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My appointment as editor just before the holidays signalled the beginning of a new era for me as well as for Florida Architect. For me, it meant revitalizing a long-standing interest. For the magazine, it marked a break with a comfortable past—not just a new editor but a new designer, Peter Denes, as well.

My training as an art historian took place (at The Pennsylvania State University) in the mid-sixties when the discipline was still called art and architecture history. It was the architecture part that first attracted me. As a teenager, I spent a lot of time in New York City, looking up and around, and as an undergraduate I “studied abroad” one semester at the historic and grand University of Salamanca, in Spain. Architecture, including the study of its history, was no less than awe-inspiring, an alliance of spirituality and practicality, of genius and geometry. (For one good reason and another, I got sidetracked, and after some teaching stints in small East Tennessee colleges, arrived in Florida working as an editor and writer.)

In preparing this issue, it was clear that these values are still being fought for and observed. Albeit, in this age of bean counting, many of the “powers that be” lack the vision to recognize the value of paying a little more for the spirit and the genius. Frank McLane decries this situation in his Viewpoint, while Larry Schneider's Legal Note concerning ADA requirements graphically points up the abiding need for practicality and geometry.

I look forward to learning and writing about Florida’s architectural community and its inspired work—the old and the new, inside and out, from functional systems to elegant details. For this issue the assigned theme was “new technology,” and I pursued applications on many fronts and with a tight schedule. My profound thanks to those of you who responded but whose projects did not arrive quite fast enough for consideration. Those projects featured here represent only a few of the widely various new technology applications you presented: Hellmuth, Obata & Kassabaum’s pioneering use of CADD-CAM; Spencer and Jonnotti’s modular prototype; and Wolfberg/Alvarez’s interstitial space design for containing and maintaining the service systems of a large, modern medical center. Pragmatic, but also fun (and more than a bit disconcerting), characterizes Tom Martineau’s look at how technology will affect the profession in the near future.

Gratefully, I can report that longtime editor Diane Greer, who is now devoting herself to teaching architecture full-time and editing some academic publications, will continue contributing features and reviews.

With high expectations, I look forward to a rewarding relationship with AIA Florida members and to sharing your accomplishments as well as your views on important issues. MB
NEWS

1995 Awards Program in Full Gear

The Call for Entries for AIA Florida's Awards for Excellence in Architecture is in the mail. If it seems earlier than usual, it is. The annual meeting and awards event are scheduled for July this year, instead of in the fall, so entries are due sooner. A previously entered project is still eligible—this year's jury may think it's just great.

There will be a special emphasis this year on projects that have a value to society, in addition to aesthetics. Architecture has meaning to the client and society beyond just looking beautiful. So be sure to describe how your good design also benefits society. This aspect will be considered by the judges and will play a key role in the enhanced public awareness program being planned for the award winners.

Categories also include projects for unbuilt designs, test of time, and firm awards. Entry requirements are simple and rewards are great.

Entries are due at state headquarters by April 26, 1995.

Good Luck!

Government Affairs, The Miami Way

"Things are a little different here," an old slogan used by the Greater Miami Tourism Board, aptly describes the activities of the Government Affairs Committee of the Miami AIA Chapter.

The committee currently oversees ten subcommittees dealing with every aspect of government influence on the practice of architecture.

Various subcommittees concentrate on important areas such as resolving code issues, streamlining bureaucratic processes, and defending the profession from encroachment or limitation by others. The subcommittee handling public agency work maintains a liaison with every major county agency that routinely hires architects for its projects. This subcommittee also addresses scope and contract issues, monitors and advises during the selection procedures, and seeks to assure that typical practices of client agencies.

A new initiative, called "Legislative Partnering," eventually will partner each Dade County delegate to the state legislature with a local member architect, who will consult, advise and represent the AIA position on issues sensitive to the profession as well as those of general import. The program promotes the views of architects by giving them the ears of lawmakers.

Another intent is to ensure that architects are considered for appointment to any board, commission, or committee that deals with planning, designing, commission, or committee that routinely hires architects for its projects. This subcommittee also addresses scope and contract issues, monitors and advises during the selection procedures, and seeks to assure that typical practices of client agencies.

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Another intent is to ensure that architects are considered for appointment to any board, commission, or committee that deals with planning, designing, preserving, or enhancing the built environment.

A well-known and respected local lobbyist, brought on-board last year to advise the Chapter on the ways of accomplishing given goals, "has put our fingers directly on the pulse of local politics," says Mike Rodriguez, Vice President of the Miami Chapter AIA and Government Affairs Committee Co-Chairperson. A Chapter Fax Network not only advises interested members of ongoing events but also notifies them when a strong architectural presence is needed at any hearing or event. In the past three years, the committee has met every challenge head-on, putting architects in South Florida on the map. Rodriguez encourages other chapters to institute similar programs if they have not already done so, saying, "Only when we are heard will we be fully understood."

BPR Online

The Department of Business and Professional Regulation (BPR) has implemented a new online computer service that will allow architects to verify the status of a license.

BPR Online was created to process the voluminous mail and telephone requests for licensure verification. To check on one license during the renewal phase, or thirty licenses to verify project consultants, users can access the system by dialing (904) 488-3387 via PC-based modem.

Individuals or businesses may access this service free for 75 minutes during each 24-hour period. For information on how this system works, contact Chris Oliver at BPR (904) 921-0125, or call Joanna Booth at AIA Florida (904) 222-7590.

New Florida Foundation Officers

Tallahassee Architect, Ivan Johnson, III, AIA, has been elected President of the Florida Foundation for Architecture. Partner in Johnson Peterson Architects of Tallahassee and Sarasota, Johnson has been a Trustee since 1991. He will serve a two-year term.

Wayne Drummond, AIA, Gainesville, was elected Vice President. Drummond is Dean of the University of Florida College of Architecture.

Frank Folsom Smith, AIA, Sarasota, continues as Treasurer of the Foundation. He is a
Don Cooper, AIA, has won a Southern Home Award from Southern Living magazine. Cooper, who is president of the Tampa firm Cooper Johnson Smith Architects Inc., designed an award-winning addition to the home of Analee Moore and Mat Mays. Featured in the February issue of Southern Living, the home was one of six winners chosen from more than 250 entries in the magazine’s annual awards program.

“Don Cooper’s design makes maximum use of available space and turns an already attractive home into something extraordinary,” said Southern Living Homes Editor Linda Hallam. “Cooper blended regional heritage with innovative features to create outstanding design.”

Book Review
The Energy Design Handbook
Edited by Donald Watson, FAIA
The AIA Press, 1993
520 pp., b & w illus., references $35.00
Reviewed by Diane Greer
At a time when energy-efficient design should be of primary concern to designers and clients alike, this book is an absolute must for every architecture office. Each chapter is an edited version of separate monographs that were published previously in The Architect’s Handbook of Energy Practice. That work was prepared by the research staff of the AIA Foundation. A new approach was used for the current text, which is formatted for self-study using a method developed with educational consultants.

Energy expert Donald Watson has presented the material in two parts. The first 360 pages are brought together under the general heading “Design,” addressing everything from climate and site to the building envelope, passive cooling and heating, shading and sun control, daylighting, HVAC systems, active solar systems, and photovoltaics. The remainder of the text comes under the heading “Analysis” and deals with topics such as energy transfer, U-values, thermal analysis, heat gain and loss, and estimating energy use. Together, these two sections present an extremely concise and thorough overview of the energy issues that relate to architecture and are of critical concern to today’s practitioners. Interspersed throughout the chapters are case studies dealing with specific buildings that have successfully incorporated the particular system being discussed. Florida readers will note the conspicuous absence of references to Florida projects. These case studies include a photograph and a project description that is brief and to the point.

The Energy Handbook contains hundreds of explanatory drawings, diagrams, and charts designed to be easily read and understood even by practitioners with little experience in the energy arena. The energy design concepts described can be incorporated into the design of any project, beginning with the initial goal statement, site analysis, and schematic design and continuing through design development, lighting, mechanical systems engineering, construction, and use.

As Watson notes in the introduction, today’s concerns about energy and the environment “can be said to have evolved from the long-established Vitruvian ‘conditions for building well—utilitas, firmitas et venustas, or commodity, firmness, and delight—an enduring definition that becomes richer as our conception of architecture becomes more responsible and profound.”

Clarification
Florida Architect has been notified that credits listed in the Fall 1994 issue for the design of Pine View School For The Gifted, in Sarasota, were in error, due to incorrect information provided to FA. The Architect of Record is W.R. Frizzell Inc., Ft. Myers, and the Associate Design Architect is Carl Abbott Architects/Planners, P.A., FAIA, Sarasota; the Owner is the Sarasota County School Board; the Owner’s Construction Representative is Carol Woodson. The Principal of the School is Steve Largo.
Likely technological trends and developments during the next 10 to 20 years in the building design and construction industry are certain to change architectural practice, and the entire construction industry, forever.

Major trends that will influence the impact of technology on architecture in the coming two decades are:

• Reconstruction
• High-performance materials
• Automation and robotics
• Information systems and telecommunications.

Reconstruction: The Next Bonanza?

In many areas of the United States the amount of money spent on reconstruction now equals or exceeds expenditures for new construction. Reconstruction is becoming the dominant share of construction markets in developed nations, including the United States. By the end of 1992, the U.S. Department of Commerce showed reconstruction already had reached near equality with new construction in the South Atlantic and Pacific Coast states and had outstripped new construction in the New England and Plains states. The Mid-South, Rocky Mountain, Middle Atlantic, and "Oil Patch" states showed an average of 88 cents of reconstruction for every dollar of new construction.

With respect to building types, a recent U.S. Department of Commerce survey revealed that the majority of health-care facilities are already in the reconstruction category, and educational facilities show nearly 90 cents of reconstruction for every dollar of new construction.

Florida architects might consider one or more of the following strategies to ride the crest of this wave:

• Getting a reconstruction project track record by obtaining small jobs first, then larger ones. (Large nonresidential reconstruction jobs are not out there. For example, New York in reconstruction or training existing staff in such areas as cost estimating, contract documents, construction methods, new materials and products, construction management, etc.

• Establishing a separate cost center for reconstruction work.

• Studying market opportunities to offer specialty services in such areas as historic preservation and other restoration, radon and asbestos mitigation, pipe relining, concrete coring, small- and large-diameter boring and tunneling, etc.

• Forming a relationship—perhaps design-build—with a contractor or builder strong in reconstruction.

High-Performance Materials

"Space age," higher strength, lightweight metals and concrete have found increased use around the globe, as attempts are made to lighten structural system loads and simultaneously increase load-bearing capacity.

For example, the recently completed, world's tallest reinforced concrete building, Chicago's 311 South Wacker Drive Office Tower, is a pioneering application of rapid construction with high strength, polymer-added or polymer-alloy concretes. Other examples include a "fire-resistant" structural steel, whose Japanese producer has initiated test-marketing, claiming that fireproofing of its members will be unnecessary in most applications. A Canadian company has developed a magnesium oxyphosphate cement technology allowing the preparation of countless blends or recipes combining cement and biomass for imitation wood, slate, and, ironically, plastic laminates, which are themselves often imitations of wood, marble or other traditional finishes. Special paints and polymer coatings have been and are being developed for the restoration and rehabilitation of existing structures. Selective low-emissivity exterior glass has been engineered in the United States with the capability of allowing daylight to penetrate a building's interior while virtually eliminating all heat radiation from passing through the material.

Codes and standards organizations have been the traditional barriers to the acceptance of new materials and methods. However, efforts are now under-
way in most such organizations to put in place mechanisms to assure the well-informed, speedy acceptance or certification of new technologies. These efforts need the fervent support of all industry participants.

Automation and Robotics

As is the case with most contemporary industries, automation and robotics are finding increasing use in the building design and construction fields. Some developments will be a continuation of existing trends.

- Further automation of architectural offices, including full digital integration of drawings and specifications
- Broadening of the automated support of the full process of planning, programming, design, contract documents, construction management, and long-term facility management, using a single item of software and one common, evolving database
- Broadening of building manufacturing activity, with increasing use of CAD-CAM technology on the part of designer-manufacturers. In the residential sector, this will take the form of modules and panels, and in the nonresidential sector, components in an open- or closed-system fashion. Design-build enterprises using factory-based production will increase, with architectural practitioners as key participants
- Continued use of robotics and automated technology on the construction site, concentrated on hazardous operations (asbestos removal, underwater construction, suspension bridge inspection and painting, etc.) and on small-diameter remote tunneling and boring for infrastructure construction. Some European nations have permitted the use of robots in hazardous operations, such as in the nuclear power industry.

Excessive Togetherness Syndrome (ETS) Reason for Strife, Divorce

Special from WorldHealthLine reply to WHL@cpu.com

Families with two or more telecommuters and several distance learners are at greater risk for family conflicts and family breakdowns, especially in the United States and Europe, a new WHL survey finds. Japanese social values apparently let such families copere more successfully.

"People are simply together in the same place too long when they all telecommute and distance learn," said Olivia Bergquist, Senior Sociopsychologist at the Mount Fuji Family Trauma Mitigation Research Center & Hospice. (fulifrau@cantas.edu.res.com) Decades ago, most people left their homes to do work or to go to school, and the pressures on families were less severe as a result." Bergquist suggests that Excessive Togetherness Syndrome should get out into the world in real time, or make greater use of virtual reality hookups to get away from it all.

"This Union will not rest until every American enjoys the same freedoms of movement as our fellow citizens in Europe, the United States and Japan," said Bert Tawin AFIUO-UFW President. Some of our members commute up to 15 minutes one way per three days in a week. This adds up to 5.5 hours per week, or 330 hours per year. This is intolerable.

"Excessive Togetherness Syndrome is also a global effort, garnering the enthusiastic participation of all developed countries, especially Japan and some European nations.

Information Systems and Telecommunications

The automobile and the telephone changed the configuration of our towns and cities, causing new and often insurmountable challenges for architects and urban designers. The advent of new information and telecommunications technologies has the potential to effect yet another, similarly radical, transformation of the structure of our communities.

Four major technological developments appear to be the keys to this radical change.

1. The personalized office
2. The office moves to the telecommuter
3. The home office
4. Global information and communications networks

What is known in the vernacular as the "information superhighway" already is well under construction. Every form of communication and every type of information system we know will soon be interconnected and available to anyone from anywhere.
Selected Scenarios

The following scenarios have been developed as logical, plausible extensions of these developments.

Scenario 1:
Focus on home base.

Homes will have some dedicated office space with support facilities such as a telecommunication center and, perhaps, teleconferencing space. Single-family homes may have one or more adult telecommuters (i.e., working at home). Children may become “distance learners,” telecommuting to school and college. A 100-percent switch to telecommuting and distance learning is unlikely, for human nature, with its need for personal contact, will not tolerate a total conversion to electronic communication.

Implications for the profession:

Implications for the profession: It is not too early (or too late) for schools of architecture and urban design to explore (a) house designs and communities that can accommodate multiple telecommuters and distance learners, and (b) reconfigurations of urban areas to account for fewer actual office commuters and, perhaps, more leisure time visitors to cultural and community events.

Scenario 2:
Location independence.

Families whose members telecommute can choose the location of the family residence independent of its physical proximity to a job or school. Families may choose their home location based instead on climate, scenery, or available recreational opportunities, opting for fewer, though perhaps longer, commutes to sites at existing urban clusters where physical offices, schools, and colleges may still be located. As yet unimaginable population shifts are likely. Further exodus of predominantly resident middle-class families from urban areas and suburban bedroom communities to rural seaside, lakeside, mountain, or desert resort communities could lead to a double-threat: further decline of existing urban areas and increasing pressure on environmentally sensitive regions for the development of new, permanent communities. On the other hand, city-loving telecommuters will be attracted to relocate to “world-class” cities for their cultural and social amenities.

Implications for the profession:

Location independence will place a dual challenge and responsibility on architects and urban designers. Working in concert with public officials and the development community, they must use their utmost creativity (a) to reinvent our major downtowns as attractive places to live and “bathe” in the sociocultural advantages of urban life, e.g., museums, theaters, night clubs, parks, recreation, sports, conventions, and (b) to prevent the potentially explosive growth in resort areas from devouring the very resources that attract people to these locations.

Scenario 3:
Emergence of the “tune-in” building.

The decline in demand for downtown office space will affect other types of facilities located in central business districts. There also will be less emphasis on libraries, banks, schools, colleges and many types of stores as physical “walk-in” or “drive-in” facilities. We will “tune-in” to their services instead. Early signs of “teleshopping,” and other “tele” activities are already in evidence to support the “tune-in” prediction.

Implications for the profession:

A plausible—and desirable—consequence of the availability of numerous vacant or underused buildings is their adaptive reuse for other purposes such as housing, educational, social, recreational and health-care facilities. This reinforces the previously noted challenge to reinvent our major downtowns. Adaptive reuse of existing facilities will need to become an art form and a major service of architects and urban designers, far beyond the present trend toward reconstruction. Schools of architecture should therefore place greater emphasis on adaptive reuse in the design studio, and practitioners should become better versed in this service.

Conclusion

An amicable cynical view of unknown origin is often presented by members of the building design and construction industry:

That the industry’s product consists generally of one-of-a-kind, costly prototypes called buildings, which are hand-assembled outdoors, by people who may or may not have worked together before, from drawn and written instructions prepared by people, within antiquated and often-contradictory codes and standards, based on the designer’s interpretation of the needs of an owner (who may be unable to know or articulate those needs), from materials and parts that come from hundreds of different manufacturers and numerous suppliers—and all under the scrutiny of underpaid and overworked building officials.

Despite the predictions of pervasive and profound technological changes over the next two decades, it is doubtful that our industry’s basic profile will ever veer radically from these cynical moorings. In addition, it would appear safe to predict that roofs will continue to leak, change orders will not go away, and litigiousness will rule. Why tilt at windmills?

Thomas Martineau is a Professor of Architecture at Florida A&M University in Tallahassee. He has researched and written widely on diverse topics in architecture, construction, and facilities planning.
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Florida Under Glass

The Florida Aquarium
Tampa, Florida

Architects: Hellmuth, Obata & Kassabaum, Inc., and Esherick, Homsey, Dodge & Davis, Inc., (joint venture)
Design Principals: Gyo Obata, AIA, and Chuck Davis
Principal in Charge: Pete Karamitsanis, AIA,
Project Designer: Robert Stockdale
Project Manager: Alan Temple, AIA,
Exhibit Designer: Joseph A. Wetzel Associates, Inc.
Contractor: Turner/Kajima
Owner: The Florida Aquarium, Inc.

The Florida Aquarium's distinctive maritime contours—shell-shaped dome, sail-shaped canopies, and port-hole-shaped windows—are some of its signature features. While the ideas may have originated on the drawing board, the working designs for this geometrically complex project were accomplished using computer-assisted technology. Among the pioneers in CADD, Hellmuth, Obata & Kassabaum, Inc. (HOK) has used its own HOK drawVision software, which includes "walk-through" capabilities, to develop this and many other large projects.

When some of the consultants felt early on that the elaborate Aquarium program could not be built for the budget, HOK's response was, "Let's draw it." This kind of practical determination kept the mission and goals of the collaborative effort between HOK and Esherick, Homsey, Dodge & Davis, Inc. (EHDD), in focus. As a result, the project will open on time, March 31, and on budget.

The 152,000 square foot, $84 million Florida Aquarium will present, in microcosm, the aquatic "story" of Florida's
unique environment and ecology. Architecturally, the goal was to convey as much richness and diversity as the natural habitat exhibits. Two major building components were required. In one, beneath the dome, a lofty skylit space in the shape of a seashell houses the Wetlands and the Bays and Beaches exhibits. The second, a two-story black box area, is the setting for the spectacular 500,000-gallon under-the-sea Coral Reef tank.

In the dramatic Coral Reef exhibit area, sequential graduated ramps wind their way around and “through” a coral reef, replicating the experience of an actual dive into dark depths. Windows are arranged so viewers will see the exhibits without seeing each other. The largest window, a 43-foot-wide by 14-foot-deep bay, is more than a foot thick at its base. To carefully control daylight at the top level of this exhibit (as well as to provide service access) the tank will be open to the sky but covered and protected from direct sunlight.

On approach to The Florida Aquarium, the multifaceted glass and structural steel dome is the dominant focus. The image already has become a symbol of the Tampa waterfront’s evolving Garrison Seaport Center. Laminated glass chosen for the dome permits healthy growth of hundreds of species of sea and plant life while reducing heat gain and, thus, energy loads. Building systems have been integrated with some ingenuity. For example, air conditioning ducts inside the domed area are housed inside artificial trees. Unusual, too, areas housing the pipes, filters, and other aquarium-maintenance systems will be open to curious visitors.

In this project, meant to educate and inspire, architectural design had to reflect, rather than dictate, exhibit design. Essentially a life support for the exhibits, the building was conceived as a dynamic design that would allow for continuing refinement of exhibits and support systems without compromising its own integrity.

Photography by George Cott, Chroma, Inc.
It has been 20 years since the Department of Veterans Affairs built a totally new medical center. A lot has changed in that time. Treatment has progressed, not just in terms of medical technology and systems but in terms of the physical environment in which health care is delivered. Wolfberg/Alvarez & Partners, Architects & Engineers, designed the new facility to help realize the Department of Veterans Affairs' effort to humanize care. While endeavoring to create what architect and partner David Wolfberg calls a "hospitality environment," the project team also succeeded in coordinating a broad spectrum of innovations that will take the hospital gracefully into the next century.

The 400-bed, $106 million hospital will provide medical, surgical, and intermediate care as well as psychiatric care to an estimated 9,000 inpatients and 144,000 outpatients annually.

The engineering design team took a creative approach to solving the complex building requirements, incorporating state-of-the-art technologies for building systems and energy conservation. All building systems—HVAC, fire protection, plumbing, electrical power, emergency power, medical gases, communication, and illumination—are distributed via an Interstitial Space Design. This was accomplished through the development of three-dimensional service modules that could be used repeatedly throughout the building. Each one-story-high module includes a large scale assembly of building subsystems and is organized by a single independent horizontal distribution network. The interstitial "service zones," located above each floor, are subzoned to accommodate the...
According to Julio Alvarez, engineer and partner in Wolfberg/Alvarez, this approach to engineering offers numerous improvements to the entire structure and significant advantages to life-cycle maintenance and operating costs. Not only is the efficiency of hospital resources enhanced, but with areas that require routine maintenance located away from patient care areas, normal hospital functions are rarely if ever disrupted.

A dramatic atrium with 80' x 90' skylights and a 10-story vertical window floods the hospital's central core, including patient rooms, with natural light. A second, smaller atrium, located in the five-story west wing, contains a food court designed to resemble an outdoor café. Although spatially different in scale, these two clerestoried courtyards serve as organizational elements between working and public spaces. The 10-story, V-shaped tower rises from a colonnaded entry that provides a human-scale, pedestrian link to patient areas.

The exterior look was inspired by the architectural vernacular of West Palm Beach. Materials include precast concrete finished in a mediterranean palette of pastel and terracotta tones, with limestone and quartz aggregate detailing. Green-tinted windows were used throughout. Visual interest was maintained through finely scaled fenestration and overall building geometries and a combination of familiar and new shapes and materials.

Even the location has its therapeutic features. Extensive sitework and landscaping of the scenic 69 acres have enhanced its natural beauty. Besides seven acres of wetlands that are being restored, there are quiet patient sitting areas, even bike and jogging paths with exercise stations. Six manmade lakes help make the environs attractive for the community as well as for the patients.

Photography by Mark Roskams
Jacksonville architect William N. Morgan was Guest Curator for a recent exhibition of notable museum designs of the last 50 years. Although most of the museums included in the exhibition, held at the Jacksonville Art Museum, are in the United States, nearly half of their designers were born abroad in places such as Argentina, Estonia, France, Japan, Spain, and Switzerland. What all of the museums have in common is the exceptionally high level of design excellence they represent.

Some of the designs included in the show utilized new ideas while others examined unexplored possibilities of earlier schemes. Several of the designs were for new museums, others envisioned major additions or expansions, and still others encompassed galleries, exhibition spaces, and educational institutions. Most of the museums are situated in urban environments and required careful integration with existing buildings and civic spaces.

The exhibition focused on the creative process of design, not on the designers themselves. Each architect whose work was included was asked to provide one or more conceptual drawings illustrating his method of creating and communicating ideas. Not surprisingly, says Morgan, "The results are unique and richly diverse."

The works selected for this important exhibition are by no means the only examples of excellent museum designs of the 20th century. Rather, the purpose was to suggest a broad array of ideas presently at work in the art and architecture of museum design.

Media in the show included graphite, colored pencil, ink, pastels, charcoal, gouache, silkscreen, crayon, and watercolor, presented variously on bond paper, Strathmore, sketchbook pages, Arches, napkins, file cards, vellum, mylar film, and tracing paper. Most of the drawings are original, but photographic copies were presented in cases where the original documents are either too fragile for exhibition or were otherwise unavailable.

The completion date of each project established the order of

Jacksonville Art Museum
Jacksonville, Florida
September 19–October 10, 1994
Catalogue, with essay by William N. Morgan, FAIA

By Diane Greer

Jacksonville architect William N. Morgan was Guest Curator for a recent exhibition of notable museum designs of the last 50 years. Although most of the museums included in the exhibition, held at the Jacksonville Art Museum, are in the United States, nearly half of their designers were born abroad in places such as Argentina, Estonia, France, Japan, Spain, and Switzerland. What all of the museums have in common is the exceptionally high level of design excellence they represent.

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Salomon R. Guggenheim Museum, 1959
New York City
Frank Lloyd Wright, Architect

A conceptual section drawn in 1943 reveals Wright's extraordinary vision of an expanding spiral that rises through a continuous gallery and is crowned by natural light. Small sketches appear in the lower right-hand corner, human figures suggest scale, and planting is shown on rooftops.

Brooklyn Museum Addition, 1986
Brooklyn, New York
Ava Isesaki, Architect, with James Stewart Polshek & Partners

In this competition-winning design, the architect developed an appropriately scaled addition to a historic museum, including a monumental staircase and a grid-dotted titanium cube rotated above the new western gallery.
presentation. The chronological sequence was intended to assist the visitor in understanding what possibilities had been explored before subsequent ideas were introduced, and how later ideas may have related to earlier ones.

Several influences guided the development of American architecture in the years following the Second World War. These included steel-framed glass boxes responding to the discipline of Mies van der Rohe, increasingly sculptural buildings designed by the French master Le Corbusier, and the spirited creations of Frank Lloyd Wright. Wright’s works have informed generations of designers since the late-nineteenth century.

During the sixties, however, a spirit of restlessness became widespread in America and elsewhere. The new spirit called for re-evaluation of precious accepted principles and for exploration of new directions in design. Museums representing the new era include Paul Rudolph’s highly creative designs recalling the spirit of Wright, and one of Louis Kahn’s timeless and unsurpassed masterpieces, the Kimbell Art Museum.

In more recent decades, designers have explored a broad spectrum of new directions, often with remarkable virtuosity and brilliance. Given the current high level of achievement in American architecture, curator Morgan assures us that “we may expect to see in the years ahead, an increasing number of distinguished museum designs, and quite likely a few masterpieces, as well.”

All photos by Kathleen McKenzie

Museum of Contemporary Art, 1987
Los Angeles, California
Arata Isozaki, Architect

This splendidly crafted museum amidst the skyscrapers of downtown Los Angeles consists of well-proportioned galleries surmounted by pyramidal skylights across a courtyard from a barrel-vaulted library. The building reveals the architect’s preference for simple geometric shapes, recalling such structures as Egyptian pyramids and Roman vaults.
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Fast Finish

Checkers Restaurant
Tampa, Florida

Architect: Spencer and Jonnati Architects, Inc.
Principal-in-Charge: Stephen Spencer, AIA
Consulting Engineer: D.W. Lowe, P.E.
Design Team: Mark Jonnati, AIA, Stephen Spencer, AIA
Contractor: Champion Modular Restaurant Company, Inc.
Owner: Checkers Drive-Thru Restaurants, N.A.

“Fast” in the restaurant business no longer means just the food.

The fast-growing Checkers Restaurant chain, founded just 10 years ago, now numbers almost 500 stores. One reason is an incredibly fast construction system made possible with an array of metal products and a precision-engineered foundation setup. The prototype for Checkers’s modular building system was designed by Spencer and Jonnati Architects, Inc., of Largo, Florida.

The system was adopted by the Checkers chain in the late 1980s to replace its earlier site-built method. Both manufacture of the prefabricated metal components and installation of the kitchen equipment are completed at a factory in Clearwater. The 31-ton unit is then trucked to the job site and hoisted by crane onto a concrete slab.

Three prefabricated sections—a main one and two drive-through canopies—measuring 14’ x 48’ overall, are then bolted together on-site. A high degree of coordination is required between the civil engineering and building construction documents because of the close tolerance of the foundation system. The “open-for-business” sign can go up in seven days.

With no indoor seating in the small facility, the interior look is entirely functional. The unique exterior design, which has been compared to a 1950s-style juke box, is another story. Black and white ceramic tiles outlined with stainless steel, glass block, and lots of neon lighting make Checkers especially eye-catching after dark. The design has been recognized several times, including a 1990 “Night Beautiful Award for Imaginative Nighttime Lighting” from the Florida Department of Commerce.

The lively exterior belies a framework of tubular steel and metal studs, and a rugged skin of ceramic tile around the bottom with an exterior insulation system and finish system above. The neon-trimmed drive-through canopies are manufactured from 20-gauge, shop-formed bright annealed stainless steel with a #8 mirror finish. Columns and the mechanical equipment roof screen are 22-gauge steel, shop-formed and coated.

The latest engineering technology was applied in creating a structure that could withstand winds up to 120 m.p.h., a worst-case scenario for structural loading. A “field-test” came unexpectedly, on August 24, 1992, when Hurricane Andrew destroyed much of south Dade County. A new Checkers Restaurant was scheduled to open there the day the hurricane hit. Sustaining only minor damage from flying debris, the store opened for business the next day, using gas-powered generators. As one of the few businesses operating in the aftermath of the storm, it got off to a big start. The major competition in the neighborhood was the Red Cross mess tents.

Spencer and Jonnati have been approached by several other restaurant companies to create modular double drive-through designs for their formats. A design is underway for the Quick Pit Corp. of Vero Beach, Florida, whose NASCAR-themed barbecue restaurants will accommodate a full-size smoker and a larger kitchen. To replace its site-built design, Long John Silver’s Seafood Restaurant has commissioned a wide prototype that will require two half modules bolted together.

Photography by Brenda Nixon
Taking Stock

Superstock
Jacksonville, Florida

Architect: KBJ Architects, Inc.
Jacksonville, Florida
Owner: Superstock, Inc.
Developer: The Beecker Company
Contractor: Elkins Industrial Contractors, Inc.

Judged by Princeton architecture professor Michael Graves to be worthy of an Award for Excellence in Architecture, this small commercial project was so honored by the Jacksonville Chapter/AIA at its 1994 Awards Program.

This building is a 30,000-square-foot corporate headquarters for a stock photography company. Its Jacksonville architects designed the building as an architectural interpretation of a 4" x 5" box camera. The design is a true square, built on axis and inwardly oriented. The black punched exterior walls, with postage stamp windows, feed into the centroid of the space and come out on the other side, extending beyond the interior of the building. The walls are, in effect, an interpretation of film leading into the camera.
The entrance to the building, which serves as a focal point, was designed as a gallery, with a high ceiling and narrow walls. The company uses this space to display some of its most striking stock photographs. Above the entry corridor gallery is a bridge that extends past the central elevator shaft to the rear of the building. The open interior design allows unobstructed views from the first to the second floor.

Ceilings throughout the building have been omitted so that the mechanical components are exposed and visible. These components were carefully choreographed and enlarged with high pressure ducts for a more dynamic effect. Like a camera, the purpose was to be able to view the inner working parts of the facility. DG

All photos by Timothy Hursley
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Carl Abbott FAIA
Architects/Planners

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The Principle
The faith that architecture can shape and improve the quality of life is a tenet of Carl Abbott FAIA Architects/Planners. Design remains a richly evocative process for firm members—one tied to a strong belief in the power of architecture. Individuals in the firm carry on a legacy—both within the profession and with clients—of outstanding design and investigation into the design process.

The Preparation
The design education of Carl Abbott was formed from the very beginning by an environmental perspective. After receiving a Bachelor's degree from the University of Florida and a Master's from Yale, Abbott worked in Honolulu, in New York with I. M. Pei, and in London with Norman Foster and Richard Rogers. The process Abbott developed early on, "of seeking spaces of wonder that belong to a specific region" and of recognizing their sense of place and spirit, remains a vital focus of his work.

The Team
Design at the Carl Abbott firm is practiced as a true team effort: individuals of many backgrounds and perspectives work toward a common goal. Along with architects, the small, 5-member firm, has included industrial designers, artists, photographers, sociologists, economists, anthropologists, archaeologists, environmentalists, and students. If there is a single defining characteristic of the team, it is a developed capacity for creative problem solving within the real-world requirements of time and budget.

Among the architects and designers who have been affiliated with the practice are Mark Smith, Michael O'Donnell, Michael Sheppard, and Joseph King. A key member of the team is Cooper Abbott, vice-president of the firm, whose background in planning, anthropology, and environmental sciences has brought a fresh energy and awareness of contemporary issues to the firm.

The Process
Carl Abbott is a believer in the great potential of "design teaming" among firms. "Given the impact of currently evolving technologies," he says, "all viewpoints are needed—big and small firms, architects and planners, voices of experience and fresh voices. . . Everyone can offer something to invigorate and enhance the design process."

"Architecture and planning," says Abbott, "are unique among professions in the level of synthesis they have the potential to offer. The design process can make different points of view an asset—rather than an adversarial proposition, design is a means for reaching a consensus of sometimes extremely divergent elements. We can all take greater advantage of this."

The Credits
Carl Abbott Architect, AIA, was first established in Sarasota in 1966. During 1973-77, the firm expanded and briefly became the Zoller/Abbott/Friedman Partnership. The latest of many honors conferred on the firm was the 1994 FA/AIA Firm of the Year Award.

The Promise
A strong commitment to architecture's responsibility in supporting environmental and social improvement has won for the firm an ever growing base of repeat clients. The Carl Abbott firm continues to dedicate itself to a widely diverse range of projects.

Carl Abbott with sons Mark (left) and Cooper (right) in front of Sarasota Memorial Hospital's Child Care Center II. Photo by Gwen Mitchell
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Awards will be presented at the AIA Florida Summer Conference at the Breakers Hotel in Palm Beach, FL July 28-30.
Sizing the Accessible Toilet Stall for Compliance in Florida

By Larry M. Schneider, AIA

There may not be an official court order, but there is a serious problem, and architects and builders in the state are being warned. Design guidelines for required accessible toilet stalls in new construction, as outlined in Florida's accessibility law, do not meet the federal guidelines for accessibility. This was the recent "guidance" from a U.S. Department of Justice official in response to an inquiry from Metro Dade County.

The Florida accessibility requirements fall short in permitting sufficient space for persons in wheelchairs to maneuver. A quick decision to embrace guidelines for an accessible restroom stall containing an accessible lavatory, found in the 1994 Florida Accessibility Code for Building Construction, could mean trouble. According to Florida's Code, section 4.17.3(2), the stall "shall be not less than 68 inches by 68 inches," and the lavatory "not less than 19 inches wide by 17 inches deep, nominal size, and wall mounted." Further, if the stall is to have a front entry, Florida law requires a 60-inch diameter wheelchair turnaround area be accommodated within the stall.

The problem area, according to U.S. Justice Department Public Access Section Chief John L. Wodatch, in a letter (dated August 8, 1994) to Metro Dade County Manager Joaquin G. Avino, is that the presence of a lavatory within an accessible stall may preclude compliance with the clear floor space requirements. "A lavatory," wrote Wodatch, "within the clear floor space limits access to the toilet to a diagonal approach, and obstructs maneuvering room; therefore, it is not permitted." According to Wodatch, "The text of § 4.16.2 specifies that figure 28, which allows for an accessible lavatory to overhang the clear floor space at the toilet, is to be used only for toilets not in stalls." However, added Wodatch, "ADA Standards do not prohibit the placement of a lavatory within an accessible stall, provided that the clear floor space requirements are met."

It is possible for architects, owners, and builders in Florida to observe both state and federal requirements by enlarging the size of the accessible stall. To do this, it is recommended that the back wall/plumbing wall be a minimum of 79 inches in counties and municipalities that use the Standard Building Code, or a minimum of 83 inches in Dade and Broward counties. The controlling factor for the width of the stall will be the lavatory width.

The Florida Department of Community Affairs submitted the state's Accessibility Code to the U.S. Justice Department for approval in 1994 and is still awaiting an official ruling on compliance. However, the letter of guidance to Metro Dade signals that problems may be ahead for the Florida law.

Larry M. Schneider, AIA, is Chair of the Florida Board of Building Codes and Standards.

Typical Accessible Toilet Stall

COMPLYING WITH THE REQUIREMENTS OF THE FLORIDA LAW AND THE ADA GUIDELINES FOR NEW CONSTRUCTION

Assumptions:

1) Accessible Water Closet Depth Is 30 Inches and It Is Floor Mounted
2) Toilet Stall Door Swings Out and Is Self Closing (553.504(12)(b), Door Can Be Hinged on Either Side
3) Toilet Stall Door Width to Be a Minimum of 32 Inches (553.504(13)(b))
4) Accessibility to Toilet Stall Door Is in Compliance with ADA Guidelines
5) Toilet Accessories to Be Provided.


NEW CONSTRUCTION: The following requirements for size and arrangement shall apply to new construction only:

4.17.3(2) The accessible restroom stall shall be not less than 68 inches by 68 inches and shall contain an accessible lavatory within it, the size of said lavatory to be not less than 19 inches wide by 17 inches deep, nominal size, and wall mounted (see Figure 30(e)). Additional stalls shall be provided in accordance with 4.22.4.

4.17.3(4) The stall door shall be located on the wall adjacent to the accessible lavatory, as far from the lavatory as possible, or the stall door shall be located in the wall opposite the accessible lavatory if a 60-inch diameter wheelchair turnaround can be accommodated within the stall (see Figure 30(f)). The accessible stall door shall swing outward, shall be not less than 32 inches wide, and shall be self-closing. Such lavatories shall be counted as part of the required fixture count for the building.

The Americans with Disabilities Act (ADA) guideline reads as follows.

4.17.3(4) The stall door shall be located on the wall adjacent to the accessible lavatory, as far from the lavatory as possible, or the stall door shall be located in the wall opposite the accessible lavatory if a 60-inch diameter wheelchair turnaround can be accommodated within the stall (see Figure 30(f)). The accessible stall door shall swing outward, shall be not less than 32 inches wide, and shall be self-closing. Such lavatories shall be counted as part of the required fixture count for the building.
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CEASE MOON WALKING
Accepting Responsibility Is Essential—and Profitable

By Frank McLane, AIA Emeritus

O

ter the last half of this century, we architect prac-
tioners have witnessed great shifts and changes in design and 
evolutionary new construction materials and methods. We 
have witnessed the waxing and waning of the power of
the developer to dictate design in our communities. We have 
noticed the absorption of the computer into most aspects of 
our profession—from production of design documents to man-
agement of construction. We have observed the arrival and 
departure of “building delivery systems.” We have watched as 
modern architecture evolved from clarity to confusion, cul-
minating perhaps in the much-

copied and admired caricature of architecture in what is really 
onarchitecture—amusement 
park village design.

We have experienced some 
exciting architectural space—and even more that we won’t 
ever speak about.

We have even seen the archi-
tect become a figure in enter-
ainment, from Howard Roark 

of The Fountainhead, to the 
owner of Mister Ed the horse, to 
covers and moguls whose charac-
ters add prestige to the movies and soap operas they inhabit.

More important, we’ve also 
seen what a real architect like 
John Portman can do when the 
architect is the developer and 
the synthetic wisdom of “the 

experts” can be weighed and 
counterbalanced.

However, we have also wit-
nessed the long-drear

y retreat of the architectural profes-
sion in general, a retreat that seems 
never to end. As an architectural 
firm owner (26 years) and as a 
public official who employed 
architectural firms (15 years), 

I have watched the profession 
prode and deteriorate. The con-
tributing factors are numerous 

and varied—low nonnegotiable 
fees, poor decisions by the insur-
ance industry regarding liability,

the thrust of responsibility onto 
the backs of owners, and federal 
“restraint of trade” prohibitions, 
to name a few. Regardless of 
the causes, the worst effect on 
the profession, to my mind, 
has been a steady retreat from 
authority and responsibility, a 
retreat from professional 
respect. I call it Moon Walking.

In my arrogance, during the 
ey early days of a partnership, I 
proposed to a partner that we 
stand up to and take a proper 
professional position with a 
public-body client with whom 
our firm had a solid relationship. 
My partner refused, explaining to me 
that “architects were a dime a dozen.” Not then, not 
ever, did I believe that about 
myself or the quality of the work 
that bore my name. Nevertheless, I 

knuckled under.

Once hung a sign in my pri-

vate office that read, “We know 
what the costs are to provide 
top-quality service. Those who 
can charge less know what their 
services are worth.” My partners 

pressured me to take it down. 
They did not wish any client to 
think we were high-priced.

These stories are offered to

illustrate two critical problems 
among architects: not wanting to 
say “No” to anything, even to a 
losing proposition, and want-
ing to appear “competitively 
priced.” Inevitably, base-level 
fees have led to reductions in 
service and in quality—and in 
acceptance of liability.

Small wonder that with archi-

tects accepting fees dictated by 
the customer they must seek 
ways to bring the level of ser-

vices in line with compensation.

Small wonder that with archi-

tects being forced to accept 
unrewarding fees they must 
seek to reduce their liability.

Small wonder that with 

current fees barely covering 
product/services costs, leaving 
no cushion to bear the cost of 
liability; architects are joining 
contractors, subcontractors, 
and engineers in finding new 
ways NOT to face construction 
problems—doing the Moon Walk 
dance.

Here’s the spin. It is much 
like “reverse English” in the 
game of pool. When service is 
reduced, so is the quality of 

service. And with less quality of 

service comes a greater risk of 
error and omission—and greater 
probable liability. Yet current 
fees vs. delivered product/ser-

vices costs leaves no cushion 

be the architect and declining 
to insure those jobs for which 
adequate fees were not negoti-

ated, insurers established pro-

grams to teach architects and 

engineers how to minimize 
(read: avoid) responsibility.

Further, instead of working with 

owners to help them understand 
the importance of adequate 
planning, the insurance industry 

encouraged the AIA to modify 
its standard documents, line by 
line, shifting responsibility to 

owners and contractors. And 
since contractors were repre-

sented in the rewriting, owners 

ended up bearing the brunt of 
the responsibility.

For many years owners have 

had the need and desire to find 
someone to accept—or at least 
share—responsibility. And for 
the Moon Walking to stop, archi-


tects (and engineers) must start 

accepting a share of the respon-

sibility.

Attorneys who draw agree-
ments between owners and 

architects (and engineers) can 

help by wording standard 

agreements. I believe it is time 

for these professionals to stand 

behind their work, to share in 

the risk. (Practicing what I 

preach, in my role as a public 

official, I was able to influence 

many such agreements and

I believe it is time for 
these professionals 
to stand behind 
their work, 
to share in 
the risk.
The day has come when many a large, stable client is hungry to hear, "Here's what I can and will be responsible for." What's more, that client is also ready to hear, "Here's a task cost analysis. And here's the amount I need to be able to shoulder responsibility for these tasks."

If this sounds like a pipe dream, it's not. It's a question of how.

I offer the following example. Since my retirement from public service, I've been associated with a mechanical-electrical-plumbing (MEP) engineering firm that contracts, above and beyond its initial delivery services, for what we call Gold Key service. This contract extends the responsibility of the designing MEP engineer two years beyond the date of substantial completion. Besides extending the warranty of the HVAC equipment, Gold Key service provides for a long list of customized benefits, including training in the system for the owner's operating and maintenance staff, system start-up and shake-down by the designing MEP engineer, recorded air monitoring (an excellent lawsuit-prevention tactic), and many other critical services.

Sounds costly? Gold Key clients say it's worth every penny. These are clients who, after bitter experiences with Moon Walkers, have realized they can't afford not to pay for quality assurance and responsibility.

These skilled MEP engineers have the hands-on experience to stand behind their product/services. Likewise, when an architect is in the chain of command, Gold Key service includes a markup (typically adequate compensation. The day}

the client gains satisfaction that the occupant's complaints will be resolved by qualified professionals. The idea of selling responsibility—and getting paid adequately for accepting it—is a means of beginning to end the long-dreaded retreat.

The architects themselves can identify which particular responsibilities they are willing to accept for additional compensation. A good place to start would be to reward the standard AIA Architect-Owner Agreement, identifying in shop drawings and submittals precisely what the architect will be responsible for. Next, since the architect as well as the architect's engineer will be responsible for work done under the contractor, the architect should establish the right to approve or reject any specific "specialty engineers" and the method of calculations and submittals.

There are, of course, those things for which the architect cannot be responsible. But accepting responsibility for those for which he or she can is essential, and even can be profitable. For the day the profession begins to specifically accept responsibility will be the turning point in the long-dreaded retreat. The end of Moon Walking will signal a new beginning for respectability and profitability.

Frank McLane, AIA Emeritus, now writes on issues and observations.
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As part of our observance of Florida’s sesquicentennial year, it seems fitting that we sample some of the architecture that has been preserved around the state. Clearly, as described by Vivian Young, diversity was, and remains, the key to our architectural heritage. We also see that a great deal of effort by groups and individuals at all levels has gone into preserving architecture of the past, whether plain or fancy, functional or fantasy, or a vernacular or revival style. Jacksonville architect and University of Florida Distinguished Lecturer Herschel Shepard brings his experience to bear in a discussion of the National Register criteria that will interest every professional with a passion for this pursuit.

For most of the architects doing this kind of work, the abounding challenges are counterbalanced by their enjoyment of the process. Reconciling idiosyncratic building methods and materials with current needs and standards requires as much creativity as a new design. In fact, one of our “historic preservation” projects is a totally new design. For Pan’s Garden, a native plant botanical garden next to downtown Palm Beach, Leslie Divoll created an antique-style garden space, incorporating a collection of “recycled” architectural fragments and antique Portuguese and Mizner Industries tiles.

Across the state restored public buildings continue to serve their communities in their functional capacity as well as providing lessons in history. Restored to its Mediterranean Revival dignity by Barger + Dean, the old Edwards Theater is now the Sarasota Opera House. Much of its charm lies in the fact that behind the polish and refinement of its beautifully restored surfaces, a backstage visitor can encounter the real past, for example, in a wall of original exposed rough Georgia clay brick. In Miami Beach, the Art Deco temple that housed the first Jewish congregation in that city has been restored by Giller & Giller and rededicated as the Jewish Museum of Florida. In Tallahassee, on the Florida State University campus, Elliott & Marshall’s renovation of turn-of-last-century’s Dodd Hall complements its turn-of-this-century addition.

Ken Smith is one of several Florida architects whose restoration projects cover a wide range—churches, courthouses, lighthouses, and every other kind of house. In viewing a few of his projects, one gets a sense of the amount and variety of restoration work out there that needs to be done. And for a look at how it is done, Tallahassee architect Trent Manausa describes his practice of “forensic architecture,” finding old bugs and fixing them while remaining “historically correct.” MB
Legislature Approves Massive Changes to Educational Facilities

Florida legislators completed their 60-day 1995 Regular Session in May with approval of a massive rewrite of the Education Facilities statute, setting the stage for major changes in the manner in which school buildings will be designed, constructed and approved in the years to come.

Scheduled for sunset if not reenacted by July 1, FS. Chapter 235 was rewritten following a thorough year-long review by many committees and organizations, including AIA Florida. The basic tenor of the changes made to the statute was to provide more autonomy to local school districts. At the urging of newly elected Florida Education Commissioner Frank Brogan, legislators sharply reduced the number of staffers in the Office of Educational Facilities, shifting responsibility for surveys and plans review to the local level. School districts may still request a Phase III plans review from the state level but are free to approve all phases if they wish to do so.

Architectural services for school designs still will be competitively selected under the Consultant’s Competitive Negotiation Act, but school districts may also use a varied array of project delivery processes. Under the revisions, a school district may contract for architectural services to utilize the plans and specifications prepared in another county without going through the CCNA process.

A section was added to the statute allowing the Department of Education to develop school plans, but the program was unfunded. AIA Florida succeeded in amending the provision to require that the DOE utilize a registered architect/consultant to prepare the prototypical plans when and if the program is activated. The provision is permissive, and Commissioner Brogan indicated to AIA Florida that he only expects to utilize such a program to benefit smaller school districts that may need help in the future.

The provision regarding schools being constructed to serve as fallout shelters was amended out, and the Department of Community Affairs was required to establish a statewide emergency shelter plan which would provide school districts with guidance in determining which schools need to be constructed as shelters to correspond with the plan.

Practice Act Amended

The Florida Legislature approved changes to the Architect and Interior Designer Practice Act during its recent 60-day session. Chapter 481 Part 1, FS, was amended initially to reinstate the two-year junior college interior design education program and to allow provisional licensees to take a continuing education program in lieu of a test on building code and barrier free code requirements to qualify for full licensure. AIA Florida succeeded in getting approval for amendments to the statute affirming that architects have all the rights and privileges necessary to offer interior design services. Architects also may obtain an interior design license if they so choose, but the law now preempts any city or county government from disallowing an architect from consideration for interior design work.

Legislators redefined “interior design” to specifically exclude design of or responsibility for architectural and engineering work. Also included in the act are a broader definition of what that work includes and definitions for terms such as “nonstructural element,” “reflected ceiling plans,” “space planning,” “common areas,” “diversified interior design experience” and “interior decorator services.”

Florida’s First Chancellor

Ellis W. Bullock, FAIA, of Pensacola, began his term as Chancellor of the College of Fellows early, after the resignation of Robert Coles, FAIA. Bullock, a past president of AIA Florida and Vice President of the Institute, began serving in April 1995 and will serve through 1996. He is the first Fellow from Florida to serve as Chancellor.

Ca’ d’Zan To Be Restored

Ca’ d’Zan, the former residence of John and Mable Ringling, is undergoing a $5.8 million restoration. Nationally recognized preservation architects Ann Beha Associates, of Boston, Mass., are gearing up to begin the first phase of a five-year plan. Tampa architect Jan Abell, FAIA, will serve as local liaison for the project.

John Ringling was a successful business magnate and early developer of the resort colony at Sarasota, in addition to being a founding member of the Ringling Brothers Circus. He was also one of the country’s major art collectors in the early-twentieth century.

“This is by far the most important project we will undertake at the Ringling Museum in the coming decade, and a restoration project in which all the people of Florida can take pride. We look forward to a fruitful collaboration,” says David Ebitz, Director of the Museum.

Home Safe Project

The Palm Beach Chapter of AIA is developing plans for a $1.1 million facility that will be used by authorities for temporary housing for severely abused children in the Palm Beach County area. A group of twelve Chapter members is involved in designing the one-story, 9,200 sq. ft. facility, which will have a residential appearance.
Reader Survey Results

As Florida Architect experienced organizational, staff and layout changes during 1994, one question frequently arose: "What do the readers want from Florida Architect?" In early February 1995, a reader survey was broadcast-fixed and mailed to 700 AIA firms throughout the state. A dozen questions inquired about such diverse concerns as reader interests, the current level of satisfaction and the type of audience desired for the magazine.

Response was rapid. Within 72 hours headquarters counted a 27% response rate, with the overwhelming majority of readers expressing general satisfaction with the magazine. It was clear that the readership preferred that Florida Architect inform architects about the profession, with a smaller but significant group interested in directing the magazine’s focus toward the general public. The graphs best indicate the level of interest on specific topics.

Comments, suggestions and satisfaction indicators gave the magazine staff a wealth of information to support decisions and provide feature ideas in the years ahead. Two clear areas of concern which did emerge were that more than just a "select few" architects should be published, and that more "good projects from less densely populated areas" should be considered.

(ED. Tell us about these good projects so we can recognize them.)
Programs will serve children who have been sexually and/or physically abused. Medical, law enforcement, and HRS officials would see children at the facility rather than taking them from agency to agency. An umbrella committee of the Home Safe Board of Directors is conducting a fund-raising campaign to raise the needed $1.1 million. Contact Board member Jim Anstis, FAIA, to participate or make a contribution.

Awards for Excellence Selected

The AIA Florida 1995 Design Awards for Excellence in Architecture projects were selected May 5 in Atlanta by a jury made up of Peter Q. Bohlin, FAIA, Lloyd Bray, AIA, and Greg Peirce, AIA. The jury selected the following projects, which will be published in the September issue of Florida Architect:

Astronauts Memorial Foundation Center for Space Education
Architect: Hellmuth, Obata & Kassabaum, Inc.

Pinecrest Elementary School
Architect: Martinson Forbes Architects

Residential Restoration and Addition to a 1922 Addison Mizner house
Architect: Smith Architectural Group, Inc.

Moor/Justieiesz Residence
Architect: Moor & Associates, Architects, PA.

Tampa Museum of Art
Architect: Alfonso Architects, Inc.

Dorothy F. Schmidt Arts & Humanities Center
Architect: Schwab, Twitty & Hanser

Three-acre housing development with 23 detached houses
Architect: Andres Duany & Elizabeth Plater-Zyberk Architects and Town Planners

The 1995 Firm of the Year Award goes to Hunton Brady Pryor Maso Architects, of Orlando. The jury selected from six submittals the firm whose collected body of work was found to be deserving of the prestigious Firm Award. Members of the jury included Carl Abbott, FAIA, of Carl Abbott FAIA Architect/Planners, PA.; William Lindner, Secretary, Florida Department of Management Services; Robert Friedman, Associate Vice-Chancellor, Office of Capital Programs, State University System; and James Dehaven, President, Dehaven-Brett Equities.

This year the Test of Time Award will go to Lemontree Village, Coconut Grove, by...
Charles Harrison Pawley, FAIA. Lemontree Village, completed in 1970, is a development of multifamily duplex townhouses and is one of the first uses of planned area development in which buildings could be moved around to take full advantage of on-site trees. The flexible design has been recognized with local, state and national awards over the years. The Test of Time Award is presented for distinguished architecture, recognized for its timelessness of design and influence on other architecture.

Gerken Chosen for the Gold

Carl Gerken, AIA, Ormond Beach, will be presented with the State Association’s highest award, the Gold Medal, at the annual meeting in Palm Beach on July 29, 1995. The nomination was made by the Gold Medal Nominating Committee, headed by Ted Pappas, FAIA, and was ratified by the Board of Directors at their meeting in Atlanta, May 6. Gerken was selected for his outstanding and consistent service to the profession for the past twenty-five years. In particular, the committee noted Gerken’s leadership during the 1970s when the State Association underwent many changes and its headquarters were relocated to Tallahassee. Gerken, the current chair of the Board of Architecture and Interior Design, served as president of AIA Florida in 1979. His nomination for the Gold Medal noted his years of dedication to AIA Florida and to the profession of architecture.

The Board also voted to award the Hilliard T. Smith Silver Medal for Community Service to Enrique A. Woodroffe, AIA, of Tampa. The Tampa Bay Chapter nominated Henry and applauded his efforts to improve the quality of life in the Tampa community. He has assisted with policy issues and fund raising for numerous projects and has been active in legislative issues at the state level.

The Anthony L. Pullara Individual Award will be presented to Herbert R. Savage, AIA, Marco Island. Herb is a member of the Florida Southwest Chapter, and has dedicated many years of leadership and service to the profession. Herb is a past president of the association and a current trustee of the Florida Foundation for Architecture and has made a significant impact on increasing membership at the chapter level.

The Award for Honor in Design Committee nominated Edward J. Seibert, AIA, Sarasota to receive the Award for Honor in Design. Seibert has a proven record through his designs of a special sensitivity to Florida Gulf Coast culture, environment, history and architecture. The committee noted Seibert’s recognition, during his career, of the need to nurture interns and young architects, which added further to the excellence of the architecture.

The Board of Directors also voted to recognize three allied professionals for their contributions to the profession. The Architectural Photographer of the Year Award will be presented to George A. Cott, Chroma, Inc., Tampa, for outstanding work performed during 1995. The architectural photography of Mr. Cott has been recognized again for quality and creativity in advancing the profession of architecture.

The Outstanding Builder Award will be presented to Wass-Phillips Construction Company, Miami. The nomination noted that this company has become known throughout the Miami area for its quality workmanship, teamwork and outstanding problem-solving abilities. Support for the nomination included the Miami Chapter and local architects.

Sandra Warsaw Freedman, past mayor of Tampa, will receive the Bob Graham Architectural Awareness Award. AIA Tampa Bay nominated Ms. Freedman in recognition of her extensive efforts to improve community life in Tampa. She led the work to revitalize neighborhoods in Tampa with an emphasis on housing, law enforcement, growth management, citywide recycling and water conservation programs. She organized public-private partnerships with local lending institutions and private nonprofit agencies to create the Mayor’s Challenge Fund, which has won recognition as one of the nation’s most creative housing programs.
In Celebration of Florida's Sesquicentennial

By Vivian Young

From earliest European contact, La Florida—the land of flowers—has been a state of adventure, of hardship, and of promise. All of these facets are melded into the historic architecture of Florida. From modest pioneer homesteads to opulent fantasy mansions, historic buildings reflect Florida's unique heritage.

Communities are gearing up for the Sesquicentennial, as this year Florida celebrates its 150th anniversary of statehood. From a rural, agricultural state with a sparse population of 70,000, Florida today is rapidly growing and cosmopolitan, with over 13.6 million people and an economy that rivals that of many nations. As Floridians zoom along the interstates, abandoned farmhouses and decaying crossroad stores tell stories that few now recall. Lighthouses and railroad stations, once Florida's lifelines to civilization, are little more than quaint reminders of the past. The Sesquicentennial provides an exciting opportunity to look back at those historic resources that tell part of the story of Florida's development.

Florida's early architecture reflects adaptation to its steamy climate and indigenous building materials. Beginning with the Spaniards and British, settlers found the durable coquina, a natural lime and shell conglomerate from Florida's shores, admirably suited for construction. Native longleaf pine, once blanketing the northern half of the state, provided plentiful lumber for many a pioneer homestead. Early on, builders learned the benefits of high ceilings, cross-ventilation, and good building orientation, taking advantage of wafting breezes for natural relief from the sweltering heat.

Early Floridians were followers in architectural design. Most built utilitarian shelters using locally available materials. Accounts abound of pioneers' primitive log cabins. As settlers became more established, so did their homes—more permanent vernacular structures, often raised on piers, with wood siding and sheltering porches. "Florida Cracker" buildings appeared throughout the state into the 1900s. Some areas developed distinctive vernacular variations. In Key West, influences from the Bahamas and other tropical ports led to the "conch" house—characterized by verandas, louvered shutters, and deep eaves. At the other end of the state, Pensacolans favored the simple yet elegant raised "Gulf Coast" cottage with broad, overhanging roof.
Few architect-designed buildings existed in early Florida—most settlers built what they remembered from their native state. Following the example of Thomas Jefferson and others further north, those attempting an architectural style often chose Classical Revival—sometimes with impressive results. Symbolically appropriate for a new country filled with promise, Revival styles symbolized the lofty ideals of democracy and enlightenment. They could also be fairly easily copied from design books and did not require elaborate millwork difficult to obtain in frontier areas.

With its emphasis on symmetry, and Classical columns often in the form of a portico, the Greek Revival style became popular for churches, plantation houses, and other early Florida landmarks. Florida's first masonry capitol building, designed by Cary Butt of Mobile, Alabama, was completed just in time for Florida's 1845 entry into the union. Greek Revival structures remained popular throughout the antebellum period.

Most Floridians, of course, did not live in mansions. In 1860, just prior to the outbreak of the Civil War, over 40 percent of Florida's population of 140,000 were slaves. Little still stands as built testimony to how the slaves lived, except perhaps the tabby quarters at Kingsley Plantation in Duval County. It is only through archaeology and the written record that we can begin to piece together this aspect of Florida's history together.

The aftermath of the Civil War threw the South into economic, political, and social upheaval. Construction slowed dramatically. When it picked up again America headed in a new architectural direction. A Romantic movement swept the nation, rejecting formal Classicism in favor of more eclectic design. The new styles had Medieval and Renaissance models as their inspiration. Nationally, designers such as Andrew Jackson Downing had begun publishing books highlighting these new styles in the 1840s. By the 1870s picturesque Gothic Revival churches and Italianate homes dotted Florida's landscape. By the 1880s the Queen Anne style had become popular. With its irregular massing, ornate gingerbread detailing, dominant porches, and turrets, it represented American architecture at its most playful. Some structures were designed by...
Florida's Sesquicentennial

Continued from page 11

architects, but many were the work of the owner and builder, perhaps assisted by an architectural pattern book and the local sawmill.

A few farsighted entrepreneurs embarked in yet another direction, "Florida Fantasy." The state's reputation as a winter retreat for the wealthy and the ill was established by the 1870s, as promoters successfully extolled the beautiful climate and cheap land. Two wealthy northern industrialists, Henry Flagler and Henry Plant, opened up much of the state for development. In love with the climate and enthralled with St. Augustine's Spanish heritage, Flagler commissioned New York architects Carrère and Hastings to build a hotel appropriate for the historic city. It opened in 1888—a flamboyant Spanish concoction of local coquina with Tiffany windows and all the opulence any visitor could desire. Flagler next began acquiring rail lines, forming the foundation of his Florida East Coast Railroad. Not to be outdone, Plant established the South Florida Railroad and in 1891 opened his own Moorish fantasy hotel in Tampa. As the competing rail lines pushed through Florida, they opened new territory for settlement—and for embellishing the Florida image.

Following in these more exotic footsteps, society architect Addison Mizner brought what is now known as the Mediterranean Revival style into full flower. Early this century he brought to Florida the vocabulary of the Mediterranean, including the stuccoed walls and red barrel-tile roofs still synonymous with some areas of this state. Not content to design just buildings, Mizner planned the entire Worth Avenue area of Palm Beach, and began developing Boca Raton. Likewise, wealthy aviator Glenn Curtiss and architect Bernhardt Mueller designed and developed the fanciful Moorish city of Opa-Locka. Many of these dreamers saw their visions crash with Florida's real estate bust beginning in 1926.

In the late 1800s, drawn by growth and expansion, architects—some professionally trained, some self-proclaimed—began establishing practices here. The Florida Association of Architects was created in 1912, and four years later, Florida's first professional state licensing exam for architects was given; four passed.

Architects and architecture were moving in divergent directions as the century turned. One movement, seeking more academically correct revivals of early architecture, had its roots in part in the "City Beautiful" movement. The World's Columbian Exposition, held in Chicago in 1893, expounded a vision of the grand American city, ironically modeled after Baroque Paris! "Make no little plans" extolled architect Daniel Burnham as he transformed part of Chicago's waterfront with columned white Neoclassical buildings and tree-lined boulevards. Thousands who visited the fair left impressed. Classical buildings enjoyed a resurgence, and for decades civic leaders emulated the boulevards and plazas in their town designs.
Simultaneously, at the turn of the century, the building industry was undergoing tremendous changes. Inventions such as the elevator and reinforced concrete made “sky-scrapers” possible. Architect Louis Sullivan called for new honesty in design, where “form follows function,” and Frank Lloyd Wright developed the organic, spare, and distinctively American “Prairie School.” Jacksonville architect H.J. Klutho and others brought the new concepts to Florida, where they enjoyed a brief flowering. But by the end of World War I another new movement emerged.

With cars on the road, planes in the air, and electric toasters in the kitchen, America’s love affair with technology was flourishing. This was reflected in sleek buildings that appeared better suited to speed across the ocean or take off in flight than to remain anchored to the soil. Strongly influenced by European designers, the sophisticated Moderne style, also called Art Deco, took hold—particularly in the fast-growing vacation paradise Miami Beach. Florida experienced a flowering of architecture early this century—from Mediterranean and other Revival fantasies reflecting the wealth and aspirations of new settlers, to new styles such as Prairie and Moderne, which developed a distinctive vocabulary for the twentieth century. After World War II, the advent of air conditioning and other technological changes lessened, for a while, the need to develop architecture specially suited to this state and its climate. Nevertheless, Florida’s historic architecture has had a lasting impact. Historic landmarks remain as testimony, and lessons from the past continue to be seen in new development across the state.

Vivian Young is Community Assistance Consultant for the Historic Tallahassee Preservation Board. For the Sesquicentennial, she is assisting the Florida Foundation for Architecture in developing a traveling exhibit, slide presentation, and booklet highlighting Florida’s historic architecture. To arrange bringing this Sesquicentennial program to your community, contact Joanna Booth at (904) 222-7590.
Restoring Harmony

Sarasota Opera House
Sarasota, Florida
Stuart H. Barger, AIA

The opening of the doors of the Edwards Theater, on April 10, 1926, "admitted Sarasota into a fairyland of costly decoration, rich furnishing and never-to-be-forgotten artistry," said the Sarasota Herald. Jacksonville architect Roy A. Benjamin ("a master designer of amusement enterprises") was credited with designing the three-story steel frame and masonry complex.

Owner A.B. Edwards, Sarasota's first mayor, conceived the building as a year-round moneymaker in the winter resort town. Besides the theater auditorium, the original structure contained eight "exclusive shops" off the arcaded entrance, five business offices on the second floor, and a dozen furnished apartments on the third floor arranged around a three-story skylit atrium.

Traveling companies brought music, vaudeville, and plays to the theater. But from the 1950s (when it was renamed the Florida Theater) until it closed in 1973, movies were the main fare. Over the years, cosmetic changes reflected changing times and uses. With the Sarasota Opera's purchase of the building in 1979 began a continuing campaign to raise funds to refurbish the interior, and in January 1981, the company's 25th season opening was celebrated in its "new" facility. Two years later the Sarasota Opera House was placed on the National Register of Historic Places.

In 1987 the Opera commissioned the Sarasota firm of Barger + Dean Architects, Inc. to add an Educational Wing. As work progressed, the need for a total restoration and rehabilitation of the original building became evident. Funds were raised locally, and the following year the Florida Department of State, Division of Historical Resources, and the National Endowment for the Arts provided grants totalling close to $600,000 to restore the exterior and to renovate and rehabilitate the auditorium.

Barger + Dean helped design a master development plan, to be completed in stages as funds were raised, and restoration was begun. Original photographs and drawings were used in restoring the original appearance and character. The three-story entrance façade exemplified the Mediterranean Revival style, popular in southern Florida because of its heavy masonry walls, barrel-and-pan tile roof, and set-back punched windows provided some pre-air-conditioned cooling. Cream-colored stucco was embellished with ornamental plasterwork imitating stone.

The second story was divided into nine bays marked by two-over-two, double-hung sash windows. Each second floor window was characterized by projecting window sills and quoined surrounds. An open loggia occupied the center three bays of the third floor.

Additions that were removed during the Barger + Dean restoration included a tessere entrance surround (1950s) and a stuccoed wall containing three windows that enclosed the third-floor loggia.

The ground floor was divided into five bays marked by arched openings carried on piers and engaged cast stone columns. The openings originally contained fixed-glass shop windows with leaded glass transoms.
Low-key Mediterranean Revival style characterizes the auditorium (above). The cool contrasting exterior color scheme was applied inside as well. Acoustics are excellent, thanks in part to the original upward-tilting balcony design.

Entrance lobby atrium (left). Original railing, hand-turned columns, and stained glass skylight can be seen at second-floor level. Entrance doors replicate originals. Here, as in a number of cases throughout the building where money-saving measures precluded extensive restoration of details, the roughness of worn capitals adds charm and a bit of "soul." The chandelier is from "Tara," the movie set for Gone With The Wind. Photos: Burger + Dean

above. The entrance was located in the central bay within a segmental arch protected by a canvas awning.

Inside the rather simply decorated auditorium, the successful color schemes of the exterior guided the interior wall and accent colors. Missing plasterwork, stained glass light fixtures, and other details were recreated from originals and photographs. In meeting the Opera's expanded seating needs, platforms, risers, and loge sections were reraked to comply with code requirements and to provide better sight lines. A new lighting bridge was designed within the existing ceiling.

The main entrance lobby has been restored and the original atrium reopened to the third floor, although the original stained glass skylight was recreated at the second-floor level. Street-level spaces have been renovated and expanded, an elevator installed, and restrooms enlarged. Newly renovated offices and meeting rooms are housed on the second and third floors.

Firm principal Stuart Barger also designed the Asolo Center for the Performing Arts, which includes the 1921 Dumferline Theater restoration, and the state-of-the-art Booker High School theater, both in Sarasota.

Owner: Sarasota Opera Association
Owner's Design Consultant: Frank Folsom Smith, AIA
Architect: Stuart H. Barger, AIA, Barger + Dean Architects, Inc.
Acoustician: Bertram Kinzey, AIA
Structural Engineer: Stephen son, Stirling & Associates
Mechanical/Electrical Engineers: Raytech Engineering, Thomas and Jones, Handy & Associates
Civil Engineer: Smally Wellford & Nalven
Construction Management: Square One Contracting, Inc., The Moss Group
An Eye to the Past

Kenneth Smith Architects
Kenneth R. Smith, AIA

Restoration projects make up about half of Ken Smith's work. Before founding his own Jacksonville firm in 1984, he was associated with two other firms. As a vice president of Shepard Associates, Smith served as project manager for the restoration of the Florida State Capitol building to its 1902 appearance.

A list of Smith's historic restoration (and award-winning) projects includes numerous residences; churches, including St. John's Cathedral (Gothic Revival, Jacksonville), and the relocation of the 1888 Carpenter Gothic St. Paul's Episcopal Church to the Jacksonville Children's Museum; a series of additions and renovations for St. Augustine's singular Lightner Museum; the St. Augustine Lighthouse; and various other large projects such as the twelve-story Greenleaf Building in Jacksonville. The oldest is the Sequi Kirby house.

St. George's Episcopal Church (1882), Ft. George Island, Florida. This Carpenter Gothic style mission church (above) was one of several built along the St. Johns River. Deteriorated exterior wood was replaced, and stripping exposed the original dark green window trim colors. Wood siding was added at the base of the newly straightened bell tower. Interior work (left) included replacing damaged flooring and beaded board wainscot, restoring plaster finishes, and painting to match original colors. Photos: Judy Davis—Photographer
St. Augustine Lighthouse (1874), for Junior Service League of St. Augustine, Oil storage building windows (which had been filled with concrete block) and shutters were detailed based on original building drawings. A new historically accurate cast iron main gallery cornice sill surround was cast and installed. All masonry and metal surfaces were repaired and repainted to the period. Photo: Denis Duckett, Sky-Shots

St. Augustine, which has served as a library for the past hundred years and dates to before 1763. He has served as historic restoration consultant to other firms for the renovations of Floyd Hall at the University of Florida, Gainesville, and on additional projects.

Smith approaches each project with the goal of preserving the architectural integrity of the historic building. Researching and restoring original structural configurations, materials, and colors requires detective work and casting a wide net for suppliers and capable artisans. However, the greatest creativity often is devoted to bringing an old building up to code and accommodating the modern electrical, mechanical, plumbing, circulation, and communication needs of the client. All work meets the Secretary of the Interior’s Standards for Historic Preservation Projects.

Even when a restoration budget is small, the results can be striking. Take the case of St. George’s Episcopal Church. One of a dozen Carpenter Gothic style river missions built by the Episcopal Church along the St. Johns River in the late 1870s and early 1880s, the present congregation numbers about twenty families. The restoration budget was limited to $35,000. The focus of the project was to repair structural damage caused by age and termites to floor beams and joists, and to replace deteriorated wood siding, battens, trim, and skirt boards, and interior woodwork, plasterwork, and flooring. The bell tower needed straightening, and stained glass windows and plaster wall finishes were restored. Fresh interior and exterior paint gave the final touch.

It is not uncommon for restoration projects to be done in stages. Too, in an office situation where daily work must proceed on the construction site, mutual accommodation and patience are crucial, says Smith. During phases I and II of the restoration of the Jefferson County Courthouse, Monticello, completed in 1994, county offices did business as usual and a major trial took place.

To update air conditioning and electrical systems without

Please turn to page 18
Kenneth Smith
Continued from page 17

forfeiting the original high ceilings of the first floor offices at the courthouse, Smith employed a technique he also used in the 1928 portion of the Swisher Mansion/Dahl Residence. He minimized air conditioning ductwork by introducing several units cooling small zones instead of a single large unit. This plan will allow the restoration, in the current phase III, of the original second-floor courtroom balcony (which was boarded up to house air conditioning equipment and ductwork in the 1960s), and the pressed metal ceiling.

The restoration of the 1874 St. Augustine Lighthouse won Smith awards from the Jacksonville Chapter of AIA and the Florida Trust for Historic Preservation. Done in phases to reverse major deterioration, the project included restoring windows, shutters, handrails and other features to the extent possible, or replacing missing details with historically accurate reproductions.

It is not uncommon for the search for historical accuracy to generate surprises, particularly where original paint colors are concerned. The Jefferson County Courthouse is no exception. The building has been painted white for as long as county residents can remember, and the county commissioners were not thrilled to learn that the original door and window color was dark green. Historical accuracy, it seems, does not always satisfy contemporary taste. 

Swisher Mansion (1928)
(Mr. and Mrs. James Dahl Residence), Jacksonville, Florida. The complete renovation included two additions, a south wing (top, shown left of middle chimney) replacing an earlier, nonhistoric addition, and an open, colonnaded “river room” (bottom). Original ornamental metalwork was restored, and deteriorated windows were replaced with new matching windows fabricated by original manufacturer. New clay tile roofing by original manufacturer was added to match original roof. All interior and exterior surfaces were refinished, with detailing to match historic finishes. Photos: Judy Davis—Photographer

Jefferson County Courthouse
(1908), Monticello, Florida. Much of the first-floor work and the tower were completed in phases I and II. Exterior finishes, a new elevator, and the restoration of the second-floor courtroom are among the main focuses of phase III. Research is underway to determine the floor and rail design of the original balcony in the second-floor courtroom. Removal of acoustical tile added during the 1960s revealed pressed metal ceiling and cornice, which will remain exposed. Drawing: David Lake, George Gillespie
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Pan's Garden
Palm Beach, Florida
Leslie Divoll, AIA

The Preservation Foundation of Palm Beach is often asked, “What does a new park have to do with historic preservation?”

The answer, “A lot!” gives a clue to the expanded role that preservation organizations have come to play in communities nationwide.

With Pan’s Garden, the foundation has buffered a historic area, stabilized the edge of an established neighborhood, restored a section of the town’s street grid to its former pattern, reintroduced one hundred species of native plants representing the botanic heritage of the area, recycled historic building materials, rescued doomed architectural fragments, introduced antique art for public enjoyment, supported traditional master crafts, and stimulated the vitality of an architectural style.

Pan’s Garden opened in November 1994. The foundation acquired the 25,000-square-foot site, located two blocks from historic Town Hall and one block off Worth Avenue, and commissioned Palm Beach architect Leslie Divoll to create a public green space that would bridge residential and commercial zoning districts. At foundation expense, the street and sidewalk were realigned to their narrower historic layout, reinforcing the established neighborhood residential character.

Intended to recreate the basic palette of native Florida landscape materials available to the town’s early settlers, Pan’s Garden will serve as an education center. Foundation programs will demonstrate how Palm Beach can meet modern...
Irreplaceable antique Portuguese and Mizner Industries tiles cover the landscape wall used to create a dramatic wall fountain and focal point of the garden. Pan’s Garden has been awarded the Florida Trust for Historic Preservation’s 1995 award for Outstanding Achievement in Landscape Design. Photo: Stephen B. Leek, Photographer

Preserving architectural heritage sometimes means performing rescue operations for both magnificent fragments and humble—but irreplaceable—architectural materials. The foundation rescued seven sections of tiled landscape wall destined for demolition at the landmarked Casa Apava estate. Built in 1918 for the Bolton family, Casa Apava’s extensive landscape walls were part of the design created by Abram Garfield, architect son of President James Garfield. The entrance axis terminates at the dramatic wall fountain created by this salvaged architectural artifact. Irreplaceable antique Portuguese and Mizner Industries wall tiles also were worked into new landscape features and interior finishes. “Recycled” paving brick and old Cuban barrel roof tile salvaged from derelict structures on the site were matched with carefully selected new materials and used in new construction.

In architecturally conservative Palm Beach, Mediterranean Revival remains the preferred style, even for new structures. The design intent was to respect the tradition while creating a fresh expression of the style.

Divoll and landscape architect Sanchez and Maddux collaborated closely to integrate every aspect of the park design. The formal layout is organized around a central entrance axis that both links and divides the garden into discrete “upland” and “wetland” segments. Enclosed interior space is reduced to a practical minimum. Three open-air pavilions are joined through vine-covered cast stone and cypress pergolas that flow easily onto mulched paths continuing through upland and wetland zones. The central pavilion was designed to accommodate a class of schoolchildren. The adjacent patio may be tented to shelter social events.

Though they are clearly current in concept and execution, the large bronze and copper entrance gates were produced by Reich Metal Fabricators, one of the surviving Mizner Industries. Just inside the gates is a bronze casting of Pan, ancient Greek god of woods and fields, from which the garden takes its name. Sculpted by Frederick MacMonnies in 1890, another casting of this popular work stands in the Courtyard of American Sculpture at the Metropolitan Museum of Art in New York City.

Architect: Leslie Divoll, AIA, Leslie Divoll, Inc.
Landscape Architect: Sanchez & Maddux, Inc.
General Contractor: Worth Builders, Inc.
Owner: Preservation Foundation of Palm Beach
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Illuminating a Legacy

Sanford L. Ziff Jewish Museum of Florida
Miami Beach, Florida
Ira D. Giller, AIA

One of the most recently restored Art Deco buildings in Miami Beach has been dedicated as the Sanford L. Ziff Jewish Museum of Florida. Ongoing exhibitions will celebrate 230 years of the Jewish presence in the state, beginning in Pensacola in 1763. The former temple that housed the Congregation Beth Jacob, Miami Beach’s first Jewish congregation, was built in 1936 by architect Henry Hohouser.

The only building outside the Art Deco District with a historic designation features 77 stained glass windows, an elegant facade, and a Moorish copper dome. Miami businessman Ziff rescued the old temple from demolition and provided seed money for the restoration. Miami architect Ira D. Giller took charge of the extensive restoration. Inside, wooden flooring, concrete foundations, plasterwork, and original Art Deco lighting fixtures were restored and the balcony turned into executive offices. On the outside, the dome was restored and all exterior surfaces repaired and repainted.

Restoring and safeguarding the stained glass windows, which form the centerpiece of the museum’s collection, was aided by a grant from the Florida Department of Historic Preservation.

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One of the most difficult tasks an architect can undertake is creating an addition to a historic building. This becomes doubly difficult if the original building is an outstanding example of a recognizable style or period. In this case, the architect was charged with creating a new auditorium building adjacent to Dodd Hall, one of the most historically significant buildings on the Florida State University campus. Dodd Hall is located on the east end of the campus in the midst of a group of Collegiate Gothic structures dating from the late-19th century. Elliott and Marshall's design for the new auditorium is respectful of the hallmarks of that style. It also introduces a contemporary element in that it does not attempt to disguise its "newness."

The remodeling and renovation of Dodd Hall required the conversion of 40,000 square feet of space into new academic and counseling offices, conference rooms, and small reference library areas. Stringent programmatic requirements along with fixed exterior shell conditions led to a "floating floor" concept in select areas of the building. The addition of several structurally independent floors resulted in a multilevel system. Careful planning ensured handicap accessibility and compatibility with interior circulation patterns.

State-of-the-art lighting and HVAC were painstakingly integrated into the historic structure. Other imperatives of the restoration project included the installation of new elevators.
Dodd Hall, south and east elevations showing low-walled entry portico. Photo: Sue Root Barker

The 120-seat auditorium addition to Dodd Hall. Photo: Sue Root Barker

and open office systems, creating below-ground tunnels, making fire code corrections, waterproofing the basement, and reroofing the steeply pitched clay tile roof.

In concert with the restoration, Elliott and Marshall designed a new 120-seat auditorium building of approximately 5,000 square feet. A narrow, steeply sloping site and complex existing pedestrian circulation patterns dictated careful placement of the new building. Low planter walls and landscaping were used to make the transition from the high vertical walls of the auditorium down to the level of the sidewalk.

Requirements for a climate-controlled basement beneath the auditorium, an underground tunnel, and connecting elevator were satisfied despite problems related to a high water table, unstable soils, and the steeply sloping site. The tunnel was needed to connect the Pepper Library, where personal artifacts belonging to the late Senator Claude Pepper are on display, and the archives housed below the new auditorium. This underground space was also designed for multimedia presentations and use as a lecture hall.

The project was recognized by AIA Tallahassee with a 1994 Honor Award for Excellence in Architecture and by the Tallahassee/Leon County Historic Preservation Board with a 1994 Award for Outstanding Achievement in New Construction Compatible with a Historic Structure.

Architect: Elliott and Marshall, P.A. Tallahassee, Florida
Principal-in-Charge: William Robert Elliott, Jr., AIA
Project Architect: Brad Innes, R.A.
Specifications: William Douglas, R.A.
Production and Project Representative: David Vincent, R.A.
Consulting Engineers: Kun-Young Chiu and Associates, Structural; Liebtag Robinson & Wingfield, Mechanical; Ardaman and Associates, Geo-Technical; Broward Davis and Associates, Civil
Landscape Architect: Smith-Gilchrist, R.A.
Interior Design: Elliott and Marshall, PA.
Contractor: Harbert General Contractors
Owner: The State University System of Florida and Florida State University
VIEWPOINT

The National Register Criteria
By Herschel Shepard, FAIA

Design professionals are dealing with increasing numbers of buildings and districts listed on the National Register of Historic Places, and most are familiar with the Secretary of the Interior’s Standards and Guidelines for Rehabilitation. However, many are not familiar with the criteria for evaluating properties for listing on the Register. Several criteria determine the significance of properties protected by the Standards and Guidelines, and certain aspects of the criteria that are of particular interest to design professionals are briefly addressed in this essay.

The Register includes properties that are deemed significant at the national, state, and community levels. The following criteria are listed in the public information brochure distributed by the U.S. Department of the Interior, National Park Service.

The quality of significance in American history, architecture, archeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, craftsmanship, feeling, and association and:

a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
b. that are associated with the lives of persons significant in our past; or
c. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
d. that have yielded, or may be likely to yield, information important in prehistory or history.

Buried in the first phrases is a key word, “integrity.” Often overlooked and misunderstood, its meaning may be made clearer if “essentially unchanged” is substituted for “integrity of.” Note, however, that later modifications to original conditions may themselves be considered historically significant and, therefore, part of a site’s “integrity.” The meaning of integrity for a specific site is defined by the scope and emphasis of the National Register nomination for that site. It is wise to review the nomination with Florida Bureau of Historic Preservation personnel before accomplishing any work.

Design professionals should be aware of the architectural consequences of phrases a. through d. above. The first two deal with significance through association, the last two with significance that is “embodied” in, or capable of being “yielded” by, the property itself.

Buildings and historic districts associated with events or persons as stated in phrases a. and b. may have little or no inherent architectural merit. They are in fact viewed as artifacts, the value of which is usually derived solely from a relationship with persons or events to whom we assign significance. Typical examples include Civil War battlefields and homes of the famous (and infamous). Design professionals often find it difficult to justify rehabilitating these structures or districts, and there is a strong temptation to “improve” them. Although structural and code-related modifications often are unavoidable, changes based upon subjective preferences prevent us from experiencing these sites as our predecessors experienced them, and a fundamental reason for preserving them is subverted if these changes are permitted. The Standards and Guidelines are very clear in their requirements for accurate restoration.

However, the fact remains that properties in these categories can cause major interpretive and maintenance headaches. At one extreme, strict conservation rather than rehabilitation is often an only choice if a site is viewed as a “museum quality artifact”; rehabilitation and adaptive use may substantially diminish the significance of the site. At the other extreme, documentation followed by renovation (or even demolition and new construction) believed essential to revitalize an area may be more appropriate than preservation to commemorate a person or event. This is particularly true in historic districts nominated in this category where many buildings are random artifacts that simply happened to coexist with the significant person or event. A mind-boggling example of buildings that gain significance as random artifacts is found in the historic districts in Atlanta associated with Dr. Martin Luther King, in which adjoining national landmark historic districts are included within a national park that commemorates Dr. King. Here, apparently, all structures which existed during his life and all activities in the area are considered to be significant, but proposed plans that attempt to revitalize the area indicate that a strict interpretation of the legislation creating the park is not being followed.

Architects usually accept criterion c. without difficulty, because significance is defined as resulting from an embodied characteristic or representation found in the work itself. Rehabilitation and adaptive use of buildings and districts in this category enhance the architectural features from which significance is derived, and the problems encountered under criterion a. and b. are avoided.

Finally, criterion d., often thought to be applicable only to archeological sites, is equally applicable to all construction and is determined by another characteristic: information. Note particularly that the history of technology of a community is encapsulated in its structures, just as history and prehistory are encapsulated in its archeological sites.

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Herschel E. Shepard, FAIA, is a Distinguished Lecturer in the Department of Architecture, University of Florida, Gainesville. He regularly consults on and directs a variety of historic preservation projects in the state and around the nation.
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Lessons from Yesterday Give Insights for Today
By C. Trent Manausa, AIA

Too often in our culture, a quick-fix, throwaway mentality has influenced important building decisions. That pervasive mindset not only has created "temporary" buildings but has led to the demise of many very restorable and usable older buildings. How many of today's structures, built to meet a budget not a function, will stand the test of time? If we hope to create lasting architecture, we should take some lessons from buildings of the past. In the process of preserving these enduring structures, we can gain considerable knowledge for the creation of new architecture.

While building practices and materials continually change, the fundamental elements and purposes of buildings remain the same. Buildings provide shelter from the elements. They provide organized spaces for education, recreation, business, entertainment, social interaction, religion, and government. A building's architecture often expresses the social, political and religious values of the times.

A major aspect of our firm's practice is forensic architecture, the diagnosis and solving of building problems. Although we sometimes deal with brand new buildings, working toward the historic preservation and restoration of notable old buildings provides us special satisfaction.

Besides taking great pleasure in exploring old buildings, seeing the craftsmanship and details of our past, it is always rewarding, personally, to figure out what an architect was trying to accomplish and how it got done. It is as true today as in the past that many skilled craftsmen are needed to complete a truly functional, well-built building. It is a sad commentary, but we often sense that craftsmanship and pride in the work are rapidly diminishing. Shortcuts and expediency take precedence, often leaving the long-term owner subject to considerable maintenance and replacement.

Investigating the true historical background of a building or building component is fascinating and often full of surprises. One of our projects involved replacing a deteriorating and leaking tile roof on the historic post office in Fernandina Beach, Florida. Our initial inspection revealed the red clay tile roof to be very fragile, with many tiles broken from foot traffic during attempted repairs. We also determined that this was not the original roofing tile, and that the deteriorated underlayment required replacement.

The only "clues" given to us were some old black and white photographs taken around the time the post office was constructed. In searching the old basement below the post office (with the Postmaster's permission) we made some interesting discoveries. We found the original blueprints—specifying a green tile roof. We also found several "original" roof tiles: green "Ludowici" tile, which fit the specifications and were probably maintenance tiles given the owner at completion of construction.

Based on this information our documents were completed, the project bid, and a contract awarded. The contractor had to order the tiles from France, and while awaiting delivery he removed the red tile and installed the new roofing underlayment. When the new green tiles arrived, he began stacking them on the roof for installation. About this time the Postmaster's phone began ringing. Numerous callers were complaining about changing the "historical" red tiles to green. Even the local historical society called demanding work be stopped.

A public meeting was held. It was duly noted that our firm had contacted the State Archives with our findings and proposed roof replacement, and the state had given approval prior to bidding. The facts were presented regarding the original specifications and the actual old green tile shown. Finally, everyone was satisfied, even pleased, that the historical integrity was intact. This is a prime example of how "memories" must be confirmed by other sources. The red tile had been on the post office roof so long, there was no one left who remembered the original green tile.

Renovation work in historical buildings can also generate creative methods of preservation that don't destroy or alter the original materials. Our work on the Prime Osborn III Convention Center, Jacksonville, is an example where research and legwork resulted in a new approach that will continue to affect architectural preservation. The convention center is a restored 1919 Neoclassical railway terminal, now used for conventions, meetings, trade shows and exhibitions. One of the major problems encountered was water intrusion through the limestone on the exterior walls. Our task was to stop this water intrusion while maintaining the original integrity of the limestone.

It turned out that the limestone panels had not been properly grouted. They leaked and were badly discolored. Investigation and consultation with the State Archives revealed that the National Park Service and preservationists did not allow water-repellant coatings on historic limestone structures. Thus, the exterior was not sealed following high-pressure washing during the 1984 renovations and expansion of the old terminal for its present use.

Preservative coatings have come a long way in the past ten years, and we were able to find a product system specifically designed for the porosity of limestone. We obtained permission from the National Park Service and the state to use the product, and this became the first project in the country where waterproofing of historic limestone was approved. The project was closely monitored by the state and the National Park Service. Again, research and documentation of all the facts made a big difference. The limestone was properly cleaned, grouted, and sealed. It now looks like it did when first constructed, and the water-repellant sealer has stopped the deterioration of the interior plasterwork.

Investigating details of the past has given us many enjoyable times and memorable moments. We have explored and renovated the old Armory in Appalachicola. We designed a unique system to operate the original teller windows in the historic post office in Appalachicola. My partner rappelled down the Historic Capitol dome to determine the cause of water intrusion around the ornamental metalwork. We provided research and search and details for restoring the Carnegie Library at Florida A & M University. Our redesign of the gutter system and a new copper standing seam roof system saved the historic Century United Methodist Church in Quincy. All these and more add up to a very pleasurable and satisfying practice of architecture.

They also add to our knowledge for design of new buildings for today's market.

While we cannot go forward by copying the past, we must learn by understanding, improving, and correcting, no duplicating, architecture and details of the past. The insights we gain by the study of history can be used to create architecture compatible with current values using today's and tomorrow's technology.

C. Trent Manausa, AIA, of Manausa & Lewis Architects, Inc., Tallahassee, has completed more than a dozen historical restoration projects and this became the first project in the country where waterproofing of historic limestone was approved. The project was closely monitored by the state and the National Park Service. Again, research and documentation of all the facts made a big difference. The limestone was properly cleaned, grouted, and sealed. It now looks like it did when first constructed, and the water-repellant sealer has stopped the deterioration of the interior plasterwork.

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FOCUS ON LIGHTING DESIGN

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When lighting designer Robert Laughlin sent us a portfolio to select a few visuals for his Viewpoint, we were in for a treat. Photo after photo illustrated how thrilling and inspiring are the effects of lighting in architecture. In the course of an hour, without leaving the table, it was possible to tour some highlights around the state, from the theatrical impressions of night-lit bridges such as Dame Point in Jacksonville or Brickell Avenue in Miami, to the stunning portico of the Florida Supreme Court in Tallahassee, to Orlando’s elegant Church Street Station and playful “kingdom of rock,” the Hard Rock Cafe, and around again. We would recommend such an object lesson to any young architect who has not yet grasped the immense power of lighting.

We are fortunate in this issue to have been able to touch on a number of aspects of lighting, the practical as well as the aesthetic. KBJ architectural lighting specialist David Laffitte’s glimpse into lighting considerations for the prizewinning Orlando International Airport will interest architects and travelers alike. In each of our featured projects, as in many buildings in Florida, where sun is a great natural resource, daylighting has been put into play, consciously or not, whether for its energy saving possibilities or its reflective qualities. Lamp and lighting control technologies have changed so rapidly that “lighting” no longer is simply a matter of carefully choosing fixtures. Rather it involves the meticulous coordination of intelligence aimed at facilitating the variety of tasks at hand, while conceiving a broad range of moods and effects besides.

While the projects in this issue represent a cross-section of small and large firms, we would like to be able to present the work of smaller firms more often. The process for submitting projects to Florida Architect is quite easy. We publish quarterly, and each issue has a theme, although we interpret our themes rather broadly. For example, for our Summer issue on “Housing,” we will consider vacation homes, rural and urban domiciles, even a college dormitory. Other upcoming issues will focus on Florida Schools of Architecture (Winter) and Working with CADD (Spring 1997). Once again, we would like to request your help in locating meritorious, well-photographed projects from around the state that fit within these themes.

In addition to projects, we also invite articles. We will consider feature-length articles on subjects of interest to architects in the state and viewpoints relating to pertinent legal or legislative issues, practice concerns, or other appropriate topics. One of our editorial goals is to publish more work of younger architects and more wisdom from experienced members of the profession.

Finally, in this issue we are initiating a section of letters to the editor. Whether this is a permanent feature is up to you. Let’s hear from you. MB
NEWS

In Defense of Architects: Engineers’ BOPE Statement Halted

A five-year-old policy statement that purported to allow engineers to sign and seal building design documents has been set aside due to the efforts of AIA Florida. On December 11, 1995, the Florida Board of Professional Engineers (BOPE) voted to discontinue reliance upon the statement, which was drafted without public notice and hearings. AIA Florida had challenged the statement in an administrative hearing process on the grounds that the statement had been approved in violation of state law.

A joint stipulation has now been filed with the Florida Department of Administrative Hearings officially notifying the public that the “Commentary on Authority of Engineers to do Building Designs” has been set aside and is no longer a legal document. The joint stipulation was signed by BOPE, Florida Engineering Society, and AIA Florida attorneys.

AIA Florida sued the BOPE last year after the Commentary surfaced in response to complaints by the Board of Building Codes and Standards alleging that several churches had been improperly designed. BOPE responded to the charges by sending copies of the Commentary to building officials in Dade County as verification that engineers could sign and seal building documents.

Although the recent BOPE action and joint stipulation effectively declare the “Commentary” null and void, the issue is not concluded. BOPE has since voted to assign a committee to draft new language on the issue of engineers signing and sealing building documents for consideration as a rule at its next meeting.

AIA Florida will continue to track BOPE and the rule-making process. Any further BOPE action that might allow engineers to sign and seal building design documents in violation of the architectural or engineering practice acts will be challenged by AIA Florida.

Knight Steps Down as Dean

Roy Knight, AIA, will relinquish the post of Dean of the School of Architecture at Florida A & M University, Tallahassee, to move into teaching, research, and professional work at FAMU. Since becoming Dean in 1988, Knight has been involved in the development of FAMU’s academic and research programs, as well as the new School of Architecture and Community design in Tampa. FAMU’s School of Architecture is now ready for planned further growth with commitments for a major building expansion approved by the legislature.

“Now that the school is poised for its next period of advancement, it is a good time for me to pursue interests I have had to set aside,” Knight said. “I am excited by the opportunity to become an active advocate for good architecture in the state, including continuing to serve AIA Florida.”

Florida Design Arts Awards

Florida Secretary of State Sandra Mortham presented the 1995 Florida Design Arts Awards to Riverwalk in Fort Lauderdale and the Orlando International Airport Passenger Terminal Complex. These projects “reflect the attention and sensitivity being shown to excellence in collaborative urban design in the state of Florida,” said Mortham. The awards were presented November at the Tampa Bay Performing Arts Center.

Accepting the awards for EDSA, which participated in both projects, were C. Douglas Coolman, Greg Meyer, and John W. Miller. Walter Taylor, FAIA, Chairman and CEO for KB Architects, Inc. accepted the award for the Passenger Terminal Complex for the Orlando International Airport.

Entry kits for the 1996 Florida Design Arts Awards program are now available from: 1996 Florida Design Arts Awards, Florida Division of Cultural Affairs, Department of State, The Capitol, Tallahassee, FL 32399-0250; or contact Valerie Ohlsson at (904) 487-2980.

AIA Design Awards Dates and Deadlines

Mark your calendars. Dates have been set for the AIA Florida Design Awards program. Calls for entries were mailed mid-February. Entry application forms must be received by March 15, and all entries must be received by April 24. The juries will convene in May, and awards will be presented on August 17, at the 1996 Summer Conference at Marriott Sawgrass, Ponte Vedra Beach.

This year’s Chairs are Bruce Gora, AIA, Excellence in Architecture Awards Committee; Dor Green, AIA, Unbuilt Awards Committee; and Joe Barany, AIA Test of Time Award Committee.
In Memoriam

Tampa Bay architect William B. Harvard, Sr., AIA, died December 11, 1995, after a long illness. He designed some of the most significant landmarks in the Tampa Bay area, including the Williams Park Band Shell, the St. Petersburg Main Library, the Bininger Center and Lewis House at Eckerd College. The Harvard firm, founded 57 years ago, now known as Harvard Jolly Clees Toppe Architects, is the largest locally owned architectural design firm in Central Florida. William B. Harvard, Jr., now serves as its president.

C. Ellis Duncan, AIA Emeritus, of Vero Beach, died December 28, 1995. A Past President of the Palm Beach Chapter and State Director of Florida, Duncan also was an active member of the Florida Engineering Society. He had a strong practice in school facilities in Brevard, Indian River and St. Lucie counties.

Charles Ernest Daffin II, a long time AIA member, died January 16, in Birmingham, Alabama. A lifelong resident of Tallahassee, Daffin helped organize and then headed the Florida Architects’ Political Action Committee. A founding partner of Barrett, Daffin and Bishop, he most recently was employed by the State Fire Marshal’s Office.

Of Note

Roney J. Mateu, AIA, Coral Gables, received the Miami Chapter’s 1995 Silver Medal for Design, its highest honor. Mateu is President and Director of Design at Mateu Carreno Rizo & Partners, Inc., and has been a featured speaker on architectural design. His projects have been published nationally and internationally.

Jim Anstis, FAIA, West Palm Beach, has declared his intent to run for a second term as Secretary of the American Institute of Architects. The Secretary is allowed to succeed to the office one time.

Michael G. AuBuchon, AIA, has been named a partner at Ranon & Partners, Inc., Architects. AuBuchon is the 1996 President-Elect of the Tampa Bay Chapter of AIA.

David H. Webb, AIA, has joined the Safety Harbor office of Fleischman Garcia as Project Manager. Webb has over 23 years experience in the design of education and government facilities.

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**Philips Mastercolor Metal Halide PAR Lamps**

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**Sentry’s St. Louis Luminaire**

New from Sentry is a replica of the tulip-shaped luminaire that lights the downtown historic district of St. Louis. Though its style is evocative of yesterday, its performance is definitely up to date. The sculptured looking structure is rugged cast aluminum; the globe is polycarbonate (Lexan); and the ballast unit is housed deep within the cast base for maximum protection. The St. Louis luminaire meets UL 1572 and is available with HPS, MH, or mercury lamps in wattage ratings as high as 250. Specs and details are available from Sentry Electric Corp.; (516) 379-4660; fax (516) 378-0624.

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**FLORIDA ARCHITECT Spring 1996**
Light and Energy: Remembering Daylight

By Walter Gronzdzick, PE.

Light is a crucial aspect of our daily existence. Some authorities estimate that over 90 percent of the sensory input a person receives in the course of a typical day is visual. Light, defined as visually evaluated radiant energy, is the key to the seeing process. Most outdoor activities—farming, mowing the yard, watching a parade, road construction—have historically been timed to coincide with the availability of daylight. The sky around us can provide more than ample light for most visual tasks during the daylight hours. When adequate energy and financial resources are available to a prosperous and technologically advanced society, traditionally daytime outdoor activities can be conducted at night—baseball under the lights and amusement park visits. Buildings, too, have historically been daytime environments. Fairly recent technological developments, however, have dramatically changed how we schedule, use, and design buildings. Electric lighting was the catalyst for this change, as well as the cause of a dramatic increase in building energy use.

Energy to cool a commercial building in the hot, humid South is typically distributed as follows: 30 percent is attributable to electric lighting, 20 percent to solar heat gain through glass, 15 percent to roof heat gain, and lesser percentages to internal and other loads. Obviously, energy used for lighting is an important design and operational consideration for a building owner. Light is necessary for the completion of simple tasks, for enhanced productivity, and for enjoyment of the built environment; but it comes to us at a substantial cost. On a residential scale, because of different design and usage traditions and less demanding tasks, lighting is not a very large part of the energy-use pie.

The importance of lighting to energy efficiency is reflected in the standards developed to regulate this aspect of design. The Florida Energy Efficiency Code for Building Construction contains a section addressing lighting energy consumption in commercial buildings. Likewise, ASHRAE Standard 90.1 (the most commonly used nonresidential national energy standard) allocates a chapter to efficiency requirements for lighting. Residential energy standards are typically silent on the issue of lighting energy efficiency. Efficiency is generally defined as the ratio of system output to system input. The greater the lighting output per unit of electric input, the more luminously efficient the system. Rather than address system efficiencies directly, U.S. energy codes and standards tend to prescribe a lighting power budget (in watts per square foot) which a designer can meet in any manner that seems most appropriate.

The energy consumption of an electric lighting system is primarily a function of four factors: task requirements, the light source, light distribution, and controls. Building designers should take a serious look at the quantity of light that must be delivered to a task (known as illuminance) as a means of reducing lighting energy demands. All other factors being equal, the less light to be delivered, the less energy consumed. The Illuminating Engineering Society of North America publishes guideline illuminance recommendations for hundreds of task situations. Only the project architect, however, can rationally determine what tasks will occur where within a yet-to-be-constructed building. Task analysis is the starting point for an efficient lighting system.

Obviously, the ultimate source of electric light is electricity. There are, however, a number of ways to produce light from moving electrons. Less than one hundred years ago the first commercial electric lamps came on the market and initiated a radical change in the way we design buildings. The first electric lamps (manmade light sources) were incandescent, where an electric current is used to heat a filament until it glows (incandesces) and emits light. This is a proven and effective, but inefficient, means of producing light. In the 1940s, fluorescent lamps operating on an entirely different principle (gaseous discharge) were introduced. The relatively high luminous efficacy (light output to electric input) of fluorescent lamps signalled a revolution in building design through the ability to provide high illumination levels in a building without massive overheating and without reliance on daylight. Design was freed from historical precedents, but the price for this freedom was energy consumption.

Over the past thirty years, even more efficient electric light sources have been developed. Many, such as metal halide lamps, have found a ready home in buildings; others, like sodium vapor, have been relegated to exterior applications because of color rendering concerns. The march toward more efficient sources has not stopped; T8 lamps are rapidly replacing T12 lamps as the norm. Electronic ballasts are replacing magnetic ballasts. Government labs and lamp manufacturers continue the quest for greater luminous efficacies. The federal Energy Policy Act of 1992 dictated that certain commonly used lamp types no longer be permitted in the U.S., a mandate that will soon reduce the palette of available choices.

Light emitted from a lamp must be delivered to a task in order for the light to be useful. The task may be surgery, climbing the stairs, or providing appropriate background brightness in a space, but in any event the light source will normally be distant from the task. The more effectively light is conducted from lamps and luminaires (fixtures) to tasks, the more efficient the lighting system. It is possible to have very efficient lamps and very inefficient distribution; the result is an inefficient lighting system. Lighting design is a multi-disciplinary endeavor. Manufacturers produce lamps and luminaires; an engineer or architect will select lamps and luminaires for a particular application; but only the architect can ensure efficient distribution. This is achieved through design and specification of material and content reflectances, source locations relative to tasks, and general proportions of the space.

Lighting controls are an emerging area of focus for efficient lighting systems. A lighting system only consumes energy when it is turned on and only need be turned on when there is a task to be completed. Controls may be manual or automatic. In general, automatic controls will provide greater energy savings as they are not forgetful or lazy. A number of energy-efficient Florida buildings have made effective use of occupancy sensor controls in spaces that are not continuously occupied.

For thousands of years, buildings were primarily daylighted. Of course candles and oil lamps have long been available, but they are not efficient or powerful light sources. The image of Abraham Lincoln reading by candlelight suggests the luminous quality of most
Daylight floods the 4,000 square foot visitors center of the Florida Solar Energy Center. Comfort and energy efficiency are protected by the special window glazing, which lets in 67 percent of visible light while blocking all but 2 percent of infrared heat.

The Department of Management Services (DMS) prototype office buildings in Tallahassee and the Florida Solar Energy Center (FSEC) facility in Cocoa provide examples of how energy savings can result from energy-efficient lighting design. Metered electricity consumption for the DMS prototype offices in mid-summer 1995 was around 2.0 watts per square foot. This includes all electric uses (computers, lights, air-handlers, etc.) except chillers and is lower than just the lighting load in most office buildings built during the past twenty years. As computer use has dramatically increased, efficient lighting accounts for the majority of this performance. This efficiency was achieved through the specification of reasonable illuminance levels, the use of efficient lamps, ballasts and luminaires, and occupancy sensors for lighting control.

The new FSEC Energy Center uses both efficient electric lighting and daylighting to set a new standard for energy efficiency in Florida. The electric lighting system requires just 0.9 watts per square foot as a result of the use of T-8 fluorescent lamps, efficient fixtures, and electronic ballasts. Spectrally selective window glazing improves daylighting effectiveness by providing high light transmission (56 percent) but low nonvisible transmittance (shading coefficient of 0.33). Building orientation and form were architecturally manipulated to make best use of the daylight available on the site. Photometric sensors control continuously dimmable ballasts to adjust overall lighting levels as daylight increases or decreases.

It is no secret that lighting accounts for a major portion of the energy bill in any commercial or institutional building. However, use of efficient lamps and fixtures, consideration of the distribution of light to tasks, and control of light when not needed can greatly reduce the energy burden associated with lighting. Skillful design of daylighting systems can take such reductions even further, with potential side benefits to the overall quality of design.


The Building Design Assistance Center, Florida Solar Energy Center, Cocoa, Florida, can provide a wealth of information on electric lighting components and daylighting design for Florida’s environment.

Walter Groudzik, P.E., is an Associate Professor; working with the Florida Design Initiative at Florida A & M University School of Architecture, Tallahassee.
Sophisticated Showcase

Residence of
Chapman J. Root II
Ormond Beach, Florida
William Morgan
Architects, PA.

When the first plans were drawn for the Root Residence, its setting was to be a 125-foot wide lot overlooking the Halifax River, the Intercostal Waterway. Initial sketches envisioned two three-story towers set well apart and linked by bridges. The glazed west wall of the connecting space would permit views of the waterway, while sunscreens would deflect the afternoon sun.

Then the site was changed to an 80-foot wide oceanfront lot on the Atlantic. Securing privacy from neighboring residences and the shore highway meant adjusting the original fenestration plan. Also, a maximum permitted building height of 30 feet on the new site necessitated some additional modifications to achieve the desired intention.

To gain height for the interior volumes, the site was excavated five feet into the dune. This permitted ceiling heights to range from 9 feet on the lower floor to 13 feet on the piano nobile, the second story, to more than 31 feet in the glazed refectory hall overlooking the pool terrace and ocean.

The south tower contains changing rooms on the terrace level, a secluded study above, topped by a crow’s nest. Occupying the north tower are the kitchen and an informal living area on the lower floor, a library (accessible from the foyer by means of a bridge) above, topped by the master suite. Guest accommodations and service spaces are located in the floors above the garage.

Load-bearing, fluted concrete-block walls support the architectural masses of the

Glazed refectory hall overlooks the pool terrace and ocean.
6,500 sf structure. The walls support horizontal floor and ceiling planes that project alternately from east to west and from north to south. Stair runs of varying lengths interconnect the constantly changing levels of the interior. As a result, moving through the house, one's viewpoint always changes, and ceiling heights alternately expand and compress.

Daylighting was a major determinant in designing this beachfront residence. Since major glass areas face the dominant view to the east, special emphasis was given to controlling the morning sun by such devices as vertical fin walls, horizontal overhangs, adjustable blinds, and the refectory sunscreen which is controlled by photoelectric cells. In the evening the entry terraces are illuminated by lanterns integrated into the garden walls, and a sophisticated control system provides five separate moods for lighting throughout the residence, terraces, and gardens.

As a precaution against coastal scouring during severe storms, the entire structure is supported by auger piles. A concealed gutter around the edge of the terrace controls stormwater runoff during northeasters and hurricanes. And for the 20 x 26-foot glass wall of the refectory, four tempered, 3/4-inch glass fins stiffen the glass plates against wind velocities of up to 120 mph. Horizontal concrete box beams above and below the window transfer windloads to adjacent reinforced-concrete walls.

Throughout the design process, another priority was to create opportunities throughout the home to display the owner’s collections, including specially commissioned glass sculptures by noted artist Dale Chihuly. Also, automobiles selected from the owner's extensive collection are showcased in a grand pavilion. Visitors, after leaving their own cars in a landscaped parking section, walk through a grass-covered forecourt to this area.

As they continue toward the entry, visitors ascend three low terraces defined by a garden wall, mosaic lanterns, and dense landscaping. Proceeding through the foyer, they are surprised to find themselves a full floor level above the refectory hall and pool terrace. From there they can view the cascading pools that flank the pool terrace and the path leading through the dunes to the beach.

Architect: William Morgan Architects, PA.
Principal in charge: William Morgan, FAIA
Project Team: Theodore Strader, AIA, Ronald Scalisi, AIA, Thomas Duke, AIA
Structural Engineer: William Simpson, PE.
Landscape Architect: Glenn Herbert, ASLA
General Contractor: Foley & Associates
Interior Designers: Pasanella + Klein; Wayne Berg, AIA, Albert Ho
Owner: Chapman J. Root II
Photographs by George Cott, Chroma, Inc.
A Plan That Came Together

Palm Beach South County Civic Center
Delray Beach, Florida
Robert G. Currie & Associates

Although it was born in controversy, the Palm Beach South County Civic Center has drawn praise and crowds from the day it opened in January 1994. Completed after years of debate and changes in both plan and site, the 14,000 sf multi-use facility has become a real center for the community.

Located on 1.2 acres of a somewhat remote 5-acre site south and west of town, the civic center is assembled toward the heart of the larger site, for which future buildings have been proposed. Visitors encounter the striking glass and stucco facade of salmon, beige and aquamarine.

Local groups and organizations are taking advantage of the center’s very practical components, including classrooms, a kitchen, and a 600-seat auditorium. A soundproof wall system allows the auditorium to be used as a large hall for performances and lectures or divided into four autonomous meeting or recreation areas.

The solid cube of the assembly hall is the nucleus of the facility. Three smaller ancillary structures radiate from the center, guided by a curved bisecting wall. The free-form lobby creates a fluid relationship between the assembly hall and its satellites. The arrangement of smaller elements around the entry, cascading from the curve, effectively diminishes the substantial mass of the hall, effecting a human-scaled assembly open to its surroundings. The standing seam metal roof of each element, although basically similar in shape, shows a deliberate variation in its slope and orientation. Likewise, varying depth of color of the independent roof

Entrance and main facade. Deliberate variations in roof pitch, orientation, and depth of color distinguish each pod within the whole. Photograph by Chuck Wilkins
Each geometric element houses a separate function and is independent in terms of sound, hvac, and lighting capabilities. Largest of the satellites is the administration complex, comprising offices and a conference room. A multizone system with cooled condensing units promotes energy efficiency.

Natural sunlight illuminates the glass-enclosed lobby, and at night, a continuum of spotlighting files above the curved separating wall, reinforcing the initial design concept. Lighting in the auditorium is direct and dramatic. Pendant downlights hanging on a level plane from the sloped and exposed structure create an implied ceiling of light across the entire expanse. Three suspended ceiling planes over the stage area provide both acoustical treatment and positions for spotligting.

Since the facility opened it has seen capacity use by civic groups and private users. The center’s flexible multiuse plan is proving the perfect accommodation for a variety of formal and informal user needs, including meetings, classroom programs, social events including weddings and religious gatherings, and small stage productions.

Architect: Robert G. Currie & Associates
Principal in Charge: Robert G. Currie, AIA
Landscape Architect: Palm Beach County Parks
Structural Engineer: O’Donnell Naccarato Mignogna, Inc.
Civil Engineer: Sheremeta Associates, Inc.
Mechanical/Electrical Engineer: Thompson Engineering Consultants, Inc.
General Contractor: Select Contracting, Inc.
Owner: Palm Beach County Capital Improvements

Pendant lighting illuminates the auditorium, which can be used as a large hall or divided into four autonomous areas. Photograph by Dan Forer.

Daylighting and downlighting highlight painted accents and dramatic expanse of ceramic tile flooring in free-form lobby, which doubles as an exhibition space. Photograph by Chuck Wilkins.
Lighting Design as an Integral Part of Architectural Design*
By David M. Laffitte, AIA

Orlando International Airport, Phase II
Orlando, Florida
KBJ Architects, Inc.

In 1987, KBJ Architects began design of one of the largest projects in the Southeast: the Phase II Expansion of the Orlando International Airport. The original construction (also designed by KBJ Architects) consisted of one landside and two airside buildings. Shuttle trains connect the concourses with the main terminal.

The Phase II Expansion more than doubled the size of the landside facility, including a 450-room hotel and parking garage on top of the building. It also added a new airside terminal, which became a hub for Delta Airlines, serving domestic and international flights. Together the projects represent 1.7 million sf of enclosed space and over $200 million in construction costs.

Since it serves as an arrival point for millions of visitors annually, the client wanted the experience of the facility to be both pleasant and particular to Florida. The architectural intent was to evoke the essence of Florida: “light and sunny” were characteristics we sought to include in these structures.

From the start, lighting design was an integral part of the architectural design. Partner-in-charge and project designer Walter Q. Taylor, FAIA, decided that all lighting design for the public spaces would be developed first by KBJ, and then handed off to the engineering team. It has been our experience that early consideration of lighting results in a more successful project. There is an interplay or “synergy” between the design of interior spaces and the lighting of them which benefits both.

The design approach we took was, in simplest terms, to integrate the lighting with the architecture. Walls and defining planes are illuminated with wall-wash fixtures. Architectural features and circulation nodes are articulated by the design of the ceilings and lighting. Where ceilings are conceived as a neutral element, such as in the ticket lobby, low-brightness fluorescent and HID downlight fixtures were employed. In other areas, where more definition of the ceiling was desired, the rental car lobbies for instance, indirectly lit coffers add scale and drama. Indirectly lit coffers were also used in the baggage claim lobby to aid in the identification of elevator and escalator cores. For reasons of economy, most of the lighting fixtures chosen were standard catalog items. Though a small part of the total, the most memorable fixtures are the custom-built ones we developed for special applications.

Rental car and ticket counters
The need for custom fixtures first became evident while designing the rental car counters. We were looking for a pendant fixture to bring down the scale at the counter to reflect the person-to-person nature of the transactions. We wanted the friendly glow of a lamp shade, in a linear-form, and we needed to provide comfortable task lighting for agents to work. We quickly realized that there was no suitable off-the-shelf product and that a custom fixture was the only solution.

The design that emerged can be thought of as an indirect fluorescent fixture that carries its own reflector. Compact fluorescent lamps and ballasts are fitted into a 3-1/2-inch diameter aluminum extrusion. For the shade we chose perforated aluminum; we reasoned that it would be both durable and easily cleaned, as well as being nonflammable. The units are constructed in 11-foot 4-inch lengths to coordinate with the 34-foot bay sizes of the building.

Southern Manufacturing Company of Orlando was selected to construct the fixture. Despite their well-equipped plant, we had some initial misgivings about their ability to produce the fixture: their principal product line did not include lighting at all. However after a mock-up was constructed and details of connections refined, we gained confidence in the firm’s technical ability. Having ready access to their plant was invaluable in the development of the final details of the fixtures.

The higher ceiling of the ticket lobby invited the design of a larger fixture. The radius was increased to just over two feet. A 5-inch extrusion was selected for the lamps. These units are constructed in 17-foot lengths, with six 5-foot lamps, to coordinate with the 34-foot structural bay of the building. They also align with the rows of ceiling-recessed fluorescent fixtures perpendicular to the ticket counters. The typical (total) counter and fixture length is 153 feet.

Elevator lobby
Two-story-high columns stand in front of a pair of elevator entrances. We took advantage of their grand scale to create light columns. Heavy-gauge
perforated aluminum and a translucent liner shield four-lamp industrial fluorescent fixtures mounted vertically on the face of the columns.

The Delta Airside Building

The lighting design of the concourse began with the decision to take advantage of available sunlight; artificial lighting is supplemental. Full-height clear laminated glass is used continuously along the perimeter of the concourses, affording views and light. Trellis-like white metal baffles provide shading of this glass and redirect light into the building.

A continuous 5-foot-wide skylight down the center of each of the three concourses provides top-lighting to balance light from the windows. The ceiling arches up to the skylight to distribute the light more evenly. The decision to light the curved ceiling indirectly seemed the only logical choice; fluorescent fixtures suited the linear nature of the space, and bracketing the fixtures off columns provided a way to integrate the indirect cove details of the outer bays with the center bay.

The fixture was conceived as a companion to the fixtures designed for the ticket and rental car counters, hence the curved perforated metal form. This fixture has some obvious differences, however. For higher lumen output, continuous rows of 40-watt compact fluorescent lamps were chosen. A reflector directs light from these lamps toward the ceiling. To create the glowing effect from below, standard 40-watt fluorescent lamps are mounted on both sides of a supporting center steel tube. The perforated metal dish is lined with translucent plastic to shield the lamp image. These fixtures were fabricated in 27-foot lengths; the total installed length is 1,438 feet.

Around the semicircular skylight well at the ends of each concourse, decorative wall sconces utilize two-lamp 13-watt compact fluorescent wall-pack units shielded by a lined, perforated metal shade.

Airside Concessions Atrium

The center of the airside building features a 150-foot-diameter skylight supported by six steel tri-columns—that is, three 24-inch-diameter steel tubes in a triangular cluster. To accentuate them we developed a bollard-

Continued on Page 18
lighting design as an integral part of architectural design

Continued from Page 17

like fixture which utilizes a standard metal halide fixture to uplight the columns. Slotted metal cylinders with translucent liners provide a glow at the base of the column. These are fitted with 13-watt compact fluorescent lamps. Because the columns are joined at the base with three one-inch-thick horizontal steel plates, the custom fixtures were constructed in nine separate sections and fitted between the plates in the field.

Great Hall · Landside Building
A 450-room hotel surrounds the primary public circulation space of the airport, creating a six-story skylit atrium which was designed to be perceived as outdoor space. Lighting design had to consider the visual comfort of both the passengers at "street" level and hotel guests above.

To reinforce the perception of the atrium as an urban park, we designed special streetlight fixtures with clusters of clear glass globes. Clear incandescent lamps are used for their sparkle, though they are dimmed slightly to extend lamp life.

Clusters of palms surround the fountain at the center of the atrium. Because the skylights admit only 14 percent of available daylight, supplemental lighting is required for the palms during the day. Clusters of narrow-beam adjustable H.I.D. downlights were designed for this task. These are suspended from the skylight structure at 72 feet above the floor and each contains four 400-watt metal halide units for daytime use and a single 250-watt mercury unit for "moonlighting" effects at night.

To accentuate the architecture of the hotel, compact fluorescent uplights illuminate each balcony column without disturbing guests or producing glare from below. Uplighting of the fountain jets, and accent lighting within the planters complete the lighting of the atrium. The combination of these sources and spill light from the hotel provide efficient and pleasant ambient lighting for general circulation.

Throughout the entire project we took every opportunity to enhance the distinctive features of the architecture with lighting. Whether providing visual cues to aid circulation or reinforcing architectural rhythms, the lighting design was a carefully considered part of the whole. This is an approach that can work for any project, whatever the scale. Lighting is one of the elements of architecture, and it can be a powerful design tool.

Architect: KBJ Architects, Inc.
Principal in charge: Walter Taylor, FAIA
Lighting: KEI Architects, David Laffitte, AIA
Structural Engineers: Kun-Young Chiu & Assoc., O’Kon & Company
Electrical Engineers: Newcomb & Boyd, Matern Professional Engineers
General Contractor: Great Southwest Corporation
Owner: Greater Orlando Aviation Authority

Photographs by Kathleen McKensie


In the Delta terminal, bollard uplights illuminate the columns that support the great central skylight.

Pendant fixtures provide a pleasant glow and comfortable task lighting for ticket agents.

David M. Laffitte, AIA, is a Senior Vice President with KBJ Architects, Inc., Jacksonville and Orlando, Florida.
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Carving Out a Downtown Niche

Urbanform Design Group
Architecture and Interior
Division Office
Fort Lauderdale, Florida
Urbanform Design Group, Inc.

Sandwiched between mostly mundane commercial and office buildings in downtown Fort Lauderdale is the dynamic and colorful office of Urbanform Design Group, Inc. Friends were surprised when, in January 1994, the firm leased two narrow, shotgun storefront spaces in a dilapidated building a block north of City Hall. Transformation of the 3,600 sf space into separate but integrated offices by—and for—the firm’s architecture and interior design divisions would be an interesting challenge.

The group was determined not to let a tight construction and renovation budget ($56,000) dictate a low-budget look. Much of the charm lies in the imaginative use of space and of inexpensive and stock components.

A central hexagon encompasses office areas for the division managers. Large interior windows created open interior vistas as well as allowing greater access to the limited exterior view. An octagonal conference area and other angular walls help break the monotony of the long, narrow space on the architecture side.

An open, landscaped space was created for the interior division using columns and wood beams to create seven rectangular bays. Each bay displays a different selection of colors and materials compiled from samples received from distributors, including marble, slate, tile, wood, and other natural and fabricated materials.

Striking columns feature a variety of faux finishes and wall coverings. Besides adding an interesting blend of textures, this concept has proven to be popular with clients, who are able to see how the materials and finishes they are considering look installed. Likewise, exposed air-conditioning ducts and electrical raceways serve as a hands-on learning environment for clients.

Special attention was paid to color and lighting. A slightly unconventional approach led to variety over homogeneity. Intense colors—lots of them—and assorted lighting fixtures help interpret functional areas. Stock fixtures, in a carefully selected combination, serve both practical and decorative functions. Pendant fixtures complemented by desk lamps provide general and individual lighting in the drafting areas.

Reception area and octagonal conference room incorporate an unusual range of colors, textures, furnishings, and natural and artificial lighting effects.

Angular walls with sharp verticals elude monotony in passage way of architectural section. Interior glazing and light color walls in conference room and principal’s office add open feeling to closed spaces.
While track lights accent walls and art work. The interior design section is lit with tracks or general lighting as well as to highlight displays. In the transit and reception area and in the coffee room, wall sconces help create drama and definition. Reflections caused by the different types of light, with or without added daylight, vary the intense colors, broadening the color spectrum even more.

Lest it sound like a helter-skelter look prevails, the result is quite the opposite. Forest green and deep purple, the colors of the firm's logo, define principal spaces. Flooring in the public zones, including the reception and conference areas and the principal's office, is an expanse of slate. Work areas, such as the drawing room are installed with carpeting in the logo colors.

Surrounded by a neighborhood of neglected buildings, first-time visitors are generally surprised to find themselves in this jewellike space. Besides their own project to create a vibrant office space from a bombed-out shell within a budget, Urbanform Design Group, Inc. specializes in single and multi-residential architecture and interior design.

**Architect:** Urbanform Design Group, Inc.

**Design Team:** Kaizer Talib, AIA, Thierry Kawczynski, Assoc. AIA

**Interior Design:** Beth Kaplan, Cristina Towne

*Photographs by Roy Cregen*
Museum of Science and Industry, Tampa, Florida
Architect: Robbins Bell & Kreher Architects Inc., Tampa, FL
and Antoine Predock, FAIA

GEORGE COTT
Architectural/Interior Design Photography

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Can Engineers Practice Architecture?

As a professional engineer licensed to practice in Florida, I find Mr. Huey's article in the Fall 1995 issue to be highly biased. Having been involved with NSPE’s review of the Federal anti-trust investigation, I know there is a great deal of vague misinformation thrust upon the public, building officials, engineers, and architects by such biased articles. There are a number of other cases nationwide which shed light upon the division line between the practice of architecture and the practice of engineering. As general counsel of the Florida Board of Professional Engineers for 20 years, Mr. Huey’s bias is understandable, but his article only represents his opinion.

The fact is, most statutes specifically exempt engineers from the statutes applicable to architects, and vice versa. Most building codes recognize the design professional as either an architect or an engineer. The debate as to who may lead and who may follow is largely academic. Both boards were created to protect the interests of the public, and in that purpose there is common ground. Registrants are qualified based upon their training, education, and experience by both boards, though an electrical engineer is registered as a professional engineer, it would be uncommon for him to complete the structural design of the tower and foundations which hold up his cables, although legally under the law he can accept a contract for design of a power transmission system. As a registered professional he is charged to practice in areas only in which he is competent by training, education, and experience. He is expected to associate a structural engineer as required by the assignment. Similar parallels can be drawn in architecture. There are those architects who specialize in residential work, just as others specialize in health care, educational, high rise, commercial, etc.

It is the individual registrant's responsibility to competently carry out any assignment they accept; by affixing their signature and seal, they certify they have.

Consider for a moment the medical profession. A general practitioner would not attempt a heart transplant or brain surgery, although all are medical doctors.

The division line between architecture and engineering is a purely rhetorical, academic discussion which is more of a turf battle for clients than in protection of the public's interests. The public’s interest is served by the employment of a design professional who competently carries out his assignment.

Each professional should practice only in their area of education, training, and experience. It is a professional responsibility for which each professional should be strictly held accountable and liable. The standard is due diligence and care ordinary to the industry. Violators should fairly be subject to the wrath of their registration boards whether an architect or engineer or other professional. Legislation or interpretations which are protectionist of turf between the engineers and architects does nothing but create a controversy and "in-fighting." The energy would be better spent in focusing upon professionalism within your own professional field.

And that is my opinion.

Kirk N. Nivens, P.E. & P.L.S.
Nivens Engineering, Inc.
Beaufort, South Carolina
Light—The Power to Transform
By James P. Fleming

Light and color are as natural as sound and smell. And it seems that today these and other natural elements are finding a renewed importance in home design with the revival of the concept of the home as a sanctuary.

Natural products like wood, leather, stone, and interior trees and plants often form the basis of interior design programs. Details such as running water fountains, wind chimes, and scented potpourri satisfy the desire for soothing sounds and smells.

Integration of the dynamics of color and light are contributing, too, in a large way, to the overall picture. The wise and creative use of light, through the collaborative efforts of architect, interior designer, and lighting designer, can bring out the maximum design potential of any space. A strategic tool in creating an environment that evokes a mood or a subtle atmosphere of elegance or drama, lighting has infinite possibilities. The use of colored filters with secondary light sources further enhances the ability to create drama and warmth, transforming the entire feeling or spirit of any interior or exterior.

The lighting industry has been experiencing a rapid development in new lamp technology and in control technology, which, through the creative manipulation of light, now allows a homeowner to be a "conductor" of the home environment. Complete integration of controls on all light sources allows the lowering and layering of light levels to modify and enhance the mood of any space or series of spaces.

On a basic level, it is possible to transform a home or office space through something as simple as upgrading the current light bulbs to various qualities of bulbs that effect a layering of color, shadowing, or texture. For example, most homes have high-hats or recessed cans in the ceiling into which R30 or A19 bulbs originally were installed. By changing to new capsule light halogen bulbs, called Par 20, Par 30, or Par 38, the feeling of those spaces can be transformed. The new lamps allow a fresh, crisp, clean light that brings out the full color of tile, marble, fabric, and other finishes.

Another easy but effective way to enhance a space is to replace wall switches with dimmers. Rarely is it desirable to have lighting at full brightness levels. Such illumination can be harsh, cold, and even obtrusive. It also is counterproductive to creating the feeling and mood that your home or other space has the potential to offer. A light source without a dimmer can be compared to a radio without a volume control. The ability to moderate the level of light is essential.

In the home, updating light bulbs to include the new lamp technology and installing dimmers throughout (that means not just the living room but kitchen, dining room, hallways, bedrooms, bathrooms, and outdoor areas) gives the client the ability to transform spaces. It's important for architects and interior design professionals to be aware of these low-cost ways to achieve high client satisfaction.

Since many Floridians have the luxury of year-round gardens, it is worth mentioning the rich possibilities that exist in landscaping illumination. Landscape lighting is no longer an option but a requirement for new luxury homes. New products developed in the past decade allow landscape architects to incorporate beautifully effective, low-maintenance, economical outdoor lighting systems.

Because of continuing advances in the industry, there is much that is new and exciting. To save time and mistakes in sorting out what is good and had (and ugly), most architects and interior designers can benefit from the services of a professional lighting consultant or lighting designer.

James P. Fleming is President of Lite-Spec & Design Group, Inc., and Vice President, Lighting Designer and Interior or Furnishings Buyer/Industry Consultant at Farrey's Design Galleries, Miami.
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Harmonious by Design: Light and the Built Environment
By Robert J. Laughlin

Light has long been considered as fundamental to architecture as form and function. In this century it was Le Corbusier who said, "Architecture is the masterly, correct, and magnificent play of masses brought together in the light..."

In addition to defining a structure's planes and features, light has always played a part in defining its purpose. After all, it was the light in the great cathedrals of Europe that exemplified their spirituality. Today light retains its importance in the success of any work of architecture. Both its aesthetic and its commercial value are taken seriously, and the industry is flourishing. The work of lighting consultants, too, is gaining recognition, not just in blockbuster projects and night lighting, but in general commercial projects, such as themed hotels, restaurants and residences, hospitals, shopping centers, factories and showrooms, and every other type of construction.

More and more, architects are realizing that using a lighting consultant can save time and money in many types of projects. The lighting consultant already has done the research—keeping abreast of new technology and energy concepts, and has the tools at hand—a vocabulary of thousands of fixtures from hundreds of sources and the knowledge of what works where. While there is a misconception that using a lighting consultant means added costs and expensive fixtures, more often the reverse is true. For a lighting consultant the goal is achieving the right effect using light, not using expensive fixtures. In fact, the best solution seldom is the most costly.

Finding appropriate fixtures for the project at hand, considering the desired look and effect as well as cost, maintenance, and energy efficiency, is the foremost task. While often an owner or architect may go for the "hottest" or "coolest" new look or technology, the lighting consultant can advise whether these will work to advantage—and if not, what will.

Florida may have more themed architecture than any other place in the world. Recently, themed architecture has spilled out of the theme parks and is affecting virtually every building type. The basis for theming architecture and the associated lighting is a "story line," an overall program—sometimes highly complex to cover all the various elements within a story or theme. The story line is the lighting consultant's guide for lighting the facility in such a manner that it takes on a particular feeling or character—both interior and exterior.

The first level of lighting should be of an adequate type and character to provide the lighting required for the intended use of the space. Additional lighting should highlight or bring out the character and beauty of the architecture and its forms and spaces. If exposed light fixtures are required, they should complement rather than distract from the architecture. Sometimes custom fixtures are designed to give a building its own special sense of place, and the architect, of course, contributes to the design process. However, it is often easier and more cost effective to modify existing fixtures. Using standard components has the advantage of saving problems down the road in the form of costly maintenance or hard-to-replace parts. The lighting consultant can choose from a repertoire of thousands of fixtures to accomplish this.

An important element in any lighting scheme is how it will affect the people utilizing the space. Unless patrons look good, they will not feel good, and this may affect their perception of the architecture and its intended use. Lighting has a strong impact on people and their feelings and reactions. Therefore, achieving effective lighting helps achieve the maximum utility of any space. Department store lighting must make people look and feel good or they might not buy. And in a restaurant or grocery store, bad lighting can make even the most beautifully presented food look unappetizing.

An important responsibility of both the lighting consultant and architect is to see that every aspect of their project works together as a whole and does its part to enrich whatever human experience takes place there. The more successful their lighting design is, the more successful their architecture will be.

Robert J. Laughlin, of Robert J. Laughlin & Associates, Lighting Consultation and Design, Winter Park, is a long-time AIA Professional Affiliate as well as an active member of the Illuminating Engineering Society and International Association of Lighting Designers. Recognition of his work includes several AIA Florida Honor awards.
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