

CMU's Gates Center design veers off the yellow brick road

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By Patricia Lowry, Pittsburgh Post-Gazette

With angled exterior walls and a slate and zinc skin, the Gates Center for Computer Science will be a radical departure for Carnegie Mellon University, dominated for a century by classically inspired buildings clad in a subtle tapestry of buff and yellow brick.

The design, by Atlanta-based Mack Scogin Merrill Elam Architects, stirred controversy when it was shown for the first time on campus last week. While the School of Computer Science is pleased with the design, some architecture faculty members say the building is too big and too idiosyncratic.

The \$88 million building, expected to be completed in 2009, will rise out of a natural ravine that the campus' original designer, architect Henry Hornbostel, envisioned as a sports stadium surrounded by buildings -- none of which was ever built. Over time, parts of the ravine were filled in with a motley crew of small, ad hoc buildings surrounded by larger, better-designed ones, creating what the university calls the West Campus.

"The challenges of the site presented an opportunity to move in a new direction," said Ralph Horgan, vice provost for campus design and facility development. He said it's time for CMU "to move beyond 'the yellow brick road.' "

"I credit the architecture department for pushing me toward a contemporary design," said Randal E. Bryant, dean of the School of Computer Science.

The push came during meetings of the project's Design Review Committee, which selected the Scogin-Elam firm from a field of more than two dozen that had been narrowed to three. The committee comprises representatives from the schools of computer science and architecture as well as campus administrators and CMU trustees.

One of its members, computer science professor Guy Blelloch, said the committee was especially impressed by the firm's design of the Knowlton School of Architecture at Ohio State University. It makes good use of interior spaces to help foster collaboration and portray the personality of the school, he said, and makes creative use of a limited site -- all goals for the Gates Center, which needs to establish a sense of place both inside the building and out, as the heart of the West Campus.

Unveiled to students, faculty and staff last week, the 209,000-square-foot Gates Center is in two parts: a six-story structure and a smaller, trapezoidal, four-story one, connected by a glass-enclosed lobby with pedestrian bridges. Between and around the two buildings, Michael Van Valkenburgh has designed a naturalistic landscape interwoven with pathways.

Although the Gates Center's exterior is to be clad in zinc and slate, one or the other may be used exclusively. Mack Scogin showed building elevations, but the university declined to release them to the media, saying the design, which has stirred controversy on campus, is still in the works.

At Scogin's presentation to the architecture department, several faculty members questioned the building's size, height, shape, skin, energy efficiency and window design and location. The windows are arranged in an irregular pattern and each is surrounded by contrasting materials in asymmetrical patterns that aim to visually expand the zone of the windows. Scogin said his inspiration came from Hornbostel, who often exaggerated scale.

The Gates Center's angled exterior walls will give office occupants better views from their windows, rather than the backs of some nearby buildings. Scogin said. The building's shape "is not arbitrary. It's quite calculated."

The university wanted two distinct buildings for the Gates Center, to provide a second fund-raising and naming opportunity for another lead donor, not yet identified. The Bill and Melinda Gates Foundation has contributed \$20 million toward the center's cost.



Bill Wade, Post-Gazette

A model of the Gates Center for Computer Science, which is expected to be completed in 2009 at Carnegie Mellon University.

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• [Map: Gates Center for Computing Science at CMU](#)

But that idiosyncratic shape, irregular window pattern and distinctive skin bring the higher costs and greater inflexibility of a handmade building, said architecture professor Volker Hartkopf, director of CMU's Center for Building Performance and Diagnostics, which researches advanced building systems and technologies.

Because the center's research places CMU in a national leadership position for building performance, Hartkopf thinks the Gates Center should be a high-performance building, one that achieves greater energy efficiency and interior flexibility than what is planned. The architects are aiming for a building that consumes 30 percent less energy than allowable under code and a silver LEED rating from the U.S. Green Building Council.

"A building that's bigger on top is environmentally counterintuitive," Hartkopf said, because its expensive cantilevers shade what's beneath them, contributing to heat loss and the building's cost.

Hartkopf also believes the university is trying to accomplish too much with the Gates Center, which will sit atop a 150-car parking garage and house 318 offices as well as labs, computer clusters, lecture halls, classrooms and a 250-seat auditorium. The result, he said, is a building that's too large and awkward for its 5.6-acre site.

"We can't afford to dig down," Scogin said at the presentation. "It has to be this high."

In relation to its closest neighbors, the larger of the two Gates Center buildings will rise above Hamburg, Smith and Newell-Simon halls on the West Campus but won't be as tall as Wean and Doherty halls and Purnell Center for the Arts, all on the East Campus.

"I didn't expect it to come so high," CMU architecture archivist Martin Aurand said. The author of a forthcoming book on Pittsburgh's topography, Aurand consulted with Scogin's team on how the building should relate to the campus. But he supports the building, saying it's the right time and place and the right architects to move away from the tradition of yellow brick.

As the design evolves over the next few weeks, Scogin said he will address all of the concerns presented to him. Construction is expected to begin by the end of the year.

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