Frank Gehry: Architecture as “Service”

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esigning buildings isn’t all fun and games. Frank Gehry—perhaps the world’s most acclaimed architect—told a crowd in Low Memorial Library on Oct. 31. “It’s hell sometimes.” Gehry said. For one thing, the last few months of his life have been as much about destruction as construction. Two of Gehry’s California buildings—the Santa Monica Place indoor mall and a classroom building at U.C. Irvine—have been scheduled for demolition.

A more extraordinary episode of destruction occurred when Hurricane Katrina propelled a casino barge onto the roof of an unfinished museum in Biloxi, Miss. Much of the building, designed by Gehry to house pottery and African art, was destroyed. “Maybe they should use the barge as the museum,” he joked. “It’s bigger, and it’s free.”

More dismaying, Katrina knocked down several large trees. “In the property, ‘The whole scheme was about dancing with the trees,’” he explained. “When the trees went gone Gehry’s design—a series of small pavilions rather than one large structure—has lost its raison d’être. ‘I don’t know what will go from here,’” he admitted.

Gehry holds the title of Distingushed Professor at the Graduate School of Architecture, Planning and Preservation. He was being interviewed by Kelvin Sealey, host of Citizen: The Campus Talk Show. The forum (simulcast to two other locations on campus) was titled Architecture in the Public Imagination.

Gehry reported that his Brooklyn project, a planned residential community adjoining a new arena for the Nets basketball team, is posing an even greater challenge than his Karrina-demolished museum. To be built over a rail yard on Flatbush Ave., it is the largest of Gehry’s New York projects (the others are an office building for Barry Diller’s media conglomerate and a small apartment building in lower Manhattan). It keeps me awake at night,” said Gehry of the Brooklyn development. While best known for his shimmering forms like the Guggenheim Museum in Bilbao, Spain, and the Disney Concert Hall in Los Angeles, the Toronto-born Gehry, now “76, views himself as an urban planner, whose buildings should enhance their surroundings. “I am a do-gooder,” he said, “I see architecture as a service.”

But as people in Brooklyn expect the borough to be all “brownstones and tree-lined streets,” Gehry’s project has met with opposition from the community: “You can’t do that with a project of this size,” he said, adding that he had asked the developer, Bruce Ratner, to scale back the project several times.

Meanwhile, he hasn’t convinced Ratner to do something more significant in other architects to design parts of the project, to ensure a variety of styles. “I wanted to be able to deal with one person, so he refused,” Gehry said.

Facing the pressure of designing the entire project on his own, Gehry decided to develop a “design hierarchy,” where several “iconic towers” will be surrounded by “background buildings.”

But the dilemma, he said, is that the background buildings end up looking ordinary, like standard issue housing projects. “Sometimes I think I should be less polite,” he said—implying that life would be easier if his buildings were all attention-getters.

In response to audience questions, Gehry identified his associations with Vaclav Havel (who gave him a lecture), and an epiphany in Prague of “playing with the Guggenheim forms like the Guggenheim museum in Bilbao, Spain, and even East Africa. Returning, they forever changed local architecture in cities like Tarim, where craftsmen blended neoclassicism, rococo, Mughal, art nouveau and art deco into local traditions of earthen construction. Today, these structural wonders are at risk.

SOLUTION: In the Yemeni project, orchestrated by James Conlon, the project manager for Columbia’s Visual Media Center and Interdisciplinary Project, computer-aided design, 3-D scanning technology and Geographic Information Systems are being used, along with virtual reality software, to stitch imagery and data together in the creation of a 3-D view of any interior, exterior or even substructural view of these buildings. Says Conlon, “students can choose a city, a building or a room and experience full, moving panoramic perspectives, manipulating space as they desire. The technology also allows students to zoom in on the intricate details of a wall mural, for example.

PROBLEM: For a long time, it was believed that the high towers of churches built in Bourbournais, France, collapsed. To this day, no one knows why. Though completely rebuilt, the cathedral is still plagued by original design flaws and may not be secure. SOLUTION: Led by Peter Allen of Columbia’s Robotics Lab, a team circled the cathedral using 3-D laser scanning, massing huge amounts of detailed digital data and visualizing and analyzing them.

The experience of being in a city, or a great work of architecture, is not possible to recreate, in virtual reality, or and even sub-structural details. The work made possible the creation of a 3-D computer model, which gave engineers and architects the chance to test various theories as to the likely causes of the collapse. The models also suggested potential repairs as well as clues into the cathedrals’ original design. As Allen puts it, “We have a digital blueprint, if you will, so that if something did happen to this cathedral, we could try to preserve it. And we can now begin to understand if it failed or how it failed.”

SOLUTION: To help with this process, the tech team uses shape-recognition tools to discern underlying patterns that link spaces in the various buildings. It also employs laser scanners to construct 3-D models. Of late, computer scientist Steven Feiner has been experimenting with creating a “play space” where users can superimpose plans and sections in order to compare and contrast architectural aspects of different periods of churches. And Rory O’Neill of GSAPP is working to produce tools that can be used in the churches that can be animat ed to show the relationship between interior and exterior. Or for an idea of the work completed thus far and for more information on the discovery tools developed by Murray’s team, go to www.mcah.columbia.edu/bourbournais/

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