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March 1960

Journal

OF THE AMERICAN INSTITUTE OF ARCHITECTS



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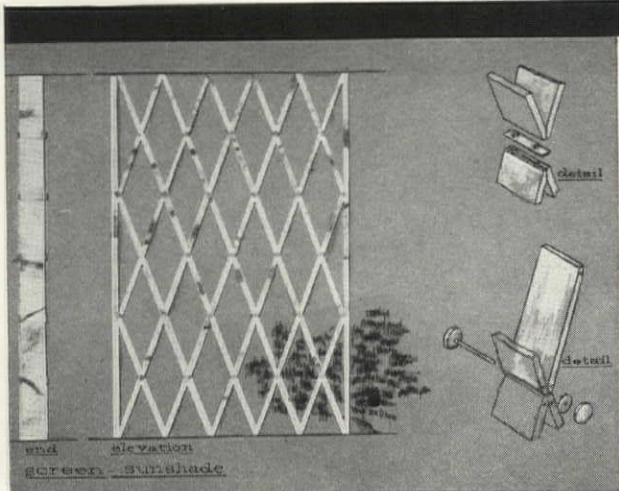


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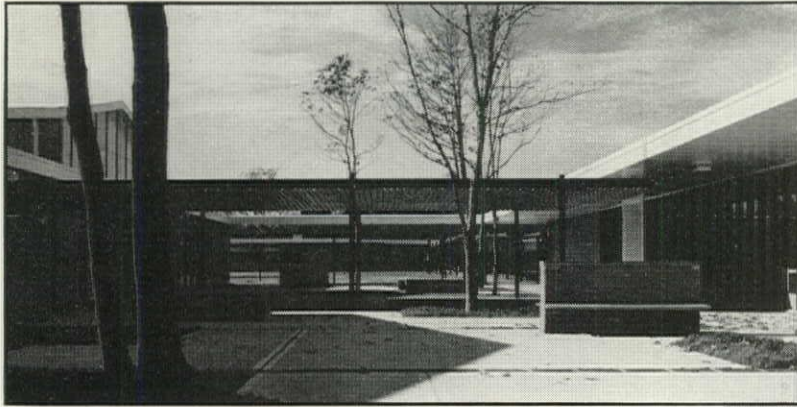
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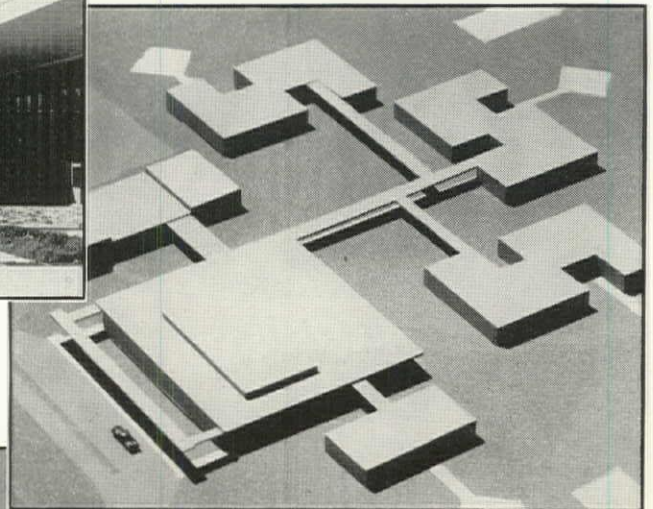
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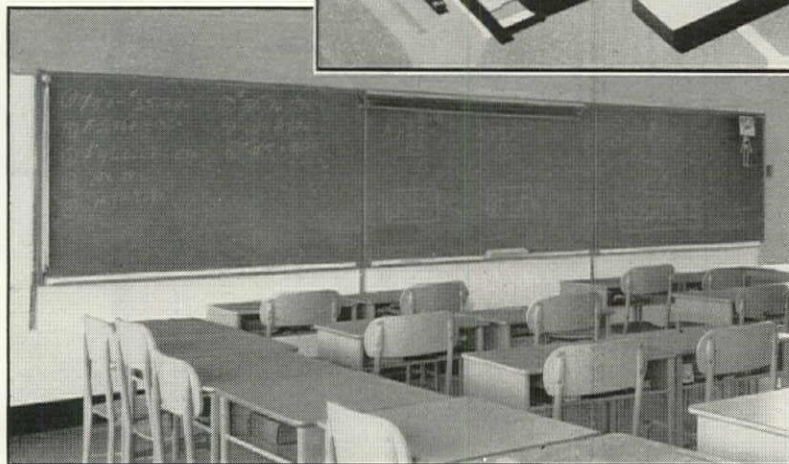
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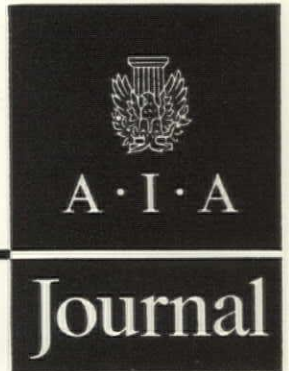
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THE COVER

Designed by Wolf Von Eckardt with a generous assist from art assistant Marilyn Smoot, the cover symbolizes modern travel accommodations discussed on page 73.



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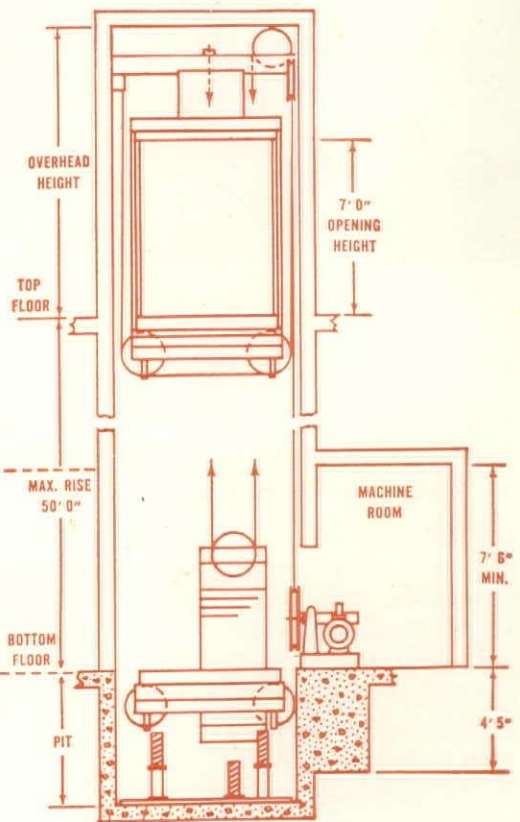
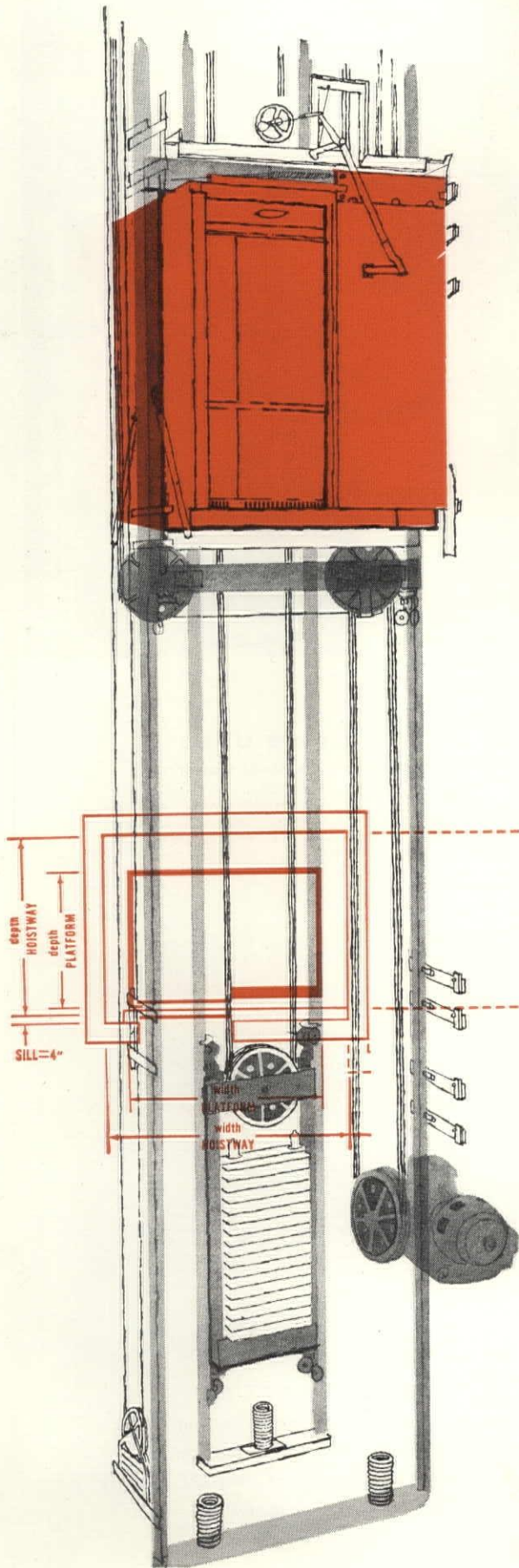
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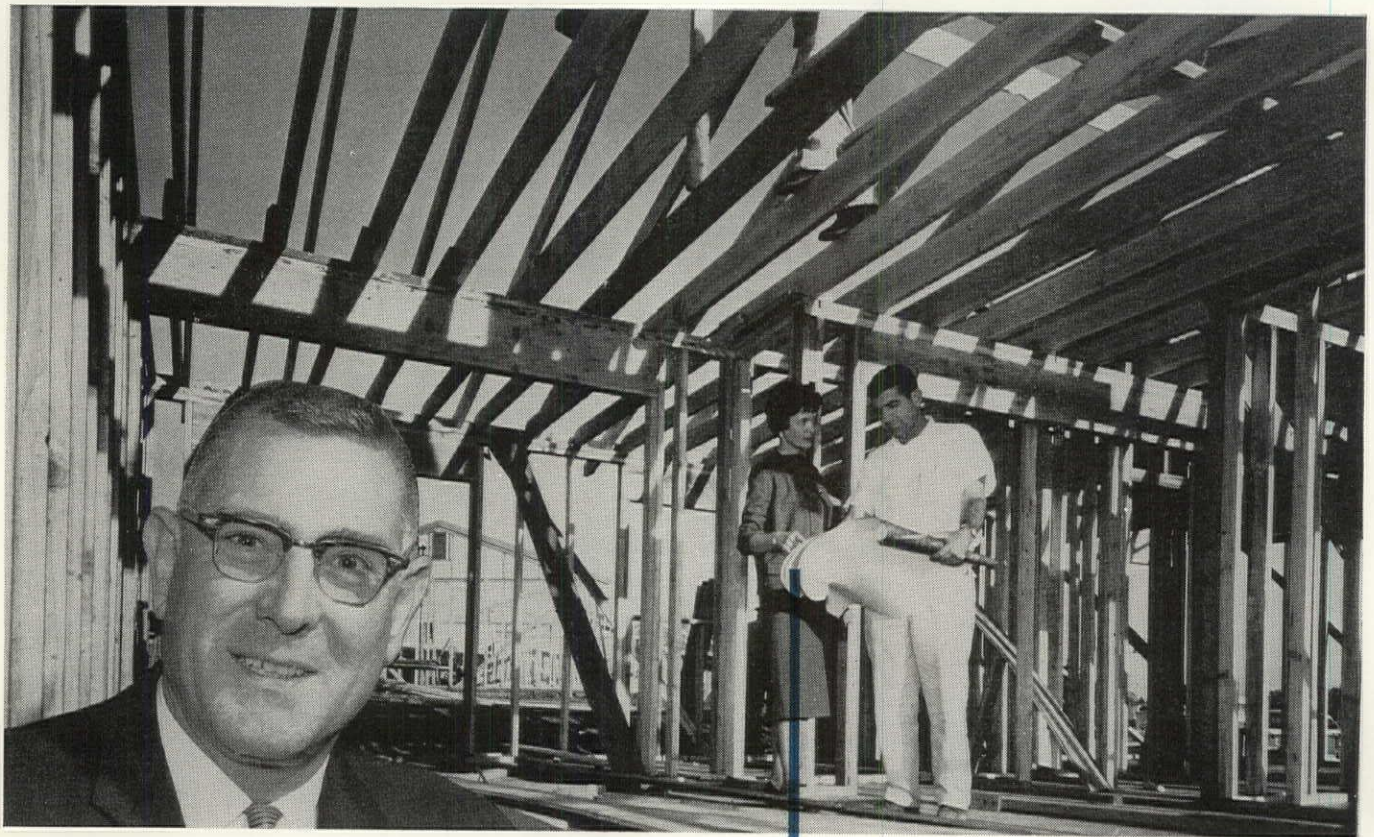


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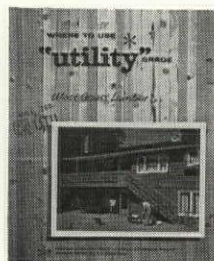
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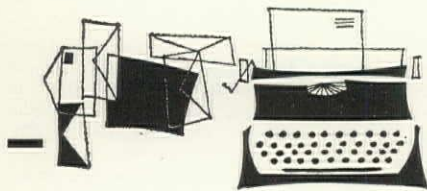
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More on Architectural Education

EDITOR, *Journal of the AIA*:

In contrast to Mr Adams we feel that there is no growing concern with the inadequacies of architectural education. From experience in the classroom we know that there is no educational system which can completely suffocate the outstanding instructor, nor is there any pattern of curriculum yet developed which could effectively make up for the lack of inspiration of the classroom teacher. This fact being generally understood by everybody in education, there is more concern about the teaching talent we can secure, than the actual pattern of education as expressed by our curriculums. The validity of this approach is born out by a comparison of the work of students in various schools operating under seemingly opposite philosophies.

The architectural profession in the meanwhile is receiving the uniform products of the schools, graduates more or less talented; some who believe in their superior talent, some who are disillusioned, more ready to make adjustments and to subject themselves to the will of a principal but at the same time hardly inspired. The profession has made its adjustment to this available new blood and there is no real pressure from the practicing architects for any definite change in the curriculum.

It is this total satisfaction with the overall pattern which raises in our minds the question as to how close we are approaching now in our universities an educational ideal. The current architectural curriculum can be divided into four groups of subjects: (1) The general education and humanity courses. (2) The courses on engineering and building techniques. (3) The courses on architectural history. (4) The creative design courses. Of the four groups three within themselves follow a strict and well thought out sequence, but alas how are the different groups thrown together in a curriculum? Not as if we would be the first ones to think about this, for what else would have started people to think of "integrated" courses for the past decade? The trouble is, that the standard curriculum acts still on the basic architectural philosophy of eclecticism where the architect was kind of an exterior decorator who concerned himself with the sub-surface of a building only in a secondary way. Obviously the design of beams was secondary to a good overall scheme. Today's architectural philosophy asks for a total unified approach, where no detail can be completely subjected to the overall scheme. Thus a whole series of technical courses have to precede or at least to run in a coordinated manner with the creative design courses. This need is subconsciously recognized by the architectural schools when bringing in special design instructors for design rejuvenating

crash programs, but the curriculum is not yet allowed to reflect it. The reason for this delay is inherent in the tremendous effort involved in accelerating the technical courses on one hand and the fear that this accelerated technical program without the relief of the creative play periods of early design courses would discourage many a gifted student. Inspiration and discipline have to be kept in balance in any educational pattern to bring the maximum effort for advancement into play. Yet can we rightly claim that the students least capable of discipline and concentration are such gifted students whose departure from the field would be such a severe loss to the future of architecture. Truly we have to be careful in making clear the need for all these disciplines to the students, when we demand them. Yet architectural philosophy to be effective, should be more an orientation, a freshman course with considerable emphasis on the psychology of creativity, an introduction to the self-education that has to follow. It is the university that has to launch the architect on his career of self-education for the rest of his life, and the sooner the student is made conscious of the need for self-education that much the better. It is in these early years of architectural training where the habit for research has to be trained by going through a critical study of building types without simultaneously demanding design application of a functional understanding barely gained. This general research of building types is to familiarize the student with what are considered adequate standards of performance in the profession and at the same time provide a common architectural experience for a group of young men most of whom have never seen in the flesh a building which can be considered great architecture.

Knowledge develops in definite sequences of penetration into the unknown and organized education has to respect these sequences. The most important rule is: never to demand the practice of a knowledge not yet taught. How can we even suggest the use of beams in designs at a time when the students have no understanding of how they work. If we force them to use elements they do not understand, we are forcing them to depend on their instinct. Architecture is always a conscious if not a laborious effort of creation; to imply to students that they can and should depend on their instinct is irresponsible. If they fail to develop conscious creative processes they will not be able to create when they finally are forced to produce under really normal conditions.

Besides the cardinal sin of current curriculum of not respecting the most important prerequisite sequence of structure before design the general education and the architectural history groups of subjects are not ideally handled either.

(Continued on page 10)



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LETTERS

There are but few schools which offer serious general education courses designed to absorb the interest of an intelligent student introducing them to the best of creative thought of the various fields of human effort. Most general education courses are taught by second-rate teachers or teachers who have no love for students not majoring in their own field. In this manner general education courses are only a drag on the energy and vitality of the students who can gain no real inspiration from them.

Neither are the courses on the history of architecture a source of inspiration to many students. Slides of pompous buildings clog the slide collections of most architectural schools. One symmetrical design after the other hits the screen of the lecture room and even with the neoclassicism of Ed Stone flourishing, the student collects a sense of futility: is all this ever going to be applicable to his problems where the diversity of function will ask more for dynamic than symmetrical massing of his buildings? Indeed the wealth of past experience of dynamic compositions is practically denied to the student and even if an instructor would want to show this type of material he surely would have a time finding it. So far has the misconception of identifying architecture with only the symmetrical and monumental spread that even members of the idealistic teaching profession like Mr Adams feel, that many, or may be most of the building projects do not give an opportunity to practice architecture.

Yes if one wants to, one can have a growing concern about the inadequacies of architectural education. These inadequacies however are not a matter of additional options and courses, examinations and review board, but a matter of some serious study of the prerequisite system and of the total contents of the curriculum.

G. P. KELETI
Kansas City, Mo.

EDITOR, *Journal of the AIA*:

James Adams is to be commended for his significant and provocative piece on architecture and architectural education. He hits the nail on the head in saying we need to widen the meaning of the word architecture; also, "Ninety per cent of our architectural problems could be solved better, in every respect, if we as a profession, would solve the problem on the basis of the limitations of that problem without trying to inject in it art content. . . ."

As a profession, we don't seem to realize how close we may be to losing control of an even larger share of the total volume of building construction. A few unforeseen developments in building technology could make this possibility shockingly apparent. A reversal of this trend must start with architectural education; few practicing architects are ready to make fundamental changes in their professional habits. Some real soul searching will be required in the schools.

WILLIAM LYMAN, AIA
Birmingham, Michigan

The Guggenheim Again

EDITOR, *Journal of the AIA*:

Your observations on the Guggenheim are the most interesting I've seen, and I've seen many.

Isn't it interesting that all of the others I have read were supposedly written for the layman while yours is written for the professional audience; yet I, a layman, find yours interesting and penetrating. And lest you think this is a backhanded compliment, let me say that I suspect strongly that your professional audience will enjoy it more than I and will find it even more enlightening than I do.

C. B. LARRABEE
Director of Publications
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Mr Bumgardner—Thanks and Apologies

EDITOR, *Journal of the AIA*:

I am very pleased with your "Portfolio of Homes" as appears in the January *Journal*. Would you please send me three copies of this special supplement, billing me for postage or any charges.

I am chagrined, however, that my name was misspelled "Baumgardner" throughout the article and listing. Be that as it may, the presentation, both graphically and literally, was first-rate.

A. O. BUMGARDNER, AIA
Seattle, Washington

Another Book Lover

EDITOR, *Journal of the AIA*:

For some time I have been meaning to advise you of the immense interest Mrs Rible and I had in your issue on "Books." The assembly of material and the excellence of the articles, headed particularly by your "Old Love" was significantly outstanding. Congratulations.

ULYSSES FLOYD RIBLE, FAIA
Los Angeles, California

We Take A Bow

EDITOR, *Journal of the AIA*:

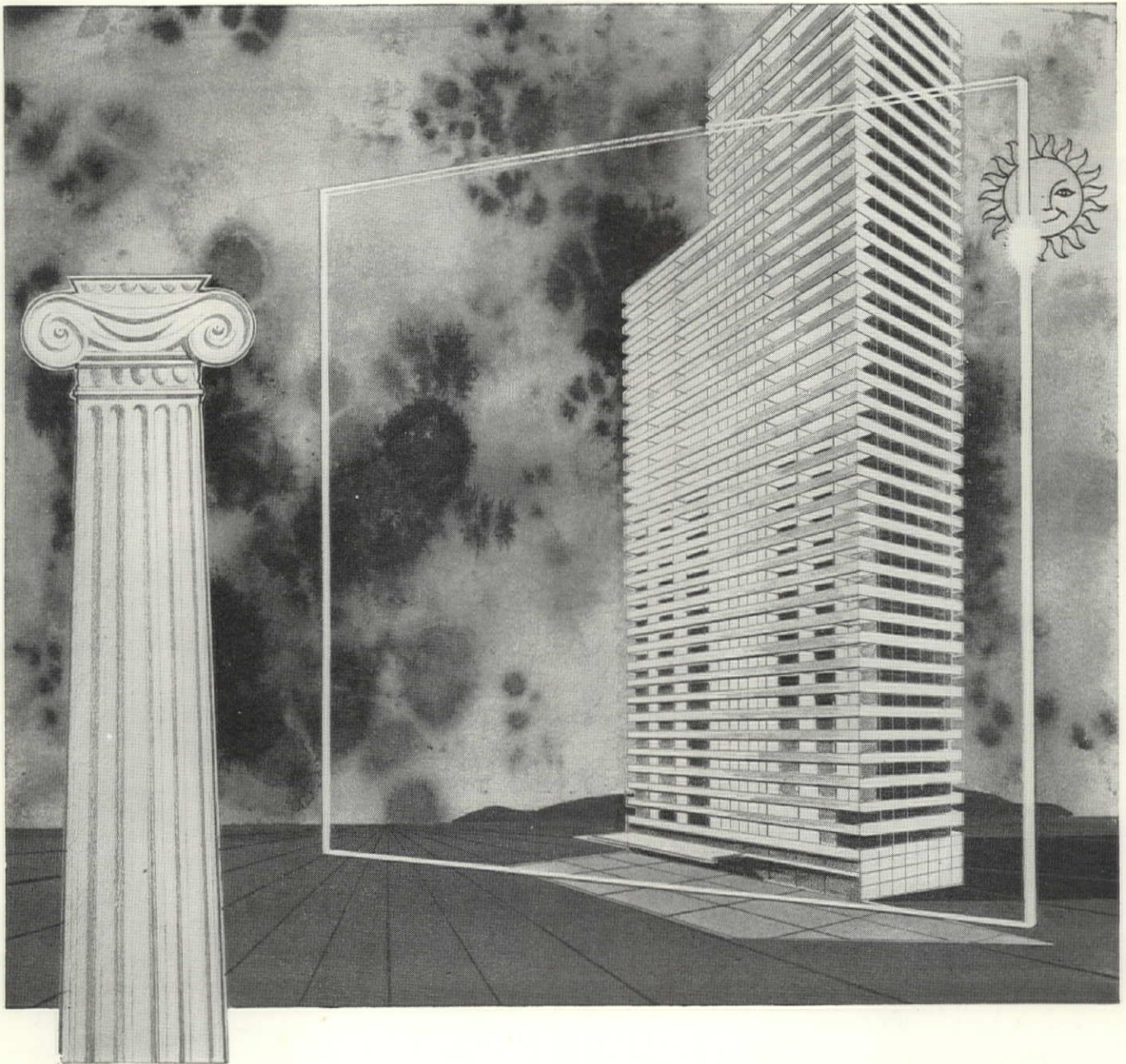
Congratulations to you for the excellent January, 1960 *Journal*, entitled—"The Architect and the Home Builder."

This is another "first" for the *Journal*, being the first one in my memory of any Institute publication which has been devoted to the Home Building Industry.

I am going to Chicago to attend the NAHB Convention on Wednesday and Thursday of this week, and I am sure that I will receive many good comments about the January *Journal*.

As I travel around the country, I receive a great many comments, commending AIA's *Journal*.

JOHN NOBLE RICHARDS, FAIA
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LETTERS

EDITOR, *Journal of the AIA*:

Your letter of January 8 has been received including the recent *AIA Journal* and I don't blame you for being proud of it. I have been through the *Journal* and think it is very valuable to the home builder and developer. It will greatly help in our area, as we now have a Planning, Zoning, and Building Code Commission for our County which is Kanawha. Charleston, of course, is located in Kanawha County. I am privileged to be the only builder and developer on this Commission of fifteen members.

I hope this is not a burden when I ask for 14 copies of this *Journal* for the Home Builders Association of Charleston and also the Kanawha County Planning & Zoning Commission. These copies will be greatly appreciated.

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EDITOR, *Journal of the AIA*:

The January issue of the *AIA Journal* deserves a gold medal for editorial and artistic excellence.

Speaking as a layman with an interest in architecture, I profoundly believe the January issue is the most exciting issue, not only because of the excellent material but because of the superb layout.

JOSEPH H. SINGER
Reynolds Metals Company

EDITOR, *Journal of the AIA*:

The January issue of the *AIA Journal* covered the Architect-Homebuilder dilemma in excellent manner. Please forward five copies for distribution to the officers of the Tucson Homebuilder's Association. Check for \$2.50 is inclosed.

CARL LEMAR JOHN, AIA
Chairman, Home Building Industry Committee
Southern Arizona Chapter

EDITOR, *Journal of the AIA*:

Your January issue has made the rounds of the School and has been admired by all hands. Why don't you put us on your mailing list so that it can add class to our magazine display, most of which are house organs? It's a fine example of a well-designed specialty magazine. We admire particularly your layout and production and your effective and economical use of color.

RAYMOND F. BOSWORTH
Head, School of Publications
Simmons College

EDITOR, *Journal of the AIA*:

I would appreciate receiving an additional copy of the last issue of the *Journal*.

This issue was of such great interest to someone that it has disappeared from my desk before I had a chance to complete my reading.

A replacement—please.

CARL E. HEIMBRODT, AIA
Western Springs, Illinois

YALE FORESTRY LABORATORY

built with
INSULATED
WALL
PANELS
of

Mo-Sai®

Paul Rudolph, chairman of the Department of Architecture at Yale, turned his talents to the design of a unique new building for his own campus: the new laboratory for the School of Forestry. The design harmonizes with the steep wooded slope of the surrounding terrain.

For the exterior walls, Architect Rudolph chose versatile Mo-Sai, with an exposed white and buff quartz aggregate surface. The Mo-Sai facing is backed up with 5" of lightweight insulating concrete, making a six-inch-thick panel. Supporting precast concrete "Y" columns and sunscreen were also products of the Mo-Sai manufacturer.

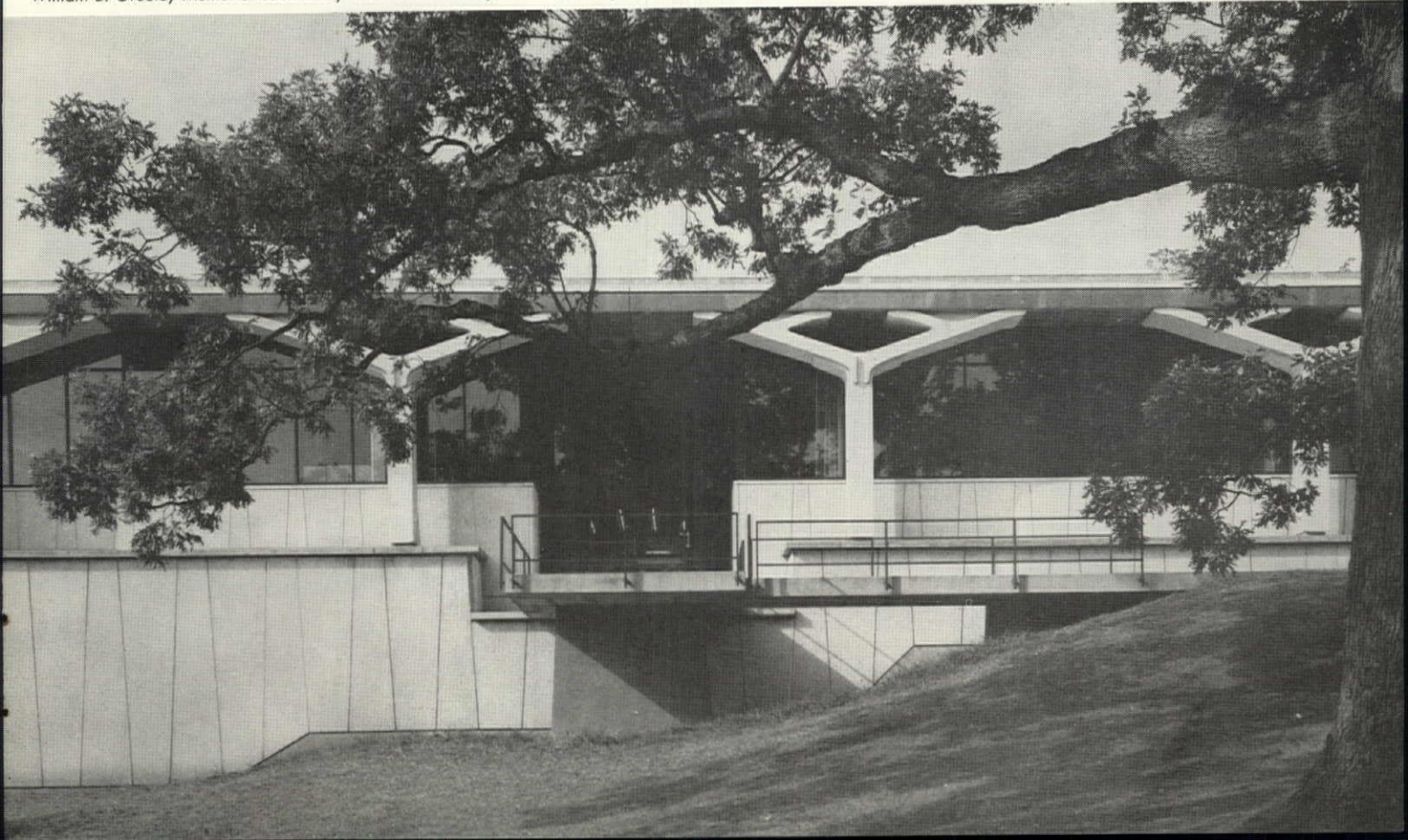


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William B. Greeley Memorial Laboratory School of Forestry, Yale University Architect: Paul Rudolph

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NEWS

Scholarships and Fellowships

The University of Michigan, Department of Architecture, has announced scholarships and fellowships for 1960-61 totaling more than \$7,000. Included are teaching and traveling fellowships. Application forms may be obtained by writing Chairman, Department of Architecture, The University of Michigan, Ann Arbor, Michigan. Applications must be completed and returned by April 1.

Harvard University, Graduate School of Design, has announced more than thirteen scholarships and fellowships for 1960-61, including the Wheelwright Fellowship which carries a stipend of more than \$6,000 this year. This scholarship is awarded annually to a graduate of Harvard University who holds either the B. Arch or M. Arch degree and is tenable for a year for travel and study abroad. Nominations for this award are accepted from the profession at large as well as prospective candidates who are eligible. Complete information may be obtained by writing Committee on Scholarships and Awards, Harvard Graduate School of Design, Robinson Hall, Cambridge, Mass. ◀

Church Designs

Architects are invited to supply design panels of churches and related structures for exhibit in the Hall of Church Designs at the Church Design and Building Conference and Exposition to be held April 19-21 at the Morrison Hotel in Chicago. This is not a contest, and no awards will be made. For details, rules and instructions, write to the Rev. T. V. L. Harvey, Church Design and Building Conference, 19 South LaSalle St., Chicago 3, Ill. ◀

Institute Receives Portrait

A portrait of Louis Skidmore, FAIA, 1957 Gold Medal winner, has been presented to the Institute by the firm of Skidmore, Owings & Merrill. The portrait of the renowned architect was painted by the American artist Gardner Cox in Winter Haven, Florida, where Mr. Skidmore now lives in retirement. The firm that bears his name is known for such buildings as Lever House and the new Air Force Academy. ◀



AIA President John Noble Richards (right) and Louis Skidmore with new addition to the Institute's gallery of paintings.

The F. Stuart Fitzpatrick Memorial Award

Five leading industry associations have joined in the establishment of an F. Stuart Fitzpatrick Memorial Award to be given annually in honor of the late building industry pioneer for "outstanding individual achievement in the unification of the building industry."

Mr Fitzpatrick, for twenty-five years the manager of the construction and civic development department of the United States Chamber of Commerce, died in 1956 after long and brilliant personal leadership in unifying the diverse elements of the building industry. Among his achievements was a pioneering role in the founding and growth of the Building Research Institute of the National Academy of Sciences.

Sponsors of the F. Stuart Fitzpatrick Memorial Awards are the American Institute of Architects, the Building Research Institute, the Producers' Council, the Associated General Contractors, and the National Association of Home Builders. Individuals named to represent the sponsoring groups and serve as advisors to the fund trustee, named as the Union Trust Co. of Washington, are:

Leon Chatelain, Jr, FAIA, past president of AIA; Edmund Claxton, vice president of the Armstrong Cork Co., and past president of BRI; William Gillett, vice president of Fenestra, Inc, and past president of the Producers' Council; Welton A. Snow, manager of the building division of AGC; and John M. Dickerman, vice president of NAHB.

Mr Chatelain, chairman of the advisory group, announced that proceeds of the fund, solicited from within the building industry by Douglas Whitlock, chairman of the Board of the Structural Clay Products Institute, will be used to make an award annually to the American "who best typifies the spirit, vigor, and accomplishment which the building industry recognized in the late F. Stuart Fitzpatrick."

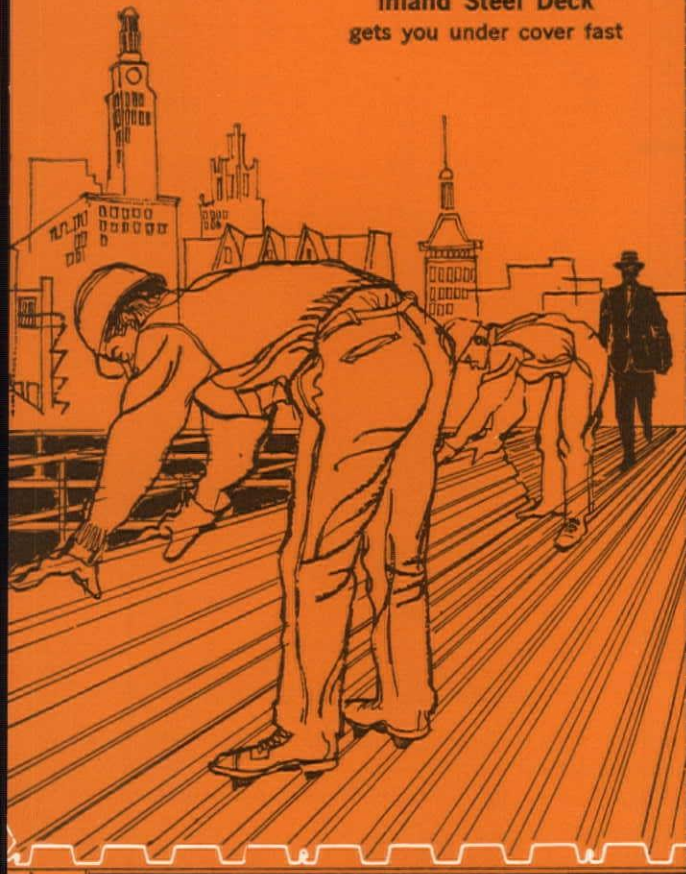
Mr Chatelain said an awards board of five persons chosen from the participating organizations will select a recipient for the award. ◀

Church Architecture Conference

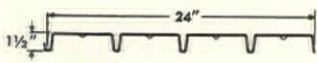
The 1960 Conference on Church Architecture, sponsored jointly by the Church Architectural Guild of America and the Department of Church Building of the National Council of the Churches of Christ in the USA, will be held at the Hotel Leamington in Minneapolis, Minn., on May 3, 4 and 5. The theme of the Conference will be "The Modern Church—Its Purpose and Its Architectural Challenge." Winning designs in the annual competition of church architecture will be exhibited, and there will be a number of seminars and panel sessions. Further information may be obtained from the Church Architectural Guild of America, 1346 Connecticut Avenue, Washington 6, D. C. ◀

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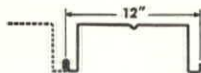
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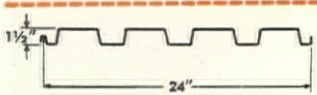
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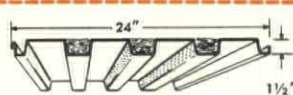
A-DECK — For purlin spacings not exceeding 8'4". Narrow ribs provide deck surface that supports the thinnest or softest types of insulation.



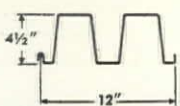
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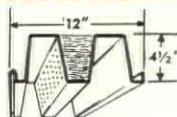
B-DECK — For spans to 10'0". Wide rib distributes metal for greater structural efficiency. Well suited for use as side wall panels.



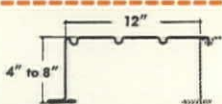
B-ACOUSTIDECK — Two-in-one panel combines steel roof deck with acoustical ceiling having Noise-Reduction Coefficient of .70. Used for spans to 10'0".



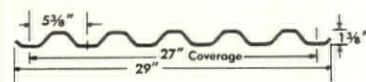
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Northeast Texas Chapter Gives Awards

Buildings designed by three Northeast Texas architectural firms took top honors in the First Annual Awards Program of the Northeast Texas Chapter early in December.

First place award went to the firm of Smith and Holmes of Tyler, Texas, and Ed J. Romieniec, associated architect, for their Wyatt Building in Stillwater, Oklahoma. Awards of Merit and Commendation went to the firms of Wilson, Morris, Crain and Anderson, and to E. Davis Wilcox Associates. The jury was composed of Don E. Jarvis, of the Dallas firm of Fisher and Jarvis; J. Victor Neuhas, III, of Neuhas and Taylor, Houston; and James C. Morehead, Jr, Head of the Department of Architecture, The Rice Institute, Houston. ◀

Summer School at Fontainebleau

An advanced summer school for practicing American artists has been announced by the School of Fine Arts, Fontainebleau, France. Classes will be held July to September. In addition to a staff of architects, there will be visiting critics and lecturers on architectural city planning plus exclusive field trips. A special package deal that includes tuition, room and board for nine weeks and round trip chartered TWA plane fare is available for \$885. Seven scholarships for architecture are available. Additional information may be obtained by writing Mrs Myra Davis, Executive Secretary, American Office, Fontainebleau Schools, 122 E. 58th St., New York 22, N.Y. ◀

Honors

Charles R. Colbert, AIA, senior partner of Colbert and Lowrey and Associates, New Orleans architectural design and city planning firm, has been appointed dean of the Columbia University School of Architecture. Mr Colbert will assume his duties on April 1st.

Two projects designed by Vincent G. Kling, AIA, were named winners in *Institutions* magazine's 1959 Interiors Award Program. They are the Medical Science Building of Lankenau Hospital and the Savarin Restaurant in Penn Center, both in Philadelphia.

Milton D. Osborne, AIA, head of the Department of Architecture at Pennsylvania State University, was conferred the honorary degree of Doctor of Laws by the University of Manitoba on November 6. Professor Osborne has been an Institute member since 1926, and has served on national committees, including the Judiciary Committee of which he was chairman.

Richard J. Neutra, FAIA, of Los Angeles, has been made Honorary President of the Architects' Association of Buenos Aires. The American architect has been invited several times to lecture at the university there speaking to audiences as large as two thousand. ◀



When the North Central States District held their regional conference in Milwaukee late last year, the entire city knew about it, thanks to a blazing electric sign atop city hall.

Historic Markers in New York

Placement of the first fifty "landmark" plaques on New York buildings of historical or architectural distinction has been completed by the New York Community Trust.

Sites to which plaques have been affixed by the Trust have been nominated by the Municipal Art Society with the advice of the Society of Architectural Historians. Inscriptions, initially prepared on the basis of research by A. K. Baragwanath of the Museum of the City of New York, have been reviewed by a committee consisting of Wayne Andrews, editor, Chas. Scribner's Sons and former librarian, New York Historical Society; John Walden Myer, former director of the Museum of the City of New York; and Prof. John A. Kouwenhoven of Barnard College.

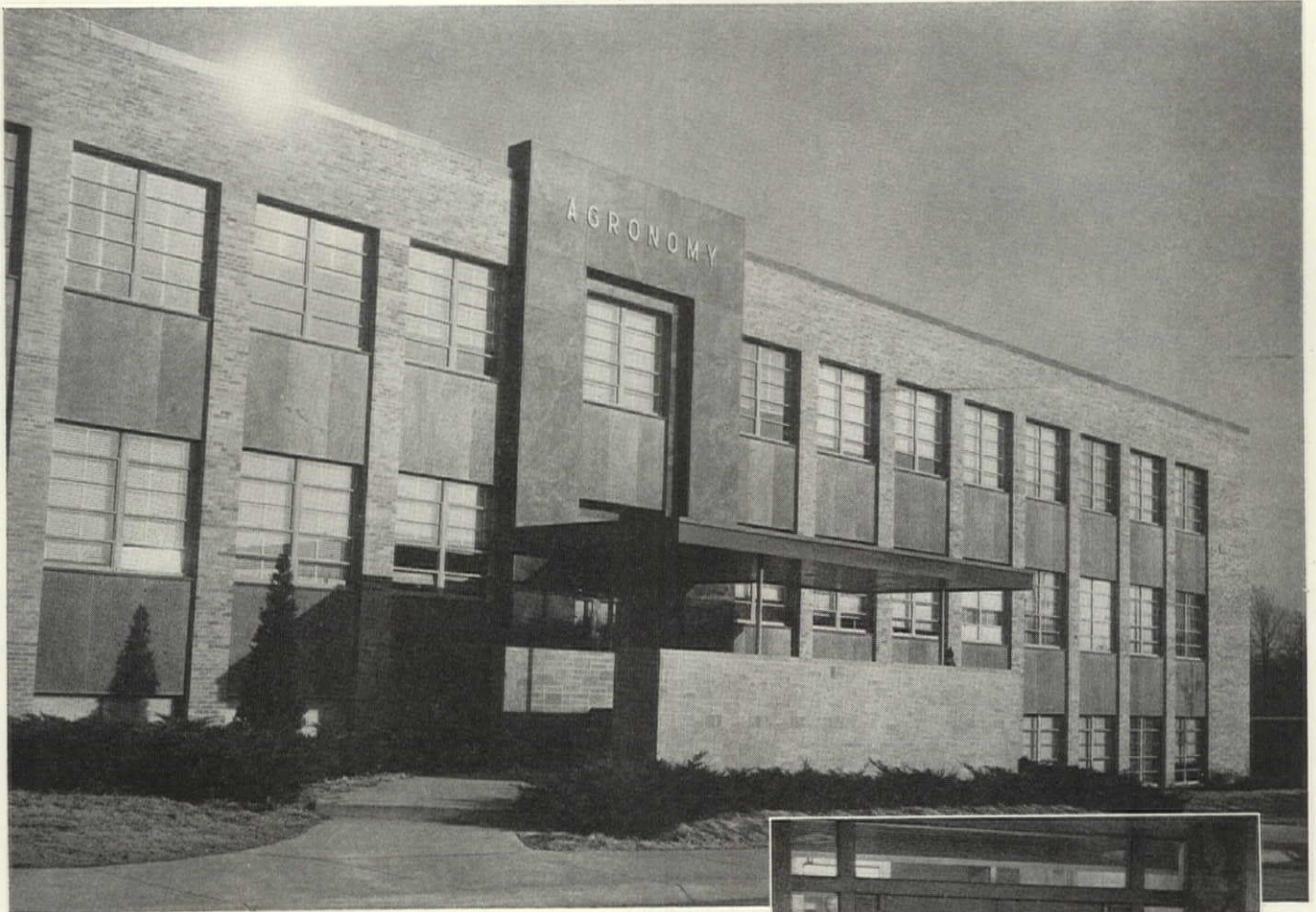
A supplementary committee of specialists has been named by the foundation to propose additional buildings, particularly on Long Island, that are eligible as "landmarks." It consists of Joseph Mathieu of the Long Island Historical Society, Allen L. Woodworth of the Society for the Preservation of Long Island Antiquities, and Daniel Perry, G. Piers Brookfield and William Lukacs of, respectively, the Long Island, Brooklyn and Queens Chapters of the American Institute of Architects. The committee's first meeting was held on December 5th, in the historic King Mansion in Jamaica.

The "landmark plaques" are of cast aluminum, 15" by 23", electrochemically treated to prevent corrosion and minimize maintenance. The inscriptions of thirty to fifty words are done in hand-tooled lettering. The design of the markers was approved by the Art Commission of the City of New York. ◀

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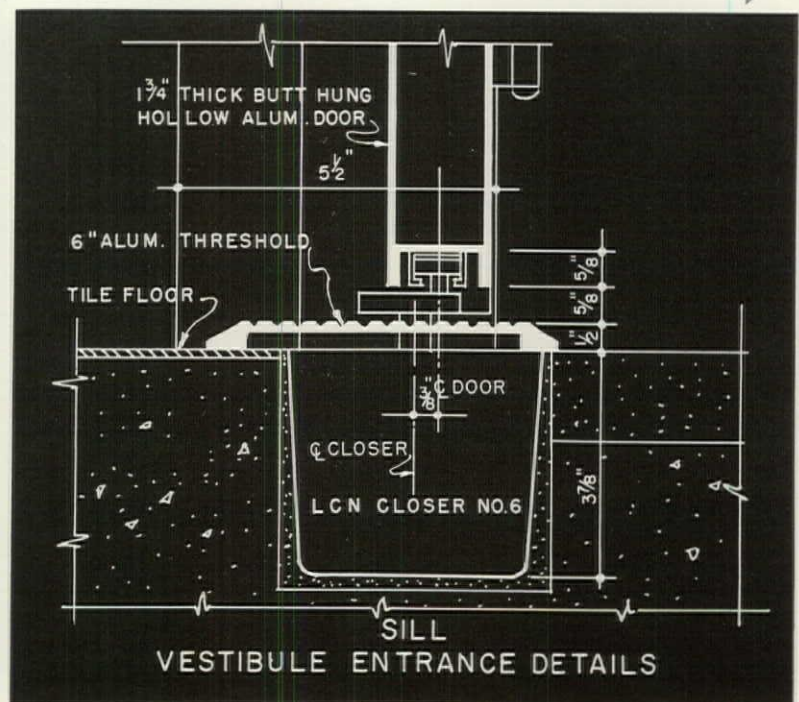
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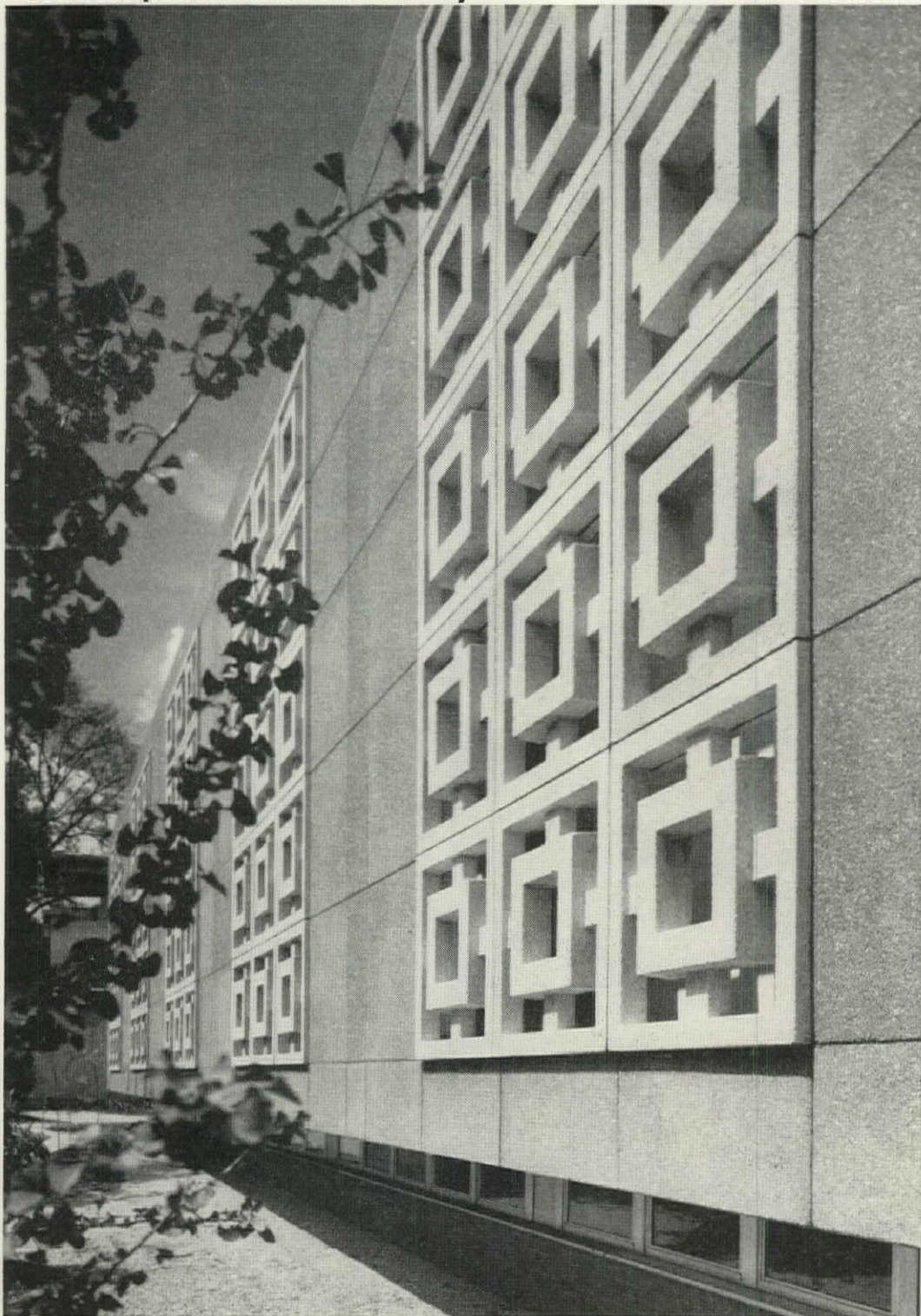
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Construction Details on Opposite Page



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Building: Montgomery County (Ala.) Courthouse

Architects: Pearson, Title & Narrows

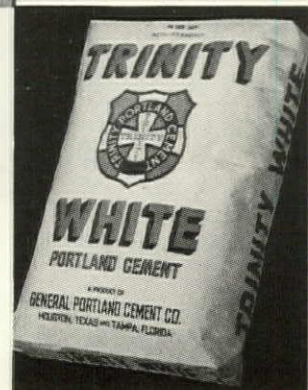
General Contractors: Bear Brothers Inc.

Panels Made by: Jackson (Miss.) Stone Co.

The white decorative panels were made with 100% Trinity White portland cement. The darker panels were made by combining 50% Trinity White with 50% standard gray cement.

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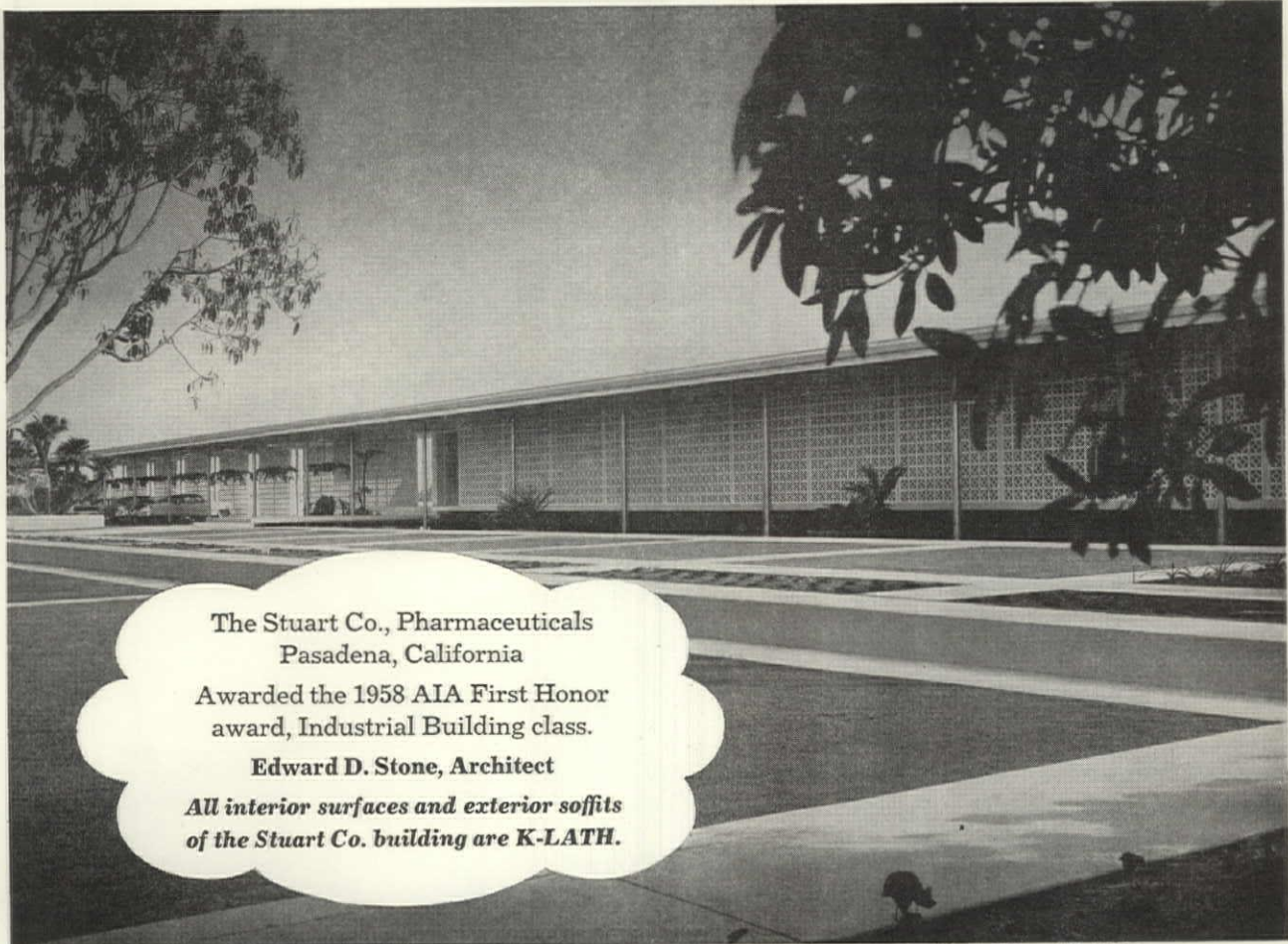
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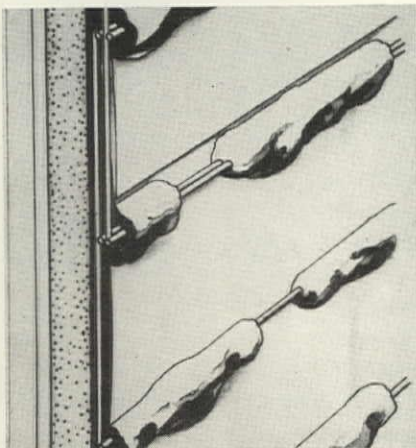
Architect: Edward D. Stone
Contractors: Myers Bros.,
Brummett & Demblon, Inc. (general)
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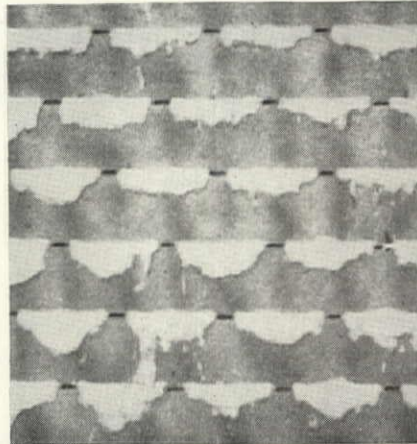


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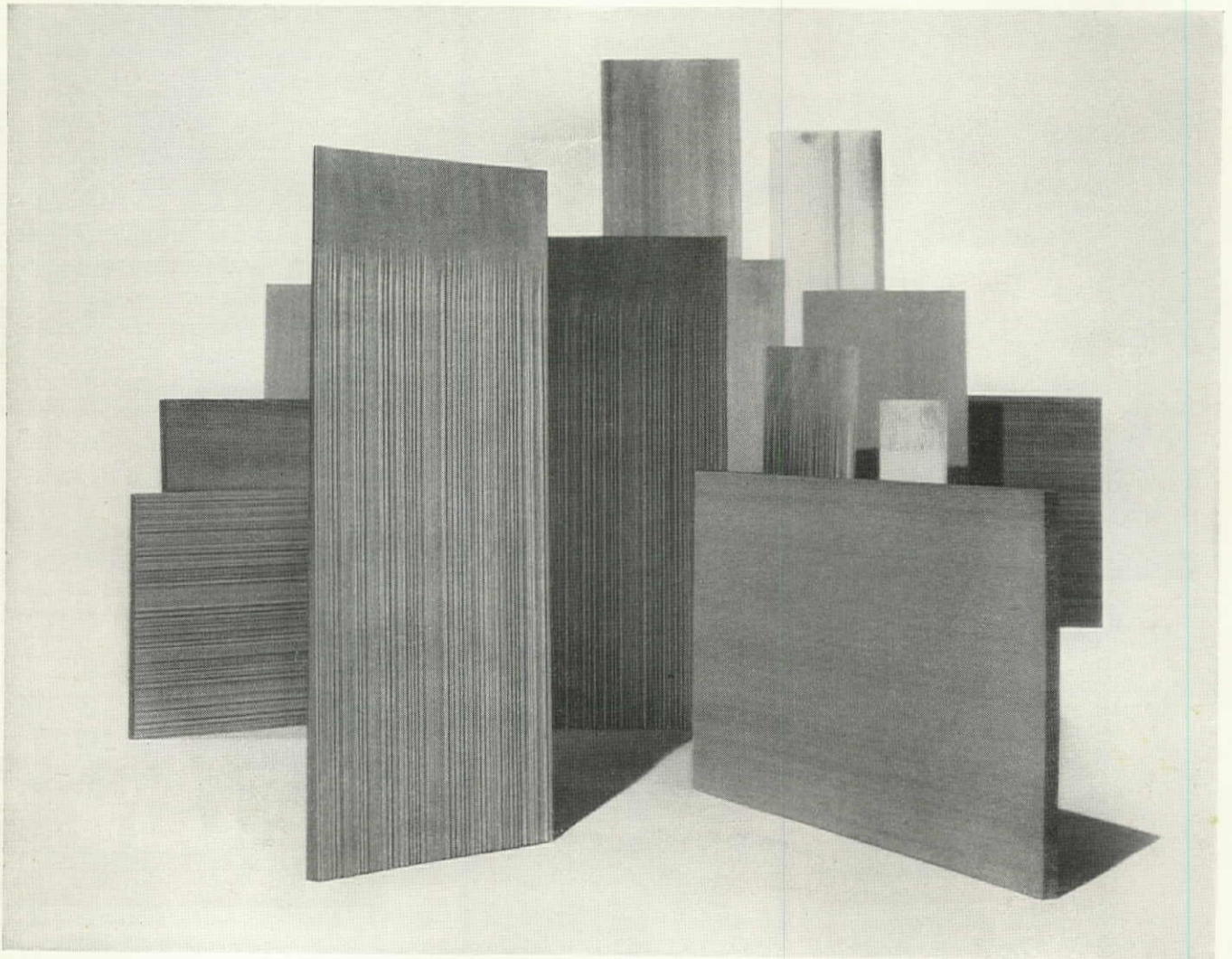
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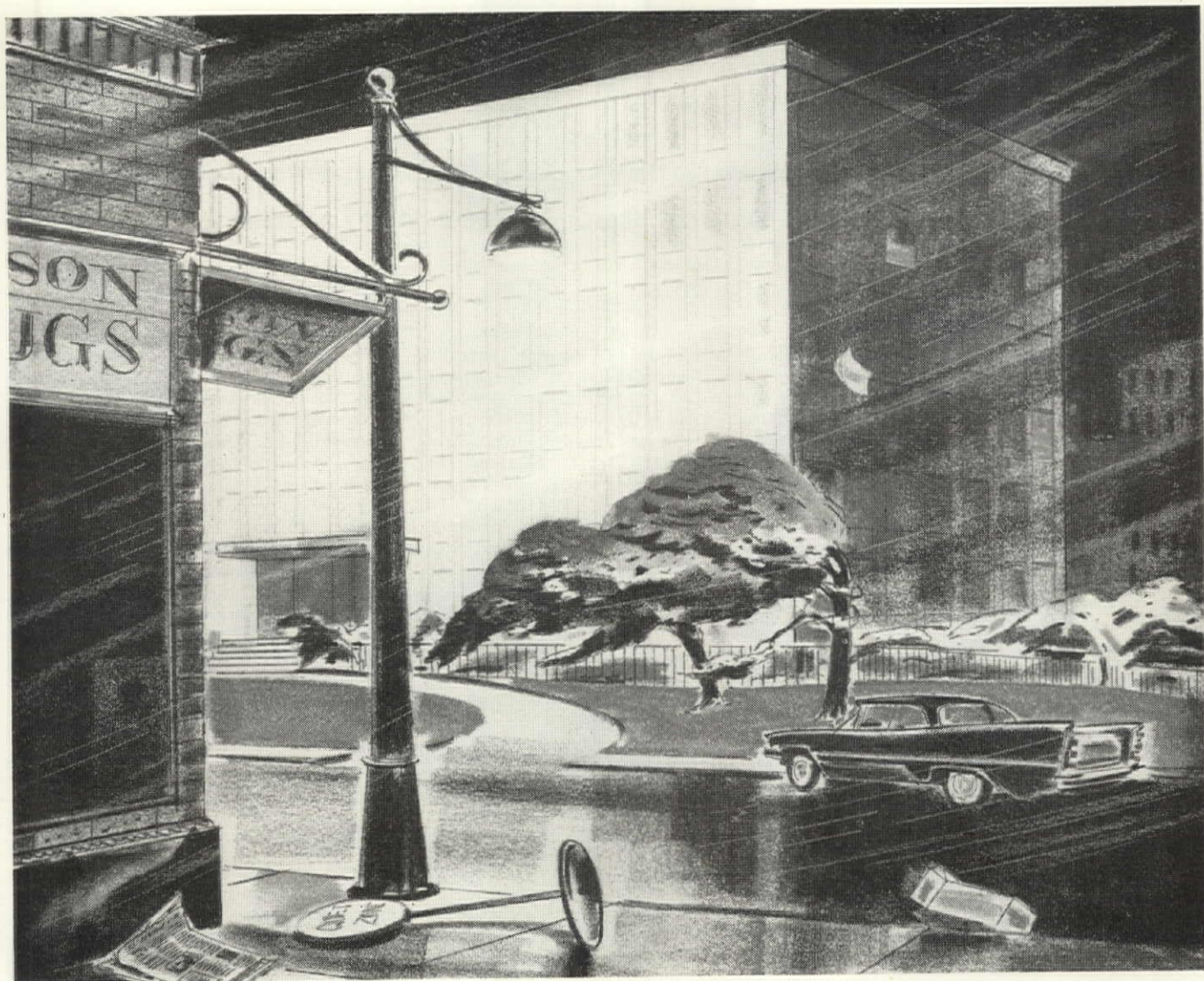


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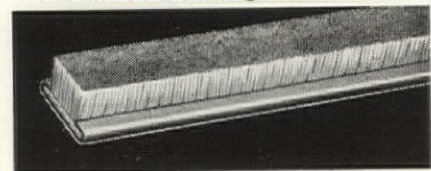
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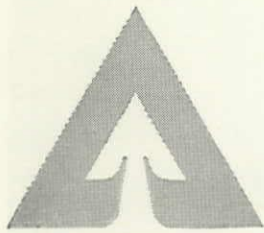
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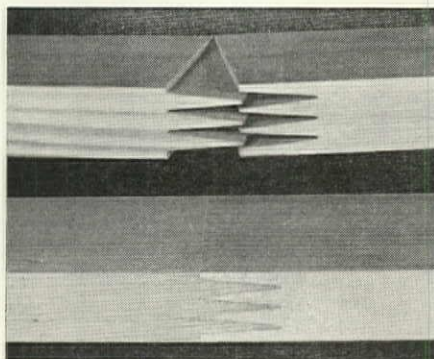
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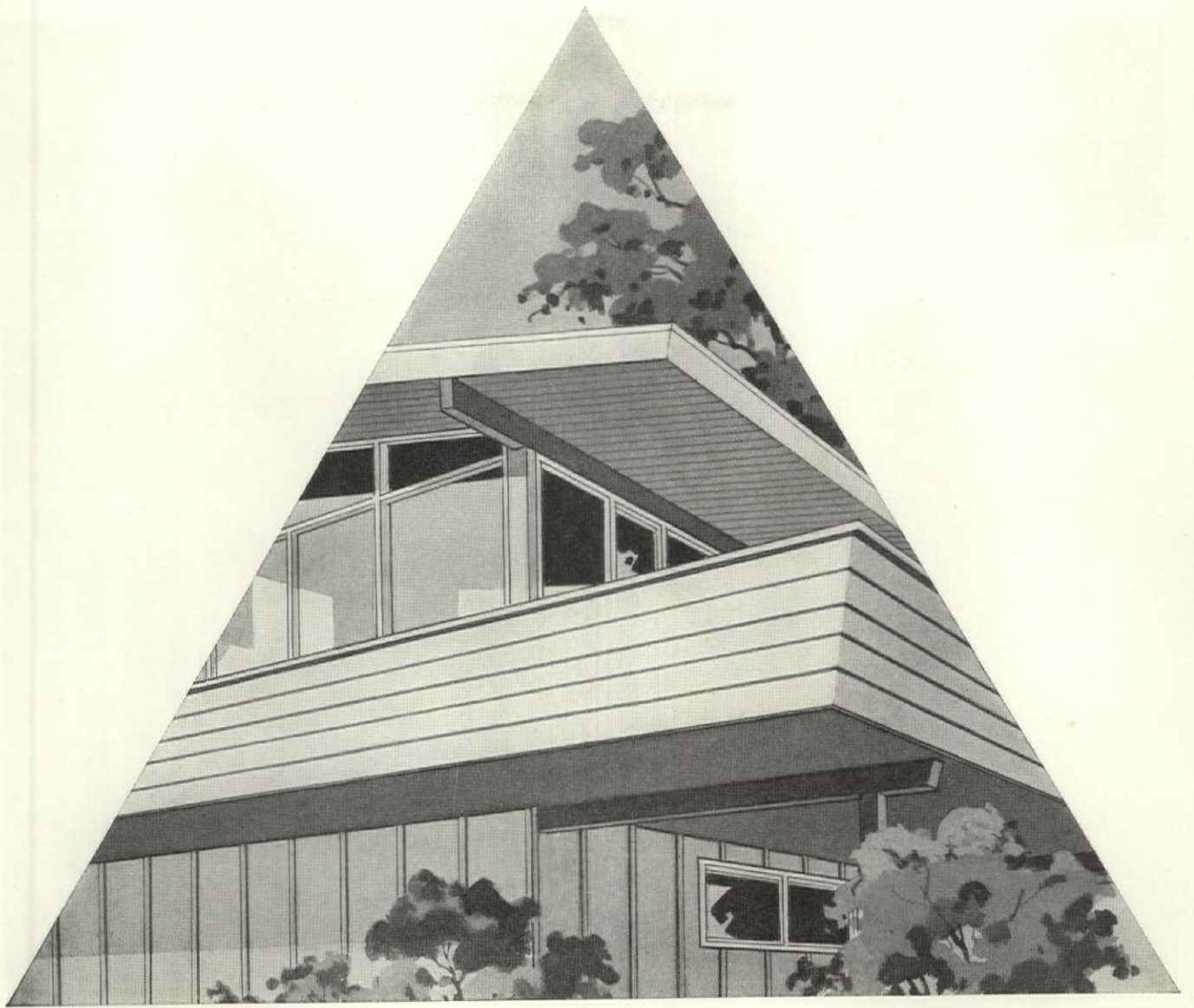
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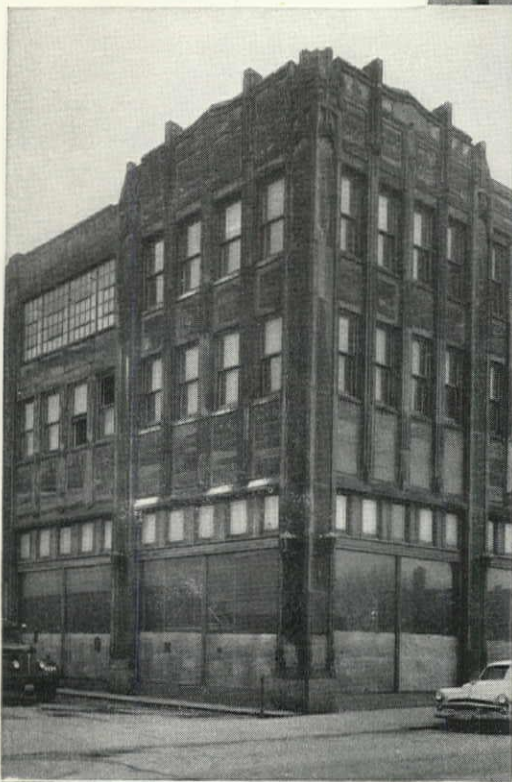
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A · I · A

Journal

A Step into the Future

Memphis

Civic Center

► When, in December of 1959, the Mayor and Commissioners of Memphis officially voted their approval of a new Master Plan for the Memphis Civic Center, it marked the climax of a truly remarkable team effort in community service by the city's architectural profession.

The fact that the Civic Center Plan won the speedy approval of the City Government, and that important phases of the plan are already being activated testifies to the determination of the Memphis architects to produce a realistic plan that would be built with the least possible delay.

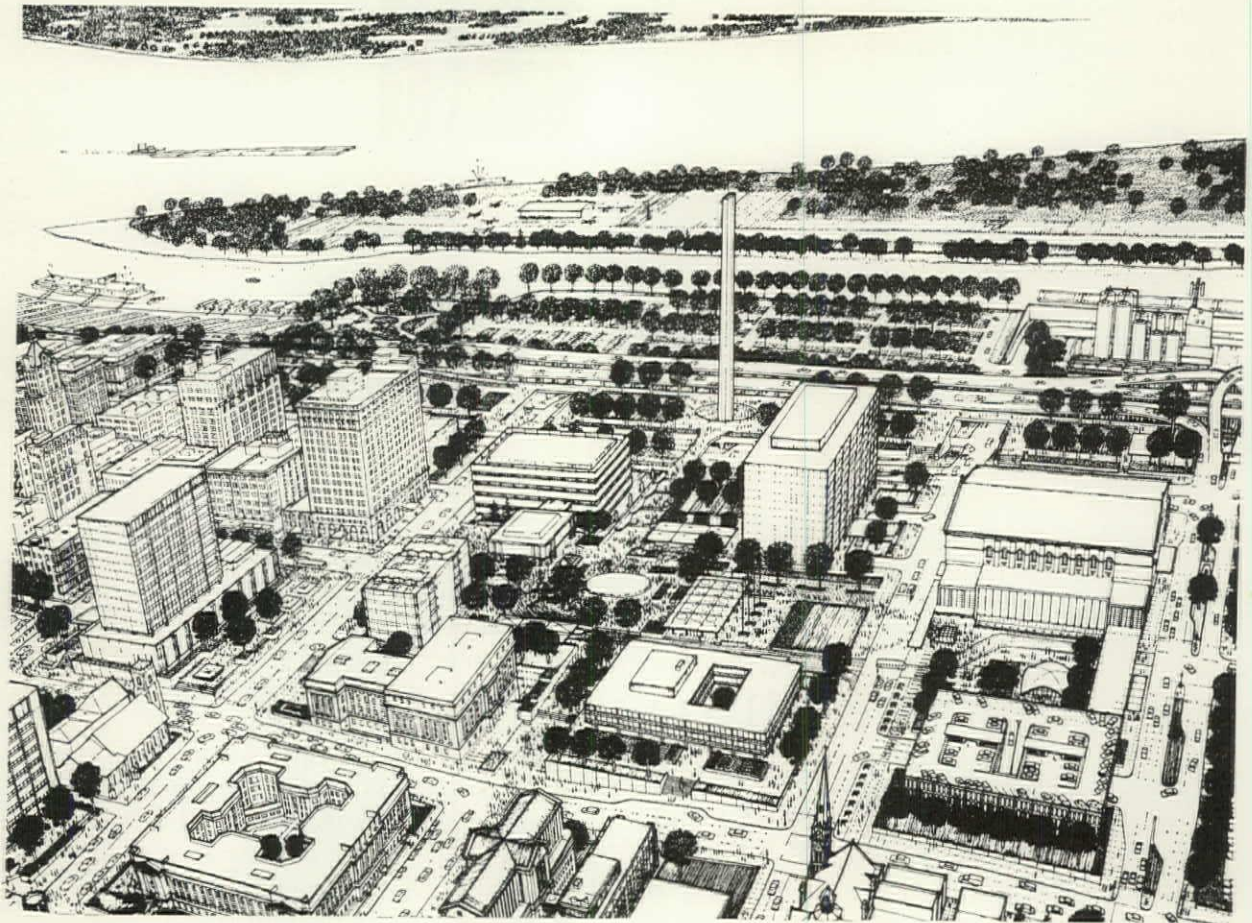
The Memphis Chapter AIA has long been interested in the improvement of Memphis' central core. The idea of a Civic Center for Memphis as a part of a downtown redevelopment came about when the architects began studying the official city plan, adopted in 1955, which showed for the first time a Civic Center area. During 1958, with the leadership of then Chapter President Dean Hill, Civic Design Committee Chairman Tom Windrom and his active Committee, and Robert Day Smith, architect and member of the Planning Commission, extensive analyses were made of downtown and civic center projects in other cities.

It appeared that in many cities outstanding plans had been prepared only to be pigeon-holed for lack of planned approach toward getting positive action.

Memphis architects were eager to foster a project for civic betterment, but they wanted to be sure that resulting plans would stand a good chance of realization and not be consigned to the shelf along with many other ambitious plans.

Downtown redevelopment and the Civic Center were first considered to be integral parts of the same project, and we wanted to do both at the same time. However, it appeared that the Civic Center offered a much greater opportunity for ac-

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*This article by **THOMAS F. FAIRES, AIA**, is another of the Journal's series on downtown redevelopment and community center projects which were originated or participated in by chapters of the Institute. Mr Faires was President of both the Memphis Chapter and the League of Memphis Architects during the crucial year in which the Memphis Civic Center plan was developed.*

accomplishment in the immediate future. New civic buildings were badly needed and some funds were available. It was felt that the Civic Center, once underway, would inspire the unanimity and confidence needed to launch a downtown redevelopment plan. It appears now that it will.

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Thus, with our immediate aims focused on a Civic Center, a course of action began to take shape. We asked Donald McCormick, FAIA, Tulsa architect who had been design committee chairman there, to visit us. Mr McCormick met first with the architects, then with Mayor Edmund Or-gill and other city officials and interested citizens. Mr McCormick not only helped sell the idea of the architects' participation but also saved us many pitfalls in setting up our machinery.

First, we recommended to the City Commission (our elected heads of City government) that a

Civic Center Advisory Committee be established. The City Commission accepted our suggestion, and early in 1959 appointed a ten-member body composed of prominent public-spirited citizens, with Robert E. Galloway as Chairman, and Gen. Everett R. Cook as Vice-Chairman. This Advisory Committee was charged with a twofold responsibility:

- 1 It was to produce and recommend to the City Commission a long-range plan of development for the Civic Center. This plan of development was to include not only a master plan with detailed cost estimates, but also a time-table for the various phases of construction, and a method of financing.

- 2 After official adoption of such a plan by the City Commission, this Advisory Committee will continue to serve in an advisory capacity until the final completion of the Center.

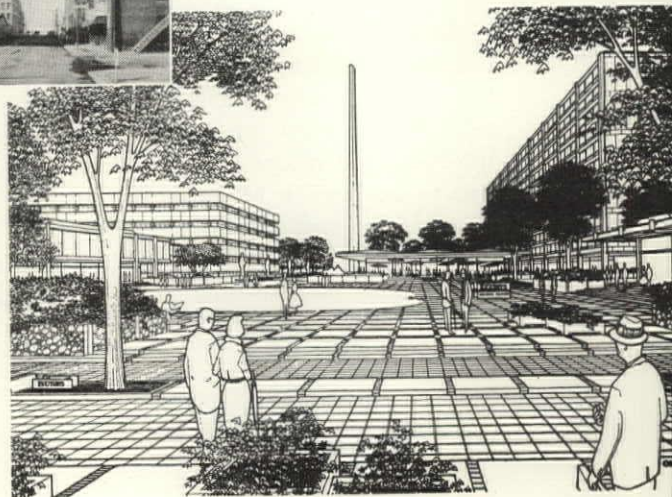
Our first and most important hurdle had been crossed. Next, our Chapter, at its regular meeting on January 12, 1959, unanimously passed a resolution to offer its services to the City to develop a master plan for the Civic Center, this work to be handled through a separate architectural organization formed from the membership of the Chapter, with this organization empowered to enter into a contract with the City of Memphis for the preparation of general planning studies for the proposed Civic Center. The basis of the proposed contract was that the City would pay office expenses and salaries of a paid professional staff, with the local architects forming a Design Team and contributing their professional services free of charge. Salaries for the paid professional staff and other office expenses were estimated at \$30,000.

Thus the League of Memphis Architects, Inc, was born, and the Chapter officers were elected officers of the League. A Design Team was then selected. This was done by poll of all corporate members, with eight architects finally being selected. These eight architects were supplemented by a landscape architect and land planner, and a planning engineer, to round out a ten-man team.

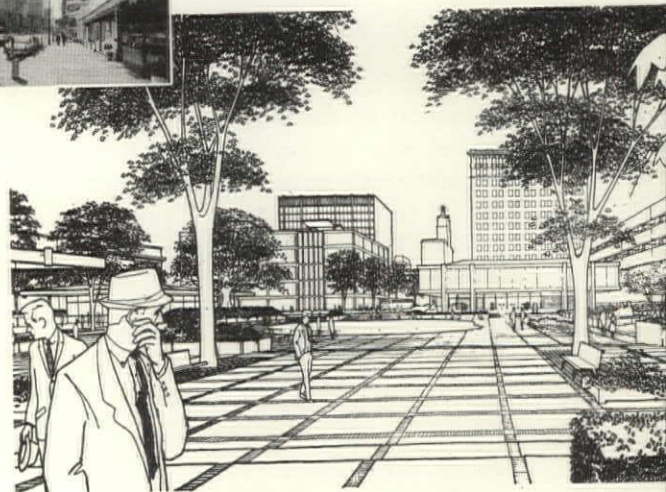
On January 13th, the day after our resolution was adopted, our Civic Design Committee met with the newly appointed Civic Center Advisory Committee and presented the Chapter's offer to plan the Civic Center. This offer was passed on to the City Commission by a unanimously favored resolution of the Civic Center Advisory Committee that urged the City to accept the architects' offer. Ten days later, the City Commission voted to accept the offer and enter into a contract with the League. We were at last in business.

The Memphis newspapers quickly saw the civic benefits that would accrue from the Civic Center design project and gave excellent support to the program from the beginning. The Chapter's vote to offer its services received top headlines on page one. Within a year a total of 190 articles, editorials and pictures have appeared in the local papers on our Civic Center effort, and the press is inclined to continue to stress full completion of the Center.

The League set out to employ capable personnel for the project staff. We felt that we needed a man for project manager who was both a graduate architect and land planner, with sufficient practical experience. We were fortunate to find such a man in Peter B. Andrews, a Cornellian. We also employed a well qualified and talented young man, Mel O'Brien, as assistant project manager, with the title of Chief Designer. O'Brien had done an



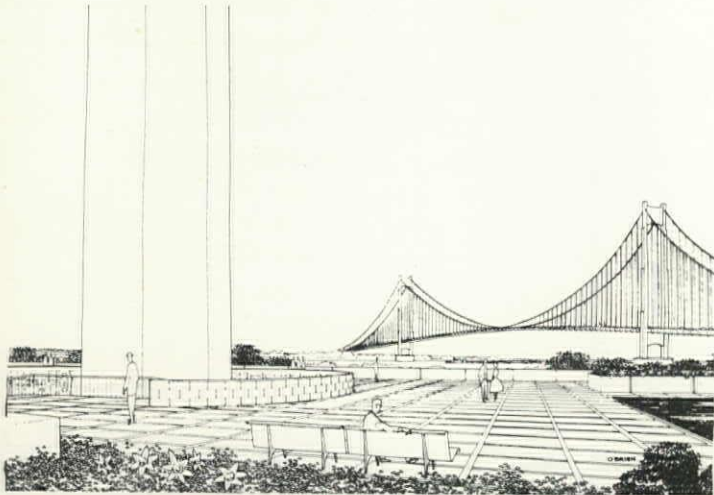
View across Central Plaza from the East



View across Central Plaza from the North

unusual downtown plan for Memphis as his thesis for his master's degree at Princeton. Other help was employed as needed, and as the project was done mostly during the summer months we were able to use architectural students who made valuable and enthusiastic contributions to the effort.

As the organization was completed, a sense of urgency became apparent because of the desire of the architects, city officials, and other interested citizens to present the Civic Center plan before the National Citizens Planning Conference, which was to be held in Memphis in June. By heroic effort of the staff and the Design Team, a most creditable presentation was made and presented at that time. It consisted of plans, perspectives and a model.



Plaza view of the projected Mississippi River Bridge

At the same time, a series of slides and an explanation of the background of the project was presented at the conference by Robert Day Smith, an architect who was a member of both the Design Team and the Civic Center Advisory Committee. This presentation — part of an extensive audio-visual program about Memphis' overall planning program — was enthusiastically received by the conference delegates.

Before this, however, we were confronted with our first real problem. The Federal government, in answer to years of entreaty by our Federal Judge, our Senators and Congressmen, city officials and others, suddenly was ready to consider a new Federal Courts and Office Building for Memphis. They wanted to choose a location immediately. We therefore had to make a hurried recommendation or face the chance of having this most important element of the Civic Center placed on an undesirable site, perhaps not even related to the Civic Center.

The Design Team went into overtime sessions with the project staff, and dozens of preliminary design studies for the Civic Center were prepared and reviewed in order to analyze possible locations for the Federal Building. At length the pieces began to fit together, with one dominant site apparent for this building. With the cooperation of the Mayor we were able to obtain approval of the General Services Administration of our recommended location—with no delay to this project.

After actual design studies began approximately March first, it was decided to divide the work of the project into three reports, these to be published separately and each presented to the Civic Center Advisory Committee and City Commission for approval.

We believed that this procedure was essential for us to work harmoniously with the Advisory Committee and the City Commission. A series of meetings was held to explain and present the results of our studies as they progressed. Thus we were able to meet questions as they arose, and at the same time our work was checked as it progressed by exposure to varied and authoritative viewpoints.

The first of the three study reports released in June 1959, dealt with the extensive correlation and analysis of facts that preceded the design work. With maps and charts the report detailed the findings with reference to traffic patterns and present and future traffic desires, relationships to the central business district, parking requirements, public transit routes, land use and assessed valuation, utilities, topography and urban renewal areas. As a result of the first report the City Commission authorized extending the original boundaries of the area to be studied for the Civic Center.

The second report, dated September 1959, reviews the history of the area from the time of the DeSoto Expedition in 1541 through the early planning of Memphis to the present. In addition, it analyzes in greater detail the requirements of the various buildings, presents results of further traffic studies based on up-to-date traffic counts, and presents the basic design concept. This report was presented to and approved by the Civic Center Advisory Committee and the City Commission. Through our close liaison with the City Commission, this body had already given its approval of the major elements of the report:

- the approved extension of the site
- the approved building locations
- the approved traffic pattern

Questions were raised as to the feasibility of closing two blocks of Main Street to automobile

traffic, and there was spirited opposition from some groups, including the Traffic Advisory Commission. When it was shown that this would not be required until after construction of several new peripheral roadways and other recommended traffic improvements, there ceased to be official opposition. An editorial in our morning paper summed it up this way, "On the surface the Traffic Advisory Commission and the League of Memphis Architects hold opposite positions as to automobile traffic on Main Street in the Civic Center area. . . . The two organizations are approaching by different routes, but they are apparently going to get to the same place about the same time."

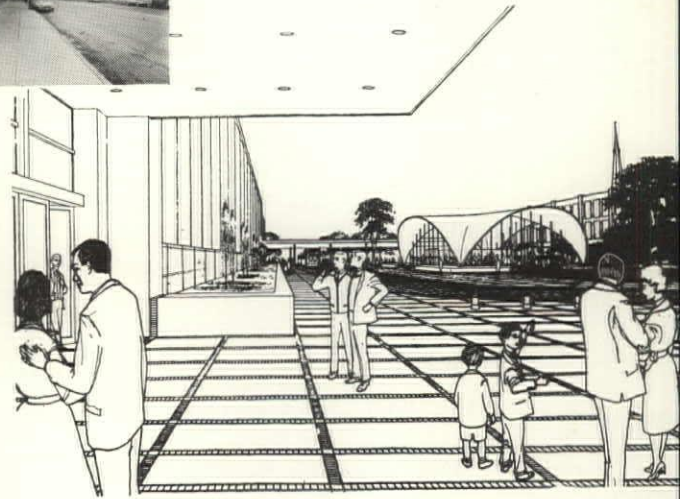
The Third Report concerns the Civic Center plan developed according to the basic design concept, showing proposed new buildings, proposed parking areas, description of buildings, general cost estimates and a proposed development schedule. This report, with color plates as contrasted to black-and-white for the first two reports, contains also perspective sketches and photographs of the final model.

Approval of the final report was quickly obtained from the City Commission because they had previously approved all major points of the report.

The planning of the Center was influenced by existing government buildings in the area — the municipal auditorium, the central police headquarters, the Shelby County Courthouse, the County Jail and the recently completed County Administration Building. These buildings had to remain. It was decided also not to disturb the six churches within the area.

The core area of the Civic Center site lies at the center of the four-block area between the existing public buildings and the riverfront. Automobile traffic will be rerouted around the perimeter of the area, and the new public buildings will be grouped around a central pedestrian plaza with a large reflecting pool in the center. Relating to this enclosed space will be a 350-foot symbolic tower set in the public promenade on the waterfront. The approaches to the plaza from Main Street, Washington Avenue, and the tower are slightly offset as in a pinwheel. The pedestrian entering the plaza will find the view contained by an opposing building element directly across the open space. The entry to the core area is first through an open court on the perimeter, before passing through the narrower offset approaches into the central plaza.

New buildings planned to go in the Center are the City Hall with separate council chamber, sym-



View across Auditorium Plaza from the South

bolic of City Government; a new Administration Building for the city-owned Light, Gas and Water Division; a display pavilion with offices for the City Beautiful Commission; a Federal Courts and Office Building; a State Office Building; a DeSoto Memorial Tower commemorating the discovery of the Mississippi River at this location in 1541; two new parking garages; and two new concession pavilions and a restaurant pavilion.

The plaza will be a completely urban place made attractive and colorful by its trees and fountains, sculpture and murals, and enlivened by the busy comings and goings of its ultimate 5,000 inhabitants and the countless other visitors on business or pleasure, freed from the distractions of motor traffic.

Immediately west of the Civic Center proper, the planners envision a riverfront development based on two levels of parking structures built into the side of the Mississippi River bluff. These parking facilities will be surmounted by an open landscaped area which will focus on the commanding observation tower — a symbol of Memphis and its historic ties with the Mississippi River.

This riverfront treatment will become an appropriate foreground for the public buildings of the Center when interstate traffic approaches Memphis across a projected Mississippi River Bridge just north of the Civic Center area. The riverfront and Civic Center will also afford a panoramic view to motorists on the planned expressway system and on the proposed Great River Road, currently being planned to traverse the length of the Mississippi River at bank side.

Total cost of the entire project is estimated at \$32,764,200, not including land costs. This is broken down as follows:

| | |
|---|-------------|
| • Cost to City of Memphis | \$8,449,100 |
| • Cost to be shared by City and Shelby County | 112,500 |
| • Costs to private developer under lease from city | 4,427,600 |
| • Costs that might be shared by city and public gifts | 655,000 |
| • Costs to Memphis Light, Gas & Water Division | 7,220,000 |
| • Cost to State of Tennessee | 2,400,000 |
| • Cost to U. S. Government | 9,500,000 |

Our final report sums up the design concept with these words:

"Fundamentally, the Civic Center Plan is based on a fusion of two ancient concepts in city planning — the principle of the open space combined with the principle of the master block.

"The master block principle permits a desirable separate treatment of vehicular and pedestrian traffic, while the open space principle makes possible an attractive meeting place for the public — officials, employees, shoppers, tourists, businessmen, churchgoers."

Completion and acceptance of the plan is a source of great satisfaction to all of us on the Design Team and the many others who have given so much to make this team effort successful. We are particularly thankful that at each crucial stage of this effort a solid majority of our Advisory Committee and our Mayor and City Commissioners have had the vision and the courage to support this program.

Our Civic Center planning is a step into the future. What chance does it have of becoming a reality instead of merely a plan? We think that it has a fine chance. In fact, it is already under way. The new County Administration Building, under construction during the Civic Center planning and recently completed, was considered a definite part of the Center, as was the addition to the existing Police Building then being planned but now under contract. The General Services Administration approved the recommended site for the proposed Federal Courts and Office Building and are acquiring the land and working drawings for the building are now being made. This building is oriented into the Civic Center, and its grades established to conform to the Center grades. The state is committed to build the State Office Building. Parking garages will surely be built as needed by private developers under lease from the city.

The Light, Gas and Water Division is badly overcrowded in present scattered quarters and a new administration building for this self-supporting division of the city is imminent. The city has started acquiring land for the City Hall, and there is talk of having the project under way by the end of this year. And there will always be the Civic Center Advisory Committee whose continued function is to see that the Civic Center is built.

What influence will the Civic Center have on downtown Memphis? Already private developers are acquiring land for a super-motel development immediately adjacent to the site. The Salvation Army owns land adjacent to the site on which they expect to build a new building. The Claridge Hotel has started a renovation program, as has Bry's Department Store, both adjacent to the site. Only a few days ago one of our leading banks announced acquisition of property on Main Street across from the Light, Gas and Water Division site for a new bank building.

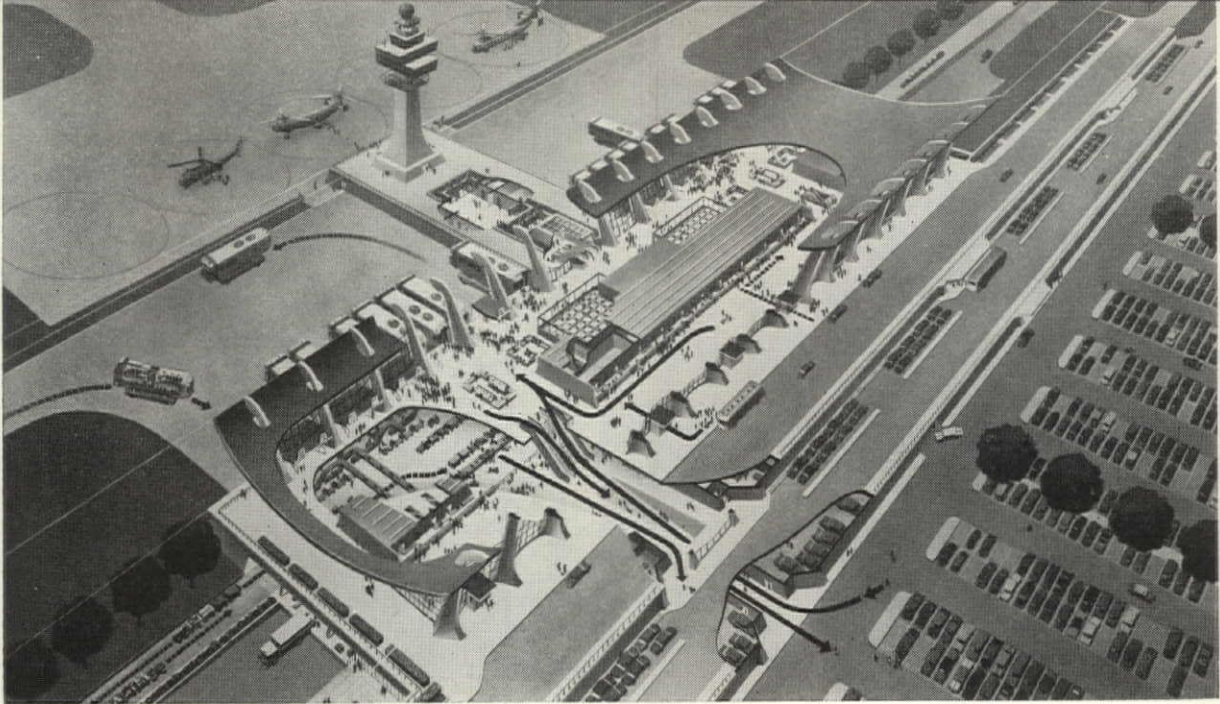
The question seems to be, therefore, could anything *stop* the Civic Center? Memphis does not believe that it can.

P.S. Our Memphis Chapter has been fully behind this Civic Center effort. All matters concerning the project which were put to a vote were approved unanimously. Not all Chapter members chose to become members of the League; however, less than 10% were not League members. Chapter and League meetings were conducted simultaneously. Not once during the year was an architect critical of Chapter policy concerning the League, or League policy, or of actions taken by the officers or the Design Team. It was unfortunate that more people could not have worked on the project, for we had many willing hands.

Our Chapter meetings were better attended than ever before. We attained our greatest strength ever. A positive spirit of fellowship and cooperation was evident. This can be attributed to the Civic Center project, of which all are equally proud.

What of the League of Memphis Architects, Inc? Chapter officers and Design Team members all feel that it has served its usefulness when the contract with the city is fulfilled, and that the charter should be surrendered and the League disbanded, and that all credit for the Civic Center effort should accrue to the Memphis Chapter, where it rightly belongs.

It is my personal feeling, however, that the spirit of the League will have its effect in Memphis for many years to come. ◀



► "A little bit monumental in style." That's what Eero Saarinen, AIA, says of his design for Washington's new jet age airport, Dulles International.

Occupying 9,800 acres some twenty-seven miles from Washington, the airport is expected to handle between eight and ten million passengers by 1975. It will be opened for business in 1961.

The terminal building, as designed by Saarinen, maintains a classic dignity as befitting the international port of entry into the nation's capital; yet, it is wholly functional and adds a new dimension to passenger convenience and ease and economy of aircraft operation.

A single, compact building, the terminal is a radical departure from the usual terminal building which sprawls out with "fingers" extending to distant plane positions requiring passengers to walk sometimes more than a mile to board or disembark from planes. Passengers will board a "mobile lounge" directly from the main concourse of the terminal building and be driven directly to their plane parked on a central service area.

The roof of the terminal is a hanging roof supported by a row of columns forty feet apart on each side of the concourse (see photo at right). Sixty-five feet high on the approach side and forty feet high on the field side, the piers resemble two rows of concrete trees between which a continuous hammock has been hung. The roof is carried on light suspension bridge cables rather than massive trusses, and is made of concrete panels fitted between these cables. The piers are sloped outward to counteract the pull of the cables, giving the building a dynamic look that expresses the spirit of a true jet age airport. ◀

Washington's new jet age international airport



THE *Lovableness* OF ARCHITECTS

BY H. F. ELLIS*

► Fashions change, even in love. Listening to "Press Conference" the other day I was interested by a question put to the Editress of *Woman* by one of the interviewers. Why, he asked, did the stories in her magazine tend to be about a particular middle class stratum, why in fact were they all about pretty secretaries who were in love with architects? Now I don't know that the stories in *Woman* are all about secretaries in love with architects—indeed, the Editress as I remember, denied it—but still, the question as put did strike some kind of chord. It *sounded* right. One had the feeling that architects would be just about what the young woman in a modern short-story would be in love with. And this, as I say, interested me.

There was a time when women were, on the whole, in love with sheikhs. They have also fallen in their day for the sons of dukes, R.A.F. pilots, men from Out There, and overworked young doctors. Architects strike me as something rather new and different in the way of romance. I don't underrate them, but they seem to me worlds away from Rudolph Valentino and the whole basic conception of what it takes to make women swoon and tremble in the mass. They do not draw swords, nor break sound barriers; they are not noticeably tanned, or beloved by tribesmen, nor do they often save lives by their skill and devotion. They draw straight lines on very large sheets of paper, indicate which way doors open by a clever device, and hope in time to get taken on as a partner and be allowed a crack at the new Town Hall. There is more in architecture than this, of course, but that seems to me a good general idea of the public's notion of an architect, of the picture he conjures up. Why, then, so lovable?

I suppose it is a matter of sense and sensibility. The millions of women who read love stories in their favorite magazines are too matter-of-fact nowadays to want, or even to dream of, marriage with a sheikh or a viscount. They know that the one would probably not be in a position to provide the washing machines to which they have become accustomed; the other they have seen on "What's My Line?" R.A.F. pilots of the right age

are no longer "ex-Spitfire", and the men from Out There are mostly Back Here now, working on commission. The dream-man of today must not be out of place in a streamlined kitchen, and a TR3 becomes him better than the old Lagonda. Quiet good manners, the assurance bred in one of the smaller public schools, a big future and a small moustache—these are the attributes that common sense demands. But he *must* be Interesting. He must be artistic but not arty. A writer would be going too far; they dress badly and run their fingers through their own hair instead of their secretary's. Artists are out of the question.

The architect is just right. His clothes, though not tiresomely impeccable, are certainly not bizarre. Eccentricity has no appeal for him. You can take him anywhere. There is no need to make allowances. The thing about an architect is that he is *sound* but not *dull*.

He has Ideas, but nothing to take you right out of your depth, nothing you need be afraid you'll never live up to. A girl can stand contentedly beside him, with the wind ruffling last Friday's hair-do, while he sketches out a dream home with broad sweeps of his sensitive right arm or momentarily removes his left from about her shoulders in order to indicate, by holding his hands up palms inwards and a foot apart, how interest can be added to the front elevation by heightening the roof over the built-in garage. She can put in a comment of her own now and again, and only loves him the more when he points out, with a little smile at the corners of his lips, that you can't do that because the downpipes from the bathroom must be on an exterior wall.

And too—he has an office. Not a studio or a garret, or one of those queer places one hears about where people bring their own bottles and sit on the floor with their knees apart. A proper office, with rulers and T-squares and everything laid out ready. A girl likes a man to have something a bit different about him, a touch of distinction I suppose you call it; but you want him to be dependable, too, don't you? With a permanent address and a fixed percentage of the total costs. And that's more than those old sheikhs ever were, or had.

So there it is. One can see, when one looks into the matter, that there *is* a sort of lovableness about architects. A kind of cosy, cut-above-the-common-run but not-if-it-doesn't-pay idealism that no girl of sense and sensibility should try to resist. If I were a pretty secretary again and a personable young man were to ask me to come up and see his tracings, I don't believe I'd hesitate for long. ◀

* Condensed from *Punch*, December 2, 1959 © PUNCH—Ben Roth

Some Keys to Pandora's Jar

THE ARCHITECT AND SCIENCE

I think now I may have dwelt so long on what is probably the main point that I must not try to develop at length the second topic. This concerns the collateral subjects that ought to be studied. Let me say of the natural sciences only that I think we have here a completely unresolved question. Modern architects are living in an age where science is one of the dominant forces. Ideally, one would suppose that an artist cannot do very well with his times if he does not understand the main forces of the times. Today, science is one of these forces. In our book, Bush-Brown and I will show how little the architects of America knew or cared about the science that was current, save for a brief moment of an incomprehensible flirtation with Darwin. Intuitively we suspect this was not good for architecture, but we know no way to prove it. I am not talking here of the crudest pragmatic applications because there must always be a lag between the scientific principle and the technological application and another between the invention and the wide use.

For example, an architect who built a downtown building at the time when there were only a thousand cars on the American roads could not have convinced any client that he should provide off-street parking, covered access, freedom of the future city, even if he had been able to have the foresight to predict the present state of motorized Fifth or Park Avenues—about which even the greatest modern buildings act oblivious. Nor could he electrify a new building on the day when Edison first gave his bulb demonstration in New Jersey. But surely the anticipations could have been greater and could be greater, and the best guess is that the architects did not even worry about such questions, know enough to worry

By **John E. Burchard**

*Dean of the School of Humanities and
Social Studies at Massachusetts Institute
of Technology*

The second and final installment of Dean Burchard's keynote address to the Fourth Annual AIA-ACSA Teachers' Seminar at Grindstone Lake, Wisconsin, last June.

about them, or propose even the minimum forward looks that were possible.

What kind of education in science is presupposed in order that our next crop may do better with this very elusive question as well as the even more elusive one as to whether their art is in fact in harmony with the philosophy of the time? I do not know, but I am confident that the problem is completely unsolved and that no really fruitful discussions are taking place between the right architectural teachers and the right scientists. Just putting some physics and mathematics in the curriculum means less than nothing. The right people to talk about it are the best people, because the second-best will have no good ideas and will be much too content with pedestrian and ineffective, if administratively convenient, answers. The best physicists have done some wonderful things in planning for a revision of secondary school physics instruction. They have not really marched up on the problem of what physics is meaningful and even essential for a well-educated general modern citizen or for a specialist in such a work as architecture.

The same things could be said about many other subjects. The study of materials is becoming increasingly basic in leading engineering schools, moving in the direction of solid state physics, requiring much more sophistication and much more

mathematics than the kind of courses in concrete and electric wiring and heating and ventilating that I once experienced and that happily have now disappeared. But is there not a vacuum developing here? The more sophisticated the instruction becomes, the more it will be priced out of the reach of architectural students who can neither give the time necessary for preliminary mastery nor perhaps the interest and capacity that would make the time fruitful.

The same question in other terms arises with respect to structures. Architects are fascinated these days, or at least many are, by elaborate new space frameworks, precast concrete ribs, shells, hyperbolic paraboloids. But these things are not objects to be cut out of paper and pasted together with airplane dope. They involve principles. They are not always practical; they are not always appropriate. To analyze them structurally is almost certainly beyond the capacity or time allotment of the architectural student; to place them in testing laboratories requires an understanding of legitimate research procedures which is far from being a common appreciation among architects or architectural students; to understand their principles intuitively is probably reserved again for the genius; to understand them enough is the problem; and what is that understanding; and who is to provide it?

This thorny question runs all the way through our culture, I suppose. Not very many first-class economics departments, for example, are likely to have a first-class man who regards the details of urban land economics or municipal taxation as of any real interest. City planners and perhaps architects feel, rightly or wrongly, that their students should study such subjects. How is this to be managed if the best professionals have no interest in them or even if the best professional departments just do not want to have such professors in their company? The standard answer everywhere is, of course, to acquire one's own captive professionals so that the architectural school teaches its own engineering, its own mathematics, its own materials, its own sociology and economics, all with individuals who are content to operate this way. Such a person has occasionally been a brilliant teacher and a man of great competence in his own specialty which we must remember was not architecture. But the word *occasionally* is the right one; most of the time the results, toned down both to the assumed capacity and interest of the student and the known capacity of the teacher, have been shockingly second rate. This is not a fertile garden to till, for the future and the determination of what

is needed in these fields and how to have it taught by really good people is a major challenge to you all. You can never solve it by thinking of subjects as slots and that with a teacher in every appropriate slot everything is OK.

Let me elaborate only one example. I think we do know that something of the impression of a work of architecture is psychological; we know that sometimes at any rate it is possible to define in advance the effects the architect wants his work to have; a space that seems enormous, or private, noisy or quiet, reverent or raucous. He may talk about the best conditions of color of walls and ceilings for a hospital patient lying prone; or how many patients should be in a room; or when the outdoors should be brought in and when excluded (and this cannot be a matter of dogma). Such questions are certainly matters of psychology whether or not formal psychology is ready to propose even suggestive answers. As it is (and as we all know), the answers are provided by the personal psychology of the architect who may then rationalize what he has decided to do by some superficial reference to conclusions by others, real or invented.

Of course, if the architect is a genius his psychology may be sure-footed even if his rationalization is not. But remember we may not have many geniuses now—certainly not more than half a dozen. Would not the others gain if they knew what psychology did have to say and did not, if they worked with psychologists in research leading to more conclusive answers? We accept and try to use, I hope, conclusions about thermal environment and, to a less degree, acoustic environment. We want to be sensible about the illuminative environment although here we are still more shaky. I suggest we are almost completely uninformed about the psychological environment. Is it time that anything more concrete was done about this? Again I will not be impressed by the retort that there I go again, bringing intellectual considerations into the art of architecture. I repeat that very little of the art of architecture is so fine as art that it might not have been improved by more intellectual process; and that those who cling to this reed, if not geniuses, are probably men who are quite incapable of intellectual process themselves, and therefore would like to ride it out of the practice of architecture.

THE ARCHITECT AND SOCIAL SCIENCE

Other questions may be raised regarding the social sciences. I do not know that a study of sociology or economics will lead a man to a more

thoughtful consideration of the total meaning of architecture in his time. I do know from my study of history that architecture seems to be at its best when it has some real alliance with social movements. In Europe this was often construed, especially in the early part of the twentieth century, as meaning that the architects themselves were vitally concerned with the economic and political structure of their country, were agitators for public housing or other community benefits. In the United States, generally speaking, it has been unfashionable for the great architects to get involved in such problems. Men of considerable greatness in other directions, such as Clarence Stein or Robert Kohn, have played roles, but most of the leading designers including such great ones as Frank Lloyd Wright have not been found among the Americans who have urged social improvement in any practical way. Can one have a good architecture that is concerned only with providing seats for the powerful and secure? Would architects gain or suffer from closer individual alliances with a liberal social movement? Should some school at this moment be developing a quite different curriculum aimed at the physical planning of underdeveloped countries to which the dimensions of American planning cannot automatically be applied? I realize that all this touches very quickly on moral issues and thus becomes confused for us, but I merely ask here whether we have an obligation in higher education in architecture which we are not really discharging very effectively. Or do you want to answer me by saying that the social function of architecture is mostly one of providing a beautiful environment and that it has no further social or moral implications; or that even if it has, these are not properly any part of the program of formal education?

THE TEACHING OF DESIGN

Now let me stick my neck completely out and end with a few words about design. I do look at a lot of designs in the course of a year and hear students discuss them and have the overwhelming impression that on the whole the business is just about as eclectic as it was when I was drawing and rendering the Petit Trianon, though a different set of plates and guides and presentations are in use. It is obvious that less time is spent on presentation and drawing and therefore one ought to presume that more time is spent on thinking. But the hard questions as to why a structure is used, what kind of brick is going to be laid, whether the texture of the wall has been considered — all these ordinary questions are not much better answered than

they were then. This causes me to wonder whether most schools have any clearly stated principles as to the degree of competence in what the student is expected to have achieved before he moves from grade to grade. Is it not possible to establish a set of standards of what one really expects to accomplish and to demand proficiency in each step before the next is trod, and let some students march up the steps more rapidly than the college years suggest, while others may take longer than the standard curriculum? Cannot many of these early standards be set forth in quite objective terms so that the student knows what he is trying to achieve?

Let me ask you to think quite seriously as to whether the first-year programs in visual design which are now general in the United States actually make the contribution to architectural education that we expect from them. They began, of course, with the great innovations and imaginative studies of the Bauhaus in Dessau. They were transferred here by pupils of the Bauhaus such as Albers, Moholy-Nagy and Kepes. Now they are taught almost everywhere in what I believe to be considerably diluted form by people who learned at the feet of the original revolutionists. There was undoubtedly a great deal to be said for throwing out the old teaching of freehand drawing that I experienced and the laborious details of double-hung windows that I drew at full size; but just as in our reaction against history some years ago we threw out too much, it may be reasonable to ask the same question of visual design. Because it was useful at one point of history, is it still useful? Do we know that it is more effective than the training in arts and crafts, measured drawings, and history used in Sweden and Denmark? Are we not sure that every real architect must be able to draw if only to put down in his own shorthand and for his own purposes the ideas that may flit through his head and be lost if he doesn't record them? Every other kind of creative person has to make notes. I am not carrying this question to the point of presentation drawings; nor do I want to argue how many hours should be spent on making a model of something. I do suggest that it is time to re-examine the whole question of the relation of this part of the curriculum to the rest of the curriculum. I suggest we do not really know how good visual design is. I suggest we have no idea of whether another method would be more effective; and finally, I suggest that no experiments can occur in education unless somebody tries them; and on the whole, controlled experiments are better than uncontrolled ones.

Very few institutions dare divide a class into two groups to approach the teaching of some subject in vigorously different ways because this is a confession that the institution does not know how to teach and there is always the suggestion that if one of the methods turns out to be less effective than the other, then the students who were in the wrong section have been treated as underprivileged guinea pigs. This is all nonsense. If we want to know how good visual design is, why do we not design another alternative way of achieving the same ends (this assumes you know that we can state the ends with considerable precision), teach half the class by one of the two ways over a number of years, and see if we can correlate the results with anything. The one thing I am certain about is that it cannot damage either half of the class and it is far more sensible than either continuing visual design blindly because we have it, or throwing it out as we threw out charcoal drawings of nudes, because we want to try something else that is completely different.

Would it not be useful to reexamine the program of the École des Beaux-Arts as it was at the turn of the century when men like Perret and Garnier and others were coming along, not as it became thirty years later, not as it was misinterpreted by the Beaux-Arts Institute of Design which adopted in America all the superficial mannerisms of the method of instruction but overlooked the principles? I would propose this reexamination not with a view to building the same set of steps, and certainly not with the idea of helping Henry Hope Reed along with his forlorn children's crusade. Rather I would do it to see if it might not lead to some conscious redesigning of the design course, which I am sure you will all say you are always doing now but which I will bet you cannot state in explicit terms. Would it not also be profitable to have exercises in specific skills?

There are principles of composition, of rhythm, of equilibrium, of scale in all great architecture whatever its mood and they are not going to be discarded because of speeches. If they are, the architecture will not be great. Are they perhaps better studied in isolation and in the abstract at the beginning? Is it not possible that such exercises, more powerful than those we got through the pores when we drew the orders, will be more durable if they are specifically contrived first for specific individual purposes and later combined rather than relying on the osmosis of free-wheeling implied in most courses in visual design? Are there not a number of highly useful exercises

to be designed on specific questions of the use of materials, of downspouts, of roofs, of the meeting of walls, of corners, of bases, of edges and tops and structural alternatives in which the structures are more than woolly flights of the imagination parroting whatever last appeared in an architectural magazine?

In connection with the design problems of this sort, I believe also a good deal could be done to make the student a more intelligent user of the awesome array of mechanical equipment that is now available to the architect. But he cannot do this unless he really understands the problems of environmental control. Why not start him, then, with the problem of producing a twenty-four hour, year-round room for occupancy in various types of arduous climate, deprived of everything but a stove or fireplace and a water supply, and his understanding of convection, conduction, heat storage, radiation, natural ventilation, etc. I suggest such an exercise would be powerfully oriented toward the fundamentals of design and though it would produce solutions which originally were highly regional, it might overcome a good many of the strange tortured ways in which modern equipment is now used incorrectly. Similar exercises with individual materials could be equally productive. No one is going to design well in brick until he has been forced to discipline himself about brick and not take refuge from any defect the material has by introducing something else. Thus a series of carefully organized and well disciplined *design* problems might provide a new understanding of environmental control as a total field and of maximization of the material, ending in a special course appropriate to an architectural school that considers the natural and mechanical ways of controlling environment and is closely related to even complicated problems of design. We have to face it that the most creative engineers of our day are no longer interested in airconditioning and that the problems of the mechanical equipment of the building are generally becoming very pedestrian from the point of view of the engineers. Yet they are far from solved and we might as well realize that as the creative engineers abandon this field, architectural schools may have to train some competent architectural teachers and even practitioners in this area.

THE TEACHING OF FUNDAMENTALS

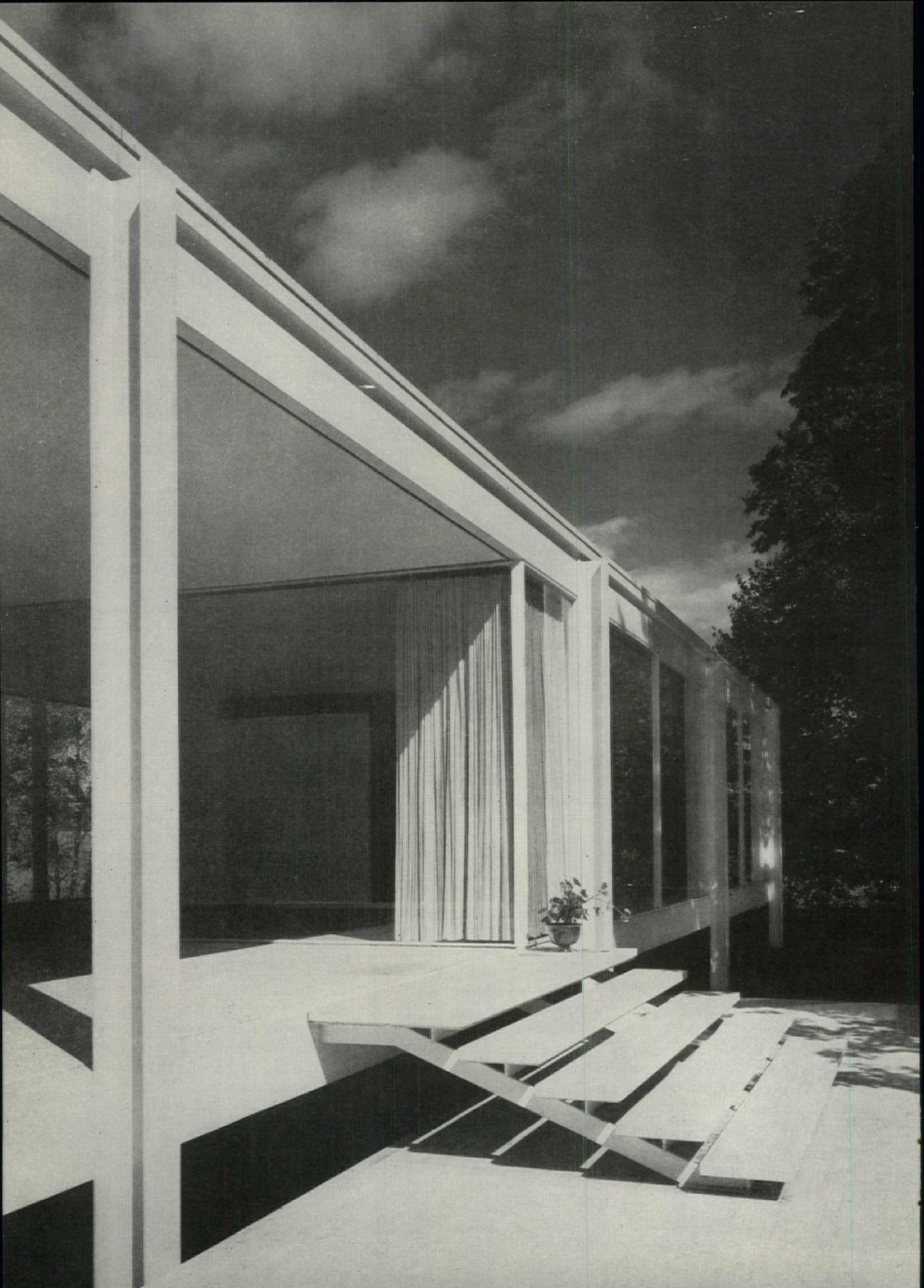
I look upon this question as asking whether by working up first a seasoned competence in big questions of proportion, rhythm, scale, quite abstractly, along with little exercises in alternate

ways of getting water off a roof, of covering space, of using a given material over a wide range of important details, some strong groundwork might not be achieved by which, in the end, power would come to combine these into buildings which must also satisfy programs. Of course each school does something like this, I suppose, but does it really do much? I do not see much evidence that the fundamental problems of composition are really understood by many of the students. I see far too many models that are always examined as though one were in an airplane. I see almost no evidence of the understanding that the really fine architect spends a lot of time and talent on the refinement of detail. All these ideas can be interpreted in old-fashioned terms as an appeal to go back to the whole Beaux-Arts method; they do not appear to me to be this but only a suggestion that we examine again what was powerful in them and then apply it in modern terms; what it did provide was discipline, and discipline is surely not irrelevant to the practice of architecture, however much easier it may be to encourage every one to fly off in every direction, to innovate whether or not with imagination, whether or not the innovative wings are large enough to sustain any flight at all.

And finally, is it possible that we could use the art of criticism more effectively in our education? I do not mean the criticism we apply to the student's work, but how we train the student himself to criticize. I do not suggest this as a way of producing more and better architectural critics although this might happen. It occurs to me simply because I believe Bush-Brown is using this with good effect at M.I.T. now, and because in principle it should be very effective. As I said earlier, the good designer is going to have to learn one way or another to be critical of his own work. It is usually easier to begin with the criticism of another's. Suppose it were possible at first for students to visit some well-established building of another day (a building, for drawings will not do) and to prepare a quite objective criticism of it on quite a number of different counts, avoiding at least until the end a simple overall value judgment. Even a bad building will yield values for such work though good ones are better experience. If the building is bad, the student should learn that his problem is not that of preparing the most telling indictment but the most honest statement of the good and the bad; if it is excellent, his purpose is not to prepare the highest accolade but the most honest statement of the bad and the good. Taking the building out of the current context may free the student from the

contemporary fad prejudice, whatever it is, although it may be necessary (and desirable) to free him from the equally fatal prejudice associated with anti-history. The first problems could concern simple buildings or simple parts of buildings even paralleling the design problems as to subject matter; later this could stretch to current work, of course; a little later to an examination of drawings and a preliminary criticism based on the impressions thus available followed by another of the real thing; finally it might seek self-criticism which is technically very difficult. But if the last fourth-year problem of a student could be laid away for a year, and if at the very end of his school career he had to prepare a critical essay of this project, something might happen. I am sorry to have spelled this out in so much more detail than the others. I did so not because it is more important, but because perhaps it seems more strange.

This keynote has dangled a ring of keys before you. It has asked if you have a clear understanding of the purposes of an architectural, professional, artistic or business education; it has asked whether design as the major and dominant subject may or may not be overemphasized when applied across the board to students of all degrees of designing talent; it has suggested that perhaps there ought to be bifurcations of the architectural curriculum as it reaches the upper years; it has suggested that serious studies are overdue on what kind of science study is appropriate for an architectural curriculum and how it is to be achieved; it has asked comparable questions about structures, materials, economics, sociology and, with some emphasis, psychology; it has then turned to the design course itself and asked whether as it is now planned it offers sufficiently clear stages of progress which can be understood by the student so he knows when he is ready for the next step, whether it cannot profit by a more systematic array of problems of composition, color, structure, materials and detail, and whether more experience in the techniques of criticism would not be altogether helpful, if only to lead to a more competent self-criticism. That comprises quite a bunch of keys; if they are all used they might open too many Pandora's boxes. (I apologize for the bad metaphor. We all know what came out of Pandora's box and now that Panofsky has proved that it never was a box but rather a jar it seems easier to keep the error of what contained the evils than to try to design a jar that can be opened with a key.) But with so many keys to choose from, I hope you may find at least one that it will be profitable to experiment with in the days ahead. ◀



Born in Aachen, Germany, in 1886, Ludwig Mies van der Rohe started his architectural career in the office of Peter Behrens—as did so many of the modern masters. Beginning with the Kroeller house in Holland, in 1912, he designed many distinguished works in Europe before the upsurge of Nazism drove him, as it did so many of Europe's intellectuals, to the United States in 1938. He became Director of Architecture at the Illinois Institute of Technology in Chicago, a post from which he retired in 1958. In his twenty-two years here he has become one of the great masters of modern architecture.

MIES VAN DER ROHE

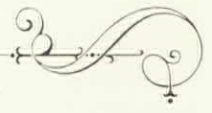
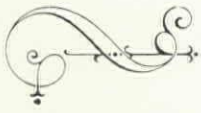
F A I A

AIA Gold Medal for Distinguished,

Service to the Profession, 1960

*Left: The Farnsworth
House, Plano, Ill.
Right: Lafayette Park,
Detroit, Michigan*





Knabb Lane Studio

LONGWOOD—NATCHEZ, MISSISSIPPI

42

*The story of the octagonal house
and some of the other fantastic ideas of its astonishing
“inventor,” Orson Fowler.*

☆ The eighteen-fifties could be called the decade of the octagons because it was during this ten-year period that most of these strange eight-sided buildings were erected. We find examples of the octagon mode in more than twenty states as well as in Canada, but the greatest number of them are to be found in the state of New York.

The eighteen-fifties were stirring years. The age of homespun was over and industrialization was making itself felt. Steam power boilers were being put to work in nearly every small community. The farmers of New York State were being challenged by the farmers of Ohio, Indiana and Illinois. They were turbulent years in the field of politics; the agitation over slavery, the Kansas-Nebraska Bill, the Missouri Compromise and the Dred Scott Decision made people aware of the difficult days ahead.

It was a period of architectural and building revolution. The Victorian style was rapidly replacing the Greek Revival—and the Victorian was a very strange style. It was not centered upon one particular type of construction or design, but permitted a choice by the owner or builder of several styles or types. There were Tudor Gothic manors, Elizabethan mansions, Italian villas, rural Gothic cottages and bracketed houses from which to choose.

A new type of construction, the "balloon frame" was rapidly supplanting the timber frame. It was much easier to erect and more economical. All these impacts were bound to affect the thinking of the people who would be receptive to new ideas if skillfully presented. Orson Fowler's book, "A Home for All," was all that was needed to start the fad of octagonal houses.

The idea of eight-sided and round buildings was not new. The Tower of the Winds, built by the Greeks about 300 B. C., was in the form of an octagon, and throughout the Romanesque, Gothic, and Renaissance eras, octagonal and circular structures were built.

Many of the Dutch who settled in and around New York probably saw or even attended octagonal churches in Holland. The followers of Calvin in Holland were more interested in preaching than in the beautiful examples of architecture associated with the Roman Catholic Church. The octagon form was better adapted to preaching than was the church with a long narrow nave and side aisles. There were octagonal churches in Willemstad, Amsterdam, Maasluis, Jzendijke and Groningen.

It was the latest fashion in Holland, therefore the people of New Amsterdam built simple little

The
OCTAGON

Fad

by

CARL F. SCHMIDT

Architect, Scottsville, New York

and author of a book

with the above title



octagonal churches in Bushwick, Guilderland, New Amsterdam and New Utrecht.

We know of nearly twenty small octagonal Dutch Reformed Churches built in the Hudson River Valley between 1680 and 1750 and there were also some in New Jersey.

A six-sided Reformed Church was built on Race Street in Philadelphia in 1747, and in the Builders



RICHARDS-THOMAS HOUSE,
WATERTOWN, WISCONSIN

Magazine of 1776, published in England, there is a design for an octagonal hunting villa as well as an octagonal public library. Also in the book, "Architecture Improved," by Robert Morris, surveyor, published in 1857, there are designs for an octagonal mausoleum and water house. A small octagonal church was built in Little Falls in 1796 and razed in 1842.

Thomas Jefferson prepared the plans for his octagonal retreat, "Poplar Forest," near Lynchburg, Virginia, several years before he began its construction in 1806.

A Philadelphia newspaper of February 12th, 1813 states "... on the following Sunday The Octagon Unitarian Church will be opened."

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The old National Road, now US highway 40, was turned over to the state of Pennsylvania in 1835, and soon after, the state built six octagonal toll houses along this road.

In Bucks, Chester, Montgomery and Northampton Counties of Pennsylvania and Hunterdon County in New Jersey more than a score of octagonal schoolhouses were built between 1815 and 1840.

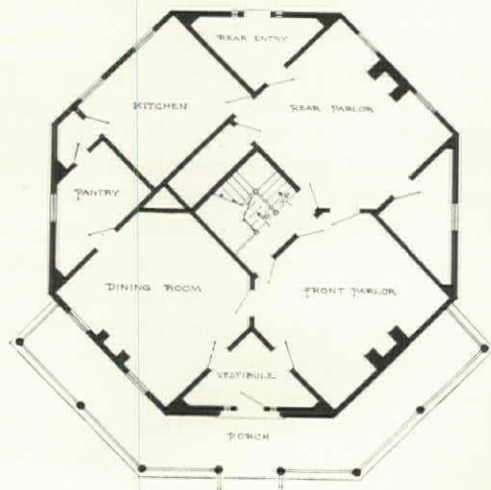
The idea of the octagonal plan was not new as Fowler claimed; it had been in the minds of architects and builders for centuries.

While Orson Fowler, a Cohocton farm boy, was a student in the theological course at Amherst, he attended a series of lectures by an Austrian scientist in Boston on the subject of phrenology. He and his classmate, Henry Ward Beecher, became enthusiastic over the subject and read the shapes of the heads of their fellow students. Fowler became so accomplished in distinguishing various characteristics such as friendship, combativeness, ideality, etc, that he was soon lecturing and reading the heads of people in neighboring cities and villages. He was so successful that after graduating in 1834 he abandoned the ministry for a career on the lecture platform on the subject of phrenology. The new science had aroused such universal interest that by 1832 there were in Great Britain more than thirty societies actively interested in its study.

Fowler opened an office in New York and did a thriving business, and it became necessary for him to train his brother, Lorenzo, and his sister, Charlotte, to help him. His lecture tours took him to all parts of the United States as well as into Canada.

The income from his lecture tours and his publications made him a wealthy man, and he began to dream about building a country house along the Hudson. This led him into another field, building, which at that time was receiving its share of public attention. Not only was there a trend of change from the Greek Revival to the Victorian, but steam power mills were able to saw great quantities of lumber. Steam mills were turning out wood mouldings which previously had to be laboriously run out with a hand plane, and new machinery was turning out thumb latches and door hinges by the thousands. There was a surge of

SOLON VAN BURKIRK HOUSE,
CANADAIGUA, N.Y.



building similar to that which took place after World Wars I and II.

There was also a social reform whose object was to build more comfortable houses within the financial status of the working people, and this was something which aroused the sympathy of Orson Fowler.

He probably saw or heard about octagonal plans in his tours, before he began the building of his house near Fishkill in 1848. He also began to write his book, "A Home for All," at the same time and it was published in 1849. In a later edition of the same book, published in 1853, he tells of a trip to Milton, Wisconsin, in 1850. Here he became acquainted with Joseph Goodrich who had built a six-sided or hexagonal building in 1844-1845. Goodrich built this house, as well as several other buildings, with a form of concrete using cement, sand, stones and gravel thoroughly mixed wet and placed between boards to form his walls. Fowler writes that he thoroughly examined the walls of the house with a hammer until he was fully satisfied as to their solidity and strength. Goodrich offered to allow him to strike the walls with a sledge, as hard as he pleased, upon the inside of his parlor walls for six cents a blow, which he said would repair all damages.

Fowler called this type of wall "grout" and became very enthusiastic about it. He thought it was original with Goodrich, as he thought the octagonal was "wholly original with the author" of "A Home for All."

Fowler ridiculed the Greek Revival houses with their "finified carvings and cornicings." He said, ". . . the roofs were steeper than necessary, cost more, and absorbed more heat from the sun, causing hot bedrooms." The rectangular plan with wings he called "doubly objectionable" because of the length of its exterior walls compared to the floor area enclosed. "Now," said Fowler, "let us take a box four feet long and a quarter of a foot wide: It contains only one square foot; yet its outside wall is eight and one-half feet. A rectangle two feet long and a half a foot wide; it also contains one square foot, yet it is only five feet in circumference; while a one foot square contains just as much room, yet is only four feet round.

"But is the square form the best of all? Is the right angle the best angle? Cannot some radical improvement be made, both in the outside form and the internal arrangement of our houses? Nature's forms are mostly spherical. She makes ten thousand curvilinear to one square figure. . . . Then why not apply her forms to houses? Since a circle encloses more space for its surface than

any other form, . . . the nearer spherical our houses, the more inside room for the outside wall, besides being more comfortable. . . . Of course the octagon, by approximating to the circle, encloses more space for its wall than the square, besides being more compact and available."

Fowler also advised his readers to raise the first floor sufficiently above the grade and enter the house through the basement. It would eliminate the cold winter winds from chilling the main rooms during the winter months. The basement should be converted to some good use; the kitchen and kitchen storage rooms should be there.

Fowler wrote that corners of rooms are of little use because they are dark and it is difficult to arrange the furniture.

He also points out the advantages of octagonal houses. They receive twice as much direct sunlight through the windows from having eight walls instead of four. In the winter they are easier to heat because they have less exterior wall surface for heat loss. In the summer the rooms are cooled by opening the windows on the side from which the wind blew, opening the stair hall doors in the center of the house, and the cupola windows on the roof, thus creating a draft that ventilates the entire house.

The stair hall should be in the center of the house enabling one to enter directly into the various rooms and thereby saving many steps. The arrangement of the rooms is better because the rooms are united, and one can pass from one room to another without the necessity of passing through a cold and cheerless hall.

Encircling porches were also a favorite with Fowler. "Verandas are delightful places on which to spend twilight and moonlight evenings, in either

HOBBS - WARREN HOUSE,
KENT, NEW YORK





ARMOUR-STINER-CARMER HOUSE,
IRVINGTON, NEW YORK

promenading or conversation. . . . And the advantage of having them all around the house is considerable, allowing you to choose sun or shade, breeze or shelter from it, as comfort dictates.”

Very few octagonal houses were built that followed generally all the recommendations of Fowler. The idea of the entrance into the basement is rarely found. Locating the kitchen in the basement and the dining room on the first floor was tried in probably ten per cent of the octagons. It was not a new idea since it was popular in the south from Savannah to New Orleans. It took time to send a large meal to the floor above with an inadequate dumb-waiter. Some of the houses were encircled with a one-story porch, very few had a two-story porch. Most of them had a porch across three of the eight sides, and a rear porch across one side. Some had no porches. Less than fifty per cent of the octagons had central stair halls. Many of the houses were small, with sides less than sixteen feet long, in which it was not practical to have a central stairhall.

The octagonal house plan illustrated in “A Home for All,” as the residence of John J. Brown, Williamsburg, New York, was very popular. This plan provided two nearly square rooms through the center of the house. The remaining space on each side was used for the stair hall on one side and a small bedroom, closet and pantry on the other.

Although never suggested by Fowler, many of the octagons had a rectangular projecting wing in which were located the kitchen, pantry and store rooms.

The “gravel” or “grout” wall, over which Fow-

ler waxed enthusiastic in the book published in 1853, was made by mixing sand, gravel and small stones, as well as some large stones, with lime. Oyster shells, slate chips, brickbats, furnace cinders, or anything hard would answer the purpose just as well as stones, said Fowler. He advises that the materials be mixed wet in a mortar-bed, first the lime and then add the sand, coarse gravel, small stones, brickbats and slate chips. When thoroughly mixed, the material should be deposited between wood plank forms the thickness of the wall. The form boards should be from twelve to eighteen inches high, secured to vertical standards. After the materials are allowed to dry for twenty-four hours, the form boards are raised and again secured to the standards and the next layer of wall poured. The durability of the grout walls depends on the plaster applied on the exterior of the walls. It consists of a coat of common plaster similar to the scratch-coat applied to interior walls, and a hard finish coat containing some plaster of Paris as well as indigo, lampblack or other coloring matter. It was often scored or marked off to imitate stone jointing.

When the finish coat breaks or flakes off from the grout walls, water and the action of freezing and thawing can easily attack the softer grout walls and cause it to deteriorate. Many houses with this type of walls are still standing and are in good condition.

When Fowler said that Goodrich was the original discoverer of the gravel or grout wall, he was very much misinformed. The Romans were familiar with pozzolano concrete, made with a natural cement. As early as 1796, James Parker of England obtained a patent for the manufacture of a cement, and a cement was made in the United States as early as 1818, with the discovery of a natural cement rock near Chittenango, New York, by Canvass White, an engineer on the Erie Canal. A cement mill was built in Rosendale, New York, as early as 1828.

A type of wall called “pisé,” made of rammed earth or adobe, has been used in Europe for several hundred years. In England it was called “cob.” The walls were made of clayey, somewhat sandy loam and vegetable earth. Sometimes it was mixed with milk of lime instead of water. The walls were built with wood plank forms, and covered with a lime and sand plaster just as Fowler suggested for his gravel wall. There certainly were immigrants from Europe who could have given Fowler all the information necessary to build this type of wall.

Another type of wall that Fowler recommended in his books was the “board wall,” and we find ex-

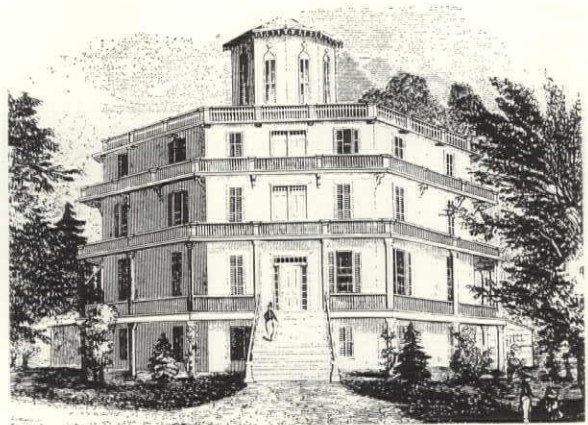
amples of it in localities where lumber was cheap. It was built of boards of various thicknesses, from one to two inches, and about four and six inches wide. The boards were laid flat alternately, starting with a six-inch-wide board and then a four-inch-wide board and nailed down solidly, letting alternate boards overlap at the angles. Interior partitions were built up in the same manner and at the same time as the exterior walls, letting a board project every few courses into the exterior walls and nailed to it. Lathing is omitted on both exterior and interior partitions because the plaster is forced into the one-inch deep recesses and clinches of these openings. The same result can be achieved by using boards of equal widths and staggering them, laying one board out about three-quarters of an inch, and the next in the same distance, thereby forming the same recesses for the plaster to clinch.

There are other suggestions in his books very interesting to us today, but they were not original with Fowler because they are also found in builders' handbooks of that time. He advocates that each room should have its ventilator, and that the ventilator should open at both the bottom and top of the room, so as to carry off any bad air which may settle at the bottom or rise to the top. The ventilators should be provided with registers so that their action may be under control. The vents should be carried to the top of the house just under the eaves where they can be opened between the rafters and thus the bad air cast out of the building. A box or round stick six to eight inches in diameter is pulled upward through the walls as the grout walls are poured, leaving flues or vents in the wall. Similar ducts can be built into the walls to be used as speaking tubes.

Another real necessity for a good house, Fowler suggests, is the installation of an indoor water-

closet. ". . . and under the stairs is just the place for one, its contents passing down one of those chimneys, into a receiving box in the basement, made tight and easily cleaned, and the closet itself ventilated into an adjoining chimney. . . . To squeamish maidens and fastidious beaux this point is not submitted, but matrons, the aged and the feeble, are asked is not such a closet a real household necessity and luxury? Yet it need be used only in cases of special need, the one generally used being outside, as usual."

There were other men besides Fowler who were advocates of the octagonal plan, and some architects who published books on residential



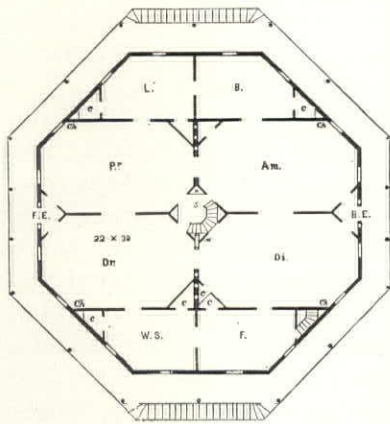
ORSON S. FOWLER HOUSE,
FISHKILL, NEW YORK

and cottage building included plans of this type. Samuel Sloan, the famous architect from Philadelphia, published a book in 1852. It contained the plans of a large house very similar to the one he designed for Dr Haller Nutt, in Natchez, Mississippi.

"The American Cottage Builder" was published by John Bullock in 1854. He not only repeats Fowler's reasons for the superiority of the octagonal plan, but says that an octagonal house looks well from all sides and offers much less resistance to the wind. Along the coast from North Carolina to Maine one often hears that the octagonal form was chosen because it had much less resistance to the wind.

Stories that have been handed down say that some people built octagonal houses to eliminate the howling of the winds around a right angle corner, others just wanted something new or different. On several occasions we did hear that the builder used the octagonal form so that the devil could not corner him.

There also was some opposition to the building of the octagonal house. Builders knew that it took



FLOOR PLAN, FOWLER HOUSE,
FISHKILL, NEW YORK

more time to frame an octagonal house and in spite of Fowler's arguments about the increased floor area in proportion to length of exterior walls, it was difficult to properly arrange the rooms around the angles. The editor of "Moore's Rural New Yorker" in 1860 writes as follows: "With the octagon and six-sided houses we were never much pleased, and never recommended such to our readers. They require more labor in their construction than square buildings of the same dimensions; and it is difficult to arrange the rooms in a desirable form without loss of space. . . ."

Most of the octagonal houses were very simple. None had an elaborate entrance which we associate with the Post-Colonial or Greek Revival styles. Generally, in the cornices the crown moulding and fascia projects from about fourteen to thirty inches beyond the wide plain frieze. Rarely do we find an architrave member below the frieze. Often simple sawed wood brackets support the overhanging cornice, and only occasionally do we find elaborately carved wooden brackets. Of course there are a few exceptions, as "Longwood" in Natchez, Mississippi, the Armour-Carmer House at Irvington, New York, and the Richards House in Watertown, Wisconsin, which were large, well-designed, elaborate mansions. Usually, the interiors were very simple without wood carvings, ornamental plaster ceilings, or moulded cornices. The spacious rooms had high ceilings, were well lighted, with heavy and often crude mouldings around the doors and windows.

The people who built the eight-siders were individualists and did not care if their house was the only one of that type in the community. They would not cling to the traditional ideas or customs, but were bold experimenters. Let us read some of the truths of beauty that Fowler, the "high priest of phrenology," expounded in his books. "And here let me develop the law which governs this whole subject of taste and beauty. Nature furnishes our only patterns of true ornament. All she makes is beautiful, but mark, she never puts on anything exclusively for ornament as such. She appends only what is useful, and even absolutely necessary, yet so appends it as that all necessary appendages add to beauty.

"The beauty of a house is scarcely less important than its room. True, a homely but convenient house is better than a beautiful but incommodious one; yet beauty and utility, so far from being incompatible with each other, are as closely united in art as in nature; they are inseparable. It is hardly possible to have a truly handsome house without its being capable of being made as handy inside

as it is beautiful outside; nor can a homely-looking house well be made convenient. I repeat, beauty and utility are as closely united in architecture as they are throughout all nature. If, therefore, the square or winged form of house is best, it will look best, and if it is the most beautiful, it can be made the most comfortable.

"Form embodies an important element of beauty. Yet some forms are constitutionally more beautiful than others. Of these the spherical is more beautiful than the angular, and the smooth and undulating than the rough and projecting. . . . Hence a square house is more beautiful than a triangular one, and an octagon or duodecagon than either.

"Since, then, the octagon form is more beautiful as well as capacious, and more consonant with the predominant or governing form of Nature—the spherical—it deserves consideration."

The distinctiveness of the design, and the reasons Fowler presented in his books appealed to many people. The decade between 1850 and 1860 was the age of the octagons. Eight-sided houses, school houses, barns, carriage houses, smoke houses, chicken houses, bath houses and even an octagonal blacksmith shop were built. There were also many other architectural appendages built in the octagonal form and are still being built, as judges' stands at race tracks, garden houses and pavilions on fair grounds. In Alabama and Mississippi there are many houses with octagonal towers. Some are the same height as the house, two stories; others are carried a story higher. They are said to have been influenced by the octagonal pilot houses on the Mississippi River steamboats.

Here and there octagon houses have been built since the passing of the octagon era. An octagon house was built in Arcade, New York, in 1920 and Mr Haines built his octagon house near Hilton, New York, in the early nineteen-twenties. Recently the architectural firm of Chapman, Evans, & Delehanty of New York, built a large octagonal house at Lawrence, New York.

At the Century of Progress Exposition in Chicago in 1933, George Fred Keck, a Chicago architect, designed "The House of Tomorrow." It was a twelve-sided, three-story structure with a central core containing the stairs, utilities and ducts. All the rooms radiated from the central portion. The exterior walls were glass. The third floor was smaller than the second permitting an encircling deck or porch, a development of the cupola. Keck spent his boyhood in Watertown, Wisconsin, and was familiar with the famous octagon house there built by John Richards. ◀



FAVORITE FEATURES *of AIA Fellows* *elected for Design in 1959*

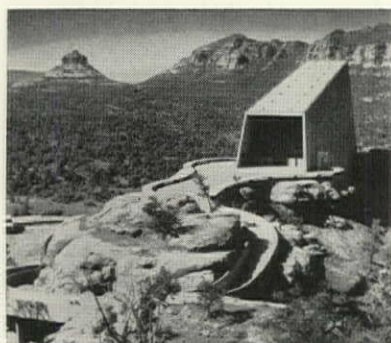
Henry Saylor, FAIA, former Editor of the *Journal*, started the custom years ago of asking each Fellow elected for Design to submit his "Favorite Feature" for publication in the *Journal*. Mr Saylor's idea was that a single detail be selected by the architect so honored, a detail which he felt best expressed what he was trying to accomplish in architecture.

The present Editor, for better or for worse, expanded the scope of the selection somewhat by asking the new "Design" Fellows to submit several photographs of their favorite building, or one photograph each of several buildings — jobs of which they were particularly proud.

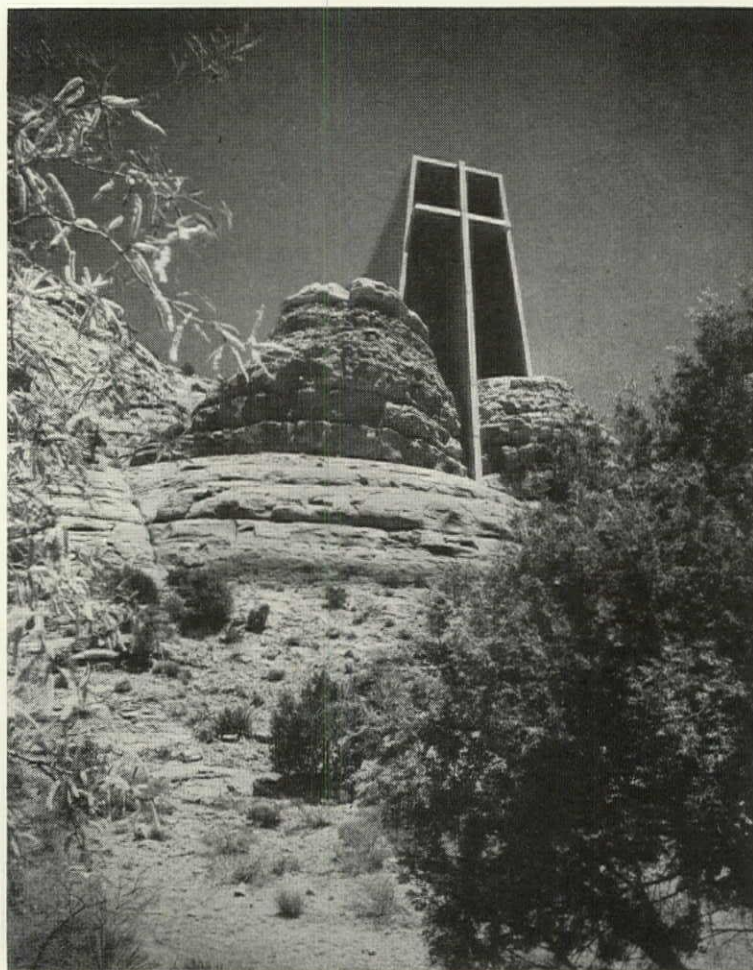
Seventeen Fellows were elected for Design in 1959, but only nine heeded our request for photographs of their Favorite Features. Instead of presenting them from time to time as has been done in the past, we present them herewith all together.

WILLIAM STEPHEN ALLEN, FAIA Anshen & Allen, Architects, San Francisco, California

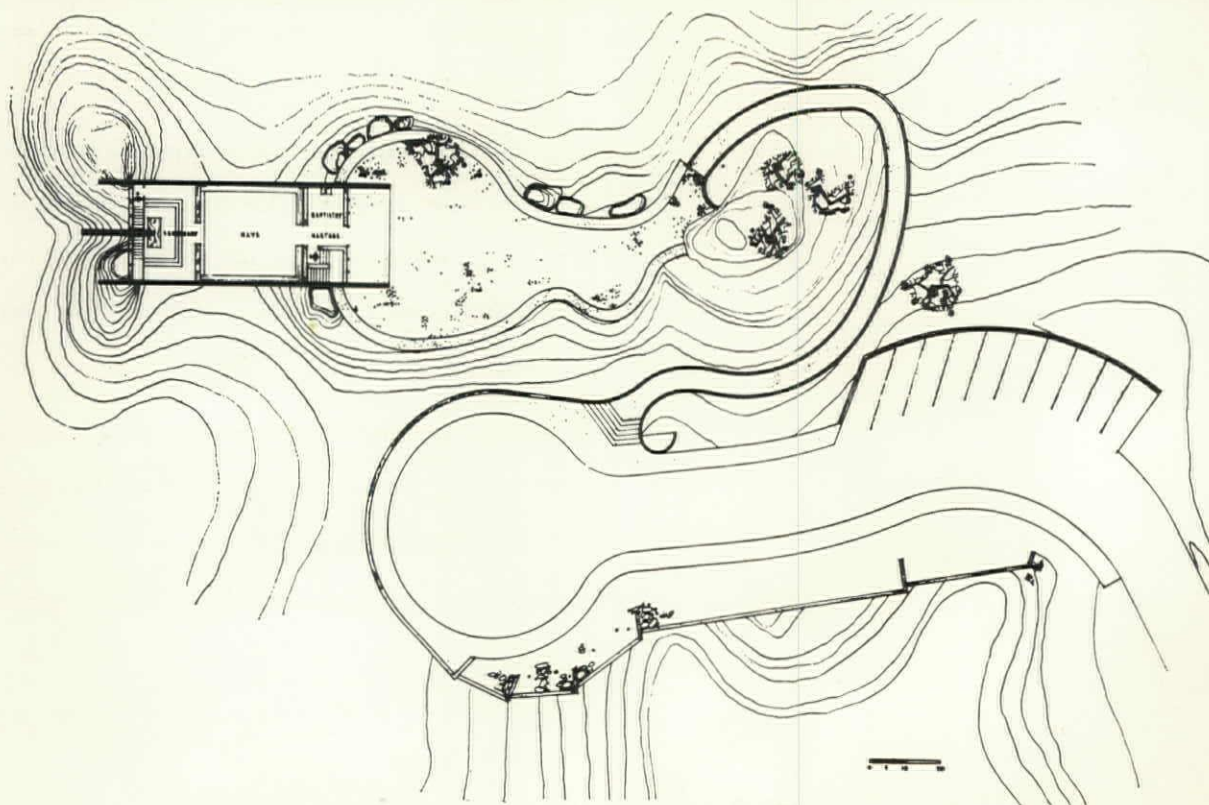
Chapel of the Holy Cross, Sedona, Arizona



Julius Shulman



Julius Shulman



GEORGE W. W. BREWSTER, FAIA Boston, Massachusetts

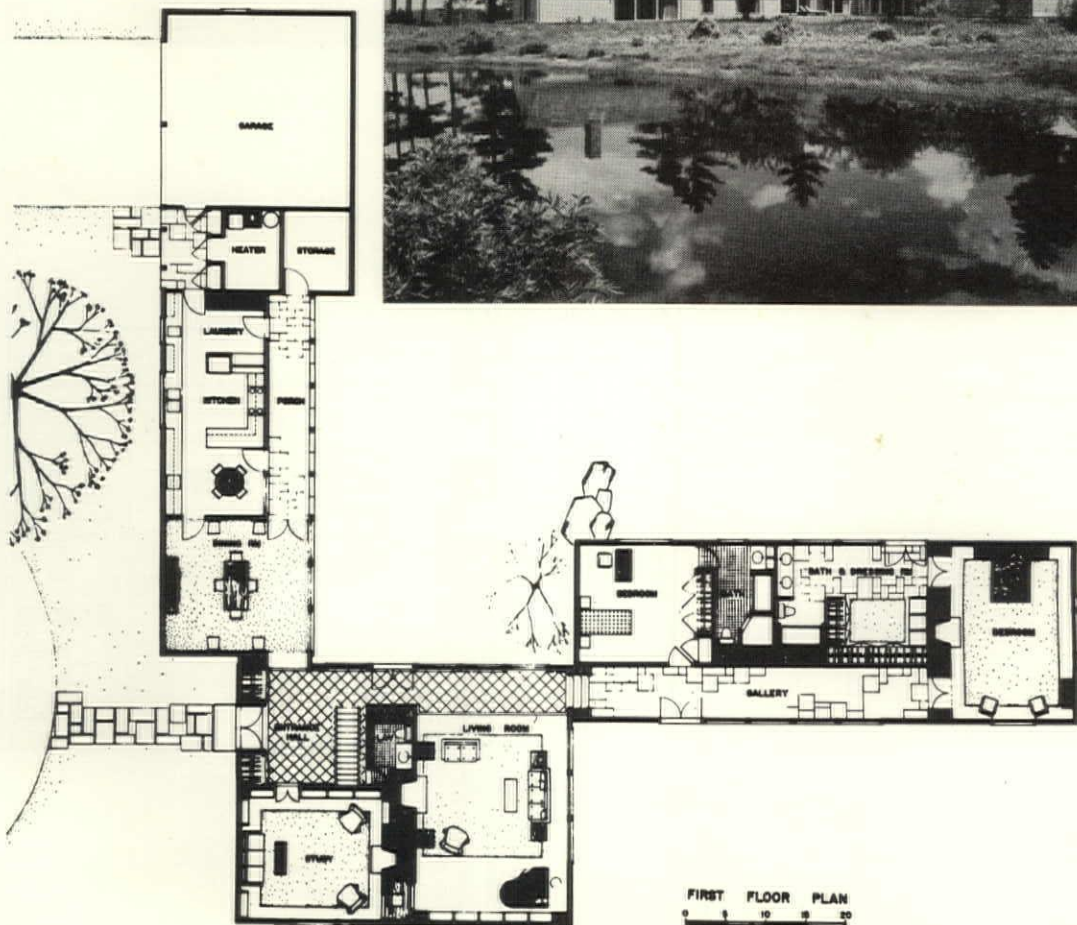
Residence of Mr and Mrs Maynard Ford, Fitchburg, Massachusetts



Esra Stoller

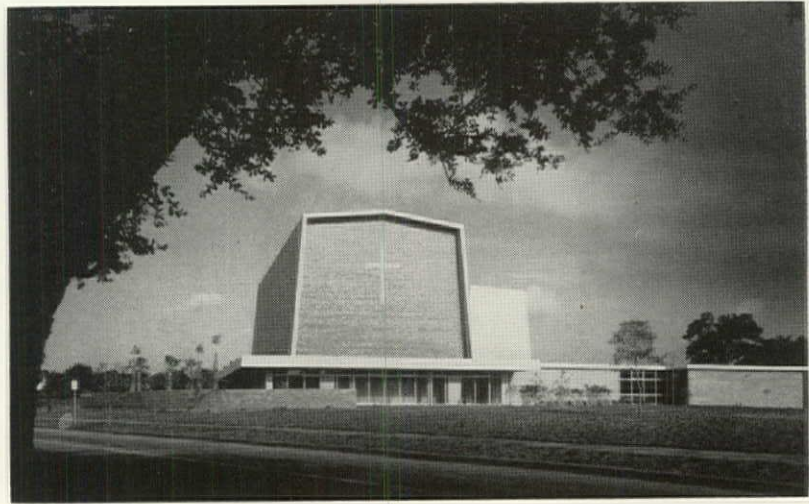


Esra Stoller



HAMILTON BROWN, FAIA Brown & McKim, Architects, Houston, Texas

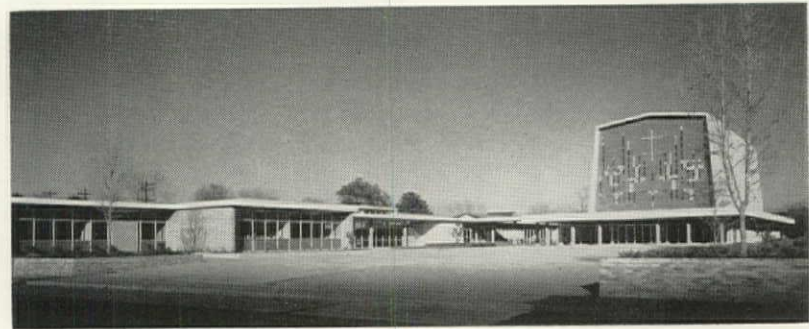
First Christian Church, Houston, Texas



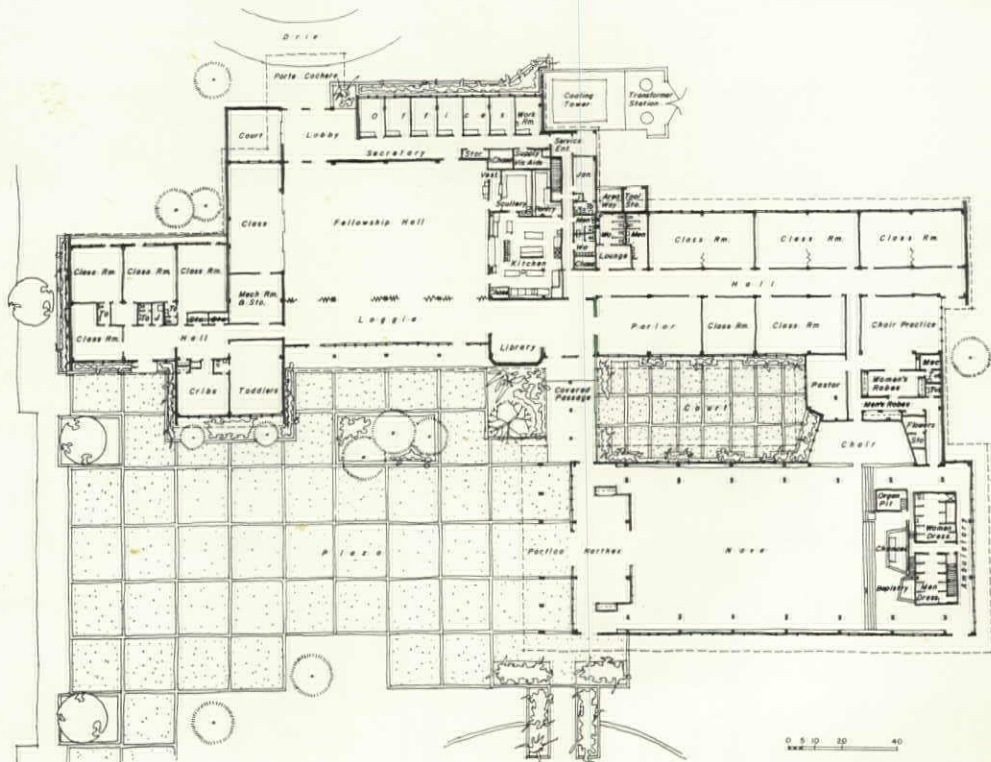
F. Wilbur Seiders



F. Wilbur Seiders



F. Wilbur Seiders



► *The Greenwich Hospital, Greenwich, Connecticut*



Heidrick—Blessing

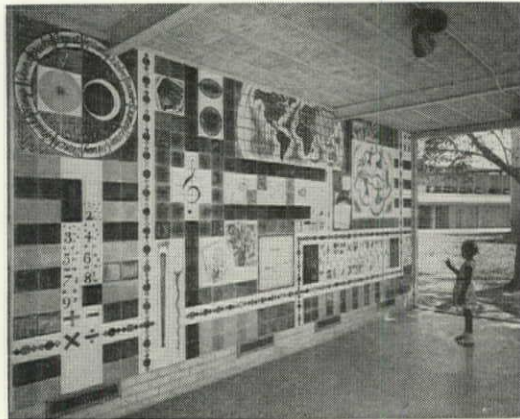
► *Pan American Life Insurance Company, New Orleans, Louisiana*
Claude E. Hooton, Associate Architects



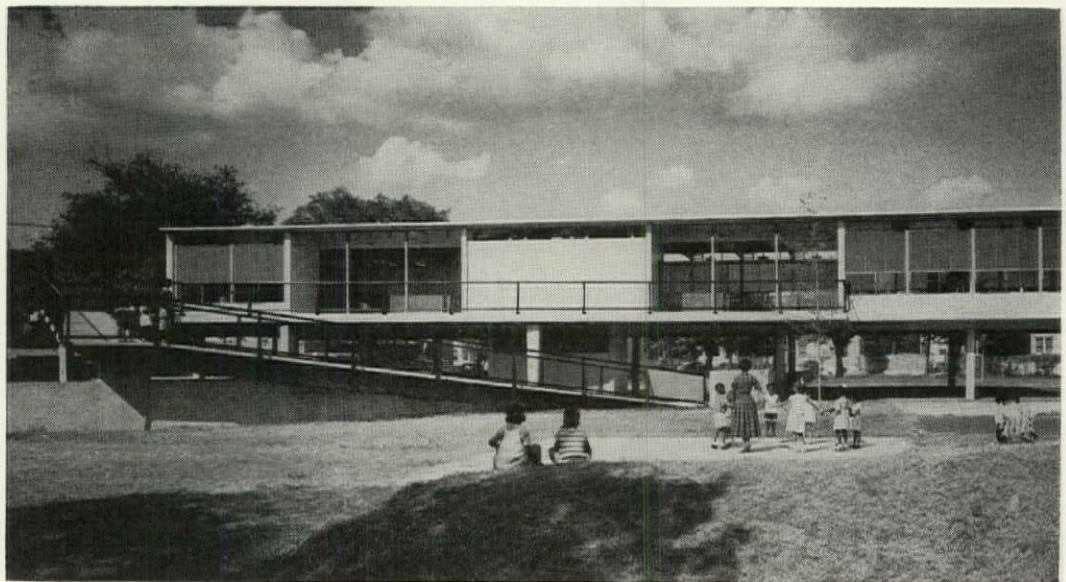
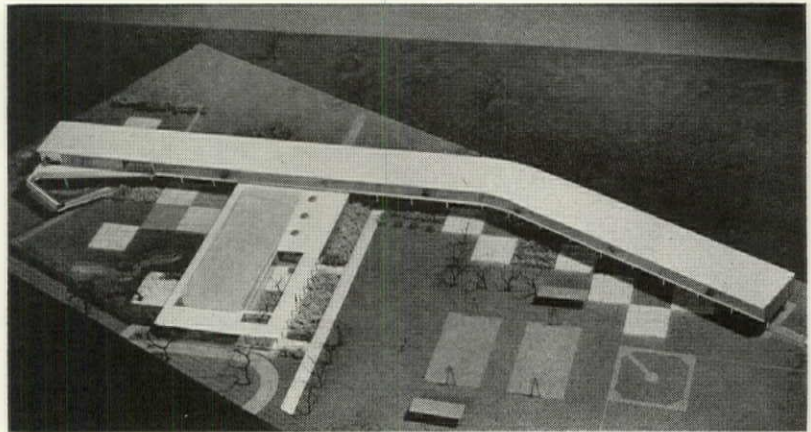
Heidrick—Blessing

ARTHUR Q. DAVIS, FAIA Curtis & Davis, Architects, New Orleans, Louisiana

Thomy Lafon School, New Orleans, Louisiana



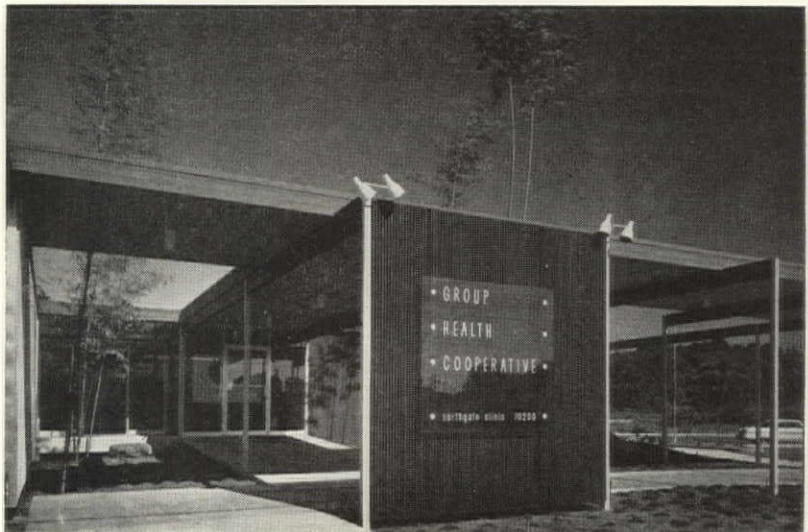
Frank Lotz Miller



Northgate Branch Medical Clinic, Seattle, Washington

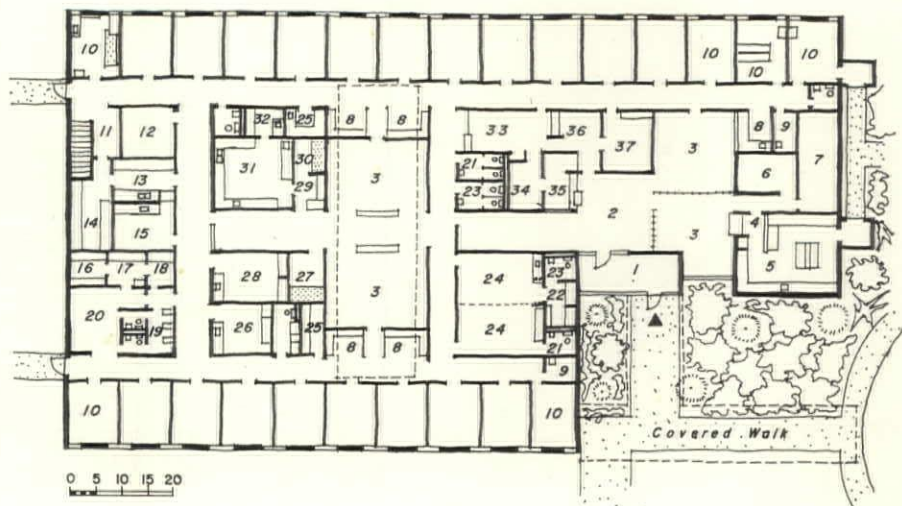


Dearborn—Massar



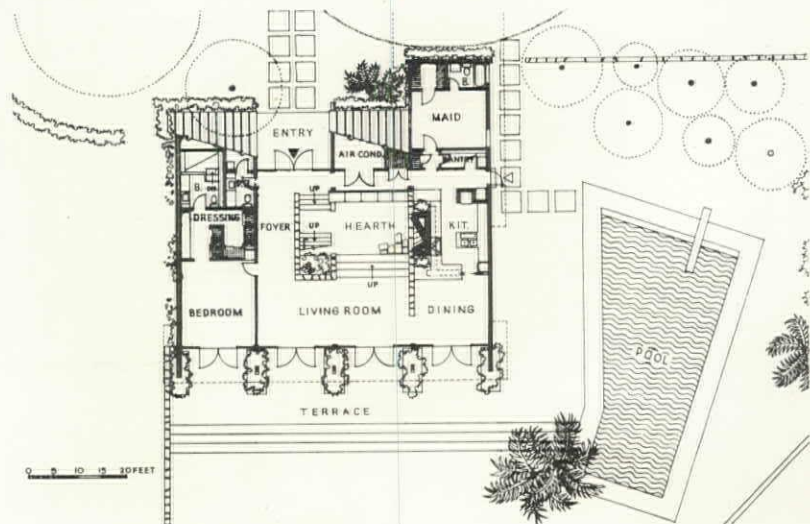
Dearborn—Massar

- | | |
|------------------------|-------------------|
| 1 vestibule | 19 dressing |
| 2 lobby | 20 x-ray |
| 3 waiting | 21 men |
| 4 dispensary | 22 coats |
| 5 pharmacy | 23 women |
| 6 optometrist | 24 lounge |
| 7 refractory | 25 utility |
| 8 nurse | 26 injections |
| 9 janitor | 27 ekg |
| 10 examination | 28 cast |
| 11 wheelchairs | 29 office |
| 12 therapy | 30 blood |
| 13 central supply | 31 lab |
| 14 storage | 32 bacteria |
| 15 surgery | 33 records office |
| 16 dark room | 34 records |
| 17 control and storage | 35 receptionist |
| 18 viewing | 36 secretary |
| | 37 manager |



ALFRED BROWNING PARKER, FAIA Miami, Florida

Residence of Mr and Mrs Joseph Mass, Everglades Island, Palm Beach, Florida

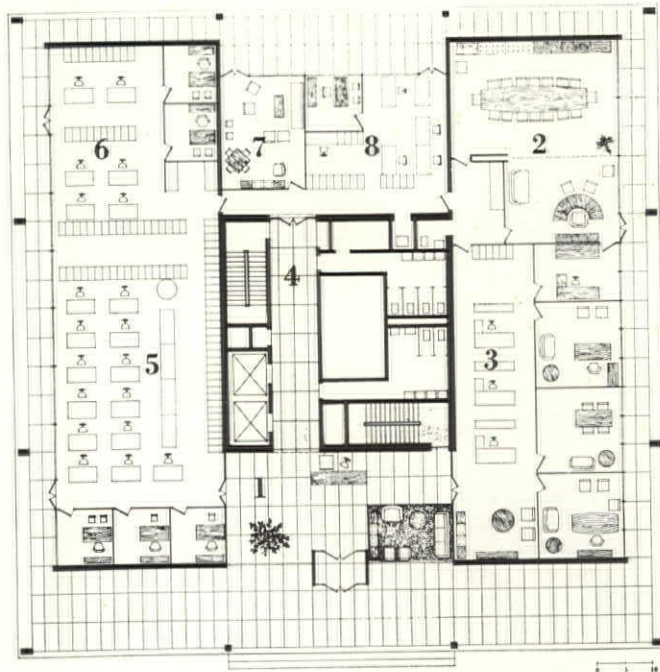


THORNE SHERWOOD, FAIA Sherwood, Mills & Smith, Architects, Stamford, Connecticut;

Constantino Nivola, Sculptor: *Mutual Insurance Company of Hartford, Hartford, Connecticut*

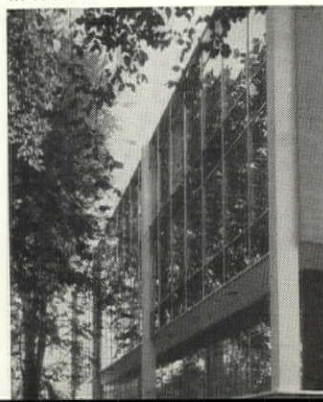


Robert Stahman



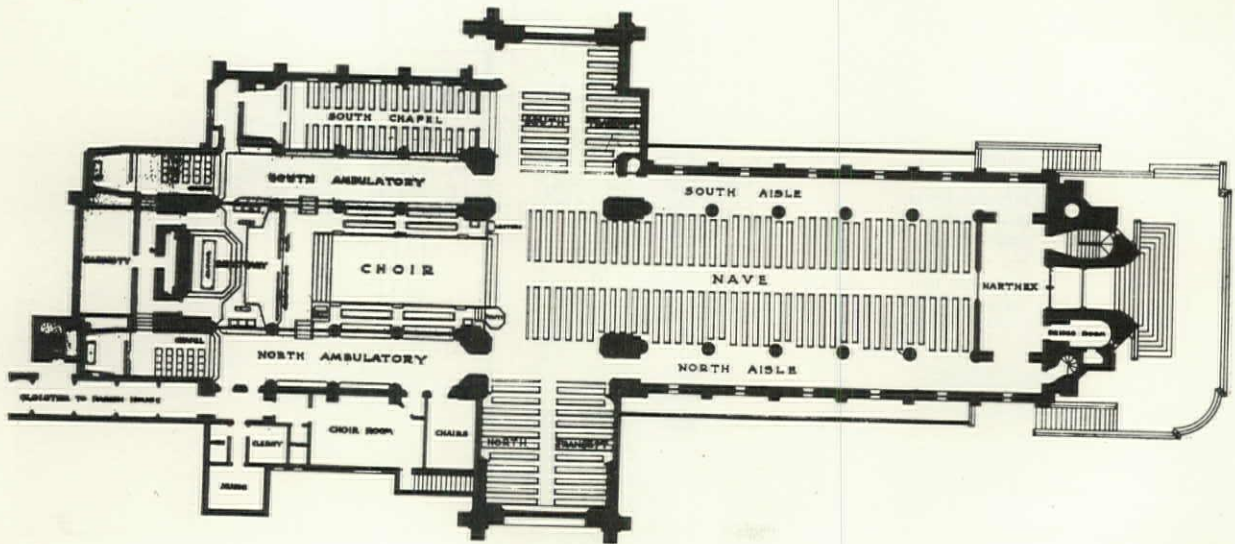
- 1 reception lobby
- 2 board room
- 3 executive offices
- 4 service core
- 5 underwriting
- 6 loss and inland marine
- 7 employees' lounge
- 8 agency service

W. F. Miller

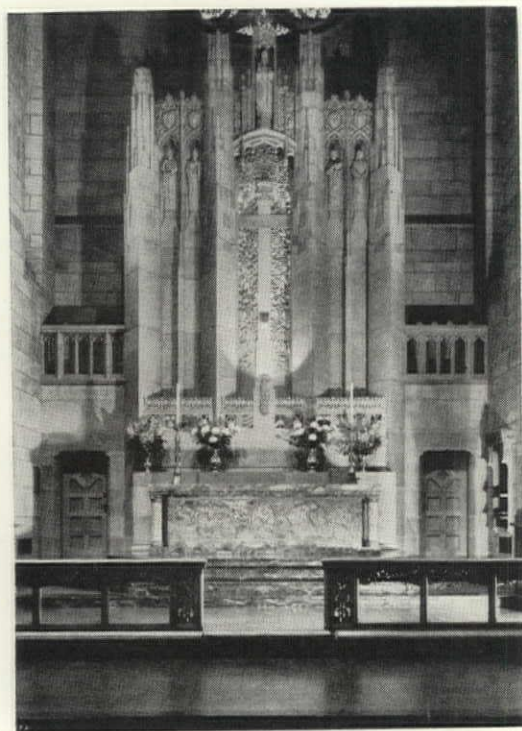
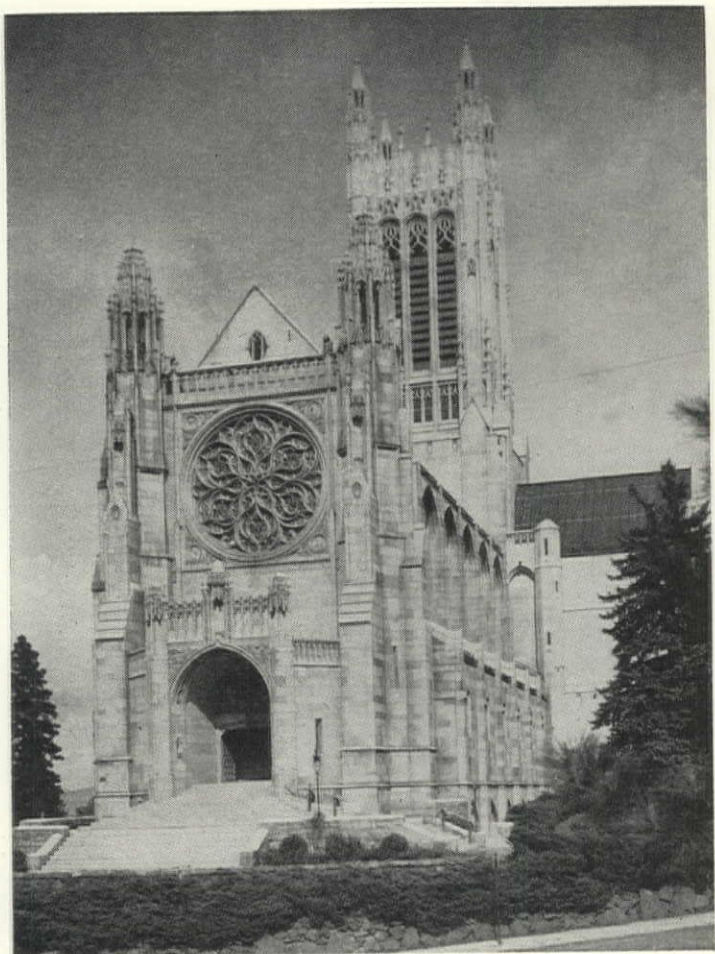


H. C. WHITEHOUSE, FAIA Whitehouse, Price & DeNeff, Architects, Spokane, Washington

The Cathedral of St. John (Episcopal), Spokane, Washington

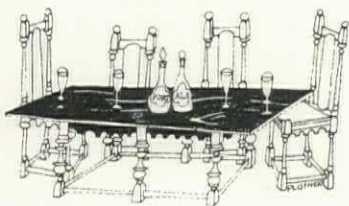


58



► *Davenport Memorial Fountain, Manito Park, Spokane, Washington*





TRACINGS

from an

Oaken Table

NO. 2

by Neoscopos

IT MIGHT HAVE COME FROTHING TO THE TOP almost any Thursday—we seldom wandered so far afield, gathered around our luncheon table, that we could not any of us, at the fall of a single phrase, revert to kind as thoroughly dogmatic *arbiter elegantiarum*—but what actually occasioned this particular interchange was the long-heralded entry of the Big Three in the Compact Car race. In fact, none of us had anything very material at stake: Our younger associates all rocketed happily about summer and winter in their light-hearted, utterly anti-utilitarian MG's and Triumphs and Porsches—not to mention one draftsman who gyrated from Sprite to Fiat-Abarth to Stanguellini in six short months of compulsive tachomania; but we others, bowed low by the cares of do-it-yourself-finished houses and gardens, by a spectrum of children from nursery to pre-college age all of whom plus baggage equipment and wild life would have to be packed somehow into a single vehicle for inevitable state visits to grandparents and annual summer distance-treks to the seashore and/or mountains, or simply crushed by

the general immensity of the logistical demands of life in the exurban age, could only hope to coax one more year out of the old Ranch Wagon until the replacement dishwasher and burner were amortized, or persuade it to continue rolling on into a second life as a third car for the hungry new generation already clamoring for a steering wheel of its own. Academic, indeed, but the coals could still leap to flame in a moment. Even before the advent of the "hollow, rolling sculpture" which had dripped differential lubricant on the white terrazzo floors of the Museum of Modern Art in 1950, we were to a man self-confessed experts on what was right with Farina and Ferrari's, what was wrong with DeSoto and Detroit. And so any signs, no matter how remote, of sanity returning to the Michigan Moguls were seized on as major news. When someone that Thursday (Frank if I remember) hazarded a guess after seeing one the evening before, that the designers had pooled studies of the VW, the Dauphine and even a touch of the Karman-Ghia to compose the new Corvaire, and in fact had really done a passable job of putting them all together, we simply could not believe it. When we saw the Corvaire later, it turned out we were right—but no matter.

Fred was, not surprisingly, the first to make his deposition as the Issue evolved. It developed he had recently read something all too close to the bone: A Professor Dwight Robinson had been lecturing the Harvard Business School on "The Rules of Fashion Cycles," with remarks reprinted in *Horizon*. The very first sentence was a body blow: "The history of succeeding styles observes a few unalterable rules which . . . are applicable to all industries: Whether the problem is selling cars, architectural plans, pedigreed dogs or dresses, the motives which prod consumers into continual revision of their tastes are essentially the same from commodity to commodity." As for cars, so for architecture, so for cocker spaniels or pekingese; but the heresy went further. "No single style of design, no matter how brilliantly it is conceived, can claim any independent fashion significance at all, nor can it possess more than a fugitive lease on life." And worse was yet to come: "Paul Poiret summed up his credo as 'All fashions end in excess.' He was aware that the overriding responsibility of the designer . . . is the unending provision of novelty. Implicitly he recognized that the most exacting problem the stylist faces is that of deciding what to do when he has exhausted the possibilities of a current direction in styling emphasis." O Space, Time and Architecture! Is nothing sacred? Was it for this we traced, and studied, and

worshipped the Pioneers of the Modern Movement from William Morris to Whomever-You-Preferred? The slow but steady grand march of honest and logical architecture, from the Crystal Palace to the Bauhaus and on to the New Flowering of the nineteen-fifties, consistent, rational, inexorable; and yet what was this preposterous professor saying? "The most important corollary of Poirret's axiom is this: A fashion can never retreat gradually and in good order. Like a dictator, it must always expand its aggressions—or collapse. Old fashions never just fade away; they die, suddenly and arbitrarily."

Long before the climax, a musing smile had begun to play across Tom's face. When the moment of silence came, his mood was reminiscent: In his final student year, he remembered once climbing the great marble stair to the west of the main gallery at Robinson Hall in company with Philip Johnson, then only newly returned to Cambridge to study architecture a dozen years after his college graduation. There had been a jury meeting in the hall. Everyone was sagely discussing the judgments, how one or two projects really stood out for their honesty, their structural economy, their functional fitness, their masterful blending of all the elements of good design, just as Gropius and Breuer had been preaching and practicing ever since their arrival on our shores and before. Philip had been more than a little skeptical: Twelve years hence, he ventured, a new student body under a new faculty would hear exactly the same praises and the same condemnations of projects hanging on the same gallery walls, but bearing no visible resemblance whatsoever to the projects hanging there right now. The shock on Tom's face, his breathless, almost anguished silence at such iconoclasm, was catnip to Philip: After all, he continued, he and Russell Hitchcock had already coined a phrase and written a book years before just to identify, and classify, and delimit "The International Style." That very week Tom had borrowed a copy of this testament of two categorists (not available in the Robinson Hall Library); two weeks later he had added the literary acquaintance of Geoffrey Scott, and that was the beginning of the end. Or the end of the beginning.

Confession has its therapeutic value, but this was too much for Frank. To be sure, his roots could not be quite so deep; but he felt he had been fortunate in, and much enriched by, an extensive and intensive tutelage when Johnson had served as visiting critic more than once during his school career some five or six years before. Frank had been more than impressed. He had been

moved. His eyes had been opened to a whole mode of operation as well as a system of values, not to mention an invaluable vocabulary and technical treasury. He could not really impute such bland skepticism to Philip—to Mr. Johnson; rather, he sensed a continuing, maturing development in harmony with Mies, from the blockiness of the early twenties through the Barcelona peak to the classic dialectic of I. I. T., but with an elegance and delicacy entirely Johnsonian, filtered and blended to make an unique and thoroughly significant body of work.

The snort from Tom was audible. Granted a high point in Johnsoniana might have been reached about 1950 with the early court houses, the town house with pool in New York City and the Whitney Museum extension and Sculpture Garden, and of course the Glass House. All that was a matter for critical disputation. The point was, Philip was far too alert to rest on any aging laurels. Or how else to explain the Yale exhibit and the *Forum* article last year, "Essay in Post-Miesian Directions" or whatever it was called? Or the remarks at New Orleans in the spring, "After Seagram's, what?" And the apparent answer, only too clearly stated in three dimensions in the new model of the expanded Museum of Modern Art, which one could only hope was all in the same scale; or perhaps better if it was not. But clearly, if there were to be New Directions, Philip would be in on them.

We were gently made aware of a murmur of dissent on the part of Burton. Not to disagree so much as to demur, that Johnson, whom he had come to know casually over a good many years, did not really merit such a solitary censure of faithlessness. After all, most of us lived in largely glass houses. We should hesitate before picking up rocks. There was another one, no less prominent, whom he had also known slightly for a number of years, who was an even faster traveler, and farther too: As an undergraduate tangentially interested in the world of architecture he had first become conscious of the rebellious spirit of Eero Saarinen, a modern straining at the bonds of the Beaux Arts regimen. Just before the War the Saarinens had won worldwide competition with a Smithsonian project in the great image of LeCorbusier's *Société des Nations* and of his *Pavillon Suisse* at the *Cité Universitaire*. When the Museum of Modern Art had combined, after the War, with the *Architectural Record* for a "Hidden Talent" competition with jury chaired by Mies, juror Saarinen took such violent exception to the permeation of a rash of pure steel-and-glass-and-brick prisms that he submitted a caustic minority report of one on

the brutal suppression of all articulation, the utter disregard of formal-functional relationships, and the general reactionary formalism encouraged by the jury majority—complete with an alternative set of Gropius and Koch derivative prize solutions. Whereas not two years later appeared, in full and glorious color to be sure, the General Motors Technical Center, Mies by the mile on a five-foot module. Since then, Mies dormitories, Mies offices, Mies headquarters in profusion—but not these only, rather also in dazzling succession thin-shell tricornes and neo-Norse or neo-Ravennate brick cylinders, folded-plate seminary villages (or, structurally, house of cards?), Flash Gordon airports and Moby Dick hockey rinks: Surely without peer, this protean leader of the style parade. Never short of an answer: For a women's dormitory on a suburban campus, there could be nothing more natural than echoing John Nash's Park Crescent off Regent's Park, while for men's quarters on city streets a bow to the beamed oak and Cotswold stone of the High Street and Magdalen College Tower (O shades of Cope and Stewardson, Anno Domini 1897!).

Deponent rested; we others sank back also, exhausted merely to contemplate the kaleidoscope whirring so fast in a single decade. There could be no denying the flexibility or the contemporaneity of both virtuosi; the motives would necessarily remain moot. Because I had said hardly a word since joining at the table, I was pressed to ante up my bit to the conversation. Fashions? Styles? For good, or for ill? If for ill, also inevitable? If inevitable, must they still be felt to be for ill? I remembered not only ripples of amusement, but vast reassurance in Russell Lynes' "The Taste-makers": For every Eastlake or Elsie de Wolfe there arose somehow a Horatio Greenough or a Bernard Maybeck. And indeed what a rich heritage the Style Parade had left on our subcontinent, from the unarguably beloved Georgian Colonial to the lucid, concise and self-assured Federal; through Greek Revival to the often superb high-ceilinged Italianate of the 1840's I remembered so vividly from Ohio excursions of earlier years; the lofty dormers of well-schooled Mansard revival houses and the fabulous public piles in

the Second Empire dialect of Visconti-Lefuel; the disarming vernacular of the Single Style leading into the powerful sweep of Richardsonian, and on to the 1890's to the triumph of the Chicago School. . . . After that, the rest was a bit of history well enough known to all.

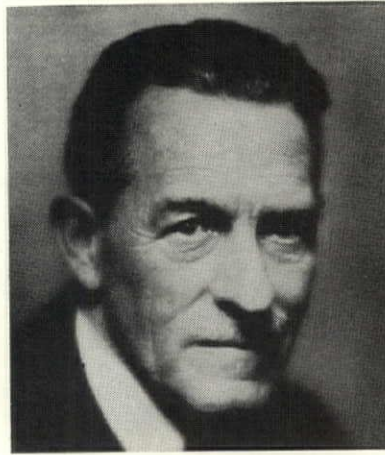
Yet, as we wandered back toward the office, the nagging doubt remained. A Chicagoan who had reason to know, had looked back a quarter-century later on the year 1893 as "a small white cloud, no bigger than a man's hand, [yet wreaking] damage . . . for half a century from its date, if not longer; . . . penetrating deep into the constitution of the American mind, effecting there lesions significant of dementia." A few had tried in those fifty years to hold a steadfast course, to steer by timeless stars: One pre-eminently, another Chicagoan whose River Forest Golf Club of 1898 flowed and floated with the same sweep as his Price houses of 1956, whose Larkin Offices in 1904 interwove light and space and scale and planes and solids and voids with a mastery still unique in the Guggenheim Museum opened recently. Both Chicagoans were gone now. Must we be off on another, more wildly whirling, half-century bout in an accelerating squirrel-cage?

Some nights later I found at last a measure of cold consolation: A counter-quote to the style-conscious professor of marketing. This is the only place I can cite it: I would not care—or dare—to bring it up again at lunch. It is from another professor of a more esthetic bent, Vladimir Nabokov, in his "Real Life of Sebastian Knight": "With something akin to fanatical hate, Sebastian was ever hunting out the things which had once been fresh and bright but which now were worn to a thread, dead things among living ones, dead things shamming life, painted and repainted, continuing to be accepted by lazy minds serenely unaware of the fraud. The decayed idea might be in itself quite innocent, and it might be argued that there is not much sin in continually exploiting this or that thoroughly worn subject or style if it still pleases and amuses. . . . But what annoyed Sebastian invariably was the second rate, not the third or n-th rate, because here the shamming began, and this was, in the artistic sense, immoral." ◀

CORRECTIONS

The photograph at the top of page 41 of the February *Journal* was identified as the exterior of Prince George's Hospital, while the photograph at the top of page 43 was identified as St. Ansgar Hospital. The two photographs were inadvertently reversed in publication. The *Journal* expresses its regret to Faulker, Kingsbury and Stenhouse of Washington, D. C., and Bettenburg, Townsend, Stolte and Comb of St. Paul, Minnesota.

The Good Samaritan Home for the Aged in St. Louis, pages 58 and 59 of the same issue was incorrectly credited, through no fault of the *Journal*. The architects are Manske and Dieckmann, and the associate architects are Hellmuth, Obata and Kassabaum, Inc., St. Louis.



William Adams Delano, FAIA

JANUARY 21, 1874
JANUARY 12, 1960

Howard Van Doren Shaw, FAIA, the Institute's 1927 Gold Medalist, once expressed emphatically his opinion of mandatory rules of professional ethics: "You cannot legislate a gentleman . . . I would like the Canons graven on an old lichen-covered marble: 'Be a gentleman if you can, but for God's sake be an architect.'"

In the eyes of his friends, William Adams Delano was the supreme example of architect and gentleman combined in a lovable personality.

With keen hunger for education he rolled up an A.B. from Yale in 1895, then went to Paris and won his *diplome* from the Ecole des Beaux Arts in 1903. Returning to New York he taught design at Columbia while studying for the B.F.A. which Yale conferred upon him in 1908, crowning it with an honorary M.A. in 1939. Columbia had made him Professor of Design, a post he held until 1910. Meanwhile, in 1902 he and Chester Holmes Aldrich formed the practicing partnership of Delano & Aldrich.

Among its more widely known jobs are the Knickerbocker, Colony, India House, Brook and Union Clubs in New York; the new American Embassy in Paris; the Post Office Building in Washington's Triangle, the Japanese Embassy also in the Capital; La Guardia Field, New York; the American Airways in Miami and in Guam and Wake Islands, many public and office buildings, university and school buildings, and private houses too numerous to list.

Mr Delano found time to accept appointment to the National Park and Planning Commission,

the National Commission of Fine Arts, the Board of Design for the New York World's Fair of 1939, and the Art Commission of the City of New York of which he became president. He was elected a member of the National Institute of Arts and Letters, and given its Gold Medal in 1940; elected an Academician of the National Academy of Design; member of the American Academy of Arts and Letters; president of the Society of Beaux Arts Architects. France made him an *Officier* of the Legion of Honor, and a corresponding member of the Academie des Beaux Arts, Institut de France. Our own Institute made him a Fellow in 1912, and in 1953 gave him its Gold Medal.

In gratitude for France's share in their architectural education, the two partners established the Delano & Aldrich Fellowship—more recently enlarged by a bequest from the late William Emerson and now called the Delano and Aldrich and Emerson Fellowship—to afford French architectural students the opportunity of coming to the United States to learn of our methods of practice.

The citation accompanying the Gold Medal of 1953 read in part: "There are among us those who have erected one or two or three brilliant works to accent the architectural record of our times, but to you, William Adams Delano, has been vouchsafed a half-century of professional activity, filled with service to your fellows and resulting in countless works of architecture in which the day-by-day achievement has not deviated from the high plateau established by your vision, skill and distinguished taste."

H.H.S.

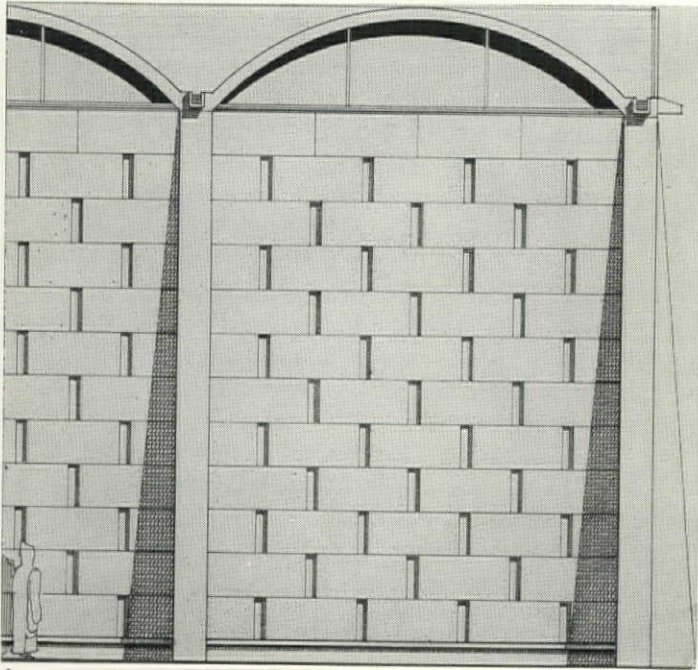


S T U D E N T S

STUDENT WORK

The Students' Page continues its series of student work from various schools throughout the country, presenting this month the work of Thomas W. Brown, Jr, B. Arch., from the Yale School of Architecture and Design. Mr Brown is now employed by the firm of Ebbets, Frid and Prentice, of Hartford, Connecticut.

A Charterhouse in Vermont for the monastic Carthusian Order was designed to convey the spirit of prayer, holy poverty and self-sacrifice characteristic of the monks who inhabit the building. Because the monastic life of the Carthusian is both hermitic and communal, the architecture had to develop a harmonious spatial relationship between the cellular life of the individual hermitage and the communal spaces of the choir church, refectory and chapter houses.



A

A Detail elevation showing walls of concrete block and Vermont field stone

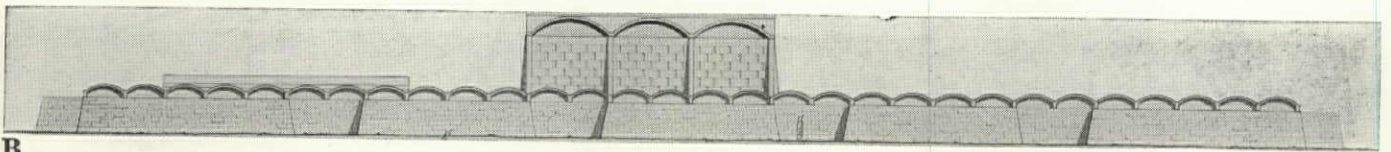
B Elevation indicating the outline of vaulted forms against the sky

C Perspective of choir church with main altar as seen from entrance. Choir stalls are within the depressed area with altars for private masses on either side

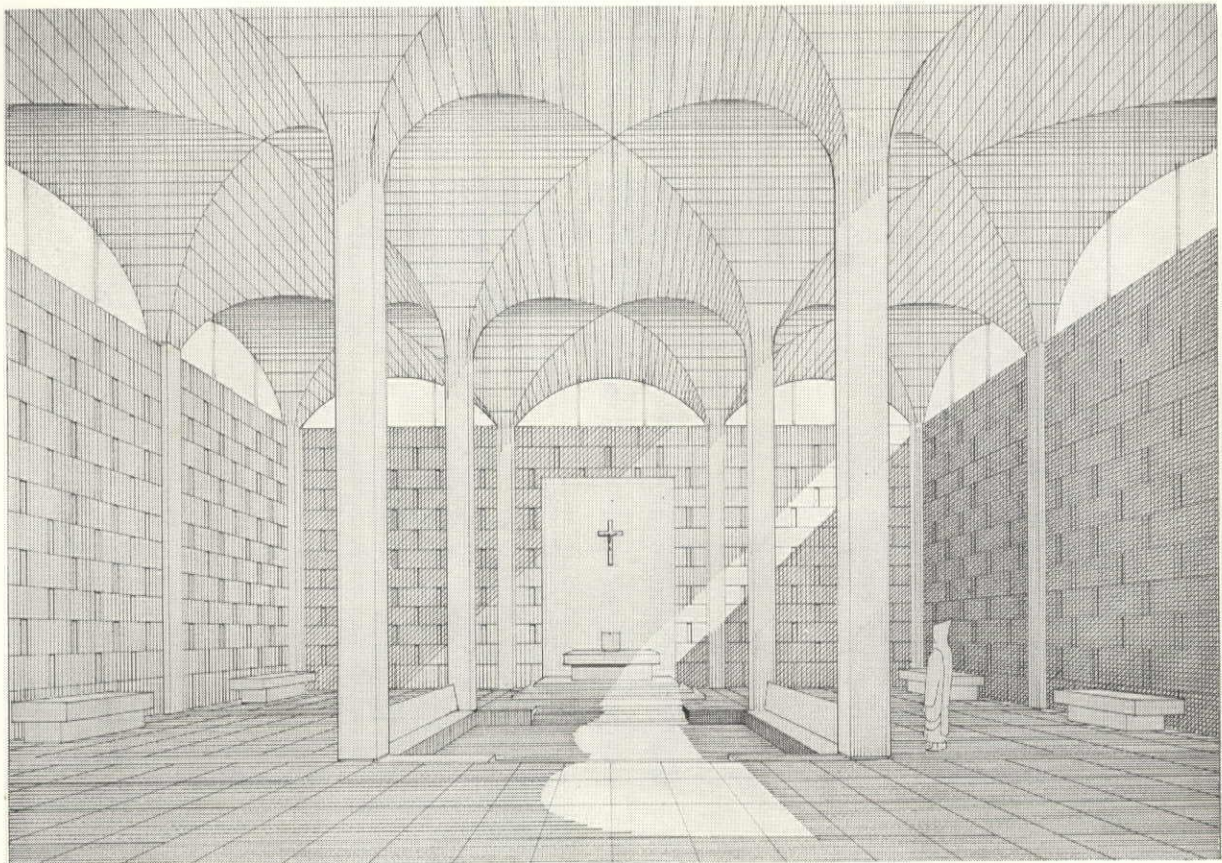
D The interior court as seen looking toward the choir church and refectory

E The hermitage viewed from the garden showing the ambulatory on the left with living area in the foreground

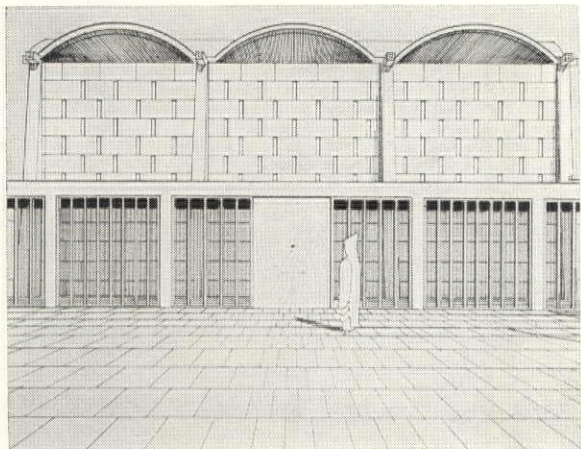
F Transverse section



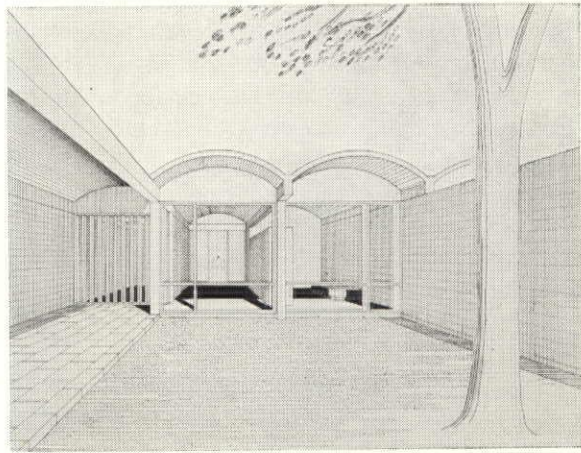
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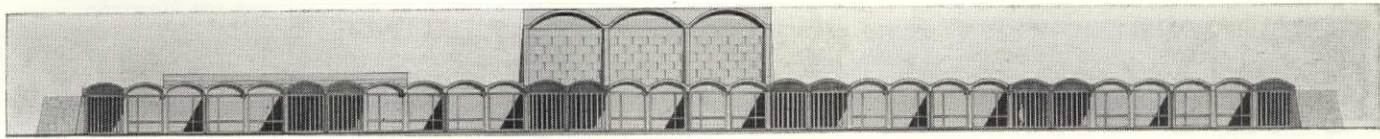
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D



E



F

FOR INSTANCE—

*Revisions in the General Conditions*BY WILLIAM STANLEY PARKER, FAIA, *Consultant to the Institute on Contract Procedures*

► We have treated at some length those Articles that involve important revisions of phraseology or actions of unusual significance, such as the Owner's right to terminate the Contract, the various insurance problems, and the Architect's responsibility for costs. It may assist Architects if we indicate the minor amendments that should be noted, although in most cases no significant change of intent or procedure may be involved. With this in mind, the other Articles in which amendments occur are briefly referred to.

ARTICLE 2

The final paragraph has been rearranged into two paragraphs, and the final three lines have been added to the definition of intent regarding items of work not covered in the specifications. In the sixth edition such items are not to be supplied "unless distinctly so noted on the drawings." To this has now been added "or is reasonably inferable therefrom as being necessary to produce the intended result." These words refer to a type of ambiguity in the contract documents that needs to be discussed by both parties on a basis of fairness and that may conceivably require arbitration if the problem of cost is an important factor.

ARTICLE 3

The final paragraph has been redrafted in a briefer form but with no change of intent.

ARTICLE 4

The words, "the Architect will furnish to the Contractor" have been changed to read "the Contractor will be furnished." This leaves the matter unchanged so far as the Contractor is concerned, and leaves the question of who pays for the copies to be determined by the Agreement between the Owner and the Architect.

ARTICLE 5

The opening sentence has been amplified to

make it clear that "The Contractor shall check and verify all field measurements," and shall submit "three copies [instead of two] checked and approved by him" of the Shop Drawings and Schedules.

It is also provided that the Contractor secure the Architect's *written approval* for any deviation from the drawings and specifications.

This Article involves the Architect in passing upon the shop drawings "*with reasonable promptness making desirable corrections, including all necessary corrections relating to artistic effect.*" If there is some error in the shop drawings that the Architect fails to correct, and an accident occurs, is the Architect responsible or the Contractor, or through him the structural steel fabricator?

There is an interesting case in point. The shop drawings reduced the thickness of gusset plates in a roof truss. It was not noticed by the Architect. The truss failed while the roof slab was being poured causing one death and injuries to four. The wording of Article 5 would indicate the Contractor was responsible. In spite of that fact, the Architect agreed to share with the Contractor and the Steel Fabricator the responsibility for the accident. The Owner suffered a loss of \$15,000, the Architect's share being \$5,000. Then the insurance company brought suit against all concerned and offered to settle for \$50,000. It was finally settled for \$30,000, the Architect's share being \$10,000. Thus a failure to catch an error in a gusset plate cost the Architect \$15,000.

The intent of Article 5 is to put the responsibility for such errors on the Contractor. This is consistent with the placing of responsibility on the Architect for errors in his plans and specifications, as made clear in the second paragraph of Article 14. The Contractor should be equally responsible for errors in the shop drawings which he or his subcontractor makes. ◀



From the Executive Director's Desk

► "Advise and Consent," a best-seller of last summer and possibly for another summer to come, for by all accounts it is still holding its own pretty well in the book shops from coast to coast and is being held in the hands of the reading traveller, has a powerful fascination for anyone who plays even a non-governmental role in the Nation's Capital. It is by all odds just about the most accurate and engrossing reporting on the United States Congress that ever has been my good fortune to come upon. Perhaps because of its penetrating revelation no one that I know of on the Hill or elsewhere in the Federal structure, or even the press, has taken issue with it as not giving a fair and complete picture of one very important function of the American democracy; namely, the machinery, motivations and maneuverings that come into play when the President makes a nomination and when the Senate's functions of "Advise and Consent" are called for; how the gears of Government mesh or fail to mesh; and how very human are the great of the land. Perhaps great is not the most appropriate word but it will suffice, for I think it includes in its broad category all those elected or appointed to high or relatively high office and who theoretically and sometimes do control the destinies of the people who form the electorate of a democracy.

I have urged a number of people to read this book, including our Emeritus Legal Counsellor, John T. Carr Lowe, Esquire. Now those of us who have had the pleasure of working with this cultured gentleman have never failed to be impressed by his profundity, his scholarly approach and his general knowledge of the world derived in some part from his readership of prodigious proportions.

Recently, in talking with Mr Lowe on the telephone, he casually remarked how much he was enjoying the book, an observation which naturally launched a flow of enthusiastic comments on my part and elicited the gratuitous information that the book throws a bright light on the legislative operations of our Government with more than a

passing flash on the executive and judicial. But he observed that it goes much farther. It gives the people away from the scene of action a very neat description of the Washington frame of mind and the Washington point of view. I countered that doubtless he was correct and it was probably because I was so close to it, in fact even a part of the Washington frame of mind and point of view, that the message which came to him so loud and clear had somehow missed my personal radar. Whereupon my good and learned friend observed quickly and a trifle tartly, "Yes, you certainly are part of it."

Well, the shaft struck home and I thought that a little introspection was called for. First of all, for admitting to be part and parcel (however microscopic) of the Washington frame of mind and point of view, it might be well to reflect upon the charge and see if I could determine what that frame of mind and point of view might be. They are virtually synonymous; though whether the frame of mind begets the point of view or whether it is the other way round is a problem for a philosophic psychiatrist. To begin with, I was just another architect struggling through the depression and the build-up to World War II; a veteran of World War I eking out a less than meager living and practicing my profession with what crumbs could be scraped up during those dreary days. The want of an over-burden of work in my office coupled with an architect's inquisitive energy naturally led me into chapter activities which led to state association activities, to the Board of the Institute, and eventually to the Executive Directorship of the AIA.

Scarcely a dramatic life until I assumed this office, whereupon things started to happen with a vengeance. The end, if there is one, of the parade of events is not yet in sight. In exercising the functions of the chief executive officer of The American Institute of Architects one is brought close to drama of all degrees, and even participation therein, as we move from crisis to crisis (sometimes two at a time) and from issue to issue.

Admittedly, as the years roll on in a Washington office, the occupant tends to lose the grass roots point of view. Incidentally, "grass roots" is a phrase that has never made very much sense to me—having always connoted to my country mind a less attractive feature of the landscape, a ruined meadow for example. I suppose it is a phrase well-steeped in American folklore. It does enjoy a vague euphony, but to be in contact with grass roots does not mean to me an intimate knowledge of the philosophy, frustrations, failures and successes of the membership of the AIA. A phrase more befitting the advanced status of the architectural profession should be found. Perhaps "drawing boards" would be more apt to connote in short the electorate of The American Institute of Architects.

Whatever it may be, I do find myself in continual danger of slipping too far away from all of you. Of course I am asked, "Why not travel about the country more, go to meetings, sit in with chapters, state associations and regions?" I do as much of this as I can, but after all it must be remembered that you are paying me a salary to run an organization in Washington, and prolonged absence from this desk would not contribute to the attainment of the objectives which you charge me to pursue. Maybe it is just as well, for it would be impossible for me to have the frame of mind and attitude of a practicing member of the Institute unless I abandoned this job altogether. So let me continue to exercise my abilities in the position in which I have been placed, and from the point of view of that position to which you will bring your expressed wishes the balance of the course of the AIA can be held.

I find myself immersed in competition of a sort less tangible than that which confronts you day to day but which is just as unrelenting. It is the competition of all the elements of society, especially those in the construction industry, to engage the attention of the American public—either directly through its elected and appointed Governmental officials or directly and indirectly through all of the media of public relations. It is playing a game which does not lack fascination. The rules are few. There is no time out for rest and recovery, and no referee save the criterion of success or failure. Here again the scoring is incapable of definition.

It is proposed to place a plan for the reorganization of the Institute before the 1960 Convention. This is as it should be. We must inevitably reorganize our structure in order not only to keep abreast of our own expansion of members and activities, but we must reorganize to meet the

challenge of those groups outside our body who are keeping their interests and influence well to the fore.

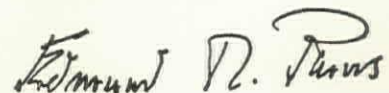
In my job I will find myself, as always, dealing day in and day out with people, with human nature, with its weaknesses, its strength, its pressures and its ambitions.

Were it not for the fascination of people, and I think a sense of humor, I would not have lasted twenty-four hours in this job. Anyone who takes on the assignment of being the executive officer of a national professional organization, a trade association, a labor organization, or any other aggregation of individuals bound together in the interest of furthering the aims and prospects of their common vocation, will find that the characteristics and hazards of his office bear a strong resemblance to those of a politician. So it is well to heed the advice and observe the rules of the successful politician. Politics is perhaps the greatest of the professions, but its successful practitioners have been relatively few, measured by the hundreds of thousands engaged in it.

We look back on the great of the eighteenth and nineteenth centuries: Pitt, Walpole, Fox, Mirabeau, Disraeli, to mention a few; and in our own time Churchill, and avoiding mention of our own, save perhaps the most skillful practitioner of them all, the late Franklin D. Roosevelt, we begin to realize the qualities necessary for success in the most difficult of all professions. I am not speaking of partisan politics but of politics per se as a science, the successful pursuit of which calls for talent, application, patience, stamina and the understanding of one's fellowman—all qualities found frequently in the architect.

The principal industry, in fact the sole major industry in Washington, is Government—and that means politics and the understanding of it. Regardless of whether one is elected to Congress, appointed by the President or other appointive authorities, elevated to the bench, or like myself working for one of those organizations whose duty it is to safeguard the interests and aspirations and maintain the equilibrium of whatever group or vocation they represent, one must know politics. Incidentally, these organizations constitute a very important element in maintaining the democratic American way of life.

So in answer to my friend John Lowe—"Yes, I am part and parcel of the Washington frame of mind." I might add it is well that this is so.





LIBRARY NOTES

Gifts to the Library

July 1 to December 31, 1959

Once again, "Library Notes" is privileged to give public recognition to those who have increased the scope and importance of our library by their generous gifts. Dedicated to all things architectural, the library is fast becoming a storehouse of the old and the new, the unique and the commonplace item—each one used, admired and enjoyed by those seeking to increase their knowledge and background. Large collections or single books, the library always welcomes those gifts which enhance its usefulness.

GLENN H. BEYER

"Housing Requirements for the Aged."

MRS. JOHN C. BOLLENBACHER

Six volumes.

BUND DEUTSCHER ARCHITEKTEN

Its "Bauten in Deutschland seit 1948."

MISS ROSAMOND CLARK

A sketch of Richard Upjohn.

THEODORE IRVING COE, FAIA

A collection of lantern slides and seven books.

MISS ELISABETH COIT, FAIA

A copy of her Langley report on housing.

THOMAS H. CREIGHTON, FAIA

Progressive Architecture, January-June, 1959.

DON CURLEE

Out of print issue of "Western Architect and Engineer" to complete our files.

HERSCHEL A. ELARTH, AIA

A letter from Bertram G. Goodhue to Thomas R. Kimball, 1924.

FAR EAST SOCIETY OF ARCHITECTS AND ENGINEERS

Its 7th Anniversary Journal.

MISS BLANCHE E. FICKLE

"Hotel Management and Related Subjects" for 1958.

E. J. GAMBARO, FAIA

Pamphlet "This Man the Architect."

OLINDO GROSSI, AIA

Three booklets.

ARTHUR B. HOLMES, AIA

Two framed maps, one of Alexandria, one of Washington.

GEORGE L. HOWE, AIA

"Palais Massimi à Rome" Suys and Haudebourt, 1818.

WILLIAM LESCAZE, FAIA

100th anniversary volume of the Eidgenössische Technische Hochschule.

DONALD H. LUTES, AIA

"Westmoreland Village."

I. GRANGER MCDANIEL, AIA

"Contemporary Structure in Architecture" by Michaels.

NEW YORK CHAPTER, AIA

"Milano Oggi—Milan Today."

NEW YORK CITY PLANNING COMMISSION

"Rezoning New York City" by Voorhees, Walker, Smith and Smith.

MRS. OGLE TAYLOE PAINE, ESTATE OF, THROUGH EDWARD H. PATTISON

"In Memoriam, Benjamin Ogle Tayloe."

PROFESSOR JUAN MONTERO POZOS AND STUDENTS OF LA ESCUELA DE ARQUITECTURA DE BARCELONA

Two publications on Gaudi.

JOHN B. RESCHKE, AIA

Fourteen volumes of "Academy Architecture."

MARION DEAN ROSS, AIA

"Century of Architecture in Oregon."

F. CUTHBERT SALMON, AIA, AND CHRISTINE F. SALMON, AIA

Their "Rehabilitation Center Planning."

HENRY H. SAYLOR, FAIA

"Charles Donagh Maginnis, a Selection of His Essays and Addresses."

PAUL SCHAEFFER-HEYRATHSBERGE

"Das Beispiel."

SECTION FRANCAISE DE L'U.I.A.

"L'Opera Royale de Versailles" by M. Japy.

MRS. LOUIS A. SIMON

Twelve books and pamphlets from the library of her husband, Louis A. Simon, FAIA.

DELOS H. SMITH, FAIA

Five books, a portfolio and three photos.

SOCIETY FOR THE PRESERVATION OF LANDMARKS IN WESTERN NEW YORK, INC

"The Interior Paint of the Campbell-Whittlesey House, 1835-1836" by Marjorie W. Selden.

CHARLES M. STOTZ, FAIA

His "Drums in the Forest."

W. KNIGHT STURGES, AIA

"Estudio Sobre Monumentos Historicos de Puerto Rico" by M. J. Buschiazzo.

TIMES-MIRROR PRESS

Western States A-E-C Catalog File.

MORTON G. TUTTLE COMPANY

"The Choice of a Building Contract."

DAVID R. WILLIAMS, AIA

Photocopy of a tribute to Louis Sullivan.



Planning Homes for the Aged. By Geneva Mathiasen and Edward Noakes. 128 pp. 8½" x 11¼". New York: 1959: F. W. Dodge Corp. \$12.75.

This interesting book contains eleven well-written articles by well informed writers, a comprehensive report upon a competition for design of a home for the aged, and appendices giving population and building cost data.

The first article, "Congregate Living for Older People," by Ollie A. Randall, Vice Chairman, National Committee on Aging, points out the need for homes for the aged. This is followed by a discourse on "Community Needs and Resources" by Geneva Mathiasen, in which she emphasizes the importance of an early determination of the admission policy of a home in relation to other available facilities, state requirements, and current standards. This policy influences decisions concerning size, location and the services to be rendered. She also touches upon financing construction and operating expenses.

A chapter of interest to architects is the one on "Location and Building Site" by John Park Lee, Director, Division of Welfare Agencies, Board of Pensions of the Presbyterian Church of the USA. He warns against choice of a site that is remote and also against selecting one in a noisy section. Desirable qualities are:

- accessibility by public transportation or walking to points of interest
- proximity to stores, theaters, libraries, churches, hospitals, physicians, dentists, sport and recreation
- integration with community
- separation from nuisances
- mild but variable climate

The site selected should be:

- ample in size for some outdoor activity and future expansion
- well drained with good soil
- reasonable zoning restrictions

- wide frontage and facing wide streets
- served by utilities
- approved by community planning authorities

Eli H. Ruden, Executive Director, Hebrew Home for the Aged, Boston, Mass., is responsible for Chapter 4, entitled "Common Services." In general, there should be arrangements for large groups of residents and visitors to congregate, and also for small intimate groups. In addition to a lounge, there should be smaller living rooms near groups of bed rooms. The dining room should be arranged for movement of wheel chairs and residents on crutches or canes, and should have sound absorbent treatment. Small homes for the aged may use the lounge and dining room for recreation, but a general purpose room which may be divided into smaller units and which is equipped with portable sound amplification equipment (with earphones for the deaf) and with facilities for movies is very desirable. Other desirable features are a library and a chapel. If climate is suitable, there should be a patio and garden with provision for concerts, picnics, cook-outs, shuffle board and croquet. An architect, Whitney R. Smith, AIA, of Pasadena, California, offers advice on planning the residence unit and room. He emphasizes the need to divide residents into small groups in order to avoid an institutional atmosphere. These groups should, if possible, be as small as eight or ten, but twenty to thirty rooms may be controlled from one station.

The chapter on "Health Needs" was written by Frederick D. Zeman, M.D., FACP, Chief of Medical Services, the Home for Aged and Infirm Hebrews, New York. He discusses the relations between nursing homes and hospitals with great candor. While it is economical to place nursing homes under the direction of a general hospital, the tendency is for the old people to "come off second-best in the competition for medical attention."

Nursing homes provide for no surgery or elaborate diagnostic or therapeutic procedures. They are "patient-centered" rather than "disease-centered." Units of the medical area of a home for the aged may include:

- offices for physicians and director of nursing
- examination rooms
- dressing rooms
- conference room
- dental suite
- podiatry suite
- laboratory
- electrocardiographic room
- basal metabolism room
- drug storage
- X-ray suite
- physical therapy room
- massage booths

The infirmary should be much like a hospital nursing unit. If the infirmary has more than 200 beds, there should be a morgue and autopsy room. Unless such facilities are available for use elsewhere, an occupational therapy department should be included.

Edith S. Alt, Director, Project on Standards of Care for Older People in Institutions, National Committee on Aging, gives a vivid picture of the life of administrative personnel of a home for the aged and pleads for a suitable architectural environment. Serenity, friendliness, efficiency and privacy are the watchwords. Administrative elements may include:

- lobby with simple access which is easy for persons in wheel chairs
- information center with switchboard
- business office
- record room
- administrator's office
- conference and board room
- offices for department heads
- guest bed rooms
- nurse's quarters

"The residents may be pleasantly made aware, at meal times, that a kitchen is in the building, but this impression should not be unpleasantly reinforced by the sight of garbage cans in the service yard." So writes August F. Hoenack, Chief, Architectural and Engineering Branch, Division of Hospital and Medical Facilities, US Public Health Service. Important as the service areas are, they should not be obtrusive. The service entrance drive should be separate from the main approach to the building, and the service yard should be screened. A separate employee entrance is desirable. At the receiving room, there should be scales, storekeeper's (or housekeeper's) office and about 25 sf of storage per resident. The kitchen, boiler room and laundry should be nearby, and repair shops should be in the general area.

In Chapter 9, I. S. Lowenberg, AIA, offers advice on the choice of materials. He recommends for the principal areas consideration of thin panel walls, ample insulation, copper flashings, flush doors with metal trim, acoustic ceilings, sheet plastic wall finish, resilient floors (no rugs). For the kitchen, glazed tile should be considered for walls, quarry tile for floors (grease-proof joints), and plastic surfaced acoustic tile ceiling. For fire safety an alarm system with fire extinguishers, standpipes, and exterior hydrants are urged, and sprinklers are recommended for hazardous areas.

The chapter on "Design," by Edward H. Noakes, architect, closes with this statement:

"Architecture, being both an art and a technology, must span the range from the purely esthetic to the purely practical. As the architect develops his designs, appropriate weight must be given to both aspects of his task if he is to help in making added years richer ones. His art must be guided by a sympathetic understanding of the emotional and mental state of the aged, just as his technology is shaped by knowledge of the special limitations imposed by the frailties of their bodies."

The final chapter by Edwin B. Morris, Jr, AIA, describes the rapid changes which have taken place in building and in architecture, offers sound advice on the selection of an architect, and explains in detail the

services an architect is expected to render.

The book does not include discussion of housing for oldsters who prefer more independence than they could achieve in a home for the aged. It should be read by every architect who is faced with the problem of designing a home for the aged, and by members of boards of directors and building committees concerned with such a project.

CLINTON H. COWGILL, FAIA

History of Modern Architecture. By Jürgen Joedicke. 244 pp. ill. 7 $\frac{3}{4}$ " x 10 $\frac{1}{4}$ ". New York: 1959: Frederick A. Praeger, Inc. \$10.00.

A good survey of architecture of the last fifty years presented in four sections:

- the pioneers (and the beginnings of steel and reinforced concrete construction)
- Gropius—Mies—Corbu
- development of contemporary form and construction
- contribution of the nations, 11 European and Western

Nearly 500 well-chosen illustrations are carefully related to a text which, in spite of a rather non-architectural and British-usage translation from German, seems for the most part sound in analysis and theory. A certain amount of credit is given to American sources, none whatsoever to oriental influences and there is a natural preponderance of interest in expatriate Germans. Considerable folklore is repeated concerning some too-well-known and over-glazed buildings, but perhaps mercifully the recital cuts off just before Stone-grilles began.

Dr Joedicke, a professor of architecture in the Stuttgart Technische Hochschule, passes over Expressionism in a way that suggests the embarrassment we once felt concerning Carpenter-gothic. There are no examples of Dominikus Böhm's mineralogical churches which, although they may be full of non-structural fake vaulting, have given morphological inspiration to shell and thin-folded construction we currently applaud. Böhm's earlier work, of course, was built in Germany's least-affluent period. Two Bartning churches, which are illustrated, are far less convincing religious architecture.

Other influences are attributed with precision and traced out in

scholarly detail. There is some repetition due to dealing the deck twice but the final "contributions of the nations" is a quick hand—a good summary in itself. There are numerous lucid comments:

"A princely patron had invited a few enthusiastic artists to an experiment in Darmstadt (1901 exhibition art colony), but Stuttgart (Weissenhof 1927) represented a movement which very soon affected all social levels and many nations."

The photographs, many of excellent quality and nicely printed, are the real value of this book. The text typeface, a rather wiry sans-serif nearly 80 characters to a line, and the highly reflective paper, although it helps the pictures, make continuous reading difficult. The brief notes contain selected references. E.P.

The San Francisco Bay Area — A Metropolis in Perspective. By Mel Scott. 8 $\frac{1}{2}$ " x 10 $\frac{3}{4}$ ". California: 1959: University of California Press. \$12.50.

It is quite impossible for this reviewer to write from a purely unbiased and objective point of view. Like many Americans, it was his good fortune to have discovered San Francisco for himself, and his misfortune to have made that discovery too late in life—too late for him and his family to have moved out there. Almost any well written, well documented and well illustrated book on San Francisco does not fail to fascinate those of us who have fallen victim to the spell of this fabulous city. This book is recommended to all of those who have become enamored of that greatest of our cities. It is factual, well put together and, in a sense, more of a reference book than something with which to pass the time. Of course, architecture comes into it. It cannot help but do so. On the other hand, it gives such a detailed and excellent background that one understands the climate, the people and the landscape. It is scarcely a book for light or holiday reading, but one which should afford a number of interesting hours for anyone who knows San Francisco and also for those who have yet to make its acquaintance. E.R.P.

"Manual of Hospital Planning Procedures," reviewed in the February issue of the *Journal*, was written by the American Hospital Association, and not the AIA as stated in the review.

The School Cost Controversy

There is a great deal of loose and uninformed talk going on about school building costs. As a result, school bond issues are still being voted down, school building plans are still being postponed or abandoned. As was pointed out in a recent issue of the *AIA Memo*, quoting Secretary Flemming, "... the number of pupils enrolled in excess of normal classroom capacity rose from 1,850,000 in the fall of 1958 to 1,883,000 this fall." He further stated that classroom construction this year will fall behind last year by 10.4%, reversing for the second successive year the post-war trend of annual increases in classroom construction.

In an address to the New York Society of Architects just before Christmas, President Richards said, "Since World War II more than forty-five million children have been born in our country. Their education requires five hundred thousand new classrooms in the next seven years." My concern at the moment is not with the need for keeping school building costs down—which is very great, but at which the architects are doing a wonderful job—but with the great harm that is being done to nearly two million children in the country—and the number is constantly growing—by forcing them into overcrowded classrooms, or into two or even three shifts a day, with a consequent shortening of their total classroom hours.

This slackening in the building of classrooms is due entirely to uninformed talk—talk among school board members, talk at meetings of citizens gathering in protest against a proposed building program, talk in newspapers and magazines. People just don't know how much lower school building costs are than those of any other type of first-class building; people just don't know how vital the architect's part has been in keeping those costs down, or how vital he is to a successful school building program; and people just don't know how their annual school tax dollar is spent. Of all those concerned with the problem, the architect is best

equipped to meet this loose talk with the truth.

The public, in striking wildly out against so-called extravagances in building school "palaces," is stopping the building of thousands of badly-needed new classrooms—which is like stopping the leak by scuttling the ship.

Architects are articulate and are in demand as speakers. The architect should miss no opportunity to speak publicly, or to write, on the topic of school building costs—whether he is engaged in school design or not. In fact, his opinion might be valued as more impartial if he were not a "school architect." This is a public service that many more of the profession should engage in. The architect should seek opportunities to speak to service clubs, PTA and other school-centered groups; he should speak up at protest meetings; and even further than that, he should toss his hat into the ring as a candidate for the school board in his own community. What matter if election should disqualify him to try for the job as architect? He would be performing a service for his community, for the dignity of his profession, and for the education of the young people. Are we professionals or are we ambulance chasers?

People must be made to realize how much lower school building costs are than those of other types of buildings. There are many sources of information on this subject. A brief summary prepared by the American Association of School Administrators shows that during the past twenty years the cost of homes has increased 228%, the cost of general building has increased 210%, while the cost of schools has increased only 150%. This low rate of increase has been maintained in spite of the fact that in the same period, the cost of structural steel has increased 215%, of face brick 200%, of common labor 330%, skilled labor 220%, and building materials in general 200%.

People don't know how vital the architect is in keeping building costs down. "Potential Economies in School Building Construction,"

the research report prepared by the School of Architecture at Rensselaer Polytechnic Institute and sponsored by the New York State Education Department, says, "The architect is the key figure in the whole problem. The significant economies depend on skillful planning and competent over-all guidance with experienced regard for long-term costs."

People don't know how their annual school tax dollar is spent. If some public benefactor were to present a school district with a new building cost-free, the savings on the school tax dollar would amount only to 10% (Ohio) or 12% (New York). No school is paid for in cash across the board. It is paid for over the life of the bond issue—usually twenty-five or thirty years—plus all teaching, operating and maintenance costs during those years, plus interest. Thus any saving in the cost of the building, including the elimination of the architect's fee (frequently demanded today!), is amortized over that period—and it amounts to peanuts. The average taxpayer's share of the annual school budget chargeable to the cost of the building is just about what he would spend on taking his wife out to dinner and the movies.

If an architect, in a great fit of public spirit, good-naturedly agreed to work for nothing, paying all his costs himself, the saving of a 6% fee in Ohio, for instance, where 10% of the tax dollar is chargeable to the building cost, would result in an actual saving to the taxpayer of .006%. To a homeowner with a \$5000 assessed valuation, that would mean a saving on his school tax bill of anywhere from twenty-five to seventy-five cents a year, depending on the local rate of taxation. With the best intentions in the world, people are talking absurdities!

The subject is long and space is short, but perhaps I have gotten my point across. People *must be told* these things, and it's up to the architect to do it.

BTRG

AIA Building Type Reference Guide (BTRG 4-2)¹

Modern Travel Accommodations

By Clinton H. Cowgill, FAIA

Hotels vs. Motels

Will current competition between tourist courts and motels on the one hand, and conventional hotels on the other, result in the development of a new type of hotel which will have the advantages of both? If and when this happens, will some of the motels and hotels now being built become obsolete?

It is interesting to note (as is pointed out by Seymour Freegood in the June 1959 issue of *Fortune*, p 119) that early examples of modern hotel design provided accommodations fully as rude as the earliest tourist courts. In their nineteenth century development, hotels were characterized by pretentiousness quite as much as are today's more expensive motels. Also early tourist courts (like the tourist camps which preceded them) provided nearby parking for the automobile, thus following the example of the early inns which offered beds above or near the stables.

At present, motels generally offer some of the following advantages:

- parking space nearby and accessible to guests at all times
- access to guest units without going through lobby
- easy self-service and no tipping
- landscaped grounds and spaciousness
- recreation facilities, such as children's play apparatus, game courts and swimming pools
- licensed baby sitters
- hair dryer, laundry equipment, refrigerator and barbeque pits

- kitchenette with essential dishes, etc, for some guests
- free ice cubes, soft drink dispensers

In hotels, on the other hand, one may expect the following advantages:

- convenient location
- facilities for meetings and conventions
- cocktail lounge or bar
- entertainment
- laundry, valet, room service and other special services
- sample rooms
- night and day supervision of premises

Generally, motels and hotels of the better class which have been built recently are reasonably fire-safe and airconditioned, and have lobbies and dining facilities. Some of the larger motels have meeting rooms for relatively small groups such as sales convocations and state conventions. The furnishing of facilities for larger meetings is feasible only for hotels with 400 to 1,000 or more rooms.

Motels

For motels² to be feasible, they must occupy low-cost land because of low density of land use. One-story connected units are more economical than separate units in both building cost and land use, and may offer as much or more privacy. Buildings of two, three or four stories are even more economical, and may be necessary if land is restricted or expensive. The first story of these buildings is generally

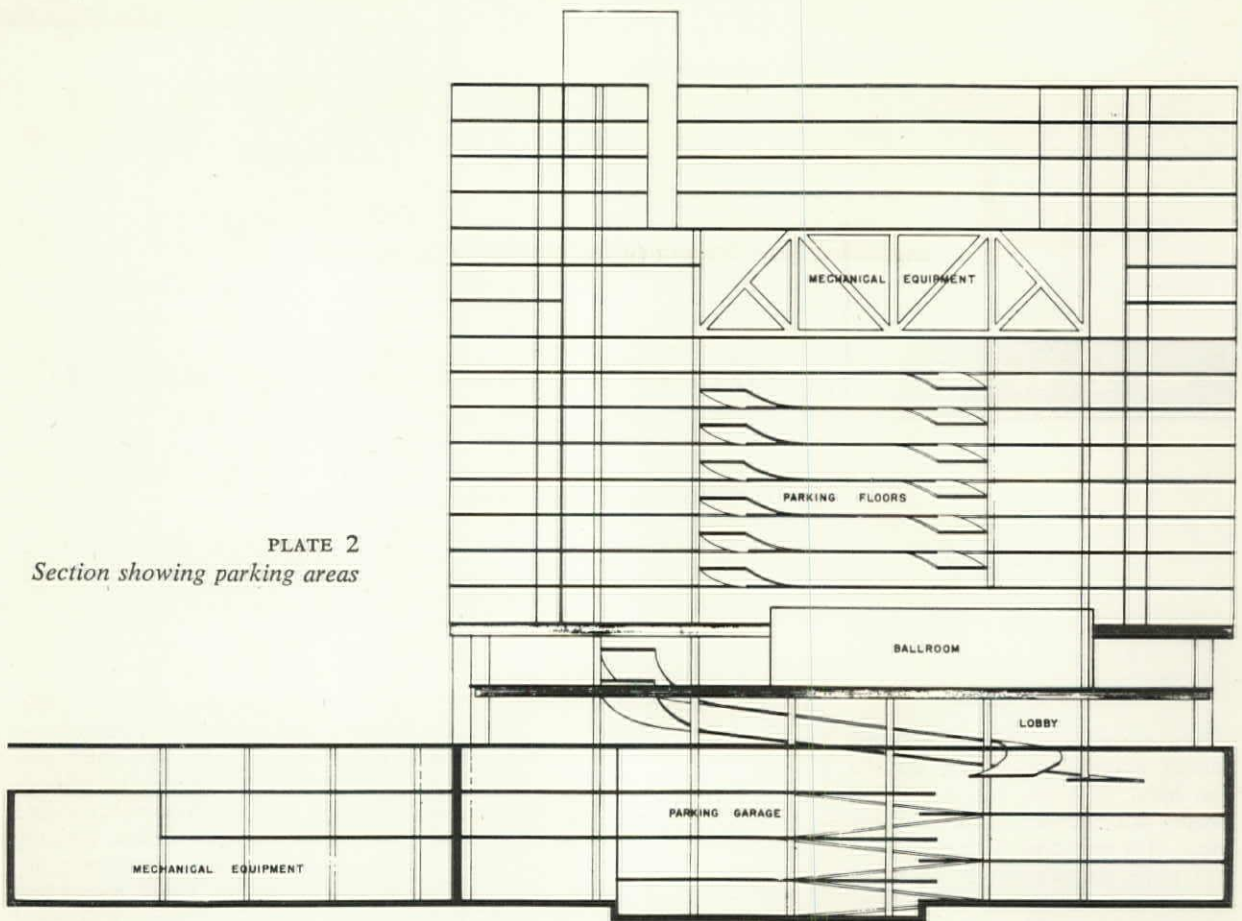
preferred, and the second is only a little less desirable—especially in two-story buildings. The third and fourth stories of buildings without elevators are not popular because of inconvenience, unless sloping ground makes the second story directly accessible from a parking space. With buildings of several stories it is possible to use more of the site for such recreational features as swimming pools, play areas, or an attractive forecourt. On the other hand, intensive use may make it possible to utilize higher-priced land in a better location.

Seymour Freegood describes the plight of entrepreneurs who are seeking motel sites which will be desirable in relation to the giant highway development plans—particularly sites near access roads to limited-access highways. He also warns that present highways are being drained of traffic by the new Federal highway trunk lines. Obviously the building of motels on highways involves considerable risk. While sites in the country may be chosen because of view, for motels as well as resort hotels, the view from many motel sites along the approaches to cities is notoriously unpleasant. Lucy Fogarty Huntington, Editor and Publication Director of the *World-Review of Hotels and Travel* states: "There is no doubt but that today's trend in hotel building is towards motor inns. . ."

¹ For BTRG 4-1 see *Bulletin* of the AIA, Nov '47, pp 23-40 and Jan '48, pp 29-39

² See Pawley: *Motels: Arch Rec* March '50, p 110

PLATE 2
Section showing parking areas



Urban Motor Hotels

THE SAN FRANCISCO HILTON

If motorists can be persuaded (as horse riders were earlier) to leave their means of transportation to the care of attendants, it should be possible to offer guests of an urban motor hotel all of the other advantages of motels. If the automobile is placed in a hotel parking garage even several stories below ground, it could still be accessible to its owner at all times. In the new San Francisco Hilton, parking is to be provided for some of the guests on the same level as their rooms.

PLATE 3
First Basement

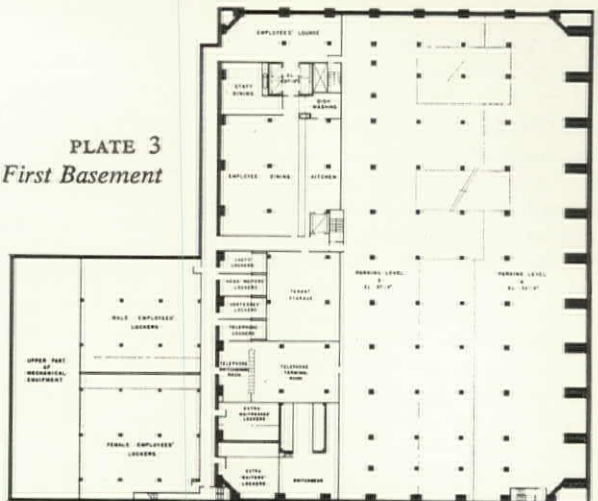


PLATE 4
Motor entrance

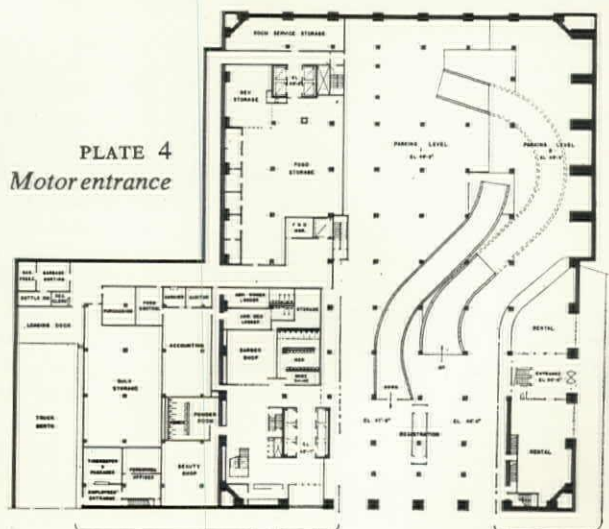
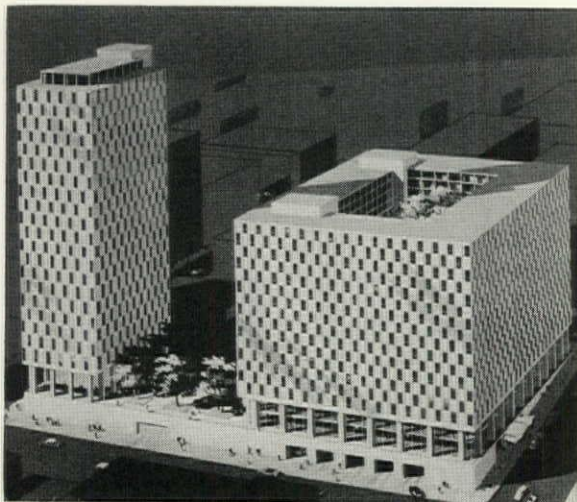


PLATE 1 *Perspective of model*



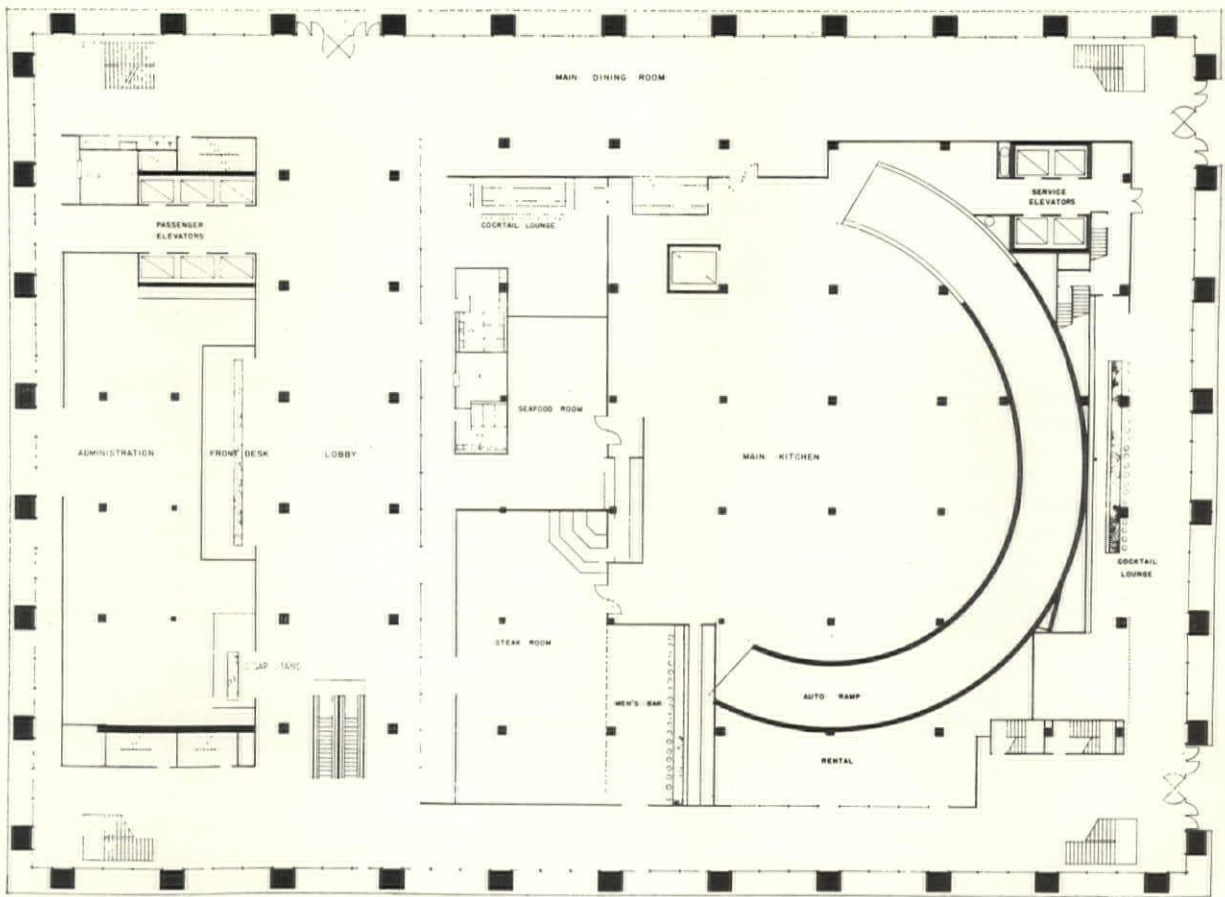
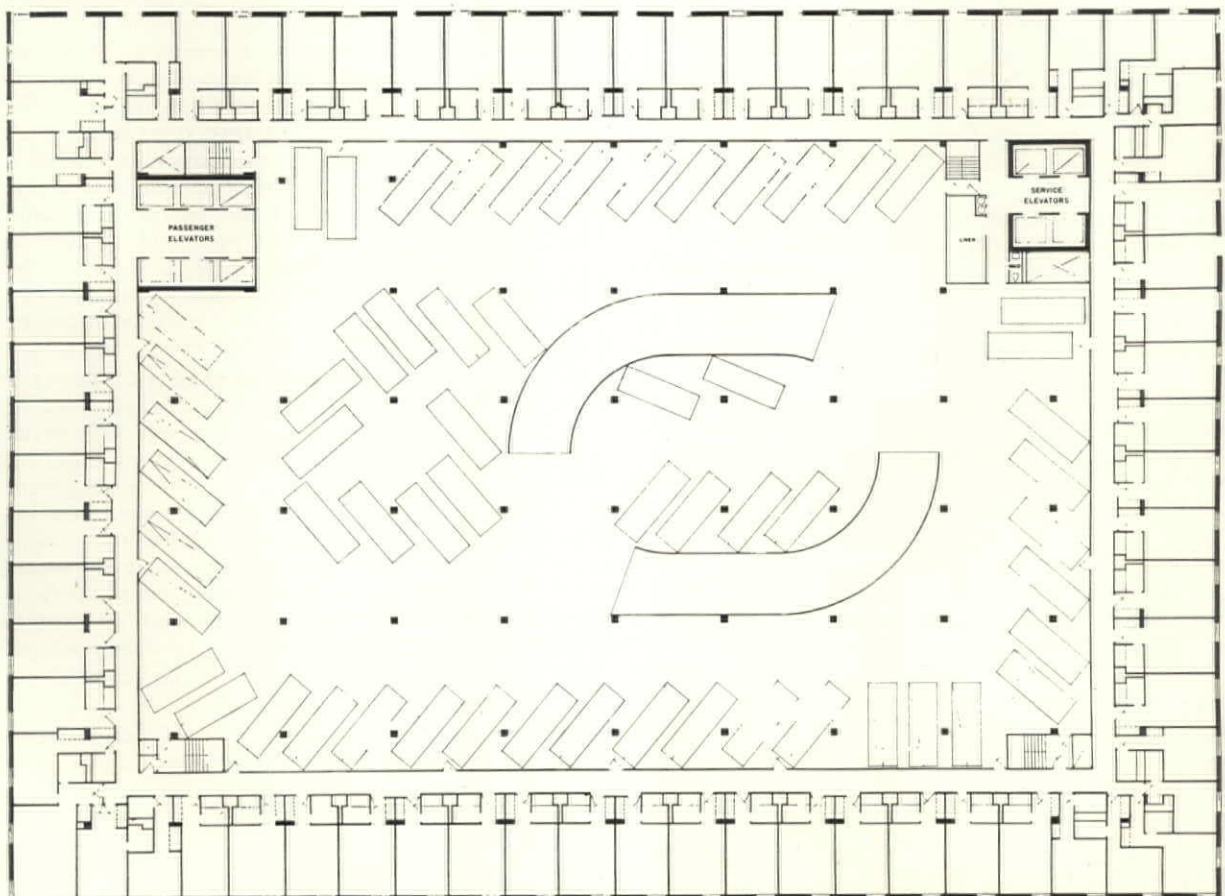


PLATE 5 Lobby

PLATE 6 Fifth to tenth floors



To make it unnecessary for the guest who arrives by automobile to pass through the hotel lobby to register, many hotels provide a registration desk located elsewhere. A motor lobby is sometimes provided. If this is on a level below the main lobby, it may be served by the same elevators. The motor entrance should be commodious, and above all, it should be prominently located. Access to garage from motor entrance should be direct, and a separate garage entrance is desirable. To encourage self-service without embarrassment, bellboys could be kept in the main lobby and be available to serve guests registering in the motor lobby.

Even when built on high-priced land, a hotel may be designed to give an effect of spaciousness. Small courts may be landscaped, and gardens and recreation facilities may be placed on some of the lower roof areas. If the building is set back from the street, an attractive forecourt may improve the outlook from rooms facing the street.

The unique feature of the San Francisco Hilton³ will be its ability to function both as a hotel and a motel operation. In addition to seven split levels of basement attendant-parking accommodating 350 automobiles, there will be parking areas on floors four through ten of the hotel, accommodating 400 automobiles. These guest floor parking areas will be located in the center core of the building and will be reached by ramps from the motor entrance on Ellis Street. Thus, the guest will be able to drive his car to the floor where his room is located and walk directly through the interconnecting fire doors into the guest corridor opposite the room.

The ballroom will be one of the largest in the world with a floor area of approximately 20,000 sf. The room will seat 3,000 persons for a meeting, or 2,200 for luncheon or dinner. Entirely without columns, it will be divisible into as many as nine sections (for smaller functions) by use of soundproof sliding partitions. The additional surrounding assembly area will combine with the ballroom to make it one of the most complete and lavish convention centers. Located on the

³ William B. Tabler, AIA, Architect; Seelye, Stevenson, Value and Knecht, and Jaros, Baum and Bolles, Engineers

mezzanine, it will be easily reached from any part of the lobby either by elevator or via stairways located at corners of the building.

While some of the personal service peculiar to motels may be less appropriate for larger motor hotels, it would seem that baby sitters, hair dryers, laundry equipment, kitchenettes, ice cubes and soft drinks could be made available at reasonable prices.

It may be observed, however, that the distinctively informal character of the motel is partially lost when the number of guest units exceeds 200 or 300. It may be questioned, also, how appropriate it is for a motor hotel to have a bar and provide entertainment. It could hardly be claimed, however, that offering special services and providing sample rooms would adversely affect the desired informal atmosphere.

The difference between motels and hotels is disappearing and a new type of hotel is emerging from the design and test procedures of architects and the managers of motels and hotels. As some of the rude tourist courts of yesterday have succumbed to competition from better-designed and better-built motels, so will motor hotels of tomorrow crowd out some of the poorer motels of today. Designers and managers who anticipate tomorrow's demands will be in the best competitive position.

For the urban motor hotel, a site should be chosen within a city—downtown, in a suburban center, overlooking a park or possibly near an airport. It is important that it can be reached from major highways without bucking city traffic. That the trend is away from highway locations is indicated by results of a survey conducted by Doyle Calton of Baylor University for the *Tourist Court Journal* ("Eight Billion Dollars Ain't Hay") in which plans for future motels are compared to existing motels. While 36.5% of motels are located on highways outside of cities, only 25% are now being planned for highway locations. Twice as many (33%) future motels are planned for downtown locations as are now so located. This same survey shows greatly increased percentages of motels will provide the following:

swimming pools, 20% to 47%
restaurants, 23.8% to 41%

laundry, 15.4% to 24%
airconditioning, 63.5% to 76.1%
telephones, 37.5% to 69.2%

Fewer motels will provide kitchenettes in the future than now (30.2% as compared to 44%).

Lucy Fogarty Huntington writes: "Hotel chains are moving into motor and airport inn types of hotels because they realize that parking and conveniences are paramount in the jet age."

Outpost Inns, Etc

Demand for hotel facilities in small communities and along the highway has a number of sources. Unless located close to larger municipalities, communities of 10,000 to 50,000 population need at least one respectable place where visitors may be accommodated. In isolated communities with less than 10,000 residents, out-of-town guests of local cultural organizations, official guests and salesmen must generally find accommodations in a boarding house or be taken in by families. Most communities also have a number of unattached residents. These persons and members of the proprietor's family may be regular patrons of the local hotel's rooms and restaurant. Some such family hotels become famous for their meals and attract customers from afar, and also receive a share of the tourist trade.

If the land upon which an outpost inn is located is not too expensive, the facilities may take the form of a tourist court or a motel. On more expensive land, a two-story inn might be indicated, and if potential trade appears adequate, a swimming pool and gardens in addition to dining facilities may be included. An outpost inn should be on or as near as possible to one or more major highways.

A small outpost inn located in a suburban center, a small town or out on a highway may provide its owner with a pleasant place to live, a means of agreeable employment and a source of income. In computing probable profits from a family operation, the value of rooms and meals for members of the family should be counted as income, and the value of services rendered by them should be counted as expense.

With parking for 24 cars on two levels, a two-story inn with 24 guest

units, lounge, small restaurant, owner's apartment and small swimming pool can be designed for a lot 150 feet square. With three stories, the number of guest units may be increased to 37.

While some large outpost inns are being built, the average is still comparatively small. Average size of the 30 motels with restaurants selected by Harris, Kerr, Forster & Co. for reports in their "Trends in the Hotel Business" is 64 guest units.

Resort Hotels

Few American resort hotels have the glamor of famous vacation spots abroad. While some nineteenth-century American resorts are still popular, many have been allowed to run down and others have been abandoned. Medicinal springs have less appeal than formerly. Inspiring landscape and agreeable climate are still drawing-cards. Many popular locations have an agreeable climate for only a short season — forcing hotels to close or to run with reduced rates and patronage for the remainder of the year. Many vacationers demand activities, such as beach sports, winter sports, riding, golf, etc. Climate probably has less appeal than formerly because of the wide use of airconditioning—even in resort hotels in mild climates.

Other things being equal, more people will patronize a resort hotel which is accessible than one which is difficult to reach. On the other hand, there is an appeal for many people in the wild and inaccessible. A large hotel in a natural setting tends to lessen that appeal. A small establishment in an out-of-the-way location, served by helicopter, might be considered.

Currently, the most popular nearby locations for resort hotels are in the Caribbean, Florida, the Gulf Coast and California. These range from small motels to hotels comparable in size to those in large cities. Many large resort hotels prepare for and attract conventions, thus making it possible for guests to combine business and pleasure with a maximum deduction from taxable income.

Convention Hotels

The distinction between convention hotels and other transient hotels is arbitrary. Most transient ho-

tels make some provision for meetings, but the large conventions (which are becoming more numerous) require so much space that they can be accommodated adequately only in hotels with 1,000 or more guest units. Convention crowds should be separated as much as possible from other guests, so that potential guests other than conventioners may not be repelled.

Usual facilities for large conventions include:

- assembly room
- banquet room
- smaller meeting and private dining rooms
- registration lobby
- exhibition hall

These facilities should be located as close together as possible, and adequate means of circulation should be provided from outside, from guest rooms, and from one meeting room to another.

The largest conventions cannot be served adequately by a single hotel. Many cities have public assembly and exhibition spaces of various sizes. Hotels serving these large groups should be located nearby. By combining their resources, the leading hotels of a city may provide for conventions which are larger than any one of them could provide for separately.

It is generally agreed by hotel managers that if possible, dining rooms and meeting rooms should be near and on the same level as the kitchen. With each increase in wages, this becomes more important. For structural reasons and to avoid unwanted columns, these large rooms should not be located under a tier of stories of guest units. If these large rooms are on the same floor as the main lobby, and this lobby and rental shops are near street level, then the area of the site must be as large as the sum of these areas. An illustrative hypothetical example (diagrams 13 to 16) has the following units on the main floor:

| | | |
|--------------|----------|------------------|
| kitchen | 15600 sf | |
| dining room | 5800 sf | 290 seats |
| restaurant | 1700 sf | 85 seats |
| cafeteria | 1700 sf | 110 seats |
| banquet room | 11600 sf | 960 seats |
| meeting room | 2500 sf | 200 seats |
| | | Total 1645 seats |

| | |
|--------------|----------|
| room service | 1100 sf |
| bar | 1800 sf |
| shop | 1800 sf |
| concessions | 1300 sf |
| offices | 1200 sf |
| lobby | 10000 sf |

With allowance for walls, this comes to 57,000 sf, and including the landscaped forecourt, the total ground area is 66,000 sf.

Preliminary Survey

It is assumed that a decision for or against building a hotel in a given locality will be based upon a preliminary survey which includes investigation of present hotel facilities, total demand and specific needs. This survey may suggest the type of hotel for which there is greatest need and the best location. In the survey of present hotels, the number of rooms in licensed hotels should be recorded. This excludes unlicensed boarding houses, residential hotels or apartment houses. Approximate year of construction should be noted, as well as condition, location and type of hotel (commercial, convention, tourist or resort). Room rates could be indicated in categories; first whether American or European plan, and then according to daily rates. Motels and tourist courts should be listed separately.

Present demand may be estimated by comparing the number of rooms in other cities with similar characteristics. Thus, size of city, vacation attractions, historical attractions, number and size of conventions and convenience of travel to the city by rail, automobile and air should be considered. Even more important than current demand is the demand expected in the future. If rate of growth of the city compares favorably with other cities, if many new industries are being located nearby, and if number of tourists and conventions is increasing, then number of hotel rooms estimated to be needed should be increased. On the other hand, if these comparisons are unfavorable, the estimated number of rooms should be reduced. Total dining facilities, automobile parking spaces and amusement features needed may be surveyed in a similar manner.

Many cities now have inadequate hotel facilities because proposed new hotels would have to compete

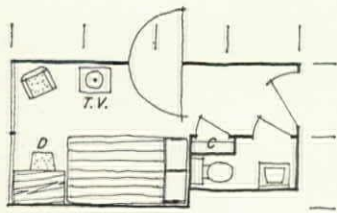


DIAGRAM 1

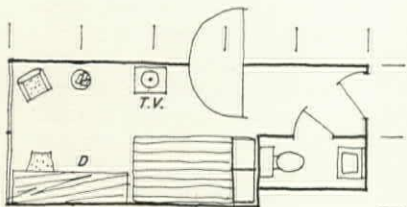


DIAGRAM 2

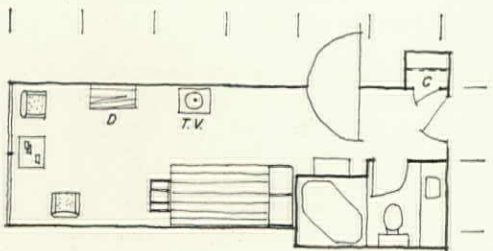


DIAGRAM 3

Small modular
hotel guest rooms above

| | |
|------------|----|
| CLOSET | C |
| BAR | B |
| DRESSER | |
| AND DESK | D |
| TELEVISION | TV |
| TEL. TABLE | T |

Program

Before the program for design can be formulated, the site must be selected. Advice of an architect as well as that of realtors may be helpful in making this selection. Sites with sufficient slope to permit entrances into more than one story are often advantageous.

with hotels occupying buildings which were constructed when costs were much lower—and this spread in costs has continued to widen. In the quarter-century or more since such older buildings were erected, however, they have become more and more obsolete, and hotel rates generally have advanced. Now, with reasonable subsidies, new buildings are again attractive investments.

Specific needs to be considered in connection with a hotel-building project are determined by subtracting present facilities in the locality from the total estimated demand. These may include cocktail lounges, banquet halls, ballrooms, meeting rooms, swimming pools and skating rinks. Examination of specific needs leads to a tentative determination of type of hotel needed. For example, if need for meeting rooms, banquet rooms and ballrooms is large, a convention type hotel would be indicated—if amusement features are in demand, the resort type is suggested.

Determination of type suggests preferred locations within the general locality. A commercial hotel generally should be convenient to the retail section, the financial district or the airport area. A convention hotel may be in a retail section, near the theater district, near the airport or in a resort area. Hotels catering to tourists may be downtown or in a suburban center; and those seeking patronage of vacationers do best near the theater district, airport, on the beach or in the mountains.

While investors in new buildings must be alert to the possibility of over-building in any locality and in general, a cautiously optimistic view may be supported currently. *Engineering News-Record* (Sept 3, 1959) predicts a continued rise in commercial building contract awards. The total of \$2.3 billion expected in 1959 (a 25% increase over 1958 and a new record) will rise to \$2.5 billion in 1960 and \$2.6 billion in 1961.

Preferred orientation for each specific locality should be considered. If rooms are to be airconditioned, it is economical to have the maximum number of them facing north, but those facing south may be shaded by vertical fins, projecting balconies or horizontal canopies. Windows facing east or west are difficult to shade effectively without interfering with the view. Buildings which are not to be airconditioned receive less sun heat through windows facing as indicated above, but direction of prevailing summer breezes is generally a more important consideration. Preferred orientation of the building may influence selection of site—especially if the building must occupy all or most of the ground area.

Topography, points of the compass, dimensions and position of utilities, trees and buildings are usually given on the map furnished by a surveyor. If any parts of existing buildings are to be utilized they should be carefully measured. If subsoil conditions are unknown, they should be explored. Cost of providing needed utilities, demolition of buildings and special foundations should be added to cost of land when possible sites are being considered. Total cost of a site is one of the most important considerations. It should bear a reasonable relationship to cost of building (some say as little as 10%) and to volume of building permitted by zoning laws.

Francis Keally, FAIA, Consulting Architect for the American Hotel Association, suggests that "in making an analysis of any new hotel or motel site, it is most advisable to have the survey made by a team of three experts—the architect, a hotel operator and a hotel accountant." He continues: "In designing a hotel or motel, the architect must bear in mind at all times the question of low maintenance after the building is put into operation. For example, the St. Regis Hotel in New York, built some fifty years ago, wisely installed white marble walls in all typical corridors. The manager told me that the additional original cost was soon paid for as the result of the low maintenance. . . . I don't want to give the impression that I am recommending marble for today's hotels, but wish to cite an example of sound first-cost investment. An inexpensive glass mosaic

now might be given consideration. The exterior should be treated in light-colored materials so that as guests approach the building at night it has an inviting appearance, as opposed to some such material as dark red brick, which has a depressing effect after dark. Of course the basic principle is to create a plan that functions efficiently, for from a good plan any number of attractive exteriors can be developed. From a bad plan it is difficult to develop one good elevation."

Once the site has been selected, it is the function of the architect to design a building to fit it. To do so, he must have an intimate understanding of what goes on—in areas occupied by guests and in those which provide services.

Guest Units

In the mind of the hotel guest the suitability of his room is primary. In order to know the number of units of each type, assumptions must be made concerning the character of the hotel's patronage. What classes, based upon wealth and background, will be represented and how many of each class? In addition to the cultured well-to-do and social climbers, many hotels today are profiting from free-spending business men with tax-deductible expense accounts. From these three groups comes the demand for the best accommodations, and to these may be added those of moderate means and expensive tastes. Perhaps greatest demand will come from the middle-income group, members of which insist upon high standards, convenience and tasteful surroundings, but are not impressed by ostentation. Guests on a lower income scale might hold little interest for the management of a "first class" hotel, but people with relatively low incomes do travel. This lower income group includes cultured persons, both mature and young, who insist upon sanitary and attractive conditions. While they may find rooms in old hotels which have maintained standards, a new "first class" hotel might provide for this group a number of units of near minimum size.

To provide the greatest variety of accommodations, these small units may have doors for communication with adjacent larger units.

Diagram 1 shows the smallest modular units with toilet and closet. Those based upon a 3'-8" module

TABLE 1

| AREAS OF SMALL MODULAR HOTEL GUEST UNITS | | | | | | | | |
|--|-------|--------|------------|---------|------------|------------------|---------|---------------|
| modules | | | dimensions | | area sf | theoretical rate | | normal use |
| width | depth | dimen. | width | depth | | single | double | |
| 2 | 3 | 3'-8" | 7'-4" | 11'-0" | 81 | \$5.62 | — | single |
| 2 | 3 | 4'-0" | 8'-0" | 12'-0" | 96 | 5.92 | — | single |
| 2 | 3 | 4'-4" | 8'-8" | 13'-0" | 113 | 6.26 | — | single |
| 2 | 4 | 3'-8" | 7'-4" | 15'-7" | 114 | 6.28 | — | single |
| 2 | 4 | 4'-0" | 8'-0" | 17'-0" | 136 | 6.72 | \$10.72 | single |
| 2 | 4 | 4'-4" | 8'-8" | 18'-5" | 160 | 7.20 | 11.20 | single |
| 2 | 5 | 3'-8" | 7'-4" | 18'-3" | 133 | 6.66 | 10.66 | single |
| 2 | 5 | 4'-0" | 8'-0" | 21'-0" | 168 | 7.36 | 11.36 | single |
| 2 | 5 | 4'-4" | 8'-8" | 22'-9" | 197 | 7.94 | 11.94 | single |
| 2 | 6 | 3'-8" | 7'-4" | 22'-11" | 167 | 7.36 | 11.36 | single |
| 2 | 6 | 4'-0" | 8'-0" | 25'-0" | 200 | 8.00 | 12.00 | single |
| 2 | 6 | 4'-4" | 8'-8" | 27'-7" | 259 | 9.18 | 13.18 | single |

TABLE 2

| AREAS AND HYPOTHETICAL RATES OF TYPICAL MODULAR HOTEL GUEST UNITS | | | | | | | | |
|---|------|--------|---------------|--------|------------|---------|--------|---------------|
| mod. dimen. | area | space | Rent | | | | | normal use |
| | | | service, etc. | | total rate | | | |
| | | | single | double | single | double | | |
| 3'-8" | 253 | \$5.06 | \$4.00 | \$8.00 | \$ 9.06 | \$13.06 | double | |
| 4'-0" | 300 | 6.00 | 4.00 | 8.00 | 10.00 | 14.00 | double | |
| 4'-4" | 346 | 6.92 | 4.00 | 8.00 | 10.92 | 14.92 | double | |

TABLE 3

| AREAS AND HYPOTHETICAL RATES FOR LARGE MODULAR HOTEL GUEST UNITS | | | | | | | | |
|--|------|--------|---------------|--------|------------|---------|--|--|
| mod. dimen. | area | space | Rent | | | | | |
| | | | service, etc. | | total rate | | | |
| | | | single | double | single | double | | |
| 3'-8" | 338 | \$6.78 | \$4.00 | \$8.00 | \$10.78 | \$14.78 | | |
| 4'-0" | 400 | 8.00 | 4.00 | 8.00 | 12.00 | 16.00 | | |
| 4'-4" | 451 | 9.02 | 4.00 | 8.00 | 13.02 | 17.02 | | |

will not take a full-size double bed. Diagram 3 indicates a near minimum-size single unit with bathroom. Diagram 8 indicates bathrooms based upon a 3'-8" module; a 4'-0" module and a 4'-4" module. Units indicated by diagrams 1, 2 and 3 should normally be used for single occupancy. Dimensions, areas and theoretical rates for small modular hotel guest units are given in Table 1.

Unlike offices, hotel units should not be priced by the square foot, because it costs more per square foot to service a small unit than a large one, and occupants of small units make as much use of public facilities as do guests in larger units. For a purely hypothetical example, suppose that a unit with furniture and furnishings but without service or use of public facilities is worth two cents per day per square foot,⁴ and that the value of service, etc.,

is \$4.00 per day per guest. A typical twin-bedded unit illustrated by Diagram 7 would be valued as indicated in Table 2.

On the same basis, the small units indicated in Table 1 would have the rates listed therein. In some localities in which the rates indicated for typical units would be acceptable, small units might not be rentable at the theoretical rates listed. If so, and if this analysis is reasonable, no small units would be included in the program.

Diagrams 4, 5 and 6 indicate variations of the typical unit and diagrams 9 and 10 are for large units, one with twin beds and the other with couches. For comparison, theoretical rates for large units would be as given in Table 3.

⁴ This is equivalent to \$5.11 per year at 70% occupancy or \$6.57 per year at the 90% occupancy expected in office buildings

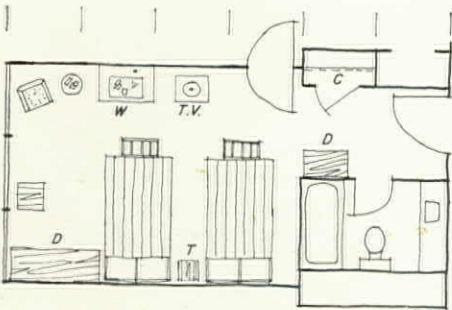
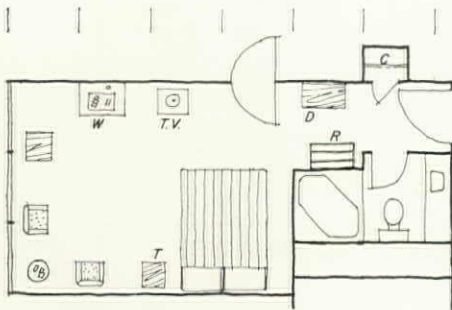
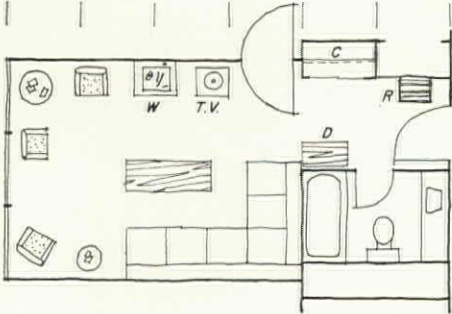
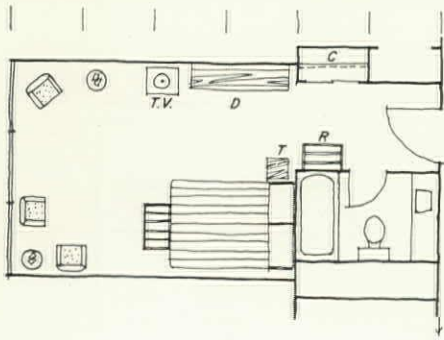


DIAGRAM 4, 5, 6, 7

Typical modular hotel guest rooms

- LUGGAGE RACK R
- DRESSER D
- CLOSET C
- TELEPHONE T
- TELEVISION T.V.
- DESK AND TABLE W

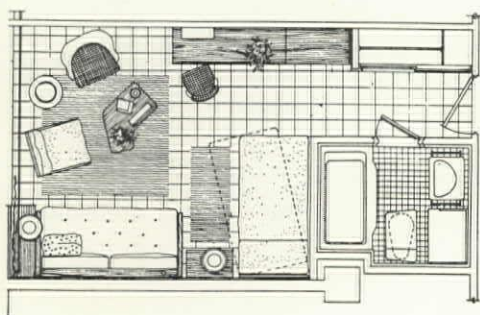


PLATE 7

For luxury hotels, total rates would be higher than the theoretical rates given. Many hotels have lower rates than these.

Francis Keally, FAIA, Consulting Architect for the American Hotel Association has given permission for the reproduction of a layout for a typical guest unit which was developed by the Inter-continental Hotel Corporation. See Plate 7.

For each hotel, furniture should be standardized, and for an effect of roominess, avoid bulky-looking items. Except in luxury hotels, furniture should be resistant to marring, cigarette burns and alcohol damage. Furnishings should be as fire-resistant as possible.

Food Service

Hotel management in general feels obligated to provide meals for a reasonable proportion of guests. During prohibition, dining facilities were frequently operated at a loss, and even recently they have not generally been as profitable as other hotel operations. Even so, some hotel guests go to outside restaurants for many of their meals. Only a few hotels still operate on the "American plan." On the other hand, hotel dining rooms are patronized by local residents and others who are not registered hotel guests. In considering the extent of dining facilities, therefore, it is necessary to take account of local restaurants as well as other hotels.

Main dining rooms of hotels, like large metropolitan restaurants, should be arranged to serve groups of various sizes with different degrees of privacy. Private dining rooms may be included. They should be stylish to an extent suitable for the hotel's patronage. Hotels may also have dining rooms small enough to produce an effect of intimacy and thus come in competition with independent, distinctive cafes. Some hotel dining rooms feature entertainment, and thus enter the field of the night club. Hotels also find it advisable to provide "coffee shops" for meals at comparatively low prices. These frequently have either self-service or counter service, and thus compete with cafeterias, lunch rooms, drug stores, and chain restaurants.

For greatest flexibility in use, dining tables may be designed on a modular basis and to fit into planning modules of 3'-8", 4'-0" or 4'-4".

Table space for a single diner, as indicated by Diagram 11 is about 20" square or an isosceles triangle with a 40" base and 20" altitude. If table units either 20", 22" or 24" square (pedestal type) are provided, they may be used singly, or in pairs, triples, etc., for two, three or four diners. Since a large proportion of diners will be in groups of four, complete tables either 40", 44" or 48" square should be provided. Two small table units joined with a table for four would seat five or six; two tables for four would seat seven or eight; two tables for four plus two small table units would seat nine or ten, etc.

Small table units along a wall with aisle space require one square planning module per diner. This same space per diner is required with square tables for four placed diagonally. Tables 40" square may be used with a 3'-8" or 4'-0" planning module — tables 44" square may be used with a 4'-0" or 4'-4" planning module — and tables 48" square may be used with a 4'-4" planning module. If square tables for four are joined to seat ten or more, space per diner will be approximately 0.8 square module per diner.

Without allowing space for cross aisles, columns and service tables, areas per diner for modules of different dimensions are as follows:

| mod. dimen. | diag. sq. tables* | long tables** |
|-------------|-------------------|---------------|
| 3'-8" | 13.50 | 11.0 |
| 4'-0" | 16.00 | 13.0 |
| 4'-4" | 18.75 | 15.0 |

* One square module per diner.

** 0.8 square module per diner.

Allowing liberal spaces, but less than indicated by Diagram 12, areas per diner are as follows:

| mod. dimen. | diag. sq. tables | long tables |
|-------------|------------------|-------------|
| 3'-8" | 17 | 13 |
| 4'-0" | 20 | 16 |
| 4'-4" | 23 | 19 |

Pedestal tables are preferred. A shelf about 4" below the top is convenient for placing gloves, handbags, etc. Chairs with arms which may be hooked over edge of table top facilitate floor cleaning.

In a cocktail lounge, the 20", 22" or 24" tables described above may accommodate two, three or four drinkers. If a continuous seat is placed along a wall, these small tables may be placed two to a

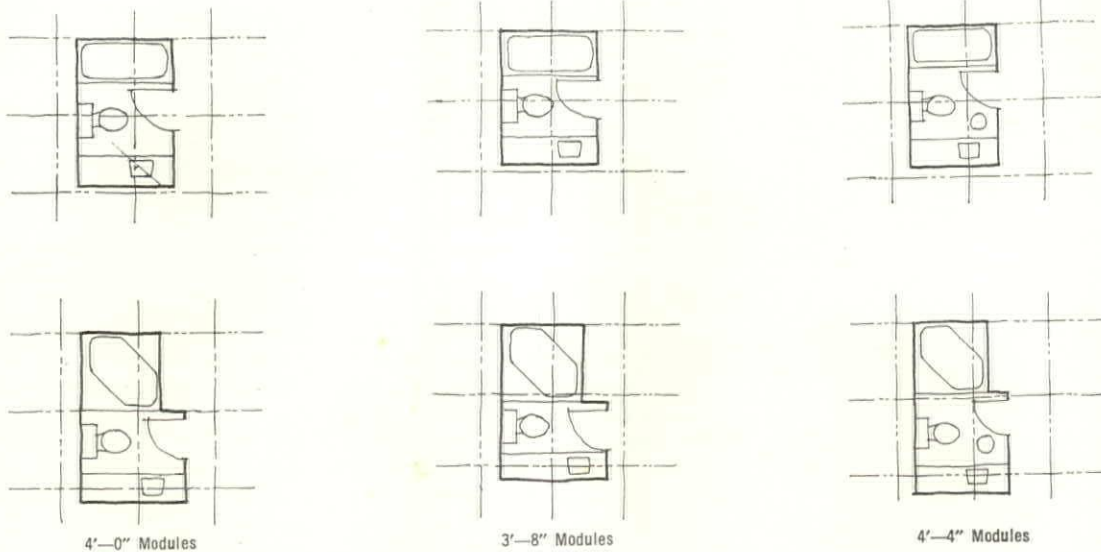


DIAGRAM 8 Typical bath rooms to fit designated modules

module and an aisle one module wide should be provided along the row of tables. Cocktail lounges and bar rooms preferably should be secluded.

Public Space

Roughly two-thirds of the space in an average hotel (not including garage or rental space) is taken for guest rooms and baths, one-tenth for dining rooms, kitchens, etc., one-twelfth for general service, etc., and one-seventh for public space. Public space is less in hotels with low rates and greater in luxury hotels and those equipped for conventions.

The main lobby with registration desk, etc, is the control center. In small hotels, the desk should control exits and elevators. In larger hotels which rely upon detectives for control, this is neither necessary nor possible. In addition to ample and attractive lounges and special registration lobbies for motorists, some hotels provide an "interim club" where guests may lounge, bathe and shave when they arrive before their rooms are available.

Rental Space

An important source of hotel revenue comes from concessions and shops. It is desirable for shops to have entrances both from the hotel lobby (or extensions of it) and from outside. Among concessions, there might be included amusement features such as swimming pools, ice skating rinks, etc. Hotels on very expensive land often provide office space for rent. Off-street

parking or garage space is a recognized necessity.

Wherever a good hotel is located, there is frequently an immediate increase in price of adjacent land. By purchasing more land than will be used for the hotel, the unearned increment resulting from the transaction may be conserved. By purchasing an entire block, the hazard of unfavorable use of adjacent land may be avoided. This is illustrated by the hypothetical example (diagrams 13 to 16), in which lighting for hotel rooms and an adjacent office building is provided. An open court gives a pleasant outlook for the dining room, an impressive access to the office building on the back street and valuable window display space for adjacent department store. See Diagram 16.

In the Sheraton-Dallas Hotel, an office building attached and amalgamated with the hotel is the dominant element of the composition. Plans for a projected Sheraton hotel in Houston are reported to include an office building, and the Los Angeles Statler (see *Arch Rec*, May '53, pp 127-36), built in 1952, has a large office building attached. The projected new Zeckendorf Hotel in New York will have six office stories between lower stories and the upper 38 stories of hotel floors, and in Cincinnati, the Terrace Plaza Hotel (see *Arch Forum*, Dec. '48, pp 81-96) is atop two seven-story department stores. The new Zeckendorf Hotel in Denver is closely related to a department store and an open plaza.

Where capital investment in rental space is large compared to that in hotel facilities, rental space may be owned by a corporation separate from the owner of the hotel property, or the hotel may lease its building space from such a corporation. In the first case, rental space should be easily distinguished from that owned by the hotel.

The "Back of the House"

Management is concerned with service to and transactions with guests, and also with unseen activities which are intended to serve and please guests. In addition to making reservations, assigning rooms, providing meals and other services to guests, and making collections, there are special meals and banquets to be arranged, and meetings of various sizes, possibly including large conventions. Suitable office space is required for manager, assistant manager, engineer, housekeeper, maître d'hotel, bookkeeper, etc.

The unseen activities are divided among (1) food and beverage service, (2) housekeeping department and (3) engineering department. Each of these should have access to a receiving room and dock.

Food and beverage service includes that for the various dining rooms and bars and that delivered to guest rooms. Food is ordered, received and properly stored. It is also prepared and served. Utensils, dishes, silverware and other small dining room accessories are purchased, stored, used, cleaned and

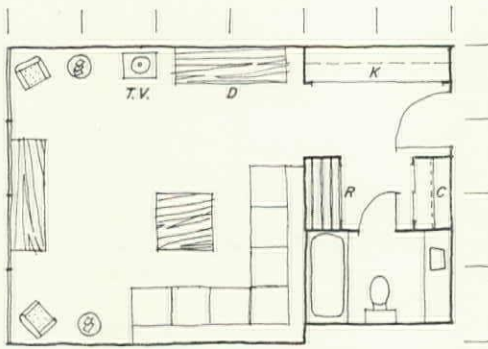
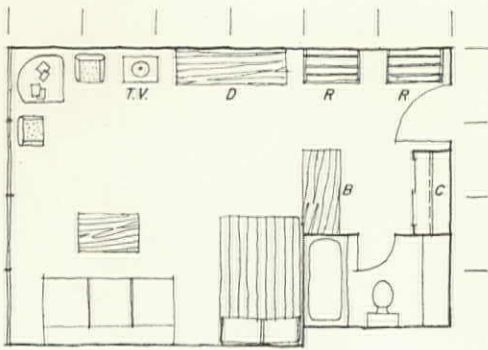


DIAGRAM 9, 10

Large modular hotel guest rooms

- LUGGAGE RACK R
- DRESSER AND DESK D
- CLOSET C
- KITCHENETTE K
- TELEVISION TV

repaired. Beverages are purchased, stored with special care and dispensed. Garbage is carefully collected, stored and disposed of. The kitchen staff generally maintains sanitary conditions in store rooms, kitchen and dining rooms.

The housekeeping department is responsible for cleaning in all other parts of the hotel except engineering shops and store rooms. It provides towels, soap etc, and makes up (and possibly turns down) the beds. The housekeeping department is also responsible for purchase, storage, repair and laundering of linen, drapery and furniture. In addition to laundering hotel linens, etc, the laundry usually provides one-day service to hotel guests. Other housekeeping facilities include offices for administrative personnel, a small assembly room, and linen room, maid's closet and houseman's (janitor's) closets on each floor. The engineering department operates and maintains the mechanical plant (heating, air conditioning, electric service, etc) and supervises major repairs and reconditioning. It is obvious that responsibilities of the three departments overlap. In a small hotel they might possibly be combined, and in a large hotel an officer might assume general direction. All three have storerooms, control of which is im-

portant. Consideration might be given to establishing a general storeroom for the three departments if that is necessary in order to provide constant supervision.

Obsolescence

Like other buildings, hotels are faced with eventual obsolescence; but unlike office buildings, for example, they cannot be made completely flexible. Functions of a hotel are so special that it is difficult to design the building so that it may readily be converted to a different occupancy. It is almost inevitable that as hotels age, they will continue to be operated as hotels and will tend to charge progressively lower rates as measured in purchasing power of a stable dollar. Where a hotel's obsolescence is due in part to a change in character of its neighborhood, it might be partially or completely converted to a residential hotel or a dormitory for independent oldsters. Obsolescence is slower in buildings of simple design and permanent materials than in buildings designed to catch passing fancies and constructed of materials which weather badly or which become disreputable with wear. Also, by periodic modernization and continuous maintenance, depreciation from all causes may be slowed.

TABLE 4

| AREA AND INCOME — GUEST UNITS | | | | | |
|---|------------|--------------|----------------|---------|----------------|
| rm. nos. | no. | area unit sf | total area sf | rate | daily income |
| 1 | 16 | 328 | 5,250 | \$12.00 | \$ 192 |
| 2, 6, 20, 24 | 64 | 227 | 14,500 | 8.50 | 544 |
| 3, 4, 5, 21, 22, 23, 25, 26 | 128 | 291 | 37,200 | 10.00 | 1,280 |
| 7 | 16 | 280 | 4,470 | 9.50 | 152 |
| 8 | 16 | 176 | 2,820 | 7.50 | 120 |
| 9 | 16 | 252 | 4,040 | 9.50 | 152 |
| 10 | 16 | 360 | 5,750 | 12.00 | 192 |
| 11 | 16 | 252 | 4,040 | 9.50 | 152 |
| 12 | 16 | 256 | 4,100 | 9.50 | 152 |
| 13 | 16 | 376 | 6,020 | 12.00 | 192 |
| 14 | 16 | 320 | 5,130 | 11.00 | 176 |
| 15, 16, 18, 19 | 64 | 243 | 15,550 | 9.00 | 576 |
| 17 | 16 | 195 | 3,120 | 7.50 | 120 |
| Totals | 416 | | 111,990 | | \$4,000 |
| double occupancy, 25% of rooms, 104 @ \$4.00 each | | | | | \$ 416 |
| average total daily income, no vacancies | | | | | 4,416 |
| vacancies, 25% of \$4,000 | | | | | 1,000 |
| average* total daily income | | | | | 3,416 |
| average income per year | | | | | \$1,246,840 |

* Rates for 10th floor, \$1.00 more; 9th floor, 50¢ more; 3rd floor, \$1.50 less. Minimum rate, \$6.00 single and \$10.00 double; maximum rate, \$13.00 single and \$17.00 double

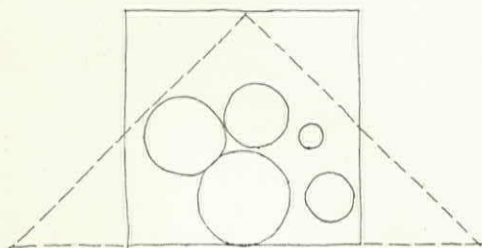
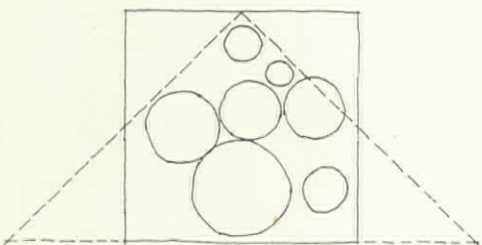


DIAGRAM 11

Typical space required for diner
20" table above
22" table below

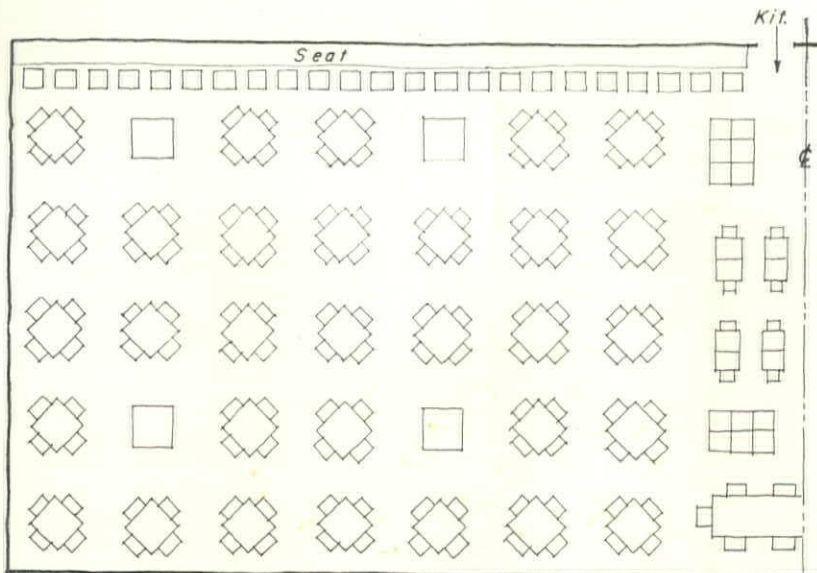


DIAGRAM 12 Spacing of modular dining tables

It has been reported that the new Executive House in Chicago was designed first as an apartment building. This was because apartments were considered to be more stable investments than transient hotels. After financing was arranged, the building was redesigned as a hotel, and since it was shown that it could readily be converted to an apartment hotel, financial interests agreed to the change.

Financing

To indicate a method of testing financial feasibility and relative return from operations of different departments, an urban motor hotel the size of the average of transient hotels reported by Harris, Kerr, Forster & Co.'s *Trends in the Hotel Business* is illustrated by diagrams 13 to 16. Facilities for conventions and a parking garage are included. Consecutive steps in this analysis are given in Tables 4 to 18 and final calculation of the over-all rate of return may be found on page 88.

Since construction costs of buildings, charges for hotel services and operating expenses vary widely, figures given herein should be used only for comparison. Similar calculations may serve as planning guides for actual projects. Table 4 gives area and assumed income from guest units, and Tables 5 to 11 give capital cost of functional groups of building elements. Amounts budgeted for furniture, furnishings and unattached equipment are given in Table 12, and a summary of all capital costs is given in Table 13. Expected income is summarized in

Table 14 and anticipated expense is summarized in Table 15. From these figures, rate of return is estimated: (1) when all capital is furnished by the owner, and (2) when 60% of capital is borrowed. Finally, results of operations of major departments are analyzed.

For any project, data on some capital costs, on income and on expenses would be furnished by owner, promoter, hotel accountant or hotel planning specialist.

It is to be expected that rental space would produce a high return on the investment, because the hotel brings customers to the tenants. In the hypothetical example, for the dining facilities to pay 6% on total capital invested in them, either (1) income must be increased by \$171,700 (17%) or (2) expenses must be decreased by the same amount. For convention facilities to pay 6%, income of \$157,060 must be found or expenses reduced by this amount. In most cases, however, hotel management justifies these deficits because of the guests the facilities attract.

A possible rearrangement of the typical floor, to convert the building to an apartment hotel, is indicated by Diagram 17. The exhibition hall could be made into garage space, and the banquet hall and meeting room could become a community social center.

Modernization

If one has in mind a concept of an urban motor hotel or another design suitable for today, one may readily see wherein many of today's

TABLE 5

| CAPITAL COSTS OF DINING FACILITIES | | | |
|------------------------------------|---------------|-------|------------------|
| item | area | \$/sf | bldg. cost |
| ½ kitchen | 7,800 | 9 | \$ 70,200 |
| dining rm. | 5,800 | 22 | 127,600 |
| restaurant | 1,700 | 22 | 37,400 |
| cafeteria | 1,700 | 22 | 37,400 |
| bar | 1,800 | 22 | 39,600 |
| totals | 18,800 | | \$312,200 |

TABLE 6

| CAPITAL COSTS OF CONVENTION FACILITIES | | | |
|--|---------------|-------|------------------|
| item | area | \$/sf | cap. cost |
| ½ kitchen | 7,800 | 9 | \$ 70,200 |
| banquet rm. | 11,600 | 12 | 139,200 |
| meeting rm. | 2,500 | 12 | 30,000 |
| private drs. | | | |
| No. 1 | 1,940 | 20 | 38,800 |
| No. 2 | 1,060 | 20 | 21,200 |
| No. 3 | 880 | 20 | 17,600 |
| exhibit hall | 19,000 | 9 | 171,000 |
| totals | 44,780 | | \$488,000 |

TABLE 7

| CAPITAL COSTS OF PUBLIC SPACE | | | |
|-------------------------------|---------------|-------|------------------|
| item | area | \$/sf | cap. cost |
| main lobby | 7,080 | 22 | \$155,760 |
| elev. lobby | 190 | 22 | 4,180 |
| balcony | 2,600 | 22 | 57,200 |
| lower lobby | 4,350 | 22 | 95,700 |
| interim club | 1,250 | 22 | 27,500 |
| total | 15,470 | | \$340,340 |

TABLE 8

| CAPITAL COSTS OF GARAGE | | | |
|-------------------------|----------------|-------|--------------------|
| item | area | \$/sf | cap. cost |
| lower lobby fl. | 11,572 | 9 | \$ 104,148 |
| upper gar fl. | 57,616 | 9 | 518,545 |
| lower gar fl. | 69,056 | 9 | 621,504 |
| totals | 138,244 | | \$1,244,197 |

TABLE 9

| COST OF AND INCOME FROM RENTAL AREA | | | | |
|-------------------------------------|-------|-------|------------------|------------------|
| item | area | \$/sf | cap. cost | income/yr |
| upper lobby fl.: | | | | |
| shop | 1,800 | 15 | \$ 27,000 | \$ 18,000 |
| concession | 1,300 | 20 | 26,000 | 19,650 |
| lower lobby fl.: | | | | |
| barber | 5,250 | 15 | 78,750 | 26,250 |
| etc. | | | | |
| beauty | 6,500 | 15 | 97,500 | 32,500 |
| etc. | | | | |
| shops 1 | 816 | 10 | 8,160 | 8,160 |
| 2 | 960 | 10 | 9,600 | 9,600 |
| 3, 4 | 340 | 10 | 3,400 | 3,400 |
| 5 | 1,440 | 10 | 14,400 | 11,520 |
| 6 | 880 | 10 | 8,800 | 7,040 |
| 19,286 | | | \$273,610 | \$136,120 |

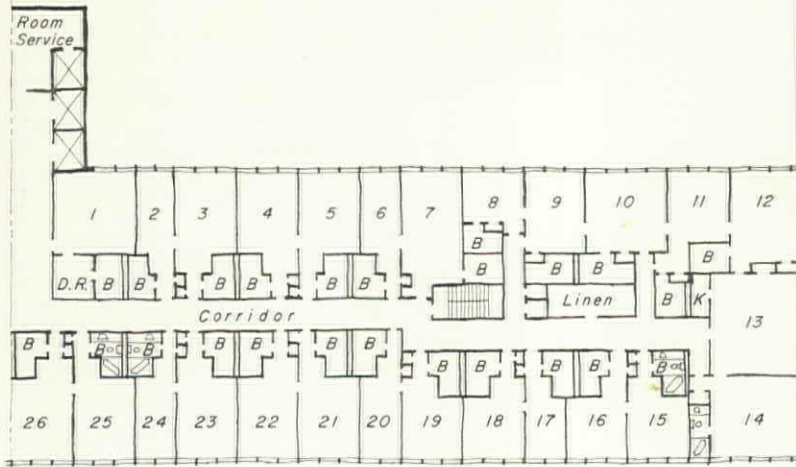


DIAGRAM 13 Half of typical floor (floors 3 to 10)

hotels fail to measure up. When modernization is considered, demolition should be also, and the following questions should be investigated:

- is location suitable, or could land be put to better use?
- can hotel's shortcomings be eliminated at a reasonable cost?
- may building be more readily converted to another building type?

The answer to the first question may lead to sale of the property. The land might be most profitably used for parking, or if it has sufficient value, for an office building. To answer the second question, a detailed study may be required. Perhaps only the structural frame may

be salvaged. On the other hand, it may be that all that will be required will be an exterior "face-lifting," new plumbing, mechanical equipment and interior finish. Cost of modernization will be larger than ordinary, of course, if it is necessary to continue to offer hotel services during the process.

A major cause of obsolescence of buildings is change in neighborhood character. This may result in either an increase or a decrease in value of the land occupied. In the first case:

- action may be deferred pending an expected further increase
- limited modernization may be undertaken to increase income during such a waiting period
- property may be sold

TABLE 10

| CAPITAL COSTS OF AREAS FOR MGMT. ETC | | | |
|--------------------------------------|---------------|-------|------------------|
| item | area | \$/sf | cap. cost |
| mech eq. | 18,600 | 9 | 167,400 |
| fl | | | |
| offices & lobby | 10,200 | 15 | 15,300 |
| offices | 1,500 | 15 | 2,250 |
| rm service | 3,000 | 15 | 4,500 |
| storage | 4,752 | 9 | 42,768 |
| rec rm | 880 | 9 | 7,920 |
| garage-stor | 6,000 | 9 | 54,000 |
| ht & power | 7,744 | 9 | 69,696 |
| truck dock | 3,872 | 5 | 19,350 |
| totals | 56,548 | | \$383,184 |

- building may be remodeled to fit a different use, or
- building may be replaced by a more expensive building.

If land value is decreasing,

- cooperative action with other owners of land in area may help retard rate of depreciation or reverse trend
- rates may be lowered and service reduced in proportion
- property may be sold
- building may be remodeled (perhaps as a residential hotel), or
- building may be replaced by a less expensive building

Many hotels can be modernized at reasonable cost. Failure to modernize in time may be a means of

TABLE 11

| CAPITAL COST OF LANDSCAPE WORK | | | |
|--------------------------------|--------|-------|------------------|
| item | area | \$/sf | cap. cost |
| forecourt | 16,200 | 2 | \$ 32,400 |
| roof garden ¹ | 18,600 | 4 | 74,400 |
| roof garden ² | 40,920 | 2 | 81,840 |
| total | | | \$188,640 |

TABLE 12

| COST SUMMARY OF FURNITURE AND UNATTACHED EQUIPMENT | |
|--|--------------------|
| guest units | \$1,248,000 |
| din facilities | 600,000 |
| convention facilities | 640,000 |
| public space | 600,000 |
| garage | 1,000 |
| rental area | 0 |
| management etc. | 26,000 |
| landscape etc. | 1,000 |
| total | \$3,116,000 |

TABLE 13

| SUMMARY OF CAPITAL COST | | |
|-------------------------|------------|---------------------|
| item | | amount |
| land | | 657,700 |
| building: | | |
| guest units | (table 4) | \$3,273,600* |
| din fac | (table 5) | 312,200 |
| conv fac | (table 6) | 488,000 |
| pub space | (table 7) | 340,340 |
| garage | (table 8) | 1,244,197 |
| rental area | (table 9) | 273,610 |
| mgmt, etc. | (table 10) | 383,184 |
| landscaping | (table 11) | 188,640 |
| | | \$ 6,504,771 |
| architect, etc. | | 452,900 |
| carrying charges | | 713,890 |
| | | 1,166,790 |
| furniture & equip | | 3,116,000 |
| total | | \$11,445,261 |

Note:
 Capital per guest unit = \$27,200
 Building cost per guest unit = \$15,500
 *Area of 8 floors 60 x 310 x 8 = 148,800 sf
 At \$22/sf, cost is \$3,273,600

inviting competition from a new hotel. After a new hotel has been announced, it may be too late. If construction of a new hotel provides more facilities than needed in the locality it is likely that owners of one or more of the old hotels will be faced with problems similar to those which result from changes in neighborhood character as outlined above. If its present hotels serve a city adequately, new hotels are not apt to be built. The best policy is to recondition continuously and modernize at frequent intervals.

Modernizing and remodeling call for the use of skill and judgment. If results are unsatisfactory, money invested may be wasted. On the other hand, compromises are almost always necessary.

A notable example of a successful modernization and addition is the Brown Palace Hotel in Denver, by William B Tabler, AIA. The original building (which was built substantially in the nineties) had been well maintained and its world-wide reputation was unimpaired. With growth of the city, however, an acute shortage of hotel facilities developed. Tourist demand was being met by erection of numerous tourist courts and motels but there was need for facilities for conventions.

Since the Brown Palace occupies an entire triangular block, the addition was placed across a street and connected below ground and by a bridge at mezzanine level. The ground floor is taken up by rental space, registration desk, motor entrance and driveway entrance to garage. The mezzanine level of the addition contains a small lounge and banquet hall (meeting room) with its serving room. Kitchen facilities are in the basement and connect with the service area of the original building.

Guest units in the addition reflect Tabler's ideas which are a result of his wide experience in hotel design. A typical unit is 12'-3" x 21'-4" with two sofa-beds. Furniture is small in scale. A writing table has a flip-top to double its size to 30" square for use for games and dining. Mirrors are used effectively behind and at the side of the small dresser and in the bathroom behind the wash basin and dressing table. The mirror and the use of shower curtains, rather than an enclosure, make the bathroom seem larger than its 4'-11" x 6'-8". The effect

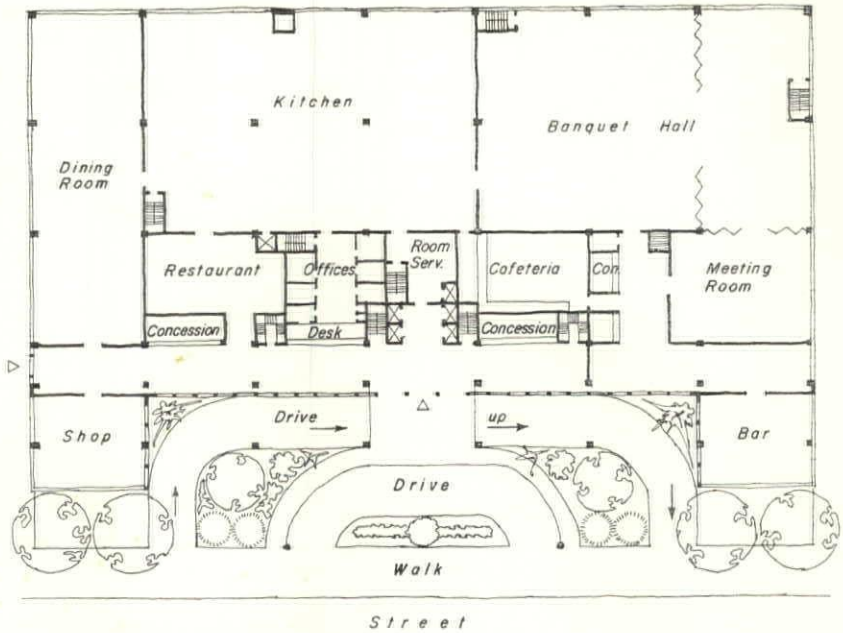


DIAGRAM 14 Upper lobby floor

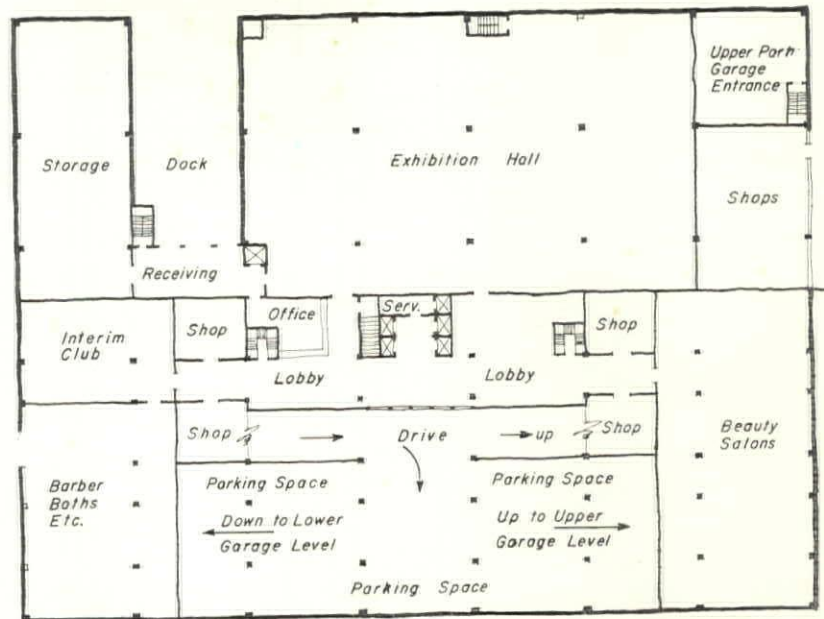


DIAGRAM 15 Lower lobby floor

TABLE 14

| item | SUMMARY OF INCOME | | net |
|--------------------------------|-----------------------------|-----------|--------------------|
| | gross | vacancy | |
| guest units | \$1,611,840 | \$365,000 | \$1,246,840 |
| din fac (see Table 4) | (212,882,173 + 82,887,970)* | (300) | \$ 981,560 |
| conv fac | | | 0 |
| garage (356 x \$1.00 x 365) | \$ 136,120 | \$ 13,612 | \$ 129,940 |
| rental area (see Table 9) | | | \$ 122,508 |
| total | | | \$2,480,848 |

* See Harris, Kerr, Forster & Co.; Trends in the Hotel Business, p 20.

** it is assumed that by crowding during rush hours, extra income will offset vacancies.

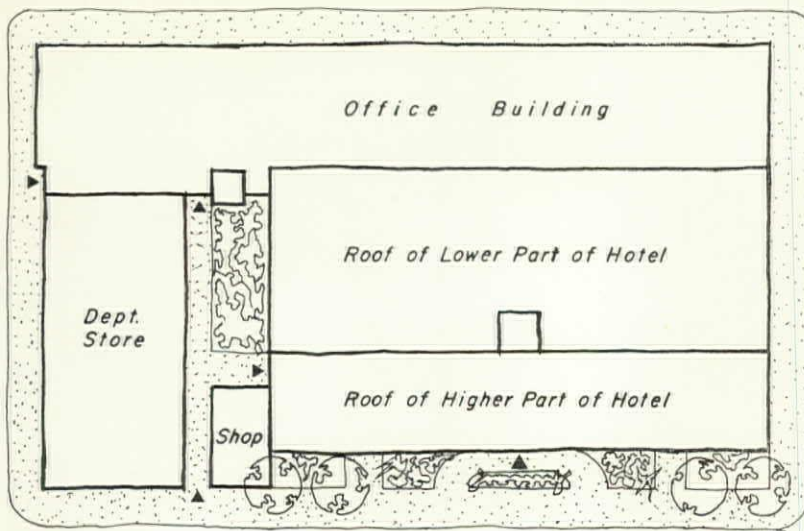


DIAGRAM 16 Plan of city block showing advantage of controlling use of adjacent land

TABLE 15

| SUMMARY OF EXPENSE | |
|--------------------|------------------|
| item | amount |
| guest units | (\$ 95,360,361)* |
| | (300) |
| | \$317,828 |
| din fac | (\$246,454,461)* |
| | (300) |
| | 821,515 |
| conv fac | 0 |
| garage | 10,000 |
| rental area | 0 |
| admin, etc. | (\$ 47,384,668)* |
| | (300) |
| | 157,828 |
| advert, etc. | (\$ 17,288,883)* |
| | (300) |
| | 57,629 |
| ht, lt, power | (\$ 27,972,141)* |
| | (300) |
| | 93,240 |
| repairs, etc. | (\$ 34,367,508)* |
| | (300) |
| | 114,592 |
| ins & taxes | (\$ 2,793,115)* |
| | (300) |
| | 84,441 |
| depreciation | (\$37,662,917)* |
| | (300) |
| | 125,543 |
| | \$1,782,616 |

* See Harris, Kerr, Forster & Co., Trends in the Hotel Business, p. 20.

Rate of Return

1. If no capital were borrowed, rate of return on that invested:

$$\frac{\text{income} - \text{expense}}{\text{capital}}$$

$$= \frac{\$2,480,848 - \$1,782,616}{\$11,445,261}$$

$$\frac{698,232}{11,445,261} = .07 = 7\%$$

2. If 60% of capital were borrowed at 4½%:

| | |
|----------------------------|------------------|
| expense as above | \$1,782,616 |
| (.6 x .045 x \$11,411,110) | |
| interest | 309,022 |
| total expense | \$2,091,638 |
| income as above | \$2,480,848 |
| total expense | 2,091,638 |
| net income | \$ 389,210 |
| equity capital | \$4,578,104 |
| (.4 x 11,445,261) | |
| rate of return = | \$ 390,210 = 8½% |
| | \$4,578,104 |

of roominess is also accentuated by use of a stub partition around the closet and merging of the entry with the room. See Diagram 18.

The color of the addition and its connecting bridge harmonizes, and the rounded corners of the addition recall those of the original building. The distinctive interior of the old building has not suffered from introduction of moving stairs and other necessary changes.

The greatest drawback to this modernized building is probably unavoidable — dining facilities are spread out and kitchens are at a different level than the dining rooms. It would be interesting to learn how much this increases cost of meals.

Architectural Distinction

These Building Type Reference Guides are intended to lead the architect and his client to the discovery of pertinent data. It is inevitable that they emphasize practical aspects of programming and planning, but it would be unfortunate if this emphasis should lead anyone to undervalue that most important of all criteria—architectural distinction.

No degree of architectural distinction would justify an impractical or inconvenient plan, but frequently plan arrangement is influenced by a pre-conceived vision. Were this not true, many more ugly and commonplace buildings would result. Much distinction may be achieved by skilled development of a scheme, the conception of which was based upon practical aspects.

Where outdoor or semi-enclosed space is available, plant materials and water, and the art of the land-

scape architect may turn an uninteresting light-court into a garden. Growing things have an appeal which could be utilized more often. It seems natural that the art of the sculptor should be wedded to that of the architect and the landscape architect. A single piece may be the one thing needed to give emphasis to an otherwise monotonous facade. While painting is most normal in building interiors, and often is used without any apparent relationship to design of the building which houses it, many materials of the painter (mosaic tile for example) may be used outdoors, and murals may redeem an ordinary interior or exterior.

In most cases, however, the architect is thrown upon his own resources to attain for his design what distinction he can, and his most important means is composition. The fact that a building facade is made up of thousands of identical units should not lead to despair of achieving distinction through composition. Proportions of the individual unit, major elements and the building as a whole may be bad or good. Emphasis, where needed, may come from contrast in size, color or form.

An important choice is the scale of major elements and individual units of the composition. Generally small-sized repeating units tend to make a building seem large, but in the Denver Zeckendorf Hotel, for example, these small individual units need tying together to overcome monotony. Choice of materials for color and texture is equally important. Probably most buildings are too colorless, but the wide palette made available by the development of synthetic materials has been used garishly in some cases. Texture, particularly that resulting from effects of weather, is an advantage of natural materials.

The architect and his client (whether both be individuals or either or both be groups) must cooperate to secure data needed to determine the type of hotel and the function of its parts. Having evolved a feasible plan, this cooperation should continue through development of design and even in selection of important materials. With his client's encouragement, the architect will spare no pains to create a building which will be distinctive—which will be a source of satisfaction to architect and client.

TABLE 16

| DIVISION OF EXPENSES | | | | | |
|----------------------|------------------|--------------------|-----------------------|-----------------|-----------------|
| | guest units | dining facilities | convention facilities | garage | rental area |
| | | 100% | | | |
| food & bev | 0 | \$ 821,515 | 0 | 0 | 0 |
| housekeeping | 100% | | | | |
| | \$317,828 | | | 0 | |
| administration | 60% | 20% | 10% | 5% | 5% |
| | \$ 94,500 | \$ 31,500 | \$15,782 | \$ 7,891 | \$ 7,891 |
| advertising | 70% | 20% | 10% | | |
| | \$ 40,400 | \$ 11,500 | \$ 5,763 | 0 | 0 |
| h, l, etc. | 60% | 10% | 20% | 5% | 5% |
| | \$ 56,000 | \$ 9,324 | \$18,700 | \$ 4,670 | \$ 4,670 |
| rep & maint | 60% | 10% | 10% | 15% | 5% |
| | \$ 68,800 | \$ 11,459 | \$11,459 | \$17,200 | \$ 5,730 |
| insurance & tax | 60% | 10% | 10% | 15% | 5% |
| | \$ 50,600 | \$ 8,444 | \$ 8,444 | \$12,650 | \$ 4,222 |
| depreciation | 60% | 10% | 10% | 15% | 5% |
| | \$ 75,500 | \$ 12,554 | \$12,554 | \$18,800 | \$ 6,280 |
| service | 0 | 0 | 0 | \$10,000 | 0 |
| totals | \$703,628 | \$1,086,276 | \$82,702 | \$71,411 | \$28,793 |

Some Recent Hotel Buildings

Convention Hotels

Beirut; HOTEL PHOENICIA INTER-CONTINENTAL; Edward D. Stone, FAIA—Peter Brunder and Garlen & Atlas, engineers, *Arch Rec*, 121:220-1, My '57.

Combined ballroom and theater.

Dallas; SHERATON-DALLAS HOTEL; Welton Becket, FAIA, and Associates.⁵

The Sheraton-Dallas Hotel is a dramatic example of an urban motor hotel with facilities for conventions. With only 550 guest units, 12,000 sf is taken by a combination banquet hall ballroom and a meeting room, which may be divided into smaller rooms with soundproof movable partitions. There is also a large area at the entrance to this room which may be used as a lounge, foyer and/or exhibition room. The banquet room has its own kitchen and the three dining rooms are reached from the main kitchen through a service corridor.

Leaving one's conveyance in the wide covered driveway, one is led through the motor entrance into a ground floor lobby (a lunch room is adjacent), and the main lobby on the second floor is reached by a

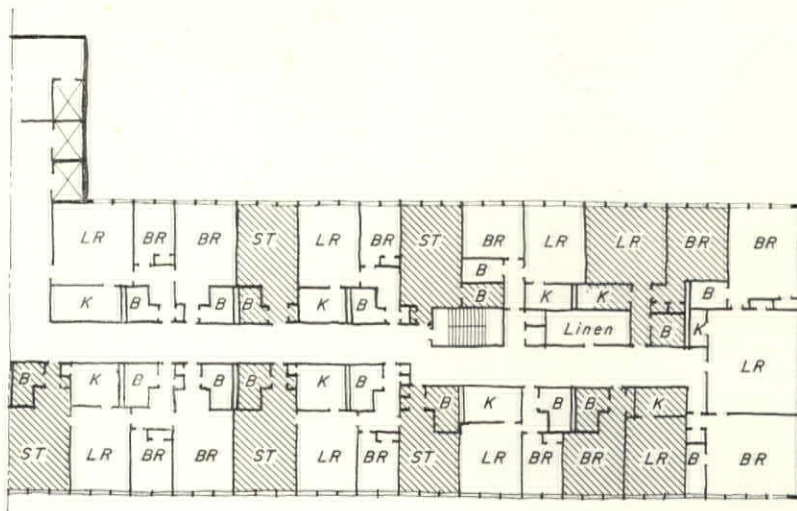


DIAGRAM 17 Half typical floor rearranged for apartments

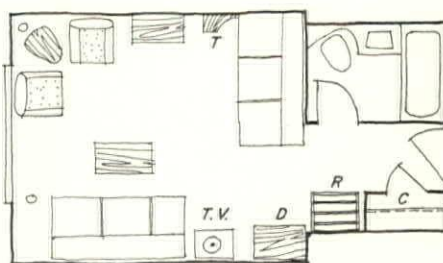


DIAGRAM 18 Typical guest unit in addition to Brown Palace Hotel

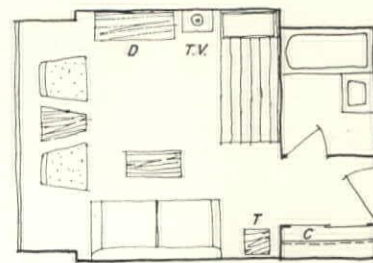


DIAGRAM 19 Twin studio guest unit in Sheraton-Dallas Hotel

⁵ Architects for the Sheraton-Dallas are Welton Becket, FAIA, and Associates, with Mark Lemon, AIA, of Dallas as consulting architect.

TABLE 17

| item | DIVISION OF CAPITAL COST | | | | |
|---|--------------------------|-------------|-------------|-------------|-------------|
| | guest units | din fac | conv fac | garage | rental area |
| occupied space | \$3,273,600 | \$ 312,200 | \$ 488,000 | \$1,244,197 | \$273,610 |
| | 60% | 20% | 10% | | 10% |
| public space | 203,000 | 68,000 | 33,900 | 0 | 33,900 |
| furn, etc | 1,248,000 | 600,000 | 640,000 | 1,000 | 0 |
| | 60% | 20% | 10% | 5% | 5% |
| mgmt, etc. | 238,000 | 79,500 | 39,600 | 19,800 | 19,800 |
| landscape | 94,500 | 56,700 | 37,800 | 0 | 0 |
| Totals | \$5,057,100 | \$1,116,400 | \$1,239,300 | \$1,264,996 | \$328,710 |
| rate of return on guest units: | | | | | |
| = $\frac{\text{income} - \text{expense}}{\text{capital}} = \frac{\$1,259,885^* - \$703,628}{\$5,057,100}$ | | | | | |
| = $\frac{556,257}{5,057,100} = 11.1\%$ | | | | | |

* See Table 14.

TABLE 18

| | RATES OF RETURN | | | | |
|------------|-----------------|-------------|------------|-------------|---------|
| | income | expense | net income | capital | rate |
| dining | \$981,560 | \$1,086,276 | \$104,716 | \$1,116,400 | Deficit |
| convention | 0 | 82,702 | 82,702 | 1,239,300 | Deficit |
| garage | 118,500 | 71,411 | 47,089 | 1,264,996 | 3.7% |
| rental | 122,517 | 28,793 | 93,724 | 328,710 | 27.6% |

moving stairway. All main dining and convention facilities are on this second level. To make this arrangement possible, much space in the adjoining office building is assigned to the hotel by the owner who also owns the hotel.

Dallas, Texas; STATLER-HILTON HOTEL; William B. Tabler, AIA; *Koch*, pp 27-41; 1958.

1000 guest units, 18 floors; site area approximately 108,000 sf, ballroom seating 2,300.

The building's relatively low cost is partly a result of skilled structural design of two-column cantilever bay and use of Y-plan for wind-bracing. By close grouping of service and dining units, economy of operation was achieved. Heliport on roof.

Denver; ZECKENDORF HOTEL, I. M. Pei & Assoc., architects; *Prog Arch* 121: 96-7, Ap '57.

This is a part of a huge redevelopment project, including a department store, plaza and parking garage. Its more than 900 guest units should help greatly to relieve the city's shortage and attract conven-

tions to this pleasant city. Wall construction of precast concrete units appears to be very rapid. They are designed to provide shading of the glass without interfering with the view.

900 guest units, 22 floors, garage for 1,200 cars.

Montreal; QUEEN ELIZABETH HOTEL; H. C. Greensides, chief architect; *Arch Rec*, 121:230-31, My '57.

Joins railway station. Main dining room adjacent to lobby. Banquet room, private dining rooms and cocktail rooms divisible.

New York; NEW YORK ZECKENDORF HOTEL; Harrison and Abramovitz, architects, will cost \$66 million and have 2,000 guest units. The first three floors will have lobby, 10 banquet rooms, exhibition room, dining rooms and meeting rooms. Floors 4 to 9 will be given over to rental offices (240,000 sf), and floors 11 to 48 will have guest units. The two top floors will have luxury suites reached by private elevators.

One banquet hall, the largest in the US, on the second floor, will

seat 2,500 and another 800. There will be two banquet halls seating 500 each, and six which may seat from 100 to 250 each. There will be 15 private dining rooms. More than 6,500 dinners can be served at one time. The large meeting room, 30,000 sf, on the second floor, may be subdivided. In the basement there will be a specialty restaurant (4,900 sf), a coffee shop (6,500 sf), main kitchen, food storage and personnel dining room.

The basement will also include a concourse connecting with the Rockefeller Center concourse, barber shop and beauty parlor. The sub-basement will have the house-keeping department, engineering department, employee facilities and space for mechanical equipment. The tenth floor will also have mechanical equipment.

Philadelphia; SHERATON; Perry, Shaw & Hepburn, architects; *Prog Arch*, 38:122-30; S '57.

900 guest units; site 400 x 100 over railroad tracks. Three-story lobby with escalators; mechanical equipment on fourth floor; ballroom (12,000 sf) on second and third floors; eight "functions" rooms seating 25 to 300; 3 cocktail lounges, men's bar, medium price restaurant (100), chop house. Decorations include glass mosaics, murals, and metal screen in ballroom.

Pittsburgh; PITTSBURGH HILTON; William B. Tabler, architect.

813 guest units planned so that entire floors of guest units may be

closed when demand is low. Variety of room sizes and furniture arrangements. Ballroom seating 2,600 divides into 4. A small kitchen serves coffee shop, staff and bar; main kitchen serves dining room, ballroom and private dining rooms and may be closed during quiet periods. Cost \$15 million.

Portland, Oregon; HILTON; Skidmore, Owings and Merrill, architects.

San Francisco; SAN FRANCISCO HILTON HOTEL; William B. Tabler, AIA, architect. See p 74.

Toronto; PARK PLAZA (addition); Page & Steele, architects; *Prog Arch*, 38:131-5, S. '57.

250 guest units, 12 stories, underground garage for 150 cars, automobile court. Kitchen, dining room, cocktail lounge, and banquet room on first floor.

Motels

Chicago; DRAKE NORTH.

177 guest units, 4 story (main building). 15 acres, 700 f frontage on new Northwest Freeway. Parking court, swimming pool, outdoor dining, tennis courts, small golf course and heliport. Cost \$2 million.

Long Island: One of the few motels which is designed to accommodate meetings and conventions is THE INN, located at Roosevelt Raceway in Long Island. It has 225 guest units in two stories, 2 swimming pools and restaurant.

San Francisco; HILTON INN, International Airport; William B. Tabler, architect.

300 guest units, covered passageways, large patio, space for 500 cars. Central building has dining facilities and administrative offices.

Toronto; SEAWAY HOTEL; A. Elken and R. W. Becksted, architects; *Koch*, pp 55-63, 1958.

Typical units 13 x 28 with balcony, 111 guest units, 4 floors, site 400' long, outdoor parking, restaurant. Banquet hall for 400 with movable partitions. Southern exposure with view of Lake Ontario.

Tucson, Ariz; DESERT MOTEL; Housner & Macsai, architects; *Prog Arch*, 38:114-21, S '57.

122 guest units, 2 stories. Individual loggias, screen walls of flue



PLATE 8 Artist's rendering of new Zeckendorf Hotel to be built in New York City, adjacent to Rockefeller Center

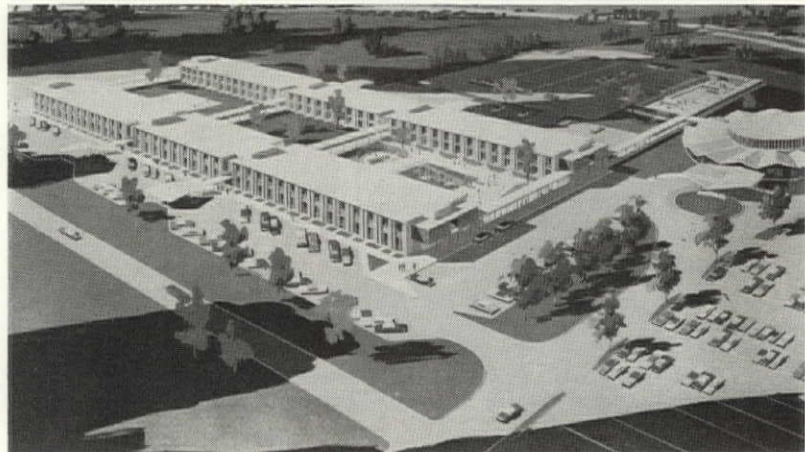


PLATE 9 Hilton Inn

tile. Rooms 12'-2½" x 16'-1½" (+5'). Bright colors.

Woods Hole, Mass; MOTOR INN AND CLUB DOME; E. Gunnar Peterson, architect; *Prog Arch*, 38:110-3, S '57.

14 guest units (30 in future). Dining room in Buckminster Fuller dome, 54' diameter; swimming pool, and garden.

Resort Hotels

Aspen Meadows, Colorado; SPORT-HOTEL; Herbert Bayer and Fritz Benedict, architects; *Koch*, pp 220-3; 1958.

Two stories. Large studio type guest units with bathrooms and dressing rooms. Health center with gymnasium, baths, massage, hydrotherapy, etc.

Cairo, Egypt; NILE HOTEL; Welton Becket and Associates, architects and engineers; *Arch Rec*, 121:226-7, My '57.

Large rooms, balconies, dressing rooms, and bathrooms with bidets. Roof garden.

Curacao; CURACAO HOTEL; Joseph Salerno, Richard S. Smith, architects, Ben Smith, associate; *Arch Rec*, 121:222-3, My '57.

Developed from an old fort.

William B. Tabler



PLATE 10-14 Rickey's Multi-story Garden Hotel, Palo Alto, Calif.

Djakarta, Indonesia; "HOT CLIMATE HOTEL"; A. R. Sorensen, architect; *Prog Arch*, 38:136-7, S '57.

340 guest units, 4 stories and 11 stories, large irregular shaped lot; outdoor parking, banquet hall, kitchens and dining rooms on first floor. Designed for hot climate; air-conditioning for north-south wing; balconies and sun shades for east-west wing glazed only to door height. Swimming pool, roof gardens.

Helsinki; HOLIDAY HOTEL IN OTANIEMI; Aarne Ervi and Olof Hansson, architects; *Koch*, pp 272-7.

50 guest units, cabins and 4 guest units attached to main building with lounge, library, billiard room, and dining room. Next to Laaja Bay.

Istanbul, Turkey; ISTANBUL-HILTON HOTEL; Skidmore, Owings and

Merrill, architects; Prof. Sedat H. Eldem assoc. architect; *Koch*, pp 8-26; 1958 (1954).

300 guest units, 11 floors; typical floor 60' x 300' plus balconies; typical guest units 13' x 24' with 7' x 12' balcony. The impressive forecourt has a curving drive under a "flying carpet" canopy which gives access to the second floor with spacious lobby, ladies' parlor, a fountain court and various services. A lower floor at the garden level has dining and kitchen facilities, a night club and dance floor. On the roof are dance floors, sitting and sunning areas, bar, and service areas. On the grounds are gardens, swimming pools, and tennis courts. Cost in 1954, \$7 million.

Karachi, Pakistan; HOTEL KARACHI; Edward D. Stone, architect; *Arch Rec*, 122:167-7, July '57.

400 guest units. Large reflecting

pool, swimming pool and gardens, open screen, outside glass wall. Kitchen, ballroom, dining room and private dining rooms on main floor. Shops.

Lake Wilderness, Washington; HOLIDAY HOTEL; Young & Richardson and Carleton & Detlie, architects; *Koch*, pp 250-5; 1958 (1951).

25 guest units (cabins); main building with two stories and 12 guest units. View to Mount Rainier and Lake Wilderness; high totem pole is main structural support. AIA Honor Award, 1951.

Malibu Beach, Calif; HOLIDAY HOTEL; Richard Neutra, architect; *Koch*, pp 256-63.

17 guest units, one two-story and one one-story buildings; restaurant in separate building, parking spaces for 21 cars.

Mexico, CONTINENTAL HILTON; Fernando Parra Hernandez, architect and contractor; *Arch Rec*, 121:232-5, My '57.

400 guest units; 15 floors; triangular site, superior lobby arrangement. Decorations by local artists.

Palo Alto, Calif; RICKEY'S MULTI-STORY GARDEN HOTEL; Ernest J. Kump, architect.

The latest addition to Rickey's Studio Inn in Palo Alto is this new 6-story reinforced concrete hotel building, containing 66 studio rooms. Designed by the Office of Ernest J. Kump, architect. Building was completed in 1957 and stands at the rear of the Rickey property where it forms an effective backdrop for the colorful orchard gardens and the low, shake-roofed redwood buildings already disposed informally through them.

The new building, 36' deep in plan by 192' long, rises from a depressed water garden with a pool extending partly under the first floor, whose balconies are cantilevered out 16' from the longitudinal foundation wall. Access to the entrance lobby and the two unusual free-standing steel-and-glass-enclosed hydraulic elevators is by means of a curved bridge leading in from the garden.

Each floor has 11 individual double rooms and an elevator lobby, making a total of twelve 16' bays. Rooms are entered from outside corridors extending at each level along the rear or northeast

side. There are no windows on this side, and the outer side of the corridors is screened with railings and decorative floor-to-ceiling trellises to afford privacy for entering guests and nearby residents.

Each guest enjoys a well-appointed and roomy dressing alcove with tiled bath and a spacious carpeted living area with twin studio beds. A tile floored enclosed sun balcony looks out to the southwest from each suite and is protected by ventilating louvers, sliding glass doors, and an ornamental metal railing. A projected horizontal brise-soleil of redwood extends along the building at each floor level to give added privacy and create shadow pattern. To keep general color and texture of the rest of Rickey's Studio Inn, corridor walls and lobbies are lined with redwood vertical boards and battens. Exposed concrete surfaces at ends of buildings were cast with batten-lined forms to produce vertical grooves and were painted to match the redwood.

Panama City, Panama; EL PANAMA HOTEL; Edward D. Stone, architect; Karl Holzinger, Mendez & Sander, Arango & Lyons, assoc. architects; Fred Severud, struct eng; Koch pp 43-53, 1958.

271 guest units, 10 floors. Rooms are mostly completely open to sea breezes; only interior rooms are airconditioned. Structure is designed to withstand earthquakes—part on piles and part on spread footings.

San Pedro, Calif; HACIENDA HOTEL; R. Neutra and R. Alexander, architects; Koch, pp 234-43, 1958.

80 guest units; 1-story; parking spaces adjacent to guest units; banquet hall for 300 with movable partitions. Reached by automobile only, on Pacific Ocean near Los Angeles. Social center for the community. Sea and mountain view for all guest rooms. Swimming pool, restaurant, private terraces.

San Salvador; EL SALVADOR HOTEL; William B. Tabler, architect; Arch Rec, 121:224-5, My '57.

204 guest units, 7 stories; swimming pool with cabanas, balconies.

Teheran, Iran; HOTEL TEHERAN; A. J. Imoba and Hafner & Wiederkehr, architects; Koch, pp 184-9; 1958.

456 guest units; 21 stories; swimming pool, cinema, night club.

Commercial Hotels

Berlin; BERLIN-HILTON HOTEL; Pereira & Luckman and Schwebes & Schoszberger, architects; Koch, pp 180-5; 1958; Arch Rec, 121:228-9, My '57.

350 guest units (600 beds); 12 stories; outdoor parking for 400 cars; banquet hall for 800. Swimming pool and roof garden. Kitchen and all dining rooms on first floor.

Chicago, Ill.; EXECUTIVE HOUSE; Milton M. Schwartz & Associates, Inc, architects; Engineering News Record, 162:100-2, F. '59.

Sets a US record as highest reinforced concrete building (40 stories). Its 361' height is exceeded by the 507' Banco do Sao Paulo, Brazil. The exterior enclosure consists of special horizontal sliding non-anodized aluminum which will darken on weathering and special 26-gauge stainless steel panels with foam-glass core, a 24-gauge galvanized steel balancer sheet, and 2" metal lath with vermiculite backing. Components are 8' x 4' and fit the modular plan. These panels provide 3-hour fire resisting protection without a masonry back-up wall. Mr Schwartz states that these panels were less expensive than masonry.

Idlewild, N. Y.; INTERNATIONAL HOTEL; William B. Tabler, architect; Arch Forum, 107:115-21, Jl. '57.

320 guest units, 6 stories; restaurants and meeting rooms.

Hartford; HOTEL STATLER; William B. Tabler, Seelye, Stevenson and Value & Knecht, architects; Koch, pp 194-5, 1958.

455 guest units; 16 stories, banquet room and ballroom combination. Low closet walls save entry light. Bathrooms 4'-10" x 6'-7", with angled WC shelf and mirrors. Kitchen and dining rooms on second floor; housekeeping and engineering on third floor; view over park. Room sizes, singles 96 sf, doubles 138 sf, twins 150 sf and 191 sf, parlors 410 sf, sample rooms 140 sf to 313 sf. Small scale furniture, airconditioned, television; cost \$5.2 million. Average rate, \$12.

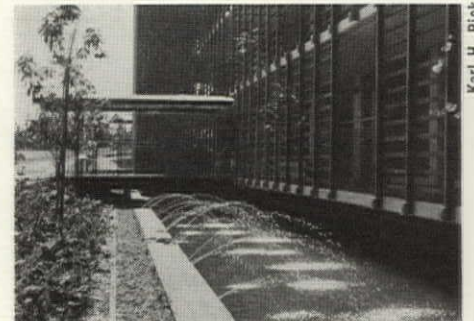
Urban Motor Hotels

Denver; BROWN PALACE (addition); William B. Tabler, architect; Arch Forum, 107:115-21, Jl. '57.



Karl H. Riek

PLATE 11 Lobby entrance



Karl H. Riek

PLATE 12 Corridors at the rear are screened with floor to ceiling trellises



Karl H. Riek

PLATE 13 Vertical grooved batten-lined forms at ends of building are painted to match the redwood



Karl H. Riek

PLATE 14 Projected horizontal brise-soleil extends along the building at each floor level

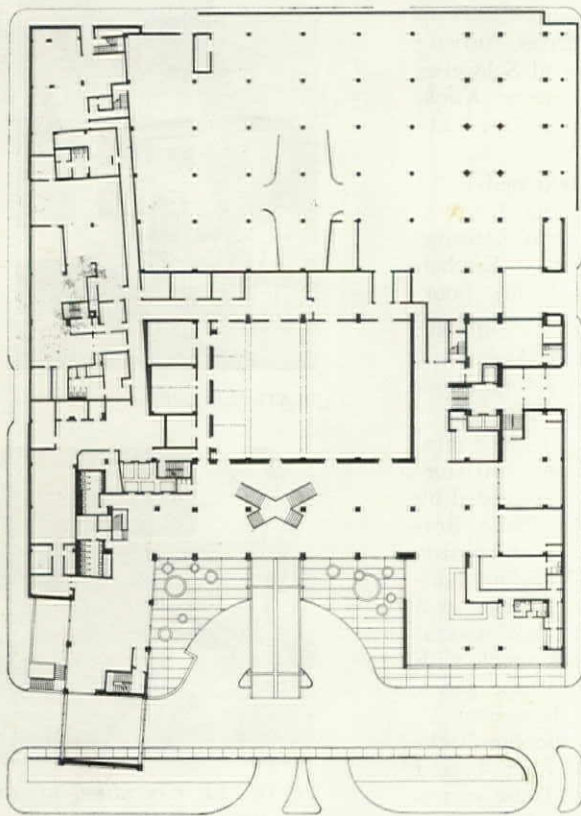


PLATE 16 Typical hotel floor plan, Jack Tar Hotel, San Francisco, California

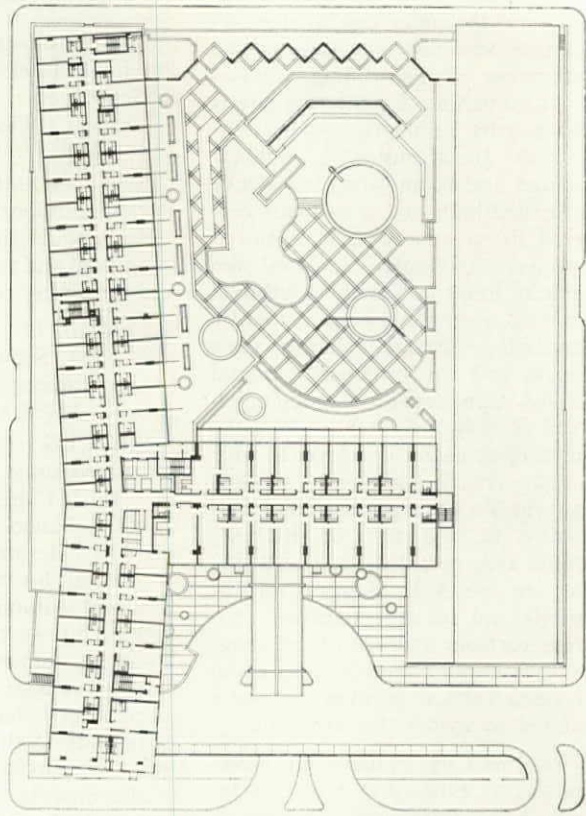


PLATE 17 Street level floor plan, Jack Tar Hotel, San Francisco, California

288 guest units; garage for 80 cars; ballroom seating 650.

San Francisco; JACK TAR HOTEL AND OFFICE BUILDING; Thomas M. Price, Hertzka & Knowles, architects; *Arch Rec*, 121:238-40, My '57.

400 guest units, 5 stories, 400 car garage. Rooms 12' x 16' (+7') with couches, combination luggage rack, chest, desk and television.

Features expected in a fine hotel—restaurants, bars, meeting rooms, laundry, garage, airconditioning, ice water, barber, beautician, valet,

etc.—are combined with convenience of a tourist court. A guest may drive into a 4-story garage, park his car, unload, register, and go directly to his room. Leaving his room, the guest is in the heart of the city. A large central garden with swimming pool, putting greens, shuffleboard courts and lounging terraces is surrounded by guest units—some with sun decks and kitchenettes and some opening directly onto the garden with sliding glass doors. Other guest units have a dramatic view in the direction of the famous Bay Bridge.

The hotel also serves tenants in adjoining office building by furnishing garage facilities, and an attractive setting for entertainment of guests. Tenants and hotel guests will appreciate the conveniently located shops, ticket office, etc. Meetings of up to 1,000 people can be accommodated.

NOTES:

For a comprehensive bibliography, see Cornell University School of Hotel Administration, *Hotel Management and Related Subjects; A Selected List of Books, Pamphlets, and 1951 (-1957) Periodical Articles*; Ithaca, N. Y., 1952-1958.

ABBREVIATIONS IN REFERENCES

Books—*Koch*; Koch, Alexander, *Hotelbauten*, Stuttgart, 1958.

PERIODICALS:

Arch Forum, Architectural Forum
Arch Rec, Architectural Record
Arch Rev, Architectural Review
Prog Arch, Progressive Architecture

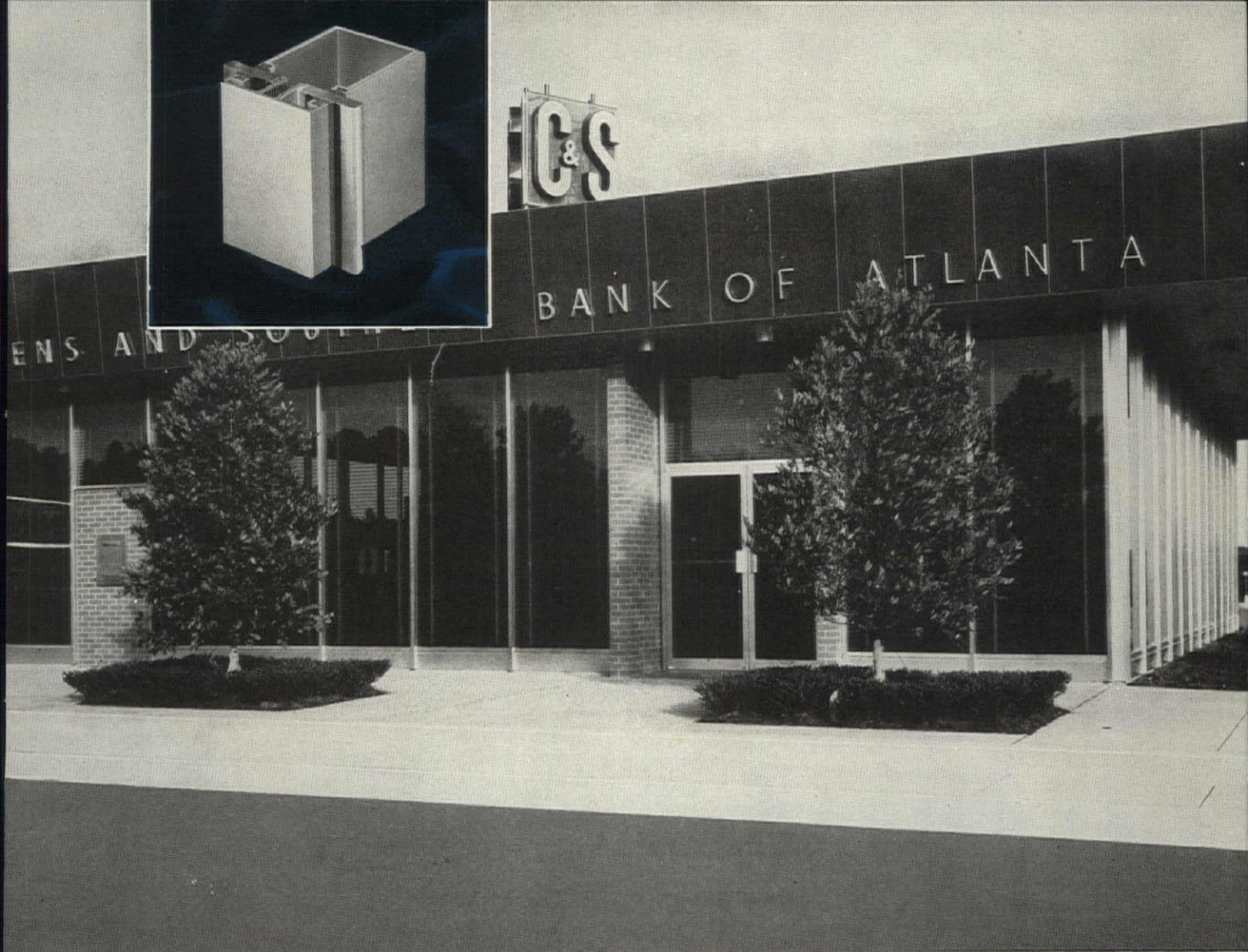
MONTHS:

Ja, F, Mr, Ap, My, Je, Jl, Ag, S, O, N. D.

PLATE 15 Jack Tar Hotel, San Francisco, California



Thomas M. Price



ARCHITECT: SAGGUS, WILLIAMSON, VAUGHT & SPIKER, ATLANTA; GLAZING CONTRACTOR: ATLANTA GLASS CO., ATLANTA

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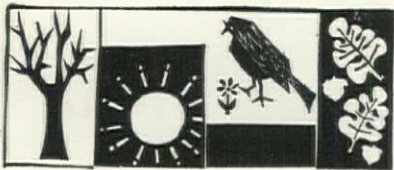


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C A L E N D A R

March 10-11: National Construction Industry Conference—U. S. Chamber of Commerce, Washington, D. C.

March 14-15: Reynolds Memorial Award Jury, the Octagon, Washington, D. C.

March 14-17: Fifty-sixth Annual Convention of the American Concrete Institute, Commodore Hotel, New York City.

April 5-7: BRI Spring Conferences, Statler-Hilton Hotel, New York City.

April 7: New York Architectural League Annual Dinner, New York City.

April 7-18: AIA—US Travel Agency tour of Hawaii.

April 11-12: Inter-Society Color Council, 29th Annual Meeting, Philadelphia, Pa.

April 18-22: AIA Annual Convention, San Francisco, California.

April 19-21: Church Design and Building Conference and Exposition, Chicago, Ill.

April 23-30: Twenty-seventh Annual Historic Garden Week, Garden Club of Virginia. (For information write The Garden Club of Virginia, Room 3, Mezzanine, Jefferson Hotel, Richmond 19, Virginia.)

April 25-27: Annual Meeting, Construction Specifications Institute, Palo Alto, Calif.

May 1-4: Forty-eighth Annual Meeting, Chamber of Commerce of the United States, Washington, D. C.

May 11-16: World Design Conference, Sankei Kaikan, International Hall, Tokyo, Japan. (For full information write Wo-De-Co — Tokyo, Room 301, International House of Japan, 2 Tarihizaka-Machi, Tokyo, Japan.)

May 12-14: South Atlantic Regional Conference, Winston-Salem, North Carolina.

May 28-June 3: Twenty-fifth World Planning and Housing Conference, San Juan, Puerto Rico.

June: AIA-ACSA Teaching Seminar, Sagamore, N. Y. (exact date not known)

June 15-18: British Architects' Conference, Manchester, England. (For information write G. R. Ricketts, Secretary, Royal Institutes of British Architects, 66 Portland Place, London W. 1, England.)

July 23-August 15: AIA—US Travel Agency Tour of Europe (to August 23 if Russia included).

Through Winter: Structures by Richard Buckminster Fuller, Museum of Modern Art, New York City.

NECROLOGY

94

According to notices received at the Octagon between December 18, 1959 and January 15, 1960

BARLOW, EDWIN THAYER, North Adams, Mass.

BARTON, LEROY, Port Washington, N. Y.

BLACK, LEE, Lansing, Mich.

BOEHM, GEORGE A., Mt. Kisco, N. Y.

BRAZIELL, WILLIAM M., Pittsburgh, Pa.

DELANO, WILLIAM ADAMS, FAIA, New York, N. Y.

DINWIDDIE, JOHN E., New Orleans, La.

FUGER, FREDERICK W., Detroit, Mich.

LEE, RUDOLPH E., Greenville, S. C.

NECARSULMER, EDWARD, New York, N. Y.

PETERSON, CARL E., Manchester, N. H.

ROTH, GABRIEL B., Philadelphia, Pa.

SINKLER, JOHN P. B., FAIA, Philadelphia, Pa.

WEIDNER, CHARLES T., San Antonio, Texas

Here are answers to the most frequently asked questions about Armstrong Acoustical Fire Guard

ARMSTRONG Acoustical Fire Guard is a new kind of ceiling tile that meets code requirements with no additional fire protection. An indication of architectural interest in the product is the number of questions that designers and specifiers have asked about Acoustical Fire Guard.

Q. What makes Acoustical Fire Guard so different from other incombustible ceiling tiles?

A. Acoustical Fire Guard is the only acoustical ceiling tile to receive fire-retardant time-design ratings from Underwriters' Laboratories, Inc. Other tiles, including many made by Armstrong, are rated "incombustible." But they all require some sort of additional fire protection between them and the structural steel above them to meet rigid building codes.

Q. What codes will Acoustical Fire Guard meet?

A. It will meet the nation's strictest codes. It has achieved one-hour, two-hour, and four-hour time-design ratings, depending on the floor-ceiling assembly with which it was used. Acoustical Fire Guard has never failed an Underwriters' Laboratories, Inc., test or been rejected by any code authority.

Q. Isn't it the floor-ceiling assembly, rather than the ceiling, which gets the time-design rating?

A. No. The ceiling carries the same rating as the assembly in which it is tested.

Q. To get local code approval, doesn't the assembly have to be constructed exactly as tested by UL?

A. No. In many cases, local officials will allow variations from the assembly as tested when those variations offer the same or greater fire protection. Thicker bar joists, deeper plenum chambers, various types of metal decks—all will logically be permissible.

Q. Do penetrations for ducts and lighting fixtures cause Acoustical Fire Guard ceilings to lose their fire-retardant ratings?

A. No, they do not. A certain amount of penetration is arbitrarily permissible under most codes. In addition, an Acoustical Fire Guard ceiling with a full complement of ducts and recessed lighting fixtures was successfully tested by Underwriters' Laboratories, Inc.

Q. How does Acoustical Fire Guard compare in cost with other incombustible tiles?

A. The material itself is moderately high in cost. But it can be installed quite economically. An installed Acoustical Fire Guard ceiling costs little, if any, more than a regular fissured mineral fiber tile ceiling. And it generally costs far less than any ceiling of tile and plaster or gypsum board which offers comparable fire protection.

Q. What dollars-and-cents savings can I expect from Acoustical Fire Guard?

A. 10¢-30¢ per square foot, depending on type of building, degree of fire protection required, and type of alternative ceiling being considered.

Q. Does it take more time to install Acoustical Fire Guard?

A. No, it actually requires less time than ordinary fire-retardant ceilings because no delaying "wet" operations are necessary. For example, an elementary school in Delaware was opened three weeks sooner because Acoustical Fire Guard was specified.

Q. Is Acoustical Fire Guard an "experimental" product?

A. Absolutely not! Before it was announced a year ago, Acoustical Fire Guard had undergone months of rigid tests by both Armstrong and Underwriters' Laboratories, Inc. It withstood temperatures far higher than those of any "natural" fire.

And since its introduction a year ago, it has been chosen for millions of square feet of ceiling area in hundreds of buildings across the country. It promises to become *the* method of obtaining fire-retardant ceilings in the future.

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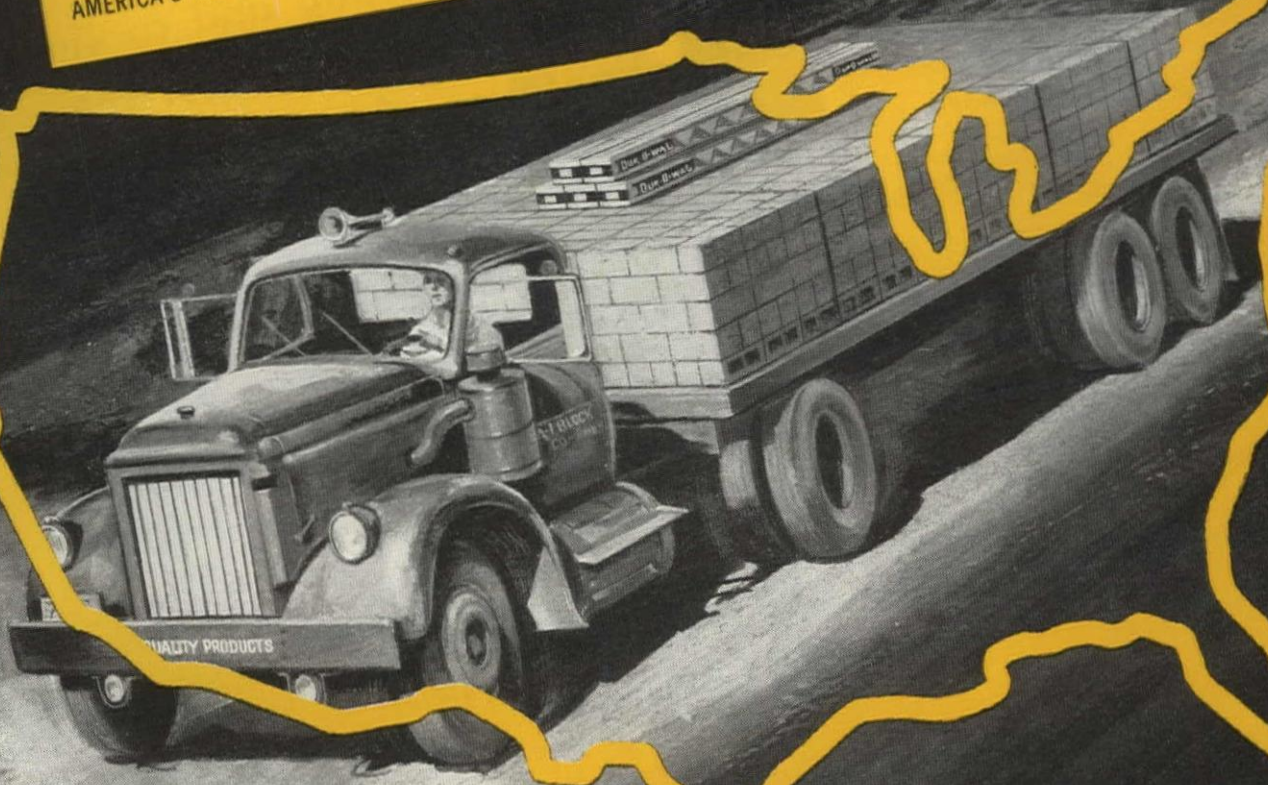


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Fancy claims aside, this is the significant fact about Dur-o-wal: It is more widely wanted than any other type of masonry wall reinforcement. Consequently, Dur-o-wal is more widely distributed—the *only* nationally distributed brand. Eight strategically located Dur-o-wal factories serve more than 8000 dealers who in turn serve every part of the United States. Wherever you build a ma-

sonry wall, you can get Dur-o-wal! All this, of course, because Dur-o-wal—with its trussed design, butt-welded construction, scientifically deformed rods—obviously does the job. Standard Dur-o-wal used every second course adds 71 per cent flexural strength to a masonry wall. Get test facts from any of the Dur-o-wal locations below. See us in Sweet's Catalog.



Two engineered products that meet a Dur-o-wal reinforcement, shown above, and Control Joint, below. Weatherproof n flanges on the latter flex with the joint, the caulking problem.

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- Dur-O-wal Prod., Inc., 4500 E. Lombard St., BALTIMORE, MD.
- Dur-O-wal of Ill., 119 N. River St., AURORA, ILL.
- Dur-O-wal of Ala., Inc., Box 5446, BIRMINGHAM, ALA.
- Dur-O-wal of Colorado, 29th and Court St., PUEBLO, COLO.
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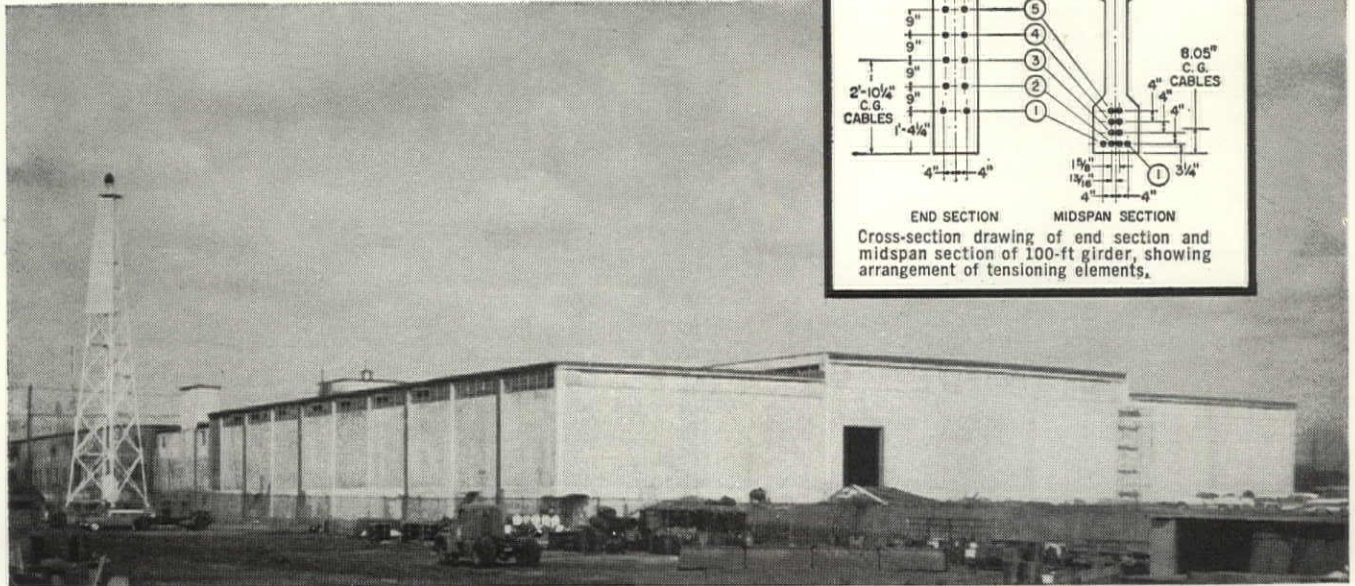
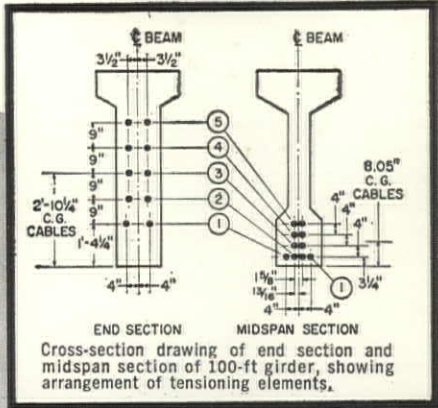
SWEETS 1960 ARCHITECTURAL FILE



**31f
Ger**

A.I.A. FILE NO. 30-J

Photo shows how 100-ft girder rests on column. End of 70-ft girder is positioned on seat seen at top of ladder, left.



Newman & Company Warehouse, embodying twelve 100-ft post-tensioned girders, twenty-two 70-ft post-tensioned girders and about 600 pre-tensioned double tee beams.

Architects and Engineers: Cronheim & Weger, Philadelphia, Pa. Contractor: Lauter Construction Company, Philadelphia, Pa. Prestressed Fabricators: Atlantic Prestressed Concrete Co., Trenton, New Jersey.

Because Nathan Cronheim, architect-engineer, has much to say about this structure, we quote him as follows: "The design of the new waste paper storage building for Newman & Company, Inc., manufacturers of paper board in Philadelphia, incorporates a number of relatively new techniques and processes in developing a more fire-resistant building and in expediting the handling of stored materials.

"The roof structure is composed of twelve 100-ft span and twenty-two 70-ft span post-tensioned girders. Each girder was post-tensioned with ten Freyssinet Cables composed of twelve .276" diameter Roebling wires. (See diagram). The approximately 600 double T's used in the roof structure are pre-tensioned, using the Roebling standard seven wire pre-tensioning strand. The great strengths resulting from this method allow the roof structure to be much shallower and lighter in weight than would be possible in other types of equally fire-resistant construction.

"The building is two hundred and forty-ft wide, made up of a center bay one hundred-ft wide and two side bays each seventy-ft wide. There are, therefore, girders one hundred-ft long in the center bay flanked on either side with girders seventy-ft long. Since the girders are spaced twenty-five ft on centers, the T's which span from girder to girder are almost twenty-five ft in length. As can be readily seen, due

to the exceptionally long spans, it is necessary to use the higher strength materials mentioned to keep the dead weight of the roof structure to a minimum.

"Because of the prefabrication of so many of the elements of this building, such as the girders, roof plank, wall panels and many of the columns, the erection of the building moved very rapidly once the foundation work was completed."

Nothing makes a better case for the prestressed concrete method than the *architect's own words*. In all of the many years that Roebling has concerned itself with tensioning elements for prestressed concrete, we have found that its inherent benefits are best articulated by the architects and engineers who design for, and work with, prestressed concrete. During these years we have developed and accumulated a significant body of knowledge, data and experience that we will gladly share with you. An inquiry to Roebling's Construction Materials Division, Trenton 2, New Jersey, bearing on any phase of prestressed concrete, will bring a prompt and fully documented reply.

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NFPA Standards & Codes

The following 1959 Edition of revised Standards and Codes is available from National Fire Protection Association, 60 Batterymarch St., Boston 10, Mass., 4¾" x 7¼", 528 pp, \$1.00

NFPA No. 70—National Electrical Code. (Replaces all previous editions, supplements and printings.)

Sets up minimum requirements for safety in the use of electricity for light, heat, power, radio, signaling and the like primarily in buildings. Some indication of the extent of its use is given by the fact that, in addition to the NFPA printing, more than half a million copies of the Code are being printed by the National Board of Fire Underwriters (NBFU).

Commercial Standards

The following Commercial Standards are available from Superintendent of Documents, US Government Printing Office, Washington 25, D. C. (Stamps not accepted.)

Cast-Iron Soil Pipe & Fittings — Commercial Standard CS 188-59. 10½" x 8", 48 pp, 30¢

A new enlarged edition covers both the extra-heavy weight and the lighter service weight, which were formerly in separate publications. Added items include several bends not in previous standards, together with half-Y's, tapped T's and regular offsets. Continued substantially without change are requirements for material, testing, dimensions and weight, as well as means for identifying pipe and fittings that are in accordance with the standard. The standard meets the demands of architects, building contractors, suppliers and plumbing inspectors who desire a uniform product that conforms closely to its specifications. Its use simplifies the planning and construction of homes and other buildings, and their acceptance, operation and maintenance by the owner, according to the Commodity Standards Division. A method of marking pipe and fittings is widely employed in the industry to identify those made in accordance with the standard.

Dimensions and Tolerances for Lightweight Rigid ABS Plastic Pipe — Commercial Standard CS 220-59.

Office of Technical Services, US Dept. of Commerce. 5¾" x 9", 8 pp, 5¢

Covers dimensions and tolerances for outside diameter and wall thicknesses for 11 nominal pipe sizes of lightweight rigid ABS plastic pipe. Pipe with these dimensions is commonly referred to as LW size. A suggested form for declaring compliance with the Standard is included.

Dimensions and Tolerances for Solvent Welded Rigid ABS Plastic Pipe — Commercial Standard CS 219-59.

Office of Technical Services, US Dept. of Commerce. 5¾" x 9", 8 pp, 5¢

Covers dimensions and tolerances for outside diameter and wall thicknesses for 11 nominal pipe sizes for rigid ABS plastic pipe intended for solvent welding in 3 series of wall thicknesses. Pipe with these dimensions is commonly referred to as SWP size. Includes a suggested form for declaring compliance with the Standard.

Double-Hung Wood Window Units. Commercial Standard CS 190-59. (Supersedes CS 190-53) 5⅞" x 9", 25 pp, 15¢

Covers material, construction, assembly, grading and tolerances for double-hung wood window units, with essential construction requirements.

Douglas Fir Plywood—Commercial Standard CS 45-55. Reprinted with amendments, May 1959. (Supersedes CS 45-48.)

Commodity Standards Division, Office of Technical Services, US Dept. of Commerce. 5¾" x 9", 30 pp, 15¢

Covers 7 grades and 2 special items of Interior type and 7 grades of Exterior type Douglas fir plywood, a laminated board suitable for paneling, sheathing, subflooring, exterior siding, concrete forms, cabinet work, and many other structural

and industrial uses. Includes tests, standard sizes, size tolerances, re-inspection rules, grade marking, nomenclature and definitions.

Flexible Polyethylene Plastic Pipe — Commercial Standard CS 197-59. (Supersedes CS 197-57) 5¾" x 9", 15 pp, 10¢

Initiated by interested producers through the Society of the Plastics Industry, and endorsed by representative distributors and users. The new standard includes added tests, more informative marking and provisions for more advanced methods of manufacture. The revised standard also covers requirements and tests for material, workmanship, dimensions, tolerances and weights, working pressure and environmental cracking for pipe in three series of wall thicknesses. Pipe to be used for conveying potable water is required to meet specifications of the National Sanitation Foundation and carry the seal of approval, the "nSf" mark of the Foundation. A means is also provided for declaring compliance with the provisions of the standard.

Gel-Coated Glass-Fiber-Reinforced Polyester Resin Bathtubs — Commercial Standard CS 221-59. 5¾" x 9", 15 pp, 10¢

Gel-Coated Glass-Fiber-Reinforced Polyester Resin Shower Receptors — Commercial Standard CS 222-59. 5¾" x 9", 15 pp, 10¢

The requirements of each standard cover physical properties of the materials used and certain features of construction, but do not include design features. Tests are given for tensile strength, impact resistance, water absorption, cleanability and other properties, in addition to load tests for the drain connection and for the means used to support the fixtures. Inspection methods are given, together with recommendations for the use of a certificate or a hallmark to identify fixtures that comply with the standard.

Laminated-Wall, Bituminized-Fibre Drain and Sewer Pipe — Commercial Standard CS 226-59.

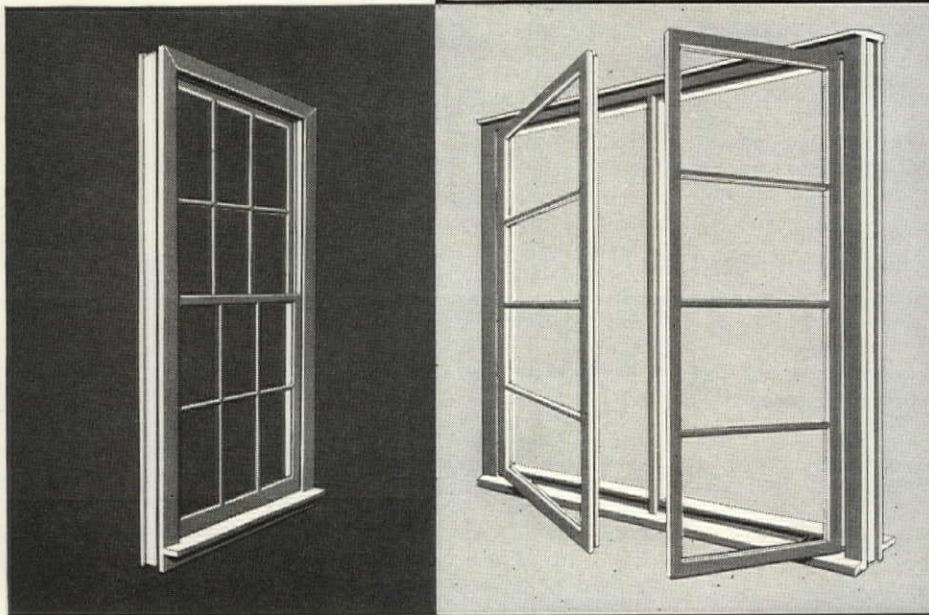
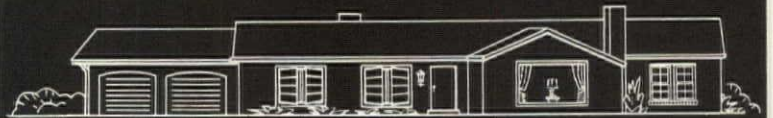
(Continued on page 102)

Operating windows and exterior doors, no matter how well made, are dependent solely on weatherstrip for retarding infiltration of air, dirt and moisture. If the weatherstrip is improperly designed and provides only limited protections, and if it has not been made specifically for the doors and windows to which it is applied, the results are invariably disappointing and expensive to the home owner.

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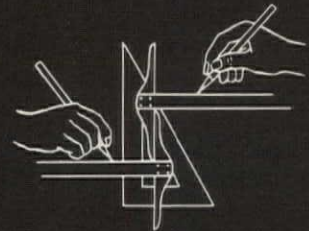


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Office of Technical Services,
US Dept. of Commerce. 5 $\frac{7}{8}$ "
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Covers uses, general requirements, dimensions, physical and chemical properties and methods of testing of laminated-wall, bituminized-fibre drain and sewer pipe (including straight couplings and 5° angle couplings), in diameters ranging from 2" to 8" and in lengths of 4' or more.

Ponderosa Pine Windows, Sash and Screens—Commercial Standard CS 163-59. (Supersedes CS 163-52.) 5 $\frac{7}{8}$ " x 9", 43 pp, 20¢

Provides minimum specifications for ponderosa pine stock windows and sash in two nominal thicknesses, 1 $\frac{1}{8}$ " and 1 $\frac{3}{8}$ "; for picture sash and hotbed sash in a nominal thickness of 1 $\frac{3}{4}$ "; and for window and sash screens in nominal thicknesses of $\frac{3}{4}$ " and 1 $\frac{1}{8}$ ". Covers construction, grades and tolerances, with standard layouts and essential construction detail.

Rigid ABS Plastic Pipe (IPS Dimensions) — Commercial Standard CS 218-59.

Office of Technical Services,
US Dept. of Commerce. 5 $\frac{3}{4}$ "
x 9", 10 pp, 10¢

Requirements are applicable to rigid ABS plastic pipe with dimensions corresponding to those used for iron and steel pipe, often referred to as IPS dimensions. Covers requirements and methods of test, including composition, dimensions and tolerances, quick burst pressure, sustained pressure, marking and declaration of compliance. Chief characteristics of rigid ABS pipe are strength, dimensional stability, toughness, resistance to chemicals, corrosion, contamination and environmental effects, suitability for electric insulation, low flow resistance, and ease of installation. Covers 3 classifications of pipe, Series 40, Series 80 and Series 120.

Wood Awning Window Units, and Projected Awning and Stationary Sash Units—Commercial Standard CS 204-59. (Supersedes CS 204-56.) 5 $\frac{7}{8}$ " x 9", 26 pp, 15¢

Provides minimum requirements for material, construction, assembly, grading and tolerances for awning window and projected awning and stationary sash frames, operating mechanism, weatherstripping and storm sash.

Wood Casement Window Units — Commercial Standard CS 205-59. (Supersedes CS 205-56.) 5 $\frac{7}{8}$ " x 9", 23 pp, 10¢

Provides minimum requirements for only the material, construction, assembly, grading, and tolerances of casement window units, with essential construction requirements.

Other Pamphlets

Aluminum Construction Manual

The Aluminum Association, 420
Lexington Avenue, New York
17, N. Y., 390 pp, 6" x 9", \$3.00

A reference book for engineers, designers, architects and students concerned with the use of aluminum in stressed structures; includes allowable load data for aluminum alloy 6061-T6.

American Standard Graphical Symbols for Welding. ASA Y32.3 — 1959.

The American Society of Mechanical Engineers, 29 West 39th St., New York 18, N. Y., 5 $\frac{7}{8}$ " x 9", 87 pp, \$3.00

Describes welding symbols with instructions and illustrations for their use and application.

Symposium on Testing Window Assemblies. STP 251.

American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa., 52 pp, hard cover, \$2.25. ASTM Members, \$1.80

The expanded use of glass in architectural design, as well as the use of many kinds of material in the assemblage has increased the requirements of windows for efficient performance. Good performance now includes such factors as structural strength, adequate resistance to rain penetration and to air infiltration and good thermal properties.

Papers and discussions in this Symposium were presented during the

1959 Committee Week of ASTM, held February 4, 1959. An international flavor was given to this program by the inclusion of papers describing test programs on window assemblies conducted in Canada and Norway. In the latter country, very severe weather conditions are experienced, with rain and wind combinations of very high degree.

American School and University

Buttenheim Publishing Corp.,
470 Park Avenue South, New
York 16, N. Y., 8 $\frac{1}{2}$ " x 11",
cloth bound, \$10.00

In its 31st Edition, the 1959-60 American School and University returns to its single volume format without loss of the essential character of informative value. Nineteen articles by leading architects, educators, school plant specialists and consultants are included, with new material giving the results of seven original research studies on educational consultants, Junior Colleges, State Education Department publications, college housing, insurance practices, the school bond market and plant operation.

A comprehensive Purchasing File follows the School Plant Reference Section.

Welfare and Recreational Facilities —PB 151980.

Office of Technical Services,
US Dept. of Commerce, Wash-
ington 25, D. C., 62 pp, \$1.75

The Bureau of Yards and Docks, US Navy's guide features information on the design, construction and maintenance of swimming pools, gymnasiums, auditoriums, tennis courts, chapels and other installations for improved physical, mental and spiritual fitness. Emphasis is placed on providing facilities at a reasonable cost while holding fire and health hazards to a minimum. The design factors, formulas and graphs are intended as engineering guides for use in solving structural problems. They include practices in planning for proper acoustics, seating arrangements, lighting and other considerations. Recommended dimensions, construction materials and safety measures are included.



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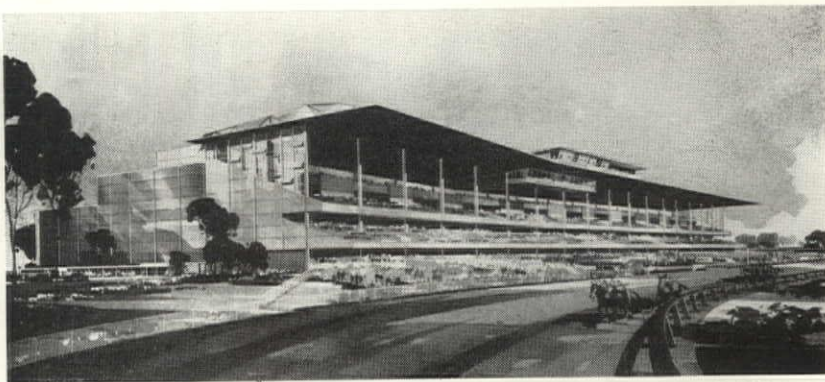
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*Project Managers: Stone & Webster Engineering Corp.
Architect: Arthur Froehlich & Associates
Gen. Contractor: Gaye Construction Co. (Clubhouse and Grandstand)
Flooring Contractor: Builders Wood Flooring*



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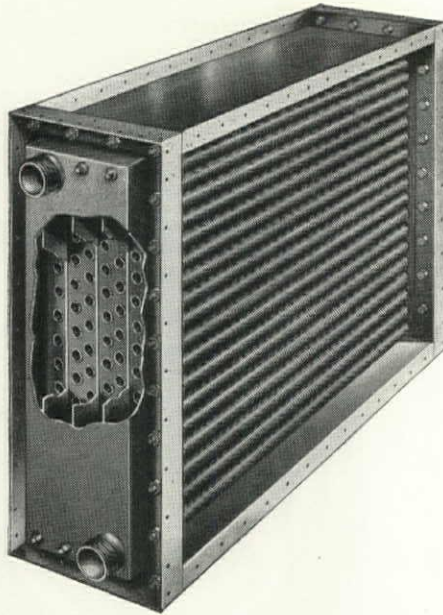
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*"Unitary" air conditioners included in this program: all packaged air conditioners, whether single units or two-piece units (called "split" systems) up to 135,000 B.T.U.'s per hour in capacity, but not including room air conditioners. ARI Standard 210-58 for electrically-driven equipment; ARI Standard 250-58 for heat-powered equipment.

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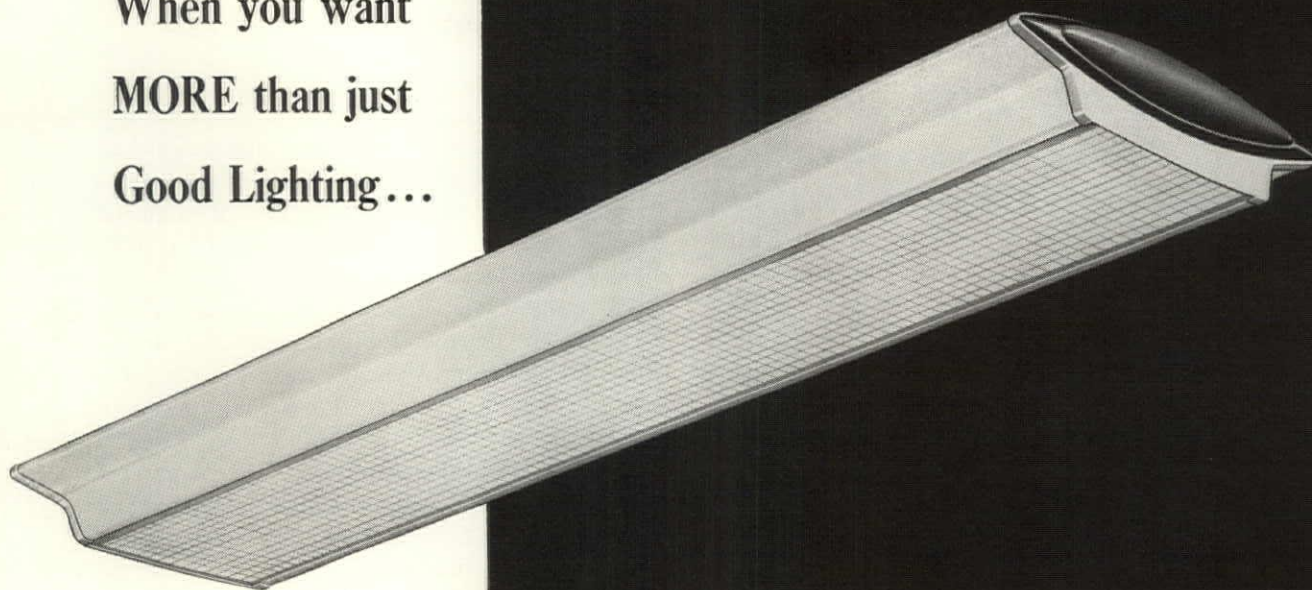
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► The City Council and the Mayor of Philadelphia, who have probably done more for their citizens in recent years than any other municipal government in the United States, have passed an ordinance by which one per cent of the cost of "any building, gate, bridge, arch or other structure" financed in whole or in part with city funds, shall be devoted to "fine arts on or appurtenant thereto."

This, as John Canaday, who recently included this information in his always stimulating art column in the Sunday New York *Times*, points out, is good news, indeed. One wonders why this historic event was not given at least a small fraction of the detailed and often lyrical newspaper attention given to the arrival of Mlle. Bardot's first-born. Even some very alert Philadelphia architects, whom I asked about the promising new measure, had not heard of it.

Is this evidence that the American public does not care about art on our buildings?

I emphatically deny it. I am convinced that Mayor Richardson Dilworth and the Philadelphia City Council have judged the will of the majority correctly and that the editors are wrong in their apparent assumption that people don't care. I furthermore hold that it is high time we stopped trying to convince ourselves that our people have no interest in art or culture.

Granted, by far the larger part of our television fare seems cooked up for morons, the jumbo fins on our cars are putrid, and most Miami Beach motels are in perversely bad taste. So are the covers on cheap Italian books, the majority of wisely kept-at-home French films, and those horrible German tourist trinkets for which the Germans coined the word *Kitsch*. Let us not confuse public taste with the public desire for art. I'll bet dollars to lire that at this stage of mass leisure and prosperity a larger percentage of Americans than of Italians, French or Germans go out to visit museums and concerts and bring home art reproductions, good books, and classical records. I offer the same bet as to the relative number of Americans versus Europeans who, in contrast to

cultural snobism, are genuinely trying to gain an understanding of art. The fact that other nations may have produced a larger number of immortal artworks is an entirely different matter (and may, anyway, no longer be true.)

My argument is supported by a recent article in *The Listener*, the publication of the British Broadcasting Corporation, which states that American liberal arts education is far superior to that in England. And the much-quoted London *Times Literary Supplement* on "The American Imagination" gives us a very high grade, indeed. ("For the young European architect an American Grand Tour is becoming as important as the Italian was to the eighteenth-century English gentleman," it says.)

Our current craving for art and culture may, of course, be merely a craving for *kitschige* low-brow as opposed to "real" high-brow culture, or for Mass Culture versus Class Culture, as Eric Larrabee calls them in his brilliant discussion in the January issue of *Horizon*. But Mass or Class is, for the moment, irrelevant. What's important is that in a democracy any art on public buildings is possible only if the people want it. The people must take the place of the art-loving tyrants, Popes, emperors or grand-dukes of our over-sentimentalized past. The quality of the art depends entirely on the artist selected. The people and city fathers will, by and large, accept the good with at least as much enthusiasm as the indifferent.

Why, then, don't we have more art on our buildings? The answer is, I believe, that the desire for it is not yet articulate. It lacks leadership and focus. We don't seem to know that we could have and afford more art in our cities, just as we didn't know we could have filter-tip cigarettes or canned beer until the Madison Avenue boys told us we could. Once Americans know what they might have, they soon can't imagine how they ever got along without it.

Here, I submit, is a fertile field for AIA's public and community relations—a challenge for architectural leadership. Why, if architects really get going, we could soon have one per cent for art ordinances in every city across the country. WVE