

Gardiner Symonds Teaching Laboratory, Rice University

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Houston architect Mark Wamble has explored the implications of electronic communications technology as a learning medium in his design of the Gardiner Symonds Teaching Laboratory at Rice University. The Symonds Laboratory, conceived, built, and operated by the Center for Technology and Teaching at Rice University, is headed by G. Anthony Gorry, professor of computer science and vice president for information technology. Construction was carried out under the supervision of Kevin Brook Long. Gorry persuaded the university to fund construction and operation of the Symonds Laboratory to encourage university instructors — and students — from all departments to test ways in which electronic technology could be integrated into, and at the same time, modify classroom and laboratory teaching. Since opening in October 1996, the Symonds Laboratory has been used for regular academic instruction in the humanities, architecture, managerial studies, psychology, statistics, natural science, space physics, astronomy, and a multidisciplinary course.

Wamble and the Center for Technology and Teaching were given an unpromising space to work with deep in the bowels of Rice University's *Fondren Library*. Because the library is neutral ground rather than the territory of any one department, this location was critical to the success of the project. However the space's introversion, lack of windows, closely spaced columns, and low ceiling presented considerable challenges. Wamble used these obstacles to ingenious ends to shape a space for learning that, as he puts it, is not a "computer ghetto." Wamble emphasizes that the architecture of the Symonds Laboratory represents more than a series of functional, programmatic resolutions. It reflects an effort to conceive learning as a collaborative rather than individual activity. It also reflects Wamble's provocative thesis that this transformation can be facilitated by providing what he describes as a "flexible and poised environment." Wamble derives this thesis from the work of Michael J. Piore and Charles Sable, especially their influential concept of "flexible specialization." As Wamble writes: "Poised flexibility induces a fluid state of learning where the conventional academic regimes of instructor/student, participant/observer, front row/back row, inside/outside are subtly disengaged or discarded altogether as inaccurate criteria. What counts most is the... dynamic

incorporation of different perspectives and skills into the content of the lesson. It is in this way that flexibility becomes formalized as opposed to the tradition of flexible objects." Wamble notes that while business management has adopted and avidly developed the concept of flexible specialization over the past decade, its implications for teaching have not been explored, especially in the university, where teaching remains premised on the ideal of teacher-to-student communication.

Within the center of the 3,300-square-foot space, Wamble positioned three serpentine tables around a pair of obtrusive cylindrical columns. The tables contain twelve computer-equipped work stations, each meant to accommodate a pair of students, and a thirteenth station for the instructor. To avoid the hierarchical organization of the traditional classroom or laboratory, Wamble positioned students on both sides of the tables and treated the teaching station as one among many. Computer monitors are depressed so that they don't block views: students look at each others' faces rather than the back of each others' heads or at computer monitors other than their own. Hard drives and cables are collected in enclosed shelves below the counter surfaces. Wamble provided ample room between monitors and on lower keypad counters for spreading out books and papers. The work stations and instructor station are all visible from a pair of video cameras, so that classroom sessions can be broadcast to, and interact with, off-site locations.

The entryway projects into the *Symonds Laboratory* from a photocopying machine station in the library, inviting those using the library to casually observe activity in the Symonds Lab. Wamble de-emphasized the perimeter of the room, which consists of wall planes irregularly faceted in plan, specifying two shades of gray and a light yellow to accentuate planar recession. He used task lighting to focus on the work stations rather than ambient lighting, reflecting off and emphasizing floor and wall surfaces. Abundant baffling produces quiet ambiance. This enables students to talk among themselves at work stations without distracting others; microphones at each work station amplify exchanges in class discussions. Suppression of a single center, and the provision for multiple views, pools of light, an ambiguous perimeter, and an aura of calm imbue the Symonds Teaching Laboratory with a sense of spatial expansiveness and com-



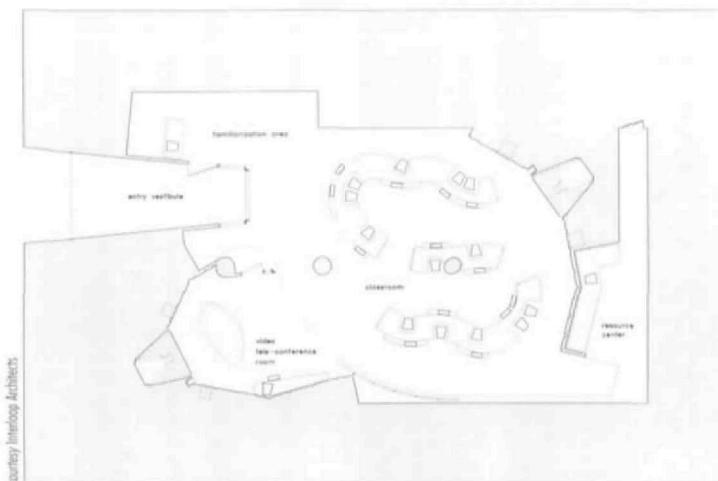
Gardiner Symonds Teaching Laboratory, Rice University, Interloop Architects, 1996.

posure, despite its actual confinement.

Learning from his experience working in Peter Eisenman's studio, Wamble provided the Symonds Laboratory with an ancillary space that opens into the principal space, but can be closed off by means of a faceted wall of sliding glass doors. This space is equipped with the second of the laboratory's two large-format projection screens, two video cameras for transmission, and an irregularly shaped table that pivots, so it can be rotated out of the middle of the space if desired. For Wamble, the value of this space is its role as an un-programmed retreat. It emphasizes his conviction that the Symonds Teaching Laboratory had to be more than a warehouse for equipment if it was to encourage students and instructors to test new ways of learning.

Because of the laboratory's experimental nature, Wamble had the opportunity to design all the fixed furniture: the serpentine tables, the pivoting table in the video teleconferencing space, and a credenza in the teleconferencing space, all of which were fabricated by the Wood Plane. These contribute to the unassertive architectural consistency that sets this interior apart from those of Rice's most recent new campus buildings, where there is a clear demarcation between architect-designed surfaces and specified furniture.

Paradoxically, this designed interior has become a neutral backdrop for video-telecast performances, as Wamble describes some student-initiated events occurring in the Symonds Laboratory. It was also the setting for a telecast press



Symonds Teaching Laboratory, plan.

conference featuring Rice professors Robert Curl and Richard Smalley, when they were awarded the Nobel Prize in Chemistry in October, 1996.

As an indication of how successful Wamble's efforts have been, he has been commissioned to design a second electronic classroom at Rice (in John Outram's Duncan Hall) and an electronic classroom for James Stephen Hogg Middle School in Norhill.

Wamble's commitment to designing for people and their activities, and not primarily for the equipment, suggests why the Symonds Teaching Laboratory has met with such an enthusiastic response in its first year of operation. Because Wamble and Rice's Center for Technology in Teaching and Learning were open to exploration in design, the Symonds Teaching Laboratory demonstrates that classrooms (even windowless classrooms) don't have to be prosaic and oppressive. It is an encouraging reminder that there is no excuse for thoughtless architecture, even in the most deprived of settings. ■