



## **A far cry from the ordinary**

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(Designed with Suzy- Harris Brandts)**

The 2005 ACSA/AISC Student Design Competition afforded us the chance to choose any University Campus in the world and design a Student centre. Myself, and design partner Suzy Harris-Brandts, worked on a submission that would hit close to home. We chose the University of Waterloo: School of Architecture in hopes that it would teach us more about the needs of our new community and find ways establish a bond between this community and the school (more so than that of us being a commodity). This task was established through the medium of structural steel. The following paper is an account of the design process.

The primary goal of a typical Student Union building is to bring the campus together as a community; student with professor, student with student, student with self. Unfortunately a move from the main Waterloo Campus to the smaller satellite facility in Galt has left us a campus divided. So what then of the

necessities required by the architecture students? This design for the new Student Centre building is intended to act as a link between campuses in the sense that it provides facilities and support that any university student should receive. The centre also plays a more important role. It has the size and stature that allows it to be a community centre (an alternate centre for the arts) where the city of Galt will be able to openly interact with the students of the architecture program.

Now what of precedents? The task of designing a large scale project would take an actual firm months to design. A building can not manifest itself out of thin air. There is a need to find a delicate balance between originality and researched strategies. There is a great emphasis on what constitutes and original idea in architecture. Everything is relative. Where we hoped to find and express our new ideas was in how one could experience the building. For design purposes, other projects, projects that work, were used as a basis for design. Three specific architectural works were chosen as precedents for the University of Waterloo school of Architecture Student Centre Building based on their use of materials, their design intentions ( as they related to ours) and finally their over all presence in a social context and the communities in which they can be found.

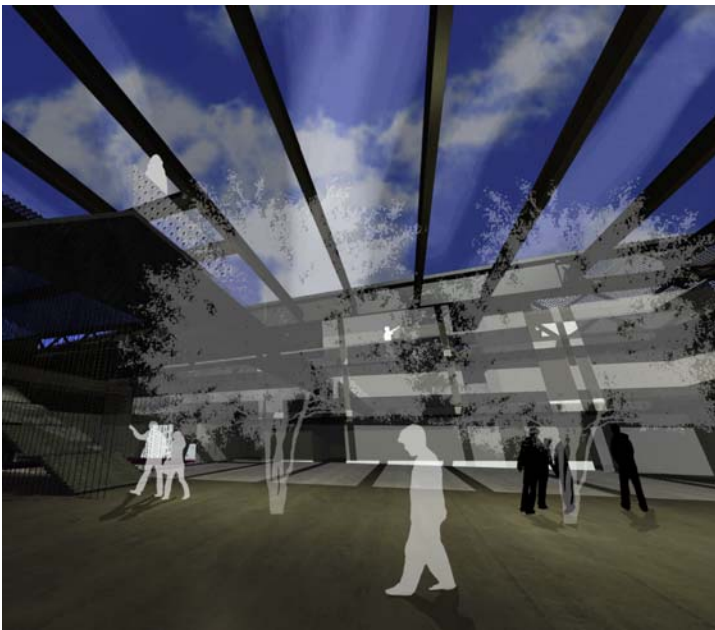
**The University of Toronto  
Academic Resource Centre (ARC)**  
by Brian Mackay- Lyons (with  
Rounthwaite Dick and Hadley) was  
chosen as a precedent based primarily  
on the design intention. Much like the  
UWSA:SC, the ARC at the University  
of Toronto Scarborough campus is a  
place where students are provided with  
required resources and amenities



suspended catwalk at the academic resource  
centre by Brian MacKay-Lyons p2

*The new building is envisioned as a “town square” or “intellectual heart” of the University.*<sup>i</sup> It is what we envision the Cambridge Student Centre to be, a new central hub of creativity and learning in a town that (through its own initiative) has

a desire to be creative. Some key features of the ARC that both Suzy and I found particularly interesting and valuable were the architect's translation of a metaphor into a physical design and his incorporation of catwalks into the final design. The ARC is conceived as *a series of five parallel 25' wide 'boats' which hold all cellular program elements. Double-height sky lit circulation 'alleys' with suspended walkways run between the boats while a major transverse 'street' punches through them. The theatre, foyer and study halls create double-height courtyards, interrupting the rhythm of the boats and forming natural gathering places for the students, faculty and staff.*<sup>ii</sup> Immediately we tried not to conceive our design intent based on any specific object but rather we used the idea of metaphoric design in the way we created our roof. Not actually a hill and not actually a wave but our roof does mimic those forms in order to place it in context with its immediate surroundings at the bottom of a hill and adjacent to the Grand



Main lobby of the SC at Cambridge. Use of suspended Catwalks and the concept of an interior courtyard p3

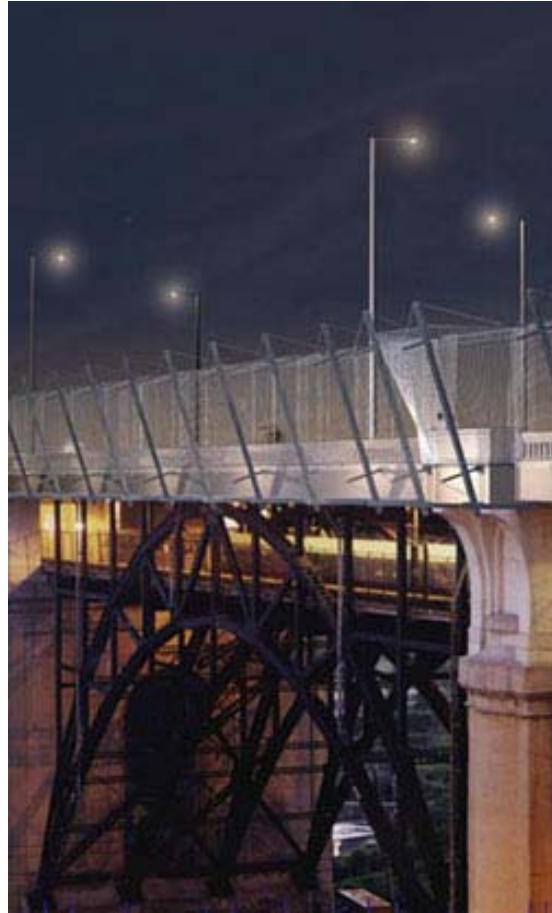
toward the suspension of elements it followed suit that a precedent should be established in that particular area of expertise. This led us to a home source. Using the aforementioned idea of catwalks as a point of departure we Suzy and I looked into suspension design, more specifically the Bloor Street Viaduct's

River. We also incorporated our own adaptation of the ARC "transverse street". The catwalk came mainly as a result of our oversized lobby. The intention was to create interruptions in the volume where people could meet as well as view. Overall the catwalks are, much in the same style as the ARC, a statement of circulation and of gathering.

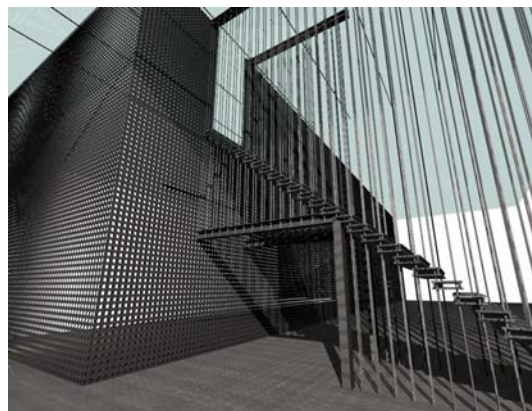
With the design now turning

Suicide Barrier; “Luminous Veil” by Derek Revington.<sup>iii</sup> What was particularly interesting and useful to us when researching the suicide barrier was Derek’s use of structural steel to not only provide its prescribed utility as a jump screen but also the way in which the elements can be placed to tell a story. In our case the story would be of how thin cables are all that is supporting you from falling 2 storeys. A bit ominous in intention but over all satisfying and appropriate. It is a new twist on an old idea. What we hoped to achieve from looking into the veil is the idea of a repeated element and how it can be placed to provide structural and visual interest.

In the UWSA:SC steel cables suspending our catwalks and staircases provide not only structural support but also an unobstructed view of the entire building much like the way that steel cables support the bridge. A benefit of using this system is that you can provide a safe barrier without the harshness of a railing. The steel rods in the UWSA:SC also supports the gallery walls. Structural cables are used overall to lighten the need for bulky elements in the interior, thus emphasizing the larger roof members. Giving the public and the students a new and innovative space



The luminous veil by Derek Revington p4



cable supported stair case of the UWSA:SC p5

As previously stated the design of the University of Waterloo School of Architecture Student Centre was an attempt (and from our view a successful attempt) to gain insight into the relationship between the community of Cambridge and the University of Waterloo's School of Architecture. This became an important and daunting task considering that the given program for the competition was for a campus of 20000 to 30000 students and the architecture program has around 400 at a time.

When looking for a basis to establish connections between the School of Architecture and Galt, we ended up turning to The University of Toronto Student Graduate Building by Morphosis.<sup>iv</sup> The Graduate Housing building sits as the threshold between the University of Toronto and the rest of the city<sup>v</sup>. It followed suit then that incorporated into the design should be some form of grand gesture. *The design not only addresses the boundaries between outside and inside, public and private, exterior and interior but also that between community and university.*<sup>vi</sup> What we found available to us in using the Morphosis project as a precedent was insight into how to design a building for a corner site situation and how to utilize new and interesting uses of steel. The use of perforated steel as an exterior over a glass curtain wall skin allows us to and at night illuminates creating a dynamic, and visually stunning new addition to



U of T Graduate Housing by Morphosis p6,p7





U of T Graduate Housing p8



UWSA:SC student lounge and roof garden p9

create an opaque façade that during the day provides solar shading and privacy the down town of Galt. This is also achieved on the south and north sides of the UWSA:SC. On the north side the relatively intense nature of our steel construction is concealed behind a wall of steel slats, which (unlike the ARC) allows for a small town conservatism to be maintained on the residential face of the building. While on the south face the screen acts again as solar shading and a privacy screen

When designing our submission for the ACSA/AISC we ultimately had no choice but to use some form of precedent. We made the decision to use the described projects based on their materiality, design intent/ programs and the way that they are placed in their given context. As well it was an unconscious decision to use all Canadian projects. By doing so it strengthens the idea that this is a Canadian project built for an American competition. But since the language of architecture is universal there can be no definitive style. This is why no design can be completely original. What ultimately must be embraced is that designs and elements should be shared to achieve a greater goal. *No man is an island*<sup>vii</sup>. Architecture is that driving force that both Suzy and Myself, the University of Waterloo and the city of Cambridge, must support in order to patch this campus divided.

<sup>i</sup> **Brian MacKay-Lyons Architect Ltd. Web Page**<http://www.bmlaud.ca/building/institutional/arc.htm>**Canadian Architect**, July 2002, News item on [University of Toronto ARC project](#), Toronto, ON.<sup>ii</sup> **Brian MacKay-Lyons Architect Ltd. Web Page**<http://www.bmlaud.ca/building/institutional/arc.htm>**Canadian Architect**, July 2002, News item on [University of Toronto ARC project](#), Toronto, ON.<sup>iii</sup> <sup>iii</sup> **Contemporary**, London, UK, Carr-Harris, Ian & Yvonne Lammerich Special Summer Issue, Derek Revington, s Luminous Veil June - August, 2002**Engineering News Record**, McGraw Hill Construction Online, by Dan O'Reilly, 3 March 2003, "Toronto Adds Suicide Barrier to an 84-Year-Old Viaduct"<http://www.construction.com/NewsCenter/Headlines/ENR/20030303h.asp><sup>iv</sup> **University of Toronto Graduate Student Housing**<http://209.15.106.164/pritzker2005/univtoronto.htm>**University of Toronto: morphosis- around campus I**[http://www.archinect.com/schoolblog/entry.php?id=14867\\_0\\_39\\_0\\_C152](http://www.archinect.com/schoolblog/entry.php?id=14867_0_39_0_C152)<sup>v</sup> **University of Toronto Graduate Student Housing**<http://209.15.106.164/pritzker2005/univtoronto.htm><sup>vi</sup> **Morphosis** by Thom MayneMorphosis Web Page: <http://www.morphosis.net/morph.html>**University of Toronto Graduate Student Housing**<http://209.15.106.164/pritzker2005/univtoronto.htm>

News@UofT, by Janet Wong, 8 Nov 2000, "Graduate House opens its doors"

<http://www.news.utoronto.ca/bin1/001108a.asp><sup>vii</sup> **MEDITATION XVII Devotions upon Emergent Occasions John Donne**<http://ug.cs.dal.ca/~johnston/poetry/island.html>**bibliographic sources****Canadian Architect**, by Ian Chodikoff, featuring Academic Resource Centre, University of Toronto, Scarborough, ON, February, 2004Thring, Mary Alice. 5 Nov 2003, "UTSC Academic Resource Centre opens new frontiers of research, teaching", <http://www.news.utoronto.ca/bin5/031105a.asp>

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[http://www.architect.com/schoolblog/entry.php?id=14867\\_0\\_39\\_0\\_C152](http://www.architect.com/schoolblog/entry.php?id=14867_0_39_0_C152)

Canadian architect, by Kapelos, G. K., Nov. 2001, "Learning Experience

#### Pictures

P1: Main entrance to the UWSA:SC by Allan Wilson and Suzy Harris- Brandts

P2 <http://www.greatspaces.utoronto.ca/projects/arc.htm> ARC catwalk

P3 Atrium of the UWSA:SC by Allan Wilson and Suzy Harris- Brandts

P4: <http://www.architecture.uwaterloo.ca/frameset/staff-revington.html>

The luminous veil by Derek Revington

P5: suspended staircase by Allan Wilson and Suzy Harris- Brandts

P6,P7,P8: <http://209.15.106.164/pritzker2005/univtoronto.htm> U of T Grad House

P9: Lounge and roof garden at UWSA:SC by Allan Wilson and Suzy Harris-Brandts