

Aronoff Center for Design and Art – A Post-occupancy Evaluation

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SUMMARY

Wolfgang Preiser, Ph.D., professor of architecture at the University of Cincinnati and editor of the book *Assessing Building Performance*, has a specialty that he has been perfecting for the last three decades: post-occupancy evaluation (POE). This self-described "building pathologist" researches the ways in which people are affected by buildings. He believes it is extremely important to accurately assess what happens when a building is put to use, and to compare the results to its creator's intentions, using physical measurements, interviews, surveys, and observations.

A POST-OCCUPANCY EVALUATION

Preiser explains POE as the last of the six "loops" in the overall design perspective of a project, which starts at the project's inception and travels through design, building, and final occupancy. The school's POE data collection process involves several different techniques, including:

- Interviews
- Surveys
- Observations
- Photography
- Archival research

A building performance evaluation rates actual performance against the design's required performance. The typical POE focuses on nine items:

- Top priority: health, safety, security
- Mid priority: function, efficiency, work flow
- Last priority: psychological, social, cultural performance

POEs are classified in three divisions:

- Indicative (the quickest and least in-depth POE)- which may be used as a guide to pursue a more detailed POE
- Investigative- a more detailed and in-depth POE

- Diagnostic- an in-depth POE similar to focused research into such topics as stair safety, ambient lighting, and signage. It elaborates on what may be done to rectify shortcomings or poor performances.

ASSESSING HIS SURROUNDINGS

For his case study, Preiser presented signature architect Peter Eisenman's design of the Aronoff Center for Design and Art on the University of Cincinnati campus, which has been his academic home for the past 15 years. The Aronoff Center began to receive design accolades well before it was built, and since its completion has proven to be one of the most talked about-and controversial-architectural works of the 1990s.

Preiser's first survey of the building began shortly after it opened in 1996. His group studied the building's health, safety, and security; function, efficiency, and work flow; and psychological, social, and cultural performance aspects. According to Preiser, Eisenman had said he wanted to destabilize and confuse people-and, Preiser suggested, this strategy has proven to be not entirely without merit. "The building itself is very interesting as you move through it," he noted, adding that "the east, 'signature' side of the façade pretends that the building is tilted, but that is only surface treatment."

Overall, the building itself has not received high marks from the POE. Investigators and many building users rate it according to the following criteria:

Wayfinding: Most people rate wayfinding to and through the building as poor. The many crooked and skewed elements make it difficult to orient oneself within the space, and the building plan is not always kind to its users. A prime example: Visitors must go out into the elements after parking in the garage to enter the building from its most popular side. Eisenman sited the entrance on the east side of the building, as it was hoped that the street it faced would connect to Cincinnati's main thoroughfare. While the city ultimately nixed this plan, claiming that it would add to already excessive vehicular

congestion, the architect kept the entrance on the east side of the building anyway. In Preiser's opinion, this was a mistake.

Further complicating matters in the entrance sequence is that signage remains almost nonexistent. Preiser also pointed out the caulking between the walls and the column, which stretches inches wide in some places in this very complex space. However, upon reaching the heart of the building, users find a space that Preiser and his investigators believe works very well. The atrium, considered to be the social hub of the building, is where, he said, "everything comes together."

Accessibility: The architect linked the design and chemistry schools with a huge spine and a monumental outdoor stair, the latter of which, Preiser discovered, goes almost entirely unused (a notable exception was the center's opening day, when a marching band ascended the stairs in full glory). "I guess it was assumed that the chemists would be running over to visit the designers, and vice versa, but it didn't happen," Preiser mused. Worse yet, both outside and in, stairs bar wheelchair users from access; elevators do not connect to all levels, and are hard to find. "This is where the building really falls down," Preiser said. The stairs have also generated a safety issue: The risers vary tremendously from step to step in the main auditorium.

Waterproofing: Steel-formed flying buttresses and other elements of the east side of the structure are clad with an exterior insulating foam system (EIFS), which inspired Preiser to quip, "Foam Follows Function." Not funny, however, are the many leaks that have sprung in the building's roof and walls.

Natural light and views: "Views out are missing. There almost are no windows," Preiser said. But people love the atrium, even though an eighth floor blocks most of the sunlight, he reported. This social hub works very well.

Circulation: Critiques are held in the wide corridors, which is a plus because it allows students to share work, even though only rudimentary tacking space was provided. The downside is that "noisy groups walk by and drive students in crits crazy," Preiser said.

Maintenance: Lights in the east entrance area must be changed by workers on cherry-pickers who have to remove railings to get at them. Preiser disparaged the cheap materials, especially as, at \$36 million, the building came in with a significant cost overrun. After one year, all the leaking skylights had to be replaced, he said.

IN PRAISE OF POE'S

Presently, POE is an elective course for students at the University of Cincinnati. The group also frequently conducts rigorous performance evaluations for clients, as they are currently doing for 42 county libraries.

Preiser can document the formal POE process back 30 years in the literature to 1975, when the first article talking about its use appeared in an issue of the *AIA Journal*. Now as then, Preiser believes that it is essential for architects to share post-occupancy information freely, and that architecture publications should stop shying away from honest criticism. "If we can't critique, we are in bad shape," he concluded.

RESOURCES

AIA Journal was the journal of the American Institute of Architects, it is no longer in publication.

For More Information on This Topic

See also "Quality Management in Practice" by Cliff S. Moser, AIA, in *The Architect's Handbook of Professional Practice*, 14th edition, Chapter 14, page 760. *The Handbook* can be ordered from the AIA Bookstore by calling 800-242-3837 (option 4) or by sending an e-mail to bookstore@aia.org.

More Best Practices

The following AIA Best Practices provide additional information related to this topic:

- 11.05.01 Green Building Post-Occupancy Evaluations: Learning from Experience
- 11.08.13 Wayfinding Signage: Pointing You in the Right Direction
- 16.02.08 Steps Toward LEED Certification

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Key Terms

- Design
- Post occupancy evaluation
- Diagnostic
- Building performance