Post Occupancy Evaluation Summary: 
Knowlton Hall
Jack Nasar, Professor C & R P, OSU
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Background

Designers: Mack Scogin Merrill Elam Architects, Wandel and Schnell, Architects Inc. (local partner), Michael Van Valkenburgh Associates (landscape architect), and HAWA of Columbus engineers.

Donor: Austin E. “Dutch” Knowlton, a 1931 Ohio State University (OSU) graduate in civil engineering.

Exterior: Marble rain screen “shingle” system, covers Tyvek, the waterproofing material, concrete walls with marble or dense-glass over metal studs attached.


Project finished on budget: $ 33 million in state and private funds. Construction budget = $ 26 million.

2004 estimated cost: $ 165/square foot cost, low relative to other classroom buildings

The 175,386 gross sq ft (GSF) building had an assignable sq ft. to GSF ratio of 0.55, a relatively low efficiency.

Occupants: 982 people (615 students in architecture, 180 in Landscape architecture, 96 in city and regional planning, 74 faculty members, adjuncts and visitors and 17 staff and administration).

Exterior Appearance

Passersby disliked the exterior appearance.

Ratings obtained from 79 passersby at Knowlton Hall and 58 at Physics Research Building show that they gave significantly higher scores to the appearance of Physics (5.28) than Knowlton (4.23) (Figure 1). Rating for Knowlton represents the lowest ratings of fifteen buildings evaluated on campus with similar methods.

People often have an acquiescence bias, meaning that they tend to agree with or respond favorably to statements. This makes scores of between 4 and 5 on the 7-point the equivalent neutral ratings. Taking this into account, respondents judged Knowlton as unfriendly, a poor fit to the campus image, and a poor fit to the buildings around it. They gave neutral to positive scores to it for impressive, exciting, like its overall appearance, and not distressing. The campus plan called for a landmark on this site; and the building stands out as a landmark, but not a well-liked one.

1 Students in CRP 735 Programming Environments for Human Use helped on this project: Anoa Changa, Jamie Carpenter, Martti Eckert, Ramiere Fitzpatrick, Daniel Garza, Matt Holden, Michael Jimson, Thomas Lodge, Michael McBeth, Chanel Norton, Katrina Scales, Justin Snyder, Patrick Sage, Stephen Zellinger, Peter Marsh, Brett Davis, Matthew Hinkle, Jennifer Vanni.
When asked what **features they disliked** about the exterior, people most often cited:
- **tiles** (15.5 %)
- **marble** (15.5 %)
- **the dull-gray color** (14.8 %)
They also complained about its fit to the campus, walls of glass, concrete, and lack of landscaping.

When asked what **features they liked** about the exterior, people most often cited:
- **marble** (18.2 %)
- **windows** (27.3 %)
- **shape** (12.1 %)
Knowlton Hall Interior

The interior had mixed reviews. Users liked the openness and the library, but disliked the unfinished look, acoustics, circulation and studios.

129 faculty, students and staff answered the questions about the most liked and least liked features. For most liked features, they most often cited:
- openness (23.3 %)
- windows (23.3 %)
- library (20.2 %)
- café in the building (10.9 %).

For least liked features they cited 32 different problems, including:
- unfinished concrete (38.8 %),
- acoustics (31.8 %, often in crits & studio)
- ramps (26.4 %)
- inoperable windows, dark spaces (16.3 %)
- circulation (15.5 %)

The interior received neutral to negative evaluations (Figure 2). As with the exterior, the composite rating of the interior represents a negative evaluation. While respondents liked the amount of space, they gave low scores to the environmental quality, ability to find your way around, wall, floors, ceilings and interior aesthetics; and they gave neutral to negative ratings to the exterior aesthetics, adaptability, accessibility, proximity to views, security, maintenance and relationships.
Two sets of questions measured satisfaction with spaces. One had people rate their satisfaction for each space, the other had them mention up to two spaces they found most satisfying and two they found least satisfying. The ratings (Figure 3) yielded high satisfaction scores for the library; and fairly positive scores for the computer labs, and offices (faculty and administrative). CCRP students use the computer laboratories more often than do other students, who have computers in their studios. Analysis of the CRP student responses to the computer labs showed that they gave the labs negative ratings and less satisfactory than did the other students.

The satisfaction ratings show neutral to negative scores for classrooms (large lecture, seminar, medium class and large class), public areas and studios. Low satisfaction scores appeared for circulation, storage, restrooms, jury space, and studios. The open ended responses about

The open-ended responses about the most satisfying echoed the ratings. Of the 204 responses, the library appeared most often (28 %) followed by the computer labs (13.2 %) again with few CRP student giving the labs favorable ratings.
least satisfying spaces echoed the negative evaluation of circulation. Of the 211 mentions of disliked spaces, three spaces dominated:

- **Circulation***(20.4 %)*
- **Studios** (17.1 %)
- **Restrooms** (15.2 %)

*Adding to circulation, specific complaints about ramps, stairs, elevators, and public areas brings it to more than 30%.

**Liked qualities of the library.**

The 53 respondents who rated qualities of the library, gave it high ratings for its:

- **lighting**
- **aesthetics**
- **amount of space**
- **acoustics and security** (means above 5.5).

They gave neutral scores for temperature and flexibility (around 5.0) and lower scores for odor and access (4.6 and below). In response to the open-ended question about what they liked about it, respondents (n =52) most often cited:

- **glass, windows or lighting** (55.8 %)
- **comfortable chairs** (30.8%) and
- **convenience** (in the building as opposed to SEL) (30.8 %)
- **views** (23.1 %)
- **quiet** (19.2 %) and
- **openness** (17.3 %).

Dislikes included leaks, uneven heating/cooling, lack of cubicles or private study places.

**Liked qualities of the computer labs.**

The 23 people rating qualities of the labs, gave them high scores for:

- **lighting**
- **space**
- **security** (above 5.5).

They gave lower but favorable scores to acoustics and access (above 4.5), and neutral to negative scores for aesthetics, odor, flexibility, and temperature. Counts of liked features revealed that users most often cited the **number of computers** (40.1 %), and **light** (29.7 %). Fewer people cited quiet, privacy, windows, security, amount of space, temperature and accessibility. The computer labs also drew some complaints about temperature, the sterile impersonal materials and noise from those materials and a slamming door.

**Disliked qualities of circulation**

Circulation received lowest scores for acoustics and aesthetics (less than 3.0), followed by lighting and flexibility (less than 3.5), space, temperature, and odor (less than 4.0) and security and access (less than 4.3). Frequency counts of disliked aspects of circulation revealed that most people complained the ugly, narrow, scary stairs (39.3 %), ramps that led nowhere (37.8 %) and indirect disconnected routes (35.7 %). They also complained about difficulty in finding your way around (17.9 %), the inadequate speed and number of elevators (16.1 %), and to a lesser extent the concrete and noise.

**Disliked qualities of studios**

The studios received low ratings on most items, with lowest scores for

- **acoustics** (1.6) and
- **lighting** (2.6), followed by

- **aesthetics**
- **temperature**
- **security**
- **temperature**
- **accessibility** (all less than 3.4), then

- **flexibility and odor** (less than 3.9) and
Frequency counts of disliked features revealed that people most often complained about the acoustics (56.4%) and inadequate lighting (43.6%). Smaller numbers complained about dysfunctional chairs, desks and furniture (23.1%), concrete (20.5%), layout (20.5%), and fewer complained about temperature, inadequate views, theft and uncomfortable arrangements.

Method

137 people completed surveys on the exterior appearance of two buildings (79 for Knowlton Hall and 58 for the Physic Research Building). In an opportunity sample, interviewers contacted passersby at various sites around each building. This resulted in diverse samples. For KH, the sample had 53.2% males, 46.8% females, with an average reported age at 24 years (range, from 18 to 41 years) and time on campus at 2.8 years (range, from months to 15 years). The sample included undergraduates from every year, graduate students, doctoral students, faculty and staff. For PR, the sample included 62.1% males, 37.9% females, with an average age of 25 years (range, from 19 to 60 years) and time spent on campus at 3.3 years (range, from months to 30 years). Each sample included undergraduates from every year, graduate students, doctoral students, faculty and staff and more than sixteen different majors.

The survey on interior performance had 135 respondents (54 graduate students, 31 undergraduate students in architecture, 27 undergraduate students in landscape architecture and 23 members of faculty and staff) with an average age of 29 years old (range from 19 to 63 years old) and an average of 4.3 years at school (range from 1 to 33 years). By year, the sample had 14.8% second-year undergrads, 21.3% third year, 16.7% fourth year, 38.9% masters level, and 6.5% doctoral students.