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From the Editor

Croc Envy

I’m not exactly the kind of guy who rides the tide of fashion trends, but from time to time the world of wear does manage to catch my attention. Fashion maven or not, you’d have to be severely impaired to overlook the flood of candy-colored plastic clogs that have sprouted on the feet of Americans during the past year or so. I’m talking about Crocs – those bloated, skid-resistant shoes whose lollipop hues are appearing in every public place from schools to grocery stores.

Introduced in late 2002 by a company in Boulder, Colorado, Crocs were first intended for the boating/outdoor market because of their slip-resistant, non-marking sole. But the buying public had other ideas. Sales edged up to $13.5 million in 2004, then rocketed to nearly $109 million in 2005.

While it’s a compelling business story, the meteoric rise in popularity of Crocs also says something about American culture and our thirst for new – and better-designed – goods. In the case of Crocs, the appeal of the quirky clog is enhanced by the fact that the shoes are molded from an antimicrobial resin, making them less likely to smell bad. Our fascination with material things – especially things that incorporate good design – is the basis for a book I recently discovered called Humble Masterpieces: Everyday Marvels of Design. Written by curator Paola Antonelli, the book celebrates 100 objects that appeared in an exhibition Antonelli organized at the Museum of Modern Art in New York.

Humble items such as Band-Aids, bobby pins, and M&Ms are the fodder of this cheery tome and the springboard for Antonelli’s commentary on the subtlety of good design. “While some objects naturally attract our attention for their extraordinary character and desirability, many others are so apparently ordinary as to go unnoticed,” writes Antonelli. “If they work well, chances are we won’t pay them much attention. However, in spite of their modest price and demure presence, some of these things are true masterpieces of the art of design.”

Many of the examples she gives are ubiquitous. Take the Frisbee, which appropriated its name from the Frisbie Baking Company pie tins that Ivy League students sailed through the air long before the flying plastic saucers were created. Then there’s the Bic Cristal ballpoint pen, introduced in 1950 by French Baron Marcel Bich. He improved upon earlier ballpoints by using a tungsten ball (more stable than brass) and plastic polymers. And consider the Post-it Note, whose replaceable adhesive uses technology invented in 1968, but not applied until 3M researcher Art Fry decided to create a bookmark that wouldn’t slip out of books. The “sticky note” soon followed. My personal favorite is the Slinky, which was discovered by accident when an experimental torsion spring fell off a shelf and walked itself across the astounded engineer’s workshop.

All of this brings me back to the subject of Crocs, which had remained outside the limits of my temptation until a recent beach trip to South Carolina. There, thanks to a longtime friend, I discovered a new version of the shoe that was more suited to my lifestyle. He paraded to the dinner table one night wearing not a jelly bean-colored blob of rubber on his feet, but a sleek, minimalist, molded flip-flop – a kind of streamlined turbo-flop with the weight of a flea. Within a week, I had acquired my own pair: the perfect complement to summertime lounging and free-flowing ventilation while I’m tending the grill.

So fashion maven I’m not. But I am a sucker for any object that combines eye-grabbing form with superior performance. Now my Croc envy is no more.

-Vernon Mays
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New Traditions
The much-anticipated John Paul Jones Arena at the University of Virginia, by VMDO Architects and Ellerbe Becket, is carefully tailored to its sloping site. By Rab McClure

Heightened Opportunity
By stacking a basketball court atop a natatorium at Trinity University in Washington, D.C., HughesGroup Architects achieves an efficient new athletic facility. By Allen Freeman

Physical Conditioning
In an ambitious expansion of the athletic complex at St. Christopher’s School in Richmond, Bowie-Gridley Architects takes a responsible approach to preserving the scale and character of the campus. By Mary Harding Sadler

Design Lines
new developments in design

Taking Note
doing the small thing well

In this issue:
Design Industry Consultants Directory, p. 34

On the cover:
John Paul Jones Arena
Photo by Prakash Patel

In our next issue:
Historic Preservation
By presenting a wealth of practical information in an easily digested format — along with a full-scale house that can be built for $120 per square foot — the National Building Museum hopes to convince the American public that green design is not only a socially conscious choice, but a relatively affordable one as well. In its latest blockbuster exhibition, The Green House: New Directions in Sustainable Architecture and Design, the museum explores the growing mandate for green design in house construction.

The milestone exhibition — which remains on view through June 3, 2007 — strives to make the point that environmental priorities and high aesthetic standards are a natural complement to one another, says lead curator Donald Albrecht. “Today we are seeing architects and interior designers combining new, high-tech materials and old-fashioned architectural wisdom to create houses that are glamorous, comfortable, and that sit lightly on the land,” he says.

Albrecht notes that the potential ecological benefits made possible through advances in sustainability are significant in the United States, where upwards of a million single-family homes are built each year. It's also significant that the typical new house is far larger than suburban homes of previous generations, says Albrecht — a fact that cuts against the grain of long-term sustainability.

Of the thousands of houses constructed according to principles of green design in recent years, The Green House highlights 21 examples that are especially interesting and well-designed. Drawn from around the world, the houses emphasize the importance of regional influences on residential design. Each of the featured houses tells a different story, whether it be the low, wood-and-stone residence that architect William McDonough set into a leafy enclave in Charlotte, North Carolina; the flamboyant town house built in Melbourne, Australia, by architect Peter Carmichael; or the glass box dramatically suspended on a steep hill outside Stuttgart, Germany, by architect Werner Sobek. To bring the subject alive, sample wall sections made from materials such as straw bales and rammed earth are placed near models and photographs of these and other houses with similar structural systems.

One section of the exhibition embraces a discussion of “Five Green Principles,” which focuses on smart land use, solar strategies, energy efficiency, air quality, and resource conservation. Many visitors are engaged by a heliodon, a machine that simulates the movement of the sun. Paired with a residential model, it demonstrates how the orientation of a house can optimize the use of solar power. More interesting, however, is the Materials Resource Room, a gallery where a wide selection of environmentally friendly materials are cleverly presented as floors, ceilings, walls, and countertops. Visitors can walk on the flooring materials, and touching is strongly encouraged.

For many, the highlight of the exhibition may well be the Glidehouse™, a full-scale reproduction of a sustainable house designed by California-based architect Michelle Kaufmann. The modern structure features glass curtain walls and sliding, louvered panels. But its aesthetics are only part of the story.
The exhibition includes a resource room where visitors can get up close and personal with a wide variety of sustainable materials.

Located at the entrance to the exhibition, the single-story, prefabricated house is positioned to allow visitors to experience the interior space, and its finishes and furnishings, as they proceed through the gallery. Inside the house's great room and kitchen, clever labeling identifies materials and manufacturers, while also explaining the environmentally conscious strategies that are applied in its design and construction.

Visitors have the freedom to explore in great depth, with opportunities to peer into built-in cabinets, inspect flooring made of rapidly renewable bamboo and carpet tiles of recycled materials, examine countertops made from recycled paper, touch furniture upholstered in organic textiles and crafted of sustainably harvested/reclaimed wood, and glimpse the framework of the house's roof and walls. Energy-saving appliances and cabinets of sustainable hardwood enhance the kitchen. Water-saving fixtures and a tankless water heater outfit the bathroom. And walls are finished in environmentally friendly (or low-VOC) paint.

The exhibition is supported by a wide range of programs at the museum, including lectures, construction watch tours, and films. A symposium on green affordable housing is being planned for next spring. In addition, the exhibition includes interactive components and touchable materials designed to appeal to young visitors, including a free family activity guide. But there's something in The Green House to appeal to all ages, including a message we would all be wise to heed. — Vernon Mays

For more information on The Green House, go to www.nbm.org.
Symposia are the stuff of conflicting opinions. So, in the midst of dire forecasts about the Earth's future at the "Practice Green" symposium on September 15, there were expressions of hope and promise. Perhaps consultant Karl Bren's comment was an appropriate summation: "Either we all win, or we all lose big time."

Bren, owner of the GreenVisions consulting firm, was one of the advisers to the symposium, presented by the Virginia Center for Architecture, the Virginia Society AIA, and Virginia Local Initiatives Support Corporation. His remark came during the wrap-up session with two of the day's speakers - Bryna Dunn of Moseley Architects and Dr. Joyce Finnerty-Lewis, a specialist in the field of neurological research - and architect Frank Harmon, FAIA, of Raleigh, North Carolina.

Other speakers in the day-long symposium included Donna Reynolds and Chuck Bowles from the American Lung Association of Virginia, Dan Slone of McGuireWoods LLP, Paul Ferguson from the Arlington County Board of Supervisors, Ferrell Jones from Bank of America, and Kimberly Hosken from the U.S. Green Building Council.

The dire predictions came from keynoter L. Hunter Lovins, a Colorado-based lawyer, entrepreneur, and renowned speaker on the environment. But she also balanced her observations with evidence of a shift in the awareness of what can be done to stimulate positive change. "Climate change is for real," she began. "And it's happening even faster than the models predicted." This increased change pushes us closer to what Lovins called as "the threshold effect," the point at which so many things are on the verge of change that the combination of them is unpredictable.

Lovins, with her down-home presentation style and command of science, captivated the audience of architects, public officials, development professionals, and financial representatives. "Scientists in the UK say that we have seven years to turn around" the global warming trend, she said. And the stakes? "We are risking the ability of the human race to survive."

On the side of optimism, Lovins recounted the tale of NMB Bank in Amsterdam, designed by architect Tom Albers. Over three years, Albers and the bank leaders produced a building that employees and clients want to live in. Weddings take place there. And occupants are happier because the light, both natural and artificial, is variable. The air quality is better. And water running in a trough within the handrails brings them closer to nature.

Albers and NMB proved that good design not only enhances employees' quality of life and happiness, but also improves the bank's profitability. Other corporations - from Wal-Mart to Lockheed - have made similar commitments. "What does this say to you?" Lovins asked. The business case, she said, is that companies will ignore the environment at their own peril. But, by paying attention to the environment and seeking advice from Mother Nature, businesses can reduce cost and reduce risk while enhancing profitability. "Green will lead," said Lovins.

"Practice Green" was sponsored by Capital One, Land America, and Moseley Architects.
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Modern Additions at Mount Vernon

An 11-year design and construction process culminated on October 27 with the opening of two new visitor facilities at George Washington's Mount Vernon estate. The new Ford Orientation Center and Donald W. Reynolds Museum and Education Center welcomed visitors to a new era in Mount Vernon's interpretive program, which now places greater attention on the life and legacy of Washington the man, and not simply his Potomac River estate.

The new buildings, designed by GWWO Inc. Architects of Baltimore, house iconic artifacts and new exhibits that illuminate chapters of Washington's life including early adulthood, military leadership, and the Presidency. In response to the desire of Mount Vernon's regents to ensure that the new facilities did not overwhelm or detract from the historic mansion, GWWO tucked 65 percent of the 67,000-square-foot complex beneath the four-acre pasture just inside the main gate. The subterranean scheme guarantees that the pastoral setting and viewsheds are preserved. Yet, in striving to make a minimal impact on the site, the architects didn't sacrifice the interior experience, which benefits from the light that comes through high clerestory windows.

The absence of 18th-century design motifs has drawn positive attention from critics. Detailed in a modern vein, the buildings have façades of glass, metal, and brick along with subtle interior finishes such as Spanish limestone, plaster, hardwoods, and unadorned ceiling and wall fabrics.

Mt. Vernon's new complex earned high praise from observer Roger K. Lewis, who wrote in The Washington Post, "The new centers convincingly show that designing contextually harmonious, visually rich architecture does not depend on importing trendy aesthetic formulas or ideologies, nor on replicating historic architectural styles."
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Touring the new John Paul Jones Arena at the University of Virginia is an eye-opening experience. For starters, a walk through the building impresses the visitor immediately with its sheer size. More than 365,000 square feet of floor space is cleverly tucked into the sloping site, with nearly 12 million cubic feet of volume and a basketball game capacity of 15,000-plus, making it the largest indoor arena in Virginia.

More than a basketball arena though, the building – designed by VMDO Architects of Charlottesville – contains the myriad support facilities needed to recruit and support top players. A simple walk-through provides a glimpse into the complex life of today's student-athlete, with practice courts for men's and women's basketball, weight rooms, exercise equipment, and a

The much-anticipated John Paul Jones Arena at the University of Virginia, by VMDO Architects and Ellerbe Becket, is well-tailored to fit specifically on its sloping site.

By Rab McClure
A landscaped zone at the entrance (left and right) creates a buffer between the arena and nearby parking areas.

hydrotherapy center. Included are spaces for compiling press reports, conducting interviews, and producing TV broadcasts. In addition, it provides academic support facilities, a nutrition center, and a dining hall—all organized to continue functioning while the arena is serving as an entertainment venue. (Consider how ugly things could get if the football team was denied access to dinner because The Wiggles were on stage).

But if the building’s operational logistics seem complicated, consider what it takes to keep a campus running smoothly. Despite its largely private funding, this project—built for a public university—incorporates infrastructure for heating and cooling a large portion of U.Va.’s North Grounds, provides a parking deck for 1,500 cars, dovetails with the layout of the North Grounds Connector road, and serves as catalyst for an inventive campus-wide strategy for managing storm water absorption and runoff. All on a site that once was a parking lot.

Standard practice for a complex, highly visible public project such as this is to hire a large, nationally renowned firm with project-specific experience to lead the design work, assisted in production by a smaller local practice. But in the case of John Paul Jones Arena, tied to recent success with other U.Va. athletic projects, VMDO earned the lead role. Technical support came from arena specialists Ellerbe Becket, of Kansas City, Missouri. VMDO principal-in-charge Bob Moje, AIA, stressed the benefits of collaboration: “We traveled together to see numerous college basketball and NBA arenas, but we also looked further afield, at concert hall and theater designs. We were looking to create something unique here.”

The result is intriguingly paradoxical—the project is massive, but doesn’t overpower its site. The scale appears modest from the entrance, but its cavernous arena is awe-inspiring. The cantilevered upper decks loom impressively over center court, but every seat feels close to the action. And, despite the project’s private funding and the importance of selling prime seats, the distribution of amenities feels remarkably egalitarian. But look beyond the project’s complex program and planning, and you’ll find its fundamental lesson refreshingly straightforward: pair a clever plan with a thoughtful section, and great things can happen.
The arena scheme is horseshoe-shaped, with relatively few seats on its flat, east side - a break with convention that led to a number of unique and characterizing innovations. First, the flat end, with its lowest tier of retractable seating, gives the arena an obvious stage location. Its stepped brick walls and piers, opening to a daylight-filled concourse with views of the trees beyond, lend novelty to the interior.

"Typically, when you walk into an event space, it's devoid of context; you could be anywhere or nowhere. The only way to tell where you are is to look at the logo on the floor," explains Randy Livermon, AIA, a VMDO principal. "To avoid this and provide a context for games and performances, we brought exterior features inside the building to create a unique backdrop on the east end. Whether you're sitting in the stands or watching the game at home on TV, you'll know you're watching a game at the University of Virginia."

A second benefit of the horseshoe plan is that its flat north and south sides allow for seating immediately behind the team benches, much closer than circular or elliptical layouts. This fact was not lost on students, who chose two prime locations for their cheering sections: the east end bleachers, where they can taunt opponents facing clutch, second-half foul shots; and the sections immediately behind the opponent's bench. By design, the layout makes the most of home court advantage.

The horseshoe plan also had practical advantages. Fabricating and assembling curved concrete beams, platforms, and balconies would have been much more complicated than the straight segments employed here. Switching to the U-shape configuration reduced construction costs and saved time, partly because the open end of the U was built last. That strategy allowed on-site staging of the massive trusses, which could be tracked into place individually, using cranes with caterpillar treads, working from the inside out.

The project's cross-section complements the plan. Nestled into the sloping site, the western entry deposits visitors near the mid-point of the arena's height. The effect is one of compression and release. Visitors enter a building that appears to be a certain size, move through a generous-but-subtle lobby, then cross the threshold into a startlingly cavernous arena, where they are confronted instantaneously by its scale and volume. Banks of seats rise toward strips of clerestory windows, while others sweep gracefully down and away toward the court. Tucked subtly in-between is a ring of 19 private suites. Because corporate logos and advertisements are relegated to a 670-foot-long LED ribbon board, the effect when it's turned off is one of restraint. The interior's dark seats and finishes fade to the background, emphasizing the brick-and-glass east end, with its sylvan view, and the arena floor. The effect is theatrical - the audience and surroundings defer to the drama on center stage.

Tiers of seats grow increasingly steep as they rise to the upper balconies, much like ancient Greek theaters. In concert with the horseshoe plan, the sweeping section gives the arena its character - again, paradoxical - simultaneously vast, yet intimate. The lower bowl in John Paul Jones Arena is smaller
A thoughtful cross-section and windows along the arena's east end (facing page) distinguish the venue from comparable facilities. Outside, as the hillside drops away, a true sense of the building's scale is revealed (below).

than those of comparable venues, placing lucrative private suites closer to the court and making them more appealing for both games and concerts. Because the balconies are steep, the top seats are closer to the court, more akin to a concert hall than a sports arena.

As he walked through the building, Moje described it as chameleon-like, changing functionally to suit the needs of its users - from Disney on Ice, to an Eric Clapton concert, to an ACC basketball game. But it's also intriguing to view the building as a figurative chameleon, capable of paradox and multiplicity. And its attitude toward architectural style is curiously eclectic.

A great deal has been written already about the University of Virginia's architectural heritage and what role classical detailing should continue to play in it. This particular project's architects have written that the white columns, trim, and precast-concrete pergola rafters used sparingly on its exterior "distinguish it as uniquely U.Va." There are, no doubt, those who see these elements as the very
thing tying this building to its place. And, to be fair, it’s difficult to imagine a building of this prominence at the University gaining approval or funding without them. But it’s a shame, because such limited application seems merely timid — as if the massive contemporary building behind the screen of entry columns is the brontosaurus in *Dawn of the Dinosaur*, trying unsuccessfully to hide behind a telephone pole. One could argue the innovative, site-specific plan and section do far more to integrate the building to its unique setting.

In the final estimation, one measure of a truly good building is its ability to become many things to many people, and the designers of the new John Paul Jones Arena have tackled a complex and difficult problem with aplomb. The solution is creative, innovative, and unconventional — ingenious even — and tied to a thorough understanding of the local project conditions. That VMDO’s team could develop such a unique and apparently successful arena in its first attempt at this project type is a tribute to the firm’s resourcefulness and hard work. It is also encouraging news for local firms everywhere, eager for a larger role in major regional commissions.

*Rob McClure is an assistant professor in the Department of Interior Design at Virginia Commonwealth University.*
Through the west entrance, the lobby (both pages) is intentionally understated, increasing the drama of entering the arena.
Heightened Opportunity

By stacking a basketball court atop a natatorium at Trinity University in Washington, D.C., HughesGroup Architects achieves an efficient new women’s athletic facility while contributing a new asset to the city’s Brookland neighborhood.

By Allen Freeman
had an epiphany, a middle-of-the-night, sit-up-in-bed vision,” says Wayne L. Hughes, AIA. The architect is showing a visitor the $16.6 million Trinity Center, a combination basketball arena and natatorium at Trinity University in northeast Washington, D.C., designed by HughesGroup Architects of Sterling.

Administrators of the university in northeast Washington had interviewed two architecture firms for a new campus sports center, couldn’t make up their minds, had advertised again, and the second time interviewed three new firms, including HughesGroup, of which Hughes is principal. “They’d asked us all to come back with more ideas and feelings about the project. Everyone else had proposed it spreading out” into a couple of structures, he says, referring to a functional program that included the basketball court and swimming pool, plus a fitness center. At the time, that’s the way it was shown on the campus master plan. “But,” Hughes says with a bright smile, “the Lord – or someone – gave me the vision to say that it is an urban campus, and the best way to accommodate all their indoor uses on this tight site was to stack it on two levels. There were a couple of good sisters in the interview, it was the Easter season, and they said my epiphany was seasonally appropriate.”

As it happened, Hughes’ idea fit into the university’s existing vision of renovating its 1927 multi-use building, Alumnae Hall. In Alumnae Hall’s formerly unfinished basement, Geier Brown Renfrow Architects of Alexandria, the architect of record for the entire complex, has installed the fitness center and sports administration facilities. Stacking the gymnasium over the natatorium, interconnecting the new 66,000-square-foot building with Alumnae Hall, and eliminating the fitness center from the new construction all proved efficient and cost-effective, Hughes says.

The new $20 million complex encompasses not only the new building and renovation of Alumnae Hall’s basement, but also an outdoor athletic field for soccer, field hockey, and lacrosse, and six tennis courts. Named the Trinity Center for Women and Girls in Sports, the complex has, according to school administrators, met and exceeded their expectations for serving the student body, attracting new students, and serving the larger community.

Although Trinity’s 27-acre campus is part of the Brookland neighborhood near the Shrine of the Immaculate Conception, the Pope John Paul II Cultural Center, and Catholic University, it is an independent Catholic institution. Founded in 1897 by
The tall entrance hall opens to the arena upstairs, with views to the pool below.
the Sisters of Notre Dame as a liberal arts college for women, today its College of Arts and Sciences, School of Education, and School of Professional Services enroll about 1,700 women plus a few men, mostly from the Washington area. Ninety percent are minority students, including 65 percent who are African Americans.

Trinity Center, Alumnae Hall, and Old Main Hall (opened in 1899) are clustered near the center of the hilly campus. Old Main, flanked by the university's 1920s chapel and 1960s library, faces Michigan Avenue, and Alumnae Hall rises directly in the rear of Old Main. The new Trinity Center sits up behind Alumnae Hall, and its neoclassical fenestration—consisting of rounded windows all the way around, plus oculus windows on the front and back—echoes that of Alumnae Hall. All three buildings are roofed in red tile. Trinity Center's entrance axis is perpendicular to those of the other two, however, and Trinity Center's paved forecourt is a couple of stories lower than the entrance to Alumnae Hall.

From the forecourt, people enter a two-story hall extending the width of the building. From the center of the hall, views are available up into the gymnasium and down into the pool. Hughes says he wanted first-time visitors entering the hall to immediately comprehend the building's layout. Another benefit is that views into the larger spaces beyond increase the apparent depth of the relatively shallow hall. Reminiscent of foyers in split-levels from the 1960s, this is meet-and-greet space, as Hughes calls it. To lower costs, Hughes specified wood wainscoting only about a third of the room's height and less expensive finishes above. Similarly, the railings on the stairs are painted steel, and a couple of large niches centered on opposing walls are merely painted to look like marble. On the other hand, the pendant light fixtures and sconces, although small, are more than utilitarian. They subtly dress up the space.

The arena takes up almost all of the building's upper level. The room seats 1,600 when the opposing tiers of bleacher seats are in place for basketball and other court sports. When the bleachers are retracted, the column-less room can seat up to 2,500. At the far end of the court, opposite the entrance, a wide, shallow alcove lined with windows provides a place for dance practice, Pilates, and equipment storage. Circling the court above the bleachers is a walking track lined with a simple colonnade. Exposed steel trusses support the shallow gabled roof; fiberglass sound-absorbing blankets bow from the ceiling.

The lower level is given over to a six-lane, 25-yard-long pool that meets NCAA competition standards, a spa, changing rooms, and access into the enclosed passageway leading to the fitness center in Alumnae Hall's basement. Plans are to build another passageway at the gymnasium level when Alumnae Hall is further remodeled.

Trinity Center, the university's first major new construction project in more than 40 years, puts a dramatic new emphasis on fitness and athletic competition at the school. Before the center opened in November 2002, Trinity women practiced basketball at a commercial venue in Maryland, requiring a 45-minute bus ride each way, and played their home games at Catholic University. Patricia McGuire, president of the school since 1989, is credited with making emphasis in sports—in addition to recruiting women from the Washington area's minority populations—important element in turning around Trinity's once dwindling enrollment. Several elderly sisters have become
enthusiastic users of the spa, and, as the school's largest convocation space, the complex has become home to such university functions as annual alumnae meetings and banquets.

The center also has made the college a new focus in the neighborhood, whose residents pay a small fee for user privileges. Community membership now exceeds 600, according to Ann Pauley, a Trinity vice president. "Altogether, we've probably had upwards of 100,000 people come through the Trinity Center — people who, but for the center, would never have visited our campus," Pauley says. She mentions a YWCA girls' sports exposition, Girl Scouts events with 700 attendees, and a black-tie dinner for attendees if a Freddie Mac/D.C. Council of Governments annual event honoring foster parents.

Title IX, the 1972 federal legislation that put funding for women's sports on a par with men's, "has been the catalyst for unprecedented opportunities and participation in sports," writes Jenny Steffens Church, the editor of Trinity, the alumnae magazine. It is unlikely Trinity University would have built the Trinity Center were it not for Title IX. But the Brookland neighborhood, HughesGroup, and Geier Brown Renfrow are Title IX beneficiaries as well.

Allen Freeman is advisory editor of The American Scholar, the quarterly magazine published by Phi Beta Kappa in Washington, D.C.
Coffers mitigate the low ceiling in the natatorium (left). A colonnaded walking track encircles the gym's playing court (right).

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**Sub-basement Plan**

1. Lobby
2. Men's Locker Room
3. Women's Locker Room
4. Pool/Spa
5. Team Room
6. Mechanical
7. Team Area
8. Storage
9. Gymnasium
10. Alumnae Hall

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**Basement Plan**

2006: number three
In an ambitious expansion of the athletic complex at St. Christopher's School in Richmond, Bowie Gridley Architects takes a responsible approach to preserving the scale and character of the campus.

By Mary Harding Sadler

The most potent architectural embodiment of this private school's stated goal of "educating the whole boy in mind, body, and spirit" is the recently expanded $14 million athletic center on the West End Richmond campus of St. Christopher's School. A multipurpose facility surrounded by refurbished playing fields, the new building was designed by Bowie Gridley Architects of Washington, D.C., and constructed in two phases. The first phase, completed in 2003, included construction of the two-story Kemper Fitness Center at the rear of the school's gymnasium. The second phase, which opened in January of this year, was the 53,000-square-foot field house.

Indeed, the combined facilities of this 109,000-square-foot athletic complex rival those of many colleges and universities. Because St. Christopher's requires students to be involved in an athletic program, the center is the one building every middle and upper school student uses daily. According to project
architect Rich Salopek, AIA, a specialist in designing athletic facilities for independent schools, St. Christopher's is at the leading edge of secondary schools in providing comprehensive athletic facilities that are not only about training athletes in traditional sports, but are about building lifelong habits that lead to a healthy lifestyle.

Ace Ellis, the school's business administrator and a coach, says a gym is an essential classroom that needs to be safe and functional. The student body, recently increased by 100 students to 940 boys in thirteen grade levels, had outgrown its athletic facilities. The athletic center's program was derived by a straightforward calculation of the number of students needing space for physical education and competitive events throughout the school year, plus some space to ensure flexible use.

In 1999, St. Christopher's engaged Brailsford & Dunlavey, a Washington, D.C., facility planning and program management firm, to complete an athletic facilities master plan at the same time a similar exercise was conducted by nearby sister school, St. Catherine's. The program implemented by Bowie Gridley grew directly from this planning effort, which considered the individual and joint needs of the two affiliated independent schools.

While St. Christopher's placed priority on physical conditioning, a multi-use field house, and both indoor and outdoor tennis courts that would be available to St. Catherine's girls, the nearby girls' school built a competition-sized indoor pool that could serve as the home facility for the St. Christopher's swim team. Fittingly, there are St. Catherine's and St. Christopher's locker rooms on both school campuses.

By far the largest building on the St. Christopher's campus, the new athletic center faces west toward the campus' main entry. The octagonal tower centered in the west façade is
A gracious, skylit stair hall links the fitness center, basketball court, wrestling center, and field house.
the focal point of the new building and marks the principal ac­
access used by visitors and students. The elevator rising through
the entry tower is wrapped on three sides with a dramatic 37-
foot-tall climbing wall that is visible from within and outside
the building. This main entry leads to a lobby and stair hall that
link Scott Gymnasium, the Fitness Center, and Field House.
While the public east-west axis connects the building’s primar­
"spaces, the north-south axis is lined with team changing rooms
and locker rooms.

At the heart of this vast athletic center is the Breneman
Directors’ Reception Room, an elegant space where images
of the school’s athletic history grace the walls and students’
as they’re showcased by trophy cases on the west
side and by a picture window opening into the field house on
the east. Surfaced in glass on both sides, the trophy cases are the
backdrop at the upper landing of the lobby’s double stairs. The
Directors’ Reception Room is used for team meetings, presen­
tations, and the sale of snacks during school dances.

The athletic center incorporates the renovated 1959 Scott
Gymnasium, a temple-like building that houses the indoor bas­
ketball court above the main locker room facility. The gym,
whose portico is on axis with Henri Road, marks the northeast
corner of the quadrangle at the heart of campus. Juxtaposed
with the new athletic center is the adjacent, small-scaled Upper
School Chapel, which was the school’s first gymnasium.

Before the new field house was built, the existing metal-
clad field house was demolished. The new field house was ro­
tated 90 degrees on the site, which allowed a new full size play­
ing field to fit on the east flank of the building. Handsome
bleachers nestle against this long wall between brick cheek walls
with molded brick coping. Like the building it replaced, the
new field house is a pre-engineered structure, but its poten­
tially overwhelming girth is skillfully disguised on the exterior
with stepped parapets and shallow Doric arcades that echo the
Scott Gymnasium portico.

In addition to hosting track events, the field house serves
many functions. It’s used for Fall Festival, the school auction,
and several annual tournaments. It is where students have PE
and recess when bad weather prevents outdoor activity. It’s a
home for the school’s summer program, Summer Experience,
and will be a locus for school-sponsored symposia, such as the
2005 program “Building Leaders from the Inside Out,” that are
open to the community at large.

The floor area of the field house was determined by the
need for a 200-meter track surrounding four basketball courts,
leaving enough of a buffer to minimize collisions. As eighth-
grader Max Parks says, it works well because “it’s a space where
there are three basketball games going on at one end, an ulti­
mate Frisbee match at the other, and I have still have plenty of
room to walk around the track with my friends and chat.”

The field house floor level was set by the lower floor of Scott
Gymnasium, which houses the main locker room. Lowering
the floor level minimized the impact of the structure’s massive
scale on the landscape and prevented its height from towering
over the smaller Georgian Revival-style gym.

The genius of this athletic center design is that Bowie
Gridley has logically shaped the huge volumes of the program to
create a building that enhances and orders the campus. Rather
A 30-foot climbing wall is the focal point of the entry tower. Other facilities include the weight room (below) and indoor track (right).
than overwhelming the smaller nearby buildings, the athletic center deliberately repeats architectural features and materials that characterize the school's historic core. The huge masses of the building are scaled down with varied parapet heights, broad entablatures, and low recessed porches.

The school's 2000 master plan by Ellerbe Becket specified an exterior palette of red brick, white trim, and metal roofing, and strongly recommended the continued use of Georgian Revival elements such as multi-light wood sash, neoclassical trim, and brick jack-arches. The architects implemented the master plan's directives using the traditional materials and stylistic features that dominate the campus architecture. To their credit, it is Bowie Gridley's effective application of good proportions, and their creation of graceful symmetries and a bold focal point, that have produced a remarkably engaging building that knits itself easily into the village-like campus.

Mary Harding Sadler, a historic preservation architect, is a principal of Sadler & Whitehead Architects of Richmond.

**Project:** St. Christopher's School Athletic Center and Fieldhouse  
**Architects:** Bowie Gridley Architects, Washington, D.C. (Richard Salopek, AIA, project manager; Steven Stotler, AIA, Elise Robinson, AIA, Kirk Guillory, project architects; Ronda Bernstein, Richard Sachs, project team; Tom Zacharczyk, construction administrator)  
**Consultants:** Draper Aden Associates (civil engineering); Dunlap & Partners Engineers (MEP/structural); Ian Robertson (landscape architecture); Brailsford & Dunlavey (facilities programming)  
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To avoid overwhelming the campus, the athletic center's mass is modulated by varied roof forms, deep entablatures, and shallow colonnades.

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Architect: BCWH Architects, Richmond
Project: Lobs and Lessons Tennis Center

Lobs and Lessons serves at-risk children through tennis instruction, literacy and leadership activities, life skills, and tutoring. Its new facility will provide administrative and student program functions with offices, classrooms, and two tennis courts. www.bcwh.com

Architect: Baskervill Motorsports, Richmond
Project: Richmond International Raceway Seating Expansion

This capital improvement project involves the addition of 7,843 seats in a new 18-story structure located in Turn One. The three-tiered grandstand also will include a 700-person club for fans looking to enjoy a race weekend in style or for businesses seeking to entertain clients. www.baskervill.com

Architect: BeeryRio, Springfield
Project: Long and Foster

Located in the heart of the Dulles/Route 28 corridor in Chantilly, this facility was designed as the corporate headquarters for Long & Foster Realtors. BeeryRio worked with the clients to express their traditional values utilizing a traditional Virginia architectural style. www.beeryrio.com

On the Boards listings are placed by the firms. For rate information, call Inform at 804-644-3041.
Architect: Clark Nexsen Architecture & Engineering, Norfolk
Project: JDC/FFCC Joint Forces Command Center

This 50,500-SF Command Center for the U.S. Joint Forces Command in Norfolk creates a healthy, efficient, and flexible workplace that also fosters collaboration. Indirect lighting, multiple forms of task lighting, and sound-absorbing finish materials support these objectives. www.clarknexsen.com

Architect: Cunningham Quill Architects, Washington, D.C.
Project: Awbrey Park Master Plan

This 11-acre master plan for Leesburg seeks to convert the former industrial area into a vibrant Traditional Neighborhood Development with 350 multi-family dwellings, 47 town homes, and more than 100,000 SF of new retail and commercial spaces. 202-337-0090 / www.cunninghamquill.com

Architect: CMSS Architects, Virginia Beach, Reston, Richmond
Project: The Lofts at Town Center

Located adjacent to the new Sandler Center for the Performing Arts and overlooking a new public plaza, this project will house 56 new industrial, loft-style condominiums and street-level retail anchored by a national restaurant tenant. 757-222-2010 / www.cmssarchitects.com

Project: Harvard University Center for Hellenic Studies

This adaptive reuse and expansion of a facility in Washington, D.C., will create a digital marketplace. In collaboration with Convergeo, the central space will become a highly flexible A/V research environment to study modes of interaction, connectivity, and digital interface. 703-682-4900
On the Boards

Architect: Dominion Seven Architects, Lynchburg
Project: 1008 Commerce Street

This Lynchburg project includes the renovation of the Bailey Spencer Hardware building and construction of a new adjacent building. The lower floors will be retail space, while the second floor of the new building – designed to complement nearby warehouses – will house apartments. 434-528-4300

Architect: Gresham, Smith and Partners, Richmond
Project: Myrtle Beach International Airport Terminal

This new two-level, 14-gate airport will be a complete replacement terminal located across the airfield from the existing Myrtle Beach International Airport. 804-788-0710 / www.gspnet.com

Architect: Geier Brown Renfrow Architects, Alexandria
Project: St. Philip’s Catholic Church

This project for the Arlington Diocese will renovate the interior of the original parish school gymnasium into an appropriate and meaningful space for worship. 703-836-9775 / www.GBRArch.com

Architect: HKS, Richmond
Project: Chagrin Highlands Hospital

Located near Cleveland, this 200-bed facility for University Hospitals Health System incorporates the latest in staff efficiencies, safety, and evidence-based design. The new 500,000-SF hospital and 100,000-SF medical office building will meet the client’s desire for a hospitality feel. www.hksinc.com

On the Boards listings are placed by the firms. For rate information, call Inform at 804-644-3041.
Architect: HSMM, Virginia Beach
Project: Frederick County Public Safety Building

In partnership with Howard Shockey & Sons, Inc., HSMM is designing a 64,500-SF public safety building in Winchester. The facility will house sheriff, fire, and rescue departments; an emergency operations center; and 911 emergency communications center. www.hsmm.com

Architect: HuffMorris Architects, Richmond
Project: Westminster Reformed Presbyterian Church

This second-phase, 15,000-SF addition in Suffolk will provide a triplex youth center with a stage and snack room, classrooms, and a 350-seat fellowship area that can be divided into five additional classrooms. 804-343-1505 / www.huff-morris.com

Landscape Architect: Land Planning and Design Associates, Charlottesville
Project: York County Athletic Complex

LPDA is working with VHB and York County to design and construct 13 new athletic fields in a tournament-level complex. Fields are interwoven with forests and wetlands, adding to the site character. Natural walking trails also are integrated into the complex. 434-296-2108 / www.lpda.net

Architect: Mitchell Matthews Architects, Charlottesville
Project: Darling Downs

Located adjacent to the University of Virginia, this 97,000-SF multi-building apartment complex features underground parking and achieves a density of 60 dwelling units/acre on four levels. 434-979-7550
Architect: MMM Design Group, Norfolk
Project: U.S. Social Security Administration Building

This new three-story facility in Roanoke will include 71,000 SF of office space and provide 337 parking spaces for tenants. Significantly, the goal of the new design-build facility is to be the first building to achieve a Gold LEED rating in the Commonwealth of Virginia. www.mmmdesigngroup.com

Architect: Moseley Architects, Richmond
Project: Prince William County School Administration Building

The open and flexible design will create a collaborative work environment to further the school district's goal of providing a world-class education. The building will be light-filled, utilizing a skylit, three-story atrium and exterior glazing oriented to capture natural light and views. 804-794-7555

Architect: nbj Architecture, Glen Allen
Project: Sheraton Hotel

This 250-room hotel with a 10,000-SF banquet facility and upscale restaurant is located on Rt. 50 south of Dulles Airport. The hotel is a five-story, 150,000-SF building designed in a traditional style with rose-colored bricks and limestone-finish stucco façades. 804-273-9811 / www.nbjarch.com

Architect: SFCS Inc., Roanoke
Project: Cypress Cove at HealthPark Florida

A proposed independent living center in Fort Myers, Florida, overlooks nature preserves and landscaped ponds within an existing community. One-hundred thirty luxury apartments will be clustered around a community center and planted roof gardens. 540-344-6664 / tcampbell@sfcs.com
Architect: SHW Group LLP, Reston
Project: Theodore G. Davis Middle School

This 128,000-SF school is the third designed by SHW following North Point High School and Diggs Elementary School and completing the Charles County, Maryland, Public Schools Educational Complex at North Point. 703-480-4020 / www.shwgroup.com

Architect: Wiley & Wilson, Alexandria & Lynchburg
Project: The Center House, National Center for State Courts

Located in the Capitol Hill Historical District of Washington, D.C., this project is to renovate and modernize an early-1900s row house. The center’s new location will include a three-story rear addition that complements the surrounding historic fabric. 434-947-1901 / www.wileywilson.com

Architect: SK&I Architectural Design Group, Bethesda, Maryland
Project: View 14

Ground was broken recently on this 275,000-SF mixed-use project set on a hillside stretch of 14th Street in Washington, D.C. The building will include 170 residential condominiums featuring floor-to-ceiling, angled bay windows that reveal dramatic views of downtown. 301-654-9300

Project: Trinity Evangelical Lutheran Church

This new 21,000-SF wing for an existing Richmond church includes a contemporary worship center and education space, fellowship center, and offices. A product of the architect’s Master Plan Workshop, the wing will be brick-clad with stucco accents. 800-473-0070 / www.harrisarchitects.org
Today's Seniors Are A Little Different

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Index to Advertisers

Augusta Steel  www.augustasteel.com  p. 46
AVatech Solutions  www.avatech.com  p. 1
Barton Malow  www.bartonmalow.com  p. 12
Beynon Sports Surfaces  www.beynonsports.com  p. 33
Bowie-Gridley Architects  www.bowie-gridley.com  p. 33
Cleveland Cement Contractors  www.clevelandcement.com  p. 9
Color-Ad  www.color-ad.com  inside front cover
Crenshaw Lighting  www.crenshawlighting.com  p. 7
CTI Consultants, Ltd.  www.cti-consultants.com  p. n
Delta Graphic  www.deltaqraphic.com  p. 11
DEMILEC USA  www.sealection500.com  p. 38
Dreaming Creek Timberframe  www.dreamingcreek.com  inside back cover
Dunlap & Partners  www.dunlappartners.com  p. 46
Duradek Mid-Atlantic  www.duradek.com  p. 8
Duron Paints  www.duron.com  pp. 32 & 38
F. Richard Wilton, Jr., Inc.  p. 39
Faulconer Construction Co.  www.faulconerconstruction.com  p. 10
Frazier Quarry  www.stonewallgrey.com  p. 2
Frederick Block, Brick & Stone  www.frederickblock.com  p. 37
Freelancing & Robertson, Inc.  www.fandr.com  p. 33
Haynes Whaley Associates  www.hayneswhaley.com  p. 11
HughesGroup Architects  www.hgaarch.com  p. 2
James Myers Company  www.jamesmyerscom.com  p. 9
Judith Nitsch Engineering  www.jnei.com  p. 46
MSA, P.C.  www.msaonline.com  p. 39
NCARB  www.ncarb.org  p. 39
Petersen Aluminum  www.pac-clad.com  back cover
Photoworks Creative Group  www.photoworksgroup.com  p. 47
Pine Hall Brick  www.americaspremierpaver.com  p. 46
Potomac Valley Brick  www.pvbrick.com  p. 7
Royalwood Associates  www.royalwoodassociates.com  p. 39
Seaboard Concrete Products  www.seaboardconcrete.com  p. 32
Shockey Precast Group  www.shockeyprecast.com  p. 10
Superior Flooring  p. 46
T&B Printing  www.t-nprinting.com  p. 9
Taylor & Parrish, Inc.  p. 13
Timmons Group  www.timmons.com  p. 2
VMDO Architects  www.vmdo.com  p. 12
W.H. Stovall & Co., Inc.  www.whstovall.com  p. 4
The approach to Keswick Hall, a luxury inn just east of Charlottesville, emphasizes seigneurial grandeur. A 1912 Italianate villa—expanded in the '30s as a country club and restored in the '90s as part of Lord Bernard Ashley's upscale travel experiences—is perched above a 600-acre hunt country estate, its bold palette of mustard and maroon in striking contrast to the red brick and white trim that prevail in Jefferson country. This surprise might prepare visitors for another, once they enter the inn and arrive at the threshold of Fossett's, the inn's restaurant.

Named for Edith Fossett, who apprenticed under Jefferson's French chefs at the White House before returning with him to Monticello, the restaurant inhabits space carved from Keswick Hall's existing wraparound porches. As one might imagine, the reclamation seeks to retain the exterior nature of this newly enclosed space, which seats 80 patrons. The surprise resides in the subtle, restrained design composed by Train & Partners Architects of Charlottesville.

With simple, beaded shiplap siding, bright window and wall treatments, white linens, and contrasting ebonized shield-back chairs, the furnishings add an understated clarity that respects the sweeping view of the golf course and grounds. This grand prospect rightfully dominates the space, and a series of interior columns affirms that supremacy, structuring the dining area and framing vistas through broad expanses of floor-to-ceiling glass, while drawing the pattern of the exterior's Tuscan arbor inside.

The architects' insertion of the restaurant's services is equally deft. Storage and support spaces are elegantly concealed throughout, either hidden in recesses or screened by decorative ironwork. Servers access a basement kitchen via a service stair carved from space that once held a pair of small offices. By forgoing the most obvious responses to its immediate surroundings—such as blousy opulence or slavish Palladianism—Fossett's is a clear winner. —Kyle Copas
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What adjustments will I need to make to my foundation to support a timber frame?

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What is the maximum span for timber framing?

What is the most efficient spacing of the post and timbers?

Do I have to timber frame the entire structure?

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This large barn structure, designed by LSC Design Inc., was then capped with 42,000 sq. ft. of Charcoal SNAP-CLAD Panels, complete with two 30 foot cupolas topped with a 7 foot weathervane in the shape of a bear. This 4-story building serves as a retail store for Boyds Bear Collectibles, houses their corporate offices, a museum and a food court to accommodate large bus tours.

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