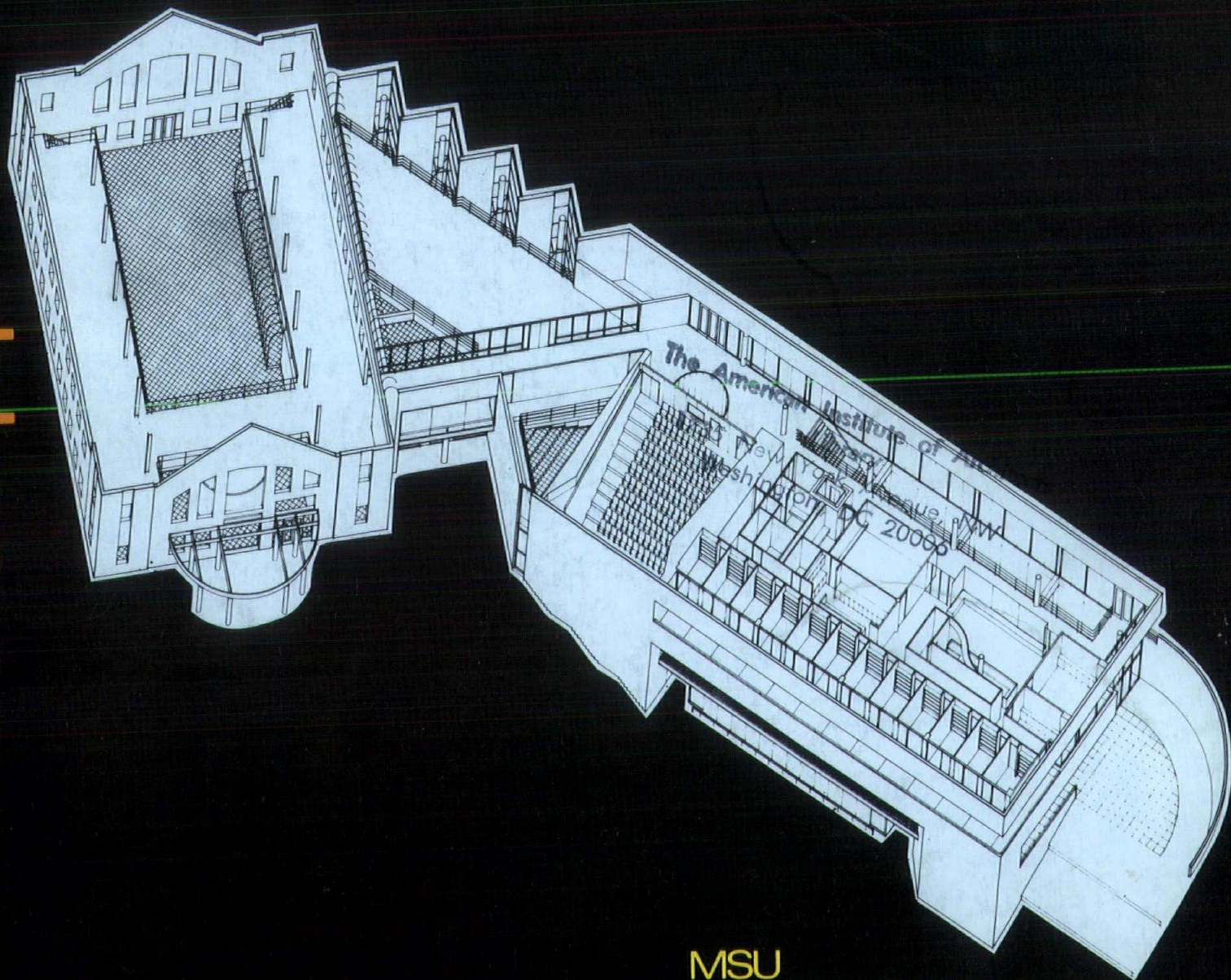


the mississippi architect



MSU
School of Architecture...
Everything's Growing Great!



FACE
BRICK

COMMON
BRICK

FIRE
BRICK

ANTIQUE
BRICK

MORTAR
MIX &
COLORS

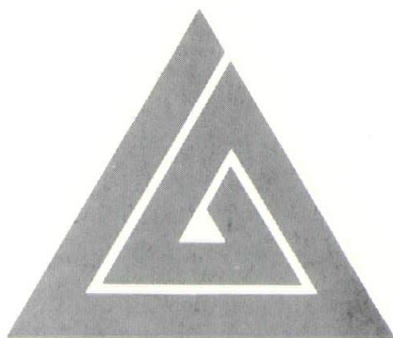
TRI-STATE

Brick and Tile Company, Inc.

*Tri-State Brick & Tile congratulates AIA.
We are proud to be a part of this fine organization.*

"Brick, the most proven product since the days of old."

2050 FOREST AVE. • P.O. BOX 31768 • JACKSON, MS 39206 • (601) 981-1410



**delta
design
group
architectural
brochure
designers**

518 Central
P.O. Box 112
Greenville, MS 38701
(601) 335-6148



the mississippi architect

Volume 11, Number 2
January, 1981

Editor:

Robert Ivy, Jr.

Associate Editor:

Noel Workman

Art Director:

Charles W. Blanks

Art Assistant:

Melanie Mitchell

Type:

Doris Denley

Delta Typesetting, Inc.

Contributing Editors:

James E. Anderson

Greenville

Robert Harrison, AIA

Jackson

William R. Henry, AIA

Jackson

William G. McMinn, AIA

Starkville

David Trigiani, AIA

Jackson

Joe N. Weilenman, AIA

Greenville

Graphic Consultant:

Delta Design Group, Inc.

Greenville

Mississippi Chapter

American Institute

of Architects

President:

Paul F. Roberson, AIA

Greenville

First Vice President:

Dan Evans, AIA

Jackson

Second Vice President:

Fred Frank, AIA

Starkville

Secretary-Treasurer:

John Hester, AIA

Jackson

Directors:

Robert E. Farr, III, AIA

Jackson

Robert H. Canizaro, AIA

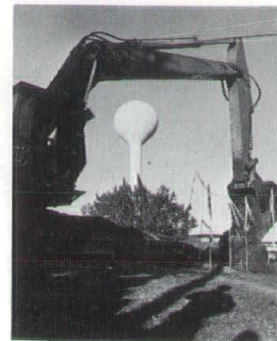
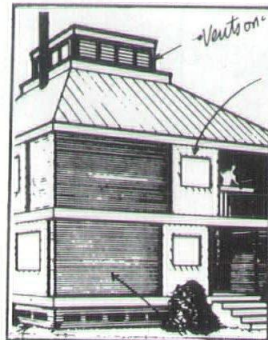
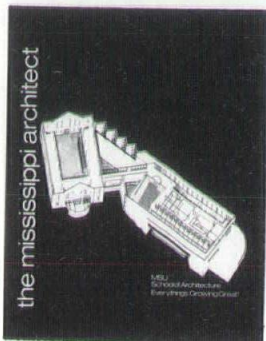
Jackson

William V. Lack, Jr., AIA

Jackson

Executive Secretary:

Kathy Jackson



Cover:

A good idea gets better! MSU School of Architecture moves confidently into the 1980's with proposed new addition well underway.

3

Forget the 5c cigar! This country needs energy for the 80's and beyond. New editor Robert Ivy, Jr., addresses the topic with an incisive editorial and offers energy-related articles by Mississippians in his premier issue.

5

Movin' on up in the heart of the city. AIA's new headquarters is a handsome addition to the slowly-evolving renovation of the capital city's downtown area.

9

Of gabled roofs, dog-trots and solar walls. Arnold Aho's research project reveals answers from the past for today's energy conservation requirements in residential design.

13

Energy information for the asking. The Tennessee Valley Authority excels in its role as the nation's "Solar Showcase" with excellent programs and services like Solar Homes for the Valley.

18

Building a solar greenhouse? Weatherizing your house? Information on these and other energy matters is available in **Energy Design: 1981 Mississippi Sourcebook**.

Special Insert:

Worthy of a Ground-breaking! Editor Ivy comments on the significance of MSU's recent addition to its growing School of Architecture. Is Design too important to be left to architects alone? Charles E. Schwing, FAIA, president of the American Institute of Architects, thinks so. His address at the recent MSU groundbreaking is reprinted in its entirety.

The Mississippi Architect is published quarterly and is the official publication of the Mississippi Chapter, American Institute of Architects. Appearance of products or services in editorial or advertising copy does not constitute endorsement. Opinions expressed are those of the author and not necessarily those of the chapter. Annual subscription rate is \$4.00; single copy \$1.00. Advertising rates and subscriptions are available from Delta Design Group, 518 Central, Box 112, Greenville, Miss. 38701, phone (601) 335-6148 or from the chapter office, Box 12515, Jackson, Miss. 39211, phone (601) 981-9327.

Miss - West - > Babad Inc.
362-6306


YOU CAN BUILD ON OUR REPUTATION.

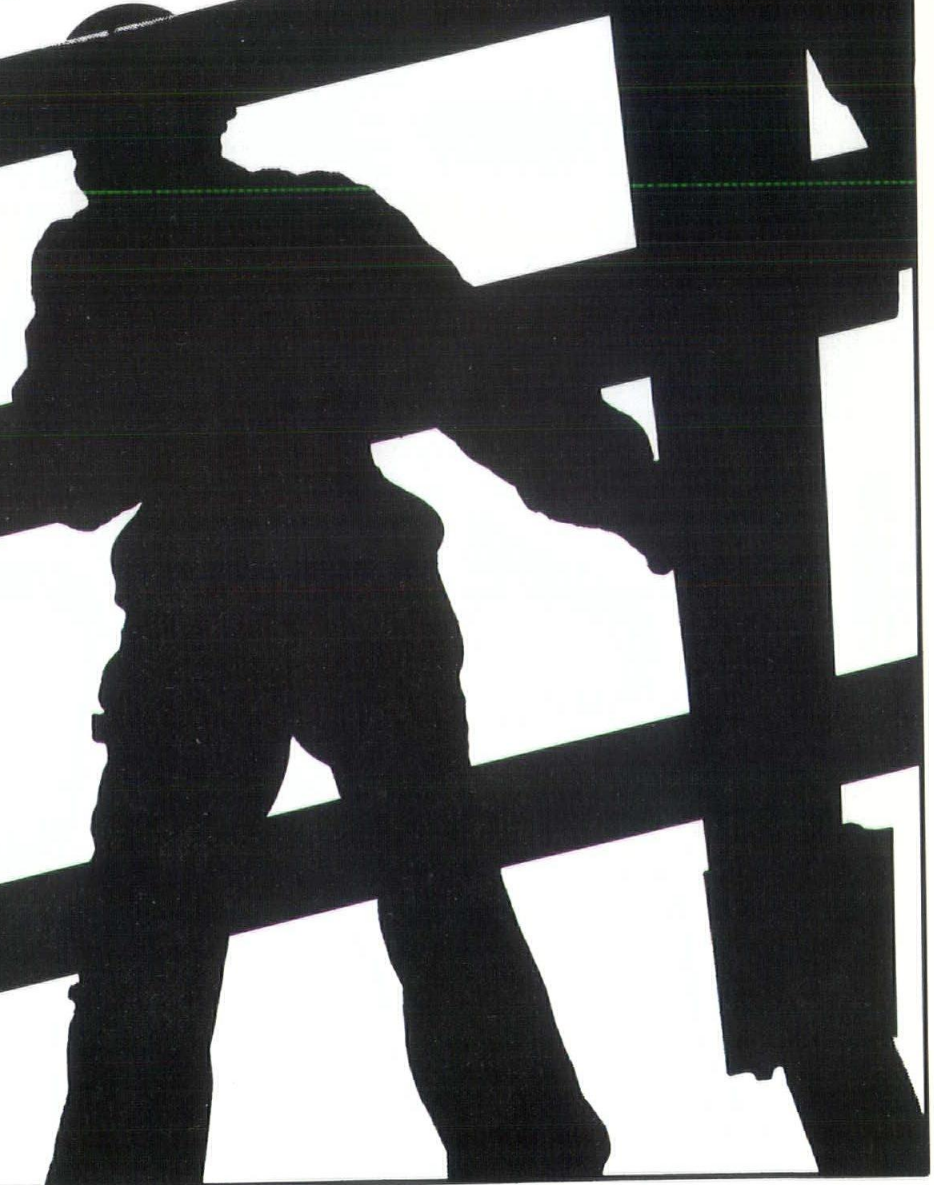
For more than 40 years, Rouse Construction has based its reputation on a firm foundation of principles. People make the difference. And Rouse people are dedicated professionals who

depend on communication—input from the client, architects and subcontractors. Performance counts, too. Our innovative management systems and construction

procedures have proven unsurpassed in delivery of contracts ahead of time and within the client's budget.

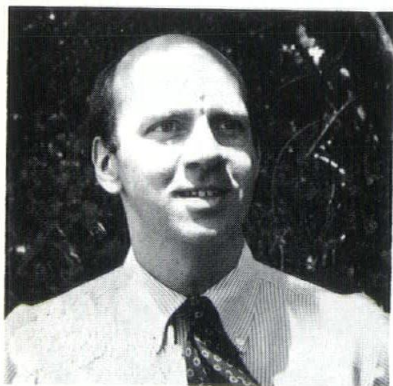
It's no wonder Rouse is known as Mississippi's most progressive construction company.

 **Rouse**
Construction Incorporated
P.O. BOX 16688/JACKSON, MS 39206



From The Editor

Robert Ivy, Jr.



Meet the Editor:

Columbus native Robert Ivy, Jr. is associated with the Tupelo architectural firm Johnson & McCarty, P A. A graduate of the University of the South and the Tulane University School of Architecture, Ivy has been a contributing editor for the *MISSISSIPPI ARCHITECT* since 1976. He is also a contributing writer on design for *JACKSON*, *THE MISSISSIPPI MAGAZINE* and is a published poet. Ivy and his wife, the former Holly Hall of New York, live in Tupelo with their two children, Virginia and Adam.

Energy — the decade's watchword. It fills our professional journals, it takes top billing in the nation's newspapers, it becomes the topic of countless seminars. Yet what are Mississippians accomplishing in the field? As our fossil fuels explode in countless piston engines, roar in furnaces across the country, we are making significant, though silent, strides toward understanding and directing energy's use in our home state.

For our first issue of 1981, we include several articles by Mississippians about energy. Professor Arnie Aho of Mississippi State University sends a study he performed on several residential building types he studied in the southeast which are applicable to our native soil. His findings crystallize in one place many of our theories about building in response to climate. Read his story.

In the northeastern corner of Mississippi, the Tennessee Valley Authority has constructed eleven houses which respond to the elements on their own terms. Demonstration houses, monitored by the government, they represent a major effort at passive solar design, and our state was the first to welcome all eleven designs in November, 1980 at Corinth. A description of these buildings is included in our energy issue as is an energy sourcebook for Mississippi architects.

How else have Mississippi architects and builders responded to conservation's call? Private citizens have built a growing number of earth sheltered buildings, (primarily homes at this point), while architects and engineers have made significant advances through well known, though less spectacular methods.

The Federal Office Building in Jackson, Mississippi is a case in point. The project, a joint venture of Barlow, Plunkett, Virden, and Roberson, with two firms as Consulting Engineers, Bowron and Butler, and Walters and Busby. The project received a Region VII ASHRAE "Gateway to Energy Conservation Award" in 1978. Go see it!

Our central article reports on the unleashing of a major new energy source in the state with the groundbreaking ceremonies at Mississippi State School of Architecture — an addition anticipated and finally under way. We herald its arrival with congratulations and a centerfold.

In our next issue, we will explore another facet of contemporary design that goes hand in glove with the energy crisis and is one response to a world formerly content to consume itself — the recycled building, a building type that has caught fire with the architects of this state and burns on its own power.

However, it is your energy that is most important to us. Whether you be architect, builder, banker, or housewife, write us and let us know what you think of our efforts. If you wish to contribute an article or an idea, so much the better. In the search for energy sources, the most vital lies in your response to our efforts. We are constantly on the lookout for new material, and nothing in the world can match your enthusiasm.

COM KEY SYSTEMS

TALK, PAGE, PLAY MUSIC, CALL
CONFERENCES, GUARD YOUR PRIVACY,
AND WORK OVERTIME.

ALL THIS, PLUS BELL SERVICE THAT
DOESN'T QUIT.



Com Key* systems are a whole new family of phones that can adapt to your business needs. Designed to give you better, faster telecommunications. With your employees, customers, and suppliers.


If your business requires several phone lines, we have a Com Key system that can handle up to 21 incoming lines and route calls to as many as 52 stations. But, if your needs aren't that large, investigate others in our Com Key family—a smaller system may ideally answer your needs.

Standard features on all Com Key systems include:

- Two distinctive tones that let you distinguish internal from external calls. If you're already on the phone, a muted verbal message or tone lets you know another call is standing by.
- Multi-line conferencing that can connect your business line with two or more outside lines.
- Line buttons that pop up automatically when you hang up to minimize the chance of someone inadvertently picking up during your conversation.
- Your choice of console faceplates, in colors or woodgrain, to complement office decor.

*Trademark of AT&T

Optional features include:

- 
- Optional features include:
- A ringing feature that keeps your phones working even if outside power fails.
 - Paging systems that can broadcast messages to an entire office area or to specific departments. Or carry background music. (That same music can be piped into the system's "hold" function, for waiting callers.)
 - A night transfer option (standard on the model 416) to connect after-hours incoming calls to any phone in your system.
 - A privacy feature that keeps your conversations confidential when needed.
 - Pre-set conferencing that will ring pre-selected combinations of phones simultaneously (a feature that could make lots of office memos obsolete).

Two more important considerations in any business phone decision: service and maintenance. At Bell, we take total responsibility.

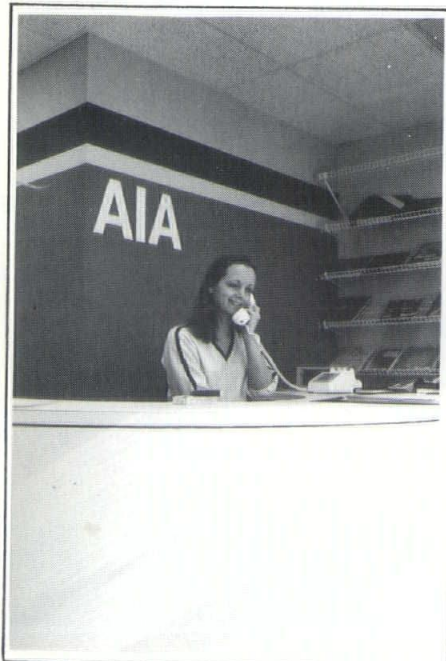
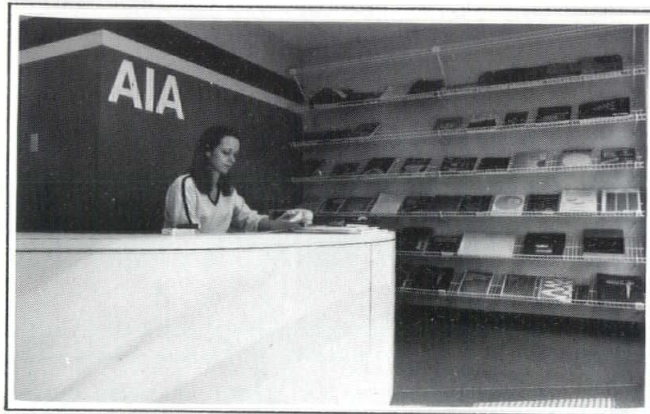
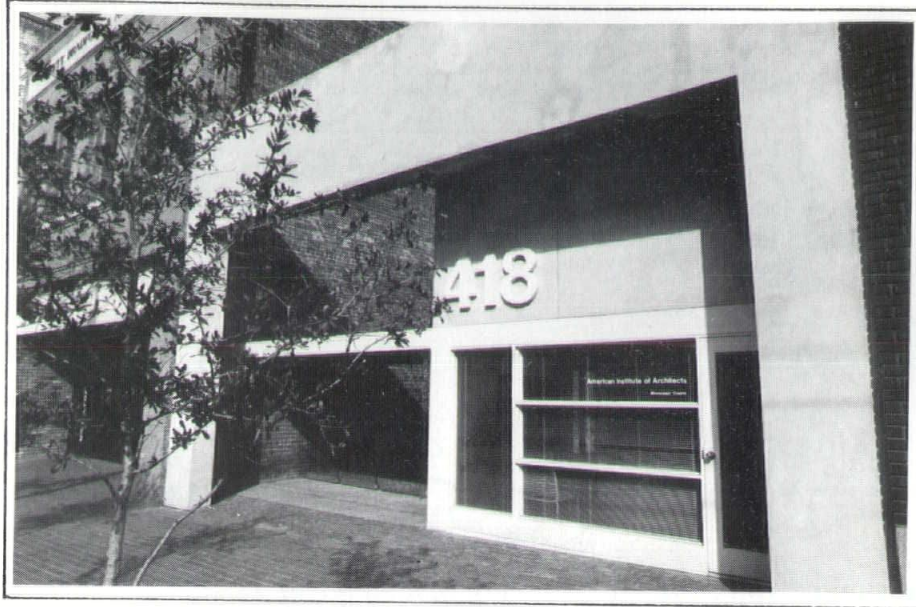
So, before you choose a new office telephone system, call in a South Central Bell Account Executive at no extra cost. And get the total story on Com Key systems.



South Central Bell

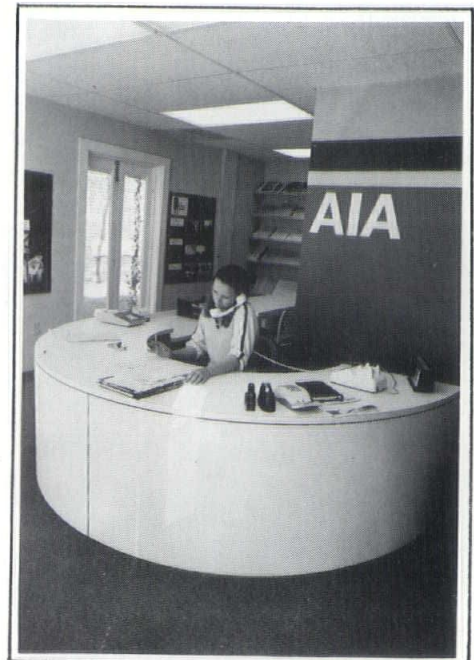
Urban Renewal With Élan!

AIA's Long-awaited New Home:



418 EAST CAPITAL: AIA's new headquarters, designed by Jackson architect Dan Evans, juxtaposes contemporary lines with traditional facades of nearby buildings. According to Evans, the building (owned by Pickett-Bradford Associates) underwent phased construction for over a year. A dramatic circular desk is the visual focal point of the office as well as the center from which longtime AIA Executive Secretary Kathy Jackson ably coordinates Mississippi Chapter activities. Visitors are encouraged to peruse an impressive array of architectural literature displayed on handsome shelving along two walls. Double glass doors open into a spacious courtyard leading to the office of Evans/Ely Architects. ■

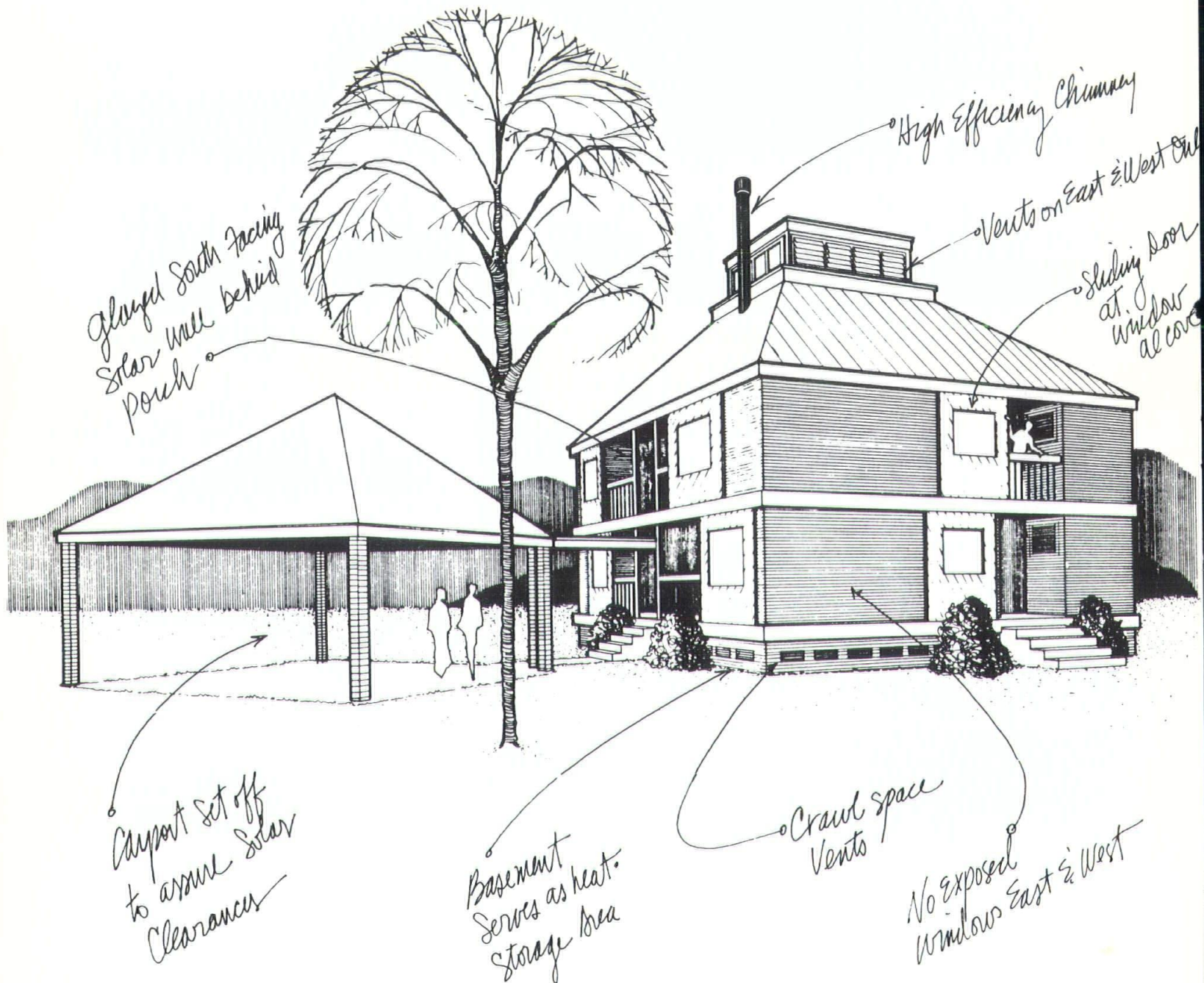
(Desk from Mississippi Stationery Inc., Jackson, MS. Space Builder shelving from Action Building Specialists, Inc., Kenner, La.)



Energy Conservation In Residential Design

Some Answers From The Past

From a Project
by Arnold Aho, AIA



How are Energy Performance Standards arrived at? A partial answer to that question lies in our own backyard, for Mississippi State University professor Arnold Aho, A.I.A., working under a grant from the A.I.A. Research Corporation, explored the "maximum achievable reduction in energy consumption in average dwellings." Professor Aho's project, which studied a prototypical two story, detached house in Atlanta, Georgia, was Phase II of a three phase program established by the U.S. Departments of Housing and Energy. Phase I studied existing "pre-energy crisis" houses, and Phase III established trial HUD energy performance standards based on the Phase II models.

The results of the study are significant, for they point to the neglected truth: **MANY OF THE ANSWERS TO ENERGY CONSERVATION IN RESIDENTIAL DESIGN MAY BE FOUND NOT IN WHAT MUST YET BE DISCOVERED, BUT IN WHAT HAS BEEN FORGOTTEN.** The house that resulted from the study is logical, comprehensible, buildable, and as new as tomorrow. It is not unlike comparable houses of 2200 square feet built in the south in its general nature; it is not a "custom" house. It differs from its peers, however, in its understanding of and response to the environment — a response that blends past lessons with contemporary technology, function, and aesthetics.

Aho and his team, which included Professor Michael Fazio, AIA, of Mississippi State, and the architect engineer Dr. Donald Barnes, AIA, studied indigenous Georgia housetypes, buildings which are directly related to our earlier Mississippi buildings, since Georgians built many of Mississippi's earliest houses. The team began with energy analyses of the historical models and a computer comparison of shapes and heat flow. The result was a design that reflected apparently timeless ideas about building in this region.

Their conclusions, in their own words, follow:

HOUSE FORM: The "dogtrot" farmhouse plan through this study proved to be an optimal layout for cross ventilation, as was the belvedere (or cupola) for reinforcing the stack effect of rising hot air.

ADAPTABILITY: With the variable climate that characterizes... (the Southeast), a house needed to be

able to open up in the moderate seasons, while being able to close itself up during less optimum periods. The insulated, sliding "barn door" walls of this design, a contemporary answer to old window shutters, permit a simple means to adapt the house to seasonal and daily climatic variations. These moveable walls also become image-givers for the final design.

FENESTRATION: Windows are the most energy-consumptive element in architecture. For this reason they were given a special place in protected alcoves, reminiscent of old sun porches, where radiant heat gain could be controlled and infiltration abated.

BUILDING SHAPE AND ORIENTATION: Were based on a computer analysis of the traditional models, mentioned earlier.

NATURAL SYSTEMS: With a good portion of each year within the bioclimatic comfort zone, this design relies on natural systems as a third mode of environmental control. These systems include ventilation, employing the stack effect, cross-ventilation of all major living spaces, and a passive south-facing "solar wall". The mechanical modes of heating and cooling were also designed to complement these natural systems, rather than to compete with them.

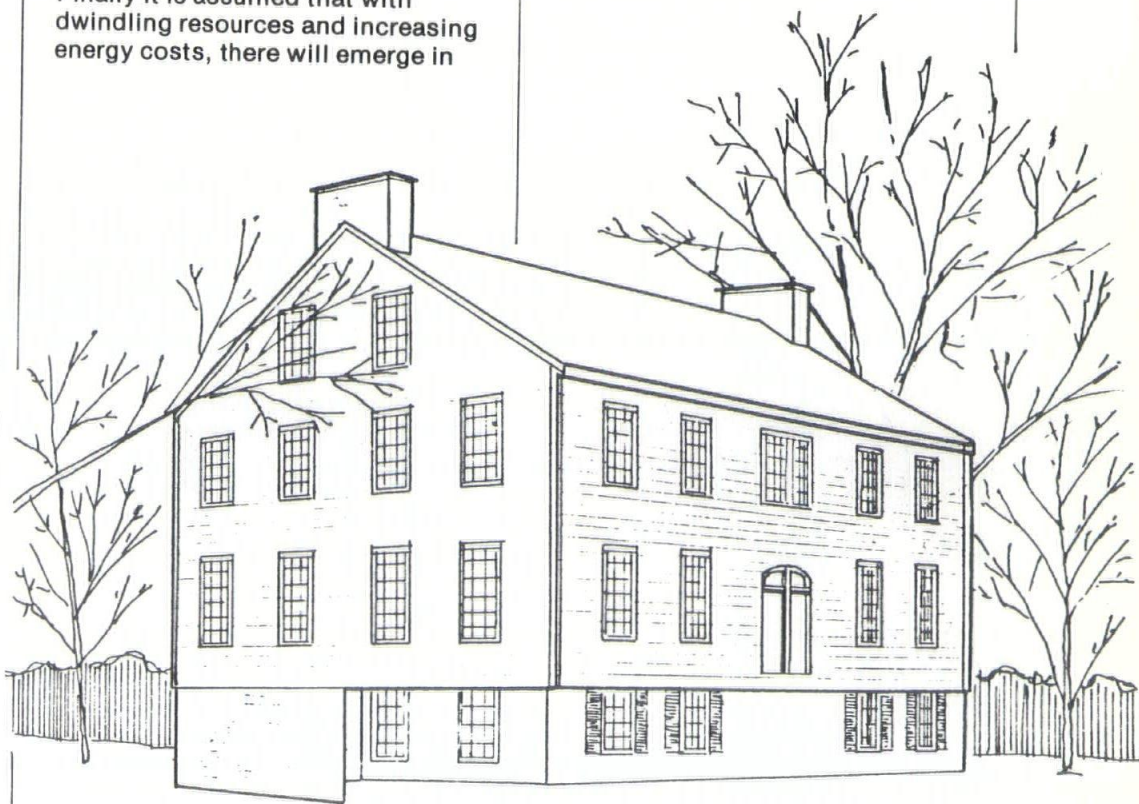
Finally it is assumed that with dwindling resources and increasing energy costs, there will emerge in

America a new ethic and willingness on the part of all occupants to become more knowledgeable and involved in the efficient energy operation of their homes, much as a sailor might trim the sails of his boat. With a considered design of manual vents and sliding panels this house enjoys a **POST-'PUSH-BUTTON' CULTURE.**

After having begun analyzing the climatic context of Atlanta... (the) team studied the historical context of residential building in central Georgia. Particular attention was given to what these early houses might suggest as alternative solutions to our current energy problems. Some of the findings were highly enlightening:

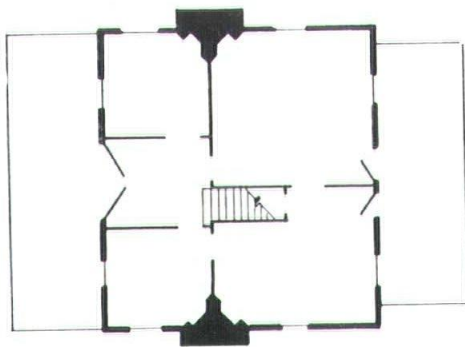
The first colonial buildings in Georgia, built in the early 18th-century, were basically importations of the English braced-frame building, transposed into native materials of wood and brick. The form of these earliest buildings varied little from colony to colony, for one might find much the same building in Maine as well as Georgia. The roughly cubical shapes and gabled roofs afforded a minimum exposed perimeter for the volume of space contained. From an energy viewpoint, this was an excellent solution to the severe winters

Continued on Next Page



experienced in many of the early colonies. The small proportion of windows also minimized heat losses due to conduction through the glass as well as infiltration. In the center of the house was the massive block of fireplaces used for warmth, as well as cooking.

In Georgia, however, the winters were far less severe than further north and actually the hot-humid summers often caused far greater discomfort. Furthermore, the much longer seasons of spring and fall, with very optimum climatic conditions, permitted greater time for outdoor living if only minimal protection were provided. Thus, the house in Georgia began to evolve away from its northern counterparts. Porches began to appear for shading the windows and walls. They also provided covered outdoor spaces where many household activities occurred throughout a good portion of the year, in the shade and in the breezes. The fireplaces, which were less critical for the winters, were moved to the outer walls and the kitchens were often moved into out-buildings to remove the unbearable heat of cooking fires from the house proper in the summer.



By the end of the eighteenth century, the roughly squarish floor plans of the early houses gave way to more linear plans where at least the second floor sleeping rooms were only one room deep. This modification permitted windows in

the rooms to be located on opposite walls, affording excellent cross-ventilation of the spaces. These new building forms, however, also demanded much greater attention for siting and orientation. The carpenter's handbooks of that period often discussed at length the proper facing of the house to the sun and wind.



The truly indigenous southern farmhouse emerged with the incorporation of the "Dogtrot Plan". In this scheme a full transverse hallway extended from front to rear with all rooms opening onto it. This scheme could afford excellent ventilation to the first floor rooms as well. At least from a diagnostic viewpoint, this large airy hallway could be seen as the climatic replacement for the massive central fireplace of northern colonial architecture. The "Dogtrot Plan", however, also had to rely on proper orientation with respect to the wind in order to be successful.

The second major influence on residential architecture in Georgia occurred with the emerging agricultural prosperity of the pre-war south. The new southern planter looked beyond his fence lines and began to import new ideas and styles from the world beyond. During this early part of the 19th Century the Greek Revival Period was at its peak and it found a particular suitability in the moderate climates of the southern states. The large central halls, the colonaded porches, the high ceilings and the hipped-roofs capped with a belvedere were true not only to the architectural orders of the period, but also were truly suitable for the climate they were built in. The large two-story central hallway (or stair hall) was employed to create a stack effect of hot air rising: drawing air through the surrounding rooms to each side. The belvedere (or cupola), above, vented

the hot air out at the highest possible point of the structure. Tall windows in high-ceilinged rooms could be opened from both top and bottom maximizing ventilation resulting from the temperature differential of the room air. Hot air was kept above the living zones of the room. Operable louvered shutters were closed during the day to "keep in the cool", and to prevent radiant heat gain. They were then opened in the evening to allow rapid cooling and afford good ventilation. Porches often extended around the entire house, shading walls as well as windows from radiant heat gain. A large crawl-space or cellar beneath the house often served as a source of cooled air which was drawn into the upper levels of the house by means of the stack of the central hall.



CONCLUSIONS: History offers four basic alternatives for house forms in Georgia. The first two appear to have been evolving transitional forms:

(1) The Colonial Block Gable-roofed House, (2) The Shed-roofed House. In Georgia these two forms resulted in the indigenous (3) Dog-trot, Porched Farm House. The fourth alternative appeared as the greek-revival (4) Plantation House. These last two houses differed from each other (at least from an energy viewpoint) in the manner by which they handled natural ventilation: one by cross-ventilation with a more linear plan, the second, by the stack effect created by a centralized hall.

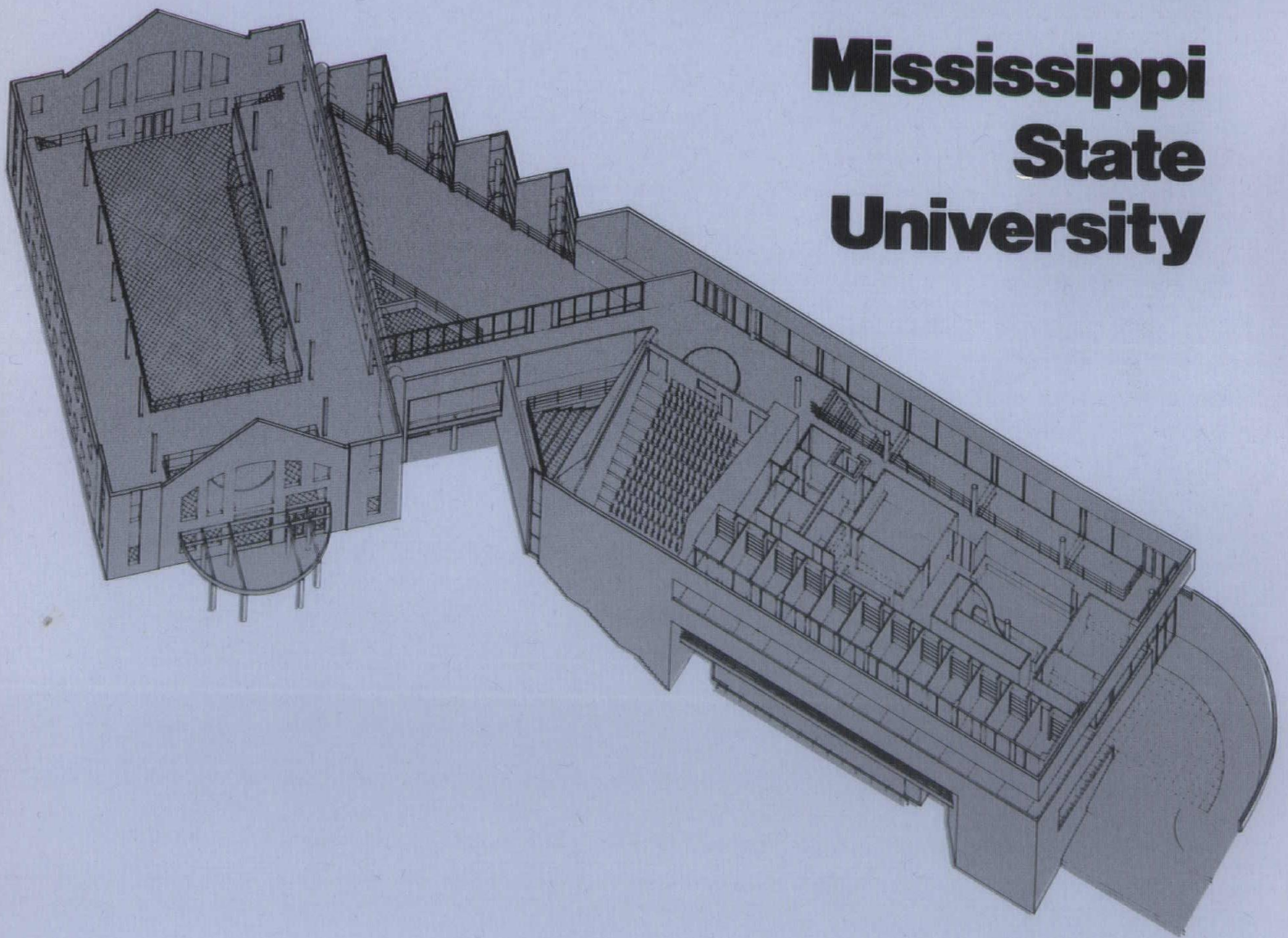
In the context of the current problem, the sun/wind orientation requirements of the Dog-trot Porched Farm House scheme appear to be in conflict with the siting requirements for frontage on any of the four cardinal orientations. However, the central-halled Plantation House scheme allows the form to be turned without seriously affecting ventilation.

Continued on page 17

An Addition

**School
of Architecture**

**Mississippi
State
University**



WORTHY OF A GROUNDBREAKING!

A groundbreaking is a funnel, into which are poured energy and aspirations, and from which emerges a new order as a building's plan is transformed into mortar and brick. Mississippi State University stopped to reflect on the significance of its major addition to the School of Architecture when it held a formal groundbreaking ceremony on November 5, 1980 at the building's site at Starkville.

Those present to witness the occasion included several of the architectural profession's national leaders as well as the Mississippi educators, architects, and officials who had labored since 1977 to arrive at this crucial moment. Following introductory remarks by the Associate Dean, Jim Barker, AIA, the Dean of the School of Architecture, William McMinn FAIA, comments by the architect, James Eley, AIA of Jackson, and comments by the President elect of the National Architectural Accrediting Board, David Perkins, FAIA, attention turned to the program entitled "The Significance of the Event."

Speaking for the students were Art Killebrew, a fourth year student at the School of Architecture, and Allan

Payne, an alumnus of the first graduating class, now a graduate student at Harvard University. They were followed by Dr. James McComas, President of Mississippi State University, who remarked on the event's meaning to the whole university. Speaking for the profession was Charles E. Schwing, FAIA, President of the American Institute of Architects, the text of whose address is included in this issue.

The addition itself fills needs that have increased as the school has thrived. The new building consists of approximately 50,000 square feet of poured in place concrete and masonry construction on three levels. The lowest, or basement level, houses workshops, photographic laboratories, print rooms, and an outdoor workshop.

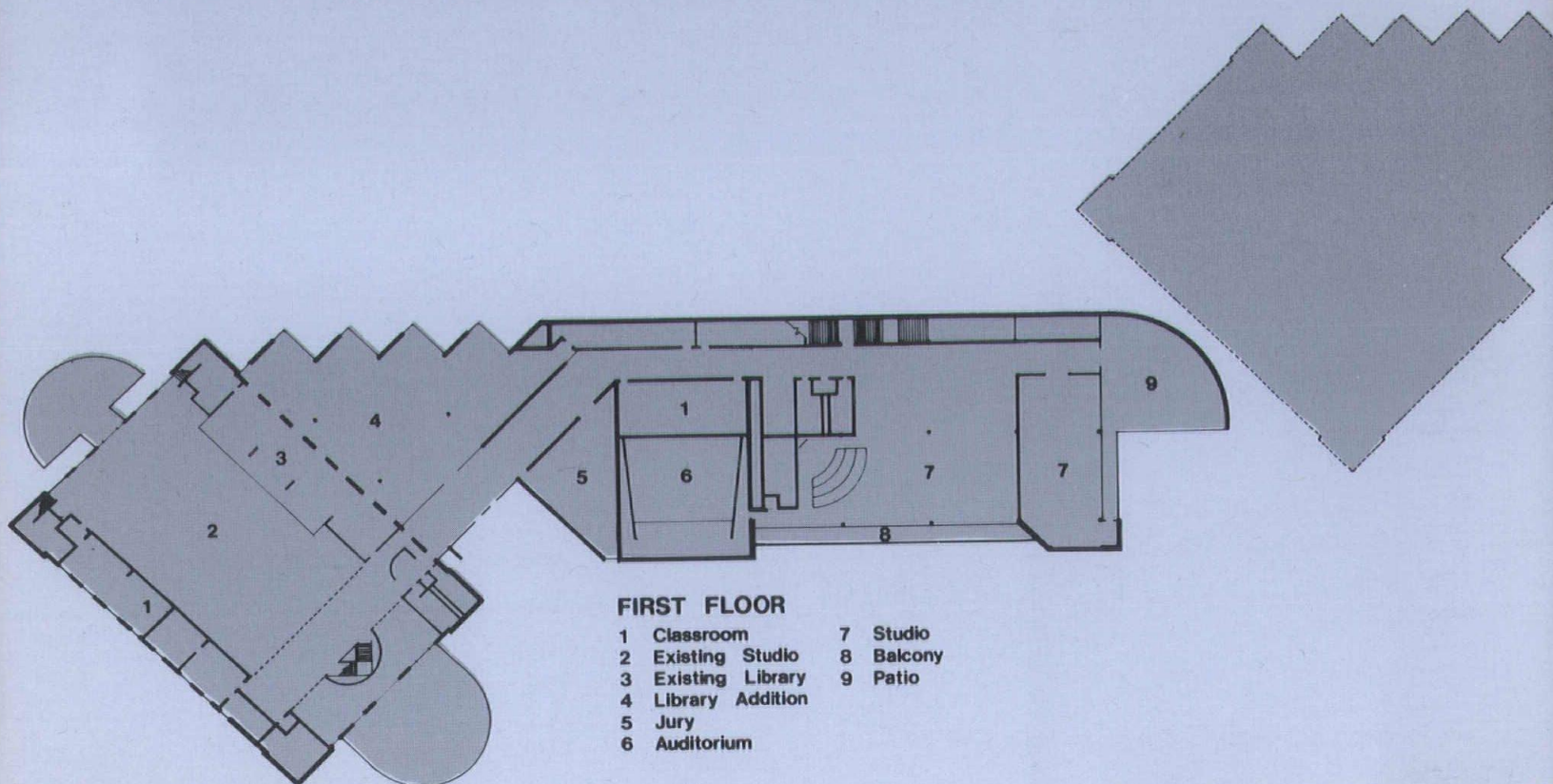
The first floor includes a much needed addition to the school's library, (primarily stack space and reading areas), a 200 seat auditorium, a jury room for 40 to 50 persons, a large classroom, a computer facility, and a large studio. The second floor primarily houses faculty offices and a large exhibition space which spans the library on the

first floor.

Evans/Eley, Architects of Jackson, Mississippi was the lead architectural firm involved in the building's design, while Clemmer and Clark of Jackson were associated for the construction document and construction phases. Jim Eley points out that while the new structure will be four times as large as the existing architecture building, it will not dominate the older structure, since the nature of the site allows the newer building to be cut into the hillside.

A bonus of the hillside location, says Eley, is the "subterranean thermal savings effect" which results — the constant earth temperature both warms and cools the new spaces during the extreme seasons. The earth sheltered building comes of age in Mississippi.

The new building is thus responsive to the functional requirements of a vigorously expanding educational program, responsive to its physical site (to the hills which surround it and the buildings nearby), and responsive to the elements. The new School of Architecture addition is a building worthy of a groundbreaking.





The Address By Charles E. Schwing, FAIA

President McComas, Dean McMinn, distinguished legislators, faculty, students, fellow architects, ladies and gentlemen. I am very proud to be here representing the American Institute of Architects at this ground breaking for your new building.

This event is a tribute to the very hard work of many. I won't go into who — you know far better than I. They have done wonders in a short 6 years.

Your school was fully accredited on the first visit — an outstanding accomplishment — and now this new building. You students are indeed fortunate. Take advantage of these good things.

I toast those who have risen to the challenge with such success.

Hopefully, all of us can respond as

well to this coming decade for I believe it will be one of the most challenging in the history of our profession.

I say the "most challenging decade" because I believe that if we, together with the people of this nation, have the wisdom and courage to see that many of the current problems are in fact challenges, and that behind these challenges stand unique opportunities, THEN we can forge a better future for America and be an example to other nations.

In this new America, I **do not** see a nation of less. . . I **do not** see an America that gives up on trying to heal the open wounds of poverty, pollution, alienation and disintegration.

What I **do** see possible. . . is an America that binds up its neighborhoods. . . an America that rediscovers the rich diversity of its peoples. . . an America that re-dedicates itself to its most fundamental ideals. What I see possible. . . is an America that works **with** nature so that **all** our citizens are once again in harmony with our air, our water, and our land.

As an architect, I'm not afraid to talk about what a civilization and a culture can do. Because I believe as an architect that we must make no small plans. We must look at the broad picture of those challenges that face all of us — professionals and nonprofessionals alike.

It is only by looking at the broad picture or the context of a problem that we discover linkages, common denominators, and ultimately opportunities. Only **then** can we hope to respond coherently, purposefully, and **responsibly** to the complex needs of our art, our profession, and the society which both our art and profession serve.

I stress "responsibility" because we must never forget that our technical knowledge and our imagination carry with them a responsibility that goes far beyond earning our own daily bread. Our gifts carry with them the obligation to practice our profession wisely and well.

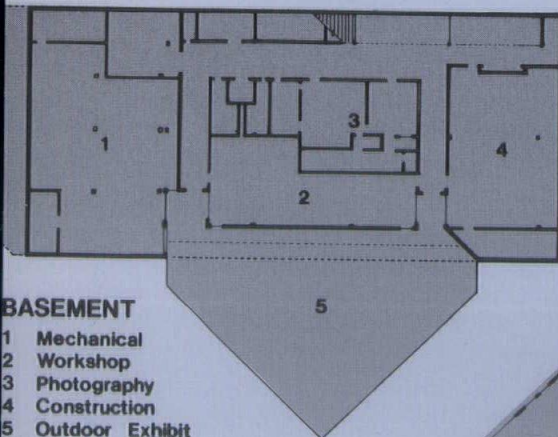
That obligation. . . is at the root of what it means to be a professional.

To be a professional means much, **much more**, than a passive relationship with a client. It means steering that client toward quality, toward cost consciousness, toward energy efficiency. It means integrity over profit. It means thoroughness in keeping up to date with **all** the developments and innovations in our rapidly changing technology.

It means looking in the mirror and seeing in the reflection not an egocentric snob, but a mere mortal who can achieve little without the creative support of an enlightened and responsible public.

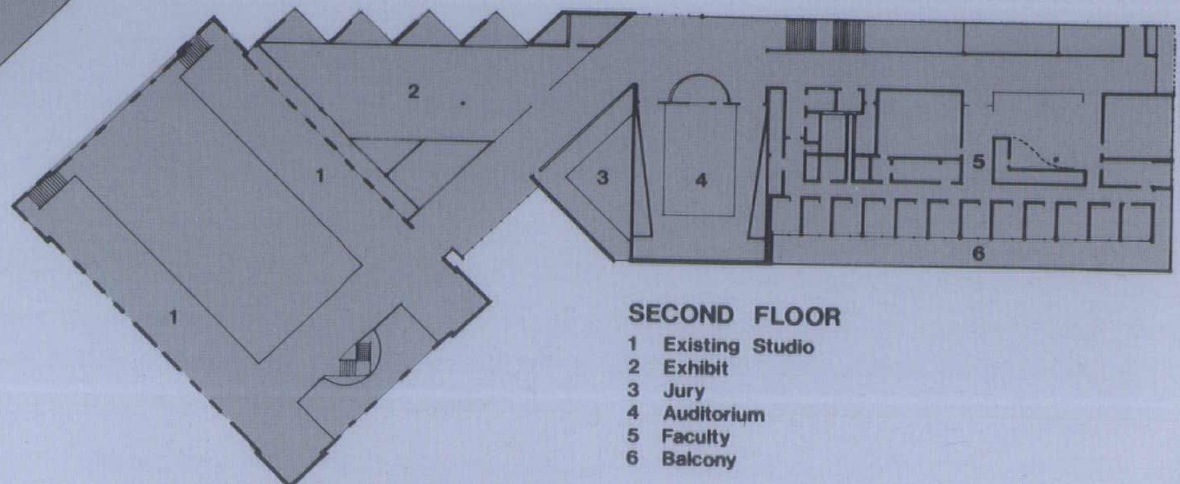
In such a climate, the architect can

Continued Next Page



BASEMENT

- 1 Mechanical
- 2 Workshop
- 3 Photography
- 4 Construction
- 5 Outdoor Exhibit



SECOND FLOOR

- 1 Existing Studio
- 2 Exhibit
- 3 Jury
- 4 Auditorium
- 5 Faculty
- 6 Balcony

hope to realize the great destiny of design. . . to serve the public good with competency and beauty.

This brings me to the heart of a question that I would like to set before you this afternoon.

A question that I hope you students keep in mind as you continue your education.

It's a question I want you practitioners to think about as you practice.

The question. . .

Is design too important to be left to architects alone? . . . I would answer, **yes!**

Before you shout me down, let me explain what I mean. If we say that architecture is, like mathematics, an exercise in problem solving; and if we say that architecture is like painting or music because it is distinguished by clarity and beauty. . . then it is obvious that the success of our solutions is absolutely dependent on the depth and accuracy of our knowledge.

Now, what is our knowledge? It is history and it is also technology. It is our awareness of the complex forces molding today's world. And it is being aware of the trends that point like guideposts to the future.

But this knowledge is also understanding the needs, the hopes and the dreams of the public. Solitude may breed genius. But only

the company of other men and women breeds understanding.

That, in part, is what I mean by saying that design is too important to be left to architects alone. . . we must take design to the people. . . we must go to the people so that we as designers have a better understanding of what the people **need**. Not only that, we must also develop among our public realistic expectations of what we are **able** to provide.

We would be foolish and false if we promised more than we can actually deliver.

But we must do more than simply listen. We must engage in a dialogue that enriches both of us — the profession and the client.

We need an educated public. . . we need a public that demands the best from us. . . a public that recognizes excellence. . . a public that will not tolerate the petty, the cowardly, or the incompetent.

It is this need for a demanding, educated public that is the strongest argument for insisting that design is too important to be left to architects alone. Design must be a concern of all people. But to get to that point requires leadership.

How can we rise to the challenge of being leaders? By re-awakening the public to the man-made resource that is the steel and stone of our older cities. . . by encouraging the social

value of community involvement. . . by leading the way to re-establishing a sense of place, a sense of **belonging**. We can insist that energy is not a call for retreat, but a challenge to forge a better life.

We will earn this leadership role not only by our professional example, but also by our active involvement in the life of our communities.

We must be in the schools. We must attend the meetings of local business and community leaders. We must become actively involved in the political process by speaking out on those issues that affect the quality of our lives. And, if we are so gifted and called, we should seek public office.

If the public is not yet listening to what we have to offer; if they are not yet aware that design can make a difference, it is up to us to get the message to them.

But once we have the public's ear, we had better respond with imagination, competency, and an understanding of human needs. That, ladies and gentlemen, is the message of design.

I began this talk by saying that I was proud to be a part of this ceremony — and I am.

I am privileged to have this opportunity to share my thoughts with you — but more so to have the opportunity to be a part of such an outstanding accomplishment. ■



Charles Schwing presents a "Celebration of Architecture" Award to President McComas and Dean McMinn.

Solar Homes for the Valley

A MISSISSIPPI ARCHITECT
Report



Mississippi architects, contractors, engineers, as well as the general public have a first rate source of energy assistance through area power associations. Most disseminate a great deal of information, particularly in those counties within the Tennessee Valley Authority region, roughly the northeastern fourth of the state. T.V.A. was tasked by President Carter to function as a "solar showcase" for the rest of the country, and since that time T.V.A. has responded with a multitude of programs and services. Among their programs currently available are the

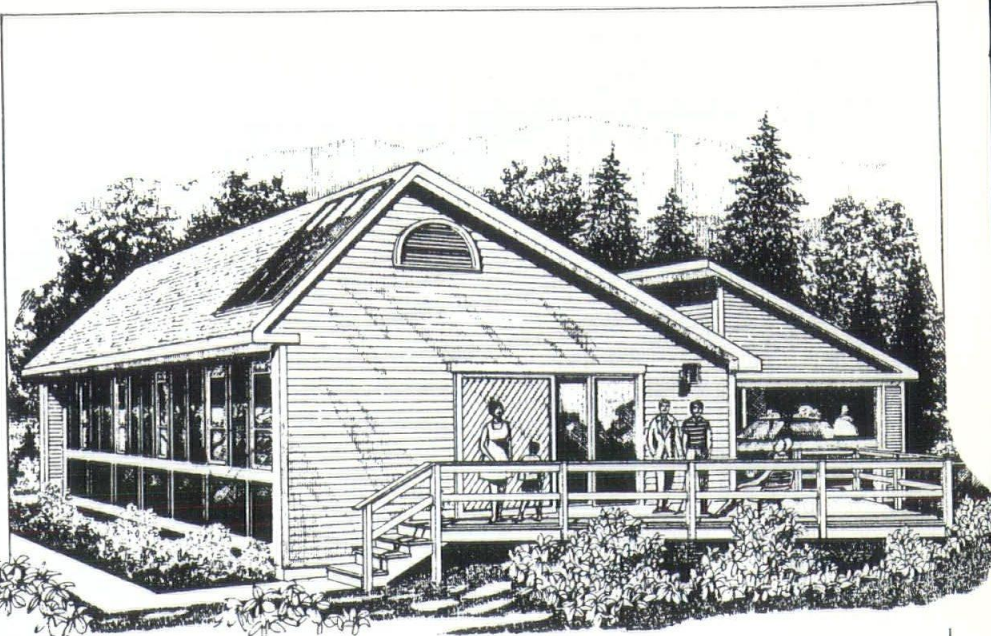
Woodburning Heater Program, the Solar Homes to the Valley Program, the Modular Solar Housing Program, as well as low interest financing for residential solar hot water systems (not yet available in Mississippi).

Corinth, Mississippi is the only city in the country where all eleven passive solar house designs of the agency's Solar Homes for the Valley program can be seen completed in one community. While the program is aimed at the new home buyer, the buildings serve as a demonstration project showing all who see them

Continued on next page

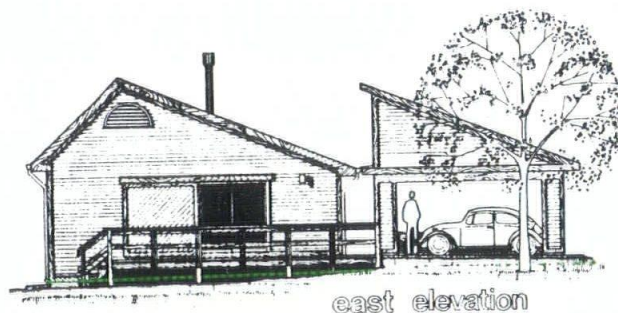
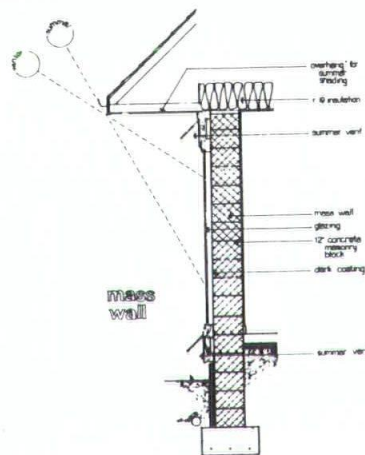
Shown above is Solar House #1, Solar Homes for the Valley, Corinth, Mississippi

Solar Homes for the Valley

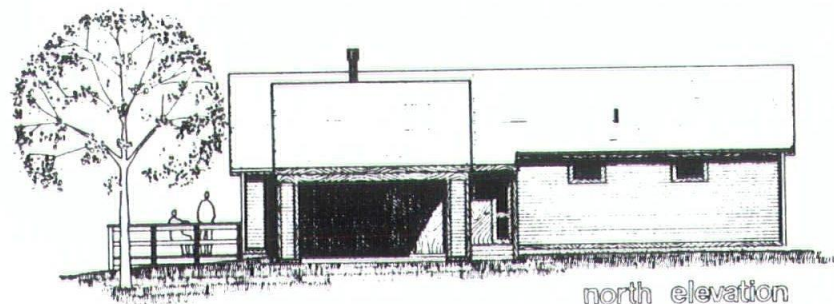


Solar House #1:

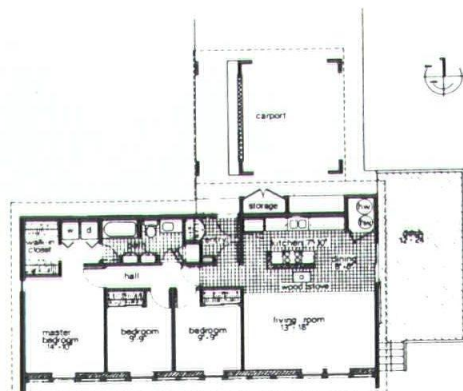
Floor Plan
Elevations
Section &
Perspective



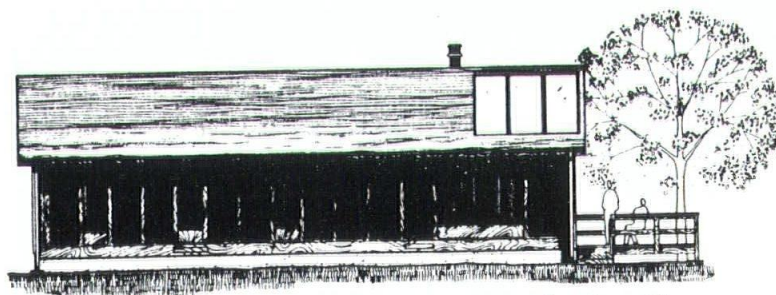
east elevation



north elevation



floor plan 20 x 1



south elevation

Continued from page 13

that passive solar design is practical, available, and achievable today, and that energy-conscious design can result in significant energy savings through careful, imaginative planning.

The buildings represent eleven of forty-four houses that are being built throughout the Valley region, that were designed specifically for the climatic requirements of the region, and that have several specific goals: sizes range from 1,000 square feet to 2,000 square feet; costs fluctuate from \$47,450 to \$84,200, excluding lot acquisition; per square foot costs exceed conventional construction by 5 per cent maximum; and heating loads are reduced by 70 per cent when compared to conventional construction methods.

All of the Corinth houses, as well as the thirty-three other regional houses, are being monitored for energy consumption to see whether the buildings require "fine tuning" because of specific location. A \$2,500 cash award to the homebuyer is offered in exchange for monitoring privileges.

Specific passive techniques employed in the construction of the homes include south-facing window collectors, greenhouses, skylights, and glazed coverings over thermal storage walls (Trombe walls). Storage media include masonry mass walls, water tubes, water drums, and floor slabs. Overhangs and shading devices such as louvers or "barn door" type envelope protection are extensively used in various combinations. Of particular interest to professionals are the methods employed to encourage air movement, from the venting of insulated storage walls to the chimney effects caused by greenhouse-type glazing with large open circulation areas.

R-30 ceilings and R-19 walls are universal in all eleven house types, while actual site requirements dictate differences in landscaping, decking, and carport locations. Active systems employed include heat pumps, which are designed as back-up units for coldest, cloudiest periods, and wood burning heaters and fireplaces, which are tailored to the individual house.

In the house photographed, Solar House #1, a 1210 square foot floor plan is accomplished on a single level with either two or three

continued on next page

HATTIESBURG, MS

PASCAGOULA, MS

TUPELO, MS

JACKSON, TN

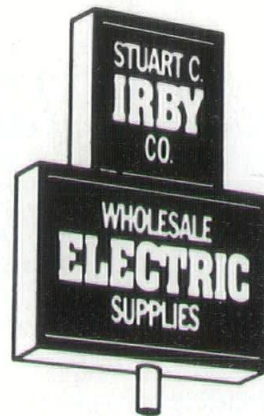
MOBILE, AL

MONROE, LA

VICKSBURG, MS

JACKSON, MS

SHREVEPORT, LA



INDUSTRIAL-COMMERCIAL
RESIDENTIAL-UTILITY

WP

We are the plan administrator
for the
Mississippi AIA-Sponsored
Errors and Omissions Insurance Policy
written by INAX,
a wholly-owned subsidiary of
Insurance Company of North America.

Wellington-Prewitt & Associates, Inc.
P.O. Box 31239
Jackson, Mississippi 39206

(601) 982-3113

environmental interiors, inc.

SPECIFIERS

DESIGNERS

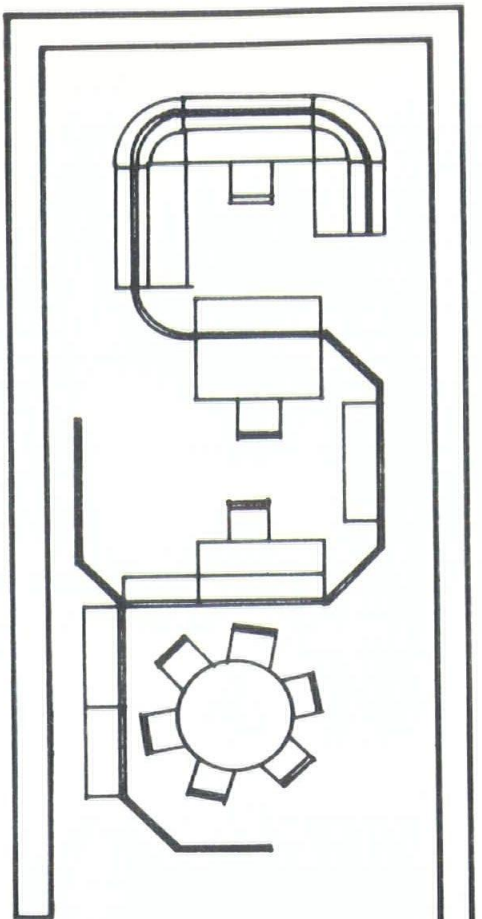
PLANNERS

CONSULTANT TO THE ARCHITECT • OPEN PLAN SYSTEMS



5135 GALAXIE DR.
JACKSON, MS 39206

SUITE 103A
(601) 366-3731



Continued from page 11

bedrooms available. An extended plan which enlarges the bedroom size is available, thereby increasing total square footage to 1408 square feet. Cost is \$59,950, or \$49.54 per square foot.

The carport and deck illustrated in the photograph are optional. Passive solar in the relatively straightforward design is achieved through a Trombe wall of masonry construction on the south elevation with glazing over the wall creating a "greenhouse effect." Kitchen appliances help to heat the interior spaces, as does the wood burning stove.

The building illustrated was constructed by a private contractor, Brindley Construction Co. of Pulaski, Tennessee with T.V.A. monitoring construction. Construction drawings, specifications, and an owners manual are available to the public (at \$6.00 per 1/8" scale set) by writing to the following address:

TVA Mapping Service Branch
200 Haney Building
Chattanooga, Tn 37401

SOLAR MODULAR HOMES

Under this program, T.V.A. is working with five private manufacturers to develop and construct private modular housing available to the public for under \$30,000 using passive solar design principles. 130 prototype units are being constructed across the T.V.A. Region.

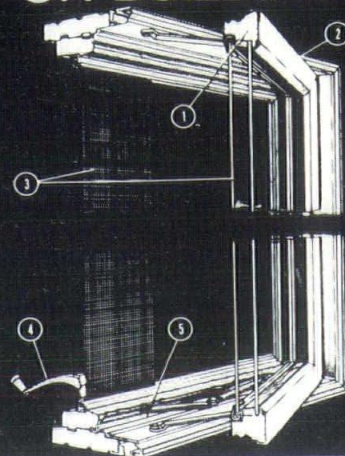
WOOD BURNING HEATER PROJECT

Sixty-five counties in a seven-state region were included in this program, which provides interest free loans to 6,000 residential subscribers for the installation of wood burning heaters. Mississippi counties meeting certain criteria of wood availability and per capita income, such as Lafayette, were included. The program requires an energy survey and insulation criteria of all applicants, but once accepted for the program, participants can repay loan principle through monthly utility bills.

Mississippi residents can gain additional information on these programs by calling the Citizens' Action Line (1-800-251-9242). An excellent publication entitled "Solar Homes for the Valley" has been prepared by the Solar Applications Branch and the Architectural Design

Continued on next page

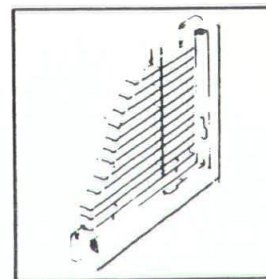
REMODELING OR BUILDING?



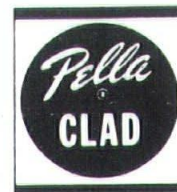
CONSIDER

Pella "energy-tight" Casement Windows

Lower fuel costs, reduce maintenance and increase your comfort with (1) the natural insulating qualities of wood, (2) a low maintenance exterior that needs no painting, (3) double glazing and self-storing screens, (4) sash which cranks to center of opening for easy washing of outside glass, (5) soft vinyl weatherstripping that seals entire perimeter. Ask for our free brochure on Pella Products.



SLIMSHADE®— Only Pella Windows offer this economical and practical means of light and sun control. Slimshade is a narrow-slat blind set inside the sash between exterior glazing and the double glazing panel as shown in the drawing.



Pella-Mid South in Memphis
Serving Greenville to Columbus and North

901/362-6652

Pella of Mississippi in Jackson
601/981-4325

Branch of T.V.A., and the booklet can be obtained by writing to the following address:

Information Office
E3D92

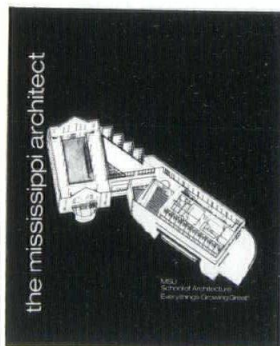
400 Commerce Ave.

Knoxville, Tn 37902

The Architectural Service Branch and the Solar Applications Branch are available to help architects and design professionals within the T.V.A. region on a limited basis. ■

Residential Conservation *from page 6*

The results of the study, which was a runner-up in **Progressive Architecture's** competition, should be required reading for every Mississippi architect, for Aho and his team showed us how to successfully design by analogy. Sun and wind have not changed in Mississippi in two hundred years, but technology has evolved into a new dimension. By using technology's fruits, computer models, new building products, and by remembering the lessons of the past, Aho points to a new synthesis removed from fashion, grounded in reason and the best of tradition. A native architecture can arise from such a blend. ■



OUR AD IS THIS MAGAZINE

The
Office Supply Co.

640 Washington Ave.,
Greenville, MS 38701

Capitol Hardware Company, Inc.

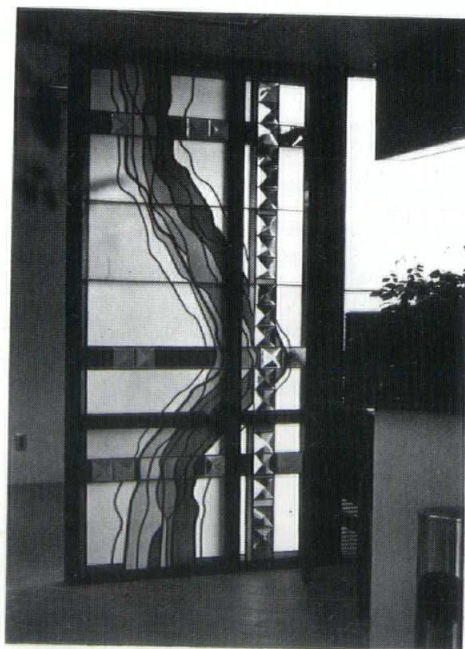
Member Door and Hardware Institute

P.O. Box 9597
3006 West Northside Drive
Jackson, MS 39206
Office 601 / 362-2484

Member
American Society of Architectural
Hardware Consultants



Charles A. Stacy, Jr.

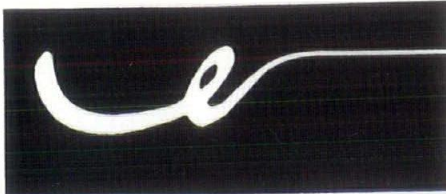


Architectural Stained Glass

Contact: Andrew C. Young

pearl river glass studio

142 Millsaps Ave., Jackson, MS 39202
601-353-2497



Energy Design 1981 Mississippi Sourcebook :

You are an architect who has just begun the design of a residence with a proposed solar greenhouse. Where do you look for information? You are a homeowner contemplating weatherizing your house. Who can help you? You are a mechanical engineer consulting on the retrofit of a county school building. Where do you go for statistics to compare with your own?

A list of possible sources of energy information follows, from the state to the national level:

MISSISSIPPI:

Our state Energy Office is associated with the state department of Transportation. It can be reached at the following address:

**Mississippi Department of Energy
and Transportation**
510 George Street
Jackson, MS 39202

The state solar coordinator is Diane Ford, and she can be reached at the above address. Her telephone number is 601-961-4733.

Also operating at the state level, presenting seminars and producing descriptive literature is our Extension Service:

**Mississippi Energy
Extension Center**
Mississippi State University
Box 5406
Mississippi State, MS 39762
tel. 601-325-3136
Dr. William Linder, Coordinator

A statewide, nonprofit organization which publishes SOLAR VISION, a

newsletter full of valuable solar information is the Mississippi Solar Council, headquartered, naturally, in Jackson:

The Mississippi Solar Council
513 N. State St.
Jackson, Ms. 39202
tel. 601-355-7495
contact — Michael Herring

Another excellent source of information is your local power association. For those of you fortunate enough to live in the TVA area, that excellent organization has a tremendous amount of information for your asking, and the specifics of requests are spelled out in this issue's article on "Solar Homes for the Valley."

NATIONWIDE:

Your two best first sources of information in a sprawling field of information operate toll free telephone hotlines.

The National Solar Heating and Cooling Information Center was established by the U.S. Department of Housing and Urban Development to spread awareness and to encourage the use of solar energy systems for homes or commercial buildings. Its address and phone are

NICHOLAS-ACOUSTICS NICHOLAS-HORNE NICHOLAS-ACOUSTICS NICHOLAS-HORNE

- ARMSTRONG CEILING SYSTEMS
- COMPUTER FLOORS
- UNI-TURF ATHLETIC SURFACES
- E. L. BURNS CANOPIES
- FOLDOOR FOLDING WALLS
- KOPPERS LAMINATED ARCHES
- ZONOLITE MASONRY FILL INSULATION
- ZONOLITE ROOF DECK SYSTEMS
- CAFCO SPRAY-ON FIREROOFING
- K-13 SPRAY-ON INSULATION
- ZIP-RIB STANDING SEAM ALUMINUM ROOFS
- TROCAL SINGLE MEMBRANE ROOFING SYSTEM
- METAL FORMING & DECKING
- ULTRA-WALL PARTITIONS

P.O. BOX 4586

JACKSON, MISSISSIPPI 39216

601-981-1531

601-981-1585 (N-H)

as follows:

**The National Solar Heating and
Cooling Information Center**
P.O. Box 1607
Rockville, Md. 20850
tel. 800-523-2929

If they don't answer your call, SERI will. The Solar Energy Research Institute located in Golden, Colorado publishes several excellent booklets, including the invaluable, free SOLAR ENERGY INFORMATION LOCATOR, a sourcebook that will tell you **who** knows **what** about solar design. This helpful group answers your questions, refers you to others, maintains an extensive data bank (the Solar Energy Information Data Bank), and operates the National Alcohol Fuels Information Center as well. Write SERI or call as we suggest:

Solar Energy Research Institute
1617 Cole Blvd.
Golden, Colorado 80401
tel. 800-525-5000

May We Serve You?

Our pleasure is working with architects and other interior planners to provide work spaces that are in harmony with their environment and efficient for their users.

We represent the best manufacturers, and we sincerely want to be of service.



MISSISSIPPI STATIONERY COMPANY

OFFICE OUTFITTERS - PRINTERS
FINE FURNITURE & INTERIOR DESIGN

227 EAST PEARL - JACKSON, MISSISSIPPI - (601) 354-3436



Call your local MP&L office
for more information.



MISSISSIPPI POWER & LIGHT
Helping Build Mississippi

**WE HAVE THE SIZE, COLOR
AND TEXTURE TO PERMIT
COMPLETE FREEDOM IN DESIGN**

Delta Brick & Tile Company, Inc.

Indianola, MS 38751. Ph. (601)887-4251

Subsidiary Plant

Delta-Macon Brick & Tile Co., Inc.

Macon, MS 39341. Ph. (601)726-4236

Subsidiary Plant

Delta-Shuqualak Brick & Tile Co., Inc.

Shuqualak, MS 39361. Ph. (601)793-4561

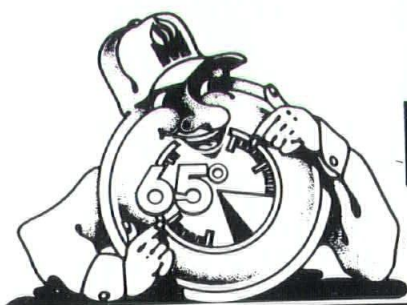
Members

**Brick Institute of America
Miss-Lou Brick & Tile Manufacturers Association**

SELF-CONTROL SAVES YOU MONEY

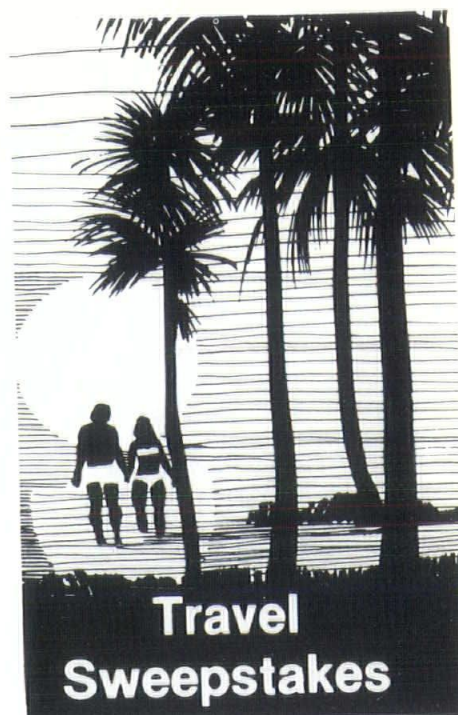
Q. What's the best way
to save gas, save money?

A. Heat your house no
higher than 65° during the
day, lower at night.



**Mississippi Valley
Gas Company**

*The Future Belongs
to the Efficient.*



The main purpose of **The Mississippi Architect** is to serve as a communication vehicle for the Mississippi Chapter AIA and all others interested in building and design. You must realize that this is best accomplished through active participation from our readers. To encourage readers to further participate in the content of **The Mississippi Architect**, we the editors have set up a Travel Sweepstakes.

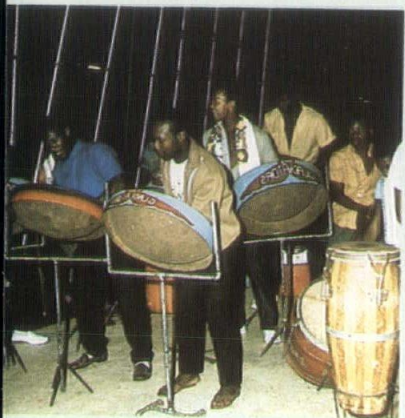
The prize will be a Windjammer Cruise. The cruise is discussed in the ad on the inside back cover of this issue. It is being made available to our readers in exchange for advertising space in the magazine.

The Travel Sweepstakes rules are simple. Each reader submitting an article which is subsequently published will have his or her name placed in a pool. At regular intervals (when we have built up sufficient credit with Windjammer Cruises), a lucky reader's name will be drawn from the pool and a free cruise will be arranged.

Any reader is eligible to submit any number of written articles, letters to the editor, features about fellow architects, photographs, or graphic illustrations.

The name of the game is participation in your magazine. . . so as they say in show biz, keep those cards and letters coming. Win a free trip to the romantic West Indies, drink exotic rum smashes, sunbathe and swim. . . after all, everyone's a winner, because **The Mississippi Architect** will be even better for your contribution.

Listen to your feet, mon.



They want to bust out,
to kick off their shoes and
leave civilization dockside.

They want to be turned
loose on the decks of a
majestic schooner.
To reggae and rock to a steel
band far into a star-flecked
Caribbean night.

They want to sink their toes
deep into white, pink and
black sand. Oh, so warm.
And be the first to make
their mark on an unspoiled,
forgotten strand of beach.



They want to stand on tiny
dots of land named Nevis,
Dominica and Anegada,
to discover tropical rain forests,
to slip into crystal waters
and explore enchanted coral reefs,
to sail away to another time,
another world.

They want to prop up the ship's
railing while you linger with
a shipmate over a swizzle.
And love two other bare feet
in a secluded corner of the
most romantic Sea in the world.



They want to take off with
other spirited bodies and souls
on one of the most glorious
experiences imaginable.
A Windjammer 'barefoot'
adventure.

For as little as \$400, you can
be footloose and free as a gull
for 6 to 11 days.

We're going to do good things
to your head. If you just listen
to your feet.



**Cap'n Mike,
Windjammer 'Barefoot' Cruises,
P.O. Box 120, Dept. 000,
Miami Beach, Florida 33139.**

My shoes are half off already.
Send me your free full color
'Great Adventure' booklet.

Name

Address

City/State/Zip



Windjammer 'Barefoot' Cruises

Post Office Box 120, Miami Beach, Fla. 33139

Call toll free: 1-800-327-2600

NICKLES & WELLS

CONSTRUCTION COMPANY, INC.

GENERAL CONTRACTORS

3370 LAWSON STREET
PHONE 982-3811
P. O. BOX 4604
JACKSON, MISS. 39216

PRIMOS NORTHGATE ANNEX
JACKSON, MISSISSIPPI
GOODMAN & MOCKBEE ARCHITECTS



AID IN SPECIFICATION WRITING & ARCHITECTURAL DETAILING

COMMERCIAL . . . FROM CORNER SERVICE STATION TO HIGH RISE

WALLS & WINDOWS

HOW MET
AMARLITE
KAWNEER

GLASS PRODUCTS

LOF
AFG
FORD/PPG

AUTO GLASS REPLACEMENTS

OTHER GLAZING MATERIALS

LEXAN
ACRYLIC
KRINKLGLAS

P.O. BOX 1045, JACKSON, MS 39205 — 939-7422
P.O. BOX 1531, HATTIESBURG, MS 39401 — 583-3554

1-800-682-5265

P.O. BOX 407, MERIDIAN, MS 39301 — 693-4541
411 W. PARK AVE., GREENWOOD, MS 38930 — 453-2133

BULK RATE
U.S. POSTAGE
PAID
PERMIT 229
GREENVILLE, MISS.

THE MISSISSIPPI ARCHITECT
Box 112 / Greenville, MS
38701