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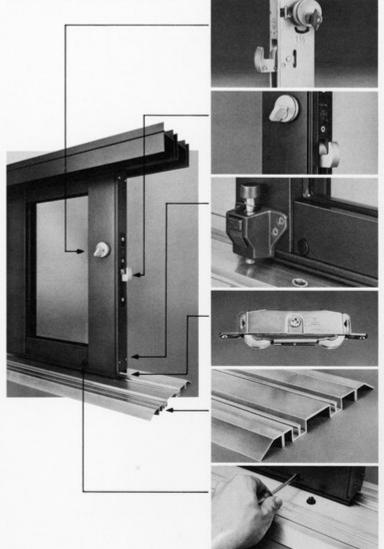
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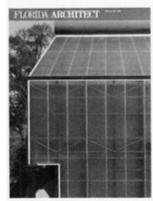
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EDITORIAL

FLORIDA ARCHITECT

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FLORIDA: PARADISE REGAINED. IT CAN BE DONE was the topic of a conference sponsored by Florida Defenders of the Environment which I attended in February. The conference attracted many conservationists, preservationists, politicians and interested citizens, all expressing a common concern over Florida's vanished Eden.

There was talk of how highways ruin the landscape, of how our malls will be the ghost towns of tomorrow and of how people will probably need to be surgically removed from their cars at a time when mass transit seems the only answer to the question of "what do we do with our cars?"

Actually, it seemed to me that there was a lot of discussion about the problems and not too many solutions offered. I don't suppose I have any, either. I think people are increasingly aware of the fact that our natural resources, be they animal, vegetable or mineral, are not unending. Creating that awareness was a giant step forward.

But to the question of overdeveloping the beaches, for example, I don't see a simple solution. The beaches are the reason that most people come to Florida to live. Obviously everyone can't live on the beach, no matter how many or how tall the condos get. What we must be sure of is that the beaches are available to everyone and that development neither spoils them nor makes them inaccessible.

I don't think the beaches are Florida's last frontier as so many people seem to feel. I think the swamps, keys and offshore islands are, however, and they may be spared development because they are wild, inacessible or both. The beaches are what Florida is all about. For that reason, we must plan, build and use them wisely so we can continue to enjoy them.

Diane D. Greer

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Florida Natural Gas Association Sales Seminar MAY 8-10 Clearwater

DATELINE — Orlando, Florida — The Florida Natural Gas Association's Annual sales seminar will be held May 8-10 at the Sheraton Sand Key in Clearwater Beach, announced Newton H. Bollinger, President.

The seminar brings together members of the association to inform them of changes and trends in the natural gas industry. Due to the rapid growth being experienced in Florida and the legislative emphasis on growth management, the conferees will be discussing Florida's energy code and its affects on the industry; the heat pump and its impact on the market; and the 1985 FNGA advertising program. The highlight speaker will be Art Roberts of the Alabama Public Service Commission who will address the association with a presentation entitled, "The Challenge, Are You Prepared?"

The Florida Natural Gas Association is a statewide organization whose purpose is to promote the sale, awareness and safety of natural gas and gas appliances. Its members include operating companies, sale companies and equipment suppliers to the industry.

NEWS/LETTERS

News



Florida Northwest Presents Design Awards

The Florida Northwest Chap-ter of the AIA presented its bi-annual design awards to seven panhandle architects. Every two years the chapter recognizes outstanding work by local architects based on the judgement of their peers. This time, the jury consisted of eight practicing architects from the New Orleans Chapter of the AIA who evaluated twenty-three submittals and awarded certificates to William Graves, AIA, for the Law Offices of Ray & Kievit, Barrett, Daffin & Carlan for the University of West Florida Swimming Pool Enclosure, Clemens Schaub for Baytree Villas, John Senkarik, AIA, for the Pensacola Municipal Swimming Pool, William F. Parks, AIA, for the Cordova Square Village Mall and the Bullock Associates for the Long Residence Addition, the Service Station at Eglin AFB and the Recreation Facilities at the Blackwater State Park.



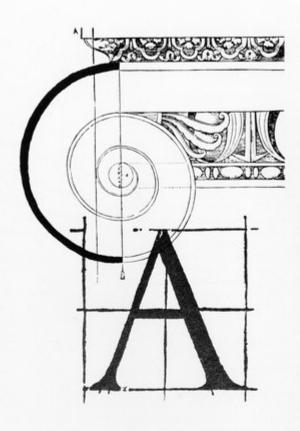


Top left, pool addition to the Long Residence by the Bullock Associates. Right, Bayfree Villas by Clemens Bruns Schaub. Above, Cordova Square by William Parks, AIA.

Competition Open to Architectural Students

Classical America, a national organization devoted to encouraging the classical tradition in the arts, is sponsoring a competition. It is for the design of a classical building and it is open to students of architecture only. Five thousand dollars in prizes will be awarded. All submissions must be in by September 1, 1985 and for information and entry forms, write to: Classical America, P.O. Box 821, Times Square Station, New York, N.Y. 10108.

Classical America, which was founded in 1968, is the only organization in the United States dedicated to the study, appreciation and application of Classical expression in the arts. The society seeks to encourage a renaissance of understanding of the Classical tradition, its sense of continuity with the past and its unique approach to cooperation among all artists in the design professions.



Architect Designs Porcelain

aurinda Spear is co-founder Land principal of Arquitectonica, an architecture and design firm in Coral Gables. "Her proposals to enliven suburban settings with an urban sensibility have created controversy and excitement," says a catalogue for Swid Powell who commissioned Spear and seven other nationally prominent architects to design a fine china for their company. Spear's porcelain buffet plate, called Miami Beach, is "typically playful and colorful. The pale aqua and pink, which so define Florida's art deco, are offset with a striking red bar. Forms range from hard rectangles to soft amorphous shapes. The result is at once lively and subdued."

"The Virgin Islands in the Year 2000"

The newly elected officers of the Virgin Islands Chapter of the AIA plan to conduct a series of round table discussions and luncheon meetings with key governmental and private sector personnel involved in the long range planning and development of the Virgin Islands. The goal of these meetings will be to assess the impact of growth on the islands over the next fifteen years.

The Virgin Islands in the year 2000 will focus on development trends which are happening now and their effect on the environment of the future. The programs will provide a forum for concerned professionals and members of the general public to discuss important issues and the decisions that must be made in order to insure an orderly growth pattern for the VI into the 21st century.

The program themes for the coming year include Development and the Environment, Future Demands on the Infrastructure, Long Range Planning, Historic Preservation, Future Economic Growth Patterns and Their Effect on Architecture and the Quality of Life in the Year 2000. The last is a summary seminar that will synthesize ideas and trends which have been generated in the earlier sessions in an attempt to create an overall picture of life in the Virgin Islands.

Member News

Aramis "Mitch" Alvarez, AIA, a partner and Senior Vice-President of Spillis Candela & Partners, has been appointed to the Coral Gables Historic Preservation Board. Julio Grabiel, AIA, a partner and Executive Vice-President of the same firm, was appointed to the Coral Gables Architectural Review Board. Victor Alonso, AIA, is the design architect for Arvida's new Weston community in Broward County. Alonso describes the architecture at Weston as contemporary "Florida cracker" style. Oliver & Glidden has completed designs for a 27,000square-foot professional facility incorporating two mirror image buildings. The Gardens office complex will be located in Palm Beach Gardens and tenants of phase one will consist mainly of health-care service businesses. Construction is nearing completion on Martinique II, a \$25 million condominium designed by Peacock & Lewis Architects and Planners of West Palm Beach. Glen P. Harris, AIA, is project

Villages East is The Evans Group's newest housing development. It was designed for Sunsouth Homes, Inc. and is to be built in Raleigh, N.C. The Orange County School Board selected Spillis Candela & Partners to design a new elementary school patterned after the recently completed Deerwood Elementary School which Spillis Candela also designed for Orange County. The Haskell Company's building services division has begun a design/construct addition for the Gulfstream Aerospace Corporation in Savannah, Georgia.

Downtown Orlando, Inc. has elected Guy Butler, AIA, as President for 1985. Butler is an associate partner at Spillis Candela. Julio Grabiel, AIA, also at Spillis Candela was a presentor on "Station Design Concepts and Applications" at the International Conference on Automated People Movers which was held in Miami in March. The paper addressed the "Architectural Approach to the Miami Metromover Station."

The Design Advocates Inc. has announced the acceptance of their stock offer to and subsequent partnership with Joseph M. L. Toph, AIA. Yeckes-Luchner Architects, P.A., will design the 24-story Falconara 2 oceanfront condo tower on Singer Island developed by Starbuck Financial Corporation. Yeckes-Luchner has also been selected to design new facilities for the North Palm Beach Children's Clinic. Samuel J. Ferreri has been named associate at Peacock & Lewis and Steve Stevens has been named supervisor of The Haskell Company's new computer-aided drafting and design division.

Schwab & Twitty Architectural Interiors and Environmental Graphics has been authorized to proceed with the designs for the third floor regional operating center for NCNB Bank. The center encompasses 4,000 square feet. Harvard, Jolly, Marcet and Associates, Architects, P.A. has been chosen to design a 32-bed psychiatric inpatient hospital, outpatient clinic and two group homes for the Tampa-based Northside Community Mental Health Center. Fugleberg Koch



 $Cutler\,Ridge\,II\,\,by\,\,Baldwin\,+\,Sackman\,Architects.$

Associates, Architects and Planners, announced that Mark Schwerthoffer is now Project Manager in charge of multifamily housing for the firm.

Siteworks, Inc. Architects & Planners has broken ground for the Forum Shoppes, a retail/ theatre complex that has been designed as a people-oriented activity street in West Boynton Beach. The shops' 20,000 s.f. will connect a nine-theatre United Artists complex with a 68,000 s.f. four-story office building.

Baldwin Sackman + Associates has just completed plans for a six-story office building, Cutler Ridge Two, to be constructed in Cutler Ridge. The new tower will contain 83,000 s.f. in six

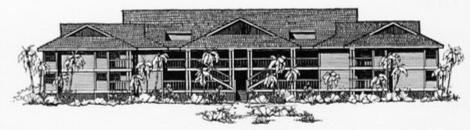


Villages East in Raleigh, North Carolina by The Evans Group.

stories. Friedman McKenna Architecture has appointed Tammy Cancela as Marketing Director. Mark S. Hartley, AIA, has moved his office to the Interstate Business Park in Tampa. The Delray Beach firm of Currie/Stubbins & Associates, AIA, PA has completed the design for a new, one million square foot complex to be located in Delray Beach. The complex, Delint Center, will have more than 840,000 s.f. of leasable office space in eight four-story buildings.

Design was recently completed by Tom Hurley of Helman Hurley Charvat Peacock/Architects, for Harbor Club Vacation Villas at Palm Coast. The project is part of a resort complex developed by ITT Community Development Corporation. Palm Coast will be located twenty miles south of St. Augustine. Schwab & Twitty won two "Best in American Living Awards" for the National Association of Home Builders. A Grand Award was presented for Opus X, a single family home at St. Andrews Country Club in Boca Raton. The Townhomes of Aquarina in Melbourne won an Honorable Mention.

Larry D. Brown, AIA, a partner at Studio One in Winter Park designed The Hamlet of Bentley Park in Tampa. These patio homes were developed by Catalina Homes of Orlando. Slattery and Root Architects have been selected by Hidden Hammocks Associates, to design eight homes for the new model home row at Hidden Hammocks, a single family home community in Coral Springs, I.S.K. Reeves V, AIA, President of Architects Design Group of Florida, Inc. has been named to the American Institute of Architects National Committee on Architecture for Justice. Stottler Stagg and Associates, Architects, Engineers, Planners, Inc. recently served as technical consultants in the production of an environmental permitting videotape for the Florida Chamber of Commerce. SSA



The Colony at Wiggins Bay by Studio One.

provided all the technical data in the fifteen minute tape which was first shown in Tallahassee in January. The Colony at Wiggins Bay, designed by Larry D. Brown, AIA, of Studio One is a "Florida style" villa project which has the flavor of Cracker houses. Scarborough Constructors, Inc. has promoted Perry Reader, AIA, to Vice President.

The Atelier Group, Inc., headed by Roger Grunke, AIA, and Mona Robertson, designer, has opened its office in Tampa's Hyde Park restoration district. The group specializes in total design services. Hunton, Shivers, Brady, Associates, Architects, PA has added three registered architects to the firm. They are Lee Curry Rogers, Donald L. Lurtz and Roger M. Timlin. Hunton, Shivers, Brady has increased its staff by 150% in the last 24 months.

Harper & Buzinec Architects/ Engineers in Miami has begun preliminary design to convert existing buildings at the Veteran's Administration Medical Center in Miami, into research laboratories. The architectural firm of Maspons Goicouria Esteves has doubled its space and moved to expanded quarters in Coral Gables. Thomas Development Corporation has also moved to new offices in Tampa. Bertram R. Thoams, AIA, has a new Ambulatory Surgicenter for Surgical Corporation of America in the planning stages at Thomas Development. The design of Crocker Plaza, a \$24 million office complex, has been completed by Oliver & Glidden Architects, Inc. The eleven-story, 145,000 s.f. building will be in Boca Raton.

Mark T. Reeves, AIA, has been appointed to the 1985 AIA Practice Management Committee. Reeves is currently with the law firm of Sparber, Shevin, Shapo & Heilbronner, in Miami and he hopes to participate in Committee activities by addressing various issues of architectural practice from a legal perspective.

Richard R. Barnett, AIA, David Fronczak, AIA, and Robert J. Bitterli, AIA, Principals of Rowe Holmes Barnett Architects, Inc. have recently formed a new firm, Barnett + Fronczak Architects.
Harper & Buzinec Architects/
Engineers, Inc. have moved to
expanded offices in America's
Gateway Plaza west of Miami
International Airport. Changes
at Catalyst Incorporated Architecture in Orlando include the
departure of Ray Scott, AIA, the
elevation of Skip Lotwick to Principal and Ernest Straughn, III, to
Associate.



Crocker Plaza by Oliver and Glidden of West Palm Beach

Letters

Dear Editor:

It has been one year since the Florida A&M University Post Occupancy Evaluation Task Force has met. Our initial meeting helped establish cost, time and quality oriented goals for the building evaluation of the new School of Architecture at Florida A&M. The meeting also helped identify major obstacles to goal achievement as well as strategies we might employ which stress a close match between evaluation results and immediate utility.

At this writing all the premove data are compiled, the new building is occupied and a work plan which responds to both the contract scope of services and to the general direction of the initial task force meeting is completed.

It is time for our second of three scheduled meetings of this advisory group. The purposes for the second meeting are: 1. to present the results of the premove research, 2. to review the detailed plan of work for the post occupancy phase of the research, and perhaps most importantly, 3. to develop precise descriptions of the final products of the research to further insure that they will be useful.

Thank you in advance for your continued assistance and interest in the evaluation of our new building.

Sincerely yours, Tim White Professor or Architecture

Dear Editor:

What a great surprise to find Catalyst's project on the cover of your January/February issue! The new format is gorgeous, and it's a real "bonus" that the article was published in the introductory issue of the magazine's new look. I do have, however, one criticism. Your edited version of the byline I provided is incorrect, as I did not write the Orlando Report for Piedmont Airline's publication as an independent project. The special pull-out issue was done by D'Lor Communications as a team effort of my partner, Lorraine Lax, and myself.

Had the report been a regularlength feature, I could live with the error and would not request a correction. However, as you can see from the enclosed copy of the work and a local press clipping about it, it is crucial to our firm's professional reputation (especially since most of our clients are in the design fields) that the project be recognized as the team effort it truly was. I ask, then, that a brief correction be printed in your next issue.

Best Regards, Denise A. Schofield

Dear Editor:

I want to express my appreciation for the article that you published regarding the Ocean Front Residence that I designed.

Your editorial in the Jan/Feb issue was most interesting and I certainly agree with your new format. I, for one, share your enthusiasm regarding the magazine's "new look". Keep up the good work!

Sincerely, Robert McDonald, A.I.A. Robert McDonald & Associates, P.A.

Dear Editor:

Since I last talked with you I have gotten more reactions to the TWA article. I know both the Dean and Richard Schneider of FABRIC have told me that they thought the article well written and illustrated.

I sent a copy of the article to Mrs. Doris Paul, who with her sister Mary Fuller, wrote the special chorale "Wings Over the World' for the TWA Flight Center Dedication. She has since become a writer of national recognition. Since I located her last year Mrs. Paul (now nearing 80 years) has been an invaluable source of information on early history of the Flight Center mainly because she keeps such excellent records of her past.

I enclose a copy of her last letter and her response to the Florida Architect article. Because of her literary experience I found her comments rewarding.

Thanks again for the opportunity to express my thoughts about the Flight Center. It is just possible that the "story" may have opened up new avenues to obtain support for the making of the documentary movie that has been in limbo for three years.

Sincerely, Wiley J. Tillman, Jr. Associate Professor

Dear Editor:

We read the "Downtown Tallahassee" article that appeared in the January/February issue of Florida Architect with a great deal of pride and emotion.

It was gratifying to read the chronicle of events that have unfolded in Tallahassee over the past five years and realize that the decision that we made back in 1979 to open an office there was somehow worthwhile, not only in terms of the growth and development of our firm but, more significantly, in making possible the ability for us to truly influence and help to shape a portion of the built environment around us. I guess that we hadn't fully appreciated the fact that the Gallie Hall project had served as such an important catalyst in the

resurgence of private development in downtown Tallahassee. Anyway, its always nice to be told that we've been involved in something that might have been trend setting.

It was even more personally gratifying to read about the professional growth and development of Rick Barnett and Dave Fronczak over the same five years, both of whom came to work with our firm "fresh out of school" and have now matured into top notch architects in their own right. It may seem somewhat melodramatic to say this, but somehow it is even more satisfying to have had the opportunity to participate in molding the careers and professional attitudes of these two young colleagues than to have designed an award winning building. Hopefully, we'll continue to have the opportunities and the satisfaction of doing both again.

ROWE HOLMES BARNETT ARCHITECTS, INC.

H. Dean Rowe, A.I.A. D. E. Holmes, F.A.I.A.

POE of the Florida A & M School of Architecture

by Tim White, AIA

When the Florida Legislature funded the construction of the new School of Architecture building at Florida A & M, money was also allocated for a unique study of the facility. This special funding was provided to trace, record and evaluate the planning, design, construction and eventual use of the new building.

The purpose of the study is to carefully follow the project from its inception so that lessons learned might benefit future state building projects of all kinds. Although the direct beneficiary of the findings will be the Board of Regents, the results are intended to be of value for all agencies which procure state buildings. To help ensure that the study is usable for the state departments of Corrections, General Services, Health and Rehabilitative Services, Transportation and Education, representatives from each of these agencies have been invited to serve on an Advisory Task Force which is helping to shape the study approach.

The study is divided into two 3. phases. Phase One extends beyond the School of Architecture building and involves a description of the building procurement process which is currently em-

ployed by the State. The State 4. Evaluating the performance system is described and compared with building procurement systems used by other governmental entities and corporate institutions. The report which documents this phase is nearing completion and will present observations about the advantages and disadvantages of various ways that different types of clients obtain new buildings.

Phase two of the study is currently underway and focuses specifically on the new School of Architecture building at FAMU. This phase involves a multifaceted effort including:

- 1. Documenting the design architect's intentions and decisions which formed the building.
- 2. Tracing the construction of the project for deviations (change orders) from the original design intent (contract documents) that may affect the long term performance of the facility in areas such as lighting, acoustics, space size, safety and maintenance.
- Evaluating the performance of the former FAMU School of Architecture building so that it may be compared with the performance of the new building.

of the new School of Architecture building after the initial occupancy and settling-in period.

The students and faculty moved into the new building in December of 1984. Items 1, 2 and 3 listed above have been completed. Item 4 is scheduled for implementation next fall.

The study is planned as a positive, constructive and balanced analysis of the facility that will produce useful lessons for future state buildings. Special care has been taken to avoid a "verdict" about the building's success or a performance "score." Emphasis is upon transferability of the findings to as many other types of state facilities as possible.

Some of the components of the building that will be studied include instructional spaces, offices, circulation, stairs and elevators, staff work spaces, and exterior use areas. The development and evolution of these building areas will be traced through the entire procurement process including state design standards, funding, program requirements, design decisions, changes during construction, building use and management policies and finally, building

performance and occupant satisfaction after move-in.

Particular performance indicators for each of the building areas will be of special interest. These indicators may involve image, function, space size, space shape and proportion, adjacencies, furniture, materials and finishes, durability and maintenance. Occupant-related issues to be studied include access, safety, security, efficiency, comfort, productivity, privacy and overall satisfaction.

The thrust of the study is not only to assess the performance of the building but to search for relationships between its performance and earlier decisions and events that occurred during planning, design and construction.

The FAMU School of Architecture is working closely with a team of researchers from Georgia Tech and Min Kantrowitz Associates who were chosen as consultants to implement phase two of the study. The Georgia Tech team was selected from nineteen competitors that included the leading post-occupancy evaluation experts in the country. The study has attracted favorable national attention to the State of Florida and the FAMU School of Architecture.

Tim White, AIA, is Professor of Architecture at Florida A & M University in Tallahassee. OPEN BRYOND STEEL EM KYLIGHT SECT SKYLIGHT PERK-TOP F.O. IN TRUS արակական THE WHEN PERSON VERT ECREEN TELLINE ED GU VERTICAL SCREEN CEILING . TYP. 1 1 1 1 1 1 1 1 1 VERTICAL SCREEN COLLING-TYP. STUCKO-TYR

An Appropriate Image for Architecture

by Diane D. Greer

Florida A & M University School of Architecture,

Owner: State of Florida, Board of Regents

Architect: Clements/Rumpel Associates

Bob Lamison, AIA, Facilities, Florida A & M University Jim Galbraith, State University System Planning Consultant

Contractor: WCM (Joint venture between Winchester Construction Co., Tallahassee, and CM, Miami)

Engineers: Tilden Lobnitz
Cooper, Orlando — Electrical,
mechanical, structural, sanitary;
Richard Clarson, Jacksonville —
Civil; Dubin-Bloom Associates,
New York — Passive Design
Consultants,

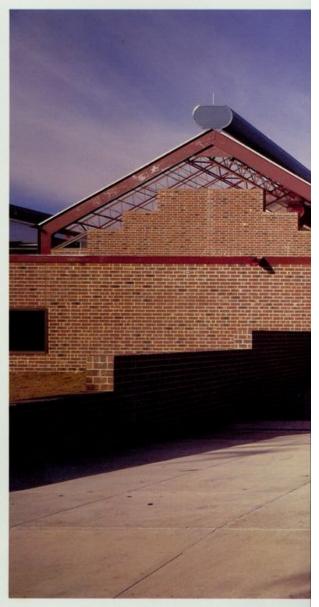
Landscape: Nancy Jenkins, Jacksonville The symbolic appearance of the new school of Architecture at Florida A & M University was ranked second in importance by those whose job it was to set criteria before deciding on the selection of an architect for the project. First in importance was the goal of increasing space for each student thereby making it appropriate to the activities that go on in a School of Architecture. Once again, it appeared that form would follow function. The new School of Architecture was not to be "different for difference sake" but "different in what it promised future generations of architects." Achieving that goal could have been a difficult task if traditional avenues of architect procurement had been

In Florida, architect selection is controlled by the State's interest in equitably distributing work among those judged qualified. Concern existed that some of the factors in the normal selection process might mitigate against the selection of the "best architect for the job." A competition, it seemed, might have a better chance of ultimately insuring a better building.

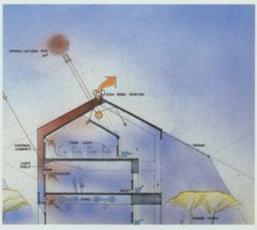
With the primary concerns of space, building image and building conceptualization firmly set and a determination that the new building must project an image with "a commitment to the future of both architecture and an architectural education" the decision was made to hold a competition.

The idea of a two-stage competition, as opposed to a wide array of other types, was believed by those in charge to cut costs for the entrants while maximizing contact between the architects submitting proposals and the client. Client-architect dialogue was sufficiently important to the sponsors that they planned for the winning architect to contract with the state for both design

Far right, diagram of ventilation patterns for a typical wing, right, view of the west elevation of all four wings, and bottom, main entrance from the entry bridge on Martin Luther King Blvd. Photos by Steven Brooke.









and development. Further, the sponsors were committed to a process whereby the winning architect would set aside the winning solution and begin anew to work through design and development with the client. The goal was to evolve a final solution grounded in expanded architect-client transactions.

The State of Florida provided \$25,000 for the competition and Florida A & M supplemented these funds from its operating budget to handle direct costs. First stage judging reduced the field of thirty four entrants to ten semi-finalists. Through vote of the jury, this list was further reduced and each of the finalists was notified that his project "was chosen as having qualities that justify invitation to participate, with reimbursement, in the second phase." Three of the finalists were out-of-state firms. The other three included Clements/ Rumpel Associates, Rowe Holmes Associates and Otero/ Mateu Architects in joint venture with Enoch Associates.

After a difficult, and sometimes confusing, second-stage judging, the jury stressed that they, as well as the entrants, had been faced with the dilemma of juggling new and creative energy ideas and an extremely tight budget and time frame. Some of the competitors responded more to the challenge of the new ideas and others responded more to the concern about construction costs. The closing statement to the entrants reinforced the emphasis on selecting a sensitive. cooperative architect with whom the client could work closely during the re-design phase. In fact, a particularly unique feature of the School of Architecture competition was that it resulted in the selection of an architect, not a design.

The selection of Clements/ Rumpel Associates marked the end of a unique competition. A summary of the jury comments indicated that they felt the Rumpel entry was by far the most ambitious in what it at-

tempted. More than any other submission, the jury felt that their design expressed the ability to satisfy all aspects of the problem in a reasonably balanced way. In spite of this, they added, the entry did not win easily or automatically. The very comprehensiveness of its effort exposed the submission to criticism. The passive energy system was the most innovative of those submitted, and, to its detriment, seemed overly experimental to some jury members. Overall, however, Rumpel had demonstrated an ability to deal with all sides of the problem in a balanced way, a willingness to work with the client and a sensitivity to details that must work for a building to be successful.

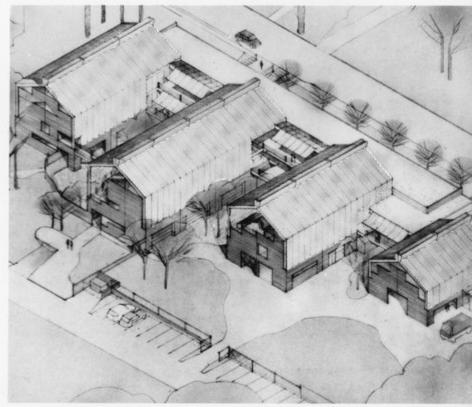
In their statement of design intentions, Clements/Rumpel noted that certain environmental considerations influenced the development of the design to a considerable extent by determining scale. They further noted that the question of appropriateness of image for a building designed for architects is indeed difficult. "We have consciously attempted to minimize affected design directions and keep the building straightforward, yet certainly not mundane. It is hoped that the students might learn by osmosis, particularly through a required physical response to the building as mandated by the passive design features."

Groundbreaking in April, 1983, began the construction schedule for the new 64,000 GSF, \$5.3 million School of Architecture facility. The building is designed to accommodate 400 students and 35 faculty or staff. With the engineering firm of Dubin & Bloome, a unique passive energy system was designed into the building. The system makes maximum use of natural ventilation and a greenhouse-

like heat collection system which induces ventilation in the summer or returns heat into the duct system to supplement winter heating requirements.

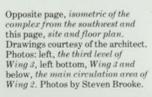
Part of the legislative funding for the building supports a "Project Management Study" which followed the building from the determination of need through funding, design, construction, and post-occupancy evaluation. It is an attempt to study the total delivery process of a building and to identify any applicable benefits that other systems may gain.

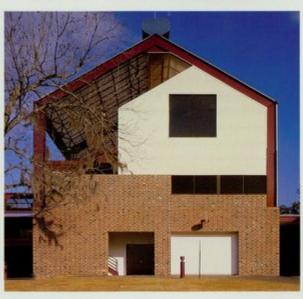
Note: The author appreciates the assistance provided by Richard Hoag and Diane Favro's publication, "Portrait of a Competition." Hoag is Associate Professor in the School of Architecture at Florida A & M and Favro is Assistant Professor in the Department of Architecture at U.C.L.A.

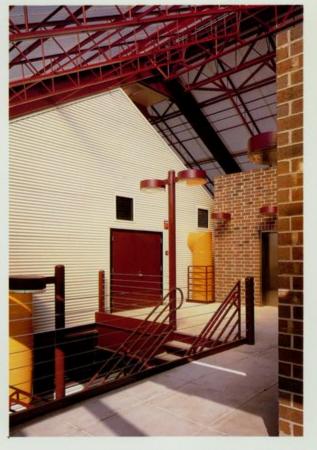












A Challenging Site Yields to Downtown Elegance

by Laird Boles

Pennsylvania Place, Winter Park

Owner: Betsy Godfrey Architect: Charlan Brock Young Associates



The new townhouses on Penn-sylvania Avenue in Winter Park are different enough to slow traffic and yet they blend into the neighborhood well enough to be mistaken for a rehab project. These contemporary "Georgian-style" townhouses were designed by Charlan Brock Young and Associates for local designer Betsy Godfrey. Godfrey, who lives in one of the homes, built them speculatively (although they sold for \$160 thousand plus shortly after construction began) with the idea of developing luxury duplexes in downtown Winter Park.

Although the townhouses are constructed of brick, stucco and tile which are common in the area, the design of the structures presents these materials in new

and unusual forms. The location and contours of the site dictated that major living spaces would have to be designed for the second floor if a view was to be achieved. A later market analysis confirmed that major living spaces on the second floor made even more sense as the site was heavily forested by large oaks which tended to shelter and shade all second floor windows for greater privacy.

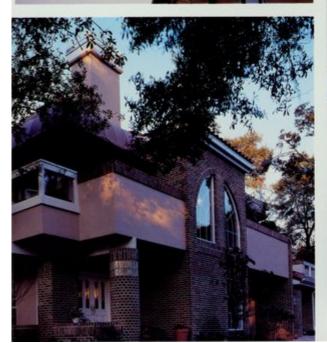
In addition to the challenge to the architects provided by the site itself, the site zoning restricted residential structure coverage to no more than 35% of the available land. This meant that there would have to be extreme crowding of the structures, given the developer's imperative that there be four

The appearance of the townhomes is so unusual that they have become traffic stoppers on Pennsylvania Arenue. The cureed brick pillars and circular brick planters combine with bright awnings, arched windows and wrap-around balconies to give the building a unique look. Photos by Peter Burg of Burg Photographix.





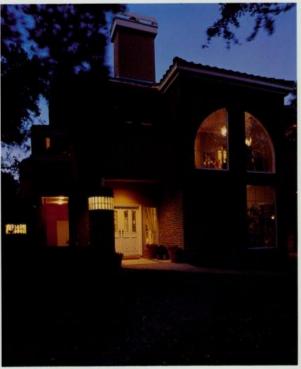




townhouses, with an average of 2,000 square feet and double garages. The design proved to be a two-story solution. In order to meet the double garage requirement, CBY lined the street with garage doors and then recessed them under second floor balconies to minimize the boxiness of the feature. The problem of overall building boxiness was suppressed by introducing vertical masses in the form of circular brick columns. These columns were closely integrated with curved serpentine brick planters and unit dividers which produce a sculptured look on the building exteriors. A variety of arched and circular windows further act to preserve the continuity of the exterior appearance.

Laird Boles is Marketing Director for Charlan Brock Young Associates.

Interior features include high ceilings with crown mouldings, fireplaces with marble or ceramic tile facing, dramatic bath with whirlpool and oak handrails on the stair,



New Housing in an Old Line Neighborhood

by Diane D. Greer



Audubon Park, Tampa

Architect: The Jan Abell Kenneth Garcia Partnership Developer: Five Apples Limited,

St. Petersburg

Builder: R. Hamilton & Son, Inc., St. Petersburg Landscape: BHR Planning Group, Jacksonville Structural: Courtney Wright,

Tampa

Mechanical/Electrical: Jones & Associates, Tampa Interiors: Richard Fidalgo Design, Tampa

Jan Abell has a reputation in Tampa that is often associated with historic restoration, a number of which she worked on in the early years of her practice. Since forming the Jan Abell · Kenneth Garcia Partnership, however, the firm's reputation has grown in the area of design and new construction. Audubon Park, in Tampa, is a recent, notable example.





In Audubon Park, the architects skillfully utilized a twoacre site to accommodate seven houses of moderate size. The small site is in a well-established neighborhood which is close to a major business district. With an emphasis on contemporary housing, it was also necessary to reconcile the new homes with the more traditional values of the "old line" neighborhood which surrounds it. Located on a busy north-south artery, Audubon Park sits behind a barrier wall of teal stucco with trellis above. It is the trellis which takes its cue from the residential architecture inside. The wall is stepped down and curves away from the street providing transition into an alley which terminates at a cul-de-sac. There is a landscaped center island in the alley and a plaza with fountain at the cul-de-sac.

Two of the seven houses have been constructed. The first of these houses was built on the most restrictive site which, to a great extent, dictated its size and configuration. Because setbacks left little space on the lot on which to build and because parking for two cars was re-

quired, the solution became a system of levels arranged hierarchally. Service areas were put on grade, reception rooms at flood plane level (the development is located on a designated flood plane which further necessitated building in levels), the master suite a half level higher and family spaces at the highest level.

In keeping with "old line" values, the house facade uses a classical tripartite division of base, frame and head, but the familiar ingredients of classical architectural language are used with a twist.

The house bears on a masonry base of block and stucco which roots the frame house to the ground. This is the same relationship that is reflected in the barrier wall at the street. The painted lapped siding varies in thickness and underscores the rhetorical application of the client's choice of material. The head, in this case three separate gable roofs which do not intersect, responds to the three-part plan inside — the public, private and family spaces.

The system of window and door placement respects classi-

The first of seven houses to be constructed, this residence is located on a very restricted site which dictated its size and configuration. Elements of classical architecture exist throughout the building which make it an appopriate addition to an "old line" neighborhood. Photos by Walter Smalling, Jr., Washington, D. C.

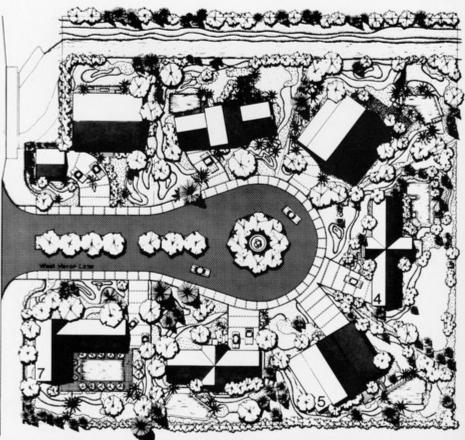


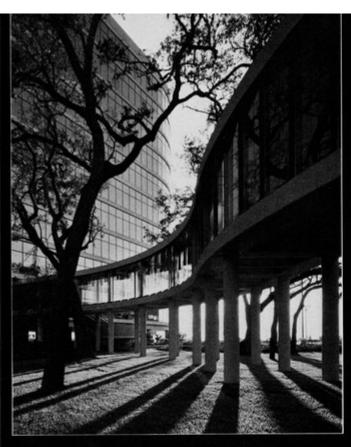


Top, elevation, first floor plan and site plan. All drawings courtesy of the architect.

cal relationships of solid to void while establishing a datum grid from which facades are generated. The house operates at two scales. It is a moderately sized home (2,500 square feet), but offers a grander presence on the exterior, a presence that will allow it to relate to larger houses in the neighborhood. Key classical elements are deliberately overstated, i.e. flatness and verticality of facade and size of roof vents and chimneys. A thematic color code further distinguishes the building components, such as door from window, window from frame and siding from base.

These pluralities, of which the design agenda was composed, give Audubon Park its spirit and appeal.





GEORGE COTT

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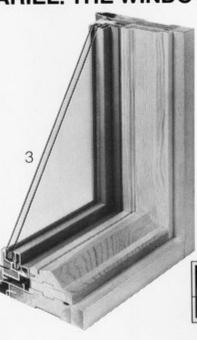
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Monumental Space and a Grand Illusion

by Doug Baird

Galaxy Center, Kennedy Space Center

Owner: TW Services, Inc. and NASA Tours

Architect: Stottler Stagg and Associates, Architects, Engineers, Planners, Inc.

Project Managers: Jack Rood, R.A., and Roy Cowell, AICP General Contractor: David Boland, Inc.

Electrical, Mechanical and Structural Engineers: Stottler Stagg and Associates, Architects, Engineers, Planners, Inc.

Visitors entering the Galaxy Center immediately sense the theme of the structure. It's evident in the airy lobby and throughout the exhibit areas. It's apparent even before viewing "Flight of the Aurora" or "Hail Columbia" in one of its two theaters.

The theme is SPACE — and the 35,000 square-foot Galaxy Center theater complex, the newest visitor's attraction at the Kennedy Space Center, Spaceport U.S.A., has plenty of it.

The concept for the project was formulated in 1981 when the client decided to build an IMAX Theater, a demonstration theater, and at least 10,000 square feet of exhibit space.

George C. Izenour, Ph.D., one of the world's foremost theater designers, acted as consultant to the project, recommending that the IMAX Theater and the demonstration theater, later called the Galaxy Theater, be designed with a back-to-back configuration. TW Services, SSA's client and NASA's contractor of the Spaceport, could then operate both theaters at the same time from a central location.

Original plans for the IMAX called for a 750-seat facility, but the project was scaled down to 440 seats to meet the \$3 million budget for the entire complex.





Even though IMAX's seating was reduced from the original concept, it's still far from small. A five and one-half story, 70 foot-wide screen dominates the theater which is continental in seating layout.

There is the ambiance of deep space inside the IMAX. The spotlights which light the huge screen create an ambient light needed for seating. No light fixtures hang from the ceiling, which is black to simulate the vastness of space.

The IMAX Theater boasts the largest film frame available (70mm horizontal — 15 perforation) for "Hail Columbia," which depicts the handling, launch, and landing of the Space Shuttle Columbia on its maiden voyage accompanied by six-track stereo sound.

The 500-seat Galaxy Theatre required a different architectural approach.

Clients requested a theatri-

cally-capable stage, fully-rigged with automatic draperies, a computer-operated lighting and dimming system, and a sound cluster system to be established in the center of the theater. Before the theater was fully-designed, some sophisticated planning was necessary to accommodate its first attraction "Flight of the Aurora," a multimedia presentation which takes the audience on a spaceflight to Mars and back. Walls and ceil-



 $Opposite page, top, interior of the \textit{Galaxy Theatre which is back-to-back with the larger IMAX Theatre, also a part of the \textit{Center.} Bottom, South lobby of the \textit{Galaxy Center has enormous feeling of lightness and space}. Above, exterior of the \textit{Galaxy Center from waterside}. Photos by Bob Walko.}$

ings of the theater were given a special treatment so that it would appear to the audience that they were sitting in a spacecraft. The proscenium arch was modified to appear to be a large roll-up door, similar to the space shuttle's payload bay door from which satellites are deployed into space.

After the roll-up door is opened, the audience feels as if they're on a journey to Mars with a production which utilizes two TV projectors, a 35-70mm projector, 30-plus carousel projectors and a laser projection unit. The Galaxy Center complex was designed so that vistors automatically walk through three exhibit areas. One area is located beneath the complex and the other two at each end of the theaters. The floor and walls are dark to highlight the exhibits, while spotlights create the illusion that the exhibits are hovering endlessly in space.

This exhibit space also provided NASA with a forum for displaying the historical, futuristic, and impressionistic art which the space agency has collected over the years.

For acoustical reasons it was

necessary that the two theaters of the Galaxy Center be structurally independent of one another, connected only by expansion joints. Structural separation was important to isolate low-frequency sound in one theater, such as the rumbling of a space shuttle launch, from being heard in the other theater. Steel frame construction with precast panels were instrumental in providing the mass required to absorb low-frequency sound.

From the exterior, it was important that the Center blend in with the existing tourist-related buildings at the Spaceport. The complex was designed with a 15foot peripheral wall to match the other structures, then the roof ascends dramatically to a sixstory height.

The Galaxy Center not only had to comply with the NFPA Life Safety Code and the Standard Building Code, but also with NASA's special design criteria that it be both contemporary and monumental. The building has proven to be both.

Doug Baird is a writer for Communications Concepts, Inc. in Cape Canaveral.

A New Dimension to Design

by Kelly Collins

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The meeting room was freezing cold because the ventilation system was on the blink. The trade show setting up next door raised a maddening racket. Noxious carbon monoxide odors wafted through from the exhaust of an idling diesel truck being unloaded outside. Thermal discomfort, noise pollution and gaseous contamination all struck the participants at the Indoor Pollution Symposium. "I think that it is ironic that even we who are concerned cannot protect ourselves in every instance," remarked Hal Levin, president of the California Board of Architectural Examiners.

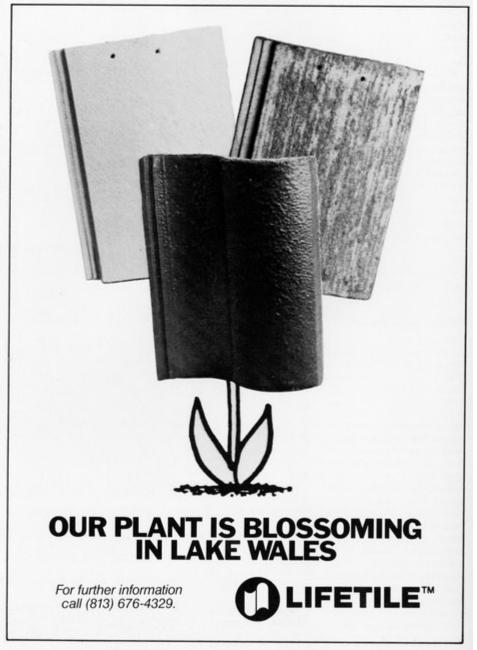
The program, cosponsored by The American Institute of Architects and CCAIA, hosted scientific researchers, building investigators, government officials and architects from around the nation who each presented pieces to the complex puzzle of what causes indoor pollution, and outlined design considerations relevant to a healthy indoor environment (The Indoor Pollution Symposium Syllabus is available for \$15. plus postage and handling, from the AIA Bookstore, 1735 New York Avenue, N.W., Washington, D.C. 20006, Attn: Kathleen Knepp. Phone (202) 626-7474.)

Ventilation — The Main Culprit

Poor air quality due to inadequate ventilation proved to be the main theme in case studies explored at the two day Symposium. While contaminants varied - carbon monoxide from a nearby freeway, formaldehyde in office partitions and carpet glue, ozone from copy machines, or pentachlorophenol, a wood preservative - the concentration levels of air pollutants were directly related to air exchange rates. Ken Sexton, Sc. D., Director of California's Indoor Air Quality Program, concluded, "If fresh air makeup decreases the problem, then ventilation is the largest cause of indoor pollution."

The tightly-sealed, energy efficient designs that characterized some of the state office buildings built during the 1970s emphasized problems associated with indoor pollutants. At the Bateson Building in Sacramento, workers complained of experiencing headaches, nausea, respiratory problems and hair loss immediately after occupancy. "Our initial reaction was to hope that the complaints would go away," said Barry Wasserman, FAIA, former State Architect. The problem occurred because the intended supply of air was not being delivered. Changes in

the interior design replaced originally specified open-space partitions with full-high partitions which obstructed the flow of supply air through the office. Also the Variable Air Volume (VAV) boxes had stuck in the partially opened position. Remedial action was taken and



employees now find the building an enjoyable work space.

The tradeoffs between providing enough outdoor air for good indoor air quality while continuing to conserve energy were discussed by research scientist James Woods, Ph.D. By using IP-ASHRAE Standard 62:1981, which Woods helped to write, a ventilation performance ratio can be determined and design theories validated. (IP-ASHRAE Standard 62:1981, "Ventilation for Acceptable Indoor Air Quality," is available for \$12 from the American Society of Heating, Refrigerating and Air Conditioning Engineers, 1791 Tullie circle, N.E., Atlanta, Georgia 30329.)

Historically, HVAC systems have been designed to provide for an air exchange rate necessary for respiration but not for air quality, which would require 17 times more fresh air. "The energy penalty for this could be substantial," Woods said. "But if we can increase the efficiency of our ventilation systems, then the energy costs of providing adequate indoor air will not be as great." Today, common practice is to disregard the location of air diffusers and return air grills, which results in a large percentage of the supply air being stratified and never reaching the user.

Microbial Breeding Ground

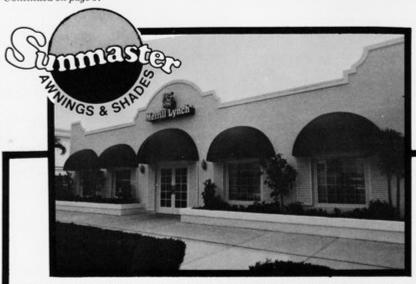
Health problems can be created by poor location of a building's air intake, according to Philip Morey, Ph.D., a research industrial hygienist with the National Institute for Occupational Safety and Health (NIOSH). Morey has investigated many cases of sick building syndrome in which air intakes were located next to microbial breeding grounds, such as cooling towers and restroom and cafeteria exhausts. These airborne microorganisms circulate through the ventilation system, exposing building occupants to hypersensitivity pneumonitis (HP), a pneumonia which has, in some instances, proven fatal. Regular maintenance and removal of standing water can reduce building-associated HP illnesses.

A classic case study of this syndrome is a building in Dallas, Texas that had a 20 percent absentee rate due to the microbial contamination of its air washers. Seven million dollars was spent to renovate the mechanical systems, but after the building was re-occupied, health problems continued to occur. When NIOSH was called in to investigate the problem, it discovered that the redesign had placed the building's air intakes next to the restroom exhaust, and that the 31 new air handling units had a crawl space too small to allow maintenance personnel to clean the units, where a brackish slime was forming in the drain pans. "Essentially, they put in 31 microbial incubators into the \$7 million redesign of the building," remarked Morey.

Sources of Pollution Are All Around Us

One of the most obvious methods for reducing the hazards of indoor pollution is source removal. The building envelope can provide a source for contaminants such as asbestos or ureaformaldehyde foam insulation Continued on page 37





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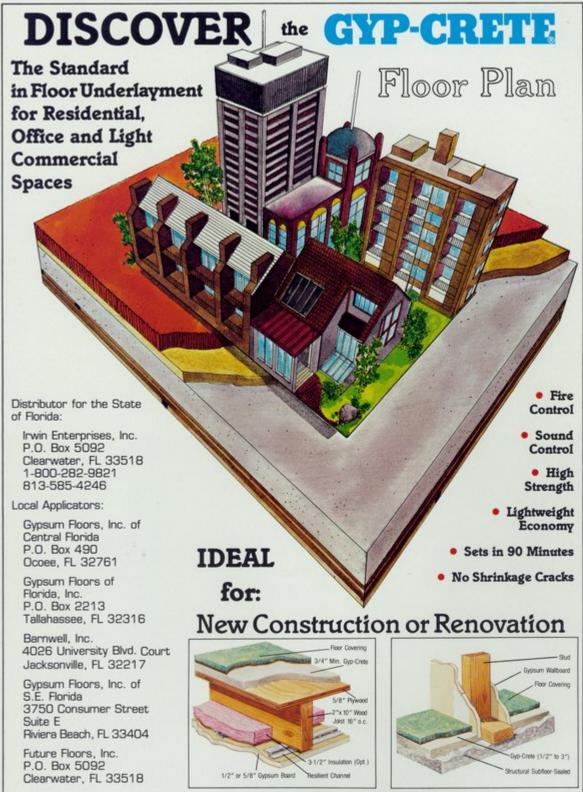
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The Best Little Warehouse in Miami

by Diane Greer

The Architectural Office of HCDA, Miami

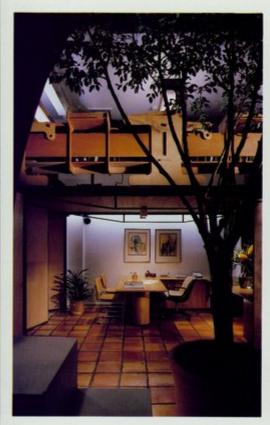
Principal Designer: H. Carlton Decker, AIA Interior Designer: Barbara MaGruder, IBD Project Manager: James Koepp, Architect Workstation Designer: Denise Decker

s a growing architectural A firm, HCDA, Inc. was faced with the need for expanded facilities. The prime criteria was to find a space that would allow the staff to create their own unique environment. The "ideal" space was found in a 30's building that had previously served as a man- ated a long-term lease and subufacturing facility and warehouse for an electronics company. The space had 1000 square feet and was enclosed with cement block walls. The average ceiling height was fourteen-anda-half feet and one side of the building was "blessed" with a large industrial door, the largest opening in the building.

With its high ceilings, the dark, windowless space hardly qualified as a prime office location. However, features normally considered problems were viewed as advantages and dealt with positively to create exciting new design elements. Realizing the possiblities of the space, the firm principal quickly negotistantial tenant improvement allowance.

Before completing the final negotiations, considerable thought was given to the firm's space requirements-a minimum of 1500 square feet with possibilities for expanison was needed. The actual floor space in the warehouse was under 1000 square feet, but because of the ceiling height of fourteen feet a loft was considered a possibility. Determined to meet the challenge of creating sufficient space for the firm, the staff designed a special floor system using a three inch laminated wood deck supported by a custom designed and fabricated steel joist.

Opposite page, the flexible and compact modular work stations in the loft were easily assembled using only wooden screws and dowels. They support a drafting surface on one side and a reference desk on the other. Below right, the twelve foot industrial door opening provided the space for a "moongate" — a circular archway with a stair leading to the second level and expansion areas. Photos by Dan Forer.





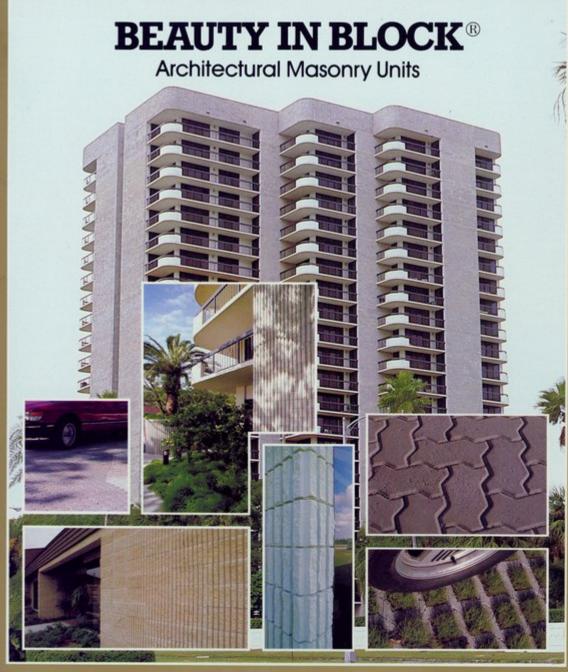
Design of the floor system made possible the installation of a veranda-like loft aproned around a central core with a full height ceiling. The taller ceiling at the front of the loft provided ample space for two associate's offices. Where the roof slopes to a level below minimum ceiling height at the back of the loft, cabinets, shelves and a storage room were installed. The spaces in between provided the ideal location for the drafting work stations.

Although the high ceilings and custom floor system made possible the installation of a loft, the narrow width of the loft limited the amount of available space for the drafting stations. This limitation was overcome by joining the individual work stations with a connective panel designed to serve both as a protective railing and a supply stand conveniently cantilevered into the central core space.

The work stations were fabricated from 3/4 inch plywood and they support a drafting surface on one side and a reference desk on the other. Either side may be tilted and/or extended to suit the user. Illumination for the work surfaces by a task-ambient light unit forms the upper part of the work station and doubles as a space divider. These visual barriers furnish each staff member with a semi-private space yet are open enough to allow for ease of communication during team projects.

To overcome the effect of a windowless space, a skylight was installed over the central core to create an atrium. Visible from all areas, the skylight opens the space to natural light and proves a pleasant atmosphere. Artificial cove lighting for the first level is recessed at the perimeter of the space and seems to come from the loft above. The perimeter also provides an opening for the custom-designed air conditioning vents. The ductwork is housed in the built-in work counter and shelf unit adjacent to the work stations which also serves to closet the space over the cove lighting on the first level. The total effect of the varied lighting sources and open plan creates a pleasing indooroutdoor atmosphere.







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Glass Beveling: Revival of a 19th Century Craft

by Charles Arnold







Top, a solid iron wheel coated with silicon carbide slurry cuts the initial bevel in the plate glass. Above, right, the Newcastle sandstone wheel has a motor and frame weighing about half a ton. Water runs continuously on the stone while it is in operation to cool the glass. Above, left, in the first step of the polishing operation, rotating brushes at the bottom of a cork wheel feed pumice onto the wheel.

V ictorian builders understood what elegantly-crafted details could do to a large structure and they expressed their ornamental "urges" in gingerbread details and in the elaborate beveled glass used in windows and doors. Today, many people admire the prismatic beauty of beveled glass, but few realize the craft and skill needed to produce it.

Dave Campbell is a graduate of the University of Florida School of Architecture and Fine Arts. He began working with stained glass about five years ago and today he owns Hi-Standard Beveling in Gainesville. Although Campbell has always been attracted to stained glass, he prefers beveled windows that are predominantly clear and allow a measure of privacy. They are both functional and decorative.

It is Campbell's feeling that a lot of the stained glass used in architectural retrofits is overbearing. He feels that beveled glass has an understated beauty which heightens the impact of both the window and the building housing it.

Historically, glaziers have been grinding bevels on glass for about 300 years, originally in England and France. Before machinery brought precision to the craft, the edges were crude and were ground and polished by hand. The exact processes used by the 17h century glaziers is uncertain probably because early manufacturers were very secretive about their processes before patent laws offered them protection. Generally, they trained their workers in only one area of the operation so that no one would learn the complete process. What is known about the early beveling process is that the work was laborious and the product expensive.

In the 18th century, beveled glass was particularly popular with the affluent segment of society and thousands of craftsmen in Europe deafened themselves in the noisy workshops where bevels were ground on plate glass. Mercury-backed mirrors received most of the bevels, but many found their way onto ornate windows, door panes and lamps.

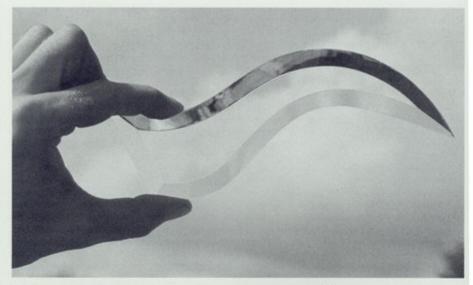
The second renaissance of beveled glass coincided with the widespread use of steam and water power. As steam engines became a source of power and beveling machinery became more available, the cost dropped and Victorian builders began to consider beveled glass almost essential to good design.

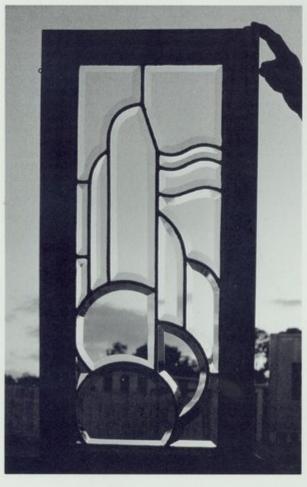
Today, automated bevelers have been developed to produce a straight edge, but it still takes an experienced craftsman to shape the intricate curves and details which make a piece of glass a thing of beauty. With the exception of improved abrasive and polishing material, very little has changed in the craft in the past ninety years.

When Dave Campbell decided to create contemporary designs using 19th century techniques he learned that the few proprietors of beveling shops today are still reluctant to discuss technique. Campbell scoured the libraries in search of information and found that only two books and a handful of articles have been published on the subject. As he studied old drawings he became familiar with the complexities of the craft.

Campbell now estimates that it takes a year of practice to be able to produce an edge of consistent quality. Curves, incurves and incuts require even greater skill than the straight bevels. As both artist and artisan, Campbell can reproduce old designs for restoration or produce new patterns at a client's request. Campbell feels that the variety and complexity of pat terns that can be produced in beveled glass are limited only by the imagination of the craftman.

Charles Arnold is a freelance writer living in Gainesville.





Top, cerium oxide on a solid felt wheel gives glass the finished brilliance seen here. Left, a finely hand-crafted piece of glass can be incorporated into the design of an original art deco design. All photos courtesy of the author.

Continued from page 27 (UFFI). The government already has banned the use of UFFI and is currently embarking on a multi-million dollar program to remove asbestos found in schools.

A chemical process called "hydrolysis," where offgassed contaminants become attached to water molecules and seep into another surface, creates a secondary source for organic compounds like formaldehyde. "Strong offgassing can enter a weak emitter where it is stored," explained John Girman, a researcher with Lawrence Berkeley Laboratory. "UFFI has been known to load up gypsum wall board with formaldehyde. Even though the foam is removed, the contaminant remains."

Girman further explored the effects of offgassing from synthetic building materials, using formaldehyde as a representative pollutant. Low emitters of this organic gas include textiles, carpets, and ceiling tiles; among high emitters are particle board, fiber board, UFFI and press wood products. "The industry is making progress and has standardized tests for comparisons," said Girman. An architect can specify those products with the lowest emissions by comparing the Manufacturer's Standard Data Sheet (MSDS) for various brands.

Special indoor pollution problems found in the home were discussed by Lance Wallace, former EPA research scientist and now a visiting scholar at the Harvard School of Public Health. Sources found in the home include nitrous oxide from gas stoves, carbon dioxide from kerosene space heaters, cleaning fluids, cigarette smoke and pesticides, to name a few. While these pollutants occur at a lower concentration than those found in office environments, the health risks are greater because some people, including the more susceptible populations like the elderly and infants, spend as much as 24 hours in the home.

Pollutants You Can See and Hear

Indoor pollution is popularly thought of in terms of air quality, but two other sources — light and noise — can also contaminate an indoor environment. Presently, scientists are exploring the psycho-physiological effects of noise and light on human stress.

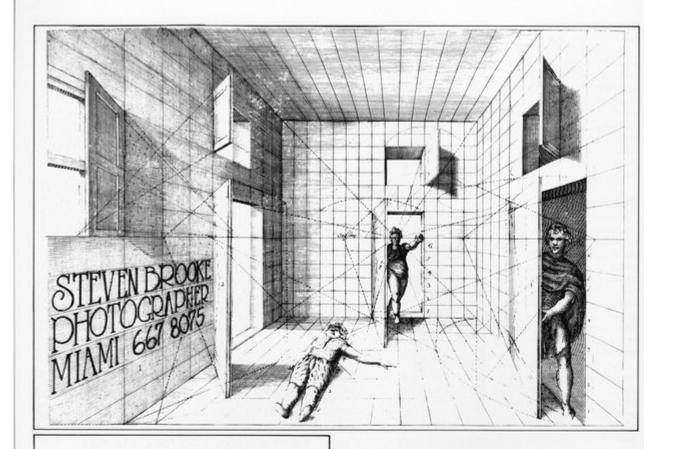
A living organism requires a certain amount of stress in order to survive, but when stress levels become overburdened, the body reacts. Noise that frequently interferes with sleep, conversation, or attention can result in physical illness, according to Karl Kryter, Ph.D., a research scientist at SRI Inter-

national in the field of psychoacoustics.

Yet little is being done in this area. "The quality of workmanship in noise abatement hasn't increased," claims acoustical expert Charles Salter. "When you are on a fast track building project, it is difficult to control the acoustics inside, but increasingly, owners and clients want quieter environments."

Sam Berman, a research scientist at Lawrence Berkeley Laboratory, discussed six factors associated with indoor lighting which may have harmful effects: 1) spectrum variations that are different from the natural spectrum; 2) ultraviolet emissions from lamps; 3) low frequency electro-magnetic radiation; 4) infrared emissions; 5) flicker; and 6) glare. While research on flicker and human stress is still exploratory, Berman noted that good information on glare can be obtained from the Illuminating Engineers Continued on page 39





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The documented instances of eyestrain experienced by VDT operators underlines the need for task lights and break periods. "Looking into problems of stress and VDT research, there is a lot of data in the lab as to the best way to set up a VDT workspace, but this information is not being tranmitted to the practice," said Hal Levin.

The Architect's Liability

As knowledge increases, architects will have to become more aware of what measures can be taken to reduce the potential hazards from indoor pollutants. Ralph Rowland, FAIA warned that in the future regulators might require architects to do pre-occupancy tests and to meet new building codes tailored to the age and physical conditions of the occupants.

"Architects are used to dealing with building codes and fire marshall regulations, but with a change in societal expectations, architects will have a responsibility to protect the public's health," warned attorney Gerald Weisbach, FAIA in discussing liability issues. "The best advice I can give you is to hire adequate consultants to provide technical expertise and use proven technology and materials."

The Symposium made it clear that another dimension has been added to design — the users' health. James Woods challenged architects "to think about taking on a professional responsibility for the performance of the building for 10 years after you design it and about the implications this has for the practice of architecture."

Kelly Collins is associate editor of Architecture California and editor of the Indoor Pollution Symposium Syllabus.



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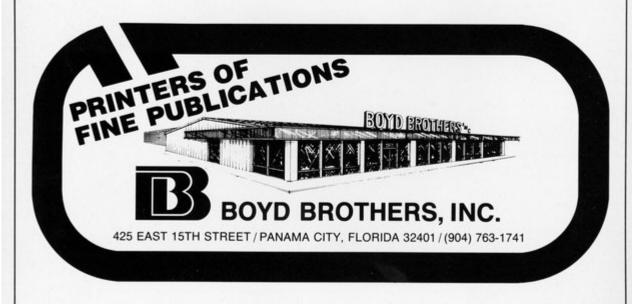
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VIEWPOINT

The Education of an Architect

Anderson Todd, FAIA

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rchitecture is a pedagogical Art-at least, that is what Plato called it. Unlike a painter or a sculptor, an architect does not create his art with his own hands. His work is a constant process of instructing others. His vision is realized by others through drawings and words. It is this realization that has prompted me to tell students that they must teach, or certainly think of themselves as teachers. Every architect must be a teacher. It is why words and books are central to an architect's education.

Education is a process of selfdetermination, especially architectural education. It is the disciplined linking of knowledge, order and organization of space with your emotions and the need for expression that comes out of the hot-beds of inner feelings, instinct, and visual sensitivity. Talking and writing about these subjects are reflected in the flood of words, words, and more words that are uttered and printed about architecture every day. And we should scrutinize these words constantly, re-examining and testing them lest they become stale, empty, meaningless buzz words.

Of course, words don't seem to be as clear as they once were. For instance, in regard to the meaning of words, Mark Twain said that Eve called the Dodo Bird the Dodo Bird because the Dodo Bird looked like a Dodo Bird.

So, let me try a few of the more common words used in today's jargon.

History is being thrown about as the justification of a lot of bad design and much worse thinking. However, it is the record of the human condition and the development of cultural values, and it should be looked upon as experience. This experience should encourage the development of visual sensibility and the capacity for objective critical judg-

ment. What intrigues and concerns me is the relationships between the experience of history and creative power. Memory of past events is the only reality that we can know. The present is too confusing, too close for a perspective view, and, as an idea, quite questionable because of its fleeting nature. The future is unknowable except by anticipation on the basis of history. History gives us illustrated messages about past experience which we can examine carefully, hoping to break the code to its inner secrets. When he barred the study of history at Harvard, it was because Gropius feared that it would discourage self-expression and stunt creative growth. He also told me that he had a fear that architecture would again fall prey to eclecticism; quite possibly, he realized that human progress was surging relentlessly ahead at such an accelerated pace that history was rendered as useless as buggy whips. Or,

was it, that our human record of benevolent and useful models was too limited to help us? Anyway, the patient search for what was good and permanent in history was out of date!

For what reasons does historical research become meaningful? Where does reality come in? Does it have utility? Instruct us?

- if it is brought into a clear and precise relationship with the present.
- if it teaches that history is not finite, static, or absolute but is a transient reflection of the present, and has to be constantly reinterpreted and rewritten.
- if it contributes to the advance of the art of architecture as an expanding, ever more satisfying contributing force to human possibilities and needs.
- if it is progressive in outlook rather than regressive, and if it seeks cause, motivation, process, and character, rather than ef-



fect, reaction, result, product or style.

The alternative to a creative and imaginative use of history has been increasingly, to fall back into stylism and the use of the disembodied elements taken out of a rubbish-heap of the past to make a pastiche, a paste-up, achieving some sort of meaning-less novelty. With this statement, we can move easily into considering the meaning of the word: eclecticism.

Eclecticism is a word that signifies an admission of defeat before an artist even begins to explore. I cannot do better than quote Jean Labatut:

"The past is a stimulant, not a refuge. It is wise to step back, in order to take a better look into the future - only if one does not forget to jump forward after stepping back. The past is an example of what not to do in an another epoch, on another site, in another climate, for another client. When profound analysis takes the place of mere ecstatic enthusiasm, the respect for the past is greater, more sincere, and less superficial. Basically, eclecticism is not an expression of respect for the past, but the testimony of a superficial knowledge of all the values and greatness of that past. Eclecticism is evidence of the lack of refinement and the visual sensibility for the value of space, form, color, and above all, the lack of sensibility for mental and spiritual values.'

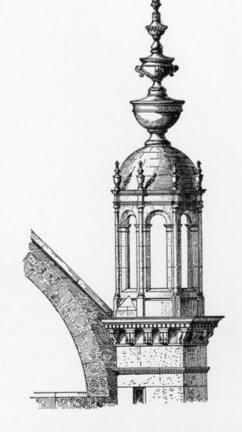
Scale is the next most critical word I want to talk about because it leads into my conclusions. It is also interesting, because scale, if left alone, and not used and manipulated for ulterior purposes by egomaniacal architects, will take care of itself.

Every organism and artifact has a maximum and minimum size. There is an optimum range on the physical size of everything. So, we can say a thing is "in scale"; it is in scale because it fits the model we hold in our minds along with our other historical references whether it be a pack of Camels or a Wren church.

The scale problem of the Washington monument has always been one of the most intriguing that I know. In its abstract form, with the expression of the large blocks of stone minimized, the sheer mass of the building is almost indiscernible until one starts to walk across the greensward toward it. The first intimation of the size comes when you realize that it is taking you a long time to reach it. Then, at the foot of it you must accept the enormous, Cyclopian size. Despite the name of the monument that we have all known since childhood, I question how many people are truly aware that this is a monument to a man. To me, it is a monument to the city. Where is the Man?

Context is the last word I am going to throw at you. It is a word used generously and, generally, it is used correctly. However, one does not often see it reflected in the pretty designs of houses for the very rich that fill our magazines. Context makes me think of the world as a great fabric that has existed before there was time or place in human terms. And since man has left Eden, this fabric has been rent asunder and remended many times. Quite correctly, the word, 'context', refers to weaving, or more correctly, what has been woven, a passive often delicate material that we can destroy, protect, reweave, but rarely replace. We, as architects, do not seem to be very good at invisible mending!

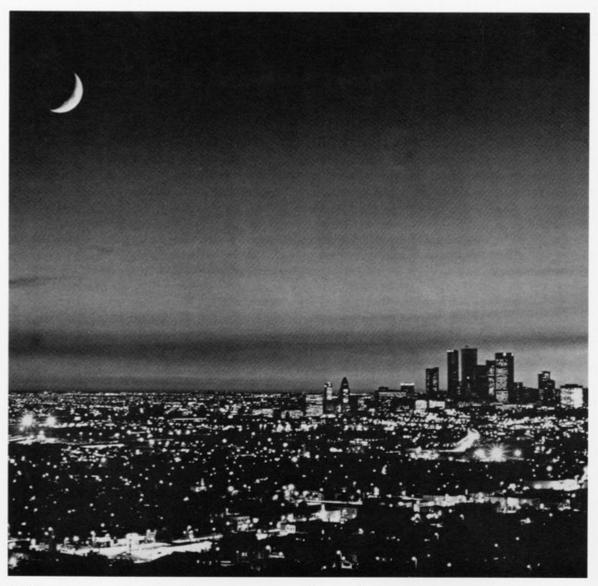
I am big on contextualism, although, when one of our designers of our largest architecture firm in Houston used the word on our third largest developer, the beefy entrepreneur asked: "What is contextualism, some kind of skin disease?" He was right, the architect's understanding of contextualism was only skin deep! But to me, response to context is what it's all about, architecturally speaking. Context is what gives meaning to symbol, meaning to metaphor, and even meaning to struc-



ture, form, space, mystery, expression, character, richness and scale. History is context and it faults eclecticism; context promotes regionalism and makes a mockery of formalism. It would seem, therefore, if no sense of context, then no sense of architecture!

But, scale and context bring it all together for me because they require reconsideration of the logical and the emotional, the systematic and the meaningful, appropriate space for human activity, the happy marriage of structure and form. To speak of scale and context is to speak of relationships in certain surroundings. It is to speak of relatedness on a conditional, relative basis of all aspectsof architecture. Architecture is not something on different levels of importance. In a sense, a cottage in the Cotswolds is as much architecture as is a cathedral of the Ile de France. The proper degree of measure is the relatedness, the perfect balance and resolution of all the constituent parts, a consonance that sings a lyric, heart-lifting song.

Anderson Todd, FAIA, is the Gus Sessions Wortham Professor in Architecture at Rice University.



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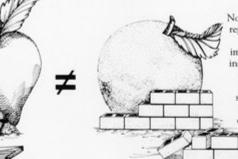


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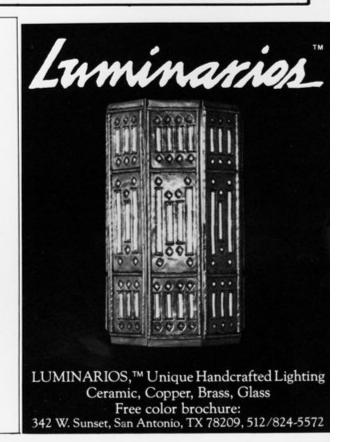
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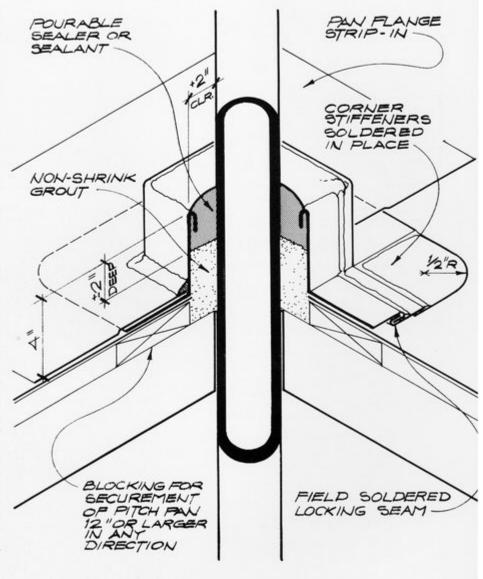
I do not recommend the use of pitch pans because there are more effective methods of roof penetration detailing and flashing. However, in reroofing and repair projects of existing roofs or through cost compromise, pitch pans are often utilized. Two major problems with the typical pitch pan are that they are not continuously waterproof and also require frequent inspection and maintenance. For those reasons, A/R/C Associates, Incorporated has developed an improved pitch pan detail.

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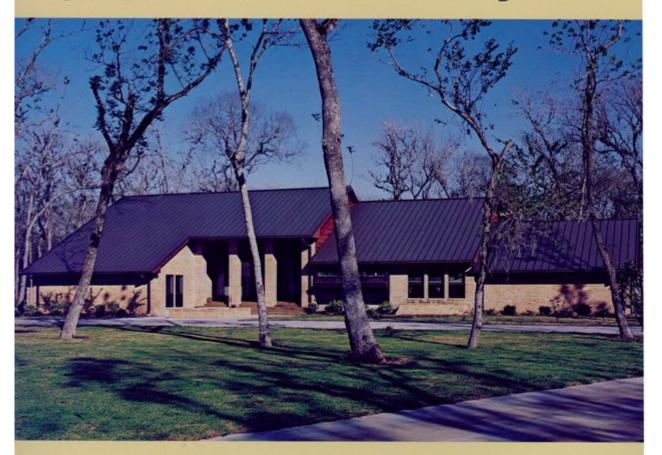
Further, in lieu of a top pour of hot bitumen which often shrinks and/or settles to allow water to enter, we suggest the use of a one part pourable polyurethane sealant, (i.e. Vulken 45) or a pourable sealer (i.e. W. R. Grace LM-3000). These products remain flexible and thus will not shrink or crack to allow water entrance. In summary, the pitch pan design has been improved and better filler materials have been utilized to increase the durability, thus, minimizing maintenance.

D. B. Young, Jr., AIA, IRWC, is a certified Consultant of the Institute of Roofing and Waterproofing Consultants, and a partner in the firm of A/R/C Associates, Incorporated.



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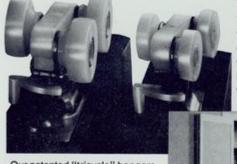
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