

inform

architecture ■ design ■ the arts

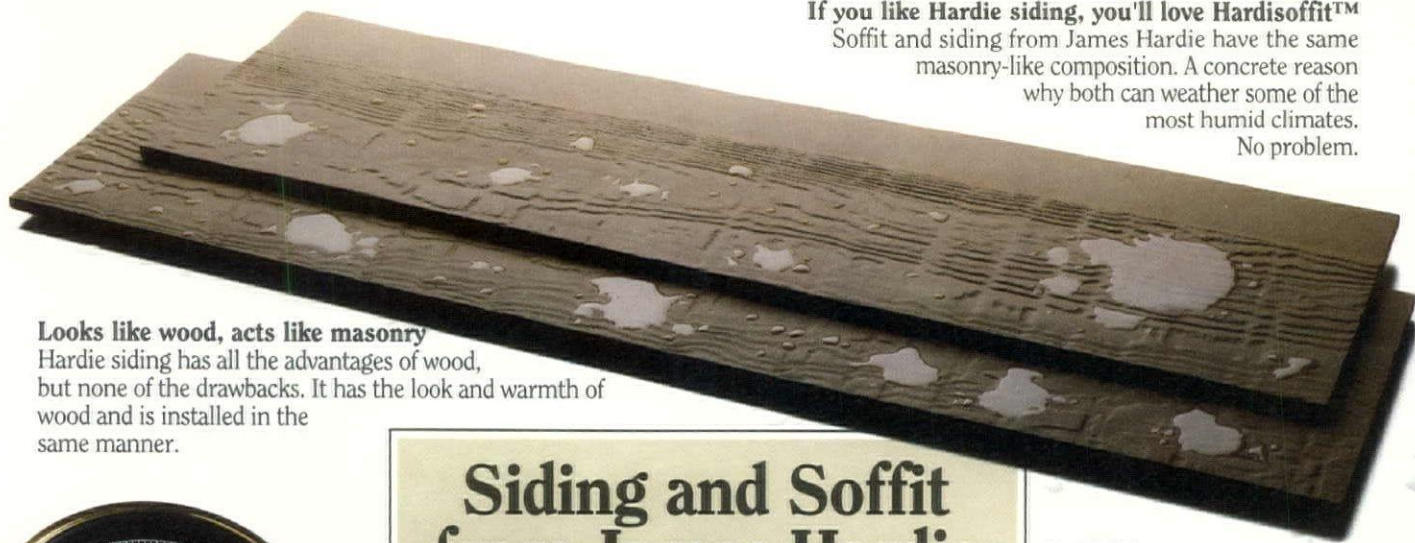
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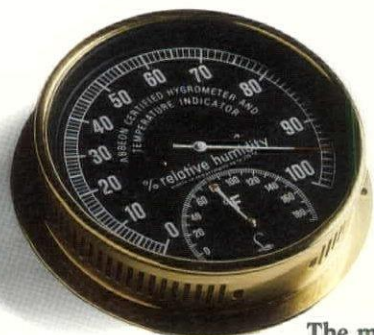
New Commercial and Industrial Buildings ■ Virginia Design Forum: A Special Report ■ The Lessons of Audubon House ■ 20th Century Furniture

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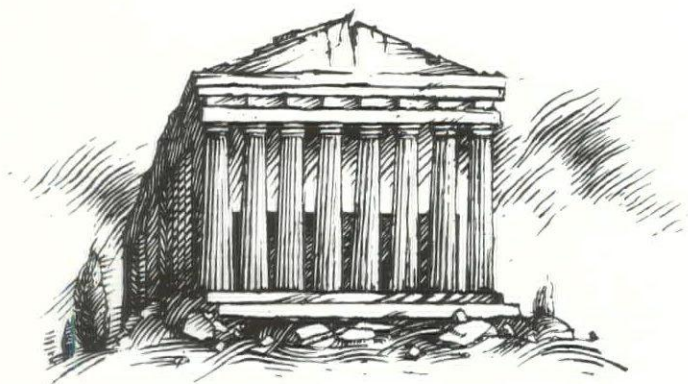
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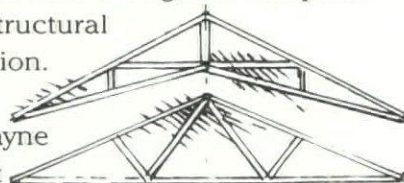
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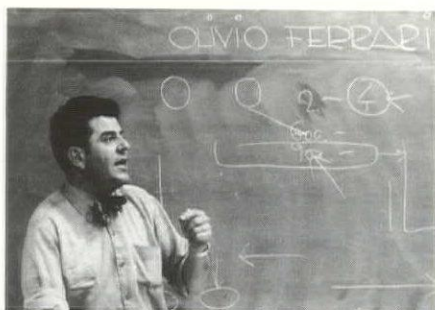
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Olivio Ferrari, 1931–1994



A youthful Ferrari in 1968.

A collective moan of anguish and sorrow flowed from thousands of Virginia Tech graduates as the news spread on July 15 that Olivio Ferrari, at his mountaintop home near Lugano, Switzerland, had died of a sudden illness earlier that day. This was tragedy in its most real form for anyone who had attended the architecture school in Blacksburg at any point during Ferrari's three decades as a professor. I had learned of his grave illness only the day before, and hastily dashed off a letter of thanks and encouragement to this mentor, this counselor, this friend. Calling Ferrari a friend, however, didn't mean that I held a particularly rare or elevated status. He was a most generous person – brimming with energy and zest, ideas and emotions – and there was room in his life for many like me.

That was one of his great strengths. His mind, like his wit, was quick as lightning and that allowed him to touch many people. As a teacher he had an uncanny ability to focus on individual students and offer observations, or pose nagging questions, that were ideally suited to that individual. Often the words were few, though the meanings were rich. And when the struggles of one student held importance for the rest, Ferrari would spontaneously shout "Guys, come quick!" and assemble everyone within earshot for a discussion that might last two minutes or, if the subject warranted, two hours. One never knew.

As a colleague, he was equally challenging to the faculty, testing their intellects while imparting in each a belief that the student came first. Through other pro-

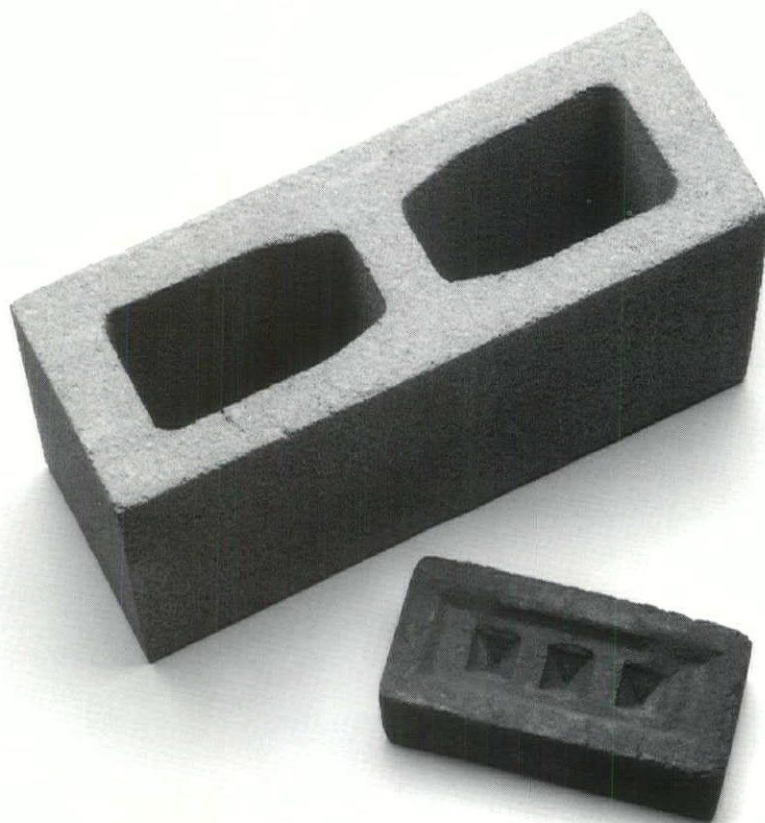
fessors, he radiated influence over all that happened in the architecture school at VPI. No small feat for a man who, fresh from Europe, began his American teaching career in 1963 at Auburn University with what is generously reported to be a limited command of the English language. Ferrari, ever the quick study, overcame that limitation. He joined the faculty at Virginia Tech in 1965, one of the first professors in the new College of Architecture hired by dean Charles Burchard, who had been lured from Harvard to create the school. Ferrari's impact was immediate. He structured the curriculum to include an introductory phase of Foundation Studies that gave students a firm grounding in aesthetic and formal concerns before they began to tackle the complexities of building design. It was an innovative program that was copied at other universities, though Ferrari was content to stay in Blacksburg and see his experiment through.

That was, perhaps, one of his beautiful contradictions. He was dynamic and brilliant enough to have written his ticket to virtually any high-profile university. Yet he was content to conduct his life's work out of the limelight, living modestly with his wife and constant companion Lucy in a farmhouse outside of town. He designed a little, exploring some aspects of furniture design and producing a few elegant wooden toys that were manufactured in Europe. Mostly he concentrated on being a good teacher – and a lifelong student. He established the college's Europe study abroad program, which has operated continually since 1968 and,

as Ferrari said, enabled students to see and understand American culture with fresh eyes. In 1990, his contributions were recognized with the national Distinguished Professor Award from the Association of Collegiate Schools of Architecture. Columbia University scholar Kenneth Frampton put it well when he remembered Ferrari as "a catalyst, a man who made things happen, the one who inspired students, who created schools, who forged improbable ties across seemingly unbridgeable gulfs.... Star but not a star, known but unknown, a constant source of energy, a myth; his will be a hard act to follow."

My letter, of course, didn't get to Ferrari in time. In recent years, he had taken up permanent residence again in Switzerland, and I wanted to tell him what a great loss that was for VPI. I wanted him to know, too, that his legacy is beginning to emerge in the circles of architectural practice in Virginia, for his former students are maturing in the profession to the point where their achievements are gaining note. "Many of them," I wrote, "owe a great debt to Olivio Ferrari." I was quick to include myself in that list, for Ferrari was a great source of inspiration and encouragement – even for those of us who didn't know we needed it. After sharing that sentiment, I expressed my regret at not making it back to Switzerland recently to visit. I expressed the desire, however, to return someday to the Ticino mountains with my children. When I do, there will be many stories to share about a man who, in countless ways, enriched the lives of many.

Vernon Mays, Editor



4

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inform

volume five number two

12

Commercial Successes

In a period known more for institutional growth than for bursts in speculative office development, a number of commercial and manufacturing projects built by private companies have come to completion. In this issue, Inform features a sampling of the best.

Richmond Newspapers Production Facility

Baskervill & Son Architects

USAA Regional Headquarters

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Virginia Credit Union Operations Center

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1300 Connecticut Avenue

Anderson + Lord

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Virginia Design Forum

Prodded by an all-star slate of speakers, a receptive group of architects, students and university faculty gathered in March for the first Virginia Design Forum. In a 16-page special supplement, Inform publishes excerpts from the groundbreaking event.

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Design Lines

new developments in design and the arts

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the greening of Audubon House

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Profile

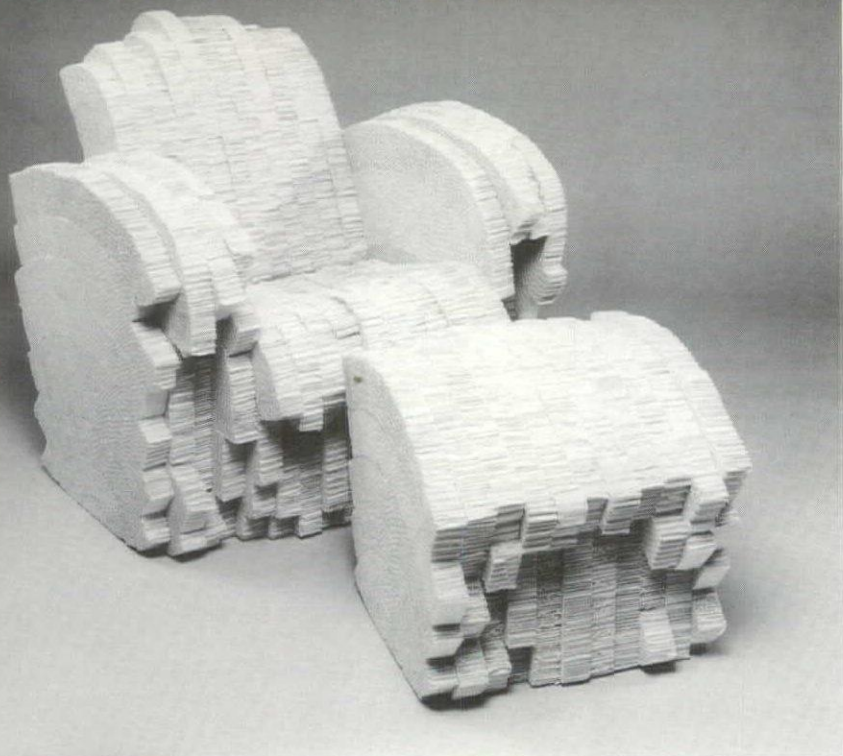
belated recognition for Amaza Lee Meredith

On the cover:

Richmond Newspapers Production Facility,

by Baskervill & Son Architects.

Photo by Prakash Patel.



Architect Frank Gehry's "White Little Beaver" (left) is as sculptural as his buildings. Mario Botta's "Quinta" chair (above) bridges art and function.

Post-War Furniture Challenges

DESIGN

Notions

Can a chair be art? Or is it merely a functional object? Can it be both? An exhibit titled "Design for Living," which continues through September 25 at the Virginia Museum of Fine Arts in Richmond, explores this ongoing debate through a display drawn from the museum's collection.

Prior to World War II, Europe had been the center of modern furniture design. Artists, craftsmen, designers and architects designed furniture incorporating up-to-date technology as well as stylistic developments, such as Art Nouveau and Art Deco. In many cases, such as in the Bauhaus and Deutsche Werkstatte, designers tried to bring the highest aesthetic to their work while creating furniture that could be mass-produced and marketed. But the destruction of Europe caused by war—coupled with the emigration of many of the leading artists and designers to the United States—brought America to the forefront of design. Manufacturers began producing furniture that was the result of a strong economy, new technology and

a cycle of production uninterrupted by war. Designers such as Charles and Ray Eames produced works that were based on innovative ideas, but still intended for industrial replication.

In the post-war years, however, there arose a distinction between such functional mass-produced pieces and those produced individually in studios by furniture makers such as Wharton Esherick,

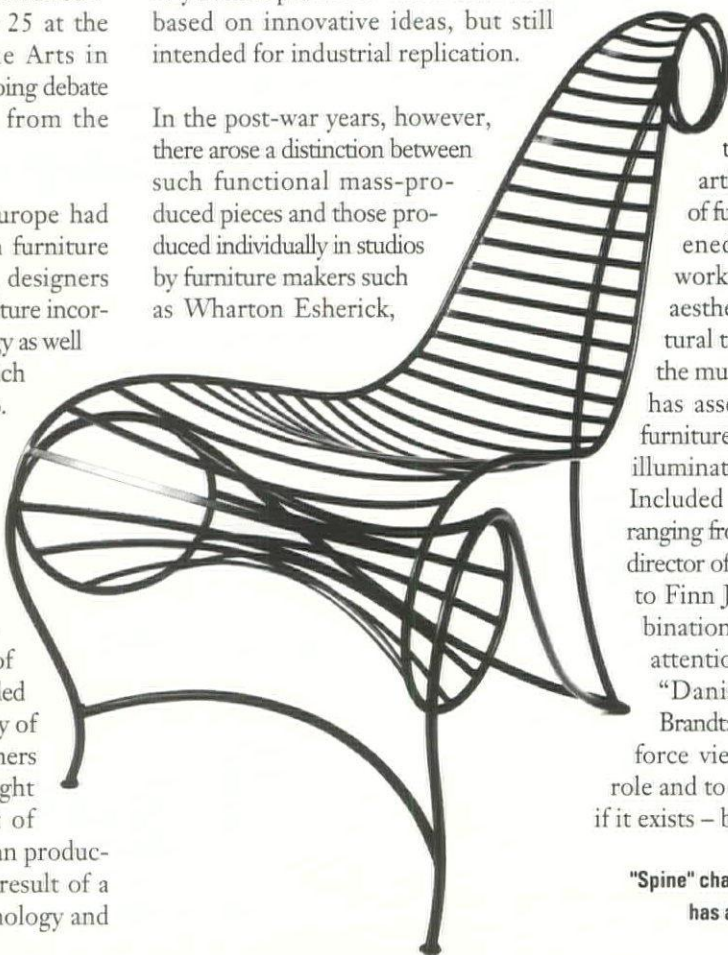
Sam Maloof and Wendell Castle. "Their more individual works became a different

but parallel force in furniture," says Frederick R. Brandt, curator of 20th century art at the museum. "As they created their unique pieces, these

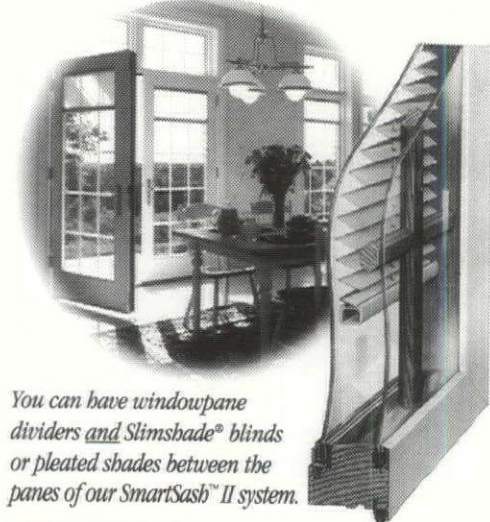
artisans developed concepts of furniture-making that broadened the boundaries of the work and placed it on a higher aesthetic plane closer to sculptural traditions." Drawing from the museum's collections, Brandt has assembled a small show of furniture produced since 1945 that illuminates these transformations. Included are works by individuals ranging from George Nelson, former director of design for Herman Miller, to Finn Juhl, whose refined combination of natural materials and attention to detail generated the "Danish Modern" look. Says Brandt: "Today's furniture-makers force viewers to reconsider their role and to question the difference—if it exists—between art and craft."

Brandt: "Today's furniture-makers force viewers to reconsider their role and to question the difference—if it exists—between art and craft."

"Spine" chair by Andre Dubreuil (above) has anthropomorphic feel.



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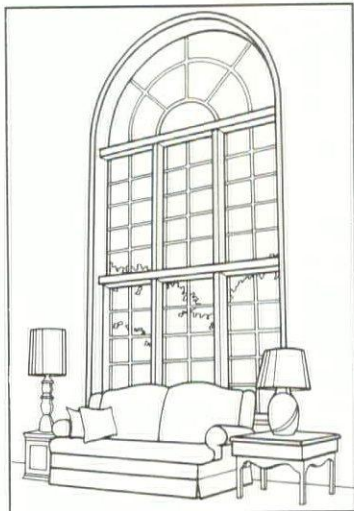
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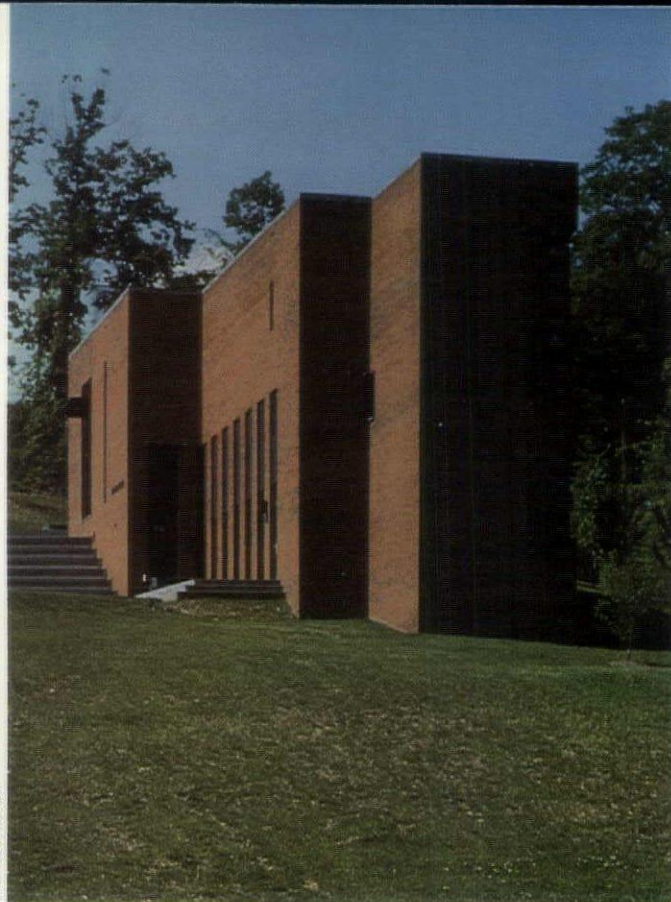
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New College at the University of Virginia uses traditional materials to make innovative forms.

Exemplary uses of brick and block were again the focus at the 17th Annual Design Seminar sponsored by the Virginia Masonry Council earlier this year. At the event, which promotes Virginia masonry contractors, masonry manufacturers and material suppliers, the following award winners were named.

Odell Associates of Richmond, for design of the Lynchburg Regional Airport, submitted in the category of governmental construction. Project architect for the airport was Rohn K. Price, AIA.

VMDO Architects of Charlottesville, for their work as associate firm with Tod Williams Billie Tsien & Associates of New York on New College at the University of Virginia. David Oakland, AIA, was principal-in-charge for VMDO on the project, submitted in the religious-institutional category.

Williams & Dynerman Architects of Washington, D.C., for Chancellor's Rock Farm, in the residential category. The project was designed by Richard Williams, AIA.

Chapman, Coyle, Chapman of Marietta, Georgia, for the Robert Trent Jones Clubhouse in Gainesville, submitted in the commercial-industrial category. Architect for the project is Michael Shue.

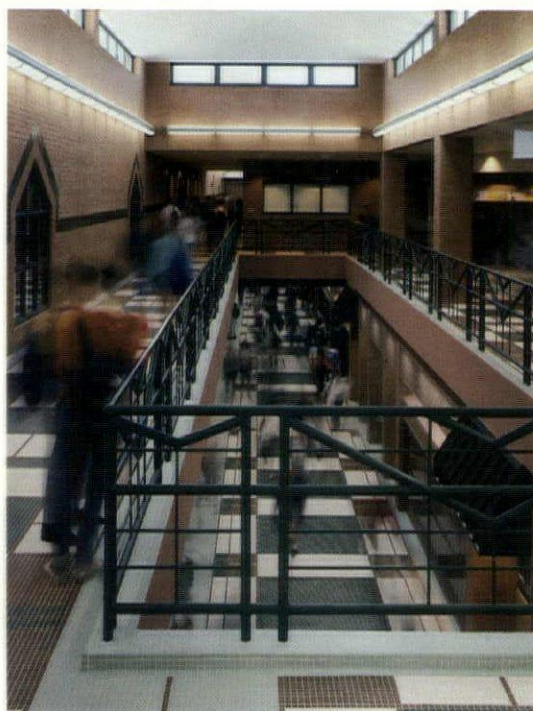
Freeman & Morgan Architects of Richmond and **Peck, Peck & Associates** of Woodbridge received honorable mentions. John C. Morgan, AIA, was architect for the Jackson Center and Dianne Peck designed Burleigh Manor Middle School.

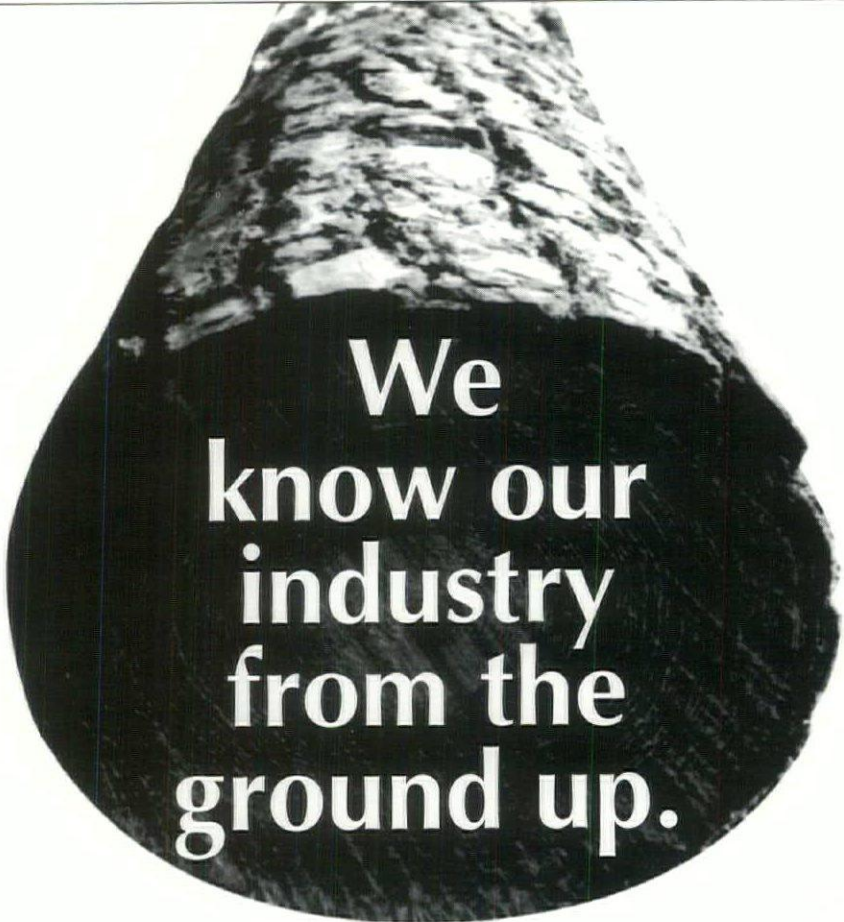
Architects Reap **Masonry** Awards

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Openness of Lynchburg Regional Airport (above) is complemented by arched piers. Masonry and tile patterns give life to Burleigh Manor school (right).





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DATE LINES

■ "Design for Living." Post-World War II furniture, including many never-before-displayed pieces, features designers Charles Eames, Frank Gehry, Wharton Esherick. Through Sept. 25 at the Virginia Museum of Fine Arts, Richmond. 804-370-0844.

■ "The Grand American Avenue: 1850-1920." Five city-defining thoroughfares are featured, using objects from architectural drawings to decorative arts to document the impact of the grand avenues, their patrons and architects on American architectural and social history. At The Barret House, Richmond, Oct. 7 - Nov. 11. 804-644-3041.

■ "North Carolina Architecture." Fifty-two large-scale silver print photographs document a cross-section of North Carolina's architectural heritage. Through October 9 at the National Building Museum, Washington, D.C. 202-272-2448.

■ "Visions of Home." Design solutions to housing issues such as availability, affordability, family size and location. Featuring work by AIA Washington architects. From Oct. 6 - Feb. 26 at the National Building Museum. 202-272-2448.

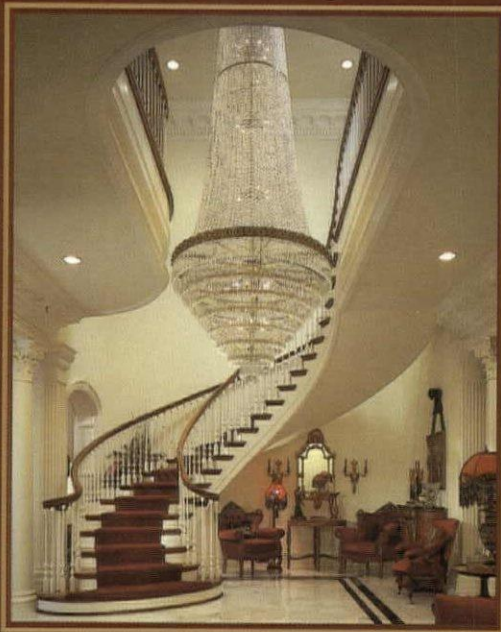
■ "Thomas Jefferson and the Design of Monticello." Original drawings, manuscripts, prints, books and rare artifacts tracing the design and building of this neoclassical gem. Through Oct. 2 at The Octagon, Washington, D.C. 202-638-3221.

■ "Grand American Victorian Resorts: Glimpses of a Golden Age." A six-session course covering the Gilded Age, Newport, the Adirondacks, Chautauqua, The Greenbrier, The Homestead and Cape May. A Smithsonian Associates program, begins Oct. 18. 202-357-3030.

■ On display for the first time, drawings, models and photographs from the Colonial Williamsburg Foundation chronicle changing research methods and design processes in the restoration and reconstruction of the Historic Area. At the DeWitt Wallace Decorative Arts Gallery, Williamsburg, through Jan. 1. 804-220-7554.

■ "Barn Again." An exhibit illustrating how agricultural practices and regional economics have shaped barns and created layers of meaning. Includes a full-scale 19th century example in the Great Hall. Through Sept. 11 at the National Building Museum. 202-272-2448.

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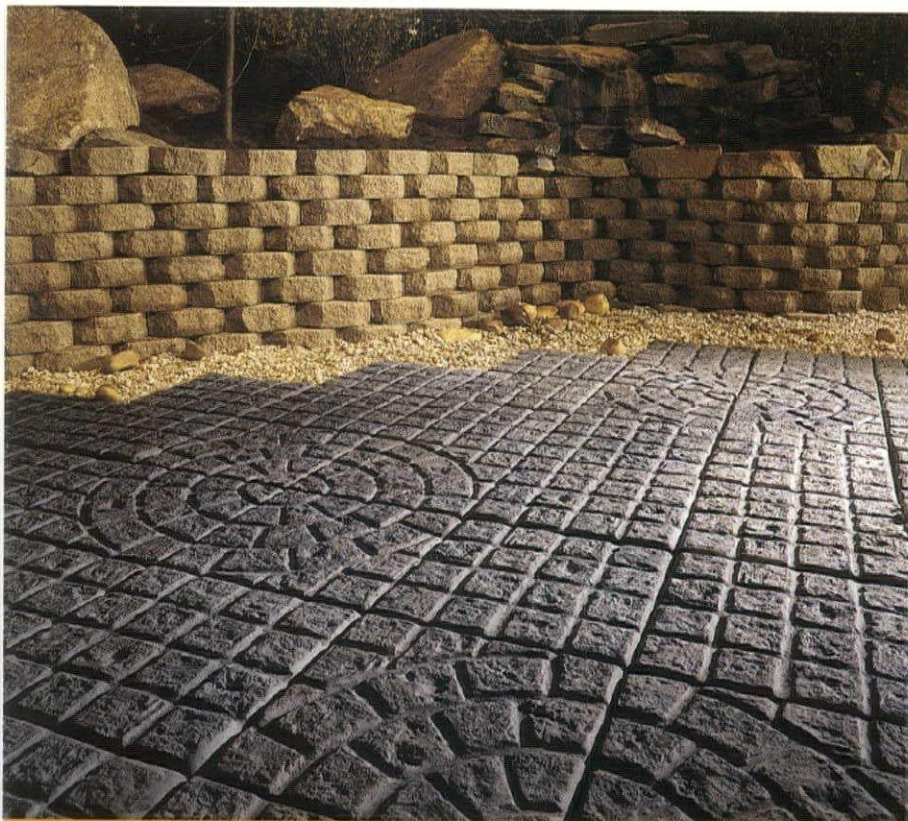
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F r e s h f o r t h e TIMES



After many decades of printing its daily editions along Richmond's historic Franklin Street, the publisher of the *Richmond Times-Dispatch* abandoned its downtown presses and, with them, the machine age. Now located in a 236-acre industrial/office park in Hanover County, Richmond Newspapers' new production and distribution facility

signals the newspaper industry's shift to the electronic age.

Unlike the old plant, which occupied less than a city block, the new one is a gargantuan celebration of modernity and the "power of the presses." Spread over ten acres of floor space and interwoven with 4.1 miles of plumbing, the building easily accommodates three rail cars that can pull

inside it to deliver newsprint and supplies. The building's floor plan – a virtual diagram of the newspaper's work flow – was a natural outgrowth of the production process. In addition to printing, distribution and storage facilities, a limited number of corporate offices are located at the front of the building. The ambitious program called for highly specialized production areas as well

as corporate spaces that would establish high design standards for things to come – a hint that other aspects of the newspaper operation may someday follow.

"We wanted to blend the industrial areas with more high-end office needs," says David C. Smith, a principal of Baskervill & Son, the building's architects. "It was a huge building and we were very concerned

Using exposed steel beams and overscaled column bases, Richmond architects Baskervill & Son blended imagery from the industrial present and a cinematographic past in the lobby (facing page). A series of setbacks on the front façade (above) lends a human scale to the massive printing complex.

with the massing.” Rather than disguise the enormity of the building, Baskervill sought to accentuate its scale and employ materials that reflected its primarily industrial purpose. The basic building blocks are large metal panels. Gray and blue aluminum panels are used at the front of the building, while steel panels in a slightly different shade of gray articulate the production facilities in the rear of the building. Further identifying the production area is a continuous course of open vents at the frieze line.

The meshing of utilitarian and industrial areas with the more finely articulated facade of the offices and cere-

monial entrance is evident as one approaches from the curved, handsomely landscaped entry road. From that perspective, the horizontal structure looms ahead, its pavilion-like

central bay capped by a vertical light monitor. In this area, the architects introduced another element, shadows, which are provided by a generous overhang. The goal was to create a

memorable image while clearly identifying the entrance to a building that’s big enough to swallow a mere door. In their search for a clearly Modern expression of the building

technology, the architects seem to have reached back in time – mining the Mission, Prairie and International styles and, perhaps, the set designs of early futuristic films. The most striking back-to-the-future reference is Frank Lloyd Wright’s 1922 masterpiece, the Imperial Hotel. The massing of the setbacks on the front façade, the interplay of solid and negative space and the effect of light and shadow suggest techniques that Wright employed on his landmark building. “It has some traditional details and proportions,” Smith readily agrees.

Inside, the lobby is an elaborate architectural setting for the com-



Photos: Prakash Patel

Steel trusses in the lunch room continue the industrial theme (above). As seen from the entry road, the 428,000-square-foot plant commands the surrounding landscape (below).



pany's new diamonds
— its presses. When the
building opened, the
Times-Dispatch boasted
about its three new
state-of-the-art Mitsub-
ishi presses as provid-
ing “plenty of muscle.”
And bulk. Each press
is 155 feet long, 12 feet
wide and 55 feet tall —
producing a capacity to
print 75,000 copies an
hour of an 80-page color
newspaper. Launching
the visual journey to
these mechanical icons
is the lobby, where
studded, steel columns
rise from a marble floor
to criss-crossing beams
overhead. A series of
terestories rise 85-feet
high toward the back
of the space, capped by
the light monitor that
begins in the lobby and
extends the full length
of the building.



Three state-of-the-art Mitsubishi presses, each 155 feet long and 55 feet tall, churn out daily editions in a press room filled with daylight from the overhead monitor.

Toward the rear of the lobby, a monumental staircase leads visitors to a mezzanine which opens into an observation area overlooking the presses. The build-up recalls *Metropolis*, the 1927 film classic by director Fritz Lang, whose futuristic sets were more impressive than its utopian message. “It really is high drama,” chuckles Smith. “When you move progressively up that stair, you can begin to hear the presses. Then you open

the door and hear the roar and see those monsters running ... it is pretty dramatic.”

In addition to heightening the drama and establishing the organizational spine of the building, the light monitor represents a pragmatic effort to introduce natural light into as many parts of the building as possible. Both the architect and client visited printing plants in the United States, Europe and Asia,

coming away most impressed with buildings that incorporated sunlight. Baskervill's team also was impressed by Scandinavian building codes that require minimum amounts of natural light in industrial work spaces. Consequently, at the Richmond plant, the architects incorporated skylights in the press room and mail room, a glass wall in the paper storage area, and large expanses of windows in the lunch room.

That combination of ample light and lofty spaces takes full advantage of the building's mammoth size and makes no apologies for it. And rather than disguise the technology contained in the building, the designers celebrated it with imagery that is both muscular and witty. Ultimately, what could have been just another manufacturing center was treated as a building worthy of care and attention, producing a valuable asset that will serve its owner well for many decades to come.

— Edwin Slipek, Jr.

The author is a Richmond writer on architecture and urban design and contributes frequently to Inform.



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Virginia design forum I

History
Theory
Practice

architecture + innovation

Despite the fact that many architects have been bruised by a tough economy the past few years, the mood at the first Virginia Design Forum was clearly optimistic. Provoked, prodded and cajoled by an all-star panel of speakers, a receptive group of architects, students and university faculty gathered March 18-20 at The Homestead. Although the exchanges that took place that weekend were often instructive, those who made the pilgrimage to Hot Springs were treated to much more than a refresher course. They were there to be challenged. From the start, a tone was set that dissolved the barriers between speaker and audience – all were expected to jump into the fray. That aspect, if no other, set this gathering apart from so many of its kind. In a conference packed to maximum density, people were talking about all manner of things: how we settle our towns, the politics of practice, how architects are educated, and the need for dwellings that foster new ways of living. While all this was targeted broadly on the theme “Architecture + Innovation,” the conversations often strayed elsewhere. Trying to relay those millions of words in one document is an impossibility. But, if anything, this publication attempts through a series of brief excerpts to capture the range of the formal talks and, at the end, offer a taste of the give-and-take that this forum was all about. Too often, it seems, architects can be heard lamenting the fact that design – once the focus of their attention – has taken a back seat to the myriad other issues that can dominate professional life. The Virginia Design Forum was created to remedy that – to focus, if only for three days, on the issues that make ours a noble profession.

– Vernon Mays

For three days
in March, area
architects met at
The Homestead
to consider the
questions they
face as leaders
in the making of
places and
things.



Detail of "The Architect's Dream," by Thomas Cole.

Courtesy The Toledo Museum of Art



Daniel J. Boorstin

Daniel J. Boorstin, historian, Pulitzer Prize-winning author, and former Librarian of Congress, is widely known as author of *The Creators*, a history of man's search to know the world and himself.

Tonight I have committed us to reflect on the architect's relation to what I call his fourth dimension – which, of course, is time. In my few minutes I will try to put the architect's relation to the fourth dimension in the perspective of history, to see the peculiar burdens, opportunities and challenges that the architect's unique relation to time offers. Many people's prophecies can be disregarded or ignored, but the architect's prophecies are embodied in stone and reinforced in concrete. They obtrude themselves on us, they discommode us, or they can exhilarate us. You may remember the caution of the cracker barrel American poet, James Russell Lowell, who said, "Don't never prophesy unless you know."

The rise of social scientists has surely increased our conviction that we know and our readiness, our eagerness even, to prophesy. The title of this conference emphasizes one aspect of the architect's work, innovation, which speaks to the architect's relation to time and how he can punctuate time by his work. If you look at the standard texts by even the best historians of architecture, they tell us as, Nikolaus Pevsner did in his outline of *European Architecture*, that the history of architecture is primarily a history of man shaping space. But this evening what I would like to do is to suggest the peculiar relation of the architect to time, and also the fact that the architect needs not only spatial plans, but he needs time plans.

What does that mean? For most of Western history, the architect has been engaged in a battle against time. In fact, it is doubtful that this is altogether changed, and whether the architect has succeeded in making his truce with time. But evidence of this is the fact that the construction of monumental or public buildings in the west has been, until recently, primarily in stone. Stone is the architect's arsenal against time. For most of western history, since "architect" has entered our English vocabulary, the term has meant a master builder. It emphasized the craftsmanship, rather than the conceptual plan, of the architect. When the word began to be associated with designing in the mid-17th century, it was identified first with a supreme architect — the supreme builder who was assumed to be the creator or god. It was first used in English in the early 16th century, in the other sense. It was long identified with making and the maker. The unreliable Ruskin once said, "No person who is not a great sculptor or painter can be an architect. If he is not a sculptor or a painter, he can only be a builder." The architect's battle with time, when it was victorious, often produced what I would call Pyrrhic victories. There are many examples of this. The Parthenon, for example, in its pristine glory — and we forget, of course, that it was a polychrome monument — became an example of classic elegance and symmetry. But the intact column, with its delicate entasis, became the broken column. And the classic, which stood for rigorous geometric symmetry, became the romantic in its delightful disarray.

Now the architect has taken on a new role, which will become increasingly important — a role which has been developing over centuries. He has had forced upon him the role of prophet. And that role is forced on him because of the changes in society, which are obvious but which impinge on the architect as they do on few other professions. The architect is engaged in a new encounter between space and time. He must still enclose space in a way useful and pleasing to the present, but he now must consciously build receptacles for new functions in the future. The maxim "form follows function," which Louis Sullivan wrote in his essay on the tall office building back in 1896, becomes nearly a prescription of formlessness when we look at the modern future and the unpredictability of functions which the architecture will have to perform.

Historical forces also have increased our awareness of the architect as a performer on the stages of time. This has occurred in a number of ways. First, quite incidentally, by the efflorescence of archaeology in the 18th and 19th centuries, when it was possible for the first time for people to have some sense of the Egyptian, Mesopotamian and Classical archaeology. We have become increasingly conscious of our whole human past, revealed in its buildings, and concerned about the preservation of the relics of the past. That, of course, has provided us with a menu, with a treasure house of possible themes when we build for our own time.

The discovery of archaeology, then, has widened our vistas and reminded us that the architect is playing on a vast stage of millennia. Also the development of new materials: there are more new materials added for the construction of buildings in the past century-and-a-half than in the whole previous history of the human race. They are obvious — I need not even remind you of them: iron, cast iron, steel, aluminum, reinforced concrete and so on. If the architect builds, as he must, for the future — which must include the next decade and the next century — he must be alive to this accelerated pace of discovery of new materials. In technology, the past century has produced in dizzying speeds other technologies, all of which have cataclysmically affected architecture.

If we have all these unpredictables, which have been increasing at an accelerating pace, how can we prepare for the future? Is it possible? How can we include the fourth dimension, time, in our architectural planning? How can we make a time plan when we don't know what we are planning for? The most important fact, perhaps, is this fact of unpredictability, which suggests that we must be aware of the possibility of whole new sources of power. The principle sources of power that we now use in our architecture were all unexpected: electricity, the telephone, the automobile, the airplane, radio, atomic energy — they were all ridiculed as impossible for millennia. They were considered symptoms of a diseased imagination. These have changed our lives, but we have not yet accommodated our architecture to them.

The essential problem of the architect, however, is that accommodation. The architect cannot shrug off the question as none of his business. Every time he builds a building he is making it his business by the materials he uses, the space he designs, and most important, the longevity of what he plans. The architect has a duty to his tradition and to his profession, to future generations, to embody and perpetuate his own vision of space, of utility and of beauty. But he cannot condemn future generations to start on their own in the world of architecture. The architect can save the future from that necessity. One of the menaces to the future of architecture, of course, is the menace of ideology, which we have seen in the styles of most of the totalitarian countries. In our country, we enjoy the chaos of a free society, and it is that chaos which we must be willing to come to terms with.

But is it possible for the architect to prepare for his role as prophet? Is there a mathematics of probability which the architect can employ? We need not be know-nothings about the

uses of the sciences, nor need we share Unamuno's description of sociologists as "the astrologers and alchemists of our 20th century," because the future of architecture depends on the future of society as we imagine it. We must use all the resources of statistics and devices of extrapolation, for the future demands of architects will depend on the most incalculable and unpredictable movements which include, first, the progress of knowledge.

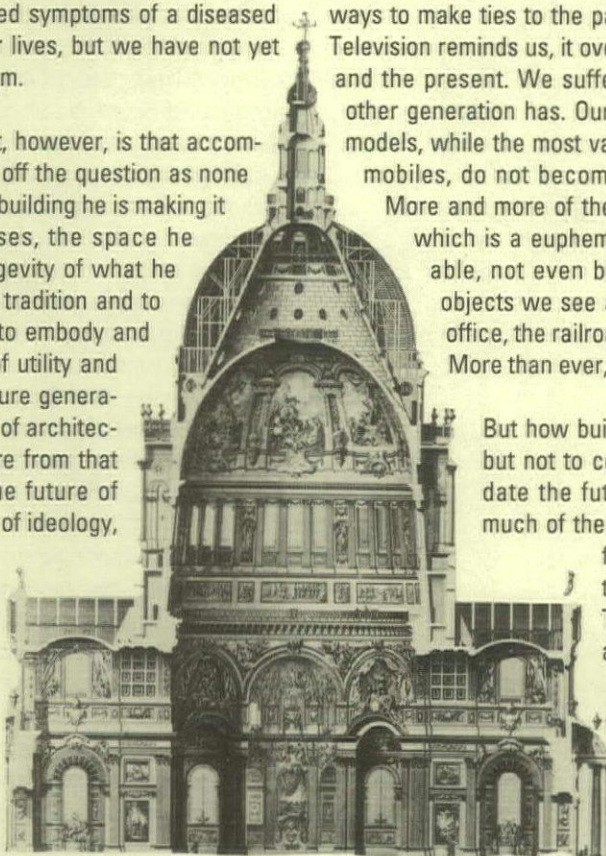
What is the optimum length of time for which a building should be built? That is the question that arises from seeing Washington, and it is a question you must pose to yourselves as architects. I am struck, as I look back on the last century-and-a-half, at how many of the most interesting and satisfactory buildings were built for a temporary purpose — not to live forever like the pyramids. This would include the London Exhibition of 1851, which produced the Crystal Palace, the precursor of the whole Modern movement. The World's Columbian Exposition of 1893 shows us some of the paradoxes of those efforts, which stimulated the work of Burnham and Root and which Louis Sullivan attacked as having produced what he called "the bogus antique." Nevertheless that exhibition did have a considerable reactionary effect. It prodded people to do things which they had not done before.

There are contradictory needs in our age — in the architect's fourth dimension. And I will leave you with a few questions. The architect must plan for the unexpected as never before, but he dare not make his buildings as ephemeral as the current fashions and slogans. The first consideration, of course, is economic. It would not be economically possible, even if it were physically feasible, for each generation to build for itself from the ground up. While our age requires the architect's adaptability and fluidity as never before, he must also have some expectation of what the future is likely to hold. This suggests that our age needs, as never before, ties to the past. It needs monuments and it needs to find ways to make ties to the past without imprisoning us in that past. Television reminds us, it overwhelms us, with images of the recent and the present. We suffer from a chronological myopia as no other generation has. Ours is an age of annual and semiannual models, while the most valuable older machines, even our automobiles, do not become antiques, but simply second-hand.

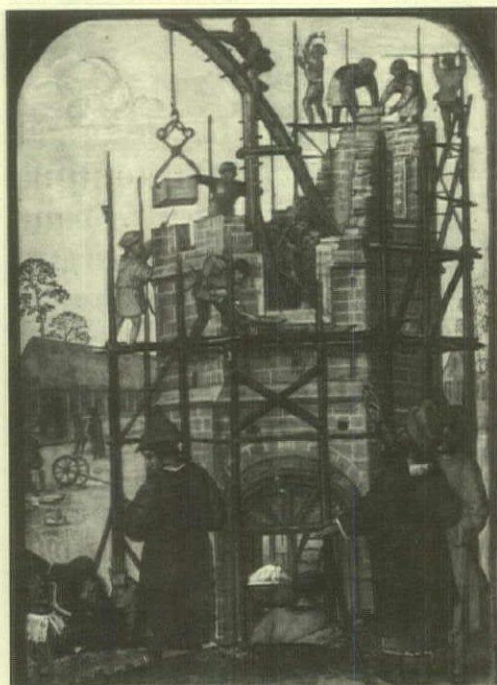
More and more of the objects we daily use are disposable, which is a euphemism — for they are usually not disposable, not even biodegradable. More and more of the objects we see are ephemeral, along with the old post office, the railroad station and the obsolescing airports. More than ever, I repeat, we need monuments.

But how build monuments? To remind and inspire, but not to confine. Every building must accommodate the future, but how long a future and how much of the future? It is not steel or glass or reinforced concrete or plastics that provide

the modern dimension in architecture. That dimension, I suggest, is time. The architect must somehow transcend his traditional roles, the roles prescribed by Vitruvius, by Alberti, and even by Ruskin and Gropius, to deal with this fourth dimension. You are our prophets, you architects, willy-nilly. How will you wear the prophet's mantle and exercise the prophet's powers? ■



The necessary monument: St. Paul's Cathedral, London.



Collection The British Museum

Master masons at work on the Tower of Babel, from a 15th century Flemish Book of Hours.



Dana Cuff

Dana Cuff, an associate professor of architecture at UCLA, is author of the highly acclaimed book, *Architecture: The Story of Practice*.

I want to point out several characteristics of the context in which architects work today – characteristics which, in turn, produce fragmentation in practice and demand a reinvention of our profession. First, we are dealing with uniquely complex projects. This is unlike medieval times, the era of the master mason, when the system of construction was known to the craftsmen who were engaged in building. Design and execution were not separated. Beginning with the Renaissance, conception and execution became distinct and the architect's role made clearer. Palladio was one of the first to manage several projects at once, because a set of drawings could be left with the builder. Now just take one page from a huge set of drawings for a house by Frank Gehry – you can see we're in another universe. Commissions have grown more complex with more areas of expertise needed. Each project requires a uniquely tailored team of consultants and specialists who require more oversight and more conscientious management of that project. And clients are more complex, too.

A second characteristic of this new context is that we're operating in an expanding political arena. You remember the conflagration that occurred over Maya Lin's Vietnam War Memorial? It's just one example of how architecture is increasingly placed in the public domain, not just through debates like that, but through litigation and liability issues, regulation, building safety and zoning codes, planning agendas and so on. Community activism of this type began with urban renewal and federal highway programs which eliminated big chunks of cities until people decided to protect their communities on their own. We watched with glee as Donald Trump lost control over whole sections of New York City at the hands of community organizations, but we have yet to see what will result from that. There is something very valuable but unknown and difficult to deal with here. But there's nothing we can do to stop the process.

The third characteristic of practice has been a transformation in our technologies and the rate of technological advance. When he designed Trinity Church in Boston, H.H. Richardson produced one set of construction drawings that was ink on linen. He gave that to the contractor. His load-bearing masonry was both structure and finish, so there was a unity of design, technology and construction. Now you look at something like the Hong Kong Bank or just the materials library in any office – it can't begin to address what a crew of individuals can know. That's why huge teams of specialists are required to work on buildings that take advantage of technological opportunities. There's more specialization in building systems, building structure and building materials. Other forms of communication, such as fax machines and E-mail, have collapsed space and time. Now we can work worldwide, equipped with only a phone line. And, obviously, forms of visualization and representation are transforming our work via computers.

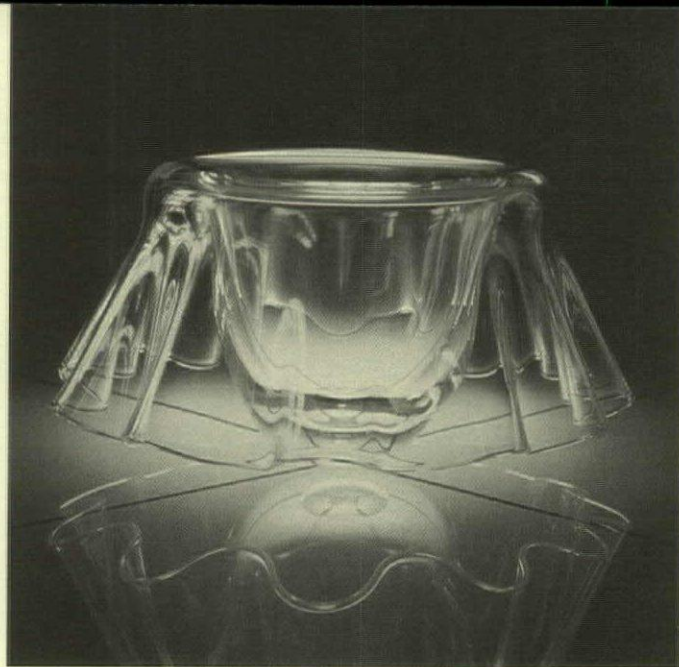
The last context for our work is the recession, which will have short-term and long-term impacts. The short-term you're all familiar with – greater competition, lower fees, people going out of business. The long-term will mean a restructuring. There's a slower rate of growth occurring already in the profession. Student enrollment is down. People are going into alternative careers. These changes in the context of practice are producing an opportunity for reinventing ourselves and our models for inspiration. There is some truth in the statement that we ought to be rethinking how we conceive of our profession and broadening our ideas about architecture. We have to invent the practices that will work in the 21st century if we are going to survive. ■

Today, it seems, the practice of architecture is increasingly polarized between, on the one hand, a high-tech approach predicated exclusively on production and repetition and, on the other hand, the provision of what's been called by Kenneth Frampton the "compensated facade," which is designed to cover up the harsh realities of universal building systems. We are really living in a world of complex messages about technology. In my practice, I've had the opportunity to comment on this in a number of ways and some of these comments are beginning to come true. I was asked to do a computer for *ID* magazine as a conceptual project. My thought at the time was to have the computer just be a single membrane skin, much like a glove. These were preprogrammed membranes. By slipping into the glove, one was accomplished in any of a number of prescribed activities related to writing or editing. Ironically, much of the interface being developed in computer technology today is going this way – it's actually being translated through the hand and through the voice.

The expression of technology is a difficult issue in the production of design and whether, in fact, technology should actually be communicated in the expressive attitude of a product. About 15 years ago, I did a series of working chairs and tables for Knoll that were all about taking lower levels of technology and trying not only to communicate them in reduced structures, but also to let the technology become the decorative language of the piece itself. The same approach is apparent in some other work for Knoll in the late '70s and '80s, in which a systematized approach to structure was balanced with the idea of joining. The joining elements became the decorative piece within the composition: a leg and rail which are joined by a single corner detail, which was both structural connector as well as decorative element.

Another project – one of my favorites in recent times – is manufactured in Japan. It is a clock. What's important is this clock was actually manufactured from recycled milk bottles. It also uses obsolete technology, in terms of the digital clock mechanism. So it's, in fact, produced by a manufacturer whose resource is one obsolete technology, which is the clock mechanism, and it also provides a use for recycled materials at another level. It embodies the idea of time and memory. Most recently, and not yet available, are some collections of glass for Steuben Glass. These really do speak to the technology of the material. If you know a little bit about handblown glass, you know it's a fairly primitive form. You simply melt sand and silica to create this fluid liquid. It's not sophisticated technology. It seemed to me what was important was to communicate moments in time during which certain things occur to the glass. There is a series of objects which freezes a certain moment in the making of glass. These translate into bowls and dishes and other forms.

It's important for me to see the technology being communicated in these objects – objects that are conceived in a design climate that explores the relationship of time to the human body to the objects that surround us to the non-specific nature of practice. These objects speak to a new type of design that is not defined strictly in terms of the Modern movement – that is to say, through ideas about order and synthesis, duration, symmetry, stability and abstraction. This work, instead, attempts to communicate through more diverse languages that embrace architecture by accentuating some of the finer points we seem to have lost to time. These are things in the culture we seem to be desperately needing – things to do with symbol, to do with memory, to do with ambiguity and myth. ■



Steuben Glass bowl drape.

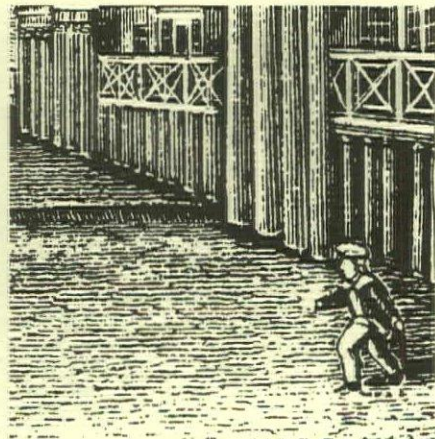
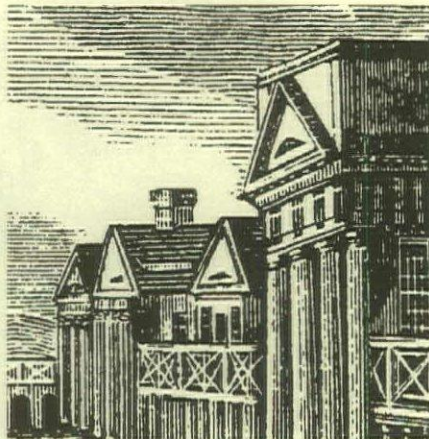
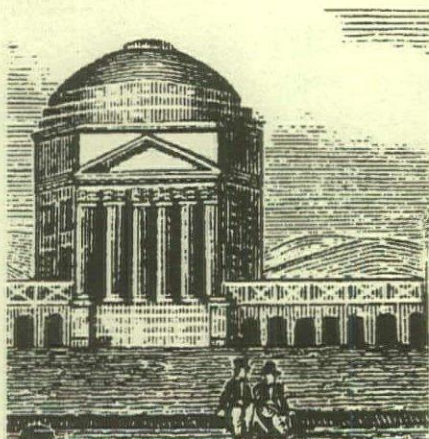
Product photos: Elliott Kaufman

Paul Haigh



ID Fantasy, The Glove Project

Architect and product designer Paul Haigh, a former staff designer for Knoll International, is a principal of the multi-disciplinary firm Haigh Architects Designers in Greenwich, Connecticut.



Charles Gwathmey

Charles Gwathmey, a principal of Gwathmey Siegel & Associates in New York, is a member of the Jefferson Restoration Advisory Board at the University of Virginia.

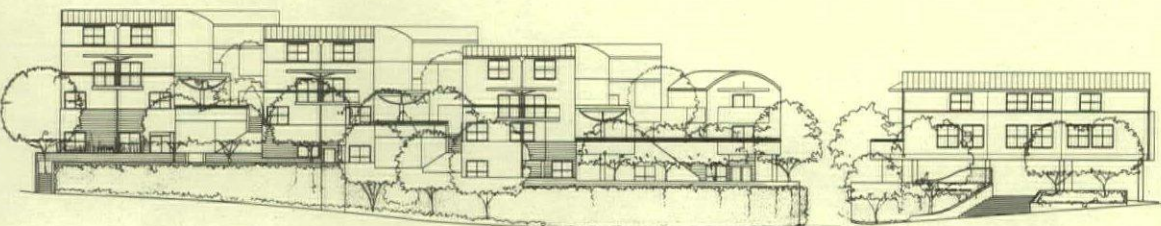
I would like to read a letter that I wrote in 1991 to Harry Porter, who was then Dean at the University of Virginia. I think this will set the tone for what I believe has to do with what history is and what invention is – and how the two are forever integrated, and how the two are forever interactive.

Dear Harry:

Firstly, we were honored to be included on your list of interviewees, but have decided to not pursue the Darden School project. The reasons are that we believe the predisposition of the selection committee and other prominent members of the University community take the vision statement literally. I believe the pre-condition policies of historicism, eclecticism and replication have not produced a single building of note in the past 50 years at the University of Virginia. (I've changed my mind today, because Tod Williams and Billie Tsien have built what I believe is a very powerful housing project since this letter.) The nostalgic reverence for The Lawn is misplaced and has, unfortunately, created a mediocre philosophical and physical environment. The ideas, ideals and aspirations of Jefferson were manifested in his consummate work of architecture. The reason it is revered and classic is that the basis of its realization was not the emulation of style, but content and invention. What the campus needs is another strong architectural manifestation, with equal aspirations but at a different time, place, and for a different program. A classicized, imitative stage set is as transparent as the insecurity of the past made present. It is not accurate nor relevant.

Research for information to provoke redefinition is positive. Research as regression to justify the known is negative. Architects create art not by reestablishing the established, but by questioning, reinterpreting and provoking perceptual reevaluation and new meanings of form and space. Jonathan Swift said, "Vision is the art of seeing things invisible." Jefferson proved Swift. The University of Virginia needs a great modern complex that is aspirational, contemplative, speculative and undatable. The Lawn is forever, because it was conceived. The rest of the campus, architecturally, is not memorable, because it was copied.

I urge you as a friend and as the Dean of the School of Architecture to reconsider the priorities of the meaning of architecture at the university. The Darden School project is the perfect opportunity to design a major work that would be about the future, rather than about an idealized past or a stagnant status quo. ■

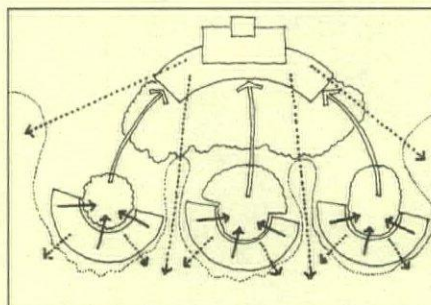


A competition winner: La Brea/Franklin Family Housing, Hollywood.

Most of my academic career I've been involved with teaching about the design of housing. I've spent quite a bit of time inventing housing prototypes. Housing is one of the most familiar architectural problems and therefore, we assume, one of the easiest. But it really is a very complex issue and one which is underrated in schools of architecture. In this country we have an extremely poor record of housing design. Particularly at the low end, we've created truly horrendous environments. And it's not just medium- and high-density projects that suffer. I'm thinking also of suburban sprawl, which is really costly in the long run.

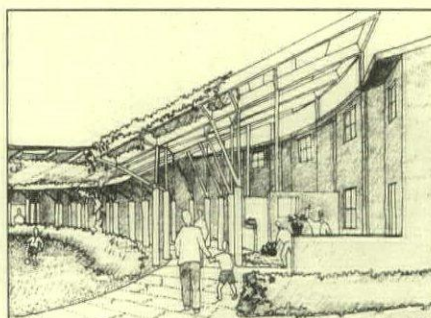
If current trends continue in the U.S., we will see fundamental lifestyle changes leading to more inventive housing configurations. Housing costs relative to income – the disparity is likely going to continue. We are trying all over the world to invent cheap ways to provide housing, but the gap between supply and affordability is growing at an outstanding rate. Many cities are running out of land, so we must think of new ways of putting houses together. Certainly this is the case in Southern California, where we must deal with the issue of density at a time when the populations of cities are hysterical about not having enough space around them. One alternative is co-housing. Recently I was commissioned to propose a co-housing scheme for 36 families. The idea was to use very little of the land, leave most of it for the Nature Conservancy, and create a series of clusters done in such a way that they wouldn't be extremely visible. We limited ourselves to a crescent-shaped footprint, minimizing the road and creating parking clusters so people would walk to their dwellings. There is literally marshland coming into the site. We designed housing with trellises and every one has a porch beneath it. Co-housing is about the common space – 12 families actually living together and sharing a space. One possibility in such a development is the residents' sharing a vegetable garden.

Our La Brea/Franklin project addresses the problem of putting low-income families in high density. The idea was to create an environment which is more humane than the typical L.A. prototype, which consists of a central corridor, single orientation, no through-ventilation and underground parking. It's truly an inhumane way to live. Our basic thesis was to create something more like a village, with small-scale environments around a series of courtyards. We divided the units into smaller parts, expecting people to share a garage, porch, lounge and laundry. A pedestrian street runs through the project. There were lots of sociological issues in this case: You begin to have eyes on all these areas so that people can monitor them and feel they are part of their living environment. A lot of housing design is really a matter of understanding problems we haven't solved, working at all scales from huge to small, and never presuming we know it all. That's an ongoing attitude – always trying to rethink the issues. ■



Co-housing clusters at San Elijo Commons share gardens and lawns (above, below).

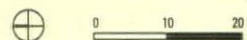
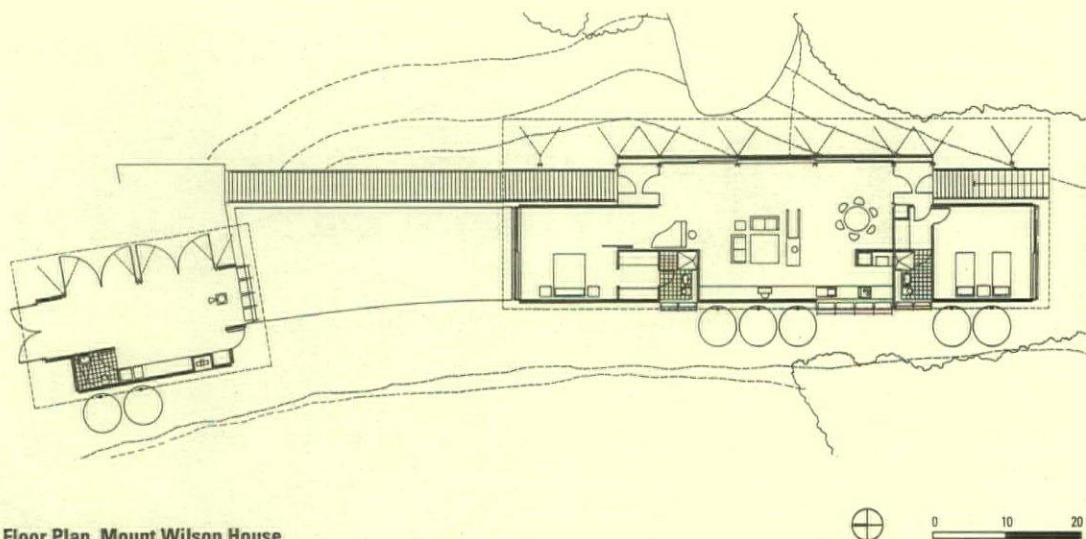
Adele Naude Santos



Adele Santos is an architect and urban designer whose career combines practice, research and teaching. She was founding dean of the School of Architecture at the University of California at San Diego.



Floor Plan, Mount Wilson House



Glenn Murcutt

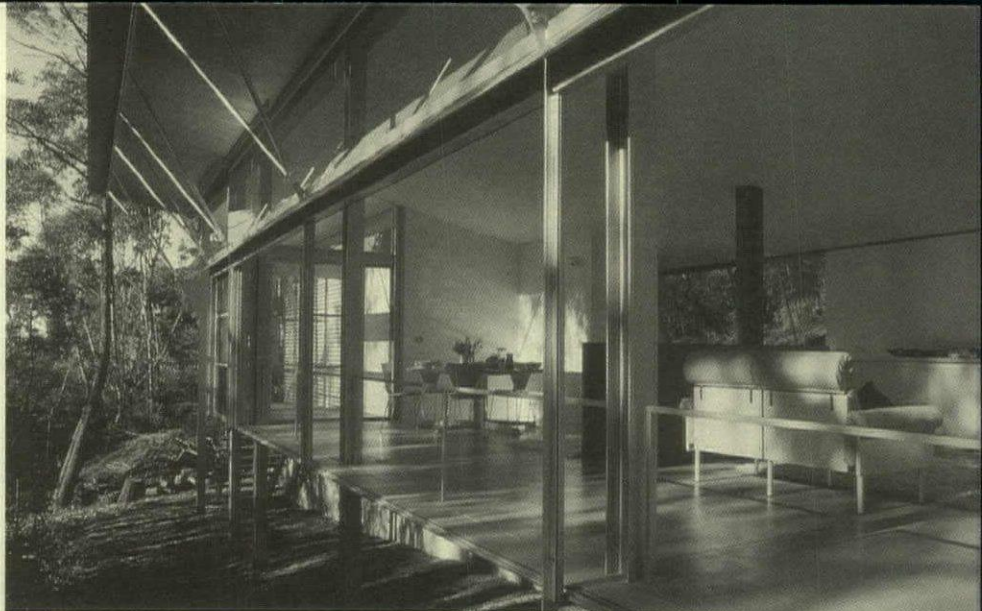
Glenn Murcutt, winner in 1992 of the coveted Alvar Aalto Medal from Finland, practices in Australia and lectures frequently at universities around the world.

I have been in practice since 1969 because I became, frankly, unemployable. The issue, for me, was very simple. You either accept the general direction within a practice – or you get out. And you get out and get going with something to say yourself. But the really important thing for me is that my career has been more of a journey than anything else. It's been one of discovery. It's not been, in my terms, one of creativity nor of invention. But it has been specifically that of discovery.

I believe all things that can exist can be discovered. Our role is to discover the existence of those things. I am interested in the things that are unarguable, such as where the sun rises, where it moves during the day and where it sets. I am very clear about where the sun is where I am working, and when I work outside my region I certainly track it down. I am also looking to the wind patterns and humidity patterns because, unlike your country, I don't use air conditioning – the nullifier of all things environmental.

How can you possibly live in an air-conditioned house, get in an air-conditioned car, and go to an air-conditioned office, and know what the world is like? I have no idea. It absolutely defies me. It's fun playing architecture of the mind. I can enjoy that. I can get my laughs from it. I can get my amusement from it. But I don't necessarily need to participate in it. I have enough issues to address without just humor. I do love, however, the idea of something that is generated from understanding the basis of the issues before us. If we're in a hot, arid region, how you deal with hot, arid architecture or cool temperate, warm temperate, monsoonal rain forests, monsoonal tropics – whatever the climate is, it is quite specific. I might be some 30 years behind all of you here in the United States, but I am not dissatisfied with the attitude of trying to find an architecture that responds powerfully to its culture and to its place.

Now I could go on about the ecological issues, I could go on about the costs and the audit that is necessary – that we're all going to have to do – and how money is actually transferred from one kitty to the next kitty. In the road transport system in my country, where every 22-wheeled vehicle creates between \$18,000 and \$60,000 in real damage per vehicle per year, the truckers pay only \$7,000 in road tax. Everything can be analyzed as to the true costs. But it is a very complicated equation. And until that comes out, you here in the United States and we in Australia are not going to know the true costs. But they are going to be extraordinary. Where in Third



Views of Mount Wilson House (these pages).

World countries the population consumes in its lifetime something like one-twentieth of what we consume, and in other parts of the Third World one-sixtieth of what we consume, then we are on a path where we've got to really account for what we do each day. It is not a blind path. It is a path of responsibility and an attempt to try and find an architecture that everyday people can identify with. And while I am not dealing with the masses, I am trying to articulate in my work some ideas that respond to principles that other people can use. In other words, I am, in a sense, an intermediary. That is all I see myself as.

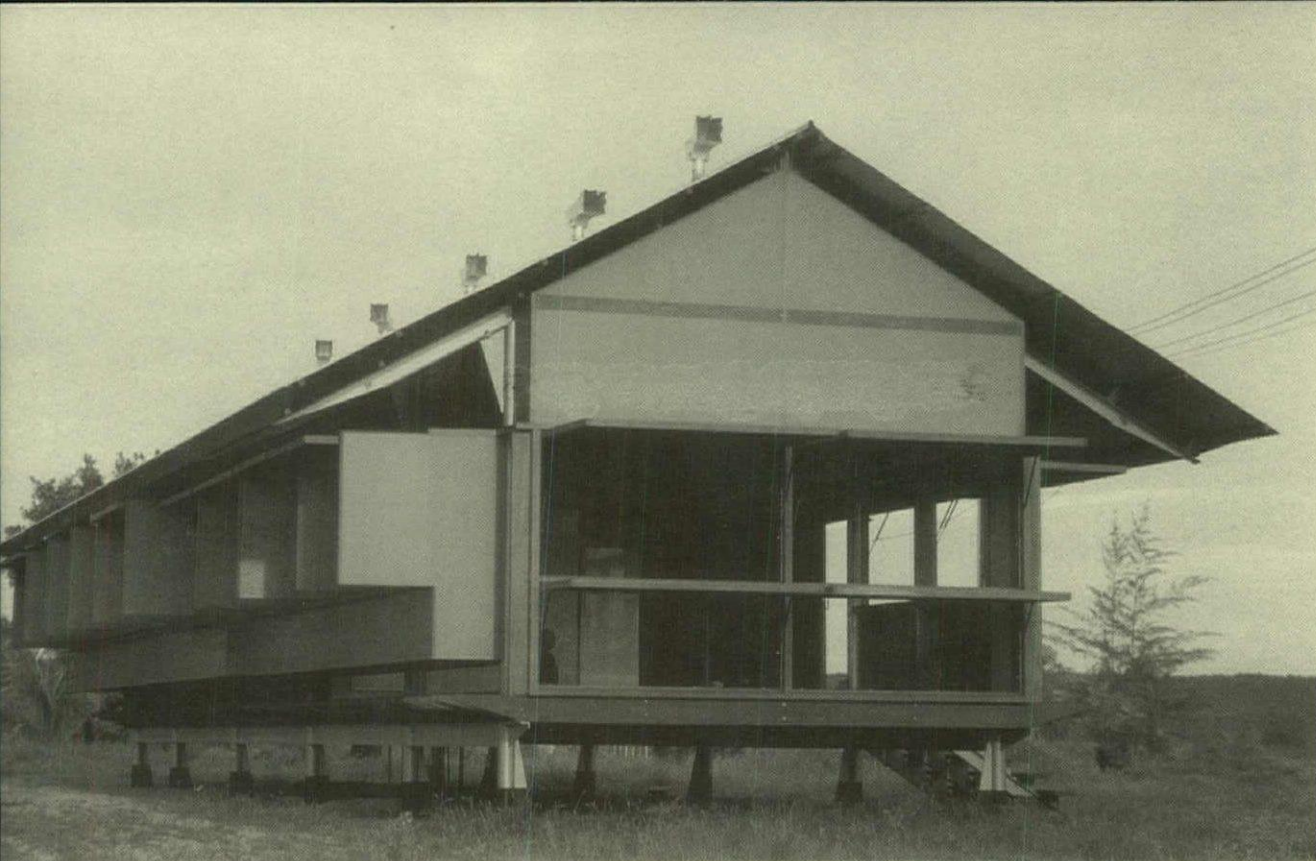
The thing that has really been important to me is to understand place, and the importance of place, and how my building rests on the landscape. Take a simple brick, a really foreign element, and place it on the beach. Give it two hours, and it has found a place. But the really important thing about it is not its finding its place, but its effect on the landscape around it – about the pressure systems, about the water pattern changes. In that same way, I know if I put a building down onto the ground, I change the water table – all the ground conditions below me for perhaps the next 50 meters. Plants in my country can't survive that. They can't tolerate an increase in the water table nor a decrease in the water table. Nor can they tolerate a change in the nutrients. So these are the things that we have to take into account.

I did a house for my brother in the suburbs; it is an alternative to suburban living. I started by looking at the traditional suburban building: passageway down the center, maybe a sitting room, dining room, kitchen, bedroom, bedroom, bedroom and a garden down the back. I mean, what a waste of land! What a waste of living! If you're lucky, you might get a little veranda that is a meter wide along the front. It occurred to me that if I could flip this around and get it oriented to the north (the sunny side in the Southern Hemisphere), then I would be able to exercise the joy of the northeast winds, which come from the coast on the eastern seaboard of Australia, and eliminate the western winds, which are both hot and cold. It has been termed the veranda house. It is important to understand the ventilation patterns, the light patterns, where the sun is coming from, what insects are around, what light level can be changed, how you can put blinds up to reduce the fatigue of the cones and the rods of the eyes so you don't get that high glare from outside. You must have a light transition. And you must have other transitions, because a human in my landscape is

an ant in that landscape and is a giant in the built environment. In my work, I sometimes have to work with local building authorities who put out lengthy lists of design guidelines. Planners who are educated at universities structure this rubbish. My buildings are in scale and deal with issues like typology and morphology. But the authorities fight me on the basis that my buildings don't harmonize and they don't blend with the environment. By definition, to harmonize is when disparate sounds are put together to make a pleasing whole. Then they'll ask you to blend. Show me an architecture that blends. I can blend a cake. I can blend an egg. No, what they're really asking for is monotony. Not harmony – monotony. And the result is a disaster. Total barrenness of mind and poverty of spirit.

I have a client who, when he first came to me, was 75. He is now 80. It took that long to design the house. The client is a Chinese professor and his wife. He wanted the house to have a secular quality, monastic in nature, minimal, responding to its location – and for me to overcome a bit of my fetish about the sun, in deference to an older man. He didn't mind if the long side of the house didn't face north. It was more important that his bedroom had the sun coming into it and that he had other nice cool places, because the heat was the problem, not the warming of the house. A reasonable requirement. As an architect, I must listen to that. If I have any ability whatsoever, it is twofold: I take my time in listening and I know when the work is still terrible.

This house, located at a place called Mount Wilson, has a lovely big rock, like a beached whale. I started off with the long side facing north. It just required two sleeping spaces, living, dining, kitchen. Those are the issues essentially, together with understanding fire, water storage, water pressure, wind, outlook, movement through the site. While working on the plan in the early stages, I twisted the building and was very dissatisfied with the way the curved pond worked. It was very weak. It was very, very awful. I thought, well, maybe if I could fill it in with plants, it would break the edge down. Cop out! And so I started to find a strength in the line moving through, because you can walk through the house. And the landscape in Australia, from the aboriginal tradition, says there is neither beginning, nor is there a middle, nor an end. Life and existence is a continuum. Moving through the landscape, they never take their paths to a water hole. The paths never go directly to the food sources. The paths are in reasonable proximity to those sources. And you go off the path, because once



you make a path to the resources, then everybody else goes and wears the landscape down. And with our rains, it tears the landscape apart. The aborigines call it "to touch the land lightly."

The whole time the process is taking place, the design is never done. It is all the time evolving. I could simply say: "I don't know where I'm going, but I am on my way." The whole course, for me, is a journey of discovery. If there would be any principles, the principles are only embodied where I can find them in scientific issues. The Mount Wilson House is made of metal – lending wonderful fire resistance. When you line it with sheep's wool insulation, and you have brickwork inside that, it becomes a wonderful thermal sink for both very hot summers and very cool winters. It has a studio space for pottery and a workshop with a little bathing space for guests. The water storage tanks hold 90,000 liters for firefighting. We have on our roof a terrific sprinkler system. My working drawings contain notes to the builder notifying him of the nature of the site. No toxins will be thrown over the site but will be taken away. But taken where? Remember: When we are building on land, no matter how well we treat that land, we are generally destroying some other place. Practically everything we do as architects is destroying some part of the planet.

Working with the aboriginal people of Australia has been the most rewarding experience of my career. Fire, as I said, is an important component of the Australian landscape. My client has taken me on an experience of aboriginal life over the past four years. Her child is my god-daughter, and so I've become very linked into this family. She shows me how to dig for turtle eggs – numbering some 230 to 250. Aboriginal people take enough only to feed themselves and their immediate kin. The rest are left, which is totally different from the Europeans. I, as a child, would go fishing. If there were 50 fish that came quickly, I'd go for 100. What's wrong with our psyche? Have we no idea of consequences for the future? We rape the planet, we bludgeon the land into infertility, we pollute the seas. We are a terrible species. As Ian McHarg says, "We are the

planetary disease." And yet these people lead a life much as they used to. Their spears have metal ends today. But they cut out oysters with a rock in the traditional way. Now I'm not proposing that we go back to this. But I'm saying these people have survived for 40,000 years this way. They must have something.

The aboriginal people's mythology still is in the world of spirits. And the spirits are literal in their interpretation. Sometimes the stories are about food. Sometimes they're about animals of the region. And they also are about spirit figures. Traditional aboriginal architecture didn't exist as far as any Australians were concerned. I was one of the earliest, in 1987, to be given a document which showed all the things I've been working for so long trying to discover myself. I felt sick. And here the aborigines probably have had them for 30,000 years. They know about the dry platform in the tropics. They know about the open end. They know about keeping off the ground, because you can put a fire under the house to dry the mosquitoes out. And a fire to rid the mosquitoes is built at the monsoonal time, when the crocodiles are on the move. And crocodiles don't like fire.

And yet our influence is not that bad, either. Other houses I have done have been extraordinarily influential on this work, which was just completed this year. There are a whole lot of battens there that are 32 millimeters wide by 10 millimeters thick with an 8 millimeter gap between the battens. And these are louvers, each of which allows the ventilation. What is wonderful about both of them is when the light level on the outside is higher than the light level on the inside, you can't see into the house. And yet when you're inside the building, you can see exactly what's going on outside – an area that's critical to aboriginal people, because they need to see who's coming, who's going, what weather patterns are changing. They need to see their kin. In aboriginal etiquette, you don't come into the house, you don't knock at the door. You sit outside for 20 minutes until you are called. And until you are called, you don't enter.

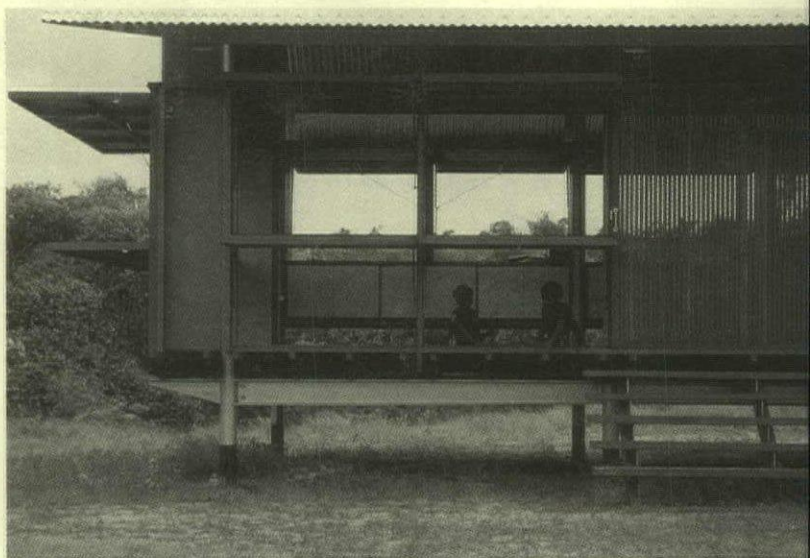
The reason my client came to me is she stayed in a house I designed for a fabric designer. And she said to me, "Man, if you have got to live in a white fellow's place, then that'll do." And I said what do you mean? She said, "Man, it's healthy building." I inquired what she meant by healthy building. It is not only a building where the air is moving in and out and getting through quickly, but it's also a building that, psychologically, can hold two people or 25 people and open up sufficiently for all those kin to be inside and not feel crowded.

This community is in the monsoonal tropics of Australia. It is very high up. It is very hot. It is very humid. And the temperature range between summer and winter is about 5 degrees. This region gets wonderful prevailing winds this time of year, the winter winds. The aboriginal people know how to build a shelter. And they know what freedom is, what it is to be outside. They know what the "ings" of things are — sitting, observing, relating, communicating, storytelling, loving, touching, smelling. We are humans. They are the things we need to perceive. When we are taken away from those, we have great difficulties. And so I start talking to my clients about winds, about narrow buildings, because you can't have a building that is more than two rooms wide. If you have them two rooms wide, you've got to have screens that allow the air to pass through. Otherwise it's impossible in the tropics. And so we talk about outside white-meat ovens and outside red-meat ovens and the inside European kitchen.

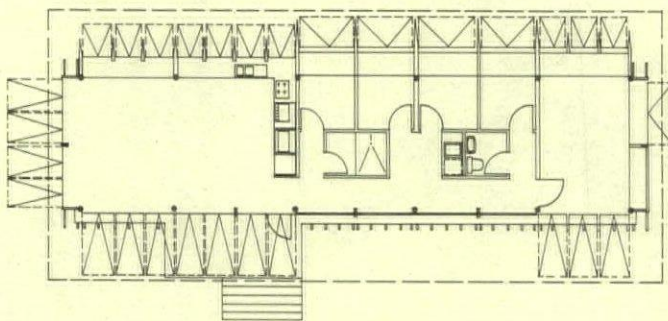
My client represents Australia in national and international events for indigenous people, as well as for art. She is on the board of the National Gallery of Australia. And yet she comes straight out of indigenous aboriginal Australia, where she can spear, where she can gather, where she can hunt, where she can be absolutely aboriginal. To design her house, I start thinking about light, about ventilation, about floor, about slots in floor. I start thinking about the venturi. We have developed in Australia a marvelous wind-worker, now patented and sold in the United States, which equalizes the pressure inside and outside, so that when the cyclone comes, no matter from which direction it's coming, the wind-worker is always pointing in the right direction.

This climate experiences 220 kilometers-per-hour wind velocity, which is phenomenal. It throws bricks through buildings and smashes glass. Every building up there has glass in it, except this one. I started examining the possibility of lifting up roofs, maybe the possibility of flaps that swing down to close off the house — all these possibilities, with a floor that's open so that when the people come inside, the sand will fall through. So the ventilation will move straight through. So that your feet are cool. Have you ever felt the importance of having your ankles cool in a hot climate? It is really, really wonderful to have cool ankles. To let the air pass over your ankles, your chest and your neck is the most wonderful feeling.

The blades I developed that come out from the building are at 25-degrees, the sunrise angle, so that no sun comes in here. But the blades also give privacy between each of the sleeping alcoves. The blades also redirect the wind through the house, but the blades also break up the terrific wind velocity. The whole building is like a contraption that will open. It has a great similarity with them, culturally. They understand what it is. The aboriginal people have moved in with a real vengeance. At all times they are able to look out of the building and feel a part of the landscape. They live all over the building — it's wonderful to see. These people will care for the building, because the building cares about them. ■

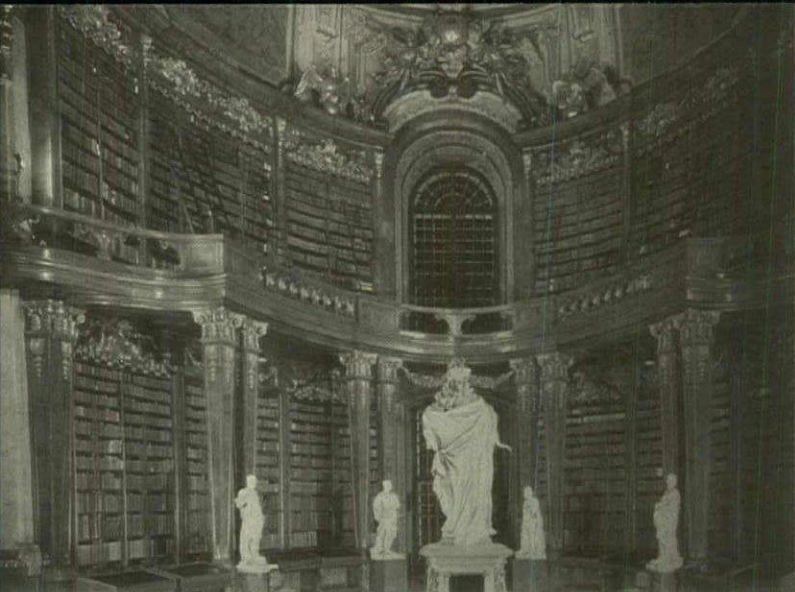


Views of a house for an aboriginal family in Gamarrwa Nuwul Yirrkala (these pages).



Floor Plan, House in Gamarrwa Nuwul Yirrkala



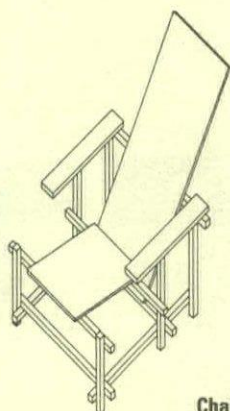


Interior of the Vienna State Library (above). Student project for a study pavilion (below) based on a table by Morphosis architects.



Edward R. Ford

Edward R. Ford, an associate professor of architecture at the University of Virginia, is the author of *The Details of Modern Architecture*.



Chair, Gerrit Rietveld.

At some point I became very interested in the relationship between architecture and furniture. It happened by accident. I spent two weeks in a basement archive and, during a break, I discovered this building, the Vienna State Library. I walked in and saw these giant tapering columns. It had an *Alice in Wonderland* feeling, almost like I had somehow shrunk while I was down in the basement. It occurred to me that I was under a giant table with giant furniture legs. Soon after, I was listening to an art professor who happened to mention Frank Lloyd Wright's various pieces of furniture. He said, "Wright didn't design furniture, he designed little pieces of architecture." Being an architect, I was offended. What's wrong with that? Why shouldn't furniture be architecture? What's the difference anyway?

I began to think about architecture and furniture as different — being as two different structural languages. They talk about the same thing in different ways. They talk about structure, connection and craft. They convey meanings in different ways. You can go through architectural history and pick out people like Wright or Rietveld, who did furniture that was miniature architecture. There's not much difference between the chair by Rietveld and a building by Rietveld. The language of architecture is about weight finding its way to the ground. The language of architecture must articulate itself in much more specific ways. Beams must be wider than columns. Whereas in furniture, it contains columns, beams, and cantilevers, and all sorts of structural elements in different types of stress — and yet they are all the same material. This doesn't strike us as logical, though it can be quite appropriate at the smaller scale of forces at work.

I entered a series of competitions in which I explored some of these ideas. Then I wanted to get these ideas into the students. What would happen if I asked them to do the same thing? It might produce different, inspiring results. In studio, I gave them ten pieces of furniture and asked them to begin by doing structural analyses. While I had done several building analyses I had never looked at objects like this. We talked about some fairly simple things. Why is this joint this way? Why would you accept this sort of connection in a building, provided you could do it structurally? Why would you find this disturbing? It had to do with the question of weight and gravity.

The language of furniture operates on a smaller scale in terms of connection, craft, standardization and anthropomorphism. By its very type of structural joints we know its size. I asked my students to use these elements, thinking of them as studies, and enlarge them. In the beginning, a lot of the works were more original, less refined. Under the pressure of time, students fall back on the tried and true principles. This was a fairly successful translation. By taking a non-architectural object, the student didn't consider the architecture and had to look at it objectively to understand it and to derive principles from it. It became a more productive exercise. It was ultimately a way of learning about materials through an indirect route.

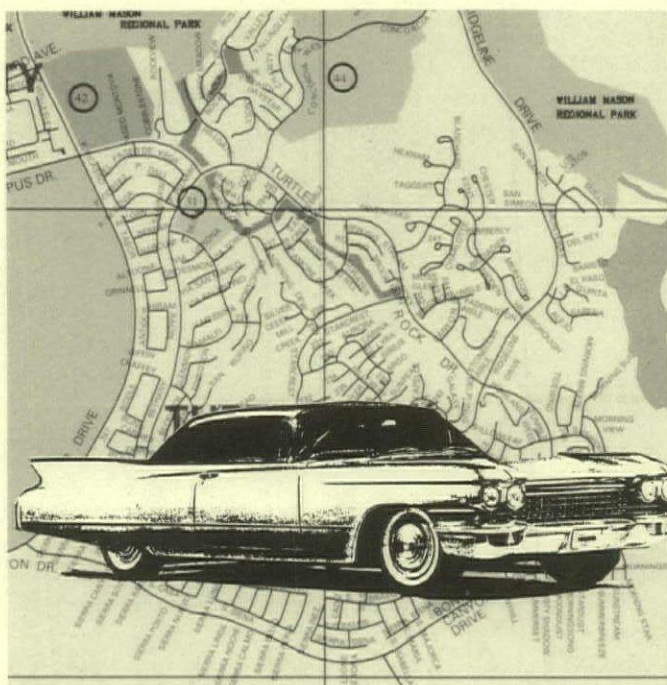
One student started with a table by the firm Morphosis. She took one of the furniture legs and turned it into a column, quite cleverly not making an entire frame. At this stage it was a pretty literal translation. Its final version was far less literal. In this case, she came out understanding a rigid frame and how it operates. I'm not sure it would have worked as well if I'd told her to go look at rigid frames or go look at buildings with rigid frames. Students felt far more comfortable analyzing the non-architecture. ■

Let's talk about settlement patterns. This is a place where architects can be extremely valuable, because we are among the few people who understand where things are headed. Look, for example, at Irvine, California, which has fewest street intersections per square mile of any city in the world. Here's what interests me about the physical form of Irvine: If this was the solution, then what were the design criteria? It seems they are fairly simple. One is: How can we maximize traffic congestion? Clearly it was a design criterion for Orange County. You do it in two ways. You spread development out as thinly as possible so everything is far away from everything else and there's no way of getting from anywhere to anywhere else except by getting in a car. The second thing you do is sort out all uses so everybody works in the office park, and they all shop in the shopping mall, and they recreate in the recreation complex, and live in the condo pod. They can't change from one use to another without engaging in an act of transportation. So by these two simple devices, one is able to fulfill the criterion of maximizing traffic jams. Just sort out the uses and limit the densities as much as possible.

A second criterion was: How do we maximize the use of the earth's planetary resources? How do we use the most petroleum possible, the most oxygen possible? You do it by demolishing all the orange groves while you name the place Orange County in order to attract people. All of the things which generate oxygen in the atmosphere, get rid of them. You can maximize transportation and, therefore, energy consumption.

The third criterion was: How can we isolate each group of Americans from every other group of Americans to the greatest possible extent? Maybe we can't achieve perfection, but we can come close. The way you do that is by creating "trees" in the city plan. If you fly over older parts of America, you see grids; the Continental Survey in 1801 divided the whole country into a one-mile-square grid. Jefferson was a big advocate of the continental grid, which does several interesting things. It makes every place equal to every other place. It makes hierarchies impossible. It is a democratic idea, because it links everything. The opposite is a tree. A tree is what you find in Orange County. You start at the interstate highway. Off that comes an arterial, off that comes a little road, at the end of that comes your little gated community, at the end of that is a dead end. In that sense, it is entirely hierarchical. Everybody is separated from everybody else, because they are at the end of a dead end. The grid will absorb far more traffic with far less congestion than the tree, but it has the disadvantage of connecting everybody and making it impossible to isolate different groups, as the tree does. At the end of one twig you'll find the rich lawyers. At the end of another twig you'll find the retired empty nesters. Every twig is a different subset of the population and different types of people never meet each other, because there is no public realm. There are no accidental encounters.

The essence of city life is the unplanned encounter. Cities enhance unplanned encounters, as do grids. In the tree, in Orange County, you really can't have an unplanned encounter. If you're residing in your residential community, there is nothing you can possibly do except reside. To do anything else, you have to make a conscious choice. Everything becomes programmed. The opportunity for the accidental encounter, which is so much part of the creative life, the life that creates business — but also intellectual and artistic endeavors which are heavily dependent on the accidental encounter — they don't exist. I regard this as a way of settling the land that is disastrous in every possible way. ■



Irvine city map and gas guzzler.

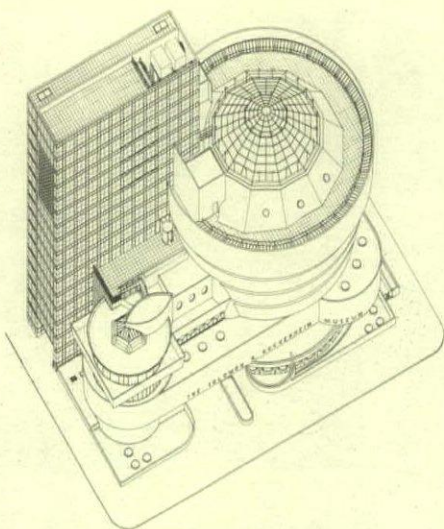
Robert Campbell



Robert Campbell, a practicing architect and the architecture critic of *The Boston Globe*, is an advisor to the NEA Mayors' Institute for City Design.

Roundtable Discussion

Robert Campbell,
Moderator



Wright's Guggenheim Museum
with addition by Gwathmey Siegel.

Robert Campbell: I'd like to begin with a question for each of the three keynote speakers. The first is for Glenn Murcutt – you have made an exceptional career as a kind of loner. You associate creativity with individualism, and you said you had been influenced by Thoreau, who is sometimes accused of making a fetish of individualism. In Australia you design Walden-like houses – incredibly sensitive to the environment – and then you get on airplanes and fly to Virginia at great expense of jet fuel to talk about them. Is there a contradiction in all this? Is there something in the modern world that makes this contradiction essential?

Murcutt: The answer to the first part is yes. Is there a contradiction in my lone nature of working and getting on a jet to come and talk here? In very simple terms, yes, because every time I take off in a 747 to fly to the United States, I understand there is enough fuel consumed in that takeoff to supply a township of 10,000 people for about 4 weeks. I am very conscious, every time I sit on an aircraft, of the fuel and energy required to get me here. But then I can also say that when I do come I actually go to a number of places and get about ten things out of the way, instead of taking ten trips. So I combine things. Now regarding Thoreau – he was very influential in my life. I was raised on phrases like: "The mass of men lead lives of quiet desperation. Their resignation is confirmed desperation." My father was a pioneer in Papua New Guinea. He was also a major polluter and, as most major polluters do, became chief environmentalist of the state. We were raised at the environmental end of his life. The idea of conservation became very important to us, because for him there was a morality between conservation and economics. And that's an important issue to me, because I come from a society that is probably still the most egalitarian capitalist society on the planet.

Campbell: For Charles Gwathmey – you quoted John F. Kennedy as saying, "We should get rid of the rules and impediments that hinder interrogation and creativity." My question to you: Do rules and impediments hinder interrogation and creativity or are they the indispensable enabling conditions for creativity?

Gwathmey: I will address John Kennedy's remark through my experience with the Guggenheim Museum, where you attribute those rules and constraints to the preservation movement, particularly, where buildings become sacrosanct and untouchable, where tradition for tradition's sake becomes the by-law of limitation. I've always believed preservation is antithetical to interrogation. It's antithetical to the history of architecture and it's definitely antithetical to the intellectual obligation that all artists have to look at what went before and reinterpret it. The preservationists that opposed the new addition to the Guggenheim were the same people that picketed Frank Lloyd Wright 30 years earlier. They tried to stop Wright from building that building out of a kind of resentment of the imposition of this alien object in the magnificent Manhattan grid. If they had prevailed, we wouldn't have the provocation, the inspiration and the aspiration that this building has given us. So I'm suspect of those kinds of rules. I'm suspect of the irrational, emotional do-gooders that protect the status quo and maintain tradition.

Campbell: My last question is for Daniel Boorstin – taking off from comments which make the point that technology seals us off from nature, from sensual experience. Should we convince people that there might be a better way? How to prevent the 21st century from becoming the century of the totally artificial, sensually impoverished environment that we always see in futuristic films?



Louis Kahn's Kimball Art Gallery:
We couldn't get along without it.

Boorstin: That's a cosmic question, and a question for a prophet. I'm just a mere historian. I don't know. One of the problems I would like to focus on is the difference between authentic and spurious innovation, and I think that a laboratory for testing that is Deconstruction – the Deconstructive school of philosophy. I was surprised that I didn't hear that word mentioned by anyone here, which is suggestive in itself. There is perhaps a difference between innovation made for its own sake, for the sake of novelty, and innovation made either for an aesthetic or a functional purpose. That's a very important distinction. I think there may be a way of determining whether innovation is for one of those purposes or the other – and that is the test of time. If people stop talking about Deconstructivist architecture, then it suggests perhaps that was a style of architecture produced for the sake of novelty. I think it was Gropius who said "I don't want to be original, but I want to be better." That is the opposite of Rousseau's observation that "I may not be better than other people, but at least I'm different." I think I prefer the Gropius emphasis.

Campbell: What are some of the real issues that architects need to be innovating responses to?

Murcutt: There's no question that one is limited material resources. For me the environment is going to be a lasting question and a force that's going to change all of our lives in the next 50 years. We don't fully understand it yet, but we will respond when we finally hit bottom.

Audience: Do we engage in false innovation because of a preoccupation with the avant garde?

Dana Cuff: This weekend I've been advocating that the profession represent the public good – taking that role very seriously – but I also think there's an extremely important role for an avant garde in architecture. It's important for us to distinguish when each is appropriate. At least one distinction that makes sense is when we are talking about background buildings that are the fabric of our cities, which is certainly the place not to be avant garde, or at least a place to innovate in a way that is more sensitive or subtle. There's another form of innovation that might be appropriate to those kinds of buildings.

Edward Ford: I think if innovation is a response to problems, it's very often a conscious one. How many of us, 15 years ago, felt the desperate need for a personal computer? How many of us today, being deprived of our personal computers, would feel absolutely helpless? That's a technological innovation. But I am reminded of an introduction Louis Kahn wrote to a book about Boullee and Ledoux. He said, "Did we need these people before they existed?" And the answer is, of course, no. "Could we get along without them now that they exist?" I used to hate it when Kahn preached like this. But as I get older, I begin to understand what he meant. He said architecture was offerings. And I think he meant that when it's really transcendent, architecture goes beyond responding to problems. It's more about responding to spiritual problems. Once we have it, once we have what is the best, we realize that we can't get along without it.

Boorstin: I am concerned there has been so little talk about one aspect of novelty – not what the architect can introduce which is new, but the architect's ability to deal with the novel. And I think there are two conspicuous examples of disastrous failures of architects to deal with cataclysmic novelties. First, the automo-

bile. I don't think that architects have really found ways to deal satisfactorily with the automobile. And the airplane. All airports, I think, are monumental disasters, without regard to the concerns of the users. Why haven't architects been able to show the same ingenuity in dealing with these innovations that in the past they have found in enlisting the use of cast iron, for example, or steel or aluminum or glass? It seems to me that's a challenge to architects that is so obvious, and I wish someone would do something about it. You're the architects.

Ford: In defense of Eero Saarinen, I think we have a wonderful example in Virginia at Dulles. And if you know the history of that, Saarinen did extensive work – including spending time at other airports with stopwatches, figuring out the different ways people use airports. He explored a number of innovations, including structural innovations, which I think were quite successful. Today it is clearly obsolete. I'm sure the most optimistic predictions about the number of planes that would be flying in the U.S. were extremely low. Nevertheless, if Dulles is a failure, it is certainly one of the most beautiful failures in architecture.

Boorstin: As a frequent user of the Dulles Airport, I can say it is a disastrous failure. It's a monument to the failure of the architect to imagine the future. The original design, which is attractive, is a piece of sculpture. It is beautiful and I enjoy it every time I approach it. Nevertheless, it was not expandable. Now we have to go to a midfield air terminal. So instead of building one airport, Saarinen just built a piece of a whole string of airports. I don't know what you mean by calling it beautiful.

Gwathmey: I have to defend architects here, may I? We are not responsible for all the things you are accusing us of. I want to make a distinction between an architect and an artist – the latter of which can have the opportunity of self-motivation and result in a way which is uncontaminated by the client. The architect is a responder to situations and not all situations are ideal. Not all situations are clear. To blame Saarinen for his inability to foresee the dynamics of jet travel and population is an unfair criticism.

Campbell: But regardless of whether he could have foreseen particular conditions, Saarinen created a building that is, in concept, extraordinarily inflexible and complete in itself.



Courtesy Virginia Museum of Fine Arts

Dulles Airport: Inspired architecture or colossal failure?

Murcutt: But that doesn't make it any less a marvelous place to visit, in terms of architecture. With every good building, there is a very good client. Any building is absolute clarification of the value system of the culture of the time. Very few architects actually take society beyond where it is. That is our responsibility, but if a client doesn't project the needs of the future, it is very hard for an architect to respond to something that is not presented to him.

Audience: The automobile is another strong force that destroys the urban fabric. What are the implications for architects?

Adele Santos: The costs of sprawl were clearly articulated 30 years ago. But developers went on doing it, and architects worked with developers, and the rape of the land continued. There are very few architects who have the guts to say, "No, forget it. I'm not going to do another dreaded subdivision. I'm not going to be part of this stupid game." But the profession does have a role in this, because we have a responsibility to educate clients. Or to refuse jobs that are impossible. And the schools of architecture can play a role; we can come up with new prototypes. Otherwise the status quo is going to continue.

Campbell: I hoped we'd get to this, because this is innovation in the largest sense — about the settlement patterns of the earth. How do we either as practitioners or citizens innovate within the culture rather than innovating in a particular building?

Paul Haigh: The political climate in which we operate often comes down to your choosing between being responsive or being an initiator. The future is going to be much more about that decision to initiate change in the political arena prior to building anything. That's going to become a more crucial aspect of practice.

Campbell: I think the reputation of the architectural profession is at a bottom at the moment in our culture. Architects are seen in two ways, either as the corrupt handmaidens of bankers and developers who are destroying the planet, on the one hand, or as elitist artists who do weird fantasies that nobody else can understand, on the other hand. There are many times in my life it hasn't been true. But those are the two images we have to deal with. If we could somehow assert ourselves as the critics of the environment, as the promisers of something new and better, as the advocates of a better way of settling the earth, I think we'd make more money, and have more respect, and get better jobs. And I don't know why we don't do it. Why don't we do it?

Murcutt: Jourdain speaks of invention, which I prefer to call discovery. But he says that before true invention can be made, one must first be dissatisfied with that which already exists. And if we look at the car and all the other things we are choking ourselves with, we're not really sufficiently dissatisfied. Design must be driven by a need. The great communities of the world came about because of need — not the need to make money, but the need for life.

Boorstin: I would like to dispute that. Basically, I don't think that the great changes in technology and in the arts come from a need. People were not dissatisfied with a horse. That didn't lead them to develop the internal combustion engine. Nor was it dissatisfaction that led to the development of the television. It was a different kind of quest, a dissatisfaction not with the object, but with the state of knowledge and the desire to reach. I would rather emphasize what I call the need for the unnecessary.

Audience: I'd like to revisit the question of limits as an opportunity and whether, in architectural education today, we need to look closer at limits and teach students the way to approach things. From Ed Ford's presentation, it seemed to be about going forward with no limits. Is that where education needs to go?

Ford: What I admire most about the architects sitting here with me is they are doing small things well. And I think that's what the profession should do. If I look at the past 20 years, we have been all too anxious to embark on yet another crusade and recapture solar energy or whatever. Yet on a daily basis we are faced with, say, a commission for a suburban house where we don't like the context. But we want to do the best job we can. People are simply asking us to deliver buildings — to tell how much it's going to cost and get it done on time. We have to do that first, or nobody's going to pay any attention to our concerns about the larger things. And in education, believe it or not, this is what we are trying to do. We are trying to train people to become competent first.

Campbell: I agree with that so strongly. Architects are really two people — that person doing the small job well and also the citizen trying to deal with larger issues. And those are separate functions. But, overall, I think we are a healing profession. The way to regain the respect of the larger community is to get them to understand that as doctors heal the body, we heal the environment — we heal the built world. Beyond that, we do lots of other things. But I would like that to be the thought that the rest of the community had about us. ■



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- Hampton University Department of Architecture
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Inner Light

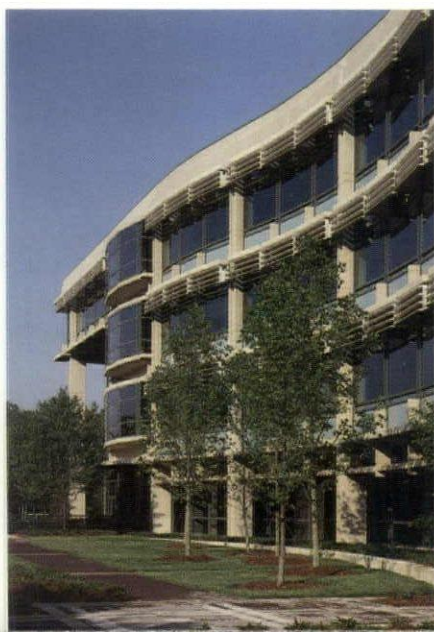
USAA Regional Headquarters
Hanbury Evans Newill Vlattas
Norfolk

Photos: Matt Wargo

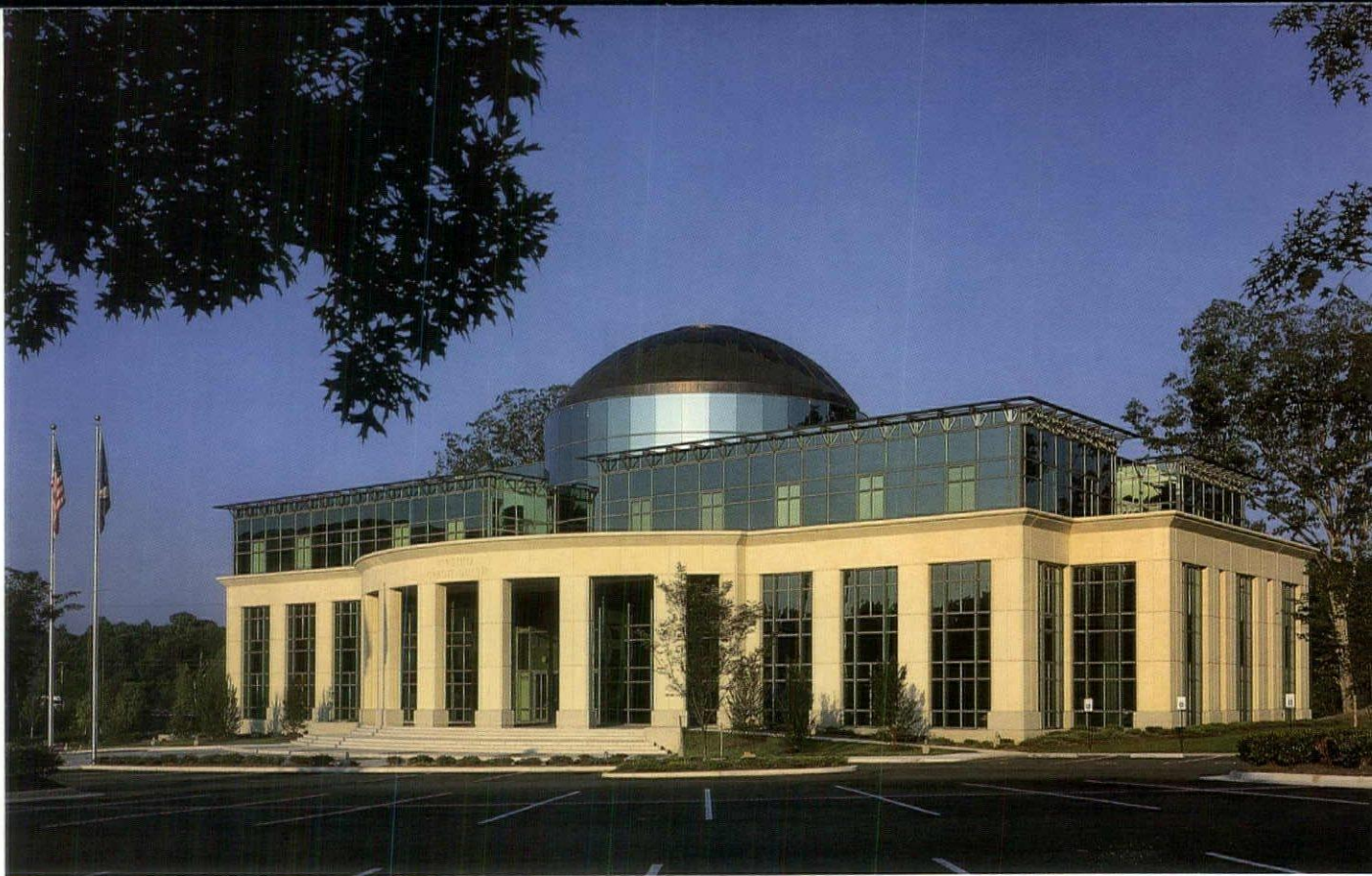


Four-story-high light well creates a dramatic focal point inside the offices (above). Curved exterior wall on southeast exposure features integral sunscreen (below).

The daily operations and departmental organization of the United Services Automobile Association, a national insurance company, dictated the need for four large 85,000-square-foot floors for its regional headquarters in Norfolk. The project's success exists largely in the siting and manipulation of the large mass in a manner that enhances the experience of workers and the natural beauty of the site. Among the building's noteworthy features are three light wells that bring sunlight to the interior while subdividing the 500-foot-long open plan into manageable "rooms," providing floor-to-floor communication and creating focal points for the building's internal organization. The



largest and most dramatic light well serves as both the public and employee entrance and will eventually be the link to future phases of construction. The design of the interior architecture, which was the primary responsibility of Hanbury Evans Newill Vlattas, took its cues from the building's exterior, designed by architects HKS, Inc. of Dallas, Texas. Inside, a minimal palette of materials and colors was used to create a soothing environment that doesn't compete with the beautiful exterior views. Outside, the undulating southeast elevation responds to the edges of an adjacent lake, while an articulated curtain wall/sunscreen echoes the colors and textures of nearby woods.

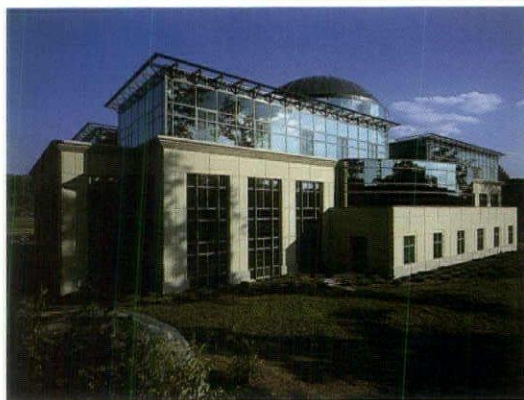


Where Credit Is Due

Virginia Credit Union Operations Center
Glave Newman Anderson Architects
 Richmond

Despite their location in a suburban Richmond office park typified by mirrored glass and precast concrete buildings, Virginia Credit Union officials wanted their institution to convey the neoclassical spirit synonymous with "banking." Still, the immediate context – and a strict budget – begged for an architecture that relied on the construction methods and materials of the suburban office. "It was a marriage of styles and materials," says project architect H. Randolph Holmes.

A design concept based on classical precedents led naturally to a symmetrical layout, with the credit union's four major departments divided equally between the first two floors. Executive offices, a training center and employee lunch room occupy the third floor – a move reflecting the company's egalitarian philosophy. Interior spaces are organized around a cylindrical void which rises the full



A high-profile location made the building's rear façade (above) as important as the front (top).

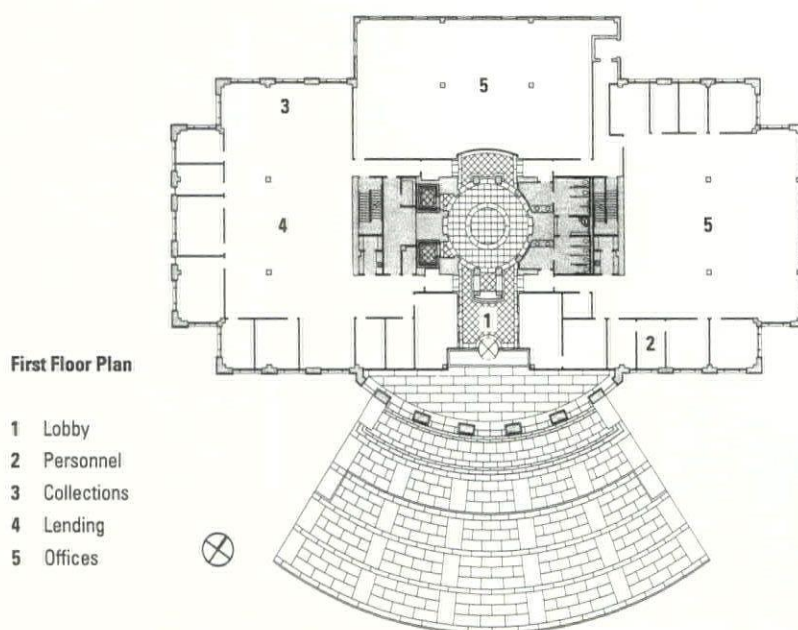
height of the building, forming a central lobby on all three floors and culminating on the exterior as a copper dome. From there, the dome's radial geometry projects from the building, guiding the form of the curved portico, paved arrival court and parking lot – all of which unify building and landscape into a cohesive "corporate villa."

The site for the 58,000-square-foot building was selected because of easy access to a nearby expressway and for its high visibility. Thus, both front and back are "public" façades. Exterior details, such as an abstracted cornice of aluminum and various glass types lend shadow and scale to the building form.

Applied aluminum frames surrounding the third-floor windows, for example, give the abstract impression of sash windows. The end result is a skillful blend of modern contextualism and traditional conservatism.



Revolving doors lead into multilevel lobby (above). The dome's radial geometry extends outside the building to the paved forecourt (plan, below).



Timely Results

Southtech Central Office
Forrest Coile Associates
Newport News



The metal-paneled building sits on a base of brick and concrete block. Visitors and employees enter a curved, two-story lobby that is sheathed in glass.

The commission for a new administrative facility for SouthTech, a manufacturer of components for Canon copiers, came with one major proviso: To be ready for a scheduled visit by Canon's president in early 1993, the building had to be designed and constructed in five months. The program called for a diversity of functions

under one roof, including offices, conference rooms, a cafeteria and machine shop complete with bridge cranes, a tool crib and other support spaces. The demanding schedule required completed design drawings in 30 days, accelerated approvals and early identification of materials to allow for timely delivery.

20

Street Smart

1300 Connecticut Avenue
Anderson O'Brien Architects
Charlottesville/Alexandria

This 40-year-old building in downtown Washington, D.C., was vacated when its occupants relocated to a suburban location. Although oriented toward Connecticut Avenue, the main entrance was set back from the street and hard to find. Other deficiencies included a cramped lobby, leaky roof, inefficient windows, poor lighting and dated mechanical systems. The architects were charged with upgrading the building for "Class A" office and retail use. They began by thrusting the retail and lobby areas forward to create a new building alignment at street level parallel to Connecticut Avenue. The lobby was expanded vertically to create a two-story space enhanced by new custom fixtures and rich wood finishes. Exterior renovations include new granite and marble wall panels and the insertion of energy-efficient windows that have updated the building's look and made it more economical to operate.

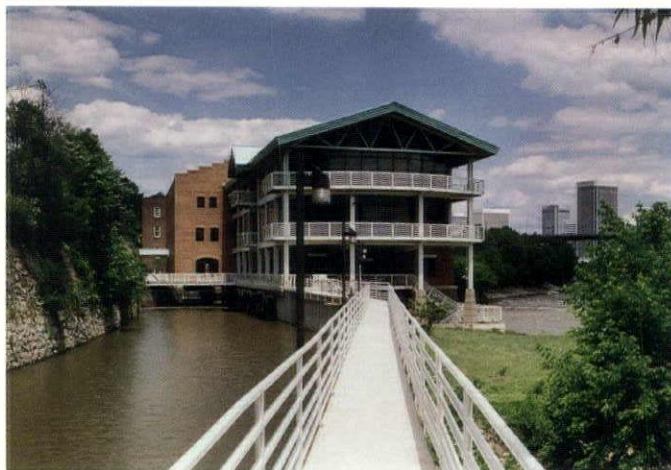


A hard-to-find entry was enlarged and upgraded while improving the building's relationship to the street. Exterior walls were replaced with new stone panels that emphasize the building's vertical rise.

Water Works

James River Corporation Headquarters
Bond Comet Westmoreland + Hiner
Richmond

Foundation walls are all that remain of the original Hollywood Pump House, the early 19th century industrial building that forms the underpinnings and established the footprint for new executive offices of the James River Corporation. The present owner, a Fortune 500 paper products company, desired a modern office building to house its top executives. The design conveys the image of a forward-looking company by incorporating 20th century imagery and the latest amenities: a videoconference center, central data processing area – even a corporate fitness center. At the same time, the architects respected the building's heritage as, first, a pumping station to supply the city reservoir and, later, a hydroelectric plant that powered Richmond's street lights and trolleys. In concept, the east end of the building is designed to resemble a 19th century mill. It defines a quadrangle in concert with neighboring industrial buildings, which have been adapted to office use. The solid, factorylike wall facing the quadrangle gives way to more Modern, steel-and-glass façades on the south and west that open to spectacular views of the river. A riverfront recreational path passes along a catwalk that hugs the south side of the building and proceeds past the headrace canal that once channeled water into the pump house.



Walkway on west end of building skirts edge of the old headrace canal. Executive offices occupy a top-floor suite.

21



East end of headquarters nods to the site's industrial past with large mass of bricks and punched windows. South façade opens up toward broad vistas of the James River.

Photos: James Adcock

Audubon House

Audubon House: Building the Environmentally Responsible, Energy-Efficient Office.

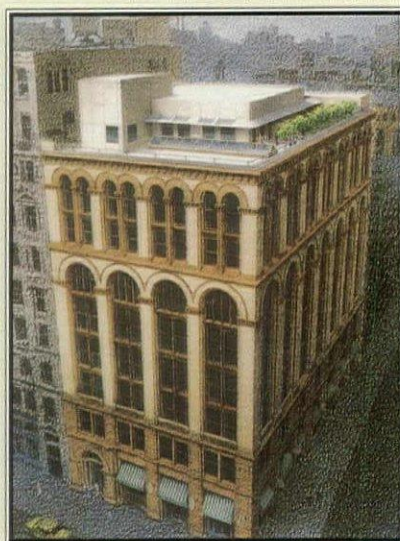
By *The National Audubon Society and Croxton Collaborative, Architects*. 207 pp. Illustrated. New York: John Wiley & Sons, Inc. \$24.95 cloth.

By Douglas McCreary Greenwood

Five years ago, when the AIA founded its Committee on the Environment, it seemed as if the time had come for environmentalism to make its way into the mainstream of the building industry. Polls showed more Americans than ever were not only interested in environmental issues, but for the first time were actually willing to pay for environmental safeguards. Recycling bottles, cans and newspapers moved from the fringe of mainstream America into the suburbs; people became more aware of the advantages of compact fluorescent lights bulbs; the public began to realize that some of the hallmarks of modern American culture – air conditioning, two cars in the garage and the refrigerator – had repercussions that reached well beyond the neighborhood and, indeed, far up into the atmosphere.

Yet only a handful of architects seemed to realize that the way buildings were being designed, built and operated in the industrialized world was exerting enormous pressure on present resources and promising even greater stress in the future. But if these architects were few in number, they were vocal and, above all, tenacious. So how is it that they have failed so miserably in moving “sustainable design” to the forefront?

Audubon House, which documents the ambitious and largely successful makeover of an 1890s New York City building into new headquarters for the National Audubon Society, provides insights into that question. For starters, overcoming both the inertia and the momentum of “business as



The makeover of G.W. Post's Romanesque Revival gem has set the industry standard.

usual” is a formidable undertaking. In an enterprise as complex as building a modern office building – or even an 1,800-square-foot starter home – trying to use innovative materials (plywood with no formaldehyde off-gassing, for example, or recycled-aluminum window frames) may well prove to be so difficult as to be not worth the effort. Even when environmentally sensitive materials are available, often there are problems associated with performance, especially when a client wants some assurance that the premium he might be paying to use low-emitting or energy-efficient materials is worth the cost.

And there are unexpected trade-offs that make even the most apparently “green” materials less than desirable. We think of wood, for example, as an ideal building material. It has a long history of high performance and adaptability. Best of all, it is renewable – meaning you can use the current supply and grow replacement trees. Well . . . yes and no. The problem is so much wood has been consumed in construction that – threats to the tropical rain forests notwithstanding – we need to pay closer attention to the depletion of hardwood and softwood stands in our own backyard. Unfortunately, the

science of materials analysis (assessing everything from a material's embodied energy to a more comprehensive life-cycle costing) is well behind the art. And the art is still largely anecdotal.

It's hard to recall a recent architectural project that has had more publicity than the Croxton Collaborative's Audubon House renovation, whose national TV exposure is a PR flack's dream. All the attention occurred not just because Audubon is a famous client or because architect Randy Croxton has name recognition. It happened because Croxton did the unthinkable: He took a modest building in Manhattan that had an architectural pedigree and, instead of consigning it to the wrecking ball or simply renovating it, he “greened” it.

When it comes to green building – that is, designing structures from an environmental perspective – there are a handful of buildings that address the agenda thoroughly and a lot more with one or two green features that architects and clients brag about. The easiest claim to environmental correctness, of course, is that a building is energy-efficient. That can take many forms and offers benefits to both the owner and the environment. But the fact is that energy-efficiency predates the profession of architecture by a long shot, and being energy-efficient is only one aspect of green design, though it's probably the major feature of the much ballyhooed “greening of the White House.”

Yet energy, as the Rocky Mountain Institute's Amory Lovins would confirm, has proven to be an excellent starting point, and a *sine qua non*, for environmentally sensitive design. Indeed, the Croxton Collaborative established its reputation as one of the leading exponents of sustainable design with its work on the National Resources Defense Council headquarters in New York. What Croxton did there was set the industry stan-

dard for reduced energy use. In the process, he incorporated lighting systems that integrated natural day-lighting and high-efficiency T-8 fluorescent lamps which have a more natural color and less flicker than conventional fluorescent lamps.

**"Sustainable architecture
implies living within our means
and finding practical solutions
that can be implemented today."**

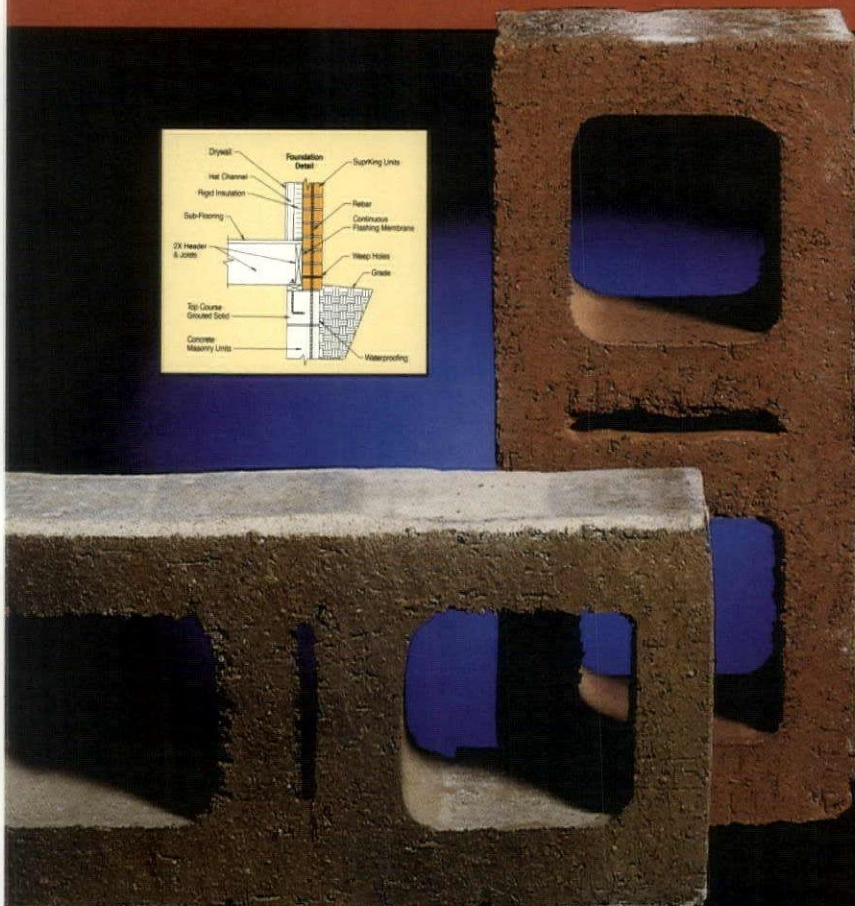
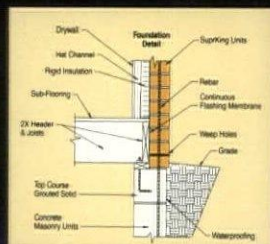
— Audubon House

One of the great ironies of *Audubon House* is that when we think of Audubon, we inevitably recall John James Audubon's evocative watercolors of the birds of America. They possess a palpable sense of form, color and proportion — of aesthetic beauty. That this aesthetic dimension is, by and large, absent from the book is disturbing. Not that *Audubon House* should be just a coffee table book. But the photos are uniformly muddy or just plain boring. Perhaps this is the price one pays today for being "environmentally correct" — that is, using paper that is acid-free, 50 percent total recycled and 10 percent "post-consumer fiber," whatever that means. Such terms are the subject of some fairly weighty debate by environmentalists who point out the complexities of words like "recycled," "biodegradable" and "waste."

There are other problems with *Audubon House*, the most annoying of which is the textual apparatus of the appendices. This whole section of the book is somewhat bizarre, including as it does an "Optimization Diagram" of the built environment; the DOE-2 software system for analyzing energy performance; notes on using Material Safety Data Sheets for environmental assessment; a sample letter to and response from a manufacturer requesting product information (Are we in a high school business class or what?); a woefully out-of-date list of resources; a listing of products used at Audubon House; and a list of carcinogenic agents that is both dated (1986) and a bit strange (along with listings of specific chemicals, certain

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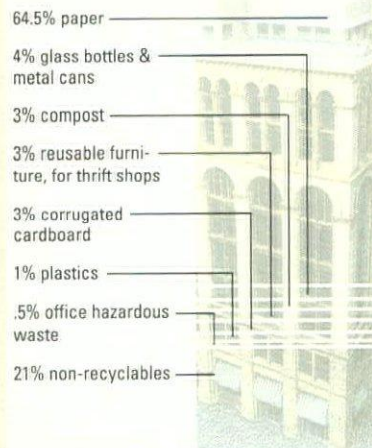
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manufacturing processes – “the rubber industry,” for example – are also listed). What are we to make of this jumble? Are we to find out which individual products, systems or materials contain these “bad actors” and therefore eliminate them from our specifications? If we cannot determine from the Material Safety Data Sheets the actual amounts of known or suspected carcinogens, how are we to proceed?

After trying to make some of these determinations myself, I can say only that the terrain is treacherous.



An analysis of office waste at Audubon confirmed that close to 80 percent of it could be recycled. That is the target set for Audubon's in-house recycling program.

Having said all this, there are many other reasons to recommend this book. For, unlike the growing number of books that make extravagant claims to treating green building technologies in any comprehensive way, *Audubon House* marks a new departure in the genre. First, it is not specifically a “how to” book so much as it is an exemplar of how using a systematic design process can pay handsome dividends. It is also a well-documented, realistic look at that most sacred of economic cows: the bottom line. In short, it gives a thorough study of how one building was renovated with off-the-shelf technology in a way that far outperforms typical strategies. Furthermore, it suggests a comprehensive approach to green design. Croxton uses familiar terminology in fairly clear ways, thus giving us some sorely needed new language. But in the final analysis, what makes *Audubon House* such a powerful example of sustainable design is in documenting that it can be done.

When he was finished with *The Canterbury Tales*, Geoffrey Chaucer appended his famous “Retraction” in which he apologized for the numerous literary, political and religious offenses committed in his magisterial narrative. Chaucer’s apologia tells us more about him than we will ever know from the scant biographical data of his life. So, too, with the cumbersome baggage left at the front door of *Audubon House* – disclaimers from both the publisher and the Gas Research Institute, which “makes no warranty or representation, express or implied,” with respect to the accuracy or completeness of information in the book. Architects, alas, are no strangers to legal issues. But until they move beyond the dictates of legalese and take a stand that is not only logical, but *right*, they will find it easier to do business as usual than to do business responsibly.

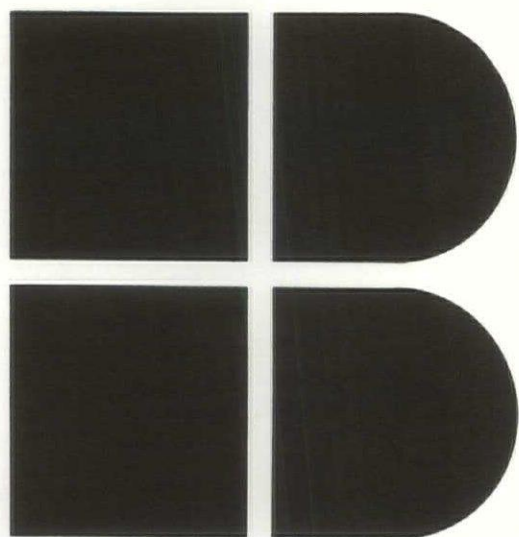
One thing made clear from reading *Audubon House* is that the book deserves an audience outside the building industry. It’s not just the design and construction community which needs to get on board the “E train,” but concerned citizens too. They may need to overcome the obstacle of industry jargon, but if they don’t know the right questions to ask, places like *Audubon House* will continue to be the exception rather than the rule.

Doug Greenwood is senior researcher with CIESEN, a private, non-profit consortium in Washington, D.C., that monitors global change.

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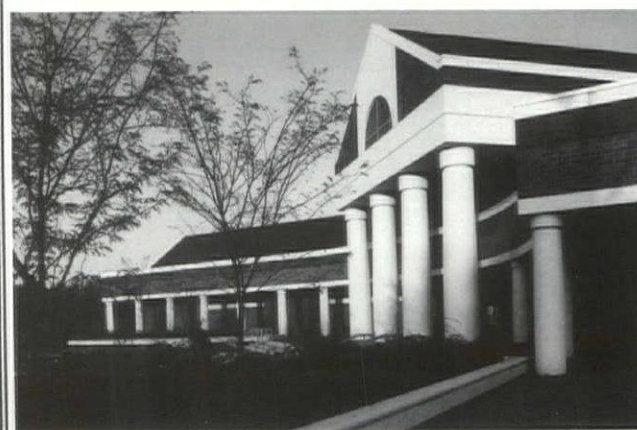


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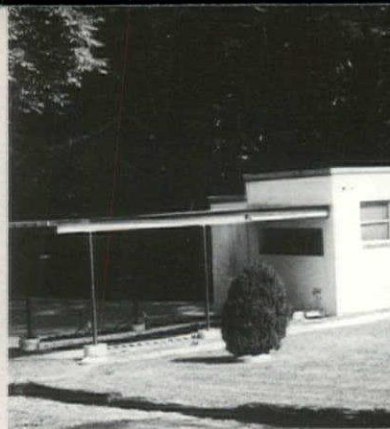
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Amaza Lee Meredith

Out of the Mainstream and Into History

By Mary Harding Sadler



Amaza Lee Meredith was in every sense an anomaly. In the mid-1930s this black female architect, artist and teacher designed an International Style house adjacent to the campus of Virginia State University. Her home, which she named Azurest South, sits now in quiet obscurity.

But for the single-minded efforts of university archivist Lucious Edwards, the house and its lush grounds would have remained unrecognized and unprotected. With the help of Edwards' research and his preservation of significant documents, Azurest South was listed on the Virginia Landmarks Register late last year and on the National Register of Historic Places in early 1994. Architectural historian Richard Guy Wilson judged the house to be "one of the most advanced residential designs in the state in its day." It is indeed one of the Commonwealth's few mature examples of the International Style and a landmark of African-American material culture.

Its maker, Amaza Lee Meredith, was born in Lynchburg on August 14, 1895, the eldest child of Samuel Meredith, a respected carpenter, and Emma Kennedy. Because her father was white and her mother black, Amaza's parents could not be legally married in Virginia. The two traveled to Washington, D.C., in racially segregated railroad cars to tie the knot. But Samuel Meredith lost much of his business as a result of the controversial marriage and took his life in 1915. Despite this family tragedy, Amaza Meredith graduated from high school the same year at the top of her class, and enrolled at the Virginia Normal and Industrial Institute near Petersburg, which was

later to become Virginia State University. There she met Dr. Edna Meade Colson, the daughter of James Major Colson III, one of the Institute's founding faculty members. Edna Colson would go on to become dean of the School of Education and, in time, became Amaza Meredith's lifelong companion.

After college, Meredith taught in Botetourt County then moved to Brooklyn in 1926 and enrolled in Teachers' College, Columbia University, where she majored in fine arts. There she received a bachelor's degree with honors in 1930 and a master's in 1934. Meredith soon returned to Virginia State to teach art and was appointed chair of the Art Department a year later.

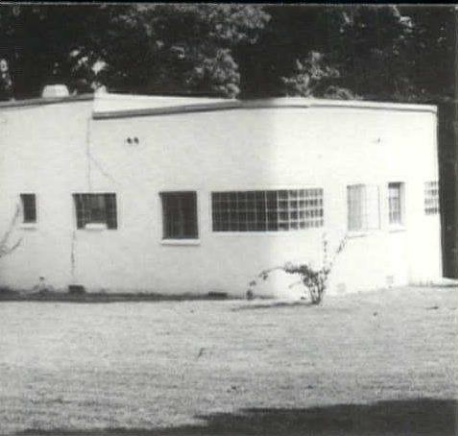
Meredith was in her forties when she began the design of Azurest South, a bold investigation of the International Style. Though her plans and axonometric drawings are clearly not rendered by an experienced hand, they carefully delineate both architectural treatments and construction details. Roof drains and a wall section are shown with the same precision as the steel pipe railings that define the edge of a roof terrace. Completed in 1939, Azurest South is typified by the white stucco, flat roof and sleek lines that came to be associated with the idea of a "machine for living" — a house devoid of applied ornament and free of historic references. The exterior is dominated by the bedroom wing, whose curved corners feature horizontal ribbon windows of glass block.

Whereas the exterior of the house is limited in its selection of materials and colors, the interior is vividly patterned with ceramic, composition and vinyl tiles applied freely to walls,

floors and ceilings. Cleverly placed windows, bands of glass block, concealed lighting and mirrors dramatically enlarge the apparent size of this modest space. Oak floors in the living areas and pine doors, partly stained and partly painted, warm the palette of materials. Meredith's blend of cultural motifs defy categorization. The multicolored, metal-flecked vinyl tile, carrara glass, acoustical tile, mosaic tiles and tile board Meredith specified in her kitchen, bath and studio represented the most current interior finishes.

Kitchen counters are decorated with bright green, pink, red and black mosaic tiles set in unexpected patterns. The bathroom's bright yellow fixtures are complemented by green, yellow and black finishes. The spacious living room, understated in comparison, is dominated by an Art Deco fireplace composed of a thick, curving mantel shelf and massive curved pedestals. A curtain slot in the ceiling allowed the end of the room to be used as a dining area. And a small vestibule off the living room leads to the bedrooms, one of which preserves the massive Victorian bed in which Meredith was born.

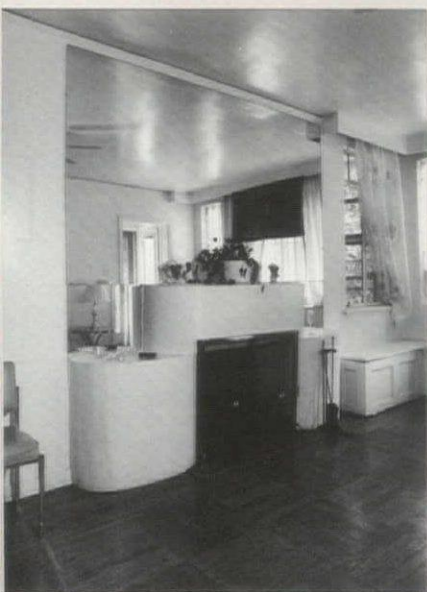
In her time, Amaza Lee Meredith was one of only a handful of black architects in practice. According to the 1910 U.S. census, only 59 blacks were active as architects and another 47 as draftsmen. Hampton University, founded in 1868 to train freed slaves, did not establish its architecture program until 1940. Though Meredith was never a registered architect, she designed for friends and family in Virginia, Texas, and Sag Harbor, New York, where she and others developed a vacation enclave they named Azurest North. Meredith attended Columbia at a



time of great vitality and change in American architecture – when figures like Marcel Breuer and Walter Gropius were everyday topics of conversation. In Virginia, however, the Colonial Revival still held sway over public and private architecture – even at Virginia State, which was expanded during the design and construction of Azurest. In light of the overwhelming dominance of traditional architecture in Virginia, Meredith's achievement is all the more remarkable.

Meredith resided at Azurest South, summering in Sag Harbor, from 1939 until her death in 1984. Her will left half of the property to the VSU National Alumni Association, which purchased the remaining interest after Edna Colson's death in 1986. Azurest South is now used for functions held by the association.

The author is a historical architect at the Virginia Department of Historic Resources.



Living room is anchored by Art Deco fireplace (above). Exterior bears the flat roof and ribbon windows of a "machine for living" (top).

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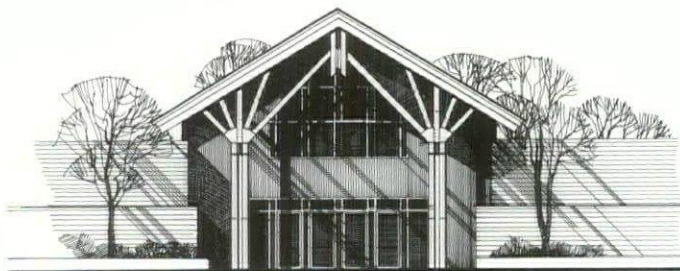
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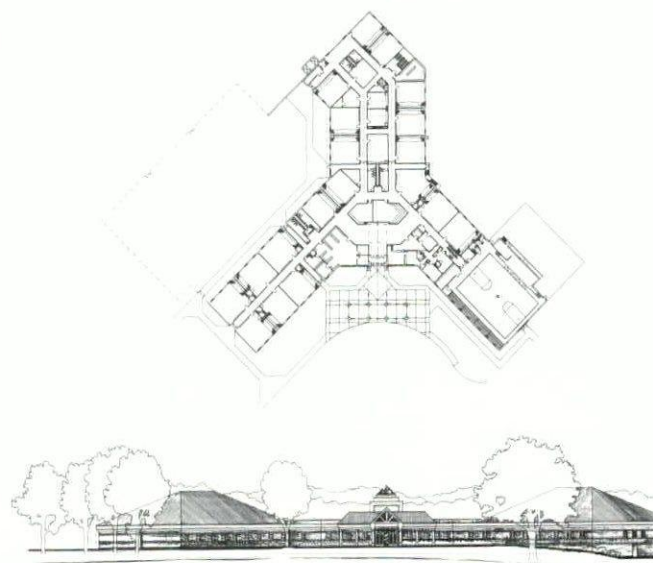
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Architect: Carlton Abbott & Partners, Williamsburg
Project: Baker Hall Visitor Center, Norfolk Botanical Gardens

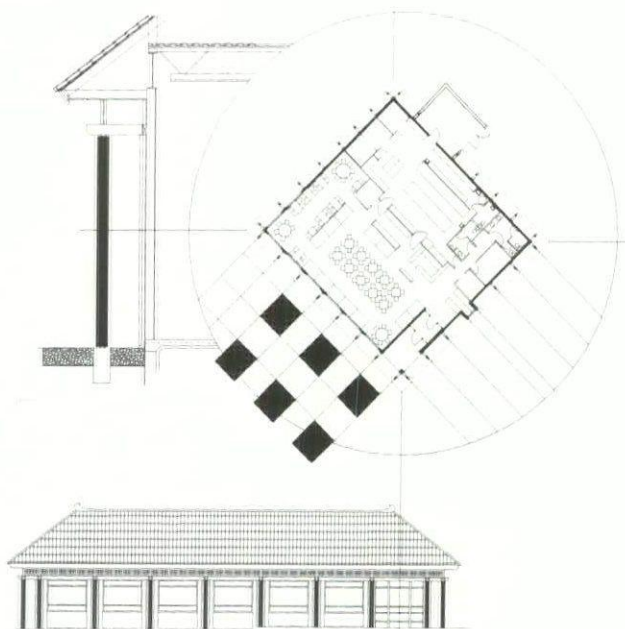
Conceived as the gateway to the garden, this entrance pavilion is a heavy timber-and-steel structural spine between two lower masonry volumes. The 12,000-square-foot building includes tour operations, a gift shop, exhibits and banquet facilities. Completion is anticipated in the spring. 804-220-1095.



Architect: Wiley & Wilson, Lynchburg
Project: Brookneal Elementary School

This multi-level, 64,000-square-foot elementary school was designed as a community focal point intended to blend with the historical fabric of the community. It will house 25 classrooms, a gymnasium, a 450-seat cafeteria, a music room, library, skylit foyer and administrative spaces. 804-947-1901.

28



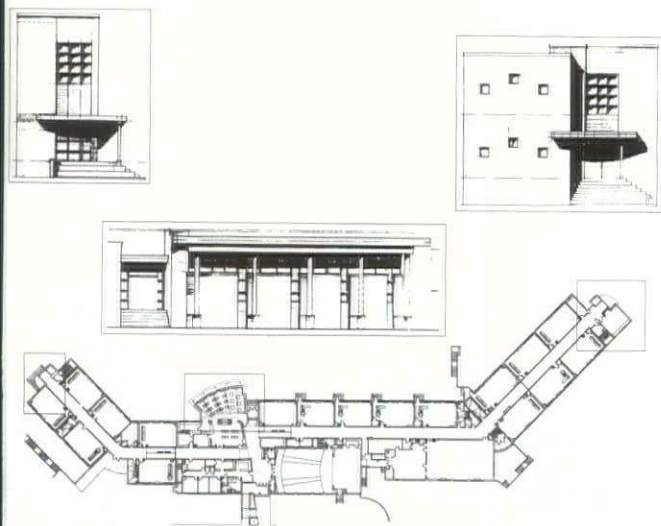
Architect: Cheryl D. Moore, Architect, Richmond
Project: Peking Restaurant, Mechanicsville

Construction has begun on this 4,500-square-foot Mechanicsville restaurant, designed as a simple backdrop for decorative elements common to Chinese architecture. The exterior is stucco, accented with a colonnade of wooden columns. A simple wood frieze encircles the building. 804-323-6034.



Architect: Wood, Swofford and Associates, Charlottesville
Project: Danville Rail Passenger Station

The restoration of this 1899 Southern Railway Depot will enable it to serve the community again, now as both an Amtrak station and a satellite of the Virginia Science Museum. The project, funded through ISTE grants, is the first phase of renewal in the riverfront warehouse district. 804-979-7407.



Architect: Bond Comet Westmoreland + Hiner, Richmond

Project: Burnley-Moran Elementary School Addition and Renovation

A need for ADA compliance and a desire to modernize initiated the project. Additions to the school include elevator enclosures and an enlarged media center. Renovations include classroom accessibility upgrades, auditorium refurbishment and colorful new casework, paint and tile patterns. 804-788-4774.

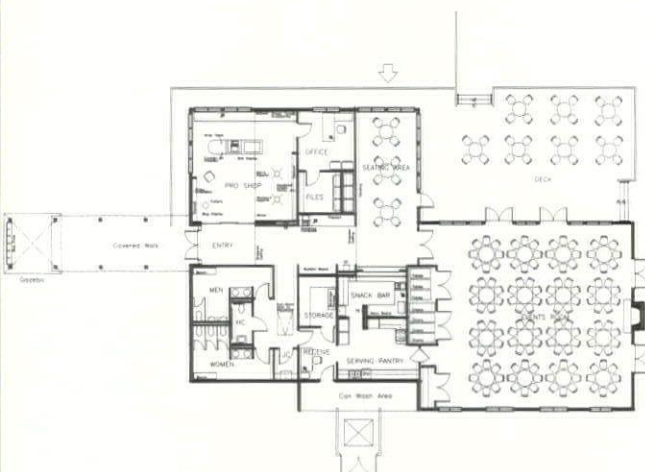


Architect: Henningson, Durham & Richardson, Alexandria

Project: St. Mary's Hospital, Leonardtown, Md.

Ground has been broken on a \$6.5 million project that will add 38,000 square feet to the existing hospital and renovate another 22,000 square feet. The addition, scheduled for completion by December, includes all outpatient services. HDR is affiliated with Smeallie, Orrick and Janka of Baltimore. 703-683-3400.

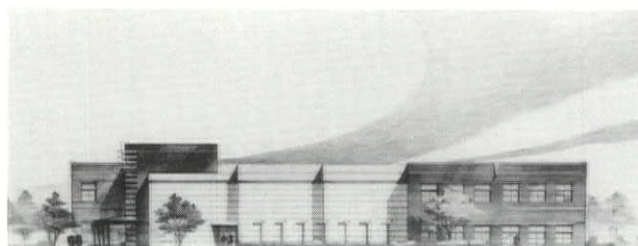
29



Architect: Pierce Architecture, Bailey's Crossroads

Project: Willow Run Golf Club

The clubhouse for this daily-fee golf club in Redmond, Washington, is designed for the public golfer. Cart storage is located on a lower level. The clubhouse, however, also includes banquet facilities and a caterer's pantry to facilitate frequent tournament events. 703-998-0206.



Architect: Scribner Messer Brady and Wade, Richmond

Project: Building Seven, Virginia Tech Corporate Research Center

This 40,000-square-foot building integrates corporate, high-tech and academic characteristics in offering speculative office and laboratory space for research-oriented tenants. Construction began in July with completion anticipated in spring 1995. 804-782-2115.



Architect: Odell Associates, Inc., Richmond
Project: Sentara CarePlex

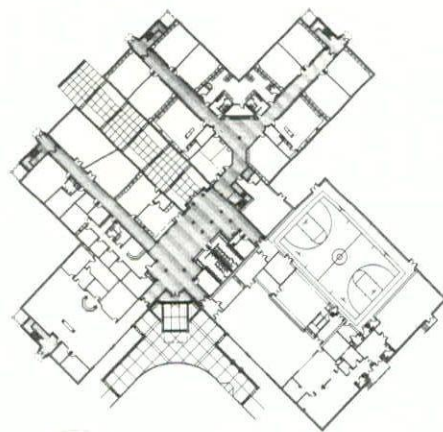
Designed for patient-focused care, this new 60,000-square-foot facility in Hampton will house emergency, diagnostic imaging, physical therapy and surgery departments. A curved area accessible from the atrium contains the recovery care unit for short-term stays in a hotel-like environment. 804-644-5941.

30



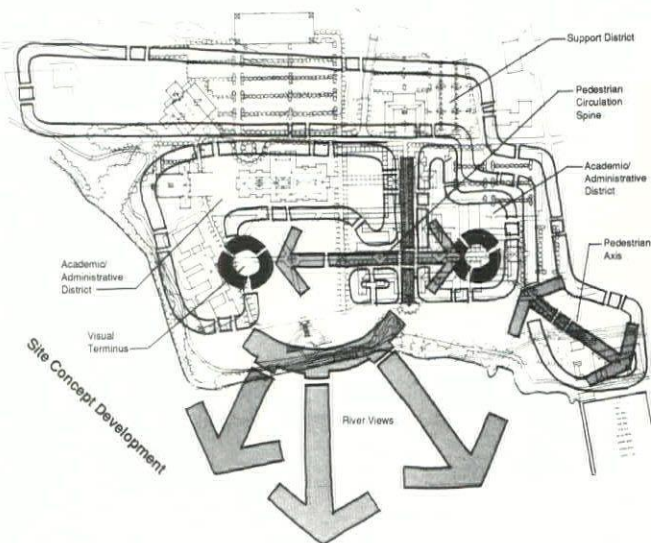
Architect: Scribner Messer Brady and Wade, Richmond
Project: Crestar Mortgage Corporation Headquarters

On a riverfront site in Richmond, this 128,000-square-foot building – designed in joint venture with Devroux & Purnell of Washington, D.C. – will offer commanding views while maintaining responsiveness to its context. Construction will begin in September. 804-782-2115.



Architect: The Moseley McClintock Group, Richmond
Project: Danville Middle School

This new school will provide flexible academic areas with full integration of current technology. The 91,000-square-foot facility will house 5th through 7th grades and be located adjacent to an existing junior high school. 804-794-7555.



Architect: The Onyx Group, Alexandria
Project: Marine Corps University Master Plan

This master plan was developed as a long-range guideline which the Marine Corps University will use to accommodate future requirements. Concept considerations included major views, pedestrian circulation, functional adjacencies and existing architectural character. 703-548-6699.

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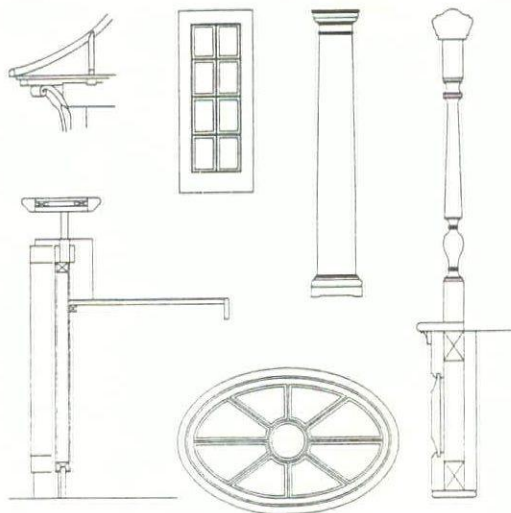
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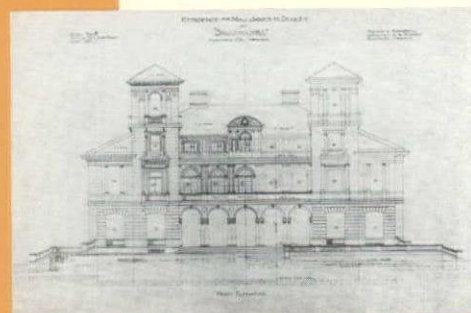


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Coming Up

In our next issue, Inform will announce the winners of the third annual Inform Awards. Also we will celebrate the 80th anniversary of the AIA in Virginia with a retrospective of architects in the Old Dominion.



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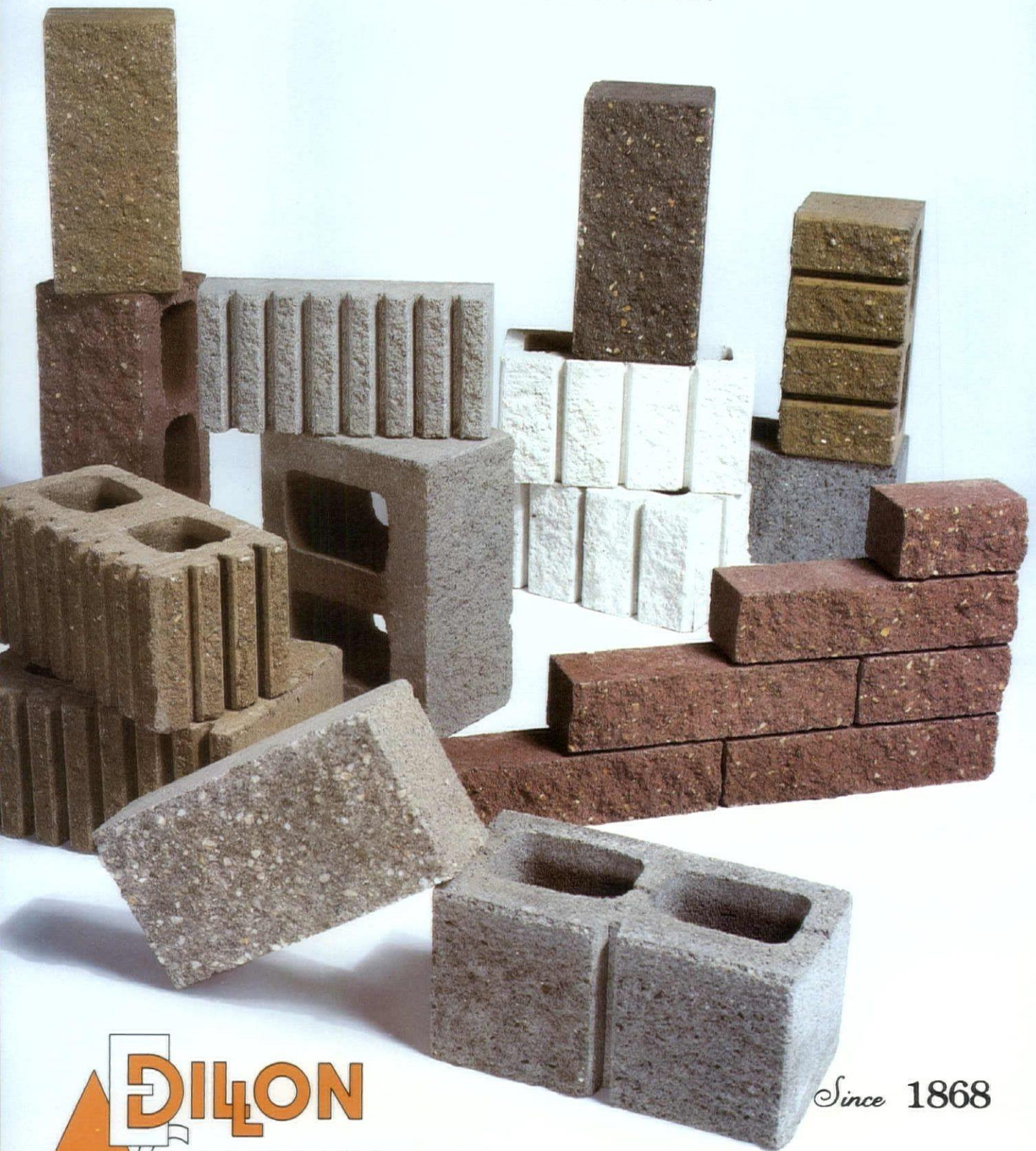
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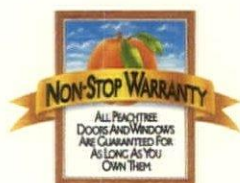
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