



THE TARTAN

Carnegie Mellon's Student Newspaper Since 1906

April 10, 2006

Architects unveil Gates Center design

News | Andrew Peters



[Full Size](#)
A three-dimensional model depicts how the Gates Center will appear from Forbes Avenue.

Architect Mark Scogin walked onto the Carnegie Mellon campus last Monday, and for the first time, he didn't come empty-handed. He brought with him a design that he hopes will revolutionize Carnegie Mellon and send it hurtling into the future.

Scogin and his partner Merrill Elam have been designing the Gates Center for Computer Science for almost a year now, and on Monday they were finally ready to give the campus a preview of what's to come.

On Monday, students in the School of Computer Science (SCS) got the first look at the newly released designs of the Gates Center in several private information sessions. Later that day, Scogin gave a lecture at Carnegie Lecture Hall in Oakland, where he presented the design to an audience of students, faculty, alumni, and community members.

Scogin prefaced his designs by speaking at great length about Henry Hornbostel, Carnegie Mellon's first architect. Scogin's design for the Gates Center was in large part influenced by his interpretation of Hornbostel's bold and creative designs.

"I have tried to make this argument, and I think I'm right about this," Scogin said, setting the tone for his design. "The Carnegie Mellon campus is an incredibly bold campus. There is none other like it in the United States. I don't think there is another one like it the world."

Scogin noted that what makes the campus “bold” is its two main organizing spaces.

The architect and his partners took a long look at Hornbostel’s designs, such as the College of Fine Arts building, and analyzed the way Hornbostel used architectural elements on the outsides of his buildings to define spaces on the insides.

“Hamerschlag Hall, Porter Hall, Baker Hall — this is some of the weirdest, strangest architecture by an iconoclastic architect,” Scogin said, referring to Hornbostel’s use of domes, arches, pediments, and other simple architectural devices in complex or creative ways.

The Beginning

“We wanted a place where you can enter into physically and psychologically. That’s the idea of these buildings,” Scogin said.

On a less philosophical level, the administration and the School of Computer Science had some very specific goals in mind for a new building on campus. Ralph Horgan, associate vice-provost of Campus Design and Facility Development, outlined the University’s goals.

“The major elements of the building program were linking the Cut with the West Campus, in fact, creating a new west campus quad that would rival in space the Cut and the Mall for open space on this campus,” Horgan said. He also noted the desire to create a proper entrance on Forbes Avenue.

According to Guy Blleloch, associate dean for planning for the School of Computer Science, a committee of SCS faculty convened as soon as the school knew about the Gates project to determine what the school needed in a new facility.

“The initial reason for the new building is that we have grown tremendously,” Blleloch said. Citing a 100 percent growth in last several years, he noted department members are spread out — on Craig Street, and in Lawrenceville, for example. “The purpose of the building is to get Computer Science back together.”

According to Blleloch, the SCS panel analyzed the traffic flow on campus to understand how busy the different entrances and pathways in the new building were going to be. They also looked at pedestrian volume during the transition from class to class and locations of various residence halls.

To get a good feel for the latest in academic facility design, Blleloch and the committee traveled to over 15 different campuses and investigated 30 buildings.

Taking their cues from both the Office of Campus Design and Facility Development and the School of Computer Science, Scogin and Elam’s goal was to create a space where professors and students would feel comfortable doing individual research. According to Blleloch, the space would also have to be conducive to collective and interdisciplinary work.

“One of the things that was very important to us was collaboration,” Blleloch said. “We want to foster collaboration both within the School of Computer Science, but also help other people from other schools to collaborate with us.”

The Design

The 159,000-square-foot Gates Center and its surrounding landscaping will take up 5.6 acres of West Campus. Attached to the Gates Center itself will be another, smaller building, tentatively named “Donor X” building.

The original grant from the Gates Foundation specified a 150,000-square-foot building. According to Horgan, however, SCS needed at least 200,000 square feet of space to move completely out of Wean Hall. The decision was made then to attach a 50,000-square-foot building to the Gates Center and create a naming opportunity. So far, there is no “Donor X.”

The center will feature an eight-foot-wide bridge from outside the Purnell Center, a café, a private underground parking garage, 318 offices, a 250-seat auditorium, a three-story breezeway between Gates and Donor X, and a landscaped link to the Cut.

“It’s a huge site and it will change the face of the West Campus,” Horgan said.

Scogin has not yet decided exactly what the façade of the building will look like. The lower floors and the three-story bridge from Gates to Donor X will be entirely made of glass. The upper, more visible floors will be covered in either zinc or slate panels that will be perforated with windows. The exact hue of the paneling and the tint of the windows are subject to ongoing discussion, but Scogin’s main goal is to bring natural light into every space in the building.

“We don’t have a resolution on the exterior,” Horgan said. “We need to do some listening to people on that.”

All the exterior materials will require little or no maintenance, in accordance with Scogin’s goal that the Gates Center be a “100-year building,” or that no part of it will need to be repaired or replaced for at least 100 years.

To funnel traffic through the building, Scogin has designed an internal ramp system that will take pedestrians through the core of the building. The oval ramp spans three floors and will wrap around classrooms, offices, and an open computer cluster.

“This is a transformation of an academic building. Generally, you don’t invite the public into academic building,” Scogin said. “It’s inviting to the rest of campus.”

The building will have six front doors at five different elevations, Scogin said, explaining that the Gates’ Center will have no real “back door.”

“What makes it complicated is that 360 degrees around this building there are 360-degree changes of how you want to take in this building,” he said.

According to Scogin, the first three floors of the Gates Center will primarily be the teaching levels. They will also be the most public areas in the building. The fourth floor houses the largest classrooms and offices.

The new planetary robotics center will be on the lowest level, with access to the loading docks. Scogin plans to build the planetary robotics department a rugged open space called a “Mars Yard” meant to mimic the terrain of Mars. The yard will be used to test new robots and will be highly accessible to pedestrians using West Campus.

The “Donor X” building is purely for research, the same with uppermost levels of the Gates building. Donor X, in addition to certain parts of the Gates Center, will feature green roofs.

In the distant future, Horgan foresees a bridge over Panther Hollow that will connect the Gates Center and the West Campus to the intersection of Forbes Avenue and Craig Street.

Around the Gates Center, landscape architect Michael Van Valkenburgh has designed a brand new quad with green space and walkways compliant with the Americans with Disabilities Act. The hallmark of Van Valkenburgh’s design is the “Winter Garden,” a green space built into the grade of the hill that will extend the West Campus quad right up into the Gates Center and beyond.

The Concerns

A primary concern of some non-computer science students is that they will never have the opportunity to use the new facility.

According to Scogin, the amount of interdisciplinary study that goes on will depend on “how the spaces are programmed by the School of Computer Science.” In his opinion, there is a lot of room for collaborative and interdisciplinary work in the building.

Blelloch agreed, stating that one of SCS’s goals is to bring non-computer science students into the building.

Many audience members at Scogin’s lectures were concerned about how environmentally friendly the new Gates Center will be.

According to Scogin, his partner and he had been aiming for a U.S. Green Building LEED silver rating, but Scogin admitted they can do better. Ralph Horgan believes the building may be in a position to receive a gold rating.

Volker Harfkopf, professor of architecture and co-founder and director of the Center for Building Performance and Diagnostics (CBPD), however, remained unconvinced by what he has heard.

“You said you are going to meet LEED silver standards,” Harfkopf said, reminding Scogin that Carnegie Mellon has made a strong commitment to sustainability. “That’s not leadership. Carnegie Mellon does not want to be a follower.”

Vivian Loftness, also a professor of architecture and another member of the CBPD, voiced concerns about the statement that Scogin’s design will make at night.

“It just seems that the proportion of the window is a critical factor and it will really show up at night time,” Loftness said. “You’ll start to know whether the windows have that generosity adjacent to the Hornbostel building or whether they look like the punctured windows we see in Wean Hall.”

The question on everyone's mind, however, was not voiced by a professor of architecture. It was a design student at Scogin's lecture who asked: Will it fit the campus?

"It will fit. It will be different — it will speak to something about the future of the University," Scogin said.

"You can't make the mistake of something too modest, too small. Hornbostel would be the first to tell you, 'Don't do that, for God's sake! Use the tools of your time.'"

0 comments | [Post a Comment](#)

Important: The Tartan provides these discussion boards to encourage discussion about the topics we report. The views and opinions expressed in these comments are those of their authors, and do not reflect the opinions of The Tartan.

Copyright © 1999-2010 The Tartan