it?



# A Letter from the Executive Director to the General Services Administration

April 24, 1957

Mr. Paul A. Barron, Chairman  
Task Force for Review of Govern-  
ment Procurement Policies and  
Procedures  
Room 7214—General Services  
Building  
Washington 25, D. C.

Dear Mr. Barron:

The American Institute of Architects, through its representatives, Norman J. Schlossman (past Vice President of The Institute, former Chairman of the Committee on the Architect and Government and Consultant to The Board of Directors on the Architect and the Government); Edmund R. Purves, Executive Director; Walter A. Taylor, Director of the Department of Education and Research; and Edwin B. Morris, Jr., Assistant to the Executive Director, takes this opportunity to express the appreciation and thanks of The Institute to you for having arranged the conference held on Thursday, March 28, 1957, at our request.

The conference admirably conducted by Julius Silverstein, Vice Chairman, was held in an atmosphere of understanding and cooperation.

We believe that conferences such as this are mutually instructive, capable of producing far-reaching results, of advancing the efficiency of governmental operations, of facilitating the work of the construction industry, and of creating a better understanding by the industry of the government and by the Government of the industry.

The conference was called at our request as we have felt that inconsistencies have inadvertently arisen in the procurement policies and operations of the Government in its acquisition of professional architectural services for construction design work and planning on government projects and programs.

We addressed ourselves to you not in a critical vein but in an effort to draw your attention to existing conditions and with the thought that

a study of the situation and problems can lead to a uniformity in Government procedures and a facilitation of Government operations and to the acceleration of the procurement of and performance of professional services.

The areas in which inconsistencies and inequities appear to occur and which may be subject to further study and rectification are:

1. Selection Methods. We suggest that the Government use one of the three basic methods for the selection of architects:

a. *By Architectural Competition*—Attached are The Institute's Documents with reference to Architectural Competitions, A.I.A. Document No. 213. The competition method which has been used frequently in the past but less frequently in recent years, unquestionably in its heyday produced many important federal buildings that were well designed and it uncovered hitherto unknown talent and gave then obscure but competent architects an opportunity to become known and of service. The competition method is expensive and time-consuming. Its support by the profession as a whole is not as pronounced now as formerly. The complications of modern planning and construction are such as to make it hazardous for the Government to rely exclusively on the services that might be produced by an unknown winner. However, there are certain projects which for reasons of goodwill, publicity and good public relations should be the subject of architectural competitions. (The national auditorium might well be one

of these.) Naturally, the younger element in the architectural profession is generally strong in its advocacy of competitions. When appropriate conditions exist we believe it possible for the Government to achieve fine and advanced designs through competition.

b. *By a Screening Jury*—This is a jury or committee of men established by the Government—either from the ranks of private practitioners or from within itself—or from both—to recommend to the Government on the selection of architects based on applications received from architects. This method has been successfully used by the Public Buildings Service and by the Department of State and has not only produced excellent architectural service but has relieved the Government agencies of pressures. Screening juries are advisory to the Government. They can be endowed with as much authority as the Government agency wishes to delegate.

c. *Direct Selection*—This method needs no explanation. The Government as the owner simply selects an architect and engages him. It is proper that negotiations for professional services entered into by an agency be with but one architect and that no other architect be considered for the work until and unless negotiations with the first architect fail.

Attached is a copy of The Institute's Document No. 300 on the methods for "The Selection of an Architect."



Regardless of the method used in selecting an architect, the actual procurement of the services must be undertaken through negotiation. Obviously the negotiation proceedings are hastened and facilitated if the architect with whom the negotiations are being carried on is experienced in negotiation and if the Government agency has a true knowledge of professional ethics and the professional methods of rendering services. It is in the negotiating processes that inequities and inconsistencies are likely to become manifest.

Foremost among the specific items of discussion are compensation, its method and amount and reimbursement of expenses. The Government, representing the taxpayer, is inclined to devalue professional services. (For instance, the customary \$50 per diem paid to an architect on consultant services inevitably prejudices the value of the architect in the eyes of the negotiating agency. Fifty dollars in today's market is a token payment to a professional man and one who regards the amount as so insignificant as not to compensate him for his time and, therefore, he must look upon his services to Government at such an evaluation as a contribution to his country.)

There is a minimum appropriate fee for any given project. Such a fee can be accurately described as the lowest fee which can be paid to the professional man which will stimulate his best efforts and will insure for the Government the type and extent of services necessary to produce a competent professional job. Attempts by the Government to go below the minimum amount eventually result in antagonism to the Government, dissatisfaction and disinterest on the part of architects and less than adequate service to the taxpayer.

Bargaining for architectural services on the basis of fee and initiating what to all intents and purposes are competitions among professional men on the basis of fee will sooner or later result in either a financial harm to the architect; or that the architect, in order to insure himself against loss, will so reduce the quality and quantity of his serv-

ice as to render the acquisition of competent service by the Government an impossibility; or will eliminate the interest of best quality firms in Government work.

For some years The American Institute of Architects advocated the establishment and use of schedules of recommended minimum fees on a regional basis. It is urged that the Government agencies in establishing schedules of fees, also recognize regional schedules. Variations of the cost of living, of local conditions in various metropolitan centers, and market areas, and of overhead and draftsmen's wages have made it impractical for the Institute to think in terms of a schedule of recommended fees that will apply universally throughout the country.

d. *Schedule of Payments*—The sequence and stages of drawings as developed by The American Institute of Architects has been found through years of experience to be fair and equitable. There may be reasons why this sequence of payments and work may require revision for Government projects, but it would appear to us that as a basis for sequence and stage the A.I.A. system would serve a useful purpose. Attached is the Institute's Document No. 177, "Basic Schedule of Architectural Services."

e. *Methods of Payment*—It was virtually universal in the past to reimburse architects on a percentage fee basis, the percentage being a percentage of the cost of construction. Although the percentage fee system is still perhaps the more usual method, there is a noticeable trend toward the negotiated lump sum fee and the negotiated fee plus actual cost and overhead. To the Government presumably, the negotiated lump sum is the most desirable basis of payment, the negotiated lump sum being related to an agency curve. Although these curves are classified it

is assumed that they are either percentage curves based on a percentage system. Percentage curves in turn are based on a common practice. Either system, fair and proper, provides the percentages are reasonable and adequate. On any fee schedule based actually or basically on the percentage system the question arises as to whether the percentage should be on the estimate of construction (and/or the appropriation) or on the actual cost of construction. This question is not easily answered, for except in periods of relative even economy, during which it makes very little difference which basing method would be used, the basing on either system can work to the distress of either party. Frequently the time lag between the submission of the bidding documents by the architects and the letting of the contract may be considerable—even a matter of years—and during which inflationary or deflationary trends may have set in. In an inflationary period fees based on the cost of construction bring unexpected profits to the architect. In a deflationary period fees based on the cost of construction might cause serious loss to the architect. Examples can be cited where architects on federal work have been bankrupted in a declining economy by reason of the fee being paid the architect being based on the actual cost of construction.

All of the foregoing would seem to be an additional argument for a lump sum contract with the architect. The architect then renders his service and is not dependent upon the ultimate cost of construction of the building or the lag of time between the submission of the



bidding documents and the letting of the contract and finish of construction. This method is also fair to the Government, since the sum to be paid for architectural services is known beforehand. The architect thus is paid and the Government disburse a total fee properly and fairly related to the economy of the time that the service is rendered.

f. *Extent of Service*—Normally in federal work the architect's job is finished when he has completed the bidding documents and turned them over to the Government. It is our general feeling that the architect should have a separate contract for the rendering of services up to and including the submission of the bidding documents, and that he be paid in full at that time. Any subsequent work that the architect may be called upon to do, such as continuous superintending, should be the subject of an additional contract to be negotiated between the architect and the agency; but, in any event, it should be clearly spelled out just what the architect's obligations are to be beyond the point of the submission of the bidding documents, and compensation therefore clearly recognized in the schedule of fees.

Although perhaps not closely related to procurement practices, there is another field which has a decided bearing on the success of any Government project. The amount of instruction or briefing that the agency gives the architect at the outset of his, the architect's, work and the liaison that is maintained with the architect during the time that he is

rendering his service are matters of great importance. The extent of information supplied the architect can be overdone and frequently that has been the case. The architect needs all the information with respect to conditions existing on a site, all Government regulations and requirements pertaining to the specific building, the advantage of any studies that the Government may have made relative to the functioning of the specific building, and necessary space directive, but the architect does not need detailed information on exact room shapes and sizes, except where, for instance, special equipment or mechanical apparatus is demanded by the Government; he does not need detailed information on furniture and design, except as the design may be governed by statute or by Government regulation. The supplying of an overabundance of information to the architect can only lead to bewilderment and confusion and the opposition of the architect to the project at hand and a restraint upon his inventiveness and abilities. This can be a serious factor and is a cause of disappointing design in Government work.

#### SUMMATION

It is our recommendation that—

1. The selection of an architect by a Federal agency be made by one of the three following methods:
  - a. Architectural Competition
  - b. By a Screening Jury
  - c. By Direct Selection
2. That in negotiating with the architect for services, shopping procedures be minimized or recognition be made of the equity and desirability of paying adequate fees and compensation in order to insure for the taxpayer the best in architectural services at appropriate costs.

3. That the schedule of payments be as outlined in the documents of The American Institute of Architects. There should be some coordination of schedules throughout the Governmental agencies.
4. That the architect be paid at the completion of his services in an amount geared to the then current economy.
5. That if the architect is engaged to render field superintendence or supervise, such services be the subject of an additional contract with the architect.
6. That the architect be given complete but not restrictive detailed information with respect to the Government's requirements and program.
7. That the liaison between the Government and the architect be continuous and effective in order to insure the maximum desirability for the Government.

It is not desirable to make a comparison of one Federal agency to another. However, members of The American Institute of Architects have frequently mentioned that they have found the policies and procedures of the Public Buildings Service of the General Services Administration to be quite satisfactory.

We would be pleased to confer further with your Task Force if you so desire. May we again take this opportunity to express the appreciation of The American Institute of Architects for the privilege of meeting with the Task Force and with the representatives of the Federal agencies.

Sincerely yours,  
Edmund R. Purves, F.A.I.A.  
Executive Director  
ERP:hrs  
cc: Mr. Schlossman  
Mr. Chatelain, Jr.  
Mr. Morris, Jr.

BUTNER, CHARLES E.  
Salinas, Calif.  
HARRIS, ARTHUR B.  
Wichita, Kans.  
MACK, FRED J.  
Wilkes-Barre, Pa.  
MCGRATH, HENRY A.  
Langhorne Manor, Pa.

MURPHY, JOHN F., FAIA  
Santa Barbara, Calif.  
THOMAS, CHARLES T.  
Colorado Springs, Colo.  
YARDLEY, ERNEST H.  
Philadelphia, Pa.  
YONGE, CHANDLER C.  
Pensacola, Fla.

## Necrology

According to notices received at The Octagon between June 27, 1957 and July 29, 1957



# ART AND SOCIETY:

## PART TWO

## *indefinite architecture for an indefinite period*

THE MOST EASILY RECOGNIZED, the most influential, and the most stylized of the current trends is the steel-framed glass box which may, for lack of another brand name, be called the architecture of the Man in the Gray Flannel Suit. A transparent surface structure, without definition of space or volume, it is readily adaptable for anything. This adaptability, or flexibility, or perhaps suitability, is one of the reasons for its vast success.

Lack of definition is the principal characteristic of the style. Transparent and reflective, it is rigidly rectilinear and yet it is without defined limitation. In the past architecture and the Arts have always been seriously concerned with definition; definition of particular form in the Greek sense of unity of concept in architecture, in the drama, in the vase; in the Middle Ages, definition of space, and the penetration of space, in the cathedral as well as in the interpretation of Holy Writ; the enclosure and direction of interior and exterior volumes in Renaissance and Baroque churches and painting. These were expressions of a tightly knit world, with clear earthly boundaries and a clear progression of day and night. Today there are no boundaries and no clear time, as those who fly know well. At the pole there is no direction at all, and one is there in no time, to find there is no time there.

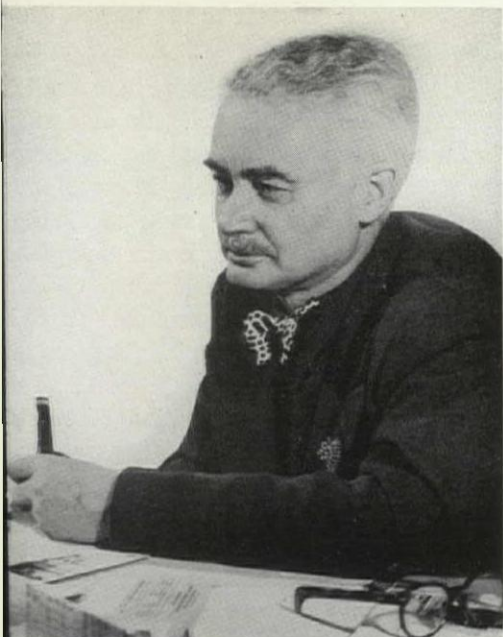
Another characteristic of the glass box is its literal emptiness, to be filled with other empty boxes within which are sub-boxes to be filled with sheets of paper. It is for this that these structures, precise, beautifully made, technical marvels, are produced with the most painful ulcers. Reflective of every cloud, they are as thin and transparent as the patterns of Mondrian, the bright inconsequentiality of

the Sitwells, the philosophy of Norman Vincent Peale. It would not profit one's soul much to sit down before one of these structures, as one might well sit in the square of the least Italian town. There is little here of richness of emotion or variety of experience. Once seen there is nothing ever to see again, nor is there any reason ever to go inside.

There is a surprising, or in view of the thesis of this paper a perhaps not-surprising, parallel to be found between these great works of architecture and the humble (\$20,000) split-level Cape Cod ranch house with built-in cathedral ceiling. This parallel comes from the fact that both derive from a common source, the urge to satisfy the consumer. They are not alike, of course. Any resemblance, real or imaginary, would lie wholly in the eye of that same consumer. The occupant of the house is the occupant of the office, and as long as office and house are quite similar to his previous and future office and house and to each other, he is content and indifferent, a glazed mind with an empty eye. What formerly used to make him acutely unhappy, the different personalities of his place of work, his means of transportation, and his home is now rapidly being replaced by the stylistic unification of the three. He is, according to Madison Avenue, suffused with the satisfaction of a unitary cultural environment.

This may or may not be a good thing. The anthropologists and the psychiatrists and the sociologists do not seem to make common cause as to whether it is or not. "Belongingness is essential to the integration of a society of togetherness," says one school. "Repression of the essential id may well condemn society to essential idiocy" says another. However that may be, Madison Avenue has made up its





mind that it is good, and tells the consumer what is best for him. There is to be no deviation, he must be normal as his neighbor. Since privacy can be a cover for abnormality, house and office must be open and above-board, as they say; the short and simple channels of the poor-in-spirit must be shown to be the same for all, his and hers hanging on the advertising lineage.

What the towering apartment building, designed with loving care by the greatest masters, and the suburban subdivision built with neither care nor love have in common, is that they both serve to boost the standard of living as decreed by Madison Avenue, and in exactly the same way. Poles apart though they seem to be architecturally, however different they are in expression, they say the same thing.

And so, in a way, does painting. Let me quote what a current, respected, and all but illiterate art publication has to say about this:

"The most recent paintings continue the schemas of . . . canvas filling cross- or I-shapes equally made up of background and foreground, neither of which thus exists. Such simple symmetry eliminates 'balancing' because the shapes are pre-balanced. The closeness of hues, in a way, eliminates color, for in extreme closeness violet or brown or green act the same. The paint surfaces are flat, mat, even, pure, i.e., non-existent. What is left is the private artist appearing in a public place with paintings from which almost everything but the mystery of art has been removed." \*

One of the graver disabilities of this architectural style, which may be called Classic, is that it offers so little in the way of esthetic variety, but then the purposes it serves also have little variety. Whether it will develop richness remains to be seen, that it already has stylistic unity is obvious. It may well be, that through the efforts of Madison Avenue we are approaching a unity of society and culture not unlike that of the Middle Ages. In public works where pompous symbolism is still of a certain importance, other idioms than that of the glass box are sought for in order to impress their official purpose on the public eye. I refer, naturally, to the official style of government buildings, which is gobble-de-gook, like government literature and government art. They are perhaps good symbols, at that.

The conscious search for a more lofty symbolism, for automatic emotional distinction if you will, has not been successful. The General Assembly building was intended to be the great symbol of the United Nations. It was given the place of honor on the site; the form was conceived of as an expression of the high purpose of the Assembly which it was to house and of which it was to be the symbol. The effort was not successful. It is the Secretariat that is the symbol in all men's eyes, the elegant, polished glass filing case for the paper shufflers. This is too bad, but it might have been expected, for symbols are inherent and find their appropriate expression despite the fine intentions of those who would make them other than what they are.

A somewhat similar esthetic difficulty seems to occur in the UNESCO building in Paris. This too is a superb piece of planning expressed as repetitive horizontal fenestration instead of as a vertical slab. Down the street from it is the Hotel des Invalides, which is an even larger building, even more repetitive. But in the Invalides, when one gets tired of the pediments and crossed cannon and coats-of-arms and general frumpery-gump the eye goes to that superb focal dome of Mansart's and the whole world seems different. There is no such relief in UNESCO. The assembly halls, with their broken-back roofs and Nervi's ingenious crimped concrete construction simply do not register as anything at all in the larger context. One walks around the vast building to the other side, looks down the Avenue de Ségur to the Dome of the Invalides and says, "Ah!" But perhaps the comparison is unfair, for the Dome is one of the supreme achievements of a genius. UNESCO nevertheless is the best new building in Paris, by far, since the Eiffel Tower.

The other major trend or style which we must consider is one that is both more romantic and

from notes on Ad Reinhardt in Art News, Oct. '56.



more functional than the Classic style of Madison Avenue, although they are related in techniques. It is concerned primarily with people, and it is concerned with form as an interpretation of structure, and it seeks to relate these not to an abstract esthetic, as the Classic does, but to find for them a particular and suitable expression. The stylistic impulse, in other words, comes not from *a priori* assumptions but is drawn from common sources of human experience and similar solutions to the technical problems. It corresponds to the change in the attitude toward the Due Process clause, of which I have already spoken, from property rights to personal rights. It corresponds to the shift in scientific emphasis from the mechanistic theories of Loeb and Pavlov to the admission that matter and mind are not one. It is what persuades a Norbert Wiener to display a condescending interest in the human use of human beings.

This Romantic style, as would be expected, is much more versatile than the Classic. It has more warmth and depth of feeling. It makes greater use of changes of planes, of shifting levels, diverse materials, the local scene. It is less formalized and less dogmatic, but nonetheless a style, unified, as I said before, by human desires and similar techniques. If it has achieved no spectacular masterpieces—and there are those who say that it has—it has at least reached a very high level of design in schools, factories, shopping centers and residences throughout the country. It seems to me to be a developing style of richness and force whereas the Classic has nothing more to say.

It is interesting to note that neither the Romantic nor the Classic contemporary style has been very successful in the design of volumetric space, the kind of thing that the Baroque did so superbly, and which, as we shall see later, should have an echo here and now. This is again a lack of definition, and is as true of the constructivists as of the other schools. Roofing over a floor is not designing volume, it is merely enclosing air. The basic engineering shape may have interest, but when it is filled with irrelevant forms all meaning is lost. At M.I.T. the cylindrical chapel is an enclosed space with definite volume, and it has esthetic unity and gives great esthetic satisfaction. On the other hand, across the way, the segmental sphere section covers an auditorium to which it is in no way related. Therefore, it is just a cover and it might as well be any shape.

Outdoor space is even less successfully defined. The two buildings at M.I.T. float on the pavement without any apparent relation to each other. In fact it is almost impossible to have only two things have relation to each other, because each, seen with the

other, can have no fixed reference to the other. They are, as in the similar case in physics, indeterminate.

Neither UN nor UNESCO are more than a series of buildings set in undefined areas. In plan they seem to be more defined than that, but in three-dimensional fact it is not apparent. Many of our large-scale housing projects have the same peculiarity, namely good organization on the horizontal plane but failure of definition in the vertical. The Golden Triangle in Pittsburgh is another example. It is a series of buildings standing in a park. They might just as well stand anywhere else in the park. The only really successful large composition of recent years is the G. M. Research Center. It is true that some of the big shopping centers have very good grouping inside the central walls, but all of them are completely lacking in any composition from the outside. They are lost in the vast parking areas without any relation to their surroundings.

Failure to grapple with the esthetic influence of the automobile, so marked in the otherwise excellently designed shopping centers, is what accounts very largely for the mediocrity of our present-day civic design. The basic concepts of civic art are no longer those either of the *grand place* of the 17th century or the informality of Camillo Sitte. Sitte wrote in a time when it was still possible to stop, look and see. Today neither the carefully contrived picturesque nor the monumental square and grand vista can compete for attention with the motor car. For large effects we must depend upon the distant view with the gross and undetailed mass seen progressively, if at all, but more likely merely sensed as something over yonder. Where non-linear space is to survive it must be in the small pedestrian square, which keeps out the automobile, and not only allows but features the bench, the tree, the statue, people.

Prototypes of both already exist, here and there around the country. Chicago's Lake Shore Drive—incidentally rescued from the last century's railroad engineers at fabulous expense—is a fine example of the modern speedway, a splendid adaptation to the automobile. The line of skyscrapers along Michigan Boulevard is far enough away to be impressive as a mass. The open space of the lake itself is somehow sensed, occasionally glimpsed; neither are vivid enough or interesting enough to distract from the main business of driving like hell to the next bottle neck.

The more intimate sort of thing, the pedestrian square, is best exemplified by Rockefeller Plaza—a delightful enclosure that is truly urban—shop benches, flowers, crowds, gay with flags, but still set apart from traffic . . . or, quite different, Lafayette Square in Washington, really a park, open and green



but still urban and in good scale.\* There is also Kittenhouse Square in Philadelphia, only half spoiled by the new apartments; and of course the squares in Savannah. Or, quite in contrast . . . think of such perversions as Washington Square in New York, torn by traffic, piled around with ugly buildings and stinking of exhaust gases. Or the once fine Copley Square in Boston, now just a shining sea of car-tops glistening in the sun or drooping in the drizzle.

In Philadelphia there is the magnificent Benjamin Franklin Parkway, an attempt to create a sort of Champs-Élysées for the Quaker City. It was splendid in the old days, the long vista interrupted by the beautiful fountain in Logan Circle and terminating in the hill crowned with the golden-hued pseudo-Greek museum. It has broad, tree-lined walks, which pedestrians cannot get to because of traffic, between the 10-lane center car way and the side streets. These streets were intended to be lined with handsome public buildings hidden behind trees. Now, alas, it is a rat-race now. Logan Circle is filled with the sound of cursing drivers and squealing tires, the crash of cars and the clang of ambulances; the crowned hill-top and the delightful cascades beside the great steps might as well not be there—for eighteen or so lanes of traffic converge on the plaza below. Like its prototype, the Place de la Concorde, it can only be seen in the stillness of the night. By day only the pavement exists, and the next car.

All of these new relations of time, space and architecture are already partially realized by the dynamics of the depressed and depressing highway and the multi-level interchange. These are engineering constructions which unconsciously express the terrifying aspects of our devotion to unlimited speed and unlimited force. They are the essence of present day society's efforts to go somewhere without any reason for going there rather than someplace else. We have not yet achieved an architectural counterpart to them. When we do, it will have many of the same psychological sources as the Baroque, as indeed these interchanges already demonstrate. The violence of Baroque forms is paralleled by the violence of Weber and Marlow, the enormous and hysteric tragedy of King Lear, the distortion of El Greco and the fantastic confusion of Michelangelo's Last Judgment. The architects and artists of today have not yet caught up with the engineers, with Norman Mailer and Mickey Spillane and the rest of those to whom violence and indirection have become the retreat from reason. Only Picasso in "Guernica" and

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Since this was written the Government has announced it is going to tear down the west side of the Square and will erect another one of its cheese-boxes for Masterful Vice.

the Minotaur series has caught anything like the psychological horror of this indirection of our time. The fascinating fear of Hell has passed but the no less fascinating fear of the mushroom cloud has taken its place.

Oppressed by the uncertainty that the world may no longer be our world, it is not strange that we lack any conviction about urban design—or indeed about many other things of non-materialistic consequence. This lack of conviction, which evidences itself as lack of definition in space and form, manifests itself also in the destruction of our countryside by what Catherine Bauer has aptly called "scatteration." The uncontrolled use of the bulldozer to ruin the form of the land is followed by the uncontrolled building of hundreds of thousands of small homes scattered about without any esthetic objective or visual pattern, without any community focus, without any cause for pride or love.

Nor are we doing better with our cities. Our efforts at urban renewal are without specific pattern. They lack definition, they have no objective. What is going on in the cities might be called "coagulation," that is they are forming into small islands of high buildings surrounded by a sea of parked cars. These islands are happenstances; there is no focus, no design, no conscious purpose. In between the islands, the convolutions of the concrete roadways.

Since our metropolitan areas are going to double in size in twenty or thirty years, the prospect is appalling. 200,000,000 people and 100,000,000 cars by 1976 say the crystal-gazers. We must get some order and design back into this suppurating growth, some organization into the works of Man that will reward him for living in the midst thereof, that will rescue him from the obscurity and boredom of mass-produced prosperity.

It used to be that the works of Man surpassed the works of Nature in beauty of form and in content and made him rejoice at his own creativeness. For it is the work of art that proclaims Man as a creator, and justifies his existence. Nature is passive and equally uninterested in Man's creativeness or his destructiveness. Nature is only a foil to the city, a back-drop of hills, or a river to mirror towers. The city is Man's supreme affirmation of himself. It is the city, not the country, that contains everything worth-while that Man has ever done. The ultimate manifestation of the city is the work of architects. Today, no less than in the past, the architect is responsible for what the future will know of the present. If he does his best, within the limits set by society, he can do no more; nor should he compromise for less, since what he does as an artist is what society will be judged by in the future.



# Life in a Martini Glass:

SINCE EVERYBODY AND HIS BROTHER has had something to crack about the Architect as an Artist and His Place in the Modern Scheme, it is high time I whirled my olde bone edged T-Square at a couple of pork pie hats and Harvards who probably never checked a shop drawing or rubbed a hole through a tracing linen. In search of Architects who are Artists, I have been making a private survey in the hallow of a couple of local bistros, the Academy of the Fine Arts, the Halls of Music and other Palazzos of Learning, the combo and boogey joints, and even the Library and all I have for my efforts is a hang-over from too much Art, Music, Education and chasers, but so far I ain't seen another Architect in any of these Arts hangouts. I guess, like everybody else, they go home to that one wife and make a go of washing the baby or the picture window, taking one martini and rolling under the evening paper for a deep thought.

I never have been able to locate who wrote this but when I was cutting my dentils on the "Five Faces of Giacomo Puccini Vigno" somebody made me memorize, "For a complete 'All-Around Man' give me the Architect, he must be an Artist or his buildings will offend the Eye, an Engineer or they will crumble, a Lawyer or he will get us all into trouble, a Doctor or they will be hygienically unfit to live in, a Businessman and a Contractor and last but not least he must be a Gentleman or we will have nothing to do with him." I know it sounds like Vitruvius and also my father, but whoever said it sure put the stuffy curse on us.

With all that load to carry it is surprising that anything ever gets built. What I have never read, so I'll say it is, simply, that, Architects are a race of Artistic gentlemen who are capable of designing and executing a building for a client and seeing to it that he gets the most for his money. The most important single quality about Architects is their complete honesty and this does not only apply to the delicate business of spending somebody else's money but also in trying to make everything a Work of Art. I should say that most Architects are proudest of an accomplishment in design and . . . they spend a lot of time and hard earned money preparing their achievements for exhibitions and hoping for awards and honors. Most never even get an honorable mention but keep *trying*—architects only do about twelve percent of the designing for buildings in this country, and about twelve percent of the twenty



thousand A.I.A. have an office large enough to hold the boss, his secretary and a couple of expensive draughtsmen. The boys who have my vote for silence under great stress are those eighteen thousand of us who toil unsung and unheralded in our noble profession despite the wordy swirl around us and about us.

I have been in active practice for about twenty-five years and am an outcast because I take in washing on the side and maybe cartooning, mural painting and writing. It is not cricket when everybody else has to stick to glass fronts but I have had over one hundred clients and that presents a fair section of what the average architect can expect of life. I guess there have been times when I had to be lawyer, engineer, doctor, builder, and businessman but mostly I have been accused of being an artist which seems degrading. There was a time, when an Artist was something in a velvet suit who hung around your wife, accompanied by a gypsy fiddle and a slipper to drink champagne out of but "you know who" got shot and spoiled it for all the latter-day-saints. Nowadays an Architect who is an artist has to look like old Doctor Munyon, or was it Elbert Hubbard, and talk like Lawrence Welk, or Weber and Fields.

When I was a boy it was classy to be French baroque, good humored and go to the Beaux Arts and stay up all night philosophising and getting plastered on Pernods and *finis* so you could go to Les Halles for onion Soupe at the Chien qui Fume. Nowadays you should be German, Norwegian or Suisse with maybe a little Hungarian thrown in to be disgustubusting. But Nordics are serious sou



who prophesy on beer and wienerwurst which is hard to digest physically and artistically. The result is a glassy world of a lot of words, unyielding blond woods and steelysobriety.

I guess the sad truth is that we Artists in architecture have lost our sense of humor. That is about the most devastating thing about the field and I cover myself with sackcloth and ashes and weep by the river Schuylkill and twang my lyre, but nobody seems to give a damn. I was going to write a book about Good Humored Architecture but I can't find any respectable agency like the A.I.A., the Guggenheim, the Ford Foundation or any other goody outfit who will sponsor me. Why Not?

The answer is always The Same. This is no time for GOOD Humor. If you wish to know what I mean by "Good Humored Architecture" let me write my opening gambit. Everybody and his brother who has two cents, stashes one of them in a cup or under the bed clothes and keeps adding to his hoard so that some day God will let him take the French line to Paris and the night train to Venice. There he can ride a gondola from the station to St. Marks Square and then sit for two days, swilling asti spu-

manti and strega. The little orchestras play, the pigeons whirl over him, and decorate his hat, the band is wheeled out and serenades him while he writes a hundred postcards and takes a hundred pictures. He returns home and for the rest of his life remembers Venice and St. Marks Square, long after Madamoiselle from Armentiers and Gertie from Bizerte are a haze in his past. What is the great attraction of St. Marks Square? The Architecture is the corniest collection of Near East antiques ever palmed off on a Doge by a third avenue junk dealer, but arranged and decorated in such a masterful way that the whole area is a living breathing joy spot. While no tourist, and hardly an Architect could draw a plan of the square or sketch a fair elevation of St. Marks, the clock tower, The Library or the Loggias, the Architecture is what puts everybody in a good humor and keeps them interested and marks them for life with a smile for Venice. On the other hand who would want to sit for five minutes in front of the U.N. building without getting into a fight?

August Bendure

## Chatelainia: the Ghost L'Enfant

by Clarence A. Smith, II

LEON CHATELAIN, JR., a few years out of the university and now a designer for Arthur B. Heaton, scratched behind his ear with a 3B pencil. Miss Moore, the secretary, had just advised him that all of the research, including that in the Library of Congress, had failed to uncover a picture, portrait, or reproduction of a sculpture of Major Charles Pierre L'Enfant, creator of the original city plan for Washington.

That last detail, a design for a bas-relief medallion to adorn an important bank building, was holding up the execution of the plaster model by the sculptor.

Chat idly surveyed the drafting room with a quizzical expression. Suddenly that characteristic smile broke over his face as his gaze settled on Archie, our effervescent teen-age office boy.

"Archie," he said, "sit on this stool while I make a sketch. You'll have to do as L'Enfant." Shortly after, Chat held up his sketch. There was a profile of Archie dressed up with wig, cocked hat and lace kerchief!

The last medallion took its place on the facade

of the completed bank, with Major L'Enfant's name carved beneath.

About twenty years passed. The Fine Arts Commission searched frantically for a portrait of Major L'Enfant to use in a book concerned with the planning of Washington. No portrait could be found—in fact, it was said that the Major had always refused to sit for his portrait.

Close to the deadline hour, an observant individual noticed the L'Enfant medallion on the bank building and hastily informed the Commission. A photographer was rushed to the building and took several shots. The selected one was used as the frontispiece for the book.

So the ghost of L'Enfant appeared for posterity, thanks to the ingenuity of a young architectural designer destined to become the Centennial President of the Institute.

*Editor's note—That story reminds us of the tale, probably apocryphal, about the inscription running around the frieze of McKim, Mead and White's Boston Public Library. Does anybody remember it well enough to tell it for the younger generation?*



# CALENDAR

*September-December:* International Exhibition of Architecture, Sao Paulo.

*September 5-7:* Western Mountain Regional Conference, Jackson Lake Lodge, Jackson Hole, Wyo.

*September 9-19:* First International Seminar on Hospital Construction, Geneva, Switzerland.

*September 19-21:* New York Regional Conference, Buffalo, N. Y.

*September 25-26:* North Central Regional Conference, Rockford, Ill.

*September 25-27:* Producers' Council 36th Annual Fall Meeting and Chapter Presidents' Conference, Louisville, Ky.

*October 2-6:* California-Nevada-Hawaii Regional Conference, Coronado, Calif.

*October 6-9:* Gulf States Regional Conference, Birmingham, Ala.

*October 11-12:* Joint Fall Meeting Virginia Chapter and Virginia Society of Professional Engineers, Hotel Roanoke, Roanoke, Va.

*October 12-14:* Second annual convention, California Council of Landscape Architects, Santa Barbara Biltmore Hotel, Santa Barbara, Calif.

*October 17-20:* Northwest Regional Conference, Gearhart, Ore.

*October 23-26:* Architects Society of Ohio Annual Convention Neil House, Columbus, Ohio.

*October 30-November 1:* Texas Regional Conference, Dallas, Tex.

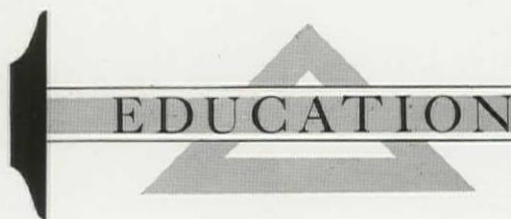
*October 31-November 2:* Central States Regional Conference, Skirvin Hotel, Oklahoma City, Okla.

*November 7-9:* Florida Association of Architects Regional Conference, Fort Harrison Hotel, Clearwater, Fla.

*December 11-12:* National Construction Industry Conference, Congress Hotel, Chicago, Ill.

THE JOURNAL offers its apologies to Willie van Hove, Secretary-Treasurer of the Union International des Architects; and to Elliott Whitaker, Dean of the architectural school at Ohio State University, whose names were omitted from the Roster of Distinguished Guests at the Centennial Convention as it appeared in the June issue.

BRIGHAM YOUNG UNIVERSITY, of Provo, Utah, has announced an opening on its executive staff for a director of campus planning and development. This office would be in charge of construction of new buildings and other campus improvements. The University would like to obtain someone who has had experience or training in educational administration as far as the function and utilization of buildings is concerned, and who has had experience either as an architect, a construction engineer, or a building contractor. The institution is maintained and supported by the Church of Jesus Christ of Latter-Day Saints (Mormon), but membership in that Church is not a prerequisite to the position. One of the tenets of that Church, however, is that its members neither smoke nor drink alcoholic beverages, and that tenet is adhered to by all members of the staff. Salary will depend largely upon the qualifications of the person employed. Additional information may be secured from Ernest L. Wilkinson, President of the University.



DEAN JOSE L. SERT, OF THE Harvard University School of Design, has announced the appointment of Martin Meyerson, of Philadelphia, as the first Frank Backus Williams Professor of City Planning and Urban Research, and as Director of Harvard's new Center for Urban Studies. Mr. Meyerson is currently Professor of City Planning and Research Professor of Urban Studies at the University of Pennsylvania.

Kenneth Holland, President of the Institute of International Education, has announced the opening of competition for Fulbright scholarships which will permit young American architects to study abroad in 1958-59. These scholarships will give qualified students an opportunity to compare American and foreign design and to study foreign architectural developments. Persons interested in these awards may receive additional information from the Institute at 1 East 67th Street, New York 21, or from any of the five regional offices. Applications will be accepted until November 1.



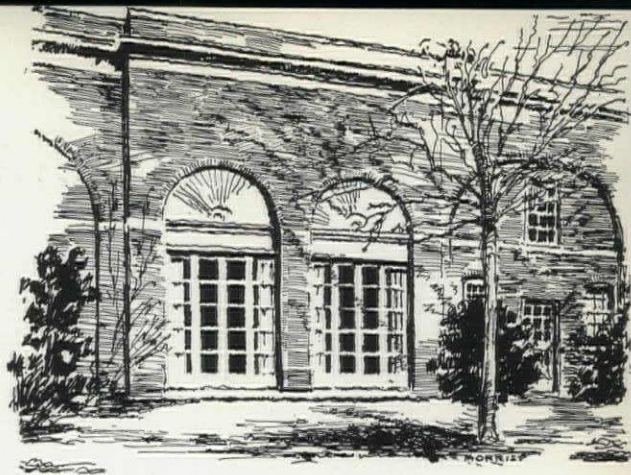
# Library Notes

GIFTS TO THE LIBRARY January 1 to June 30, 1957

This list includes all gifts made directly to the Library, as well as books and documents presented to the Institute.

JAMES ARKIN, AIA  
His paper "Wood Windows"  
ARCHITECTURAL ASSOCIATION, LONDON  
"Views of the Seats of Noblemen and Gentlemen, in England, Wales, Scotland, and Ireland" 11 volumes  
ARCHITECTURAL LEAGUE OF NEW YORK  
Certificate to practice architecture of Dan E. Waid, FAIA  
HARRY BARRETT, AIA  
Two volumes  
GEORGE M. BEAL, AIA  
His "Natural Light and the Inside-Outside Heliodon"  
HENRY S. BEERS  
History of Aetna Life Insurance Company  
WELLS BENNETT, FAIA  
Six reports on Ann Arbor Conferences  
JAMES BONELLI, MFA  
24 slides Wittenberg College Chapel and Library  
JOHN H. CADY, FAIA  
"Map of Old Providence"  
CHARLES F. CELLARIUS, FAIA  
"Ohio Architect" with historical article  
ANGELO ROBERT CLAS, AIA  
Twelve volumes  
GRANT CODE  
Waley's "The No Plays of Japan"  
THEODORE I. COE, FAIA  
3 volumes, 1 pamphlet  
THOMAS H. CREIGHTON, AIA  
"Advanced Architectural Techniques"  
CLAIR W. DITCHY, FAIA  
Article on The Octagon  
L. FRIESEN  
"Betonwerkstein als Werkstoff und Bauelement im Neuzeitlichen Bauschaffen"  
JAMES GAMBARO, FAIA  
Two volumes  
L. PATRICKSON GREENE  
Drawings of D. L. James House by Charles Sumner Greene  
FREDERICK GUTHEIM  
Vitruvius, 1586; File of "L'Architettura"  
ALBERT HARKNESS, FAIA  
"Richardson, The Architect and The Cincinnati Chamber of Commerce"

MRS. SOLANGE HERTZ AND MISS MARIA COPELAND  
"Old Stone Houses"  
JAPANESE EMBASSY  
Three volumes on Japan  
ALBERTO KLEIN  
His "Urbanismo"  
GEORGE S. KOYL, FAIA  
"Handbook of Architectural Practice" 1st edition  
LOUIS LABEAUME, FAIA  
File of AIA Journal and other publications  
LLOYD LEWIS  
File of "Louisiana Architect Builder"  
LIBBY-OWENS-FORD GLASS COMPANY  
"Work Place for Learning" by Perkins  
ROBERT P. MARREN  
Bicknell's "Detail, Cottage and Construction Architecture"  
MRS. EUGENE MEYER  
Report of the National Civic Auditorium Commission  
EDWIN BATEMAN MORRIS, SR., AIA  
Drawing of library  
MUNICIPAL ART SOCIETY  
Its "New York Landmarks"  
NATIONAL PAINT, VARNISH AND LACQUER ASSOCIATION, INC.  
Eight pamphlets  
NEW YORK CHAPTER, AIA  
Copies of its AIA Centennial publications  
NEW YORK SOCIETY OF ARCHITECTS  
1956 Yearbook  
NORSKE ARKITEKTERS LANDSFORBUND  
"Norwegian Architecture through the Ages"  
CARLOS OBREGON SANTACILIA  
Honorary Fellow American Institute of Architects  
Collection of 9 volumes of his writings  
JOSE ORTIZ ECHAGUE  
Four volumes of Spanish photographs by Mr. Ortiz Echague  
ERIC A. PAWLEY, AIA  
Five books, 16 pamphlets  
PEALE MUSEUM  
Its "Century of Baltimore Architecture"  
PERLITE INSTITUTE  
Perlite Design Manual



POTOMAC VALLEY CHAPTER OF MARYLAND, AIA  
\$150 for books  
MRS. ANTHONY POTT  
"Some Architectural Writings of Henry Matineau Fletcher"  
ALFRED PREIS, AIA  
"A Guide to Architecture in Honolulu"  
MARVIN G. PROBST, AIA  
Photo of AIA 24th convention  
HENRY H. REED, JR.  
Three pamphlets  
ROHM & HAAS COMPANY  
ACSA — PC slide set  
MARION D. ROSS, AIA  
His article "Oregon Architecture"  
ROBERT SHACKLETON  
"Old Buildings of New York City"  
SLOWARZYSZENIE ARCHITEKTOV Rzeczospolitez Polskiej  
Old engraved plan of Warsaw  
SOCIEDLD DE ARQUITECTOS DEL PERU  
1st issue of its Boletin  
JOHN HOWARD STEVENS, AIA  
Brooks "Designs for Cottage and Villa"  
TILE COUNCIL OF AMERICA, INC.  
ACSA — PC set of slides  
EDWARD X. TUTTLE, AIA  
Letter of Thomas U. Walter concerning American Institution of Architects  
USSR SOCIETY FOR CULTURAL RELATIONS WITH FOREIGN COUNTRIES  
Three books  
WOLCOTT C. WAGGAMAN  
"Manual on Design for Low-Cost and Aided Self-Help Housing"  
ARTHUR B. WHITE, AIA  
His article on law office buildings  
MISS HARRIET P. WINSLOW  
Letter of Dolly Madison  
YOUNG WOMEN'S CHRISTIAN ASSOCIATION  
"Before the YWCA Builds"



# The Editor's Asides

THIS IS BEING WRITTEN seated in the shade of two old pecan trees deep in Rebel territory, in southwestern Georgia. The lawn slopes gently to a wire fence about fifty feet away, beyond is a pasture which dips and rolls up again to a cornfield—with eight foot stalks—and beyond that is the woods, where here and there a giant live oak tops the other trees, draped with the ghostly gray strands of Spanish moss.

A turkey buzzard circles slowly in the distant blue sky, lazily riding the air currents, rarely flapping a wing. In the foreground a black-faced Jersey cow and a white-faced Hereford yearling bull are standing in the shade of a sugarberry tree, chewing and apparently in deep thought. Other Herefords, warm red-brown, stand or graze in groups around the field, each with her white-faced calf.

Birds are plentiful, but in midsummer busy feeding and not making much noise about it. A cardinal has been scratching around under the sugarberry tree; mockingbirds alight on the fence-wire, and swoop down for an insect. Bobwhites and killdeer call in the distance. These are familiar sounds to these Yankee ears—but we miss the cheerful songs of the robins and the wrens.

What has all this to do with architecture? Not a darn thing, for we are on vacation—even from architecture. But knowing that an "Aside" will be due as soon as we return to Washington next week, we're writing about what seems most important at the moment—the trees, the cows, the buzzard, the blue sky, the birds.

But can an architect really take a vacation from architecture? We doubt it. Even when deliberately not seeking out buildings of interest, the architect is always appraising the buildings about him, noting with satisfaction a nice mass here, a good silhouette there.

The farmhouses of interior Georgia have always interested us—one-story houses, usually T-shaped or cross-shaped in plan, built thirty inches or more off the ground on brick piers, often with a shed porch across the front. Their clapboards, which have never known paint, have weathered coarse in texture and silver in color. Above a box cornice, which may project as much as eighteen inches, rises a hipped roof—now invariably covered with tin. Most of them were built at least a hundred years ago, and indicate the cultural lag in the hinterland, for their good proportions, nicely spaced openings, and general air of gentility—no matter how

neglected and run-down now—show that they were built by men who were still under the influence of classic good manners.

Two large pure white birds just flew by, in westerly direction. The local people call them "cranes," but they looked to us like snowy egrets.

Perhaps, like the Jersey cow and the Hereford bull, we too have apparently fallen into deep thought—for we've been sitting in this same spot for several days. We came armed with reading, so as to forget architecture—Teale's "Autumn Across America," "The Autobiography and Selected Writings of Thomas Jefferson," and Pevsner's "The Englishness of English Art"—fascinating explorations in three different directions.

But we have also been thinking about the recent Centennial Convention, and wondering what, if anything, the architects who attended it, or read it, got out of it. It seems to us that a great challenge has been thrown to the profession, a way indicated toward new and greater opportunities—and not without some implication that we haven't always lived up to the best in our job in the past. Many architects were heard to grumble at the convention that we were being "raked over the coals" by "prophets of doom." Probably those fellows went smugly home to the best business they have known in their lives, confident that "all is for the best in the best of all possible worlds."

Possibly it's still too soon, but we've been watching for results from the convention, some indication that some of the wit and wisdom we heard was thoughtfully received. A program like that could start a movement which could re-vitalize the practice of architecture and the education of architects. "Movement" is a big word, but it could be a big movement, and it should come from the "grass roots" and not from the officers and staff of the Institute. To be effective, to be genuine, it should come from thoughtful men and women all over the country, setting their own objectives, mapping their own programs, choosing their own leaders. So from our listening post we are looking for results.

A sudden shower has come up and driven us indoors, so this column is being signed off for the month, sitting in the "living kitchen" (to use the modern house-planning jargon) of a Georgia farmhouse, with "Charlie," the family parakeet, perched on our head, and the warm smell of fresh rain falling on the dust mingling with the aroma of hot biscuits in the oven. It's been a good vacation.





YESTERDAY'S PARKING 1918?

STONESTOWN CALIF.  
SHOPPING CENTER



## PARKING FACILITIES BTRG 7-1

This Building Type Reference Guide has been prepared through the cooperation of the National Parking Association, 711 14th St., W., Washington, D. C.

Although some information is included on surface parking, the study deals principally with parking structures. It is suggested that readers desiring additional information on surface parking refer to the bibliography in Part 2 of this study.

Areas of needed information for planning and design purposes have been identified from comments

heard from owners, operators and architects at annual conventions of the National Parking Association and through correspondence and discussions with individuals intimately connected with traffic and parking problems. Authors for needed information have been supplied from the membership of the NPA and their treatises are included herein, as submitted.

It is important to be aware of continual progress and changes taking place in the parking industry, particularly in the programming of

new structures. Site locations, city planning, street traffic patterns, changing parking client habits, economics, and other influencing factors are in a continuous state of flux. In addition, auto sizes and characteristics are variables which must be anticipated with a reasonable degree of conservatism to avoid costly alterations or general obsolescence.

These factors make it self-evident that data presented herein can only be used as a *guide*, subject to critical analysis, on any specific design problem.



# BRIEF HISTORY OF THE PARKING INDUSTRY

by WILLIAM G. BARR, Exec. Dir., National Parking Association

The ancestral lineage of the modern parking garage is traced directly to the livery stable. Several years after the War between the States an enterprising livery stable owner rigged a hay-lift tackle over the second floor door of his stable so that carriages could be stored on this upper floor. As early as 1910 a livery stable was converted into a parking garage with a straight-ramp entrance. Soon other buildings which had outgrown their usefulness were similarly converted, some warehouses employing a slow moving freight elevator to get the automobile to the upper floors.

These early developments in structural parking were doomed. The early automobile could only be kept in a warm place during the winter

months if its battery and starting system were to function. Costs of steam-heated garaging for customers who took to the curbs as soon as the weather was warm enough were prohibitive. It was not until the 1940's that parking garages came into their own.

The first surface carpark was opened in Detroit by Max Goldberg around 1917. From this humble beginning has come the large Service Parking Grounds Corporation of today, with facilities in many cities, both surface and multi-level. The industry has developed from these unpromising beginnings to a \$4½ billion dollar investment today.

During much of this time (from the 1920's on) experimentation went on in the field of mechanical park-

ing—parking systems whereby the car is moved by machinery rather than under its own power.

Although many starters have entered this field, today most of the mechanical parking in this country and in South America is either Pigeon Hole or Bowser, the leading contenders in the field. Minit Parkmaster, Park-O-Mat are three other systems with at least one successful installation.

Surely the most successful form of multi-level parking has been the ramp garage. Many types of ramps are open to the designer as a choice of interfloor travel. The highest expression of clean horizontal lines of the open-deck ramp has become a recognizable and accepted commonplace in urban development.

## ECONOMICS OF SITE AND STRUCTURE

TRAFFIC STATISTICS AND DATA by ALAN M. VOORHEES, Automotive Safety Foundation

In a typical city, the traffic engineer, the city planner, or the city engineer, will have a great deal of information related to traffic that can be helpful in the design of a garage. This information will be in two general fields:

- 1) Street Circulation
- 2) Origin and Destination of Parking Clients

### *Street Circulation*

This covers such information as street pattern, one-way street system, plans for freeways, street improvements, traffic volume information and street capacity. A thorough understanding of existing street patterns can be very helpful in properly locating a garage, particularly if consideration is given to proposed street improvements and anticipated free-way development. Such changes can materially affect traffic patterns and thus affect the amount of travel that will be passing a particular location, and in turn, the number of customers you will attract. Traffic patterns can also affect the location

of entrances and exits. In general, they should be placed to minimize traffic conflicts.

Consideration should also be given to existing as well as proposed one-way street patterns, since a garage operation is very sensitive to such schemes. A garage placed on an outbound one-way street near the downtown area is likely to see its "customers" only on their way home. A new parking facility should, where possible, be placed so that it has access to and from a pair of one-way streets, thus permitting vehicles which enter from one direction to leave either in the same direction, or in another direction.

A knowledge of street capacity and existing traffic volumes is helpful in determining whether there is reserve capacity on the street on which the garage is to be located. If so, this will permit free operation of the garage during all periods of the day, or during a period for which the garage is being designed. This will call for a capacity analysis, which is outlined in the *Capacity Manual*, published by the Bureau of Public Roads.<sup>1</sup>

### *Origin and Destination Data*

Origin and destination data can be obtained from two general sources: (1) an origin and destination study or (2) a parking study. In both these studies information is obtained about the origin and destination of vehicular trips made in various sections of a community. Information as to the destination of existing vehicular trips can be useful in determining the potentials of a garage. This can be achieved by comparing the "demand" indicated by the survey with the parking "supply." This technique is reviewed in the *Parking Study Manual* published by the Bureau of Public Roads.<sup>2</sup>

In addition, destination information can be helpful in estimating where the customers will go after they park their cars. Although the exact relationships between destination of vehicular trips, cost of parking, walking distances, etc. has not been established, there is sufficient

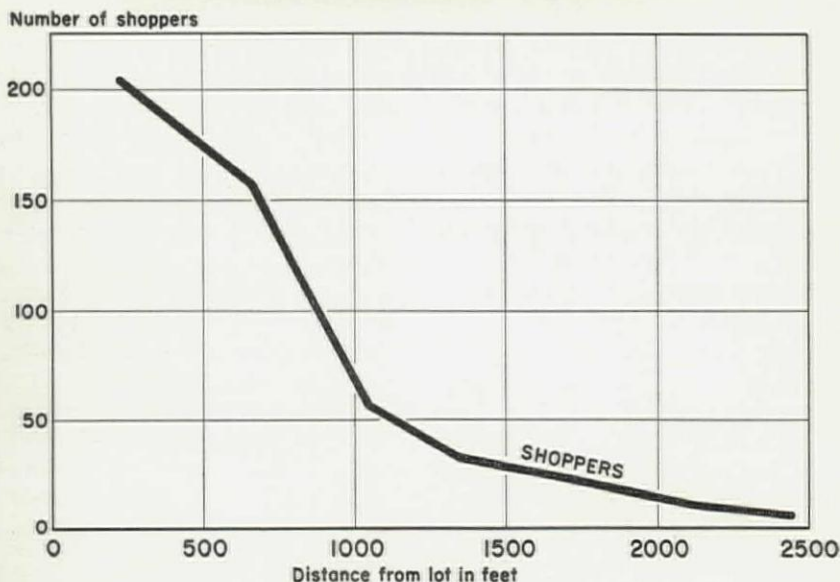
<sup>1</sup> Highway Capacity Manual, Bureau of Public Roads. U. S. Government Printing Office, Washington 25, D.C. 1950. 65c.  
<sup>2</sup> Parking Study Manual, Bureau of Public Roads, General Services Administration, Washington 25, D.C. 1953. nc.



vidence to indicate that the ultimate destination of parkers using a particular garage is affected by distance and size of the surrounding stores, theaters or buildings. The ultimate destination is directly related to the size of the buildings and indirectly related to distance. This can be seen in Figure 1. Further data can be obtained from *Parking Guide for Cities*, by Bureau of Public Roads.<sup>3</sup> Considering these factors, it should be possible to estimate to some degree where people who are using the garage will go. Such data can be used in laying out your pedestrian circulation in the garage—an attempt could be made to minimize walking distance to the most important “generators.” This will mean more business.

The origin of vehicular trips made to a particular area can be helpful in determining the number of vehicles that will be approaching from a certain direction, and therefore, will help in deciding upon the proper location for entrances and exits. This can be achieved by special analysis of parking study data of O and D information. The information will give you the approximate number of trips that will come from particular sections of a city. This data, if used in conjunction with knowledge of the street pattern in the immediate vicinity of the proposed garage, should indicate the approximate number of vehicles that will approach from a certain direction on a particular street.

## How Far Will Shoppers Walk?



If possible, exits and entrances should be so placed that only right turns are required in entering or leaving a garage. This will reduce to a minimum the delay to your customers as well as to moving traffic. This can be achieved by locating your entrance on a major street and the exit on side streets, alleys or minor streets. If this is not possible, then it is probably best to locate the entrance so that the majority of your customers will be able to make a right turn upon entering.

In addition to origin and destination of trips, parking studies usually describe the arrival pattern of parkers. The typical report indi-

cates the number of vehicles that arrive each hour and purpose of these trips—shopping, business, work, etc. This can be used to help determine the arrival pattern that you might expect at a particular location, assuming the purpose for which the garage will be used. Knowing this, it is then possible to determine reservoir or magazine space required.

Entrances and exits generally should be at least 100 feet from the street intersection so that traffic entering or leaving the parking lot or garage will not further the complications of traffic patterns at intersections. Bottle-necks around garages are suicide to business!

### BUSINESS CONSIDERATIONS

HOWARD D. LEAKE,  
London & Co., Inc.,  
Birmingham 3, Alabama

The question uppermost in the minds of the parking operators as well as those who are commissioned to build parking facilities, is: “Will this parking location pay off?”

Admittedly rates mean the difference between life and death. Charge too little and you cannot meet the rental or pay off the mortgage. Charge too much and customers will go elsewhere.

Several factors determine rates: population, car registration—traffic

conditions, street width, the supply and demand of parking in any given city.

The rate charged has a direct bearing, of course, on the cost of the facility. If ground level, that cost can be held to a minimum.

What, then, does it cost to provide a parking facility (ground level)? To blacktop, pave, fence and erect an adequate office, costs between \$1.00 to \$3.00 a square yard.

By these figures it would be a simple matter to determine what rates would have to be charged. How many cars can you park on the

space? How much rent are you paying? What are your prospects for turnover?

Surface areas are the backbone of the parking business in America. They form the basis of parking for shopping centers, motels and driveways. The layout of certain areas for motels presents an architectural problem based on what areas are left after the facility is erected on the property.

It has been found that an over supply of parking space has been

<sup>3</sup> *Parking Guide for Cities*, Bureau of Public Roads, U. S. Government Printing Office, Washington 25, D.C. 1956. 55c



provided for some super shopping centers, and that actually, the size of the area places the outer spaces too far away from the parking generator. Since this is actually "dead" space, architects must take another look at the plans with the question in mind: Is this much space really necessary?

Once a parking facility "takes to the air" in the form of a ramp structure, mechanical device or similar means of deck arrangement, rates should be considered with the utmost care.

There are two basic groups of parkers: the short-term and the long-term. In the first category are the shoppers and errand runners. In the latter are employees, business people and others who occupy the stall by the day, week or month.

The short-term parker occupies the stall for a matter of five minutes while he does an errand or for three hours while she gets a hair set and buys a few articles at the department store. Certain locations are highly conducive to short-term parking, and as a consequence rates should encourage short-term parking and discourage long-term parkers.

Such locations usually are in the heart of the business district and command the highest rental.

The long-term parker is generally employed in the downtown area and drives his car to work. He will not pay the rates of a short-term parker. The location for a long-term parker is not as close to the center of town and rates must be considerably lower to get the trade.

Parking studies in downtown areas of 14 cities indicated that over 22% of the cars were parked by owners on shopping trips; 26% by workers; 36% by persons on business errands; about 5% on social recreation trips and 11% on trips to medical offices, schools and restaurants.

Progressive rate schedules have taken the place of fixed charges in car parks and garages. These schedules vary. For example, some are set on the basis of 15c to 50c for the first half-hour and 5c to 25c for each additional half-hour. In this manner the average (2 hour) short-term parker pays a fee from 35c to 85c,

but the all-day parker would have to pay a dollar or more.

The recent trend is toward the half-hour rate, which has proven popular and gives the short-term parker a break, but is designed to discourage the long-term parker.

There are locations which even cater to the 15 minute parker. I know in at least one location a special ten-cent rate for 15 minutes is provided for patrons of a liquor store. The turnover at this location is one of the highest in the city, and the system is working satisfactorily.

Rates are not only influenced by location, but by traffic generators. The ideal location for a parking facility would be one near a large hotel, movie house and department store, prime generators for both day and night.

Any discussion of parking rates is academic really until the costs of a structure is determined and the demand is known.

Since it is of the utmost importance to locate near generators where a rate sufficient to make the venture profitable can be charged, how shall enough space be made available when the ground area is prohibitively priced?

The answer lies in the air. Many of the second stories of retail establishments, even near the 100% district, are occupied by run down walk-ups and loft space. This space can be put to more profitable use in the parking facility. Space here can command a higher square footage rate with automobiles than with any other business venture.

A "parking sandwich," wherein the first floor is not only occupied by a ground level parking facility but a facade of retail stores is proving highly successful in most large cities. The second and third floors can be developed into a modern parking arrangement with the resultant character improvement of neighborhood as well as the provision of a downtown shopping center—professional offices, shops, drug stores, restaurants—all with all the attributes of convenience and central location.

An investment of \$3.50 per square foot of parking area created in the air

has proved in metropolitan southern cities quite a satisfactory cost. Such air space should yield at least 10% on investment on the building itself and 8% on the value of the land. For such costs, a rate of approximately 20c for the first half hour and 10c each additional half hour should be charged.

In one southern city a deck improvement was undertaken at a cost of \$130,000. The 325-car capacity facility maintains a rate of 35c for the first hour and 10c each additional hour and \$1.50 for two hours. This facility also has a number of monthly parkers who pay a rate of \$15.00 a month.

From experience in the southern states, a minimum of about \$9 and a maximum of \$1,500 per car space is the rule of thumb. Thus, a 500-car garage should cost about \$600,000. This can be amortized over a period of 25 years at 5% interest, at a constant payment of about \$7.00 per car space per month. This is less than 1 cent a day capital charge. Labor costs should not run more than 1 cent per car. In the northern states and in large cities, costs go as high as \$3500 per space and rates are proportionately higher.

Recent changes in building codes have made possible the construction of parking garages at a lower cost and have to some extent equalized the rising cost of materials and labor. Some cities have eliminated, for example, the requirement of a sprinkler system, and have also eliminated the necessity for exterior walls and concrete covered steel columns above the ground floor. On the other hand, other cities still cling to antiquated codes that make the construction of decks extremely difficult.

A cooperative garage was built in Roanoke, Virginia, to house 400 cars at a cost of \$600,000. Rates for the 132,000 feet facility are:

25¢—1st hour  
10¢—ea. additional hour  
35¢—6 p. m. to midnight  
75¢—all day  
\$1.00—24 hours.



Parking operators in Minneapolis constructed two facilities costing about \$1,000 a car space.

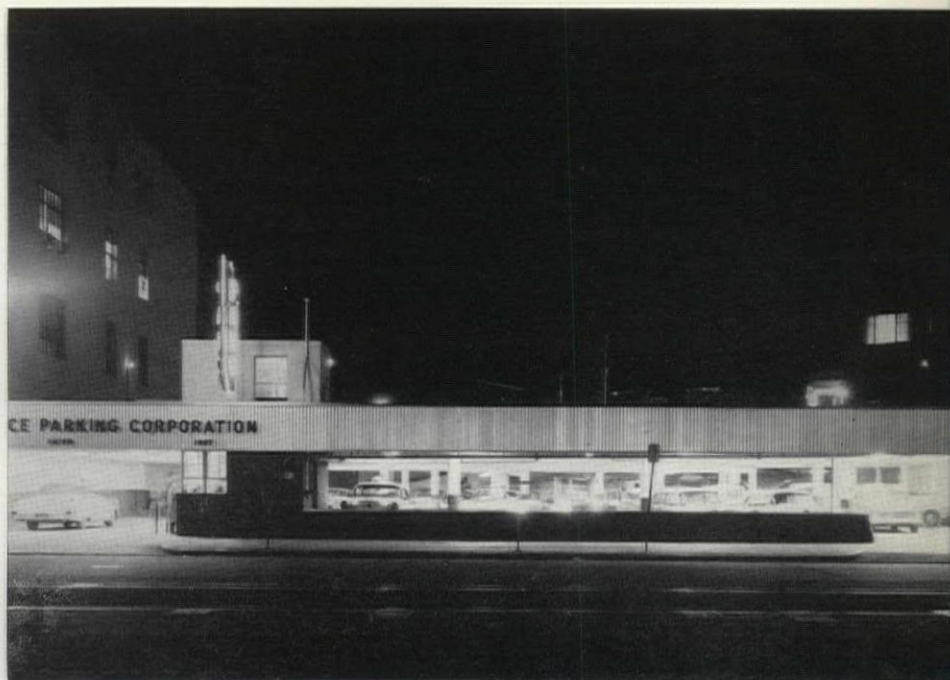
In five cities located in different sections of the country, it was found that the rate structure varied rather sharply, for example:

Chicago	Low	Maximum	Average
1/2 hour	\$ .50	\$ .75	\$ .50
1 hour	.40	.75	.60
2 hours	.50	1.10	.80
3 hours	.60	1.45	1.00
8 hours	1.10	3.20	2.00
2 hours	1.50	4.60	1.75
4 hours	1.50	7.50	2.00

These rates are confined to the central area, or what is known as the loop." It does not include operations which, with one exception, have a maximum price of \$1.25 for 2 hours of parking. Nor does it include Grant Park Underground which runs from 40c per hour for self-parking to 65c for attendant parking.

Atlanta	Low	Maximum	Average
1/2 hour	\$ .15	\$ .30	\$ .25
1 hour	.25	.40	.35
2 hours	.30	.60	.45
3 hours	.35	.80	.55
8 hours	.35	2.00	1.00
2 hours	.40	2.00	1.25
4 hours	.40	1.50	1.50

Muskogee, Okla.	Low	Maximum	Average
1/2 hour	xx	xx	xx
1 hour	\$ .25	\$ .35	\$ .28
2 hours	.25	.60	.35
3 hours	.35	.85	.45
8 hours	.60	2.10	.75
2 hours	.60	3.10	.88
4 hours	1.00	3.10	1.25



A. R. CLAS, AIA, ARCHITECT

#### New York City Parking Lots

	Maximum Rates
First hour or part	\$1.00
Second hour or part	.50
Each additional hour or part	.25
Maximum for 12 hours	3.00
Maximum for 24 hours	4.00

#### Garages

	Maximum Rates
First half-hour or part	\$ .75
Second half-hour or part	.50
Each additional hour or part	.25
Maximum for 10 hours	3.50
Maximum for 24 hours	4.50
Monthly rate	95.00

#### Average

First hour or part	\$ .75
Each additional hour or part	.25
Maximum for 12 hours	2.50
Maximum for 24 hours	3.50
Monthly rate	45.00

#### St. Louis

	Low	Maximum	Average
1/2 hour	\$ .15	none	\$ .15
1 hour	.25	\$ .40	.30
2 hours	.35		
3 hours	.45		
8 hours	.55	1.60	1.00
12 hours	.25*	2.40	1.45
24 hours	1.00	2.50	1.60

\* (all day rate 50c)

#### OWNERSHIP vs. LEASING?

by DENNIS E. MYERS

In building a garage on leased property, there are two methods to consider.

1. The landlord build the facility and lease it to the operator.
2. The operator build the facility on leased ground.

In the first consideration, the landlord naturally will expect a reasonable return on the land portion, and the garage portion to be amortized over a period of years. He also will expect enough out of the lease

to pay for taxes, depreciation, and insurance.

In the second consideration, the operator must finance the erection of the garage and be prepared to put up approximately 30% to 40% of the capital required. The operator must have a long enough lease to satisfy the lending agency. Probably a minimum of thirty years. In addition, the operator must satisfy the lending agency of successful experience in operations of such a business, plus a projection of the estimated revenues to be derived from the facility.

Also, in the second considera-

tion, the operator must in addition to the above, be prepared to pay taxes, insurance and upkeep in the garage as well as depreciation and interest payments, assuming that he is operating on borrowed capital.

Naturally it is obvious in comparing the two considerations, that if the landlord builds the garage the operator doesn't put up any equity and leaves his money free for other uses. However, it is possible to secure a cheaper ground rental if the operator builds the facility.

All these must be taken into consideration before any lease is made.



# FINANCING OF PARKING STRUCTURES

In considering the business and design criteria for a proposed parking structure as an investment, the ultimate securing of a mortgage loan may affect initial thinking.

When the structure is a private enterprise, or private funds are to be used, the lender will logically establish criteria by which to protect his

investment. Conversion of the structure to other uses is one possibility, but more often the lender will be concerned that the economics of the area and the structure will maintain a profitable balance over the amortization period, with the structure in continuous service performing its original design function.

## MAJOR MORTGAGE INVESTMENT FACTORS

by T. F. MURRAY,

*Equitable Life Assurance Society*

In considering possible mortgage investment in parking structures, the following factors are of major importance:—

- (1) Location—the property should be readily accessible from through traffic arteries. It should be convenient to stores, offices, and other destinations of car parkers.
- (2) The structure should be designed to operate efficiently with consideration given to pos-

sible self-parking.

- (3) Competition—it goes without saying that a lack of existing competitive garages and a probability that none can match the strategic location of the subject will always be helpful.
- (4) Management—We look for strong, experienced management with a record for alertness, intelligence, and resourcefulness.
- (5) If long term income from retail stores or offices is obtainable in the structure, it will upgrade the facility from a lending standpoint.

- (6) The interest rate will vary with the market, usually being about one-half per cent higher than the going rate for retail properties.
- (7) Amortization—we prefer amortization plan of not more than 20 years unless the land value is high in relation to building value.
- (8) Ownership—we look for financially strong applicants willing to invest at least one-third of the cost of the facility as equity.
- (9) We are more receptive if there is no present municipal competition and none likely.

## A STUDY OF SURFACE SELF-SERVICE PARKING by

SERGE GAMBAL AND TAD LINDNER  
Karmarker Co.

Self-service parking is not a new idea, but its increasing application to many situations, commercial and private is a relatively new development. Just as in some fields of merchandizing the application of the concept of self-service was found practicable, so will in greater degree the concept of self-service be found practicable in the vast field of parking. It would be impossible to imagine the ideal situation which would determine, in every case, whether, or to what degree, self-service shopping should be utilized, and the same is true in regard to self-service parking.

Certain factors do, however, tend to insure a greater degree of success for self-service parking.

In the area of private parking, we find that the vast majority of customer parking areas are designed for self-service parking. This was a natural development because, in general, the land area was available in

greater proportion than the immediate demand for parking space.

There have, however, been many refinements in regard to

- a) parking pattern
  - b) exits and entrances
  - c) traffic flow
- a) In its earliest application, self-service parking lot designers employed the 90° angle parking pattern.
  - b) Even today there exist, unnecessarily, many customer parking entrances and exits at a point where the pedestrian traffic is greatest. To overcome this many recently developed parking areas are employing delivery areas and exits at the rear of stores, and parking lot entrances removed from store entrances. This relieves congestion at store entrances, and assures rapid customer pickup.
  - c) Traffic flow—hand-in-hand with angle parking and better exit and entrance control has come the development of one-way traffic patterns. This has also had the effect of relieving congestion, accelerating movement, increasing

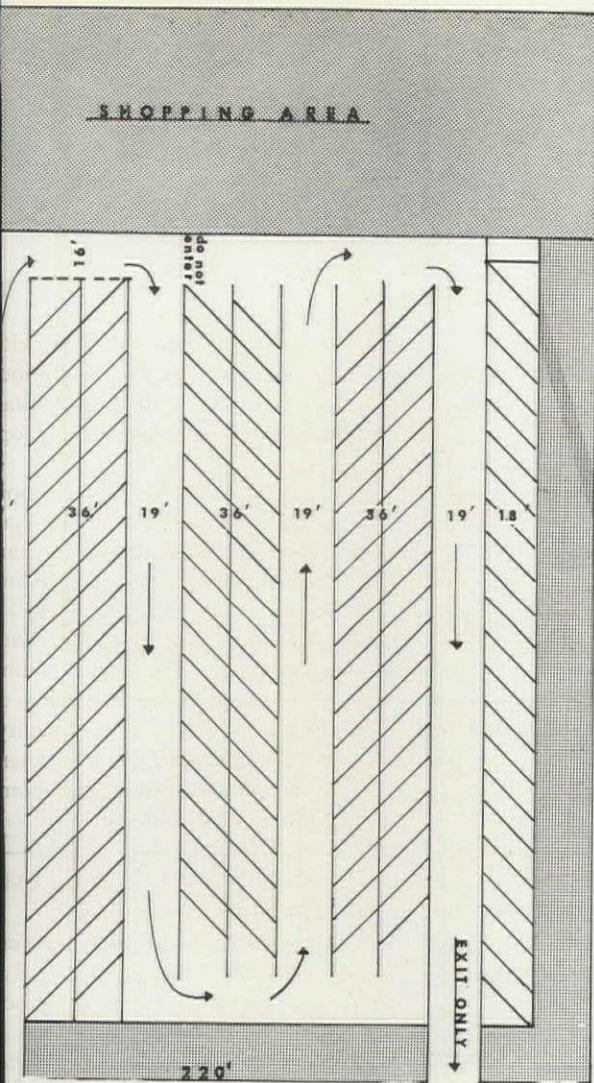
turn-over and providing additional customer comfort.

To provide customer parking space is merely a half measure. Today it is essential to give as much thought to design and mechanics as is given to any other phase of a development. To this extent it is important to use experts in this particular field as it is to use experts in the area of design and construction of buildings.

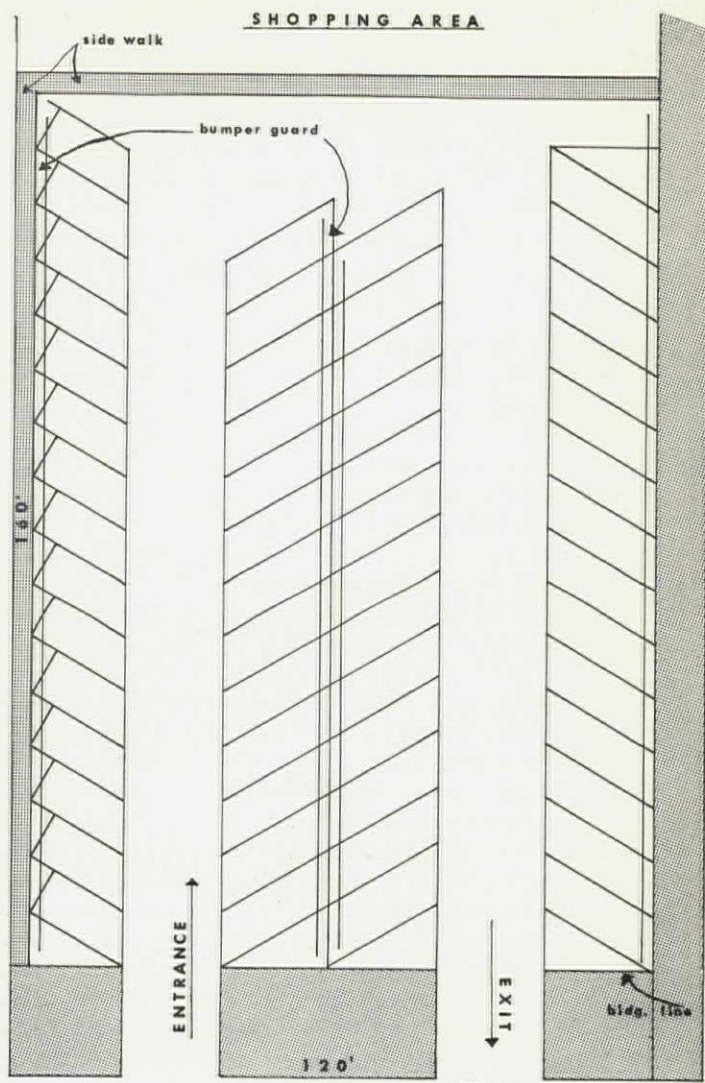
In the area of commercial parking the application of the principles of self-service developed very slowly. The greatest deterrent to such development has been a general reluctance to give up, as a basic rule, the "maximum space" concept. Very simply, that is defined as a necessity to "stack" as many cars as possible into any given area.

More recently with labor costs rising and personnel problems increasing, more thought is being given to areas that employ 90° angle parking. This is, by far, the most difficult for the average driver to manage in terms of convenience and time. The prospective customer after exerting herself in order to get parked ha





45° TYPICAL



60° SELF-PARK

little energy left for the purpose of shopping. Furthermore, the time expended in getting in and out of such space tends to cut down the turnover factor and decreases the overall volume of cars parked, and thereby the volume of potential customers.

Today most customer parking areas employ 45° and 60° angle parking in order to overcome the objections cited above.

Apparently it was initially thought that there would never be enough exits and entrances. Such is definitely not the case. The location of exits and entrances is a very important factor in the design of any parking area and must be carefully thought out. Factors to be considered are:

- 1) pedestrian safety
- 2) minimum congestion
- 3) customer convenience

It was often thought a cardinal principle that the entrance should be immediately adjacent to the shopping area. This, however, creates congestion to the application of self-service parking as an answer to these problems. It must be immediately pointed out that self-service parking may be a solution, but it is certainly not a panacea. Its application to the particular location must be a result only of critical and expert appraisal.

The first step to the possible use of self-service parking is to determine whether a specific location is adaptable to a self-parking pattern. This can only be determined by a very careful study of the lot dimensions, its shape, and its relation, in terms of entrances and exits, to the traffic flow and patterns of the streets which serve it. Generally, irregularly shaped areas do not lend themselves well to self-service parking patterns.

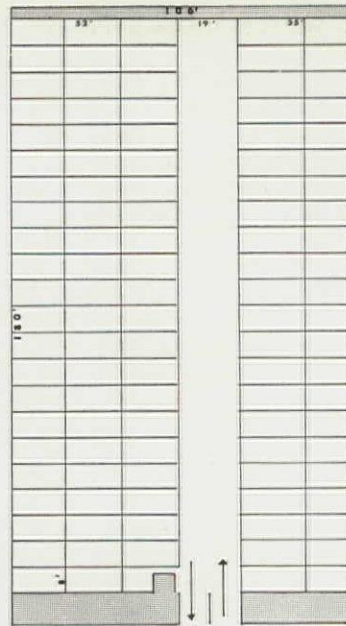
There is no simple way by which an optimum size can be determined. This will vary in direct relation to the existence of demand, contract, all day and transient. This demand factor must further be analyzed from the standpoints of average cars per hour, cars handled during peak loads and estimated totals for any particular operating period, i.e. day, week, month or year. Customers habits, average length of stay also play an important part in determining demand and thereby existing and future potential. These are only some of the initial considerations which need to be made. To them must be added the comparison of estimated income employing various operational procedures, existing and future competition, and, certainly not least in importance, a proper evaluation of rate structure.

We have not attempted to state

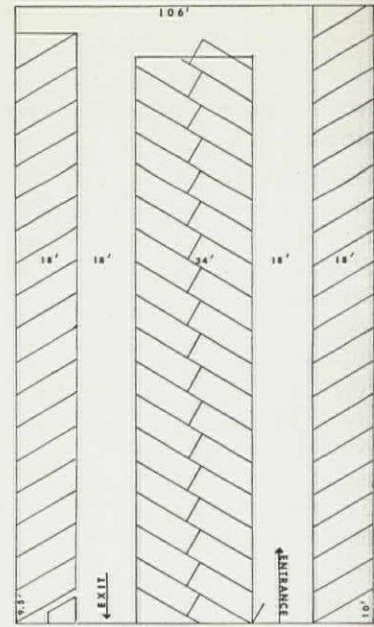


basic rules governing self-service parking because it cannot be done. We have pointed out some of the developments in self-service parking, and factors related to determining the adaptability of specific areas to self-service parking techniques.

Parking is not only a great industry, but an extremely complex one. Self-service parking as applied to surface locations is only one of many developments in the industry as a whole, but one in which methods and concepts are constantly undergoing change. To this extent it must be realized that expert advice must be used and relied upon in the initial stages of any development, whether it be a completely new one, or a conversion of an existing location.



COMMERCIAL STACKED  
capacity 109



CONVERTED SELF-PARK  
capacity 69

### BOOTHES FOR PARKING LOTS

by BRUCE ALEXANDER

The focal point for a parking lot facility is the building thereon, often referred to as the booth, house, shed, shack, etc. To the customers, this is the headquarters of the business. That is where they expect to go to transact the necessary details of leaving their car and receiving a claim check; returning and paying for parking time and finally receiving the car. As in any business that caters to the public, it is very wise for the lot operator to attach great importance to the little things that attract attention. There are too many parking operators, real estate owners, contractors and builders that are practically willing to put up just any type of structure. It is usually a box or shed to house equipment and to provide bare shelter for the attendant.

The parking man's investment is in unimproved property (or rent) surfacing, lights and building (or booth). The booth is the only real improvement above the surface and hence visible to all. The difference between an attractive booth and a "shack" can be a coat of paint or at the most a few hundred dollars. It is not wise to pinch pennies when building the most important visual object on an open lot.

A study of the following factors

will be helpful when building a booth:

#### I. Location

1. Number of Entrances
2. Number of Exits
3. Flow of traffic
4. Visibility from street and of lot.
5. Control and movement of cars
6. Parking pattern
7. Importance of house signs.

#### II. Size

1. Size of lot
2. Number of men
3. Activity
4. Sign area needed  
Rates  
Local Assoc.  
stores, etc.
5. Equipment area needed.

#### III. Style

1. Importance
2. Neighborhood
3. Type of customers
4. Parking rates
5. Glass area
6. Color
7. Roof
8. Lighting
9. Floor
10. Insulation.

#### IV. Equipment (Space needed)

1. Time clock
2. Fire extinguisher
3. Forms and reports
4. Tickets
5. Heater
6. Extra lights (Spots)
7. Brooms, etc.
8. Chair
9. Telephone
10. Extra light circuits.

ATLANTA SURFACE PARKING





## TECHNICAL NEWS

### **ew members of producers' council**

ylon Corporation  
ilford, Massachusetts  
*Paul R. Herbert, Vice President*  
*National Representative*  
pendent Nail & Packing  
ompany

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idgewater, Massachusetts  
*Arthur S. Tisch*  
*National Representative*  
merican Art Metals Company  
3 Highland Avenue, NE  
lanta 12, Georgia

*Harry B. Neal, Marketing Mgr*  
*National Representative*  
onsanto Chemical Company—  
astic Div

ringfield 2, Massachusetts  
*Ralph F. Hansen, Mgr*  
*Market Development Dept*  
*National Representative*  
orton Door Closer Company

0 Tudor Road  
errien Springs, Michigan  
*V. E. Sheridan, Sales Mgr*  
*National Representative*  
are Laboratories, Inc.

0 Box 37, Riverside Station  
iami, Florida  
*Eugene C. Munro, Jr.*  
*Vice President—Sales*  
*National Representative*

iversal-Rundle Corporation  
0 Box 960  
ew Castle, Pa

*Quentin B. Garman, Director*  
*Advertising and Sales Promotion*  
*National Representative*

### **Committee appointments:**

William Robertson, Jr, AIA, of the New Jersey Chapter, succeeds C. Epple, AIA, as the Institute's representative on the National Fire Protection Association's Committee on Air Conditioning.

Herbert C. Elton, AIA, of Connecticut chapter, AIA, succeeds Theodore Irving Coe, FAIA, as the Institute's representative on American Standards Association's Construction Standards Board for a 2-year term beginning 1 January 1957.

C. E. Silling, FAIA, of West Virginia Chapter, AIA, succeeds M. Ed-

win Green, FAIA, as chairman of ASA Sectional Committee A62.

R. Gommel Rossner, AIA, of Central Texas Chapter, has been appointed Institute's representative on Standing Committee for Commercial Standard CS208-57, Standard Stock Wood Door and Window Frames.

Richard George Wheeler, AIA, of the San Diego Chapter, has been appointed the Institute's representative on the Standing Committee for Commercial Standard CS120, Standard Stock Ponderosa Pine Doors.

### **cold vapor heating**

The Armour Research Foundation has called attention to Cold Vapor Heating, in which a gas normally used as a refrigerant is piped through radiator coils in place of water providing a better method of warming up churches, and other buildings requiring only intermittent service, raising temperature in a large building, such as a church, as much as 34°F. in 1½ hours. The major difference from the usual hot water system is the substitution of "Freon-114" for water in heating coils and addition of a shell and tube heat exchanger to the normal coal, oil, or gas fired boiler.

### **look ma—no furnace!**

Electric heat has entered the lowly baseboard and offers competition with the well known coal bin, furnace, boiler, radiator, and sooty chimney.

Pushbutton and thermostatic control claim to simplify operation and provide any desired degree of temperature and comfort.

### **the deadly convalescent home**

The death toll continues as 15 of the 30 patients were killed and 6 patients and 4 attendants injured in the burning of a convalescent home in Council Bluffs, Iowa, February 13, 1957.

71 died in the destruction of a "Memorial" nursing home in Warrenton, Missouri on February 17, 1957.

These tragedies reveal all too

frequently the absence of essential protective measures in typical structures converted for the care of elderly and more or less helpless inmates, and inadequately adapted for such use.

Apathy of public officials and cries of expense on the part of those responsible for these death traps prevents the application of essential safety measures which are adequately spelled out in the Exits Code of the National Fire Protection Association.

### **weathering of porcelain enamels**

The National Bureau of Standards recently completed a 15-year weather exposure test of porcelain-enameled steels evaluated for architectural uses. The Bureau exposed a large number of samples to 4 climatic conditions representative of different parts of eastern US.

Results of study should enable enamel manufacturers to improve weather resistance of porcelain enamels, and be useful to architects in specifying best weather-resistant compositions.

Large variations were found in weather resistance of various enamel types investigated. Enamels affected least by exposure were those having high resistance to acid attack.

The most resistant enamels retained more than 90% of their initial gloss and showed insignificant color changes, whereas some enamels of poor acid resistance (which were not of a type recommended for outside exposure) changed from full gloss to a dull finish in 15 years. Application of porcelain enamels over a number of decades to architectural installations and advertising and street signs has provided a substantial backlog of experience.

However, further information regarding relative weather resistance of different types of enamel, and correlation of laboratory test results with performance data, were needed to facilitate selection of the most durable types for architectural use.

This study embraced 864 panels, 1' square, and an equal number of



4"x6" laboratory specimens prepared by 16 cooperating manufacturers, and included 14 types of enamels. Base metal was enameling iron.

After 15 years of exposure, where initial coverage on all parts of panel was complete no corrosion occurred, regardless of type of enamel.

On many panels where reverse side was protected with only a single ground coat application, good coverage was not always achieved, especially where specimens had rested on support points during firing. Corrosion started at these points of poor coverage and spalling of enamel on face side opposite these points occurred after corrosion had progressed only part way through steel. These spalled areas were more prevalent under corrosive salt air conditions of Atlantic City than at other locations.

While porcelain enamels are noted for ease of cleaning, differences in cleaning were noted. Surfaces of high acid resistance were easier to clean after 15 years exposure than those of poor acid resistance.

Semi-mat or satin-textured enamels showed about same cleaning behavior as glossy surfaces. None of the full-mat enamels could be cleaned satisfactorily, even by a vigorous and prolonged scouring treatment.

Changes in specular gloss and color measurements showed variations in climate had only a minor effect on weathering behavior of most enamels. Compositions highly resistant to attack by acid solutions were also resistant to action of weathering. A few red enamels were found to deviate from this relationship.

As weathering action is dependent upon moisture, surface deterioration would be expected to proceed at a slower rate in a dry climate than at Washington, DC, Lakeland, St. Louis, or Atlantic City, (test locations) whereas in an area of extremely heavy rainfall weathering action would undoubtedly be accelerated.

Based upon findings of this investigation the recommendation that may prove to be of greatest usefulness

for architectural specification purposes states that where general appearance, absence of fading, and ease of cleaning are important, only those enamels having Class A or Class AA acid resistance by "test of acid resistance of porcelain enamels; Part 1—Flatware, issued by the Porcelain Enamel Institute, Washington 6, DC," should be used.

### **schools**

The architect in planning a new school or renovating an old one has major responsibility of seeing to it that his plans provide adequate safeguards against fire and panic, as well as essential requirements for proper educational planning and structural adequacy. Parents are becoming more safety-minded and would prefer an unschooled child to a maimed one or one who died because of an unsafe school building.

Often on larger projects architects have assistance of educational consultants for instructional requirements and specialized engineers for design and mechanical services. But to the architect falls responsibility to accomplish a workable plan, good design, choice of materials, and suitable services while at same time providing construction, corridors, stairs, and exits that will best safeguard life from fire and panic. There should be no compromising minimum number of exits or travel distance to them—no compromising enclosure of stairways and other vertical openings to prevent passage of smoke and noxious gas from one floor to another. We need to remind ourselves that most codes set forth *minimum* requirements. Having incorporated basic elements for fire safety in plan, architect should explore desirability (in many cases, necessity) for following safeguards and such others as project warrants:

- 1 height limitations: not more than 2 stories, unless there are compelling circumstances
- 2 type of construction: fire-resistive is multi-story—fire-safe if 1 story
- 3 incinerator meeting ASA Standards and located in boiler room or separate fireproof room with suitable chimney and screen for daily burning of paper, or in lieu

- thereof, a fireproof room for burning and storage of waste paper.
- 4 vented fireproof room for storage of janitorial materials, paints and lubricants; also for hazardous instructional materials
- 5 Underwriters approved fire alarm system to be used for no other purpose than a signal to evacuate the building
- 6 each instructional shop so designed that it could burn without spreading fire to any other part of the school
- 7 gas services and connected equipment and appliances installed in accordance with American Gas Association regulations and pertinent national fire codes.
- 8 electric services and connected equipment installed in accordance with National Electric Code
- 9 school stage presents special hazard—consider overhead venting and automatic sprinklers—use non-combustible curtains and draperies where practicable—otherwise, flameproof
- 10 wall and ceiling finishes having low flame spread ratings—should there be fire, spread will be less rapid and so not deter firemen unduly in gaining early control. Where combustible materials are used, apply against non-combustible surface so as to prevent flame spread across back of material
- 11 make suitable provisions for locating and recessing for proper type fire extinguishers throughout building (Piping and garden hose type with controllable nozzles are effective in combating fire)
- 12 consultation with the local fire department officials regarding provisions for standpipes and fire department connections
- 13 storage rooms for furniture and many miscellaneous items that get into schools and "have to be saved." They too should be designed so as to burn without spreading fire to other parts of building—vents to these should be of appropriate size—consider sprinklers
- 14 avoidance of slippery flooring materials—stair treads and nosings should be non-slip



provision of automatic emergency lighting system for corridors, auditorium, exits, boiler room, and natatorium window guards, if provided, that are readily opened from inside in event of emergency automatic sprinkler systems or fire detection and alarm system where special occupancies or construction warrants heating plant in separate building or separated from school by adequate fire-resistive construction and protected door opening smoke vent in each room of especially hazardous occupancy provision of fire dampers in ventilating ducts where necessary no wholly enclosed courts in multi-storied schools liquefied petroleum services, connected equipment and appliances to conform with national fire codes easily accessible locations and prominently tagged shut-off valves on gas and fuel oil service lines near point of entry to building

#### **Acceptability of products Federal housing administration**

(See previous lists in AIA Bulletin: Jan-Feb 1955:8 — Mar-Apr 1955:60 — July-Aug 1955:124 — Sept-Oct 1955:151—Jan-Feb 1956: — July-Aug 1956:125 — Nov-Dec 1956:183)

H Perimsul"

Baldwin-Hill Company  
satti "Plaster"

Busatti Corporation

Paco Plastic Flashing

Dillard Paper Company

Old Bond 1/4" Shadow Siding  
(tempered Hardboard)

Old Bond 1/4" or 5/16" Tempered  
Hardboard Siding

National Gypsum Company

Transite Building Sewer Pipe

Johns-Manville Sales Corporation

#### **Shop fabricated wood frame unit construction**

Supplement to engineering bulletin  
no SE-194—dated 13 July 1955

Carol Sanford

Fort Lauderdale, Florida

Engineering bulletin no SE-211—

dated 7 January 1957

De-Rite Homes Corporation

Columbus 7, Ohio

engineering bulletin no SE-212—

dated 9 January 1957

Richmond Homes, Inc.

Richmond, Indiana

engineering bulletin no SE-213—

dated 13 February 1957

Mission Homes, Inc.

Missoula, Montana

engineering bulletin no SE-216—

(supersedes engineering bulletin no

SE-191—dated 27 January 1955)

Empire Homes, Inc.

Beech and Woodland Sts

Louisville 11, Kentucky

engineering bulletin no SE-217—

Dargan Lumber Manufacturing Co.,  
Inc.

Conway, South Carolina

engineering bulletin no SE-218—

(supersedes engineering bulletin no

SE-166—dated 17 March 1952)

Midwest Houses, Inc.

PO Box 334

Mansfield, Ohio

engineering bulletin no SE-214—

(supersedes engineering bulletin no

SE-122—dated 8 July 1949)

Pease Woodwork Co, Inc

900 Forest Ave

Hamilton, Ohio

supplement to engineering bulletin

no SE-174—dated 2 June 1953

The Thyer Manufacturing Corpora-  
tion

2857 Wayne St

Toledo 9, Ohio

supplement to engineering bulletin  
no SE-182—dated 25 June 1954

Inland Homes Corporation

501 South College St

Piqua, Ohio

supplement to engineering bulletin

no SE-206—dated 16 April 1956

United States Steel Homes, Inc

Charlestown Road

New Albany, Indiana

supplement to engineering bulletin

no SE-194—dated 13 July 1955

A. Carl Sanford

308 NW 7th Avenue

Fort Lauderdale, Florida

supplement to engineering bulletin

no SE-214—dated 27 March 1957

Pease Woodwork Co, Inc

900 Forest Ave

Hamilton, Ohio

supplement to engineering bulletin

no SE-149—dated 5 October 1950

American Houses, Inc

S Aubrey and East South Sts

Allentown, Pa

supplement to engineering bulletin

no SE-212—dated 9 January 1957

Richmond Homes, Inc

Richmond, Indiana

supplement to engineering bulletin

no SE-218—dated 28 March 1957

Midwest Houses, Inc.

Mansfield, Ohio

#### **precast concrete floor and roof units**

engineering bulletin no SE-215

(supersedes engineering bulletin no

SE-127—dated 6 October 1949)

The Flexicore Co, Inc

1932 East Monument Ave

Dayton 1, Ohio

#### **shop fabricated vertical plank wall construction**

supplement to engineering bulletin

no SE-159—dated 10 May 1951

Loxide Structures

9004 South 19th St

Tacoma 6, Washington

index of materials releases (including

former limitation sheets and condi-

tions of acceptances)—15 February

1957

#### **nail-glued plywood gusset trussed rafters**

materials release no 146a—22 March  
1957

Place Enterprises, Inc

South Bend, Indiana

#### **gold bond 1/4" shadow siding (tempered hardboard)**

#### **gold bond 1/4" or 5/16" temp- ered hardboard siding**

materials release no 149—6 March  
1957

National Gypsum Co

325 Delaware Ave

Buffalo 2, NY

#### **transite building sewer pipe**

materials release no 151—8 March,  
1957

Johns-Manville Sales Corporation

22 East 40th St

New York 16, NY

#### **A—"dubl-coverage tite-on" as- phalt roofing shingle**

materials release no 152—12 March  
1957

The Ruberoid Co

500 Fifth Ave

New York 36, NY

#### **B—"dubl-coverage tite-lok" as- phalt roofing shingle**

materials release no 152—12 March  
1957

The Old American Roofing Mills



*Division of The Ruberoid Co*  
500 Fifth Ave  
New York 36, NY

**special interior paints**  
materials release no 153—15 April 1957

(cancels MR: no 18—4 March 1955;  
no 64—6 Sept 1955; no 69—4  
Oct 1955)

**bird "king tab architect" asphalt shingle**

materials release no 154—1 May 1957

*Bird and Son, Inc*  
East Walpole, Mass

**USM mineral fiber perimeter insulation**

materials release no 156—8 May 1957

*United States Mineral Wool Co*  
Stanhope, NJ

**US plywood corp roof deck**

materials release no 158—14 May 1957

*US Plywood Corp*  
55 W 44th St  
New York 36, NY

**bird wind seal shingle**

materials release no 159—14 May 1957

*Bird and Son, Inc*  
East Walpole, Mass

**best-tex parquet oak flooring**

materials release no 160—27 May 1957

*Jones-Stephens Lumber Co*  
Henderson, Texas

**styrofoam 22**

materials release no 161—15 May 1957

*Dow Chemical Co*  
Midland, Michigan

**kwik korner klip**  
(formerly called backstop)

materials release no 103a—3 June 1957 (superseding no 103—23 April 1956)

*G. R. Chisholm*  
10021 Halls Ferry Rd  
St Louis 21, Missouri

**masonite duowall system with adjust-a-bilt accessories**

materials release no 155—26 June 1957

*Masonite Corporation*  
111 West Washington St  
Chicago 2, Illinois

**flexcell perimeter insulation**

Materials release no 162—15 June 1957

*The Celotex Corporation*  
120 S LaSalle St  
Chicago 3 Illinois

**american expansion regulator model no 1000**

materials release no 163—21 June 1957

*American Tube Products, Inc*  
100 Pulaski St  
West Warwick, Rhode Island

**"super siding"**

**8, 10, 12 & 16 inch wide rabbeted beveled siding**

materials release no 164—26 June 1957

*Diamond Lumber Company*  
323 Pittock Block  
Portland 5, Oregon

**A—ruberoid self-sealing asphalt shingles**

**B—old american self-sealing asphalt shingles**

materials release no 165—27 June 1957

*A—The Ruberoid Company*  
500 5th Ave  
New York 36, NY

*B—The Old American Roofing M*  
Division of The Ruberoid Co  
500 5th Ave

New York 36, NY

**fiberglas perma-ply (ply she**

**fiberglas base sheet (base she**

**fiberglas combination sh**

**(base sheet for wood deck)**

materials release no 166—28 June 1957

*Owens-Corning Fiberglas Corp*  
Toledo 1, Ohio

**glue-laminated 2 x 4 inch lumber**

materials release no 167—11 June 1957

*Western Pine Association*  
7733 SE 13th Ave  
Portland 2, Oregon

**national shake panel**

materials release no 157—3 June 1957

*National Building Materials Co,*  
555 Hackensack Ave  
North Hackensack, New Jersey

**styrofoam 22**

**styrofoam 33**

materials release no 19a—2 June 1957 (supersedes no 19—7 March 1955)

*The Dow Chemical Company*  
Plastics Department  
Midland, Michigan

## TECHNICAL BIBLIOGRAPHY

322

Following are available from Superintendent of Documents, Government Printing Office, Washington 25, DC. (stamps not accepted)

**WARM-AIR FURNACES** Equipped with Pressure-Atomizing or Rotary Type Oil Burners, Commercial Standard CS195-57 (supersedes CS-195-54).

US Department of Commerce,  
5¾ x 9, 35p, 15¢

Applies to warm-air furnaces equipped with pressure-atomizing or rotary-type oil burners which are marketed by the manufacturers as furnace-burner units. Covers both gravity and forced-air furnaces, but does not apply to floor furnaces or to any furnaces furnished without burners. Also covers only furnaces installed at clearances from combustible materials as specified in National Building Code.

**PIPES, DUCTS, AND FITTINGS** Warm-Air Heating and Air-Conditioning Systems, Simplified Practice Recommendation R207-56 (supersedes R207-54)

US Department of Commerce  
5¾ x 9, 16p, 10¢

Establishes a Standard of practice production, distribution, and use kinds and sizes of prefabricated pipes, ducts, and fittings for wa

Continued on page 326



# GRID LINES

## MODULAR COORDINATION BEGINS WITH THE ARCHITECT

*Modular Measure was the main theme of the 1957 Convention and Annual Meeting of the Ontario Association of Architects, held in February in Toronto. Panel Chairman*

*was S. A. Gitterman, Central Mortgage & Housing Corporation; speakers were architects C. E. Silling, FAIA, Charleston, West Virginia and Frank J. Bull, Atlanta, Georgia, and gen-*

*eral contractor James E. Coombs, Morgantown, West Virginia. Excerpts of conference proceedings commenced in the July "Grid Lines," and are concluded in this issue.*

### ADDRESS BY

E. SILLING, FAIA

In my view, today's architect must be a businessman, as well as a professional and an artist. I think Modular Measure is a business aid that offers larger professional opportunities to the architect as an artist. I think its use:

*shortens production period for superior working drawings*

*develops clarity of exposition*

*increases our professional stature among builders*

*urnishes a larger part of our performance time bracket for design considerations*

*urnishes a larger profit, if our fees are adequate*

I contend that more prosperous architects should produce a better product—a superior architec-

ture. I think Modular Measure lends further credence to such an opportunity. Since 1946, I have practised under these contentions in my own office, have collected added profits and shared them with our men.

It is possible that those of other customs and habits may not feel the urge to adopt Modular Measure. Under the timing factor in today's American construction sequence, there is the necessity for a compelling architectural intrigue to gain (1) a quiet time to think and plan; (2) quality, quantity, economy, order and speed in constructing our buildings. Among architects and builders, these factors encourage the use of Modular Measure.

Because it is apropos, I will repeat what Professor Bannister of Illinois has said: "If the practice of architecture is to become a true pro-

fession, practitioners themselves must assume a major part of the responsibility to disseminate the results of their experience. Like physicians and engineers, they must become aware that the profession will grow in technical competence only so fast as individual members feel it a duty to report their hard-won knowledge. The rate of technical growth could be multiplied to an infinite degree through such enlightened collaboration."

It is in this spirit that we talk to you today of Modular Measure. It is more than a method. Its philosophy, broadly applied, directs our present jungle of conflicting construction technologies to a clear plateau of Order, Coherence and Consistency. For those with the competence to perceive, there is also the opportunity for Beauty.

### ADDRESS BY

JAMES E. COOMBS, AGC

Modular dimensioning, stand- seek to reduce the waste in- tent in actual manufacturing at job site, by changing the build- process to an assembly line at site of finished products largely ufactured elsewhere and shipped he building site for installation. The facts that I have related have been attested to by gen- contractors throughout the ed States. I'm sure that you have

all heard and read their statements which are so enthusiastic about Modular Measure—how easy it is to understand, its efficiency, its economy—and, I have yet to hear one contractor who is familiar with the system that does not vouch for it. In my discussion, I have mainly outlined the benefits of Modular dimensioning as they apply to the masonry field. I have done this because, first, I feel that Modular Measure is absolutely fundamental to the masonry field, and also be-

cause a large part of our experience has been with so many masonry buildings. We must remember that these benefits apply to all building materials, and particularly to such items as roof deck, precast concrete, metal partitions, sash and doors, frames, siding, and practically every other major component that goes into a building. Manufacturers in all lines of building products are swinging more to Modular because—

- It allows them to carry a reduced inventory of materials, since they



can reduce the number of sizes carried;

- It simplifies their manufacturing process, since they do not have so many sizes to make; and
- They find that they have fewer complaints from the field because their materials are fitting better.

These are only a few of the reasons why the manufacturers are swinging so much more to Modular, and I'm sure that there are many other and varied reasons.

In the medical school building at West Virginia University, which I mentioned previously, we installed over 3 million separate masonry units, including 1½ million units of facing tile. The architect's working drawings were Modular throughout without exception, and all drawings, except details, were on a 1/16" scale. Even though this was a complex building, with many small and special-sized rooms, we experienced no difficulty whatsoever with the small-scaled Modular drawings, and

**ADDRESS BY  
FRANK J. BULL**

At present, we have a school building just coming out of the ground. It is on a mountain site in northern Georgia, and the facing material is to be native mountain stone. There is a crew out on the mountain slopes right now collecting that stone, and I give you my word, it is not a Modular material. The drawings are Modular, however, and the stone is given a reference to a gridline.

This particular school will illustrate another point made earlier—that cardinal principle of recognizing the limitation of the tool. We will have an octagonal library wing that will be covered with a folded concrete slab, with its ridges and valleys radiating from the center point. At the center of roof slab, there will be a stained-glass skylight. This is obviously no place for Modular Measure. So, at a particular place on the plans, we have a very obvious note saying everything west of this line is Modular, everything east is actual. We simply came to a place where one particular tool was no longer useful and it was not a strait jacket for design. I must stress the fact

I am firmly convinced that, without Modular drawings, it would have been extremely difficult to build with 1/16" prints to work from.

Modular Measure is a great stride forward for the architect, the manufacturer, and the contractor. It represents, on the part of the architect, not only the vision, but the practical approach so necessary in the buildings of today—and tomorrow. To the manufacturers, it represents a simplified approach to the problems of production, inventory and distribution. The contractor can point with pride to the structures erected under the Modular system as lasting tributes to that which is finest and best in this very important phase of the building industry.

While more and more in the construction industry are switching to Modular all the time, many are still unconvinced. I suppose that men throughout history have been afraid of the new. Thousands of years ago, men probably said the

that this is not what is called a half-Modular job. The part that is Modular is 100% so. The part that is not Modular is 100% non-Modular, and there is no attempt or mistake of mixing the two.

We have learned to use two types of modules. One is a 4" cube. This is chiefly a tool of the operations that follow *after* design. The other kind of module is a planning or design module. This one is generally used as a two-dimensional unit. The size is coordinated with the 4" module by accepting an even multiple of 4 inches. That means a design module of something like 3'-4", 4'-0" or 8'-0".

The design module is variable from job to job. It is chosen to meet program and design requirements with only one limitation—that it be a multiple of 4 inches. With it, the designer works to ready reference points. Insofar as it suits his design, he locates the features of the building, interior partitions, windows, window mullions, doors and so on, in some uniform way with respect to his design module. If this much is an imposition on design freedom, it may be warranted even for aesthetic

wheel would never work. A generation ago, some men said the automobile would never replace the horse and buggy. Some fifteen years ago, men said the atom could not be split. If it had not been for men of the world who dreamed or studied, new ways of doing things and after realizing their advantages, adopted them for use, and I would still probably be bumping around on a square or octagonal wheel. Let's not be willing that the construction industry should bump along on an old, difficult, out-dated way of doing things. Let us all support to the utmost any research that will further the trend established by Modular Measure.

Our joint and concentrated efforts in support of Modular Measure can, and must, constitute a strong bid on the part of the construction industry in competition with other industries for the consumer's dollar.

Be modern. Go Modular.

reasons. The discipline of a design rhythm has been recognized through architectural history.

But the important thing is the design, through its coordination with the 4" (cube—the square bubble) detailing module has accommodated the detail requirements that the development of the working drawings will not serve to deteriorate the design.

If there is concern that the module is going to be the control hand in the planning or the ultimate aesthetics of your work, let me say to you immediately at ease. The expectation that Modular will cause design to become something automatic is incorrect. It may be either a disappointment or a pleasant surprise depending on the viewpoint and style of the designer. Modular Measure is to be used as an aid, but it cannot relieve you of the responsibility of what you create—either good or bad.

I am asked, "What is the effect of Modular Measure on design?" Well, what is the effect of tracing paper on design? Modular Measure is an aid to the architect in the same way that tracing paper is an aid—properly used, it makes things easier to do



# MODULAR COORDINATION IN BUILDING

European Productivity Agency of  
The Organization for European Economic Cooperation  
Paris: 1956

The following review was prepared by Professor Stanley R. Kent of the School of Architecture, University of Toronto. Professor Kent is serving the Division of Building Research, National Research Council, as a special consultant, concentrating at present on Modular Measure studies, and thus assisting with the Division's constant concern with economy in building.

For many years, European architects and builders have been trying out systems for coordinating the dimensions of building materials, without being able to develop a method with international acceptance. In 1953, therefore, the United Kingdom initiated a project through the European Productivity Agency of the Organization for European Economic Cooperation to consider modular coordination in building.

Experts from eleven countries—Austria, Belgium, Denmark, France, Germany, Greece, Italy, Netherlands, Norway, Sweden and the United Kingdom, with Canada and the United States observing, met to pool their information and consider this subject. The project undertaken was divided into two phases. In the first phase, theories were discussed and a method for coordination was proposed. In the second phase, to be completed by 1958, buildings are to be erected in each country, according to the proposed method.

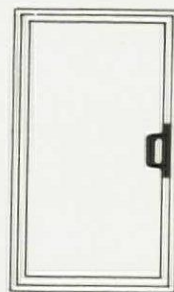
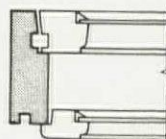
In August 1956, the results of the first phase of studies by EPA Project No. 174 were published in the report, "Modular Coordination in Building." This publication explains, with text and diagrams, the Modular Systems considered by the experts, and the proposed method of carrying out the second phase. It is divided into three main sections—Design, Manufacture and Buildings—and has appendices which give details of building product sizes and Modular Systems now in use.

The first section, on design, describes the reference grid which was agreed to be at 4-inch centers in foot-inch countries, and 10 centimeters in meter countries; the methods by which building components are sized by a system of correlated numbers, or selected numbers; and the use of a module. This section concludes with resolutions that, in phase II, the participating countries should work toward the establish-

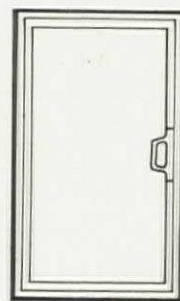
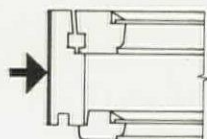
ment of a single module, with particular consideration of a 4-inch or 10-centimeter size, or single fractions of it, and also preferred multiples of the modules.

In the section on manufacture, building components are separated into sections, i.e., bars, tubes, lumber, etc.; units, such as brick, block, tile, etc.; and assemblies, such as windows, cabinets and furnishings. An analysis of existing sizes is made

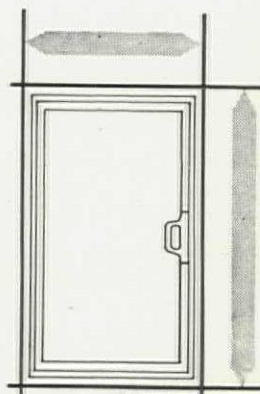
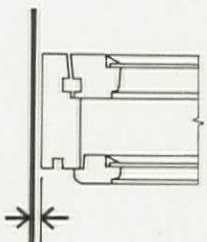
A modular component has two major attributes:



Its profile is designed to be co-ordinated with other modular components



Its dimensions are derived from its modular dimensions



The illustration is based on a standard Norwegian window



and consideration of their joining or placing within a structure is explained. (A plate illustrating window placement is reproduced on this page.) The section on *buildings* describes the practical use of gridlines and the location of components relative to the gridline.

The volume is valuable in demonstrating that Modular Coordination is now a world-wide activity, worthy of consideration by the whole

building industry as a means to create better, more economical structures that are truly products of industrialization. It also shows that the use of a small Modular grid of 4" is a generally accepted basis for (dimensional) coordination.

This is the first time that the problems involved in sizing building materials, and the systems by which coordination has been proposed, have been clearly stated and com-

pared, and an attempt made to utilize the best features in each. This volume, therefore, is the best textbook on Modular Coordination yet published. But it must receive the thorough analytical study of a text and is not to be read lightly. Skimming may leave the erroneous impression that Modular Coordination is complicated, and thereby discourage the reader from giving further consideration to the system.

## TECHNICAL BIBLIOGRAPHY

(continued from page 322)

air heating and air-conditioning systems.

**AUTOMATIC MECHANICAL-DRAFT OIL BURNERS** Designed for Domestic Installations, Commercial Standard CS75-56 (supersedes CS75-42)

US Department of Commerce, 5 3/4 x 9, 24p, 15¢

Establishes minimum standard specifications and methods of test for automatic mechanical-draft oil burners. Methods of Testing Small Fire Extinguishers BMS Report 150

US DEPARTMENT OF COMMERCE, National Bureau of Standards. 1957.

8 x 10 1/4, 9p, 15¢

A study of methods of testing small hand-portable fire extinguishers considered suitable for application to flammable liquids.

**METAL LATH** (Expanded and Sheet) and Metal Plastering Accessories. Simplified Practice Recommendation R3-57 (supersedes R3-52)

US Department of Commerce, 1957, 5 3/4 x 9, 10p, 10¢

Establishes varieties, weights, and sizes of metal lath and accessories considered adequate for interior plastering.

### PAMPHLETS

#### key

b—bibliography	p—plans & details
d—diagrams	s—sketches
g—graphs & charts	t—tables
m—maps	v—photoviews

Following May 1957 editions of NFPA Standards are available from The National Fire Protection Association, 60 Batterymarch St, Boston 10, Mass.

**NFPA 10 Standard for the Installation, Maintenance and Use of Portable Fire Extinguishers**

78p, 60¢ (all pamphlets are 4 3/4 x 7 1/4)

**NFPA 12 Standard for Carbon Dioxide Extinguishing Systems**

64p, 50¢

**NFPA 15 Standard for Water Spray Systems for Fire Protection**

51p, 50¢

**NFPA 31 Standard for the Installation of Oil Burning Equipment**

64p, 60¢

**NFPA 58 Standard for the Storage and Handling of Liquefied Petroleum Gases**

80p, 50¢

**NFPA 71 Standard for the Installation, Maintenance and Use of Central Station Protective Signalling Systems for Watchman, Fire Alarm and Supervisory Service**

28p, 50¢

**NFPA 72 Standard for the Installation, Maintenance and Use of Proprietary Auxiliary, Remote Station and Local Protective Signaling Systems for Watchman, Fire Alarm and Supervisory Service**

40p, 50¢

**NFPA 78 Code for Protection Against Lighting**

46p, 50¢

**NFPA 90A Standard for the Installation of Air Conditioning and Ventilating Systems of Other Than Residence Type**

24p, 50¢

**NFPA 101 Building Exits Code (14th Edition)** (supersedes 13th

Edition, 1956, and NFPA Standard on Existing Nursing, Convalescent and Old Age Homes, No 101-1955, and Standards on Classification of Interior Finish, No 101-1955 and 1956.)

4 3/4 x 7 1/4, 256p, \$1.50

**NFPA 211 Standard for Chimney Flues and Vents**

15p, 50¢

**NFPA 565 Standard for Nonflammable Medical Gas Systems**

16p, 50¢

**American Standard Basis for the Coordination of Dimensions of Building Materials and Equipment A62.1—1957**

American Standards Association, 70 East 45th St, New York 17, NY, 8 1/2 x 11, 6p, 35¢

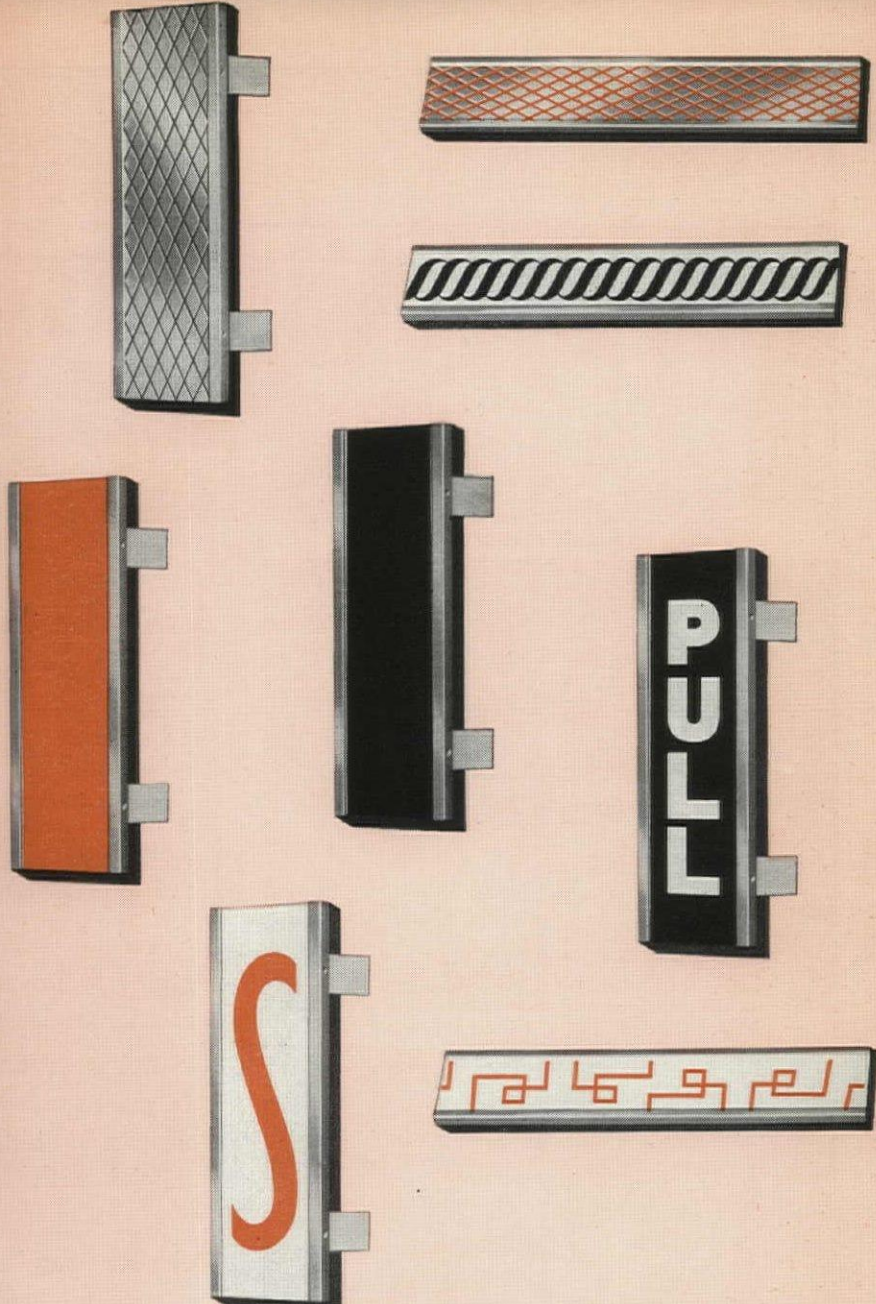
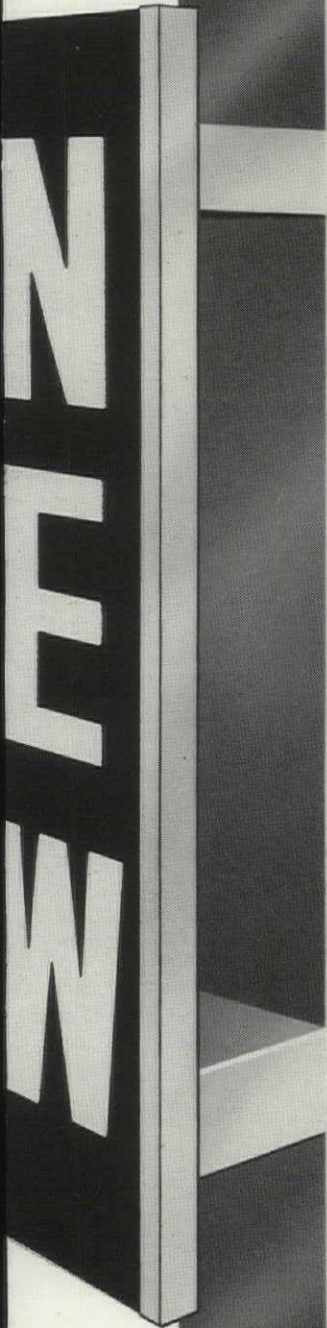
A revision of A62.1—1945 establishes the basis for the coordination of dimensions of building materials and equipment, and the basis for the correlation of building plans with such dimensions.

**ASTM Standards for Highway Construction, Waterproofing, and Roofing (with Related Information)**

American Society for Testing Materials, 1916 Race St, Philadelphia 3, Pa, April 1957, 6 x 9, 44p, \$4.75

A compilation of the various ASTM Standards, Specifications, test methods, recommended practices, and definitions of terms pertaining to tuminous materials used in highway construction and in waterproofing and roofing; also includes Standards covering creosote materials.





## AMARLITE *Insert* HARDWARE

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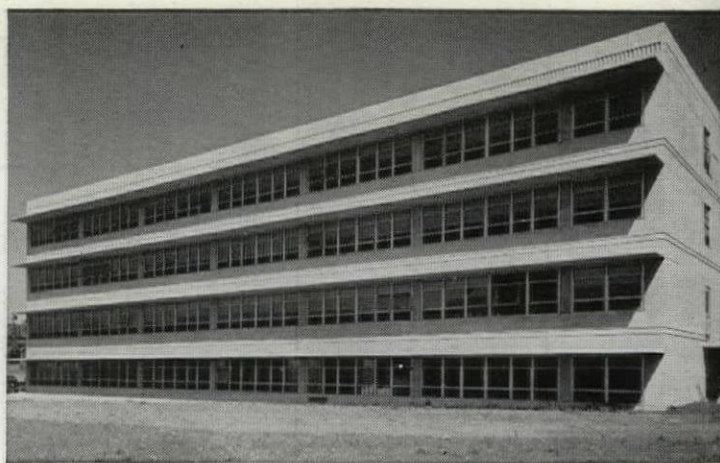
Just out is the new brochure on Amarlite Insert Hardware — illustrations, details and full information. If you haven't received your copy, drop a card to American Art Metals Company, Dept. JA, 433 Highland Ave., N. E., Atlanta, Georgia.







WATER WORKS, PINE BLUFF, ARK.



HOSPITAL, WILMINGTON, OHIO



ELEMENTARY SCHOOL, MINNEAPOLIS, MINN.



CITY HALL, STILLWATER, OKLA.



PARKING GARAGE, TYLER, TEX.



FIRE STATION, OMAHA, NEB.

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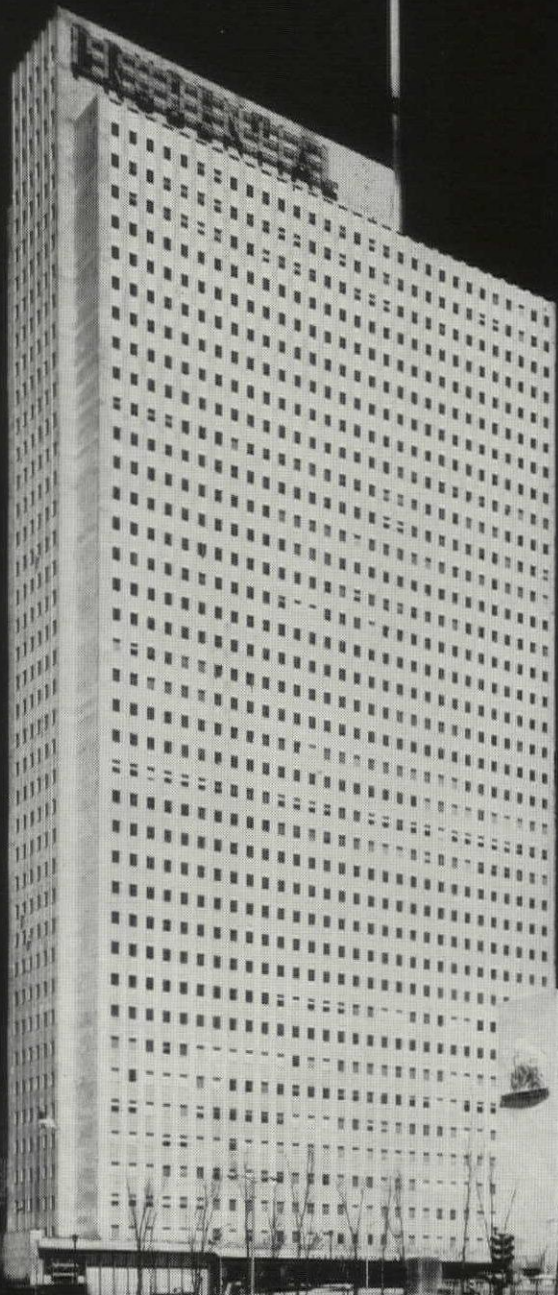
Our technical staff will gladly help you obtain the structural and economical advantages of concrete. Free literature, distributed only in the U.S. and Canada, is also available on request.

### **PORTLAND CEMENT ASSOCIATION**

Dept. A9-68, 33 West Grand Avenue, Chicago 10, Illinois

A national organization to improve and extend the uses of portland cement concrete . . . through scientific research and engineering field work





FROM INDIANA-  
“the strength  
of Gibraltar”

Like the famous landmark of their slogan, the crisp new Chicago office building of the Prudential Insurance Company of America will owe much of its durability to limestone — limestone from the quarries of Indiana.

And there's more than new buildings coming from the Hoosier state's bustling limestone pits. Watch the skyline for new developments, too. Like the new insulated curtain wall panels — all are now gaining popularity because of their relatively light weight, speed and simplicity of erection. Both the Indiana Limestone industry and members of the architectural profession are today discovering new potentials in this time proven, building material.

*Architects Naess & Murphy  
Chicago, Illinois*



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*Founded 1932 as a service organization for the architect and contractor.*

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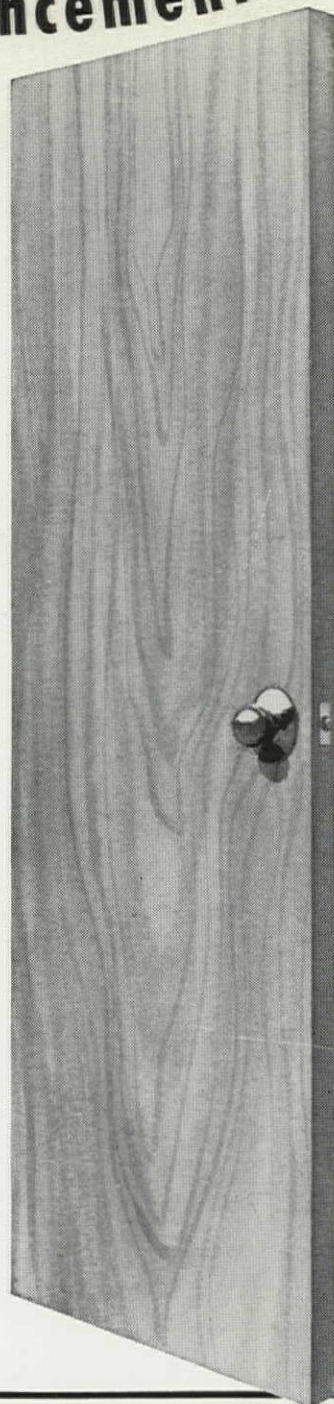


# SUPER SATIN SURFACE

. . . the new microseal surface-treating process that gives REZO doors a finish so satin smooth you'll hardly believe your fingertips as you feel it!

Paine REZO Super Satin Surface Doors are now available factory-treated with this new Super Microseal process. This amazing new process uses special equipment to apply a precision-controlled, penetrating solution of additives which is followed by the application of heat and pressure. By "fusing" the wood lignin and additives, the result is a Super Microsealed door surface that resists soiling . . . prevents grain and fiber raising . . . has a uniform surface texture that is hand rubbed in appearance . . . enhances the natural beauty of the wood, and should a higher gloss be required, it takes paste wax, penetrating stain, varnish, lacquer, or paint with *better results* than you've ever known before. It's a fact—words cannot describe the difference this new process makes. You have to feel it yourself to believe it! Write for full details of the Paine REZO "Triple S" Doors today.

\* Trademarks "Super Satin Surface" and "Triple S" or "SSS" — Use licensed on products having a Super-sealed or Super Microsealed surface that satisfies the quality standards of the trademark owner.

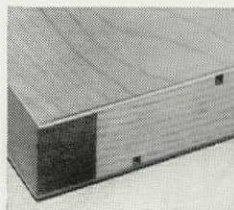


*America's finest flush doors are Rezo doors with all wood grid core*

and they are made only by

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Below are two of many reasons why Paine REZO Doors, with air-vented, all-wood grid core, are America's finest doors for residential or institutional installation.



Air vents in Rezo Doors help equalize moisture content inside.



Rezo's all wood grid core assures rigidity, strength, light weight.



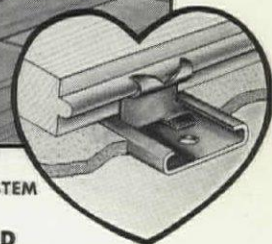
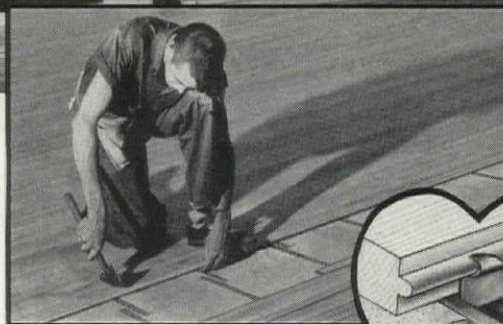
The ALEXANDER MEMORIAL CENTER  
 at GEORGIA TECH used the  
**LOXIT FLOOR-LAYING SYSTEM**  
 for both the tournament arena and the practice gymnasium



Architects: Aeck Associates, Atlanta, Ga.  
 Floor Contractor: Southeastern Flooring Company, Atlanta, Ga.  
 Director of Athletics: Bobby Dadd

The new \$1,500,000 mushroom-shaped Alexander Memorial Physical Education Center at Georgia Institute of Technology, Atlanta, Georgia, which opened its doors on November 30, 1956, for the Georgia Tech-Duke basketball game, provided a dramatic example of the Loxit Floor Laying System. The auditorium floor "in the round" has 14,000 square feet of  $2\frac{3}{4}$ " x  $1\frac{1}{2}$ " northern hard maple flooring with all the beauty, permanence, simplicity of maintenance and economy that only the Loxit Floor Laying System makes possible. This simple, practical, mechanical system solves all the problems of wood floors laid on concrete slabs. The flooring is laid in the same way that a nailed floor would be laid, but instead of using nails to fasten the flooring, a cleverly designed metal clip is used in combination with a metal channel. The clips are slotted to adjust themselves automatically to the tongue and groove of the flooring. Loxit-laid floors COST NO MORE—usually less than conventional type nailed floors. Ask the architects, the contractors and the owners who have had experience with Loxit-laid floors, many of which have been giving fine service for more than 15 years.

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| 2 Positive end match protection   | 9 No wood sleepers                                       |
| 3 Expansion limited (no expansion joints needed)                          | 10 No wood subfloor                                      |
| 4 Floor can be laid tight and stays tight                                 | 11 Simple slab construction (no inserts)                 |
| 5 Eliminates squeaks  | 12 Only light grouting required — $\frac{3}{16}$ " thick |
| 6 Total thickness (using $2\frac{3}{4}$ " flooring) only $1\frac{1}{8}$ " | 13 Easy to lay—no special tools necessary                |
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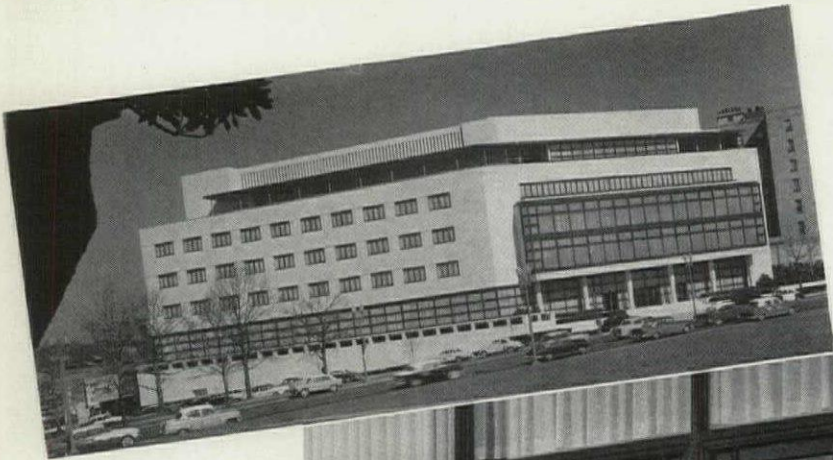


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Washington, D. C.

ARCHITECT:

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\* THE NATIONAL SAFETY NEWS lists 28 locations where Conductive Flooring is needed.



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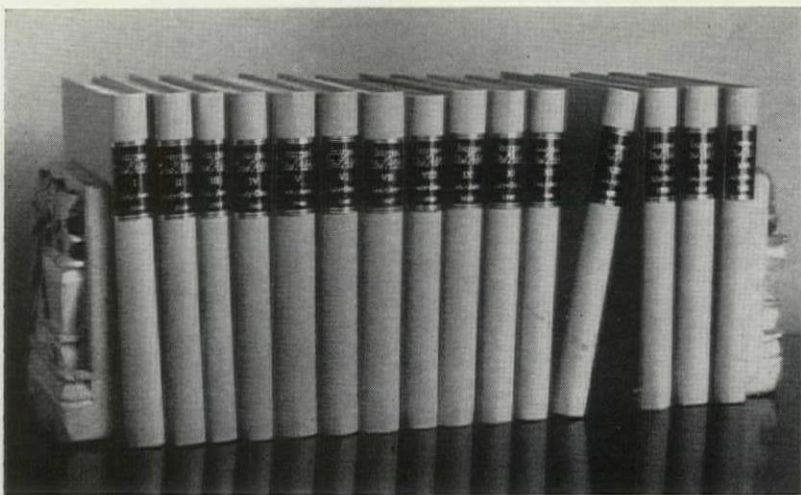


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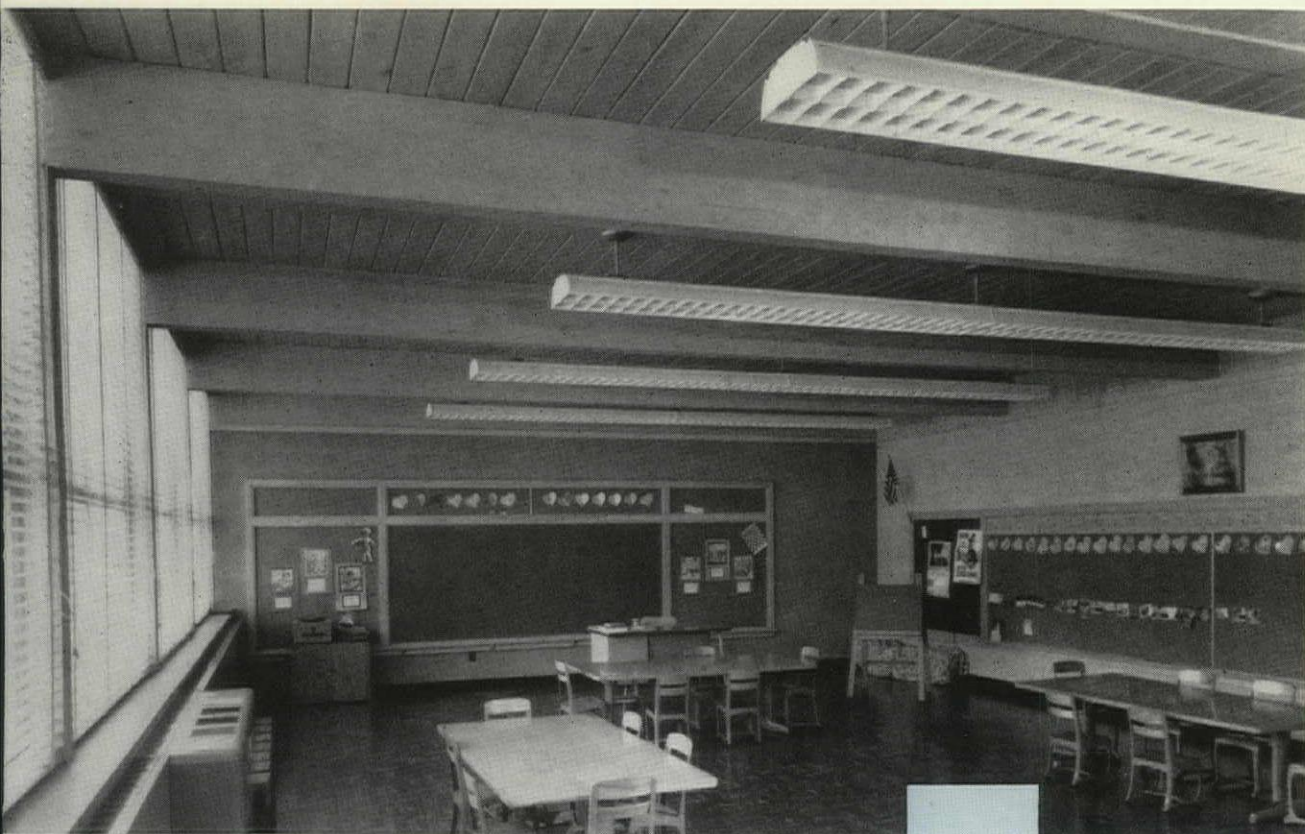
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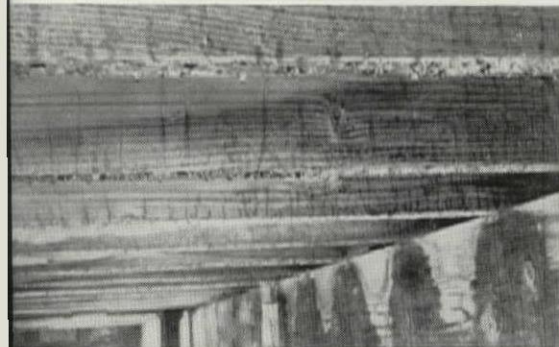
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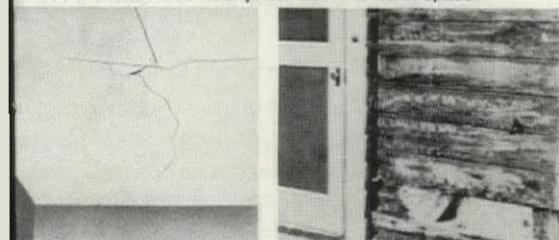
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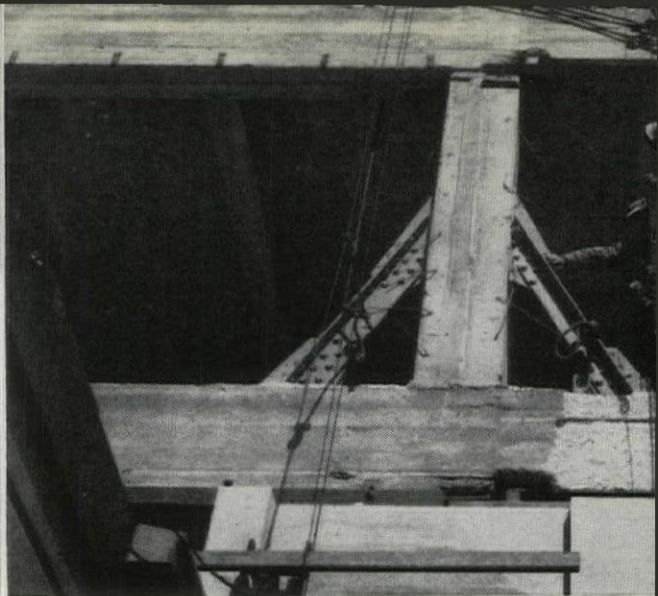
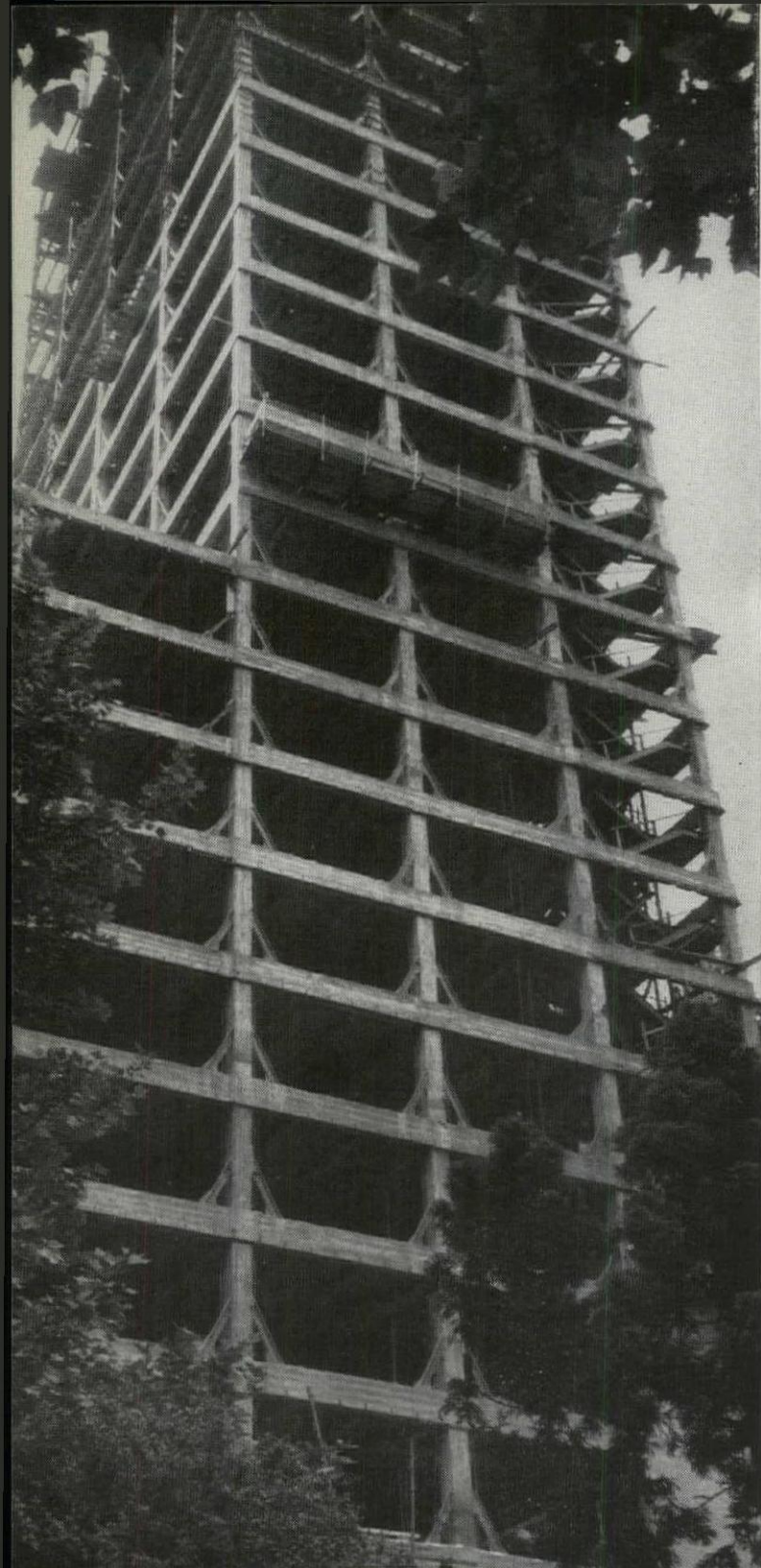
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## *knee braces* help carry wind loads on 27-story skyscraper

STEEL KNEE BRACES along exterior walls and in interior walls carry a substantial share of the wind load on the 27-story Canada House, a new office building in New York City.

Limited by architectural and mechanical considerations to shallow 14-in. steel floor beams which are incapable of carrying the load through ordinary connections, designers turned to knee braces to support the walls. The braces were angled steeply at the junctions of spandrel beams and columns to prevent interference with windows.

The building has setbacks at two levels. Shear loads from the upper portions of the building is transferred to the outer columns of the lower portion by horizontal bracing in the floors at these levels.

American Bridge fabricated and erected 2,300 tons of structural steel for the framework of this massive building which measures 100' x 120'. Field connections were made with high-strength and ordinary bolts.

Canada House is the most recent of many outstanding steel frame buildings erected in the heart of New York City by American Bridge. If your plans call for new construction in congested areas, let us put our specialized experience to work for you.

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