A designer, by profession, formulates expression. He views each problem, regardless of its structure, in Gestalt terms. The configuration of the whole forms the parameter of his efforts, as all possible conditions, circumstances and influences are methodically and carefully analyzed. This environmental approach to design is the only meaningful way of achieving effective solutions.

Any significant solution, be it a toaster, poster or an ocean liner, is an accumulation of what the designer knows and feels. Because it is essentially a projection of the designer, it has a distinct personality, identity and individuality. These characteristics, as with people, go far beyond the mere face appearances. A well-designed object will exhibit the same traits we find admirable in superior human beings—honesty, integrity, intelligence and a capability to effect events.

Objects that make these statements are always the product of a single-willed individual: a designer who understands the problem completely, who has taken an environmental approach to the solution, who has put a part of himself into that solution. Such designers and their products are not rare—Chicago's John Hancock Building, the Mies chair, the Canadian National Railway's corporate identity program and the Braun appliance line are merely a few examples. Unfortunately, and after the problem arc carefully analyzed, this environment approach to design is the only meaningful way of achieving effective solutions.

The result of this operational philosophy is a mish-mash of ideas—the good ones serving to cancel out each other while competing with suggestions from persons who, on the basis of talent, would otherwise be relegated to the shipping department. The hodge-podge of minds and hands that donate to the solution is all too-evident in the mediocrity of the end result. The only result is a complete lack of expression and solutions that convey no character as they have no basic point of view. They are as faceless as an army of commuters.

Sheer bulk of work necessitates some type of team effort, but this cannot be equated to the "design by committee." A designer, by profession, formulates expression. He views each problem, regardless of its structure, in Gestalt terms. The configuration of the whole forms the parameter of his efforts, as all possible conditions, circumstances and influences are methodically and carefully analyzed. This environmental approach to design is the only meaningful way of achieving effective solutions.

In day-to-day operation, this ideal situation is extremely difficult to achieve. First, there is the ever-present communications problem of relaying what exists in the dictator's head through the cranium of another, and finally realizing on paper what was originally proposed. Secondly, there is the ego problem. Designers feel impelled to contribute something of themselves—a very understandable trait common to all creative talents—to the final solution.

Generally, this only serves to detract from basic purpose and intention of the solution, while again establishing an essentially committee-type effort with the subsequent reduction of honesty and forthrightness.

Some argue that the committee format is fostered by the ever-increasing amount of new technical knowledge which forces designers to unitize and specialize—each individual contributing his molecule of expertise to the total effort. However, we are rapidly discovering that these specialties become obsolete within the time it takes to specialize in them.

Instead of being so eager to pigeonhole people and ability, we must shift the emphasis in design, education and industry away from the specific. It is the school's responsibility to train designers as professionals, and industry's responsibility to utilize them on this basis. Designers today must be equipped with pure problem-solving abilities. The kind of training that produces textile designers, exhibit designers, typographers and product designers might better be put to use developing thinkers—rational problem-solvers. Armed with this ability and its techniques, the designer could function both quantitatively and qualitatively in a more effective effort.

I am firmly convinced that a designer with true problem-solving ability, design proficiency and strength of purpose is capable of solving the megalopolis mess—from transportation systems, information dissemination, dwellings and educational facilities to fire hydrants and manhole covers—and it would be well done.
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Hilliard T. Smith, Jr.
Elected to Fellowship

Hilliard T. Smith, Jr., an architect in Lake Worth for the past 22 years, was elected to the College of Fellows of The American Institute of Architects, a lifetime honor bestowed for outstanding contribution. He was formally invested during special ceremonies at the recent annual convention of the AIA in Boston.

Although AIA is the 23,300 member national professional society of architects, only 957 members have been advanced to Fellowship. As a Fellow, Mr. Smith will have the right to use the initials FAIA following his name to symbolize the esteem in which he is held by his peers. Other than the Gold Medal, which may be presented to a single architect from any part of the world, Fellowship is the highest honor which the Institute can bestow on its members.

Mr. Smith was born in Savannah, Georgia, but came to the Palm Beaches early in life, and graduated from Palm Beach High School in 1938. He also attended Georgia Institute of Technology in Atlanta. Having received his registration from the Florida State Board of Architecture in 1948, he served as president of the Palm Beach Chapter of the American Institute of Architects in 1957. He was elected president of the Florida Association of the American Institute of Architects in 1967 and now serves as the Director of the Florida Region of the AIA.

In 1968, Mr. Smith was named Chairman of the Architectural Advisory Council to the Capitol Center Planning Committee for the Florida State Capitol. He is now Chairman of the AIA Task Force on New Membership Categories and Vice Chairman of the AIA Government Affairs Steering Committee. He also has been active in civic affairs. He organized the first Planning Board and Contractor Examining Board in Lake Worth in 1950 and still serves the Contractor Examining Board as chairman. He is a member of the Community Appearance Board. He has served for many years on the Salvation Army Advisory Board and is chairman of the Palm Beach County Chapter of the March of Dimes.

Among his awards, Hilliard T. Smith, Jr. has received the Certificate of Appreciation for Service to the Florida Association of the AIA in 1964, Florida Magazine Award for Best Individual Article in 1967, and the Anthony L. Pull Blank Memorial Award in 1958. He is the only architect ever to be nominated to Fellowship by the Palm Beach Chapter of the American Institute of Architects.

U.F. Student Awards
The South Florida Chapter of Producers Council, Inc. presented its third annual Scholarship Award to Mr. Alexander Plisko, Jr., fourth year student, for his meritorious scholastic work in architecture at the University of Florida. Mr. Plisko, a resident of St. Petersburg, maintained an Upper Division Grade Point Average of 3.58 and has been on both the President’s and Dean’s honor roll, is married and has one child.

The annual Bronze Medal of the FAIA awarded to a student for achievement in leadership and scholastics was presented to Vaughn B. Bomberger, by President Harry E. Burns.

AIA/CSI Joint Statement
Representatives of The American Institute of Architects and The Construction Specifications Institute reviewed the current status of their respective programs oriented toward automated specifications, data retrieval systems and other construction industry communications techniques. The following procedures were developed for the achievement of these objectives:

Goals and Procedures
1—MASTERSPEC®, Master Specifications Sections developed by Production Systems for Architects and Engineers, Inc. (PSAE), will be submitted to CSI for distribution to appropriate existing committees working on the subject, for their information, evaluation, and comment. These comments will be transmitted to PSAE for their use in improving and updating the sections.

2—COMSPEC®, the Automated Open End Specifications System (when developed by data processing services agencies in response to the performance specification prepared by the Stanford Research Institute (SRI) for the CSI Research Foundation (CSIRF)), will be made available for PSAE review with CSI staff, to permit development of PSAE outputs (master specifications, cost estimating, etc.) in a manner compatible with use in the COMSPEC® system.

3—When its program is firmly established, PSAE will consider a composite directorate representing AIA, CSI, CEC and other organizations interested in the improvement of the quality and nationwide uniform character of construction specifications.

4—The Boards of Directors of each Institute have adopted resolutions affirming the foregoing.

IN MEMORIAM

Wythe Davis Sims, II

The profession in Florida will mourn the loss of its colleague, Wythe Davis Sims, II, AIA, who drowned on Sunday, August 16, 1970 while probing the depths of a sinkhole for the body of another diver. Wythe was a member of the Orlando Otters Scuba Club.

Wythe Davis Sims, II for many years faithfully served his profession on a local and state basis. He served as President of the Mid-Florida AIA Chapter and was currently serving on the Board of Directors of the FAAIA. He was the current President of the Construction Specifications Institute (CSI) Orlando Chapter.

His memory will be with us. Our deepest sympathy to his family.
In essence, St. Peter's Church consists of a particular group of people united by baptism or a common life. Conceivably the group could be served by minimum physical requirements. Symbolic relationships are of prime importance; history teaches us that these relationships can and have been established in the meagerest of physical surroundings. The physical "church" can be considered a portion of the offertory of the congregation, built according to the means of the congregation to the glory of God, and as an enhancement of the symbolic actions performed within its walls.

The architectural solution of St. Peter's began with a careful appraisal of the requirements of the Book of Common Prayer expressed in historic and current buildings, and an analysis of the changing spatial and symbolic relations of the congregation to the altar, font, and pulpit during discreet periods of time. The relationship of choir and organ were of slightly less importance but were vital to the design of a proper worship space. A suitable background was to be created to enhance liturgical catholic worship involving the corporate action and movement of all present.

At the outset of the design it was decided to achieve richness and elegance through the creation of a powerful space and form and not through the use of expensive materials. Rough, exposed construction was to contrast with the purity and color of vestments and frontals and the pageantry of the liturgy as it proceeded in time. Thus rough-sawn unfinished southern yellow pine decking, exposed steel bents, and exposed concrete floors have been provided.

St. Peter's Church, Episcopal/Jacksonville

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Industrialized Housing and The Community Image

Loyd D. Stark, Associate

During the last few years, the air has been charged with activity centered around building systems for housing. For the most part, these systems represent a search for ways to take advantage of mass production techniques and with the capacity to be constructed in high volume. Operation Breakthrough, sponsored by the Department of Housing and Urban Development, has produced many innovative building systems. Several are quite exciting, on paper anyway. The task of working out a new system and its inherent problem is monumental, both in terms of cost and time. The number of profitably produced systems today are few indeed. One source indicates that approximately 8,000 so-called "modular" living units were produced nationally this past year. In light of a projected 2.6 million living units per year for the next 10 years, this is simply a drop in the bucket. This article will review a new entry into the manufactured housing field and some standards of community excellence it will strive to maintain.

The word "systems," describing a series of components designed so as to be compatible with one another, is a term which has been in the architect's vocabulary for many years. It would be impossible, in such a short space, to explore even some of the problems associated with modular systems and factory produced systems in general. In an attempt to identify some of the more significant problems facing the profession in housing today, this article will limit itself to a rather one-sided point of view. That point of view is not related to the actual building system itself, but instead the building system's relation to many larger systems comprising our total environment.

For the last year, Schweizer Associates has been working very closely with Florida Gas Company and one of its subsidiary corporations, Contemporary Building Systems, Inc., on the development of a factory produced housing system. The system is basically an assembly of sandwich panels locked into an integral steel frame. These panels are manufactured utilizing a kraft-paper honeycomb core glued between skins of plywood or other suitable materials. The steel frame is made of specially rolled light gage members forming perimeter surrounds and splines, all welded together to form a singular unit. These components are assembled off-line, aside from the main assembly line, into sub-systems, generally in a pre-finished state, then moved on-line in the manufacturing process where they are installed as part of the finished product.

The basic system is capable of building a structural module 12'-0" wide, 8'-0" high and up to 60' long. As a system, it encompasses technologies which have existed since the mid-forties; the only new twist possibly being the nature of the integral steel frame. One thing, however, that appears to separate it from its earlier predecessors is that it can be built and sold for a profit on a competitive basis, not for less cost but quite competitively. As with any new system, extensive testing and documentation is required and all is in process for submittals to the appropriate local and governmental agencies.

The problems encountered here are, as might be expected, bound up in non-uniformity of building codes and local building inspection practices. In order to manufacture housing to be sold in the State of Florida, the authorities of the Southern Standard Building Code, the South Florida Building Code and the Federal Housing Administration must all be satisfied. To establish a reasonable testing program the various requirements of each of these agencies must be extracted and analyzed so that pertinent tests may be performed in accordance with the most severe standards of the three.

The problems of building inspection seem to have been resolved, in Central Florida anyway, due to the efforts of the Central Florida Building Officials. This group is in the process of developing a system for reciprocity of inspection on modular structures. This simply means, that under the agreement, homes manufactured in one county
may be transported to another county recognizing the agreement and accepted as having been fully inspected during construction, provided proper certification accompanies the unit. The county in which the unit has been manufactured provides all of the inspection services associated with normal building practice on a fee basis. The unit is certified as having complied with the requirements set forth in the reciprocity agreement. The recipient county requires the developer to take out a building permit and provide normal on-site inspection for utilities, foundations, etc.

To date, several different configurations have gone through basis analysis and appear to be feasible. The most basic, a two-module structure, is used to form a living unit not unlike the one many of us were raised in or are living in now. It is a modest unit, designed to contain all of the amenities currently available in housing. This unit (Illustration A) was built as a prototype unit and is currently being used to demonstrate, first hand, what is possible with the most basic components of the system.

Later development, demonstrating the system's potential, indicates that units can be manufactured which offer much more in the way of increased livability for a comparable cost to the prototype. (Illustration B). Although the two module unit is the most basic and simplified configuration, three module and four module units have been developed and will provide far greater flexibility. In addition to the traditional single family detached house, many different variations of life style can be provided encompassing the concepts of patio houses, one and two story town houses, as well as apartment flats. A high rise building system designed to utilize the basic modular component is now under study. (Illustration C).

One certain factor recognized early in this study was that regardless of the quality of the housing produced by this venture, the house is not an end in itself. A house is a component of a larger system: the system of community. Much time has been spent in research identifying certain goals which will influence the way in which this system is manufactured and placed in the community. With manufactured housing, planners will have the opportunity to design communities with full knowledge of the architectural character of the units to be used.

Conventional building practice as implemented throughout the years has encouraged many processes which are detrimental to our environment as a whole. With the demand for housing going ever upward and the devices which man brings to bear becoming more numerous, large scale housing demands the utmost in coordination and attention to detail to succeed in terms of quality. The mass organization of on-site work for a development containing 600 homes would stagger the imagination. The staging of raw materials to be included in the project requires large areas of land aside from the actual building area.

Too often, the requirements of these activities seem to take precedence over such amenities as trees and areas of natural growth and underbrush, which could be of great value to the community as a whole. Consequently they are trampled and destroyed; some times intentionally, sometimes through the complacency of an uninformed equipment operator.

The price range within which builders can effectively produce housing at a profit has been further burdened by the rising cost of labor. A major problem becoming apparent in large population centers is a lack of the labor normally required to perform the basic work phases in the construction process. Conventional building practices in the housing industry today, because of the tight margins allowed for profit, enjoy very little involvement of qualified professionals in the planning and design process. Most operations eventually evolve to totally profit centered developments with short range economic goals. This is one of the first steps on the road to slum and the ghetto in effect, the systematic destruction of our environment.

Manufactured housing provides an opportunity to relieve certain pressures normally placed upon the builder-developer. It places the greatest portion of responsibility for profitable home building upon the manufacturer and
allows the builder-developer more time to concern himself with the nature of his community and time for detailed interpretation of where the market for his community actually lies.

Most communities of today suffer from a form of decay stimulated by over development of the side by side single family house. They are arranged in endless, monotonous rows, facing one another with fences blocking circulation between. Circulation and communication within the community is virtually paralyzed. People are forced to walk the streets dodging automobiles in order to experience any leisure opportunities outside their own "little acre."

There is no apparent sense of order or purpose. The ever rising cost of the living unit itself, land, land improvement and money are causing the above described pattern to be extended well beyond its healthy limit. Housing developments today are subject to rigid regulations, which often establish their pattern, and most can barely achieve any sense of character or identity due to the extreme high cost and lack of imagination in development. It is apparent that current low density trends are becoming economically unbalanced and prices currently exceed the reach of the average wage earner. Most developers, obeying the pressure of economics, are even today striving for higher densities in single family communities. The concept of the detached house is a poor answer to higher density, lower cost development.

There are, however, many time proven devices available to planners to break this trend. Planned Unit Development, for one, is a zoning instrument which will allow mixed zoning within a single large development. Under this concept, land may be used according to its most economically viable purpose, allowing developments, depending on their size, to contain commercial properties, apartments, high density condominium units, and single family detached housing. The basic requirement in a Planned Unit Development District is simply that the entire project must be guided by a logical master plan. We must begin to develop higher densities in clusters, (Illustration D) consolidating utilities and physical amenities thereby making them more economical to provide. These clusters most efficiently take the form of one or two story town houses or patio houses, which provide a maximum of outdoor privacy and recreational opportunity with minimum land use.

It is imperative that we begin to use better designed apartments, recognizing the existence of the human element in these living spaces. We must become aware of better land use practices and what we are doing to the land as we develop it, continuing to strive for more natural pockets, strips of open space and parks. We must create communities which achieve an identity and serve their residents as a living network and not simply an isolated plot of land where one lives cut off from the rest of the neighborhood.

There is really nothing complex about a modest living unit. Life styles, in this country anyway, seem fairly well defined, and there have been few significant changes in 50 years. For the great majority of people, only the most basic kind of living unit seems to be capable of seeking an economic level which can remain in balance. Simple and inexpensive units are the only means of housing for the great majority of people.

Once one accepts the reality of the facts, it becomes apparent that if greater variety cannot be economically created in each individual living unit, then the solution must lie in what we do with these units and how they relate to each other. There are certain economies to be derived from the proper land use and site planning. Variety of spacing and orientation can go a long way toward creating a sense of individuality in living units. Given five basic plans which are so designed as to be approached from three different directions by foot or automobile and given three basic roof styles or elevation variations along with three materials from which the unit is finished, it should be possible to create 135 visually different living units. Variation in orientation is the key to this approach. Past practices involving houses which utilize only the facade for visual variety are extremely limited.
Based upon this concept, a good housing tool would be simple, provide well studied opportunities for living, inside and out, and should be capable of many site orientations; an order which can be easily filled by manufactured housing. Manufactured housing appears to be a device to implement better design control; in short, a better community building block. It allows a designer to exercise a higher degree of discipline and provides far greater controls in a fast growing community housing great number of people; today, a very frustrating problem. Because a planner knows the nature of the unit to be utilized, he can spend more time concerning himself with the total environment. It insures an opportunity anyway, to generate a greater sense of community identity.

Much like the bodies it will house, a community is also an organism which has arteries and veins, systems which are vital to its existence. It has a surface which breathes, and it must allow for many simultaneous activities all the while providing for its general health and maintenance. It is an organism which is sensitive to social and physical change and should be capable of accepting change gracefully; another problem which manufactured housing might help solve. Instead of being razed, the manufactured house might be moved more easily as urban centers expand and land values outstrip existing use. We now know that the most painful problems involved in the community system today are all products of insensitive planning, or more appropriately, the lack of it.

Once a basic program is established for the type of living units required, little time is wasted in the refining of buildings and their various architectural elements. More time should be spent studying and understanding the most appropriate interrelationship between buildings and building types. In this case the emphasis is on overall planning; planning which should shape the fabric of the community and set the goals of the project. From this point, it is up to the architect to interpret this life style according to the parameters and goals established by the planning process. A well designed manufactured house should offer design flexibility on the interior as well as the exterior and must be basic and simplified. It allows the opportunity to consistently create good visual neighbors, neither depressing nor overly stimulating.

It should be recognized at this point, that manufactured housing is not a panacea. Sensitively designed communities should exist regardless of their means of materialization.

The manufactured housing industry is still very young and many problems will have to be overcome before it can take its place in society as a viable producer of shelter. It reflects, nonetheless, an idea which has come of age and will eventually represent a substantial portion of the housing industry. Such problems as the uniformity of codes, the resistance of labor unions and public acceptability, as well as acceptability in the construction industry, are all shaping the future of manufactured housing. These problems, strangely enough, are probably more of a help than a hindrance inasmuch as this young and energetic industry has yet to recognize its immediate potential in housing people. For the most part, the difference between superior and inferior housing lies in the consideration of the nature of community and balanced economics. We should encourage any effort to improve the atmosphere in which manufactured housing must exist while seeking to educate those individuals who make large scale housing possible as to what quality housing really consists of. It is up to the professional to concern himself with quality. The understanding of quality, what really constitutes quality, and then the communication of these ideals on the basis of the science of economics is the real key to successful environmental design; THEY ARE INSEPARABLE.
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The new museum is located in the southwest corner of an existing public park on the St. John’s River in downtown Jacksonville. Four towers containing the Planetarium, Art, Sciences and Service support the central exhibition loft, clearly expressing the museum’s functions and its specific character in contrast to neighboring commercial structures. Four foot berms raise the museum above flood level. School buses off load visitors at the southwest corner from which one enters the lobby giving direct access to all activity areas. Ascending to the exhibition areas one moves through a series of environmental chambers which envelope the viewer. The upper exhibition loft contains changing exhibits. Small animal runs, an aviary, picnic pavilion and terrace surmount the roof.

GROUND FLOOR PLAN (below) shows future expansion in dashed lines. 1 exhibition space, 2 offices, 3 planetarium (120 seats), 4 receiving and storage, 5 classrooms, 6 workshops, 7 theater (150 seats), 8 animal cages, 9 aviary, 10 mechanical room, 11 roof garden.
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The philosophy behind a remodeling is a very difficult thing to put into words. There is a pre-existing condition to deal with: the original house, which defies all efforts at rationalization. It is there and must be dealt with. In this case it was a standard, somewhat stuffy, typical 1930 2 story subdivision house, divided into a multitude of small, dark rooms. The front door faced the ocean to welcome incoming sea captains, or an occasional mermaid, while residents and guests entered through the kitchen, a side porch, or a shower room. The sole concession to its location, perched high on a dune overlooking the Atlantic was its weatherbeaten shingle exterior and wood paneled interior. The wood windows were all divided into approximately 1000 small panes to catch the maximum amount of salt spray. The major work involved the opening up and lightening of the interior to take advantage of the sun, the view, and the breezes, the addition of a large playroom, enlarging of the Master Bedroom and Bath, revising all existing plumbing, modernizing the kitchen and straightening out the circulation, with the addition of an unmistakable front door and entry. The large glass areas and porch facing the ocean are all hooded by fin walls, overhangs and balconies to protect them from the weather and to frame the views, and in the process to provide second floor balconies off the major rooms. It is these projections which are the major design elements of the house today. The glass on the East is protected on the inside by louvered folding doors to cut the early morning sun and to provide privacy.
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After ↓

Photo: Kurt Waldmann
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The Building Management and Construction Team

Reprinted from the January 1970 issue "Buildings—The Construction and Building Management Journal"

There is no doubt but that the architect's "master builder" image has diminished in recent years and that the influence of the building owner, developer and manager is in the ascendency.

Whether the pendulum will continue to swing in this direction, with the architect becoming more and more a scriber of lines on paper and less involved in translating those lines into a finished building remains to be seen in the coming decade.

While the architect has had his troubles living up to his image, building management has been fighting to live down its image of the greedy landlord, the fast-buck real estate speculator and the glorified janitor.

Evidence that building management is succeeding in its image-building efforts is borne out by the comments of industry leaders appearing on the panel at a recent Building Management/Construction Seminar conducted by BUILDINGS (October 28, New York City).

The architect's role

Arthur E. O'Donnell, vice president in charge of real estate for Chase Manhattan Bank, believes importance of the architect hasn't diminished as such but "he has suffered as a professional largely through his own faults during the post World War II period.

"The architect actually wasn't able to keep up with the post-war building boom which evolved into an era of sophisticated ownership involved in managing multiple properties. These owners have risen to the point that they know as much about many areas of design and construction as the architect does. We are on equal footing with the architect."

O'Donnell contends the architect is still necessary to the picture. He has to evolve the concept, put it before local bureaucracy, and be responsible for the design in a professional way.

Pointing out the increased complexity of today's buildings as compared to those of one or two decades ago, Anthony Rendino, director of real estate management for IBM Corp., added: "I don't think the architect can be all things to all people at all times; and I think it's to our own interests to be careful about the kinds of material and systems that we specify for our buildings. If he's as human as anyone else he can't possibly know everything that's available or what's right for us and maybe not right for somebody else. I just don't think it's wise to simply rely on him and hope for the best."

Restrictive and unimaginative zoning laws in Washington, and perhaps other cities, were suggested as another reason for a reduction in the architect's sphere of influence. Melton D. Haney, vice president of Charles E. Smith Management Companies, Washington, D.C., explained the position in which his firm finds itself as major owner-developers: "In Washington we can go up 110 or 230 feet, and the only thing you can do to a building, really, is determine what the skin's going to be, what the outside is going to look like. You build a box with 12 stories. So when it comes to designing a building, depending upon the contours of the ground, you're limited as to what you can do. In Washington we're hemmed in so by zoning laws that the architect has no latitude for creative designs."
Robert Schlageter, vice president in the real estate department of The Equitable Life Assurance Society of the United States (See September, 1969, BUILDINGS), insist the architect is still an extremely important part of this team effort, and that the emergence of sophisticated ownership O'Donnell mentioned is convincing architects that they've got to look at a building project today from the owner-investor's point of view. "We consider ourselves professional in the development of our building projects and many things peculiar to an Equitable Building might be a little foreign to some of the architectural offices. We like to feel that there's a healthy participation and partnership between ourselves and our architects and other consultants."

In defense of architects, Schlageter added: "We're, in fact, enlarging the vision of the architectural concepts. I don't think that this is running down their part of this team effort. But they've got to look at a lot more today than they did 15-20 years ago."

Selecting the architect

As the panelists established that the architect remains an important member of the building team but somewhat less than the king figure of the pre-war era, the subject changed to guidelines for selection of an architect.

Since IBM not only owns and operates buildings but leases space in others, Rendino explained that insofar as new structures are concerned his firm has five general criteria: "First, experience in the kind of building we're considering; second, a staff large enough to handle the projects we want to build; third, reputation among other owner-developers; fourth, personal evaluation of several architects based upon visits to their projects and to their offices; and fifth, very likely selection of an architect in the particular geographic area of the project."

Schlageter agrees, adding that current workload is a very fundamental consideration in terms of production capability. Equitable uses different, well-known architects on its projects as does Chase Manhattan and IBM.

In Washington, Haney employs two local architects for most projects. However, for larger ones such as a 99-acre project in Virginia (three million sq. ft. of office space, 4,000 apartments and shops, motel and underground parking) "we felt the scope of the job was such that we wanted the very best talent available. We went with an outstanding national architectural firm."

Picking the team

Each of the panelists on BUILDINGS' seminar organizes the building team in a similar way — with variations. At Chase, O'Donnell brings a mechanical engineer, a consulting engineer and perhaps others into the picture "for our own protection. This even goes for projects where we have engineers checking on the engineers literally. We do a lot of our work in-house, in which case we might put it before a consulting engineer to check our own thinking."

At Equitable, Schlageter's procedure is to hire an architect with the expectation that within his scope he would have responsibility for development of engineering and mechanical/electrical construction. "He would hire consulting engineers within his fee unless he had in-house engineering — which we are not particularly fond of. His selection of engineers is usually subject to our approval. In addition, we have our own engineers who review specs, develop material lists and work with the architect."

Charles E. Smith Company does it just a little differently. Haney explains: "We hire structural, mechanical and architectural consultants separately. The architect doesn't hire people for us. We do put the responsibility upon the electrical/mechanical engineers to check out the systems.

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Schlegter interjected: "Normally, in any specification or for any job we put out for bid, we will prequalify all sub-contractors and have a material list of approved suppliers and manufacturers."

Rendino notes that IBM's arrangements are much like Equitable's. "We rely on the architect to have a coordinating crew which includes engineering talent, usually hired from outside. In addition, we have our own consulting design staff to review designs as submitted. We have project managers who are responsible for seeing that designs are followed. If we have a particularly complex project, we might also hire an outside consultant, but that would be very special."

Who leads the team?

It's obvious from the extent the panelists drop the names of the leading architects they employ that they take pride in their association with leaders in that profession and rank the architect — at least the best — as an influential partner on the building team. It seldom comes up in discussion — at least before an audience — whether one or the other is the leader of the team. On the other hand, building owner-developers will seldom admit to less than a coalition.

Some relevant factors do prevail: Mutual respect often comes during or after completion of one or more projects together. The economic risk is too great on large projects not to take advantage of numerous specialists in various fields.

Where the owner is sufficiently knowledgeable and experienced there is no question that his contributions together with those of the architect justify their partnership in the hierarchy of the building team. Together they are equipped to evaluate contributions of other team members and make valid decisions concerning design and construction. There's no question of any other team members usurping the throne.

Seminar panelist O'Donnell mentioned one newcomer to the construction scene in the past decade, the construction consultant, who is making substantial inroads into the architect's position. "These people make a specialty of second-guessing the architect for companies not engaged in construction all the time and not having professional management organizations. Formerly these companies would go to the architect who would dream a dream (whether it was for the client or himself was questionable). In the era we are now in, we have the construction consultant sitting down with the client prior to the selection of the architect. The outcome of this situation will be interesting to watch in coming years."

Exchange of value judgments

Seminar panelists agree that all members of the building team — general contractors, sub-contractors, engineers and consultants in various fields — are entitled and encouraged to make suggestions that can affect the design, construction and operation of the completed building. But they had better have solid reasons to back up their suggestions if they expect them to be accepted, the executives firmly add.

From this free exchange, the owner accumulates what Chase Manhattan's O'Donnell calls "value judgments" consisting of the total of the team members' knowledge and experience. These value judgments are used in defense or perhaps in opposition to a particular suggestion.

Every member of the team who makes a suggestion or opposes another's must justify his position, O'Donnell believes. "Even so, sometimes you have to make decisions based upon minimum facts. This is where you get into what you call a risk area; and, of course, you try to minimize risks with new products and untried construction techniques."

When you realize that it is the investor-owner who is putting up the money for new buildings, you can see why he is cautious about such risks. However, O'Donnell believes architects are even more conservative. "We have a very difficult time getting our customers. They are prone to use the same thing over and over again. When you ask why they want a particular product, they can't give a reasonable answer."

Schlegter sums up this prevalent philosophy behind the building team: "There's really a compelling urgency on the part of the owners and investors to seek out new ways of doing things better and quicker for less money. This is really vital! As for the architects, it's a lot easier for them to use the same techniques over the years. We try to convince our architects and engineers that they're really responsible for design and should try something new. We expect to be innovators, but not just to be first with a new product or technique. We expect to get premiums out of new ideas."
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