We would like to thank all members of the Raleigh Convention Center project team for their confidence in Ross Bryan Associates, Inc. and our structural engineering services. Ross Bryan Associates, Inc., has over 60 years of experience providing consulting engineering services for a wide range of projects and clients. With an average tenure of 15 years, our engineering staff has the training and experience to develop innovative and economical structural solutions for projects of all dimensions.

ROSS BRYAN ASSOCIATES, INC.
CONSULTING ENGINEERS
1025 16th Avenue South, Suite 400
Nashville, Tennessee 37212
www.rossbryan.com
Tel: 615-329-1300
Fax: 615-327-4446

Well versed in LEED Certified projects

We specialize in creating architectural millwork for contemporary, as well as traditional, commercial environments such as:

- Institutions
- Museums
- Offices
- Restaurants
- Public and Private Spaces
- High and residential
- GSA Schedule

Our shop integrates solid wood and veneer components with stone, glass, metal, solid surface and fabrics per architectural designs.

Providing Services Nationwide

Gaithersburg
CABINETRY & MILLWORK
OF WARRENTON, VIRGINIA
4338 Aiken Drive • Warrenton, VA 20187 • Phone (540) 347-4551 • Fax (540) 347-0525 • www.gcabinet.com
If you could design your dream window, what would it be?

Create something uniquely yours. With windows and doors built around you. And your clients. For inspiration from the myMarvin project artists, the latest home design trends, or all the new products, go to myMarvin.com
Barnhill Contracting Company would like to thank our construction partner, Skanska USA Building Inc., and our design team partners, TVS, O’Brien/Atkins Associates and Clearscapes for a job well done!
Design Diplomacy

One in every 800 Danes is trained as an architect and more of Denmark’s 5.4 million people ride their bikes to work than drive. When it comes to energy production, wind, bio-, oil, and natural gas are all home grown, self-sufficient industries. On the micro scale, the purchasing power parity in Denmark has grown by more than 11% over the last six years. Along with industrial machinery and pharmaceuticals, high-design furniture is considered a major Danish export. And, if two global indices of “happiness” are to be believed (one British, the other Dutch), then Danes are the most contented people to walk the earth. So, when the Danish architect Jan Gehl tells an audience that his country’s signature export is “quality of life,” you tend to believe him.

Gehl took the stage at a recent colloquium on Danish urbanism and sustainability at the Phillips Collection in D.C. to promote the World Class Street study his firm authored for the New York City Department of Transportation. “There is much more to walking than walking,” he announced, and went on to expound the age-old benefits of fare una bella figura, or cutting a fine figure in the public realm. “The active ingredient in sustaining our cities is the invitation: inviting people to walk, to dine out, to feel safe, and to spend a greater amount of time outside than inside.” This coming from a Copenhagener whose hometown averages a high of 39 degrees in winter. Regardless, Gehl’s point was about access and opportunity; the more there is of both for pedestrians (and cyclists)—even in the coldest climates—the greater the justification for dialing-back our dependence on cars and their attendant space requirements.

If you want a space to work, you will expend equal amounts of effort to make sure it is organized and there are opportunities for the unexpected to occur. The well-curated city, then, is no different than the well-curated space. This issue’s focus on museum and exhibit space tries to uncover some of what it means to operate between intent and accident. Good curators craft the former and keep an eye towards the latter as we learn from our Design Dialogue correspondents. The Eisenhower Memorial is the most prominent moving target in this issue, as it will force the competition’s winning firm to triangulate legacy, memory, and a prominent urban site. Finally, our three project features define this issue’s theme broadly: a convention center, an art museum that must contend with its existing fabric, and an art museum that may transform the Bilbao Effect into the Roanoke Effect for an American context. If Gehl is right, and the main ingredient in sustaining urban life is focus on a community’s relationship to space, these projects all have something to say about designing for that end.

—William Richards
The Virginia Center for Architecture is dedicated to developing the public's appreciation for architecture and its influence on our lives, our communities, and our world. The Center acknowledges with gratitude those who supported its efforts in 2008.

$100,000 +
Dominion Foundation
Virginia Society of the American Institute of Architects

$75,000 +
Windsor Foundation

$50,000 +
HSMM AECOM

$25,000 +
DBI Architects, Inc.
Marietta McNeill Morgan & Samuel Tate Morgan, Jr. Foundation

$10,000 +
Damuth/Trane
Richard and Caroline T. Gwathmey Memorial Trust

$5,000 - $9,999
Meta and John Braymer
Ms. Sally Brown, through the Bruce Ford Brown Charitable Trust
Commonwealth Architects, PC
Riverside Brick & Supply Company, Inc.
Train & Partners Architects
Vandevertner Black, LLP

$1,000 - $4,999
Baskervill
BB&T Insurance Services
BCWH
Mr. and Mrs. Jeffrey Blanchard
Mr. Peyton Boyd
Clark Nexsen, PC
Daniel & Co
Mr. and Mrs. Richard L. Ford
Froehling & Robertson
Glave & Holmes Associates
Hanbury Evans Wright Vlattas + Company
Mrs. Katharine Pauley Hickok
HKS Architects
Kjellestrom & Lee
Mr. and Mrs. Robert A. Magoon, Jr.
McGeorge Toyota
Mr. and Mrs. William C. Means
Mr. and Mrs. Robert E. Middlebrooks
The Monument Group Charitable Fund
Moseley Architects
The Pauley Family Foundation
RMJM Hillier
Mr. and Mrs. Jack Spain
Mr. Kenneth G. Stepka
Stroud Pence & Associates
University of Virginia, School of Architecture Foundation
Mr. James Vaile
W. M. Jordan Company
Mrs. Jane Wright

$500 - $999
BerryRio Architecture + Interiors
Ms. Meredith Jane Braymer
Cornerstone Architects, PLC
Mr. Frederic H. Cox, Jr.
Liphart Steel Co., Inc.
MTFA Architecture, PLLC
Mr. and Mrs. Sean E. Reilly
Mr. and Mrs. Lynwood D. Wells

$150 - $499
Mr. and Mrs. Paul Barkley
Mr. and Mrs. Robert A. Boynton
City Wide Decorators
DSSChesapeake
Dunbar Milby Williams Pittman & Vaughan, PLLC
Dunlap Partners
Mr. and Mrs. R. W. Fowlkes
Mrs. Rhea George
Mr. and Mrs. W. Douglas Gilpin, Jr.
E. T. Gresham
Mr. Richard W. Gresham
Hackworth Imaging
HBA Architecture
Mr. Gary S. Henley
Mr. Koji Hirota
Hourigan Construction
HuffMorris Architects
KeithFabry Architects
Kerns Group Architects
Odell
Mr. and Mrs. Mark Orling
Mr. and Mrs. John Payne
Mr. and Mrs. Richard N. Renz
Samaha Associates, PC
Thompson & Litton
Triangle Brick
Van Yahres Associates
Mr. T. Jeffrey Wells

Other
Mr. T. Duncan Abernathy
Mr. John M. Alexander
Mr. Samuel A. Anderson
Mr. Edward Blanks
Ms. Mary Lou Carter
Cunningham + Quill Architects
Ms. Rachel M. Flynn
Mr. and Mrs. James Garrett
Mr. Nathaniel S. McCormick
Mrs. Mary Kathryn McDaniel
Mr. and Mrs. Andrew B. Moore
Mr. and Mrs. George A. Morledge
Mr. Richard T. Peterson, Jr.
Mr. Charles D. Piper
Mr. Richard G. Poole
Mr. Gregory L. Rutledge
Mr. Roger O. Schickedantz
Mr. John H. Spencer
Mr. William A. Thompson III
Mr. and Mrs. Nicholas E. Vlattas
Walker Architectural Associates, PC
Mr. H. J. Warthen, III
Mr. and Mrs. John G. Zehmer
Mr. and Mrs. John Zuegner
16 Roanoke Renascent
High art gets a world-class home in the Taubman Art Museum designed by Randall Stout Architects. But, in the middle of western Virginia, what will the neighbors think?
By Clay Risen

22 Raleigh in the Round
A new convention center by Clearscapes, O'Brien/Atkins, and tvsdesign opens in the City of Oaks with connectivity at its core.
By William Richards

28 Shock of the New
Rick Mather + SMBW reinvent a staid Richmond icon and create room for the Virginia Museum of Fine Arts' stellar collection to breathe.
By Bland Crowder

6 Design Lines
new developments in design

11 Power Button
design, technology, and the marketplace

12 Net Works
the business of design

44 Taking Note

Next issue:
Review of Virginia Architecture
18th Annual Inform Awards
Landscape Architect and Interior Design Directories

On the cover:
Taubman Art Museum
Photo by: Timothy Hursley
The Eisenhower Memorial site is carved out of an intersection between the Department of Health and Human Services and the Department of Education, vestiges of a single cabinet-level agency created by Ike (above right). Campaigning in Baltimore in 1952 (above left), he ultimately carried Maryland but the mid-Atlantic remained divided—the only region to be so—between Ike and Adlai Stevenson.

**Memory-Memorial Complex: Eisenhower on the Mall**

Santa Monica’s Frank Gehry, Chicago’s Krueck & Sexton Architects, Berkeley’s Peter Walker, and New York’s Rogers Marvel Architects have been short listed by the Dwight D. Eisenhower Memorial Commission to give symbolic form to the 34th American president’s memory. The commission’s final selection will be announced at the end of March and it has set an ambitious timetable to have a memorial completed by 2013. Fittingly, the memorial will be constructed within the newly created Eisenhower Memorial Park adjacent to the Department of Health and Human Services and the Department of Education, vestiges of a single cabinet-level agency that Ike created. In conjunction with the GSA’s Design Excellence Program, the Eisenhower Memorial Commission hopes to foster a diverse set of proposals and, to that end, the four finalists represent a distinct set of portfolios. To be sure, it is a progressive set of designers that must address the commission’s argument for a memorial: Eisenhower was a transformative figure in post-war America. How that transformation or Ike himself will be referenced is not an uncomplicated task.
Eisenhower is a difficult subject. He has been claimed by conservatives and liberals, then as well as now, as he served at a time when American politics went through profound ideological shift. Opinions are further divided on his executive status: proactive policy maker or just along for the post-war boom ride? “Eisenhower was a challenging figure, yes,” reports Dan Feil, FAIA, Executive Architect on the Memorial Commission, “In the first volume of the design program, we had to make the case that, no, Eisenhower wasn’t just a golfer.” His tenure renewed the idea of American exceptionalism for the second half of the twentieth century. Unprecedented economic growth, the bombast of the Eisenhower Doctrine’s scope, and the rise of the “military-industrial complex” (that he ultimately decried in his 1961 farewell speech) all lent credence to the America-as-ideology argument, somewhere above being a mere nation among nations.

A lot happened during his presidency: Josef Stalin’s death, “Atoms for Peace,” Martin Luther King’s bus boycotts in Montgomery, funding for the interstate highway system, the 1957 and 1960 Civil Rights Acts, Explorer I’s launch, NASA’s creation, Castro’s overthrow of Batista; all defining moments in post-war America that shaped our current landscape.

Soon after assuming the presidency, Eisenhower delivered the commencement address to Dartmouth College on Flag Day, June 14, 1953. A five-star general, he was perhaps a conscientious Cold Warrior whose anti-Communist stance did not diminish his sense for the sovereignty of civil liberties. “Don’t think you’re going to conceal faults by concealing that they ever existed,” he began, “don’t be afraid to go in your library and read every book, as long as any document does not offend our own ideas of decency. That should be the only censorship.” Obviously a term like “decency” is an impossible bit of hyperbole, but Ike’s point was that as long as it remains within the realm of individual thought, then it remains, essentially, a decent thing. Of course, McCarthyism’s indecent erosion of the First Amendment occurred under Eisenhower’s watch, but, then again, so did seminal Civil Rights endorsements (including Washington, D.C. as a model of integration). Eisenhower may divide the punditry from here on out, but few would argue that his presidency was uneventful.

The best memorials encapsulate an idea while defining a space. Ideally, memorials should be both commemorative and evocative: they must speak about the facts of an event or person, but they must also reflect a more imprecise, collective memory. Memorials represent what happened and what we hope to learn, in which “we” means several different communities, past and present. A redoubtable influence on contemporary memorial design, Maya Lin has noted that making architecture is like writing a novel and making art is like composing a poem. Memorial-making exists between these two spheres of production, if we believe they should be separated at all. Few memorials are truly memorable, however, and one hopes that Ike’s memory becomes an opportunity to inaugurate public space in a bold way.

—William Richards
In his 1965 book *The New Museum*, the Viennese architect and theorist Michael Brawne drew a circle around his subject—and labeled all other ways of experiencing art inauthentic. Prints, movies, and television merely replicate an object, he argued, while museums deliver the authentic object itself.

"Museum architecture and display must exploit this unique sense of immediacy, this direct encounter between viewer and viewed," declared Brawne. Oldenburg and Serra-sized sculptures, Motherwell or Pollack's enveloping canvases, Rauschenberg's projecting "combines," or room-sized "happenings"—to name a few—fundamentally changed our perception of art and how we experience it.

Museums, necessarily, had adapted. Brawne's book chronicled Modern museum architecture in a dozen countries, and identified two basic attitudes: sleek boxes based on Classical principles and more hewn, "brutalist" forms. Inside, the gallery spaces themselves had been radically simplified to accommodate the mixed and larger media of Modern art. Think Carlo Scarpa's Museo Correr in Venice (1961), Louis Kahn's Yale Art Gallery (1953), or Affonso Eduardo Reidy's Museu de Arte Moderna in Rio (1954). Bigger, barer, and defined by movable walls, mid-century galleries stepped aside so "a direct encounter between viewer and viewed" could happen.

Of course, there was nothing bland or passive about their architectural envelopes: charged and committed forms and references outside stood apart from the quality of space inside. Dramatic cantilevers, a mix of industrial and epicurean material palettes, and usually a lot of glass: Modern museums are some of last century's most intriguing—and best maintained—contributions to design.

Museum spaces are radically changing once again, a fact that has been documented handily in the last decade by Mimi Zeiger (of *Loud Paper* fame), Susanna Sirefman, Raul Barreneche, and Victoria Newhouse. In 1997, the Bilbao Effect on architecture meant that it was alright for museums to be sculptural again—inside and out—in addition to serving a custodial role for their art. But for every one Guggenheim Bilbao, there are six more museums that have an existing (and sometimes quirky) building fabric. New museums continue to be built, but a lot of the art you are going to see lives in an historic building—however modern it may have been at one time.

What are the challenges of curating a gallery or a space?

Robin Nicholson: The great challenge when dealing with more substantial exhibitions (6-12,000 square feet) is to try to put yourself in the place of the visitor and try to determine if the exhibition works as a whole. When I visit exhibitions in other museums, the first thing I do is stroll through the entire exhibition without looking at any specific objects. This gives a sense of the scale and dynamics of the show. Then I return to the first room to see if it effectively relates to the rest of the exhibition. It is inevitable that visitors spend a disproportionate time in the first gallery as they try to get their bearings and contextualize their experience and so in many ways it is the most important room. The first room should have a couple of show-stopper pieces that let the visitor know they are in for a great encounter with art. The rest of the exhibition can then contextualize that first experience.

Susan Piedmont-Palladino: Curating an exhibition at the National Building Museum is probably a little bit different from curating at a more neutral space. The architecture is so strong it either challenges the exhibition team to a fight, or invites it to dance. All the gallery spaces are arrayed enfilade, in shallow domed bays of 1,000 square feet each. That structure can be used to help organize the content, or it can fight you every step of the way.
My first experience curating an exhibition was Tools of the Imagination. Previously I had been a consultant/ writer for Big and Green Community and for Masonry Variations. In both of those cases the design was well under way before my involvement. With Tools, I struggled to achieve empathy between the number of sections the content demanded and the 4 bays of the gallery.

The space is just like a site for an architectural project. It has orientation, character, infrastructure, implied circulation, and a history. Because working with, rather than against, site conditions is part of the deep didactic of the Green Community exhibition, I and my team really used the character of the space — including its southern exposure — as part of the exhibition.

How do you create a context for a group of objects?

RN: By and large, in an art museum, there are two complementary ways of presenting objects. First, in terms of their purely aesthetic quality — how does this object make us react and what is our personal response to it? Secondly, in terms of context — when was this made, who made it, and why? The risk of over-contextualizing is that you reduce the display to a history lesson with the objects as illustration. They are robbed of their magic. However, over-emphasizing the first approach can cause bewilderment, confusion or misunderstanding.

An unwinnable challenge is to try to persuade people to look at the object — then read the label. Most do it the other way round and thus their experience is immediately informed (or tainted) by what the curator has written. A great display of objects will look so compelling that it will draw a visitor on its aesthetic merits and then offer the opportunity for context and didactics. It is a fine balancing act.

SP-P: The southern exposure is its own interesting part of the story. Because this exhibition has no works on paper or other light-sensitive objects we could open up the windows and bring the sun into the space. That means of course, that visitors’ experiences will be different depending on what time of year and what time of day they visit.

This particular set of objects tell a stories about the relationships between the built and the natural environment, so we wanted to convey the message that the exhibition is in the world, and the world is in the exhibition: not only the enviro-glass cases, but the rooms within this unique building, the building within the city, and the city within the natural environment.

Our exhibit design team — which included Matter Practice Architects, mgmt. graphic design, and Potion as our media designers — developed a language for the displays and the graphics that communicated a few important concepts. The circular cases and the tubes reinforced a kind of laboratory-like presentation, making literally transparent that the information had been cut out of its complex world like a core drill or a put under a magnifying glass. For content as expansive as entire cities and regions it was important to make those boundaries obviously artificial.

How important is institutional memory when creating a new set of gallery spaces?

RN: VMFA will enter a new era when its expansion completes. Almost every collection will have moved and been reinstalled. The museum will be substantially larger. The temporary exhibition galleries will be double the size of the old ones and we will embark on an ambitious program of bringing major international traveling exhibitions to Richmond. Everyone involved in the project sees this as an opportunity to cast a “new” VMFA both in physical terms, but also in the way we are perceived.

Institutional memory and experience has helped determine gallery configurations and displays. A variety of teams from the museum have scrutinized some of the innovative display practices that other museums have initiated in recent years, such as the Brooklyn Museum and the Detroit Institute of Art. Our depth of experience has allowed us to take a more measured response to some of the more controversial approaches to installations and presentations. The final result will reflect what we traditionally do well at VMFA — superb design, production, graphics and didactics — with the best of innovative trends and technologies.

How does the narrative of an exhibition change depending upon the kinds of objects involved?

SP-P: The primary narrative of an exhibition is verbal, visual, and spatial, and the secondary narrative is often subliminal or implied. As an architect and educator I have a long-standing interest in the relationship between text and image. Many of my students — and professionals — resist adding any text to their drawings. “The work should speak for itself” is usually the defense. Well, very few people are visually literate enough to “listen” so it is our job to offer more ways into the message.

I’ve been writing for various audiences for years, but mostly for academic audiences. My first experience writing exhibition text was for Big and Green and I realized that it invited an entirely different voice. As I wrote I pictured myself as the wall, as if I were speaking directly to the viewer, as if in conversation. People are quite adept at tuning out certain kinds of information and we needed to be sure they remained engaged. It’s still a thrill for me to spend time in the exhibition, quietly watching how people move through it, what they look at, and how much they read.
Pre-Fab Pods Flush Away Business-As-Usual

Norfolk-based Hanbury Evans Wright Vlattas + Company is attracting widespread attention for its development and implementation of a prefabricated modular bathroom unit, installed in new dormitory projects at Rice University. Featured in the Museum of Modern Art’s Home Delivery exhibit last fall as part of Kieran Timberlake’s “Cellophane House,” and recently described in Metropolis magazine, the one-piece, all-inclusive pods were designed with London-based Hopkins Architects.

The glass-reinforced, plastic bathroom units were fabricated in the UK to tight specifications before being shipped to New Jersey to be outfitted with light fixtures, sinks, toilets, and mirrors. Ultimately they arrived on Rice’s Houston campus and were connected to plumbing and electrical rough-ins onsite. The process greatly simplified onsite coordination, helping to streamline construction schedules and assure timely project completion.

Notably, the design reduced material waste and consumption by eliminating the need to over-order materials and components traditionally trimmed and joined onsite. The cost of shipping across such great distances is offset by the efficiency gained, and the initial investment will continue to be amortized over each additional unit installed. Originally designed for the McMurtry & Duncan College dormitories, Rice recently decided to use the pods as well in renovations of historic campus buildings designed by Ralph Adams Cram.

An exciting aspect of the project is its expansion of the architect’s role into the realm of industrial design. Great care was taken initially to accommodate Federal Housing Administration guidelines, applicable codes, and campus standards, since adjustments could not be made during installation. A focused study of personal privacy demands, space utilization, and efficiency led to a reduction in overall project volume. By finding a solution requiring less space than that of a traditional bathroom, project designers stayed beneath a threshold that would otherwise have required internalized fire suppression.

In the end, according to project principal Jane Wright, FAIA, each pod cost about $2,000 less than a conventionally-constructed bathroom. She was quick to point out that cost wasn’t the driving motivation, however. “This is a client with a history of seeking progressive solutions,” she said, “and the idea came from working closely with the Rice team to find new ways to address old concerns: increased durability, cleanliness, low first cost, and high performance. The result is more a statement about innovation and team effort than cost reduction. It came about because we had a client who was thoughtful and curious at every stage.” It’s exciting to see a big idea shrink-wrapped and packaged so nicely.

—Rab McCullough

African American History Museum Finalists Press On

The architect for the new $500 million National Museum of African American History and Culture will be announced in mid-April for the five acre site just northeast of the Washington Monument and southeast of the White House. Administered by the Smithsonian Institution the museum is slated to open in 2015. The list of six finalists (out of 22) is a dizzying array of designers that have all been influential in the last 40 years of world architecture. The list includes Pei Cobb Freed & Partners with Washington’s Devroux & Purnell, Foster and Partners with the engineering firm URS, Diller Scofidio and Renfro with KlingStubbins, Moody Nolan with Antoine Predock, Moshe Safdie and Associates with Sultan Campbell Britt & Associates, and the all-star line-up of Freelon Adjaye Bond working with SmithGroup. It is unclear how the death of Max Bond in February, a true lion of American architecture, will impact this team’s contribution. Philip Freelon, FAIA, winner of the AIA Thomas Jefferson Award for Public Architecture and David Adjaye, who is currently working on two public libraries in D.C., were at press time moving forward with their proposal.

—William Richards
The term Web 2.0 was put into the public psyche by O’Reilly Media during the first Web 2.0 conference in 2004. O’Reilly is responsible for a majority of web technologies manuals and programming guides widely recognized by their trademark zoomorphic colophon. From the words of Tim O’Reilly, Web 2.0 allows for the “harnessing of collective intelligence” by “opening data and services for re-use by others. Web 2.0.” He has also claimed “Web 2.0 was the moment when we stopped using computers and started using the internet,” and indeed, the World Wide Web has evolved to a level of sophistication that elevates us from mere passive observers to active participants of networked content and information.

Web 2.0 is an attitude and its products foster an environment where anyone can get their message out. Blogs like wordpress.org and Google’s blogs.com give people the space to pour out their ideas through text, audio, or video. If you have a personal media collection that you want to share with the world you can post your videos on youtube.com or your annotated photos on flickr.com. Web 2.0 allows you to pull in just the news you find relevant via RSS or Atom feeds so that you can aggregate or “mash-up” information in ways that are meaningful to your perspective. Aggregated news websites like reddit.com and digg.com let their readers become the editors by presenting news that has been tagged as interesting and relevant.

Fundamentally, Web 2.0 is all about networking, or better yet, working the net. Social networking services don’t expect you to simply gawk at someone else’s personal presentation of content—you are expected to share yourself, as well. In the world of Web 1.0, or the Web-as-we-knew-it, a person’s presence on the Web was like a one way street. You published your images, your essays and maybe even your video clips, and your goal was to lure people to that information street. You published your images, your essays and maybe even your video clips, and your goal was to lure people to that information street so they could experience it like a magazine, all published and presented in a static unchangeable form. With Web 2.0 your content becomes everyone’s content, and everyone’s content becomes yours. The goal of creating a presence on the Web does not merely satisfy the need to be self-published but rather to participate in the promotion of a common interest through syndication. It is the potential for the sharing of ideas and collaboration.

Web presence is now synonymous with participation. Search facebook.com or youtube.com for “sustainable design” and you will be presented with a collection of web locations sponsored by individuals, special interest groups, and design firms that not only allows you to absorb content but add your own thoughts and content.

But mobile technologies are really where all of this is headed. The smartphone is evolving into a more robust handheld computing device with the help of technologies such as Apple’s iPhone and Google’s Android operating systems. With these phones you can take Web 2.0 with you no matter where you go since the Web runs quite smoothly on 3G high bandwidth networks. Technologies that combine GPS with software such as Dopplr and Google’s Latitude make your phone a location-aware device so that social networking in a mobile environment begins to foster more real-space collaborations. With Web 2.0 apps running on your mobile device perhaps we’ll be making more face-to-face rather than Facebook meetups.

Unsurprisingly though, the next paradigm-changing technology to affect the Web is already upon us. Web 2.0 has perhaps already peaked, and now we can anticipate even greater utility from the Web. The next phase is not necessarily called “Web 3.0,” but a trend towards what has become recognized as “cloud computing,” in which your favorite applications like Word, Photoshop, or CAD no longer clutter your computer. You just access the applications you need from an applications service provider via a technology called SaaS, or “software as a service.” Google has already given us a taste of this with applications like Google Docs, a robust, fully featured, and free text editor. In fact, I typed this article and stored it in my own Google Docs account.

You may have just read your first dispatch from the “cloud.”

Does your office use Web 2.0 technologies to leverage your business needs? Let me know and let everyone know: log into Rourk’s blog at http://r2zn8r.blogspot.com and join a conversation about the ways your company utilizes the Web.

Access points:

TechWiseTV’s “Applying Web 2.0 to your Business Challenges” www.mytechwisetv.com/page/31+Web+2.0

How can Facebook be a business tool? Social Media University Global has a few ideas http://social-media-university-global.org/facebook-business

LEET decoded www.wikipedia.org/wiki/Leet

A Second Life for your busy first life www.secondlife.com

inform 2009: number two
When the Water Cooler Is Miles Away

By Nick Vlattas, AIA with Deborah Marquardt

Twelve years ago, one of our firm’s rising stars needed to relocate for family reasons. Rather than lose a valuable employee, Hanbury Evans Wright Vlattas + Company agreed to try an experiment, allowing him to work from home. Today, he manages an office and staff from a satellite location, and he is one of the managing principals who consistently brings new projects to the table.

Our firm struggles, as do many others, with a telecommuting workforce and its associated demands. It is complicated by the generational mix of employees—Baby Boomers, Gen X’ers and Millennials—with their different working styles and time zones, if a firm works nationally and internationally, as does ours.

Keith Storms, AIA, who runs the Hanbury Evans office in Southwest Virginia reports, “The human factor is a big deal on multiple levels. Work can be overcome with technology,” he says, “The struggles are on the social side.”

It takes a particular personality, someone well-disciplined and entrepreneurial to make remote working a success, whether it’s being responsible for an office or meeting deadlines from home. Research supports this. A report published by the University of Florida notes, “Successful telecommuters are self-starters who have proven their ability to do the job well with minimal supervision. They know how to organize their work, manage their time, and work well with tele-managers. In addition, they have low socialization needs and good communication skills, are trustworthy and advocate the tele-work concept.”

Project architect Rosie Chewning, AIA, feels an obligation to involve the remote member of her team in all levels of communication: meetings, conference calls, email. “It is imperative that individuals working remotely are always kept apprised of current information, as it changes frequently,” she says. She asks her remote team member for weekly status reports on current assignments, and anticipated timeframes for completion. Retaining a high-performing individual is a positive outcome of the arrangement, in her view. Negatives are limitations of task assignments—often somewhat independent of what the rest of the team is working on.

Sharon Agresta, AIA, just celebrated nine years of working remotely for Hanbury Evans. When she moved from Norfolk to Raleigh, she was part of a team on a highly complex performing arts project. “It would have been costly to the project to train someone new to take my place,” she recalls. Back then, she would dial in using a 56k modem, download drawing files to her computer and manually lock them on the server so no one else could work on them at the same time. When she finished, she would unlock them and copy the files from her computer back to the server.

“I found I did a lot of work in the early mornings or evenings, when it was less likely anyone else would need the same drawings.” Now technology is more efficient. “It’s really like I’m in the office, though my desk happens to be 150 miles away.” Rob Reis, AIA, LEED AP, works with Agresta from Norfolk. “I’ve never felt compromised by the fact she wasn’t sitting next to me,” he says. “She has a real talent for talking about visual things on the phone.”

There are certain types of jobs that fit the remote work model more successfully. Document production, is one. Design work is harder. “The concept of studio is a big deal for architects,” says Storms. “There is so much learning that occurs by just being in that space, overhearing people talking, being part of the conversation. You have to overcome that. Figuring out how to create the ‘studio’ across distance and keep people engaged is tough.”

Closing the communication gap is essential to managing satellite offices as well. Bob Mills, PE, president of Moseley Architects, oversees seven offices and 250 employees, none of whom work from home on a full-time basis. He has made it a priority to have “First Friday” conversations with employees via video teleconference. He also personally visits the offices once a month to convey news of finances and initiatives the firm feels strongly about.

At Clark Nexsen, with six offices across Virginia and North Carolina and more than 450 employees, new projects are launched with face-to-face charrettes, bringing team members from different offices together. “Even if it’s only three or four days of working together in the same room, it helps with communication down the road,” says David Keith, AIA, LEED AP, director of architecture. This technique also helps if a project requires stafing up at some point. Recently we had a project in Raleigh that had an important deadline, and there were a few people in Richmond who were available to help. We sent them to Raleigh for a few days to orient them to the project; they were able to go back to their own office and finish the work. Sharing work between offices makes us more efficient. We don’t have to staff-up for a short-term assignment.”

What has been less successful for Clark Nexsen, as for Hanbury Evans, is outsourcing. “The ownership is not there,” says Keith, whose firm sent its own team to Dubai rather than use an outsourcing system. “Our work is too important. There’s no continuity, and architecture doesn’t work that way.” Hanbury Evans tried a firm with a workforce based in India with mixed results. Cost and the sharing of excess workload were positives. Communication was a consistent issue, and the ultimate reason for the breakdown in the arrangement, because of time zones and the difficulty of giving detailed instructions in email.

David Roberts, new to Hanbury Evans, is providing on-site construction administration for a project in Texas. He has worked remotely for more than 20 years of his career. “The most significant negative factor is the inability for casual networking among colleagues.” But Roberts is an optimist. He says, “With elevated communication and the technology we have, my office is simply down a very, very long hallway.”
Green Spaces Competition Entries
Exhibited at Architecture Week

Beginning April 16th, the entries for 2009's Green Spaces competition entitled "(In)Play Space" will be exhibited at the Virginia Center for Architecture. Administered by the James River Green Building Council (JRGBC), the competition program calls for a "sustainable outdoor play space" for the surrounding community. The brownfield site, just south of Church Hill, hugs the James River on Richmond's east side. "It's not an easy site at all," reports JRGBC competition coordinator Scott Kyle, "but it represents an important opportunity to do something positive in this area of the city." The jury, comprised of members from the Philadelphia firm Wallace Roberts and Todd—who know a thing or two about brownfields—will return its decision on April 2. "We've received entries from everywhere," says Kyle, "and this is an exciting time for Richmond."

—William Richards
The Modern Interior
By Penny Sparke
Chicago: University of Chicago Press
2008, 240 pages, $21.95

Ever wonder how a $5,000 Eames Lounge chair and ottoman from Design Within Reach and a $1,600 steamer trunk from Pottery Barn with sliding drawers, "built just like an original," came to be marketed as modern?

Penny Sparke's ambitious new book, The Modern Interior, traces the complicated lineage tying the Victorian Parlor to the roof terrace of the Villa Savoye. Unlike modern poetry, fiction, or painting, defined more straightforwardly by rejection of traditional forms and modes, she characterizes the modern interior as a "...complex phenomenon," far more likely to "...cross the bridge between high and everyday culture."

In language that is informative and thoughtful, if formal and occasionally dry, Sparke undertakes a comprehensive cultural survey, beginning with a look at the changing role of women in society and its effect on the domestic interior at the turn of the twentieth century, as affordable, industrially-produced goods were marketed to them with increasing directness. She chronicles the advent of design expositions, store front displays, and whole-room arrangements of furniture and housewares in department stores, showing an increasingly mobile and affluent segment of society how to express its social status and fashion sense through consumption.

A most valuable aspect of the book for serious students of the subject - its habit of providing extensive lists of projects, artists, theorists, architects, designers, decorators, and historians - can also be its most tedious, as one's hopes for a hint of story or bit of colorful narrative get repeatedly dashed on the rocks of serious-minded scholarship. When the obligatory parade of lists sets the socio-cultural context for more detailed examination of individual projects, however, The Modern Interior is at its most enlightening.

Favorite moments include points she makes about Frank Lloyd Wright's Larkin Building (its Grand Court consciously designed to recall contemporaneous developments in the layout of factories), the Schroeder house in Utrecht by Gerrit Rietveld (a house traditionally described in terms of its facade composition rather than its inside-out spatial innovation - the product of its modern interior), her discussion of The Frankfurt Kitchen by Margarette Schütte-Lihotzky, work by Charles and Ray Eames (whose notion of "functioning decoration" she credits with helping to humanize the face of Modernism), and Mies van der Rohe's Barcelona Pavilion ("...intended solely as a reception space through which the King of Spain would make his entrance to the International Barcelona Exhibition. Perhaps, the ultimate modern interior but...only ever meant to be inhabited for a matter of minutes").

Reading The Modern Interior, one feels the weight of creating a serious book about interiors resting heavily on Sparke's shoulders. Paradoxically, this seems both its biggest liability and its best asset.

—Rab McClure

The National Gallery in Wartime
By Suzanne Bosman
New Haven and London: National Gallery Company
2008, 128 pages, $24.95

On October 22, 1940, the National Gallery of Art's diarist recorded, "Time bomb exploded at 1:45pm under old board room. Extensive damage to building and office equipment." Unaffected, 1,800 of the museum's holdings lay tucked away in a Welsh mountainside and scattered among the wine cellars of southwestern England's estate houses. The hazards of keeping Reuel, Rembrandt, and Poussin's work in the belly of a slate quarry offer some fascinating stories, which Bosman knows well as senior picture researcher at the National Gallery. She has reconstructed an engrossing narrative and the elegance of this book belies its gritty, wartime subject: sharp images, handsomely reproduced and arranged, and an accessible prose make this a useful resource for anyone.

Remarkable as the picture evacuation was, Bosman's larger focus is more interesting: the National Gallery as a beacon for Londoners under siege. Myra Hess's lunchtime piano concerts (in fur coat, playing Mozart above the drone of the sirens outside), museum director and art historian Kenneth Clark's untiring efforts to buoy the exhibitions program, and Lady Gater's sandwich brigade anchored the London high arts scene. As Van Dyck's enormous "Equestrian Portrait of Charles I" made its way through Trafalgar Square in 1945, after having been crated, castled, quarried, and left under a bridge, the National Gallery began the long process of reconstruction. The partially destroyed building helped thousands muddle through for six years and one hopes that there will be another volume chronicling the next six years.

—William Richards
Contributors to Inform Issue 2, 2009

Bland Crowder is a writer in Richmond.

Bryan Clark Green, is an architectural historian at Commonwealth Architects in Richmond.

Rab McClure is Assistant Professor of Interior Design at Virginia Commonwealth University, a registered architect, and an NCIDQ certified interior designer.

Robin Nicholson is Deputy Director for Exhibitions at the Virginia Museum of Fine Arts.

Susan Piedmont-Palladino is a curator for the National Building Museum, an architect, and an Associate Professor of Architecture at the Washington/ Alexandria Architecture Consortium (WAAC).

Clay Risen is a Washington-based writer.

Will Rourk is a digital media specialist in the University of Virginia Library System's Digital Media Lab. He holds a B.Arch. from Virginia Tech and is completing his graduate studies in architectural history at the University of Virginia.

Nick Vlattas, AIA, is the Chief Operations Officer for Hanbury Evans Wright Vlattas + Company.

Richard Guy Wilson is Commonwealth Professor of Architectural History at the University of Virginia.

Space, Time & Architecture: The Growth of a New Tradition
By Sigfried Giedion

If you studied architecture or modern architectural history in the United States between the mid 1940s and the 1970s you encountered Sigfried Giedion and this book. You might not have read it, but through courses and your teachers/studio critics you would have imbibed some of Giedion's ideas. The title references Einstein's 1905 argument for the relativity of space and time, which made the book seem timely. One can find fault with many of his assumptions and pronouncements, yet find the arguments compelling—making Giedion central to American architects.

S. (the preferred just an initial) Giedion (1888-1968) was an architectural historian who trained in Germany under several leading art historians and taught in Zurich. He became entranced with developing modern architecture and befriended Gropius, Mies, Le Corbusier and others, and served as the first secretary-general for the influential Congrès International d'Architecture Moderne (CIAM). In 1938, Giedion delivered the prestigious Charles Eliot Norton lectures at Harvard that became the basis of Space, Time, and Architecture in 1941.

In it, Giedion argued that history was composed of constituent facts—it was not just a compendium of people, places, and dates. He also argued that nineteenth- and twentieth-century "styles" were transitory ideas; the real issue was the growth of industry, the machine, and architecture's response to these developments. This "new architecture" addressed space as a moldable element that existed at all scales, not just as a volume inside a building.

Giedion provided a different approach than his contemporaries by avoiding style and instead focusing on construction and mechanics. His interest in technology led to Mechanization Takes Command (1948), which set him apart from other historians. Giedion helped rehabilitate the idea of the Baroque, which had been a disparaging term with meanings such as "a misshapen pearl." He integrated Cubism into the architectural sensibility and paid attention to American architecture at a time when others more often looked to Europe. Importantly, he expanded this idea of space in the "new architecture" to mean the building, the city, and the region. Giedion was one of the first, and in many ways the most successful, at integrating architecture and city planning in his writing.

Early editions of Giedion's book were eye-opening to Americans as the bridges of Maillart were illustrated along with American balloon frames and the houses of Neutra; a Rockefeller Center photomontage appeared opposite a Harold Edgerton stop-action photograph of a golf stroke. He admired the super highway and his account of speeding up the Merritt Parkway in Connecticut is particularly memorable.

While Giedion revisited the book numerous times to include architects such as Jørn Utzon and Kenzo Tange, critics have noted that his argument became diffuse in these later editions as he struggled to reconcile new developments. Regardless, the book remains elegantly written and copiously illustrated in this fifth revised and enlarged edition. Undoubtedly, Giedion's work helped create the world in which we live as it influenced three generations of architects. —Richard Guy Wilson

Issue 1, 2009 Correction
Pine Hall Brick's web address was incorrectly listed in the advertisers index. It is www.americaspremierpaver.com. We regret the error.

Subscribe to inform 2009: number two
From high atop Mill Mountain, overlooking downtown Roanoke, the first thing one notices about the new Taubman Museum of Art is how unnoticeable it is. This is no mean feat. The $65 million building, designed by Frank Gehry acolyte Randall Stout, has all the markings of the Gehry brand: an undulating steel roof, dramatic glass enclosures, and an asymmetrical parti.

But Stout, a 46-year-old Tennessean based in Los Angeles, said that context, not confabulation, was his primary goal for the design in “nesting the building within the complexities of the site.” Complex is right: wedged between a downtown street grid, a steep viaduct, and an active rail yard (all under the gaze of the Blue Ridge Mountains) the triangular site is at once urban, industrial, and idyllic.

And yet somehow, Stout makes it all work. The building, which houses the former Art Museum of Western Virginia collection, absorbs its surroundings, but it also enhances them. It is undeniably contemporary, and yet it is so perfectly contextual that it’s hard to imagine anything else in its place.

The museum has two distinct facades. On its southern side, along Salem Avenue, it sits at the end of a block of three-story brick buildings, the northern edge of Roanoke’s revitalized downtown core. Stout placed a stone wall—an element he continues inside—along the edge of the building, softening the visual transition between brick and steel.

Rather than setting the museum off
from the street, Stout brings it right to the sidewalk. The glass-clad first floor, mostly occupied by the gift shop, continues the scale of the street wall and alternately reflects the brick buildings across Salem and invites window shoppers into the building.

The museum’s northern façade, on the other hand, fronts the Norfolk Southern railroad tracks and is almost completely windowless. Here plates of steel and brown-patinaed zinc collide violently, echoing the tectonic forces that created the rugged Roanoke landscape and giving the museum an aggressive, industrial strength wholly absent on the southern side.

Out-of-town visitors, however, will most likely first encounter the museum as they enter downtown along the Williamson Road viaduct, to its immediate east. Here Stout achieves his most heroic moves: a towering glass spike shoots 75 feet above the museum’s lobby, while a dramatic cantilevered terrace juts out beside it.

The lobby itself is equally impressive. Bathed in light despite the 50 percent tinted glass, the vast open space acts as a hub for various activities: the gift shop, an auditorium, a ground-floor gallery, ticketing, and a café, as well as a broad glass-and-maple staircase leading upstairs to the main galleries.

The mix of materials extends inside. Stone walls are juxtaposed against white drywall, steel, and glass, while zinc plating climbs above the auditorium entrance, just beyond the gift shop. Stout overdoes it slightly by leaving exposed many of the steel structural members that hold up the soaring glass walls, but at least he manages to bring the exterior’s industrial theme inside.

Stout achieves a delicate balance of convention and unorthodoxy with his varied second-floor galleries. Soft, blond maple floors and 16-foot ceilings run throughout the rooms, but there the similarities end.

The galleries along the right-hand side are standard jewel boxes, though exceptionally wrought. The first two, designed for temporary exhibits, are interconnected sets of white walls, underlined by a one-inch black reveal at their base. Appropriately, they feel like blank canvases, equally ready to hold paintings, photography, or video screens.

In contrast, the next two galleries, which house the museum’s permanent collection of 19th and early 20th century American art, have an urbane, National Gallery sensibility. Three-inch maple baseboards and door frames quietly change the floor into a shallow, engulfing pan. The walls are fronted in painted gypsum board (one room in red, the other blue) a few inches smaller on all sides than the walls, a white frame that gives the rooms both structure and delicacy.

The right-hand galleries may be all orthogonal angles, but those on the left
Randall Stout’s use of different materials—stone, aluminum, glass, brown-patinaed zinc, and concrete—helps soften the Taubman’s Salem Street massing.

arc defined by curves. In one gallery, set aside for rotations from the contemporary collection, three different ceiling heights, up to 25 feet, sweep down on visitors; another sports a swooping lintel in its doorframe; and yet another, home to a collection of jeweled handbags, is almost perfectly round.

The hallway itself is a wide thoroughfare—that may be too wide given the expected daily attendance of 500 visitors—terminating in a huge bay window looking out at the museum’s western lawn. It’s a bold gesture with a calming effect: in the midst of swoops and art and curves and undulating ceilings, this view onto lush green space is a moment for pause and reflection.

The best view in the museum, though, is at the other end of the hall, looking out onto the lobby atop the entry stairs. From there you can see a progression of local icons: a neon coffee sign, another for Dr. Pepper, and in the distance the giant star atop Mill Mountain.

The museum is not without its shortcomings. Most significantly, the galleries, set above and aside from the lobby, are cast as the museum’s madwoman in the attic; one wonders if, having built a radical structure in a skeptical conservative town, Stout didn’t want to push the envelope too far by forcing the art front and center.

But even if the galleries’ second-fiddle location was a political move, Stout still could have given them more square footage by narrowing the hallway. The current space may be enough for today’s needs, but it doesn’t leave much room for large touring exhibits or future expansion of the collection.

Fortunately, a past crisis in the building’s development presents an opportunity. The plans had originally called for an IMAX theater to occupy much of the southwestern corner of the museum. But by the time it was axed, in 2005, the building was too far along to adjust. The result is an awkward ground-floor flex space, reachable only via a glass-enclosed
The light-filled lobby interior (above right), provides views out toward the Blue Ridge Mountains. The museum's northern façade, (below right), which sits above railroad tracks, mimics both the surrounding mountains and the industrial-era machinery below it.
The Taubman's contemporary art hall is large enough to accommodate oversized canvases and flexible enough to accommodate different spatial arrangements.

The main hall running between exhibit rooms (left) mediates between the conventional jewel boxes on the right and the irregularly shaped rooms on the left. Above, a cantilevered deck off the boardroom provides an intimate view of east Roanoke.
hallway between the gift shop and Salem Avenue, and a massive steel bulge on the second floor that dominates the eastern end of Salem but is currently unused (it was supposed to house the theater's projection equipment). A little retrofitting could easily make both these spaces accessible from inside the museum.

Additional space could be carved out of the third floor, too, currently home to the museum's offices and board room. This is the only way to access the building's grand cantilevered terrace, and it would be a shame if the museum decided to keep such a visible, impressive feature out of the public's hands.

Stout, who apparently asked to rework the building after the IMAX cancellation but was rebuffed, seems to have very definite hopes for near-term expansion. At a panel discussion during the opening festivities, he floated the possibility of moving the administrative offices to museum-owned property on the other side of the Williamson Road viaduct and filling the emptied offices with gallery space.

The Taubman Museum of Art is hardly perfect. But Stout should nevertheless win praise for bringing a massive piece of contemporary design to western Virginia—and even more for making the museum look like it's always belonged there.

Resolutions:

Project: Taubman Museum of Art
Architect: Randall Stout Architects (Randall Stout, AIA, principal in charge); Rodriguez Ripley Maddux Motley (Benjamin Motley, AIA, principal in charge; Peter Clapsaddle, AIA, project manager)
Contractor: Balfour Beatty Construction, LLC (David Salzer)
Owner: Taubman Museum of Art (Georgeanne Bingham, museum director)
When it opened in September of 2008, the Raleigh Convention Center showed stronger advance bookings numbers than any other convention center in the United States for the last 10 years. More impressively, the $221 million project by Clearscapes, O'Brien/Atkins, and tvsdesign effectively tucks 500,000 square feet into a 160,000 square foot block of downtown. The joint project has proved successful among street gawkers, too—particularly its McDowell Street facade, which features nearly 10,000 square feet of two-tone aluminum squares depicting the City of Oaks's eponymous tree. But, it's not the imagery so much as it's the effect: each square spins in the breeze and lends the feature its “shimmer wall” moniker among locals.

"With tens of thousands of cars coming into the city along McDowell Street," notes Steve Schuster of Clearscapes, “we had to do something. Plus, Raleigh has always had a challenging relationship with public art, so we knew we wanted to address that." In addition to being a crowd-pleaser, the shimmer wall effectively hides the “back-of-the-building” features on a public building that has no real back. The spinning squares conceal the mechanical equipment and intakes along that facade and, importantly, act as louvers to allow air to flow to the machinery.

In the end, “the art gods smiled on us," notes Schuster with a laugh.

The joint project between Wake County and the City of Raleigh is as much a civic gesture, however, as it is an evolution in the approach to this building typology: hulking, boxy, and until now considered more functional than interesting. The Raleigh Convention Center is part of a growing movement to rethink conventional—if you will—wisdom in the United States.
As a civic icon, the convention center will introduce many out-of-towners to Raleigh and is the first step in the city’s “Five In Five” plan to revitalize its core.

Trade shows are technologically demanding, meeting space requirements are more refined, and a bay of snack machines no longer counts as food service. A growing trend among certain convention centers—Philadelphia or Washington, D.C. come to mind—is the development of dedicated art collections in addition to iconic public art pieces. Architecturally, Phoenix, Honolulu, Vancouver, and other cities have begun to change the tide of convention center expectations. To expect a facility that’s “green” and also 500,000 gross square feet may be unrealistic (even today), but the new crop of centers make much more of an attempt to address their immediate urban contexts with a high level of interior and exterior design.

Good design means good business, from raising the profile of convention centers when one thinks of “civic architecture” to attracting groups who have heard about your city’s “living roof” with area indigenous plants or your convention center’s shim-mer wall. “While convention centers all lose money,” Schuster points out, “it is a terrific investment in the city when you look at the tax revenue that comes to town—hotels, shops, restaurants.” Raleigh’s facility is part of a larger urban investment as the cornerstone of “Livable Streets,” one of the southeast’s most ambitious revitalization projects. The city’s “Five in Five” plan—five goals accomplished in five years—is sweeping in its scope: one, remake Fayetteville Street (one of the original four planned by William Christmas in 1792), two, refigure traffic flow, three, reform zoning, and four, rethink “downtown” to encourage and manage business development.

Fifth was the convention center itself—the first initiative to be completed, but not after more than 100 public meetings. When we hit our 100th public input session, I stopped counting,” notes Schuster. “Public input has been an important component of the Five in Five plan—especially as we moved
The design team tried to create as many visual connections between inside and outside. "Transparent and engaging," notes one team member, offer two criteria to keep Raleigh in the building and the building a part of Raleigh.
through the planning phase of the convention center. We were charged with engaging the community in a methodical and serious way. Should the building be iconic? Should it be more contextual? These were tough questions, but they were well-received in a community of tough critics. When you're spending $200 million of the public's money," he adds, "they have every right to be that tough."

The logistics of cramming 500,000 square feet into a city block in downtown Raleigh was not an easy task, either. The Christmas Plan of Raleigh's founding began with five squares: a capitol square in the middle and four squares around it, each side measuring 400 feet. This module influenced much of downtown, making the prospect of shoehorning a convention center there a question of scale and appropriateness.

"The beauty of Raleigh's downtown is its walkability," notes Dudley Lacey, principal at O'Brien/Atkins, the convention center's architect of record. "We looked at four schemes—two underground and two above-ground—and the latter two completely overwhelmed the street. So, the solution to dig down and maintain that pedestrian scale seemed obvious."

Raleigh's historic architecture offered a few clues for the convention center typology. "Because of the neo-classical architecture here in Raleigh, there was a certain rhythm to the streetscape," says Lacey, "so we looked at ways to break up our street presence in a similar way, with a similar rhythm." Inset bays, staggered overhangs, and low-relief and abstracted blind windows help diffuse the building's massing. It's still an enormous building, but there's a sculptural quality to its edges.

The massing of the building is keyed to a couple of urban elements: the lot's relationship to the intersections at each corner, McDowell Street as a vehicular "threshold" into the city, and the idea that each façade must contribute to the "livable" mandate of "Livable Streets." All of this comes down to connectivity with Raleigh. The building's street presence attempts to draw people in and give conventioners a prospect out. In the initial scheme for the building, keywords like "beacon," "porch," "welcome mat," and "living room" defined how the mixed public/private elements like ramps, con-
courses, and plazas were conceived. Notably, these spaces en-
circle the otherwise blocky mass of the convention hall itself,
giving the entire building complex depth.

These keywords are an unexpected way of approaching of
the convention center type. Far from being a mere step in the
planning process, they seem to have driven design work. More
importantly, while there are still back-of-the-house operations
inside, the exterior of this city block has been carefully crafted
to be a work-in-the-round. The building defines its block by
offering four complete façades, but also allows itself to be de-
defined by everyday use along its periphery.

Connectivity begins and ends with an appeal to the user
and offers a high level of openness to the public realm. "We took
great pains to make sure the glass we used was transparent," says
Lacey, pointing out its often reflective qualities in daylight con-
ditions. "Transparent and engaging—unlike a lot of convention
centers from the sixties, seventies, and eighties."

Transparent as it may be, a convention center can never
be the kind of domestic experience that Raleigh's keywords
"porch," "living room," "threshold," and the rest imply. One
must ask: can a building this big really appropriate the lan-
guage of a much smaller space convincingly? Despite the scale
discrepancy between parti and product, it is the spirit of inti-
macy that underscores this contribution to Raleigh. And, in an-
other sense, the building is a home for Raleigh's "Five in Five"
ambitions to begin remaking the city.

**Resouces**

**Project:** Raleigh Convention Center  
**Architect:** ClearScapes (Steven Schuster, AIA, principal in charge); TVSdesign (Scott Sickler, AIA, design architect); O'Brien/Atkins (Dudley Lacy, AIA, prime architect)  
**Landscape Architect:** O'Brien/Atkins (Jay Smith, ASLA)  
**Contractor:** Barnhill Contracting Company (John Mutre, Vice President; David Wiest, project executive)  
**Owner:** Raleigh Convention and Progress Energy Center and the City of Raleigh
Claiming stronger advance bookings than any other convention center in the United States for the last 10 years, Raleigh also has the flexibility to host a variety of functions on the convention floor.
Fortuitous circumstances made possible the new wing under construction at the Virginia Museum of Fine Arts in Richmond. In the mid-1990s land held by the Virginia Department of General Services was deeded to the museum, also a state entity. In 1999, the museum opened the adjacent Pauley Center for Education and Outreach, formerly Virginia's Home for Needy Confederate Women. The oft-enlarged museum suddenly found itself on a 13.5-acre block, with enough room for a real expansion. The challenge was tripartite, said Richard Woodward, senior deputy director for architecture and design: expand to give more space to the museum's collections and traveling exhibits, provide stewardship for the consolidated parcel, and: "How do we park more cars without being ugly?"

After a review process that began with some 40 proposals, Woodward and company selected London architect Rick Mather. "We recognized that Rick was sensitive to historic locations, and yet he works in a contemporary idiom, which is what we were looking for," said Woodward. Mather's portfolio includes the National Maritime Museum in Greenwich and the Wallace Collection Centenary Project in London. Mather and Richmond-based firm SMBW formed Rick Mather + SMBW, with Peter Culley of Rick Mather and Lou Wolf of SMBW serving as senior project managers.

The James W. and Frances G. McGlothlin Wing, to open in spring 2010, will be a five-level, glass-and-limestone structure with 12,000 square feet of wide-span exhibit space—a 50 percent increase—proffering flexibility in gallery configuration and able to accommodate traveling "blockbuster" exhibits the museum often had to let pass by. It includes a spectacular new entrance, a board room, curatorial offices and workspace, and an educational center.

Opening in 1936, with additions in 1954, 1970, 1976 (an anomalous north entrance wing) and 1985, the museum was "quite landlocked" in places, Culley said, affording visitors no point of reference. A sense of space and the needed

Shock of the New

Rick Mather + SMBW reinvent a staid Richmond icon and create room for the Virginia Museum of Fine Arts' stellar collection to breathe.

By Bland Crowder
An atrium joins new and old; its eastern end (above left) heightens the museum’s presence on Richmond’s Boulevard. The entry concourse offers coat check, gift shop, lounge and restrooms and, as it joins the atrium, information and ticket desk (right). The sculpture garden will unify the campus.
A “main street” for the expanded museum, the atrium will offer natural light and provide a strong point of orientation for visitors. Barry Flanagan’s beloved Large Leaping Hare, in the east window, will be visible from the Boulevard.
frame of reference will be provided by the J. Harwood and Louise B. Cochrane Atrium, running from the east face to the west face, glass on either end and with a partially glazed roof. The atrium will make the existing structure distinct from the new wing but will also connect them. And this “main street” will provide familiarity in spades.

“The atrium provides the major access point to all gallery spaces,” Wolf said, “and key circulation paths on all levels will pass through.” Six partially or wholly glass-encased bridges cross the atrium, connecting the wings, and gallery windows give onto the atrium or the outside. Two glass elevators further increase vantage.

“Accessibility to the collection, visual accessibility, intellectual accessibility, all those things carry through the project,” said museum director Alexander Lee Nyerges. “In the one sight line that I love the best, you stand on the north end, in the McGlothlin wing, in front of a big window in the pre-Columbian galleries. You look through those galleries, due south, through American Colonial art. You look then into the atrium, which will have contemporary art in that spot.”

Crossing the atrium, the axis proceeds to China, the Mediterranean, Europe, and Africa. “Five continents, 5,000, 6,000 years: one beautiful linear view of the world that also becomes a major circulation pattern. No more dead ends.”

The 1976 entrance wing, composed of heavy brick that abutted the original limestone building was sacrificed, notes Culley, for the new wing that is more complementary to the original structure. “It felt like this brick wing had sort of melted into the old building,” he said, calling it impenetrable. “We had to respond to the whole site.”

Even with the entrance wing, some visitors were confused as to how to get in. Before, they had entered via the 1936 Georgian section on the east, facing the Boulevard, one of old Richmond’s key thoroughfares. Until construction began, people occasionally still tried to enter that way, now contractors’ trailers are parked there. At the south, the museum faces Grove Avenue, and during construction, absent the 1976 wing, a temporary entryway is operating on the west face, accessible from Grove.

Confusion about the entrance will be history when the new wing opens. To that end, the museum’s presence on the Boulevard is being heightened, but nothing too garish for the historic surroundings. First, down came the 10-foot brick wall that had led neighbors to nickname the museum “Fort Art,” opening the building up to the Boulevard. The atrium will beckon as well.

“There’s a lot of emphasis put into bringing the atrium out onto the street,” said Culley. “You could see there was something exciting [going on], and also the obvious message that you were invited.” Not only will lounges just inside the atrium be visible from outside, so will some sculptures, including Barry Flanagan’s Large Leaping Hare, which is an icon of sorts for the museum. At night the limestone on either side will not be lit, but the atrium will be, “a bit like a lantern,” Culley said.

The new entrance, in the northwest section of the new wing and also visible from the Boulevard, will be unmistakable, with its canopy in front and stair tower above, walled by translucent glass and also lit at night. The new automotive access point, on the Boulevard, will lead to both the museum entryway and, at the northwest corner of the property, the new parking deck. The deck opened in 2007, increasing the number of parking spaces from 260 to 600. In meetings with neighbors, only one major concern surfaced, said Woodward: how that parking deck would look. The answer is tied to plans for the consolidated land parcel.

When construction is complete, the temporary entrance is removed, and the old parking lot is completely ripped out, the museum for the first time will have a bona fide campus—unified by the E. Claiborne and Lora Robins Sculpture Garden. A landscaped expanse of lawn and plantings will stretch between the main building and the Pauley Center to the west, and from Grove Avenue northward to the parking deck. There, it will slope onto the roof, concealing the deck while creating a space atop it for small events. Sculptures will be installed permanently near the slope and changing sculpture exhibits mounted in other areas, including beneath the new cafe and restaurant, which will face the Pauley Center.

The slope will communicate with the entry via steps and a multipart water feature that appears to be continuous. “It flows along the stair path to the museum entrance,” Wolf said. “There are also two reflecting pools, adjacent to the
A north-south section reveals the extension’s six levels totaling 165 square feet. Space for traveling exhibits is at the lowest level. The museum director curators will have offices on the upper level.

A translucent glass beacon, containing a stairwell, and a canopy bring the entrance plaza (above) into relief. At night the beacon will glow, as will the horizontal ribbon windows.
north and west elevations of the new wing." The patio pool, on the north face, includes deeper pockets for water lilies and other plants, he said. A reflecting pool provides a security separation between the entrance plaza and the sculpture garden.

A year out, and on what is still very much a construction site, the openness of this expansion can already be felt. "Clean lines," said Nyerges. "Contemporary, but at the same time it respects the tradition of the Georgian architecture on the Boulevard side of the original building and of the earlier additions." The expansive use of glass, instead of overwhelming, is leavening and inviting. "The transparent facades encourage interest and demonstrate the all-inclusive nature that’s key to the museum," Wolf said. The interior is visible from without, and natural light abounds. There are many routes, and with the atrium, wayfinding is easy. As Woodward characterized the design, "diaphanous."

---

Project: Virginia Museum of Fine Arts Expansion
Architect: Rick Mather + SMBW, LLC (Rick Mather, Design Principal; Louis J. Wolf, AIA, Principal; Peter Culley, Project Manager; Fred Hopkins, Project Manager; Andrea Quilici, Project Manager)
Landscape Architect: Olin Partnership (Dennis McGlade, FASLA, principal)
Contractor: The Whiting-Turner Contracting Company (Maynard Grizzard, vice president; Steve Adams, senior superintendent)
Civil, Structural, MEP Consultant: Hankins & Anderson Consulting Engineers
Owner: Commonwealth of Virginia; Virginia Museum of Fine Arts

RESOURCES
LIMESTONE REMOVAL: H.E. Satterwhite, Inc. (see ad p. 41); ROOFING CONSULTANT: Lucas & Associates (see ad p. 41); TESTING: Schnabel Engineering (see ad p. 33); RESILIENNTILE, RUBBER SHEET, & CARPET: B&L Floorcovering, Inc. (see ad p. 33); EXCAVATION: J.E. Liesfeld Contractor, Inc. (see ad p. 33); DOORS & HARDWARE: J.S. Archer Company (see ad p. 39); ELEVATOR CONSULTANT: James Lawrence & Associates LLC (see ad p. 41); STRUCTURAL ENGINEER: Dewhurst Macfarlane and Partners; STRUCTURAL, CIVIL, MECHANICAL, & PLUMBING ENGINEERS: Hankins & Anderson; ARCHITECTURAL CONCRETE: Miller & Long; GLASS, GLAZING, & EXTERIOR STONE: Enclos Corporation; DOORS, FRAMES, & HARDWARE: BFE Construction; METAL WALL PANELS: Architectural Systems of Virginia

---

Liesfeld CONTRACTOR, INC.

The Liesfeld family of companies provide integrated solutions for most site development projects. From wetland mitigation permitting to cost-effective site development, we help land developers save time and money.

1851 BENNINGTON ROAD ROCKVILLE VA 23146
(804) 749-3276 WWW.LIESFELD.COM

Commercial Flooring Contractor on the Virginia Museum of Fine Arts project

Schnabel Engineering

Schnabel is proud to have participated in the expansion of the Virginia Museum of Fine Arts

www.schnabel-eng.com

Blacksburg, Charlottesville, Glen Allen, Newport News, Richmond & Sterling, Virginia
On the Boards

Architect:  AECOM Design (Roanoke)
Project:  Virginia Tech Carillon School of Medicine & Research Institute, Roanoke

This signature facility provides 100,000 s.f. of flexible, modular research laboratory space and a 50,000 s.f. school of medicine linked by a three story glass atrium celebratory space. Tel: 800-366-4766/www.aecom.com

Architect:  Baskervill, Richmond
Project:  Canon Virginia, Newport News

This 700,000 s.f. facility will greatly expand Canon’s toner manufacturing capability in Virginia for operations including clean room technology, molding, and packaging. Tel: 804-343-1010/www.baskervill.com

Architect:  AECOM Design (National Capital Office)
Project:  NASA Langley Research Center HQ Facility, Hampton

Under the GSA Design Excellence program, AECOM is lead designer for this 72,000 s.f. headquarters office building. Part of a multiyear, multi-building New Town Program, it is slated for LEED Gold. Tel: 703-682-4900/www.aecom.com

Architect:  BCWH Architects, Richmond
Project:  St. Michael's Episcopal Church Addition, Bon Air

This 5,000 s.f. new narthex and bell tower addition will increase nave seating, support a new organ in the balcony, add restrooms, an elevator, and connect to the adjacent Parish Office. Tel: 804-788-4774/www.bcwh.com

On the Boards listings are placed by the firms. For rate information, call Cathy Guske Inform at 804-644-3041.
Architect: BeeryRio, Springfield
Project: ABC Building, Fairfax

This six-story, Class A medical office building will be over 200,000 s.f. with adjacent parking garage. The project is being designed to meet certification for LEED Core and Shell. Tel: 703-426-9057/www.beeryrio.com

Architect: CIVISS Architects, PC, Virginia Beach and other cities
Project: Rocketts Landing Village Hall, Richmond

Along the James River, this 12,000 s.f., adaptive re-use project includes a community lounge, fitness center, event spaces, catering kitchen, separate 2,300 s.f. pool house and outdoor performance pavilion. Tel: (757) 222-2010/www.cmssarchitects.com

Architect: Clark Nexsen Architecture & Engineering, Norfolk and other cities
Project: Old Dominion University Student Success Center, Norfolk

This 50,000 s.f. renovation/addition contributes a learning commons to Perry Library and a university college wing. The design features a new entrance plaza. Tel: 757-455-5800/www.clarknexsen.com

Architect: Dewberry, Danville
Project: Health Sciences Building, Danville Community College

As the new gateway to the campus, DCC’s new Health Sciences Building will allow the college to expand and offer new health-related programs, while recalling the historic architecture of the Castle Building formerly located on an adjacent site. Tel: 434.797.4497/www.dewberry.com
On the Boards

Architect: DJG, Inc., Williamsburg
Project: Army Training Support Center, Fort Eustis

This 64,200 s.f., LEED-Silver office facility features a brick, glass, and insulated metal panel exterior as well as Anti-Terrorism/Force Protection design. Tel: (757) 253-0673/ www.djginc.com

Architect: Evolve Architecture, Richmond
Project: Culpeper Regional Airport Terminal Building, Culpeper

This 12,000 s.f. general aviation terminal combines both airport and county functions as the design draws on historic downtown as well as the dynamics of flight. Tel: 804-649-9400/www.evolvearchitecture.com

Architect: HKS Architects, Richmond

Mark Center’s mixed-use campus in Alexandria will be the home for a new 1.7 million s.f. facility with office space for U.S. Department of Defense agency employees. Tel: 804.644.8400/www.hksinc.com

Architect: KlingStubbins and Cherry Huffman Architects, Raleigh, NC
Project: Clarence E. Lightner Public Safety Center, Raleigh, NC

As the emblematic new face of Raleigh government, this 16-story LEED-Gold tower will redefine the surrounding streets as the new civic front porch for the city and as an active place for its citizens. Tel: 919.334.3113/ www.KlingStubbins.com

On the Boards listings are placed by the firms. For rate information, call Cathy Guske Inform at 804-644-3041.
Architect: Mitchell/Matthews, Charlottesville
Project: University Station, Charlottesville

As the first mid-rise building designed under the city’s amended zoning ordinance, this 13-level, 470,000 s.f., mixed-use building will include 240 living units and below ground parking for 250. Tel: 434.979.7550/www.mitchellmatthews.com

Architect: nbj Architecture, Glen Allen
Project: Sheraton Hotel and Parking Structure, Ft. Lee, NJ

The project is comprised of a 160-room Sheraton Hotel and Conference Center, a 100-room all suites hotel, and a 370-space parking structure with a “green” roof. Tel. 804-273-9811/www.nbjarch.com

Architect: Moseley Architects, Richmond
Project: Richard Bland College Science and Technology Laboratory Building, Petersburg

This three-story laboratory building accommodates academic and administrative functions. It is LEED-registered with the U.S.G.B.C. Tel: 804-794-7555/www.moseleyarchitects.com

Architect: Odell Associates, Richmond
Project: Bon Secours St. Francis Medical Center Bed Tower Vertical Expansion, Midlothian

This expansion consists of two additional levels of patient rooms atop the existing five-story tower. Interior renovations to the existing second and third floors will create a cohesive Women’s and Children’s unit. Tel: 804- 287-8200/www.odell.com
On the Boards

Architect: PSA-Dewberry, Fairfax
Project: ABC Office Complex, Merrifield Town Center

This 187,000 gross s.f. office tower will be connected to a 900 space eight-level parking structure, designed to accommodate the expanding medical and office needs. Tel: 703-698-9050/www.psa-dewberry.com

Architect: Thompson & Litton, Radford
Project: Montgomery County Courthouse & Parking Structure, Christiansburg

The new 105,000 s.f., four-story courthouse will contain nine new courtrooms, a central heating plant, 137-vehicle parking structure, and provide secure access to the adjacent jail and future public safety building. Tel: 540-633-1897/www.T-L.com

Architect: Ritter Architects, Alexandria
Project: United Christian Parish of Reston, Reston

This church project includes a 10,000 s.f. renovation and a 25,000 s.f. expansion with a new sanctuary, narthex, meeting rooms, library, and education spaces. Tel: 703.548.4405/www.ritterarchitects.com

Architect: Wiley|Wilson, Lynchburg
Project: Autonomous Systems Research Laboratory, Washington, D.C.

A LEED Silver design, this 49,000 s.f., two-story laboratory facility will become the nerve center for basic research that supports Navy autonomous systems research. Tel: 434.947.1901/wileywilson.com
The NPTC is an advanced-technology, freestanding proton therapy facility developed by the Proton Therapy Development Company. NPTC, the first proton center in the D.C. region, will treat 3,000+ patients annually.

Contact: Cathy Guske
804-644-3041, ext. 301
cguske@aiava.org

We're releasing new software.
To release you from old frustrations.

- Familiar toolbars and icons.
- Pull-down menus.
- Microsoft® Word and PDF file-saving.
- Enhanced storage and retrieval system.
- Any variances from standard language are displayed in a special report.

To learn more or to download the software, go to www.aia.org or call 1-800-365-2724.

MILLWORK COMPANY, INC.
"Blending old world craftsmanship with new world technology."

For Documents Orders
Call the Virginia Society AIA
804-644-3041

J.S. Archer Company, Inc.
10466 Dow-Gil Rd., Ashland, VA 23005
1-800-298-DOOR
Phone: 804-798-0400
Fax: 804-798-2338
www.jsarcher.com

Sales - Service - Installation of all Commercial & Industrial Door Products

Proud participant in the Virginia Museum of Fine Arts project
- Visit our New Service Counter
- Immediate Pickup & Delivery
- Hollow Metal & Wood Doors
- Toilet Partitions & Accessories
- Overhead Doors
- 24-hour Service

J.S. Archer Company, Inc.
10466 Dow-Gil Rd., Ashland, VA 23005
1-800-298-DOOR
Phone: 804-798-0400
Fax: 804-798-2338
www.jsarcher.com

Corbin Russwin® Coco Door Products
P & J Contracting Company, Inc. is a wholly owned and operated African-American construction contracting firm with specific emphasis and expertise in the areas of new construction, renovation, demolition, crushing, screening and hauling.

Since its establishment in 1979, P&J Contracting Company, Inc., led by President and CEO, Mr. Pless B. Jones, Sr., has grown to become a leader in the construction industry managing small to large scale construction projects.

www.pandjcontracting.com

Proud participant in the Raleigh Convention Center project

P&J Contracting Company, Inc.
Pless B. Jones, Sr.
executive offices:
3010 Ridgewood Avenue, Baltimore, MD 21215
regional offices in VA, NC, SC and LA
(410) 367-2475 office
(410) 367-4103 fax

The Best Buildings.
The Best People.

Skanska takes pride as the builder of some of the landmark facilities in the region. Projects like the Raleigh Convention Center help shape our cities. And while we're proud of our work, we're especially proud of our team-driven individuals who continue to innovate and lead in all areas of our industry.
Market Place
Products and Services

EASTERN FOOD EQUIPMENT
If you think the act is cool —
You should see the kitchen!
1930 Healy Dr. Winston-Salem NC 27103
800-849-8359 www.easternfoodequip.com

H.E. SATTERWHITE, INC.
Contractor
Ceramic Tile • Terrazzo • Chemical Floors
Marble & Stone Fabricating
Limestone Removal Contractor for the Virginia Museum of Fine Arts expansion project
12 S. Lombardy St., Richmond, VA 23220
Phone (804)359-9261 Fax (804)358-0118

JACOBI-LEWIS CO.
Food Service Equipment
Contract Furnishings and Design
Proud participant in the Raleigh Convention Center project
1-800-763-MENU (6368)
(336) 273-0533
1305 Beaman PI, Greensboro, NC 27408
Darren Lewis, Vice President email: DarrenLewis@Jacobi-Lewis.com

A Solid Foundation To Build On
Civil Engineering & Surveying
Environmental Services
Geotechnical Engineering
Construction Testing & Monitoring
Winchester, VA Purcellville, VA
540-667-9300 540-338-8150

TRIAD
Triad Engineering, Inc.
www.triadeng.com

James Lawrence & Associates LLC
Vertical Transportation Consultants
JL&A is proud to be part of the design team for VMFA's expansion project
Elevator design specialists for Virginia's most loved historic buildings
• Governor's Mansion
• Virginia State Capitol
• Patrick Henry Building
• Oliver Hill Building
• Virginia Supreme Court Building & Virginia's tallest-James Monroe Bldg.
(804) 747-0971
jlavtconsultants@verizon.net

LEE HARTMAN & SONS INC.
Sales & Service Professionals for all your Electronic Needs
Proud Contributor to the Taubman Museum of Art project
3236 Cove Road, NW, Roanoke, VA 24033
Toll Free 1-800-344-1832
540-366-3493
www.leehartman.com

Pine Hall Brick
AMERICA'S PREMIER PAVER
New! Permeable Clay Pavers!
Call for info: 800-334-8689

www.claypaver.com

LEONARD SMITH AND ASSOCIATES, LLC
CONSTRUCTION CONSULTANTS
proud participant in the Raleigh Convention Center project
Leonard Smith, FRICS, CSI President
11308 Hunting Horse Drive
Fairfax Station, Virginia 22039
Telephone (703) 323-0960 Fax (703) 323-5883

Lucas & Associates
Offering Professional Roof Consulting Services
• Design Documents
• Construction Admin. / Observation
• Surveys and Evaluations
13105 Walton Bluff Place
Midlothian, VA 23114
804-594-3610 / Fax 804-594-3609
email: lucasassociates@comcast.net
A Great Building ~ Deserves A Great Roof

We are proud to be part of the Raleigh Convention Center project.

233 James Jackson Avenue • Cary, NC 27513
919-468-9669 • ThurstonD@burns-scalo.com
www.burns-scalo.com

DAVIS LANDSCAPE LTD
“Serving the East Coast”

2340 Paxton Church Road
Harrisburg, PA 17110
Phone: 717-545-4235
Fax: 717-545-3660
www.davislandscapeltd.com

ELEVATOR ADVISORS, INC.

Sixteen years experience in the Southeast

Evaluations of Existing Systems
Modernization Programs for Older Systems
Design Assistance for New Projects

1075 Peachtree Walk N.E., Ste. A-120, Atlanta, GA 30309
Phone#: 404-532-1980 or 1-800-247-5058 Fax#: 404-607-6982
Visit our website at: www.elevatoradvisors.com or e-mail: bob@elevatoradvisors.com

MACTEC

MACTEC is a proud member of the design and construction team for the new Raleigh Convention and Conference Center

- Geotechnical Consultation
- Environmental Testing and Reporting
- Caisson Foundation Engineering
- Retaining Wall and Secant Pile Design

MACTEC Engineering and Consulting, Inc.
Raleigh | 919-876-0416
Asheville • Charlotte • Greensboro • Research Triangle Park • Wilmington
Index to Advertisers

ABL & Associates Plumbing, LLC www.ablassociatesllc.com p.2
Acentech wwwacentech.com inside-back cover
Avatech Solutions, Inc. www.avatech.com back cover
B&L Floorcovering, Inc. www.blfloorcovering.com p.33
Balfour Beatty Construction www.balfourbeattyus.com back cover
Barnhill Contracting Company www.barnhillcontracting.com p.2
David Allen Co. www.davidallen.com p.14
Davis Landscape LTD www.davislandscape.com p.42
Desimone Consulting Engineers www.desimone.com inside-back cover
Eastern Food Equipment, Inc. www.easternfoodequip.com p.41
Elevator Advisors, Inc. www.elevatoradvisors.com p.42
Gaithersburg Cabinetry & Millwork, Inc. www.gcabinet.com inside-front cover
H.E. Satterwhite, Inc. p.41
J.E. Liesfeld Contractor, Inc. www.iiesfeld.com p.33
Jacobi-Lewis Co., Inc. www.jacobi-lewis.com p.41
James Lawrence & Assoc., LLC jlavtconsultants@verizon.net p.41
KBS www.kbsgc.com p.43
Lee Hartman & Sons www.leehartman.com p.41
Leonard Smith and Assoc., LLC lesmith205@aol.com p.41
Lucas & Associates lucasassociates@comcast.net p.41
Mactec Engineering and Consulting, Inc. www.mactec.com p.42
Marvin Windows and Doors www.marvin.com p.1
MSA, PC www.msaonline.com p.43
Photoworks Creative Group www.photoworksgroup.com p.7
Pine Hall Brick www.americaspremierpaver.com p.41
Schnabel Engineering www.schnabel-eng.com p.33
Skanska USA Building www.skanska.com p.40
Stephenson Millwork Co., Inc. www.stephensonmillwork.com p.39
Surrounds, Inc. www.surrounds landscaping.com p.7
Taubman Museum of Art www.taubmanmuseum.org inside-back cover
Timmons Group www.timmons.com inside-back cover
Triad Engineering www.triadeng.com p.41

Serving Architects Throughout Virginia

Civil / Site Engineering
Surveying
Landscape Architecture
Planning
Environmental Sciences
Geosciences

Hampton Roads
Eastern Shore
757-490-9264
757-414-0234

www.msaonline.com
When trying to build sustainably, myriad materials and systems promise a green future, a happy client, and a well-published architect. On closer inspection, however, many appear to be little more than the same old products with new marketing campaigns, a phenomenon known as “Greenwashing.” Often overlooked in this country’s race to the green are sustainable products with long track records. Autoclaved Aerated Concrete (AAC) may well be one of these products.

While travelling in Europe, Marcie Meditch, AIA, and John Murphey, AIA, noted advantages of AAC, and began looking for opportunities to employ it in their Bethesda-based practice. Also known as Autoclaved Cellular Concrete (ACC), it was developed in Sweden in the late 1920s. A lightweight precast concrete, AAC weighs only a quarter of a comparable concrete block. At present, American producers and suppliers of AAC are primarily located in Florida, Georgia, and Arizona where its use is most prevalent, where contractors are more experienced with the material, and where there are more examples of completed projects for clients to examine. Meditch Murphey’s Zero Chesapeake House (so called because it is designed to have an annual net energy figure of zero), their first project undertaken with AAC, and one of the first in the Mid-Atlantic, is currently under construction.

According to the Portland Cement Association (PCA), the basic materials used in most AAC formulas are Portland cement, limestone, aluminum powder, water, and a significant proportion of silica-rich material such as sand or fly ash. The raw materials are blended into a slurry and poured into moulds where a chemical reaction creates microscopic hydrogen gas bubbles, causing the material to expand to nearly twice its volume, giving AAC its characteristic lightweight cellular quality. The material has a setting time of 30 minutes to four hours, after which it is wire-cut to the desired shape and transferred to an autoclave for curing.

The autoclave utilizes high-pressure steam at about 356 degrees to accelerate the hydration of the concrete and to spur a second chemical reaction that gives AAC strength and rigidity. According to the PCA, autoclaving produces compressive strengths in 8-14 hours comparable to traditional concrete cured for 28 days at 70 degrees. The resulting product is available in blocks, wall and roof panels, lintels, and floor slabs.

The Zero Chesapeake House employs 24” x 8” x 8” AAC block for the walls and 10” AAC floor panels for the first and second floors. AAC blocks can be easily cut with a hand or band saw, and the units can be drilled, nailed, milled, grooved, and routed. The blocks are laid up with thin, 1/8” mortar joints, with a factory-supplied mortar. Both exterior stucco and interior plaster are factory-supplied, and applied directly to the block with no framing, furring, or drywall. The resulting wall has no voids, is resistant to mold and has excellent acoustic and thermal insulation qualities. AAC trim pieces can be glued together and re-used on site, avoiding the construction waste common to frame construction. Meditch emphasizes the importance of careful coordination between architect, contractor, and all subcontractors at the beginning of construction to coordinate chases for air handling equipment, plumbing lines, and electrical wiring. The actual creation of these passages is relatively simple, Murphy points out, as electrical raceways can simply be cut into the wall with a router.

In the Zero Chesapeake House, overlooking the Chesapeake Bay, the client desired to maximize energy efficiency and minimize the ravaging effects of moisture, embracing AAC with its resistance to mold, its sound absorption factors, and its high R-value. A deep roof overhang is complemented by energy-efficient glass to capture the striking views while retaining thermal comfort. Each room is conditioned by on-site ground radiant heating and cooling, complemented by natural ventilation. The central portion of the roof is green and will be planted for on-site storm water management. The south-facing roof will be fitted with photovoltaic panels integrated into the standing-seam metal roof.

It took some ten years for Meditch and Murphey to find the right opportunity to build with the AAC product in the United States. Despite its many ecological and construction advantages and long European track record, the material was simply not much used in the Mid-Atlantic. As soon as the Zero Chesapeake House went into construction, Murphey noted that clients asked, “why haven’t we seen this before?” As Meditch Murphey’s Zero Chesapeake House progresses toward completion, perhaps we will see more.

—Bryan Clark Green
"More of our clients may actually require BIM for all projects, and we will be way ahead of them on that count. Avatech helped to provide us with the roadmap to manage our successful implementation of Autodesk Revit and BIM. As our partner in this process, Avatech was instrumental in helping us understand and make the changes that were necessary to our success."

—Jon W. Covington, Architect
Covington Hendrix Anderson Architects

"We've been working with Avatech for years; I consider them a true and trusted partner. They understand all aspects of our business and how technology can work for us. Since they work with many other good architectural and engineering firms, they help us benchmark best practices. We rely on them to keep us abreast of trends and help us maintain design technology excellence."

—Ken Fisher, CAD Manager
Shive-Hattery

"We realize that making the successful move to BIM requires a depth and breadth of changes in our organization—the type of transition that involves a corresponding level of commitment throughout the organization. Having a partner like Avatech to help us understand and overcome the challenges is crucial."

—Gary Keep, CEO
SHW Group

Avatech Solutions. Altogether Smarter BIM.

We are where you are: 800.706.1000 avatech.com

Balfour Beatty Construction is committed to enhancing the future of the building industry throughout the Commonwealth of Virginia. We believe that through collaboration and with the benefits of technology, we will construct more efficient, sustainable, and advanced buildings.

Balfour Beatty Construction
www.balfourbeattyus.com