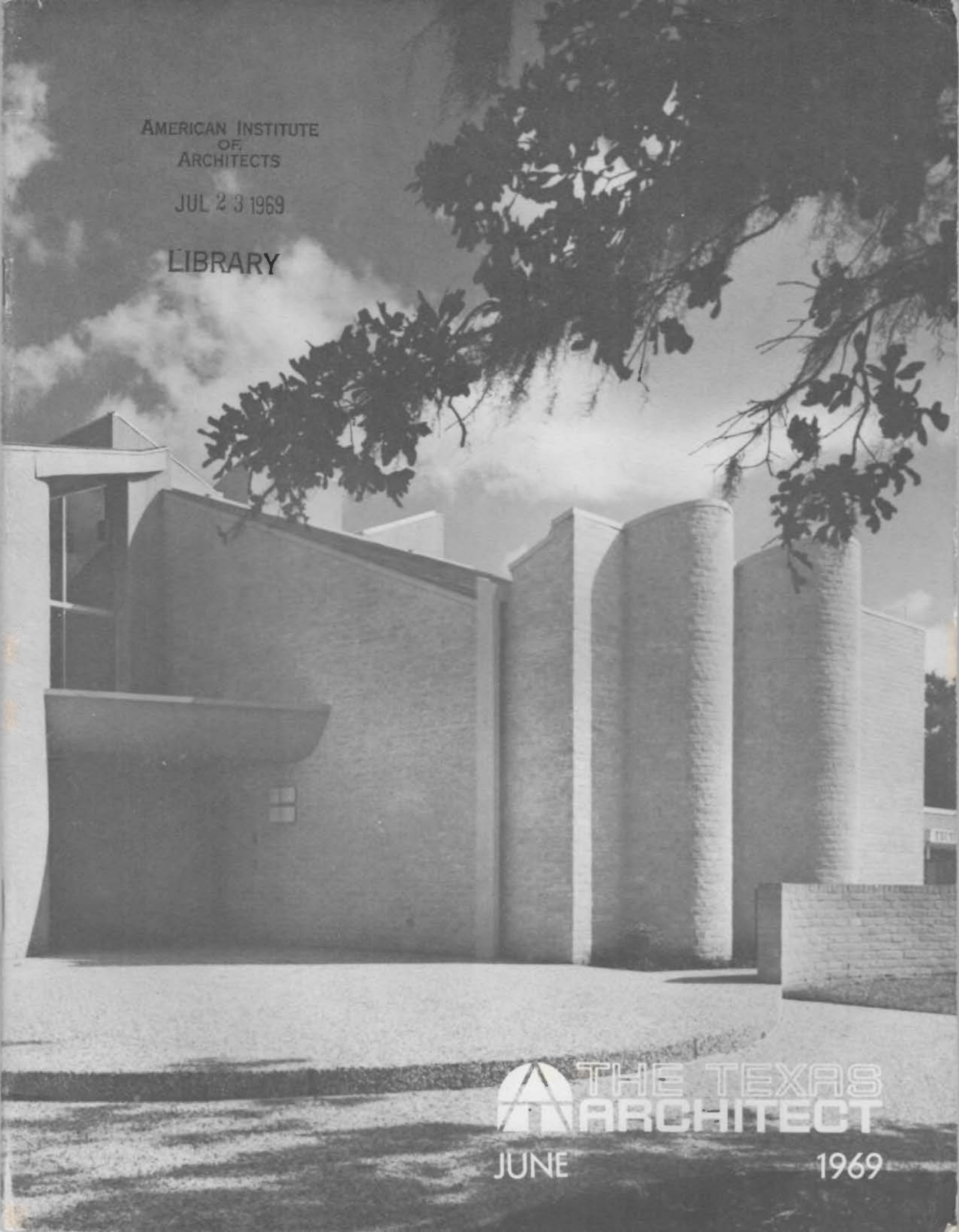


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 THE TEXAS
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1969



COVER PHOTO

The form of Newman Hall reflects the inward oriented interior spaces. A series of contrasting, echoing and even whimsical forms call attention to the variety of activities within the building. The Catholic Student Center at Texas Southern University, is a Texas Architecture 1968 selection.

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The American Institute of Architects

James D. Pfluger, AIA Editor

Don Edward Leggs, AIA
Managing Editor

327 Perry-Brooks Building, Austin, Texas

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THE TEXAS ARCHITECT

VOLUME 19 / JUNE, 1969 / NUMBER 6

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NEWMAN HALL
TEXAS SOUTHERN UNIVERSITY
Catholic Diocese of Galveston-Houston

ARCHITECT

Clovis Heimsath Associates

Structural Engineer

Karl Krause

Mechanical and Electrical Engineer

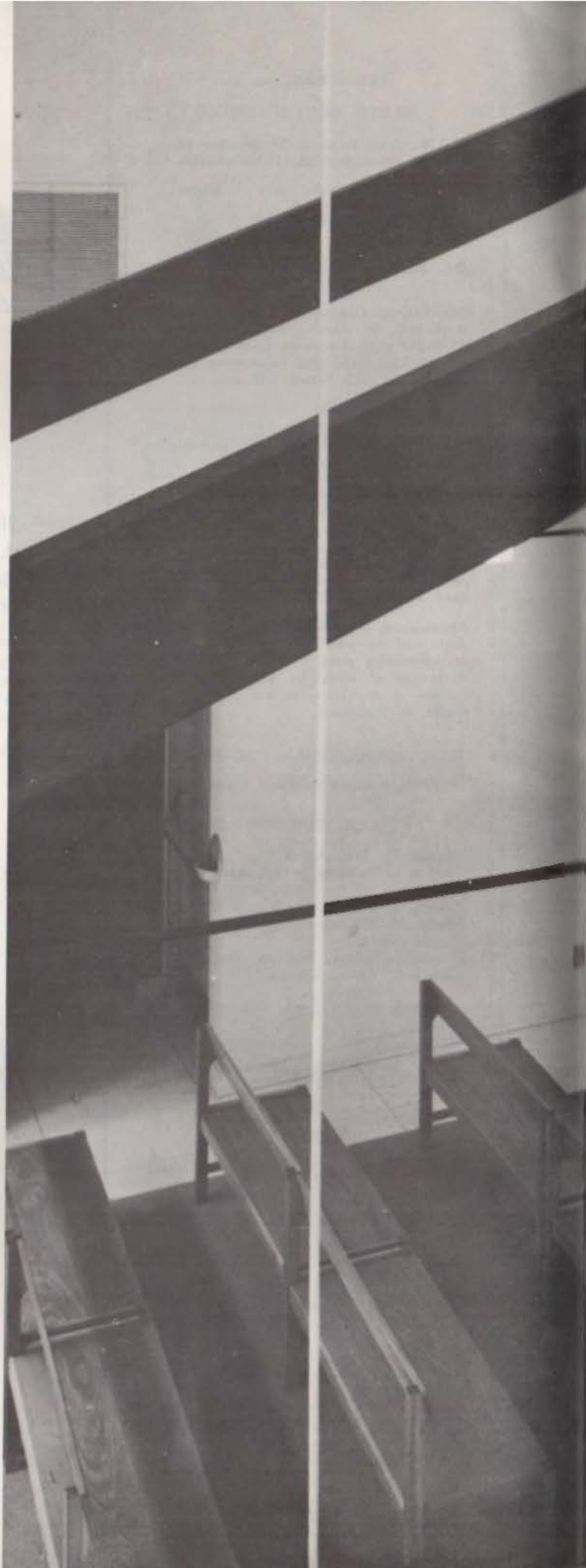
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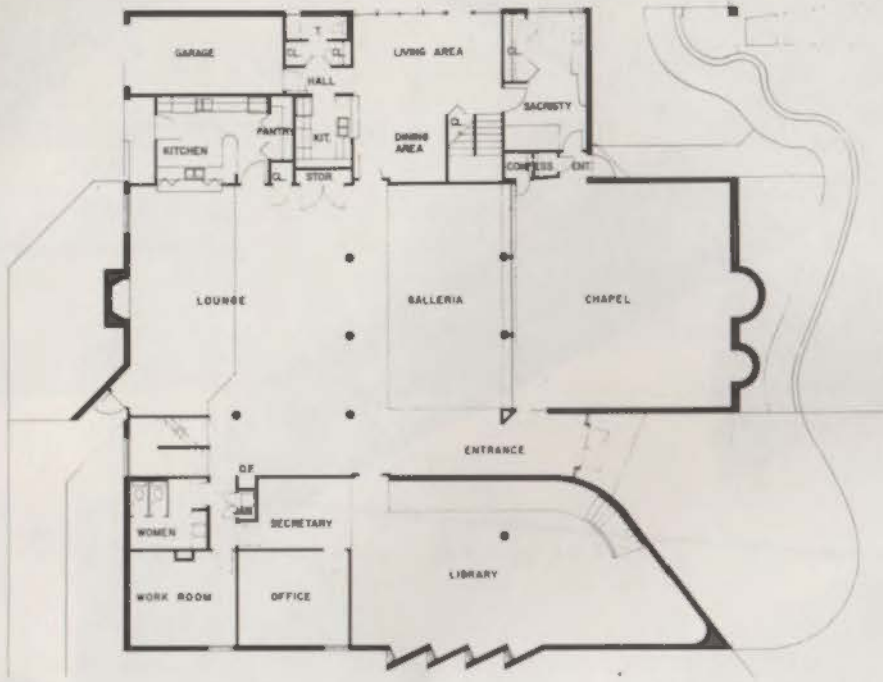
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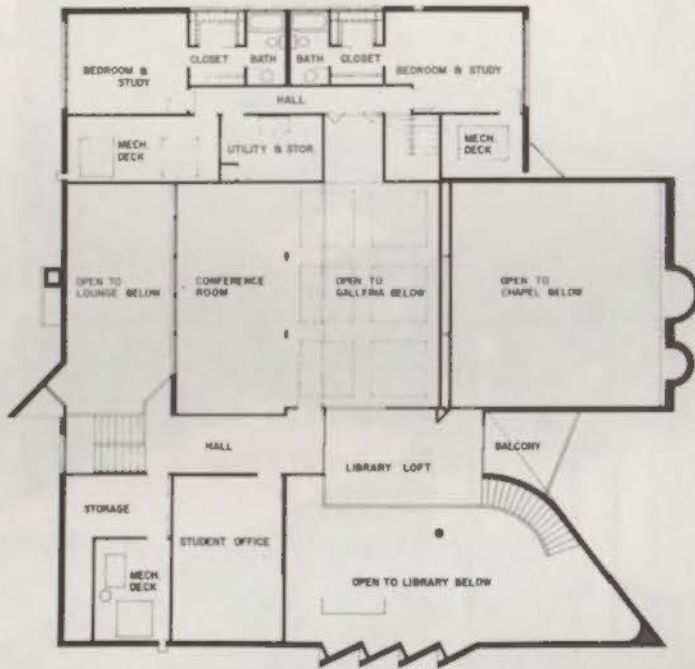
TEXAS ARCHITECTURE 1968







FIRST FLOOR PLAN



SECOND FLOOR PLAN



SECTION BB

THE PROBLEM: In the beginning the chaplain was emphatic that the building express renewal in Catholicism and provide for the social, educational, and religious needs of the students.

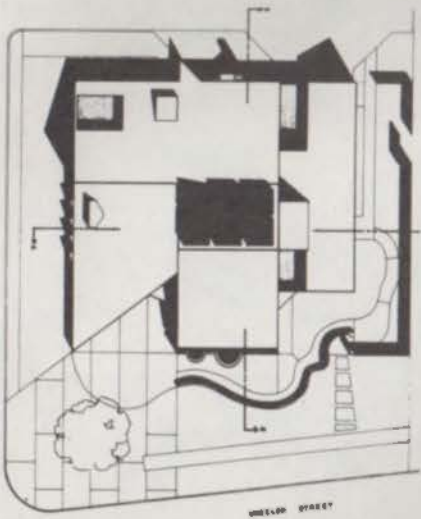
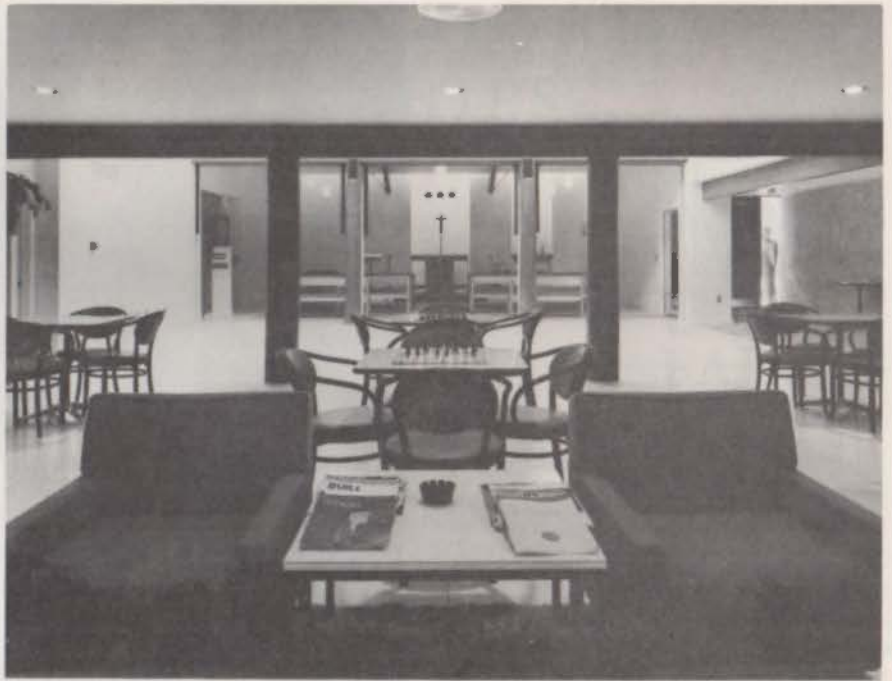
Day students were in mind; they could use the hall for lunch, study in the library, meet in the lounge. All student activities were in mind; they could use the student offices, hold seminars, have hobbies, throw the hall open for dances. Religious services were in mind, the chapel should allow for small, daily Mass or large Sunday Mass. Finally, two priests were to live in the project, set somewhat apart.

THE SOLUTION: The underlying order of the plan is square; a square divided into three parts or structurally speaking—three bays. Two of these bays provide space for the main functions of the student center. The other bay, as reflected by the form, is for the private use of the chaplain and is designated as the priests' quarters.

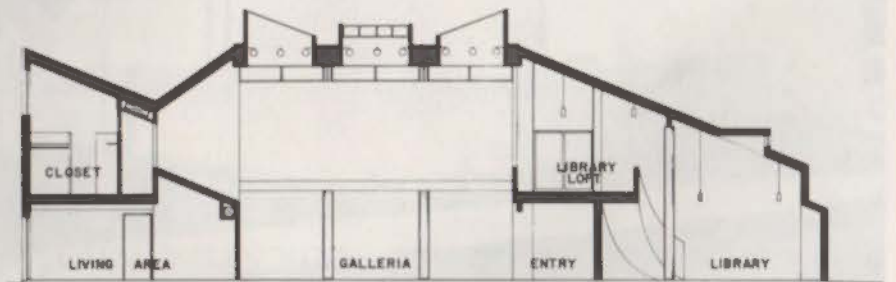
The center bay is a flexible space for liturgical functions, art exhibits, dances, student meetings and recreations. At the center of this bay is the main point of arrival—the Galleria—a high indoor courtyard, capped by articulated skylights. This space is the hub, the generator of the plan and from the plan the form of the building. All parts of the building participate with the space of the Galleria. Even the privacy of the priests' quarters invades the center space; via a slice of space reaching across the entire breadth of the building; looking first, at close hand, into the Galleria—then across the library loft and finally to a terminating view through an eyebrow shaped window cast high in the roof of the library.

The West bay provides spaces for the quiet rooms for work; the library, offices and workshop. At the street side of the West bay the facade is carved out in response to the direction of the main path from the campus, Wheeler Avenue. This diagonal cut leads to and marks the main entrance.

At this student center the underlying order of the form is a cube, a cube which was carved in response to the functional requirement of the program. With this basic geometric shape as an ordering force, a multiplicity of form is created. The exterior forms in each case reflect completely the interior space. The success of the design depends upon the balance of freely sculpting while at the same time maintaining enough cues of order for both order and freedom to be meaningful.



SITE PLAN



NEWMAN HALL



Photographs by Bert Brandt & Associates



AMERICAN INSTITUTE OF ARCHITECTS
FELLOWSHIPS



HARRIS ATTERIDGE KEMP
DALLAS

The American Institute of Architects has announced the elevation of three members of the Texas Society of Architects to the rank of Fellow, a lifetime honor bestowed for distinguished contribution to the profession. Advancement of the new Fellows will bring the total membership of the College of Fellows to 893, representing 3.9 percent of the corporate membership of the 23,000-member professional organization.



PAT YATES SPILLMAN
DALLAS



JOHN MILES ROWLETT
HOUSTON

BETH-EL UNITED PRESBYTERIA

Merit Award From Guild For Religious Architecture

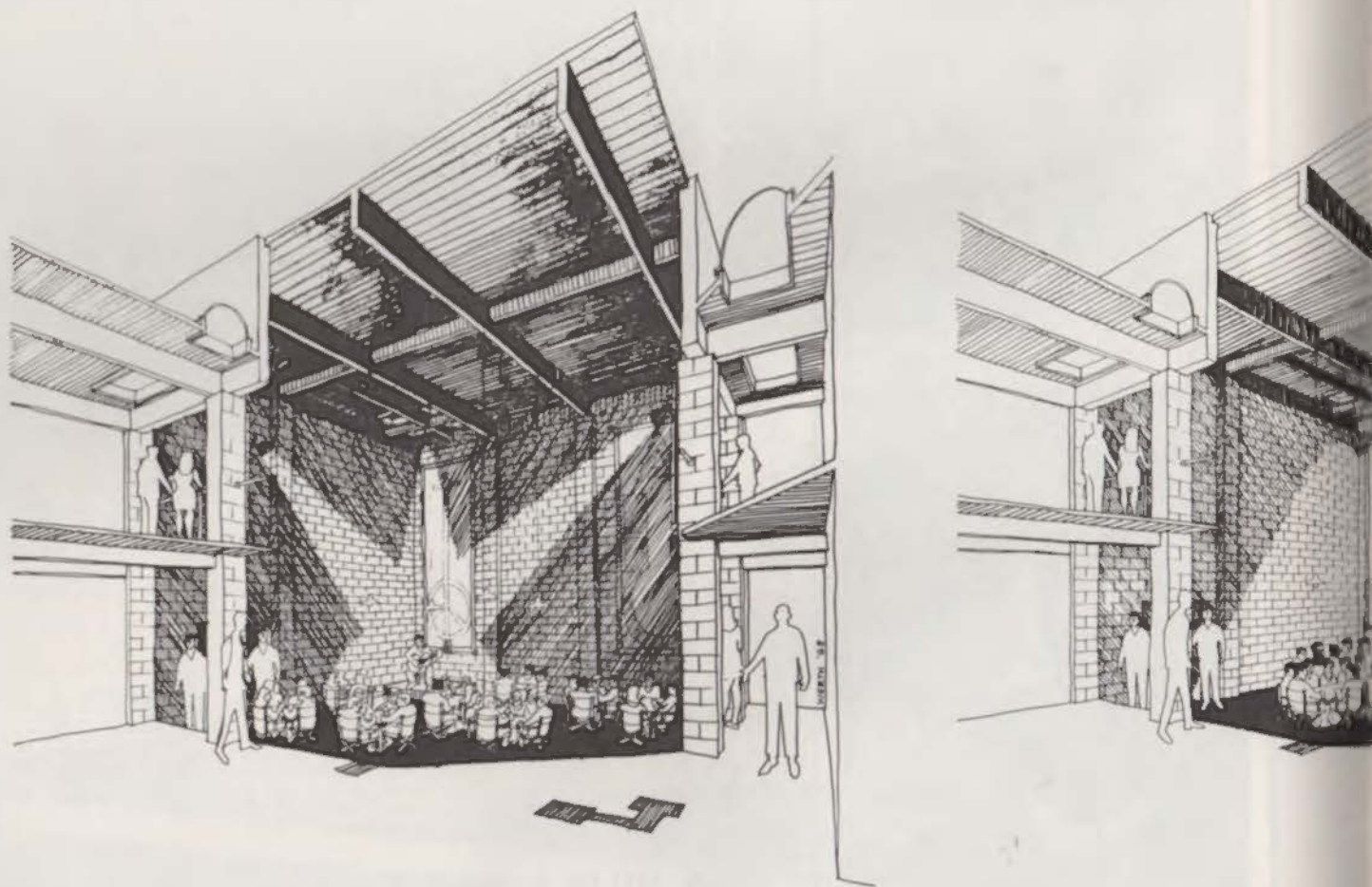
DOWNING A. THOMAS, ARCHITECT, DALLAS

BETHEL UNITED PRESBYTERIAN CHURCH is an integrated congregation of 20 persons, reactivated in 1964 from an inactive Negro Presbyterian church to provide "acceptance and recognition to the churchless, the unconventional, the respectable, the wicked . . ." and "leadership to and support of the timid and downtrodden". Assistance to the small congregation is provided at both the regional and national levels.

Worship services are now held at 2 p.m. on Sundays in the same space where on Friday, Saturday, and Sunday evenings the congregation sponsors a coffee house called the "Sign of Jonah". The opening evening was held with W. H. Auden in recitation and discussion. A paperback book shop and ministry to college students are also activities of the congregation.

Members of the church are activists in service to the community and particularly in relation to the Model Cities Program, which vitally affects the church's neighborhood. Community meetings and special events, art exhibits, films, lectures, and plays are regularly scheduled. A children's education program is housed in the homes of the members.

The dominant space is a 25 foot cube, lit only by skylights and used as an assembly space which can be opened up into a meeting room and a balcony to seat 125 people. A two-story glass stair hall will be

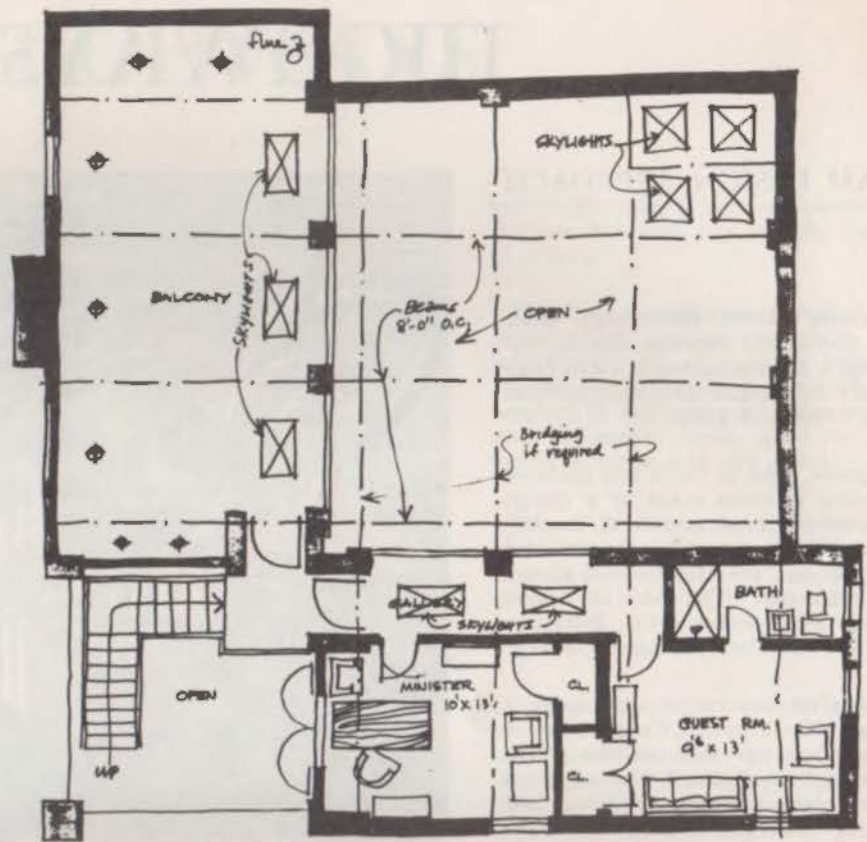


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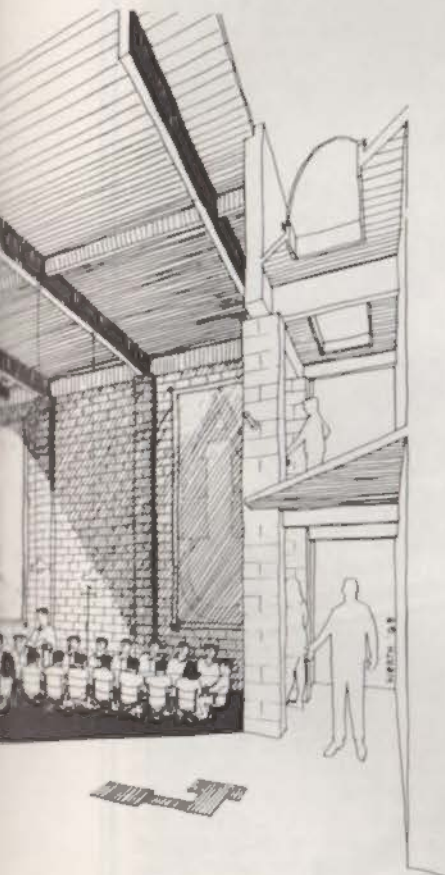
N CHURCH

Texarkana, Arkansas

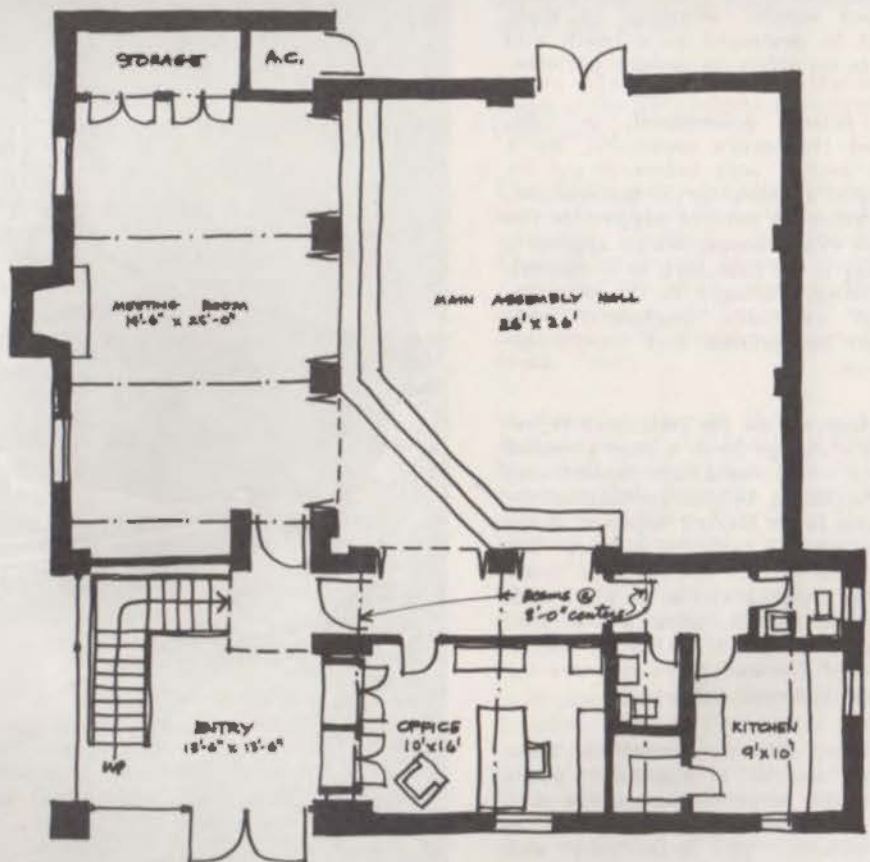
painted by an artist to symbolize the role of the congregation and brightly lit at night. Two offices, a kitchen, and a guest room complete the physical facilities of 3,400 square feet. The nature of this congregation and their budget suggested that the most elemental building materials, those found in industrial buildings, be used. Floors are stained concrete and wood, walls are concrete block painted, wood beam and deck ceilings and unfinished.



SECOND FLOOR PLAN



COFFEE HOUSE EVENING



FIRST FLOOR PLAN

HIGHWAYS

TEAM DESIGN APPROACH

Teamwork solved Baltimore's more than 20-year-old freeway dispute, involving a 22-mile network which links the city with major interstate arteries (I-70, I-70N and I-95).

The green light to build this network according to plans made by a design team composed of architects, engineers, and other experts was announced recently by the Federal Highway Administration. The idea to form such a team came from Baltimore architect Archibald C. Rogers, FAIA.

Protests from outraged citizens over the municipal powers' suggestion to pierce healthy communities with super highways, thereby razing good houses and eliminating jobs, had brought construction plans to a halt. The design team led the construction halt out of the muddle. Fighting the citizens' cause, the team was convinced that an expressway through the heart of a city should not be built without careful attention to what would be destroyed as a result and also to its effect on ecology patterns.

The federal government, in time, shared the team's conviction, for a little over a year before it put its stamp of approval on the construction, it granted 90 percent support to the team's experimental design approach, making it the first such to be federally funded. Partners in the team included architects, engineers, mass transit consultants and traffic engineers.

The team's plan for Baltimore represents a change from a long proposed system which would have concentrated traffic into a 14-lane crossing of the historic Inner Harbor adjacent to the city's central business district. The plan removes the controversial Inner Harbor crossing and in its place adds a bypass section, using a high-level bridge near Fort McHenry, and a series of freeway stubs to serve the central business district.

An urban freeway system, the team holds, can be a handsome public monument which enhances the city, and it can be used as a catalyst for development. The team may well establish a model for urban highway design in the rest of the nation.



HIGHWAYS

Traffic congestion and related problems—long a concern of those involved with highway development—may benefit by recent federal action.

For instance, the way has been cleared for the Texas Highway Department and Texas cities to participate in a new federal program to increase the traffic capacity of city streets without major construction.

The Texas Highway Commission has directed the state highway engineer to initiate planning and enter into negotiations with eligible cities wishing to participate in the Traffic Operations Program for Increasing Capacity and Safety (TOPICS). TOPICS is designed to employ traffic engineering techniques in urban areas to reduce congestion, speed up the flow of vehicles, and improve safety.

The program was inaugurated in 1967, but no additional funds were available for its implementation. Regularly apportioned federal-aid highway funds were used. However, the Federal-Aid Highway Act of 1968 authorized expenditure of \$200 million for TOPICS for both 1970 and 1971, to be matched by state funds on a 50-50 basis.

At present, priority for funds is given to larger urban areas where traffic congestion is most critical.

Researchers are seeking a priority system for buses on clogged city streets. A computer will electronically analyze traffic flow demands and adjust signals to minimize delays. Passenger-laden buses will have priority over comparatively empty automobiles. Statistics show the average automobile carries 1.5 persons. The average loaded bus carries about 40 passengers.

Maximum aid to state highway departments to develop future urban freeway corridors and multiple uses of highway rights of way was authorized by Federal Highway Administrator L. K. Bridwell before he left office. Joint development is thought to be a way to get the most benefit from the public investment in highway facilities. Joint development is most simply described as coordin-

ated actions by the highway agency, local governments, and others to develop a corridor so communities can use space above, below, and alongside urban freeways for parks, recreation areas, office buildings, apartments, etc.

The way has been cleared for states to apply for federal financial assistance in building fringe parking lots to keep automobiles outside downtown areas and reduce rush-hour traffic jams.

The government has approved some pilot projects for cities of more than 50,000 population whereby states can acquire land alongside federal-aid highways for the parking lots. This will be coordinated with existing or planned public transportation facilities.

Excerpts from "Texas Highways"

HISTORIC PRESERVATION

Growing citizen concern, new funds and Federal and state programs are helping record and save buildings and places which will give the American future roots to its past.

The American Institute of Architects' 172 chapters across the nation and a new system of state preservation coordinators are helping spark the effort.

From slums to farm land, architects with a love of the builder's art and what it means to people, are documenting sites with ruler and camera, then often aiding drives to save the measured structures.

In New Orleans the old city hall, Gallier Hall, was salvaged. In Los Angeles the Victorian Rochester House was moved to a safe place. At Boston's Roxbury district the Shirley-Eustis home will become a community center. Add "typical" farm houses in Wisconsin and North Carolina, Indian mounds and forts and the many-

gabled Sheridan Hotel once owned by Buffalo Bill and you get the range of effort.

Officials now realize places and structures which contain "patriotic, inspirational and educational values" are needed to retain a sense of belonging in the slums of older cities and to anchor civic spirit in the mobile suburbs and new cities.

The U.S. Department of Housing and Urban Development (HUD) notes in its guide to historic preservation grants that restored buildings can "spark the redevelopment of a decaying area."

HUD now spends around \$500,000 a year to help safeguard valuable buildings threatened with demolition plus larger amounts through its urban renewal and open space grants to cities, counties, and states.

This Federal outlay is in addition to the longer established protection of the National Park Service through surveys, inclusion in parks and monuments and grants.

Latest AIA instrument in the campaign is the SPC—State Preservation Coordinator.

The SPC's are available for advice on what ought to be saved as well as priorities, methods, documentation, Federal funds and other resources. Appointed by AIA's Historic Buildings Committee, the Texas SPC representative is W. Eugene George, Seabrook, Texas.

In Wyoming, Tom B. Muths, AIA, of Jackson helped the Sheridan County Historical Society gain title to the many gabled Sheridan Hotel, once owned by Buffalo Bill Cody. It had been set for destruction as a gas station site. Now Muths is working on turning the old gold mining community of South Pass in the Wind River Mountains into a state preserve.

In Washington state, SPC William H. Trogdon, AIA, of Spokane is urging county historical societies to inventory places worth keeping. The five Washington AIA chapters are being asked to help conduct the work. The early settlement of Tumwater and Indian war sites in the Palouse country are prime targets, said Trogdon. ■

CIVIC CENTER HISTORIC PRESERVATION

1968 HUD MERIT AWARD FOR DESIGN EXCELLENCE

URBAN RENEWAL PROGRAM

RESTORATION ARCHITECTS:

Robert V. Buck, AIA
Allison B. Peery, AIA
Roberts, Allen and Helmke
Torres & Makar, AIA
San Antonio, Texas
Fred McDonald
Houston, Texas
Bill Mitchell
Dallas, Texas

RESTORATION CONTRACTORS:

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Bill Matera
Judd Phelps
D. J. Rheiner
San Antonio, Texas

OWNER:

City of San Antonio, Texas



HemisFair Site

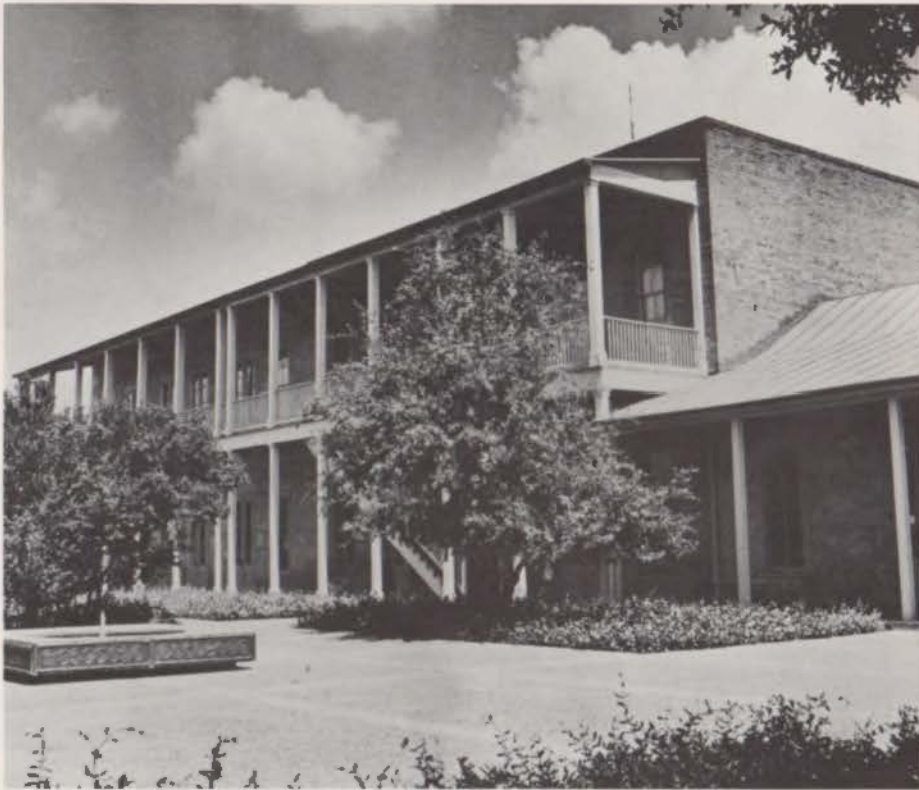
PROJECT REQUIREMENTS: To save important historic buildings located in the Urban Renewal Area designated for municipal use and to integrate these structures into the land use plan for the area.

BACKGROUND OF PROJECT: San Antonio is a city of contrasts, and therein lies its attraction and charm. The old stands side by side with the new; the past is linked with the present and future for all to see. La Villita, a 200-year-old restored Spanish village, stands in the shadows of the city's tallest skyscrapers. The San Antonio River and its Paseo del Rio (River Walk) provide a retreat into a setting of small curio shops and sidewalk cafes, grassy treelined banks and Spanish plazas. While on the street level 26 feet above, the normal, hurried routine of a metropolitan area of 700,000 people goes on. The people of San Antonio are quite aware of their pasts in terms of history, culture and tradition; more than 50 per cent of the population is of Latin descent, many families date back to the fight for Texas Independence in the 1830's and there is a large concentration of the population who are of Chinese, Italian and German origin. Perhaps the most visual way in which San Antonio's multicultural heritage has been preserved is in the restored historic structures which are scattered throughout the city. So it was not unusual when one of the older sections of the downtown area was designated as an Urban Renewal Project, that the conservation and restoration of historic buildings be among the first considerations of the agency, planners and designers.

DEVELOPMENT OF THE PROJECT: After the Civic Center Urban Renewal Project had been selected as the site for San Antonio's World Fair in 1968, designers began considering the historical structures which had been retained on the exposition grounds. Any site plan, they decided, should make full use of these structures—both during the exposition and afterwards. Since most of the structures were grouped together in one vicinity and represented a variety of cultural and architectural influences, it was decided to utilize this area as the fair's international sector. Exhibitors and private enterprise were to be located in the structures during the course of the exposition and the City of San Antonio assumed the restoration costs. During this restoration process, all those concerned made certain that none of the structures lost any of their authenticity or individuality.



Schultz Store and Warehouse (1891)



German-English School (1859)

These historic structures—most of which were built by Irish and German immigrants in the early and middle 1800's—influenced, to a certain extent, the design of other buildings on the fair site. It would have been a design catastrophe if the structures which had to be built attempted to compete with the colonnaded facades, Victorian gingerbread and other architectural trappings that distinguished the historical buildings. As a result, the site's dominant structures—the Convention and Community Center, the Tower of the Americas and the Texas and United States Pavilions—are modernly simple in style. Each is a worthy and handsome structure which complements—rather than competes with—the buildings around it. This harmonious use of architecture seems to make visual the fair's theme, "The Confluence of the Civilizations in the Americas".



Acosta House (c. 1870)



Kampmann House (1875)

RESULTS OF PROJECT: These restored historic structures, which evoke the nostalgic charm of early San Antonio, serve not only as mementos of the past but as charming, functioning additions to the present. During the Fair some were foreign restaurants, tea houses and boutiques and some were exhibit areas.

The houses remain in city ownership and continue to function in various roles for the benefit of visitors, and as a permanent design confluence reminiscent of San Antonio's colorful history.

These sensitively preserved buildings, together with the permanent structures of the fair—the Convention and Community Center, the Tower of the Americas and the Texas and United States Pavilions—will compose one of the most significant concentrations of civic structures in America.



Halff House (c. 1880)

Photographs by John Poindexter

Comments On Federal Highway Administration Proposed New Procedures For Public Hearings On Urban Highways

By Dorn C. McGrath, Jr. A.I.P. Chairman, Department of Urban and Regional Planning, The George Washington University

First, I want to thank the chairman for the opportunity to comment on the proposed new procedures for public hearings on highway location and design.

My purpose in appearing here today is to speak in favor of the proposed new procedure in behalf of the American Institute of Planners and particularly the Institute's Committee on Urban Design.

The American Institute of Planners is a national professional society devoted to the study and advancement of the art and science of city, regional, state and federal comprehensive planning. Its 5,000 members have major responsibilities for working with elected officials and the residents of neighborhoods in the location, programming and design of transportation facilities in relation to other urban systems and services.

The institute has had a long-standing concern with the issues raised by urban highway construction and to which the proposed new public hearing procedures are directed. In 1967, its Board of Governors unanimously adopted a statement urging the Department of Transportation to "develop investment criteria and standards designed to maximize the social as well as economic objectives of transportation facilities in order to provide a method of dealing with the complex inter-relations of transportation and other aspects of urban life." The proposed procedures represent a positive step toward the formulation of such criteria.

The Institute and its Urban Design Committee are in favor of these procedures for the following reasons:

First:—The procedures will provide for a more realistic degree of local public participation in planning vital urban transportation facilities. Public hearings on urban highways in the past too often have had an official air of detachment and finality, rather than a spirit of democratic review and inquiry; the proposed "corridor" hearing procedure has the potential to remove the stigma of such prior experience; moreover, it can afford public officials charged with highway planning and construction a timely opportunity to gain information and genuine community insights on potential problems through direct communication with the people involved.

Second:—Open public consideration of general alternatives for highway locations, as in the broad context of a "corridor" hearing, is a logical and desirable approach to identifying problems and specific requirements for later and more detailed design studies at the scale of neighborhoods or other developed areas through which a highway ultimately may pass; and

Third:—New urban highways have the potential to create many benefits as well as major problems in urban growth. The keys to

realizing the potential of multiple benefits from urban highway construction and to avoiding past mistakes lie in careful and comprehensive planning with continuous consideration of urban design aspects. The "Effects of Highways," that the proposed procedures would require to be considered, provide a sound basis for comprehensive planning and invite the application of urban design principles.

The importance of future highway construction in the Nation's cities cannot be overestimated. More than 1,300 miles of urban highways remain to be built as part of the Federal Interstate System alone.

These roads will traverse developed areas of every sort as well as open land. They will affect the quality of environment and style of life of millions of people. In building these highways, it is imperative to go beyond the provision of sheer traffic capacity. Realizing additional benefits, such as improved neighborhoods, will require careful attention to design detail. It will require recognition of non-monetary as well as traditional economic values in making highways compatible with the urban landscape and developed areas through which they pass. The proposed public hearing procedures can help to define these values and make more clear the need for local plans and decisions to which the proposed highways can be related.

Comprehensive planning for urban highway systems cannot be done in isolation from the people who may be affected. A clear lesson from past experience has been that secrecy in highway and urban development planning is sure to breed controversy and needless suspicion. People in cities across the country are demanding a voice in highway and other public development decisions that may affect their homes or disrupt their neighborhoods. They are expressing a major public interest, and they deserve to be heard. They deserve to be heard early enough in the planning stages to offer constructive response to general proposals. The new procedures, and especially the "corridor" hearing, can afford an opportunity for timely local response that has been lacking in many cases. By increasing the visibility of highway planning, the new hearing procedures can help to achieve the promise of the joint development concept and other highway innovations.

There is a need in highway planning for the close collaboration of professionals from various fields; even more important is the need for the understanding, direct involvement, and support of local officials and other community representatives. The "corridor" and "design" hearings required by the proposed procedures underscore the value of collaborative effort and provide a needed vehicle for vital communication among levels of government.

A substantial period of time may pass between the initial "corridor" hearing and the actual "design" hearing for any highway project. It is important that continuity of consultation and communication among responsible Federal, state and local officials and citizens be maintained during this period. It is the nature of urban design process for potential problems identified at a preliminary stage, as in a "corridor" hearing, to become better defined and understood by the designers and the community as different solutions are explored. Such problems may well involve a fine grain of community design as highway construction needs are studied and reconciled with neighborhood values and goals. Citizens who have the benefit of an open review of highway corridor planning are far more likely to contribute positive ideas and assistance in finding workable solutions to detailed development problems. It is therefore all the more important to encourage their participation in the process of design and specific problem-solving on a continuing basis after the initial "corridor" hearing has been held.

There is evidence already that the proposed procedures are practical: significant experience has been gained with similar, if less formalized, procedures in highway planning in the Baltimore, Chicago, and other metropolitan areas; this experience has shown that early consideration of planning information and development opportunities, openly expressed in laymen's terms, can help to resolve potential conflicts in advance of a "final" hearing held on the threshold of official project approval.

In summary, it is our position that the proposed two-hearing procedure, together with the stipulation of social, economic and environmental factors which must be taken into account, will contribute to a vastly improved planning process, clearer communication among the public and private interests involved, and ultimately to more viable cities. ■

THE Texas Architectural Foundation offers scholarships in architectural education and sponsors research in the profession. Contributions may be made as memorials: a remembrance with purpose and dignity.

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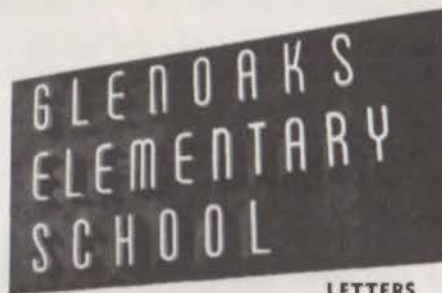
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The stunning new Fort Wayne Public Library is another impressive example of the design latitude enjoyed by architects who work with precast concrete panels. New vistas of form and color are suddenly theirs to command... new potential there to be explored.

The concrete panels used to build the Fort Wayne Public

Library are made of Trinity White Portland Cement and Polar White Quartz aggregate. The whiteness achieved is elegantly uniform in tonal purity, completely devoid of the color variations so often found when using gray cement. The panels were lightly etched with acid to produce a delicate texture. The result is a building

that is as beautiful as it is practical... as aesthetically appealing as it is functional.

There's no question that white precast concrete panels are making an increasingly profound impression on today's future-oriented architects. And the most lasting of these impressions are being fashioned from Trinity White.

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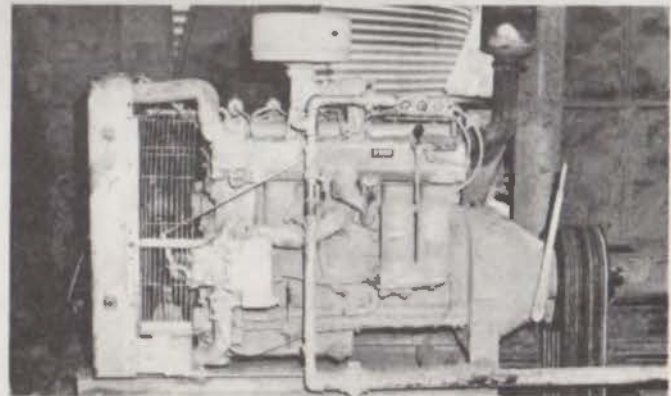
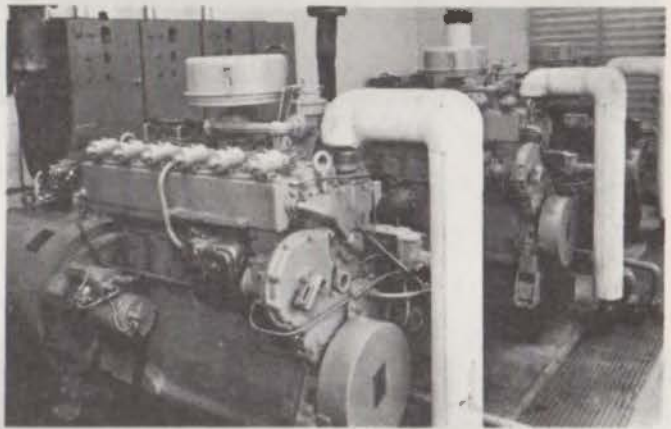
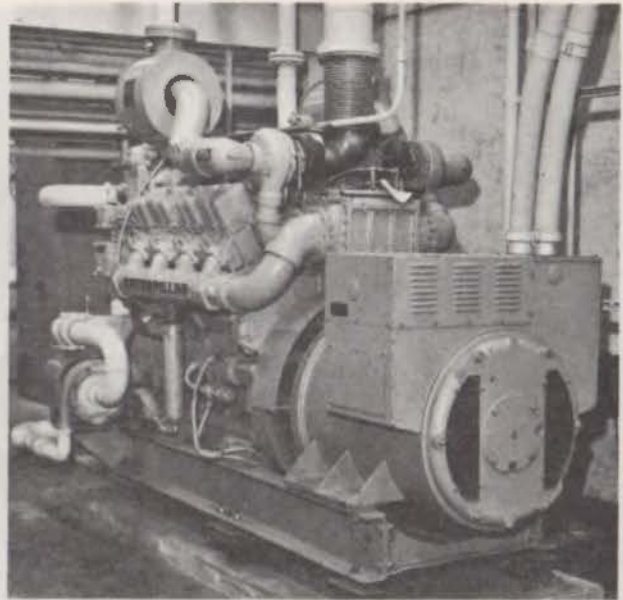
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As An Engineer Adapts To The Environment

Garden Club ladies and the federal government do not respond to the traditional slide rule.

By WELDON HART
reprinted from "Texas Parade"

WHEN Dewitt Carlock Greer was bidding adieu (he thought) to the Texas Highway Department a little over a year ago, he voiced premonitions. Not about J. C. Dingwall's ability to take over as State Highway Engineer; he was free of mind about that. Greer was concerned about trends and influences outside the department when he said to his co-workers at the 41st Annual Highway Short Course at Texas A&M:

"I must predict to you that the path that lies immediately ahead will become rougher and rougher as time goes on. Even though you are in the era of your greatest achievement, I am fearful that all elements with which we deal are becoming less appreciative of these accomplishments."

Noting that this is a "rather unusual" era for highway builders among others, Greer continued: "We have learned that more is involved in build-today's highway than the straightest line between two points. We have learned that we must consider the aesthetics, the local culture, the economic value to the community, the public conveniences and other special traffic considerations that are expected by the public to be integral parts of today's and tomorrow's highway."

And he said the Highway Department could expect the advice of many "partners"—professional people from the fields of landscaping, architecture, history, sociology and archeology and advisers in air and water pollution, wildlife preservation, fishing areas "and other elements not yet conceived . . ."

Now that Greer has unexpectedly returned to the old 11th and Brazos pad as chairman of the High-

way Commission, he may find it was even later than he thought when he delivered the above observations at College Station November 28, 1967. In his brief absence the Highway Department hummed along "without missing a heartbeat," as Dingwall had hoped it would. That's for its domestic operations. There have been some skips and flutters in Washington. For example:

—Federal-aid highway funds were held back, cut back and put back until Texas hardly knew where its next \$100 million was coming from.

—The Federal Highway Administration nearly got away with putting some objectionable, not to say obnoxious, provisions into the Federal Code of Regulations (about right-of-way hearings and highway design).

—Congress passed the Federal-Aid Highway Act of 1968 which breezily disposed of some \$22 billion in road authorizations and then devoted nearly twice as much space to such exotic items as highway beautification, fringe parking, wage rates, safety penalties, equal employment opportunity, urban impact and relocation assistance.

This last Greer found to be the subject of state legislation to let the Highway Department supplement basic right-of-way payments by about \$7 million a year. The extra cash will go mostly to owners of homes and businesses shoved off the right-of-way, to compensate them for relocation expenses.

That's one of many sources of cost increases in highways having nothing to do with the making of a road in the utilitarian sense. (Indeed, there is coming to be a quaint sound to the dictionary

definition of a road as "a way, especially for horses or vehicles, between one place and another.")

Inflation is one of these debits, deducting a tidy amount each year in highway mileage and maintenance even in the fairly stable construction industry. Essential but new are such safety "extras" as breakaway posts, highlevel lighting, more elaborate signing, traffic channelization.

Urban transportation plans, required by the federal law, cost money. So do rest areas and comfort stations. And, more than ever, litter collection. And public liability insurance for the operators of the Highway Department's 10,000 cars, trucks, mowers, tractors and assorted other equipment. And increases in salaries, retirement contributions, workmen's compensation insurance.

The social conscience of the nation, awakened to the extent that some oldtimers grumble about a "social welfare complex," is forcing state public works agencies (highway departments included) to spend more attention and money on community concerns: shunning avoidable confrontations over schools, churches, parks; fitting their plans into fire protection and city utility patterns; holding multiple public hearings on everything that changes the layout, looks or use of anything. Time costs money.

Texas has been spared many of the traumatic experiences other states have suffered over highway and freeway location, although not completely and not necessarily forever.

Francis C. Turner, a Texan of the Greer era at Texas A&M, recently promoted from Director of Public Roads to Federal Highway Administrator, said in

a speech last year he couldn't recall "anything approaching the intensity of the campaign against the auto-highway combination such as we have today." He said the attack is generally based on erroneous information and directed mainly toward a few freeways in urban areas, "involving only a very minor fraction of the total program—less than half of one per cent" on a mileage basis. The most substantial new construction is going on in built-up metropolitan areas where, as Turner said, procuring even a small amount of mileage is likely to dislodge many people and stir violent objections.

The fact that freeways are often routed through so-called "poverty areas" has created emotional as well as economic reaction—often with racial overtones. Federal agencies involved in city problems, including the Department of Transportation, seek other answers and remedies. The relocation payments called for in the Federal-Aid Highway Act of 1968 represent a step in that direction.

Congress got the state's attention last session by saying, in brief: No relocation payments, no federal aid. (That's \$250-million-a-year talk in Texas).

One of the big troubles about freeways is that they are not always built so much for the local people as for the convenience of strangers rushing through going somewhere else. No roads are being built that are not needed, and often desperately; yet it's quite often true that the citizens whose property is being taken and whose lives are being disrupted wish progress had gone off in some other direction.

The most volatile objectors, though, are the "Garden Club Ladies." That is a faintly de-

risive term covering a multitude of people.

The Garden Club army is divided into spirited regiments, battalions, companies and even guerrilla squads. In the ranks are champions of trees, parks wildflowers, birds, streams, historical buildings, green spaces, fishing waters, hunting lands, and scenery. They are allergic to noise, pollution, ugliness and bulldozers.

Their advocates speak and write in a graphic, sweeping, often exaggerated style (as did Homer Bigart in the *New York Times* of November 13, 1967) of "great rivers of concrete creeping like lava through residential neighborhoods and commercial areas, dislocating families, schools, churches and businesses . . ."

If this is the more or less fanciful impression highway engineers are apt to acquire of the Garden Club Ladies of both sexes, they should consider their own images. In Garden Club circles, all highway engineers have hairy ears and straight-line minds. They look at scenery through a surveyor's telescope and figure esthetic values with a slide rule. Commanding a host of mercenaries on bulldozers, they seek out and destroy big trees, historic buildings, family homesteads, bucolic landscapes, meandering streams and other challenges to progress. They plan freeways mainly for the benefit of contractors, gasoline peddlers, automobile manufacturers, billboard advertisers and people who have no other place to dump their wrecked cars and empty beer cans. In the process they callously disregard the people and property in their arbitrarily selected rights-of-way.

Above all, as the ubiquitous *New York Times* sniffed editorially, "Most highway engineers tend to regard the planning and de-



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As An Engineer Adapts to The Environment

signing of highways as their private affair."

Fortunately, neither extreme viewpoint is correct, and both sides know it. Most highway engineers admit (even if grudgingly) that times have changed. A modern highway is not merely "a way, especially for horses and vehicles, between one place and another." It is a public convenience and necessity, a builder of economic values, a great factor (sometimes a threat) in community values. These things are coming more and more to bear in mind as they go about their business of building safer roads as efficiently and economically as possible for more powerful cars traveling faster.

The Garden Club ladies and their legions, in calmer moments, realize that most highways and SOME engineers have their place. They hope the roads can be, increasingly, "adapted to the environment" and that the natural and manmade features they cherish may be conserved wherever possible.

And both sides are right. Highways are not built either to decorate or desecrate the countryside, but to move people and goods "from one place to another." There is, however, no rule or law that says they have to destroy other values in the process.

Highway engineers, under the watchful eyes of the Garden Club Ladies and the federal government, will be finding more and more ways to "adapt to the environment." It can be done. What it takes is, mostly, money. ■

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