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The 1975 Convention: Larger Than Expected, Focused on Economics

"You must have thought it very odd that in a convention of beavers a squirrel should give the keynote address," said scientist Heinz Von Foerster in opening the 1975 AIA convention in Atlanta. "This ridiculous animal is doing nothing but making noises sitting on top of those very trees that you put to use by building your superbly engineered dams and your fabulous lodges."

His audience obviously was delighted by the "noises." The "beavers" had come to Atlanta in surprising profusion—a total attendance of 4,210 including 1,509 AIA members—considering the economic times. And they were obviously eager for information to help them deal with the current crisis.

Fully 1,200 signed up for briefings by federal officials on how to get government contracts. In the "marketplace of new ideas," an increasingly important element of the convention, those sessions dealing with marketing and other means of economic improvement drew overflow crowds.

The convention's most important piece of business, the election of officers, produced the following winners: As first vice president and president-elect, John M. McGinty, AIA, of Houston; as vice presidents, Elmer E. Botsai, FAIA, of San Francisco; Carl L. Bradley, FAIA, of Fort Wayne, Ind.; Robert L. Wilson, AIA, Stamford, Conn.; as treasurer, for a two-year term, Charles E. Schwing, AIA, of Baton Rouge, La.; Hilliard T. Smith, FAIA, of Lake Worth, Fla., is in the first of his two years as secretary.

The college of fellows, which invested 62 new members in Atlanta, elected William J. Bachman, FAIA, of Hammond, Ind., as chancellor.

Other convention highlights included the city itself, explored in a wide-ranging series of host chapter tours. Atlanta's Mayor Maynard Jackson, speaking at the opening session, asked the attendees to leave the city their ideas. "Here in Atlanta we use ideas," he said, and the tours bore out his words.

The convention's two largest social events were held outdoors: The customarily huge Dodge party, in the streets of Underground Atlanta, and the even larger host chapter "Festival of the 13th Colony," in the plaza of the Colony Square complex and the Atlanta Memorial Arts Center.

Ed. Note: The above is the first of four installments of the Journal's convention coverage. The second, on the following page, is a summary of the theme sessions by the architecture critic of the Chicago Tribune. We chose to reprint it because, first, it is an excellent account of what went on and, second, given the nature of the theme, it seemed particularly appropriate to present an outside view.

Subsequent issues will contain a detailed summary of convention actions on resolutions and bylaw changes and results of the testing of the fit between architects' perceptions of a series of spaces in Atlanta and those of users and other laymen.

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People and Buildings: Atlanta Convention's Professional Program

By Paul Gapp, architecture critic of the Chicago Tribune; reprinted with his permission courtesy of the Tribune.

The difficult marriage between architects and behavioral scientists has finally been consummated and is slowly beginning to give us better buildings in which to live, work and play.

This happy trend was given fresh impetus last week when The American Institute of Architects [AIA] held its annual convention here.

Workshop sessions focused on precise methods of finding out what people really want in the enclosed spaces and in the cities they inhabit. None of the 1,500 architects who attended was naive enough to believe that this scientific input will suddenly kill off the brutalist and boring design we are getting as a result of swollen corporate egos and schlock developers.

But some of the case histories recited prove that behaviorists can help humanize structures which too often please everyone except the people who must inhabit them.

In Oxford, N.Y., for example, state officials hired Edward Ostrander, a behavioral scientist from Cornell University, to collaborate with architect James Groom on the design of a new nursing home.

Ostrander spent 10 weeks in the home that was to be replaced, questioning residents about every detail of their daily lives, from their bathing and eating habits to their most intimate needs, dislikes and idiosyncracies.

He held 26 conferences with Groom, who chose to travel around the home in a wheelchair as he joined the spirit of meticulous inquiry. The architect found himself deluged by Ostrander’s data (“That guy did everything except count the dandelions on the lawn.”) and the two spent considerable time arguing.

What resulted, however, was a design which springs from deeply felt user needs, not standard blueprints or intuitive reasoning.

Groom gave the oldsters porches fronting on miniature activity malls which yield pleasure akin to that offered by hobnobbing on an old time village square, or strolling through a shopping center.

Acting on the scientist’s findings, the architect decided against private bathrooms for the elderly didn’t mind sharing them but came up with ingenious floor plans which give each resident a strong feeling of privacy, self-identity and “turf.” Even in single rooms shared by husbands and wives, there is a careful delineation of spaces which each spouse can call his own.

Another research project—this one in Alaska—brought together U.S. Army architects and social psychologists from the Environmental Research and Development Foundation of Kansas City, Mo.

Their job was to find out how to improve housing for military personnel and their dependents in isolated, often snowbound, areas.

After lengthy study, they learned that simple changes in building layouts and materials could improve everything from the sexual lives of married couples to military morale and the efficiency of base commanders.

Behavioral science also can have a profound effect on city planning, as Milwaukeee officials discovered after they got a federal grant to obtain new kinds of academic research inputs.

The process was described by Herbert Heavenrich, Milwaukee’s planning director, and Amos Rapoport, professor of anthropology and architecture [an exquisitely rare cross-discipline] at the University of Wisconsin in Milwaukee.

When planners turn away from their coldly impersonal charts and maps to find out how people think and act, they are likely to abandon widely-accepted simplistic thinking and orthodoxy, the two agreed.

Among their tentative observations:

• Trying to keep cars out of the central city by improving mass transit may be totally unrealistic and self-defeating in an auto-dominated cultural milieu.

• Spending millions on “anticrime” high-intensity street lighting may be a vast waste of money, because crime rate decreases can turn out to be temporary.

• Planners decide what high density is by looking at color codes on city population maps. Ordinary people decide what it is by what they see, hear and smell; by the amount of jostling they encounter, and whether otherwise busy areas go dead during some periods of the day.

• Traditional planning concepts of what a “neighborhood” is have become totally irrelevant. New studies show that people consider the area of 75 to 150 acres in their immediate vicinity as their neighborhood, regardless of what it looks like, or what happens to be there.

• City leaders with a “suburban mindset” tend to impose their value systems on urbanites when they decide what parks ought to be. Many haughtily regard parks as “people pastures.”

All of this has huge implications for zoning and other forms of policy making. Rapoport said the job of assembling and disseminating behavioral science data among city planners and administrators is staggering. “Because there is so much of it, and it is growing at an exponential rate.”

Clearly, however, Milwaukee appears to be in the forefront of a revolutionary new kind of city planning.

The convention keynote speaker and intellectual stimulator-at-large was Hein Von Foerster, a professor emeritus at the University of Illinois whose specialty is the physics of perception.

“You do not perceive that you do not perceive,” Von Foerster told the architects.

“You must ask yourselves, ‘How do I think about the way others think about the way I think?’ ”

Von Foerster’s pedagogical exhortations were not always easily understood but beneath his highly cerebral view of humane design there was almost a kind of poetry.

Essentially, he was saying that architects must break out of their mental straitjackets—technological, esthetic and imitative. They must grow new sets of eyes. Only a small fraction of the nation’s 40,000 architects heard all of this, of course.

But among those who did, there seemed to be an interest of intensity and reaction which went beyond the ordinary, fleeting stimulation of a well-planned gathering of professionals.

After listening to one particularly exciting workshop on behavioralism, Richard M. Bennett, a veteran big league Chicago architect, turned to a companion and said:

“All of this is the future of architecture. I’m convinced of that. For years, we have been teaching architecture students about nothing but buildings.

“Now we’ve absolutely got to start teaching them about people.”

Recent Congressional Testimony by AIA

Representatives of AIA have appeared before a number of Congressional committees recently. Among the legislative proposals on which testimony has been given:

• Public Buildings Cooperative Use Act of 1975 (S 865). Robert A. Burley, an AIA board member, testified before a Senate subcommittee that the Institute gives “strong and enthusiastic support” for the proposed legislation. Not only does the bill require the government to preserve public buildings of “historical or architectural significance” where feasible, but it also encourages public access to and the stimulation of “public pedestrian traffic around, into and through public buildings complementing and supplementing commercial, cultural, educational and recreational resources in the neighborhood of public buildings.” Moreover, the bill stipulates that encouragement be given to the use of public buildings outside regular federal working hours.

continued on page
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Going On from page 10

Burley praised the adaptation of public buildings to "function as integral parts of the urban environment." He said that government buildings traditionally have been "giant monolithic monuments which shelter the bureaucracy and effectively prevent a vital and necessary interaction between government and the people." The proposed act, he said, "encourages an increased dialogue between people and government."

Burley said that the legislation, which was also supported by spokesmen for the Public Buildings Service, the National Endowment for the Arts and the New York Landmarks Preservation Commission, in the short-term may not appear to benefit architects who could profit by commissions for new federal office projects. But, he said, "We should all recognize that America has produced many great architects, planners and builders. Together they have produced city fabrics that are often sound and reusable, although often misunderstood and unappreciated. Federal government demonstrations that these cultural and physical resources can be wisely utilized will play a major role in the revitalization of our society."

- National Resource Lands Management Act (S 507). Robert B. Riley, AIA, a member of the Institute's regional development and natural resources committee, told a Senate subcommittee that AIA views this legislation as a "much-needed first step" toward sound management and planning of public lands administered by the Bureau of Land Management. The legislation establishes a comprehensive policy for the management of federally owned resource lands which constitute one-fifth of all the land in the U.S.

Riley said that the proposed legislation would give the bureau the basic statutory powers needed to administer its lands and enforce its regulations. He said, however, that AIA considers the legislation incomplete in some respects. Although it requires a review of lands classifiable as wilderness, the bill allows 15 years for completion of the review. During this period, said Riley, many of these lands could be "irretrievably damaged."

Riley said also that the bill does not address adequately the environmental problems caused by the Mining Act of 1872, and he called for new legislation that would require environmental controls, reclamation and balanced review of use priorities, instead of automatic priority for mining.

- Funds for historic preservation in 1976. John F. Hartray, AIA, chairman of the Institute commission on environment and design, made a statement on behalf of AIA before the Senate committee on appropriations, in which he said that AIA supports "full funding of the historic preservation programs administered by the National Park Service under authority of the National Historic Preservation Act of 1966." He said that AIA also recommends an expansion of the Historic American Buildings Survey.

"As the cost of building materials continues to escalate ... and as the nation becomes increasingly preoccupied with the current economic recession and scarce energy supplies, historic preservation is recognized as an energy-conservative, labor-intensive method of adapting historic properties for contemporary use," Hartray said. "Federal funding makes possible effective state preservation programs and provides incentives to developers, investors and planners."

He said that the National Park Service estimates that states will request $186.5 million in matching grants and that AIA is disappointed that the Administration's fiscal 1976 budget request of $20 million for the grants-in-aid program does not equal the $24.4 million authorized. "Even this funding level . . . will not nearly approach the matching funds the states themselves are able to provide," Hartray said.

- Funds for design and planning assistance in 1976. Charles H. Kahn, AIA, chairman of the Institute committee on community development, told a House subcommittee that AIA supports an appropriation of $15 million to enable the Community Services Administration to "provide financial aid to community-based organizations furnishing design and planning assistance to communities and individuals in urban and rural poverty areas."

Before the establishment of community design centers, those in poverty areas "rarely had access to services accepted as commonplace" by more affluent segments of the society, said Kahn. He called the establishment of an "independently funded design and planning assistance entity" crucial to the realization of development objectives of the communities served. CDCs, he said, also contain an "educational component" in that they make the communities aware of the "character and potential of the services offered by the centers."

Kahn described CDCs as "chronically underfunded," saying that they have no alternative but federal funding. "Even when revenue-sharing funds are available," he said, "local governments do not always recognize professional design and planning services to low-income groups within their boundaries." CDCs, he said, are the "only source of professional design and planning expertise which is responsible, at the grass roots level, to the communities they serve." Kahn said that the projected value of voluntary professional services during a fiscal year is $45 million. The appropriation of $15 million would provide basic operating and overhead expenses for 145 CDCs.

Theater Wired to Aid The Hard of Hearing

Those who are hard of hearing are now enjoying performances at Philadelphia's Walnut Street Theatre. This is made possible by the installation of an "audio loop"—a wire strung around the perimeter of the theater and energized with amplified sound from the stage. The sound from the stage, picked up by the amplifier, is fed into the loop and then radiated out to be picked up by a tele-coil in a hearing aid.

The wearer of the hearing aid can listen without such distractions from the audience as coughing and program-rustling. He simply sets his hearing aid dial on "T", for telephonic induction coil and is able to hear even better than a person with normal hearing. The only equipment needed is the loop wire, an amplifier and microphone.

The idea was introduced to the Walnut Street Theatre by Dr. Michael Weiner, a local dentist and member of the Philadelphia Hearing Society. He learned about the audio loop system and its use in classroom rooms in schools for the deaf. With this simple installation, the hard of hearing can now enjoy the theater, opera and concerts.

Wright Windows Stolen From Rochester House

A house in Rochester, N.Y., designed by Frank Lloyd Wright, was burglarized recently. Four leaded glass window panels and frames were stolen from the detached garage. The panels, the same design as the windows in the house, have been called "abstract paintings executed in leaded glass."

The house, completed in 1908, was built for Edward Everett Boynton. It is a designated city landmark and is regarded by architectural critics as one of the most architecturally significant structures in the metropolitan Rochester area.
The house, on East Boulevard, is presently owned by Mr. and Mrs. Louis M. York Jr., who have offered a "substantial" reward to anyone giving information leading to the recovery of the stolen window panels. Anyone with information may contact the Clarks at 16 E. Boulevard, Rochester, N.Y. 14610 or the Rochester police Department at (716) 232-7070, 308. The case number is 371976.

Funds Sought To Save Rietveld-Schröder House

The Rietveld-Schröder house in Utrecht, Holland, celebrated its 50th anniversary in 1974. Designed by Gerrit Thomas Rietveld, in close collaboration with the interior designer Tr. Schröder-Schräder, the house is discussed in nearly every study of 20th century architecture. It is important

Students Win Awards For Research Centers

Hector Ossa of Pratt Institute has won first prize of $1,000 in the 13th annual student design competition sponsored by InterRoyal Corp. A second prize of $500 went to Forest R. Knowles of Auburn University, and the third prize of $250 to Robinton Homi Shroff of Illinois Institute of Technology. Honorable mentions were earned by R. Stanley Jacobson of the University of Oklahoma and by Felton Lamb of the University of Arkansas.

The entrants were to design a complete ecological research center to be the focal point of a university complex. In the hypothetical situation, a problem of siting included a traditional bridge, spanning a dry river bed, which was located dead center in the middle of a three-square-mile parcel of land allocated for the center. Both functional requirements and esthetics were taken into consideration in the judging. The panel of judges for this year's program were New York City architects and designers Richard Roth Jr., AIA; Hans Krieks and Jim Morgan.

Reynolds Student Award Given Tennessee Team

A team of six University of Tennessee at Knoxville students is winner of this year's Reynolds's aluminum prize for architectural students. The team won the $5,000 prize for its design of portable dome-like structures which were constructed on the university's agricultural campus as an outdoor classroom and plant storage space. The awards jury called the design "extraordinarily sophisticated."

Two $1,000 honorable mention prizes were awarded to Robert J. Dunay and Jay E. Stoeckel of Virginia Polytechnic Institute and State University for the design of a portable forest modulator, and to Stefan J. Cypel, Vernon David Croft and Steve Oubre of the University of Southwestern Louisiana for the design of a floating aluminum production plant.

Competition for Stadia Adaptation

The Philadelphia chapter/AIA and the 41st International Eucharistic Congress are co-sponsoring an architectural competition to make the Veterans and the John F. Kennedy Stadiums in Philadelphia suitable for liturgical worship. The design will incorporate platforms, altars, audiovisual and lighting systems and movement patterns for celebration of masses. The competition is being conducted in anticipation of a major assembly of world Catholics and other Christians at the IEC in Philadelphia in August 1976.

All registered architects in the U.S. are invited to participate, although architects not practicing within the jurisdiction of the Philadelphia chapter/AIA must associate with a Philadelphia firm to compete.

The winning design will receive an award of $5,000; second and third places will be given $2,000 and $1,000.

Veterans Stadium seats 66,000 people in a seven-tiered octorad. JFK, encompassing an area of 61.5 acres, is 2,250 feet long and 1,450 feet wide. The stage design for this stadium should accommodate up to 300,000 viewers in the stadium and the surrounding parking areas.

The program for the competition will be available on Aug. 1, although those who continued on page 56
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Of Liability, Litigation And Insurance

It couldn't have happened at a worse time. Smack in the middle of an economic crisis the principal carrier of architects' professional liability insurance announces increases in premiums averaging 77 percent for the first $100,000 of coverage and 106 percent for amounts over $900,000.

The outcry was immediate and blame was cast variously at the carrier, Continental Casualty (CNA); AIA and, in particular, its insurance committee; the Victor O. Schinnerer brokerage firm which administers the liability program for AIA nationally; unscrupulous attorneys, and nearly everyone else in sight.

In truth, the liability crunch is the product of complicated forces and circumstances that extend well beyond the boundaries of the architectural profession, as evidenced by recent headlines about striking doctors. And it is hard to find a certifiable villain in the picture.

The outcry, however, has been heard clearly by the AIA board, which has devoted large portions of its last two meetings to discussion of the problem and review of the liability program. Out of the most recent, the preconvention meeting in Atlanta, has come a task force which will examine not just the program but the entire situation, including the rise in the number of suits and severity of judgments against architects and means of reducing the profession's vulnerability to such actions.

Out of the board discussions, which had a kind of guarded tension about them, these seem some of the questions that the task force is sure to address (as the insurance committee already has, painstakingly and sometimes painfully):

- Are there other carriers than CNA which might offer lower premiums? So far the insurance committee hasn't been able to find any that it felt capable of handling a national program, but it is continuing the search.
- Should there be a single national program, or should AIA endorse a variety of regional carriers around the country, and let the competition of the marketplace do its work on the level of premiums?

One such carrier is Design Professionals Insurance, which covers some 200 architects in California and Colorado and is expanding into Washington and Oregon. Since entering the field in 1971, the firm has raised its rates only once, a 35 percent increase this year. But it is admittedly choosy about whom it insures.

Schinnerer representatives argued to the board that only a national program could generate the kind of information, and the profits, necessary to support the loss prevention activities (such as seminars) that it now conducts for AIA at a
cost to the company of some $350,000 per year.

- Should AIA itself get into the liability insurance business? The committee has not ruled out this possibility, but self insurance would require a large amount of capital and substantial annual budget items for administration and such ancillary activities as the loss prevention program.

- What about carrying insurance on individual projects instead of across the board and including the premium in the architect's compensation? Project insurance is available but CNA requires that a firm carry an underlying policy of professional liability insurance.

Passing the premium on to the client becomes more feasible with the spread of cost-based compensation methods. But, of course, there are clients who will stand still for it and clients who won't.

The root cause of all of this anguish is starkly simple: Like other professionals, architects are being sued more, held liable more, and jury awards are becoming more frequent and more expensive. When this happens, premium hikes follow as night follows day. Says James Stevens a Schinerner vice president, "What we're doing now is trying to get enough here to pay claims over there. And the claims have escalated in value."

One factor pushing them up is inflation. Most claims—a Schinerner official estimates between 70 and 75 percent—involve design and/or construction error. (While third party bodily injury claims have resulted in some large and widely publicized awards, these account for less than a quarter of the total number of claims paid out.) And as time passes in litigation the cost of correcting error rises inexorably. A piece of work that cost $100,000 two years ago could cost $140,000 or even $200,000 to redo today.

Why the increase in the number of court actions and awards? There is no reason to believe that architects are committing more errors than they used to. (Indeed, Schinerner's Stevens points out, in 1974 there was $134 billion in construction and only $37.8 million in successful claims against design professionals.)

Rather, the reason seems to be what one observer called "the rush to litigate" in an increasingly consumer-conscious age. "This is the most legalistic society that man has ever known," says George White, FAIA, Architect of the Capitol, who is also a lawyer, an engineer and a member and former chairman of the Institute's insurance committee.

"The question of the liability of the professional is being hit hard," White says, "but society expects a higher level of professional competence than ever before. You can't expect perfection, but we tend to."

The question, to White, goes beyond rate increases or even insurance as such. "It is a question of legal liability for professional practice. The question which needs to be answered is, 'What should society expect of the architect?'"

In search of an answer, and a solution to the liability crisis, White comes up with a challenging list of "maybes"—"Maybe the licensing procedures are inappropriate. Maybe we need more policing of the profession in a more stringent way. Maybe the education of architects needs to be changed to accommodate a higher degree of specialization. "Maybe everybody who is an architect shouldn't be an architect."

"The problem is in the management of firms," says Arthur Kornblut, AIA, former Institute professional practice administrator now in practice of law and specializing in liability. "Firms let themselves get snookered into positions where they are accountable for things they shouldn't be accountable for."

Says Kornblut, "A lot can be avoided by common sense and good practice." But he acknowledges that "it's a very complex problem and finding solutions isn't easy."

And he adds, "It's a little like squeezing a water bed. You push a little here and it pops up over there."

White is certain of one thing: "Time is running out for reasoned solutions. If we don't act now we'll be in a situation of crisis management. The whole problem calls for a concerted effort—a careful, objective study. We must use an industry-wide approach and take it to the legislators, bar associations, labor—everybody connected with this. We're not going to solve it by leaving anybody out." Donald Canty and Beth Dunlop
Interiors as Architecture—And as a Market

“Unless a building is efficient, pleasant and comfortable for the occupants, it doesn’t work no matter how well it may look to the person walking around it.” So saying, Louis Beal of Interior Space Design, an offshoot of the architectural firm of Perkins & Will, argues that architecture cannot legitimately be separated from interior design. A major reason, then, for architects to venture into interior design is to maintain control over their buildings, “to make sure that a contemporary building isn’t filled with Queen Anne furniture,” says David Dibner, FAIA, of Newark. Another reason, of course, is the hope of developing new business at a time of low building activity.

During the boom years of the ’60s, architects withdrew more and more from interior work, partly because of increased specialization, partly because abundant commissions impelled architects to relinquish their grip on projects sooner and leave their completion to an ever-growing list of specialists. But with the boom yielding to recession many architects are taking a new look at the interiors market.

Interiors work is affected by the same forces as have hit the building industry in general. With construction sharply down, interior design commissions on new buildings have dipped accordingly. And reports of interior designers forsaking the upholstery business and related trades are not uncommon.

On the other hand, there is work waiting to be done if architects can overcome their preoccupation with design of new buildings. For new construction, even in the best of times, only adds a tiny fraction to the nation’s stock of buildings. And uses and users of existing buildings are continually changing, which means that there is a constant market for remodeling, redecorating and replanning existing space.

Moreover, architects who do interiors work, on either new or existing buildings, generally report it to be more profitable than building design. And there is some evidence of new and expanded interiors markets beginning to open.

One such source of business is adaptive use of old buildings, going beyond remodeling to a complete change in function.

The adaptive use market is expanding dramatically. One reason is the rise in sentiment for preserving historically or architecturally significant buildings—or, in many cases, simply the old and familiar.

Perhaps a more significant reason is the savings in energy, money, and sometimes scarce materials that can result in adapting an existing building instead of starting from scratch.

A brand new market is opening up as a result of the recent decision by the General Services Administration to award separate interior design contracts on its buildings for the first time. (GSA’s new budget contains $440 million just for repair and alterations of the office buildings it owns.) “I see a tremendous market for architects in space planning and interior design,” comments Kent Slepicka, who heads GSA’s new special programs office.

GSA will announce its interior projects in the Commerce Business Daily, and proposals sent in reply will be judged by how well the respondent understands the project and the problems it poses, how well it can organize to undertake the work, how solid are the qualifications of the people who will do the work and how economically it proposes to complete the project.

Says Slepicka, “We are not concerned with what you call yourselves, but only with what you can do and that you do it well.” He mentions that, potentially at least, architects have a number of advantages in competing for interior design commissions. “If you’re trained to see the big picture as architects are,” says Slepicka, “you’re more likely to be able to fit the components into it.” He adds that the architect is more accustomed to assuming a position of leadership and to coordinating his work with that of others involved in the project than the typical interior designer is. On the whole, the profession continues to enjoy more credibility than interior design.

“The real task,” says Slepicka, “is for architects to realize that they have these advantages and to capitalize on them.” They must gear up for the effort, and Slepicka points out the danger that by falling to do so adequately, architects might let this opportunity slip through their fingers in much the same fashion as they relin-
quished their grip on value engineering and construction management.

When compared to other aspects of architecture, interiors work frequently provides an ongoing source of business. Once completed, a building's shell is not likely to need further attention from an architect unless, of course, he did a questionable job to begin with. But interiors constantly need refurbishing, and if the original designer's work was satisfactory, he will, in all likelihood, be called again when executive offices are due for remodeling or a branch office needs sprucing up.

Some architects have obtained continuing maintenance contracts on their interior work and are called on almost every time a waste basket needs to be replaced.

One way of offering such a service has been developed by Robert Levison, FAIA, of Clearwater, Fla., whose firm provides one or two free "check ups" at pre-established intervals after completion of the project. These visits can serve to further cement relations with the client and as an opportunity to discuss possible future projects. They also provide the architectural firm with a basis for developing a fee for continuing maintenance visits for another year or more.

Says Levison: "Like every market you'll go into, if you haven't got the expertise and you don't want to learn it, stay away from it—you can do nothing but be clumsy. But I feel that architects for a good number of years have been giving too much away."

Virtually everyone involved in interiors cautions that few, if any, architects can hope just to walk into actual space planning and interior design and succeed unless armed with special training and/or experience. "That would be like asking a vet to do heart surgery," says George Nelson, FAIA, of New York. Norman De Haan, AIA, president of the American Society of Interior Designers, adds that many architects think they can still approach interior work as though nothing had changed since the days when Herman Miller's and Knoll International's furniture was routinely used everywhere. He finds it ironic that architects who otherwise bristle at using predesigned building components are willing to do precisely that when it comes to interior work.

There are several levels of interior design, and architects' comfort and capabilities to deal with them vary with each. The most basic level is the creation and shaping of spaces, which is the very stuff of architecture.

Next comes the planning and arrangement of spaces. This, too, is a normal part of the architectural process, but space planning has come to be all but dominated by others, especially in the office building field.

In fact, the nonarchitect space planners, some of them huge firms, are making further inroads into architecture by "designing from the inside out" before the architect begins his work. A notable example is the Sears Tower in Chicago, where some interiors were planned by SLS/Environetics, the biggest firm in the field, before Skidmore, Owings & Merrill had completed the building's design.

A third level of interior design is the provision of mechanical and electrical services and other fixed elements, which also is clearly and traditionally within the architect's purview. The largest problems and questions occur at the fourth level—the selection and provision of furnishings and other movable and decorative objects. Here the architect has another set of competitors: established interior design firms, interior decorators and manufacturers who offer free design services.

Here he also requires a wealth of special knowledge which he may find far from second nature. He must know the properties of various fibers, their colorfastness, durability, various bonding methods, the advantages of certain weaves over others. He must be familiar with methods of laying carpet; the workability and stitching qualities of draperies; cleaning methods for different materials; the working parts of different types of furniture, and choices in components or systems of furniture. Of the thousands of new items put on the market each year, few have lasting quality or are worth remembering, but the interior designer must know basic information and available sources for obtaining furniture and equipment.

Venturing into interior design also requires accepting certain attitudes and confronting problems that either do not exist, or exist to a much less troublesome extent, in other architectural work.

In the realm of attitudes, for instance, one must deal with the fact that although the exterior of a building, once complete, is generally fixed almost forever, its interior is something that people not only work and live in, but work on. In order to effectively plan interior spaces, changed patterns of use must be anticipated, which allow for alterations in company policy and personnel preferences. Observes Norman De Haan, "Our work is cast not in concrete, but in cotton."

Many architects still have a strong resentment against what they consider to be a quasi-profession, as is evidenced by the fact that among the 79 architectural schools accredited in 1974-75, only six offered programs in interior design: Auburn University, University of Florida, Kansas State University, Louisiana State University, University of Oregon and Rhode Island School of Design.

For the most part, such prejudices are no longer deserved. Interior designers are taking steps toward achieving increased professionalism, as evidenced by the formation of a newly integrated professional society, the American Society of Interior Designers, which emerged from a consolidation of the former American Society of Interior Decorators and the National Society of Interior Designers. The new society is for the first time accrediting educational institutions which offer interior design degrees and is working toward the licensing of interior designers.

A continuing problem of interior design work is the absence of standard practice and procedures. In an attempt to rectify this situation and to further professional interior design, AIA and ASID recently established a joint commission whose purpose is "to provide a forum among those who furnish interior design services and products in order to foster excellence in interior environment." Among the stated immediate goals of the commission are to develop standard contract documents which will have the approval and endorsement of the several organizations involved in the field; to exchange inform
n and establish a definition of roles and responsibilities of the various segments of the industry, and to establish professional standards and practices.

Prevailing mythology has it that interior signers make a profit of some 20 percent and more. In truth, however, the majority of well-organized, established firms report profits of between 10 and 15 percent.

Many architectural firms with limited resources and/or experience find that interior work is a financial drain. Usually this is because they either give the service away free just to prevent their clients from being ruined by some perhangers; or they underestimate it; or they don't know how to deal effectively with interior clients.

Says Louis Beal, "You should be able to make 10 percent on all projects." He states that calculating costs on a time basis usually preferable to a fixed fee, since you can't lose money this way and don't have to wait for payment until completion of the project.

"Generally speaking, if the scope of the b is clearly defined," says Warren Platner, FAIA, of New Haven, Conn., "we charge a percentage. If the scope is mewabulous, we charge for time and materials."

The problems and frustrations involved in obtaining equipment and furniture and dealing with the furniture industry are giol: Notice comes without warning—opportunity for recourse—that deliveries will be delayed 10 weeks and prices raised 10 percent. Period.

However, Platner contends that the barriers to obtaining supplies for interiors are no higher than those encountered in her types of design work. "The folly," says Platner, "is in allowing years for the completion of the outside, but expecting the furnishings to be integrated in weeks. Interior work is not given sufficient time and importance."

In almost all cases, furnishings and equipment are obtained through an interior contractor who is responsible, at least in principle, for deliveries and should be obligated by contract to provide substitute materials on schedule if deliveries are delayed. In reality, however, the designer must oversee the contractor at almost every step. Goods are ordered in the client's, not the architect's, name, but come to the designer to be reviewed and to be authorized for payment.

Problems often begin with writing specifications, which is not at all the relatively straightforward matter it is in other aspects of architectural work. There is, for example, no central, comprehensive source book for interior design equipment comparable to Sweet's catalog for building supplies. Contract documents for interiors are only now in the works. And when it comes to pots for plants and other special items, specifications writing becomes extremely difficult, if not impossible. Nonetheless, advises an experienced interior designer in the employ of an architectural firm, "Specifications should, where possible, be written with the same thoroughness as for other architectural work and the designer must at every step have the full support of the client in insisting they be met."

When it comes to certain accessories—oriental rugs, fishnet, antique lamps—the designer may have no option but to make purchases outright, which he cannot do except in his own name without forsaking the discount allowed him as a professional. He will then resell, which can raise a host of problems. The architect will have to establish a separate organization to buy and resell. Legal questions may also develop over such matters as responsibility for warranties so long as there is no buying and reselling.

"Some architects seem to forsake professional standards and procedures when it comes to interior work," says William Ensign, FAIA, of Washington, D.C. He advises that the best way to cope with the problems of obtaining the right materials on schedule is to "practice your interiors less, advises an experienced interior designer alike, mainly because anybody can become a decorator and numerous nobodies and untalented busybodies have chosen to do so. Then, too, decorators generally charge a percentage of the furniture specified, which is considered a most undecorous procedure by nondecorators.

Furniture manufacturers who offer "free design services" are another source of competition. In reality, of course, such services cost the client dearly in the form of commissions earned by the "free" decorators and designers they employ, and by eliminating the opportunity of obtaining competitive bids for furniture. Moreover, the client often runs into unexpected costs because the decorators employed by furniture manufacturers are almost always at a loss when it comes to moving a wall or an electrical outlet, which means expensive outside help must often be called in.

It becomes a task of the designer to educate the client to the fact that only the professional who is independent of manufacturers can be counted upon to be guided by the client's best interests and to specify equipment that is appropriate rather than just expensive.

The key to keeping the problems inherent in interior design work from becoming unmanageable is in making a serious commitment to it. To embark upon it with an attitude that it is a lesser art, or a form of "powder puffery," is a sure prelude to disaster. "If you have a prejudice against it, it's not going to work," says Ensign. "You must believe in it on principle."

Andrea O. Dean
Interiors as An Integral Part of Practic

Occupying a maze of offices in a convert Philadelphia mansion, Geddes, Brecher, Qualls & Cunningham exemplifies the medium-sized firm which considers interior an integral part of the practice of architecture.

There never was a time in the firm’s 22-year history when it did not include interior design among its services. Its attitude toward interior work is characterized in a statement by Robert Geddes, FAIA who is also dean of the Princeton School of Architecture: “A planned milieu shot recognize that it serves a purpose in human communications, that it creates expectations, guides, behavior, disappoints or satisfies.” Bob Geddes was a pioneer among architects in recognizing the value of working with behavioral scientists and exploring user needs. Such a concern leads naturally to involvement in interior design.

Associate Roland Gallimore, AIA, a tall, silver-haired man with a patrician appearance and a genial, deliberate manner, heads GBQC’s interior design and graphics “department” of four persons. It is a department mainly in name, since its members, all architects, wear several hats. For a number of reasons the firm does not employ interior designers unless they are also trained in architecture. GBQC does not actively solicit independent interior work and does not always have enough work to keep its interiors people busy. They must, therefore, be able to take on a variety of architectural tasks. Moreover, Gallimore’s team is involved from the very inception of architectural projects and must be able to fully understand them. His experience is that “interior design schools fail to teach even primary drafting skills.”

As a founder and past president of the Interior Design Council—an organization established in the Philadelphia/Wilming- ton area five years ago to set ethical and professional standards for interior design—Gallimore has as one of his main objectives the raising of interior design school standards.

In his opinion, the special skills and attitudes required by those working in interiors are primarily in the area of business—knowing the furniture business and how to deal with its frustrations—rather
in design itself. He points out that, historically, interior and furniture design have been spin-offs from architecture, and that some of the most renowned architects have also been the most respected designers of interiors and furniture, citing Le Corbusier, Aalto, Mies, Breuer.

GBQC's approach and attitude toward such problems of interior design, as dealing with clients and with the furniture industry, are consistent with the firm's general concept of interior work as an integral component of the overall architectural process. Recognizing that clients are most reluctant to negotiate a separate fee for interior work, GBQC at the start determines one comprehensive fee which includes interior design.

"The problem of delays in deliveries is something everyone has to live with," says Gallimore. If the involvement of the interior design group starts early, orders can be placed with such delays in mind. "We permit 12 to 18 weeks for deliveries." He regards himself as being fortunate in having established a good working relationship with a reputable interior contractor who takes full responsibility for storing and installing furniture and equipment, filling claims for damages incurred during shipment and so forth. Headed by an architect, the interior contracting firm took its name, G-4, from the World War II army supply corps.

In talking about his design approach to interiors, Gallimore draws a distinction between the typically more emotional, romantic approach of the decorator and the more cerebral, classicist view of the architect. "If an architectural element troubles you, change it," is how he characterizes the decorator's attitude. By contrast, the architect's approach—and that of Gallimore specifically—is to recognize certain rules of the road. "For example, work with structural grids that are prosanct." He adds that he actively enjoys the challenge of working within pre-existing restrictions.

A substantial portion of GBQC's recent interior design work has consisted of remodeling already existing spaces, which in itself imposes considerable limitations. In Gallimore's opinion, the market for re-
modeling work will continue to expand, and principally those firms that can offer a broad range of services will profit from it.

GBQC's distinctively architectural approach is readily evident in its design of the JG Furniture Co. in New York City and the dining common of the Institute for Advanced Studies in Princeton.

GBQC has quite ingeniously incorporated both open space and enclosed space concepts in its design for this furniture showroom and office area. Without cutting the space up with partitions, GBQC has divided it into functionally discrete display areas, plus private offices. This was accomplished by placing a square cube of bronze Plexiglas, near the center of the showroom, with walls canted approximately 90 degrees to the building walls.

The cube, which conceals four irregularly spaced columns, contains the administrative offices, salesmen's stations and a conference room. Jutting into the surrounding showroom space, its four corners divide the showroom into quadrants.

Because it is highly reflective, the central cube further serves to make the showroom area appear larger than it actually is. Also deceptive is the shape of the cube itself. Although it appears fully enclosed, it actually has openings, recesses and doorways. It is given a continuous rectangular outline, however, by the color of its carpet, which is darker than that in the surrounding showroom.

A reception area at the showroom's entrance, also clad in bronze Plexiglas, repeats and prepares the eye for the larger, freestanding core area.

On three sides of the showroom there were large windows framing dramatic views of the city. In order to prevent these cityscapes from distracting attention from the furniture displays, without eliminating them altogether, GBQC covered the windows with a wool scrim stretched over aluminum frames. The result is to soften sharp detail and produce a mural-like effect.

In many ways, the dining hall common of the Institute for Advanced Studies in Princeton serves as a summation of the firm's approach to interior design. The common is part of a $4 million dollar project completed by GBQC for the Institute in 1972. While the independent interior design firm of Semanko-Bobrowicz served as consultants and assumed responsibility for production aspects of the project, GBQC exercised overall design control.

The Princeton complex, like most of GBQC's completed projects, belongs in the tradition of the international style of architecture. Perhaps its most striking aspect is the continuity of design—from the shell, through the configuration of interior spaces, to the choice of furnishings.

Among the overall requirements of the Institute of Advanced Studies was that the buildings provide the privacy and solitude needed for independent study, together with opportunities for socializing. The two-story, glass-walled dining hall provides the major socializing space. It consists of a "coffee balcony" and a lounge below. Both areas are subtly divided into relatively open, active spaces, on the one hand, and more nearly closed and intimate ones, on the other.

About GBQC's work at the institute, Ada Louise Huxtable wrote: "The result is an extremely thoughtful exercise in solving functional needs with a maximum of taste and sensibility, a modicum of homage to some great architectural innovators of our time, and a thorough understanding of all those relationships of space, scale and personal response that make a structure work." A.O.D.
Organizing to Get and Execute Interiors Work

Without interiors work,” says Irving Schwatz, AIA, “I don’t think we’d be in business, especially since the large architectural firms are now competing for small objects.” Schwatz’s four-man firm, IDS, of Champaign-Urbana, Ill., is one of several surveyed by the JOURNAL which have found significant markets in interior design. The object of the survey was to determine how such firms organize for interior work.

While he would like to see architects more deeply involved in this area of design, Schwartz worries that “those who don’t go into it without experience or training will give the profession a bad name.”

Before starting his own firm, Schwartz spent 15 years in charge of interiors for Richardson, Severns, Scheeler, Greene & Associates of Champaign-Urbana. When he began, there were no available interior contractors. Therefore, furniture and equipment could be obtained only if it was bought the firm and resold, for which purpose legally separate organization had to be established.

The name, IDS, was invented on the spur of the moment during a telephone call, when one of the principals said casually to a prospective interior design customer, “We can have our affiliate, IDS, do the job.” When Schwartz (Irving D.), who was to head up the new organization, expressed surprise, he was told, “Your department, your initials. It can also stand for Interior Design Services.”

When forming his own firm in 1972, Schwatz kept only the acronym, except when dealing with a few furniture manufacturers to whom his firm will always be Interior Design Services.

Today, when IDS buys directly from manufacturers, it makes purchases in the name of the client, obviating any need to sell. IDS asks for a standard service fee for handling purchases. Its design fee is calculated on a time basis.

IDS’ methods of operations are governed in large part by its location. The main disadvantage of being outside a large metropolitan area, Schwartz says, is the inordinate amount of time and money needed for travel. Keeping abreast of new products and ordering furniture and equipment requires frequent trips to Chicago.

Another small (nine-person) firm which relies heavily on interior work is Clarence Krusinski & Associates of Chicago. In 1967, when he first set up shop (in the basement of his home), Clarence Krusinski, AIA, was 27 years old and in search of work that was in demand and would bring in revenue. He decided upon office building tenant work, “because the projects were of shorter duration and required less office overhead than does building design.”

He began by doing small remodeling jobs for owners of older buildings, and before long received a commission to plan the interior of a new building, “after a large New York firm had blown the job.” To this day, he still receives commissions from this corporation, and Krusinski says that “sound planning concepts and construction procedures are a major selling tool in this clients’ lease program.”

During the first years, says Krusinski, “we shied away from going beyond space planning. The furniture business was such a flaky area.” He soon felt compelled, however, to involve himself in all aspects of interior design, if only to support his architectural work.

In preparation for entering interior design, he surveyed the market and visited major interior contractors. Next, he went looking for someone to direct his program.

After interviewing both architects and interior designers, he decided that “an architect would probably duplicate our own abilities, and that an interior designer was more likely to lend a new approach and fresh perception to the work.” This decision led, as it almost invariably will, to the development within the firm of an interior department—in fact if not in name.

Krusinski underscores the importance of establishing good rapport with clients and of accepting the way they operate. “There comes a time,” he says, “when the client says, ‘you’re right, but I’m going to do it my way.’ And you can’t counter by telling him that his business is going to go to hell if he uses the rocking chairs he wants instead of the chairs you feel are right. It’s not like saying that if the concrete isn’t right, the building will fall down.”

Like most architects who do interior design work, Krusinski’s fees for it are calculated on a time basis. “If the client doesn’t value your time, he doesn’t value your talent,” he says.

Warren Platner, FAIA, of New Haven, Conn., came to national prominence when he developed and headed the interior design department of the Eero Saarinen office and its successor firm, Roche/Dinkeloo. His own 30-person firm is heavily, but by no means exclusively, involved in interiors.

“We don’t believe in specialization,” Platner says. The design staff is comprised entirely of architects, since “everybody who works here must be able to work on everything.”

Yet Platner believes that architects who do interior design require specialized training. He laments the fact that “architectural schools have no curriculae in interiors. They graduate people who have no familiarity with the subject.”

Platner takes the problems of interior design in stride, regarding them as challenges inherent in a mission, rather than as a cross to be borne. “You have to believe in it,” he says, “accepting the fact that it’s very difficult, that there is a greater mass of detailed work to be mastered and handled than in other aspects of architectural work.”

He points out that it is considerably more difficult to maintain control over an interior project than, for example, over construction work. “Every client thinks he knows something about it, and makes his own judgment,” he says. As a consequence, it becomes difficult to maintain a consistent style.

Jova, Daniels, Busby, a 40-person Atlanta firm, has pursued the more typical course of developing an in-house interior design department.

“Even on our earliest jobs—back when we opened our office in 1966—we tried to make sure interior design was given the same careful consideration as other aspects of our projects,” says Stanley Daniels, AIA. “We tended to attract clients who were in sympathy with this approach and we began getting separate interior design commissions early on.”

As soon as the firm could afford it, a
single interior designer was hired "just as an expediter, to handle the nitty gritty work of ordering." In time, however, she became an integral part of the design effort, and today Jova, Daniels, Busby employs eight interior designers.

They were made a separate department more for marketing than management reasons. The existence of such a department, the firm hoped, would underscore its commitment to interior design work.

In practice, however, design is not compartmentalized. Says Daniels, "We find that persons with different interests tend to have a stimulating effect on each other's work."

While Jova, Daniels, Busby does not undertake continuing maintenance on a contractual basis, informally it performs follow-up work for several clients who routinely call every time equipment needs replacing. The same clients also provide a substantial portion of new interiors commissions.

Recently, this firm has actively sought separate space planning commissions from developers. "Leasing agents find it easier to sell space if they can show a professional layout," says Daniels. He points out that small projects are often unprofitable, since fees are calculated by the square foot, but they must be undertaken or the firm will not be on the scene when larger, profitable jobs come up. Daniels adds that "in order to assure the developer that we are providing service without beating our own drum," his firm makes no direct effort to sell interior design as part of its space planning projects.

Daniels believes that interior designers add a positive dimension to the overall work of the office. He says that when the suggestion was made, not long ago, to move the interiors' staff to other offices, the architects vetoed the idea, preferring to remain slightly crowded.

Such mutual respect between architects and interior designers is, unfortunately, not always the rule. All too often, interior designers working for architectural firms are looked down upon as second class citizens by the architectural staff.

This was the case at Vincent G. Kling & Partners of Philadelphia, where the interiors department was regarded by many of the architects as a "powder puff" operation. Kling, however, did not share this view, and attempted to revitalize the department by appointing a strong and respected architect as its director. The action was announced in a memo to all staff, reading in part:

"We must eliminate the break in sequence which tends to exist between building design and interior design. They are one and the same process, with certain people more endowed in one area than in the other.

"Understanding the people problems in our building designs starts with the earliest examination of the requirements which form the program, the concept of the spaces, their functions, their human touches. . . . We want the interior staff to amalgamate with the architectural team in these early stages and stay with the process until the design is frozen. . . ."

Increasingly, the tendency has been for interior design departments to spin off from the parent firm. Principally, this is because such departments must be able to obtain independent commissions from other architectural firms in order to make a profit. Says Louis Beal, executive vice president of Interior Space Design: "Architectural firms are just not willing to plough their profits into a competitor." As a consequence, many interior design departments have taken a different name from their parent firm, created a separate image for themselves and even moved into their own quarters.

The emergence of Interior Space Design as a totally independent firm happened slowly, by stages, as is typical of the process. Formerly a department of Perkins & Will, ISD was incorporated as a subsidiary as early as 1960. In 1972, its principals bought their independence.

With offices in Chicago, New York, Boston and Houston, and with a staff of 130, ISD is today the country's second largest space planning and interior design office.

In an effort to skirt the growing pains of starting an in-house capability, some firms have acquired already established interior design companies as subsidiaries. John Carl Warnecke of San Francisco five years ago purchased the interior design firm of Eleanor LeMare Associates.

One obvious advantage to such an arrangement is that the new subsidiary brings with it the business contacts and experience it has built up over the years.

The establishment of a subsidiary by the firm of Ballinger & Associates of Philadelphia has a different history. The company had hired a designer to start an in-house department in the mid-'60s, only to discover, presently, that it could not generate enough business to be able to afford such a department. The solution adopted by the firm—a very successful one in this instance—was to set the designer up in business for himself.

Today, the resulting subsidiary, Environments, Inc., has a staff of eight, and some 80 percent of its business is completely independent of Ballinger. Environment permits Ballinger to buy good interior design services without having to maintain an in-house department, and he led to new architectural commissions.

An alternative to acquiring or developing such a subsidiary is to enter into a regular joint venture arrangement with a respected interior design firm. The Grad Partnership of Newark, N.J., chose this course after trying unsuccessfully to establish an in-house department. Partner David Dibner, FAIA, says that "we couldn't attract the best interior designer because they didn't want to be a part of a large architectural firm, and we couldn't establish sufficient rapport between the architects and the interiors people." The Grad Partnership began joint venturing with Kenneth Walker's interior design firm of New York in the late '60s. By 1971, the two were working together so regularly that the composite was commonly known as Walker/Grad.

If the advantages of such an arrangement are clear, the benefits of "doing it yourself" are perhaps even more compelling. They are summed up in the word "control." Says Vincent Kling: "We've always had an interior design division. To my mind, there is no such thing as interior architecture and exterior architecture—they're one and the same thing. What happens inside determines what happens outside, and if you don't have this in mind while you're designing a building, you can get some pretty brittle results." A.O.D.
East of some of the most prestigious addresses in New York is Manhattan's "ther island," as it is called in advertising potential residents. It is Roosevelt Island, now the New York State Urban Development Corp.'s half-finished new community, which, like UDC itself, faces an uncertain future. For half a century, this sliver of land in the East River had the somewhat inauspicious name of Welfare Island, and for more than a century its es—for hospitals, prisoners, lepers, phans, the insane—were even less spicuous.

All that changed rapidly when UDC took over the development of the island in 1969. Renamed (there is an FDR memorial by Louis Kahn at the island's southern tip), it was transformed in five years from one of the worst addresses in the city to what could be one of the best. It d a master plan by Philip Johnson, using by Jose Luis Sert, John Johanan and Ashram Bhavnani, trees, parks and a riverside promenade, and a prohibition against dogs and cars.

It also has an 8.8 acre housing site vacant and waiting. Last fall UDC announced a design competition for 1,000 units for this site. By the time the competition was under way, it had become pretty clear that UDC might not be in a position to build that housing for some time. Despite that, 268 architects submitted designs.

To understand this competition, said Joseph Wasserman, AIA, who was a juror, "one has to look at it from a variety of points of view and ask, 'why a competition?'" Often, he said, a client has a competition because he is looking for a breakthrough, for new ideas, for a solution which is really different. "But this is a little tiny piece of ground, not out in the desert but on an island which already has a strong design concept. A new breakthrough wouldn't have been appropriate for the land."

Another frequent reason for a competition, said Wasserman, is that the client doesn't really know what he wants. But the client knows a lot about what it wants to do, and a smart client can direct a smart architect to do a smart design." client hemmed in by politics might hold
a competition also, he said, but this, too, is not the case with UDC, which has a history of choosing architects on merit (see Feb. JOURNAL).

"The only reason for a competition was that (former president) Ed Logue knew that his days at UDC were numbered and knew that what he'd done was extremely important to housing.

"This competition was a device to publicize among the professionals of this country the issues, objectives and methodology of UDC and to get literally thousands of architects thinking about these things on this kind of scale."

It is possible that thousands did. The complex, comprehensive program was purchased by more than 700 architects, and was used in architectural schools across the country as a design problem.

In the end, four of the 268 actual entries were chosen as winners, a deviation from the original plan of selecting eight semifinalists and then a winner. But by the time the competition was judged in late April, UDC had plunged into a financial crisis of no mean proportion, and there was no assurance that the winning design would be built, leaving no need to narrow the entries to one.

The near-collapse and partial salvation of UDC occurred this winter. First, New York investment houses balked at the agency's willingness to keep on spending without immediate return on its investment. Then in February, when it looked as if UDC couldn't pay off the interest due on past bond issues, Gov. Hugh Carey asked for the resignation of Logue, and appointed New York builder Richard Ravitch as UDC's chairman. (Ravitch, incidentally, in 1972 had quit as construction supervisor for Roosevelt Island.) By spring, Carey and UDC had hammered out a deal with the state legislature for emergency funds and negotiated a credit agreement with the banks to finish the housing UDC had begun.

Today at least a third of the staff of the once-busting agency is gone. UDC's housing management responsibilities are being transferred to the state Department of Housing and Community Renewal. A commission is examining UDC, and at some point bigger decisions will be made about the future shape and powers of the super renewal agency.

The tribulations of UDC, however, failed to diminish the importance of the Roosevelt Island competition in the eyes of jurors, sponsors or participants. In eight years of existence, UDC, under the aegis of Logue, had developed an intricate method of balancing out good design with social goals such as privacy, sense of community and security. This effort has gained a good deal of recognition, but, even though UDC has built $1 billion worth of housing, relatively few architects have done the work. The competition gave practitioners across the country a chance to grapple with UDC's stringent and demanding standards.

"This competition was a way to make housing a legitimate problem for the talented thinking architect. Competitions no longer deal with just a city hall, a museum or a park," said Theodore Leibman, UDC's former chief of architecture. "We wanted to challenge the architect to no longer design to space standards only but to address housing issues, and we asked that those housing issues explain the scheme. We were challenging the architect to restore the identity of the single unit within the aggregate housing form."

The competition program carefully laid out both design and housing objectives, calling for detailed attention to the issues of community, child supervision, security, maintenance, livability and responsiveness to context. "This was the most remarkable thing about the competition," said Franklin Becker, a Cornell University social psychologist who was a juror. "UDC has for a long time been concerned with livability, but because this was an explicit part of the program the entries dealt with the issues more than in any other competition."

Said Donn Logan, AIA, of the ELS Design Group in Berkeley, Calif., one of the winners: "Because of UDC there's been a whole new focus on urban housing, and this competition should represent the state of the art."

The four winners may indeed represent the state of the art, but only in a narrowly defined way. Because the site and the island are quite particular and special in their demands, the winning designs are perhaps more accurately characterized as four very good solutions to a very complicated problem.

The 1,000-unit development had to fit in with the overall design scheme for the island, done originally by Philip Johnson FAIA, and John Burgee, AIA, in 1969 and modified over the years by UDC. Likewise the designs had to fit in with some assertive neighbors. The 8.8 acres are surrounded by the East River (and beyond it Manhattan) to the west, Octagon Park to the north, the motorgate parking garage (where all residents can be harbored) to the east, and the almost-finished Sert and Johansen-Bhavn housing to the south.

"This housing isn't just good, it's very good," said Wasserman. "Sert's is among the best in the nation." By the end of May, Island House, Johansen and Bhavnani's middle income apartment building had 20 residents and 25 percent of the apartments had been committed.

In part, the future outlook for Roosevelt Island is dependent on the marketing of these first 2,100 units. But to a greater measure, the island's future hinges on the future of UDC and the development climate in New York. The first apartments had 100 percent UDC mortgages; it is unlikely that a similar package will exist in the near future.

"The first and most critical issue facing us is 'can we successfully market what we've built?" said Robert Litke, executive vice president of the Roosevelt Island Development Corp., the UDC subsidiary formed to carry out the plan.

"Even if UDC hadn't had a financial crisis, we would not have gone ahead until we had a firm handle on the marketing. But right now we are totally unable to sell that there will or won't be any more. We just haven't got an answer," said Litke.

Said Joseph Fiocca, a UDC attorney: "I don't think Roosevelt Island can be looked at in isolation. The ultimate question is 'who is going to finance housing in the photographs are by Don Stickles. Above left, the pedestrian exit from the motorgate, and right, the electric minibus.
The Roosevelt Island Development project has already been spent and at least seven million dollars have been dependent on UDC: city which requires UDC to carry out a guarantee is the 99-year lease with the Sert housing link to Manhattan. "The questions about our future are answerable," said Litke. "We just didn't know at this point what the future development will be beyond what is there. No financial mechanism today affords us the opportunity to assume that will develop further."

Aside from the public improvements, an esteem which Litke admits "cannot be attained by 2,000 units," there are questions about the need for amenities and public facilities for the island if fewer than 100 people live there. "The plan is dependent on 5,000 units its essential character and intention," said Liebman. As conceived, Roosevelt Island was to be a highly sophisticated new community, with 5,000 apartments, a mix of incomes age groups, its own mini-school system, shops, offices, playgrounds, child care facilities and almost every other imaginable amenity. It was-and still will be-a pedestrian community with a cable swath down its center. "If there's one thing that's the most brilliant to me in the scheme and works well, it is the character of Main Street," he said. The street draws much of its life from the interaction of the Sert housing with the Johansen-Bhavnani housing. Sert's has a consistent line with arcades; across the street the Johansen-Bhavnani buildings jut in and out, in European-an active, urban street."

Eliminating cars and saving trees are two other important goals. The former might only work in New York, a city already highrises and high densities. A New Yorker (especially a Manhattanite) who has a car usually has to park it in a garage blocks away or leave it on the street, only to have to move it every other day for street cleaning. This means a new town cum parking garage is a blessing, whereas in other places a carless new community would most likely flop if residents didn't have instant access to their cars.

The trees are an incredible attraction in greenery-starved New York. The special effort to save as many trees as possible is paying off as a lure to potential residents, and even now on weekends New Yorkers wend their way across the Queensborough Bridge and the Roosevelt Island Bridge to the island to picnic or stroll.

"It's absolutely gorgeous," said Litke, almost poignantly. "The 20 families there seem to be happy. The school is colorful and exciting and has four happy little kids. There's a promenade and trees and an almost-finished courtyard, and Blackwell Park is really a gem."

It is possible, although not immediately likely, that some of the Roosevelt Island plan could be finished in the future by private developers using private financing. But a private developer would probably be less inclined to build mixed income housing without incentives, and those incentives just aren't there right now. UDC is committed in its lease with the city to a definite income mix—25 percent upper income, 20 percent middle income, 45 percent low and moderate income and 10 percent elderly.

In the almost-completed housing this was accomplished in four distinct apartment complexes, but the competition program aimed at an even higher—and more difficult-social goal, that of integrating all income levels in one development.

"One of the great issues in housing today is how to mix incomes," said Liebman. "On Roosevelt Island there will only be 5,000 families. The kids will go to the same schools so there won't be a stigma to being poor, so why not put people in the same building? The mix is rather radical and not one that the average marketing person would endorse, however."

Mixing incomes was just one of the big issues the participants in the competition had to deal with. With Becker, the Cornell social psychologist, on the jury to ensure housing issues were solved, the entries were analysed not only for their aesthetic merit but also for their ability to provide such things as privacy, territoriality, control over immediate environment, ambience, heterogeneity—in general for creative solutions to the perplexing problems of providing good, livable housing.

Besides Becker, Wasserman and Sert (ironically, four of the winners had either studied under or worked for Sert), the other jurors were: Paul Rudolph, FAIA; Alexander Cooper, AIA, a member of the New York City Planning Commission; Sharon Ryder, an editor of Progressive Architecture, and Frederick P. Rose, a New York City builder. The entries they premiated are shown on the following pages. Beth Dunlop
Kyu Sung Woo. “Incredibly worked out beautifully scaled, a delicious piece of architecture,” said juror Joseph Wasser­man, AIA. Perhaps less stylized or dramatic than the others, Woo’s entry instead concentrated on providing detailed solutions to the housing issues laid out in the competition program. For example, he provided a choice of entry to all family units by designing an “access gallery” between the second and third floors as an alternative to the elevator. Throughout his scheme, Woo, who is a senior urban designer in the New York City office of midtown planning, stresses choices and options for the residents.

Woo’s design calls for four highrise towers linked by lower units along Main Street and likewise linked to four cluster of family housing. On the Main Street sides, the design calls for a second community street, a half story above the shops with the access gallery above that. Entry from Main Street could be by a ramp, an escalator or an elevator.

The family units frame smaller community streets. Woo designed these streets to be 63 feet wide, typical of a Manhattan brownstone street, and the apartments surrounding them are approximately the same height and scale as New York townhouses. The back sides of the family units enclose play areas which are cut off from the river by a retaining wall. Woo alternated the play spaces and the street spaces to achieve contrast. And although most of the units are visually open to the river, access is guarded by a management office at the end of each community street.

In Woo’s scheme, the towers are designated as “mobility units,” smaller apartments for single people or childless couples, with the advantage of a better river view. The lower rise buildings in the middle along the street are for the older put there because that location is closest to the minibus stop. The rest, largely the townhouse-style sections, is for families.

And here again, Woo emphasized choice. Families would have the option of a flat or a duplex apartment with two or three bedrooms or a four-bedroom duplex.

“He really did grapple with the issues,” said Wasserman. “It’s a marvelously workmanlike scheme.”
Robert Amico and Robert Brandon. This scheme is consciously the closest in spirit to the Sert housing next door. It steps down to the waterfront and provides generous open spaces and unobstructed views of the river. Amico and Brandon, who teach at the University of Illinois in Champaign-Urbana, set the west side of the complex back from Main Street, kept the paces and added arcades to offset the fact of the parking garage across the street.

"They were very respectful of all the conditions, particularly the edges," said Wasserman. "What they did was to take a Sert-ified scheme and modify it. It is just a good scheme and not a bombastic one."

The Amico-Brandon design picks up the rhythm of Sert's housing without losing it. "Perhaps that's simple-minded," said Brandon, "but what Sert was so strong, it was almost impossible to deny it."

The design provides for three 21-story towers which descend to the waterfront, using the stepping-stone rooftops as accents. Along the street side the three tower structures are connected by 11-story buildings. At the north end of the site, the scheme calls for a slab tower overlooking Octagon Park. "The slab makes the statement that this is the end of the residential development of the island," said Brandon. Almost all of the larger family units face onto rooftop terraces or are at grade level. The design provides five space areas for play and adult recreation.

Amico and Brandon used a skip-stop elevator system in which stops are on every fifth floor. On the stop floor are spaces for the elderly and the handicapped. Floor up or down are the entrances to family units, almost all of which arelexes. The family units generally have living room, kitchen and a flexible room/family room on the entry level and bedrooms either above or below. The apartments are designed so that its can supervise their children from kitchen, which has a visual link with living room, dining room and terrace area.
Sam Davis and the ELS Design Group. This design breaks the site up into a series of smaller, more intimate spaces with apartments opening up onto 15 different courtyards and play areas. "What we were trying to do was break down the grain of the island—the other developments have big chunks of open space," said Donn Logan, AIA. This design was started by Sam Davis, AIA, who teaches at the University of California at Berkeley. Midway through, Davis was joined by ELS, a firm which was begun in 1967 as the result of winning a competition for the Broome County Cultural Center in Binghamton, N.Y.

The Davis/ELS design calls for six connected highrises along the street, each dropping in height with the tallest (21 stories) at the north end and the shortest (13 stories) at the south. Each of the highrises connects to lowrises which reach out toward the water like 10 fingers.

Eight of the 10 fingers are paired so they open into private commons areas with public open spaces in between the pairs. The highrises and the medium height buildings connecting them on the Main Street side open onto other bigger public play areas. "There's a hierarchy of spaces," said Logan. "The smaller the building, the smaller the public space."

In addition, Davis and ELS provided a second street. This community walk cuts through the middle of the site, and all the indoor public areas—community room, laundries—are along the new street.

By clustering the apartments, Logan said, it was possible to open up "a variety of social possibilities," creating neighborhoods with shared views. This design did not designate actual layouts for lower, middle and upper income apartments, but used a flexible unit, which could be added to or subtracted from. Almost every unit has a balcony or terrace, however. The scheme uses an even third-floor, skip-stop elevator system with smaller apartments on the stop floors and larger apartments one story up or down.

"This is a well worked-out scheme," said Wasserman. "It stresses the housing issues and is more intimately scaled, with the more public series of spaces and the more private courtyards."
Stern and Hagmann. The most controversial of the four winners, this scheme runs its back on Main Street and focuses on a new pedestrian way cutting through the middle of the site. The entry by the New York City firm of Robert A. M. Stern, AIA, and John S. Hagmann, AIA, put highrises at the river’s edge, violating not only from the other winning schemes but from the Sert housing next door.

“I think we were bored with the more conservative approach,” said Wasserman. “This was a bit of devil’s advocacy.”

Stating that the design is “not totally plausible,” Wasserman said “it is very New York and appealing. It has the same rhythm as the others, and there are relationships that are recalled.”

The scheme calls for three highrises which step down slightly—two three-story ops—toward the waterfront. The northwestern corner, which faces downriver, curves to provide the best possible views. By putting the tallest buildings next to the river, Stern and Hagmann reasoned that they minimized the bulk of the buildings and kept the interior open spaces relatively free of shadows. The housing units, some abutting the highrises along the river and some across the walkway, are in buildings of varying heights, most of them six or eight stories. All of the units are reached through a new street, which Stern and Hagmann called Octagon Way. The design calls for distinct arcaded shops along Main Street, emphasizing that it is a public street, while Octagon Way is semiprivate. Open spaces are created by the placement of buildings which jut in and out of the pedestrian street, and many of the apartments have either balconies or top terrace space.

Stern and Hagmann put most of the larger family units at ground level or just above it to give families yard areas or dens. In the family units, many of which are duplexes, the living, dining and sleeping areas look out on the yards to the supervision of children.

To achieve security, Stern and Hagmann sited access to Octagon Way, and provided electronically-locked gates for the six entryways. B.D.
Future Shock Hits the American Courthouse: Opportunities and Parameters for Design

C. Theodore Larson, FAIA

As symbols of the American dream of equal justice for every citizen, our courthouses leave a great deal to be desired. For the most part, the judicial process and the courtroom in which it is conducted are still pretty much the same as they were 200 years ago. It has become increasingly clear, however, that both the American courthouse—and the judicial system it is intended to serve—are overdue for change.

An indication of the need for change can be seen in the results of a survey of New Hampshire courthouses made by a statewide Court Accreditation Commission. This five-member commission is headed by the Hon. John W. King, a Superior Court Justice and former three-term governor, and includes two other jurists, a practicing lawyer and a newspaper publisher.

Court accreditation is based on the quality and adequacy of the physical facilities, the competency of court personnel and the availability of accommodations for the public as well as the bar and bench. The commission established three ratings of quality: 1) accredited-excellent, which means the courthouse is completely adequate for the needs of justice although there may be areas of desired improvement; 2) accredited-satisfactory, which means the courthouse has substantial deficiencies but is generally acceptable; 3) not accredited, indicating that the courthouse failed to meet minimum standards and should not be used in its present condition.

On this basis, including district, municipal, superior and probate courts, the commission found 17 New Hampshire courthouses worthy of the top bracket, with another 40 qualifying for the middle category. A total of 30 courthouses flunked.

If the New Hampshire findings can be taken as an index of conditions nationwide, then a third of all the courthouses in this country are, by fairly conventional standards, obsolete and unworthy of being used in the judicial process. If higher standards of judicial performance are set, the rebuilding task becomes still more staggering. It is a truly enormous and challenging market that awaits the attention of building designers.

Moreover, if the current business recession deepens, it is quite likely that the federal government, and even some state governments, will make large sums available for local public works and new courthouses undoubtedly will become prime targets for easing unemployment in the construction field. One such bill has been introduced in the House of Representatives already, known as the Local Public Works Capital Development and Investment Act, which would provide $5 billion in grants to state and local governments.

The New Hampshire commission viewed courthouses more narrowly than some others now do. A proper judicial atmosphere and decorum, the commission said, can be obtained only in a single-purpose courthouse. “A courthouse should not be a combination welfare-recipient warehouse, or an administrative center for a county of local government, or a combination police station and courthouse.” In many cases, this is what the courthouse has become.

The typical American courthouse is likely to be a brick or stone building, four or five stories high, with a pitched slate roof and an ornate (and frequently non-functioning) clock tower. Dirty and smelly, poorly ventilated and ill-lighted, it is literally bursting at the seams under the pressure of judicial business. For lack of an adequate system of interior traffic segregation, the building occupants—judges, lawyers, litigants, jury members, witnesses, police, bondsmen, welfare officials, news reporters and other assorted functionaries and hangers-on—mill around in varying degrees of uncertainty and emotional stress. Inefficient and obsolescent, the traditional courthouse can no longer be said to project an acceptable image of justice within the community.

The American courthouse has steadily grown in size over the years. In the colonial period, it was only the courtroom itself; the judges and clerks had their offices in nearby buildings. Prominently located in the town square, it was an inevitable target for the addition of porticos, cupolas and other architectural embellishments. Two-story courthouses became popular with the nation’s expansion westward, permitting more architectural monumentality along with the inclusion of county or municipal offices and separate rooms for the judge, jury and court personnel. In the present century, the introduction of elevators has enabled the courthouse to soar skywards and become increasingly elegant and complex.

Recent years have also seen a proliferation of specialized courts—grand jury courts, appellate courts, claims courts, children’s courts, divorce courts, family relations courts, mental health proceedings, wills and estates, bankruptcy courts, traffic courts—each one of which involves a legal procedure that calls for a quite different physical environment than the general trial courtroom. To combine these various judicial services within a single structure complicates the courthouse routine and consequently its planning and design.

Traditionally, it has been the practice for every judge to be assigned a particular courtroom for personal use. This courtroom, located conveniently near the judge’s own chambers, has tended to become an extension of the judge’s professional ego. Judges, naturally enough, are loath to give this up, despite the urgings of court administrators who see economic advantages in having any courtroom use rotationally by any judge.

If all the courtrooms are in continuous use, however, it is difficult to predict just when a particular one will become available. Unless each judge has a courtroom standing by for immediate personal use—so the judges argue—then any efforts at plea-bargaining or at settling cases out of court (which usually take place in the judge’s own chambers) will have very little clout. Paradoxically, it is the threat of actually going to trial (an increasingly expensive piece of business) that makes an idle but readily available courtroom the ultimate weapon for speeding up the judicial process.

Just imagine, however, what this territorial imperative implies for the courthouse of the future. A city or county with a population large enough to need 50-pl trial judges would have to provide 50-pl
separate courtrooms. If all these courtrooms and an equal number of judge’s chambers were put into a single building along with all the ancillary services associated with the judicial process, the result would be a megastructure dwarfing everything else on the horizon.

The need for change, however, extends beyond just the shape and size of the courthouse into the courtroom itself, with solutions perhaps more readily available. A dozen years ago, in Salem, Ore., the Hon. William S. Fort, a jurist with a strong bent toward the humane administration of justice, began putting with the design of his courtroom. He was unhappy with the furniture arrangement—a bulky bench for himself up high, symmetrically flanked by boxes for the witness and the court clerk on a slightly lower level, and out in front, on a still lower level, a jury box along one wall and boxes for the court reporter and bailiff along the opposite wall, the space in between filled with tables for the contending attorneys and their clients and the rest of the rectangular room behind a low railing being taken up with benches for spectators. This traditional grouping, he had discovered, kept the participants in a trial, including himself, from properly seeing and hearing everything that was going on.

By making some furniture mockups and juggling them around, Judge Fort was able to determine that a circular arrangement was more desirable. Better sightlines were obtained, and auditory conditions were improved. Best of all, the open space in the center created an arena in which opposing attorneys had greater freedom of action, and provided for a more convenient transfer of documents and displays of exhibits. In effect, the business end of the courtroom had been turned into a theater-in-the-round.

Judge Fort’s prototype quickly gained architectural recognition. Most new courthouses now use the circular arrangement, usually modified somewhat to fit within the rectangular grid pattern established by a particular building’s structural system.

Judge Fort has gone on to probe into other aspects of courthouse planning and design. He persuaded the American Bar Association to set up, with himself as chairman, a special judicial facilities investigative committee representing the bar and bench nationally. Overtures were made to The American Institute of Architects. Soon there appeared a counterpart task force of architects, all drawn from the Chicago area because of proximity to ABA headquarters, with Walter H. Sobel, FAIA, as chairman. After several separate meetings, the two professional groups decided to merge, thereby forming a single unit, the ABA-AIA Joint Committee for the Study of Courtrooms and Court Facilities.

In January 1968, the joint committee received a study grant of $197,000 from the Ford Foundation. A research contract was given to the University of Michigan and an interdisciplinary team of investigators went to work. The result is an impressive clothbound volume of 320 double-column pages, published in June 1972 by the University’s Institute of Continuing Legal Education under the title, *The American Courthouse: Planning and Design for the Judicial Process*.

The Michigan researchers make a strong case for keeping the different flows of traffic within a courthouse separate and distinct. Judges, who have become gun-shy from an increasing number of courtroom shootouts, like this recommendation. Not only do they want their benches to be bullet-proof shelters into which they can quickly duck, they also insist on maximum security throughout the courthouse.

The question of courthouse security presents complex planning and design problems. Armed barricades and defendants brought into court under heavy guard are hardly conducive to an image of calm, evenhanded justice. Through a proper separation of traffic routes and the use of unobtrusive protection devices (microwave or ultrasonic intrusion alarms, low-light-level television cameras with closed-circuit systems and automatic monitors, and other sophisticated hardware), it is possible to have adequate courtroom security and at the same time a humane and unobtrusive environment.

In many communities the local jail has become closely attached to, if not an actual part of, the local courthouse. The
A courtroom in narrow legalistic fashion. The use of punitive sanctions should be a last resort. Rather, efforts must be made to provide help before it is too late. The American courthouse, he concludes, can help bring about such a change by becoming more closely tied to the community agencies that deliver personalized help and care. The new freedoms in architectural planning and design afforded by the advances in communications technology means that facilities which provide such services do not need to be physically linked to courthouses. They can be spread out as a network of interacting units which can be tantly united audiovisually if desired. While technologies not only provide a design of where supportive services can be located, however; they also could, when, if in the courtroom itself, change drastically the design of even the most sparsely purpose courthouse. Videotape makes it possible for a court to see as well as hear witnesses who cannot come to the hearing or trial because of illness or some other reason. If the seeing is done in a setting where the witness is fully at ease, a more accurate portrayal of events and attitudes is likely to be had than in the tension-filled atmosphere of a courtroom. Such personal, as it is generally agreed, is particularly important in deciding cases involving rape or divorce and child custody. Attorneys for both sides must agree on the use of videotape, and all that is said or shown—irrelevancies, digressions, stakes, corrections, whatever—has to be recorded. The taped testimony is then shown to the judge or jury just as would be done by written testimony. If the judge rules that a particular portion should not be heard by the jury, it can be erased from the tape readily enough, but current practice seems to be simply to turn off the sound track and to allow the visual image remain on the screen. Despite the many manifest advantages videocassette tapes, there is opposition to its use. In Vermont, for instance, a case involving drunken driving was tried under the supervision of the National Center for State Courts and, for the first time in the U.S., a jury watched on video everything except the attorneys making their opening remarks and summations and the judge’s charge. The jury’s verdict of guilty has been appealed on the grounds that the right of a defendant in a criminal trial to confront an accuser in person was violated by the use of video.

The constitutional right of personal confrontation in a court trial can be assured by applying more technology. When the courtroom is hooked up with a closed-circuit or cable TV system, it becomes possible for instant two-way exchanges to be conducted between the court and a witness who is far away. By projecting an image on a video screen, the witness can be seen by the defendant and everyone else in the courtroom—and if the courtroom happens to be fitted with its own TV cameras, then the witness in turn will be able to see the defendant and hear everything that may be said.

Widespread use of videotape and TV in court hearings and trials appears inevitable. Since 1971 such use has been doubling every year, according to the Detroit Legal News. In Michigan, the Supreme Court has already ruled that videotape can be used in taking depositions from witnesses. Similar action in other states can be anticipated.

A “Courtroom of the Future” has been constructed in Sacramento, Calif., by the McGeorge School of Law’s Center for Legal Advocacy and Research. This experimental unit makes extensive use of closed-circuit TV and related video equipment—a pedestal for televised evidence, a large built-in viewing screen and a video technician’s room. A circular trial area is carpeted to absorb sound. Jurors sit behind a large semicircular desk with their backs to the audience, whose seating is also circular. An adjoining press room has one-way glass. Another isolation room with audiovisual communication equipment allows unroused attorneys to be locked up and yet take part in court proceedings. All other security elements—remotely-controlled courtroom locks and screening devices to detect firearms—are monitored from the video technician’s room. And court trial can be videotaped or televised for public broadcast.

All elements of the American courthouse are being affected by the new communications technologies. The U.S. court system is a voracious consumer and prolific producer of data. As the flow of information multiplies, each courthouse tends to become a vast repository of data. Just to cope with the increasing flood of documents and records—and now videotapes must be included—is a special planning problem in itself.

Fortunately, the advances in video telecommunication and electronic data processing are also opening up new potentials in architectural planning and design. No longer do the various elements that constitute the American courthouse have to be grouped together and housed under the same roof or even placed on the same site. The facilities for different judicial activities can now be developed separately and located wherever they will be most serviceable to the community at large.

Not only does the emerging American courthouse offer an enormous new building market, it also presents a host of new design challenges. Why, for instance, should the jury box be retained in the courtroom when the jurors can see and hear the entire trial by going to a screen in the gallery, “in its clutter-prone development, does it now take on the look of a movie production studio?” Indeed, just how can the “electronic courtroom,” in its clutter-prone development as an instrument for speedier and more effective administration of justice, acquire also the dignity usually associated with the law?

The answers to such questions must come from the two professions—law and architecture—working together experimentally in a variety of communities, in a professional display of creative imagination and good critical assessment. If the courts are to catch up with their ever-mounting caseloads, already months and even years behind in most American communities, the innovations in judicial procedure and in environmental design will have to come quickly and in great profusion.
Maps That Trace Cities' Footprints

Alan Melting

In the process of planning and design, an essential ingredient is information, either for the purpose of analysis or simply to understand the problem better. A great deal of statistical information exists about cities, but very seldom are these numbers put into a presentation that correlates them with the spatial environment (the Urban Atlas by Passonneau and Wurman is one of the rare examples).

The following drawings are an attempt to present real information about the spatial relationships within and among cities that can be directly useful to design professionals whose way of looking and conceptualizing is visual. Thirty-six cities have been done to date displaying the attributes of building form, public space, public transit, landscaped space and water edge, and landmark forms and spaces. All are spatially accurate and, except for landmark forms and spaces, are "objective," i.e., there is agreement on what and where is a building, a public transit route or the water's edge.

These attributes most clearly give us information about the quantity and qualities of public open space, a significant indicator of the quality of life within a city. By overlaying or comparing at similar scales and matching with the images in our minds, we can begin to understand the importance of the continuity of public space, the relationship between public space and water edge, building form as a container of space or object within space, the range of public transit choices, and dozens of other correlations. These comparisons also give us further help in understanding larger issues of human settlement and dominant spatial patterns such as linear, circumferential, multinucleated or spread, as well as the historical development of the city.

And there is a final motive to the work: to present the city from a new point of view. In searching for order or structure at one scale, we find imperfections which inevitably lead to understanding a new kind of structure at a larger scale. The more we understand and feel about the city, the more we can make it fill our needs.

Assisi
Located on a spur of Mount Subasio 1,300 feet above the Tiber River Valley, Assisi is the prototypical hill town. Anchored on the west by the rock-like form of the monastery and church of St. Francis, the main street moves east parallel to the hillside to the main square, originally the forum when it was a Roman settlement and containing a Roman temple built into the continuous frontage of the square. Outlines of an amphitheater from the same period can be seen farther up the hill. This medieval city in which it is practically impossible to get lost. With its almost singularly linear pathway system interrupted at points by major buildings and public spaces, with successive terraces moving up the hills providing an encircling city wall defining edge and the crowning castle at the top, it is one of the most comprehensible of cities.
Vienna

The most unique physical feature of Vienna is the Ringstrasse, a 187-foot-wide boulevard encircling three sides of the Innere Stadt or inner city. Once the site of massive city walls which were pulled down between 1858 and 1865, this boulevard and adjoining public parks tie together the major monumental buildings of the former empire and palaces of the aristocracy now housing government and commercial enterprises. The open space of the Ringstrasse contrasts sharply with the dense built-up form of the inner city with its winding medieval street pattern focusing on St. Stephens Cathedral. Within the core, the public space is tightly defined by the containing buildings. Later baroque and 19th century buildings lying within the Ringstrasse show the shift in spatial concepts as they become formally designed objects within space. Joining the inner core to the Ring is the "megastructure" form of the Hofburg, the former imperial castle-palace built over six centuries by the Hapsburgs.

In spite of its contrary use, the form of the Ringstrasse seems to be the prototype for the urban freeway pattern encircling the contemporary American downtown and spinning off radials into the suburbs.
While Venice is not unique as an island city, it is by far the best known and makes the most of its setting and freedom from the automobile. Consisting of over 100 separate islands and connected to the mainland by a two and a half-mile causeway, its main "avenue" is the Grand Canal, a reverse “S” curved waterway two miles long. The pattern of public space can be separated out by land and water since so much moving about is done on the water. As a result, public transit routes, which are confined to the water, take on the free and graceful patterns shown, anchored only by the stops. As overlapping networks, land and water provide an intricate but absolute separation of traffic. Yet, unlike the freeway and the local street, they coexist side by side.

The maze of open space, whether land- or water-based, can quickly become confusing to any but the most familiar. The Grand Canal is not helpful in orientation because it twists and turns. Venice does have, however, an almost continuously accessible water edge on the lagoon, and it is from this edge that panoramic views of portions of the city are available.
Toledo

Toledo is built on a rugged height above the Tagus River which circles it on three sides, and the city itself is only accessible from the plains lying to the north. It is purely medieval in its pattern of narrow winding streets of steep gradients. There are two major public squares in the old city, the Zocodover or Civic Square connecting to the Alcazar or Citadel to the south, and the Plaza del Ayuntamiento, site of the great cathedral and architectural centerpiece of the town, connected via the Comercio to the Zocodover.

The great space of the river and ravine encircling much of the city is unrecognized from within and the spatial pattern of Toledo disintegrates around its edges. The form of the town is totally wrapped-up within itself, the strongest influence of its medieval heritage. Similarly, as in most public space developments dating back to medieval times, landscape development in the form of growing, living things is almost totally absent. Although there appear to be frequent opportunities in the spatial pattern for small “parks,” the spaces are almost invariably hard surfaced, resulting in a dramatic visual distinction between the human settlement and the surrounding countryside.
Naples stretches for five miles along the bay and continues inland up the slopes beyond. The different ages of city building are apparent in the open space pattern: the medieval city with its Roman gridiron antecedents, the more haphazard, purely medieval city paralleling the bay, and the later baroque development of the suburb. Through all this involved texture run several wide boulevards created in 1884 after a cholera epidemic to "clear the congestion of the slums." The hillside topography is indicated by the general fragmentation of architectural form and looseness of defined public space.

Hillside and harbor create a range of demands on public transit: a subway, a funicular connecting hilltop to harbor, ship terminals and a bus system. Surface traffic is reputed to move more slowly in Naples than anywhere else in Italy and the discontinuities of the street system, with the exceptions of a few major boulevards, and the difficult topography make this distinction possible. Visual and physical access to the harbor is well provided on the west by the Rivera de Chiara, a boulevard and municipal park. Moving east, the harbor becomes occupied by industrial concern which, as in many water cities, have usurped the water edge.
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EVENTS

July 28-Aug. 1: Workshop on Fire Safety
Design for Buildings. (Other workshops—
Aug. 4-6: Design for Security in Buildings; Aug. 6-8: Building Design for Noise
Control.) University of Wisconsin, Madison,
Wis.

July 31-Aug. 2: Economic Benefits of Pre-
serving Old Buildings Conference, Olympic
Hotel, Seattle. Contact: M.S. Leventhal,
National Trust for Historic Preservation,
740-748 Jackson Place N.W.,
Washington, D.C. 20006.

Aug. 7-9: Michigan Society of Architects
mid-summer conference, Mackinac Is-
land, Mich.

Aug. 10-15: Value Analysis Workshop,
Washington, D.C. (Other workshops—
Sept. 14-19 in Atlanta and on Oct. 5-10
in Dallas.) Contact: American Consulting
Engineers Council, Suite 713, 1155
15 St. N.W., Washington, D.C. 20005.

Aug. 13-14: Cutting Production Costs
Laboratory, Sunnydale, Calif. (Also on
Aug. 27-28.) Contact: Continuing Educa-
tion, AIA Headquarters (202) 785-
7354.

Aug. 21-23: Planning and Legal Issues of
Growth Management Workshop, Hyatt
Regency, San Francisco. (Other work-
shops on Sept. 18-20, Philadelphia Sherat-
on, Philadelphia, and on Oct. 2-4, Leam-
ington Hotel, Minneapolis.) Contact:
American Institute of Planners Foundation,
1776 Massachusetts Ave. N.W.,
Washington, D.C. 20036.

Aug. 26-30: Seminar on Architecture and
Urban Planning in Finland, Valkoinen
sali, Helsinki, Finland. Contact: Mrs.
Ritva Salo, Secretary, Association of
Finnish Architects, Unioninkatu 30 A,
00100 Helsinki 10, Finland.

Aug. 30: Postmark deadline, entries, The
Highway and Its Environment awards
program. Contact: Department of Trans-
portation, Federal Highway Administra-
tion, Office of Engineering, Highway De-
sign Division, Washington, D.C. 20590.

Aug. 31: Postmark deadline, entries, Energy
Conservation awards program. Con-
tact: Owens-Corning Fiberglas Corp.,
Fiberglas Tower, Toledo, Ohio 43659.

Sept. 1: Postmark deadline, abstracts, call
for papers, International Symposium on
Lower-Cost Housing Problems, to be held
in Atlanta on May 24-28, 1976. Contact:
Dr. Parvis Rad, Department of Civil En-
gineering, Clemson University, Clemson,
S.C. 29631.

Sept. 8-11: Information Systems Exposition,
New York Coliseum, New York, N.Y.
Contact: Banner & Greif, Ltd., 369 Lexi-
ington Ave., New York, N.Y. 10017.

Sept. 14-19: International Symposium on
Environmental Monitoring, Frontier Ho-
tel, Las Vegas. Contact: U.S. Environ-
mental Protection Agency, Office of Pub-
lic Affairs, National Environmental Re-
search Center, P.O. Box 15027, Las
Vegas, Nev. 89114.

Sept. 15-17: National Conference on
Noise Control Engineering, National Bu-
reau of Standards, Gaithersburg, Md.
Contact: Institute of Noise Control En-
gineering, P.O. Box 3206, Arlington
Branch, Poughkeepsie, N.Y. 12603.

Sept. 16-19: Course on Noise and Vibra-
tion Control of Mechanical and Electric
Equipment in Buildings, Chicago. (Oth-
er courses on Sept. 30-Oct. 3 in Santa
Monica, Calif., and on Oct. 21-24 in Cam-
bridge, Mass.) Contact: Bolt Beranek &
Newman, Inc., 50 Moulton St., Cam-
bridge, Mass. 02138.

Sept. 18-21: New Jersey Society of Arc-
tects annual convention, Hyatt House,
Cherry Hill, N.J.

Deaths

Cyrus Kendell Allen, San Bernardino,
Calif.
Louis H. Ashbury Sr., Charlotte, N.C.
Peter Copeland, New York, N.Y.
Ralph M. Crosby, Laguna Hills, Calif.
Ralph J. D’Agostino, Encino, Calif.
Arthur Deam, FAIA, De Land, Fla.
Frank P. Gates, Jackson, Miss.
Irving G. Hamilton, San Francisco
William C. Jarrett, Long Beach, Calif.
Frederick C. King, Syracuse
Joseph Lau, Essex, Conn.
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Going On from page 15

wish to enter the competition may pre-register now by sending in a fee of $25 per entry. Checks should be made payable to the 41st International Eucharistic Congress. Deadline for entries is Oct. 1.

For further information, write or phone Mario Romanach, AIA, Competition Adviser, Philadelphia Chapter/AIA, 117 S. 17th St., Philadelphia, Pa. 19103; (205) 569-3186.

In the photograph, the JFK Stadium is seen at upper left and the Veterans at extreme right. The stadium in the center is the Spectrum.

All in the Family

The year 1939 was an important milestone in the life of George H. Wittenberg, Little Rock architect. The newly created Arkansas State Board of Architects, of which he was the first president, issued to him its certificate of registration No. 1. Also in that year, his first grandson George H. Wittenberg III was born. Now, 36 years later, the board has issued this grandson its certificate No. 1,000.

George H. Wittenberg III is associated with the firm of Wittenberg, Delony & Davidson, Inc., which was established by his grandfather and Lawson L. Delony, AIA, over 50 years ago as Wittenberg & Delony. The firm's name was changed in 1946 when Julian B. Davidson, AIA, became a partner. The elder Wittenberg died in 1955.

There is no George Wittenberg IV, but George Wittenberg III has two daughters. He says, "The increasing emergence of women in architecture would indicate that the prospects of yet another historic milestone architectural registration for the Wittenbergs is, by no means, inconceivable."

Secretaries' Handbook

A new publication titled "The Architectural Secretaries Handbook" was displayed at the recent Atlanta convention of the Architectural Secretaries Association. The manual, designed as a daily reference source for secretaries in architectural firms, is useful as well in the training of nontechnical employees and temporarily hired personnel.

For ease of revision and incorporation of new information, the manual is in a three-ring binder. It is divided into five sections: ASA; Secretary/Office; Secretary/Project; Reference Materials, and Glossaries. Sections 2 and 3 will require user input in order to document procedures carried out in a specific office.

The handbook has been endorsed by the AIA committee on office practice and is available for $10 from Gail Jee, Rockrise Odermatt Mountjoy Amis, 405 Sansome St., San Francisco, Calif. 94111.
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300,000

Fairfax City Property & Maintenance Yard, Fairfax City, Va., Dewberry, Nealon & Davis, AIA

300,000

East Potomac Bath House, Washington, D.C., Clark T. Harman, AIA

300,000

Fire Inspection, Fairfax, Virginia, Duvall-Lelvares, AIA

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U.S. Postal Facility, Hillsborough, North Carolina, Holloway-Reeves, AIA

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St. Mary's County Development Center, Hollywood, Md., Chapman Development Co., McLeod Ferrara, Ensign, AIA

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Baltimore County Animal Shelter, Timonium, Maryland, Salifit, Lip & Helbing, AIA

400,000

Montgomery County Animal Shelter, Rockville, Maryland, Bagley, Soule, Lee, AIA

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Bauer Drive Recreation Facilities, Montgomery County, Maryland, Duane & Duane, AIA

680,000

Langdon Park Recreation Center, Washington, D.C., H. L. Walker, Architect

880,000

Overnight Facilities, Cincinnati State Park, West Virginia, Rudy Assoc., Corp., L. D. Schmidt & Son, AIA

1,000,000

Wheaton Community Center, Wheaton, Maryland, Cohen, Haft, Holtz, Kerxton & Karabekir, AIA

1,000,000

Maintenance Facilites, Fairfax County, Water Authority, Fairfax Co., Va., Mintz & Easter, AIA

1,500,000

Public Health Center, Lynchburg, Virginia, Clark, Nexsen & Owen, AIA

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Chancery of Ghana, Washington, D.C., Brown & Wright, AIA

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U.S. Post Offices at Fairfax, Sterling & Vienna, Virginia, Fry & Welch, AIA

2,677,000

Housatonic Community College, Danbury, Connecticut, Virginia Marcellus Wright, Cox, Cillemberg & Ladd, AIA

3,045,000

Indiana State Library Addition, Indianapolis, Indiana, Burkart, Shropshire, Boots & Reid, AIA

3,600,000

Montgomery County Detention Center, Addisns., Altvs., Rockville, Md., Warren Sargent/Curtis & Davis, AIA

3,800,000

Fairfax County Adult Detention Facility, Fairfax City, Virginia, Davis & Smith, AIA

3,936,000

Library of Congress-Madison Memorial Bldgs.-Phase IV-Interiors, Washington, D.C., DelWitt, Poor & Shelton, AIA

4,000,000

State Office Building-5B, Baltimore, Maryland, Gaudreau, Inc., AIA

16,000,000


18,000,000

Moderately Priced Prototype Dwelling Units, Montgomery County, Maryland, Office of Housing, Robert Schwnn, AIA

NFP

Washington Suburban Sanitary Commission, Lyttonsville Service Center, Silver Spring, Md., Bucher-Meyers, AIA

NFP

Embassy of the State of Qatar, Residence, Washington, D.C., Smith & Development Corp., M. Al-Hariri, Architect

NFP

Washington Mtn., Ariz., Dormitory, Washington, D.C., J. S. DeLuev-Cather, AIA, Harry Wiss & Assoc./DeLuev-Cather, AIA

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Dulles International Airport Air Mail Facility, Chantilly, Virginia, Lee-Thorp, Engineers

NFP

Congress Hts., Brookland Post Office Buildings, Washington, D.C., Lee-Thorp, Engineers

NFP


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ARMED FORCES

USN Research Laboratory-Paint Exterior of Various Buildings, Washington, D.C., Edmund W. Dreyfuss, AIA

37,300

USN Test Instrumentation Facility/RDT&E Bldgs. #101, St. Inigoes, Maryland, Lorenzi, Dodds & Gunnill, AIA

88,000

USMC HQ - Henderson Hall - Paint Exterior of Bldgs., Arlington, Va., Horowitz-Steigel, AIA

90,000

U.S. Army Family Housing, Vint Hill Farms, Virginia, Chapman & Miller, AIA

90,400

U.S. Army Ground Maintenance Facility, Patuxent River, Maryland, Victorian Smolen, AIA

195,700

USN Alterations to Barracks #32, Anastasia Naval Air Sta., Washington, D.C., Mitchell-Ross-Worthy, AIA

360,000

U.S. Army General Storehouse, Fort Lee, Virginia, Marcellus Wright, Cox, Cillemberg & Ladd, AIA

500,000


500,000

U.S. Army Repairs to 17 Buildings, Ft. McNair, Washington, D.C., Horowitz-Steigel, AIA

674,000

U.S. Army E.M. barracks, Fort Belvoir, Virginia, McGeough & Johnson, AIA

760,000

U.S. Army Property & Fiscal Officer's Office & Warehouse, Washington, D.C., Chapman & Miller, AIA

1,285,000

USAC Consolidated Base Personnel Office, Andrews AFB, Camp Springs, Maryland, Chapman & Miller, AIA

1,394,000


2,200,000

USMC BEO 2001 & 2003, Quantico, Virginia, Sargent & Associates, AIA

3,318,000

USN Dispensary/Dental Clinic, NAS Oceana, Virginia Beach, Va., Vosbeck, Vosbeck, Kendrick & Redinger, AIA

3,713,000

USN Alterations & Additions to Miscellaneous Bldgs., Patuxent River, Md., Chapman & Miller, AIA

NFP

U.S. Army In-Flight Supply Parts Building, Ft. Meyer, Virginia, Fry & Welch, AIA

NFP

USN Air Test Facility-Runway Grooving, Lakehurst, New Jersey, Federal Aviation Agency

NFP

APARTMENTS / TOWNHOUSES / HOTELS / MOTELS / RESIDENCES

Town Apartments, Washington, D.C, John Gerstenfeld, Patterson & Woolard, AIA

32 units

Marine Corps Tanker Operations, Saddle Brook, New Jersey, Marriott Corporation

39 units

Kent Terrace Apartments, La Plata, Maryland, InterDesign/Design/Hotz, AIA

64 units

Quality Inn Motel, E. Greenwich Township, N.J., Interstate Traveler Servs., Wm. Quinter, AIA

166 units

Harambee Hotel, Washington, D.C., Sullivan & Campbell, AIA

169 units

Holiday Inn, Airline Rd., Va., Voigt & Reese, Kendrick Redinger, AIA

230 units


250 units

Marriott Hotel, New Jersey Turnpike, Ridgefield, New Jersey, Marriott Corporation

298 units

Brentwood Village Apartments, Washington, D.C., Whitecliff Corp., Zubkis, Zematis, AIA

300 units

Bramble Wood Estates, Richmond, Va., Virginia Housing Development Authority, Samuel Paul, AIA

340 units

Rate My Apartment, Marlincie C. Titter, Titter, AIA

NFP


NFP

Windermere Columbia Homes, Mongon Co., A., H. A. Masonry, Cohm Haft Holtz Kerxton Karabekir, AIA

NFP

Residence for Mr. & Mrs. Francis McMillan, Virginia, Jean J. Bouquet, AIA

NFP

Residence for Dr. John D. Herbert, Reston, Virginia, Robert Aspinall, Richard Eddy, Architects

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Reston, Apts., Va., Dukes, Hittleman & B.

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allaudet College Renovation Projects 1975, Washington, D.C., Strang, Childers & Downham, AIA 250,000
Virginia Military Institute, Addition to Moody Hall, Lexington, Va., Clark, Nixson & Owen, AIA 280,000
Barnesville Elementary School, Washington, D.C., Old Dominion University, Pentecost, Wade, McLeann, AIA 780,000
andon School Additions, Bethesda, Maryland, David N. Yerkes, AIA 320,000
eaton Woods Elementary School, Wheaton, Maryland, D. Duane & Duanes, AIA 1,400,000
old Dominion University, Student Union Addition, Norfolk, Virginia, McQuade, Marshall & McMillan, AIA 1,412,000
umbarton Oaks Research Library, Washington, D.C., Harvard University, Hugh Newell Jacobsen, FAIA 850,000
placement Center for Elementary School, Baltimore, Maryland, Fry & Welch, AIA 1,980,000
herwood Elementary School, Sandy Spring, Maryland, Fry & Welch, AIA 2,000,000
adian Head Elementary School, Indian Head, Maryland, Mark Back, AIA 1,000,000
wilson High School Aquatic Facility, Washington, D.C., Perkins & Will, AIA 7,000,000
arritt Charles Carroll Elementary School #3A, Baltimore, Maryland, Ianniello & Hofmann, AIA 3,500,000
arr Football Stadium, Fairfax, Virginia, Davis, Smith & Carter, AIA 2,530,000
sylvania Avenue Elementary School, Cumberland, Maryland, Delta International, Arch. & Engrs. 2,700,000
ardella High School, Additions & Renovations, Mandell Springs, Maryland, Meyers, D'Ale & Todd, AIA 3,200,000
riendly High School Addition, Friendly, Maryland, Schar & Chrichton, AIA 3,250,000
william & Mary College, New Law School, Williamsburg, Virginia, Wright, Jones & Wilkerson, AIA 4,250,000
otesville Junior/Senior High School, Poolesville, Maryland, Eugene A. Delmar, FAIA 4,467,000
urrielle Elementary School, Washington, D.C., Gray, West & Wilson, Architects 4,500,000
wen Brown/Dasher Green Elementary School, Columbia, Md., Bowman Masonry Co., Walton, Maddox, Cooper, AIA 5,000,000
iversity of Maryland Physical Education Bldg., College Park, Bowman Masonry Co., Robt. Sippel, Arch. 6,200,000
ings Mill High School, Owings Mill, Maryland, Wheeler, Bamm, Shockey, Taylor, AIA 6,400,000
owards Junior/Senior High School, Towson, Maryland, Schar & Chrichton, AIA 7,000,000
inner Tract High School, Manassas, Va., Jr., William G. Rice, Principal, Board of Education, Campbells, AIA 9,100,000
oward University Master Plan, Washington, D.C., Perkins & Will, AIA NFP
ofy Nashling Framing for Library Hoqtrs. Bldg., Annapolis, Md., Bowman Masonry Co., Gaudreault, Inc., AIA NFP

MEDICAL FACILITIES
ational Institutes of Health Renovations to Building 30, Bethesda, Md., Bagley, Soulé, Lee, AIA 75,000
. J. Hospital's Coronary Care Addition, Tampa, Florida, Harvard & Jolly, AIA 350,000
arnham Army Hospital, Carlyle Barracks, Pennsylvania, Henry Adams, Engrs. 500,000
oodborh Home and Hospital, Alexandria, Virginia, Saldivi, Lipp & Holting, AIA 1,200,000
reater E. Community Hospital Addns. & Addts., Phs. II, Washington, D.C., Davis, Smith & Carter, AIA 1,250,000
racewood State Hospital, Harrisonburg, Georgia, Elmer G. Perry, Jr., AIA 1,800,000
itham Memorial Hospital Addition, Lebanon, Indiana, Burkert, Shropshire, Boots & Reid, AIA 2,800,000
ational Cancer Institute, Intensive Care Unit, Richmond, Va., Davis, Smith & Carter, AIA 3,400,000
etnwood Army Hospital, Ft. Belvoir, Virginia, Henry Adams, Engrs./Richer-Combrooks-Matthai-Hopkins, AIA 4,150,000
jamin Memorial Hospital Addition, Huntington, Indiana, Burkart, Shropshire, Boots & Reid, AIA 4,200,000
ichardson Nursing Home, Richmond, Virginia, Marcellus Wright, Cox, Cilimberg & Ladd, AIA 8,000,000
iv. of Tennessee Veterinary School, Knoxville, McCarty Bullock Holysip/Barber & McMurry/Lindsay & Maples, AIA 14,000,000
the Greater Laurel Hospital, Laurel, Md., Vespe Constr. Co., Dalton, Dalton, Little & Newport, AIA 16,000,000
e's Hospital, Electrical Change Orders, Cleveland, Ohio, Elterbe Architects NFP

MISCELLANEOUS-COMMERCIAL/INDUSTRIAL/INSTITUTIONAL
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escence Office Building, Alexandria, Virginia, Capt. Russell S. Crenshaw, Jr., Michael & Carl, AIA 150,000
kebank Furniture, Raleigh, North Carolina, Conley/Kuberman, AIA 160,000
ig Boy Restaurant, Fairfax, Virginia, Marriott Corporation 290,000
flagship Restaurant Parking Garage, Washington, D.C., Perkins & Will, AIA 300,000
ited Virginia Bank of Charlottesville, Charlottesville, Virginia, M. Jack Rainhear, Jr., Architect 490,000
inesis House, Washington, D.C., Marriott Corporation 700,000
orum Corda Community Center, Washington, D.C., Sursum Corda, Inc., Fry & Welch, AIA 1,200,000
eston Indoor Sports Complex, Reston, Virginia, Long & Foster, Oxman-Stewart, AIA 1,400,000
kridge Center Office & Warehouse, Merrifield, Va., Henry A. Long, Frank C. Montague, AIA 1,500,000
eration Motor Office Addition, Silver Spring, Md., Daniel M. Ross, Esq., Victor Smolen, AIA 2,000,000
ational Zoo Beaver Valley Exhibits, Washington, D.C., Faulkner, Fryer & Vanderpool, AIA 5,000,000
ational Children's Home, Rockville, Maryland, Bacharach Associates, AIA 6,285,000
Office Building, 1616 N. Fort Meyer Drive, Arlington, Va., Robert E. Morrison, Inc., Robert Calhoun, AIA NFP
ontyp Circle Office Building, 8th Floor Addition, Washington, D.C., Carnegie Endowment, ICON Architects NFP
office Building, 1120-1129 St. N.W., Washington, D.C., Robt. T. Foley Co., Leo Gordon Johnson, AIA NFP
anion Hill Office Building, Bailey's Crossroads, Virginia, Murray Weinberg, Harvey L. Gordon, AIA NFP
nteration Inc., Reston Va., Daniel M. Ross, Esq., Thomas P. Lin, Engrs. NFP
woodward Shopping Center, Silver Spring, Maryland, Friedlander-Miller-Friedlander-Kerman-Atlas, AIA NFP
sallenger-IBM Branch Office Bldg., Pittsburgh, Pa., Vespe Constr. Co., Mies Van Der Rohe, FAIA NFP

CHURCHES
ith Church of Christ, Scientist, Addns. & Alts., Washington, D.C., Faulkner & Faulkner, AIA 300,000
ascension Lutheran Church, Towson, Maryland, Neumayer & Foulx, AIA 500,000
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There has been a growing awareness of the extent to which buildings overuse energy. Moreover, out of the necessity for cutting down fuel consumption, the major areas of waste have been identified. The information has been reported in the architectural and technical press, starting with a trickle of news in '71 and '72 and now mounting to a flood. Griffin has taken a good deal of this information, added a number of perceptive insights into the entire process and produced a valuable handbook and checklist. Thanks should go to the Construction Specifications Institute for commissioning the book.

Griffin's background as a former editor of Engineering News-Record has served him well. He has gone to the various sources and has done a good job of culling, regrouping and summarizing. In 158 pages plus an appendix on life-cycle costing, there is a subject-by-subject examination of the building items that offer opportunities for reductions in energy use—heating, cooling, thermal insulation, thermal energy storage, glass-walled buildings, control systems and such. Where principles or design standards can be extracted, they appear at the ends of chapters as sharp admonitions: "Insulate all pipes and ducts." "Avoid over sizing of air conditioning equipment." "Investigate heat recovery from exhaust air for volumes greater than 2,000 cfm." "Use local task lighting, not general illumination for the most demanding visual tasks to be performed in an occupied space." Griffin sounds like a good teacher talking to his class or a sergeant to his troops. The instructions are crisp and worth heeding.

The somewhat embarrassing position of having to correct conditions of our own doing has led the author into occasionally caustic observations that usefully deflate some of the overblown descriptions of buildings that were circulated these past 20 years. "In the care-free, pre-energy-crisis days, there was little incentive to tackle the complex problem of accurate energy-conserving mechanical design." Or: "As will be discussed later in greater detail, excessive general lighting standards add energy in suit to energy injury."

One of the difficulties of a book made up principally of quotes from assorted sources is that all of the sources do not seem to be equally good. In the case of energy use, we are not merely talking about figures that must be correct for their own sake. Incorrect figures lead to incorrect analyses and to incorrect strategies for coping with the problem. In order to take most advantage of Griffin's book, these misleading statistics and attitudes should be pointed out.

Griffin uses the figure of 20 percent of the nation's total energy in the heating, ventilating and airconditioning of buildings, noting that this is over 60 percent of the energy consumed in buildings, and is more than 10 times as much energy as is consumed in lighting, the next largest user. This would suggest that less than 2 percent of national energy is used in lighting. This figure should probably be multiplied by three to approach its true importance. And in our characteristic large interior area commercial buildings, there are many examples where lighting represents more energy use than all other uses combined. In two large office buildings we have recently examined in detail, lighting represented 50 percent and 60 percent of total energy use. Heating, ventilating an airconditioning combined represented about 35 percent and 28 percent with the balance in vertical circulation, hot water and miscellaneous electrical use for office machines—computers, etc.

A few pages later, the book states that "electric fan energy accounts for up to 4 percent of a building's total electric consumption." (Still farther on, Griffin says: "According to the National Bureau of Standards, lighting and other electrical uses account for 10 percent of the energy consumed in buildings"). These figures lead into several chapters dealing with the improvement of the performance of HVAC systems as the major opportunity for energy reduction.

The General Services Administration in its successful efforts to achieve an immediate cutback in energy use in government buildings, attacked excessive light
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levels and instituted a lighting program based on 50, 30 and 10 footcandles.

The search for applicable directives and formulas also has the built-in danger of oversimplification. The characteristic of building design and analysis that becomes most apparent is the complexity and interrelatedness of systems. While general principles are applicable, each building has its own requirements that often contradict the generalizations we are used to. When are central systems more efficient? When are raised air-conditioning temperatures inefficient?

These are details, however, that diminish but don't destroy the usefulness of the book. It certainly should not be criticized for what it didn't attempt to do, and yet I wish that the unique and basic contribution of the architect could have been given greater stress—that is, the underlying design concept of a structure more sympathetically related to its environment and less dependent on the 24-hours-a-day performance of mechanical systems.

Where Griffin sees the two major approaches to energy conservation as "1) through administrative policies" and "2) through technical innovations and improvements," I see the principal avenue and formulas also has the built-in danger of oversimplification. The characteristic of building design and analysis that becomes most apparent is the complexity and interrelatedness of systems. While general principles are applicable, each building has its own requirements that often contradict the generalizations we are used to. When are central systems more efficient? When are raised air-conditioning temperatures inefficient?

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The kind of house that he wanted and he started out to make his dream a reality. This is a chatty, personal account of designing and building what Aronson calls the "Big House" in Arcade, N.Y. He goes through every step involved, from washing the well to the first formal dinner held in the home. He even gives the menu and describes china and place mats. Don't set the idea that this is a simple cottage. It is a large place, with indoor swimming pool, bowling alley, putting course and pole hall. It has 20 rooms and 11 bathrooms. He says that he hopes architectural students will read his book and "see that there is more to architecture than good, paint, mortar and stone." The book may be ordered from Aronson, RR1, Hundred Acres, Arcade, N.Y. 14009.

First, to critique this book as if it were planning guide evidences a misunderstanding of my intent. The purpose was to produce a concise survey in one document of the most current thinking and expression in airport architecture and planning and the principles upon which terminal planning is based.

Second, notwithstanding the publicity which the reviewers allude (and of which I am unaware), at no point is the "seasoned professional" led to believe that he or she will find a publication that will fill the vacuum which has existed for the past 15 years on the subject. If my intent had been to attempt to provide a sophisticated textbook, such as that of Professor Boronjeff, I would have surely titled it accordingly.

Third, the Kivetts are correct in surmising that recent and future Federal Aviation Administration publications on airport planning provide a more analytic framework for conceptual evaluation. Having participated in the preparation of these volumes, I can vouch for the high value of the products as well as the team of professionals who produced them. Neither study, however, provides the "seasoned professional" with new planning principles beyond those which he should already have, nor will they provide a critical review of the various concepts. The risk of subjective criticism properly belongs to each and every reader, with conceptual judgments arising from particular needs and demands of specific situations.

Fourth, it is correct that extraordinarily long lead times are required for a publica-
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