# TEXAS ARCHITECT

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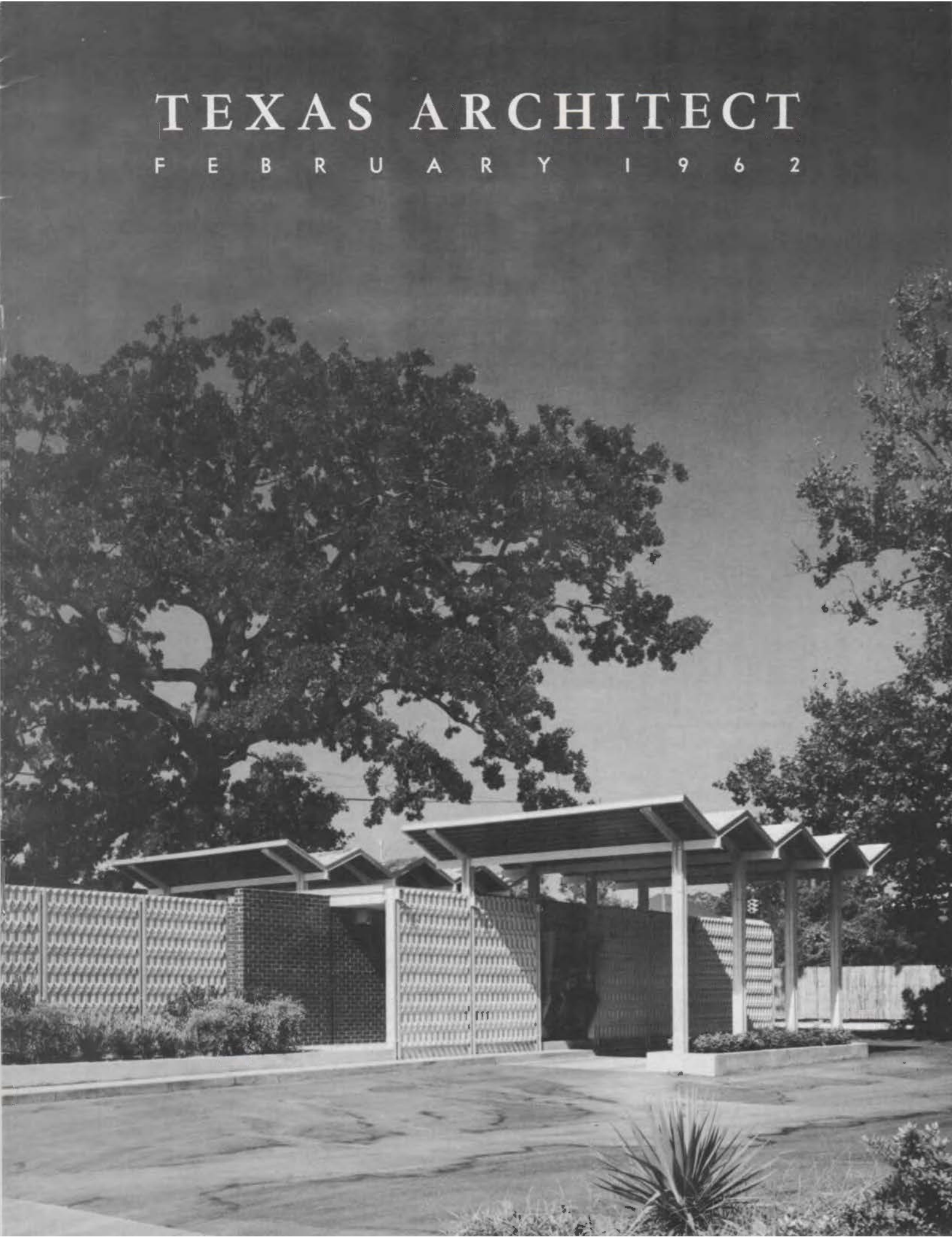

# THE TEXAS ARCHITECT

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Don Edward Legge, A.I.A., Editor
John G. Flowers, Jr., Managing Editor

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TEXAS ARCHITECTURAL FOUNDATION
327 Perry - Brooks Building, Austin, Texas



## COVER

The cover photograph is of another *Texas Architecture 1961* award winner, the Citizens National Bank in Cameron, designed by W. R. Dede Matthews Associates, AIA. It well demonstrates that small buildings can benefit from good architecture.

# The President's Letter

HAROLD CALHOUN, FAIA

President
Texas Society of Architects

"Man is neither a selfless ant nor an unsocial cyclops, but a 'social animal', whose personality can be expressed and developed only through relations with other personalities." In his study of history, Mr. Arnold Toynbee has reached a fundamental conclusion concerning human relations. We can conclude from Mr. Toynbee's observations that the architect's personality can be expressed and developed only through relations with other personalities, including other architects.

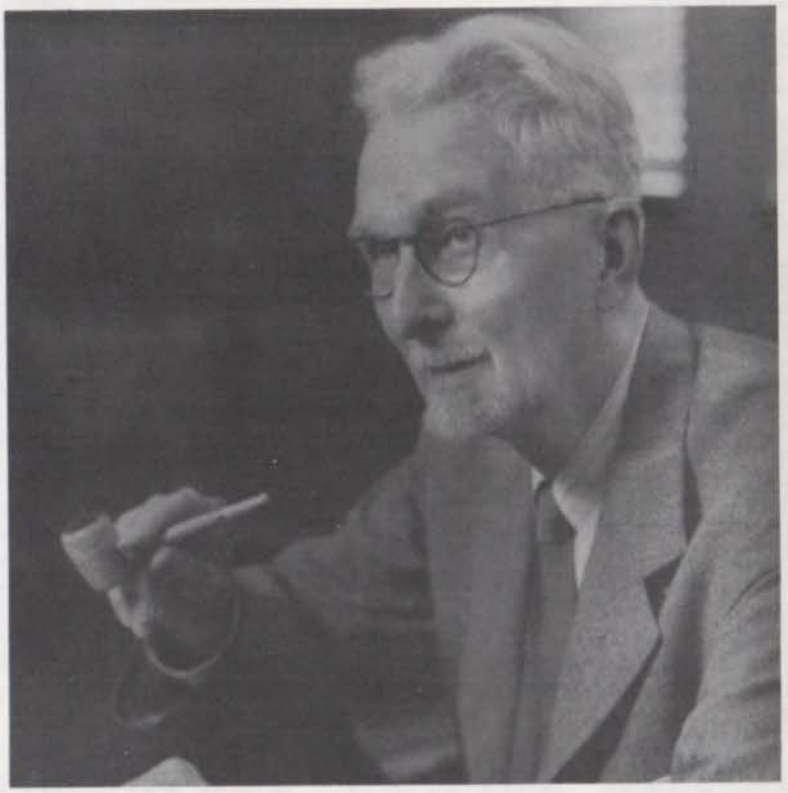
In a recent article, "The Architect Looks at Himself," published in the A.I.A. JOURNAL, the results of a questionnaire sent to a select group of architects in California indicates that more than half of the respondents feel the answer lies in some form of self-improvement or improvement of the organizational aspect of the profession. It is interesting to note the large percentage of capable architects who are willing to admit a personal deficiency in the social environment. Recent correspondence with many T.S.A. members indicates a similar desire for self-improvement. It is the responsibility of the Officers and Directors of T.S.A. to implement a program that will satisfy this need.

Since we have concluded from Mr. Toynbee that self expression can only be developed through relations with others, we are stressing a program of team activity and exchange of ideas. This kind of a program can go in many directions. Mr. Arthur Fehr, President-Elect in charge of all AIA Standing Committees, is responsible for the dissemination of material from these committees to the chapters. The work of these committees is directed primarily towards the improvement of the individual architect and his profession and it is the responsibility of each member of T.S.A. to be familiar with A.I.A. committee activities.

Mr. George Pierce, Vice President in charge of Chapter Liaison, has already contacted each T.S.A. Director concerning joint chapter meetings throughout the State. The purpose of these regional meetings is to present a hard hitting program to stimulate an exchange of ideas that will help improve our professional competence. Mr. Robert Peters, Vice President in charge of Special Committees, is responsible for a relatively new area of study. These studies will include many subjects of concern such as investigating and reporting, fact finding, research, discussions, insurance, fee structure, civil defense, etc. It is our hope that the work of these committees will stimulate many activities that will result in the general improvement of the individual and the profession.

This broad concept of a program for self-improvement will involve many people and still require many hours of unselfish devotion. Such a program cannot be successful unless the entire T.S.A. membership actively participates. We cannot attain true self expression unless we associate with others in a common effort to improve ourselves and our profession. Without the inspiration of curiosity from each of us, we can only find ourselves in the pursuit of an aimless oblivion.

# GOLDWIN GOLDSMITH
## FAIA



Today a note came from Lucy Nations, Secretary to John Flowers, saying simply: "THE TEXAS ARCHITECT" would like to publish a memorial paragraph or article on Professor Goldwin Goldsmith and Mr. Flowers felt it would be most appropriate if you would write this for the magazine."

Few architects in my life time have had the color, the influence, the definitive purpose of the profession of Architecture so close to his heart for so long a time than has

GOLDY

as the profession and many other affectionately know you

but

Goldy - I couldn't (and wouldn't) write a mere memorial to you

I wouldn't dare - even if I preferred to not for *you*

No - it must be
another kind of thing - rather a
look into the eternity - that give us
MEN LIKE YOU.
and so, Goldy, in our own "long verse" (no better - no worse)
we remind us all once more
of GG - of Goldy (always with a Y)

In New Jersey
in a place called Montclair
well before the turn of the century (in fact just a few years after the Civil War had come to a close
was born a boy - (you) -
to parents who were able writers for a well known New York newspaper.
From *them* -
you inherited the talent and the desire for creative writing - a gift you always deeply appreciated, and used so well.
Intelligent - studious - eager to work - eager to learn
YOU found Columbia a great challenge - its teachers opened enlarging vistas to your new world
of ARCHITECTURE.
Apprenticed in the office of "Daddy" McKim
while you were yet a student - as secretary
- you there gained and used the language of the profession -
by writing - rewriting - polishing -
disciplines of able, careful, talented people.
Close friend, fellow student and deep admirer of "Billy" Emerson,
who later became the scholarly Dean of Architects at MIT, Paris and other places
you found in him the measure of a great and gentle man
whom you emulated - almost worshiped
(as did many of us).

Then your fortunes included Gertrude
of Washington
whose father was a man of rare talent and influence - on a young and impressionable architect.
The daily association with unusual people gave you, Goldy,
your rare and penetrating insight into the nature of people.
and your own talent of knowing what to do and when.
After Columbia Gertrude and you married
and toured Europe
on a tandem for two
(now at rest in Smithsonian peacefulness)
all unforgettable associations for a long life time together.

Then came practice in New York City
for a decade and a half
where you gained, through the rigors of big city practice, your solid and practical outlook toward architecture.
Afterward you migrated to KU at Lawrence
to head a Midland school of Architecture
Where soon you became a legend to your students -
a stalwart friend of Joe
George
Pick - and Legions more
(I knew you then - for I was a student up the Kaw River only a few miles and you and my Prof Baker strongly argued the merits of pipes, cigars, cigarettes - and other things)
President of the Professional Schools of Architecture of America, you were then
nationally known
among architectural educators
in the high councils of the AIA
in national conventions where your orderly and informed mind gained for you
the name
"old Constitution"
and the awe and respect of others
(from San Francisco to Boston).

Soon WHO's Who found you
- as a distinguished Professor of Mount Oread, where, for a decade and a half you served, finally living on a hill top overlooking the famous Wakarusa Valley (beloved to you both for challenging reasons)

Then came the call to come to Texas
for you this tall lean man (only three look alikes
Goldy of Texas
Emil Lorch of Michigan
Popsy Laird of Pennsylvania
all same goatees, mustaches - and devotion to profession
and all some six feet four up there)
How well we remember
your towering strength
your steadfast purpose
your clear objectives in forging a team to build the Texas school to new levels
soon in a new building - more facilities - more staff - constant curriculum study
relentless exponent of hard work, intelligent effort - integrity - honesty - excellence.

You would relax at the end of a long B Hall day
at the old five by five desk
(all we had for two of us)

(with your filing system on top)
with talks on plans to come
ways to help students
or with a head back, eyes closed quotation from a bit of fine writing - a poem - -
"When you were a tadpole and I was a fish in the Paleozoic times . . . "
for you had known Delmonico's - personally - the original.

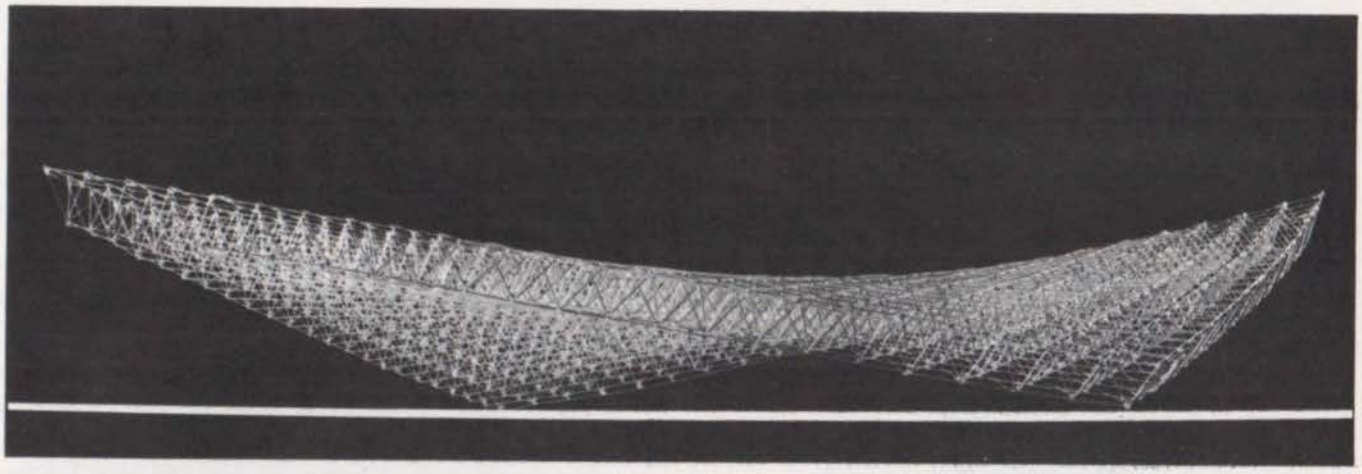
GOLDY, we owe you so much - so very much - for we have relearned from you that
Architecture is the exponent of people
the skill of speech and communication are vital to success
the beauty of precise and accurate writing and speaking are great adventures of the spirit good in any profession
the historical novel spins a magic from past to future
the fragile and slowly evolving character of the young in Architecture depends on these and many other truths
there is strength in courage of opinion and the expression of it
(also you may recall that we bought you better than Cinco cigars in pure self defense in our unventilated cubby hole office)

Fellow of the AIA - student and leader in education - the Associations own Standard Minima - George Young or Cornell -
and the evolving standards of measurement for the American Schools of Architecture
- no provincial you - ever.
Specs and how to write them- -working drawings - office practice - History . . . Scholarly Student and Master.
You knew a wide world - through daily news of world events -
strong opinions were yours - and - yet
You were always willing to change direction - but only
when it made sense to *you* to do so.

THEN CAME RETIREMENT - but only in degrees
but as usual
with your ever present good management
you quietly placed your house in order.
Then Gertrude went away
and Christmas cards spelled the loneliness
and the courage
Now you have joined her
as you both so long have planned
And in this atomic age
may your thoughts - your delightful hours - all your
hopes and memories merge forever
- in cosmic eternity

Remembering of course
The yellow billed cuckoo song under the cottonwood
in the shadow garden on San Gabriel
the mists along the Wakarusha
the pet names you found for things and people.
While you remember these
we recall the stories of those architects who have been inspired
by you
to perform far beyond their own belief in themselves.
We know of
your vision for national professional foundations.
your concept of a division of Education and Research
the urgent need for student chapters
your habit of looking for ways to help all of us in the profession - to work with each other
your belief that we owed the profession much - and that it owed us little or nothing
always believing as you did
that others had far more talent than you
No, GOLDY, we know
you'd have no tearful farewell.
(not after those delightful DU tales of yesterday or - your scratching matches on tops of doors - or your riding that fantastically high bicycle - in cap and leggings - the ridiculous pun)
and so
We'll take you by the hand once more
and wish well to you
who gave the profession so much
while asking so little in return.
We are downright glad Goldy
to have lived where - your thinking - your humor
and strong influence were present.
We remember your write - write - write - draw - draw - draw - do - do - do. As long as many of us have memory we shall stand a little more erect - with more courage to believe in our professional ethics in a materialistic world
simply because you taught us how.
Goodby now, Goldy - for a little while . . . .
our spirits will always be together
a little more dedicated
more thoughtful
more thankful for what we *have* rather than for what we *want*
because you so greatly challenged us
and how totally inadequate we now feel
in trying to express for all of us the warm affection and pleasant memory we share together throughout our great country and profession
for
you.

Walter (Rolfe)



REYNOLDS
ALUMINUM

# 1962 PRIZE

FOR
ARCHITECTURAL
STUDENTS

Jon Harris Starnes, a fifth year student at the University of Texas, has been named winner of the $5,000 second annual Reynolds Aluminum Prize for Architectural Students.

Mr. Starnes, 23 and a native of Midland, Texas, won the 1962 Prize for his design of a "Warped Space Frame Component." This is a structural unit designed to span any structure with an overhead frame or roof.

Announcement of the Prize selection was made here by the American Institute of Architects, which administers the program. The competition is sponsored annually by Reynolds Metals Company for "the best design of a building component in aluminum." The national Prize of $5,000 is divided equally between the winning student and his school.

JON HARRIS STARNES

UNIVERSITY OF TEXAS

The Prize will be presented formally during the 1962 convention of the American Institute of Architects, May 7-11, in Dallas, Texas.

Mr. Starnes will receive his Bachelor of Architecture degree in June, at the same time his wife receives a degree in elementary education. He plans to do graduate studies in architecture next year. Mr. and Mrs. Starnes live at 6300 Haney Street, Austin, Texas. He is the son of Mr. and Mrs. J. D. Starnes, 1603 North "C" Street, Midland, Texas.

The Texas student's design was chosen from among entries submitted by 30 architectural colleges over the nation. The entries were judged by a jury named by the American Institute of Architects. Jury chairman was Olindo Grossi, FAIA, dean of Pratt Institute's School of Architecture, New York City; Harold Spitznagel, FAIA, Sioux Falls, S. D.; and Linn Smith, AIA, Birmingham, Mich., director of the Great Lakes Region of the American Institute of Architects.

The jury also singled out five other student architects to receive special "Certificates of Merit" for excellence.

"The submissions showed a great range of building types, architectural details and modular component parts," the jury report stated. "The jury concurred that they were creative and well expressed, both in design and in practical application."

The jury report made this comment on the national winner:

"The winning design by Jon Harris Starnes clearly stood out because of its diversity of application within the large-scale space frame concept now under constant study. Aluminum is well presented for its lightness and structural feasibility in warped surfaces and other complex forms. The intriguingly difficult jointing problem in space frame design has been reduced to a very simple fabrication. With a minimum number of elements the designer has solved a particularly difficult joint problem, utilizing uniform members throughout to create a

space frame which permits assembly into diversified forms."

The Reynolds Aluminum Prize for Architectural Students was established in the 1960-61 school year "to encourage creativity in architectural design and to stimulate the interest of America's future architects in the design potential of aluminum."

The national Prize was won in 1961 by John L. Dewey, University of Cincinnati.

In the Prize program, each participating school of architecture first conducts its own internal competition under rules established by the school itself. The winner in each school is awarded a $200 prize by Reynolds Metals Company, and the winning design is then submitted in the national competition.

Thirty-nine architectural schools enrolled in the 1962 Prize program, and 30 submitted entries in the national competition.

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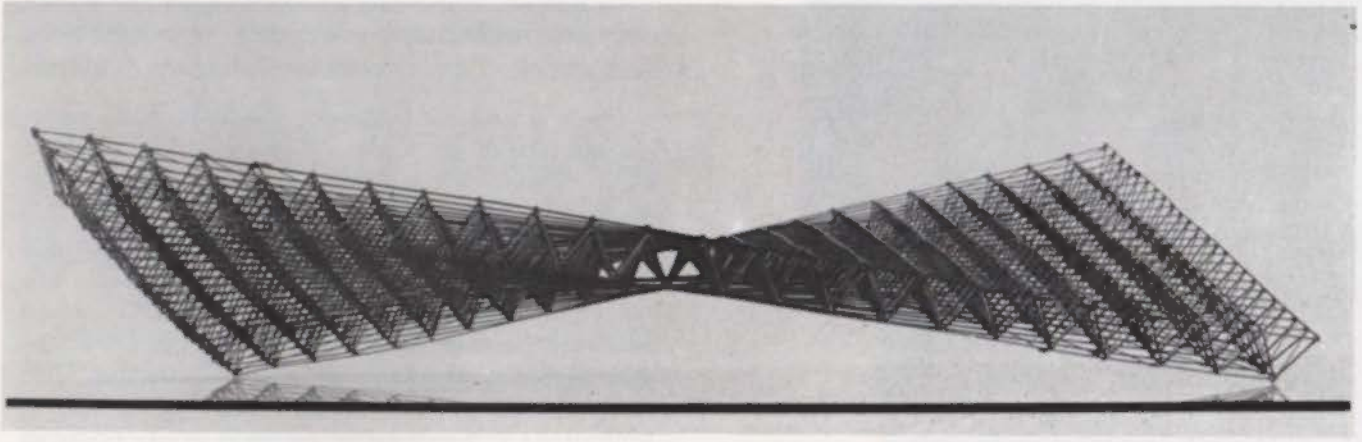
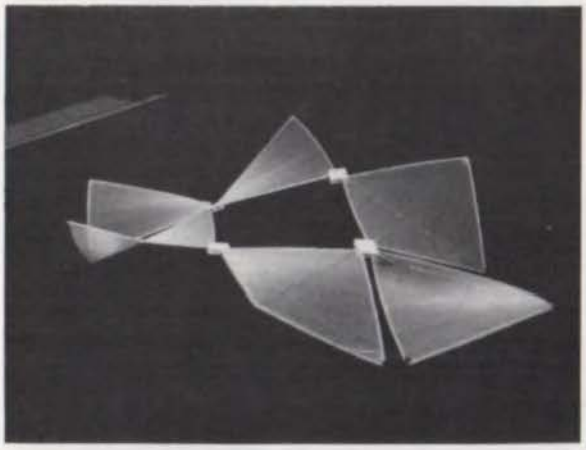


*Dewey Mears*

# analysis of aluminum warped space frame component

JON HARRIS STARNES

university
of texas
school of
architecture



Space frame structures became a matter of special interest in connection with a classroom problem of spanning a large area for a furniture factory. In doing the problem the question of how to support space frames became an intriguing one. After closer examination of this type of structure, it became clear that the problem was not so much in the support itself, but with the elaborate and complex jointage methods of existing space frames. These slow erection time, and they are expensive. Esthetic values are limited too, in that the element must be of a planar composition; and when spanning a large area the depth of the structure seemed excessive.

Since aluminum lends itself to many of the requirements of space frames, this appeared to be a suitable field for study in connection with the Reynolds Aluminum Prize for Architectural Students. The first step taken was a review of several "continuous" methods of construction which were conceived by a development team of faculty members several years ago and which are now being investigated by the Architectural Process Research Laboratory at Balcones Research Center, University of Texas. Using this information as a starting point, I made extensive additional studies and solved the problem of the elaborate jointage system found in conventional space frames. The solution lay in a continuous member with a stitch joint. The joints could be stressed by warping the whole structure.

To further develop this theory, a model 36" square was constructed. Then wire was placed in tension along the diagonals of the structure to produce the warpage.

The next step was to develop the shape of the member and type of stitch joint. It was desirable to use a standard aluminum structural shape to keep the cost down by not having to produce a special shape. This required a rigid shape, but one that would be flat at the joint and keep the thickness at a minimum. The answer was the "T" shape. The stem of the "T" would make the member rigid and could be cut off at the joint so there would be room for the bolt or rivet. This would make it possible for the continuous member to be bent and still stay within the limits of the minimum bending radii for aluminum. The stem would also help in the problems of roofing and the placing of panels on the underside of the structure.

The roofing solution required a material that could be translucent, if necessary, for solar heat gain or be opaque, if necessary. The answer was fiberglass. With fiberglass, it was possible to use the cables only as an instrument in producing the warpage. After warpage,

the fiberglass could be bonded to the structure to absorb the forces and secure the space frame permanently to the desired curvature.

After development of all the elements that make the space frame, the spatial qualities of the space frame were then considered. A complete study was made on how this building component could be used in conjunction with other units, including drawings of combinations that were basic and practical. The drawings did not fully evaluate the various spatial relationships of the units; therefore models were constructed and photographed to study and express the various relationships.

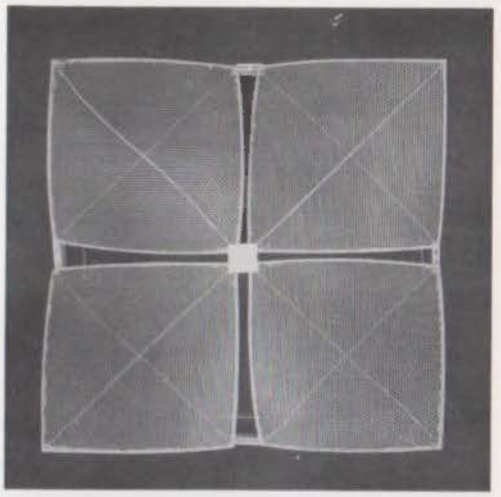
The result of the study is the final design described as the Aluminum Warped Space Frame Component.

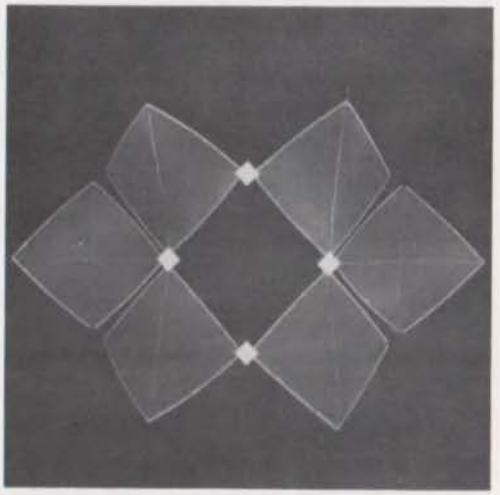
The function of this building component is as a structural unit which the architect or engineer can use in various spatial relationships to fit the need of their design. It is constructed of continuous members with stitch jointage. The members are aluminum tee sections. The stem of the tee gives the members stiffness, and enables roofing to bond to the structure, but is removed at the joints so a minimum depth can be obtained, and the diagonal members can be bent.

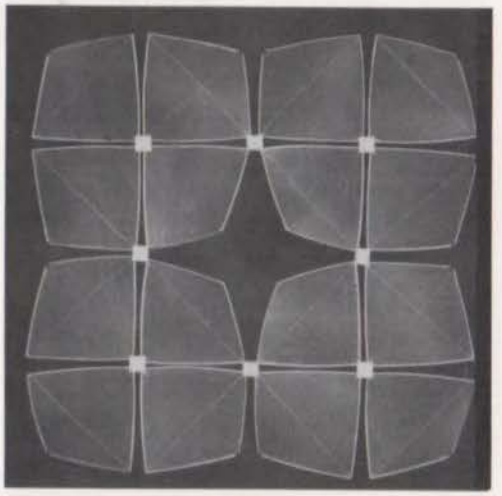
Cables with turnbuckles are placed along the upper part (inside) of the space frame on one diagonal, on the lower part (inside) of the other diagonal. The structure is jacked up at the two corners of the diagonal where the cables are located in the upper part. Weight is applied to the top of the other two corners; at the same time the turnbuckles are tightened. This warps the structure and the skin roofing is applied to secure the warpage.

Because of the continuous members and stitch jointage, the joint itself is not stressed, as in space frames with single members and complex jointage. In warping, the space frame places stress in the stitch joint; this is why the structure will warp so easily.

Since in most space frames dead load constitutes the largest part of the load, aluminum was used because of its high strength-to-weight ratio. This leads to lighter foundations and reduced time and cost of installation and erection.

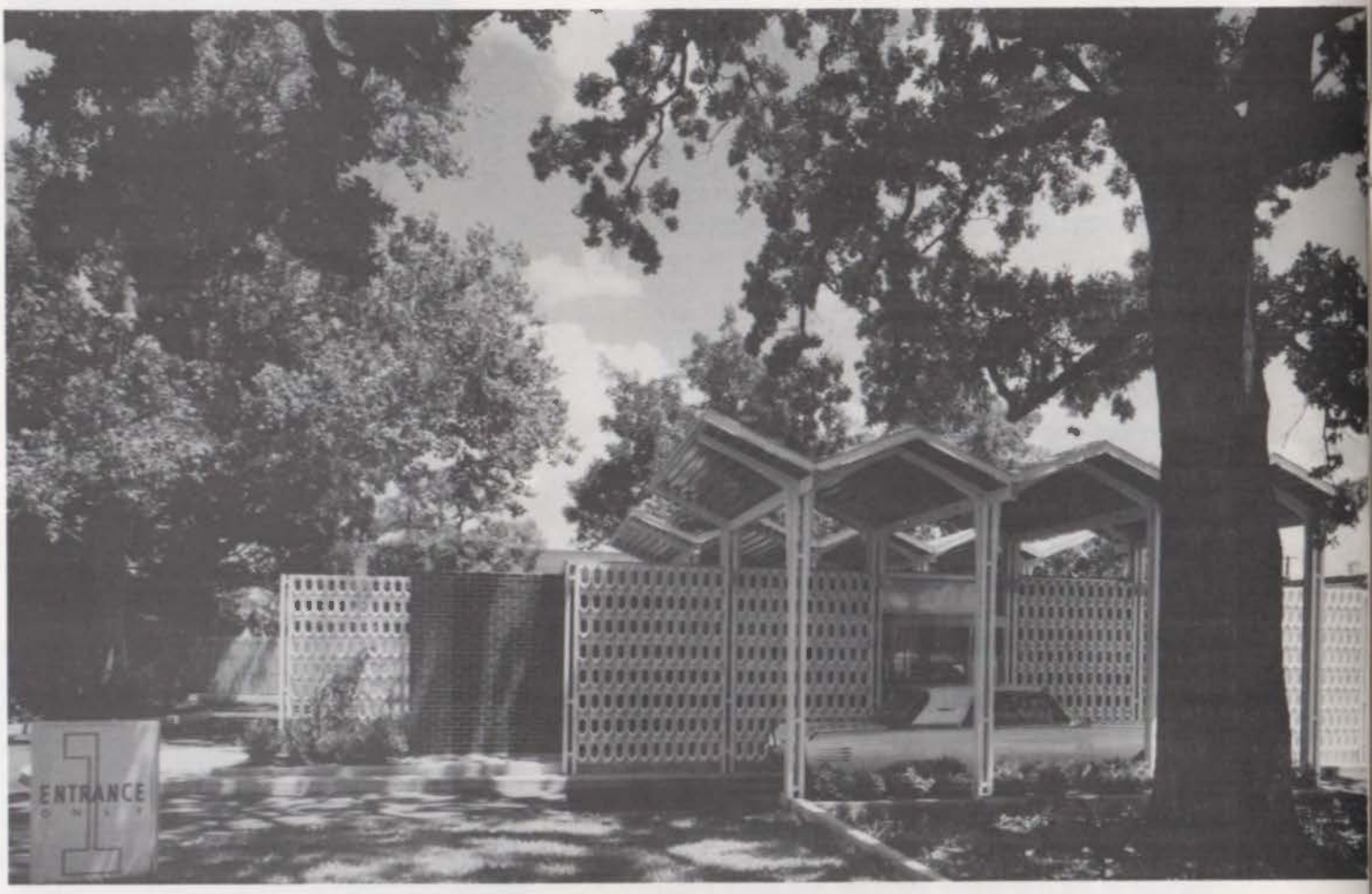






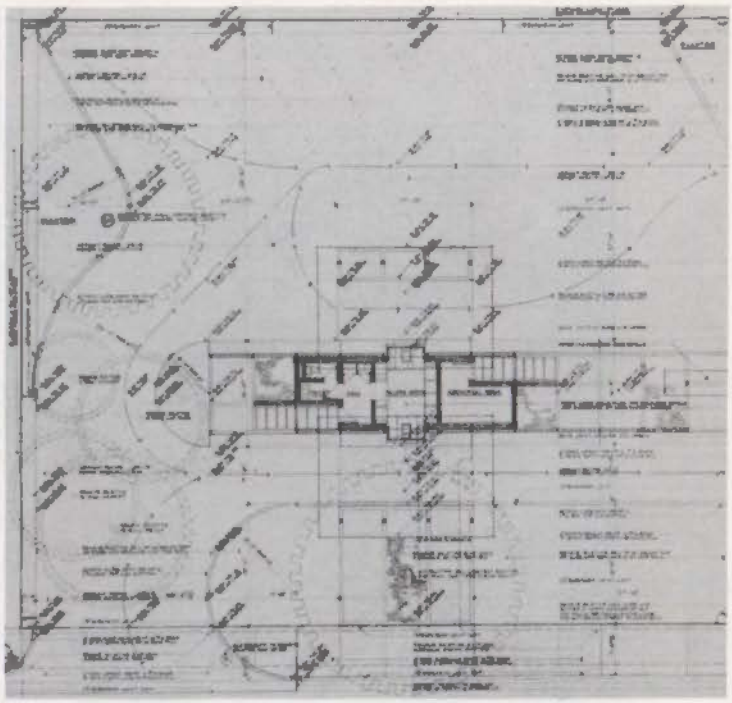
# TEXAS ARCHITECTURE 1961

honored for distinguished design




# CITIZENS NATIONAL

CAMERON



*The problem presented to the architect was the design of a small drive-in banking facility on a site dominated by a huge land-mark oak tree, yet surrounded by blighted properties.*

*The drive-in bank is located to the front of the site so that the great oak becomes a foil to the studied geometry of the building and the tailored grounds.*

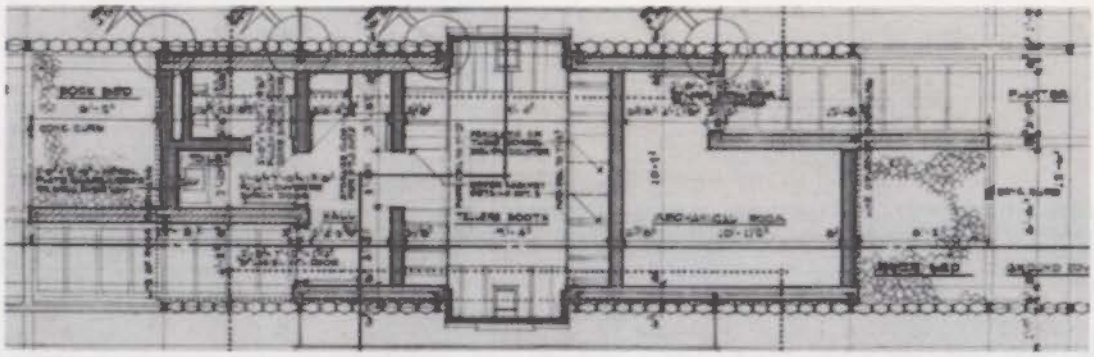
# BANK

ARCHITECT AND ENGINEER

W. R. DEDE MATTHEWS AND ASSOCIATES

LANDSCAPE ARCHITECT

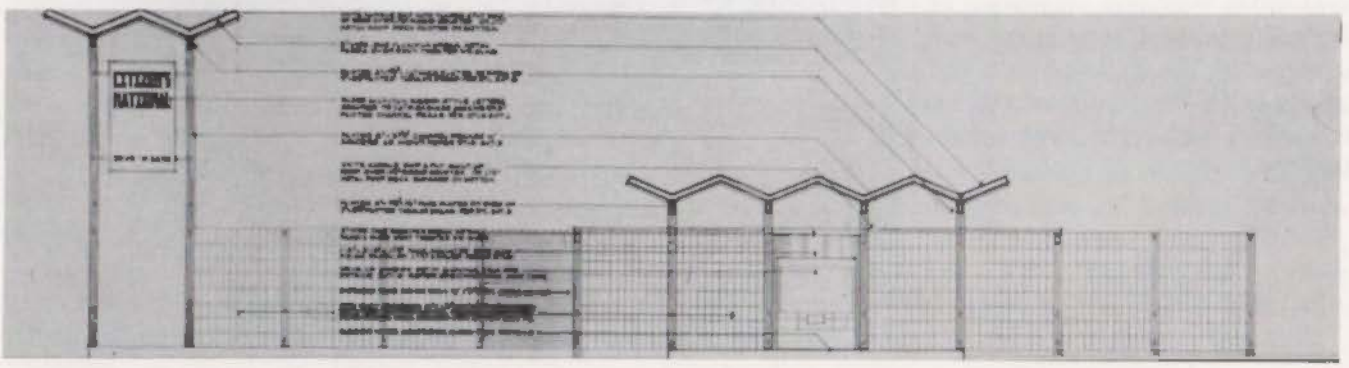
CALDWELL AND CALDWELL



*The small inside space required for functioning of two tellers is made to appear larger by elongation of the plan, projecting walls, and direction screens. The interior is designed for efficiency of teller operation, with all necessary facilities within easy reach.*

*Photographs: Roland Chatham*

*Screen walls and planting islands at the ends of the building direct cars to the banking windows and add to the apparent size of the development. A vertical wood fence separates the bank project from its neighbors. Black brick and bright orange metal panels accentuate the stark white crispness of the steel frame in the shadows of the great oak.*



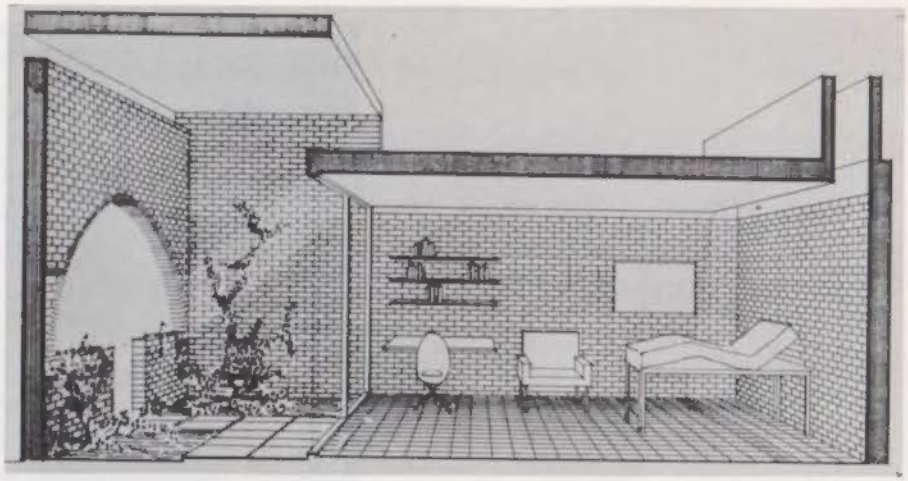
The design for The Leaves, Inc., Christian Scientist Nursing Home in Dallas, Texas, by Lane, Gamble & Associates, Architects - Engineers, Dallas, has won the Health Citation Award in the 9th Annual Design Awards Program, sponsored by PROGRESSIVE ARCHITECTURE, national architectural magazine.

The design for The Leaves, Inc. is a compact symmetrical plan arrangement with two open-air courts along its central axis. These are flanked by service corridors and nurses stations to either side, and two rows of patient rooms. The program requirements note that the nursing home is "to provide a place where students of Christian Science can receive nursing care while relying on spiritual methods of healing." Flexible storage units within the corridor space will allow the staff to circulate freely without disturbing the patients' privacy.

The Jury chose the Nursing Home for the Award primarily for the design of the patient's individual room and garden. These units, they felt, "were carefully thought out," and "the sense of light and space within, quite wonderful."

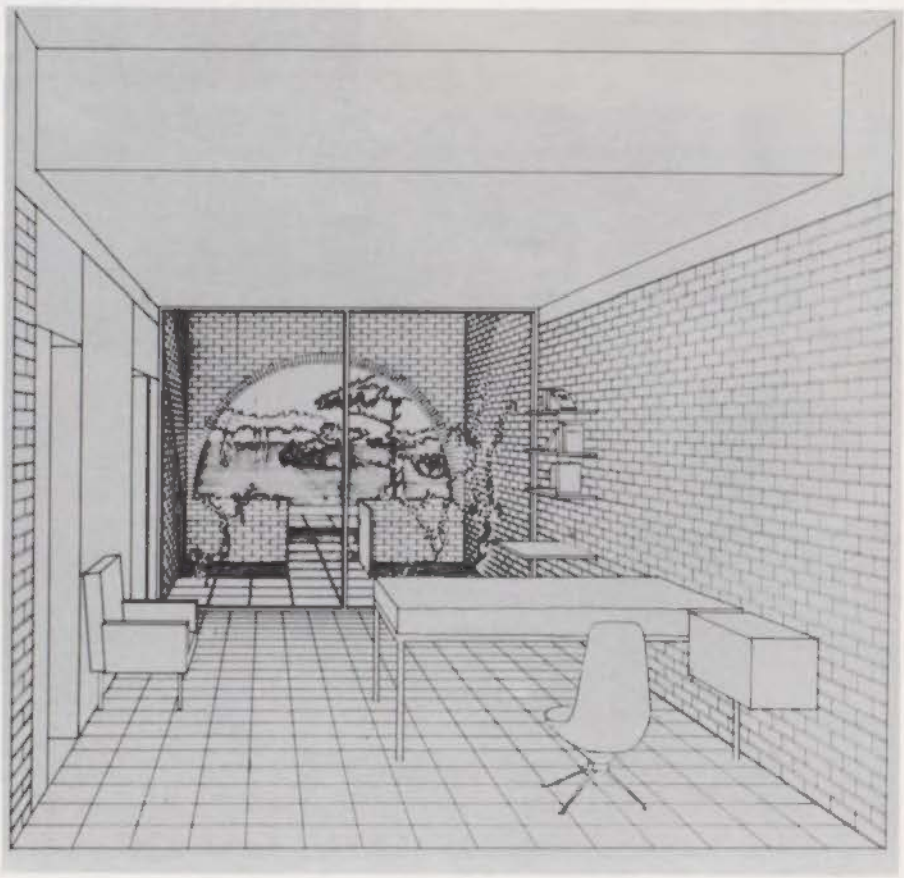
Associated on the project are Thomas E. Woodward, Project Manager; William K. Hall & Associates, Mechanical Engineers; and J. Burwell Harrison, Nursing Home Consultant.

The PROGRESSIVE ARCHITECTURE Program is the only national architectural competition based on *commissioned projects* in the design stage rather than on completed buildings or theoretical proposals. The Editors believe that fine design and construction ideas deserve recognition in the period of design development rather than after completion of the buildings. They hope in this way to encourage not only architects and owners of buildings so honored, but also others working on similar commissions.



PROGRESSIVE ARCHITECTURE

# CITATION



# AIA GOLD MEDAL: SAARINEN

Eero Saarinen, the Finnish-born American architect who died last September 1 at the age of 51, has been awarded posthumously the 1962 Gold Medal of the American Institute of Architects.

Other world famous architects who received the coveted AIA Gold Medal include Eero's father Eliel Saarinen who won it in 1947, Frank Lloyd Wright (1949), Clarence S. Stein (1956), Walter Gropius (1959), Mies van der Rohe (1960), and Le Corbusier (1961).

Eero Saarinen came to this country with his family in 1923 when he was thirteen years old. The family soon settled in Bloomfield Hills, Michigan, where the elder Saarinen designed the buildings for the Cranbrook Academy of Art.

After graduation from high school, Eero Saarinen studied sculpture at the Academie de la Grande Chaumiere in Paris during 1929 to 1930. He entered the School of Architecture at Yale University in 1931, graduating with high honors three years later. The next two years were spent traveling in Europe on the Charles O. Matcham Fellowship.

From 1937 until the death of the elder Saarinen in 1950, father and son worked in close association. Thereafter Eero Saarinen launched his own firm which was just in the process of moving from Bloomfield Hills to Hamden, Connecticut, when he succumbed to a malignant brain tumor.

Father and son Saarinen both submitted separate entries for the competition for the Jefferson National Expansion Memorial for St. Louis, Missouri, in 1948. The younger man won and the memorial, a soaring stainless steel arch, is now under construction.

Among Eero Saarinen's other still to be completed buildings are the Dulles International Airport in Washington, D. C., the Lincoln Center for the Performing Arts in New York City, and the Trans World Airlines' terminal building at Idlewild International Airport, New York.

Among Eero Saarinen's best known completed buildings are: the Stephens College Chapel, Columbia, Mo. (1954); the General Motors Technical Center, Warren, Michigan (1954); the auditorium and chapel for the Massachusetts Institute of Technology (1955); the campus for Concordia Senior College, Fort Wayne, Indiana (1958); the David S. Ingalls Skating Rink, Yale University (1958); and the U. S. embassies in Oslo and London (1960).

Eero Saarinen strove to give each of his buildings a distinct and dramatic character. "Our architecture," he has said, "is too humble. It should be prouder, much richer and larger than we see it today. I would like to do my part in expanding that richness."

# BRI CONFERENCES

Sealants and sunshine will be two of the prime topics for the 1962 Spring Conferences of the Building Research Institute, scheduled for the Shoreham Hotel, Washington, D. C., April 24-26, 1962.

The knotty problem of the relationship between building joints and sealers to produce the most satisfactory performance will be thrashed out in a two-day conference presented by the BRI Planning Committee on Adhesives and Sealants in Building.

A second conference to be held during the same three-day period will go into Solar Effects in Relation to Building Openings. Included in the scope of this program will be solar effects on building occupants, building costs, building appearance and building design, plus a full day devoted to the design of windows, skylights, shading devices, and supplementary electric illumination.

The BRI Research Committee has completed preparations for the staging of a program on Administration of Building Research, which will bring to the platform the research directors of some of the country's leading research laboratories, building product manufacturers, building trade associations and government building research heads.

A fourth conference during the three-day meet, also under the aegis of the BRI Research Committee, will consist of another of its increasingly popular sessions on research in progress or recently completed, and suggestions for needed new research.

Presented twice a year, each spring and fall, these Building Research Institute conferences bring together architects, engineers, building materials manufacturers, building owners and operators, educators, government building experts, and persons from many other fields associated with building. The conferences are open to the interested public, as well as to BRI members and their guests. Complete preliminary program and registration material may be obtained on request from Milton C. Coon, Jr., Executive Director, Building Research Institute, 2101 Constitution Ave., Washington 25, D. C. The Institute is a unit of the National Academy of Sciences-National Research Council, operating under its Division of Engineering and Industrial Research.

*Photograph: Dewey Mears*

The award winning Greenwood 2 building in Austin executed by Brooks and Barr, one of three buildings designated by Texas architects honored by the Bell System.

# BELL MERIT AWARDS

Three Texas architectural firms are among 39 firms throughout the United States and Canada that have won Bell Telephone System merit awards for producing good building designs at reasonable costs.

Brooks and Bart of Austin received a Merit Award for the Greenwood 2 building at Ninth and Colorado in Austin.

In addition, two other Texas architects received honorable mention for telephone building designs. The firms and the buildings were: Thomas E. Greacen, III, of Houston, for design of the Smithville dial telephone building, and Page, Southerland and Page for the Lubbock division headquarters building.

Buildings constructed in the Bell System during the past two years were eligible for the competition, according to H. J. Miller of Houston, chief engineer for Southwestern Bell.

Miller said the awards are made to stimulate interest in improving architectural design. The first Bell System architectural awards were given in 1960.

The firms were chosen from private architects and Bell personnel who designed more than 2,000 buildings erected for Bell companies during the past two years. More than 370 buildings were entered in the 1962 competition, ranging from small equipment structures to multi-story office buildings.

Three former presidents of the American Institute of Architects judged the designs. They are Leon Chatelain, Jr., Washington, D. C.; Douglas Orr, New Haven, Conn.; and John N. Richards, Toledo, Ohio.

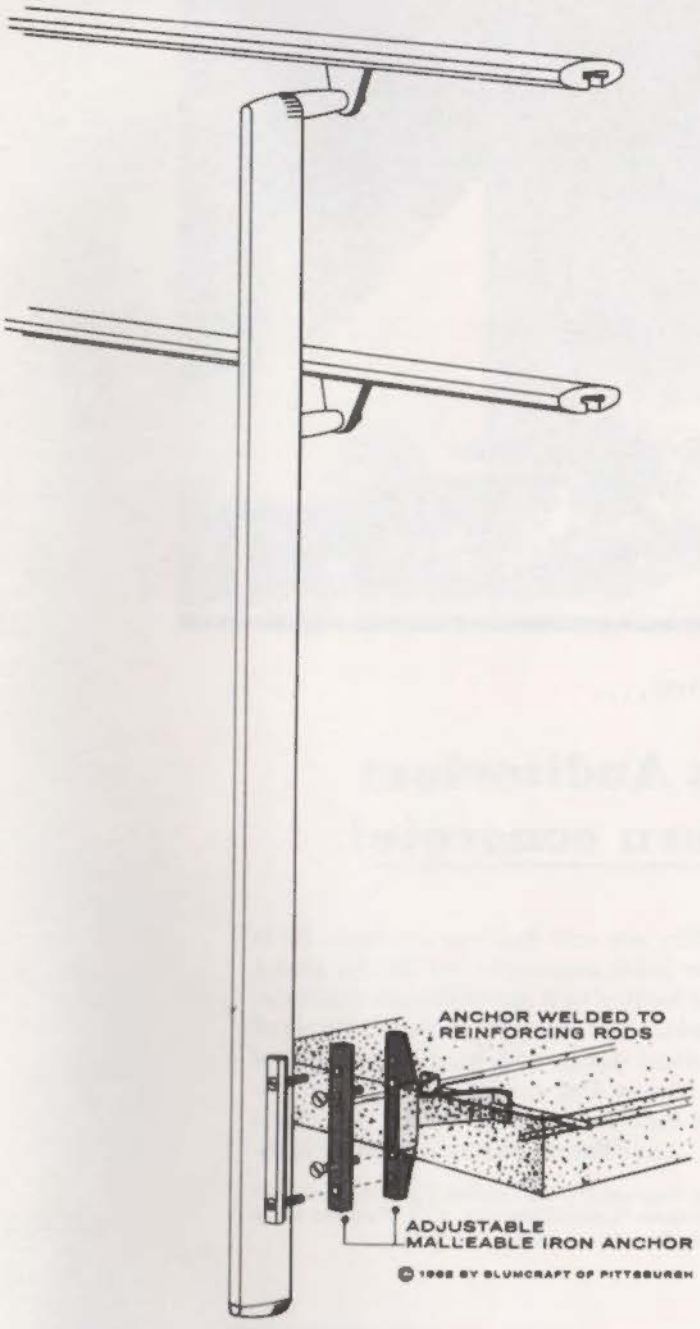
"Practicality, as well as good looks, governed the judging," Miller said. "We have found that good building design costs no more than poor design, and many of our best looking buildings are the lower cost ones."

In addition to basic architectural excellence, a design that is appropriate to the building's surroundings was also considered by the judges.

The Bell System, this country's largest builder, now has more than 15,000 buildings and has spent more than one billion dollars for new construction in the past five years.

# Adjustable anchoring system solves problem of fastening railings to thin precast treads

Many of the problems of securely anchoring metal railings to concrete stairs have been overcome by an adjustable anchoring system developed by Blumcraft of Pittsburgh.




Heretofore, two conventional methods have most frequently been used to fasten metal railings to concrete:

1. Drill into the concrete and insert expansion shields.
2. Build steel anchors into the concrete, drill and tap the steel anchors for fastening the posts.

Both methods obviously require expensive field labor, and if the drilling is not perfect, vertical alignment of the posts is not possible.

Blumcraft's new adjustable anchoring system provides these advantages:

- Reduces costly field labor.
- Permits adjustability for post alignment.
- Eliminates breakage in masonry when drilling for expansion bolts.
- Provides extreme rigidity through sound structural supports.
- Prongs can be welded to reinforced steel in the concrete, so that the anchors form an integral part of the stair.
- Built-in anchors will not work loose, as may happen to applied expansion shields.
- Posts can be mounted at extreme edge of stair, permitting use of the full width of the stair.
- Permits side-mounting of posts to thin precast treads as narrow as 2", as well as to wood plank stairs and conventional concrete stairs.
- Decorative trim can be applied to the anchor at the edge of the tread.
- For through-tread mountings Blumcraft provides sleeves for building into the precast treads.

As pointed out by Blumcraft, the railing is only as strong as the anchoring to which it is applied.

From fronting pylons to floating floors...

# dramatic Santa Monica Auditorium is a showplace of modern concrete!

Graceful beauty goes hand in hand with practicality in the new concrete Civic Auditorium at Santa Monica, California.

72-foot concrete pylons are combined with an ornamental grille rising from mezzanine floor to roof. The concrete grillwork was precast at the site. And this dramatic facade will *keep* its beauty.

Inside, the concrete floor is flat for sports events—and tilts to "full auditorium" position with 2,750 seating for stage shows and concerts. The sidewalls and loft structure of the building are cast-in-place concrete. So is the upper level concourse, while the grand stairways leading to it are of precast concrete.

The auditorium is an impressive example of both excellent design and imaginative uses of concrete in new and exciting forms. And because it's *concrete*, upkeep will be outstandingly low... and fire-resistance uniformly high.

*Architects & Engineers: Welton Becket, F.A.I.A., and Associates, Los Angeles. General Contractor: C. L. Peck and Millie and Severson, Inc., Los Angeles.*

**PORTLAND CEMENT ASSOCIATION**
**110 East Eighth Street, Austin 1, Texas**
*A national organization to improve and extend the uses of concrete*

**FOR STRUCTURES...**
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