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Do art and science mix? Lab designers give it a try

- ***The Evergreen State College wanted to see if it could build a space that messy artists and fastidious scientists could share.***

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The success of a design lies in a client's stakeholders, users and consultant team being fully vested in the project.

The architect's role is to create a structured forum where stakeholders can share their perspectives and collaborate on every phase of the design.

It is a mark of a successful design process that the result is often highly customized (in the best sense of that word) and clearly comes from deep within the client's organization. Rarely does it develop from a designer's preconceived idea or derive from a formal iconic logic.

That process was at work for a 12,800-square-foot renovation on the second floor of the Lab II building at The Evergreen State College. Construction is set to begin in September.

The programming phase included brainstorming sessions, design charrettes and meetings with the faculty, staff, maintenance crew members and the facilities team. Information was gleaned from questionnaires regarding the goals of the teaching space and the infrastructure required to achieve the program objectives.

Users toured the existing facilities with architects to see if their suggestions to the architects were workable.

The role of today's architect is to facilitate these exchanges of information, mining the relevant information and helping the stakeholders/client-designers reach a consensus on design concepts and priorities.

A compromise

The foremost programming and design questions for the Evergreen Lab II renovation were: Is it possible for two different academic programs to coexist on one floor? And, more specifically, can they share spaces?

In theory, it is true that interdisciplinary team teaching has been common practice in the K-12 realm. We often design adjacent classrooms with movable acoustical partitions, and in classroom pods regularly provide common areas large enough for two full classrooms.

However, we return to these same classrooms years later to find bookshelves or other furniture purposely placed in front of the partitions to render them inoperable and common areas "siloed" into isolated instruction groups and not by larger, cross-pollinating idea groups as initially intended. In the programming process and in the interviews, K-12 teachers are generally enthusiastic about the possibility of team teaching, but it appears this enthusiasm is not always borne out in practice.

At Evergreen, however, a core mission is interdisciplinary team teaching — actively promoting the opportunity for one academic program to be taught in conjunction with a different program for the benefit of shared knowledge and the wider view to education.

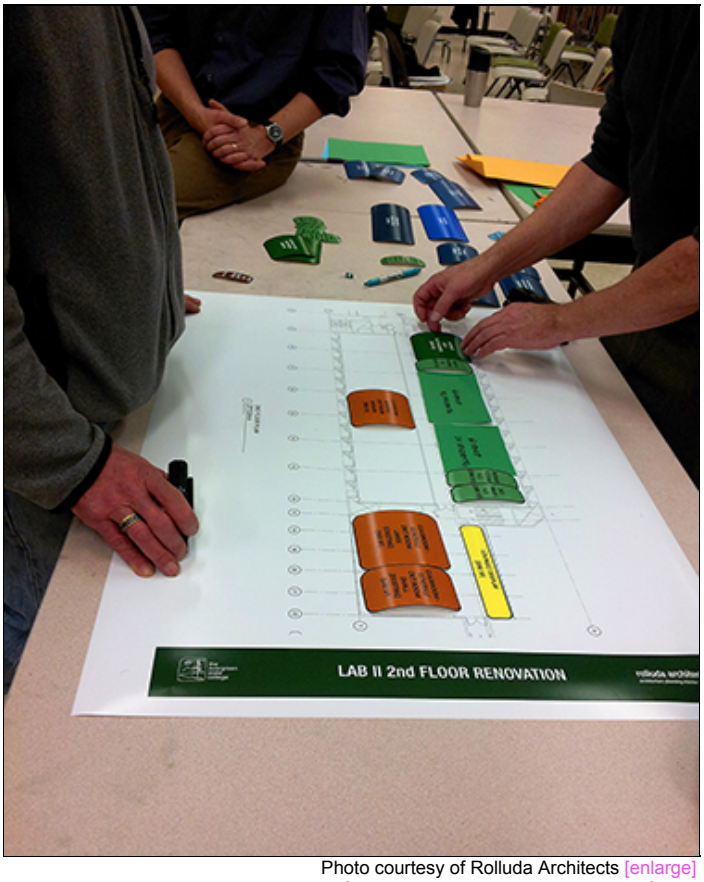

Photo courtesy of Rolluda Architects [enlarge]

A space-planning exercise for Evergreen's Lab II floor renovation.

Early on in the programming phase there was enthusiasm for co-locating the science and arts programs on the same floor, where they would share classrooms, ideas and techniques. Unfortunately, as we drilled down into the finer details of the technical requirements of each department, it became evident that these two particular programs, as defined, were not destined to share lab spaces.

The reasons were evident:

• Science labs require a fastidiously clean environment. All surfaces must be well oriented and clean of potentially contributing "externalities" both before and after each class.

• Art, on the other hand, is by its definition self-expression. Its multiplicity and collaging of mediums, is not necessarily "clean" in process or in its finished state. Moreover, the studio nature of its curriculum requires a space where work could potentially remain "in process" throughout the quarter.

Owner:
The Evergreen State College

Architect:
Rolluda Architects

General contractor:
Schwiesow Construction

Laboratory consultant:
SABArchitects

Structural engineer:
Reid Middleton

Mechanical/electrical engineer:
Tres West Engineers

Cost estimator:
JB Iringan Consulting

Environmental consultant:
PBS Engineering and Environmental

• In the science lab food and drinks are prohibited. Not surprisingly, this restriction did not sit well with the artist-student, while the science lab-student choices are co-opted to defer to another time and location.

• Though many of the activities of both programs demand worktops of the same chemical-resistant material, science experiments require specialized exhaust, gas, air and vacuum receptacles, as well as computer access at the tabletop. Art lab projects need large, expansive tabletops with ventilation specific to the task at hand.

In the end, the stakeholders determined that science and art programs could not share lab spaces but could share adjacent non-lab/studio areas. Additionally, hallways between the two separate programs sharing the same floor would have common visual access through door and wall relites into both lab spaces from their common corridor. The intent is to spark interest and bridge conversations between these contrasting lab environments: professor/student, student/student, and visitor/guide.

As the project moved into the later design phases, the art and science department members and the facilities and maintenance group had frequent informal on-site access to the architect. At the end of each milestone, formal design review meetings were held. During the design meetings, the art and science stakeholders had the opportunity to focus on the specifics of the design of their individual lab spaces to customize aspects to better fit the needs of the their faculty, staff and students.

Owning the results

Participatory design is a powerful tool. The process is engaging and immensely rewarding. The architect can use the process to help the other stakeholders to develop, test and then use design criteria to shape their educational facility.

To do this, the architect must begin by building and developing trust with and between project participants, finding common ground and shared goals. It was especially interesting during the Lab II project to hear the science and art department members extending the process by sharing ideas during separate meetings. The design of the individual spaces reflects the input and perspectives of multiple users, regardless of discipline.

The more the stakeholders shape the design, the more confidently they will later make use of the design features they've selected. This includes changing those features that direct experience indicates needs amendment, as well as owning those results with pride.

As the Lab II renovation design process comes to a close, the resulting spaces are by and of the stakeholder-designers as facilitated by the consultant team. Through this process, these new art and science labs will have the best chance of success in serving the goals of the Evergreen faculty, staff and students.

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