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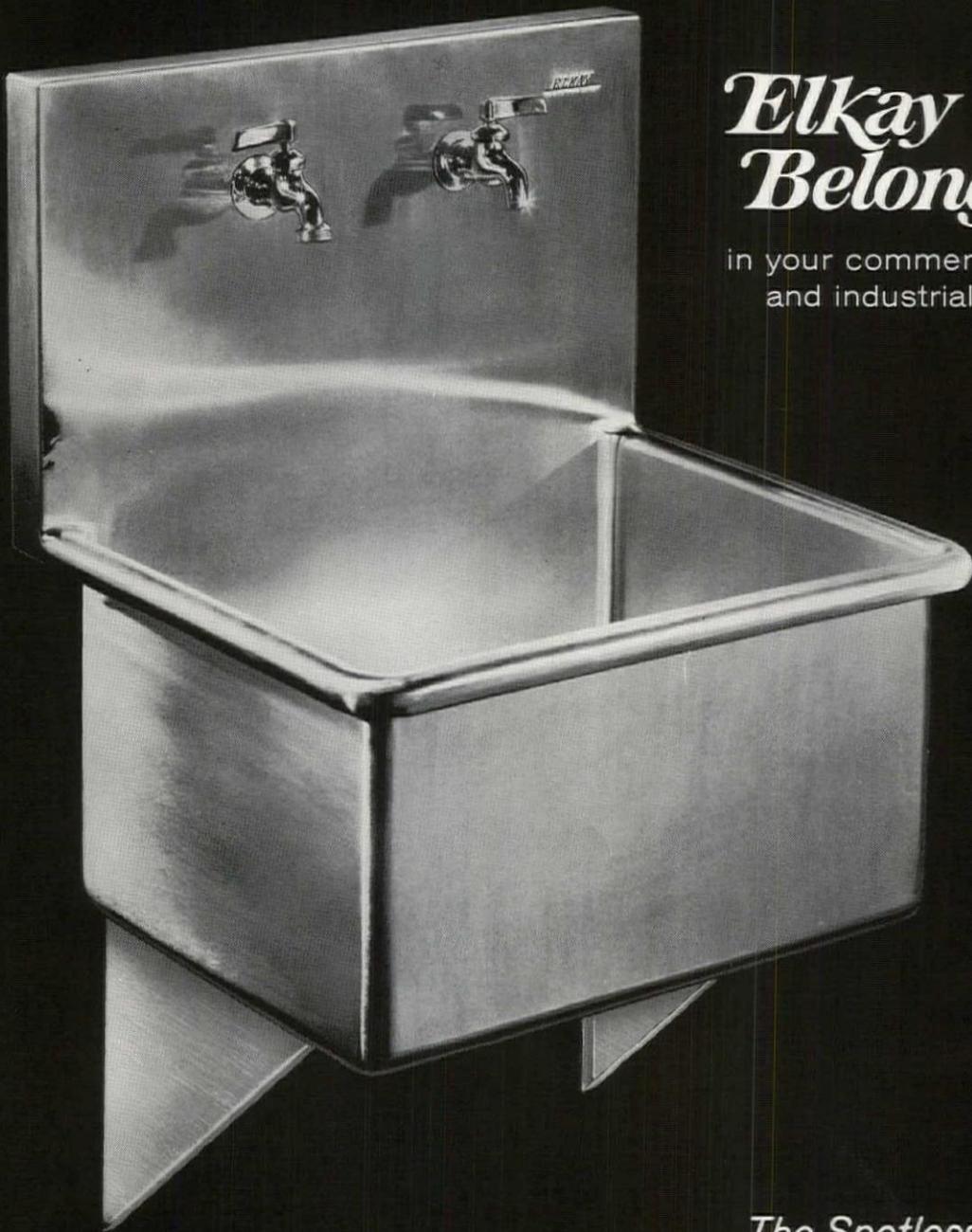
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VOL. XLVII, NO. 1

Comment & Opinion

Turning the Proverbial Leaf: The beginning of any year gives one pause to reflect on the past 12 months and to firm up plans for the days ahead. But this issue of the AIA JOURNAL is especially meaningful on two counts: 1) We present a new format which, in effect, is the culmination of a transitional period in terms of content as well as graphics. 2) We introduce the new dress in a special issue, our first since January 1963, with the exception, of course, of our yearly Official Convention Guide and the subsequent Report—both “special” in a different sense. Just a word about the format and the issue itself.

Presenting a New Face: While we will let the major format changes speak for themselves, we offer a few comments on the new text type face. It is Roman as we have been using, but is gifted with a more modern feel and greater legibility. Designed by Hermann Zapf, it is called Melior and, as type goes, is rather a fresh addition to the faces available.

One thing should be said about Roman as opposed to sans-serif Gothic, particularly in terms of the contemporary architect who might consider the ball finials and serifs of the face mere ornamentation: These elements are working parts in that they contribute to legibility. In the functional sense, Roman is the modern type face.

Discussing the Issue at Hand: It is our feeling that so-called special issues have been overdone in the professional and business press at the expense of maintaining a balanced editorial mix for the greatest number of readers. But the current

subject is so pressing—both in regard to society in general and to the architect's role and responsibility in particular—that it cannot be denied its proper due. The title “The Immediate Environment” signifies that the content is more embracing than the limiting term “housing.” The seven articles have been illustrated by Washington artist Paul Hoffmaster.

Growing a Second Skin: The thread running through the January JOURNAL—the impact of housing, and consequently neighborhoods, on people—was aptly summarized by Archibald C. Rogers, AIA, not too long ago. He pointed out that from 30 to 50 percent of a typical urban neighborhood is publicly owned, and suggested that thorough renewal of this “public skeleton” might in many areas halt the spread of blight.

The Baltimore architect said: “In those city neighborhoods that are very badly deteriorated, it is often the public skeleton that has declined most of all—streets, sidewalks, parks, schools and other public buildings.

“This shakes the confidence of

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Cover

Design by Frank C. Huseman

the private property owner. Seeing the city's own facilities and services getting little or no attention, he is much less likely to maintain his own property."

Rogers offered this proposal in addressing the annual management conference of American Chamber of Commerce executives: "Let's decide, in at least one experiment in each city, to give one of the worst neighborhoods the very best public skeleton. In the place of chaos, let's create order and art in the public areas: order and innovation—new patterns in paving, sculpture and other art, a coordinated design in such street furniture as light standards, hydrants, call boxes, rubbish containers. We should put in trees, arcades, canopies and benches. We should create small parks wherever we have the opportunity, even on a single lot in the middle of a block.

"A total renewal of the public skeleton will stimulate a sense of pride among the residents of that neighborhood, a sense of confidence. I believe that private renewal will follow quickly behind."

Of the controversy of "human versus physical renewal," Rogers declared: It is my own conviction that we cannot accomplish either without accomplishing both. Physical renewal cannot be isolated from human goals for people, the chief of which should be that every last person in this Republic has the opportunity and the means to participate fully and creatively in every phase of urban life."

Echoing Round the World: That Rogers' concern for the total approach is universal appears to be evident in a recently released report on a symposium held in India a year ago. In his summation, S. K. Ghaswala, a consulting engineer in Bombay, declared:

"The symposium indicated clearly that the changing concepts of human habitation (its title) extend their roots very deep into the fields of sociology, economics and human psychology and not merely into the conventional engineering, architectural and town planning aspects. It formed a substantial contribution to the solution of complex problems of habitation on a global basis revealing that the central theme lay in the uplift of the human spirit and in the satisfaction of man's material needs to the optimum limit."

It is about that "human spirit" and, realistically, "man's material needs," to which we address ourselves in the first issue of 1967.

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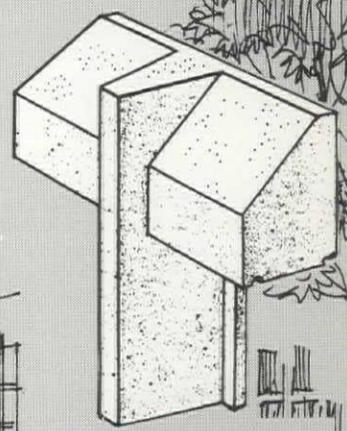
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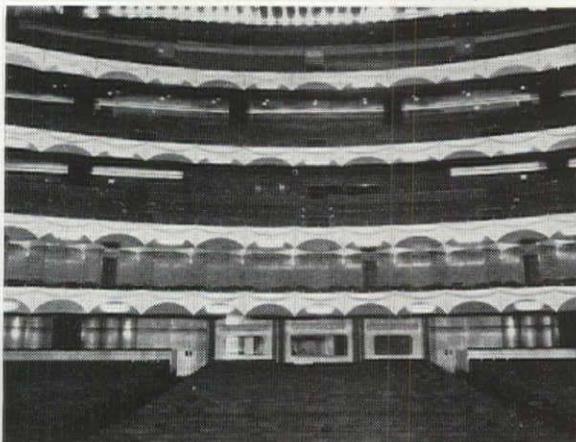


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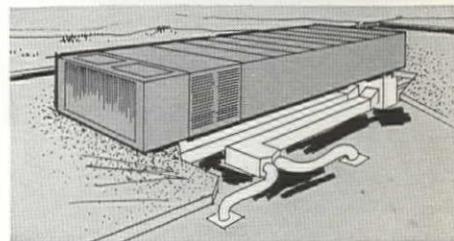
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Newslines

Builders Invite Critiques In Convention Sessions; Seek Tight Money Remedy

A series of design workshops—a precedent for increased communication between architects and homebuilders—was established at last month's 23rd annual convention of the National Association of Home Builders.

Builders presented their designs for critiques, and 16 architects and landscape architects made their comments in a coats-off, sleeves-up atmosphere.



Easily identified critic, Heimsath.

The workshops were received with enthusiasm at the Chicago event. They covered two days and included 16 tables where design professionals led roundtable discussions. Participants at times stood four deep around the tables.

Among those taking part were AIA members John M. Anderson, Bellevue, Wash.; Henrik H. Bull, San Francisco; Ralph A. Fournier, St. Louis; Clovis B. Heimsath, Houston; John N. Highland Jr., Buffalo; Richard Leitch, Newport Beach, Calif.; Earl S. Swensson, Nashville; George H. Tsuruoka, Chicago; and Herman H. York, Jamaica, N. Y.

Builders gather around as York reviews residential design.



Leitch and Tsuruoka, both of whom serve on NAHB environmental units, contributed to another convention session that stressed, in the place of selling merely a building, the marketing of a total environment, a way of life.

Leitch discussed "Design to Solve Problems—Not Features," and Tsuruoka urged the builders, "Don't Promote Shelter—Appeal to the Emotions."

Highland, chairman of the AIA's newly formed Committee on the Single-Family House and an author in this special issue of the *AIA Journal*, said the architect removed himself from residential design and thus placed himself in a position inconsistent with the War on Ugliness and the philosophy of expanded services. He urged architects and builders to join forces.

John King, organizer of the workshops for NAHB, pointed out that early last year his organization formed an Institute of Environmental Design to foster broader interest and improve communication between builders and design professionals. The IED is currently developing a program to bring together local builder groups and architectural schools, he reported.

More than 30,000 home builders, architects, land planners, manufacturers and financiers attended the convention which included 51 scheduled sessions. The builders, much concerned with a tight money market, explored ways to revive the sagging homebuilding industry.

Housing and Urban Development Secretary Robert C. Weaver said a number of ameliorative steps have been taken and told of other possible programs, including the creation of a national mortgage market and the tapping of nontraditional sources of mortgage money such as pension funds.

The NAHB Board of Directors resolved to seek the involvement of all segments of the homebuilding industry and financial experts to develop specific national housing goals to provide better housing opportunities for Americans.

The board also resolved to develop a proposal in legislative form to modify the Federal National Mortgage Association into a central mortgage facility to provide an adequate, flexible secondary market for all types of home financing.

Architect Joins HUD In Consulting Capacity

Ralph J. Warburton, AIA, has been named a consultant with the Department of Housing and Urban Development.

HUD Secretary Robert C. Weaver said Warburton will work closely with George T. Rockrise, FAIA, his adviser on design.

Warburton was with the Chicago office of Skidmore, Owings & Merrill where he was an associate and chief of planning. He is a fulltime staff member of HUD; Rockrise is a part-time adviser.

Building Research Groups Merger Awaits Vote

Members of the Building Research Institute will vote next month on whether to remarry their organization to the Building Research Advisory Board.

The boards of directors of both organizations have approved the proposed merger which to materialize must have the approval of two-thirds of voting BRI members.

The major activities of BRI would become part of BRAB's operations, according to Peter B. Gordon, BRI president. But since BRAB is a unit of the National Academy of Sciences and not a membership organization, it cannot absorb BRI members. BRI members would become BRAB associates.

The major reason for the merger was explained as the avoidance of duplication of activities.

If the merger goes through the combined organizations will have a single board of directors as of July 1. It would also end a separation of 15 years, BRI being a 1952 offshoot of BRAB.

Continued on page 12



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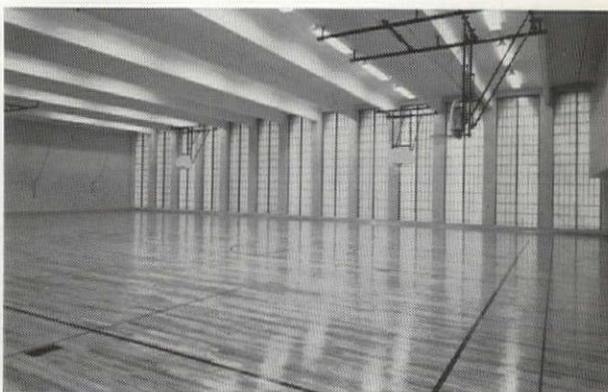
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Birmingham Competition Finalists Number Eight

Eight finalists have been selected in the \$25 million Birmingham-Jefferson Civic Center architectural competition.

Their second entries will be judged in April when the jury will name the winners. First prize is the contract to design the project at a fee of about \$1.3 million. Second prize is \$15,000 and third is \$5,000. The finalists:

Marvin Fitch, AIA, Fridstein & Fitch, Chicago; James Martin Harris, AIA, Harris & Reed, Tacoma, Wash.; B. J. Hoffman and Handford Yang, Associates, Devon, Pa.; John Stuart Mill, AIA, Beckhart & Mill, Los Angeles; George W. Qualls, AIA, Geddes, Brecher, Qualls, Cunningham, Philadelphia; Ralph Rapson, FAIA, Rapson Architects, Minneapolis; Elvin Riley, AIA, Elbasani, Logan, Barakonski & Riley, Los Angeles; and Emanuel N. Turano, AIA, New York.

Committee Seeks Funds For Italian Art Repair

A Committee to Rescue Italian Art, established to help restore art damaged by the November floods in Florence and Venice, is appealing for funds.

Headed by Mrs. John F. Kennedy, the committee is headquartered at 1 East 78th St., New York City.

It has been reported that \$32 million will be needed to salvage the paintings, manuscripts and ancient archives damaged by the water, mud, and oil in the Italian disaster.

Students at Annual Forum Look to Future Practice

The relationship of education to practice was pursued by students of some 80 schools who gathered at the Institute in late November for the 12th Annual Student Forum.

They heard leading architectural educators and practitioners the first day, broke into give-and-take discussion groups with speakers the next, and on the third and final day conducted business which included the election of Morten Awes, fourth-year student at California State Polytechnic College, as president of the Associated Student Chapters of the AIA.

Discussions between speakers and students produced some disagreements but threading through

the forum was a feeling that change has become the dominant condition of architectural education.

Students' questions indicated a concern for relating architecture to contemporary social and economic problems and to technological de-



ASC/AIA Service Award, one of several, goes to Bethlehem Steel; Jack C. Pope, right, accepts from Jack J. Worth III, outgoing president.

velopments. But overriding was an apparent concern for meeting human needs.

The students—240 of them, setting a new high in registration for the forum—were "asking the right kinds of questions," in the words of one forum observer.

Their elders were concerned with methods of building curricula and motivating students and with finding creative solutions to the problems of clients, while the students appeared focused largely on their own place in the future practice of architecture.

Bernard P. Spring, AIA, who reported on the AIA Education Research Project directed by Princeton University's Dean Robert L. Geddes, AIA, with Spring's assistance, said the study is not to create a model curriculum but to "initiate a continuing process of curriculum development."

Virginia Polytechnic Institute's Dean Charles Burchard, AIA, told of VPI's "design laboratory" concept and the University of Tennessee's Dean Bill N. Lacy, AIA, discussed his school's curriculum which offers five areas of specialization in the last two years—architectural science, liberal arts, architectural technology, business and real estate and environmental design.

The students also heard about Washington University's Urban Design Center where, Dean Joseph Passoneau, FAIA, said, "students work at projects beyond the skill of practitioners." On the other hand they were told by Louis Sauer,

AIA, of the economic dilemmas facing the young architect—and they were told bluntly that as beginning architects they would be worth far less remuneration than they would expect.

Professor Patrick Horsbrugh, AIA, of the University of Texas, presented a paper on data he has been gathering which suggests creativity is at low ebb for many during conventional times of the day.

If his continuing inquiry into the nocturnal inclination-to-work rhythms of the creative reinforces his thesis, he said, "then we can take the initiative, as architects, in promoting full-scale medical and scientific investigations in this vital range of interactive circumstances, chronology, productivity and rhythmic measurements of the creative-minded."

California State Polytechnic College's Dean George Hasslein, FAIA, said the schools' emphasis should not be so much on developing a program as on a climate for "self-discovery, enthusiasm and a desire to learn."

Home Ownership Termed Slum Improvement Key

The best way to improve slums worth saving is to encourage home ownership by residents of the slums, according to findings of a study recently disclosed.

The report, a soft-cover, 269-page book entitled "The Tenement Landlord," was prepared by Dr. George Sternlieb of Rutgers University's Graduate School of Business Administration on the basis of a study in Newark. It says that crucial to slum improvement is the creation of a responsible middle class within the slums. There is no substitute for the pride of ownership, it adds.

Sternlieb appeared before the Senate government operations subcommittee and indicated the Department of Housing and Urban Development showed little interest in the study's findings.

Sen. Abraham Ribicoff (D-Conn.), subcommittee chairman, responded with an accusation that the Administration is "afraid of new ideas."

HUD Assistant Secretary H. Ralph Taylor in releasing the report—the study was financed by a \$33,200 HUD demonstration grant with additional assistance from the Urban Land Institute and the Lincoln Foundation—said that owner-

Continued on page 21

Laminated wood beam library can double in size without "growing pains"

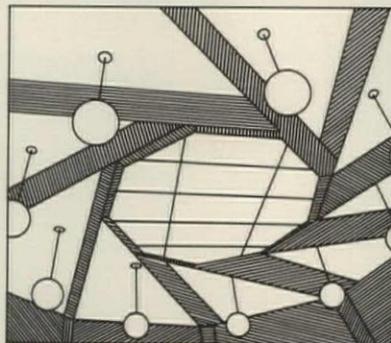
Future expansion was a prime consideration in the design of the 5,000-square-foot Dunedin Public Library in Dunedin, Florida. To facilitate that expansion without sacrificing the design integrity of the original structure, the architect conceived



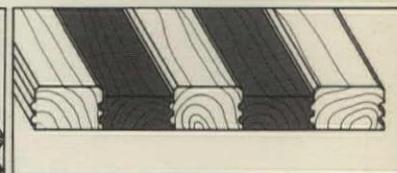
a circular, 40-foot diameter, 18-side building, with exposed laminated Southern Pine beams, Western Red Cedar decking and wall panels.

The library can be doubled in size simply by erecting another perimeter of 27 columns some 16 feet from the present perimeter wall. The laminated beam roof structure and decking would be extended, and the present wall panels brought out to the new perimeter, with only nine additional panels needed for the enlarged circumference. This expansion would cost less than the original \$12 per square foot cost of the building.

Other materials had been considered for the library, but in the words of the architect, "We came back to wood because of the ease and simplicity of beam installation, the minimum of waste in roof decking runs, the re-use of the wall panels, and the savings in facing and decorating costs. Exposed wood gave us the warmth and atmosphere we wanted here." Check the coupon for more information.



Architect: Fasnacht & Schultz, Dunedin, Florida



9-sided, 25' diameter skylight was possible with laminated beams. One hundred and thirty-eight laminated beams went into this library, ranging in size from 5 1/4" x 11 3/4" x 4'9", to 5 1/4" x 14 3/4" x 29'1". The ceiling and wall panels were made from alternate 3" x 6" and 4" x 6" double tongue and groove decking as shown in the drawing

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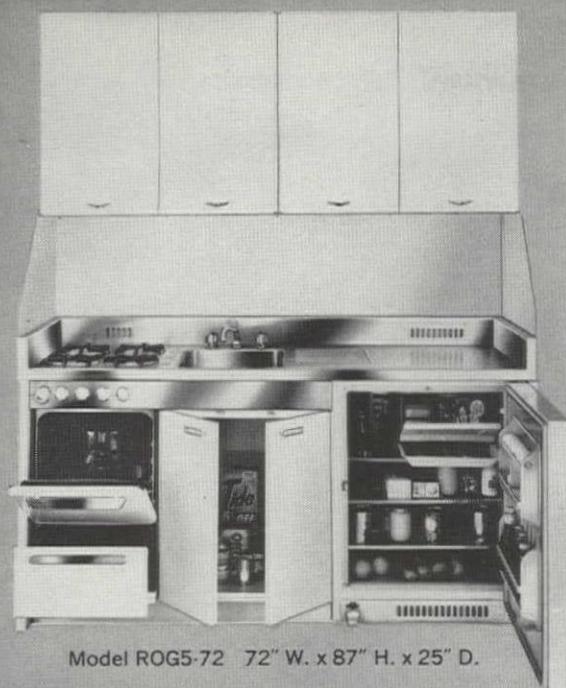
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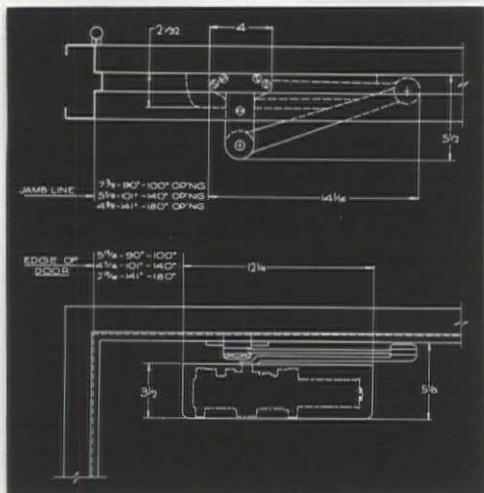


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PHOTO: Auditorium Entrance, North Central High School, Indianapolis, Indiana; Everett I. Brown Company, Architects

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Newslines from page 12

ship programs "form one of the areas we hope will be explored in the Model Cities program."

New Reynolds Award Cites Community Architecture; Old Award Continued

Reynolds Metals Co. and the AIA announced last month the establishment of a \$25,000 international award for community architecture.

The new R. S. Reynolds Memorial Award for Community Architecture, to be given this year and in alternate years, will honor architects responsible for a new town or other planned community anywhere in the world which has been chosen as outstanding by a jury named by the AIA. The Institute will administer the program.

The AIA and Reynolds will continue the original R. S. Reynolds Memorial Award for Architecture with Aluminum. The 1967 jury for the material-oriented award, which also offers a \$25,000 honorarium and is in its 11th year, is made up of:

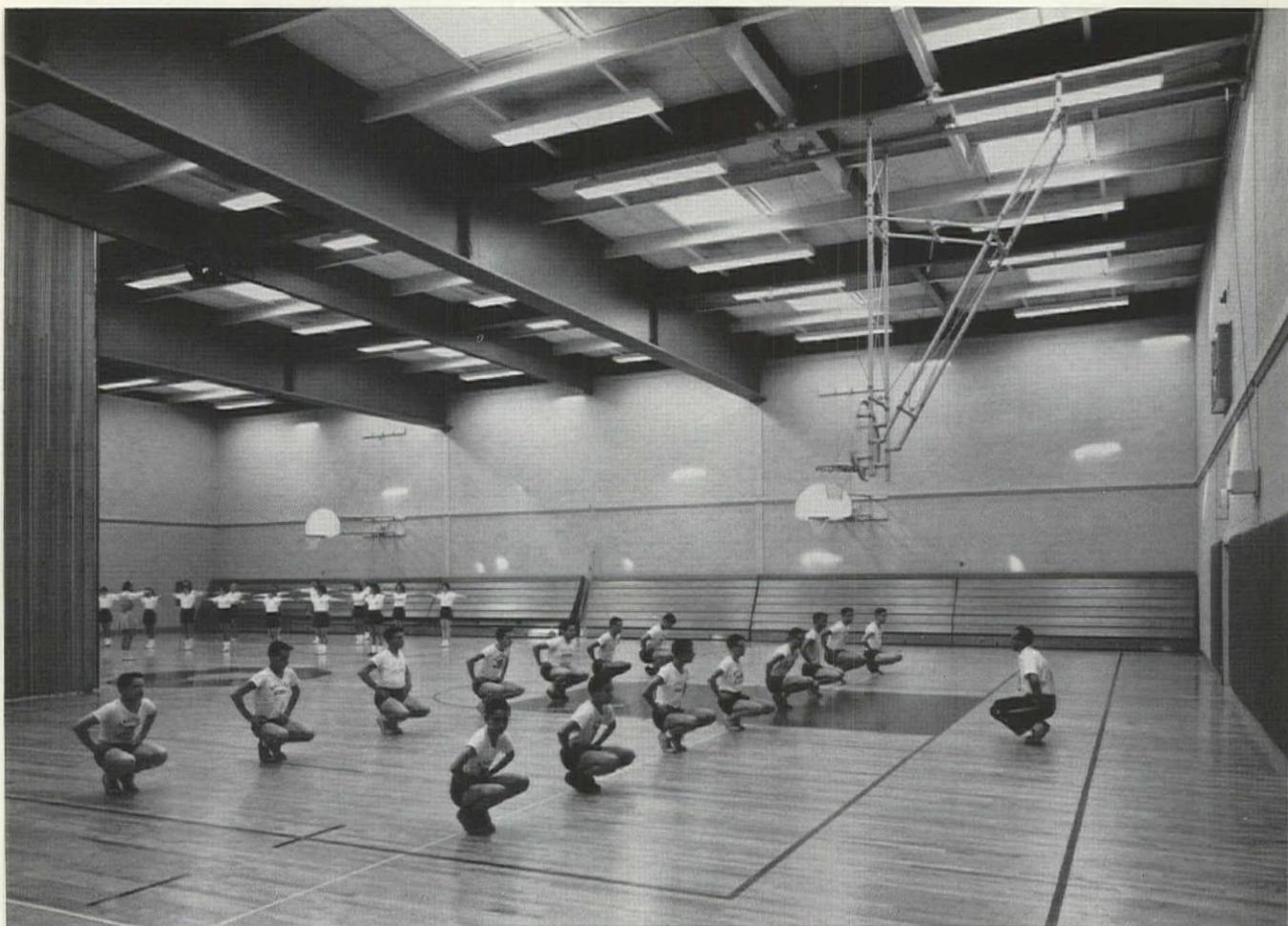
Jose Luis Sert, FAIA, dean of the faculty of design and professor of architecture at Harvard University's Graduate School of Design and partner in the firm of Sert, Jackson & Associates, Cambridge, Mass.; Dr. John Ely Burchard, dean emeritus of the MIT School of Humanities and Social Science; Hans Hollein of Vienna, Austria, winner of last year's award; William Kessler, AIA, of Meathe, Kessler & Associates, Grosse Point, Mich., and a design consultant to the US Public Housing Administration; and William Morgan, AIA, practicing architect of Atlantic Beach, Fla., and a visiting critic in architectural design, University of Florida.

The jury will meet March 1-2 at AIA Headquarters. No date has been set for a final jury review on the Community Architecture award although a preliminary meeting to prepare a list of projects for consideration has already been held. The jury, headed by Morris Ketchum Jr., FAIA, immediate past president of the Institute, is working from its own nomination list.

Other jury members are John Fisher-Smith, AIA, of the San Francisco office of Skidmore, Owings & Merrill; and Archibald C. Rogers, AIA, of the Baltimore firm of Rogers, Taliaferro, Kostritsky & Lamb.

The use of aluminum will not be
Continued on page 23

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a factor in the new award. "Our company is sponsoring the award for community architecture to encourage public recognition of the contribution being made by architects to create an urban environment in which man can live pleasantly and work efficiently," said R. S. Reynolds Jr., board chairman of the aluminum firm.

New Schematics Approved For AIA Headquarters

The AIA Headquarters Committee and Board of Directors last month approved schematics for the Institute's new headquarters.

The new schematics are based on an enlarged site approved by the 1966 AIA convention. The board directed the architects, Mitchell/Giurgola Associates of Philadelphia, to present further design developments at its March meeting. Display materials for the May 14-18 convention in New York are also to be prepared.

The new solution was seen as providing greater protection for the Octagon House and its garden while meeting more fully the long-term operational needs of the Institute.

The funds campaign for the building program that includes restoration of the Octagon will continue until the goal of \$950,000 is reached. Contributions as of Dec. 13 totaled \$128,000.

Describing as sound its decision to conduct a voluntary campaign rather than adopt an across-the-board dues increase, a board statement said: "We feel this is a once-in-a-lifetime opportunity for all of us to make a lasting contribution to the profession, and we deeply appreciate the early response to this belief."

Among other actions the board:

- Approved a \$77,440 contract with Case & Co., San Francisco management consultants, for a major study of the cost of architectural services. Aim of the study is to develop the bases for more businesslike office procedures, more equitable fee structures and a better definition of standard services.
- Approved the employment of an AIA assistant director of education who will also serve as executive secretary of the Association of Collegiate Schools of Architecture.
- Approved the creation of a five-member Public Relations Commit-

Continued on page 24

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AIA JOURNAL/JANUARY 1967 23

tee headed by Director Philip J. Meathe of the Michigan Region, and broadened the purview of the Committee on Industrial Architecture—the name of which was changed to the Committee on Architecture for Commerce and Industry—to include manufacturers, processors and distributors; transportation and utility companies; banks, insurance companies and other financial institutions; and retail and commercial facilities.

• Named seven delegates to the International Union of Architects Congress in Prague, July 3-8.

Emmons and Halprin Plead For Design in Affirming Resignations from BART

In final statements on their resignations from roles in San Francisco's Bay Area Rapid Transit network, Donn Emmons, FAIA, and landscape architect Lawrence Halprin last month urgently called for a far greater design emphasis within BART.

"You may otherwise go down in history as the last of the great El builders," Halprin told the BART District Board of Directors in protesting elevated tracks planned for Oakland.

Appearing before the board, both Emmons, who was consulting architect to BART, and Halprin, special planning consultant, made plain the finality of their resignations.

Both praised the board for initiating some preliminary corrective steps but warned that much more remains to be done before, in Emmons' words, "a balance will be reached that will give the planning and urban design aspects of the BART system their proper weight in the overall design complex."

Emmons emphasized two points he regarded as "essential" to the ultimate success of BART:

- Design decisions in urban planning, architectural design, graphics and other visual elements must be under the guidance of a highly qualified architect-planner at district level, working closely with the engineers, the general manager and the district staff and reporting directly to the board.
- This architect-planner must guide project architects, recommend consultants in allied fields to the board, and act as liaison between the visual design fields and the civil

Continued on page 26

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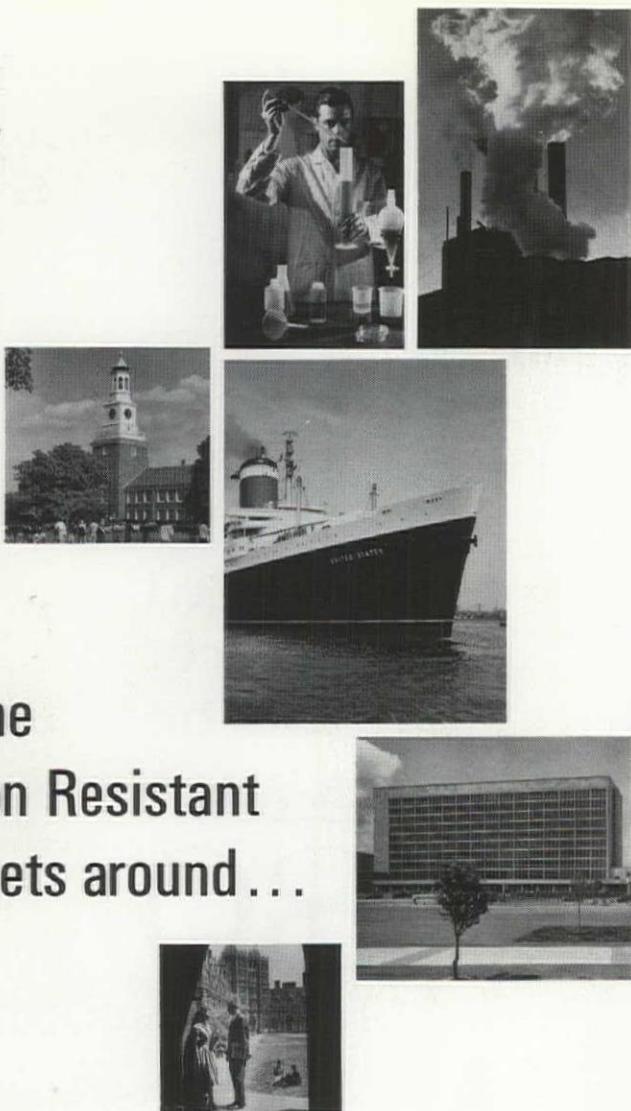
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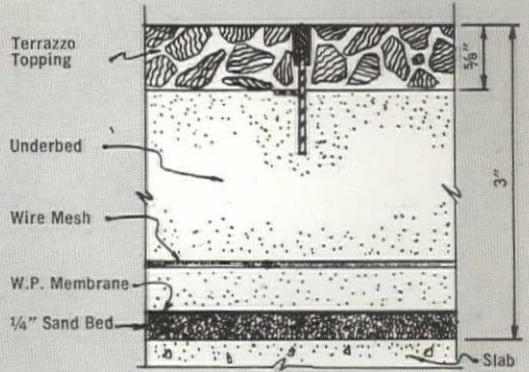
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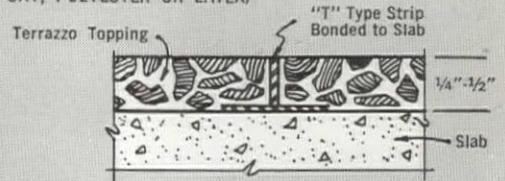


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engineering work. He must be given broad authority and support in his areas of concern.

"Top-notch talent is available and costs no more," Emmons said. "It is up to you to see that you get the best."

Halprin said the resignations were last-recourse steps, that he and Emmons could accomplish nothing within BART. "Since planning is, in our view, so important," he said, "we elected to move out-

side and bring the matter to your attention in this way. And we intend to continue to do so."

Halprin cited a number of instances where he said design advice was ignored. As a result, he declared, "much of the system has been demeaned and often blighted—I hope not entirely beyond recall." He urged careful evaluation of the cited aspects before proceeding further. He also suggested that:

• Public proposals should not be "shot down out-of-hand by your

staff before they are brought to you for review and evaluation" because many of them "have merit" and deserve more than an overly-defensive attitude that "is weakening the system."

• The board should require complete candor from consultants.

• The functions of engineering should be kept where they best serve—out of environmental design—and that the dialogue between engineers and planners should be two-way and not descend to the level of an engineer's saying: "We have decided not to do what you recommend."



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Transit Shortcomings Sap \$5 Billion Yearly; Big Step Taken in California

At least \$5 billion is being drained from the national economy each year because of inadequate urban transportation systems, according to the economic consulting firm of National Economic Research Associates, Inc.

Apart from personal inconveniences and discomfort to motorists and harried commuters, NERA says, the whopping dollar drain is measurable in wasted fuel, tens of millions of lost work and leisure hours, air pollution, excessive traffic control requirements, illegal parking costs and thousands of automobile accidents.

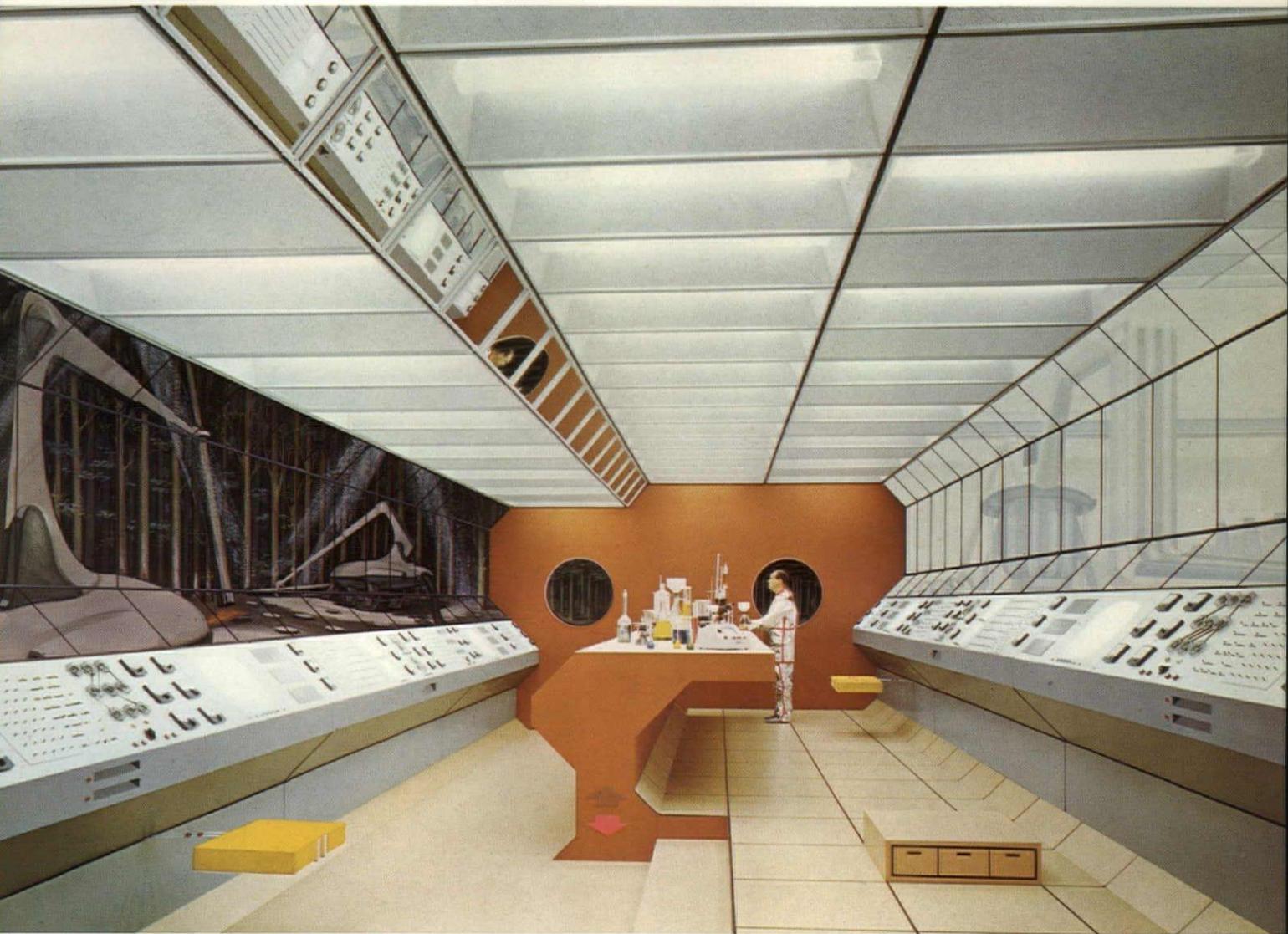
Meanwhile, an area where the auto is king has taken a major step toward rapid transit. The Southern California Rapid Transit District awarded contracts for preliminary planning and engineering for the first phase of a high-speed network in Los Angeles County.

The work is to be done by Kaiser Engineers and the architectural firm of Daniel, Mann, Johnson & Mendenhall, acting as a joint venture and performing preliminary engineering, architectural and associated services at a cost not to exceed \$2,375,000, and Coverdale & Colpitts which will develop traffic and revenue data together with income and expense projects at a cost not to exceed \$250,000.

Rapid Transit District President Harry A. Faull said the California legislature "gave clear recognition of the concern for proceeding without delay to meet the community's total transportation needs" when it passed Senate Bill 2 which provides \$3.9 million in tidelands oil funds to complete the planning and

Continued on page 28

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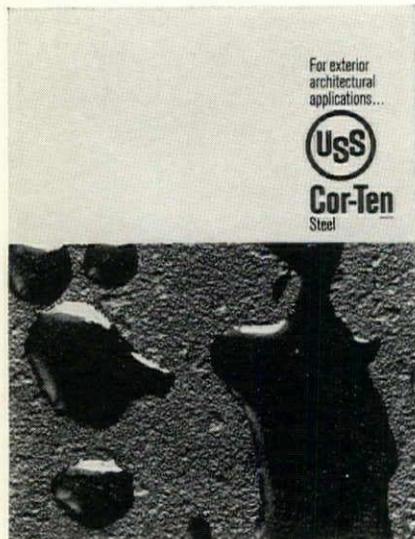
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Newslines from page 26

preliminary engineering for initial rapid transit lines.

Faull said Kaiser, DMJM and Coverdale & Colpitts are scheduled to complete their projects by mid-1968.

Fallout Shelter Program Cites Dual-Use Projects

Three projects received First Honor Awards in the nationwide architectural Awards Program for buildings incorporating fallout shelter.

Five others were cited for Awards of Merit in the program that is conducted by the AIA at the request of the US Office of Civil Defense. A jury of five architects and engineers sought projects demonstrating architectural excellence while incorporating economical dual-use fallout shelter space.

First Honor Awards were given to:

- Dormitories at Central Washington State College, Ellensburg, Wash., Fred Bassetti & Company, architects; Richard F. Janke, engineer and shelter analyst;
- Chancery of the Royal Netherlands Embassy, Washington, D.C., P. H. Tauber (Alkmaar, Holland) and Deigert & Yerks, architects; Carl C. Hansen, structural engineer; Cotton & Harris, mechanical and electrical engineers; Arvydas Barzdukas, shelter analyst;
- Blackwell Senior High School, Blackwell, Okla., Caudill, Rowlett, Scott, architects and engineers; James R. Cagley, shelter analyst.

Awards of Merit went to:

- St. Luke's Hospital Addition, Fargo, N.D., Foss Englestand & Foss, architects and engineers; Mark B. Foss, shelter analyst;
- Lenihan High School, Marshalltown, Iowa, Donald P. McGinn Associates, architects and engineers;
- Residence of Mr. and Mrs. Daniel N. Salerno, Del Mar, Calif., Daniel N. Salerno, architect; Daniel P. Cole, shelter analyst;
- Watsonville City Hall, Watsonville, Calif., Robert B. Wong, architect; Rutherford & Chekene, engineers; William W. Hedley, shelter analyst;
- Alexis I. duPont Special School District, Greenville, Del., Whiteside, Moeckel & Carbonell, architects; Ewald & Miller, mechanical engineers; L. H. Doane Associates, Inc., structural engineers; Joseph E. Plotts Jr., shelter analyst.

Certificates of awards go to the building owner, to the architect and

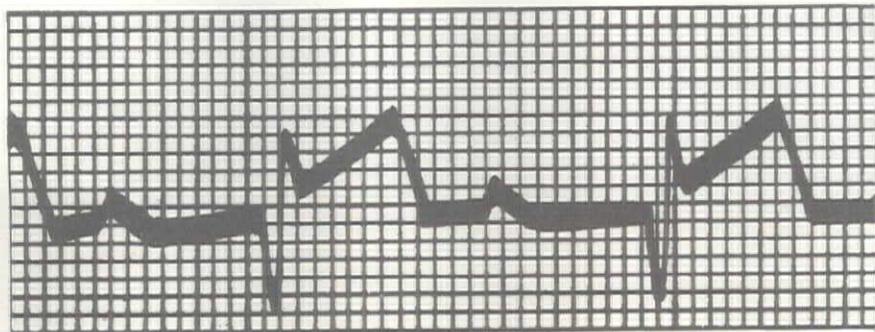
the analyst involved in each project. A plaque suitable for mounting on the building is also given.

Necrology

Last month's necrology in a limited number of copies of the JOURNAL erroneously and regretfully included the name of Walter R. Hair, Hamilton, Ohio, due to mistaken information received. Our apologies for the error.

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BY HOWARD R. MEYER, FAIA
Chairman, Committee on Housing

Unfinished Business: Housing Values

Ours is a time when the architect concerned with housing must make some fundamental value decisions. Over the past year, in fact, value judgments and their applications were the principal subjects with which the AIA Committee on Housing wrestled.

The exercise in values has at its base a world bearing the impersonal stamp of mass production, and at the level of housing, dichotomies and disparate directions.

We have package-deal "Turnkey" public housing vying for a place with custom-designed "Housing for Urban Neighborhoods." And we have single-family housing manufactured and sold as a commodity, much the same as automobiles are sold, in place of proud custom dwellings.

Between Turnkey and Housing for Urban Neighborhoods lies a whole gamut of emphases. The latter strives for quality through the study of human values and needs, study of the most effective design to accomplish the best possible living, all of which is to be realized within well-defined budgets and carefully allocated funds.

Turnkey, on the other hand, seeks speed, quantity and the lowest possible cost.

So broad is the spectrum, as demonstrated by these two approaches alone, that the AIA Board of Directors felt it necessary to form, in addition to the Committee on Housing, the Single-Family Housing Committee. Merchant as well as custom-built single-family housing was included in its purview.

Besides the two committees, Morris Ketchum Jr., FAIA, then Institute president, named an AIA task force to work with the National Association of Home Builders toward achieving, for the architect, a better understanding of the builder's needs, and for the merchant builder, a greater appreciation of design and designers.

In the background, meanwhile, still lurks the divergence of approaches, the bringing together of which would result in a kind of

millennium. It would, for example, solve all the public housing problems of the Department of Housing and Urban Development by bringing us low-rent housing, low in construction cost and swiftly built, involving the private developer and all the resources of private enterprise, yet being thoughtfully conceived by teams of skilled professionals of many disciplines who are given adequate time to perform the research necessary to determine ethnic patterns and to meet the unique social needs.

Resolutions of the disparity in approach would give us an architectural profession well schooled in the needs of the marketplace, and a merchant-builder fraternity fully aware that its commodity must, besides being packaged to sell, possess inherent qualities.

In any event, our purpose is to aim high and, in so doing, to ensure the inclusion within our efforts of even the most remotely achievable. We are attempting to find a common ground with the homebuilders and to strengthen our bonds with HUD.

Our efforts with the former have reached the point where both the AIA and NAHB agree there is room for mutual education and areas for common action.

It is agreed that architects have considerable to learn in the fields of market analysis, financing and construction techniques unique to merchant builders, and that builders in turn would do well to understand architects' concepts of good design. (see Newslines).

In the common action category, it is agreed, most importantly, that a convincing effort must be made to overcome the lending institutions' apparent exclusion from the appraisal process of the value of design, and secondly, that improvements in design can be accomplished through more far-sighted legislative requirements (codes, zoning, enabling state legislation, etc.), the adoption of which should be pressed by the two organizations.

As for HUD, we have under advisement a proposal for an FHA-AIA-sponsored competition aimed at better housing design. We also have FHA assurance that some inequities in fees as presented in the FHA Manual will be remedied.

At HUD's request the committee furnished the department the AIA reaction to the Turnkey program. This is what we said:

"The Turnkey method of producing public housing would appear to be expedient in terms of time and immediate savings in construction costs. However, it is not necessarily conducive to long-term economies. The present process neither guarantees the public good nor assures that the process is not demeaning to the professional practice of architecture.

"The Committee on Housing believes, for adequate design protection and for achievement of a quality of environment under this program, that a carefully prepared manual of procedures be established with the Department of Housing and Urban Development; that this manual be implemented by mandatory design review and advisory panels in each of the regional offices and by clarification of the programs anticipated by the local housing authorities."

Formerly known as "Pacemaker Public Housing," Housing for Urban Neighborhoods was originally conceived by the Institute and is being co-sponsored by us and the National Association of Housing and Redevelopment Officials.

It proposes the establishment of a separate, foundation-funded corporation to guide the development of a limited number of specially selected, specially programmed and specially nurtured low-income and middle-income HUD housing projects.

Finally, the committee has been furthering a closer liaison with the Armed Forces. The attempt here is to better guide the profession in working with the military services—and thus achieve a higher quality of design in military housing. □



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Amid the Explosion, an Experiment Proposed

Mere shelter is a primitive goal in so dynamic an age, yet by and large this is what our housing amounts to. Can the house do more than shield from the elements and, indeed, from life itself?

BY GIDEON KRAMER

Change is the one word, more than any other, that characterizes our time—change and its counterpart, obsolescence. And this is so at an ever-increasing rate. Change is an index of aliveness and must, therefore, be the measure for evaluating the home, its purpose and its creators.

I propose a program for developing an immediate environment (which we now call "house") and a means for its evaluation on these terms. An environment that will support man's search for greater effectiveness in and enjoyment of the predominant condition of his time.

Man's acceptance and delight in change, in this condition so natural to our time, are essential to his mental health and ability to influence the direction of change.

Encouraged by the belief that he is made in God's image, man has drawn the significant conclusion that he is indeed a creator vested with the freedom and responsibility of his own continual creation. Every new insight reinforces the "recognition of the going-on of nature in which we, and all things of all types, are immersed . . . in process beyond ourselves . . . it is the concept of mere agitation of things agitated," in the words of A.N. Whitehead.¹

And how little it takes to bring about agitation, change! Walt Whitman in "Assimilation" makes us aware of this subtle power as he tells us:

*The early lilies become part of this child
And white and red morning-glories, and white
and red clover
And the song of the Phoebe-bird.
And the fish suspending themselves so
curiously below there—
And the beautiful curious liquid.
And the water plants with their graceful flat
heads—
All become part of him.*

If the sight of a single flower can modify man, what of other things? All the things he sees, hears, thinks, does, experiences? They, too, become part of him, and in so doing change him, evolve him, continue his creation.

Increasingly these are of his own deliberate doings; increasingly he becomes his own creator—what power in a house!

The author: Mr. Kramer is an industrial designer who founded the ION Corporation in Seattle, manufacturer of his ION chair. He serves as a teacher and consultant to various industries including building prefabrication. Last year he won the AIA's Industrial Arts Medal.

Television is a favorite whipping boy at present, standing accused of turning man into a spectator, of robbing him of participation and indeed of reducing him to "vegetable." But such fault-placing overlooks and distracts from much more significant acts of deprivation against man. If the "first profession" deprives as it serves, the "second profession"—as architecture is termed by some—and all other professions by their nature also need surveillance.

Before its design and construction were abdicated to professionals, before a few of us managed to delineate and appropriate it as "our specialty," shelter in both quest and creation was among man's most meaningful concerns. As with clothing, it became much more than protection from the elements. It was man's most intimate and meaningful expression of his coming to terms with his environment, asserting his individuality. And it was most effective when responsive to his continually changing needs. Shelter was and still is the basic building block of the constructed community.

Today it could be more and it needs to be more. Today's technology gives us the means to make it more. This immediate personal environment has unique catalytic capabilities in the creation of a more effective person.

The term "shelter" or "house" is a limiting anachronism; a word that would adequately describe the "house that could be" is missing. Many terms could be used, yet I hesitate to use a single one at this stage lest it preconceive the answer. What lone word now available could carry the meaning of a "living-learning-self developmental-evolving-responsive-environmental-etc., unit"?

As to the designer, the architect, most certainly the precondition to participation will have to be what we should expect of doctors, teachers, politicians and priests, and that is that they strive to make themselves dispensable to their fellow man—unneded—for they who are ready to face this consequence and make this their goal, and they alone are the indispensable. And only they are entitled to the highest esteem of their peers.

This goal is the most difficult of creative acts. Still, anything less is parasitical.

What else is required? How do we get there from here? Questions to ponder. How can the vision of architects reverse the decline of a civilization? What limits architects' efforts to re-humanize modern life?

The architect—"architect" in the fullest and not just licensed sense—could make a tremendous contribution to facilitate the changes necessary, but first he will have to change himself. We can do no better than we are; to do better we have to become better.

How can the architect and his architecture become better? Benjamin Thompson, chairman of the department of architecture at Harvard University, addressed himself to this problem and its obstacles in his article, "Let's Make It Real." He said:

"What does it take to make a better physical world come about? . . . Don't we by now know about what a better society could be, so that a working university team could define it, then design it, and finally build a real prototype? . . . with such an incredible crisis on the doorstep, should we architects continue by 15th century methods of ancient drafting boards and stools, old questions and tired answers? What should the designer's role be in this new age of accelerated insanity? Will he care deeply enough? . . . Architectural education is not intrinsically 'inert,' but over many centuries of search for respectability, the cold war between schools and the profession has certainly thinned its blood. Architectural schools today, like animals, find themselves impotent, unable to reproduce that hybrid designer who can save our environment and carry out

many brave and noble assignments. So the architects' place on this planet is to create that special environment for life to be lived to its fullest."

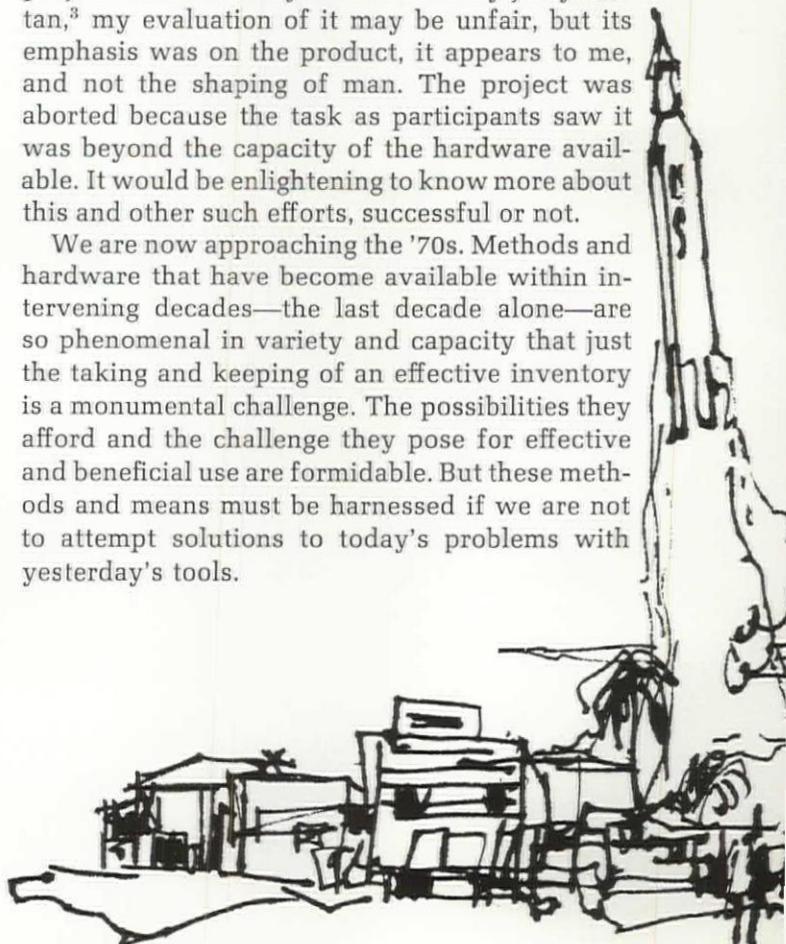
And what could this "special environment for life to be lived to its fullest" be? and again, who is to create it?

It is unfortunate that few of the more capable architects feel they can afford the concern a single dwelling requires. They still view a house in terms of the preindustrial, precybernetic, pre-process-oriented era. As they see it, the house lacks the monumentality to satisfy their need for "greatness." And yet the most immediate and important concern should be that neglected, elementary particle of the "planned community," the house.

Not now nor ever has there been any effort comparable in thoroughness to our space program to bring all of our latest knowledge and techniques to bear, in a unified and coordinated manner, on the question of what this environment should or can be and how to measure or predict the effectiveness of a proposal or solution. The attempts made so far have had as their concern the home or building as a product. But I propose an effort aimed at the Self Generative Modification of Man. Shelters in the context I intend are to be viewed as tools, catalysts.

The School of Design in Ulm undertook such a project in the '40s. Since my knowledge of this project is based solely on an article by Jerzy Soltan,³ my evaluation of it may be unfair, but its emphasis was on the product, it appears to me, and not the shaping of man. The project was aborted because the task as participants saw it was beyond the capacity of the hardware available. It would be enlightening to know more about this and other such efforts, successful or not.

We are now approaching the '70s. Methods and hardware that have become available within intervening decades—the last decade alone—are so phenomenal in variety and capacity that just the taking and keeping of an effective inventory is a monumental challenge. The possibilities they afford and the challenge they pose for effective and beneficial use are formidable. But these methods and means must be harnessed if we are not to attempt solutions to today's problems with yesterday's tools.



The accelerating rate of change and concurrent obsolescence are nothing short of an explosion. And the nature of explosions is to destroy, to fragment. Their nature is to destroy old associations, old forms and attachments; it is also to promote change, to liberate and make possible new relationships. Their fallout is the seedbed of creation.

Being engulfed in this explosion, it is difficult to develop the detachment necessary to understand, control and direct it.

We know the consequences of our actions and our creations on man and his condition. If boredom, vegetation and the inevitable degeneration of man and his society are brought about by those who have taken on themselves the responsibility for the creative tasks required to keep life meaningful, the responsibility for returning the most meaningful to the process of life must also go to those assuming creative roles if man is to reach greater heights of fulfillment and become a more effective vehicle of the creative force of which he is an expression.

Teilhard de Chardin speaks hopefully in his *Phenomenon of Man*⁴ of man's potential as the expression of the creative force and the satisfaction that goes with this awareness—provided he doesn't inadvertently or otherwise abdicate.

"Without going beyond the limits of scientific probability, we can say that life still has before it long periods of geological time in which to develop. Moreover, in its thinking form, it still shows every sign of energy in full expansion," says the scientist-monk.

"On the other hand, to judge from the rapid developments of thought in the short period of a few dozen centuries, this youth bears within it the indications and promises of an entirely new biological cycle. That in all probability, between our modern earth and the ultimate earth, there stretches an immense period characterized not only by a slowing down but by a speeding up and by a definitive florescence of the forces of evolution along the line of the human shoot."

Our concern should be to apply the power that is ours to guide, to support man on this journey in a manner that will allow him to feel his way along the uncharted course toward a more meaningful existence. Can a program be devised that

would use our newly developed tools and methods, knowledge and insight, in a coordinated and unified manner in creating "That Special Environment for Life to be Lived to Its Fullest"; that would provide man with a setting which would engender within him the continual changes he requires to become and maintain himself as an effective citizen of his time; that would result in what itself would be a living, ever-adaptive unit; a program that would measure the effectiveness of an environment thus created?

There is as little doubt this can be done as there is any question of its urgent need. So what is holding it back?

Since the answers are in the problem, suggested by the questions and in part predetermined by the program that would be formulated, the program itself would have to respond to change as evidence and insight develops.

It would be the unifying into one effort the most specialized and comprehensive general knowledge including the insight and longing expressed in poetry. Its purpose would be:

1. to ascertain the extent to which the immediate environment can stimulate, can act as a catalyst in the change of man
2. in what manner
3. the consequences of such changes
4. the measurement of effectiveness of various approaches in bringing this about
5. to serve as a basis for formulating a more effective program.
6. (and a personal benefit would be to check my bias which may become apparent).

A *primary requirement* is a realization that no preconceived boundaries for such a program can be established for the old boundaries—the neat little categories into which we have fitted such things as education, entertainment, work and their separation or relationship to the home, and many other aspects and concepts of life such as ownership, money, sex, religion, time, distance, aging, art and play—these are all reshaping. A program such as this must free us of whatever shackles the past still imposes, of restrictions that have lost their validity, have become inert, and which are maintained by those vested interests least ready for, and hence most fearful of, change itself.

The program should enlarge our horizon and be an experimental ground for synthesizing, for surprising us with new forms, new concepts and new ways of looking at old things. It must evolve, and we must restrain ourselves from preconceiving.

The home may not be a home in the old sense anymore. Hopefully, it will become much more. It may require complete reorientation, and in some ways it may again give new meaning to the con-



cepts of family and individual. It may establish a more meaningful validity for the home in our continually changing times, to enlarge its function and to return to man in an even greater measure the opportunity of its shaping and reshaping.

Preliminary and exploratory projects of limited objectives should proceed our embarking on the design and construction of any major units. *Their purposes* would be to provide material for the more precise formulation of criteria and strategy. They could be to:

1. Inventory and appraise experiences that change us or that we believe change us.
2. Conduct a limited number of experiments expected to produce changes in man and devise means to measure their effect. These should be as simple and limited as possible. They would be conditioning exercises for the greater project.
3. Inventory and categorize developments (concepts, devices, ideas, methods, knowledge or information) causative or characteristic of our changing times. Again, these would be selected, appraised and categorized in relation to their influence on the project.

Other limited preliminary experiments and projects could also be formulated and embarked on.

Since our primary concern is the stimulation and acceptance of change in the life process and its vehicle, man, then the first task would be the selection of individuals to be used in this program. Depending on the means available and other as-yet undetermined factors, we could, for instance, pick a number of couples, with or without children or, preferably, a mixture of both, who would be matched by all available techniques to be as comparable as possible.

Some of these families would form a control group continuing to live in the accepted manner, i.e., in an environment as opposite as possible of the others to be tested.



The others would be divided into several groups, each subjected to one of several experimental environments and routines.

Perhaps three units could be constructed as basically different as could be devised after a thorough evaluation of what kinds might produce

the greatest yields of information. Depending on funds available, it would be desirable to build more than one of each of these units to develop more reliable data.

Perhaps as the program evolves it may be feasible to devise and test other units. There are several possible units.

One that has never been built, but which should be considered, to test the validity of Frederick Kiesler's concept of an "Endless House," a house which "had no beginning and no end—like the human body," as Kiesler described it. "I am interested in life, not architecture," he said.

Judging from his models and drawings, it is an endless continuous space. It is fixed like a piece of sculpture (Moore, not Calder) and changes only insofar as the individual moves or as he uses or relates to it.

In contrast, there would be a completely flexible environmental unit, flexible and adaptable to the fullest extent permitted by our technology (which today means the only limitations are our imagination and ingenuity). In the experimental stage, perhaps, there would be several versions not necessarily modular—I repeat—not necessarily modular or rectangular.

They would be capable of being completely changed, rebuilt inside and out, by no more than the effort of a single person—by a housewife, for example, while her husband is at the office. Every new situation, every need and every whim would find expression in some change.

It is interesting to note that women do not rearrange furniture just because they think up better arrangements but because of the joy that comes from change, from participating, from bringing about this change, from a desire to express themselves, to exercise their creativity. So far they have been limited to furniture. Our present technology could extend this to include walls, windows, doors, roof, the change of spaces and all utilities.

The concern of most efforts has been to interpret and thus express and serve the machine (or to reduce costs). To mechanize the production of buildings or their components has been the primary motive behind our modular approaches.

We have been confused. We have been trying to serve the machine instead of having the machine serve us. Little wonder that these products have been rejected. The modular approach of the Japanese house exceeds the beauty of any of our efforts, but then it was not intended as an expression of the machine.

In this type of unit a program should be devised requiring periodic or continual changes to be made by the individuals. There changes would be noted as would be the effects of living in a continually changing, adapting environment, where



nothing is fixed, where change, surprise and opportunity for change are infinite.

What effect would this have on the individuals living within? Certainly it would allow them to make their own mistakes—"to walk to the music that they hear, however measured and far away," to have their environment evolve as they in turn evolve. There would be no final answers, no need for an architect in the usual accepted sense.

As Jerzy Soltan³ once put it, "The creative process would be then shifted from the individual expression through an individual architect to the practice of each user. Everyone wants to participate in the creation of his home, or whatever is the closest around him. It is only a matter of degree: who can do how much. Now some can do more because they are able to realize what they need and want and also are able to carry out what they have decided would be good. Some can do more because the system, the overall order, which has been given to them by the architect—the system in which they move—lends itself to their individual intervention.

"This kind of attitude was expressed through centuries or even through millenia by the vernacular architecture, the anonymous buildings throughout the world. The basic architectural quality, the basic order, the 'unity in variety' was achieved automatically by the clarity of the well-established aims and also by the limitations imposed by materials and building techniques.

"Today, with the birth of new functions and the unlimited choice of materials and structures, the basic discipline can easily disappear. The "anonymous client," as Jacob Bakema calls all users willing to participate in the design and building process, may say too much if the architect does not give him the proper discipline and order.

"This highly social approach to architecture, i.e., designing rather systems for others to move in, leads obviously to a particular visual expression. Some call it the *esthetic of the 'open form'*—an esthetic that is in perpetual formation, perpetual birth. The whole approach and the main issues have, in fact, recently become more known. It has reached the schools of architecture, but has not materialized yet, I believe, in any erected

buildings. The pessimists say, as I mentioned before, that this is a pure utopia—that the average man is still not only unable to handle the complex modern technical media but even to define his own targets. But didn't utopian ideas sometimes stimulate realistic and realizable ones?"

In the first unit, the "Endless House," the individual moved relative to a fixed environment. In the second, the environment changes physically in response to the individual. There are other basic approaches.

A third and most important type of environment, free to the point where it is in its basic form but an enclosed controlled climate—but otherwise not separated from its general surroundings—is the Autonomous (dome) dwelling of Buckminster Fuller which could generate requirements and solutions by its use of the most surprising consequences. Some attempts have been made, with various degrees of success. Perhaps the combination of the foregoing within the dome poses other possibilities.

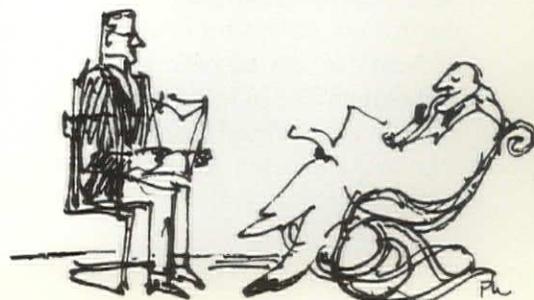
At any rate, the project should start with a limited number of basic types which should be responsive to various degrees, as should the program. It and they should evolve.

Kept foremost at all times must be the main concern: the effectiveness of the immediate environment in promoting change—in man.

Throughout this program all possible data would be gathered and evaluated, and at a time when the curves generated by the data would indicate a leveling out (a time at which additional information would have no appreciable effect), a thorough testing of all individuals involved would be made. Comparisons with the control group would measure the changes generated within each individual and would be related to the type of environment and routine the individual has experienced.

Of special concern would be the extent to which the participants' responsiveness to and acceptance of change is stimulated and carried over to their views, ideas and curiosity relative to political, racial, religious, social and other problems; their effectiveness and participation in their community; the effect on their creativeness; the relationship of the members within each unit to each other; and the effect on their mental and physical health.

The preliminary exploratory projects referred to could be assigned to individual researchers or



adopted by universities as projects for basic design classes. Here would be a chance to draw on the total resources of the institution.

However, the segmentation, the lack of communication and experience to cooperatively work on projects requiring virtually all disciplines to cross departmental boundaries, and their fear of possible loss of sovereignty, their fear of having their specialty, their domain, undermined, virtually precludes most universities from effectively assuming such a project. Nevertheless, exceptional universities should be encouraged, stimulated, put to the test.

Such an undertaking would doubtless stand the best chance of success if managed and directed by one of our large research organizations (already conditioned to coordinating diverse capabilities), employing the help of universities, scholars, professionals and individuals who would, because of their special interest, experience or ability, be able to contribute. None would be immune; they too would be changed by their participation in such a project, possibly giving birth to new professions and obsoleting others.

Plugged into all relevant and available information, devices and facilities, this "workshop" would lose its resemblance to our present concept of an architectural office or school. With all its coordination of our expanding knowledge, insight and technology, it should in itself be a new tool, the womb for a new humanism involving poets and musicians as much as technicians.

One of the consequences would be the extraction of much from the realm of conjecture and wishful thinking. This should free the architect and others from a great deal of the tediousness of their work and thus render them more effective.

The implicit benefits to business and government, to all of society, and the relevance this project would have to the special concerns of numerous foundations, would minimize the problem of obtaining funds.

The potential of man has hardly been touched. To quote Jerzy Soltan³ once more:

"New sensibilities have to be developed, new sources of imagination uncovered, new forces of association mobilized . . . As Le Corbusier says: '*Les yeux qui ne voient pas*' . . . the eyes that do not see the poetic events in life have to be opened. A new culture has to be built up. This does not occur overnight. All this means additional effort on the part of the architect. Is he willing to undertake it when changing his hat? Frankly, how much time do we architects, the majority of us, dedicate to the activities I am speaking about? How much do we know of even the most simple, basic, merely visual language and grammar? And supposing that we do know—is this kind of very basic grammar sufficient to move to the new

world? Was it sufficient for the moderns of the early '20s? A total attitude, a culture—that is what is necessary!"

A total attitude? Total effectiveness?

Only when we learn to unify our continually splintering knowledge, to think in a more unified manner and become comprehensive citizen-designers—and in the process increase our sensitivity to the consequences of our actions and to the ability of the environment to change us—only then can we cope with the accelerated rate of change which dominates our time.

We must not become immobilized with fright and turn our backs on the conditions we have created and are a consequence of. We must use every available resource to support the life process within each man. We must in the words of A. A. Varen⁵ resist "the temptation to hand over our identities and lapse into hopeless passivity." We must beware of the 'beginning and end'-oriented, self-appointed, professional perfectionist.

We must resist seduction into passive sterility, into a condition in which we might be "equally at home on the other side of the barbed wire. Certainly, we daily handle and are handled by much the same principles of efficiency.

"To add to the confusion, many tools of our time have great functional beauty. The bombers, missiles, computers and even the huge smoothly working businesses have an impersonal perfection that is easily mistaken for a high civilization of their own.

By comparison, the inefficient beauty of the arts and the shifting, tentative discriminations of the intellect seem hopelessly fragile and far less appealing. But the moral sense and the whole related structure of our civilization are based on them. And when they fail, the step into the concentration universe is short and easy."

We must subordinate ourselves and our technology to the enhancement of the individual. Our actions must be consistent with the concern and respect for the individual and the creative process that we profess.

If even so subtle an experience as looking at a flower can alter us, what of the "house," the environment we create? We cannot escape influencing the modification of man.

May our actions become identifiable with creation and not degradation—with the support of life as continual change. □

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Unique Impotence or Universal Impact

The architect does not have to function as a slave to public taste, nor should he set himself up as its arbiter. He is offered the possibilities of a new role—advocate for the housing consumer who is, after all, the silent participant in the design process.

BY SIM VAN DER RYN, AIA

Responsible architects are frustrated by the problem of housing. The profession has not made significant contributions toward social or technical innovation in housing. The architect's lack of influence on the design of mass housing and community is apparent in three ways:

Architectural services of any kind touch less than 10 percent of the house construction market. Although accurate statistics on the architect's role in housing are not available,¹ the evidence is that architects provide professional services for less than 1 percent of the single-family houses built. This includes architects who are merely "dressing up" tract plans. A recent survey of over 1,300 offices showed 90 percent of architectural commissions for housing—about \$1 billion of construction—is for multiple-dwelling design. And this is about 6 percent of last year's total dollar-amount for multiple construction.

Neither the architect nor the builder alone has enough leverage to bring about significant cost-saving innovations in housing practices. Whether owning or renting, a family's annual housing expenditure pays for three types of costs: the house, the location and the terms. The cost of building and equipping the house represents only one-third of the total cost of providing housing. Location cost includes land rent and the cost of necessary community services; terms include interest, transfer charges and commissions.²

It is estimated that if building codes and work rules were liberalized to take advantage of every currently feasible technological advance, the total savings in the cost of building a house might be 25 percent.³ Yet a 25 percent saving in construction cost would amount to less than a 10 percent reduction in the total cost of the housing

package. The recent 1 percent rise in interest rates itself offsets the cost saving afforded by a major technological advance. Seen in this perspective, it is apparent that significant innovations aimed at lowering costs will require an approach using all the levers in the housing system.

Architects have little leeway to innovate design improvements in mass housing. A network of rules and regulations—a rule structure—largely determines the architectural form of mass housing. Culture and habit and technology act as additional constraints. The rules include zoning regu-



lations, real estate tax assessment policy, even Internal Revenue Code and other incentives. Building codes and FHA standards set important limits on innovation.

Many of these rules are design standards which make little sense because the purposes and assumptions behind them are not made explicit. In many cases, the original rationale behind the rule no longer exists. Architects can help change the

rule structure by finding better ways to state design criteria, ways which make assumptions explicit by stating what the rule is intended to do.

The failure of the profession to take responsibility and assume leadership in housing design is not all circumstantial. Few architects understand very much about the housing industry or housing politics. Architects have neglected design analysis. We have failed as a profession to get close enough to detailed questions of how people live and what they demand from an environment.

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Our depth of analysis has been so shallow that feasible, demonstrably better alternatives to present patterns of development have seldom come from the profession. Indeed, many architects have been the willing, if ignorant, accomplices of bureaucracies in furthering the dehumanization of housing. Architects have failed to advocate the interests of the lower-income groups who suffer most from the stalemate in housing.

In the next decade, 20 million new housing units will be built—a "city" larger in population than the present megalopolis stretching from Boston to Norfolk, with Chicago and Los Angeles thrown in. Twenty percent of the existing stock of 65 million dwellings is deteriorated and needs replacement; \$400 billion will be spent for housing in the next 10 years.

Architects can help shape future growth or ignore it. Systems concepts of design, production and management are likely to be applied to housing. Design standards which fix on solutions without stating the problem will give way to performance criteria to meet diverse, technical, social and environmental conditions. Systematic evaluation of what we have built is overdue. Obsolete design programs for mass housing, dictated by distant and inflexible bureaucracies, need to be replaced. The interests of the silent participant in the design process—the consumer—have been long neglected. The housing consumer, particularly when disadvantaged by poverty or prejudice, needs an advocate to help him obtain his environmental rights.

To set the stage for fundamental innovation in the housing form, two kinds of knowledge are required. We need a detailed understanding of the range of human needs and how to meet them through environmental design. We need an un-

derstanding of the mechanisms which influence housing form: production and technology, marketing systems, financing techniques, public policy and design standards. Innovation requires coordinated change of these mechanisms and the use of new techniques for programming and supplying housing. The structure of the housing industry will undergo radical change if the forces which shape housing can be rationally coordinated. Along with change will come an opportunity for architects to redefine their function and working methods.

As a rule, major innovations in a field do not come from those having a vested interest in existing ways of doing things. With the advent of the automobile, buggy-whip manufacturers did not switch to producing throttles. Xerox, not carbon-paper manufacturers, hatched the "copy revolution." Government is turning to new industries to solve both new and old problems. A recent Navy contract to design and build an unconventional floating facility went to a company that has never built a ship. Litton Industries is developing and implementing social and economic programs in Greece. Aerospace companies in California are tackling such diverse problems as waste disposal and prison management. In contrast, building products manufacturers beat down an ambitious attempt several years ago by Assistant Secretary of Commerce J. Herbert Hollomon to initiate reforms in the construction industry. (The industry position was not entirely without justification; aspects of Hollomon's proposals were unclear.)

Thus, when significant innovations are applied to the problem of mass housing, they are likely to come from outside the existing industry. For many years observers have predicted that large manufacturing industries not currently engaged in housing would shortly turn to home production. This has never materialized because industry may have been the first to recognize what we state here: Major innovations in design and production cannot be successful without corresponding changes in the entire housing system. No single producer can force changes by attacking any single factor in isolation from other determinants.

If a fragmented approach will not work, then what will? There are some signs that other industries accustomed to thinking in systems concepts may soon be ready to penetrate the housing industry. Stanford Research Institute is conducting a comprehensive study of housing, with private sponsorship from outside the industry.

William K. Wittausch, SRI manager of housing research, writes of some of the concepts under investigation that "the industry must think of housing as a replaceable consumer product. . . .

It needs to identify the optimum life and exact function the various parts of the house perform, establish the dimension and performance standards that apply, and determine the values (which) consumers attach to different elements and ingredients of a house. . . . The industry needs to know what ingredients of a house can best be made in a factory . . . some of the building components could be considered apart from the house and financed separately through a lease-back type of arrangement. . . . Building codes will be performance, rather than material, oriented. Housing will be built to satisfy all the scientifically determined physical, psychological and esthetic requirements of consumers." ²

Developing these and other concepts and making them work suggests that architects can take a more creative and analytic role than they now have. It suggests that architects will devote less time to "one-shot" solutions, and more time to analyzing human needs in relation to environmental factors, evaluating the way people use existing housing, programming and designing prototypical housing and community components.

Today's working methods do not fit the mass-housing problem. Training and practice in architectural design follow three models: the unique, the universal and the institutional solutions. Every architect is sure that he is solving the client's program—but who is the client and what is the program?

The "unique solution" is not applicable to the design of mass housing. The model assumes that the design requirements for a specific building will flow directly from user-client to architect. The traditional design model breaks down when the user is unknown and not a valued patron. Unfortunately, the universities teach architecture as though all practice followed this model. As one builder put it, "The architect, by inclination and training, is oriented to design a specific house for a specific family on a specific site, to be built only once . . . not a structure for an unknown occupant to be built on an unknown site." The result is that many architects are often a liability, rather than an asset, to the builder.³

In contrast to the "unique solution" is the idea of the "universal solution." The "universal solution" derives from the interest of great visionary architects in exploring the form implications of a single design determinant. Corbusier's *Ville Radieuse* attempts to reconcile high urban density and the spaciousness of the countryside. Mies explored the spare esthetics of steel and glass in his visionary diagrams over 40 years ago. Kahn has brought us a vision of a complex articulated geometry linked to the concept of differentiated function.

Although such visionary diagrams have exerted

a positive and powerful influence on architecture, they fail as suitable models for problem solving because their heuristic is the form itself. Product overwhelms process. Rather than showing the way toward resolving a problem on its own terms, the universal solution tempts the architect to focus on preconceived solutions. The universal solution, applied to a specific problem without benefit of program, is often disastrous.

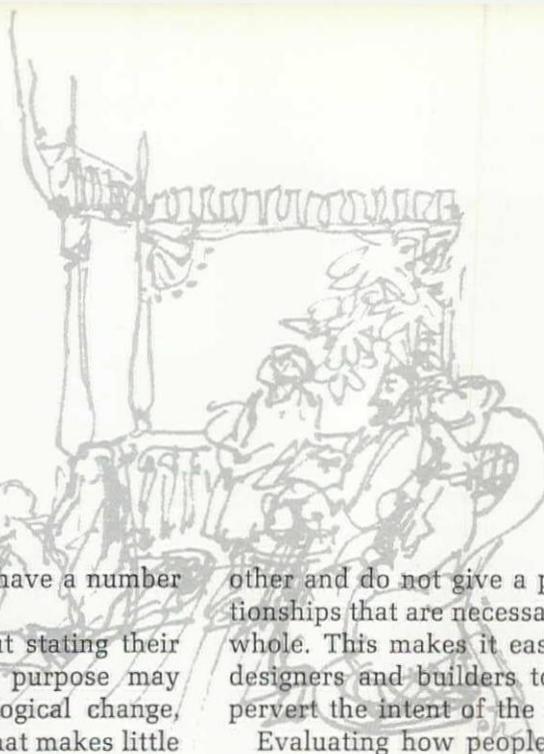
In actual practice, most architects designing mass housing follow the "institutional model" of design. The architect is handed, or may himself prepare, a building program, typically consisting of some broad unassailable and nonmeasurable objectives (e.g., "create a good human environment")—a list of stereotyped activities, the amount of space necessary to contain them and the money available to do the job. The program seldom states the assumptions underlying the problem, or the criteria by which to judge alternative solutions. Fixed determinants of the problem are not isolated from those variables that the designer can do something about. In short, most building programs predetermine the solution and leave the designer a job that is no more creative than putting together a jigsaw puzzle.⁴

There is a built-in lag between societal needs and institutional programs. As institutional bureaucracies grow, public goals become subordinated to the vested interest of the bureaucracy in maintaining itself. Investment in facilities tends to insure the longevity of any bureaucracy. In this way, architecture is often an instrument of the status quo in institutions. Obsolete programs and purposes are fixed in bricks and mortar. One example is the 30-year history of public housing.

Through urban renewal and other federally insured programs, government is the major indirect housing client, with developers acting as the merchandiser. Public agencies are the direct clients for specialized institutionalized housing. Excluding the military, 5¹/₂ million people live in institutionalized housing.* Most of us face the experience of institutional housing at some time in our lives.

The systems approach to housing design relies on techniques of programming and evaluation. Standards are a key program tool, specifying performance criteria for materials and form. There has been much interest in moving away from standards specifying design solutions toward standards emphasizing desired perform-

* There are 1.7 million hospital beds in the US, 1.5 million students in college housing, 350,000 persons in correctional institutions, 700,000 families in public housing. The military houses some proportion of the 3.2 million men on active duty and their families.



ance. Commonly used standards have a number of weaknesses.

Standards are often set without stating their functional intent. Their implied purpose may disappear with social or technological change, leaving only a standard solution that makes little sense. An example is the front setback requirement. A Dallas planner comments, "They were great in the old days when everybody moved the cane rockers out on the front walk after dinner and read the paper while the light held, then visited until it got cool enough to go to bed. TV and airconditioning have changed all that. Now about all anybody does with that 30 feet is mow and cuss it. It has no value for privacy or real livability. It is just waste."

Minimum space standards often do not consider diverse activity patterns and life styles. For example, FHA standards dictate that a "living room" shall be a minimum of 160 square feet, and not less than 12 feet in least dimension. But what is a living room anyway? Families at different points in their life cycle, or with different values, require varying living arrangements. In some families, the living room becomes only a passageway, with a TV and several overstuffed chairs at the end of the room. In other families, it is a symbol of "gracious living." The space standard fixes an "ideal" that may be ideal for no one.

Standards tend to be uniform, disregarding all other factors which affect livability. How can we reconcile standards that are identical for New York, Alaska and Hawaii? A window, a room or a balcony performs the same function in all three locations, so far as FHA is concerned. Standards tied to appraisal and lending practice penalize sensible regional architecture. In Hawaii, for instance, families can literally live outdoors. Adequate outdoor space is essential, yet FHA assesses outdoor space as one-fourth the value of any room, although its value in terms of use may be much greater. Similarly, standards specify minimum openings for ventilation but are not related to orientation, wind, sun or view.

Design standards are not related to one an-

other and do not give a picture of a set of relationships that are necessary to insure a workable whole. This makes it easy for loophole-minded designers and builders to derive solutions that pervert the intent of the standard.

Evaluating how people actually use their environment is the way to continually update and improve performance standards so they meet changing needs and life styles. Through evaluation, architectural assumptions and shibboleths can be tested. As an example, recent evaluative studies show that the values that low-income people attach to house have little in common with the visual and spatial preoccupations of the architectural profession. These families value space and enclosure highly; exterior appearance tends to be of minor importance.⁵

In architecture today, evaluation is the missing link in the design process. Evaluation, programming and design are three linked activities, drawing information from a systematic look at how people use existing environments. Analyzing existing environments leads to programming. Performance specifications are testable hypotheses describing what the design must do. The built environment can be tested against the assumptions of the performance standard. Since evaluation must begin with an explicit hypothesis, the process is cyclical.

Evaluation, taking into account the user, does not imply the market-research approach of asking people what they want. People have difficulty in picturing alternatives that differ from what they know. A quick tour of a building and a few random questions—"How do like your building?"—is not evaluation either. The latter should begin with systematic observation. Architectural criticism and informed journalism are a useful supplement but not a substitute for such study. While study methods are objective, their intent is not. Scientific study helps us formulate and clarify subjective values and judgments.

Programming techniques have been improving slowly. Two recent techniques for starting performance specifications are worth noting. In both

cases, the performance standard is both a design criteria and a testable design hypothesis.

Christopher Alexander posits a theory of interacting requirements or tendencies. In his words, "An architectural problem is defined by systems of interacting requirements, which are statements of human needs that can only rarely be expressed in terms of numbers or quantities. A typical example of such a requirement would be the phrase: 'People should be able to get to and from their cars without crossing streams of moving vehicles.' Clearly there are no meaningful numbers that can be attached to such a statement, but it is nonetheless definite for that. In any architectural problem there are hundreds of these functional requirements. Some of them may be independent of each other, but most interact closely with several others."⁶

In an unpublished paper, Alexander has listed 26 requirements for a house entrance, with desirable and possibly conflicting solutions listed for each. It is this type of design analysis in depth which leads to innovation.

Hermann Field, planning director of the Tufts-New England Medical Center, has given us another format which he calls "design directives." He says, "The directives are recommendations about the organization of activities and spatial arrangements . . . they have a bearing on location, physical form and architectural design."⁷ In other words, design directives specify plan and program principles, and the reasons for them, which must be present in a workable solution. Design directives, together with building space program and capital budget, are the three components of a building program.

Specifying a range of adaptations which humans or objects can accept may be more important than setting fixed optimum standards. For example, an important principle in designing housing is to find out what needs to be "designed" and what should be left for the user to design or decide for himself. In an age of uniformity and impersonality, people want to "take possession," to establish a territory, to assert their competence over environment. Mass-produced standardized products should permit room for personal choice and expression.

But developing better performance specifications alone will not produce better environments. Individual performance specifications—rules shaping community form—must be coherently joined together to reflect desired functional relationships for the environment as a whole system. Alexander calls for an agency to coordinate the development of an "urban rule structure": "Long-range improvement of the rules—the 'evolution' of a successful rule system—can take place when the rule system as a whole has a certain kind of

internal coordination. . . . Everytime a rule is changed, a number of other rules must also be changed, in order to maintain the proper functional relations between the elements concerned."⁸

The user approach to design raises another important issue: advocacy. In the past, professionals have represented the interests of clients commanding their services. However, many potential clients cannot afford professional service, or may be unaware of its availability. Yet a democratic decision process works best when all groups affected by policy are allowed to participate in policy-making. The idea of professional advocates has evolved to support the interests of disadvantaged groups; the concept of advocacy has been adopted by the clergy, the legal and medical professions. With the exception of a small "underground" of architects across the country, the profession has done virtually nothing to help millions of poverty-area residents develop and implement plans to improve their communities and obtain decent housing. It is ironic that so many struggling young professionals spend their energies chasing after marginal commissions when they could be doing important advocacy planning for the asking.

Of all housing-consumer groups, the poor and the elderly have been least able to make their needs and values known. Forty-three percent of urban Negro housing is substandard, and housing conditions are becoming intolerable in an age of rising expectations.⁹ Planning and housing agencies tend to be responsive to other constituencies with more tractable problems. To be effective advocates, architects must act *with* people as well as *for* them. Advocacy requires us to help people do things for themselves, in contrast to the bureaucratic ethos of doing things *to* people.

Environmental advocates can provide assistance in a number of ways. With the participation of local residents they can define unmet needs. They can help to formulate specific plans and programs for the area and assist local groups in liaison with public agencies. Advocacy planners can assist local residents in carrying out self-help improvements and implementing broad programs. Active advocacy programs can provide meaningful work for residents as well as many young architects. With financial support from private sources and government, and increased understanding by the residents themselves, locally based environmental advocacy programs can take place in an integrated attack on the pathology of poverty. Bricks and mortar alone cannot solve social problems for people without jobs, education or financial power.

Two programs about to get underway offer a likely ground to test housing systems design, as

well as user-oriented design analysis and advocacy planning.

The Model Cities Program will, in the President's words, "Concentrate our available resources—in planning tools, in housing construction, in job training, in health facilities, in recreation, in welfare programs, in education—to improve the conditions of life in urban areas.

"Join together all available talent and skills in a coordinated effort.

"Mobilize local leadership and private initiative, so that local citizens will determine the shape of their new city—freed from the constraints that have handicapped their past efforts and inflated their costs."¹⁰

Senator Robert Kennedy has proposed public nonprofit development corporations to rebuild slum districts and create jobs in the process. The first corporation is being set up in the Bedford-Stuyvesant district of Brooklyn. The essentials of the program include low rents made possible through improved building technology and below-market interest rates subsidized by foundations or government; the creation of jobs for residents in reconstructing the area, and the provision for social and municipal services at the district scale. Senator Kennedy estimates that rebuilding the nation's slums would create an \$80 billion building-supply market within the next 10 years.¹¹

Although urban problems have pre-empted the headlines, there are related housing and development problems to be met in rural and fringe areas. Lack of jobs and poor physical conditions forced many rural people into big-city ghettos. Pressure



on the urban cores may be reduced through regional programs of rural renewal to create jobs and bring decent housing and community services to rural areas. Dealing with problems at their rural source is simpler and faster than waiting for them to come to roost in the cities.

Our office has been working on a plan for rural areas similar to the Kennedy proposal for urban districts. With financial assistance, marginally employed and ill-housed agricultural workers would establish self-help development corporations to build prefabricated and relocatable "core" houses in simple plants. After meeting their own housing needs and establishing some

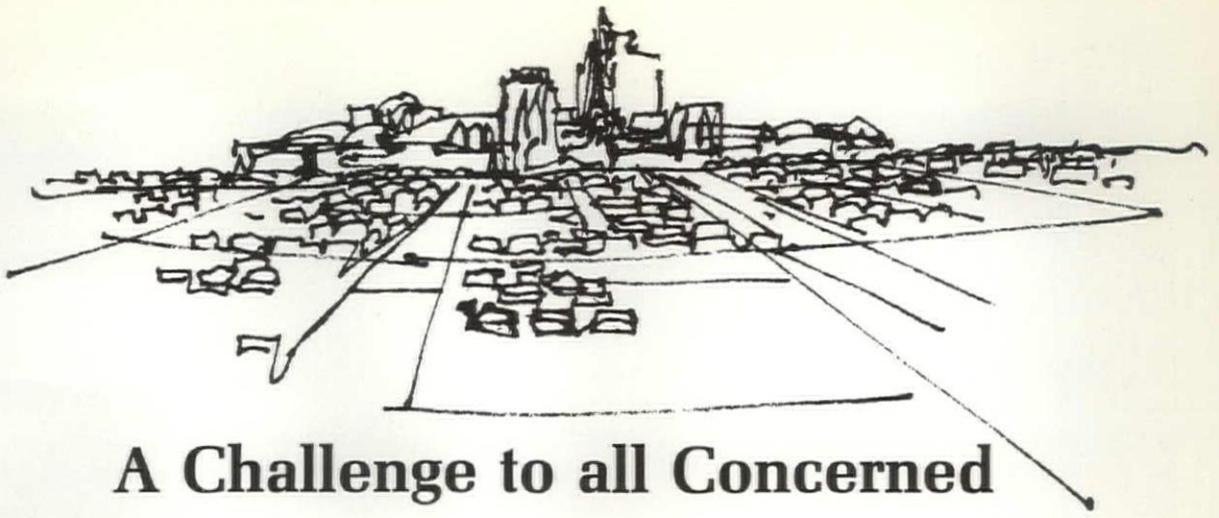
equity through their work, the cooperatively-owned corporation would serve the low-income market in its region. We expect to build a high-quality, 1000-square-foot house for \$6,000.

We need "environmental advocates," not only to assist the most obvious clients for advocacy but also to support the diverse interests of the middle-class housing consumer. Ralph Nader has shown that it is possible for one man to advocate the interests of 80 million Americans who drive cars. Until the automobile consumer had an articulate advocate, Detroit routinely blamed the user, rather than the product, for the appalling toll of accidents. In a similar vein, the human and social consequences of today's residential patterns have seldom been analyzed objectively to link them to deficiencies of the physical product. There is no reason to believe that current patterns of development are "what people want"; they are the result of an uncoordinated and imperfect rule-structure which does not consider the human consequences of environmental alternatives.

In an age of uniformity and impersonality, people want to take possession, to establish a territory, to assert their competence over environment. Mass-produced standardized products often leave more room for personal choice and expression than architect-designed houses. □

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A Challenge to all Concerned

The design professions, homebuilders, lenders and government officials must learn collaboration if "total housing" is to replace the helter-skelter shelter that permeates the American scene.

BY RICHARD J. CANAVAN

With an exploding population demanding housing, with homebuilding talking in terms of 2 million units a year, today's housing market presents, in quantitative terms, a great challenge to all concerned.

All the ramifications of land use and financing are inherent in the challenge. But the real revolution will involve the type and quality of housing which will be in demand.

To see today's situation, as well as tomorrow's, in perspective, let us first briefly look back at how we arrived at our present position.

New housing starts during the '30s and World War II were relatively meager. During the war, materials priorities put a damper on construction. However, our population continued to expand. So by the end of hostilities in 1945, all the ingredients for a building explosion were at hand. The demand was met with an incredible burst of building. But it was, of necessity, disorganized, random, catch-as-catch-can. It was in all too many cases merely shelter built for the housing-starved public.

At the end of World War II there was no really organized housing industry. Mortgage lenders were still thinking in restrictive lending terms of the '30s; the building materials manufacturers were certainly not geared to the tremendous new demands made upon them; the professions were underdeveloped; the Veterans Administration's housing program was brand new; FHA was unprepared; government, the homebuilders and the other related elements were in the position of the roadside hamburger stand trying suddenly to fill a lunch order for a regiment of hungry troops.

Nevertheless, a job of production got done. Federal agencies and other government bodies were aware of the overwhelming need for housing production and in varying degrees contributed to the effort, while at the same time trying to raise housing standards. There just wasn't enough time to make standards a priority, and the agencies knew it. Production was the goal, and produce we did.

The most unprepared segment of all for this tidal wave of new housing was the community itself. Decisions made by these communities in the late 1940s came back to haunt them 10 years later.

During this period of helter-skelter shelter, the big merchant-builder emerged. He had learned the hard way about the problems of land development, materials, management, economics and other intricacies, but he still found himself in the old production squeeze. Like a broken-field runner, he often changed his course, but he always ran into road blocks—zoning, building codes, subdivision restrictions and, in some instances, restrictive labor practices, a lack of professional talent for planning and design, difficult financing ground rules.

When, during all this time, land costs continued to soar, much to the detriment of low-cost housing, increasing residential density was a taboo subject. So urban sprawl continued and, in its turn, contributed to the continuation of the central-city ghetto and simultaneously produced the phenomenon of the bedroom suburb. Also, some communities enacted zoning restrictions in order to curtail the need for new schools and

facilities. (These towns took the view that housing was a liability, completely ignoring the fact that housing was needed to attract industry and commerce.)

At present, for the first time, social forces are leading technology. In the past there was just so much that could be done economically and technologically, and the social needs were fitted into the prevailing framework. Today they are being emphatically stated, as in the case of decent housing for the minority consumer. Basic shelter housing is not acceptable to the lower-income group today. All are looking for more. The need for a much broader range in housing, using the latest technological advances, is more important today than ever before.

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This creates greater demands for the architect's talent. The needs and desires are manifold, and there are broad areas where experience of the past is too limited to help in the search for new solutions. Innovation is critically important in finding tomorrow's answer, and our design professionals working in concert with builders and others must tackle the problems.

On any number of institutional buildings throughout this nation can be seen the following inscription, "History is but the preface of tomorrow." Have we learned our lesson from the '30s and '40s? Let us not go through that again. Now is the time to formulate a meaningful government housing policy, extending from the federal level down to the smallest community. We do it for food production; why not housing?

What are the goals? How many units will be needed? What kind of financing tools, land development policy, community facilities, water supply, transportation, sewers? What about air pollution? What about codes? Specific plans and programs are needed if we are to avoid a willy-nilly production pace in the future.

We are at the point where we can ask ourselves if the ever-rising expectations of the American family ever will be or can be realized. The effort will certainly be made, but to be successful the approach must necessarily be total—a total approach to the total environment. The physical, esthetic and financial feasibility must be looked at in the whole package.

We now have an increasingly transient population, a shifting population mix. We have more younger and more older people, all with different sets of values. We are aware of housing's com-

mon denominator: privacy, access to the job, convenience, low maintenance, easy access to recreational, cultural and other community facilities. All these factors, and more, add up to the challenge.

The builder is becoming more and more aware that he is entering a new phase of housing; he certainly recognizes the need for the broad approach, and he is looking around for allies. Everyone with a role in housing should join the ranks in this effort, including some disciplines which in the past have been considered outside the field, such as transportation and the social sciences.

Of course, a giant step forward would be for the federal government to recognize that mortgage credit can no longer be safely used as a means to depress or inflate the economy, causing the disruptive feasts and famines that tear the building industry apart and create hardships for consumers. It has happened before and it is happening now. Through monetary controls, the housing industry is again being used as a vehicle to brake a heated economy, resulting in the same housing crisis as before. Mortgage credit is short, money is expensive and scarce, and the economy is going full blast.

New financing tools, specifically aimed at stimulating innovation in housing, land planning, land use and overall community development are needed, as well as a stable flow of capital funds.

There is also a need to review local government financing policies. Continued dependence on residential real estate as a major source of funds discourages building and improvements.

Many communities employ fiscal zoning rather than aim for the best utilization of land. Zoning is quickly becoming a question of what specific land uses will return most to the community in property taxes, when instead it should consider the future housing needs of the people. To make matters worse, the cost revenue studies upon which fiscal zoning is based are lacking in realistic assigned values. The National Association of Home Builders has recently commissioned Mrs. Ruth Mace, nationally known for her research in urban affairs at the University of North Carolina, to undertake a study on the Cost Revenue Method, which will define municipal costs and realistically assign them to land uses.

And we must develop in communities a recognition of the absolute necessity for professional guidance and counsel when writing regulations, and in all of their planning.

The challenge is there, the problems are all around us. The successful transition from the traditional *basic shelter* to *total housing* depends to a large extent on the thinking and planning that the design professions and other segments of the housing industry do right now. □

The Sum is Greater than the Parts

Good design in tract projects is an achievable goal if architect and merchant-builder can agree on a rationale which rejects both "magnificent failures" and ticky-tacky successes.

BY JOHN N. HIGHLAND JR., AIA

It is a broad generalization, but probably a fair one, to say that architects and builders differ not only in their backgrounds but in their value systems. Their communication problems are monumental. Therefore, when it is suggested that a profession, not adequately prepared in this speciality, seek to serve an industry indifferent to the profession's values, the response is likely to be "Why bother?"

The population explosion, urban blight, suburban sprawl—all are part of American life today. In coping with them, we must make one of three choices: continued chaos, imposed controls or voluntary collaborative effort.

The American Institute of Architects and others are making the nation conscious of ugliness. There is no question that coordinated planning and design control are imminent. The great cities of Europe, such as Paris and Rome, are beautiful because an enlightened few were given design control and the authority to implement it. By contrast, the ugliness which we so frequently see around us here is largely due to unrelated individual efforts by people with interests other than esthetics.

If design controls are going to be imposed, should we look to government? Whether federal, state, regional, or local, it has, or can acquire, the needed authority, but governmental controls suggest sterility and an impediment to progress.

It would be a much more difficult task to instill into a large number of people a program of self-education, an acceptance of self-discipline and the motivation to direct their efforts toward research and development. And in this large group

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we must include the purchasing public, the real estate sales profession, mortgage bankers and government agencies, as well as architects and builders.

If design controls are coming, the latter two should certainly play an important role in their development. Successful experiments in collaboration—exemplary communities—will serve as guides in the development of high standards of design.

Less than a century ago, industrial management could proudly proclaim that its sole responsibility was to the stockholder, with profit the only yardstick for success. Today's more mature and enlightened industry is also concerned for employees, the public, the community and the na-





tion. Misuse of land, pollution of water and air, are no longer the inalienable prerogatives of industry, to be rationalized as necessary to the economy.

The homebuilding industry, in approaching maturity, must in turn broaden its standards of decision and relate its interests to those of community and nation. Visual pollution demands amelioration if communities are going to be fit places to live.

Builders have recently been able to persuade building-products and appliance manufacturers that they are a part of the building industry, rather than the notion that builders represent merely a segment of the product and appliance market. They have managed to convince most of the industry that homes are the end product and that the builder is the decision-maker. Now the builder himself must be convinced that his product has a big influence on the overall environment.

Architects, too, have been in the process of broadening their thinking; of realizing that the relationship of building to building, and buildings to spaces between, is as important as the design of the individual building itself. Now they must also realize that it is inconsistent to insist on professional design for the community's schools, hospitals and churches, and simultaneously remain indifferent to the great volume of smaller structures. Too frequently architects are ignorant of the opportunities offered by the homebuilding industry; often they are negative and likewise condescending.

Homebuilding design, properly performed, is a challenge worthy of the best efforts of the established architect. The design analysis and basic concepts warrant the attention of principals. In the past, this work has sometimes been performed by the youngest man, or the man on the bottom of the totem pole, in the larger office. More frequently it is done by the marginal practitioner, and it is embarrassing that frequently work done by unlicensed men has reflected less faults than the work of some of the marginal professionals. Individually, we have been guilty of default.

Before the architect and builder can function as a team, they must agree on the object of the game. Except for a few experienced and successful teams, there seem to be two divergent schools of thought. The architect's normal approach is to want to introduce his knowledge of planning and design, his observation of changes in living patterns, his awareness of community concepts; he does not want his current work to be a generation behind his knowledge and experience.

According to the builder, the objective is to create the easiest house to sell in order to sustain a volume of construction.

To get the volume, the builder deliberately seeks to meet the average taste. The architect is repelled by mediocrity. What is the difference between average and mediocre? Is it the worst of the good and the best of the lousy?

May we recommend that the joint objective be the development of the finest homes possible to sell? The most marketable house may admittedly bear little or no relationship to the most livable house! Livability, good design and salability are not necessarily mutually exclusive. Competent collaborative effort can accomplish both.

What kind of man is a builder? Can he make a good client? As the profession is already busy, is it worth the effort? First, let's look at some economics and a suggestion of scale.

If the professional fee were only 1 percent of the market value of the house offered for sale, and if the market average, for convenience, is assumed to be \$20,000, then a volume of 1.5 million homes represents \$300 million in fees! (This is not intended to suggest such fee as a standard. It does reflect informal understanding of reported practices and is used to illustrate the scale.)

The homebuilding industry no longer is represented by only the small carpenter-builder but now also by a developer whose work may include community development, apartments, shopping centers and small office structures. The industry probably represents \$30-40 billion in purchasing and production per year.

The architect must first realize that this is a

field of practice far different from a series of individual homes for clients.

Secondly, it must be acknowledged that the homebuilder may be a man of impeccable taste, living in a home individually designed by an architect, and yet, for a variety of reasons supported by his experience, may be building vast developments of nonarchitecture and poor taste.

Finally, architects should realize that the homebuilding industry can be the largest challenge, the greatest opportunity and the most complex problem facing the profession.

The successful builder has a complex operation and is a competent executive. In his growing experience, he has mastered, to a greater or lesser degree, an understanding of the numerous building trades, the problems of site acquisition, site development, liaison with planning agencies and working with various boards. Further, he has made a study of codes, financing, advertising and merchandising, subcontract bidding and letting, cost accounting, sales procedure and real estate law. It is perhaps natural for him to regard architecture as one more facet in his development. A few books, a few weekends of study, should just about round out his total mastery of the construction industry. He frequently has his own sales firm; he may have lumber, building supply and equipment businesses as supporting operations in order to exercise control. He thinks in terms of getting an employee. He thinks that the architect is a man, and fails to understand the "team."

The architect is a man, but he is, generally, backed up by a staff of professionals—planners, designers, specification writers, draftsmen, detailers and field personnel. To assist him, he employs consulting structural-mechanical engineers, site planners, landscape architects, acoustical and economic consultants. With this complexity, he cannot comprehend how a builder thinks of architecture as almost a "hobby." (Here we should note that the complex builder and complex architect almost never meet or communicate. Each, more probably, has experienced the marginal representatives of the other group.) The builder should realize that the plans from which he is building came from architects. They may have been "borrowed," modified, diluted—but the original source probably was professional.

The architect, being a professional, regards himself as a sophisticated, educated, civic leader and is confident of his greater intelligence in discussion and negotiation with the potential builder-client. What is difficult to reconcile is that the architect is so smart, but the builders have made all the money!

Architects must educate themselves to sell homebuilders on architecture. A sales manager

concerned with educating salesmen normally stresses three steps or phases of sales as follows: creation of a sense of need or a desire for the product generally; the selection of the specific product or service represented by the salesman; and closing the deal.

In most circumstances, the services of an architect are required by law and are accepted as a normal practice, and there is a recognition of the need for a reasonable fee. Therefore, most architects' sales efforts concern themselves with presenting their own firm favorably on a comparative basis. However, the homebuilding industry is a frequent exception to this general climate of acceptance.

The homebuilding industry, in many states, is exempt from the legal requirement for architectural services. In others, the laws regarding such practice are not generally enforced. For the most part, the builder does not recognize the need for the architect's services and regards the necessary fees as "additional cost."

There is little to recommend effort at legislation which would require services of architects. The building industry is numerically and economically stronger. Further, there are significant examples of successful practice to indicate that this is not necessary. Better that the architect train himself in the initial phase of selling: that of demonstrating the need for the product. This may involve some new disciplines, or perhaps rearranging the sequence of his value systems. More to the point, it suggests to both architect and builder the need for mutual education.

The architect tends to think of the buyer of the homebuilder's product much as he would a client for a custom house. The individual client of an architect probably represents 1 or 2 percent of the people. Those who seek architects are self-



screening; they have an appreciation of planning, are relatively sophisticated and have a value system similar to the architect's. In addition, the line of communication is short—discussion and evaluation as architect and client, face to face.

Communication within the homebuilding industry goes from architect to builder to project director, sales organization, advertising and promotion, salesmen and, finally, to the customer wandering through on Sunday afternoon. This customer's familiarity with planning is limited frequently to plans he sees in the newspaper, advertised at \$5 per set, or in some of the consumer magazines.

The value of the product must be self-evident; it must indeed stand on its own merit without explanation.

Architects must realize that this field is architecture, and yet, at the same time, is product design involving all the problems of merchandising. The logistics demand great attention to detail, particularly to cost. The temperament of an architect would normally make him reluctant to spend a day's time trying to effect a \$20 marginal economy. He can't be bothered, and for an individual building, obviously he shouldn't. But think of a \$20 saving repeated in 100 homes or more!

Another discipline the architect must learn is timing. He should realize that progress must result from evolution. In other words, he must discipline design in order to push for continued progress—but not necessarily take a jump beyond the receptivity of a market.

Some builders have tried working with architects, and good ones, with regrettable experience. The builders report cases where architects, with commendable dedication to design, but lacking any appreciation of marketing, have taken their first project for a builder into a very competent expression of contemporary design: one which would make the cover of a magazine and receive admiration of fellow architects. They reported, however, that in these cases, the homes not only failed to sell but, in some instances, put the builder right out of business. Such a result convinces the mortgage bankers more than ever that they were right in their preconception that people won't accept contemporary design. In other words, it is possible to create a fine design with a net result of setting back the cause of the professional architect-builder relationship.

Unlike the individual architect's client, assumed here to be somewhat sophisticated, the purchasing public is seeking a sense of warmth, texture and individuality, but is untrained. Shutters, cupolas, wrought iron, "Hansel and Gretel" gables and a smorgasbord of materials are their vocabulary of design. There is considerable haz-

ard that a clean-cut design will, after purchase, be subjected to such additions. The challenge here is one of brinkmanship.

Keeping in mind the tenuous communication through many parties to the purchaser, general improvement in design will result from education through collaborative effort by the architect and builder.

But how and when do we get the builder motivated? When is the appropriate time to approach him? When sales and production are booming? At such times we hear "Let's not change a winner"; "We don't need help, it's selling!" At present, with sales down, the builder is preoccupied with tight money and has more immediate problems. "We will sell anything the public wants." The purchaser should be free to pick any type of house and select any lot regardless of compatibility, topography, adjacent homes, orientation, view or privacy.

Even when architects are preparing competent designs, the sales staff may under present conditions be given freedom to incorporate any changes a purchaser wants. Everybody is short-changed, including the builder's long-range best interests.

A house, good or bad, is relatively permanent. The builder must realize that his product is using irreplaceable land, has an economic life of 60 years or more, and yet frequently its basic concept is predicated on sales "gimmicks" or determined by the latest marketable fad.

Builders, like architects, have their mental blocks. A bulldozer is a machine for removing contours, foliage and character from the site. There is little realization that the same machinery can be used to add contours and character, privacy through development of berms and a new dimension for outdoor living.

The population explosion has increased our concern over land use. The building industry will reach maturity only with the realization that the use of land in the development of a community is, to a marked degree, a trust; that the retention of the character of the land is an obligation. The home should be determined by the siting as well as by the market.

Tastes are subjective. The builders may be right. Good design may not, at present, have established market value. True, a quality environment is appreciated, but the yardsticks are elusive. Bluntly, how does the architect justify the cost of his services to the builder, if not on the sole ground of better esthetics?

How about economics—the result of good planning and detailing? If it can be established that an architect can save the cost of his services, then perhaps he is not a luxury. It sounds simple enough—the same as research and development

in industry. But the builder's economic thinking is not always oriented in that direction.

When the builder accuses an architect of being unfamiliar with costs, he is probably correct. Unfortunately, the builder is also generally ignorant of costs; he confuses prices with costs. Few builders have a competent cost analysis system, although they do have considerable competence in subcontracting and purchasing.

The distinction here is that under the system of subcontracting, they can establish to the penny the sum of the prices paid. It is impossible to relate a proposed design to projected cost, or to be able to compare alternate concepts at an early stage. When the architect asks how much can be saved by putting plumbing back-to-back in the front of the home, rather than the rear, where the utilities are in the front, he is likely to be informed that it is too early to tell; the plumber counts the fixtures in preparing his bid. When the architect attempts to find the relative cost of the perimeter and what marginal costs are added by additional corners in the plan, he is informed that the rough framing bids are let on a square-foot basis. None of these reflect plan complexities beyond the fact that if a subcontractor finds himself in an unfavorable deal, as a result of complexities, he will want to raise his unit price.

During the period before subcontracting became almost universal, successful builders were able to analyze the costs of marginal space on basic premises. For example, a 14-foot joist could be laid in the same time as a 10-foot joist. The observation might be made that the subcontractors should be able to make such analyses and be more scientific in their pricing. We suspect, however, that the most favorable subcontract bids are received from contractors who are the least analytical in their approach to bidding. The builder, of course, uses the most favorable bids. The sum of these bids, then, is the basis for the sales price; this constitutes the "cost analysis."

The architect and builder, however, have a common objective: to obtain individually, and as an industry, the finest homes at the lowest price. Perhaps it would be a proper function of their respective professional organizations to develop jointly a system of unit prices, against which subcontract bids might be checked. More important, however—even allowing for regional differences and inaccuracies—a unit price system for comparative analysis would encourage better planning, reduce waste and might finally produce a usable yardstick for measuring one of the architect's contributions.

Another area for interprofessional collaboration might be a study of the various components from a design standpoint. Both economics and logistics strongly favor, perhaps demand, the use

of stock parts. The architect is given a choice of square or awkwardly fat, rectangular-shaped louvers for gables when his taste might suggest a slender, refined rectangle. Windows and doors may not relate. Available colors of prefinished siding, while recently improved, show lack of professional attention.

Should the AIA give merit awards to the producers of good working combination screen doors, simple garage doors, properly proportioned louvers? There may be concern that if the architects assist in the design of component parts, then the architect may be deemed unnecessary for the design of the house. Actual experience indicates the opposite. The simple use of good components is quite subtle and requires accuracy. However, of the various suggestions currently being made to the Institute for a public-service approach to improving builder design, perhaps encouragement of better-designed components might be the most satisfactory, even if it did not enlarge practice.

A third area of collaborative effort might be directed toward creation of a "climate for design." Much of the talent and resources of the Institute, and many cooperating groups, are presently directed toward establishing such a climate—a broad approach, which is, essentially, education! In spite of the difficulties and complexities, mutual education, even today, has made the architect-builder team a workable operation. Acceleration is needed.

What about the climate? The critical factor appears to be in qualifying the home buyer. A study of the economics of volume construction indicates the distinction mentioned between marginal and relatively fixed costs. With the cost of land, site improvements, utilities, driveways and basic mechanical costs, being relatively constant, as a house tends to get above minimum size, there is opportunity for more house for the money. An optimum house, therefore, should cost probably \$30,000 to \$40,000, but obviously few buyers can qualify. The purchasing public is represented by the right half of the typical bell-curve, and, as the sales price rises, the qualifying market very rapidly becomes minute. On this basis, the ideal home would cost \$10,000 to \$15,000. The architect-builder team, therefore, must create the best possible compromise.

Perhaps we should dare to examine the mortgage banking criteria and, ultimately, the real estate tax structure, and gain some latitude for the achievement of the optimum house. It is understood that, for convenience, there is generally an assumption that a certain percentage of family income can be devoted to shelter. Quite simply, this is based on a rule-of-thumb comparison between income and the mortgage payment plus



taxes. Consider, however, that a home built of very low-maintenance materials, with adequate insulation and quality mechanical equipment for minimum operating cost, might permit this money saved to be applied toward the mortgage payment. Similarly, the inclusion of appliances and floor finishes, such as carpeting, that would reduce the need for short-term obligations should permit some additional qualification.

Research would probably determine that buildings of greater permanence and better planning, having less turnover, would have the greater stability which would be reflected in lower municipal services. Our tax system works at cross-purposes with the design objective. The fully depreciated slum is the most profitable real estate—it pays the lowest taxes—but requires the greatest costs in community health, fire and police services. In our assumption that taxes should be based on the presumed ability to pay, greater investment in a building to achieve stability and to minimize services, instead of reflecting such economies, is penalized because of its greater “luxury.”

A real start would be made if modifications of our climate would permit even a small increase in freedom toward the optimum house.

A fourth suggestion should be much simpler to implement. The communications specialists talk of feedback. The architectural profession and the building industry should collaborate on acquisition of current project experience and its analysis. What is effect of turnover, resale costs, versus research and development costs? In other words, what is the economic effect of good planning and design and use of quality material?

This study, together with the opportunity of using a recognized unit-cost system, is the only major means for the architect to be able to demonstrate to the builder the worth of his services—that he can literally pay for himself.

How do we motivate the development of these teams? What do we have going for us now? What tools are here?

The AIA and the National Association of Home Builders in the past have encouraged good design through awards; both groups have excellent films and other educational programs and media.

Which should be expanded and which should be reoriented?

Perhaps architectural schools should offer graduate work in homebuilding-industry concepts. The present approach of having “home design” as a freshman project may be appropriate for an individual home, but the subtlety and complexity of the industry and community development suggest much more.

Conducting of seminars by architect-builder “teams,” together with other specialists, mortgagees and governmental agencies, concerning the limitations mentioned above, would suggest a re-establishing and revamping of the awards programs. In addition to the national citations which we have come to expect to be premiated in California, there should be some means of encouragement of improved planning and design in more conservative market areas. Good contemporary design appears geographically related to the distinguished universities, particularly those with a school of architecture. We find large numbers of fine homes in the Cambridge area as well as in California. If our objective is the pronounced improvement of all homes and all community planning, it is not enough to recognize only the pinnacles of excellence. The carrot should be within sight.

Finally, for our own practitioners, prestige and recognition should somehow be given to men who engage successfully in upgrading our communities. The architect-builder team, creating a community 10 years ahead of the average builder-development in its thinking, may be making a major contribution, even though the design concepts are 10 years *behind* the individual residential practice of the same architect.

Let us place emphasis on the encouragement of progress. It is not appropriate or even relevant to suggest that architects know more than builders about the homebuilding industry. There is much to support the contention that the architect and builder, as a collaborative team, can achieve far more than the sum of their individual contributions. They will further find that they have far more common interests than they assumed, and opportunities and obligations of far greater scale than they conceived. □

Forty-eight Hours in Harlem

If slum tenements are going to be around for awhile, why not make them livable? But when they exist in astronomical numbers, how can you hope to halt and reverse their ongoing deterioration?

BY ORVILLE G. LEE, AIA

The rehabilitation of the old five-story walk-up tenements in New York City cannot alone be the answer to the problems of the slums, but a series of experiments in several neighborhoods in New York City has solved a fair share of the problems for those few lucky recipients who happened to be living where the first experiments in rehabilitation are being conducted.

In order to make neighborhood rehabilitation a success, other things besides housing are, of course, necessary. Programs for education, social services, cultural enrichment, police protection and garbage removal must follow, but housing is the one essential in any program for re-creating good citizens out of those who have all but given up hope.

No amount of education, job counseling, police protection or recreation programs can create a neighborhood complete with civic association and a newly felt sense of pride as can adequate housing.

Two and one-half million people live in Harlem. It has been said that if all of Manhattan Island were as densely populated as Harlem, the population of the whole United States could be housed on Manhattan. With few buildings over six stories, Harlem is truly a crowded place to live.

In the late 1800s, New York undertook a massive building program to supply housing for its immigrants. Prior to 1901, thousands of five- and six-story buildings were constructed. It is estimated that 43,000 of these are still occupied, along with another 15,000 constructed before 1920, for a total of 58,000 occupied buildings, all badly in need of rehabilitation. At an average of 15 apartments per building, that leaves 870,000 apartments in need of repair or replacement in the city alone. There are about twice as many units to rehabilitate there as FHA has insured un-

der its regular multifamily program, Section 207, since the agency began in 1934. These figures are staggering, especially in relation to the total US rehabilitation picture. The estimated total construction cost for New York alone will be \$5.2 to \$7 billion, and the labor input over \$2.5 billion.

Rehabilitation is needed not only in New York but in nearly every city in the country. US Census figures show the nation has 9.2 million deteriorated units. The implications are clear: Rehabilitation could become one of the major segments of the building industry.

The author: Mr. Lee is architect for the Studies and Experimental Housing Section, Architectural Standards Division, Federal Housing Administration, Department of Housing and Urban Development.

The block on West 114th Street between Seventh and Eighth Avenues was picked for an experiment in rehabilitation not only because of its buildings' poor physical condition but because of the social condition of its residents. With a medium income of just over \$60 per week and 20 percent of the families on welfare, with winos slumping at entrances to apartment buildings, dope addicts prowling the cellars and the unemployed lounging on front stoops, it wasn't likely that the kids would grow into decent, law-abiding citizens. Little girls played hopscotch with crushed beer cans, and seldom a day went by without a fist fight on the street, egged on by older boys and narcotics addicts. Here two murders were committed on successive days—occurring shortly after construction got underway on the first buildings.

The overflowing garbage can is the sign of the slum. The degree to which it has overflowed indi-

cates where the slum neighborhood places on the deterioration scale. What's the sense in walking down four flights of stairs to put garbage on a pile concealing an already overloaded container? Throw it out the window—"airmail" garbage!

These are the neighborhoods where the public halls smell of urine, the cellars stink of dead rats and the cockroach population is astronomical. Many New York apartments still share a common hall toilet, and it is not uncommon to find it out of order, forcing tenants to go up or down a flight and wait in line.

Toilets and bathtubs that have been installed within the apartments often work improperly. It was at one time common practice to place the bathtub alongside the kitchen sink where it could be covered with a board and used as counter space. Seldom was it used for bathing.

"Old Law" tenements, as those five- or six-story buildings built before 1901 are known, typically contain "railroad flats," in which the route from living room to kitchen involves walking through all the bedrooms.

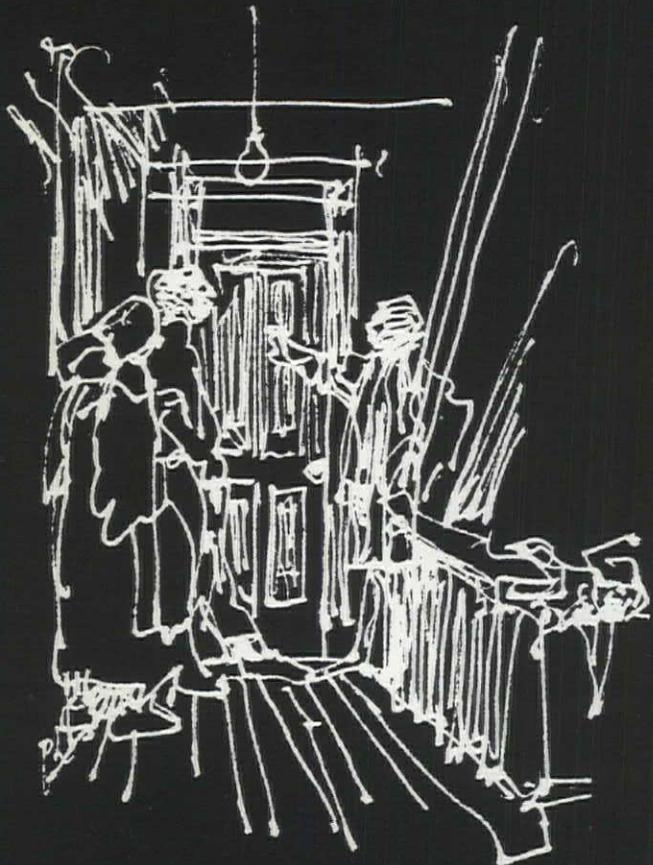
Fortunately, (or unfortunately, as history may reveal) most buildings were found to be structurally sound. The old brick party walls, 12 to 20 inches thick, are sound, and the floor joists are more than adequate in size to take the loads imposed. Rotted joists were common, but their location could be predicted with respect to plumbing walls and fixtures. Leaky plumbing, inadequate wiring, faulty heating systems and rotten plaster are common to most New York tenement buildings built before 1920. Kitchens and baths are completely unusable by American standards, and windows and doors need replacement.

The businesses that grow up around winos, prostitutes and addicts were flourishing; grocery and clothing stores were secondary. This block, before rehabilitation, had several drop points for pushers of narcotics, according to rumor.

Although the picture looked horribly depressing, certain hopeful signs showed up in interviews with tenants. For example, although all the odds were against proper housekeeping, some apartments inspected in the midst of the worst neighborhoods were found to be immaculate. Pots and pans may have been hung on open walls, but they were kept shining clean. The number of clean, well-dressed children was conspicuous. Interviews revealed a surprising number of people both willing and able to pay more rent for decent housing.

Sixty percent of the residents on 114th Street lived there for 10 years or more, and it was not unusual to run across a 20-year tenant.

Because of the vastness of the problems and the lack of a way to define small neighborhoods against which to measure accomplishments, any



successes with social services could scarcely be noticed. The same goes for civic services spread thin over slum areas. Each problem is so compounded that tremendous efforts can be exerted to little noticeable avail. Why clean streets or pick up trash if it is immediately replaced by more "airmail"? Added police protection is lost in the vast need for still more.



The attitude on 114th Street had become one of "what the hell." Why not kick over the garbage can or spit in the hall? Who cares anymore?

The logistics of rehabilitation seemed insurmountable. Purchasing properties, financing construction, managing the properties, deciding the amount of rehabilitation necessary, estimating costs, determining rents tenants could afford to pay and the cost of temporary relocation of tenants, infinitum.

The New York Building Code, the multiple-dwelling law and union rules cause New Yorkers to cling to traditional building practices. Such impediments, to be recognized within every city, prevent new construction materials, products and systems from getting a trial even under controlled experimental situations.

The idea of moving forward with the rehabilitation of deteriorated slum dwellings is too new to have received the benefit of neighborhood planning. A new kind of experience must develop to allow an orderly progression for rehabilitation. A way of planning is necessary for assisting in decisions for the removal of marginal buildings and determinations of need for recreation areas, postage-stamp parks, necessary businesses, parking, day-care centers and locations for other civic needs.

This must be a flexible kind of planning that assesses needs and allows for their placement in a variety of locations in a given neighborhood.

Many alternatives must be available to allow for easy decision-making on such things as property holdouts, sponsors incapable of arranging

financing on schedule, buildings which become unexpectedly available, discoveries of weak foundations causing the necessity for removal of certain buildings, the unexpected approval of the closing of a street, a new interpretation of an ordinance forbidding the use of cellars for certain purposes, or the discovery that rooftops can, after all, be used for recreation. A flexible neighborhood plan capable of growth and development right along with the acquisition and rehabilitation of buildings is an absolute necessity. There is no time for complete preplanning, nor is there the capability of following any kind of plan which establishes definite locations for anything.

We also need a system of architectural designing which is fast and contains a degree of flexibility to allow for certain unforeseen circumstances, and especially one in which the costs can be predetermined with some degree of accuracy.

Poor architecture can wreck the whole system. Poor solutions to the interior layouts, and even faulty solutions to the location of rooms in their relation to either the streets or rear-yard developments, could prove disastrous.

The appearance of buildings and the surrounding neighborhood is extremely important. Poor decisions multiplied thousands of times throughout all the slum neighborhoods of New York could prove the undoing of a great idea. Careful studies must be made along with experimental trials to test the ideas on the appearance of structures. Old buildings in some cities lend themselves best to restoration, or at least suggest emphasis on the character of the original architecture.

The character of the tenement buildings, however, was often in violation of human scale. Fire escapes are seldom esthetically appealing, and the total result of a full line of five-story tenements on both sides of a street can be, and generally is, dark and depressing.

Perhaps color can be introduced to a good advantage. Landscaping, pedestrian walks, pass-throughs from front streets to rear yards, street furniture, recreation areas, pedestrian overpasses, new ways of handling the metal cornices which have rusted out, and even the introduction of exterior elevators, can and must be considered for the creation of a completely new environment.

If architecture in truth has anything to do with the molding of people, the opportunity is now available for architects to employ their skills and imaginations to accomplish the physical transformation of the major portion of a city toward that end.

In the spring of 1964 at the request of Hortense Gabel, then commissioner of the New York City Rent and Rehabilitation Administration, a task force representing the FHA's Experimental Housing Program went into the city to investigate the

possibilities of experimenting with the rehabilitation of deteriorated tenement buildings for low-income tenants. Urban renewal and the attendant problem of relocating millions of people seemed too enormous a task to attempt. Besides, criticism was running high against the relocation of displaced families.

Following a thorough investigation of the physical shape of typical properties and the willingness and capability of tenants to pay increased rent, a decision was made to rehabilitate enough properties as an experiment testing whether rehabilitation could provide any useful answers. A grant was made by the Housing and Home Finance Administration to the New York City Rent and Rehabilitation Administration to pay salaries of key personnel necessary for screening owners, interviewing tenants and evaluating results of such an undertaking. The FHA agreed to insure a number of mortgages under the Experimental Housing Program in anticipation of the development of new technologies in construction, to gain experience for the formation of procedures for processing future rehabilitation cases should the idea prove successful, and to receive valuable information for the further development of property standards for low-income housing. FNMA agreed to make available below-market interest rates for FHA-insured mortgages held by non-profit corporations. It was decided that the total concept should evolve around the necessity for keeping the existing tenants in their own neighborhoods. Any family wishing to stay could remain. Every attempt would be made to house each family in a suitable apartment.

The first attempt was made to rehabilitate with tenants in possession. An owner-builder, Leon Nagin, offered himself as a guinea pig and bought a 20-unit building on Manhattan's Lower West Side. It was in deplorable condition, but several of its low-income tenants were willing and able to pay higher rents for decent housing. During negotiations four tenants moved out and one was relocated nearby, allowing for the possibility of rehabilitating one five-story quadrant at a time while leaving all other tenants in their apartments until completion of the first quadrant. Then the five families in quadrant No. 2 would move over to the completed first quadrant, etc.

This proved to be a long, drawn-out affair. Construction time was nine months, and it was a very trying period for the tenants. While this kind of rehabilitation proved physically possible and was done at a cost only slightly above original estimates, its pace was such that if all the small builders in New York City were put to work rehabilitating tenements they would literally still be at it in the next century. Moreover, this approach failed to generate neighborhood response.

During construction on the first building it was decided that the next attempt should be on the scale of a small neighborhood. Two individuals, Carol Haussamen and Fred Richmond, pooled the resources of their respective foundations to acquire all 37 buildings on both sides of West 114th Street between Seventh and Eighth Avenues—a central Harlem neighborhood with every conceivable slum problem, ranging from rats in the kitchens, fires caused by electrical shortages, stopped-up plumbing, broken windows, apartments without hot water and frequent robberies by dope addicts. Rape and murder were no strangers.

A remarkable team was assembled to undertake the job. The new firm of Henry Horowitz & Wei Foo Chun was retained for architectural services, the large HRH Construction Company was employed as the builder, Chase Manhattan Bank furnished construction money, and the Community Improvement Corporation of Manhattan was established to manage the properties both during construction and after completion of rehabilitation.

The New York City Rent and Rehabilitation Administration staffed an office on the street with social workers, the HRH Construction Company moved into an apartment, the management corporation took up quarters, the FHA brought in a construction inspector, and the 1,600 residents of the street began lending moral as well as physical support.

The Office of Economic Opportunity is providing funds to help pay the interest on the basic loan, to rehabilitate basement space for social service programs, to develop and staff antipov-erty projects, and to pay for a study of how the Harlem project could be adapted elsewhere.

Construction is complete on one side of the street and underway on the other. Every day sees families moving into new apartments. The size of the project, 458-units, and the variety of the apartments, ranging from efficiencies to four-bedroom apartments, allows for temporary relocation of all families within the project site until the particular apartments assigned to them are ready.

Again, construction is too slow. Ways must be found to speed up the rehabilitation process. Three years will have passed by completion time. That kind of time eats up interest money on construction loans without providing rental income.

It was obvious that even this large-scale approach with a big, efficient, knowledgeable contractor was not the best answer. Feelers went out to industry requesting it view the problem, assess the market, and put its research and development people to work on adopting known products and coming up with new ones aimed specifically at rehabilitation. Response was slow at first, but generally when the management of a given manu-

facturing company realized the potential, interest was displayed.

United States Gypsum Company was the first to react on a large scale, wasting no time in locating and buying properties in which to try standard products and develop new ones. The company tried a new electric heat system, a new ceiling system, developed new wall materials, a new floor leveling system and pioneered many other materials which are proving to be practical for low-income rehabilitation.

Then came Ed Rice, president of T. Y. Lin & Associates, with an idea for the speedy rehabilitating of a whole tenement building through prefabrication and preassembly of parts in the factory, to be trucked to the site and placed in the building, all parts prefinished to eliminate any second operations on the job. The systems approach to the rehabilitation of tenement buildings seemed way out to many people and especially to those closely acquainted with construction practices in New York City. But knowing the tremendous numbers of tenement buildings in need of rehabilitation and faced with the fact that without a quicker way of doing the job it simply could not be done, the money and effort necessary to experiment with a new system was, in comparison, exceedingly small.

Three adjoining buildings were acquired on Fifth Street in the Lower East Side of Manhattan, an area once predominantly Jewish but now mostly Puerto Rican. Two buildings had been boarded up for code violations and the third was occupied by very-low-income Puerto Rican families. This presented an ideal situation for experimentation in new systems of construction. The two unoccupied buildings would serve as proving grounds for any materials adapted to or developed for rehabilitation of tenement buildings, and the occupied building could be the product of the culmination of all the best ideas developed in the other two.

Visionaries in the brand new Department of Housing and Urban Development thought it worth a trial, and technical people involved with FHA's Experimental Housing Program assured them it could be done.

Experimentation in construction is not new to the T. Y. Lin organization. Its pioneering successes in the engineering of prestressed concrete structures are realities from coast to coast (AIA JOURNAL, Oct. '66).

The systems concept evolved around the idea of temporary relocation of the tenants. The shorter the period of temporary relocation the less expensive and difficult the task. Few families would object to a period of, say, 48 hours, or even a week should unforeseen problems arise. A goal of 48 hours was set for the third building.

The third building is yet to be rehabilitated, but the system has been developed, and all parts have been tried over and over again in the first two buildings. All persons closely associated with the project are reasonably sure that 48 hours is not out of the question.

Dick Wickert, engineer in charge of the development of the system, estimates 55,000 New York dwelling units could be rehabilitated through the system per year. But simple arithmetic shows that at 55,000 per year it would take 16 years to rehabilitate the 870,000 units which need it now. So even with a completely successful accomplishment many underprivileged families are stuck with their present situations for the next 16 years.

The systems approach calls for the use of factory finished materials. No material should need attention of any kind beyond installation. The more combinations of systems that can be installed at one time the better; thus the prefabricated core unit consisting of the finished bathroom and kitchen complete with plumbing, heating system, hot water tank, electrical harness, vent system and front door communication. The units are lowered by crane through a hole in the roof and stacked, one above the other, for five stories.

Although the 48-hour attempt has not at this printing been scheduled for the third building due to an extended plumber's strike, a dry run on the core units, without plumbing, showed they could be placed at the rate of 40 minutes apiece, which is less than one-half the time allotted in the critical path. Successes such as this are reassuring to all concerned with the vital program.

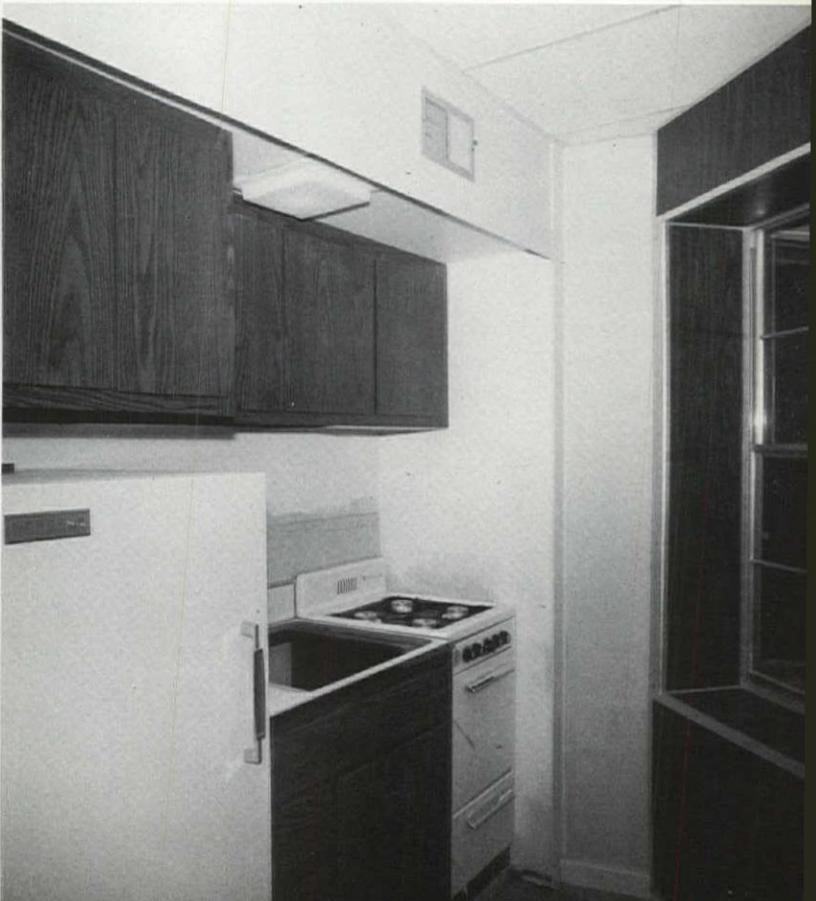
Industry's participation in adapting known materials and products for use in rehabilitation and its research and development of new systems specifically for rehabilitation has been extremely encouraging. Industrial participation will be the key to any successful development in the rehabilitation of deteriorated buildings. The market potential is, of course, too great for industry to overlook.

Early participation by building materials manufacturers has been very helpful. Many systems, new to rehabilitation, have emerged in the experimental New York projects. Wall systems, ceiling systems, garbage systems, an ingenious telescoping window to be installed in minutes, unit heating systems to replace wornout central heating systems, and several other items have been deemed successes already. It is ironic that although more companies have been working on flooring than any other single item, this problem seems furthest from solution.

Preliminary comparisons of costs with those of new construction in New York City show that there is a considerable difference in favor of re-



Rehabilitation of a tenement building nears completion in Harlem as workmen (1) prepare brownstone exterior for painting. Aprovingly, a boy (2) catches the show as crane (3) hoists prefabricated core unit containing kitchen and bathroom to workmen (4) atop roof who guide the unit into the hole prepared for it. Lowered into the hole (5), the unit is stacked atop another (6) already in place and ready for use.





habilitation. It isn't exactly an apples-with-apples comparison to put rehabilitation up against new construction, but early indications are that the same size and quality of apartment can be obtained through rehabilitation for less than two-thirds the cost of a new one in a similar location in New York City.

It is much too early to assess the social accomplishments, but some are too obvious to overlook. For instance, a neighborhood association became active on 114th Street with the realization by the residents that there was serious consideration for rehabilitation of all the buildings on their block. Even before construction started, groups organized voluntarily for specific purposes from clean-up details to a committee for social planning. The New York City Rent and Rehabilitation Administration appointed a director for social planning with an office on the street.

Through the joint efforts of the officers of the neighborhood association and the social planning director, many more blockwide committees were organized to perform all the functions necessary to an active neighborhood. Several block parties have been held; a block tree was decorated for Christmas; there is now an active Boy Scout troop; there was a well-attended street dance, and many other youth activities have been organized. "Airmail" garbage has diminished, even from the buildings yet to be rehabilitated.

Some of the residents have received the second benefit—jobs. More than 20 persons from the block are working for the sponsors as secretaries, maintenance men and general aides. Six were employed by the Rent and Rehabilitation Administration to interview tenants. More than 40 others have been employed either directly or indirectly as a result of the construction. Over a third of the subcontracts were let by the general contractor to Negro-owned companies.

The neighborhood has lost any lure it previously had for both pushers and users of dope. Most of the undesirable element has moved on.

Inflexible codes and standards have impeded progress to some degree, although a great amount of progress can be achieved staying within the framework of these regulations as accomplishments in the "Instant Rehabilitation" project bear witness. Even the so-called rigid building code and the multiple-dwelling laws of New York are not so difficult as is the tradition built up around them. Traditional interpretations of the codes and standards without regard for advancing technologies have led everyone to believe that each job can be performed in but one way. Even though the machinery is available, to gain the acceptance of new ideas it is too arduous a task for any architect or builder to attempt.

The FHA made a big step forward in the encouragement of new technology through its Experimental Housing Program, which in effect allows the FHA to insure mortgages without the restraints of its property standards, with a view toward using the lessons learned as tools for revising these standards.

Some unions have been slow in recognizing any necessity for change. For example, the plumbers union still wrestles with tradition when faced with decisions on the prefabrication of pipe. One of the biggest breakthroughs in the economics of construction is available in the field of plumbing. Only traditional practices stand in the way of progress. The technology has been developed and can register large cost savings when applied to housing.

Although the potential is there, no successes have been scored in neighborhood planning. Spaces are available to be put to use in slum neighborhoods. Much of it is buried under tons of garbage and trash, and need only be uncovered

to be utilized. With imaginative planning, other spaces can be made useful. There is over 60,000 square feet of roof in the 114th Street project. Roofs constitute the most desirable space in New York, complete with sunshine and view. If the street and sidewalks on 114th Street were properly exploited, they could yield another 30,000 square feet and still allow space for deliveries and emergency vehicles. Rear yards and courts account for 20,000 square feet, for a total of over 2½ acres, every inch of which could and should be planned for gainful use.

Those familiar with the design of tenement buildings know about the "railroad flat." Generally, there are two flats per floor, one on either side of the central hall and stair. Wherever these occurred in the experimental buildings, the plans were changed to allow for one apartment in the front and one in the rear. Feeble attempts have been made to affect the appearance of the exteriors of the buildings.

In one project all protruding elements were removed from the front, and stucco was applied in the form of imitation red brick. This proved to be unsuccessful. It was expensive and ugly. Effluorescence has occurred to further mar the results. In the 114th Street project all building fronts, including the fire escapes, were painted light brown to recall the old brownstone color. This had the effect of removing any horizontal lines, creating a monotonous street canyon devoid of human scale. In the 102nd Street project, the building facades were painted one color and the windows and fire escapes a contrasting color which further emphasized the vertical.

In the Fifth Street project, the ground floor facade was redesigned by Paul Williams to reflect the background of the Spanish-speaking inhabitants of the neighborhood. The rusted cornice was exchanged for a new one, also of sheet metal (without caps the buildings appear very incomplete), and the face was painted an off-white.

The last, a compromise between the restoration of the best of the old architecture and replacement of the worst with a completely new and different feeling, appears to be the best solution tried so far. Human scale is introduced, and the light color seems to brighten up the neighborhood. A new environment is in the making.

Further studies in appearance need to be made. Since color can be so effective in achieving scale, dignity, etc., its use will be further investigated.

Several interesting side effects have occurred as a result of the New York experiments. For example, a Negro subcontractor's workers on one project were all permitted to join the union. Another Negro subcontractor was at last permitted to buy materials at the same rate as his white competitors. He had been awarded the bid, al-

though he was not the low bidder. Then the general contractor applied a little pressure to the materials supplier making it possible, finally, for the subcontractor to compete.

Another side effect was the discovery by a Virginia home builder, who had participated as a consultant in one phase of the Fifth Street project, that he could realize a savings in the cost of house construction by prefabricating kitchen-bathroom utility cores in the plant and trucking them to the site. He is planning a subdivision of 70 houses using the core idea.

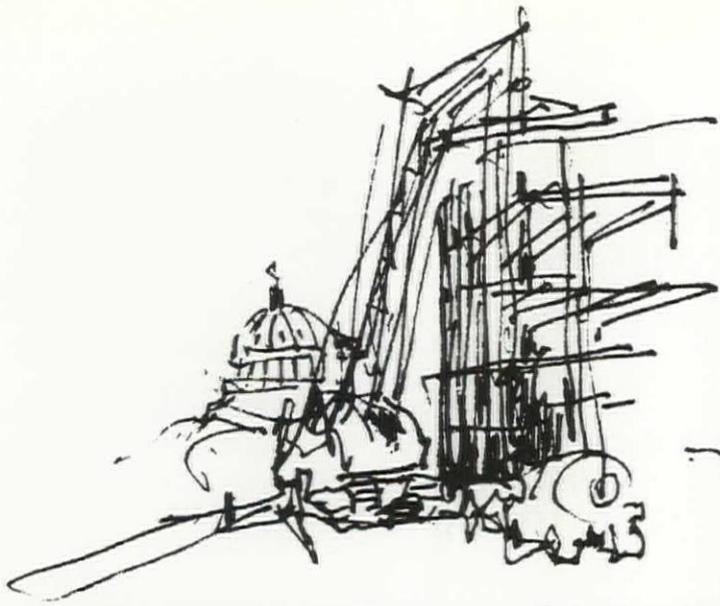
The designers of a high-rise apartment structure in Philadelphia are also considering a drop-in core as a result of their close association with the Fifth Street experiment.

The New York experiments have shown that the physical rehabilitation of deteriorated tenement buildings is possible, and at a nominal cost. They have shown that the relocation of people is not a necessity in order to obtain decent housing. They have shown evidence that rehabilitation of a neighborhood's dwellings right before the eyes of the future tenants is a most stimulating influence toward the rehabilitation of the people. They have shown that local and federal governments, sponsors, architects, engineers, builders and materials manufacturers can, through a coordinated effort, speed up the evolutionary process of developing new technologies in construction.

A continuing massive coordinated research effort is necessary to develop all facets of rehabilitation. As much effort must be expanded on the development of the social services as is spent on planning and construction technology. All must be coordinated into experimental demonstrations to create experiences which can be replicated, expanded upon and refined, not only for New York but for urban areas all over the country.

Since time is of the essence a nationwide program of rehabilitation for low-income tenants must be developed. Ideally this should be undertaken by private enterprise. In the past industry has responded to the demands for housing but always with incentive programs backed by the federal government. In dealing with low-income housing the incentives will have to be stronger than ever before—especially in rehabilitation, traditionally relegated to the marginal contractor. A combination of the tremendous need for decent low-income housing and the vast inventory of housing capable of rehabilitation, free of the stigma of relocation, demands a financing program equal to the size of both.

As Mr. Burnham once said, "Make no small plans." The time is ripe for government and industry to pool their resources for the formation of a huge housing program, one geared to the solution of more than just the housing problem. □



The Mandate of Model Cities

The government's role in housing today emerges as a "totality approach," with human considerations on the same level as construction itself through innovative, imaginative programs.

BY H. RALPH TAYLOR

As I look back in time from the vantage point of the newly enacted Model (formerly Demonstration) Cities Program, I see two streams of governmental activity that have taken place and which have culminated in that legislation. One has been concerned mainly with private housing construction, the other with the social aspects of urban life. The construction involved FHA mortgage in-

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urance, the home loan bank system and, following World War II, the explosive creation of thousands of residential suburban communities.

In the central cities, too, construction was the chief consideration, although the goals of both urban renewal and public housing had an overtone of social consciousness. Given the urgent concern of the cities with clearance and rebuilding and the lack of experience with genuinely

large-scale rejuvenation, clearance and public housing operations were carried out in the only way possible at the time.

In the '60s, under the stimulus from the Kennedy and Johnson Administrations, government housing programs became involved with the much broader range of urban problems and needs. Urban renewal shifted to a broader base. Low-rent public housing expanded. Urban design was taken out of its esoteric context and placed directly into the marketplace.

In the private market, FHA began to concentrate consciously on housing for lower-income families. In its first five years, FHA's 221 (d) (3) below-market-rate-interest program achieved a striking success, with about 50,000 insured and 28,000 completed. Through this program, a "new clientele," limited dividend or nonprofit sponsorship, was developed. The importance of this development is now becoming manifest in many other housing programs.

During these same years of development of programs in the physical sector, great changes and expansion were also taking place in the social sector. This is the other stream. Since 1961 more social legislation, particularly in welfare, has been

enacted than ever before in our national history. Its most direct and advanced state was reached in passage of the antipoverty, Medicare, civil rights and education legislation.

And during the time, too, we have been undergoing what has been called "the revolution of rising expectations." This was an articulation of the aspirations of minorities, particularly of those living in slum conditions. An unexpected and remarkable development in the ghettos, it served to complicate, compound and—probably most important of all—make starkly visible the basic hard problems of the cities.

Now these two streams have clearly merged in the programs of the Department of Housing and Urban Development. Every component of this second newest of cabinet posts is being made keenly aware of the need for a broad social outlook in its commitments of federal grant and technical assistance. In line with this approach, practically every HUD program is deeply involved in the social aspects of its primary function.

And nowhere in the department is this merging of the two streams more in evidence than in the Model Cities Program.

We are going to test the hypothesis that if you undertake a task in sufficient scale and sufficient quality, with sufficient boldness and resources, you can reclaim areas that now appear to be lost forever to the city.

The main thrust of Model Cities is innovation: new, imaginative ways of producing solutions to long-standing urban problems that have so long resisted public and private efforts. The well-springs of innovation will be in the cities, and the activities in this program will be planned, developed and executed by the cities themselves.



We will expect the cities to come up with new ideas, new ways of filling the gaps between programs, new approaches to problems that have not really been attacked in depth anywhere in the nation. We will expect them to look at themselves and their problem areas as they never have before.

Now, what are the primary areas where gov-

ernment can and should play a positive, decisive role, both inside and outside of Model Cities?

First, we must recognize the need for a "totality approach." A good part of the reason for program shortcomings in the past has been scatteration—a diffusion of federal responsibility and a parochial concentration of effort. Too often the left hand has not only not known what the right hand was doing, but also it has not even cared.

Clearly, for example, we must pull together federal government efforts to stimulate and sustain the volume of housing production, and also see that a share of that production goes to the neediest segments of our population, especially to lower-income groups.

Such housing must be planned and built with full consideration for other needs of the proposed occupants. Urban renewal has performed a signal service in many cities by revealing the severe social and economic disabilities of displaced families, and by underscoring the need for more than four adequate walls. Now we must address ourselves to all those needs in one sustained attack.

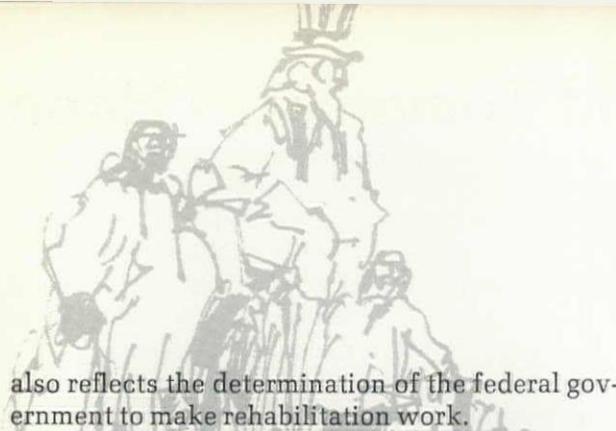
In the legislation that created the Model Cities Program there is a clear mandate, for example, that as many jobs as possible should be created in the rebuilding of communities for the people living in those very communities.

And there is just as clear a mandate that the people in the demonstration area be given a chance to become involved in the planning and reconstruction of their own neighborhoods. Citizen participation has become one of the thorniest issues of urban life in the past few years, but it is here to stay. Any city government contemplating a renewal or rebuilding task anywhere must realize and satisfy the desperate need for people—particularly those among whom we have raised expectations the most—to feel that they have a direct hand in deciding their own futures.

Certainly the expressions we have had from dwellers in slum and blighted areas clearly indicates their desire for a chance to have their neighborhoods rehabilitated rather than cleared. This desire must be respected, but how shall the rehabilitation be accomplished?

Thus far, rehabilitation has been frustratingly slow and cumbersome. Rehabilitation poses a severe challenge to government as well as to private industry. But progress is now being made, and Model Cities promises to move rehabilitation into higher gear.

Secretary Robert C. Weaver recently announced that 29 of the 55 urban renewal projects approved since the beginning of the fiscal year that started July 1, 1966, involved residential rehabilitation to a high degree. This reflects the response of city government to the pressure being brought to bear upon them by residents of the affected areas. It



also reflects the determination of the federal government to make rehabilitation work.

But if rehabilitation is to work on the necessary scale, we will need a new technology. The demonstrations now being carried out in New York City are illustrations of the new technology. But we need a much greater expansion of technology, bringing to bear the latest in industrial and scientific techniques to break through the old ineffective ways of planning and building, and to reduce the costs of housing.

I do not mean to restrict the application of new technology to hardware alone. We also need new techniques in marketing, management, financing and architectural concepts and, perhaps most important of all, removal of the constraints that hamper the usefulness of technology.

We hope that some clues for eliminating these constraints will be developed through the special studies that the Office of Demonstrations and Intergovernmental Relations is now undertaking in the fields of building codes, taxation policies and development standards. Any remedial actions to be taken will, of course, be local, but our studies should furnish the factual basis on which local governments can proceed.

For instance, the power of home ownership to motivate stability and maintenance of a neighborhood has been proved beyond question. Yet our conceptions of housing for lower-income families thus far has considered rental housing almost exclusively. Now, however, the lease-option and other homeownership arrangements developed by public housing officials (for example, at least eight different ways in which nonprofit groups can sponsor sales and rental housing for lower-income families), show real promise of bringing home ownership to low-income families.

Numerous other ways of providing decent housing for lower income families are also being developed by local housing authorities. "Turnkey" housing and new acquisition-rehabilitation programs turn to private builders as a means of obtaining public housing quicker, with less red tape than the usual public housing process.

This housing need not, and should not, be of minimum design.

A distinct role of government in housing is responsibility for good design. I do not believe that government should attempt to substitute its judg-

ment for that of private architects or builders or clients. Nevertheless, government should act more positively to protect and advance the public interest wherever the public is client.

In the low-rent projects in Marin City, California, and Mount Clemens, Michigan, architects produced award-winning designs. In Hartford, Washington, D. C., Sacramento and many other cities, renewal projects have resulted in outstanding architecture. And some of our newer government office buildings have shown the results of design-conscious public officials.

"Beauty is the cheapest commodity of them all," said Daniel Burnham. With the new federally assisted programs of open space, beautification and demolition of unsightly structures, there seems to be little excuse for lack of pleasing design, even in the poorest of areas.

A primary function of government in housing for years to come will be the upgrading of the human environment. As President Johnson has put it, "A city must be a community where our lives are enriched. It must be a place where every man can satisfy his highest aspiration. It must be an instrument to advance the hopes of all its citizens. This is what we want our cities to be. And that is what we have set out to make them."

Thus the role of government is vastly different from what it was, not merely 30 years ago, but even 10 years ago. Today we are tackling the problem on a neighborhood rather than single structure basis. We are looking at the whole neighborhood rather than a single function, just as a family doctor looks at the whole man rather than a localized symptom.

I believe that in the future cities will attack their urban problems neighborhood by neighborhood within a definite citywide plan rather than symptom by symptom. As the neighborhood concept grows, with corresponding responsibility proudly assumed by the residents—homeowners and tenants alike—for social and economic, as well as physical, uplift, the entire city will benefit. It can then become the place of hope and opportunity, employment and leisure, excitement and variety for all.

I see the government role in housing, then, as one of guidance and financial and technical assistance; of opening the doors and pointing the way to hitherto overlooked or unattainable goals and purposes; of pooling the results of the best of common local experiences in attempts to improve the lot of disadvantaged citizens, and sharing the knowledge learned with other cities; of discerning trends and needs in cities across the nation and helping to assume leadership in translating them into meaningful accomplishment.

In this way government can best serve itself and the citizens who create and support it. □

Yesterday's Lessons and Tomorrow's Hope

From out of the social ferment, fears and forebodings, there is emerging a unity of forces in both the private and public sector that, in realizing the limitations of the past, looks toward new horizons. BY PHILIP M. KLUTZNICK

Beneath a surface made roily with conflicting currents, massive changes are in the making for the role of housing in our society.

Not since the New Deal, which produced the vast array of federal institutions to stimulate the provision of homes, has there been as much uncertainty about the industry save for the understandable condition during World War II. There have been other periods of ebb and flow, but they were not characterized by the same violent fluctuation we are now experiencing.

Housing production levels are determined largely by the availability of credit at reasonable rates. The number of cash buyers is diminishing. With interest rates at 40-year highs and with money as tight as it has been in the modern era, the impact on housing production has been devastating. Some still suffer under the illusion that pegged FHA and VA rates guard the consumer against the operations of the market. In the absence of money, the rate becomes meaningless; but where money has been available, discounts of 8 to 10 points are not unusual.

Yet the cost of money is as much a part of the ultimate price of a house as is the cost of lumber or steel. While we are fighting inflation, interest rates are inflating the price of houses that are being built, and a decline in construction is increasing the price of existing housing. This is a temporary condition which underlines the importance of finance. It will be solved, but it is predictable that the solved will get unsolved more than once in the years ahead.

All this comes at a time of social ferment, when the troubles of our cities are being dramatized and the conditions in the slums and ghettos being carefully scrutinized. The combination of the civil rights struggle and the focus on the urban problem has generated a crisis of enormous pro-

portions. In the throes of high emotion, the house or shelter of disadvantaged peoples and the call for integration or open occupancy have become blown up as issues of such consequence that they may overshadow problems at the heart of today's social challenge.

Any person who lives in the present and hopes to inherit some part of the future must acknowledge merit in the principle of open occupancy. I personally believe the principle will inevitably

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win out. Whether it can be attained by laws and marches is debatable. But persons sharing my belief must try to understand those who are holding out, those who feel that the world as they have known it is deteriorating before their eyes. The holdouts, on the other hand, have to be convinced that old worlds must disappear if we are to have a new and better world in which human dignity is prized over property. However, all of the current shouting and pounding is withdrawing energy from vital points where immediate housing progress of a significant character (as opposed to the immediate marginal ameliorative effect of open occupancy) can be made.

It is beginning to dawn on many thinking people that housing is probably an overplayed ele-

ment. The real problem is poverty. The family with adequate income needs little stimulation to improve its housing environment. Trying to solve the problems of the slums and the ghettos through public housing and rent supplement is like putting a clean dress on an unwashed, hungry and diseased child. Public housing and rent supplement measures are desperately necessary now, but they must be recognized as temporary and ameliorative and not as final solutions.

The real answers to the problem of housing the disadvantaged are more difficult than erecting buildings. They involve better schools, training and retraining, adult education, improved job opportunity, nutrition, health and the whole host of activities essential to human regeneration. Too many act as if a clean and sanitary house in a decent neighborhood makes a disadvantaged family an advantaged one. In cases where only the house is missing this may be true; but among the overwhelming mass of disadvantaged or poor, all it does is confirm that status.

We are beginning to recognize that the kind of house or home a family enjoys is the end product of its experiences, not the essential inducement to positive experiences. It is far more productive for our society to invest public resources to regenerate human beings directly than to expect a housing subsidy to do it. Only the sick, disabled and aged who cannot be gainfully employed and that small percentage who seek antisocial means of livelihood should be looked upon as potential, perpetual public responsibilities—all others can be stimulated, generated or rehabilitated into the human material that need not be disadvantaged in our abundant society. If during this period we need to develop decent housing as staging areas for shedding economic disability, let it be understood as such and nothing more.

We have overestimated the function of brick and mortar and houses in solving the problem of the poor. The real success of our society will be determined by the brevity of use of public housing and rent supplements. Ever since 1937 when the US Housing Act was enacted, the contest between the private home builders, real estate interests and public housing leaders has needlessly exhausted energy in a sterile debate. Recent events demonstrate that if we are to tackle the challenge of poverty as well as that of the cities, and also attempt to improve housing standards, there is room for everybody to cooperate rather than to debate. We must clear away the cobwebs of confused thought as to the underlying facts.

There are two housing markets. One is made up of the people who are able to rent or pay for a decent house in a good neighborhood. It represents the overwhelming majority of our population and has been helped by a high-level economy

and a much more equitable distribution of the gross national product. The other market is uneconomic. It has been with us since time began. In percentage terms, it has declined in recent years because of relative prosperity; but in absolute terms, and because of population growth, it still involves a need for many millions of houses. As the late Senator Robert Taft said a generation ago, a humane America will not tolerate a substandard level of shelter for so many of its people. It is high time that we understand this dichotomy in our society and tackle it with adequate tools.

More than 20 years ago I served as commissioner of the Federal Public Housing Authority. In an ordinary day's business I would receive letters from local Chambers of Commerce, mayors and other leaders inviting me to personally visit their cities and see their slums. Frequently this invitation was accompanied by a cautionary observation that their slums were the worst. How much of this self-deprecation arose from the hope that I would help their cities get some federal assistance is open to speculation.

Since those days I have seen slums called by various names all over the world. When good people first see the misery of ghettos and slums they are usually fired with a fervor to at once eliminate them—the attitude that was expressed in the 1937 Housing Act. The prime purpose of that law was to provide new public housing; however, before it could be enacted, a provision for equivalent slum elimination was included. Some legislators actually intended a precise slum site eliminated and reused for new public housing, but the provision was interpreted broadly to permit elimination of bad housing elsewhere in the city. When we got into difficult housing pressure during the war we started to waive the equivalent elimination requirement. We recognized that with limited housing production it was nothing short of criminal to destroy even bad shelter when there was nothing else available.

One of the serious criticisms of the urban renewal program in some communities has been the elimination of housing in which the poor lived without adequate provision to meet the needs of those dislodged. The changes in the law and the intensification of relocation activity are testimony to this situation. These observations are not intended to reflect adversely on the purposes of



either the public housing or urban renewal programs, both of which I support. While it is wise and just to continue to improve our public housing and to give a fair test to the new rent supplement program, these efforts will not suffice within a tolerable period of time to meet the needs of the people housed in slums and ghettos.

Therefore, I propose that in order to help fulfill our ultimate over-all objective, we must take immediate and far-reaching steps to improve life in the slum and ghetto. It may be an unpopular idea, but whatever we do, millions will continue living in slums for some time. While they are waiting for other and more permanent solutions they should be provided better public services, cleaner streets, more and better police, better schools, parks and playgrounds. Where buildings are totally unfit for human habitation and beyond rehabilitation, they should be torn down. Wherever feasible, and when provision can be made for the former inhabitants, such buildings should not be replaced so that we can achieve some greater openness and space for recreation and beautification. Where buildings can be brought up to livable standards, it should be done. Rehabilitation, though difficult and costly, is an indispensable first step.

The President has already suggested that neighborhood centers be provided in slums and ghettos. I hope we see these centers as places where all of the varied services and assistance of federal, state and local governments and voluntary agencies can be focused; where elementary low-skill level training and job placement might take place; and where even the benefits of small non-interest bearing loans can be made available to families in desperate need. Such centers should provide recreation and informal educational opportunities to help strengthen an improved formal educational mechanism.

There is the hope that someday we shall eliminate the slum and ghetto altogether. But the most certain way to achieve this task is through the reinforcement of human material, which is not a task for a day or a year. In the meanwhile, we should abandon the puerile notion that the sense of smell or of sight of those who are better off must not be offended by these areas and therefore the slums must be completely destroyed. They will not be destroyed overnight. They must be improved and made livable and sanitary as a matter of greatest urgency.

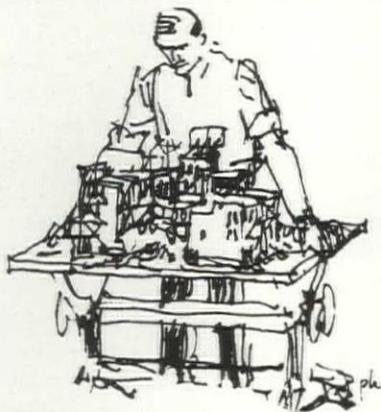
Urban renewal itself must take on new dimensions. I believe it is beginning to do so. A careful study of our urban complexes will disclose small and large areas used for marginal industrial and commercial activity. There are few of our larger cities in which the realistic future demand for land for commercial and industrial uses could not



be profitably evaluated and rearranged, leaving space for housing accommodation.

Our cities are spreading out, and while the urban sprawl is not all bad, since some very fine new neighborhoods and suburbs with industrial job opportunities and convenient shopping facilities have resulted, it has unfortunately accelerated the deterioration and decline of the core of the city. The latter has been abandoned to the disadvantaged which in most urban centers means a nonwhite population. It is axiomatic that this is neither good for the city as a whole nor for the nonwhite population. Renewal activity which replaces bad housing with good housing at lower density and higher prices is not enough to save the city. Urban renewal must be massive enough to bring back into the city many who have left it. Our downtown areas have to be ringed with housing accommodations and community facilities of such quality that they can cope with suburban competition.

In a housing market where the demand exceeds the supply, it makes little sense to eliminate areas primarily devoted to housing. The renewal effort should attack marginal and inefficient industrial and commercial uses and replace them with the type of facilities that gives our cities new life. We need to restore buying power to help our downtown merchants. People who are employed in city activities should be afforded an opportunity to live there and enjoy most of the advantages of suburban life. This cannot be achieved by minor, piecemeal urban renewal projects. This approach requires the imagination and skill of the best planning brains in America. It requires the commitment of public authority to provide within re-



built areas schools, churches, parks, playgrounds, and recreational opportunities that are as good or better than those of most suburbs. It means thoughtful consideration of the kind of police protection that will relax a family living in such an environment, and it means the ingenuity to create traffic flows that will permit families with children to feel comfortable as their offspring go to school.

Large-scale production within the inner core in

the manner suggested could produce competitive sales and rental levels if land is marked down to its social-use value. All this can be achieved if urban renewal and air rights where appropriate are used to produce new towns within old cities. In the long run these will be more economic than continuing the endless expansion of metropolitan areas. Nor would this be a challenge to the existing suburbs. If our demographers are correct, we need to translate our eroded inner cores into needed housing and community facilities without ruthless disregard for the places within the cities where the people live now. Slum or ghetto elimination can only proceed apace with the purposive and timely achievement of adequate substitutes, and not before.

Even the most conservative observer has come to agree that not later than the 1970s our annual new housing production should be 2 to 2½ million units. If we succeed in elevating the economic level of the disadvantaged, and if our gross national product continues to grow at anywhere near the rate of recent years, the range could more accurately be 2½ to 3 million new units.

The machinery to meet such a goal is not in sight. It is not money alone, which at the moment is so desperately tight and short, but skilled manpower which should be in training now. In one city after another, the last two years has witnessed labor markets under awesome strain to meet present construction levels. It is fortuitous that while we are trying desperately to reduce poverty there are as many potential job opportunities as the construction industry alone can provide. Unless accelerated steps are taken with the wholehearted support of government, industry and labor, we may generate the capacity to buy or rent new housing without having equipped the industry to produce it.

What is true of labor is likewise true of materials. The problem may be more readily solved and with less lead time than the manpower problem, but it looms on the horizon and could become a formidable obstacle. The production of some building materials can be accelerated quickly; but others present more difficulties and greater financial risk and it does not help to have enough concrete, brick and lumber if plumbing and electrical supplies are in short supply.

It is important to remember that 2½ to 3 million housing units a year, when added to other collateral construction activities made necessary by such a program, demands an industry of proportions decidedly different from those at present. This prospect should be exhilarating and exciting but it also demands a great deal of advance sober thought.

Another danger that a booming economy can introduce on the housing front is that few under-

take the difficult and marginal when the easy and profitable is at hand. When we build up the buying capacity of the disadvantaged we will simultaneously create an extra pressure in the mid-middle and upper-middle income groups for second houses to the point where the industry may take the course of least resistance and neglect the lower-level requirements. Over the years we have used government aids, whether mortgage loans, secondary mortgage markets, cooperative housing or other techniques, to encourage some attention to the lower portion of the economic market. With a successful antipoverty program the demand at the lower economic levels may grow to a point where even these techniques will not operate effectively.

After World War II everyone was worried about the impact of demobilization on the housing market. The Administration and the Congress authorized temporary measures and made relatively general provision for research and novel approaches, but the enthusiasm to encourage inventive genius was short-lived. The minute the heat was slightly reduced, we quit our inquisitive activities.

If we had faced our outer-space adventures with the timidity characterizing our housing approach, we would now be hopelessly outclassed internationally. We need uninhibited, sustained research into the problems of urban living whether in old cities or new towns. While we are doing the best we can with what we have and what we know, we should devote to research billions in the years ahead to make this earth a decent place to live. What good to win the moon if we lose our claim to the earth?

A competent observer recently said that urbanism cannot expect too much incidental fallout from our ongoing scientific probes. He urged that a science and systems project address itself specifically to urbanism if we are to really profit from this era of science.

Deficiencies in the construction trades is not the only manpower problem. Without reflection on the planners who have grown up in contemporary life, we are sorely in need of new and different qualifications for the planners of tomorrow. It is not enough that they be fragmented into economists, sociologists, political scientists and architects. They should be professional technicians whose training and equipment will span tomorrow's urbanism as a way of life.

Perpetually discussed is the function of the professional architect in land planning and in homebuilding. Some contend that no house should be built unless fully designed by a registered, competent architect, but the large tract developer and home builder has tended to subordinate the traditional function of the architect.

A practice has evolved of purchasing typical plans wholesale or of engaging in imitative design. The original plans usually are prepared by an architect, but he tends to conclude his task at that point. This has driven many professionals away from serving the homebuilding business. The high-level volume of more complicated construction with greater total fees has also helped to draw the best designing and engineering talents away from the smaller, less difficult and highly repetitive mass-produced house. But there is another aspect to this matter.

Customarily the successful developer equips himself with a team of diverse talents, which again diminishes the role of the typical architect. Many of the developers become "horseback" architects themselves. Their experience builds in a kind of intuitive judgment of what people want rather than what they should have. The alert developer's sales personnel and construction people equip him with an understanding of the problems of the prospective home buyer or tenant, which his business mind tries to solve in a way that will give him more business and, of course, a more profitable enterprise. When this unique development of the postwar era is added to the regulations and limitations imposed by governmental housing agencies, local building codes and zoning laws, there tends to be a constantly reducing area for the exercise of the traditional skills by the professional architect. Also, a successful architect can rarely afford to give each small house the creative thought and meticulous attention for the fee that the average developer can afford to pay.

As a result, in the houses being built for the masses who can afford to buy them, the position of the architect has become less important than in the past where all except elementary buildings were designed on a custom basis. I am not certain that so long as his overall influence is retained that this is necessarily an adverse development. Yet the practical builder needs at his side at all times a competent and creative architect if he is not to fall into the error of producing and multiplying ugliness.

The architect's role in land planning where large-scale development such as a new town is involved is likewise diminished. In brief, there is a significant and all-important role for the architect in the planning and execution of a new town or a large-scale development. He should have a major staff function as a technical control officer in any company engaged in the building of a new town. He should be at the side of the guiding official relating all of the various elements in the plan and in the design of any construction or engineering to the ultimate whole. This should be true even where the architect does not himself design any of the structures in a new town.

We apply this principle, with success, even in the building of a large-scale regional shopping center. Our architects put together the original team of planners, engineers and specialists and design the basic complex. They design one or two of the major stores, but generally they coordinate and approve the designs of other architects and store planners who do the work for the individual stores. In this fashion we secure the harmony of the whole with a desirable variety of many participating creative minds.

This is one man's opinion on the position of the architect in small homebuilding and planning. Good planning, better design and a search for greater beauty are necessities of the present and the future. A high-level economy has produced many challenging design problems in large-scale construction projects. There is an excess of demand for prime architectural and planning talent which frequently leaves the less profitable or less complex areas to amateurs or to less competent talent. If we are to achieve better planning, design and greater beauty, the architects and planners must lead. But to lead they must not only advocate the goal but encourage the training of the people who can help attain it.

All this may sound like a confession that the past has been bad and the future should be better. This is not the case. What is suggested here is that we stand on the shoulders of the last generation of experience but not accept it as the complete pattern for the future. We are not alone in the world in having failed to meet the challenge of housing needs of our people. If anything, we are almost alone among the populous nations of the world in having done so much. Our task now is to learn the limitations of what we have done and to seek new horizons.

I have tried to abjure statistics. Estimates of housing need or requirements for urban renewal or other aspects of urban life, or the capacity of either our economy or the industry to produce what is needed, are the subjects of every conceivable kind of figures or estimates. At this stage of the problem the varied statistics seem to confuse rather than clarify. No matter what set of whose figures are used, if we accept the goal of a great society, amelioration of poverty or merely a healthy economy, we fall so far short of our potential that it is too soon to worry about statistical refinements. What we desperately need is a clarification of national purpose accompanied by the will to entertain new ideas and abandon old cliches.

To some this would suggest a call to flighty idealism and a demand for an outpouring of public dollars in fantastic amounts. Quite the contrary, I argue for a high degree of realism to match the lofty idealism which should characterize our

national purpose. For example, Congressional hearings and public debates on the deplorable state of our urban centers have evoked the suggestion by some that only multibillion-dollar federal budgets can solve the problem. The mayor of New York City estimated the need of \$5 billion of federal aid per annum for the next 10 years. Others have used gross budgets of \$100 billion for this purpose.

My difficulty with Mayor Lindsay's \$5 billion and someone else's \$100 billion is not in the amounts but in a grave doubt that we have the capacity at either federal or local levels to expend it judiciously and effectively. At this stage any attempt to arrive at budget estimates for the ultimate objective is premature. The best we can do is to do better and some more of what we are now doing, and authorize the kind of investigations into new approaches that are so sorely needed.

We speak of a new federalism as depicting a new relationship between the federal government and the urban centers. What does this really mean? Tighter or looser federal control, or local determination with the federal government as the banker or helper? Or maybe an entirely novel concept with unconditional grants to cities with performance as the basis for further aid? No one has yet clarified the federal-local relationship should sums of \$100 billion be made available.

Large sums of money are difficult to spend at best. Debating what is not authorized is less important than generating new ideas, enlisting and training better manpower, probing the unknown to get the best of science and technology applied to urban problems so that whatever monies are made available may be intelligently applied.

For years many of us contended that the needs of our urban population were so great that our federal government should have a department concerned with the various aspects of this phase of our national life. We have witnessed the fruition of this ambition in the Department of Housing and Urban Affairs. In one of its first major endeavors—the Model Cities Program—there is room for a total social approach toward slums and ghettos.

With a history that is full of innovation in one form or another during the past generation, with a department at the federal level committed to an imaginative approach, the vistas for tomorrow are broad and beckoning. The Congress has engendered an aura of urgency through its hearings on the problems of our cities. This atmosphere should be utilized to strike out boldly and courageously to test new and better ideas and ways to provide the shelter and the neighborhoods for the citizens of the most prosperous and influential land in the world. □

Books

Multistory Housing. Karl Wilhelm Schmitt. New York: Praeger, 1966. 215 pp. \$18.50

There is, of course, an urgent need throughout the world for urban residential dwellings. Schmitt's aim in this book is not to present technical formulas and practical specifications; rather his emphasis is upon housing which takes into account "all aspects of human life" and enables the urban dweller "to live as freely and individually as possible."

The first 71 pages (text in English and German) are devoted to structural and environmental considerations in apartment house construction. The remainder of the book is given over to examples of the manner in which architects have solved design problems of multifamily dwellings.

Schmitt, trained both as an architect and an engineer and for the past 10 years editor of *Bauwelt*, states that housing cannot be discussed without also taking into account its implications in urban planning, and the last two chapters of his book are on "Urban Units" and "Searching for the New Town." The volume is well illustrated with photographs and floor plans, and there is an index of architects.

The Bathroom: Criteria for Design. Alexander Kira. Ithaca, N.Y.: Center for Housing and Environmental Studies, Cornell University, 1966. 116 pp. \$7

This thorough and critical study of the bathroom has evoked all manner of puns and witty comments in journals and newspapers across the country. Perhaps it is because researchers, who have certainly surveyed every other activity under the sun, heretofore have paid scant attention to personal hygiene and its required facilities, and we are inclined to giggle rather nervously when the veil of embarrassment is raised. Nevertheless, this is an important document to be taken seriously and one which architects, among others, should consider carefully.

The study, sponsored jointly by the American-Standard Co. and the New York State College of Home Economics at Cornell, extended over a five-year period and was headed by Alexander Kira, associate professor in Cornell's College of Architecture.

In brief, the study involved anatomical and physiological laboratory investigations of those bodily functions which take place in the bathroom. Nothing, apparently, is left to guesswork; every function has been analyzed minutely. The report concludes that we are victimized by the devices of the contemporary bathroom. The bathroom, as important to health and well-being as the kitchen, is not designed according to physiological requirements.

Moreover, in addition to being primitive, it is unsafe, inconvenient, inefficient, unsanitary and uncomfortable. The study does not purport to give all the answers as to what can be done about this abysmal situation, but it establishes design considerations and suggests possible approaches to the general problem.

The key to immediate improvement lies with the plumbing industry, the report states, where a "minor revolution" will be necessary. "The ultimate responsibility for a rational approach to personal hygiene, however, rests not only with the producers but also with architects, consumers—in fact with all of us." MARY E. OSMAN

Wohnung und Wohngebiet; Housing and Residential Area. Hansmartin Bruckmann and Karl-Hans Keinath, editors. Stuttgart, Bern: Karl Kramer Verlag, 1966. 177 pp. DM 19.80

This is number 46 in the Architektur Wettbewerbe series. There are three introductory essays (in German with English translations of certain passages which indicate the opinions of the authors). The first deals with dwelling and housing estates as social areas, the second contains critical comments on town planning competitions and the third presents a model case of a town planning competition. After the essays seven competitions concerned with dwelling projects are presented. There are plans and diagrams.

High Density Living. Rolf Jensen. New York: Praeger, 1966. 245 pp. \$20

With the population explosion and ever more and more people converging upon cities, how are the people ever going to live in a civilized and humane way free of the burdens of modern urban living? This question deeply concerns Jensen, who thinks no greater problem confronts the world today.

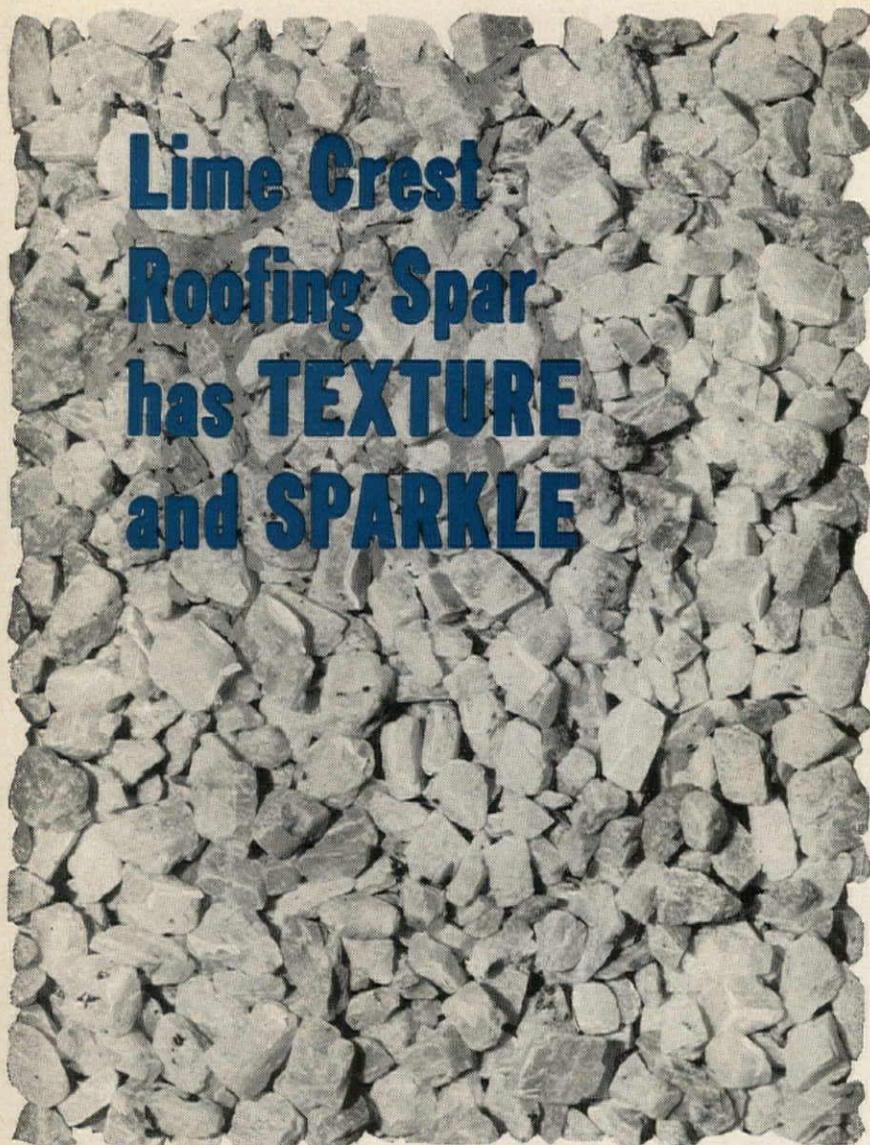
The author looks with a jaundiced eye upon the new towns and argues convincingly that the most intelligent answer to the problem of providing good homes for the urban population is a careful planning of high-density areas. He is dean of the faculty of architecture and town planning at the University of Adelaide in South Australia. Americans, for the most part, have accepted many of his arguments long ago, but this makes his book no less valuable. High-density living, he believes, can meet a sociological need, will stop the devastation of what remains of the countryside, make some efficient use of the land, revive the heart of our cities, eliminate travel between home and work and enable people to enjoy more of the amenities of urban life.

The author considers the economic and social factors of high-density living: proximity of neighbors, provision for old people and children, elimination of noise, schools, shopping, clothes-drying, etc. He discusses the practical matters of grouping, layout and detail planning; structure; services; tenancy and ownership. More than half the book is given over to examples of what Jensen considers to be some of the best schemes developed in recent years in North and South America and in Europe, selected to illustrate diversity in planning and design.

The book is well illustrated and has an abundance of comparative statistical data and bibliographical references. Although some of the information may not be applicable to American situations, as a whole the work is a welcome addition to literature concerning high-density living—here to stay whether one likes it or not.

Environmental Design; A Selected Annotated Bibliography. National Housing Center Library. Washington: National Association of Home Builders, 1966. 79 pp. \$5

Environment is a word that covers a great deal of territory. The dictionary defines it as "the aggregate of all external conditions and influences affecting the life and development of an organism." It is quite a respected word these days and one that has general currency. With the definition in mind, it would seem that a bibliography on environmental design would be a somewhat formidable one unless the compilers set forth some limits for inclusion. *Continued on page 84*



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Books from page 83

The compilers of this bibliography, prepared for the National Housing Center Council and the NAHB Institute of Environmental Design, have placed an emphasis upon "the planning and design of the physical elements of our urban environments" and have limited the number of references to historical and sociological works. Even with these qualifications, the bibliography is almost too comprehensive to be as useful as one would hope.

The saving grace is the arrangement with its orderly subdivisions and the fact that the entries are annotated. The subdivisions are: general (theory, education, biography); the city (in history and today); highways and traffic; regional facilities (airports, campuses, etc.); the community (local facilities); public gardens and memorials; and the home. Bibliographic sources are cited.

Open Space for Urban America. Prepared by Ann Louise Strong for the Urban Renewal Administration. Washington: US Department of Housing and Urban Development (for sale by the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402). 154 pp. \$1.50

The entire nation is being eaten up by continuous conurbations, as many writers have told us of late, and dire warnings have been given about what this will do to influence climate, pollute air, diminish rainfall and obstruct solar energy. We are reminded constantly that the city dweller will very soon have no touch whatsoever with nature except on weekends and holidays, and that great harm psychologically is being done modern man through the willful destruction of his natural environment.

This book will help state, county and city government officials, and indeed anyone who would do something about the difficult problem of increasing "the beauty and living quality of our urban environment," as Secretary Robert C. Weaver states it. The book describes many ways of achieving a continuous restful and life-giving thread of green through the urban scene. A positive program is presented for the preservation of urban open space, that valuable and irreplaceable resource disappearing at the rate of 1 million acres a year.

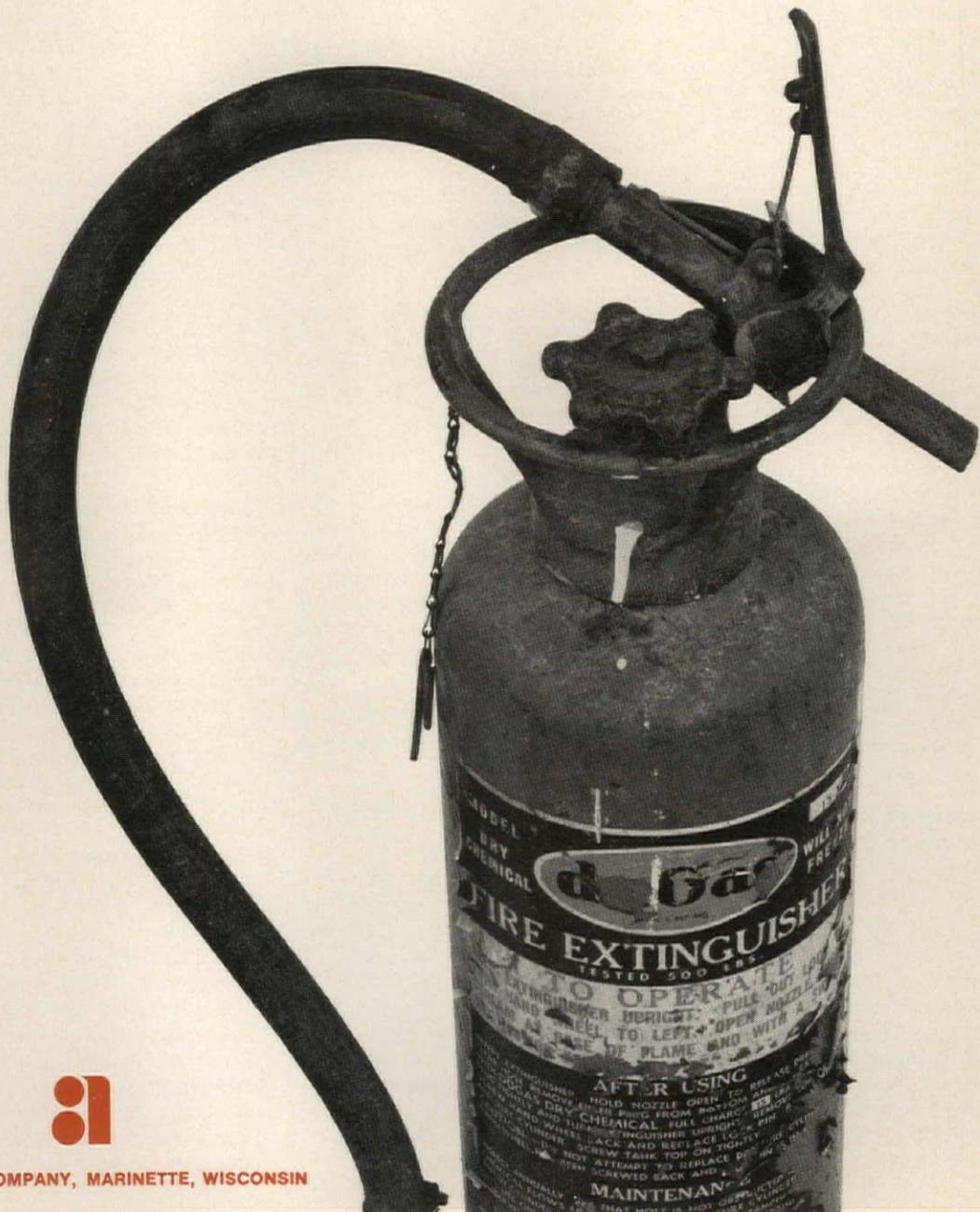
Urban open-space land, as here defined, is "that area within an ur-

Continued on page 86

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ban region which is retained in or restored to a condition in which nature predominates." The use of this space, of any size or shape, may be for recreational purposes (say a bicycle path or a small downtown park) or for the preservation of a scenic or historical site (perhaps the conservation of wetlands or the restoration of a historically or architecturally significant structure and its immediate surroundings.)

Open-space land may be used also to control the location and time of urban development. For example, Philadelphia shapes urban development by using open space to separate neighborhoods or districts, and Copenhagen designates large areas of land for development only after certain periods of time and sets aside other areas permanently for open space. A vacant lot awaiting an office building does not qualify unless it is now used or will be used for one of the purposes cited.

This book sets forth in detail what has been done to achieve successful open-space programs by federal, state and local government and by private organizations and individuals. Throughout the book one feels a need for urgent action but also a sense of relief that something can be done and that many agencies, organizations and individuals have accomplished significant things. Much is given here to provoke thought, to stimulate action and to furnish guidelines for those who are concerned.

Eleven principal recommendations are set forth, including the one of better use of tax policy as an instrument for preservation of open space. The appendix contains various ordinances, agreements and covenants pertaining to open space programs. The book is profusely illustrated with maps, photographs and charts.

Urban Renewal and the Future of the American City. C. A. Doxiadis. Chicago: Public Administration Service, 1966. 174 pp. No price given

This is an abridged version of a report prepared for the National Association of Housing and Redevelopment Officials. Doxiadis presents a comprehensive view of urban renewal in the United States and develops criteria whereby renewal agencies are able to estimate progress and make projections for the future. He formulates six re-

quirements for urban renewal projects so that they become "not isolated efforts but parts of the overall efforts for the evolution and survival of our cities." For those not familiar with the terminology of ekistics (the science of human settlements) there is a brief glossary included.

New Movement in Cities. Brian Richards. New York: Reinhold, 1966. 95 pp. \$2.45

Richards, a practicing architect in England, deals with the movement of people rather than automobiles. He is concerned that people have so much difficulty getting around in cities, and he wants us to leave the automobile outside the city center and utilize methods for getting people around in a fast and pleasant manner.

As the author puts it, transport should have delight. Briefly, he discusses the future city and some of the transport systems that could be used to make public transportation both convenient and comfortable. Among the systems he discusses are moving pavements, nonstop systems, the minirail, the minicar, automated roads, escalators and lift paternosters, and helicopters and hovercraft ferries.

The Citizen's Guide to Town and Country Planning. D. W. Riley. London: Town and Country Planning Association, 1966. 66 pp. 5s, plus postage

This commendable effort was made in order that the general public might better understand the why and how of town and country planning. It is hoped that the guide will give background for the consideration of plans for the reshaping of cities and the preservation of the countryside.

The Pedestrian in the City. Edited by David Lewis. Princeton, N. J.: D. Van Nostrand, 1965. 299 pp. \$18.50

"Architecture is also the street" is an observation by Louis Kahn, and this volume is testimony to the wisdom of his statement. Here is a volume of essays on the urban situation by a diversified and impressive array of contributors. First published in England as Vol. XI of the Architects' Year Book series, it is all to the good that the book is made available in an American edition because there is much in it to interest the US architect and urbanist.

The book includes studies of specific cities—Philadelphia, Liver-

pool, Sheffield, Cumbernauld and Chandigarh. Other essays include Theo Crosby's analysis of Greek planning today; Gunther Nitschke's provocative comments on cities as stasis or process; George Collins' study of the way the pedestrian can insulate himself physically and psychologically from vehicular traffic in the linear city; and Jane Jacobs' plea to not segregate pedestrians and automobiles. There are also a number of essays with an ethnological bent, pointing up the fact that urban problems are local particularly as they apply to emergent societies. In this category are, among others, Eleanor Smith Morris' consideration of the native genius in town planning in the village of Tepoztlan in Mexico and the insights into the problems of squatters in Peru given by Margaret Grenfell and Diego Robles Rivas.

One wonders why some of the essays were included in a volume on the pedestrian in the city. The editor makes little attempt to weave his selections into a harmonious whole, nor does he state specifically his criteria for the essays included. Nonetheless, the total makes an interesting book. Lewis says it is both an optimistic and a pessimistic book. It is optimistic because the large projects from cities in a number of countries all reflect the architect's concern about urban problems. The pessimism is due to the fact that all this is but a drop in the sea of indifference about the present urban crisis.

1965/1975 General Plan for the City of Boston and the Regional Core. Boston: Boston Redevelopment Authority, 1965. 162 pp. No price given

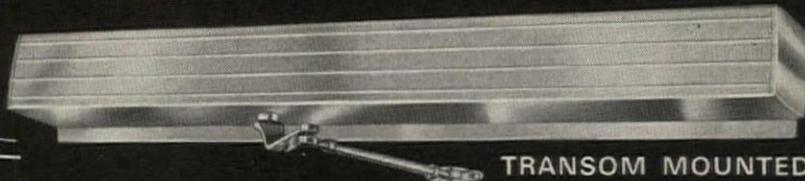
This elaborate and beautifully executed publication is a statement of the policies and programs intended to guide the development of Boston from now until 1975. Among the topics covered are Boston's human resources, population and housing, public facilities, institutions, commerce and industry, transportation and plan for the regional core.

The plan's primary reliance is upon "urban renewal for the achievement of its goals in a remarkably short period of time," thus representing a "new departure in comprehensive planning." In addition to the many illustrations and maps in the report proper, there is an accompanying envelope containing large maps of the 1975 general land-use plan. □

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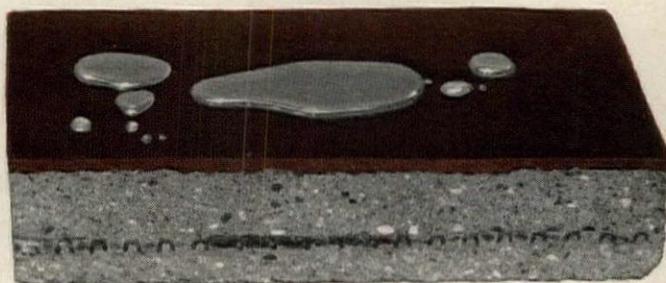
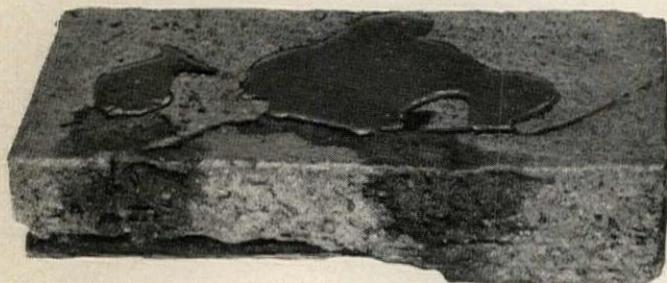
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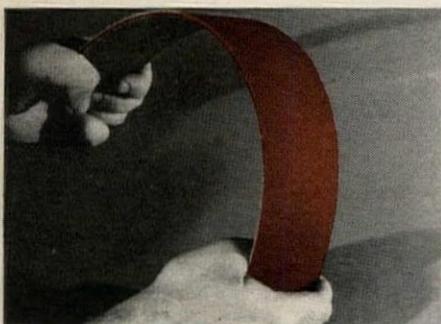
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Calendar

Jan. 26-29: Society of Architectural Historians, Annual Meeting, Sheraton-Cleveland Hotel, Cleveland

Jan. 30-Feb. 2: International Heating & Airconditioning Exposition, Cobo Hall, Detroit

Jan. 31-Feb. 3: Reinforced Plastics Division, the Society of the Plastics Industry, Inc., Annual Conference, Shoreham Hotel, Washington, D.C.

Feb. 12-15: American Society of Concrete Constructors, Annual Convention, Royal Orleans Hotel, New Orleans

April 1-6: American Society of Planning Officials, National Planning Conference, Shamrock Hilton Hotel, Houston

April 1-7: American Concrete Institute, Annual Convention, Royal York Hotel, Toronto

May 14-16: Illuminating Engineering Society Annual Theater, Television and Film Lighting Symposium, Hollywood Roosevelt Hotel, Hollywood, Calif.

May 14-18: AIA Annual Convention, New York Hilton Hotel, New York

May 29-31: Construction Specifications Institute, Annual Convention, Hotel Fontainebleau, Miami

June 18-23: International Design Conference, Aspen, Colo.

AIA Regional and State Conventions

Feb. 8-10: Middle Atlantic Region, Conference Center, Williamsburg, Va.

April 5-7: North Central States Region, Sheraton-Schroeder Hotel, Milwaukee

Oct. 3-7: Florida Association of Architects, Diplomat Hotel, Hollywood-by-the-Sea

AIA Committees and Related Meetings (At the Octagon unless otherwise noted)

Jan. 13-14: Grassroots East

Jan. 20-21: Grassroots Central, Bel Air West Motor Hotel, St. Louis

Jan. 23-25: Grassroots West, Mark Hopkins Hotel, San Francisco

March 13-15: Board of Directors, Carefree Inn, Carefree, Ariz.

International

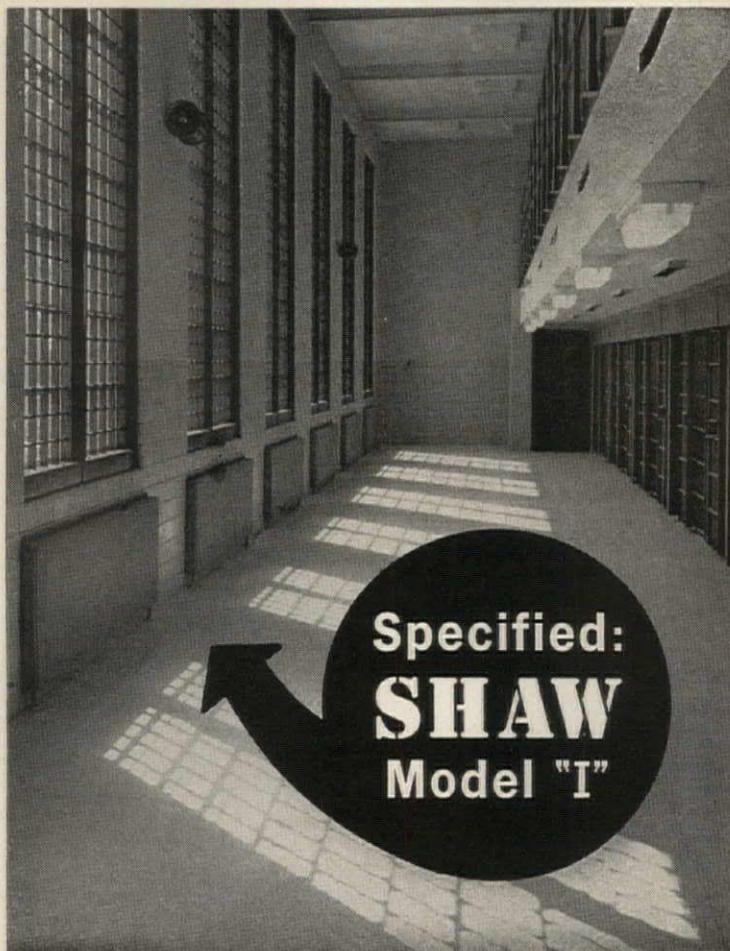
June 19-28: International Commission on Illumination, Session, Shoreham Hotel, Washington, D. C. (attendance by application only, to US National Committee of CIE, Secretary, L. E. Barbrow, c/o National Bureau of Standards, Washington, D.C.)

July 3-8: UIA Congress, Prague

Tours

• Architects Grand Air Treks of Treasures of Egypt, the Middle East and Baghdad, 22 days each, departing New York and Washington, D.C., Jan. 27-Feb. 24 and March 31. Arranged for AIA members, their families and friends by United States Travel Agency, Inc., 807 15th St. N.W., Washington, D.C.

• Mexican Architecture and Interior Design Seminar-Tour, meeting Mexico City, Feb. 12, 14 days. (A second tour, also 14 days, meets Sept. 30.) Reservations accepted in order received with deposit of \$50 per person toward cost of \$358, airmailed to director, T. H. Hewitt, Apartado Postal 5-251, Mexico 5, D.F.



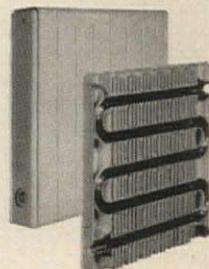
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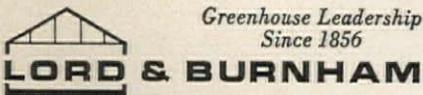


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Letters

The Architect as Artist

EDITOR:

The way that architects have permitted themselves to be shoved out of the field of "art" burns me up. I have heard the president of an Institute chapter refer to collaboration between architects and artists—a tacit admission that the architect is not an artist.

To cap it all, the November issue of the AIA JOURNAL blatantly emphasizes that mistaken point of view in typography and text; indeed, on page 64 "art" is regarded as something applied to architecture, if you can afford it. In the three discussions presented the only important statements are quotations from Le Corbusier and Gropius on pages 58 and 59 respectively.

The profession as a body should do something to counteract the prevalent misconception that painters and sculptors, whether good or bad, are by definition artists where architects are not. Above all, the JOURNAL should not lend itself to this misconception. In both fields, there are practitioners who can justly be called artists and a great many others who are third-raters.

EUGENE HENRY KLABER, FAIA
Quakertown, Pa.

Credit Where It's Due

EDITOR:

Your Practice Profile on Phil Meathe and Bill Kessler in October properly established the division of authority and responsibility that has made this firm successful esthetically as well as economically.

However, on page 44 you mentioned that their first recognition came from a triple citation in the 1958 Homes for Better Living Awards program. At which point you stabbed me in the heart by saying "co-sponsored by the AIA and Life magazine."

One of the most satisfying awards in *House & Home's* 12-year co-sponsorship with the AIA and HFBL has been the unearthing of brilliant new design talent in the residential field. We don't discover them all, but I think I could prepare a list of first publications for the past decade that would be very impressive. As it happened *Life* published none of Meathe and Kessler's houses but merely joined us in a passive co-sponsorship. *House & Home* takes pride in having helped

these fine designers gain the national recognition they deserve.

Since our association with the AIA is 12 years old, I feel badly that you didn't credit *House & Home* as the co-sponsor of HFBL. We take great pride that this has become the largest and oldest residential design award program in the nation and we are equally proud to have our name joined with the AIA and this activity.

JAMES P. GALLAGHER
Editor, *House & Home*
New York, N.Y.

In Support of Systems Building

EDITOR:

Executive Director Scheick's amusing and provocative extravaganza "A Slight Case of Ethics—1986" [Sept.], though satirical in tone, reflected a serious concern over the direction of architectural practice and the construction industry. We at ASPAD, Inc., do not share his despair.

As his article implies, highly integrated system building techniques demand the most comprehensive types of service and the very closest coordination between the various specializations. These functions, however, do not have to be performed or controlled by the actual building manufacturer-constructor any more than they are now performed or controlled in conventional construction; but the form and body of architectural practice must encompass the new requirements.

We are a group of experienced, mature architects, structural and mechanical engineers, planners and designers who have gathered around us a number of prominent specialists who can act as consultants, and we have established a new firm oriented toward providing comprehensive services for systems building. Our services are offered on a professional basis to owners, manufacturers, constructors, government bodies, etc., interested in such programs.

While we claim proficiency in the design and technical aspects of systems building, we are not bound to any manufacturer, erector, etc., and can advise our clients, whoever they may be, with complete impartiality.

PHILIP DWORKIN
ASPAD, Inc.
New York, N.Y.

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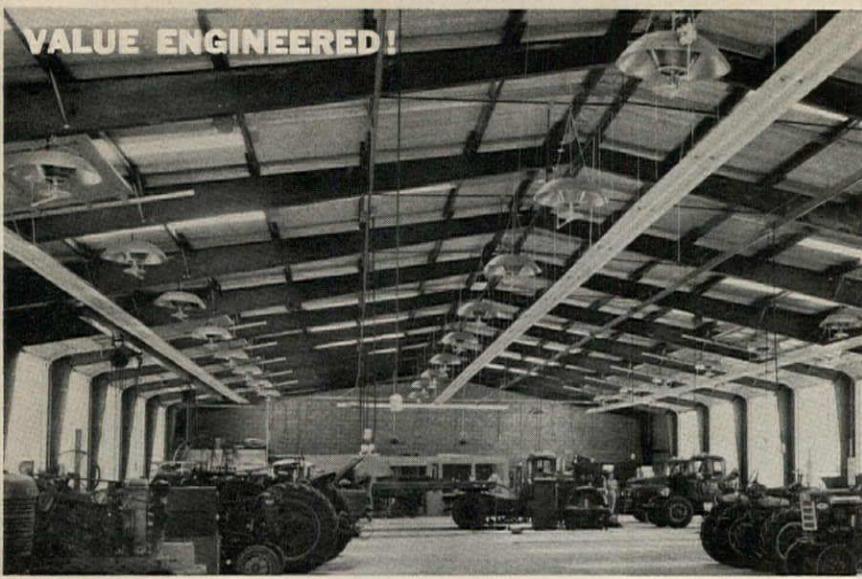
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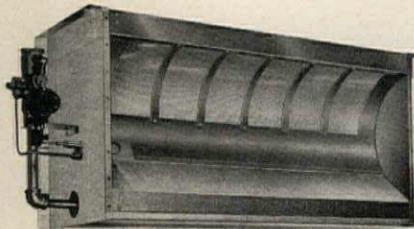
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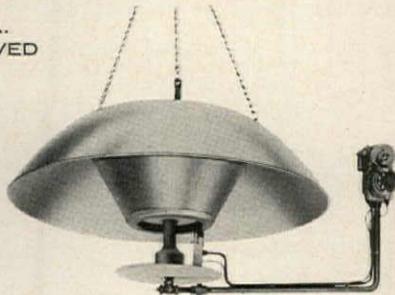
leaves no hot or cold spots. The entire lower working area of a plant is blanketed in even "no-waste" comfort heat. There are no fans or blowers . . . more heat is retained at floor level producing fuel savings up to 50%. Due to the diffusion and wide spread of Space-Ray infra-red heat, installation calculations (engineering) can now be greatly simplified. Space-Ray heating systems can be installed for as little as 30¢ per sq. ft. and less in many modern buildings where heat loss is moderate. Installations have been made at less than 25¢ per sq. ft.

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Next Month

Expo 67: What many think will be the most exciting world's fair ever held in the Western Hemisphere opens in about two months. Expo 67, a stupendous undertaking in the St. Lawrence River at Montreal, is critiqued by a Canadian architect-journalist who cites architectural opportunities both seized and lost. Expo, significant in itself, its forms, technologies and techniques, is one of profound relevance to the city. For one thing, as the author points out, it "shares the contemporary problem of ordering diversity while not suppressing it."

Creative Cost Control: "For whatever the reason, the control of costs in architecture, in many cases, is a stepchild of the process until the bidding or construction phase of the work." So states the introduction to *Creative Cost Control for Buildings*, leading off the publication of several articles adapted from the book McGraw-Hill will issue during the first half of 1967.

In ending his introduction, the author, who happens to be the AIA JOURNAL publisher, winds up with thoughts that creative cost control:

- employs every technique, talent and tool available to it
- starts with the budgeting phase or before
- functions as an integral part of the total architectural process
- keeps the architects, and other design professionals, in control of the total process
- makes it possible for decisions to be made, through full disclosure of the facts, by architect, owner and all others involved with the process of creating buildings.

The Big Ground Wave: Superlatives are in order when it comes to discussing future air facilities for supersonic transports and jumbo jets are firmly implanted in our lexicon five to ten years before they have arrived. Of equal magnitude is the challenge to the profession if it is to make its contribution in controlling the impact of the new air age on our cities and countryside.

PHOTO & ART CREDITS: Betty J. Ritter — p. 10.