Arch 384: Living Box Competition, Fall 2005

The Lane-Box – with Elizabeth Fenuta

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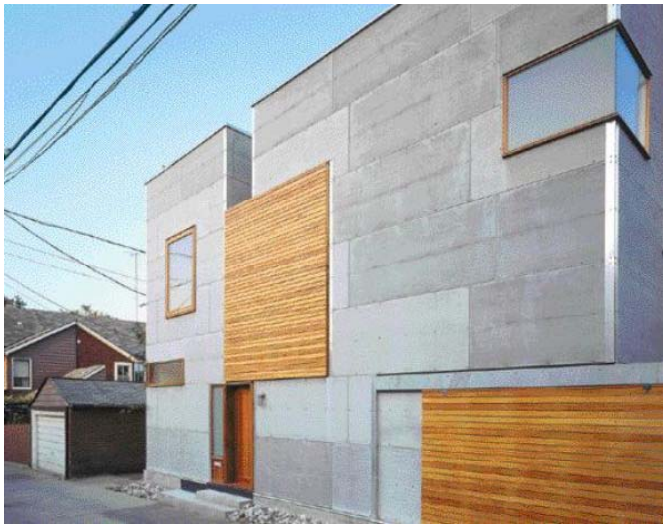
Most people would not look positively at the prospect of living in a box. But what if that box was stylish, inexpensive, well-designed, and located at a prime address? The intention of our design is to densify suitable urban areas that are currently underused with light, pre-fabricated living units. In the city of Toronto, an entire network of laneways exits with the full infrastructure of a residential neighbourhood located just off the main streets. Our design attempts to re-inhabit these laneways by placing units on top of the garages and creating new residential districts surrounded by established communities. In this way the "temporality" of the prefab unit is moderated and its residents integrated into the urban experience.

For our project, much research was done into how architecture could possibly inhabit these laneway spaces, what forms the "box" could take to make it an exciting living opportunity, and material precedents that are efficient, inexpensive, and easily prefabricated. Our project thus becomes a creative design grounded in successful precedent.

The laneways of Toronto have spurred much architectural debate in recent years – how they may be reconceived, redeveloped, and re-inhabited. Most of this discourse has focused on building new structures in available space,

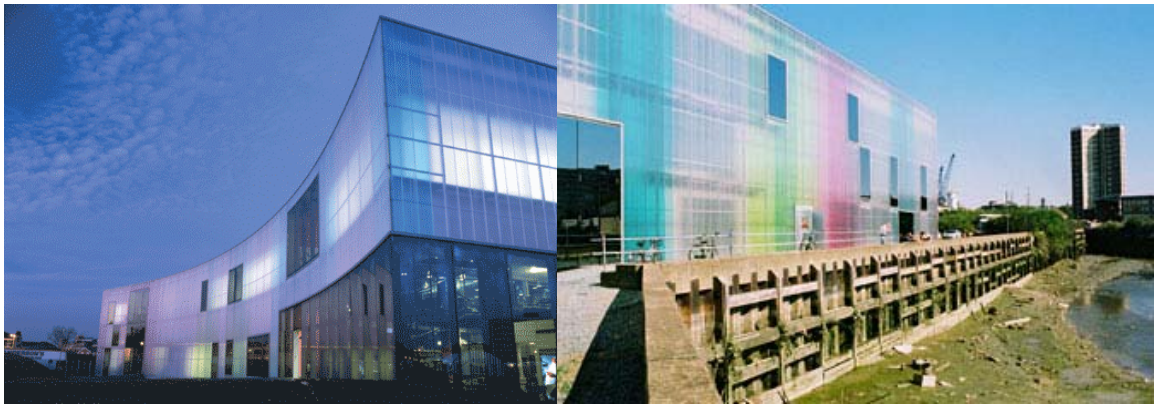
while we suggest using the space that is most plentiful – that is, the space above the garages. I thought it would be interesting, however, to see how a ground-related building would relate to the laneway setting. Diamond + Schmitt have designed a small and compact residence for a landscape architect on Ways Lane in downtown Toronto. It is a good example of laneway housing in its expression as a tight form on a tight site, accomplished without sacrificing any of the requirements of urban life. This is important because it is our design intention to make this living unit as comfortable and well-equipped as possible while using the minimum area and size. The house is situated near the entrance of a laneway near Queen and Bathurst Streets, and measures a mere 29 by 44 feet. The front of the L-shaped house is immediately adjacent to the lane's edge, allowing for a landscaped courtyard in the back. In this modestly sized outdoor space, provision is made for ample seating and a water garden. Generous plantings soften the hard edges, and vines creep up the pale brick enclosure of the high wall separating the house from the adjacent property, creating a welcoming urban oasis. Although the siting of the house right at the border of the laneway maintains the ever-critical urban edge, no intermediary zone between the front entry and the vehicular traffic of the lane exists, creating an uncomfortably close relationship between public and private space. Our design addresses this issue through the creation of outdoor space at the front of the unit, addressing the laneway as a public thoroughfare and acting as a threshold between public and private. The fissure in the building visible from the front elevation contains the stair, sandwiched between the two main volumes of the house. Tension is created in the narrow space of the stairway, with the walls of both volumes closing in



on either side. But ascension through this claustrophobic space is rewarded with increasing amounts of daylight, and upon final destination, the wide open expanse of the roof deck from which clear views in every direction can be enjoyed. Parking is cleverly accommodated for and protected by a sliding mahogany screen which contributes to the composition of the front façade, creating a dynamic piece to the abstract assembly of concrete panels, horizontal wood slats and glazed openings. These materials are far too heavy and expensive for our purposed, so material precedent was looked for elsewhere. The main living spaces of the house include a living and dining room, and kitchen – just the essentials. Because of ample glazing and pivot-door access to the courtyard, interior and exterior spaces flow seamlessly into one another. Interestingly, cooking appears not to be a priority in this household; the extremely compact linear kitchen is fitted with small-scale stainless steel appliances and a tiny bar sink only, while functioning as a corridor leading from the front of the house to the dining area at the back. We found this to be an interesting choice, and likely one the client requested. We had always thought of the kitchen as one of the most important rooms of a home, and this indifference to it made us think about how we could offer both. Our eventual solution was to offer different prefabricated pieces – one that put emphasis on the kitchen and one that emphasized the living room – so that different lifestyle choices could be accommodated, and even changed. The house is fortunate to contain a partial basement, an extremely valuable and much coveted entity in dense urban conditions where adequate storage space is of paramount importance. We dealt with this problem by raising half of the unit 500cm and

creating storage space within the void. Everything is accommodated for in this simple but well detailed project - even economics, both in terms of space and expenditure. The entire house (at 2175 square feet) was built for $110 000. Not a single square foot is wasted anywhere in the living spaces. As real estate prices climb ever higher, the price of a house (more often than not a dilapidated fixer-upper) on a standard lot in the downtown core is out of reach for the majority of people. It is our intention with the Lane-Box to address this issue and create inexpensive, tasteful housing in the heart of the city.

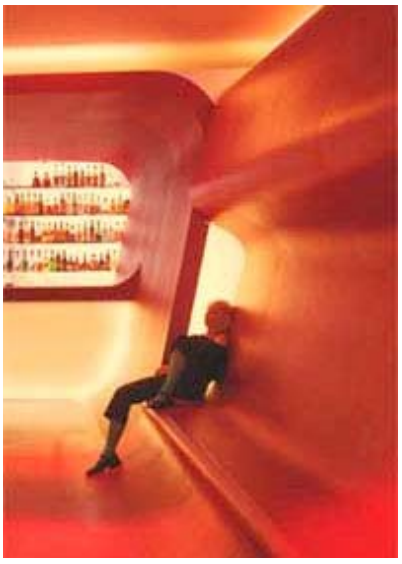
The next important thing to look at became materials. The kind of permanent constructions and materials used by Diamond + Schmitt are appropriate for a solid home, but not a light living unit. I have always been interested in the potential of plastics, and searched for a building that used it in an innovative way. One of the best examples I have found is the Laban dance centre in London, by Herzog & de Meuron. The gracefully curving building is clad in corrugated composite plastic panels in a variety of soft colours - lime,

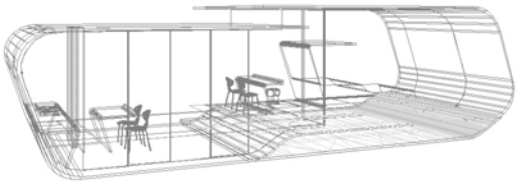


turquoise, and magenta. All of these characteristics became important for our own project – curving, panel, and colour. In order to make our “box” graceful and contrasting to its surroundings, we created a unit whose two ends curve upwards to contain the living spaces and meet in the middle were a clerestory is created. This meeting point is also where the unit is stepped into two elements: the lower public unit, and raised (to provide storage) private unit. The ability of this plastic

to curve and bend makes it ideal, especially considering its mass to strength ratio. It is incredibly strong and thin while maintaining a great deal of strength. Its latent form as a panel construction lends itself quite suitably to prefabricated assemblies and therefore works well with our scheme. Finally, we were interested in providing as much diversity as possible in the laneway and decided to offer the units in different colours. In this way, as one walks down the lane a plethora of coloured lanterns will line the rooftops and create a dynamic streetscape. The material capabilities offered by the Laban Centre present a strong and successful model on which to base our own work.

A final design inspiration came with the discovery of an über-trendy and successful hotel in Germany. Designed by the firm Graft, Hotel Q in Berlin is a dramatic interior landscape that changes the classical spatial norm through the topographical folding of the program. The logic of elemented construction distorts itself, and blends into hybrid zones which have double functions. An inclined area is simultaneously a separating wall but also usable furniture; a lifted floor either a circulation surface or a space that emerges from underneath the skin of the building. All of this twisting and folding creates a dynamic and





exciting interior space, and one which we felt we could tweak and apply to our design. Graft settled on the material Marmoleum, which provided both technical and aesthetic qualities. It is both durable and flexible, and available in numerous colours – another factor we wished to take advantage of. Though Q is an incredibly expensive design hotel, the architects were forced to work with a somewhat low budget. Graft crafted the aesthetic skillfully, conveying a sense of high quality through good workmanship and design trickery - what looks like slate in the bathrooms, for example, is really black terra cotta.

The various precedents and examples researched for this competition have shown numerous ways of dealing with site relationships, space, and material. I believe that this research has resulted in a compelling living unit design grounded in successful precedent.

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