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Cultivating a Sense of Place / Bloorview Kids Rehab Case Study

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Presentation for the 6th World Congress
International Academy for Design and Health

June 2009

INTRODUCTION



Bloorview Kids Rehab 2007



detail at "bridge"



view from ravine

When I was growing up in Toronto, I was quite segregated from children with special needs. The Macmillan Centre was a rehab centre located just a few blocks away from my house but it was in behind other buildings with no actual street address, so I don't think I ever saw it. The Bloorview Children's Hospital was situated in a house on Bloor Street, one of the city's most well known streets. I remember seeing the children sitting in their wheelchairs on the front porch watching the activities on the street. Later, however, the institution was moved to a modern, suburban facility and I forgot all about it.

I think that this is typical of what happened to health care buildings in the 60's and 70's: they disappeared from view. As they became more focused around clinical requirements they became internalized, pulling back from the familiar everyday fabric of the city. Building footprints became deeper as multiple clinical relationships became more demanding. Major spaces within the hospital lost any connection with the world outside.

This isolation may not have been a big disadvantage to acute care settings which are focal points of activity in their own right and where length of stays are relatively short. However it posed a very real setback for rehabilitation and complex continuing care settings where patients can spend considerable time and where community connections are so important.

Eventually the two organizations mentioned above amalgamated to become Bloorview Kids Rehab, Canada's largest pediatric rehabilitation and complex continuing care teaching hospital. It includes a remarkable array of programs and services for children with special needs. There is clinical care and rehab therapy for both inpatients and outpatients, an integrated school, a creative arts programme, recreational programmes, assistive technologies and prosthetic labs, a research institute and even a hotel for families.

This talk is about our design for the new Bloorview Kids Rehab and our efforts to create a hospital building that reconnects to the world around it. It's about rekindling a sense of place within the hospital as well as in the surrounding urban context. It's about creating a real world for kids with disabilities that adds to the richness and variety of life in the city.

I will attempt to trace some of the key ideas and initiatives that contributed to the final design. I will begin with a description of a number of fortuitous factors that created the right climate for change. Clearly we were blessed to be working in a context of changing attitudes about design and health. I will describe how we cultivated a shared vision with the Client team. This vision was defined with

enough clarity and momentum to be fully embodied in the end result. I will talk about the municipal process which added another dimension to the design. Although at first it appeared to threaten the vision, the process ultimately helped us to achieve our goals.

I will describe other key drivers of the design. Certain programs, such as the inpatient program, had to be configured around very specific clinical requirements and relationships. Other functions on the ground floor required double-height space and were challenging to fit within a multi-storey building envelope. Much of my emphasis will be on the importance of public space...how it works to maintain a sense of well being and orientation in a building which combines a surprisingly diverse array of functions. A central aspect of the design was the importance of interior/exterior relationships, providing views and natural light and allowing exterior spaces to be an integral part of the therapeutic environment. Finally I will end by describing a program of specially commissioned art installations which add yet another unexpected dimension to the public spaces in the building.

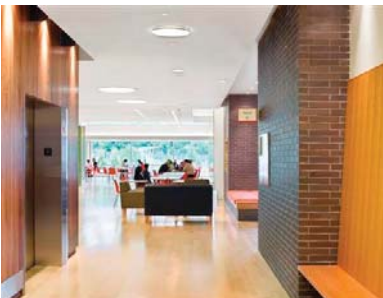
CREATING THE RIGHT FRAMEWORK FOR A NEW BEGINNING

1. Limitations of Existing Buildings

It is very difficult to renovate a building that was purpose built and never conceived as a sustainable, long term solution. Such a building can severely hamper growth and change, particularly for health care, and the cost of renovation can almost be as much as for new construction.

The next time I heard about the Bloorview Children's Hospital was in 1997, when they issued a proposal call for a Master Program and Master Plan. The Hospital had recently amalgamated with the Macmillan Centre, the rehab centre in the neighbourhood where I grew up. Our firm was hired as part of a team to study which of the two existing sites could best accommodate the newly amalgamated entity by adding to existing buildings. This turned out to offer pretty unsatisfactory and uninspiring results. Each site was constricted by the layout of existing buildings...limiting the potential for new additions to play a meaningful role. Existing forty year old buildings severely restrict program planning while their entire infrastructure would require costly upgrades.

Since it appeared that we couldn't renovate and build on the existing sites, The Ministry of Health then directed us to study a number of older hospital buildings to see if they could be reused. The priority for the Ministry at this time was acute care, clearly not children's rehab. Rehab and mental health were still very much a second priority. Because the programs were not necessarily technically demanding it was thought that they could make do with outdated infrastructure.



elevator lobby



ambulatory care waiting room in "the bridge"

Although there was some friction between the cultures of the two organizations there was also a fundamental commitment to create something unique, drawing on the best qualities of both. There was little motivation to move to a new site without creating new possibilities for existing programs as well as new opportunities for growth and change. The more we looked at existing institutions, the more convinced we became that the new building for Bloorview had to achieve so much more than anything that already existed.

2. Amalgamation allows for Reintegration

The combination of a traditional medical model of care with a community-based model created a huge opportunity for new thinking.

The creation of the new Bloorview Kids Rehab, had brought together two very different cultures: that of a small children's hospital, with all the features one would expect in an inpatient setting, with that of a rehabilitation centre which, in many ways, resembled a community centre.

Although both sites included a school, a gym and a swimming pool, they felt very different. The hospital felt isolated and specialized. With its entire focus on inpatient care, it was probably a pretty intimidating experience for kids and their families. On the other hand, the rehab centre generated much more activity with its outpatient clinics. The community used both the pool and the gym. The cafeteria was always a hub of activity and socializing. It became clear that, not only would efficiencies be achieved by combining the two sites, but the inpatient functions would benefit greatly by being located within a larger, more diverse and more active world.



the original Spiral Garden

3. Inspiration from Existing Programs

Inspiration for new buildings can often be found in creative core programs that are already firmly rooted in existing facilities.



A Creative Arts program on both sites included summer camps called the Spiral Garden and the Cosmic Bird Feeder. These outdoor programs took place for two months every summer in idyllic garden settings, under the shade of large trees, adjacent to wooded ravines. It seemed ironic to us that these wonderful programs could take place in such ideal settings in stark contrast to the drab, institutional spaces in the adjacent buildings. These garden settings left a powerful impression on us....why could we not aim to achieve this kind of quality in the new building?

These programs engendered a huge, creative commitment to enrich the lives of patients and in many ways they inspired us to think differently about the design for the new building.

4. A Master Plan

A high density solution can support more sustainable growth, without compromising wellness or a sense of place.

In 1999, once they had reviewed the substantial cost of renovation and additions on various potential sites, the Ministry finally agreed to support a new building. The Client concluded that, of all the sites they had seen, their existing Macmillan site was clearly the one that worked best for them. It was nestled in a residential area, adjacent to a magnificent ravine, close to public transit. With renewed resolve, they were determined to make it work for their new building.



Master Plan stacking diagram 1999

The main limitation of the site, however, was that the existing building would have to remain in place while the new building was being built. This meant that the new building would have to be five storeys in height, with programs connected vertically. Traditionally, rehab centres tend to be configured on one or two floors to allow for maximum accessibility. It seemed to us, however, that, with good elevator access between floors the stacked configuration would allow for a reduced footprint and reduced travel time. Inpatients could still be located at a lower level so as not to feel disconnected. The multi-storey solution tended to set up a more generic footprint which would be more flexible in the future. Many of the programs could be located with views to the ravine; there was much more green space available at grade and ultimately ample space for future expansion.

This site restriction turned out to be the first of many limitations which worked to our advantage. Without it, we might have opted for a sprawling, purpose-built solution with none of the advantages listed above.

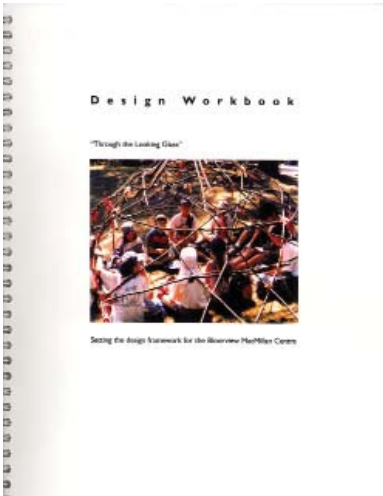
DESIGNING THE BUILDING

1. Establishing Guiding Principles

Visits to other notable healthcare settings provide the most stimulating context for sharing ideas about design. Such tours provide a unique opportunity for a diverse client group to begin to build a set of principles that will guide the design through the arduous process that lies ahead.



Design Day



Design Workbook 2000



site plan

Finally, in early 2000, the stage was set to design the building. At this point we were joined by Dunlop Architects, now Stantec Architecture as well as the team of Anne Carlyle and Jill Hall who facilitated the initial tour and workshop.

Tour of Similar Facilities

A Building Design Committee was created and out of that group, a small sub-group was nominated with wide representation that even included a family member. This group then toured a number of notable facilities in the U.S.: some notable for complex continuing care and rehab programmes, some for architectural qualities. We had ample opportunity to share our impressions of what we saw. Some places seemed very clinical, while others had a warmth about them that we knew we wanted somehow to emulate. We all had a deep rooted desire to move away from the old medical model of healthcare. At the same time we were troubled by the 'Disney' approach to healthcare for children. These settings seemed mildly entertaining in the first instance, but the more time we spent in them we thought they were somehow over stimulating and ultimately exhausting for families and staff. The tours also confirmed for us how much natural light and views could contribute to one's sense of wellbeing as well as orientation.

At the Children's Inn in Bethesda, Maryland we were all struck by the way we could see directly through the building to the landscape beyond as soon as we entered. We were determined to somehow recreate this condition at Bloorview.

Design Day

When we returned from the tour we held a workshop with a larger group of staff, clients and families where we discussed the buildings we had seen. Then we organized a design charette for the design of the lobby of the new facility... focusing on first impressions. This process created great excitement about the possibilities for a new building which, after three years of study, was now a tangible reality.

Design Workbook

Anne Carlyle and Jill Hall created a Design Workbook with illustrations of all the buildings that were visited, a record of the workshop, as well as nine guiding principles for the new building that had been hammered out during Design Day:

- reflect what is best for children, young people and their families
- provide a safe, secure, accessible and supportive environment
- enable staff to work most successfully



aerial view of Bloorview Kids Rehab



north-south section



upper level terrace



third floor plan / inpatients



"the bridge"

- ensure flexibility to accommodate programmatic change in a creative and cost effective manner.
- support optimum use of space
- facilitate broad community support and linkages
- be respectful of our local community and environment
- foster innovation
- maximize the linkage of interior and exterior

2. Working with the Community

It is always easier to build on a large, open, empty site, but there are few rewards. There is so much to be gained by designing a healthcare building that is inflected by local constraints and opportunities.

Concurrent with our initial efforts to plan the new building, we began discussions with the City of Toronto planning staff and in turn, the local community. This was at a time when the City was experiencing a building boom. There was a new consciousness about the potential for new buildings to contribute back to the city, but also sensitivity about how they might disrupt existing neighbourhoods. The challenge for us was to steer the design through this additional layer of considerations in such a way that everyone would ultimately benefit. I won't describe the lengthy process and debates that ensued but

I will describe the results:

- A new public street was created, eventually to be assumed by the city. This, in turn, allowed for the creation of new traffic lights, giving the building an address on a city street, with on-street parking. Vehicular traffic that had previously used the site as a short cut was now controlled. The new street opened up the adjacent site for redevelopment, bringing residential buildings right next to the hospital.
- Parking was somewhat reduced and enhanced with landscape elements. A new access to the ravine was aligned with an existing residential street. This, in turn, linked to a widened right of way at the edge of the ravine, ensuring public access to this significant system of natural green space within the city.
- Finally, and maybe the most challenging for us, was a requirement to reduce the building height to two storeys at the south end, close to existing houses,



kitchen, dining, living room area

while allowing for the full five-storey height at the edge of the ravine. Again, although it proved challenging, this limitation ultimately inspired a re-shaping of the building. We created a gently sloping roof which has a series of terraces cut into it....almost like a habitable hillside. These random incisions also allow natural light to penetrate the deep floor plate at various levels.

As a result of this process, the hospital now has an address on a new city street. There are new connections between the community and the hospital: children can see neighbouring houses from their rooms and neighbours have a direct public route to the ravine edge. The new street has allowed for new residential development on the adjacent site, creating even more integrated surroundings for the hospital.

Finally, the shaping of the building in response to local constraints has given it a unique and memorable identity.



outdoor terrace at third level

SHAPING THE DESIGN AROUND COMMON SPACES

1. The Inpatient Level Establishes the Building Footprint

The inpatient floor establishes the footprint for the entire building: generic and adaptable on one hand and responding to a clear hierarchy of focal points on the other. These focal points help to create a memorable "geography" for the floor.

At Bloorview there are only 76 inpatient beds, therefore it made sense from a staffing perspective to have all inpatient facilities consolidated on a single floor. This inpatient floor had more specific requirements than any of the other floors: adequate perimeter for bedrooms, adequate width for a continuous 'service core', a separation between complex continuing care and rehab and a requirement for three outdoor terraces, one for each 25 bed unit. The inpatient floor is at the heart of the building, where there is the highest level of care and the largest concentration of staff and families over a 24 hour cycle. Thus it is appropriate that it is one of the key drivers of the design configuration.



patient room with folding partition

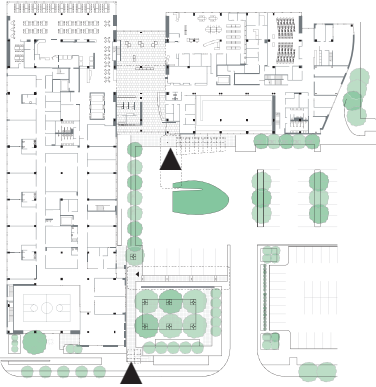
I will describe a few of the features of the inpatient level:

- The 'Bridge'

The separation between the two levels of care (rehab and complex continuing care) allowed for a separation of the building into two separate volumes. This allowed for a "pinching" of the floor plate to create a "bridge" element at all levels. This becomes the one place on every floor where there are ample views to the north and south, to the ravine and the city. It is close to the elevator core, so it becomes a place to orient to the larger site as soon as one arrives at a floor. It



complex continuing care room



ground floor plan

becomes a place to put singular, one-of-a-kind public functions from each floor. For example, on the administration level, the board room is located here, while on the inpatient floor it is an ideal place for a therapeutic playroom that serves all families. On the ambulatory care floor it accommodates a central waiting area for children and families. Each floor is anchored by its relationship to the elevator core and bridge. Zinc cladding from the exterior wraps into the building at both ends of the bridge, suggesting the idea of the bridge as an exterior space, linking the two primary volumes. At night it acts as a beacon of light and colour above the main entry.

- Flexible unit size with defined social centres



Family Resource Centre

The two rehab units were designed so that there would be an uninterrupted band of rooms from one unit to the next, allowing for adjustment in unit size according to different needs. Thus, although the unit size can fluctuate, it also gravitates around a central care station and a common social area. Each of the three inpatient units have their own common social spaces which consist of living, dining and kitchen areas. Each are located adjacent to outdoor terrace space for summer use.

- Single and double rooms

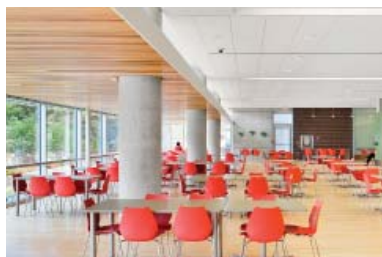


Family Resource Centre

Bedrooms consist of a combination of singles and doubles, with some doubles arranged into pairs to create step-down units with 24 hour observation. In spite of the trend to single rooms it was decided that double rooms were less isolating. As well, parents might feel less obliged to stay overnight with their child, if they knew they were not alone. Each room has a private washroom, although showers are shared between washrooms to conserve space.

- Four-bed complex continuing care rooms

Complex continuing care rooms consist of four beds per room, allowing for 24-hour observation. These patients have access to shared facilities and an outdoor terrace as well. They also have access to the school on the ground floor...either by the central elevators or more private elevators in each of the two wings. This optimizes choices to be either integrated with or separate from busier public areas in the hospital.



cafeteria



swimming pool from ground floor level



family viewing of swimming pool activity



view of gym from ground floor level



view of typical classroom

2. The Ground Level/ A Cluster of Large Public Spaces

A cluster of public spaces, each with its own specific function and capacity to adapt to other functions, each with its own combination of both interior and exterior materials, create a ground-level datum of places. These become, in some ways, an extension of the evolving public realm in the city.

The ground floor is inflected as much by exterior spaces as it is by the floors above. It is the most public floor in the building with a wide range of large scale spaces, many of them double height. Rather than create one large monumental space; there are a series of spaces which each have their own unique character and identity. This identity is further developed by the use of natural materials such as wood, and stone. In many cases the continuity between inside and outside is emphasized by bringing exterior materials into interior spaces.

I will describe a few major features of the ground level:

- The entry court

One of the most important spaces on the ground level is the entry court. Its primary role is to allow for generous paved drop off areas for arriving children and families at the hospital as well as at the school. The building shelters it from north-west winds and there are two large canopies to provide shade as well as for protection from rain and snow. A pedestrian entry sequence begins with a covered gateway at the street, proceeds through an enclosed garden with a water feature, then under the school canopy and along a tree lined walkway with views through the building to the ravine, and ends at the main hospital entry.

- The Family Resource Centre

This space is intended to be the heart of the centre. It was inspired by the space we had visited at the Children's Inn on our tour...not monumental in scale, but large enough to accommodate a wide range of events. It was the subject of our design charrette during Design Day at the beginning of the project. The double height windows on the north wall provide views of the wooded ravine as soon as one proceeds through the main entrance. The zinc and brick exterior walls wrap around into the space, emphasizing the idea that it is as much an interior as it is an exterior space.

On a day to day basis the room functions as a family resource centre, with computer terminals and seating. When there are large events or receptions the furniture can be rolled away. Although it was never anticipated, there is now a grand piano in the space which transforms it into an informal concert hall at various times during the week.



corridor at school



entrance canopy at school



creative arts studio

- The cafeteria

This is the social centre with its own interior “porch” adjacent to the gardens and the ravine. A clerestory window allows light into the depth of the space, breaking the larger volume down into two discreet areas. The wood floor provides warmth, while still allowing the space to be open, accessible and uncluttered.

- The pool and gym.

These double height spaces were pushed down to the basement level, as there was little available space on the second floor. These large, active spaces allow natural light deep into the public areas but they also contribute to the life of the ground floor, where families can observe activities and events.

- The Bloorview School

The Bloorview School offers an integrated program that serves inpatients and out patients as well as children from the surrounding community. The school has its own entrance with an oversized canopy for wheel-trans buses. Here, children are delivered in the morning and picked up at night. There is an elevator which links the inpatient floor directly with the school. There is a library with an outdoor reading court as well as an outdoor playground.

- The creative arts studio + Spiral Garden

This room was created as the interior equivalent of the Spiral Garden. Its lofty height imitates the large space defined by the mature trees in the garden. It is intended as a generous studio space for all the garden activities to take place indoors during the winter.

The original spiral garden has been preserved and enhanced with a new garden pavilion, a washroom and gateway pavilion as well as a garden wall.

PUBLIC SPACE AND PUBLIC ART

Public art adds another layer of meaning and identity to the major public spaces in the building. It can nurture a sense of engagement and ownership among children, staff and families and foster a process of local culture-making and healing.

A process was organized and managed by Anne Carlyle which resulted in the commissioning of a number of artists to create specific installations for the Centre. A committee was formed with broad representation, to select from a wide range of artists and review their submissions.



Spiral Garden with pavilions

Some pieces were created by staff from the Creative Arts Program, others by external artists and one piece by children at the centre. A few pieces were relocated from the original building on the site.

The art was selected to reflect themes of transformation, the natural world of the ravine as well as the history of Bloorview. We also wanted to ensure clear way finding and orientation in the centre by locating memorable landmarks in strategic locations. We wanted to build on the theme of inviting exploration and discovery.



pavilion in Spiral Garden

I will describe two of the installations:

- Landmarks by Jeannie Thib and Carl Tacon

This consists of a slate wall with the contours of the ravine sandblasted into stone. Small relief carvings of objects that might be found in the ravine can be used as paper rubbings by the children.

- To Cross this Passage by Stuart Reid

This consists of a series of glass louvres which help to shade the south light at all levels of the bridge. Different colour combinations are used at each level and a poem is inscribed into the panels which reflects onto the floor when the sun is shining:

To walk these halls
To wheel to pull
To drag to glide
To cross this passage
To make this voyage
This day this place this spirit this life
To walk these halls



Landmarks - Jeannie Thib and Carl Tacon

CONCLUSION

Of course the building and installations at Bloorview are just the beginning of what we hope will be an enduring process of place making. On the one hand we expect that the programs and services will grow and change to adapt to new needs. On the other, we hope that the public spaces will continue to nourish a meaningful sense of place and engagement in the building as well as on the entire site.

Local culture-making does seem to be thriving at Bloorview. Recently a new painting was commissioned to hang in the boardroom. It is not a painting of the board chair, nor is it of a distant place, rather it is an evocative depiction of the new pavilion and garden wall in the spiral garden.



To Cross this Passage- Stuart Reid