

 **THE TEXAS
ARCHITECT**
JULY 1968



The Talbot Wilson residence in Houston uses controlled views on the entrance side, but all rooms open completely toward the heavily wooded ravine on the west.

Wilson, Morris, Crain & Anderson, A.I.A., Architects, designed the "Texas Architecture 1967" selection.

Official Publication of
THE TEXAS SOCIETY OF ARCHITECTS

The Texas Regional Organization of
The American Institute of Architects

James D. Pfluger, AIA Editor

Don Edward Legge, AIA
Managing Editor

327 Perry-Brooks Building, Austin, Texas

Published monthly by the Texas Society of Architects in Austin. Subscription price, \$3.00 per year, in advance. Copyrighted 1951 by the T.S.A., and title registration applied for with the U.S. Patent Office.

Editorial contributions, correspondence, and advertising invited by the Editor. Due to the nature of the publication, editorial contributions cannot be purchased. Publisher gives permission for reproduction of all or part of editorial material herein, and requests publication credit be given THE TEXAS ARCHITECT, and author of material when indicated. Publications which normally pay for editorial material are requested to give consideration to the author of reproduced by-lined feature material.

Appearances of names and pictures of products and services in either editorial copy or advertising does not constitute an endorsement of same by either the Texas Society of Architects or the American Institute of Architects.

TEXAS ARCHITECTURAL FOUNDATION

327 Perry-Brooks Building, Austin, Texas

TSA OFFICERS FOR 1968

Daniel Boone, Abilene Past President
Mace Tungate, Jr., Houston President
Howard R. Barr, Austin President Elect
Nolan E. Barrick, Lubbock Vice President
Gunter Koetter, Houston Vice President
Douglas Steinman, Jr., Beaumont Vice President
George F. Harrell, Dallas Regional Director
Reginald Roberts, San Antonio President TAF
Don Edward Legge, AIA, Austin Executive Director

TSA DIRECTORS FOR 1968

George Loving Abilene Chapter
Phil Bible Austin Chapter
Earl Merrell, Jr. Brazos Chapter
Harris A. Kemp Dallas Chapter
Clinton McCombs El Paso Chapter
T. E. Harden, Jr. Fort Worth Chapter
Preston Bolton Houston Chapter
B. McIntosh Summers Lower Rio Grande Valley Chapter
Howard W. Schmidt Lubbock Chapter
B. W. Crain, Jr. Northeast Texas Chapter
Vernon L. Helmke San Antonio Chapter
Glynn L. Harris Southeast Texas Chapter
Jack Rice Turner Texas Coastal Bend Chapter
Russell A. Megert Texas Panhandle Chapter
David R. Carnahan Waco Chapter
John William Gary West Texas Chapter
Robert Leon Wingler Wichita Falls Chapter



THE TEXAS ARCHITECT

VOLUME 18 / JULY, 1968 / NUMBER 7

THE "B. Y. MORRISON MEMORIAL LECTURE" BY MRS. LYNDON B. JOHNSON

At the convention of the American Institute of Architects
Portland, Oregon

I can think of no more perfect setting in which to discuss the subject of man and design and nature, than this great city, with its snowy peaks on the horizon; its spectacular setting near a great river and a great ocean.

Portland is blessed to have such a setting—where man can enjoy both the pace and excitement of the city, and the solitude and beauty of the countryside.

And, then, it's good to be here among people whose handiwork I have seen across the face of this land.

The man whose name this lecture bears—B. Y. Morrison—was a horticulturist of great skill and knowledge and imagination.

So I hasten to tell you that I speak to you today not as an expert, but only as a citizen deeply concerned about the relationship between the natural world and the world we are building. I am one of millions of Americans who are both troubled—and hopeful—about the physical setting of life in our country.

As you may know, my concern has been expressed in an effort called "beautification."

I think you also know what lies beneath that rather inadequate word. For "beautification," to my mind, is far more than a matter of cosmetics. To me, it describes the whole effort to bring the natural world and the man-made world into harmony; to bring order, usefulness, and delight to our whole environment. And that, of course, only begins with trees and flowers and landscaping.

When the President called for a planning study for the great Potomac Basin, you—the A.I.A.—responded with a task force report which expressed all that I imply by the word "beautification." It stressed not only aesthetics and pollution control, but economic development, transportation, and industrial and residential patterns. Now that the President has placed many of your recommendations before the Congress, I hope all of you will join the effort to translate into reality the dream of a model Potomac Basin.

If you think I mean writing your Congressmen and Senators to support the Potomac National River Bill, you are absolutely right.

If you think I mean urging local implementation in Virginia, West Virginia, Maryland, the District of Columbia, you are also right.

If we are to obtain the vital balance of nature and architecture and man, the architects must become thoughtful political activists.

Years ago, when the white man came to barter with the Indians, the great chief, Tecumseh, asked this question: "Sell the country? Why not sell the air, the clouds, the great sea?"

His sharp inquiry reflects the rich sense of man's harmony with nature which the ancients felt. The Indians did not overwhelm the land; they lived as *part* of it. They were *in* nature—not alien to it. They were users and sharers of their environment—not exploiters of it.

Far be it from me to yearn for a return to the lost past. But surely it is not wrong to hope that modern man—modern, urban, mechanized man—will somehow recapture that sense of balance between his life and his environment—before it is too late.

Already, in our age, we have done many of the things which Tecumseh considered unthinkable. Too often, we have bartered away not only the land, but the very air and water.

Too often, we have sacrificed human values to commercial values—under the bright guise of "progress." And in our unconcern, we have let a crisis gather which threatens health—and even life itself.

As a people, Americans have prized the virtues of the land: simplicity, honesty, hard work, physical courage, individualism, optimism, faith.

A preponderance of concrete and asphalt—of fumes, haze and screeches—go against our grain in a cultural way, as well as a biological way. Both dimensions of our makeup have been offended and poisoned.

Today, environmental questions are matters for architects and laymen alike. They are questions, literally, of life and death.

Can we have a *building boom* and beauty, too?

Must progress inevitably mean a shabbier environment?

Must success spoil Nature's bounty?

Insistently—and with growing volume—citizens everywhere in America are demanding that we turn our building to a sensible human purpose. They are asking—literally—for a breath of fresh air; for pleasant precincts in the heart of the city; for relaxation as well as excitement; for more reminders of nature in the city center.

Public opinion is calling for these things. And in my nearly 34 years of living with a public servant, I have learned the value of heeding such a call—not only for Presidents, but also Mayors and City Commissioners.

We are being asked to develop a wholly new conservation.

For the American architect, I think the New Conservation means first, a concern for the total environment—not just the individual building, but the entire community. No one knows better than you that the loveliest building can be nullified if there is no sign control ordinance, or if it sits in a pocket of hazy gray smoke.

The answers cannot be found in piecemeal reform. The job requires really thoughtful inter-relation of the whole environment: not only in buildings, but parks; not only parks, but highways; not only highways, but open spaces and green belts.

When the New Conservation speaks of the vast rebuilding that America must undertake, it does not mean on the old terms of freeways ripping through neighborhoods and parks, or of drab public housing, so all-alike that it reminds one of Gertrude Stein's phrase, "There's no there there."

It means a creative environment where people's imagination and variety of choice can flourish.

In the realm of transportation, one has only to think of Williamsburg, where cars are the exception, or of EXPO where there were a half dozen charming ways of moving about, to imagine what our communities could be like if we applied all that we can do.

In a related field, Congress has been considering a modest measure, the Highway Beautification Act, that would help states landscape their new freeways, build some picnic areas, and diminish the advertising that sprouts along public rights of way.

Vermont has moved faster and this spring passed a measure to ban all hillboards in the state. Instead, they substituted an ingenious system of roadside information booths.

As Vermonters know, tourists were not attracted by a forest of signs.

The great challenge now is to rally citizens outside the architectural community—so that not only designers, but city officials, businessmen, and plain citizens will share your concern for the total environment.

Secondly, the New Conservation will ask that the architect *design with people in mind*—seek to build an environment on a truly *human scale*.

I earnestly hope that our civilization is remembered for more than its mammoth freeways and vast urban superblocks; for more than the isolated, impersonal, gigantic public housing projects of our cities. Too many of these great projects seems to me to be reproaches, not signs of progress.

The architecture which excites me most is made for delight and intimacy: for the enjoyment of those who inhabit it.

For instance, Philadelphia has found a way to depress its new Delaware River Expressway and will put a pedestrian plaza on top, binding the city to its waterfront. It says, "People matter—not just traffic."

Ghirardelli Square in San Francisco is a marvel of attractions and surprises for the strolling shopper. Niccolet Mall in Minneapolis is an inviting, lively, commercial area built to make shopping a pleasure.

This concern for human values, human scale, human enjoyment, also means preserving what is historic and good. Georgetown, of course, is a famous example of how the past can serve the present. And in Savannah, Georgia, history-minded architects have marked 1100 priceless old homes to be restored.

At HemisFair, the planners have built a great modern exposition area—but thirty old buildings have been lovingly preserved and restored, and they are among the most colorful punctuation marks at the HemisFair complex.

Concern for the whole environment; attention to the human scale—and finally, a new emphasis upon areas of *natural beauty*, both inside the city and beyond its borders are three essential ingredients.

The twentieth century citizen, no less than his ancestor of another age, craves and needs to be reminded of his place in nature. The park, the public garden, the shady forest trail, the tree-lined river winding through a city; these are not only physical, but spiritual resources.

Fortunately, our ancestors realized this. So New York has its Central Park, and more than a dozen other cities once had their park systems laid out by Frederick Law Olmsted.

Who can imagine Washington without its hundreds of green oases—526 triangles and squares to be exact—the legacy of l'Enfant—its old Chesapeake and Ohio Canal, its thousands of trees and open skies?

Who can fail to delight in San Antonio's meandering little river, through the heart of the city, lined with walkways, terraced gardens, busy outdoor cafes?

Paley Plaza in New York—with its rushing waterfall—is more than a triumph of urban design. It is a reminder to the city dweller that there is a world beyond the asphalt and the concrete: it is a touch of nature in the city din.

It is a challenge to every public-spirited American architect—to every planner interested in the New Conservation: a challenge to provide such pleasant lingering places wherever they are needed.

The Land and Water Conservation Fund which is before Congress at the present time is offering a once-in-a-lifetime opportunity to acquire vanishing open space, both in the city and on its fringes.

For too many of the youth in our cities the experience of nature has been polluted water, and a "no swimming" sign. The tensions and ill-effects of a poor environment will continue until there is enough open space, for challenge and refreshment, close to home.

In my own experience right now, nature is encountered most closely when I leave the city to go to our Ranch. I quickly then come in tune with the great rhythms of life. I always know whether it's a new moon or a full moon—or the dark of the moon. When storms come, I participate in them—thrill at the great black thunderheads, and the crackle of lightning, and the majesty of thunder. I rediscover a sense of hearing and I smell all the blossoms and grasses on the afternoon air after a rain. And it's good for my spirits.

This participation in the seasons and the weather is one of the most vital and renewing experiences of life—too important to be reserved for vacations or for the few.

Accomplishing all these things will require a major undertaking by America's architects.

So deep is the environmental crisis; so urgent is the demand for change, that architecture must become not only a profession—but a form of public service.

When so many are affected by your work, you are serving not only the client who commissions your work and pays your fee: *the public is also your client.*

When so many need your help, it becomes urgent that you look beyond the usual market and find new areas of service. That is why I was heartened—no, jubilant—when your new

president, Mr. Kassabaum, told the House Public Works Committee that A.I.A. members are entering the ghetto, tackling urban blight—whether or not the client can afford traditional fees.

And now, I hope that I can enlist you in solving three specific problems which are very much on my mind.

First, there is the problem of *creating a "design conscience" in every major community.*

Well over a century ago, Henry Thoreau said, "It would be worthwhile if in each town there were a committee appointed to see that the beauty of the town received no detriment."

Washington has its Fine Arts Commission and its Committee for a More Beautiful Capital. Surely it might be a major step if other cities had similar public bodies—led by architects and planners—to act not as censors, but as educators and guides and leaders toward a sane and decent environment. I hope that each A.I.A. Chapter might consider this—and persuade your local governments to establish such catalytic groups.

Second, there is the problem of *unsightly shopping centers.* How many shopping centers are monuments to our lack of imagination—to our indifference? Too many suburban shopping centers offer a depressing spectacle: vast, desert-like parking lots, and dull and uninviting buildings. The shopping center has become a sort of "urban strip-mine"—a place of exploitation, when it could be a vital and attractive village center.

Finally, there is one of the most difficult problems: *the ugly, ragged city fringes, the blatant neon jungles at the entrance to metropolis.*

If there is any place in urban America where the natural world and the manmade world are at odds, it is at the city's edge. I hope that architects and planning commissions and metropolitan governments address themselves to this blight now—and find some solutions before the visual chaos becomes irreversible—and unendurable.

We meet here to talk about "nature," about design, about the environment. But what we are really discussing is people—not abstractions, but human beings.

One day I was walking by a drab and crudely vandalized elementary school in Southeast Washington. One of your members was with me. Looking up at the broken windows, he made a remark I couldn't forget: "A rock through a window," he said, "is an opinion."

Today that school—Buchanan—is a new place. A private donor underwrote the efforts of our Committee—and now, the school's community plaza offers city children delights once found only in the country: cascading water, hills to climb, a deep amphitheater for games, dancing and other diversions.

Seeing that hopeful place, I know that the nature we are concerned with, ultimately, is *human nature.* That is the point of the beautification movement—and that, finally, is the point of architecture.

Winston Churchill said, "First we shape our buildings—and then they shape us." And the same is true of our highways, our parks, our public buildings, the environment we create: they shape us.

You are shaping people—shaping lives. And so your countrymen are looking to you for creative insights, deep compassion, bold leadership.

I am sure you will give them nothing less.



TEXAS ARCHITECT 1967

WILSON RESIDENCE

No. 2 BRIARTRAIL

HOUSTON, TEXAS

ARCHITECTS

Wilson, Morris, Crain &
Anderson

CONSULTANTS

Walter P. Moore & Associates
Structural

Cook & Holle, Mechanical

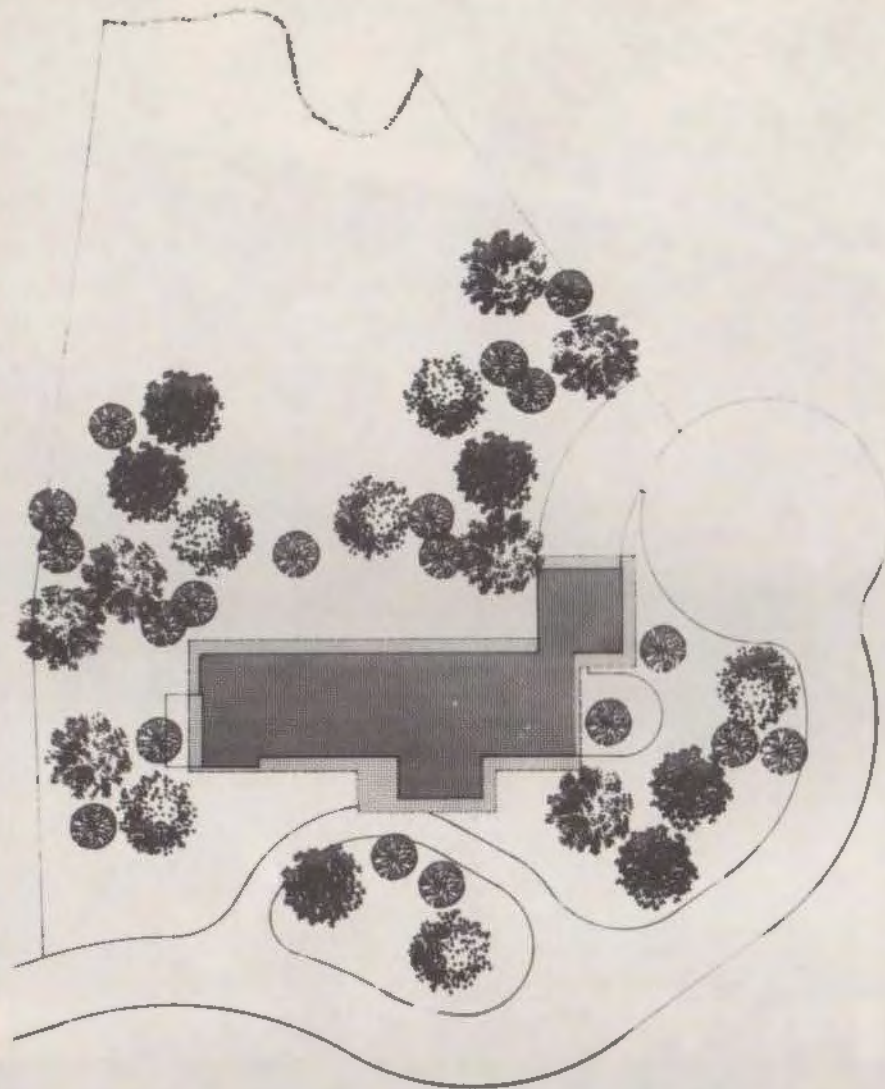
CONTRACTOR

De Forest Lyon

PHOTOGRAPHS

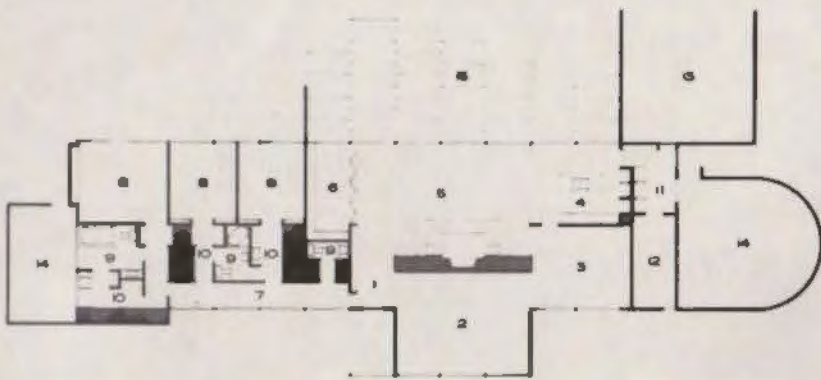
Paul Peters & Ezra Stoller Associates





THE PROBLEM—RESIDENCE FOR AN ARCHITECT AND FAMILY. One-acre site tends to orient the house toward heavily wooded ravine to west. The family includes one boy and one girl, teen-agers, and their mother who paints, likes lots of light and communication with the family while in the kitchen. There are numerous table-top family projects. Entertaining is a consideration although not an over-riding one. There is a modest but growing collection of contemporary art and a few family antiques to be accommodated.

SOLUTION—Most-used rooms open to the garden side via 8' x 8' sliding glass doors and there are skylights in key interior spots. Trees and 4' overhang provide adequate shade on the west and a floating fascia effectively reflects sunshine into shady side rooms. A studio is separated from the family room by a tall folding screen which can also swing to secure privacy from entry. Conversation pit in front of fireplace is designed to make up into two comfortable beds for overnight guests. Folding screen in 18" between upper and lower kitchen cabinets controls view to family room. Bedroom wing stretches out to court the view, give privacy to master suite, and the connecting "gallery" is well-lit for picture hanging. Children's rooms, similar, achieve individuality by decor and variation in dressing facilities. Two-way flow in living and dining room areas enhances party circulation.



PLAN

- | | | |
|------------|--------------|-------------|
| 1. ENTRY | 6. STUDIO | 11. UTILITY |
| 2. LIVING | 7. GALLERY | 12. STORAGE |
| 3. DINING | 8. BEDROOM | 13. GARAGE |
| 4. KITCHEN | 9. BATH | 14. COURT |
| 5. FAMILY | 10. DRESSING | 15. TERRACE |



No. 2 BRIARTRAIL



THE MATERIALS AND CONSTRUCTION—8-foot module of glulam columns and beams is expressed from end to end. All connections in this frame are by dowel and epoxy. Roof is 2 x 6 frame across beams and build-up. Exterior is glass, stucco with mica aggregate finish, and redwood 1 x 2's used vertically and alternately so that a 1" crinolated texture results. Partitions are wood stud, gypsum board and mahogany plywood. Fireplace wall is white painted brick, extending full width of living room. Floors and master tub are off-white terrazzo. Living room and gallery ceiling are limpet asbestos; dining room, entry and area over conversation pit are ceiled with 1 x 1 wood strips over fiberglass gauze and batts, for pattern and acoustical control. Kitchen work surfaces are Roman travertine. ■





Weyerhaeuser introduces a new Johnny-on-the-spot architectural service.

Your Weyerhaeuser Architectural Specialty Dealer is a prime source for architectural wood products. In many cases, his services include inventory, estimating, engineering, delivery and installation. These firms are now serving your area. Call them for answers to your questions on wood products.



Weyerhaeuser

Laminated products, hardwood paneling, doors, and exterior products

John J. Kuntz Lumber Co.
1323 W. Martin St.
San Antonio, Texas 78207
CA 6-4354

Stripling-Blake Lumber Co.
5453 Burnet Rd.
Austin, Texas 78756
HO 5-6551

Hardwood paneling and doors

Lingo Lumber Co.
5116 Harry Hines Blvd.
Dallas, Texas 75235
ME 1-8770

Doors

Maxey Lumber Company
124 North College
Lubbock, Texas 79415
PO 5-7736

Hardwood paneling

Walker-Kurth Lumber Company
3014 Old Spanish Trail
Houston, Texas 77021
RI 7-2020

DIMENSIONS IN STEEL



At HemisFair

With Mosher

New dimensions in steel have been brought to San Antonio by Mosher to support the architectural designs marking this World's Fair as one of the greatest expositions ever produced.

Whether it be a joist, 90 ft. long, used in the Confluence Theater; or a truss, 190 ft. long, weighing 72 tons; or a girder 120 ft. long, 12 ft. deep, weighing 48 tons, used as a support in the Convention Center Mosher will be there.

Thousands of visitors from all over the world will visit HemisFair and will take with them many memories of the City and the people of San Antonio.

You won't see it But it's there. Mosher's steel behind the scenes making the architectural designs of the buildings as strong as they are beautiful.

Dimensions in Steel at HemisFair A Proud Moment In Mosher's History.

			MOSHER STEEL COMPANY	HOME OFFICE AND PLANT: 3910 Washington Ave., Houston. OTHER PLANTS: Dallas, Lubbock, San Antonio, Shreveport, Tyler. fabricators of steel since 1885
---	---	---	--------------------------------	---

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.

TEXAS ARCHITECTURAL FOUNDATION
327 PERRY-BROOKS BUILDING
AUSTIN

TEXAS SOCIETY of ARCHITECTS



Twenty Ninth
Annual Meeting

Corpus Christi
Driscoll Hotel

November 6-9, 1968

THE TEXAS SOCIETY OF ARCHITECTS AND THE TEXAS REGION OF THE AMERICAN INSTITUTE OF ARCHITECTS

PRESENT THIS STATEMENT ON THE
SERVICES OF THE ARCHITECT AND A
SCHEDULE OF RECOMMENDED MINIMUM
FEES



THE ARCHITECT

The term "Architect" refers to a professional entity, whether reference is made to the individual architect performing alone all phases of the professional service, or the architect with a few employees, or a larger office undertaking each commission under the overall supervision and responsibility of a principal of the architectural firm.

In order to fulfill the role of professional responsibility and leadership in the building construction industry, the Architect must have the education, training and experience that will enable him to efficiently administer the design and construction of building projects in the interest of his clients and the public.

THE ARCHITECT'S WORK

The Architect shapes man's environment by designing buildings and building complexes, and the spaces and relationships inside, around, and among buildings and building complexes. His objective is to bring order to this environment, to cause it to function properly within an area that is safe and healthful and to impart to the whole a beauty and distinction that is appropriate to our time.

THE ARCHITECT'S SERVICES

The American Institute of Architects has published three standard forms of agreement between the Architect and the client wherein the basic services to be furnished by the Architect are set forth in detail. These standard forms divide the Architect's basic services into four phases briefly described herein as:

(a) THE SCHEMATIC DESIGN PHASE—consulting with the client and conducting the necessary research to develop the requirements of the project, preparing schematic design studies and submitting a statement of the probable costs of construction.

(b) THE DESIGN DEVELOPMENT PHASE—preparing more complete preliminary design drawings and outline specifications to fix the size and character of the project and the materials required, and submitting a carefully prepared statement of the probable costs of construction.

(c) THE CONSTRUCTION DOCUMENTS PHASE—preparing complete working drawings and specifications.

(d) THE CONSTRUCTION PHASE—assisting the client in the awarding of contracts and administering and observing work on the project during the construction period.

METHOD OF COMPENSATING ARCHITECT

The PERCENTAGE FEE is the usual method of compensation for the basic services furnished by the Architect. Under this method the Architect's fee is a percentage of the cost of the completed project. Recognizing that the service and skill required on different types of projects vary widely and that the Architect's fee should be in re-

lation to the cost of his efforts and the value of the services he has rendered, projects have been classified in three groups. The minimum fee for each group shall be as shown in the schedule set forth below. Other methods of compensation are used occasionally, namely, NEGOTIATED LUMP SUM FEES, COST-PLUS FIXED FEE, and a MULTIPLE OF DIRECT PERSONNEL EXPENSES. The resultant cost to the client for any of these methods will be approximately the same as the Percentage Fee.

SCHEDULE OF RECOMMENDED MINIMUM PERCENTAGE FEES FOR BASIC SERVICES

GROUP I:

INDUSTRIAL AND FACTORY BUILDINGS, GARAGES, WAREHOUSES, GRADE SCHOOLS, HIGH SCHOOLS, GYMNASIUMS, AUDITORIUMS, PLAYFIELDS, COLLEGE CLASSROOM BUILDINGS, SIMPLE STORE BUILDINGS, APARTMENT BUILDINGS, HOTELS, OFFICE BUILDINGS

MINIMUM FEE—

6% of PROJECT CONSTRUCTION COST

GROUP II:

SPECIALIZED STORE BUILDINGS, BANKS, THEATERS, CHURCHES, CLUBS, RELIGIOUS AND FRATERNAL HOMES, HOSPITALS, CLINICS, LABORATORIES, LIBRARIES, MUSEUMS, CITY HALLS, COURT HOUSES, FIRE STATIONS, JAILS

MINIMUM FEE—

7% of PROJECT CONSTRUCTION COST

GROUP III:

RESIDENCES, MONUMENTS, MAUSOLEUMS, SWIMMING POOLS, SHOP FRONTS, REMODELING AND ARCHITECTURAL INTERIORS

MINIMUM FEE—

10% of PROJECT CONSTRUCTION COST

WHEN LABOR OR MATERIAL IS FURNISHED BY THE CLIENT, FOR PURPOSES OF DETERMINING THE ARCHITECT'S FEE, THE PROJECT CONSTRUCTION COST SHALL INCLUDE SUCH LABOR AND MATERIAL AT AN AMOUNT EQUAL TO CURRENT MARKET COST.

PAYMENTS TO THE ARCHITECT

Payments on account of the Architect's basic services are to be made periodically on the basis of services performed in order that the Architect will receive a percentage of the total compensation for basic services upon the completion of each phase of such services pursuant to the following:

Schematic Design Phase	15%
Design Development Phase	35%
Construction Documents Phase	75%
Receipt of Bids	80%
Construction Phase	100%

FEES HIGHER THAN THE MINIMUM

Fees higher than the minimum are proper in many cases. Where the building problem is of greater complexity than the average of its kind and would result in an increase in the Architect's costs; or where special services are required; or where the reputation and ability of the Architect command a larger professional fee; or the scope of the project is relatively small, the interests of the client will be better served if a higher fee is anticipated and negotiated.

If the client requires the services of special consultants, other than for normal structural, mechanical and electrical engineering, the increased costs occasioned thereby should be borne by the client.

REIMBURSABLE EXPENSE

Actual expenditures made by the Architect in the interest of the project for the following incidental expenses:

(a) Reproduction of drawings and specifications, excluding copies for Architect's office use and duplicate sets at each phase for the Client's review and approval; costs of long distance telephone calls and telegrams.

(b) If authorized in advance by the client, expense of transportation and living of principals and employees when traveling in connection with the project; the expense of a full-time Project Representative at the site during construction; overtime work requiring higher than regular rates; and special perspective drawings or models for the client's use.

"THE BLACK CITY"

CONSERVATION OF HUMAN RESOURCES

Address by Robert L. Durham, FAIA, President, The American Institute of Architects, to the Gulf States Regional Conference, Memphis, Tenn., May 4, 1968.

A recent issue of the Wall Street Journal had a page one story of relevance to this convention. The article talked about problems of social unrest, and it quoted officials as blaming these tensions on (and I quote) "a small percentage of agitators found within any criminal group."

This was contradicted by a leading sociologist, who said (and I quote again) "The tensions and pressures aren't the result of agitators, but of real grievances . . . boredom, and the tough, inhuman attitude of . . . administrators, and the fact that . . . men are thrown together in a small place that is dilapidated and unfit."

Another expert said that the people so confined create "a fantasy world"—they tend to build a social structure of their own, *largely concerned with power.*

This article was entitled "Inside San Quentin." It dealt with the problems of maintaining order in prison. The analogy, I think, is striking, and perhaps it is time that we realize that ghetto and prison are interchangeable terms.

We are going through a period of domestic turmoil that has only two precedents in American history:



Our American revolution, in which we destroyed the private property of tea merchants and other businessmen and violently overthrew our government; and the Civil War, in which our ancestors fought and died over the issue of slavery and the concept of a single, unified nation. So far, this third revolution has, despite all of the rioting, deaths, and damage, been a relatively bloodless one.

The universal condition of Americans today is bewilderment. We are in a mess at home and abroad. In November, Americans will have an opportunity to express their views on our situation abroad. Architects may be able to do something about it as citizens, though not as design professionals. As both, however, we have an immediate duty to do something about the mess at home.

Before we can do much, we must be able to understand it. What is the black city? Is it the result of a runaway Negro birthrate? Was it caused by the destructive effect of the automobile on city planning? Is it the environmental fruit of foreign ideologies—the product of agitators?

We can discard these concepts one by one. The Negro birthrate is higher, but not much higher. In some communities—Washington, D.C., for example—Whitey

is still ahead. Sixty percent of the city's population is Negro. Yet the Negro population of the Washington metropolitan area is about 25%, approximately the same as it was in the time of Abraham Lincoln. There are simply more people in sheer numbers, and Negro citizens have been jammed into the center of the old city through condemnations, relocations, and real estate pressures. It is always tempting to lay some blame on the automobile, for the people who build it and plan roads for it have much to answer for. But it has not created segregation. And it is time for all of us, I believe, to rid ourselves of convenient fantasies about agitators, witches, and foreign bogeymen.

It is time we faced the truth. As Americans, we have much to be proud of. We also have much to be ashamed of. The black city is black because we made it black. The white community built the ghetto. We own it. We maintain it, after a fashion. We condone it. And by all sorts of deceptions, deliberate and unconscious, we have kept it, and its occupants, where they are. Other Americans have been kept in ghettos before, of course. The Irish provide an example. History tells us how signs in New England said: "Help wanted—Irish need not apply." How, after a food riot in Richmond during the Civil War, the newspapers blamed it on "Irish hags." But these immigrants went to our schools, infiltrated local governments, and finally disappeared among us and were absorbed. The Negro, being black, has had a different fate in America.

It is pertinent to recall the words of the South's greatest writer, William Faulkner. Faulkner said that the white man had committed the sin of slavery, and that God had put a curse on him. The curse, he said, was that the white man thereafter would only be able to rise to the extent that he helped the Negro to rise with him.

We are dealing in blunt words today because the times demand them. How are we to rise again? How are we to help our cities, and the people within them, to rise?

What can architects do? Architecture cannot cure poverty. It does not make its occupants wise or better educated. Or does it? We know by personal observation and experience that the way in which spaces are designed can evoke surprise, delight, even awe. We also know that the way our rooms and streets fit around us can create despair, loneliness, and frustration.

We know from a study of the Watts riots in Los Angeles that one of the causes was found to be the isolation of Watts from places of employment. Ghetto residents without cars resentfully watched the affluent

zipping by on freeways. They, meanwhile, had to travel for hours on buses to get to and from their jobs.

Architects know that we can heighten learning by manipulating and controlling atmosphere, light, sound, and flexibility of spaces. But we also know the finest building is no substitute for a sound curriculum, good books, and fine teachers.

And we also know that, while America is the most affluent nation in the world, it has the highest infant mortality rate of any civilized country, and it is one of the few civilized nations of the western world to have widespread city slums.

What can architects do? First, we must exercise our rights and privileges as citizens. Our design talents will mean nothing if they are not applied to social goals, arrived at through political action and consensus. This is the key to community action. As architects, we can be of special help to our communities in telling them *how* planning, design, and building skills can be brought to bear upon social problems. We can argue for use of model-city projects, demonstration grants, transportation studies, and other helpful government programs that we now pay for through our taxes. We can argue for realistic building codes and zoning ordinances to reduce building costs and permit construction of new towns and villages not only outside the city, but within it.

We can point out that effective land-use planning, tax laws, and local ordinances can be used for social purposes as well as economic ones. Used as levers, these things can make it economically impossible for owners to let slum properties run down. They can reshape ghetto areas for those who wish to stay, let others get out, and lure some of the affluent back into the city.

We can demonstrate, as architects are doing in Baltimore, Brooklyn, Chicago, and Seattle, that highways need not slash through our cities and tear them apart. The interdisciplinary design team concept was conceived by architect Archibald Rogers and recently endorsed by Transportation Secretary Boyd. It places highway design in the hands of a team consisting of architects, engineers, social scientists, housing experts, and other specialists who pool their knowledge for the good of the city. As Archibald Rogers demonstrated, the city can also set up a decision-making team capable of receiving the multidisciplinary design scheme. It can be a review committee or a local development corporation. The important thing is that it bring together the representatives and funds of agencies concerned with roads, housing, schools, parks,



"THE BLACK CITY"



and urban renewal programs. It also includes private interests—political, economic, and social. This makes it possible, for the first time, for programs, long held in isolation from one another, to be blended together so that neighborhoods can be redeveloped intelligently.

The result of such a procedure may be a unique linear redevelopment project in a blighted area. Housing, offices, schools, and parks may be built over and wrapped around roadways, where appropriate. Roads may wind through, tunnel under, or soar over other facilities. The elements that make up city life can be fitted together in a single, unified, and socially-oriented design.

It is a curious thing that the twentieth century has given us wonderful new inventions to improve communication between us and, at the same time, made meaningful communication less likely. This applies to the bureaucrats who, in isolation from one another, now hand down money for large, single-purpose public works projects. It also applies to the professionals and specialists who plan, design, and build.

I happen to be an advisor to a highway team in Seattle. It is fascinating to discover how much there is to learn from each other. The sociologist member of the team recently inquired, in a new kind of cost accounting, how many divorces per mile the highway planners were willing to accept. He pointed out sensibly enough, that destruction of housing and neighborhood affects family life and, inevitably, marital relationships. We have found no easy answer to his question. But the fact that it was asked has served to broaden our understanding a little bit more.

As this implies, the frontiers of our new architecture lie not in new building systems or images, but in the successful application of design to social and economic needs. It is possible that the great innovators of architecture in our time will not be form-givers at all, but those who invent political and procedural techniques for making effective design possible.

As architects, we can and we must be of great help to our communities. By creating tiny new towns in run-down sections of cities—planning new housing, businesses, factories, schools, parks, and transportation systems as single design projects—we can take manageable bites at the environmental problems.

We cannot afford to wait for new technology to come along and solve our problems. As *Engineering News-Record* said recently: "... it's time we ended the prevalent myth that some technological magic can cut the cost of housing to a rent that the poor can afford. Edgar F. Kaiser, chairman of the President's

Committee on Urban Housing, says that if we could cut the construction cost of a housing unit in half—and we can't—we would be reducing the rent by merely 12 to 15 per cent because of all the other costs, including land, operation, and maintenance."

What, then, will solve these problems? The answer, I think, is clear: Political consensus; the establishment of clear social goals; the creation of community review committees or corporations to commission and pay for large multi-purpose civic projects; the full employment of design talents to re-design our cities on a comprehensive basis with short-range and long-range project goals; and the guts and determination to see it all through.

What will it cost? In the aggregate, billions. But then we spend billions on cosmetics and beer and cars, and the money for these things is generated and earned in our troubled cities.

Can we afford the cost? If we can spend thirty billion dollars a year to make the streets safe in South Viet Nam, is it a lesser investment to make the streets safe in South Chicago or Northeast Washington?

As the president of your Institute, soon to hand the gavel to another hard-working soul, I tend these days to think of my profession as I do of my country. I am proud of it and I deplore it. I am impressed by its vision, and impatient at its blindness.

Yet I feel that, like my country, my profession is coming to grips with its real problems, losing its vanity, and gaining judgment. If architects ever lived in ivory towers, they do not now. Our national Institute fights valiantly in Congress for sensible legislation affecting the man-made environment. Our chapters labor and sweat in their towns and cities to help community leaders plan and redevelop our rundown physical plant. Some chapters, and a growing number of individual architects, work in ghettos, supplying a service unique to our profession—ready to help mend a flight of broken steps or do a design study for a neighborhood. This is not Lady Bountiful arriving with a basket of gifts for the poor, but a sincere effort to participate in neighborhood improvement.

Such work, patterned frankly after the neighborhood legal service concept, is being conducted by the Architects' Renewal Committee for Harlem; by Urban Planning Aid, Inc., of Boston; by the Newark Community Union Project; by the AIA and University of California extension program in San Francisco and Oakland; by the Hampton Foundation in Virginia; and by Saul Klibanow, AIA, of the Southwest Chicago Community Council, to name a few. We are also

evolving an ambitious design assistance program in which professional teams are going into communities at their request to provide design services where they are not ordinarily available.

It is our ambition and our purpose ultimately to offer professional design services to those who need them; to charge for them where there is a capacity to pay; and to offer them without charge where there is not.

And we are still not doing enough. We can go further and bring under-educated, under-privileged persons into our profession—thus strengthening society and our profession in one action. We are putting our technicians' training program into the curriculum of junior colleges. We need a large force of architectural technicians badly, and we will need them with growing urgency as time goes on. We must grow as a profession or we will perish as one. Forty per cent of our students are going into industry right now.

We must broaden technicians' training. But, like many other things, it cannot be done from Washington. It has to be done at the community level. AIA chapters, like yours, have to go out and create the courses and then recruit the people to take them. *We've got to get personal about it*—and that's the key to many of our problems. It is absurd for a nation to be lavishly rich and grindingly poor at the same time; to be short of workers and neglect a vast reservoir of manpower; to talk of justice abroad and then fail to provide it at home.

It was the original purpose of this convention to talk about the conservation and reclamation of natural resources. I had intended to come here and offer my conviction that, when we reclaim the Potomac river basin, help defend the California Redwoods, clear the billboards from the Northwestern Cascades, re-plan Washington's expressways to avoid destroying low-income housing, and create vest-pocket parks in New York, we are all engaged in the same pursuit—conservation and reclamation. This principle applies with even greater force to our manpower, the reclamation and conservation of our human resources.

Finally, I will add just this one thought: This nation was born out of oppression and bought in blood. For what reason? To realize a dream. That dream was to reconcile two sometimes contradictory ideals: *Liberty* and *union*. They are obverse sides of the American coin. And if you examine that coin you will find the final distillation of our dream. It is expressed in three words: *E Pluribus Unum*. Out of many, *one*. If we accept our heritage, this ideal that our forefathers died for, we will know what to do. Thank you.



There must be a reason so many Cat Engines are working in Texas!

WRONG! There are MANY reasons!

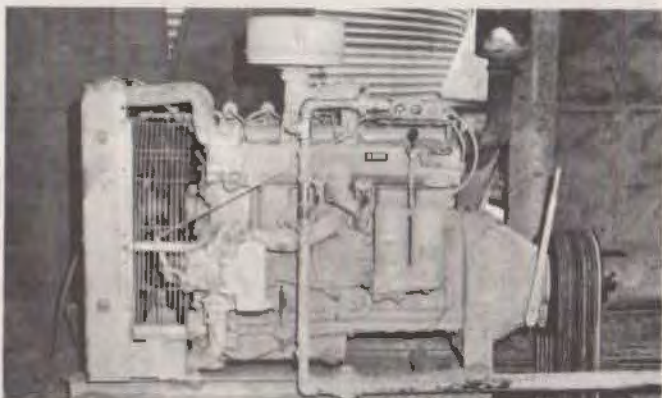
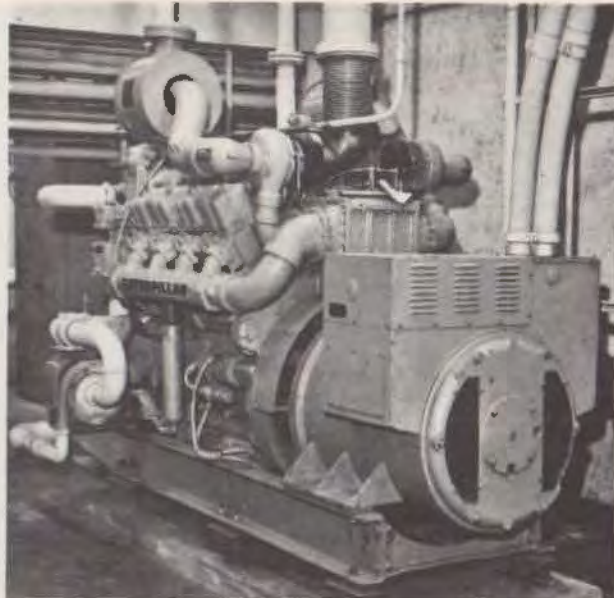
■ The population of Cat-built Engines in Texas is exploding. More and more applications are demanding the dependability and economy that Caterpillar-designed power units deliver.

The reasons are many: More power in a trim-sized package; low power-to-weight ratio; four-cycle design; high torque rise; efficient and complete fuel combustion; minimum attention and maintenance; exceptional quality standards for all components; immediate service availability.

And the results are many, too: Lowest hourly operating costs; assured reliability; constant delivery of specified power; long life; high trade-in value.

Let our engine specialists present reasons why you should power up or repower with Caterpillar . . . and prove the results.

Cat Engines range to 1550 HP (max.) in single unit installations . . . Cat Electric Sets range to 800 KW (standby) in single unit installations . . . are diesel or natural-gas fueled . . . serve as prime power or standby power.



Your CATERPILLAR Dealers in TEXAS

- WEST TEXAS EQUIPMENT CO.
Amarillo • Lubbock
- RUST TRACTOR
El Paso • Albuquerque,
Farmington, Hobbs (N.M.)
- TREANOR EQUIPMENT CO.
Abilene • Odessa • Pecos
- HOLT MACHINERY CO.
San Antonio • Austin



- DARR EQUIPMENT CO.
Dallas • Gladewater • Waco •
Wichita Falls • Texarkana
- MUSTANG TRACTOR & EQUIPMENT CO.
Houston • El Campo •
Lufkin • Beaumont
- B. D. HOLT CO.
Corpus Christi • Weslaco •
Brownsville • Victoria

Caterpillar, Cat and Tractor are Registered Trademarks of Caterpillar Tractor Co.



CREDITS: MEMPHIS METROPOLITAN AIRPORT; ARCHITECT: MANN & HARROVER, MEMPHIS, TENNESSEE. GENERAL CONTRACTOR: J. A. JONES CONSTRUCTION COMPANY, NASHVILLE, TENNESSEE. TERRAZZO CONTRACTOR: AMERICAN TERRAZZO COMPANY, DALLAS, TEXAS.

TERRAZZO... beauty... low maintenance... durability



WHEN AN OWNER ASKS, "What kind of floors . . . ?" The best answer is *terrazzo*.

Terrazzo is the one floor that actually *improves with age*. Regular traffic combined with simple maintenance mellows it, polishes it, makes it look better as the years pass. Terrazzo adds beauty . . . beauty adds value.

Terrazzo costs less to maintain.

The little bit extra it costs originally will be recovered many times over in the years to come.

Add up the advantages and you will see why the architects chose terrazzo for 120,000 square feet of floors at the Memphis Metropolitan Airport in Memphis, Tennessee. And you'll see why it should be your choice for your next building.

General Portland Cement Company ®



P.O. Box 324, Dallas, Texas 75221. Offices: Houston · Tampa · Fradonia, Kan. · Kansas City, Kan. · Miami · Chattanooga · Chicago · Fort Wayne · Los Angeles

your building & your architect

how to turn a problem into a set of plans

This is a bewildering time in which to build. Technology has given architects the ability to construct just about everything they choose to design, and architects seem to be trying just about everything at once. Behind this explosion of miscellany, moreover, are some differing opinions about the very definition of the term "modern architecture."

To some architects the modern movement means nothing less than a totally new approach to the process of architecture, in which style as such is disregarded and design grows out of an investigation of the problem at hand. To others, modern architecture is itself a style; function is not to be ignored but the main thing is to give the building a "compelling image."

Most architects stand somewhere in between the two extremes. They stand, to borrow a metaphor from a prominent architectural educator, somewhere in the midst of a diamond. The four corners of the diamond are esthetics (what the building should look and feel like), technology (how it can be built and its interior environment controlled), economics (the limitations of the budget) and function (what the building is to do). Each corner exerts a magnetic force on the architect, and his outlook largely depends on the degree of his response to the tugs of one over the others.

There is nothing in the rules to say that the client can't do a little tugging too, providing he knows what he is about. For the architect's place within the diamond, as we shall see, affects every step of the conceptual construction of the building, from early architect-client conferences, to development of the program, to its interpretation in schematic design, to the fixing of the design in preliminary plans and specifications, to the preparation of the final contract documents.

The right and wrong ways of tugging an architect
When the British author and critic Nikolaus Pevsner spoke at an AIA convention, he said that the great ages of architecture have depended as much on knowledgeable clients as on the flowering of architectural genius. "Today," Dr. Pevsner added, "clients tend to be too timid." They "take the architect's vision with rather less checking of the fulfillment of the brief than they ought to do."

Dr. Pevsner's declaration probably came as a surprise to a good many American architects. The giants may be able to treat their clients cavalierly; but some highly competent practitioners, unprotected by reputations for genius, get a good deal of shoving around in this country. For every architect who follows his "vision" to the disadvantage of the building's function, there are others who are pushed by the client into doing things they know are mistakes. "Architecture," said one of the profession's leaders a few years ago, "is 90 percent client control."

The client must strike a rather delicate balance. On the one hand, he cannot let himself be "controlled" to the point where the building becomes no longer his, but solely the architect's. On the other, presuming that he has chosen an architect of some talent, he should not hamstring the talent to the point where he is no longer getting his money's worth in terms of design quality.

One clue to this balance lies in a recognition of what each party brings to the table when architect and client sit down to the process of programming and design. The client, first of all, brings the money to build the building, which is no small contribution. He should put it on the table, at least in the figurative sense, giving the architect a clear and firm idea of exactly what he wants to spend. More than one client has shortchanged himself by cannily



M. E. Loy Residence, Houston

P. M. Bolton Associates, A.I.A., Architects

Cullum & Boren Sporting Goods, Dallas

Pierce, Lacey & Associates



setting aside a secret contingency fund and thus imposing a needless limitation on both the architect and the building. Others have wasted their own time and the architect's by talking big at the outset, then spending small when the chips are down.

Nor should this full financial disclosure end with the construction budget. Most design decisions require that a three-way balance be struck among initial cost, eventual cost and the cost of money. A high-priced doorknob may turn out to be a bargain if it will require less maintenance than a low-priced alternative over the life of the building. The savings in maintenance, on the other hand, may be more than offset by the cost to the client of keeping extra money tied up to buy dozens of high-priced doorknobs. The architect can help strike the balance, but only if he knows the client's complete financial picture.

The client also brings an unmatched knowledge of how he likes to run his business. Even though he may not be a reigning expert in his field, he knows better than anyone else what kind of routine, what kind of facilities, suit him best. He should not cling to these old patterns no matter what, but he should describe them thoroughly and defend them staunchly until something demonstrably better comes along.

Finally, business aside, he brings a set of individual tastes and reactions to such things as materials, colors, windows, even doorknobs. Some of his tastes may have to be sacrificed to the success of the building as a whole, but they should be unashamedly expressed and respectfully listened to. The fact that the client may not know much about architecture should not keep him from saying what he likes.

The architect, for his part, brings to the table the entire range of professional skills for which he was chosen, plus a few traits of mind that are especially helpful during the early design stage. He carries a mental catalog of materials, equipment and structural systems which often enables him to make a quick judgment on whether a given idea is promising or impractical. He is also likely to have the ability to take lines and dimensions and intuitively translate them into spaces, predicting with some degree of accuracy how the spaces will look and feel.

Translation of this sort, in fact, is probably going on in the minds of both parties as they begin to discuss the building problem in detail. It is one reason why the concept of the building program—what

Dr. Pevsner called the client's "brief"—is currently undergoing considerable change.

How to analyze function, measurable and otherwise. The program's basic purpose, of course, is to define the function of the building in detail. The changes in the programming process reflect an expansion of the concept of function itself. The traditional meaning of function was to accommodate the specific activities which the building must serve. The new concepts of function are no less real, but they are much more difficult to reduce to a numbered list on a sheet of paper.

For the sake of simplicity, take the example of a medium-size regional headquarters for an insurance company. The owner's measurable requirements include clerical lofts, executive offices, salesmen's bullpens, conference rooms and public reception areas—all relatively easy for the client to list and the architect to convert into gross floor areas on the basis of head counts and employment projections.

But the architect is not simply providing working space; he is (or should be) providing a working environment. He needs to know a good deal, therefore, about the company's personnel policies. He needs to know how easy employees are to find, so that he and the company can decide how far to go in providing amenities that make the building itself a fringe benefit. He needs to know, to whatever extent is practical, the tastes and preferences of his invisible clients—those who will use the building—as well as those of the clientowners across the table.

The arrangement and appointments of offices inevitably will proclaim the status of those who occupy them (the programming of a new building thus can touch off a crisis in office politics that makes a Latin-American palace revolt seem mild). The architect has to know a great deal more about the company hierarchy than the organization chart will tell him.

Finally, every aspect of the building will convey a message about the nature of the company. The client and architect should have a clear understanding of what this message is to be. Both must realize that the care with which the building is sited and designed in relation to its surroundings will speak volumes about the company's regard for the community.

An office building is a relatively elementary example of the need for depth and breadth in program-



A Weekend Shelter, Willowcreek Ranch, Sterling County

Frank D. Welch, A.I.A., Architect

Photographs by Ezra Stroller



Jesse H. Jones Hall For the Performing Arts, Houston

Caudill Rowlett Scott, A.I.A., Architects

Photographs by Bert Brandt & Associates



ming. Other types—hospitals, schools, factories, laboratories—call for a good deal of study before even the measurable requirements can be set down. Progress in health, in education, in industrial processes, in research has been so rapid that the client is almost always forced to make a complete re-examination of past procedures before he fixes future patterns of activity in a new building. It is generally a good idea if the architect is involved in that re-examination.

The role of the architect as a diagnostician

The architect, then, has a lot to learn about every new building situation. Each has his own way of going about it. Some firms employ staff experts in their fields of specialization. (One in California, for example, who does a great deal of space-age work, has such nonarchitectural types as aero-dynamicists and inertial guidance engineers on its permanent payroll.) Some make a practice of wholesale interrogation of everyone in an organization, from shipping clerks to chairman of the board. Some are looking into the use of computers to sort the mass of program data involved in large, complicated projects.

A growing number of architects are actually taking over the job of writing the program, completely reversing the old order of things. A Texas architect who likes to work this way calls the program the "architectural diagnosis." What self-respecting doctor, he asks, would prescribe a remedy on the basis of what the patient thinks he needs, without making his own professional examination?

The diagnostic approach, which normally requires some adjustment of the basic fee schedule, effectively blurs the line between programming and design. Any broadening of the architect's involvement in programming, in fact, raises the question of whether such a line really exists.

Every time the range of problems is narrowed down by the architect or client, a design decision has been made. Whether pencil touches drawing paper, an act of design occurs whenever one problem is recognized as significant or another is set aside as irrelevant. An eastern architectural dean stated the point somewhat more poetically at an AIA convention. "The artist always ignores certain problems, addressing himself to a selected few," he said. "He proceeds to solve these so eloquently that everyone understands the statement and its truly glorious solution."

The client had better realize that all of this is going on as he and the architect confer. He needs to be conscious of the influence which even the

earliest decisions will have on the eventual shape, the eventual utility, and not least, the eventual cost of the building. Otherwise, he may be in for a shock when the architect walks in with the first drawings.

It is a difficult moment at best. The client has poured forth his wants and needs, the architect has probed and mulled, they have reached verbal agreement on a general approach—and suddenly there it is, as specific as black lines on white paper (or even in the more specific form of a study model). Sometimes, of course, the client sees on the paper exactly what he wanted, interpreted with more artistry than he could have imagined. But more often, the client looks at the drawings with a great deal of uncertainty and perhaps a tinge of panic. Is *this* what he and the architect have been talking about? Will he really like it when it's built?

At this point, recollection of a few simple points may help to ease the panic:

1. These are the first, not the final, drawings. They are simply an intermediate step in the continuing process of design.

2. This is a general scheme for the shape and arrangement of the building, not a complete design. The client should avoid getting caught up in details that immediately catch (or repel) his eye.

3. This is no time to be bashful. It is the client's turn to be the interrogator, to ask the architect the whys and wherefores of every aspect of the design which troubles him. Questions are best resolved now before changes become expensive. This is a bad time to hurry things. For once the schematic design is approved, the economic and technological corners of the architectural diamond assume increasing importance.

Preliminary plans and "probable statements"

The architect already will have checked the feasibility of the overall scheme with his engineers, but now they must get down to the complicated details of how the building and its services are to be put together. Some general decisions will have been made about materials and equipment, but now the time has arrived for specific choices of major items. Dimensions are hardened, rough edges smoothed down, and the architect goes back to the client, this time carrying preliminary plans and outline specifications.

The ground rules call for the architect to submit a Statement of Probable Construction Cost with the schematic design studies, but it is necessarily general

HOW TO TURN A PROBLEM INTO A SET OF PLANS



Associated Credit Bureaus Of America, Inc.
Golemon & Rolfe, A.I.A., Architects



in nature. In the process of schematic design, price tags are put on all major elements of the building, and some have to be modified or taken out altogether to meet the budget. The second estimate which accompanies the schematics gives the client a fairly clear idea of what he is getting for his money. But it is still only "probable." Any number of small changes (adding up to big money) can occur during production of the final drawings and specifications, and no one can accurately predict what the competitive state of the building business will be when bids are taken.

The chances of both client and architect getting through the bidding process without trauma are in direct proportion to the time and care they have put into the process of programming and design. In these days of steadily rising construction costs, the client's best defense against budgetary disaster is a continuous, painstaking analysis of every element of the building. Every possible alternative must be explored if the client is to get the most out of his steadily dwindling construction dollar.

Paradoxically, this requires that the client spend money in order to save money. The spending part comes in design fees. If the client is to get the most out of the architect's analytical ability, he must be willing to pay a fee adequate to cover the amount of programming and design study which the problem demands. (It must also be adequate to cover a more-than-routine analysis by the architect's engineer consultants, whose work determines how so much of the construction dollar will be spent.) The savings in building costs will almost always be a healthy multiple of whatever extra time and money is invested in the preliminary stages. ■

The information in this series of articles is from The American Institute of Architects new 18-page publication, "Your Building & Your Architect." The booklet is for distribution by AIA members to prospective building owners and can be purchased from the Institute's Document Division at The Octagon for \$25 for 100 copies and 50c each for less than 100.

There's nothing new or exciting about brick schoolhouses...



except... Double Wall Systems by Acme Brick.

Brick wall outside. Brick wall inside. Put them together and gain double helpings of:

BEAUTY. The color, texture and pattern of interior brick walls create a classroom environment that invites better attendance, better attention.

QUIETNESS. Brick Double Walls provide improved sound control that makes it easier for teachers to teach, easier for students to learn.

ECONOMY. Brick placed back-to-back provide superior insulative qualities that hold down heating/cooling costs. And the more brick you have, the less work there is for the maintenance crew.

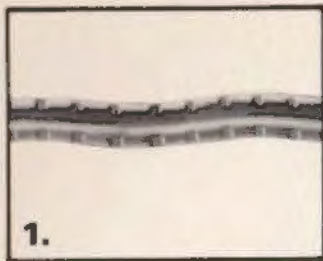
PERMANENCE. Brick's warm beauty endures. It's there for everyone to enjoy. Now. And generations from now.

SAVINGS. Construction is simpler because you have fewer crafts to coordinate. Faster, too, because the walls are finished when you top them out.

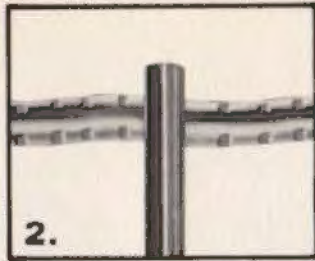
Nothing new about brick schoolhouses? Don't you believe it! Write for literature on Acme Brick Double Wall Systems. Technical assistance is yours for the asking.



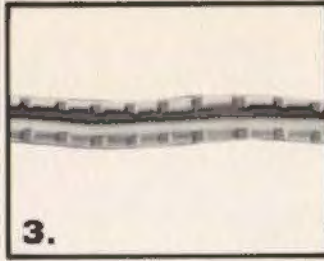
new dimensions in building



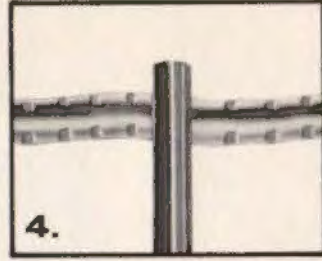
1.



2.



3.



4.

Strongwall's special design grabs hold of mortar four ways for the strongest bond available... with over 300% more gripping power than plain reinforcing. Quality mortar cannot be effective if your reinforcing material doesn't do its job. MidSTATES Strongwall Masonry Reinforcing is engineered to grip mortar better, four ways.

1. Strongwall side rods are knurled on four sides. The rough, indented surface gives better bonding power... better gripping. **2.** Cross bars are welded over side rods as recommended by National Bureau of Standards

and Corps of Engineers allowing mortar to flow around reinforcing. **3.** Side rods are also deformed with a series of 10-degree bends which work together with knurling to give Strongwall its superior grip. **4.** Cross bars extend $\frac{1}{2}$ inch beyond the side rods giving more bonding surface and distributing stresses more evenly across the weld. For full details on MidSTATES STRONGWALL LADDER TYPE MASONRY WALL REINFORCING, send for our illustrated catalog. Truss type reinforcing is also available. Write for complete information.

STRONGWALL Reinforcing Grips Masonry Walls Four Ways!



**MIDSTATES
WIRE**

MID-STATES STEEL and WIRE COMPANY / Southwest Branch: Sherman, Texas
Home Offices: Crawfordsville, Indiana / Branches in Jacksonville, Fla., Greenville, Miss.

TEXAS ARCHITECT
P. O. Box 152
AUSTIN, TEXAS
RETURN REQUESTED

BULK RATE
U. S. POSTAGE
PAID
AUSTIN, TEXAS
PERMIT NO. 1301

