Heritage Reframed

University building renovation and extension, Toronto, ON, Canada

Summary and appraisal by the jury

The proposed building provides a new home for the John H Daniels Faculty of Architecture, Landscape & Design (DFAD) on the site of a culturally significant nineteenth century structure in the center of Toronto. The project’s basic objectives are twofold: to rehabilitate existing urban, landscape, and architectural elements through reuse and complementary additions— and to demonstrate the university’s aim to foreground sustainability as part of its pedagogical program through the use of state-of-the-art construction materials and energy systems. The envelope of the historic structure is upgraded to increase thermal resistance, while the new addition combines a range of measures to demonstrate responsible resource consumption; with design strategies maximizing fresh air ventilation, effective day lighting, and storm water harvesting.

This project was applauded for its rare approach towards bringing a heritage building back to life through new construction, one respectful of the existing structure, while introducing new spatial qualities to the entire ensemble. Here, a dialog is established between the past and the present, for an educational facility directed toward the future—a dialog most clearly expressed in the sequence of spaces at the intersection of the “new” and the “old.” Additionally, the jury greatly respects the efforts undertaken to integrate environmental principles in the development of the design, without falling into the pitfalls and clichés of “sustainability.” On the contrary new standards for architecture are confidently brought to the fore.

Further authors

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Sustainability concept

Progress: The envelope of the heritage building is upgraded to increase thermal resistance while new construction seeks to go beyond LED with form and straightforward systems that show responsible consumption of resources and serve as pedagogical tools. Voided slab construction allows for shop installation of radiant heating/cooling. Active slabs are supplemented by displacement ventilation which converts clean outside air using minimal fan energy.

People: The project serves University Planning, the Daniels Faculty of Architecture, Landscape & Design, and the City of Toronto. Although the university has owned the property adjoining Spadina Crescent for many years, the public there has high expectations regarding heritage and sustainability. Open forum meetings have occurred throughout the project, addressing preservation, landscape, transportation, utilities and indoor management.

Planet: The performance target of 60% below Canada’s energy model code is supported by the integration of energy, systems, building form and occupant culture. Data on resource consumption will be interpreted via a dashboard interface for students to understand their consumption behavior. Building science faculty, students will benchmark performance against peers and expectations. The Landscape Department will utilize the planted roof areas for their Green Roof Innovation Testing research program, monitoring the environmental performance of the vegetated and photovoltaic roofscape.

Prosperity: A 5-phased approach was adopted to maximize available funds and expedite the design/construction processes. 1. Repair and renovation of the heritage wing; 2-construction of new building; 3-construction of 4-donor-funded pavilions. Building components were rigorously evaluated for cost and value. Interior finishes polished concrete floors/surfaces, gypsum and glass walls selected for durability, as well as effectiveness in delivering active slab heating/cooling.

Place: The project aspires to provocative form and high functionality as the completed building will serve a far greater FTE occupancy than a typical classroom building. Exterior courtyards diversify the experience of the site in relation to the “old.” The building interior requires maximum flexibility, supporting several undergraduate and graduate programs. The auditorium and studio spaces use movable partitions to enable simultaneous class offerings; hundreds of student lockers enable desk sharing.

Main authors

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