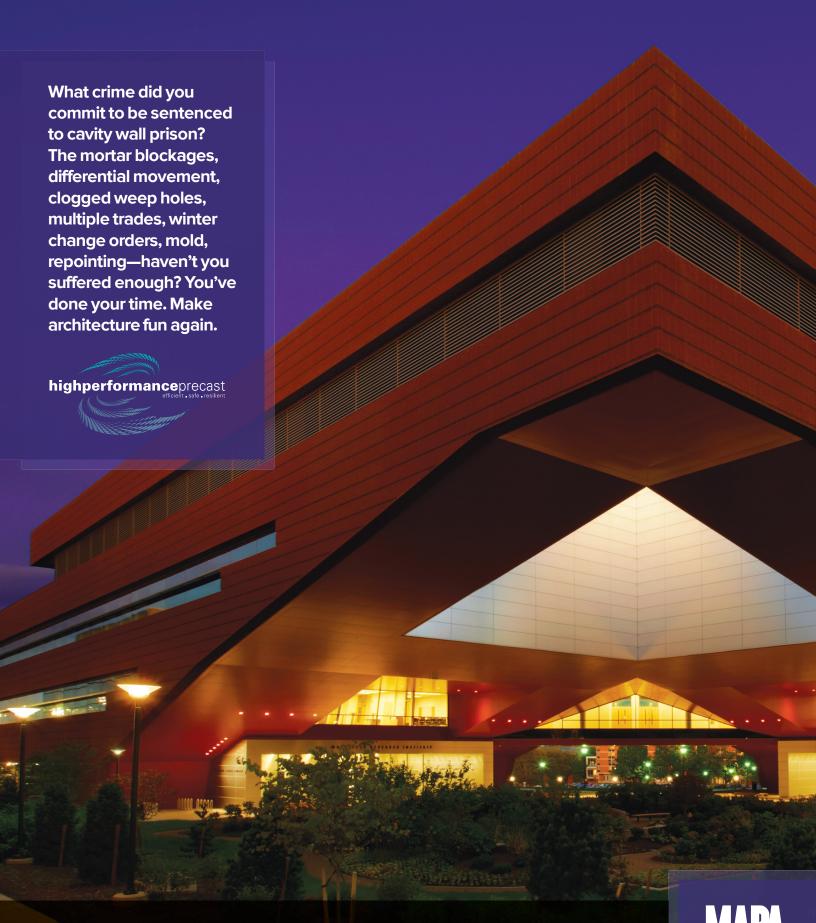
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From the editor

Spring Has Sprung ... The Year's Still Young

But it still feels as if time is passing way too quickly.

Yes, things are happening fast here at 2501 Monument Avenue. Plans will soon be finalized for the 2013 ArchEX (watch for interviews with presenters in the coming issues), the VSAIA Board is shaping the Society's agenda for its Centennial observances in 2014, and the Virginia Center for Architecture continues to develop programs and exhibitions for the John Russell Pope-designed head-quarters building here in Richmond and throughout the Commonwealth. By educating the public on the value of design



excellence, the Center is reinforcing the message that good AIA-member design is good for livability, health, sustainability, and business.

And speaking of business advantage, April is the time to update your firm's listing with the VSAIA database. The firm directory listing is a benefit of membership, so please take advantage of it. You will be getting three e-mail notices in April—sent to the person you identified previously as your firm's direct contact. He or she will be asked to refresh your address and other contact information to reflect any changes, your list of principals, number of employees, areas of expertise, and listing of up to five recent works. If you have any questions now about the process, please send me a note (dgordon@aiava.org) and I'll find you an answer.

Another item to look for in your e-mail, starting in March and continuing at least through the spring, is a questionnaire about your reaction to *Inform* and other VSAIA information outlets. If you are selected as a questionnaire recipient, all we ask is that you spend the five minutes to fill it out and that you be forthright in your response. Thank you.

Now this issue has a lot of interrelated pieces having to do with knowledge, communications, and context. Former VSAIA Vice President for Professional Excellence Ray Pentecost, FAIA (ably succeeded last December by William Evans, AIA) continues his contributions to the profession as the NIBS/AIA BRIK Board chair and explains the benefits of that resource on pages 10 and 11.

Will Rourk offers his meticulously assembled insight on video tele-conferencing (VTC) on the following spread. He reminds us that the Jetsons almost got it right in the early '60s. And now that it's a reality of doing business, he shares lessons learned in this, Part I of a brace of VTC primers.

The new children's garden roof on the seventh floor of the VCU Hospital has garnered its share of news headlines lately. *Inform* contacted KOP Architects, H&G Landscape Architects, and constructors SRC Inc. to find out just how hard they had to work to make this jewel look so easy.

For another sampling of contextual complexity, how about one of the leading research arms in advanced biological research, the Howard Hughes Medical Institute, when they approached Bowie Gridley Architects with an administrative headquarters wish list that included refining their corporate culture and blending it with an existing campus and historic surroundings? The result: the client is happy.

And then, back to the VCA, is Michael Graves, FAIA. VCA Executive Director Helene Combs-Dreiling, FAIA (who nominated Graves for his 2001 Gold Medal, incidentally) persuaded the internationally recognized architect to visit Richmond for a well-attended casual conversation in February. He never fails to educate and entertain.

As always, these articles in full (most are trimmed to fit within these pages) and more news and amusement are always available on ReadInform.com. —DEG

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AIA Gold Medalist Michael Graves generously shared from his lifetime of learning at a recent VCA function.

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On the cover:
The central space of the HHMI.
Photo by Prakash Patel.



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Design Dialogue

A Remembrance and an Affront



by Richard Guy Wilson

Taste changes and so do our perception of history and the past. More than 225 years ago, the future president of the United States and arguably one of our most important architects wrote about the buildings of his native Virginia: "It is impossible to devise things more ugly, uncomfortable, and happily more perishable."

Happily also, we no longer follow what Thomas Jefferson proposed. A little more than a hundred years ago the architecture that we now call Victorian was dismissed as an "architectural nightmare," but now we love the buildings of Frank Furness and H. H. Richardson. Fifty years ago the Pennsylvania Railroad Station in New York designed by the eminent firm of McKim, Mead & White fell to the wrecker's ball, and the remains, including statues, wound up in the garbage pits of New Jersey. As several critics noted, one originally entered New York like a Roman general marching into the Baths of Diocletian in Rome, which served as the source for the main waiting room. Now you entered New York like a rat in a hole.

The huge "urban renewal" of the 1960s and 1970s led a reign of terror as downtowns were flatted in the name of

"progress." Other shifts of perception have occurred, such as Art Deco or the decorative Modernism of the 1920s and 1930s, which, once condemned, is now revered, whether in South Miami Beach or the 1938 shopping center and theater in Silver Spring that serves as a hub of downtown. These various incidents—and many more could be cited—indicate not just how taste changes, but that nothing is more blind than the present.

Today we are faced with determining what is important among the buildings created in what might be called the heyday of American Modernism: the 1940s to 1960s. This is the period in which the U.S. emerged as the dominant power and artistically we threw off our usual reliance on foreign precedent and created a unique modern architecture and art. New American design from chairs by the Eames to embassies around the world, and Abstract Expressionism dominated the scene. Major buildings that helped define this new American architectural eminence are threated or already destroyed. Gone are the Lustron prefabricated houses of the Marine Base at Quantico and destroyed is Paul Rudolph's Riverview High School in

CYCLORAMA BUILDING

MILITARY PARK 125 TANEYTOWN ROAD GETTYSBURG VICINITY ADAMS COUNTY



Sarasota. Threated are ... Boston City Hall, Harry Weiss's Prentice Towers in Chicago, and many more.

Perhaps the most notorious example is the Cyclorama at the Gettysburg Battlefield in Pennsylvania designed by Richard Neutra. Neutra was one of the great American architects widely celebrated both in the U.S. and abroad; his buildings appear in almost any book written on Modern and/or American architecture. The Cyclorama, designed in 1961 by Neutra with Robert Alexander, was part of "Mission 66" program, an attempt to put Modern architecture in the national parks across the U.S. And

yet, the current National Park Service (NPS) will not listen and, in one of the most scandalous of incidents, removed the murals in the building and let it rot with no maintenance. In spite of outspoken protest, the NPS is going to tear down Neutra's building. Supposedly, the Cyclorama marred the site at Gettysburg where Pickett's famous charge took place and the battlefield will be returned to its original look. That means all of the statuary and memorials in one of the country's largest sculpture parks will be removed and the ground cut up? Of course not!!!

The point is this, let's try not to be as blind and ignorant as our predecessors. We can nostalgically return to red brick and white trim in the new visitors' center at Gettysburg, but this is fiction! American architects created a great landscape in the post-war years, and we need to understand it, appreciate it, and save it.

"Gone are the Lustron prefabricated houses of the Marine Base at Quantico and destroyed is Paul Rudolph's Riverview High School in Sarasota. Threated are ... Boston City Hall, Harry Weiss's Prentice Towers in Chicago, and many more."



Richard Neutra's Cyclorama Center at Gettysburg National Military Park. The National Park Service confirmed their plans to demolish the modernist structure and restore the site to its original 1863 appearance just in time for the 150th anniversary.

An exquisite restoration of the mid-century Modern Lafayette River Residence by Pentecost Deal & Associates.

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The Virginia Center for Architecture Foundation is grateful to individual donors, firms, foundations, and other organizations for supporting its programs to spread the awareness of architecture and design as well as the stewardship of its historic landmark home at the Branch House. The following benefactors, through cash gifts or gifts-in-kind, supported the Center in 2012.

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by A. Ray Pentecost III, DrPH, FAIA, FACHA, LEED AP

"First, BRIK is not just about architecture, even though the AIA is one of the two founding partners. BRIK has been created to become the "go-to" Internet address for any and all questions about building research."

arlier this year a new Web portal (www.brikbase.org) went live with a vision no less remarkable than the total transformation of the way the design community sees, experiences, uses, and even conducts research. The Building Research Information Knowledgebase (BRIK), a joint venture between the AIA and the National Institute of Building Sciences, opened for visitors on January 9, 2013, and both the process of creating buildings and the professional practices of their creators will never be quite the same ever again. Access to this newly created treasure is free. Six key characteristics of BRIK position it to make a profound contribution to the built world.

First, BRIK is not just about architecture, even though the AIA is one of the two founding partners. BRIK has been created to become the "go-to" Internet address for any and all questions about building research. The portal has been designed to host research from the engineering, construction, project management, building performance, and many other voices in the building research chorus, in addition to architecture.

Second, BRIK is not limited to any one building type. Healthcare, education, residential, commercial, and other building occupancies will be referenced, as well as building attributes such as green design and high-performance design.

Third, BRIK is not limited to hosting research in the U.S. BRIK has been designed to accommodate research materials from other countries as well. Alliances to tap that content are already

under development. Initially, English will be the dominant language on the site. In only its first three weeks of operations, BRIK hosted visitors from the U.S. and nine other countries, including the United Kingdom, Italy, Korea, Spain, the Netherlands, and France. Nearly 3,000 unique visitors took the time to undertake15,000 page views.

Fourth, BRIK offers content that has been evaluated. The dilemma for many design professionals desiring to use research in their practices has always been the unfortunate reality that not many have had the privilege of formal training in research methods. That includes the critical evaluation of the research of others. BRIK has been working very hard to develop a knowledge pyramid for building research, which is a kind of scale by which research can be judged for its rigor. At the base of the pyramid, typically, would be the less rigorous studies, and at the top the most rigorous. When fully developed and deployed throughout the site, BRIK will be able to offer visitors not only the research content, but a meaningful assessment of the rigor by which the research was conducted.

Fifth, BRIK is designed to host an active range of interactive functions. Researchers will be connecting to other researchers about challenges in research design; discussing new findings and their relevance in light of other, more familiar studies; exploring research ideas with colleagues; and formulating research teams with likeminded professionals. Clients will be coming alongside design professionals to ask

more informed questions and develop multidisciplinary, research-informed answers. The dialogue has the potential to transform the industry's conversation quickly and dramatically on building research in the areas of design, project delivery, building performance, and even a building's impact on the community.

Lastly, BRIK activity will be mined for content to help further the building research agenda among its visitors and the greater design community. For example, imagine a simple annual BRIK report on the most popular searches on the site. Then picture that list sorted by the searches that yielded the most relevant articles/reports, and those for which there was little or nothing of significance. That has the potential to shape the research agenda for coming years. And imagine the list of "most active" research topics that could include those with the most new citations, ranked according to the rigor of the new postings. Imagine the possibilities for developing networks of researchers worldwide who share a research interest. Imagine the potential for the site to become a central reference point for multiple ongoing studies for which comparative evaluations of findings could dramatically accelerate the understanding of certain topics. The variations on these themes are unlimited and immensely powerful.

BRIK hopes to be the impetus for equipping a generation of practitioner-researchers. The success of BRIK as a repository of research and a portal for the interaction of those interested in research will, at least in part, be shaped

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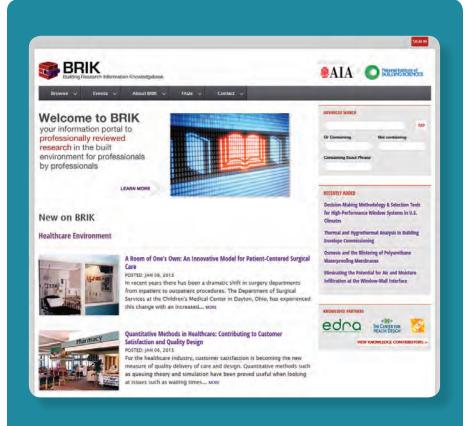
NIBs chief executive Henry Green, Hon. AIA, and AIA CEO Robert Ivy, FAIA, celebrate the January 9 BRIK agreement.

by the ability of visitors to tap effectively the content available on the site. One vision of those involved in the project is for BRIK eventually to help define a series of classes or tutorials to train design professionals of all types, at all stages of their careers, who never had the opportunity to study the conduct, critical analysis, and proper use of research.

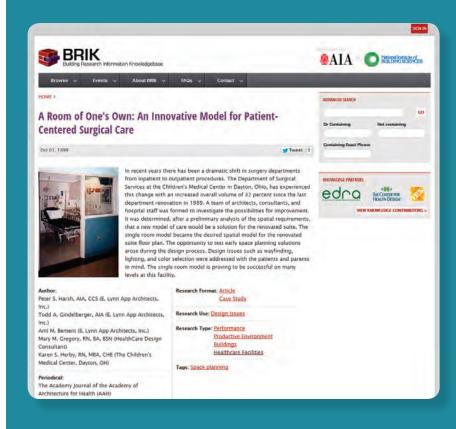
The BRIK team is actively seeking content, which can be added to the BRIK portal in one of two ways. First, it can be posted to the site and actually reside in the portal domain. Second, it can be linked within the portal to an external host site and referenced by the BRIK search engines to that external host. As time passes and more content is added and linked to BRIK, the depth and richness of the site will increase; its value to visitors will grow because directed searches for relevant research will be more likely to yield meaningful retrievals.

Becoming a "Knowledge Partner" with BRIK is easy, and those either with access to or who know of high quality research content that ought to be on the BRIK site are encouraged to reach out to the NIBS project representative (Stephanie Stubbs, sstubbs@nibs.org) to learn how they can begin to participate in and contribute to this powerful initiative.

AIA and NIBS project representatives have asked Ray Pentecost to serve as the chairman of the BRIK Board of Direction for its first two years during its launch and early growth. Questions can be addressed to him at raygrace3@msn.com.



The BRIKbase.org Web site landing page, above, allows one to search by research use or topic, link to the most recent postings, and delve into the site's other offerings. On viewing a specific research write-up, example below, users get the citation references, a synopsis, and the opportunity to download the research and review it.



Watch Those Calls

VTC Part I by Will Rourk



or those of us fortunate enough to grow up watching The Jetsons on Saturday mornings, we all laughed at George and Jane as they stumbled through dilemmas that the fictional life of the future brought them. But little did we realize the foretelling of actual technologies that were yet to come. In one classic episode Jane, his wife, had to don her "morning mask" while answering an early morning call on the Jetsons' videophone because she hadn't quite gotten herself ready to present herself to the public ... on her phone! Here in the real future world, 2012 marked the 50th anniversary of the Jetsons' videophone, where face to face conversations are now the norm with the advent of video tele-conferencing or VTC.

Tele-conferencing solutions are in abundance these days and span a wide range of devices and services. On the least

expensive end there are options that are nearly free or at least will practically cost you pennies to connect you to anyone in the world. If you were on a Macintosh in the early 2000s you probably used iChat for video chat communications with your other Mac-a-philic colleagues. Now better tools from Apple have evolved to provide communications across device platforms like Face Time, which allows connections between iPads, iPhones, and Mac computers so that face-to-face meetings can take place anywhere you go.

But then, you don't have to be tied to any one operating system when we have solutions from other third party tools like Google Voice, which will work on just about any Web browser on just about any computing device including mobile. It's free for anyone with a Google account, which is free as well, and with any account, Google gives you a real

live phone number, which was next to impossible to get without a two-year contract to a phone service provider prior to public access to Voice.

Then there's Skype, which at one time was well known as the tool for calling your long lost relatives on the other side of the world for a few mere pesos. Now Skype is a full-blown VTC solution for allowing high-definition audio/video connections as well as the ability to share documents and presentations to other Skype clients. And now that most laptops and mobile devices come equipped with cameras, you have more freedom to make face-to-face contact with anyone in the world.

At the high end of the VTC spectrum there's telepresence. Telepresence is the "Cadillac of VTC." It's not just software and hardware but a total "environment" dedicated to video telecommunications. Telepresence communications are currently being championed by Cisco Systems Inc, one of the top 3 companies in VTC solutions along with Polycom and Lifesize Communications. Cisco designs telepresence rooms that are much like a standard boardroom meeting space, except that one of the walls is composed of high resolution, large scale monitors. Separate telepresence rooms share a coincident design layout so that when connected to another telepresence room, the image on the monitors exactly reflects and virtually extends the space in the current room. This gives the illusion that the participants are actually in the same room with you though they may be thousands of miles away. A high speed dedicated network connects telepresence facilities to allow for meetings to occur in high definition audio and video. Telepresence goes beyond mere face-to-face/one-to-one communications by including visual and audio contact with all participants involved in a meeting and presents them as full bodied participants, not just talking heads. As Sara Jones, Account Manager for Cisco informs us, "TelePresence is very

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useful for developing client relationships, particularly with those who do not reside in the same geographical region. TelePresence and WebEx enable you to have several meetings with key partners from different locations in one day." The Cisco TelePresence solution is not necessarily confined to an immersive video room. With Cisco's WebEx solution anyone can connect to a TelePresence session via desktop, laptop or mobile device. As Jones explains, WebEx and TelePresence "... are great for people who are mobile and/or travel frequently, but still need to participate in a meeting as if they were there in-person. It's also perfect for people who are geographically dispersed. For instance the team I work with is spread out over Maryland, Virginia, and Washington, DC; and because of this it is often difficult for us to be in one location for trainings or meetings. WebEx is great because it allows us to actively participate in the meetings without physically being there."

But if VTC technologies can be so cheap why would anyone consider an expensive alternative? What do higher end technologies provide that nearly free services don't? To answer that we can look to A/V experts who install and maintain these systems like Bryan Lewis, Enterprise and Instructional Technology VP for Mediatech, Inc., a company that is actively engaged in researching and designing advanced presentation systems for academic institutions and private businesses. Lewis explains that with inexpensive VTC technologies "local connections will look great, but over distance that quality decreases over public networks. Systems like telepresence use dedicated delivery networks to prioritize information. There is lossiness in communications information across the country from coast to coast. When there are drops in $communication\, attention\, span\, decreases$ dramatically. The solution is to use a local service provider with dedicated networks." VTC solutions like Skype and Google Voice use public internet services as their mode of connection. Public lines are susceptible to slow network connections since everyone in the world is using them. So a quality connection with your client might not be insured on a non-dedicated line. Communications via telepresence or other services hosted

over a dedicated, non-public network may ensure that you don't lose contact in the middle of an important presentation.

In today's tight economy video tele-conferencing is quickly becoming recognized as an affordable and effective way to communicate with your clients and colleagues. The biggest cost saving effects are of course those that involve travel expenses. Video teleconferencing is the next best thing to an actual meeting by providing a stronger relational means of communication with your constituents since participants are directly presented visually and audibly, as opposed to an impersonal phone call or e-mail. By obviating the need to travel and expend time, money, and especially fuel, VTC technology is recognized as a green method of conducting business by reducing the impact of travel on the environment.

In "The Telepresence Revolution," released by The Carbon Disclosure Project in 2010, researchers found that for large-scale businesses, video teleconferencing solutions potentially have an enormous impact on reducing a carbon footprint by 25 percent while generating an ROI of 77-80 percent. In a nutshell their findings state that: "Telepresence delivers payback in 15 months and cuts 401 metric tons of CO2 in 1 year." Although these results are for large corporate businesses the benefits scale to all sizes of offices as long as design of an effective VTC setup is taken into consideration.

Just as a high-end tele-presence room is designed for the ultimate video communications experience, so must any space be considered when designing for effective communications to take place. Again, Brian Lewis explains that when designing a VTC system for any size office, "we figure out scenarios for communications and design around that, starting with sound, then go to display, then go to video to find out the basic-use cases, who the audiences are, and where they are and then figure out the spatial needs for a particular office."

For example, when considering an optimal environment for VTC communications, Lewis says that "your background needs to be consistent and minimal to maybe only include a banner or company logo so that you can maintain eye contact with a person on the other end without distraction of location."

Psychology and the role of

communication participants are key to designing an effective space. A paper entitled "More than Face-to-Face: Empathy Effects of Video Framing," delivered in 2009 by researchers David T. Nguyen of Accenture Technology Labs and John Canny of The Berkeley Institute of Design, outlines important nonverbal communication cues such as facial expression, gaze, posture, gesture, and proxemics in determining a proper video teleconferencing set up.

Nguyen and Canny stress the importance of full-body or at least an upper-body presentation of VTC participants to fulfill satisfaction of these cues. Mere face-to-face presentation could disregard important visual cues that are necessary for participants in any conversation to establish a suitable level of comprehension of the subject being discussed. The crux of their argument is that a mere face-to-face communication does not satisfy the need for trust in a conversation.

In their paper the authors state: "The trope of a 'face-to-face meeting' may be to blame for the emphasis on head-only video in the design of video conferencing systems. The trope is quite misleading: humans rarely, if ever, have head-only encounters. Body language plays a major role with inperson encounters. Empathy also plays a role in the satisfaction of relationships. Upper-body framing improves empathy measures." They recognize that older VTC systems that only focus on the face to face communications presented on smaller screens may decrease reliability of trust in a conversation, and that larger screen displays combined with better audio and video technologies can dramatically increase the potential for a more productive conversation.

You know your client and your employees better than anyone else. It's up to you to decide when face-to-face is socially important and when to use VTC. VTC does not necessarily need to replace face-to-face communication but it can augment discussions in a more productive manner by inexpensively bridging distances and saving your office time to connect with your constituents. Just don't forget your "morning mask" for those important early morning calls.

Will Rourk is a digital media specialist with the Digital Media Lab at the University of Virginia.

MICHAEL GRAVES IMAGES OF A GRAND TOUR

Available in the VCA Museum Shop

Michael Graves: Images of a Grand Tour

By Brian M. Ambroziak New York City, Princeton Architectural Press 2005, 257 pages, \$29.95

Michael Graves, FAIA, received a Rome Prize in 1960 and spent two years at the American Academy in Rome. As this book's title implies, he also took a grand tour through Italy, Greece, Turkey, France, Spain, and the U.K. Ambroziak, a student of Graves at Princeton who subsequently worked at Michael Graves & Associates for four years, here assembles the drawings and photographs the 2001 AIA Gold Medalist amassed during that time abroad. As Graves notes in his foreword to the book, that experience "transformed how I looked at the world around me."

The 220 pages of captioned images—pencil sketches, ink washes, and color photographs subcategorized by the countries from which they were derived—are sandwiched between Ambroziak's essay on "The Necessity for Seeing" and Graves's 1977 article "The Necessity for Drawing: Tangible Speculation."

"My drawings were always analytical," Graves writes. "It was important to me to reveal some salient characteristic of the architecture, perhaps its frontality, the layering of a spatial sequence, or simply the quality of a surface as it catches the light. I thought that if any of my drawings were viewed as a travel scene, I had failed, since it would be merely picturesque."

The VCA Bookstore has a limited number of copies Graves has signed.

The Archaeology of Tomorrow: Architecture & the Spirit of Place

By Travis Price San Rafael, Calif., Earth Aware Editions 2006, 210 pages, \$45

Through captivating photography, from the iconic to the artfully abstract, and an engaging writing style that borders on free-verse poetry, Travis Price defines the human expression and appreciation, our relation to nature, and the crucible of time that tests a work of architecture's ability to become timeless.

As example is this concluding paragraph to Price's introduction: "What we dream today will form the architecture of tomorrow and, without a doubt, shape our spirits for centuries to come. On the voyage, we must not only be careful what we dream, but even more careful about our chosen lenses of perception. After all, that is where architecture begins and ends, mankind's legacy hovering between the dual infinities of time."

The exploration of what architecture can be is through three lenses of experience, Price posits: stillness, movement, and nature. In the introductory chapter he examines a comprehensive array of architectural master works and their relationship to our senses and to natural order. Through most of the remainder of the book, concepts are illustrated through Price's own many works, ranging from the million-sfTVA complex to the National Geographic Society Explorer's Hall and a litany of inspirational residences, including the one in which he resides.



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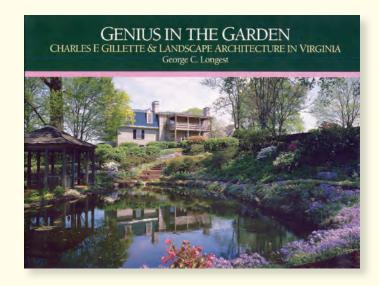
Genius in the Garden: Charles F. Gillette & Landscape Architecture in Virginia

By George C. Longest Richmond, Virginia State Library and Archives 1992, 228 pages, \$42

Born in Wisconsin at the end of the 19th century, Charles Freeman Gillette actually established his reputation as a consummate landscape architect in Richmond in the second decade of the 20th century. Thus, he was a designer of the Country Place era and apprenticed under Warren Manning, who himself worked with Frederick Law Olmsted on the 1893 Chicago World's Columbian Exposition and the Biltmore estate.

Gillette designed elaborate gardens throughout the south, including the restoration at Gunston Hall in Williamsburg and for residences up and down Monument Avenue in Richmond's newly emerging Fan District. It was Gillette who, in 1934, designed and installed the iconic sunken garden beside the College of William and Mary Wren Building. A decade and a half later, he landscaped the main student dining hall and staff dining room for the university.

World War II proved difficult for landscape architects in general, Gillette wrote to friends, which forced him to close his business temporarily and move from Richmond to Orange County. Postwar, as business picked up, Gillette continued to work throughout



the Commonwealth, continuing his legacy of ornate gardens and landscape design until his death in 1969.

The research Longest provides is derived primarily from letters and interviews with Gillette's contemporaries. He offers a very personal matter-of-fact prose that provides a glimpse not only of the creations but also the creator of classical landscape architecture.

The Architectural Detail

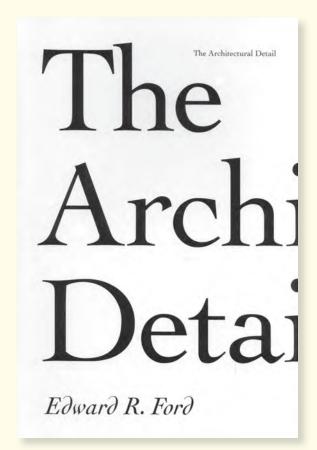
By Edward R. Ford New York City, Princeton Architectural Press 2011, 328 pages, \$40

The question seems simple enough: What is a detail?

The answer, in Ford's mind, has to do with the entire construct of architecture. A Modernist by education and training, he takes us meticulously through every conceivable concept of detailing, from the handle Gropius designed for the front door of the Bauhaus, through a cutaway of the IIT Alumni Memorial Hall wall structure, to benches by Louis Kahn and Steven Holl.

There are no details in Modern architecture, Ford begins his dissertation. As he develops his thesis, we find that a detail is a fragment in which the whole building is represented. Or perhaps, he counters, it is the articulation of structure or construction. As he outlines his explanation of the larger understanding of what a building is by the smaller comprehension of its finer elements, Ford lays out many decades and many, many details of architectural analysis.

Offered, appropriately enough, in basic black and white, Ford develops in exquisite precision how details are the very fundament of construction. As he quotes Peter Zumthor: "The architect must look for rational constructions and forms for edges and joints ... Details express what the basic idea of the design requires at the relative point in the object: Belonging or separation, tension or lightness, friction, solidity, fragility."



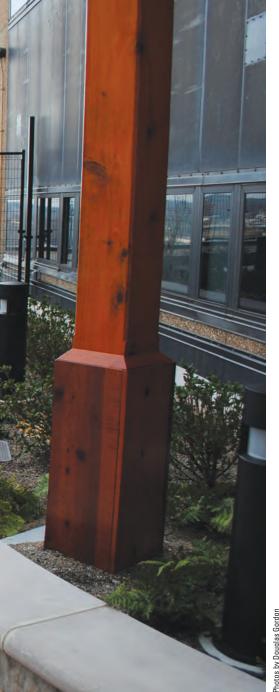
To contact the VCA Museum Shop, phone 804-237-1774 between 10 a.m. and 5 p.m. Tuesday through Friday and 1 to 5 p.m. Saturday and Sunday.



Rooftop Retreat by Dougla

by Douglas Gordon, Hon. AIA

Children's Hospital of Richmond at VCU



ecompressing the realities of an extremely trying environment for patients, their families, and staff alike, a rooftop garden is a welcome refuge at the Children's Hospital of Richmond at VCU. That garden—accessible from the VCU Main Hospital seventh-floor children's intensive care unit—was popular with the children from the get-go when it was dedicated November 19, 2012, according to Child Life Specialist Heather Kinney, who has 15 years' experience at the hospital.

"Kids like to go outside," Kinney says. "The rooftop garden gives them a sense of normalcy, which reduces their stress levels and helps them heal. Having an area with fresh air, places to sit, an open sky, and growing plants provides a welcome respite for the children, their parent and siblings who are spending a lot of time here visiting, and the staff. Especially for children who are here for a long time, this garden helps them realize that the world isn't just the inside of this hospital."

The new roof garden replaced an earlier outdoor green space and roof deck that had been leaking, notes Keith Van Inwegen, ASLA, of H&G Landscape Architects, who designed the new garden. And the project did not come without its share of difficulties, he notes.

Challenges become opportunities

Because the earlier roof leaked—and had had trees and raised beds—the VCU administrators had some strict, albeit reasonable preconceptions, given their experience: No water features, no trees, and no raised beds.

"I said it would be difficult to create a garden without any planting beds," Van Inwegen recalls. "That approach would end up with roof-deck pavers from side to side with a few planters in there. It would not be great. We convinced them that raised beds could be done correctly without any leaks, and we pulled the raised beds away from the building, since the old beds had been right up against the building, and we think there might have been some moisture issues related to improperly installed flashing."

By pulling the planting beds away from the building by three feet, the H&G design achieved an additional beneficial balance, Van Inwegen says: "That gives us a buffer zone so somebody in the garden can't look directly into patient rooms. Patient privacy is a factor, and yet we wanted people in the rooms to get the full benefit of having that garden space to look at as opposed to the more typical hospital-room view of a bare rooftop."

The restriction on water features was more about aversion to water-borne pathogens, and the hospital stuck to that restriction. "Water features are a popular element in healing gardens," Van Inwegen explains. "But whereas some healthcare people embrace the concept, the infection-control people said 'absolutely not."

Although there was no evidence that roots caused leakage from the trees that were removed from the earlier roof, the hospital administrators also stood firm on not having trees in the new garden. "We wanted a vertical element that was a little whimsical and fun," Van Inwegen says. So the design concept simulated a tree by including a sculpture of wood-grained steel bars curving upward from a centrally located raised bed and planting confederate jasmine at its base. "Our hope is that after a year or two that jasmine will have grown around the steel armature and make the sculpture look like a tree, but without the roots. Right now it looks like an abstract sculpture, but over time it will be a focal point covered solid with vines."

Rooftops, water, and wind

Because of the tight site constraints in the area around the VCU Hospital and the fact that the child-care centers remained in operation throughout the project, the constructor, SRC Inc., was able to install only a single lift up one side of the building to the roof. Having that as a project site created a number of unusual conditions for the design and construction team, which, in turn, inspired a corresponding litany of creative solutions.

During demolition, the lift had to take down thousands of bags of debris. As a result, the relatively slow pace of the demolition caused concern over the watertight integrity of the exposed roof slab. So, as the crews pulled up each section of the earlier garden and underlayment, they immediately laid down a layer of sheet-applied

One is welcomed on entering the rooftop garden by an undulating wall and greenery even on an overcast winter's day. As a central vertical focal point, the steel frame, left, will eventually be covered with jasmine vines to resemble a tree.



Looking back at the hospital entryway, framed by a sturdy wooden trellis, visitors to the garden can't see directly into patient rooms. In their individual rooms, though, young patients have a captivating view of the garden and its activity.

waterproof membrane. The result—after the entire roof was stripped down to the slab—was that it already had a waterproof membrane in place, even if it did look like a patchwork quilt. On top of that, SRC put in the specified tapered insulation and a continuous waterproof membrane in what Van Inwegen describes as a "belt and suspenders approach" to creating a doubly secure roof waterproofing system.

Because a fundamental part of the roof garden project was the function of the envelope enclosure itself to redirect and manage both rain and irrigation-system water, the roof drainage system had to be completely redesigned as well, a task KOP Architects took on working in concert with the surface features H&G had laid out.

"The drainage system design for this project was particularly complex in part because we were directing water among the various plantings that needed water," Hal Downing, AIA, of KOP Architects explains. "The garden required a watering system for times of insufficient rainfall and drainage when precipitation was excessive." During the treatment of the roof slab, every drain was replaced, even those that did not have to be repositioned.

During reconstruction of the roof deck underlayment, use of concrete was minimized because there was no way to pump it to the seventh story of the VCU Main Hospital Building. Instead, concrete had to be brought up on the lift, which could accommodate only three wheelbarrows full per trip. One result in the rebuilt rooftop was to minimize use of concrete, limiting the material to six-inch footers for the walls and pedestals for play equipment and the gazebo.

The rooftop location also required uplift resistance, Downing adds. "In addition to supporting the heavier objects from below, we had to be sure that everything was also tied down sufficiently to withstand the high winds one can get on a seventh-floor roof."

The crews built retaining walls for the intensive (deep-bed, high-maintenance) planting beds using segmented block systems with capstones. By specifying block with a molded face, H&G was able to achieve a stone-like texture that is not as rough and potentially skin-scraping as the typical split-faced block surface.

The importance of maintenance

In the intensive beds the landscape architects used a mix of deciduous and evergreen shrubs, perennials, and ground covers that provide a year-round palette of varying visual interest. In the extensive (low-maintenance) planting areas flush with the roof pavers, the design features five varieties of sedum the builders brought up and installed as tiles, much like sod. Although those planted areas require little or no watering and perhaps only intermittent weeding, the deeper intensive plant beds, teak benches, and paved surfaces need continuous and specialized maintenance.

"The Children's Hospital recognized right away that the maintenance of this garden would be absolutely critical," Van Inwegen says. "So we put together a yearly maintenance specification, which the hospital put out to bid, meaning the roof garden is not going to be maintained under the same contract as the hospital's other facility mainte-

nance. Instead, they are acquiring a maintenance contractor who has the specialized expertise required for fixing sprinklers, winterizing the irrigation system, pruning plants, waterproofing the teak benches, replacing light bulbs, and, in general, fixing anything in the roof garden that's broken in a comprehensive maintenance approach."

Safety and accommodation prevail

H&G has considerable experience in designing green roofs and healing gardens, Van Inwegen says. The land-scape design for the VCU Children's Hospital is the firm's first rooftop healing garden, though. And particularly because it is intended for use by children, it involved some obvious as well as subtle special considerations.

Access to the roof garden is controlled by a card-key-locked door, which is clearly marked that it is not an emergency egress doorway. Although getting into the garden requires a key card, getting back into the children's ward does not, so emergency evacuation, if needed, is not impeded.

In the garden itself, the hospital wanted to accommodate both a sense of private refuge and physical therapy. The program, therefore, called for a piece of play equipment, a covered area for protection from the weather, and multiple seating areas. The surface of the majority of the healing garden's surface not taken up with planters, seating, or play amenities is covered with pavers. The exception is the area around the slide, where the surface has a spongy high-traffic rubber coating. A high railing on the stairs to the slide minimizes the risk of falls.

Clearly, another issue on a roof play area is providing a high surrounding fence. The fence for the earlier garden had one-inch vertical pickets every four inches, which, according to Van Inwegen, "had the look of prison bars." To eliminate that feeling, the new design incorporates a fine wire mesh fence that is barely perceptible as it allows broad vistas of Richmond.

The design also provides a muchneed physical therapy regimen that had previously been relegated to the children's ward stairwells. Children with ambulatory difficulties need to practice using stairs. To provide that, in addition to the steps leading to the slide, the roof has a set of stairs right in the mid-



The landscape architect avoided a childlike theme overall, although delight was certainly a part of the equation. The elephant here draws the eye and a smile even though a retaining wall and vegetation keep it well out of arms reach.

dle of the garden that blends in so unobtrusively that it is invisible to the casual observer. The steps have deep treads and multi-level hand rails to steady the unsure steps of children small and large.

Because the hospital treats children who differ widely in age, the aesthetic of the roof had to be non-age-specific, Van Inwegen says. "One of the first questions we got from the life specialists was: 'What is your theme?' I told them that we were looking to do something that was well-designed and interesting and not too childish because there are also teenagers who will be using it," he explains. "So we didn't want it to look like the play area at a fast food restaurant. We wanted something that would be attractive to all ages."

The roof does sport statues of a tall giraffe and a baby elephant. "Those were elements that we thought would be something for patients in the rooms along that wall to be able to look out at in a playful way," Van Inwegen says. "And for people going out there, they are something that you didn't expect. The giraffe is also visible from down on 12th and Leigh streets." (When asked, he confirms that the giraffe had to be hoisted onto the roof during the one day that a crane was put in place to lift equipment that the side-mounted lift couldn't accommodate. The elephant fit in the lift.)

Teamwork over adversity

"We got feedback from Heather [Kinney] immediately after the project

was dedicated," Van Inwegen says. "She was ecstatic. They had had their first patients out there and she said everybody is loving it.

"The project went so well from start to finish that it was kind of sad that it had to come to completion," he adds. "We had a great contractor in SRC, great owner input, and worked hand-in-hand with KOP Architects. The construction had its challenges with the logistics, but everybody overcame that and it went just as smoothly as you can imagine even though we were prepared for the worst."

"If there is a positive aspect to having worked through all those things, it is that we had to do it in close cooperation," Downing says. "I would say the remarkable teamwork that resulted from those difficulties benefitted the project overall. Working with a hospital building provides both opportunities and challenges. This garden was possible without additional structural enhancement because the building was initially built to the more stringent code requirements of a hospital facility. On the other hand, our work also had to adhere to that level of code requirements, which added to the complexity of the system design."

"There were many unusual elements to this project, and everybody worked through them very well," agrees SRC Inc. Vice President Malcome Sargent. "Speaking for our crews—and, quite evidently, everyone involved with the hospital—we worked hard because the mission was important."



he Howard Hughes Medical Institute (HHMI) is a nonprofit biomedical research and outreach organization with headquarters in Chevy Chase, Md. In its own Web-site history, HHMI credits the original headquarters complex, completed in 1993 and designed by the Hillier Group, as a vital element in the Institute's profound expansion of research efforts in the last decade of the 20th century.

HHMI had already broken ground in 2003 on a genetics research facility in Ashburn, Va., designed by Rafael Viñoly, when leadership realized that the organization's next phase of growth would also require an expansion and concomitant re-orientation of its headquarters complex.

The new facilities on the Chevy Chase campus, designed by Bowie Gridley Architects (BGA) and completed in 2010,

reflect a desire within HHMI for increased, contextually complementary space and enhanced collaboration among headquarters staff. The new facilities are poised to usher in the Institute's next growth phase focused in large part on the coordination of a global array of researchers, educators, and students. In addition to research meetings and symposia, the Institute serves as a locus for philanthropists, journalists, and other groups advancing developments in and understanding of biomedical science.

The HHMI mission

HHMI was founded in 1953 by business magnate and philanthropist Howard R. Hughes and has grown to employ more than 3,000 individuals across the U.S., including biomedical scientists working at the forefront of their fields. Through its grants program and other activities, HHMI also enhances sci-





The open central space in the Bowie Gridley Architects expansion of the HHMI headquarters in Chevy Chase, Md., provides staff with an attractive common area outside their offices to conduct impromptu, casual conversation on matters of mutual interest.

ence education at all levels and maintains vigorous collaboration among biomedical scientists worldwide. It is one of the world's largest philanthropies with an endowment of \$16.1 billion, of which the Institute spent \$800 million for research and distributed \$119 million in grant support for science education in fiscal year 2012. Its faculty has included 16 Nobel Laureates since 1987.

Ideas born in HHMI laboratories increase the general understanding of some of society's most vexing health problems—including AIDS, cardiovascular disease, cancer, and diabetes.

At HHMI, the engines of discovery are powered by investigators who direct laboratories on the campuses of nearly 70 universities and other research organizations in the U.S. These labs employ nearly 700 post-doctoral researchers and provide training opportunities for more than 1,000 graduate students each year. HHMI is guided by the principle of "people, not projects." Rather than awarding research grants, it has



The HHMI campus houses the administration for one of the largest philanthropies in the world.





Patterns on the tile floor and kiosk are abstract derivations based on biomedical tests and measurements that resonate with the building occupants.

appointed more than 300 investigators, giving them the freedom to explore and, if necessary, change direction in their research.

And all of these activities are shepherded through the Chevy Chase headquarters facilities. So every improvement in collaboration and operations there has profound implications for biomedical advancement everywhere.

Understanding is essential to design

Understanding both the history and cultural aspirations of the organization was essential to Bowie Gridley Architects in developing a design solution.

"The existing building—a very attractive combination of collegiate architecture and a village—is an articulated series of brick and gabled forms," says BGA Principal-In-Charge, Cal Bowie, AIA. "Organized internally around the Institute's 1990s program, the design of that earlier building also grew from some strong site elements. We incorporated that organizational approach in plan and programmatically by bringing it inside to a beautiful two-story central volume."

BGA combined traditional pitched roof forms with flat roofs at collaborative workgroup pods and established a stone

and wood material palette in primary public spaces, bringing elements of the local environment inside.

More importantly, the design also brings together the people who occupy the facility. The HHMI Board expected the headquarters expansion to create an innovative, collaborative, and sustainable workplace that extends the fabric of the existing physical context in scale, form, materials, and architectural vocabulary.

"The existing building is a series

of long, double-loaded corridors," says principal Jonathan Rodvien. "Everyone tended to stay in their offices, and the president and administration at the time we came on board wanted to nurture a culture where people would interact more on a daily basis so that the Institute's work included casual cross-pollination as well as the more formal office work."

Bowie and Rodvien worked on the project from day one: making the presentation for the work, following up in pre-



The exterior design of the expansion reflects the brick, stone, and metal-roof aesthetic of the original 1993 headquarters building, yet with its own fresh approach to form and resource-efficient elements.



A well-lighted stairway, at right above, encourages people to walk to a colleague's office for consultation.

Also encouraging interaction is the common area in the central space, above and below, which allows staff to enjoy a cup of coffee and conversation outside the office.

commission interviews, throughout the design phases, into occupancy, and beyond. "I continue to work with them," Rodvien says.

The client's program

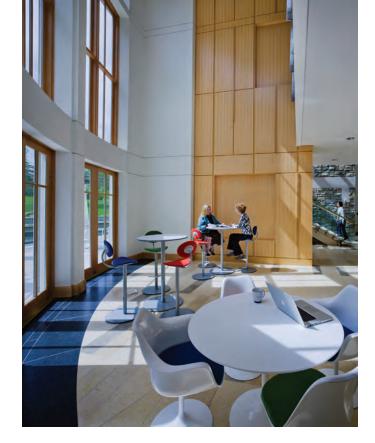
"We developed a program that looked at the adjacencies of four divisions," Rodvien says." Within those, we created environments that were based on work-area islands rather than double-loaded corridors of office doors. It was in connecting these islands within each division and among all divisions that we created collaborative opportunities.

"An open central space provides an area where each division can all join together with others. For example, in the morning, when they park their cars in the garage, everyone enters the building through one staircase that leads up to the central space. We located amenities there so they are encouraged to stop and get their paper and coffee together before heading off to their offices.

"HHMI is on the cutting edge and yet is a very conservative organization, so we had to balance those aspirations," Rodvien says. "Bowie Gridley does not have a signature design motif, our design approach starts with understanding the client's program and context. There was a fine line between creating a transitional architecture that picked up on the palette of materials there and reassembling them in a way that allowed these new organizational, interaction, and collaboration criteria to exist."

One striking example of the concept is how the BGA team re-imagined traditional stone masonry elements as components of a solar shading system. From the outset the project was targeted for the LEED Gold certification it received. "We relied heavily on solar shading and daylight harvesting for energy conservation," Rodvien explains. "We provided the client with solar-shading studies early on in the design, and it was clear that industrial, high-tech expressions would not fit with their vision. The granite shading elements they agreed on were not inexpensive, but they were determined to maintain the masonry and cut-stone exterior even with these functionally forward-thinking components. It was part of their broader calculus of creating a sustainable building and site. So it was a great project to work on because the client was committed to creating a successful contextual expression."

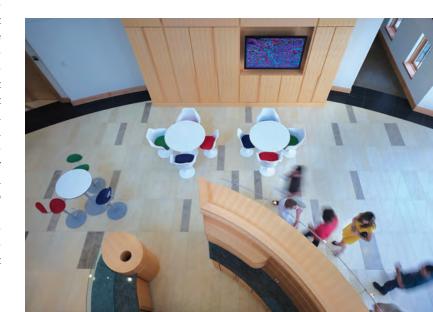
Biology and medical research processes provide an additional motif for architectural detailing, for instance in tile patterns that express nucleic acid structure, glazing screens that



express the patterns of genetic sequencing, and elliptical kiosks that impart an organic look and feel to the central space.

"Even though this complex is an administrative facility and not a laboratory, we decided we could draw on the work of the Institute's researchers to make a beautiful interior as we were addressing their functional requirements," Project Architect Bob Sherrill, AIA, recalls. "The president of the Institute at the time was a Nobel Laureate in Chemistry. We started to work with the idea of bringing processes and biological imagery into the design palette. We used abstractions of genetic processes called electrophoresis and translated that into patterns for the restrooms.

"We took other tests and sequencing processes and synthesized window-wall and interior-fenestration patterning," he continues. "And we abstracted shapes from electron microscopy for freestanding kiosks that form the reference desk in the new library and for the coffee service area in the central space. Once we explained that we wanted to use sub-





tle, elegant, abstract gestures that reflect the mission of the Institute—and had meaning for the building occupants—the administrators were very happy to help."

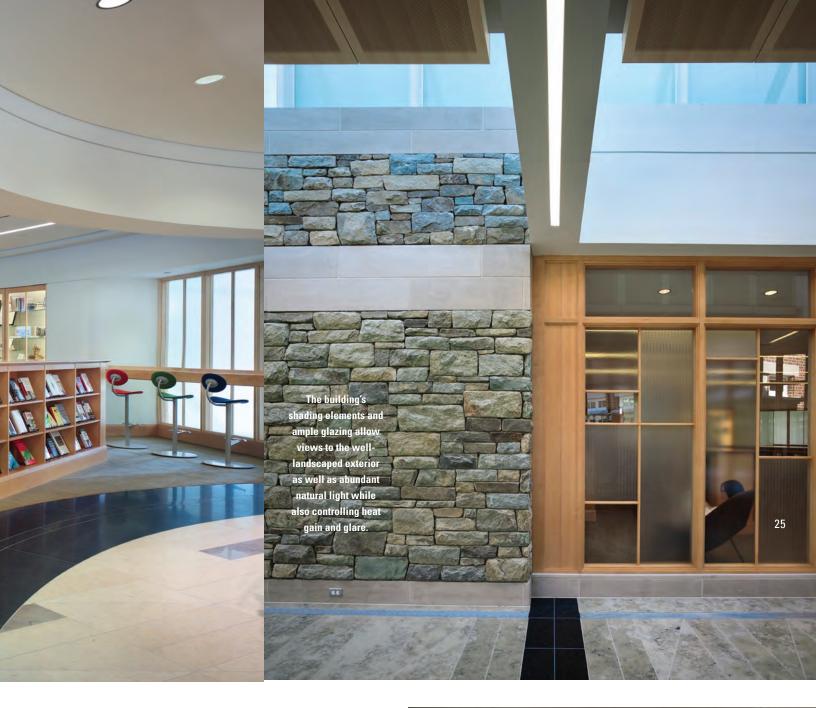
Each of three communicating stairs further reinforces the connection among workspaces, as Rodvien points out: "We went beyond stairs as egress elements. They are an integral part of the interior design and they create connective transparency. There are two floors in the north and south wings. The divisions handle the Institute's work in science education, research funding, and public outreach. In the north there is a division on the first floor and another on the second. In the south wing, the science education department occupies both floors. We put really beautiful internal stairways on both sides to connect the divisions. It's convenient to take the brief run up a naturally lit internal stair, which both promotes exercise and, again, encourages interaction and informal collaboration."

In addition to interior intra-office spatial transparency,

the expansion offers occupants large expanses of transparent exterior access as well through windows that provide daylight and views to Hayes Manor, a local historic site. Although the manor did not become part of the HHMI property until after the expansion design process had started—and so was less of a factor in the design process than the existing facility—"it certainly informed our site design," Rodvien notes.

"It was a decision early on that all the employees in this expansion would have access to natural light, views, and natural ventilation," he says. "That was not without challenge, because opening a window can wreak havoc on building controls, but we were able to do it. So everyone has a perimeter office. Everyone is able to open windows. And with this very specifically program-driven project being influenced in turn by a strong existing building and campus context, HHMI has not only renewed its facilities, it has re-invigorated its established tradition."





Project: Howard Hughes Medical Institute, Headquarters Expansion

 $\textbf{Designer:} \ \mathsf{Bowie} \ \mathsf{Gridley} \ \mathsf{Architects}, \ \mathsf{Washington}, \ \mathsf{D.C}.$

 ${\it Calvert S. Bowie, AIA, Principal; Jonathan S. Rodvien, AIA, Principal/Project}$

 $Manager\,; Robert\,K.\,Sherrill, AIA, LEED\,AP, Associate/Project\,Architect$

 $\textbf{Owner:} \ \textbf{Howard Hughes Medical Institute, Chevy Chase, Md.}$

 $\textbf{General Contractor:} \ Clark \ Construction, Bethesda, Md.$

Photographer: Prakash Patel, Washington, D.C.

Consultant Team: Thornton Tomasetti Group, LLC, Structural Engineer;

 $Syska\ Hennessy\ Group, MEP\ Engineer; PHR+A, Civil\ Engineer; EDSA, Landscape$

Architect; Sustainable Design Consulting, LEED Consultant;

 $CM\ Kling\ \&\ Associates, Inc., Lighting\ Design; Miller\ Beam\ Paganelli\ Associates,$

Acoustics; Hobbs Architectural Fountains, Fountain Consultant;

Facility Engineering Associates, PC, Commissioning; Genesis Security Systems, Inc., Security Systems; Heller & Metzger, PC, Specification Consultant; GeoConcepts Engineering, Inc., Geotechnical/Special Inspections/Testing

The open reading space, with its clean lines and warm stone detailing, provides yet another opportunity for HHMI employees to put in productive time outside of their individual offices.





Humor, Humanity Mark 13 Richmond Visit

by Douglas Gordon, Hon. AIA

he Virginia Center for Architecture (VCA) gave several warm welcomes to Michael Graves & Associates (MGA) this winter, including an exhibition that opened at the VCA in January, with presentations by MGA Managing Principal Karen Nichols, FAIA, and a curated conversation February 7 between Michael Graves, FAIA, and VCA Executive Director Helene Combs-Dreiling, FAIA, that drew more than 250 people from all across the region.

The exhibition, closing on March 31, highlights selected works by Graves from the Humana Building in 1984 to his current hospital-equipment designs for Stryker and prototype housing for the Wounded Warrior project at Ft. Belvoir. The February conversation was tied in large part to the exhibition and included Graves's thoughts on everything from why he became an architect to his goal of bringing design to hospitals that truly accommodates people who use wheelchairs.

The VCA, located at the corner of Monument and Davis avenues in Richmond's Fan District, is dedicated to educating the public on the importance of design excellence through exhibitions, educational programs, publications, and its stewardship of the John Russell Pope-designed VCA and Virginia Society AIA headquarters building

A curated conversation

Held at the Richmond First Baptist chapel—since it was the nearest venue to the VCA that could handle the assembly— Combs-Dreiling opened the February 7 session with a question architects hear often enough: Why did you become an architect? Graves offered his time-honored answer, with a few twists.

At about age 8, comfortable with his ability to draw, Graves said, he announced to his family that he was going to be an artist when he grew up. His mother told him that he was likely to starve with a career choice like that and suggested

hotos: Stephanie Younce

that he instead apply his ability to draw to a compatible profession, such as engineering or architecture. "I asked what an engineer does. She told me, and I said I would be an architect," Graves recalled.

He never looked back. As an undergraduate at the University of Cincinnati, his fellow students still wondered in third year whether they really wanted to become architects. Graves said he had no such doubts as he worked as a co-op student alternating semesters studying or working at design firms. "I came out not knowing who Palladio was," he said of the Modernist bent of the profession in the late 1950s. "To ensure I did not learn who Palladio was, I went on to the Harvard GSD," he quipped of his time there, when Josep Lluis Sert was the GSD dean. Both would later go on to receive the AIA Gold Medal.

Context and a walk after dinner

Combs-Dreiling moved on to the question of context, which prompted Graves to recall his time at the American Academy of Rome from 1960 to '62. "Architecture is not an art form that stands alone," he said. "Rome is an organism that works to support all aspects of human endeavor." Design is for activity, and it doesn't workifit doesn't encourage pedestrian movement and access to those amenities that make life pleasant.

Richmond, likewise, is a city where one would enjoy taking a walk after dinner, he said. So too is Princeton, N.J., the location of his offices and the university where he has taught since 1964. (He is currently the Robert Schirmer Professor of Architecture, Emeritus, there.) Princeton is a village where "it's all there," he effused.

Later, during a question-andanswer session he was asked if there were cities in the U.S. that he would compare with Rome. There is no place like Rome, he answered. There are nice places in which to live in the U.S., including New Orleans, Boston's Back Bay, and South Beach, Fla. (which, he said, doesn't even seem as if it is part of the U.S.). There are probably many other places where one would feel comfortable going to work, shopping, going home, or taking a stroll, all without depending on a car. But none is Rome.

After his time in Rome, Graves



weighed moving to New York City to start a practice with the idea of commuting to Princeton to lecture. Instead, on being offered a full-time position at Princeton, he moved there and, at the same time, set up his practice.

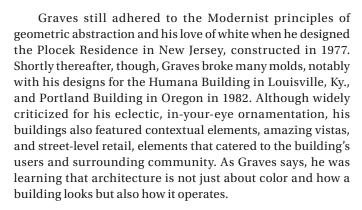
The Modernist years

Given the limited time for the curated conversation, Combs-Dreiling didn't delve into how Graves remembers his time in the early 1970s as one of the New York Five, along with Peter Eisenman, Charles Gwathmey, John Hejduk and Richard Meier. However, when MGA Managing Principal Karen Nichols, FAIA, visited the VCA in January as a featured speaker for the exhibition opening she addressed the issue when asked if Graves ever regretted having been labeled so early in his career. Nichols said she doesn't think he ever did.

"It was a launching pad," she said. "When he worked with them, it was because they all wanted to have a dialogue—that critical debate that they had in school and that they didn't have in their young practices. Those architects got together to address some interesting and broader philosophical issues of design. Those dialogues were very important to their next development. Michael then became one of the whites, or grays, or silvers—depending on one's outlook—but they were all focused on what was going on in the world. That dialogue has been huge for them and for all of us."



Dinner at the VCA filled the Long Gallery.



The Graves chairs (above).

Objects from the Democratization of
Design exhibit (below).

Democratization of design

Back to Combs-Dreiling's interview, she asked about the current VCA exhibition section on the "Democratization of Design," which includes Graves's work with Target.

In the early 20th century, he explained, European enclaves of design intelligentsia, such as the Wiener Werkstätte and the Bauhaus, concentrated on the ideal of beautifying everyday objects, such as spoons and chairs. They created some very beautiful objects, indeed, Graves noted. But they were of limited production and only the wealthy could afford them. So, despite the intention of creating everyday aesthetic elevation for the common person, these creations were well beyond most people's means.



Graves came to Target's notice when he designed the scaffolding for the Washington Monument restoration. It was in 1996 that Target Stores, in partnership with the federal government, took the fund-raising lead to restore the monument. That work required a 555-foot scaffolding to enrobe the entire building for the duration of the project. The mega-store offered the scaffolding commission to MGA, not sure whether they were willing to take it on. "We were," Graves recalls. "And it was a huge success."

As a result, an executive at Target, Ron Johnson, brought Graves on to design teakettles, kitchenware, toasters, even a toilet scrub brush and holder for mass production and sale. Designing products for Target was more difficult than the work he had done for clients such as Tiffany, Graves said, because the big-box store had very hard numbers on profit margin and acceptable price points. But the work, being more challenging, was also very rewarding, he said.

Michael Graves & Associates (MGA) has since reached an amicable split with Target, Graves noted. It became apparent after working with them for 15 years that they were letting go their outside design consultants and hiring designers to bring inside the company. "Now they're one of the largest design firms in the world with 500 designers," Graves said.

In the meantime, Johnson had moved on to become the chief executive of JC Penney, and he has asked Graves to help turn that store around by redesigning the corporation's entire retail approach. Each store will have a smaller store within it that will carry high-design objects and, overall, provide a much higher-quality retail shopping experience. "I'm like a kid in a candy store with this project" Graves said of the challenge. And it will develop into something over the next year that MGA has never done before.

Graves made it apparent in his description of the JC Penney opportunity—as he did in the concluding Q&A program, that his favorite project is always "the next one." When a client comes to MGA with a commission, they expect A-quality work. "We can't deliver B+ work," he asserted. When the firm's reputation is always on the line, anything less that the very best is not good enough.

Combs-Dreiling joked that a woman had said she was going to bring her Target toaster to the lecture to ask him to sign it. "Sure, I'll sign it," Graves replied.

"I told her the toaster, yes, the toilet brush, no," Combs-Dreiling continued.

"I'll sign the toilet brush, too," he said. That brush was on the cover of *Time* magazine and Target immediately sold 6,000 of them, he said before offering another reminiscence: "When my brother saw that, he called to say: 'I'm glad mom and dad aren't around anymore to see what you've become."

The Hotel Michael

Encouraged by Combs-Dreiling, Graves proceeded to discuss a recent MGA project in Singapore, the Resorts World Santosa, an enormous gambling and entertainment complex that includes a hotel on which the client bestowed the name Hotel Michael to honor Graves's meticulous outside-in design detail. Displays of the many elements of the Santosa complex take up a large portion of the exhibition at the VCA.

It was MGA Principal Patrick Burke, AIA, who managed the day-to-day development of the design of the massive mixed-use complex, Graves said. As the project was nearing completion, Graves stepped in to design everything in the hotel from the flatware and china to interior decorations and the doorhandles, he said, chiefly inspired by the Palagio in Siena, Italy.

Working for the client was a challenge, though, he said, since they were focused on creating a basement-area gaming area "the size of Richmond," and on the profit it would bring in. There was a counting room of substantial size, and the client wanted it filled to the top with \$100 bills every night "or else we come for you," Graves quipped. The lucky colors for gamblers in the region are red and gold, and this brobdingnagian complex of gambling galleries is awash with garish brilliance.

In general, "working in China or India sucks," Graves paused to observe. The big commercial firms give away unpaid programming services as a marketing expense, he explained, and the clients there expect that. Smaller firms can't compete in that kind of business atmosphere.



Page 30, bottom, 31, top: Courtesy of Resorts World Sentosa; Page 30, top two, and 31, bottom: Courtesy of Clark Realty Capital

Design for disabilities

It was in 2003 that Graves suffered a mysterious spinal infection that resulted in paraplegia. "The code isn't even close to accommodating [people with disabilities]," he said with force. "People have no concept of the simple indignities that happen every day." In a wheelchair, he said, citing one of the more obvious examples, he can't open and enter an inward-swinging door. Low-vision perspective is an additional object of his interest, since that is yet another non-obvious aspect of using a wheelchair.

When he first went to the hospital in excruciating pain, Graves did not know the cause or extent of any possible damage. And it wasn't until he was in recovery and was given a handicap parking sticker with the word "Permanent" on it that he understood what he was to face. When he was getting treatment in Florida, his greatest fear was losing the use of his hands. He was feeling sorry for himself, he admitted. "I'm pretty much a glass is halffull kind of person. Would my glass be half full as a quadriplegic? I dunno," Graves said. His surgeon promised he would do everything in his power to prevent that, and he did.

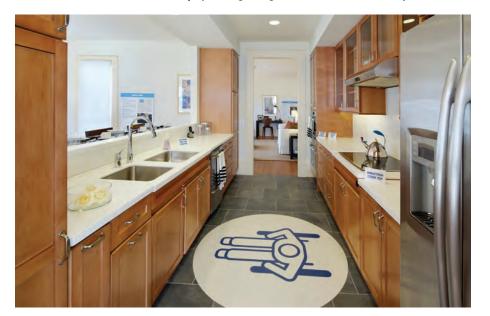
Calling himself a fighter, Graves spoke of the awareness that the turn of events brought to him. As he looked around the First Baptist chapel, he said that 10 percent of the people there will be in a wheelchair one day, and that, in his fight as a new presidentially appointed member of the U.S. Access Board, he would "fight for all of us."

Hospitals in particular are a Third World for people with disabilities, and be wary of healthcare "experts," Graves warned. He explained by relaying his experience of first being in the hospital following his paralysis. There was a final test for getting out of the hospital and going home, he said. The doctor told him he had to get up by himself, get dressed, including his shoes (tying them can take an hour, but Velcro is just too ugly, he said), get in his wheelchair, wash up and shave, and then he would prove he is ready to leave.

Despite his paralysis and limited range of arm motion, he was able to get dressed and to the bathroom, but that's as far as it could go, he said. He couldn't see himself in the mirror, couldn't reach the plug near the floor for his shaver anyway, and the faucet was entirely



The Wounded Warriors demonstration project brings design excellence and accessibility to Ft. Belvoir.





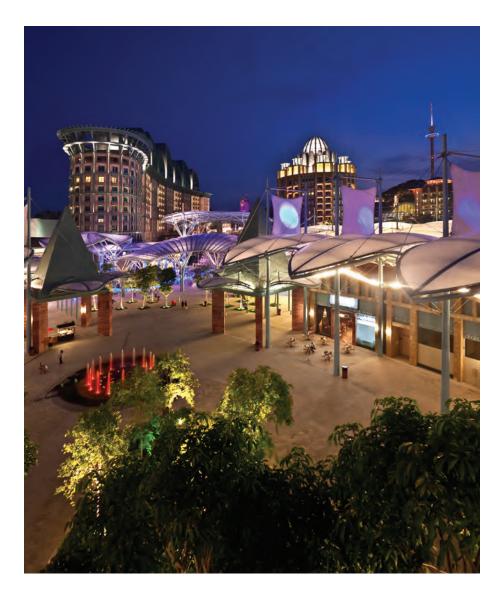
The developers of the Santosa complex named their hotel after Graves.

out of reach. When the doctor came in and asked why he hadn't washed, Graves told him to get a wheelchair from the hall and try it himself. Of course, the doctor couldn't do it either.

The doctor had said the rooms were designed by experts, but the rooms simply didn't work for the people for whom they were supposedly designed, Graves admonished. The hospital administrators weren't doing the most rudimentary user analysis of the built space and didn't see a problem in that. "Now I'm intent on going to one hospital at a time" to fix that, Graves vowed.

The Wounded Warrior demonstrations houses he designed for Ft. Belvoir, Va., has been another far-reaching step toward helping the thousands of people returning from Iraq and Afghanistan with debilitating injuries. His design, he said, was meant to be easily adaptable to other home designs, and that the Air Force is now looking into a similar program.

With that, the conversation between Graves and Combs-Dreiling concluded with a hearty standing ovation. Following a crowded session of well-wishing at the front of the chapel, the two retired, along with 60 guests who had secured reservations, to the VCA just up Monument Avenue to enjoy a reception and dinner to cap the evening.





The Santosa complex, top, offers a wide variety of amusements for revelers. More serious but equally enticing are the Wounded Warrior houses Graves designed for display at Ft. Belvoir, Va. Wheelchair access and comfortable indoor/outdoor living are challenges Graves is eager to take on.

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Architect: Baskervill, Richmond

Project: Family Care Clinic, Central Va.

This 8,000-sf multi-specialty family medicine and urgent care clinic encompasses procedure rooms, imaging, lab, and team space to provide a family-centered care approach for patients. Tel: 804.343.1010 / Baskervill.com



Architect: Clark Nexsen, PC, Hampton Roads, Va.

Project: Armada Hoffler Office Building Tower, Virginia Beach

This 130,000-sf LEED* Gold project provides state-of-the-art multipurpose classrooms, lecture halls, resource centers, and a 1,000-seat theater for instruction and war college simulations. Tel: 757,455,5800 / www.clarknexsen.com



Architect: Dewberry, Fairfax

Project: Fairfax County Fire & Rescue Training Center

Dewberry is designing a 27,000-sf two-story classroom and administrative support addition to the existing main academy facility along with selective renovation of the existing structure. Tel: 703.698.9050 / www.dewberry.com



Architect: Mitchell/Matthews, Charlottesville

Project: Wertland II, Charlottesville

Built on topographically challenged, under-used land in a historic neighborhood near Jefferson's Rotunda, this complex combines classical geometry with the Craftsman style common to the neighborhood. Tel: 434.979.7550 / www.mitchellmatthews.com

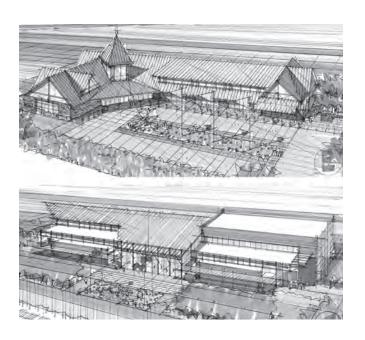
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Architect: Moseley Architects, Virginia Beach
Project: Radford University, Radford, Va.

The new five-story, 142,000-sf academic building will accommodate programs for the College of Humanities and Behavioral Sciences along with supporting administrative functions. Tel: 757.368.2800 / www.moseleyarchitects.com



Architect: Price Studios, Richmond

Project: Williamsport Regional Airport Terminal, Williamsport, Pa.

Shown are two of several image concepts developed for a 35,000-gsf replacement terminal for Williamsport, home of the Little League World Series. Tel: 804.521.2266 / www.pricestudios.com



Architect: ODELL, Richmond

Project: Corporate Center, Richmond

This 90,000-sf amenity building provides order to an existing campus and heightens its arrival experience. Terra cotta bris soliel, rain-screen cladding, programmed window shades, and a vegetative roof convey sustainability. Tel: 804.287.8200 / www.ODELL.com



Architect: SFCS, Roanoke

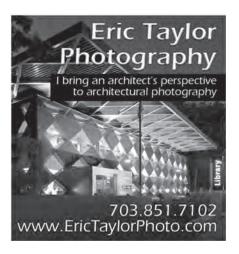
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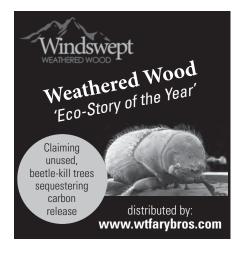
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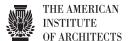
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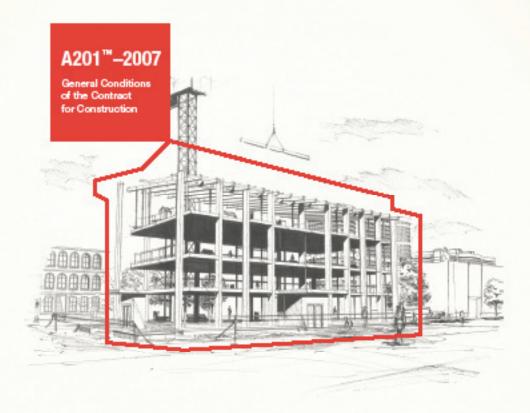












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