

# C O L U M N S



**YOUNG ARCHITECTS**  
**What They Wish They Had**  
**Learned In School**  
**+**  
**The Digital Era of Architecture**  
**SHoP**  
**Joseph Rosa**  
**Bruce Lindsey**



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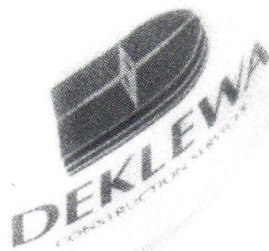
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# Generation X...Y...Z

by Tracy Certo



*If research on brain development is on track, my son and his generation are the first to be truly wired for the digital future.*

## So there I was browsing Greg Lynn's website

while researching this digital design topic when in walks my sixth grader. *Wow!* he yelled as he glommed onto the screen. What is *that*? That, I told him, is a blob, one of those "isomorphic polysurfaces" Greg Lynn proclaims is the future.

Before I knew it, Daniel had edged me out of the chair and with a confident *click click bam*, he brought the model to life. "This," he said wide-eyed, "is too cool."

As I watched him I couldn't help but think: *here* is the digital divide—a child who grew up with the computer and, for his age, is digitally literate to the max. If research on brain development is on track, my son and his generation are the first to be truly wired for the digital future. Many of these kids were on the computer at the age of two, trying the first wave of kiddie software before any articles were published about the pros and cons of computer usage for children. Consequently, they also represent another, deeper digital divide, the one CMU's Bruce Lindsey speaks of here (p. 6). That's the sociocultural divide that separates the haves from the have nots. Which makes you wonder what is going to happen years hence. Will these computer brainiacs have such a tremendous advantage after all? Or in the long run, will all the hype and expectations surrounding the computer fall short of expectations?

During a conversation with Bruce, he joked that someday architects would be designing cities with SimCityPro. Hey, it's an idea with potential. I may not be familiar with stereo lithography (see the article on that cutting edge team known as SHoP p. 8) but I know SimCity—through my son, of course. He has spent hours on the computer planning and building the simulated city of Valanchia, instituting ordinances such as legalized gambling (it's a partying kind of place) and leaf burning bans (and yet, environmentally friendly). In his role as Chief Everything of this fun town, Daniel even strikes deals with other cities, like paying them when necessary to take his town's garbage. He's learning the economic realities as well as the necessity of being politically savvy since they can, so to speak, refuse the refuse.

It's just play... or is it? This simulation of reality is something a lot of young architects mentioned they wished they had learned when they were in school (p. 12).

In ten years, when Dan graduates from college, it will be interesting to see how far software has evolved. And if he sticks with architecture as planned, it will be interesting to see if his class, digital from the get-go, will be more advanced than others going in these days. Or will they be lacking in other fundamental skills?

Lee Calisti (p. 14) talked about interviewing freshly-minted architecture grads who could blow smoke out of the computer but who lack traditional lettering skills. Other architects I interviewed mentioned how they wish they had learned certain things in school but knew if they had spent more time in one area, they would have had less training in another.

So many subjects, so little time. Who's to ever know about the path not taken?

The computer is changing architecture and every other profession profoundly in many ways. And yet—I just went to a day and a half charette in Homestead (that's the *next* issue) with the collective brain power and imagination of 60-plus people laying new plans to bring back a neighborhood. They were sketching and brainstorming and coloring and there was great energy and soul in that Moose Lodge room and I couldn't help but notice one thing: there was not a single computer in sight.

So perhaps I should mention, just for balance, that Daniel is also a Legos fanatic, which is, perhaps, the brick and mortar counterpart to the computer devotion. Last fall he took the architecture for kids class at Carnegie Mellon and his favorite part was building the city, a very tactile and non-digital exercise. Maybe now he should get to work on his hand lettering.

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AIA Pittsburgh serves 12 Western Pennsylvania counties as the local component of the American Institute of Architects and AIA Pennsylvania. The objective of AIA Pittsburgh is to improve, for society, the quality of the built environment by further raising the standards of architectural education, training and practice; fostering design excellence; and promoting the value of architectural services to the public. AIA membership is open to all registered architects, architectural interns, and a limited number of professionals in supporting fields.

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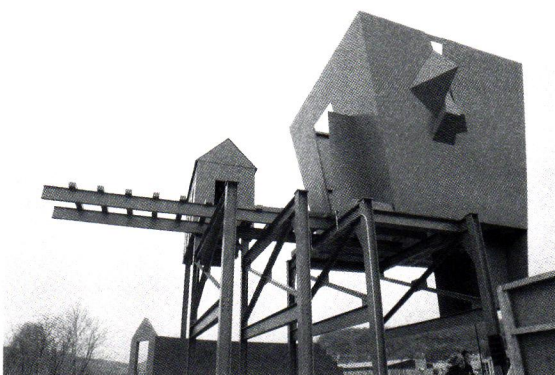
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## Steelworkers Monument



Joan Blaustein and the city planning department sponsored a public art project competition to celebrate the lives of steel workers at the former J&L (then LTV) site on the South Side. Intern architect James O'Toole (LDA-L.D. Astorino Companies) won the competition with this recently erected 50' x 50' x 35' tall structure that evokes the steel mill. Design team members include Jodi O'Toole and Jesse Seppi.

In addition to the \$25,000 contributed by the city, O'Toole raised an additional \$350,000 on his own to fund the building of the Steelworkers Monument.

Symbolizing a steel mill and made of steel (of course), the monument features a ladle, gate, catwalk and train tracks.

## Welcome new members

Joseph Touvell, Assoc. AIA of Rothschild Architects is the former director of the Architects Resources Center in the Central New York Chapter. He has studied abroad in Florence, Italy and worked in Weirton, Baltimore and New York. With an interest in basketball as well as traveling, Joe is looking forward to becoming an active member in the Pittsburgh Chapter.



**Touvell**

Jan Held, AIA of Perfido Weiskopf Architects, is a graduate of the University of Cincinnati interested in adaptive reuse, preservation and sustainable design. She says she is "looking forward to revitalizing Pittsburgh one building at a time." Recent projects include the Fulton Cotton Mill and Piedmont Park Educational Complex, both in Atlanta. Other interests include softball, hiking and cooking.



Columns is printed on recycled paper.

# In Perspective :

JOSEPH ROSA

If you missed Joe Rosa's groundbreaking show on *folds, blobs + boxes: architecture in the digital era* at the Heinz Architectural Center, you'll have a chance to see it in documentary version soon. Michael Blackwood, who has filmed documentaries on Phillip Johnson, FAIA, Peter Eisenman, FAIA, and Frank Gehry, FAIA, was in town recently interviewing many of the architects featured in the show. We'll keep you posted on air dates. In the meantime, Columns caught up with Rosa to talk about the show and its implications.

## How is the digital era changing pedagogy and architectural practice?

The general assumption by many is that the computer is going to wipe out any of the pedagogical tools prior to its arrival; ie, pencils, sketching, model making, studying materials and the tactility of the surfaces informing the architecture.

The reality is that this will not disappear. What's going to happen to the computer is what we're seeing today, that more people are becoming versed in it as a tool. The computer will become one of many tools architects use to expedite ideas and explore further concepts. If anything, a computer will lend itself to doing multiple tasks; for example in the Preston Scott Cohen exhibit in the show, the computer aided him in understanding the geometry, and in making the model and in the perspectives of the insides. So the computer will become a tool that is multidisciplinary.

## What do you find most exciting in the digital era of computers today?

What I find most exciting—coming at it from an angle that I'm not that versed in it—is the co-opting of other tech-

nologies that are already out there to generate the architecture. Many times in history people have had wonderful ideas for a building that have been almost impossible to build.

What we're seeing with buildings built digitally today is that for example, car manufacturers can start using those modes of production, of making parts for the housing or for elements inside a building that one would never have thought of before. It's that kind of inventive thinking which architecture is all about: solving problems from design space allocation to fabrication and that's a refreshing thing.

## Who do you feel is doing some of the most innovative work out there today?

Frank Gehry is probably the best known of someone who understands how to use the computer to expedite projects that were not conceivable to be built 10 years ago. But there's a complete younger set of architects coming on the forefront such as Kolatan/MacDonald. Look at some of the fabrications they did to an addition of an existing house. For the built-ins, instead of going to a custom cabinet maker, they used a company that makes amusement park rides but just reduces them in scale. If you're going to have a built-in curved tub, you might as well go to someone who builds a water flume; they've done it before. That's exciting because they're actually looking at ways of getting this done.

Another one is Greg Lynn who's exploring a concept which is interesting and almost sounds like an oxymoron: mass customization. With mass customization of a house if you want to make a change to the design, you make that adjustment within the digital representation of it—the 3-dimensional image. When it's transferred into the digital realm of production, they read the difference in the digital data and it's custom cut to ab-

sorb those differences. That's where it's quite amazing—that technology can do that moreso than ever before.

## A lot of cities are clamoring for big signature buildings such as museums to draw tourists; an architecture as economic generator phenomena. Your comment?

It's one of the tools that many cities see as a way to reactivate city centers. Since the post war, many cities have been devastated by sprawl and growth and businesses leaving cities. Sometimes you need to build something new to signify a shift in the cultural ramifications of that city, that might pick up on characteristics that once made that city special but make people see it in a different light and become an attraction.

This has been going on for at least 30 years now. If you look back into the 80's when Richard Meier was doing museums, everyone wanted a Richard Meier museum. Well now Richard's not doing that many museums and now Frank is doing museums. So there's this curvature of making oneself ubiquitous that the architects are always careful of; it's like making a hit movie and worrying about do-

ing the follow-ups. Because the patrons who are not knowledgeable about architecture want what they call the Bilbao effect. But if you build Bilbao again somewhere else that would make no sense. What they did there for that time was a very smart move. In Muschamps's review of the building, which I thought was quite funny but true, he said its one of the

few sites in the world where people were going to see a building and putting their lives in danger. That's good, that means that people are going there despite what problems have existed there. The numbers are up, no one's died, and Bilbao is on everyone's list.

**"The computer will become one of many tools architects use to expedite ideas and explore further concepts. If anything, a computer will lend itself to doing multiple tasks."**

# How the Computer is Changing Architecture:

By Tracy Certo

*An interview with Bruce Lindsey*

**S**ay you're a newly minted grad with a five-year degree in architecture, heavy on the computer skills. Where do you go these days?

If you graduated from Carnegie Mellon, you may just end up in the entertainment industry where your valuable computer animation and visualization skills can be used in making movies. Or, maybe you'll open your own consulting firm—see the article on fast-tracker CMU grad Peter Korkian—or you'll use your ideas of architectural space in designing on the worldwide web like CMU grad Marc Tinkler, founder of plumb design ([www.plumbdesign.com](http://www.plumbdesign.com)) and maker of the software Thinkmap ([www.thinkmap.com](http://www.thinkmap.com)).

Bruce Lindsey, associate head of the department of architecture at the university notes that graduates who move into traditional architect firms sometimes find themselves in non-traditional roles: they often take a leadership role position due to their fluency in computer software. And they're paid more—maybe 15% or so—for their computer proficiency.

Unlike other schools of architecture, Carnegie Mellon introduces the computer from the start of the program, along with other traditional media. The role of the computer at the school of architecture is one of collaboration and communication in addition to a visualization tool.

"We see the computers' role as being pervasive throughout the curriculum not just in the design studio but other courses such as Acoustics and Light, Structures, History, and Design Economics," says Lindsey.

Take Semper, for instance, software developed at the university which allows architects to simulate environmental performance of a building. They can get feedback on any number of variables. "They get a sense of the energy performance of the building versus another

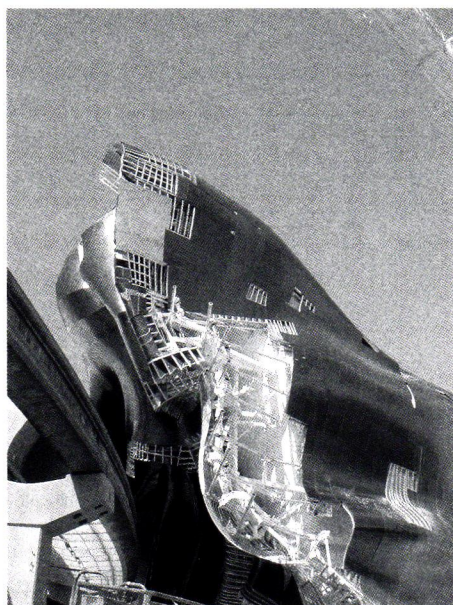
variation of it very quickly. That's pretty powerful," Lindsey states. If one variable is changed, they can reevaluate instantaneously the difference that change made. The variations are difficult and time-consuming to test without the software. (Admittedly the software currently available for Semper is "cumbersome" to use right now, Lindsey says, although he foresees a day, within ten years, when it is common in the industry.)

The changes the computer is advancing could mean a significant shift in role for the architect. Lindsey comments that in the last fifty years, the architect has moved further and further away from direct responsibility for how a building is built to more of an advisory role. It has been more a case of construction observation, not management. Now, however, the way in which information for the building is being managed by the architect—and not the contractor—is allowing architects to regain responsibility. Frank Gehry has led the way, changing the way buildings are being built, "pushing the limits of the way the computer interacts with that process," Lindsey says, adding that it harks back to the concept of the master builder.

Lindsey, who is working on a book about Frank Gehry, (*Digital Gehry*, due out this fall) says that Gehry "is on the cutting edge of using computers not only for visualization in design but also to facilitate and coordinate the construction process." (An interesting sidenote: although noted for his computer designs, Gehry's design team does the actual computer work. Gehry spent 15 minutes on the computer and found it "lifeless", relays Lindsey. Most all the projects in the firm start with physical models.)

"Because they're (architects) using a digital model as part of the contract document, they're reorganizing the way the projects are insured," says Lindsey. An umbrella policy that covers all consultants and contractors is necessary due to the increased liability the architect assumes by allowing that model to become the source for everyone's information.

PHOTO BY BRUCE LINDSEY



**Experience Music Project when it was under construction in Seattle Washington. Frank O. Gehry and Associates.**

**Now, however, the way in which information for the building is being managed by the architect — and not the contractor — is allowing architects to regain responsibility.**

"The process is putting the architects back in control of the construction process. In many cases they are teaching the manufacturers or the building component suppliers to utilize these processes and they're quite proud of the fact that these people never work in the same way again," he adds.

Another useful advantage of the computer in the architectural world is acting as an archive of projects. "The computer is notoriously unable to forget," Lindsey says. "One

of the possibilities is an archive of projects and case studies of buildings to be available to students and faculty as a resource for learning about how to design new buildings."

The role of the computer is paving the way for other technology to aid in the building process. For example, Lindsey refers to "the messiness of construction sites. When buildings are built they're never as precise as modeling." Now, he says, they're experimenting with global satellite location devices to help track the construction process. They're

also using this at Fallingwater to track the movement of the terrace." Another tool? Laser surveying techniques which accurately measure distances on the jobsite.

Even with the increasing use of technology, Lindsey hesitates when asked to comment on the idea of the digital divide within the architect profession. "I'm not so sure it's all about the computer," he says. "The bigger divide is actually between social and cultural groups rather than groups within professions."

## Peter Korkian, IOMedia Carnegie Mellon University, '94

To best understand what Peter Korkian's firm, IOMedia does, consider their recent project for Disney Imaginarium. They did the virtual planning, 3D visualization and animation work for new feature attractions for their theme parks. The goal was to previsualize how they would look within the park, similar to how Epcot was set up in a physical model years ago, Korkian says. "We built and designed with them and put them into the landscape of the theme park so they could understand how that was going to look. We were doing everything from people traffic studies to lighting studies to give the overall feeling of how the design concept might fly."

In another example, his firm did a similar project for ABC Times Square studio which "was a big project because of the impact on Times Square," says Korkian. "It was a perfect use (for 3D) because you couldn't possibly communicate those types of concepts—lights, technology and everything else—in any kind of physical format, other than a virtual one, that was accurate."

Projects like these not only change the methodology of design, but also how the firm is utilized. "We were hired on the front end of the project before the architect was assigned to help the design team virtually communicate the entire concept. Then what happened:

once the architects came on, we took our 3D asset and cut sections and elevations—you can do lots of cool stuff with it—and actually handed it over to the architect like a concept design package."

It was different from starting with a plan and saying here's my idea. This was a visual solution, an accurate and technical one for architects to use, Korkian explains. "Here's a starting point—we built it in 3D and now figure out the cost."

It's an uncommon method today but Korkian foresees much more of this in the future. "I can see a lot of corporations going that route," he says.

In the end, all the assets typically become marketing collateral for the building owner. "They're using our materials to put together videos, websites, CD rom deliverables. The nature of the work we do is digital so it's very, very malleable," says Korkian.

"What I try to get people to understand is the value of building an asset. The lifecycle value of that as opposed to a wood model or trying to do some hand renderings. They have their place but all that time spent is not as valuable as building an asset in a shape and form in a digital way that can be repurposed, reutilized, and marketed as a design tool."

With a computer, you can change things in half a second to get a different look or feel or lighting condition and such, says Korkian. "It's just a *huge* leap forward," he sums up.

If there's a problem, it's that clients aren't often set up to deal with that kind of speed.

The much faster delivery doesn't work with the architecture community since the nature of the business is to re-evaluate—and re-evaluate some more. That doesn't fly with the owner, says Korkian, who adds that speed is of the essence.

So how digitally literate are their clients?

"They're digital in the sense that they use AutoCAD or microstation or mini CAD, whatever they're doing. But they're not digital in the sense of understanding what they can do with that digital media. They just see it is an electronic pencil for doing construction job documents. And that's just a real limited way to think of design and product at the end of the day.

"I think the 2 dimensional exploration of design is really limited in general. When I started the firm the whole focus was on 3D. How do you make 3D cost-effective and how do you make 3D work for the architects and developers and owners?"

And yet even as he says "the world *is* moving this way," he admits the following: It's just going real slow."

## One-stop SHoP

by Tracy Certo

*Bill Sharples, architect and principal of SHoP, recently came to town as part of the Pittsburgh Architecture Lecture Series sponsored by CMU, the Heinz Architectural Center and AIA, through funding from the AIA Pittsburgh Foundation. Due to the overwhelmingly positive reaction, Columns caught up with Sharples to find out more.*

If you haven't met them already, meet SHoP. As in SHoP/Sharples/Holden/Pasquarelli, a small P/A award-winning New York architectural firm known not only for its creativity and innovation in design, but also its technology, marketing and overall business sense.

It's a winning combination that is providing them with great opportunities. Speaking by cell phone from a jobsite in Queens, Bill Sharples cites one example that explains why.

"A client will see property in Queens and say 'what can I do there?' We'll pull out zoning regulations, run numbers and construction costs and determine what the given massing scheme is in a matter of hours," says Sharples, one of five principals in the four-year-old firm. "We can see the site in the middle of the day and have this by the end of the day." In the last year alone, SHoP has run numbers for 70 different sites, he says.

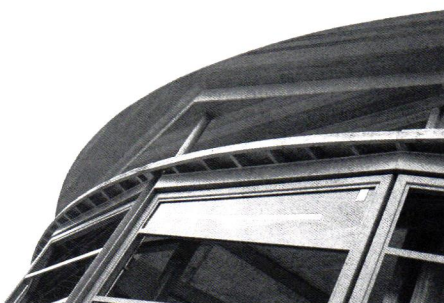
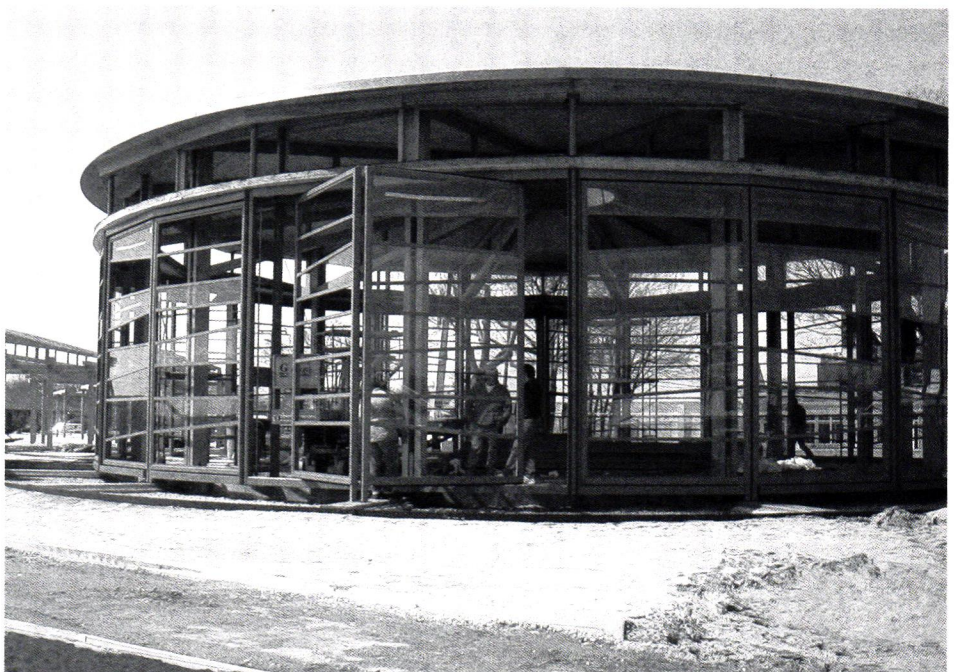
Developing brownfield sites in New York City is another much more complicated matter but SHoP has found an edge there, too. "In New York City, there are a number of contaminated sites—brownfields—that nevertheless have incredible views of the city," says Sharples. "In a development deal you're looking at multiple years. You have to be able to get the right people together at the right time. If the site is viable or lucrative, we have a feel for that," Sharples says. Most importantly, "we never miss a zoning issue. We understand the regulations in New York City and the five boroughs. If a client came to us in LA we couldn't do it. We're quick," he adds, "and that really does make a difference."

The firm benefited from their experience on the waterfront project for the Village of Greenport on Long Island. The Mayor of Greenport informed SHoP that the prerequisite

*"Engaging as many people as possible early on enhances the whole design process," says Sharples. "It's about architects taking on more responsibility and making things happen."*



***Dunescape was constructed of cedar and built from pieces of paper fifteen feet long that were scotch taped together, color coded, and laid down on the jobsite as a template. It was an installation for the Museum of Modern Art/P.S.1's Contemporary Art Center.***



**(FAR LEFT)** *The patterns of waves and the Doppler effect of going around a carousel translated into patterns for the 14-foot-high steel and glass bi-fold doors.*

**(NEAR LEFT)** *The complex roof structure template SHoP designed allowed the contractor to prefabricate the roof. If it had been done by hand, it would have taken weeks, says Sharples.*

*(For more images and description, see [www.shoparc.com](http://www.shoparc.com))*

for being hired was taking responsibility for dealing with all the necessary agencies.

Consequently, they developed a relationship with scores of city, state and other agencies that has served them well. Sharples recalls the mayor of Greenport doing a "tremendous job raising money through public grants." Of the \$3.2 million in final construction costs, the mayor raised more than half in grants from a large number of wide-ranging sources, he says admiringly.

That kind of deal making wasn't lost on this design team. More than once in the conversation, Sharples refers to the concept of the architect as master builder as the principals of the firm take increasing responsibility for construction management, contacts, and business know-how—not to mention sheer speed and energy—to develop deals faster.

"Engaging as many people as possible early on enhances the whole design process," says Sharples. "It's about architects taking on more responsibility and making things happen. We work very closely with our construction crews and there's a mutual respect and trust."

The five principals of SHoP have backgrounds that range from art history to political science. Greg Pasquerelli worked on Wall St. for instance, and his background in finance and developing smooths the way for the firm that values a fast and lean business deal. (Greg also teaches at Columbia and was there in the early 90's teaching the teachers before the advent of Tschumi's paperless studio.)

His wife, Kim Holden, has an undergraduate degree in art history and spent four years working in advertising and real estate development before entering the graduate pro-

gram of architecture at Columbia in the early 90's. That kind of real-world business experience paid off for the media-savvy ShoP which is keen on marketing and good at media relations. Given this range of experience "we offer a very different angle to approach clients," Sharples explains.

And yet, in a firm also noted for its sophisticated computer technology, none of the principals were trained in school in computers. "We were the last class at Columbia ('94) that didn't have use of the computer," notes Holden. They "learned on the fly" after graduating, and now they're all fluent in Maya animation and rendering software. "Basically we use a tool called tessellation. It peels the surface off the framework and exfoliates to literally cut and score," Sharples says.

Even given the use of sophisticated software, there is a shop in SHoP, complete with tables and saws and sanders. (The name SHoP is a send off of the principals' last name initials.)

The firm is creative and wide-ranging. When they couldn't use a contractor to come in under budget for their project, A wall, a titanium-sheathed showcase for Architect Magazine to use in exhibits, they experimented and ended up doing much of the project themselves. Not only were they successful but they were well under budget.

That in turn gave them confidence for the Museum of Modern Art and P.S.1's Contemporary Art Center installation, Dunescape. "We were very confident at this point that we could build it ourselves. There was no way we could bring in a contractor in and do anything on the level of experimentation if we were going to be within budget," says Sharples.

Dunescape was constructed of cedar and built from pieces of paper fifteen feet long that were scotch taped together, color coded, and laid down on the jobsite as a template. From Monday through Thursday they built sections and on Friday they assembled them. Changes were made daily, says Sharples.

The "Dunescape for relaxation" was more relaxing for those who enjoyed its beach-like atmosphere than it was for the firm. "We totally underestimated the quantity of cedar," Sharples says. "Three-fourths of the way into the first dune we realized we didn't have enough material for the second dune." Instead of blowing the budget, they proposed changing the second dune into more of a surf condition, which was, in the end "more of an architectural sensation to behold," says Sharples. The installation piece drew significant crowds throughout the summer with its wading pools and sprays of water mist.

It was yet another case of problems as opportunities. One of the challenges of digital design, says Sharples, is "how the building is put together in construction documents and templates and conveying these to the contractor." And yet, that very problematic process offers a distinct advantage. "It's one more example of gaining more responsibility and control," Sharples notes.

Experimentation and experience are paying off. "We're starting to understand how we can make these forms based on the computer as a tool to convey information to the contractor in a logical and reasonable way," Sharples says.

Case in point: Greenport, where the complex roof structure template (see photo) they designed allowed the contractor to prefabricate the roof. "If we did it by hand, it would have taken weeks," says Sharples.

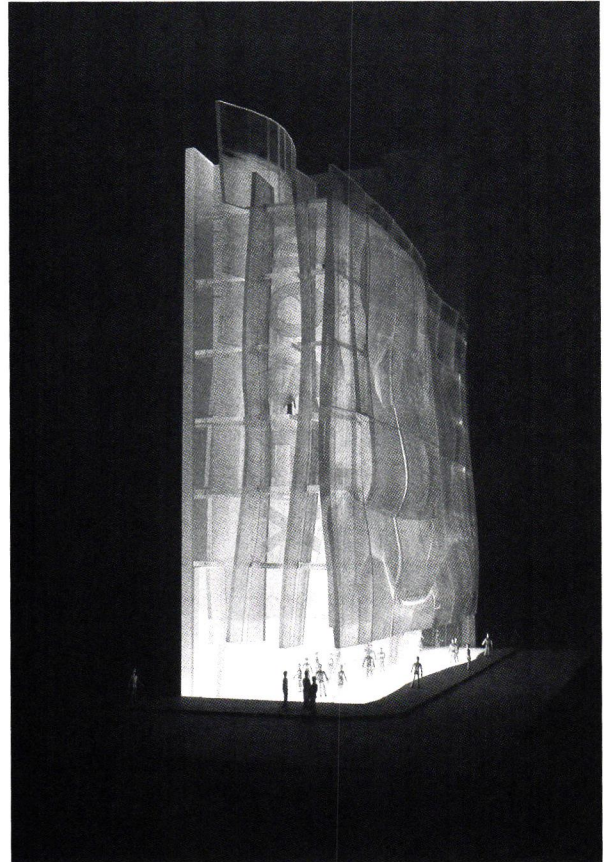
In a shop known for its computer prowess, Sharples is the first to emphasize that the computer is a tool and not a designer. It will allow people to understand form but not find form. "With students, the biggest misconception is finding form through the computer and not understanding form as a result of the computer," says Sharples.

Further, he says that some students really don't understand what's on the screen. "When you ask them to sketch, you realize there's a combination of reliance and in some cases even laziness."

SHoP uses the computer as well as modeling, usually going back and forth between the two. "In our case we sketch it out, work it in the computer, and bring it back out using the same process as if physically making it," Sharples says. "99% of the time, we show clients physical models. In the end, space is hard to understand especially in an untrained eye, on a 2D surface. It's very removed so the models are critical," he emphasizes.

For the Museum of Sex, where massing and physicality were critical to convey, the team made a 3D model of resin. The method? Stereo lithography, a rapid prototyping process to build physical, three-dimensional models in a complete form—with stairs, for instance, and interior walls.

A 3D CAD file developed in the computer is fed into the stereo lithography machine that creates the model. Using computer controlled lasers to cure a photo-sensitive resin,



***The site for the planned Museum of Sex is a narrow corner lot on Fifth Avenue in Manhattan. The stereo lithography model shown here illustrates the exterior envelope as a play of several translucent layers of steel and glass.***

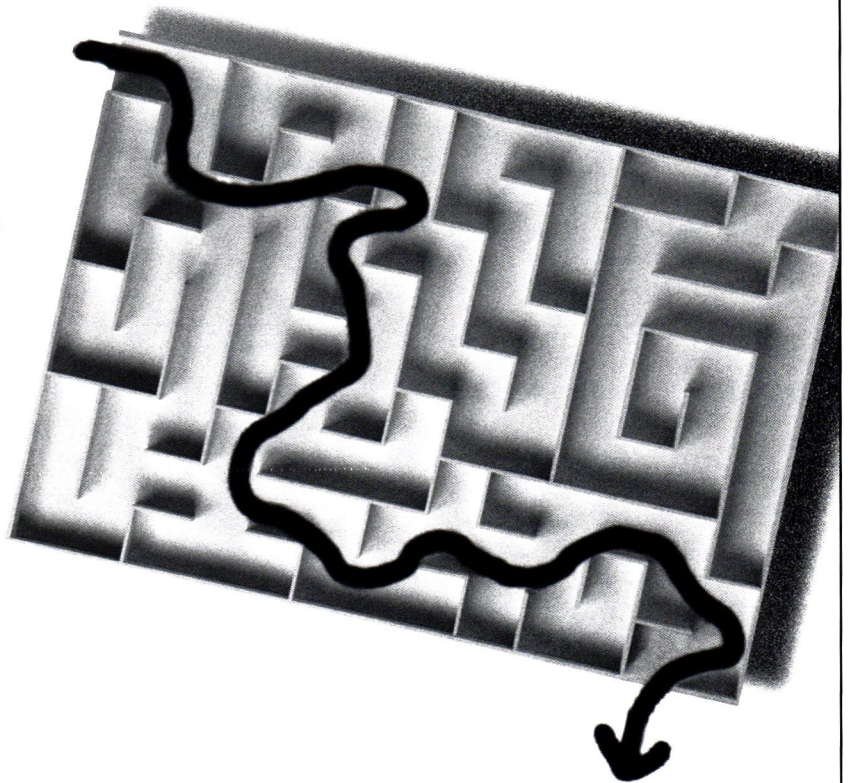
it then creates the model, layer by layer. No matter how complex the model, the process is fast. (Industrial designers first used this software in the aerospace industry and its application now is widespread.)

That's one more example of why the firm is flying high these days. "It's being aware what's out there," Sharples says matter-of-factly. SHoP's innovation and success has led to lecturing around the country and media attention (New York Times critic Herb Muschamp was on the jobsite as Sharples spoke).

Yet when asked about his success, Sharples modestly chalks it up to luck and timing. "We don't try to strategize every move. There is no recipe or secret formula. We're lucky. We're around at the right time," he says.

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# What I wish I had learned in school

We asked young architects  
what they wished they had  
learned in school.



There wasn't room to publish  
all the compliments these  
architects gave their schools.



Trust us when we say  
most were quite satisfied.  
Even so. Given more time,  
here's what they wish  
they had learned.



**Rebecca Gerken, Assoc. AIA**

Design Alliance  
Penn State 2000  
Bach. Architecture

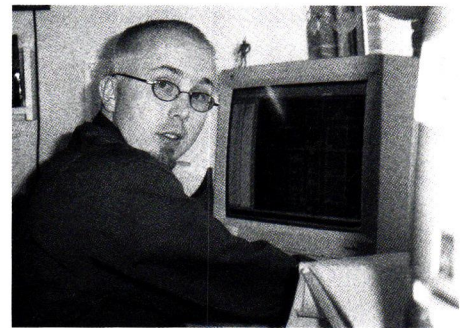
"In school, a lot of architecture was focused more on theory and design. I wish it would focus more on the actual building functions—dealing with the structures and more of the mathematical and the engineering aspects. Also, understanding the materials and understanding more of the cost issues. In school there is no budget!"



**Beth Anne Szabo**

Design Alliance  
Kent State '99  
Bach. Architecture

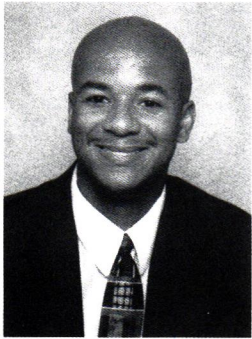
"A better understanding of the business aspects of architecture—from the organization of the firm and how it functions as a business to a general understanding of the client's business. Basically, business in general. It's a big part of what we do. And most of us go through five years of design training—focusing on theory and form and spaces—where the business of architecture gets lost."



**Dan Glading**

WTW Architects  
University of Washington, Seattle, WA '97  
Bach. Architecture

"I wish someone had told me how much Architects really make. I wish I'd found out that the long hours and lost sleep don't end at graduation; it just gets enhanced with the threat of litigation. I wish I'd learned to run as fast as I can whenever anyone uses the words "Fast" and "Track" in the same sentence. I wish I'd learned that 8-inches is the magic number. I wish someone had taught the contractors to play nice. I wish someone had told me that all creativity ends the moment you walk out of studio, and that it gets replaced with "red-lines". What else do I wish I learned in school? Two words: "Value Engineering".



**Arthur Sheffield III, Assoc. AIA**

IDC Architects  
Howard University '95  
Bach. of Architecture

"A broader exposure to Project Management and Construction Documentation. My alma mater, as well as most architectural programs throughout the country, provided an excellent education in the core subjects such as schematic design, programming, spatial relationships, structural forces, etc. However, courses that attempted to tie all of the various subjects together, tended to be very general in nature.

An in depth understanding of the entire architectural and construction process, i.e. a project manager's viewpoint. I have always been told this is not something that is taught, but rather is learned by gaining experience within the field. While this may be true, augmenting the curriculum to include more of the various facets of architecture and construction would be helpful.

Construction documentation classes, which teach a student how buildings are constructed and how to communicate the design intent visually, are worth more than words can say. Also, incorporating the perspective of owners and contractors, and what each of them needs to see represented in the documents. And, an emphasis on how the various trades and materials interact will go a long way toward being successful within the field."

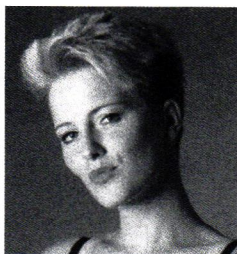


**Iris Gehrke**

WTW Architects  
Rheinisch-Westfaelische-Technische Hochschule  
Aachen (RWTH Aachen University) in Germany, '98.  
(6.5 year program)

"We did not learn enough about how architecture works "behind the scene", i.e., about the process of getting a building permit, setting up contracts with others, establishing project schedules, coordinating contractors' time lines on the job site, and above all, cost calculations.

I think that the university focused too much on famous architects' work, on design and on the drawings themselves. In general this is a necessary portion of our education, but the education should also have emphasized helping people to become more than draftsmen, to become architects who are able to stand on their own feet. At graduation, we should have been able to answer the simplest question from a neighbor, like: "I am thinking of replacing the roof of my house and also adding one window and a gable. How much do you think that will cost me?"



**Ulrike Brandstetter, 29**

Perfido Weiskopf  
Fachhochschule Holzminden '96  
Oldenburg Germany

"Since I'm from Germany, more technical English for one! Also, sustainable design."



**Joseph M. Touvell, Assoc. AIA**

Rothschild Architects  
Syracuse University '98  
Masters Degree In Architecture

"The idea of construction and practice. More specifically, the connection between design and building construction, which remains as strong as ever in the office environment. The construction technology of today is much more elaborate than that of our predecessors. I feel as though each one of us must make a special effort to understand the characteristics of today's construction technology and respond appropriately with our design solutions. We must understand the technologies available to us and embrace them accordingly. It is our responsibility to create, with these different building technologies, a piece of architecture as gratifying, eloquent, and admired as the architecture of the past.

Syracuse University has a tremendous faculty and architecture program that includes many technical courses that focus on building construction. However, I wish I had spent a little more time understanding the relationships and limitations of certain materials."


**Lee Calisti, AIA**

Integrated Architectural Services (IAS)  
Kent State University '91

"That everything we are told isn't absolute. Architecture is bigger than any one's school opinion one person's opinion. I may have been told this but I may not have been awake that day. I remember talking to fellow students who had no discernment or skepticism and found architecture to be one-dimensional.

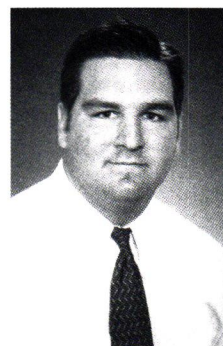
Also, I don't recall any discussion about what to expect the day you start work. What should I expect to be able to do? What will I be expected to do? How does a real project work versus how we design in studio? There's a need to teach more communication skills. I was never required to learn to write letters or give speeches and talks. What should we be saying to our clients? What should we not be saying?

As for my observations after being out of school for ten years, they are somewhat different. It seems most students have pipedreams about being a "big shot" designer and we show up thinking: *hey I know it all* and we end up merely drawing base plans for an existing building or something else mundane for quite a while. We're not designing anything and that's frustrating. Oftentimes this causes people to go job hopping until they find what they think they are looking for in a job. Instead of narrowing the gap between school and practice, my perception is that the gulf seems to be getting wider. In addition, there's a culture shock if you've never worked in an office."


**Jennifer Beck, Assoc. AIA**

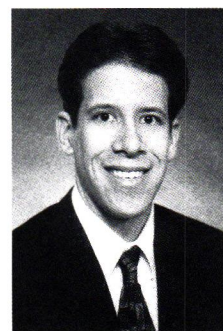
Associate Member Director, AIA Pennsylvania  
Perfido Weiskopf  
Carnegie Mellon University, B. Arch. 1996  
Master of Sustainable Economic Development (Heinz School of Public Policy and Management), 1997

"I don't think it is possible for architecture schools to teach *everything* there is to learn about being an architect. That said, what I think I missed out on was the connection between design and construction. We were never exposed to a project from start to finish. Our design studio projects ended somewhere in the middle of design development. None of the final projects my colleagues or I produced, even in the fourth or fifth year, required a full set of construction documents. Typically, site plans, floor plans, elevations, and building/wall sections, along with some kind of three-dimensional product, were all that were required. We seldom visited construction sites to *see* how buildings went together. We didn't talk about specifications and submittals and construction administration. We didn't talk about the delicate balancing of the relationship between the owner, architect, engineering consultants, and contractor(s). I think that I would have been much more excited about entering the profession had some of my required courses contained more of this kind of education and perhaps a little less about design. My participation in getting a project built (not just designed) has been some of the most rewarding (and challenging) work."


**Todd Peters, Assoc. AIA**

RSH Architects  
Ohio State University '99  
Bachelor's of Science degree in Architecture. (I am now finishing up my IDP Program so that I can get registered.)

"Cost estimating. I know that it probably could not have been taught as a 10-15 week class, but it could have been used on certain projects. The instructors could have applied a budget to the project and we would have to design within the parameters of that budget. We would then learn how to use cost affecting materials and cheaper ways in designing a economic friendly building. Making the transfer from a student to the professional atmosphere creates a new learning curve. One finds out how to work with a client rather than yourself and projects now have budget restraints to work within."


**David Wells, Assoc. AIA**

Radelet McCarthy  
Kent State '95, Bach. Architecture  
Business minor

"The opportunity to gain some experience and understanding of the complexities of project coordination. You don't necessarily get that in school because you're focused on developing your own project and you're not charged with pulling a team together to produce a complete project.

Programs could provide a mock situation in which students would develop specific aspects of a project. Project responsibility could be rotated allowing each student the opportunity to play the role of project manager. As a student you control all the strings. In the real world you're an individual amongst many but you're asked to be the projects' team leader."

**Julie Reker, AIA**

Lami • Grubb • Architects  
Carnegie Mellon '93  
Bach. Architecture

"More about project management. How to juggle multiple things—time management and dealing with multiple phases and getting the engineers in and their specific part in the project.

Also, how to deal with the angry client. You end up being sort of a psychologist—with what they said and what they meant—because they can't always talk to you in architectural terms. I don't know how you would teach that but that it would be nice!

How to have a level head to deal with all of it. Knowing when to say "you're wrong, too bad, do it my way." You do have to say that and that will get you a long way if you do it at the right time.

Real-life scenarios that happen on every project like the subcontractor substituting materials or not getting it done on time.

Also, how you actually go about getting a project built. What happens when a subcontractor substitutes materials or any of the real life scenarios that happen on every project. On the other hand, I don't know if there would have been time for it because you're so focused on design. If you learn to do project management you're going to lose something else."

**Brian Viehland**

Lami • Grubb • Architects  
Rensselaer Polytechnic Institute '99

"RPI prepared me pretty well for what to expect in the real world compared to some other architects I know. Most schools tend to do a lot of theory and design and ignore the practical. Suzan Lami, AIA was highly impressed the first year I was here. She'd say, are you sure you never worked in an office before?

I had a pretty well rounded education because it was a big engineering school and I was required to take calculus and computer science and writing. The only thing I would have appreciated learning was non-urban residential. The school was very urban design. Non-urban residential was not something we intimately explored. If you live out in the suburbs you can do pretty much anything you want.

PRI is big on models and 3D. It's a different mind set in how to design—in 3D it's easy to see every dimension. I miss being in that environment."

## When the nitty gets gritty architects turn to us.

***Gateway has the tools and the experience to turn your plans into reality.***

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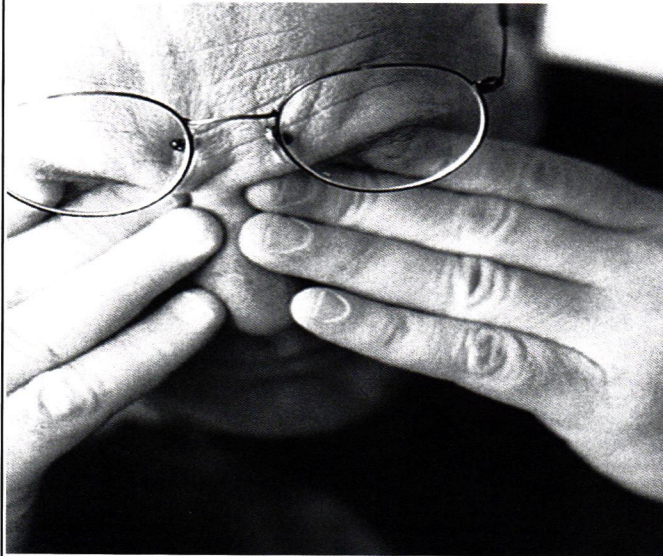
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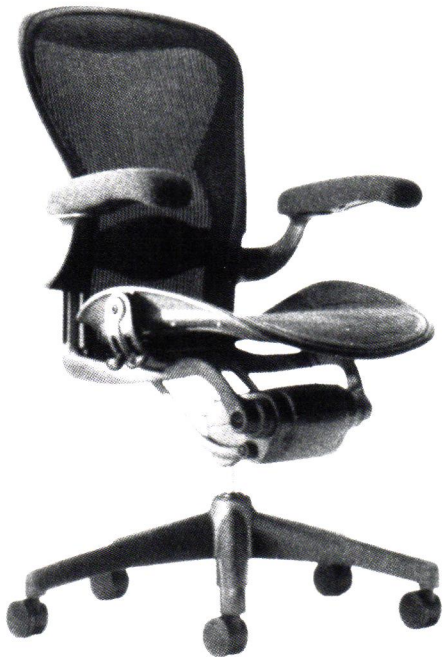
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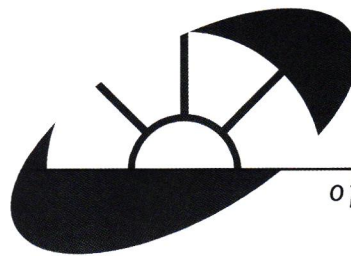
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## From the Firms

► Lee Ligo, AIA announced that Ligo Architects is renovating and expanding the Franklin Public Library in Franklin, PA.

**Edward Hancock AIA**, was awarded a contract for the Main Street Conceptual Design Program in Beaver County for the fourth consecutive year. Hancock recently completed the design for the Beaver's streetscape revitalization of its core central business district. A town center will be created with a Victorian gazebo with clock and fountain from Beaver's past.



**The former Broadhead hotel in Beaver, after extensive renovation, is now used for commercial offices and apartments. Edward Hancock, AIA architect.**

**Rothschild Architects PC** announced they are working on Seven Fields Town Center. Principal Architect **Ken Doyno, AIA**, said the first phase of the project will be a 145,000 square foot multi-use complex with first floor retail and two stories of housing above. The building's semi-circular crescent shape will have a public green at the center linked with pedestrian paths to homes and offices. Arcades, plazas and sidewalk cafes are also planned.

**WTW Architects** of Pittsburgh is designing a \$11.9 million campus center for Elizabethtown College in Elizabethtown, PA. Renovations to existing buildings will begin in May with new construction beginning in October.

**WTW Architects** is also completing the interior design of new office space for Altegra Credit Corporation, a division of National City Bank, in Allegheny Center.

**Valentour English Bodnar & Howell**, Registered Architects is designing a master plan for St. Clair Hospital in Mt. Lebanon, Forbes Regional Hospital in Monroeville and Suburban General Hospital in Bellevue.

**Valentour English Bodnar & Howell** also designed The Donnell House, a 20,000 sf residential hospice facility currently under construction for the Washington Hospital.

TEDCO Construction Company has received contracts for the following projects: Allegiance Telecom, Mt. Lebanon's new public safety building and the South Side Works parking garage for the URA.

## Business Briefs

► **JSA Architecture Planning Engineering Interior Design** promoted the following: **Richard J. Oziemblosky, AIA** to Director of Architectural Design; Christopher J. DiCianna to Director of Engineering; and **Mark L. Lighthall, AIA** and **Scott R. Womack, AIA** to Associate.

Mark E. Scheller and **Rebecca L. Leet, Assoc. AIA** have joined Renaissance 3 Architects, P.C. as Intern Project Architects.

**Matt Johnson, Assoc. AIA** and **Sean Thompson, AIA** joined the Butler office of **Burt Hill Kosar Rittelmann**. They both specialize in school building design, client service and construction documentation for school building projects.

Dodson Engineering, Inc. announced the following appointments: Gregory L. Calabria to President and CEO; Richard J. Svoboda to executive vice president; Jeffrey A. Carney to vice president and Richard E. Bres, Eric L. Reese and Joseph G. Sabo and David C. Henderson to shareholders. As part of the corporate restructuring, **Herbert J. Brankley, Prof. Affiliate** has been named Chairman of the Board and James J. Schmitt remains Secretary of the Corporation.

George Perinis has been named director of aviation business development for Michael Baker, Jr. Inc., a subsidiary of Michael Baker Corporation.

## Kudos

► Architect **Edward Meinert, AIA** who started his own firm in 1979, received the Arcadia Award from the Northern Allegheny County Chamber of Commerce for community involvement and professional excellence. Meinert, past president of the Chamber, serves on numerous committees and has been chairman of the student art show at the North Hills Arts Festival.

Engineering News Record lists **Burt Hill Kosar Rittelmann** among the top engineering firms in the country. Burt Hill ranked number 213 in firms nationwide.

**Glance & Associates** won an award in the "Superior Interiors" issue of Pittsburgh Magazine for its addition to an 1857 farm house in Upper St. Clair.

A.H. Mathias & Co., Inc., was named the "Reprographics Shop of the Year 2001" by Modern Reprographics Magazine. The oldest such firm in the country (founded in Pittsburgh in 1892), Mathias recently provided the blueprints and specs for PNC Park.

**LDA-L.D. Astorino Companies'** PNC Firstside Center received the 2001 Northeast Green Building Award which is sponsored by the Massachusetts Renewable Energy Trust, and it won the "Project of the Year" award from the Engineers Society of Western Pennsylvania. It was also named one of the Top Ten Green Projects 2001 by the AIA's Committee on the Environment (COTE).

P.J. Dick Incorporated's Ohio Departments Building exterior plaza renovation in Columbus recently won a "2001 Ohio Golden Trowel" award for outstanding achievement in masonry design and construction.

Don Ivill, Prof. Affiliate announces that his firm General Industries has been ranked no. 20 in sales of VP product and has also been named to VP Buildings' 2001 Hall of Fame for two different projects.

# green has arrived

## GET ON BOARD

by Rebecca L. Flora, AICP

Pittsburgh determined a long time ago that a healthy environment was not only good for people, but also for business. Additionally, there has been a fast-growing realization that this "environment" includes more than what the term generally implies. It stands for both the natural and built environments, as well as the connections between the two.

According to the U.S. Environmental Protection Agency, "we spend an average of 80% of our time in buildings and interior air quality (IAQ) is generally two to five times worse than outside air." Environmentally responsible design and development—or "green building"—is rapidly becoming the third phase of Pittsburgh's world-renowned environmental legacy, following efforts in the 1950s to improve water and air quality, and more recent brownfield site reclamations. Regional economic growth is dependent on the ability to relate a healthy environment to the bottom line.

If timing is everything, then it certainly was a factor in Pittsburgh's recent rise to green fame. Over the past four years the Heinz Endowments have expanded their investment in green building, one result of which was the establishment of the Green Building Alliance's (GBA) offices and programs. Also, the State of Pennsylvania launched its Governor's Green Government Council (GGGC), the U.S. Green Building Council (USGBC) piloted the LEED™ building rating system, and over two million square feet of local projects have gone green. These recent activities, plus the grassroots constituency that had already existed, equals success for Pittsburgh. For example, the USGBC's executive director, Christine Ervin, stated, "Pittsburgh is a hotbed of green building activity" when in town for the organization's annual Board meeting last fall. This remark was delightful to many audience members who have been in the "green trenches" for the past 10 to 20 years promoting and doing green building.

### Driving Market Demand

Timing is key, but without a good product to sell, even timing can be wasted. Early market analysis by GBA indi-

cated that green building was perceived by the construction industry to:

- cost more
- be technologically experimental and therefore financially risky
- be applicable to only new construction
- look weird and not fit standard development needs
- be anti-development

Green case studies from around the world, however, indicate that green buildings:

- reduce energy use by 20% to 30%
- reduce water consumption by 30% or more
- improve worker productivity by 5% to 15%
- cost +/-5% to build
- increase building value, adaptability and marketability

Educating the market with the facts is a critical ongoing process in which architects need to play a role. Some more experienced green architects have been successful in selling green to their clients; however, there often are barriers to overcome. Some clients may feel they are being pressured to buy additional services; architects may not have the economic facts they need to back up their position—or may not be fully informed about green and don't want their client to perceive this; or, the architect may be in a bidding process and feel uncomfortable "pushing" features. Until recently, architects and other design professionals indicated that their clients were not asking for green. But times have changed and clients such as PNC and the McGowan Center are now asking for green both in requests for proposals and in negotiated contracts.

How does a design professional build a strong green portfolio and what qualifies a firm to be capable of doing a green project? Indicators often considered include completing a LEED®-rated project, passing the USGBC professional certification exam, a portfolio of high performing buildings, serving as a green building instructor, attending related workshops, or, simply, demonstrating the "greenness" of the company's own office. Al-

*"Pittsburgh is a hotbed of green building activity"*

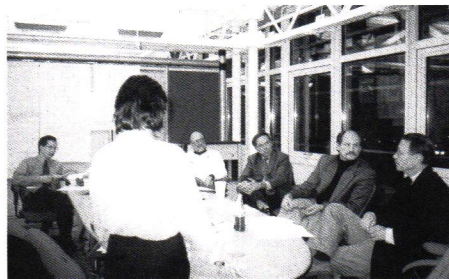
though workshops and other forms of continuing education can build a good foundation, ultimately, learning by doing is necessary.

### Green Team Builders

GBA was essentially established to "jump start" the green building market in Pittsburgh. As with any non-profit, there are components of our work that, if successful, should put us out of business. GBA's Green Team Builders (GTB), a market-rate fee-for-service arm, is one such program. Green building is good design that must be integrated across all types of projects, while its techniques need to be utilized throughout all phases of building design and construction. Therefore, GTB is particularly useful for clients and architects who are just getting started on the green path, or where an objective third party is needed. The program intends to address above-market education issues by expanding local capacity with clients including government and non-profit entities, universities and private sector businesses. GTB services primarily include the education of client and project teams, facilitation of green goal-setting sessions, organization of peer review sessions, assistance with the LEED® application process, and documentation of performance and case study data. Other options for those getting started in green projects are to partner with a firm that has green experience, hire a person with green expertise, train someone, or just plunge in. GBA's Resource Center is always available to help anyone undertaking such an endeavor.

### Green Loan Fund

Another factor affecting market penetration of green building is the perceived cost issues noted earlier. While green has been around for years worldwide and is no longer experimental, it's considered new in the Pittsburgh market and is therefore seen as adding financial risk. The cost differential between a well-integrated green project and a non-green project is difficult to determine without examining two side-by-side buildings. For example, if a rain-water catchment system is installed in one building, the cost is factored in—but the savings of not installing a landscape irrigation system may not be considered. Life cycle savings are also seldom factored in and shared with the owner in order to determine the best strategy. Additionally, contractors are not yet familiar with these concepts, so, when in doubt, they bid high to cover the unknown. A recent project, for example, varied from \$5,000 to \$199,000 for the same green strategy, while various studies and grow-



**Rebecca Flora** (back to camera, facilitating charette); from left to right, **Gary Goodson** (project manager, GBA), **Jim Toothaker** (director, Bureau of Office Systems, PA Dept. of Environmental Protection), **Ed Welsh** (project executive, AMEC), **Bob Kobet, AIA** (architect, Hanson Design Group, Ltd.) and **Tom Kennedy** (project executive, Sports & Exhibition Authority).

ing anecdotal evidence indicate a +/- 5% cost differential for green.

In response to any perceived "risk," the Green Loan Fund was recently created to financially assist green projects. It is administered by the CL Fund, with technical assistance provided by GBA. Loan amounts from \$200,000 to \$500,000 are available for projects that are able to achieve a LEED® rating. Terms are negotiable, with below-market interest rates. For further information on the fund, call Gary Goodson at 412-431-0709.

### Lessons Learned

Pittsburgh's ability to maintain its "hot bed" status will depend on the growth of local capacity, the number of locally completed green projects, and the spirit of cooperation and celebration that can be fostered. There are lessons to be learned as this region works to integrate green building into practice. If mistakes are made or better ways are found, we should share and learn—not hide and repeat. The AIA's Committee on the Environment (COTE) and GBA host Leadership Forums on various topics to share information; GBA is building a case study database and hopes to learn about many various projects; and the AIA's national student conference is coming to Pittsburgh at the end of this year highlighting the topic of sustainability. Various opportunities for collaboration exist for those who seek them.

Pittsburgh's green building train has clearly "left the station," is building steam and is out in front. If you want to be a part of this city's newest renaissance, there's still room to get on board.

## ABOUT THE GREEN BUILDING ALLIANCE

To learn more about GBA, visit [www.gbapgh.org](http://www.gbapgh.org).

The Green Building Alliance is a non-profit, 501(c)3 organization that works to improve the economic, social and environmental performance of the Pittsburgh region through the integration of green building practices into regional development projects.

### Education and Research

GBA undertakes research to further document the value of green building and to gather lessons learned data, while the Resource Center serves as a clearinghouse for this and other green building information. The center is open to the public and can be accessed through GBA's website or by visiting its physical location in the CCI Center on the South Side. GBA also provides professional training through a workshop series. Workshops on a variety of topics are a half-day in length, with a curriculum that is developed and delivered with the help of national experts.

### Public Relations and Policy

Public presentations are conducted to raise awareness and knowledge within the building industry. Presentations, along with tours, promotional materials and other events also raise the visibility and celebrate the success of Pittsburgh projects. GBA is also active with state and national organizations to keep Pittsburgh informed and advocate green policies.

### Green Team Builders

Project implementation is facilitated through education and goal-setting sessions with project teams. Assistance to the Green Loan Fund is also provided to further support implementation.

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8 am to noon, Carnegie Mellon Research Institute,  
700 Technology Drive

(near corner of Bates & 2nd Avenue)

For information, contact GBA @ [www.gbapgh.org](http://www.gbapgh.org) or  
[info@gbapgh.org](mailto:info@gbapgh.org) 412-431-0709

### Self Report 3 L.U.'s

Please send your information to the attention of Joan Kubancek, AIA Pittsburgh, 211 Ninth Street, Pittsburgh, PA 15222, or fax it to Joan at 412/471-9501. The deadline for inclusion is normally six weeks prior to publication. If you would like information describing qualified continuing education programs, please call the AIA office at 412-471-9548.

## AIA ACTIVITIES

### June 4, Monday

**PNC Park Behind the Scenes Tour and Picnic.** 5:00 registration, 5:30 tour, 7:00 boardwalk picnic 471-9548.

### June 8, Friday

**Communications Committee Meeting,** noon at the Chapter office, 471-9548.

### June 11, Monday

**AIA Pittsburgh Board Meeting** 5 p.m. at the Chapter office. All members are welcome, 471-9548.

### June 12, Tuesday

**Professional Development Committee Meeting** noon at the Chapter office, 471-9548.

### June 21, Thursday

**Legislative Committee Meeting,** noon at the Chapter office, Chuck Coltharp, AIA, 724-452-9690.

### June 27, Wednesday

**AIA Pittsburgh's Foundation for Architecture,** Contact Ed Shriver, AIA, 263-3800

## AROUND TOWN

### June 12, Tuesday

**CSI Meeting.** Place to be determined. 6 PM Social, 6:30 PM Dinner. \$20. Contact Deborah Merges at 724-375-2113 or [dmerg@home.com](mailto:dmerg@home.com) by June 8 for meeting details.

### June 13, Wednesday

**"Pittsburgh Metropolitcs: A Study of Social Separation and Sprawl"** Lecture by Myron Orfield, Founder, Metropolitan Area Research Corporation. 5 pm at the Bayer Learning Center, Duquesne University Free, Sponsored by Sustainable Pittsburgh 412-258-6642

### June 13, Wednesday

**Society of Design Administrators.** Conflict Resolution by Woody Woodburn. Monthly meeting at the Engineer's Club. 11:30 am – 1:30 pm. Lunch \$17 members \$19.50 non-members. Reservations call Cheryl Marlatt at 412-281-1337

### June 15, Friday

**Deadline for Religious Architecture and Liturgical/Interior Design Awards** co-sponsored by FAITH & FORM magazine and IFRAA, a professional interest area (PIA) of the American Institute of Architects. The program pursues the highest standards in architecture, liturgical design, and art for religious spaces. For information call FAITH & FORM 919-489-3359 or e-mail [swallen@tde.org](mailto:swallen@tde.org)

### June 27, Wednesday

**AIA MBA Committee Meeting.** Master Builders Association, 2270 Noblestown Rd. 6:00 p.m. 412-922-3912

### July 11, Wednesday

**Creating Livable Communities.** Lecture by Judy Corbett, Executive Director, Local Government Commission. 5 pm at the Bayer Learning Center, Duquesne University. Free, Sponsored by Sustainable Pittsburgh 412-258-6642

AIA Pittsburgh is using e-mail to keep our members informed of the chapter's activities. If you would like to be included and are a member, please send your address to [aipgh@sgi.net](mailto:aipgh@sgi.net).

# CONTRACTORS' DIRECTORY

A LISTING OF AREA CONTRACTORS AND THEIR PROFESSIONAL SERVICES. To include your firm in this directory, call AIA Pittsburgh at 412-471-9548.

## ■ ALLEGHENY CONSTRUCTION GROUP, INC.\*

456 Washington Avenue, PO Box 425  
Bridgeville, PA 15017  
PHONE: 412-221-0500 FAX: 412-221-0188  
CONTACT: Laura S. Deklewa  
*Commercial / Construction management  
Exterior / General / Industrial / Interior  
Renovations / Pre-engineered Metal  
Buildings / Certified DBE/WBE*

## ■ BRIDGES

1300 Brighton Road, Pittsburgh, PA 15233  
PHONE: 321-5400 FAX: 321-9823  
CONTACT: Paul R. Bridges  
*Commercial / Construction management  
Exterior / General / Industrial / Interior  
Renovations*

## ■ BURCHICK CONSTRUCTION CO., INC.\*

500 Lowries Run Road, Pittsburgh, PA 15237  
PHONE: 369-9700 FAX: 369-9991  
CONTACT: Joseph E. Burchick  
E-MAIL: burchick@burchick.com  
VISIT: www.burchick.com  
*Commercial / Construction management  
General / Industrial / Interior / Renovations*

## ■ BURNS & SCALO ROOFING CO., INC.

400 Bursca Drive, Suite 402, Bridgeville, PA 15017  
PHONE: (412) 221-6300 FAX: (412) 221-6262  
CONTACT: Jack F. Scalo, President  
E-MAIL: bscom@sgi.net  
VISIT: www.burns-scalo.com  
*Commercial / Industrial  
Residential Roofing / Architectural  
Structural / Specialty Sheetmetal  
1998 National Roofing Contractor Of The  
Year Award  
1999 SPRI Contractor Achievement Award*

## ■ F.J. BUSSE CO., INC.\*

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Pittsburgh, PA 15220  
PHONE: 921-1231 FAX: 921-9861  
CONTACT: John Paul Busse  
*Commercial / Construction management  
Exterior / General / Industrial / Interior  
Renovations*

## ■ CONTINENTAL BUILDING SYSTEMS

285 E. Waterfront Drive  
Homestead, PA 15120  
PHONE: 464-8933 FAX: 464-2994  
CONTACT: Traci McGavitt-Yates  
*Commercial / Construction management  
Exterior / General / Interior / Renovations*

## ■ R.E. CRAWFORD CONSTRUCTION

1046 Pittsburgh Street, Springdale, PA 15144  
PHONE: 724-274-5000 FAX: 724-274-2323  
CONTACT: Judi Nadeau  
*Commercial / Construction management  
General / Interior / Renovations*

## ■ DICK CORPORATION\*

P.O. Box 10896, Pittsburgh, PA 15236  
PHONE: 412-384-1320 FAX: 412-384-1215  
CONTACT: John R. Bonassi  
*Commercial / Construction management  
Exterior / General / Highway / Industrial  
Interior / Renovations / Design Build*

## ■ P.J. DICK INCORPORATED\*

P.O. Box 98100, Pittsburgh, PA 15227-0500  
PHONE: 462-9300 FAX: 461-7900  
CONTACT: Bernard J. Kobosky  
*Commercial / Construction management  
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Renovations / Institutional*

## ■ FLYNN CONSTRUCTION, INC.

600 Penn Avenue, Pittsburgh, PA 15221  
PHONE: 623-2483 FAX: 243-7925  
CONTACT: Tom O'Connor  
*Commercial / Construction Management  
Exterior / General / Interior / Renovations*

## ■ GENERAL INDUSTRIES

15 Arentzen Blvd., Charleroi, PA 15022  
PHONE: (724) 483-1600 FAX: (724) 483-0990  
CONTACT: Donald Ivill  
*Design-Build/Commercial Building  
Contractors*

## ■ HARCHUCK CONSTRUCTION CO., INC.

705 Route 66, Building II, Suite 222,  
Apollo PA 15613  
PHONE: (724) 727-3700 FAX: (724) 727-2800  
CONTACT: David A. Harchuck  
*Commercial / Construction management  
Exterior / General / Industrial / Interior  
Renovations*

## ■ JENDOCO CONSTRUCTION CORPORATION\*

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PHONE: 412-361-4500 FAX: 412-361-4790  
CONTACT: John W. Zang III  
*Commercial / Construction management  
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Renovations*

## ■ A. RICHARD KACIN, INC.

795-22 Pine Valley Drive, Pittsburgh, PA 15239  
PHONE: 724-327-6694 FAX: 724-733-5993  
CONTACT: A. Richard Kacin, Pres.  
*Commercial / Construction management  
General / Industrial / Residential*

## ■ KUSEVICH CONTRACTING, INC.

3 Walnut Street  
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PHONE: 782-2112 FAX: 782-0271  
CONTACT: George Kusevich, Jr.  
*Commercial / Construction management  
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Institutional*

## ■ L.V. CONTRACTING, INC.

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CONTACT: Bob Leone  
*Commercial / Construction management  
General / Interior / Renovations*

## ■ MARCO CONTRACTORS, INC.

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PHONE: 724-935-8160 FAX: 724-935-8159  
CONTACT: Susan Tarasenkova  
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Interior / Renovation / Restaurants / Retail*

## ■ A. MARTINI & CO., INC.\*

320 Grant Street, Verona, PA 15147  
PHONE: 828-5500 FAX: 828-6488  
CONTACT: Angelo Martini, Sr.  
*Commercial / Construction management  
Exterior / General / Industrial / Interior  
Renovations*

## ■ MELE & MELE & SONS, INC.

One Mele Place, Rankin, PA 15104  
PHONE: (412) 351-1234 FAX: (412) 351-1278  
CONTACT: Anthony W. Mele  
*Site Development / Commercial / Industrial  
Institutional / Highway / Bulk Excavation  
Grading / Utilities*

## ■ MISTICK CONSTRUCTION

1300 Brighton Road, Pittsburgh, PA 15233  
PHONE: 322-1121 FAX: 322-9336  
CONTACT: D. Thomas Mistick  
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Residential*

## ■ MOSITES CONSTRUCTION COMPANY\*

4839 Campbells Run Road, Pittsburgh, PA 15205  
PHONE: 923-2255 FAX: 788-1169  
CONTACT: M. Dean Mosites  
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Interior / Renovations*

## ■ NELLO CONSTRUCTION COMPANY\*

3 Glass Street, Carnegie, PA 15106  
PHONE: 276-0010 FAX: 276-8123  
CONTACT: Janet Torriero  
*Commercial / Construction management  
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Renovations*

## ■ POERIO INC.\*

P. O. Box 11036, Pittsburgh, PA 15237  
PHONE: (412) 366-6767 FAX: (412) 366-1404  
CONTACT: Frank T. Poerio  
*Commercial / Construction Management  
General / Interior / Renovations*

## ■ REPAL CONSTRUCTION CO., INC.

2400 Ardmore Blvd., Suite 400,  
Pittsburgh, PA 15221  
PHONE: 271-3700 FAX: 271-3866  
CONTACT: Bill Palmer, Jr.  
*Commercial / Construction management  
Exterior / General / Industrial / Interior  
Renovations / Residential*

## ■ SOTA CONSTRUCTION SERVICES INC.

80 Union Avenue, Pittsburgh, PA 15202  
PHONE: 412-766-4630 FAX: 412-766-4634  
CONTACT: Ernie Sota  
E-MAIL: esota@sotaconstruction.com  
VISIT: www.sotaconstruction.com  
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Renovations*

## ■ TEDCO CONSTRUCTION CORPORATION\*

TEDCO Place, Carnegie, PA 15106  
PHONE: 276-8080 FAX: 276-6804  
CONTACT: Beth Cheberenchick  
*Commercial / Construction management  
Exterior / General / Industrial / Interior  
Renovations*

## ■ TURNER CONSTRUCTION COMPANY\*

1400 Koppers Building  
436 Seventh Avenue, Pittsburgh, PA 15219  
PHONE: 412-255-5400 FAX: 412-255-0249  
CONTACT: Raymond H. Steeb, III  
*Commercial / Construction management  
General / Industrial / Interior / Renovations*

## ■ JOSEPH VACCARELLO, JR. INC.\*

P.O. Box 663, Carnegie, PA 15106  
PHONE: 412-276-2755 FAX: 412-276-7985  
CONTACT: Gary Dickinson  
*Commercial / Highway / Industrial  
Residential / Bulk excavation  
Site development*

## ■ VOLPATT CONSTRUCTION CORPORATION\*

250 Curry Hollow Road, Pittsburgh, PA 15236  
PHONE: 412-653-5454 FAX: 412-653-5755  
CONTACT: Raymond A. Volpatt  
*Commercial / Construction management  
Exterior / General / Industrial / Interior  
Renovations*

## ■ WJG CONTRACTING, INC.

P.O. Box 4286, Pittsburgh, PA 15203-0286  
PHONE: 381-7098 FAX: 381-7698  
CONTACT: William J. Gormley, Jr.  
*Commercial / Construction management  
Exterior / General / Interior / Renovations*

## ■ WRIGHT CONTRACT INTERIORS

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PHONE: 412-471-2700 FAX: 412-471-5008  
CONTACT: Robert C. Baierl  
*Commercial / Interior*

\*Member of the MASTER BUILDERS' ASSOCIATION.

# Lee Calisti, AIA

*Co-chair, Pittsburgh Intern and Young Architects Forum (PIYAF)*



John Martine, AIA, Principal in Charge  
Lee Calisti, AIA, Project Architect  
Douglas Philp, AIA, Principal  
Richard Gribble, Intern Architect

This reconstruction is located in the City of Pittsburgh's Penn-Liberty Historic District. The progressive owner envisioned a highly crafted modern design which would still meet the design guidelines structured by the city's Historic Review Commission. The resulting design solution is intended to bring a crisp, contemporary but contextually harmonious look to a building that over the years had lost nearly all of its historic detail and character.

**FIRM:** Integrated Architectural Services Corporation

**TITLE:** Senior Associate

**FAMILY:** Wife: Amy

**EDUCATION:** B.Arch. 1991 Kent State University

**YEARS IN PRACTICE:** 10 full time, 5 part time during college, 6 with Legos, building blocks and early house models.

**FIRST JOB:** Caddy at age 15, golf course grounds crew at age 17.

**BEST REWARD FOR AN ARCHITECT:** An educated, trusting and appreciative client with a reasonable schedule and a sufficient budget.

**FAVORITE CITY:** I enjoy visiting smaller cities, which still have a vibrant downtown filled with a nice mix of historic and modern buildings. The last two that I visited are Burlington VT. and Saratoga Springs NY. I'm headed south this summer.

**IF I HADN'T BEEN AN ARCHITECT:** I wanted to be a comic book artist until I was 11 and an architect after that. If I wasn't an architect now, I'd be a photographer or graphic designer.

**ANNOYING THINGS ARCHITECTS DO...**what's the deadline for telling you that answer? Architects sometimes complain about circumstances that could be changed if they got involved in changing them. For instance, many of us were unhappy of the lack of support for young architects back in the mid 1990's. So instead of complaining about it, we formed PIYAF. Therefore, we had control of an organization whose mission is to promote the development of young architects.

**MY PRIMARY COMMUNITY SERVICE IS:** My wife and I are the youth leaders at our church (where I grew up) where I am also a deacon.

**THE BEST PART OF MY JOB:** Knowing I've created somebody's home, office, church, etc. and actually walking through that space I've helped design—and seeing the reality of it just as I first pictured it in my head (or drew on my napkin!). Seeing your own creations come to life is an experience that is hard to describe.

**WHY I BELONG TO THE AIA:** The only way I can explain it (from someone who tries to be actively involved) "why wouldn't I belong?" I have always gravitated to mentoring type of people and I strive to be one myself. My desire for assisting the 'young architect' motivated me, along with others, to form the young architects' forum back in 1996. I believe we need to control our careers rather than the reverse and the AIA affords me a means with which I can do that.



# ENGINEERS' DIRECTORY

A LISTING OF AREA ENGINEERS AND THEIR PROFESSIONAL SERVICES. To include your firm in this directory, call AIA Pittsburgh at 412-471-9548.

## ■ ALLEN & SHARIFF CORPORATION

700 River Avenue, Suite 237  
Pittsburgh, PA 15212  
PHONE: (412) 322-9280 FAX: (412) 322-9281  
CONTACT: Anthony E. Molinaro, P.E.  
**Consulting / Electrical / Mechanical  
Telecommunications**

## ■ BARBER & HOFFMAN, INC.

101 E. Diamond Street, #116  
Butler, PA 16001-5943  
PHONE: (724) 282-8464 FAX: (724) 282-8461  
CONTACT: Michael R. Miller, P.E.  
E-MAIL: BHP@nauticom.net  
**Consulting / Structural**

## ■ BRACE ENGINEERING, INC.

3440 Babcock Boulevard, Box 15128  
Pittsburgh, PA 15237  
PHONE: 367-7700 FAX: 367-8177  
CONTACT: Frank C. Brace  
**Structural**

## ■ CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

333 Baldwin Road, Pittsburgh, PA 15205  
PHONE: 412-429-2324 FAX: 412-429-2114  
CONTACT: Gregory P. Quatchak, P.E.  
**Testing & Inspection / Civil / Construction  
Consulting / Environmental / Geotechnical**

## ■ CLAITMAN ENGINEERING ASSOC., INC.

1340 Old Freeport Road, Pittsburgh, PA 15238  
PHONE: 963-6700 FAX: 963-7217  
CONTACT: Robert Rosenthal  
**Consulting / HVAC / Plumbing / Fire  
Protection**

## ■ CONWAY ENGINEERING

Investment Building  
235 4th Avenue, Suite 1408  
Pittsburgh, PA 15222  
PHONE: 765-0988 FAX: 765-2530  
CONTACT: Bob Conway  
**Consulting / Structural**

## ■ DODSON ENGINEERING, INC.

420 One Chatham Center, Pittsburgh, PA 15219  
PHONE: 261-6515 FAX: 261-6527  
CONTACT: Gregory L. Calabria, P.E.  
Herbert J. Brankley, P.E.,  
**Consulting / Mechanical**

## ■ DYNAMIC DESIGN ENGINEERING, INC.

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Johnstown, PA 15901-1828  
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CONTACT: James M. Vizzini, P.E.  
www.dynamic-engineering.com  
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Telecommunications / Building Audits**

## ■ ELWOOD S. TOWER CORPORATION

115 Evergreen Heights Drive, Suite 400  
Pittsburgh, PA 15229  
PHONE: 412-931-8888 FAX: 412-939-2525  
CONTACT: Theodore H. Dannenrath, P.E.  
**Consulting / Electrical / Mechanical  
Telecommunications / Sustainable  
Building Design / Energy Analysis  
Building Commissioning**

## ■ ENGINEERING MECHANICS, INC.

4636 Campbells Run Road, Pittsburgh, PA 15205  
PHONE: 788-3650 FAX: 787-5891  
CONTACT: Daniel Grieco, Jr., P.E.  
**Testing & Inspection / Geotechnical  
Consulting / Environmental  
Blasting Vibrations**

## ■ FIRSCHING, MARSTILLER, RUSBARKY AND WOLF ENGINEERING, INC.

2 Parkway Center East  
2030 Ardmore Boulevard, Suite 250  
Pittsburgh, PA 15221  
PHONE: 271-5090 FAX: 271-5193  
CONTACT: Daniel J. Wolf / David D. Rusbarky /  
Ted Marstiller, P.E.  
**Consulting / Mechanical**

## ■ FOREMAN ARCHITECTS ENGINEERS, INC.

P.O. Box 189, Zelienople, PA 16063  
PHONE: 724-452-9690 FAX: 724-452-0136  
CONTACT: David E. Foreman, P.E.  
**Civil / Consulting / Electrical / Mechanical  
Structural**

## ■ GAI CONSULTANTS, INC.

570 Beatty Road, Monroeville, PA 15146  
PHONE: 412-856-9220 FAX: 412-372-2161  
CONTACT: Anthony F. Morrocco, PE/PLS  
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Archaeological**

## ■ THE GATEWAY ENGINEERS, INC.

1011 Alcon Street, Pittsburgh, PA 15220  
PHONE: 921-4030 FAX: 921-9960  
CONTACT: Rose Griffin  
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## ■ HERBERT, ROWLAND & GRUBIC, INC.

290 Executive Drive, Suite 1A,  
Cranberry Twp., PA 16066  
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CONTACT: James M. Lopresti, P.E., Regional  
Manager  
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PHONE: 781-1500 FAX: 781-5593  
CONTACT: Richard W. Petrie, P.E.  
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## ■ THE KACHEE GROUP

1014 Perry Highway, Suite 100  
Pittsburgh, PA 15237  
PHONE: 412-369-9020 FAX: 412-369-9021  
CONTACT: Tony Moscollic  
**Structural**

## ■ L. ROBERT KIMBALL & ASSOCIATES

415 Moon Clinton Road  
Moon Township, PA 15108  
PHONE: 262-5400 FAX: 262-3036  
CONTACT: Thomas L. Blank, CIH, CSP  
Joseph F. Moon, PE  
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Site Assessments / Indoor Air Quality  
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Radon Testing-Mitigation  
Industrial Hygiene-Safety  
Civil / Site / Structural**

## ■ PETER F. LOFTUS DIVISION

Eichleay Engineers Inc., 6585 Penn Avenue  
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Structural / Telecommunications  
Fire Detection & Protection**

## ■ MEUCCI ENGINEERING, INC.

409 Elk Avenue, Carnegie PA 15106  
PHONE: 276-8844 FAX: 276-2960  
CONTACT: James B. Fath, P.E.  
**Consulting / Electrical / Mechanical**

## ■ MURRAY ASSOCIATES, INC.

413 Penn Avenue, Turtle Creek, PA 15085  
PHONE: 412-823-2020 FAX: 412-824-7302  
CONTACT: Jack G. Murray, P.E.  
**Structural / Civil / Geotechnical  
Environmental / Testing & Inspection  
Construction / Consulting**

## ■ POLYTECH, INC.

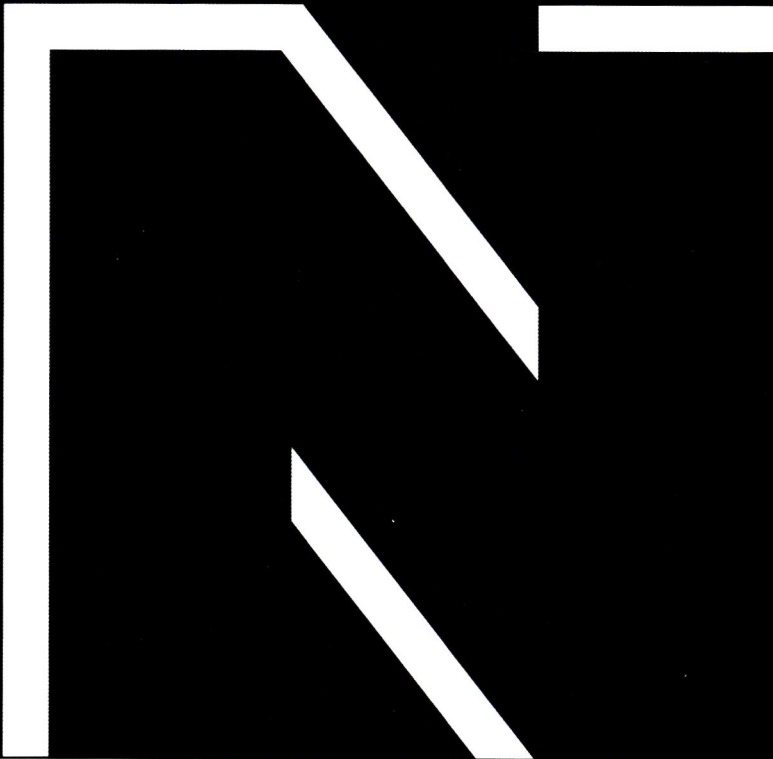
Three Gateway Center, 12th Floor, East Wing  
Pittsburgh, PA 15222  
PHONE: 995-1300 FAX: 995-1306  
CONTACT: Michael C. Moore  
**Civil / Consulting / Electrical  
Mechanical / Structural / Transportation  
Construction Management**

## ■ SAI CONSULTING ENGINEERS, INC.

1400 Penn Avenue, Suite 101  
Pittsburgh, PA 15222-2571  
PHONE: 392-8750 FAX: 392-8785  
CONTACT: Walter S. Krasneski, Jr.  
**Testing & Inspection / Civil / Consulting  
Structural / Transportation**

## ■ TRANS ASSOCIATES ENGINEERING CONSULTANTS, INC.

2419 Baldwick Road, Pittsburgh, PA 15205  
PHONE: 412-937-8070 FAX: 412-937-8071  
CONTACT: Sandra A. Sabo  
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Contact **Heidi White**, our  
Director of Business Development  
at **724.224.6104** or email  
her at **heidi@nello.net**

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# GENERAL SERVICES DIRECTORY

A LISTING OF AREA BUSINESSES AND THEIR PROFESSIONAL SERVICES. To include your firm in this directory, call AIA Pittsburgh at 412-471-9548.

## BLUEPRINTS

### ■ F.L. HAUS COMPANY

921 Ridge Avenue, Pittsburgh, PA 15212-6093  
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info@flhaus.com  
plot@flhaus.com

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CONTACT: John J. Dziak

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## Upcoming Issues

WE WELCOME YOUR IDEAS AND SUGGESTIONS AS WE EXPLORE THE FOLLOWING TOPICS IN 2001:

**July/August** — THE HOMESTEAD CHARETTE. More than 60 architects, historians and others spent a day and a half in Homestead recently brainstorming ideas to integrate the old with the new. We'll show you the results of this successful charette.

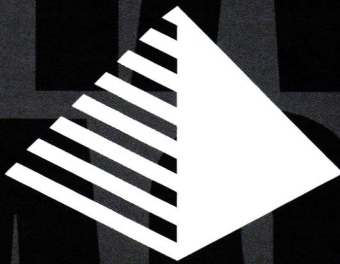
**September** — THE RIVERFRONT TASK FORCE. How it's changing the course of the waterfront and our city

**October** — Designing with children in mind: schools and centers for kids

**November** — Residential Architecture: the latest in home designs

To contribute to an issue or to submit a story idea, please contact the editor at 412/563-7173 or email tcerto@adelphia.net.

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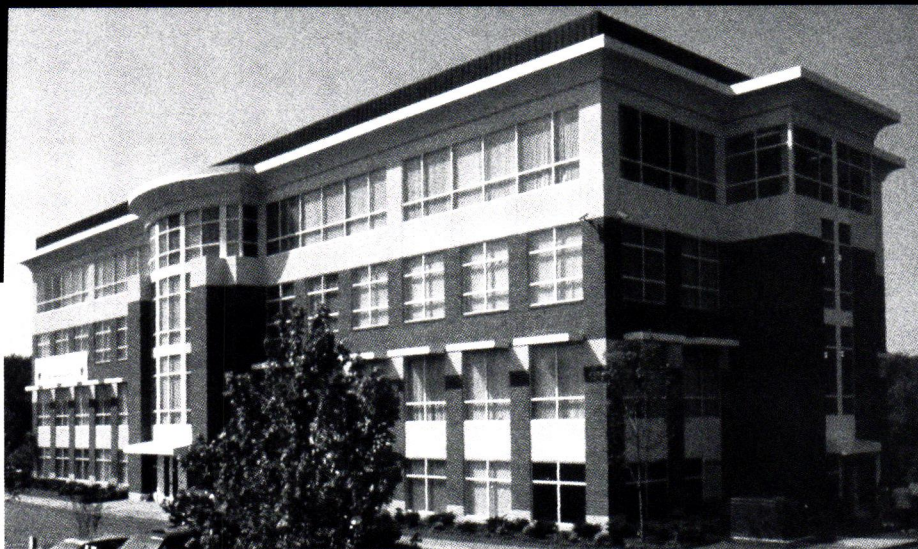
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