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HONOR AWARD

TEXAS ARCHITECTURE 1971
Architect was commissioned to design a sound recording facility that would function as a creative design and advertising center for artists, producers and agencies in a city fast becoming a major center in the recording industry.

The building is located on a small, sloped site in an underdeveloped area away from major noise producing elements. The form of the building developed out of a need for strong sound control and the relationship of associated activities such as advertising, film producing and recording. The
exterior massing reflects these interior functions.

A central tri-level court divides the sound recording area from offices and acts as an area for relaxation. Deep window boxes shade offices and practice rooms and direct the view over the parking to a tree belt beyond.

Structure is wood frame at the office portion and steel bar joists on sand-filled concrete block bearing walls at the larger studio area. It is on a slab foundation. Exterior is rough textured plaster on metal lath and the roof is composition shingle.
A.I.A. FELLOWSHIPS

The American Institute of Architects has announced the elevation of eleven members of the Texas Society of Architects to the rank of Fellow, a lifetime honor bestowed for distinguished contribution to the profession. This honor and recognition has only been awarded to 4% of the over 24,000 members of AIA.

Texas Architects advanced to fellowship were: Alan Y. Taniguchi, Austin; Edward J. Romieniec, College Station; Leslie B. Mabrey, Corpus Christi; David R. Braden, Dallas; Herman G. Cox, Jr., Fort Worth; Hugo V. Neuhaus, Jr., Houston; Julius V. Neuhaus, III, Houston; William M. Pena, Houston; Wallace E. Scott, Jr., Houston; Anderson Todd, Houston; Douglas E. Steinman, Jr., Beaumont.
Systems building exists today because of breakdowns in our established traditional process of building. At one time or another in the last two decades, such breakdowns were evidenced by the subsequent inability of that process to produce buildings either quickly enough, in enough quantities, at a price the market could bear, or of a high enough quality; or all of these.

Immediately following the Axis surrender in World War II, bombed-our Europe adopted principles of industrial mass-production to produce quantities of housing for a vast and immediate market demand of homeless people.

In the early 1950's the Soviet Union adopted similar techniques to produce both a quantity and (hopefully) a quality of housing befitting that which a socialist state should provide for its population.

In each of the above cases, new approaches to the design and production of buildings were developed because the existing traditional process of building was inadequate to meet consumer demand.

In the United States, spared from war destruction, a demand for building which far outreaches our traditional
building process' ability to supply that demand, has been
less dramatic, but is nonetheless steadily increasing.

The following trends have all contributed to widening the
gap between the demand for building and our ability to
supply that demand by our established (and entrenched)
processes.

1. Building in the United States has not developed as a
unified "industry": There are over two hundred different
professional and business associations in the U. S. building
field alone, and no one has clear leadership.

2. The increase of population and our inability to produce
professionals in the building field at an equal rate: (Can
30,000 licensed architects ever, if each one was in active
practice, provide a well designed environment for 200
million people? This would require each architect to design
a total environment for 66,666 people.)

3. The emergence of mass-specialized markets: Increased
longevity of life adds to population increase, but more
important has created a vast market for housing of the
elderly. Facilities for the handicapped, specialized medical
facilities such as MH and MR, low income housing, the
emergence since 1960 of over 200 new industries which did
not exist in the 50's, are all examples of the rapid increase
of super-specialized building markets.

4. The constantly escalating price demands of labor in the
building trades, and the built-in-practice of our traditional
building process to pass these price increases through the
general contractor directly on to the consumer.

All of the above, which became apparent as trends in the
1960's, have matured into problems for the 1970's.

If we view the products of our building process from the
demands of a rapidly diversifying market, there is clearly a
breakdown occurring in the building process.

Faced with meeting this current and continuing demand,
supplying buildings for mass-markets, which is not only in
quantity, but in quality and type as well, our major
breakdowns in building can be summarized as follows:

- the acquisition of buildings requires too much time
  (the conceptual/design/bid/construct process is too slow)
- the costs of building is too high for many markets to
  bear (evidenced by government subsidy in an increasing
  number of building types)
- the quality of building is increasingly difficult to
  maintain (due to the decline and disappearance of skilled
  craftsmen, and the necessity to build and occupy more
  rapidly)
- a performance level of building which enables adaptation

to changing user needs is difficult to achieve (social and economic processes and needs change faster than our ability to change buildings. Most buildings today are operating with a high degree of functional obsolescence, while physically they are quite sound.)

EVOLUTION OF THE SYSTEMS PROCESS:

As our traditional building process has lagged farther behind demand, Systems Building has evolved as a new science promising solutions to the key failures of traditional building.

Systems Building is broader than simply a defined technique to be inserted in the design/build process at an appropriate point to elicit better bids. It is a totally different way of looking at things in architecture and building.

Some fundamentals of the systems philosophy are:

1. A system consists of a series of actions.

2. All of the actions have an inter-relationship, (interactions)—the total is sometimes called a network for that particular system. If one action, or part of the system is changed, it has an effect on all the other parts.

3. The process moves through time in accordance with a set of rules which dictates the type of interactions, and eventually the range of possible end results.

No single part of the system can be altered or removed without affecting the balance of every other part, and the result as well.

A System for Building arranges the activities of the building process into a logical flowing network to produce a homogeneous and responsive environment for human needs.

A Building System consists of a collection of subsystems and a set of rules for assembling this hardware. The subsystems typically are the parts of the building, (i.e., superstructure, HVAC, exterior walls, interior partitions, ceiling/lighting, etc.), with multiple variations in the ways by which they can be assembled. In a well developed building system, the subsystems are interchangeable, adaptable to variations in market, climate and user need, and dimensionally coordinated to meet total building requirements.

Generically speaking, building systems in the United States at this time, fall into two distinct and different types:

- The "Closed" System
- The "Open" System

Since the "open" system process is of more immediate interest to most Architects, it is given special emphasis in
this discussion. An "open" building system also consists of a kit of parts (subsystems) and a set of rules by which they are assembled in various combinations to produce results. In an open building system, the designers of the system do not design the kit of parts as to configuration, material, and tolerances. What is done instead is the development of performance standards which the various subsystems are expected to meet. Performance standards are developed only after exhaustive analysis of the particular user needs.

Performance standards are translated into performance specifications and bidding documents. Manufacturers (usually manufacturer-contractor consortiums) are asked to submit proposals and prices based on an established number of buildings to be built. This process permits direct competition between the different material industries. A concrete versus a steel structure, for example, is common and while their various configurations may differ completely, both may meet the performance requirements equally well.

Proposals are evaluated by the system designers, based upon: (1) how well they meet the performance specified, (2) the costs, (3) how well a particular proposal interacts (or interfaces) with other groups, (4) aesthetic qualities, and other criteria which the systems designers and owner have established. One winning proposal is selected for each subsystem. When this selection is made, the designers then proceed to complete the final designs for the buildings, using the engineering data for each selected subsystem and coordinating these into a complete package.

The open building system approach seeks to (1) bring manufacturing expertise directly into the design process, and (2) to secure the best available prices, for a given market at a particular time, for the various parts of the building.

The decision on which type of system (open or closed) approach to utilize for a particular project is a complex one. Each type has advantages. Generally, in the United States, the open system approach has been more widely used for school facilities, while the closed system approach has been most widely used for housing facilities.

THE GOALS OF SYSTEMS BUILDING:

In beginning to develop any new systems building program, the designers have a set of goals in mind which the system is expected to meet. While specific projects will add their own peculiar requirements, the following goals are generic to systems building:

• develop building program which most optimally meets user needs (thorough systematic planning process assures more complete programming than traditional programming methods)

• improve the technical quality of buildings produced

Non-system components (plumbing and masonry work) are integrated with subsystems. Design was completed on these areas after subsystems were bid and awarded.
Subsystem No. 1 — Superstructure-
This structural frame, shown during erection was one of several subsystems for this project which were procured by performance specification.

Subsystem No. 2 — HVAC-
Rooftop multi-zone units in place during construction. The entire HVAC subsystem, which includes all ductwork, control wiring and diffusers was procured by performance specification.

Note:
The projects illustrated under construction are early examples of an extensive systems building program by the Texas Department of Mental Health and Mental Retardation; Dr. David Wade, Commissioner, Mr. W. G. Kirklin, Assistant Commissioner, Mr. Phil Bible, Architect-Chief of Design and Construction, Mr. Bill Bauder, Project Architect.

This Department has completed bidding, based on an open-system performance specification for slightly over 10 million in construction since late 1970, involving eighteen different buildings at five different sites. These are all under construction at this time. The systems program has enabled the Department to build higher quality facilities for MH/MR with significant time and cost savings over former methods.

Projects illustrated: Adult MH/MR ward buildings, and Children’s Psychiatric Unit, Austin State Hospital.
Owner: Texas Department of Mental Health and Mental Retardation
Systems Consultants: International Building Systems, Inc., Dallas, Texas
Project Architects: Caudill Rowlett Scott, Houston, Texas

(produce better workmanship, finishes, and fitting of parts, than could be achieved by the traditional process)

- improve the environmental quality of buildings produced (provide a higher esthetic and ergonomic value than is possible by the traditional building process)

- increase the performance of the buildings produced (make buildings more appropriate to their functions, and able to adapt to changing needs)

- reduction of the costs of construction (build equal or better quality for less money than could be built by the traditional process)

- reduction of construction time (on site) (build faster than could be built by the traditional building process)

- maximum performance from the minimum number of parts

- maximum interchangeability of parts

We expect to see, in 1972, the systems process and various adaptations of it being used more and more to achieve the goals of owners in various building programs.

Summary:

"Designing is an intricate task. It is the integration of technological, social and economic requirements, biological necessities, and the psychophysical effects of materials, shape, color, volume, and space: thinking in relationship."

Information retrieval and evaluation is rapidly becoming an advanced science in itself. Therefore it is possible to ingest all factors affecting a client/user’s needs in developing an optimum building program. We are weakest in our ability to predict future change, however, progress is being made in that area.

We are producing new and better materials for building. The systems process, in its most lofty sense, aims at bringing all of this available technology into a logical network to most effectively bear on the problem of building. The task that now lies before us is to integrate these systems with the human requirements in a proper relationship. Only when this is accomplished do we have a System as a Whole.

The Systems point of view is a rational, disciplined approach to architecture. It seeks to define the real environmental problems of our society, and to utilize all of our technological capabilities to bear solutions for those problems. It is architecture acting within a framework of the highest logic and meaningful sense-of-purpose.

CAUDILL ROWLETT SCOTT

1972 AMERICAN INSTITUTE OF ARCHITECTS ARCHITECTURAL FIRM AWARD

Caudill, Rowlett & Scott, Architects, Planners and Engineers has been selected to receive the highest award bestowed on a firm by The American Institute of Architects; given for "continuing collaboration among individuals of the firm" as the "principal force in consistently producing distinguished architecture".

Since its founding 26 years ago, Caudill Rowlett Scott has established offices in Houston, New York City, Los Angeles, and Chicago, has performed work in 40 states and 10 countries overseas, and has amassed nearly 100 separate design awards, five of them national Honor Awards from the AIA.

CRS, with its diversified staff of about 300, is one of the pioneers in the now-widely practiced team approach to design. Recognizing that the design of today's cities and buildings is far too complex to be mastered by one man, the firm from its inception in 1946 has approached design as a multidisciplinary effort. For each commission, it brings together experts in all related fields, into a team that also includes the client.

The firm also pioneered in applying systems building and the development of "fast-tract scheduling," a technique which helps to shorten the time required for design and construction by overlapping such activities as programming, design and construction, which have traditionally been scheduled sequentially.
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Shown here is their beautiful Gulfstream Condominium. This modern complex includes 132 apartments, all total-electric.

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To find out how your particular project can benefit from going all-electric, call the Sales Engineer from your nearest Electric Utility and let him show you the facts and figures!
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SAN ANTONIO, TEXAS

EXCERPTS FROM A GRAPHICAL ESSAY BY WALTER-KELLY GERBER, UNIVERSITY OF TEXAS
The Norton-Polk-Mathis House is one of the few Nineteenth Century homes extensively restored to its original completed condition. The house was the subject of a detailed plan study by the Historical American Buildings Survey Teams, the drawings being completed in April 1969.

The house is significant because it can be traced through the evolution of Nineteenth Century Texas architecture, from the simple stone frontier building, through the typical Victorian gingerbread rear gallery, to the monumental Italian Renaissance tower and porch. It occupies one of the oldest sites in the King William Historical District.

The exhaustive procedure of restoration can be credited to Walter Nold Mathis whose time and effort went into the preservation of this handsome and fashionable structure.

First owner of this particular tract of land was Thomas J. Devine, district attorney from 1842 until 1856. He later became chief justice of the Supreme Court of Texas. He acquired the property from the descendants of Vincente Amados, who had been granted it when the mission lands were secularized.

In 1869, Russel C. Norton, a San Antonio merchant and Mayflower descendant, acquired three lots of this grant fronting on King William Street and extending to the San Antonio River. In 1874, he authorized construction of a stone house having four rooms and a hall. Presumably during construction, he doubled the number of rooms by adding a second story. The original construction was completed in 1876. Architect is unknown.

Edward Polk purchased the property in 1882, and added a two-story brick wing with a wooden gallery at the rear of the house. Shortly thereafter, in 1886, a three-story Italianate tower and porch were added. The architect, Francis Cryder, designed the facade to
be constructed entirely of handcarved and cut Texas limestone with the tower dome of tin and lead. There is no wood understructuring of the capitals, columns or entablature. This is unique for the period and no other residence is of this construction on King William Street.

Col. Ike T. and Myra Stratford Pryer purchased the home in 1896 and occupied it until 1901. There were little or no changes during their residency. After 1901, the house had many owners and went through a period of deterioration. The purchase and restoration by Mr. Mathis and his family started in 1967. To them, society owes a debt for the home's salvation.

The plan during restoration was to bring the residence to its original completed state without altering or modifying any components. Difficulties occurred in obtaining proper materials, such as original colors, exterior trim and lighting fixture schemes. Obtaining craftsmen who were skilled in this particular capacity was a major problem.

The floors, of which many were carpeted, had to be stripped of all coverings and resurfaced. Now, oriental area rugs can be easily removed and pose no damage to the flooring. The tin and lead roof was retained with necessary repairs. Central heating and air conditioning were installed, but during the winter months, eight wood-burning fireplaces are often preferred.

During the restoration period, Mr. Mathis gathered from other period homes that were being demolished many square mouldings which are placed atop and to either side of each doorway. Throughout the house, hardware is of solid bronze. The cross-cut stained oak floors and the gold leaf design on the dado have been completely restored to their original beauty.
A BETTER IDEA IN PARKING STRUCTURES

TEXAS/UNICON

Before you plan your next parking deck, or if your present design is out of the budget—call Texas/Unicon.

Because major structural elements are prefabricated, the Unicon system can cut total construction time by as much as 50%, which not only gets you into operation faster...but reduces total construction costs.

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Texas/Unicon is a subsidiary of Kirby Building Systems, Inc., a leading manufacturer of building systems.

Construction photo of the 1066-car Texas/Unicon parking deck at 2000 Smith Office Park in Houston, built for the Gerald D. Hines Interests.

The Concept. Like most great ideas, the basic Unicon Parking Structure system is beautifully simple—consisting of two post-tensioned concrete modules. One is a precast table of varying length and width. (Stub columns may be added to these units to adjust the floor to floor heights in unusual applications.) These tables are stacked one atop another, to the planned height of the structure. The other module is a flat precast or poured-in-place slab of the same length as the tables. The slabs connect adjoining tables to form a continuous parking floor, and post-tensioning cables squeeze the entire assembly together to form an extremely rigid, watertight unit.

A simple basic idea...and yet capable of practically endless variations in application; offering wide possibilities in terms of height (to ten stories), floor plan, ingress-egress routing, and exterior architectural design. And providing quality parking structures that are quickly erected, economical, demountable, fire-resistant—and aesthetically pleasing.

For further information, please contact Charles Madeley or Charles White at Texas/Unicon Structures, Inc., P.O. Box 36429, Houston, Texas 77036. Phone: (713) 666-1946
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A visit to our plant—and inspection of our product—will convince you of the validity of the Kirby motto: "Committed to Excellence."

With a 15-year background in systems engineering, manufacturing and construction to draw from, we now offer you the ideal combination of a superior precast architectural product, competitive prices...and dependable delivery.

For additional information, please contact Charles Madeley or Charles White at Kirby Building Systems, Inc., P.O. Box 36429, Houston, Texas 77036. Phone: (713) 666-1946.
The design approach of the Houston Intercontinental Airport Fire Station was to provide an efficient building (the firemen estimate they have 50-300 seconds after receiving an alarm to get to the fire and put it out) and a comfortable, pleasant environment for the men on duty. Three eight-hour shifts of 24 men each operate the station continuously.

The first level is free-spanned space for the parking of six vehicles; masonry storage units house the drums of fire fighting foam and various pieces of equipment used infrequently. Between these storage units slit windows provide natural light when all doors are closed. Spring loaded overhead doors which open in two seconds were placed at the front for rapid exit and at the rear for ease in parking the equipment.

All crew residential areas are on the second floor. Each crew member sleeps above his assigned apparatus which he reaches by a slide pole equipped with a trap door to maintain air conditioning on the living level. In order to minimize aircraft noise, the second level is a closed box of concrete and masonry except for slit windows. The window wall overlooking the runways is sound-reducing glass.
Jury Comment: Inside and out, a brilliant theatrical event and a striking work of architecture. Faced with intimidating surroundings, the architect has responded with a bold and confident plastic expression that gives this building a memorable presence on the urban scene. From the entry drive to the principal theater itself, the interior spaces have been skilfully designed to enhance the excitement and ceremony of theatergoing.

Architect's Statement: The problem was to build two theaters for a distinguished repertory company. The acting spaces as well as the backstage facilities were developed in intense collaboration between theater artists and the architect. The prescribed objective was to design theater configurations that primarily would permit more contemporary productions of the classics. The large theater, a multispace stage, was designed as a new forum for the company's artistic aspirations. The smaller theater-in-the-round was designed as an improved version of the company's previous theater. For reasons of administrative and other economics, common backstage facilities, box office, and administrative spaces were provided.

The urban setting is a civic center complex, including a 2,000-car underground parking garage. The design attempts to acknowledge its classical neighbors in scale and height as well as coloring. The adjoining structures are travertine, and the new theater is a light colored, cast-in-place concrete. Special recognition was given to auto-bound theater customers by means of a drive-through auto lobby and drive-in box office. The larger theater contains 800 seats, the smaller 300. Both stages are equipped with tension nets for the convenience of lighting crews.
LIBRARY AWARD

The Richardson Public Library has received an award of merit in the 1972 Library Buildings Award Program sponsored jointly by the American Institute of Architects, the American Library Association and the National Book Committee. The project by Jarvis-Putty-Jarvis, Inc., of Dallas was one of nine libraries receiving awards out of 204 entries submitted to the program.

Jury comments included: the first building of an ultimate civic center complex, this library is well sited, well organized, and well designed for the climate. Structural and mechanical systems are well integrated. The jury was enthusiastic about the relationships of the various areas, and the librarian members agreed that the function easily could be expanded in the manner prescribed by the architect. A beautiful building, inside and out — an outstanding solution.

NEW PRIORITIES

The American Institute of Architects has requested the National Science Foundation to increase substantially its funding for basic research on environmental design. Now that our previous fascination with outer space has been brought within reasonable bounds and now that it is beginning to look as though we might reduce our investment in instruments of war it is time to create the research capability which will affect the quality of our lives, which are stated goals of the administration, Congress and the American people.

TRANSPORTATION

The American Institute of Architects has proposed that a Community Development Fund replace the present Highway Trust Fund. Such a fund would be a funding source at the federal level that would not only be multi-modal in the transportation sense, but would be available to provide the public infrastructures of all kinds necessary to sustain a high quality of urban and rural life.

Archibald Rogers, FAIA, speaking to the members of the House Public Works subcommittee on roads noted that it was not necessary to document further the interrelationships between land use and transportation. This has been done very well by the Department of Transportation and others. It is far more important for us to focus on how this strong relationship can manifest itself in governmental mechanisms to achieve the kind of environmental quality we all seek. The days of single purpose categorical grants are numbered. General and special revenue sharing or block grants are the public funding mechanisms of the future. We see the Community Development fund as part of this fiscal and institutional reform.

The fund would have a combination of revenue sources, ranging from quasi-user sources, such as the gasoline tax, to a whole new array of revenue sources one might collectively call "development fees:"

The fund would have four key characteristics. It would:

1. Be used to create and repair the public infrastructure of roads, sewers, water mains, and power and utility lines.
2. Provide planning and capital monies to state and metropolitan governmental units.
3. Be flexible, allowing local political units to assign their own priorities.
4. Be strongly supportive of local metropolitan planning and development agencies.
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