Reawakening the Urban Child: Repair of Halifax, Nova Scotia's Urban Environment through Playful Infill Development

by

Karl Vinge

Submitted in partial fulfilment of the requirements for the degree of Master of Architecture

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Abstract

Urban renewal and rampant suburbanization, like in many North American cities, has led to the decline of downtown Halifax, Nova Scotia. This thesis proposes a small-scale, child-oriented infill project as an alternate mode of development that retains historic fabric and repairs the urban ethos. A narrow, T-shaped, vacant lot in the heart of downtown provides the testing grounds for this intervention. Dynamic program combinations, and playful architectural propositions are presented as strategies to reintegrate children as active participants within the downtown area.

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Chapter 1: Introduction

[U]rban constructions... are vehicles of transformation. Constructed with a plurality of meanings, an intense urban architecture of quality can be an instrument... resistant to banalization, and capable of changing and shaping urban life with phenomenal experiences. - Steven Holl¹

The historic downtown of Halifax, Nova Scotia has seen a steady decline since the 1960s. The push of large-scale urban renewal projects alongside the pull of mass suburbanization of the Halifax Regional Municipality (HRM) has rendered downtown storefronts empty and has drawn most families to the peripheries. In 2010, developers and city official's advocated for a new, larger convention centre complex to combat urban decay. In response to this proposal this thesis explores an alternative mode of revitalization that aims at diversifying use and perceptions of the downtown.

A project with the transformative power Steven Holl speaks of need not be large. Rather, like the play-grounds of Aldo van Eyck, a small, playful architectural intervention can catalyze the reawakening of a city in decline.

Thesis Question

How can the insertion of a child-oriented institution begin the repair of a decaying urban environment?





Abandoned lot on Dijkstraat, Amsterdam, before and after the construction of van Eyck's Playground, 1954. Photographs by Gemeentearchief Amsterdam, Aldo van Eyck: The Playgrounds and the City.

¹ Steven Holl, *Urbanisms: Working with Doubt* (New York: Princeton Architectural Press, 2009) 33.



View looking up George Street towards the town clock, Halifax, Nova Scotia, 1916. Photographer Unknown. 'cooeypig', Flickr.



View looking up Carmichael Street (previously George St.) towards the town clock, Halifax, Nova Scotia, 2008, Mike Young, *Ravensview Images*.

Broad Issues

Urban Renewal

Due to its prominent location on the Eastern seaboard and its beginnings as a military outpost, Halifax is one of the oldest cities in North America. The urban fabric once told a story of its long history of military endeavors, ship-building, and religious fervour. However, since the 1960s Halifax has endured the tyranny of urban renewal with massive buildings and infrastructure projects that have erased entire sections of the historic downtown. Churches, theatres, shops and residential areas of yesteryear gave way to the Scotia Square complex of retail outlets and hotels (1967), the Cogswell Interchange (1971), the Metro Centre arena (1978) and the World Trade and



The corner of Jacob Street and Brunswick Street, ca. 1947, cleared in 1967 to make way for Scotia Square Mall, photograph by Castle Studios, from the Nova Scotia Archives, NSARM Photo Collection.



Scotia Square and the Cogswell interchange, 1973, photograph by the Nova Scotia Bureau of Information, from the Nova Scotia Archives, NSARM Photo Collection.

Convention Centre (1984). The construction of these projects conglomerated entire blocks and erased most of the small scale buildings in the northern area of downtown. This has resulted in a loss of variegation in the built fabric, a reduction in the variety of program and the creation a physical barrier to the North end of the city.



Urban structure of the Northern area of downtown Halifax, 1957-1997, Matt Neville, Spacing Atlantic, [Re]Presenting Halifax #2: Against the Grain.

The negative effects of urban renewal were felt in cities around the world. Aldo van Eyck observed the inhumane conditions created by these large scale projects and called for more integrative urban architecture that retains historic fabric in his proposal to save Amsterdam's Nieumarkt Square from urban renewal in 1970:

Old city centres - both their spatial reality and their content - are psychologically indispensable for their own sake, simply because they exist in all their multicoloured intensity and enclosure, and because so far no newly-built districts possess these essential qualities in the least not even in a contemporary version. They are rigid, empty and sterile and therefore inadequate as places to live.²

Jane Jacobs even wrote an entire book attacking modern, orthodox city planning. In the polemic 'Death and Life of Great American Cities,' written in 1961, she argues the need of aged buildings, small blocks, and mixed uses. These prescriptions come from a critical examination of "what practices in rebuilding can promote social and economic vitality in cities, and what practices will deaden these attributes."³

Nova Centre Convention Centre

There is a wistful myth that if only we had enough money to spend -- the figure is usually put at a hundred billion dollars -- we could... reverse decay in the great, dull, grey belts,... anchor the wandering middle class and its wandering tax money, and perhaps even solve the traffic problem - Jane Jacobs⁴

Despite the observed effects of urban renewal, 2010 saw the approval of yet another convention centre⁵ in Halifax. The 'Nova Centre' development proposes the amalgamation of two blocks for a large complex of retail, offices, hotel rooms, and meeting halls.

Aldo van Eyck, "Explanatory note on the Amsterdam Nieumarkt Project" Forum, November 1970 (translation)

³ Jane Jacobs, *The Death and Life of Great American Cities*, (New York: Random House, 1961) 4.

⁴ Jacobs, Death and Life, 4

⁵ Unknown, "Premier OKs New Halifax Convention Centre" CBC, 13 October 2010. http://www.cbc. ca/news/canada/nova-scotia/story/2010/10/13/nsconvention-centre-province.html



The proposed convention centre for downtown Halifax. (2010) From Rank Incorporated, Nova Centre.



Argyle Street, Halifax (2009).

The generic design is insensitive to the scale and pattern of the existing urban fabric. The proposed centre fronts onto the lively, cafe-lined Argyle Street. Instead of intensifying the character of this street the development is proposing a pedestrian galleria a block east on Grafton Street. Like the convention centre and shopping mall that came before it, this proposal will further reduce variegation in the urban fabric and the small-scale mixing of programs that van Eyck argues are 'psychologically indispensable.' While plans for the 110 000 square metre, 300 million dollar, publicly funded Nova Centre are well underway, this thesis imagines an alternative "tangible expression of confidence in the future of Halifax."6

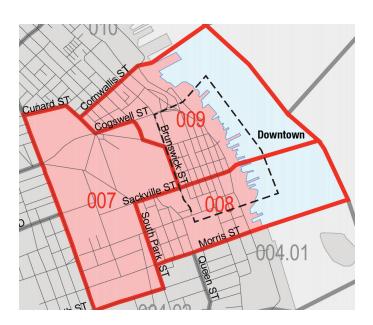
⁶ Rank Inc. Nova Centre, http://www.novacentre.ca

Suburban Migration of Families

Canadian environmental lawyer David Donnelly asserts that the Halifax Regional Municipality (HRM) could be the worst example of urban sprawl in North America. "Halifax is at a dangerous crossroads and [has] already tipped into a predominantly suburban community" states Donnelly⁷. The outward migration of families can be observed in the Canadian Census data. Halifax's downtown area encompasses Canadian Census Tracts 0009.00, 0008.00 and 0007.00. Taking those three tracts into consideration, the 2006 census data shows a marked drop in the number of children as they reach school-aged (five years old). This trend is in opposition to the rest of the city and the rest of the province.

Area	0-4yrs	5-9yrs	10-14yrs
009	25	15	20
800	40	20	20
007	10	5	15
Halifax	18210	19655	22345
N.S.	42040	48145	56245

Census data of the population of children in the three census tracts, as compared to Halifax and Nova Scotia.



Census Tracts 009, 008, and 007. Statistics Canada. Halifax Census Tracts, 2006 (map).

⁷ Jennifer Taplin, "Halifax could become a 'secondrate' city: Experts" Metro Halifax. 13 May 2011. http:// richmobile.metronews.ca/halifax/local/article/859297

The 'child exodus' phenomenon could be attributed to social perceptions of safety and space. Young professionals that are living and working downtown, after planning and deliberation, decide to have children. They continue to enjoy the conveniences of living downtown while their children are very young and spending the majority of their time in the home. As the children approach school-age and begin to explore, parents may decide that the city is an unsafe environment for children and they require a private yard to play in. The family moves to a suburban home, where the children spend weekends wandering around retail power centres and malls in an asphalt wasteland. The parents may continue to work downtown, and commute everyday by car - a drive that should take 15 minutes becomes an hour and a half due to rush hour traffic of like-minded individuals. The suburban commuter traffic has been so heavy in recent years that the municipality has expropriated the front yards of homeowners on Chebucto Road in West Halifax so it could be widened to accommodate more vehicles. The trend of suburban, car-oriented development cannot continue in any sustainable way. The challenge for architects and planners is to exemplify a more integrative mode of development that all stakeholders, including families, can envision themselves living and thriving in.



Suburban shopping area in Clayton Park, Halifax. from Panaramio, Clayton Park Plaza.



Suburban residential streetscape in Clayton Park, Halifax. from Panaramio, Clayton Park.

Children and the Built Environment

Raising a child in an isolated suburban environment can have profoundly negative consequences in their development. It is during childhood that an individual "position[s] themself amidst the coordinates of the experienced world". Children develop their identity in relation to their interactions with others and their environment. In suburban neighbourhoods, children are typically transported to everyday locations such as school, extracurricular activities, and even their friend's homes by car. Through this mode of travel they lose the intimate understanding of their surroundings and sense of empowerment to affect their daily life.

The homogenous and regulated environment also results in the compartmentalization of various facets of identity. This disconnect will influence choices children make, their likes, dislikes and can hinder full participation in daily life. Level of participation has been shown to have a far-reaching effects on health⁹ - regular physical activity can balance hormones, increase strength and prevent many health issues, while everyday social interactions can generate positive relationships and support systems to reduce stress. If children don't adopt these activities as integral aspects of their identity they will likely stop participating in them over time, especially when they transition into young adults.

⁸ Anne Dyson, "Cultural constellations and childhood identities: On Greek gods, cartoon heroes, and the social lives of schoolchildren," *Harvard Educational Review* 66, no. 3 (1996): 471

⁹ Mary Law, "Participation in the Occupations of Everyday Life," *American Journal of Occupational Therapy* 56, no. 6 (2002): 640-649

A denser, heterogeneous environment allows participation to be more integrated into everyday life. An urban setting encourages walking and provides greater opportunities for daily contact with a diversity of demographics than it's suburban counterpart. Through everyday interactions, children can designate a wider range of 'merged-others' within their community. 'Merged-others' are "...individuals who feel a sense of shared, merged, or interconnected personal identities with one another [and] see themselves possessing many of the... personality traits possessed by the other."10 Spontaneous informal contact with store owners, university students, politicians, bottle collectors, clergymen and women, waiters, artists, construction workers and retirees allows for a child's "...self-views [to] change as a result of observing how merged others behave in response to specific situations they encounter." 11

The relationship between children and the city is certainly not one-sided. Children give those around the an excuse to play. Sigmund Freud argues that child-hood play is the source of creative thinking in the adult. Through their interactions with the environment the integration of children into downtown Halifax holds transformative powers. If recognized as active stakeholders in the built environment, children

¹⁰ Noah Goldstein and Robert Cialdini, "The spyglass self: A model of vicarious self-perception" *Journal of Personality and Social Psychology*, 92(3), (2007): 403

¹¹ Goldstein and Cialdini, "Spyglass Self", 414

¹² Sigmund Freud, "Creative Writers and Daydreaming", Complete Works of Sigmund Freud, trans. James Strachey (London: W.W. Norton & Co., 1965) 6: 141-153

can improve the ethos of a city. Liane Lefaivre proposes that "a play-oriented inner city gives a positive allure and offers genuine opportunities for people from different backgrounds to come together..." ¹³

With the inherent benefits of including children in the urban environment, there is a missed opportunity in downtown Halifax. The urban environment shows little evidence of consideration towards them. This serious deficit begs for stronger advocacy for children within the development process. That is not to say that we are in need of more isolated and prescriptive playgrounds like the proposal for Halifax's waterfront.



Rendering of the proposed 2 dimensional 'octopus wall' for Halifax's waterfront. Waterfront Development, Halifax's Waterfront Playground. https://my-waterfront.ca/news?article=163

¹³ Liane Lefaivre and Atelier Döll, *Ground Up City: Play as a Design Tool* (Rotterdam: 010 Publishers) 124

Jane Jacobs speaks about the dangers of typical North American purpose built playgrounds¹⁴. In dutch culture, playgrounds were traditionally thought of environments that "instill republican values, a republican sense of community, in children from an early age and to bring them into the fold of reality of civic life."15 To Jacobs, their New York counterparts are cesspools of violence and antisocial behaviours. It is important to note that Jacobs is critiquing a very specific type of play space. Naming a place 'playground' does not inherently result in a quality space to play, much like designating a 'public square' in the city doesn't guarantee it to be an urbane and lively place. Jacobs advocates sidewalks as the ideal place to play only because she hadn't seen, or doesn't cite, any examples of purpose-built play spaces that are integrated and widely used by the community. She does later acknowledge however that "children in cities need a variety of places in which to play"16 which clearly calls for more than the provision of sidewalks.

¹⁴ Jacobs, Death and Life, 79-82

¹⁵ Liane LeFaivre and Atelier Döll, Ground Up City, 42

¹⁶ Jacobs, Death and Life, 80

Precedents

Amsterdam

The genius of Amsterdam is that the wall becomes a frame
The frame becomes a void
The void is sheathed in white lace
A transparent lattice with infinite variation
Fine, delicate, open, closed, wide, thin
An endless fugue of frame and light to animate this beautiful city¹⁷

Cycling through Amsterdam, the street becomes a brick blur. Rows of housing, shops, and neighbourhood institutions form a clear street wall. The sidewalks are bustling with activity. Like the rings of a tree, the artifacts of successive cultures and stylistic periods are a visible indicator of Amsterdam's long history. Elements are not competing with each other, rather complementing each other like a symphony, where woodwinds complement the strings, both anchored by the percussions. With most buildings under six storeys, it seems unlikely that Amsterdam has a higher density than almost every North American city. However, its variegated urban fabric, small scale mixing of program and integration of play spaces allows for people to live contentedly in such close quarters. Liane Lefaivre speculates that "Dutch cities may have been the first to introduce play as a part of everyday life." 18 Within Amsterdam's urban environment I will examine three child-oriented projects that embody the Dutch humanist ethos.

¹⁷ From *Urban Detail* by Peter Ellis in Maarten Kloos, ed. *Amsterdam in Detail*. (Amsterdam: ARCAM, 1996) 77

¹⁸ Liane LeFaivre and Atelier Döll, Ground Up City, 42



Street-life in the Jordaan district, Amsterdam (2010).

Amsterdam Playgrounds, Aldo van Eyck (1947-1978)

Look, snow! A miraculous trick of the skies - a fleeting correction.

All at once, the child is the lord of the city. The child is everywhere, rediscovering the city whilst the city in turn rediscovers its children, if only for a while.

Yet, what it needs is something more permanent than snow. - Aldo van Eyck¹⁹

In just over thirty years, van Eyck designed and constructed more than 700 playgrounds in Amsterdam. These modest projects were composed of basic elementary forms and placed in left-over spaces all over the city. Some found homes in empty derelict lots, others in oversized underused public squares. The resulting vast network of van Eyck's playgrounds had a transformative effect on city. They animated the urban environment with the presence of children, without impeding urban movement. In times when children were not playing, the playgrounds were designed with enough ambiguity to be expropriated by adults as a place for meeting, waiting, sitting and reading. It is this multifunctionality that allowed the playgrounds to gain widespread acceptance since their conception and become integral to the character of Amsterdam's urban environment to this day.

¹⁹ Aldo Van Eyck 'Het Kind en de Stad' *Goed Wonen*, October 1957. (translation)





Square on Buskenblaserstraat, Amsterdam-Nieuwwest before and after construction of Playground, 1955, 1956. Photographs by Gemeentearchief Amsterdam, *Aldo van Eyck: The Playgrounds and the City.*

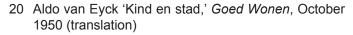
Hubertus House, Aldo van Eyck (1978)

The visual meaning of the child in architecture, but mainly in the overall image of the city, is in fact something of which people are still too little aware. It is possible that people will consider this a singular change of emphasis: however, I believe that it will hardly be possible to solve in principle the serious child/city conflict without realizing that this change is essential, if the city is to acquire a positive meaning for the child. - Aldo van Eyck²⁰

As evident in not only his playgrounds, but the majority of his life's work and writings, Van Eyck was a vocal advocate for children in the city. It is no surprise, then, that he was commissioned by the Christian Hubertus Foundation to design a home for single parents and their children²¹. Van Eyck approached the narrow street frontage between two ornate town houses boldly in color and urban gesture:

The facade of the new building is conceived as both a continuation and a breach of the existing fabric. The whole facade becomes a gigantic door opening up the well-ordered and staid, if imposing, nineteeth-century alignment of facades typical of the rest of the street.... The front door is set back, to create an open porch behind the building line... offering more intimacy in a tight urban setting.²²

Through this infill development, van Eyck addressed the existing fabric, not by repeating it, but by playfully puncturing it with a porch, creating a sense of home for children in the city temporarily without. Once past the porch, the playful treatment of the ground plane through steps and seating enforced the position of that child as the owner of this environment.

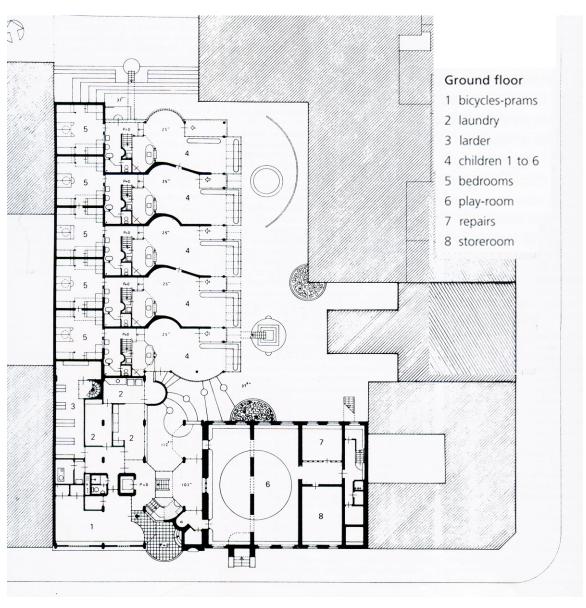


²¹ Liane LeFaivre and Alexander Tzonis. Aldo van Eyck: Humanist Rebel. (Rotterdam: 010 Publishers, 1999) 117





Aldo van Eyck, Huburtus House facade, Flickr.



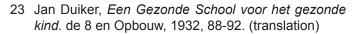
Huburtushuis Ground Floor Plan. Aldo van Eyck. From Vincent Ligtelijn, Aldo van Eyck: Works.

Open Air School, Jan Duiker (1928)

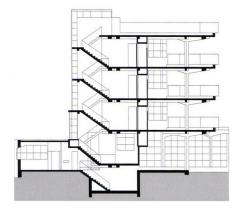
Banished between four walls in overfull classes, bound for hours on end to subject matter that is often not understood, often into the evening in poor light, under more or less rigid discipline - this is how children spend their young lives of joy and gaiety. - Jan Duiker²³

Jan Duiker's Open-Air School on Cliostraat, Amsterdam is said to be one of the most noteworthy examples of the open air school movement²⁴. Based on the modernist assumption that access to fresh air and natural light improves health, the movement resulted in the construction of schools with massive, operable, glazed exterior walls. Duiker's iteration is vertically organized in four storeys with an indoor classroom on each floor, and outdoor classrooms on the top two floors. A central stairwell core acts like the doubleloaded corridor found most Canadian schools, providing space to hang outer wear and store personal items. The indoor classrooms receive plenty of natural light from the large amounts of glazing and tapering of concrete ceiling beams. Fresh air can be cycled through passively when the massive operable windows are opened. On warmer days, the students can go up to the outdoor classrooms to work.

While the concepts of transparency and openness in the Open Air School revolutionized school design, Hertzberger argues that the school was *too* transparent and open:



^{24 &}quot;Open Air School, Amsterdam, Netherlands" Imagine: Inspirational School Design, http://www.imagineschooldesign.org/detail.html?&no_cache=1&tx_ttnews%5Bpointer%5D=3&tx_ttnews%5Btt_news%5D=33&tx_ttnews%5BbackPid%5D=3



J. Duiker, Section of Open Air School. From Imagine School Design, Open Air School Amsterdam.

In psychological terms this may have worked as something of a 'liberation of the surrounding wall', yet in fact it only meant more distraction and inconvenience through gusts of wind and raindrops that could unexpectedly disturb the concentration. Indeed it probably was additionally frustrating to have to sit still and absorb the day-to-day subject matter with so much around to incite one's interest and curiosity.²⁵

Situated in a small courtyard surrounded by housing on all sides, children had the opportunity to be distracted by goings-on in the neighbouring houses. Despite this, Duiker's attempts to improve the environment for children marked a considerable step forward. The challenge then is to address the human desire for natural light and fresh breeze, while minimizing any resulting environmental discomfort and visual distraction in a dense urban environment.



J. Duiker, Open Air School photograph. From Verbouwing Openluchtschool, Openluchtschool

²⁵ Herman Hertzberger, *Space and Learning: Lessons in Architecture 3.* (Rotterdam: 010 Publishers, 2008) 15

Dorte Mandrup-Poulsen

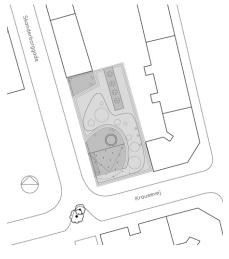
One's dreams of creating spatial sequences are often related to a basic, childish desire to hide, slip away or be secretive, having private places that no one else knows about... the fantastic can form the basis for a poetic understanding of the world... - Dorte Mandrup-Poulsen²⁶

I view the work of Dorte Mandrup-Poulsen as a contemporary extension of the work of Aldo van Eyck. Through a series of small and medium scale child-oriented projects in Copenhagen, she has designed a network of institutions that interact with the existing urban fabric in playful ways. In the spirit of van Eyck's 'situational' architecture her daycares, recreation centres and culture centres "[accommodate] immediate user needs, and [exploit] opportunities offered"²⁷ by the site. It is this incremental, or infill strategy that has the potential for repairing the urban fabric of downtown Halifax. I will examine the ways Dorte Mandrup-Poulsen achieves this through two of her buildings found within Copenhagen.

Skanderborggade Daycare Centre, Dorte-Mandrup Arkitektens (2005)

Built on a vacant corner site, the daycare attempts to reclaim the previously industrial space for local children. The rectilinear outer walls follow the rules of the neighbourhood by continuing the street wall. However, within this frame, the pavilion-like building becomes more playful. With equal attention paid to indoor and outdoor space, the one-storey daycare

²⁷ Liane LeFaivre and Alexander Tzonis. *Aldo van Eyck: Humanist Rebel.* (Rotterdam: 010 Publishers) 17



Daycare Centre site plan, Skanderboggade, Dorte Mandrup Arkitekten. archdaily.

²⁶ In an interview with Synne Rifbjerg in Merete Ahnfeldt-Mollerup, Portrait: Dorte Mandrup Arkitekter. (Copenhagen: Arkitektens Forlag, 2009) 29

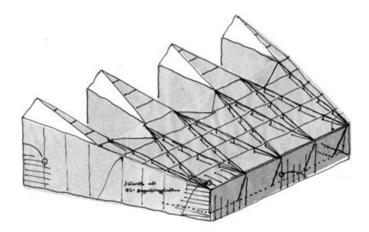
raises the playground up to a sunny terrace with ramp taking children from a small circular courtyard onto the roof. Children do not feel they are in a fish-bowl, while still receive plenty of natural light from strategically placed translucent and transparent walls. While the building does not match the height of the surrounding buildings, it stitches itself into the fabric through respecting the street wall and providing an unassuming facade. The playfulness found in the plan activates the potential of the end users to imagine a dream-like world while they play. It is this balance of convention and the unexpected that makes this building a successful child-oriented infill project within the Skanderborggade neigbourhood.



Daycare Centre, Skanderborggade, Dorte Mandrup Arkitekten. archdaily.

Holmbladsgade Sports Centre, Dorte-Mandrup Arkitektens (2006)

This laminated timber and steel tube structure, clad in translucent polycarbonate, houses a neighbourhood sport centre consisting of a cafe, gymnasium, and exercise rooms. The profile of the four adjacent row housing blocks provide the driver for its form. On one side the volume mirrors the five storey, gabled roof profile of it's neighbours, and, with a shallow pitch and a gradual leveling off, forms a two storey rectangle on the opposite facade This simple, yet dynamic integration into the surroundings results in a striking form and a powerful juxtaposition.



Holmbladsgade Sport Centre Preliminary Sketch, Dorte Mandrup Arkitekten. MIMOA.

The celery green interior is no less playful than its shell. The main gymnasium space is articulated with a landscape of zigzagging steps and slopes - a space for spectators to sit, children to play, and athletes to do stretches. The four points of contact with the adjacent row housing create four smaller bays for activity: foosball, table tennis, stretching, and other games can occur here when a basketball game is

happening on the gymnasium below. Through color, levels of transparency, a dynamic interior landscape, expressive structure and an emphasized connection with the neighbouring buildings Dorte Mandrup-Poulsen has developed a playful architectural language that is both inspiring and functional for children and adults alike.



Holmbladsgade Sport Centre, Dorte Mandrup Arkitekten, MIMOA.



Holmbladsgade Sport Centre, Dorte Mandrup Arkiteken. Lokale- og Anlægsfonden.

Program

Three program elements were selected as a vehicle to explore the thesis question:

- An Elementary School
- · A Media Artists' Collective
- · Family Housing

The first two program elements were developed based on grassroots organizations from the Halifax Area -- the Halifax Independent School and the Centre for Art Tapes. The family housing component attempts to extract the desirable qualities of the suburban home and transplant them in an urban environment.

This mix of program elements was chosen to ensure a diversity of user groups and the potential for informal daily contact among them. Together in a strategic partnership the tenants can share spaces and divide the higher rent of being located downtown into a manageable budget. As the child-oriented institution, the elementary school is the primary driver of the design and will occupy the most space in the building. It is thought of as the landlord to the other two program elements.

Future developments might explore different combinations -- the Nova Scotia Centre for Gaelic Affairs, a modern dance school, and a senior's centre; or a tailor's shop, the Halifax Gay and Lesbian Community Centre and a video arcade, for example. This

cross-section of uses at the building scale provides resilience to the community through the development of relationships across demographics and different interest groups in the city.

The Halifax Independent School²⁸

The elementary school proposed in this thesis is modeled after the Halifax Independent School (HIS). I do not envision a relocation of the HIS from their current facilities, rather the introduction of a new school that employs their unique pedagogy and repeats a similar process of incremental growth. While today the HIS runs from preprimary to grade nine, they originated as modest school for children in primary to grade four.

History

The Halifax Independent School (HIS) began in the early 70s as a laboratory school through Dalhousie University's Department of Education. Initially called the Dalhousie Experimental School, it was a place for teachers to receive their training as well as develop an alternative curriculum for children whose parents shared the believed that the mainstream Canadian curriculum was lacking. During the 80s the school expanded, 'Experimental' was dropped from the name, and the theme-based approach was developed.

By 1990, there were about 35 students from primary

²⁸ Historical and pedagogical information about the Halifax Independent School adapted from the School's website, http://www.halifaxindependentschool.ns.ca accessed 06.07.2011

to grade four, with one full-time teacher and two parttime teachers. Around this time, Dalhousie's Department of Education was disbanded. Teachers and parents began looking for ways to continue the institution
that had become so integral to their lives. In 1992,
the school became incorporated as the 'Dalhousie
Co-operative School', moved to rented accommodations in South End Halifax and expanded to include a
daycare and grades five and six. By the early 2000s,
the school grew to 100 students, prompting plans for
a middle school. As the school continued to expand,
a portable classroom was added, and the name
changed to it's current 'Halifax Independent School.'

Pedagogy

The locally developed mode of theme-based learning is the most distinct aspect of the Halifax Independent School, making it unique from any other public or private school in Halifax Regional Municipality. Theme-based learning is an in-depth study of various topics, under the umbrella of the larger theme. All of the traditional core subjects are integrated with the topics. The five rotating year-long themes, studied by the whole elementary and Preprimary school are Oceans, The World of Work, Discovery, Living Things and Nova Scotia. Schoolwork is done mostly at school to prevent parents from getting too involved in the schoolwork of their child. This strategy develops a sense of empowerment in the children as they periodically invite their parents to the school to surprise them with what they have been learning, making, and practicing.

The current principal of the Halifax Independent school identified the short story 'The Night of the Pomegranate' as a literary embodiment of the spirit of the school. The following excerpt from the short story illustrates their emphasis on empowerment and critical thinking:

What in heaven's name is this? Ms. Krensky was standing at Harriet's chair, staring down at the green bristol board. There was only one planet left.

Harriet says it's Mars. Darjit started giggling. And how big is Mars? asked Ms. Krensky. Her eyes said Unsatisfactory.

Compared to Kevin's marble earth, Mars would be the size of a pomegranate seed, including the juicy red pulp, said Harriet. Ms. Krensky walked to the front of the class. She turned at her desk. Was there a hint of a smile on her face?

And where is it? she asked, raising an eyebrow. Harriet looked at the calculations she had done on the corner of her green bristol board. If the sun was at the crosswalk, said Harriet, then Mars would be much closer. Over there. She pointed out the window at the slide in the kindergarten playground. Some of the class actually looked out the window to see if they could see it.

You *can* see Mars, said Harriet. Sometimes. Now she was sure she saw Ms. Krensky smile.

How many of you have seen Mars? the teacher asked. Only Harriet and Randy Pilcher put up their hands. But Randy had only seen it on the movie *Total Recall*.

Last night was a special night, I believe, said Ms. Krensky, crossing her arms and leaning against her desk. Harriet nodded. Tell us about it, Harriet, said the teacher.

So Harriet did. She told them all about Mrs. Pond and the Mars watch. She started with the pomegranate.²⁹

²⁹ Excerpt of "The Night of the Pomegranate" from Tim Wynne-Jones, *Some of the Kinder Planets* (Toronto: Douglas & McIntyre, 1993) 6-7

Current Facilities

In 2004, construction was completed on their present facillity designed by Lydon Lynch Architects of Halifax, Nova Scotia. This signified the first purpose-built home for the Halifax Independent School. Situated on a large open site on Connaught Avenue, the school is in a primarily suburban area, within a few minutes drive to the Halifax Shopping Centre and about three kilometres from downtown Halifax.

The tilt-up concrete design features a series of gables in the attempt to avoid an imposing institutional appearance. On both floors, a double loaded-corridor serves as a circulation spine for the classrooms, lunch room, administration, and ancillary spaces. The drawing on page 37 illustrates the division and proportions of the spaces in the building. Classrooms are large rectalinear spaces with small informal workspace and services separating them. The informal workspaces are glazed and connected to both adjacent classrooms. In most cases, the teacher has papers or painted over the informal workspace, and it is rarely used by both classes at the same time. However, the presence of a smaller space separate from the unarticulated classroom is desirable for smaller groups to work undisturbed.

As children, staff and visitors enter the school, they are immediately greeted by the administrative assistant. This provides a measure of security as she knows each child and most parents by name. Anyone unrecognizeable is approached and questioned.



View upon entering the Halifax Independent School (2011).

Washrooms for the preschool and elementary school are individual water closets as opposed to large multi-stall washrooms. While building code requires them to designate them for male or female use, in practice they ignore these designations and use them as unisex. This contributes the home atmosphere of the school and allows for less distraction as a child uses the washroom.

The preschool program plays an important part in recruiting students for the Halifax Independent School. If a parent brings their child in for preschool, they are more likely to enroll their child at the Halifax Independent school for grade school as they have become part of the community. The preschool room has expropriated a wooden outdoor play structure from a previous schoolyard. This climbable structure has become a fixture in the class room - a place to eat a snack, play a game, draw or just move. Just outside the walls of the preschool room is an enclosed area for preschool play. It is separated from the larger playground for safety issues as well as to

allow the preschool children to feel confident in their play environment with the absence of older children who might play more roughly.



Play structure in the preschool classroom (being used as storage during the summer) (2011).

The larger grade school playground is a field enclosed by chain-link fence with one large play structure. There is a paved area for biking and playing hockey and ball games. The rest of the grounds are turf with a large slope down to the paved area that could become a natural ampitheatre.



Halifax Independent School, front facade, drop of circle and parking lot (2011).



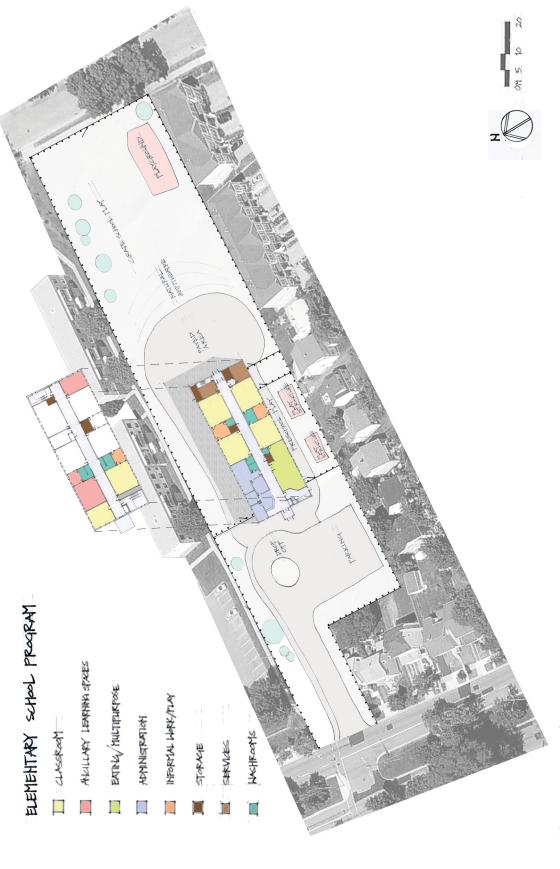
Halifax Independent School, grade school play area (2011).



Halifax Independent School, South facade and preschool play area (2011).



Halifax Independent School, North facade and paved play area (2011).



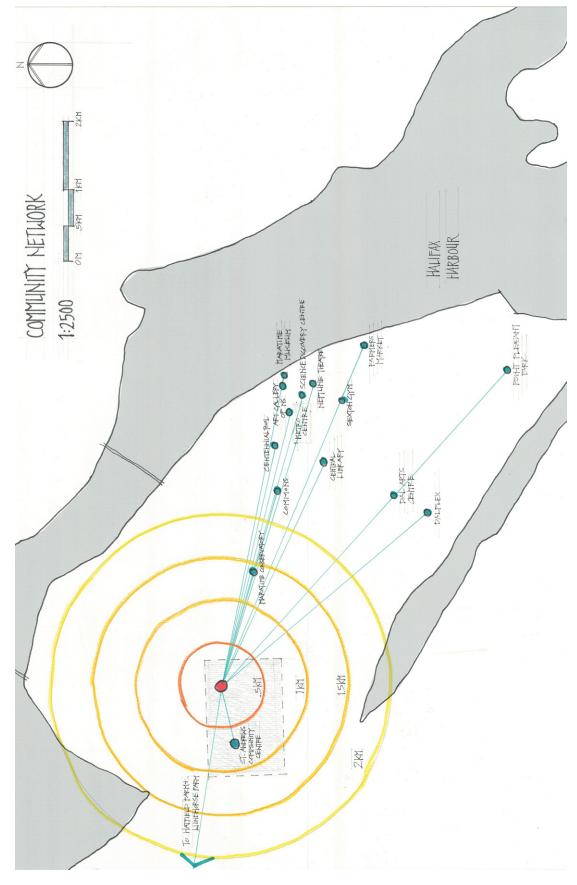
Halifax Independent School, elementary school program and environs.

Community Network

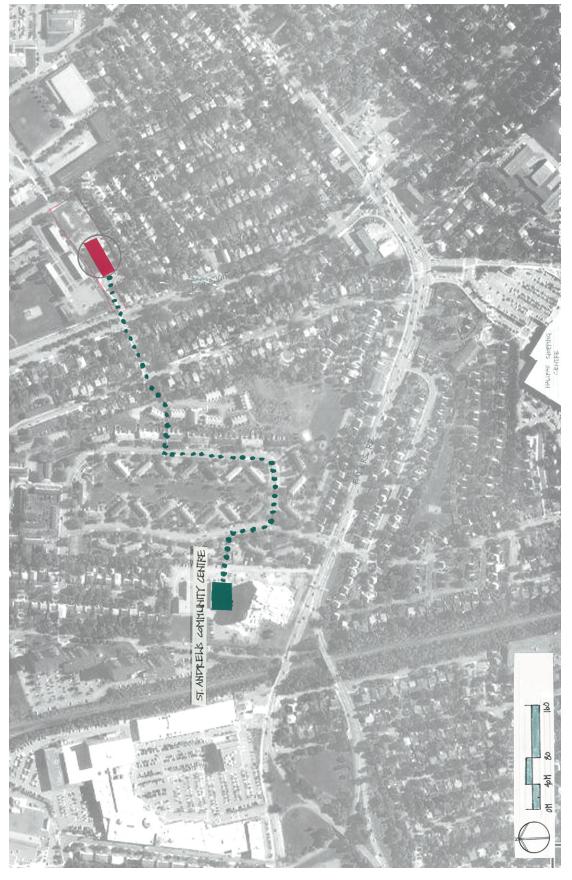
Weekly visits to various institutions around the Halifax Regional Municipality are integral to the daily curriculum. One parent expressed that they felt it was a valuable experience for their children to walk to places within the city to empower them to engage with their community. In this way, the school community is not an insular and exclusive island within the city. Children at the Halifax Independent School frequently walk to the Saint Andrew's Community Centre, and sometimes to the Royal Conservatory of Music. However, their suburban location means they must drive to use the majority of their community network. The Neptune Theatre, North End Library, Dalplex, Centennial Pool, the Dalhousie Arts Centre, Museums and the Science Centre are all well over two kilometers away from the school. Occasionally, They also go to rural areas for camping and horseback riding like Windhorse Farms and Ross Farm.

Critique

While attempting to create a home-like feel with its large gabled roof, the exterior effectively exudes an institutional presence due to it's siting, massing and finishes. Its position in centre of a large, open lot is can be viewed as an analogy for it's isolation from the city as a whole. While the school believes strongly in using existing community amenities, they must drive to most of them. A more central location would encourage more integration with the community network.



Community network and the Halifax Independent School's current location.



Walking path to the only walkable community institution from the Halifax Independent School.

The two storey, double-loaded corridor plan is typical of most Canadian Schools and doesn't reflect their alternative pedagogy. The Halifax Independent School encourages collaborative learning between not only children in the same classroom, but those in other classrooms as well. The separation between the classrooms should be more adaptable to reflect this so teachers can choose their level of connectivity with the neighbouring classes depending on what they are working on. The presence of the informal workspaces between classrooms is valued because the large rectilinear classroom shape has no articulated spaces for smaller groups to work undistracted. The corridor acts primarily as circulation and storage, but could be used as a breakout space for group work if it was slightly larger in some places and received more natural light.



Painting over the glazing of the informal work space (2011).



A rectilinear classroom, furnished in attempts to create separate spaces within it (2011).

The Centre for Art Tapes

The fate of the The Centre for Art Tape's (CFAT) current home is in question. The historic Roy Building on Barrington Street in Downtown Halifax in which they reside is slated for demolition in the coming years. The lack of natural light in an underground space in the proposed elementary school building would be an ideal location for activities and exhibitions involving media arts. As this space is also the least desirable for spaces of learning and play, the partnership has the potential to function quite well.

Operations

The Centre for Art Tapes has been active in Halifax for over thirty years, and in that time it has been able to fill many essential cultural needs for the media arts community. Since its formation as a not-for-profit artist-run society for the presentation of media art the organization has grown into an indispensable resource for a broad range of people. ³⁰

The Centre for Art Tapes (CFAT) is an organization that facilitates and supports artists at all levels working with electronic media including video, audio, and new media. The independent creation of productions is the core purpose of it's existence. Halifax-based artists can take advantage of their production facilities and programming on a year round basis. While media artists from across Canada and abroad are invited to exhibit installations, video, audio, and newmedia as well as to participate in colloquia, lectures, forums and master classes. Through the production of this work, the Centre engages the general public

^{30 &}quot;Profile" Centre for Art Tapes, http://www.centreforarttapes.ca/profile.aspx

through hosting performances, installations, audio festivals, experimental video screenings and artists' talks.

Program Requirements

To allow for their diversity of services and functions CFAT requires administrative offices, a box office, a coat check, a small cinema (60 seats), a multimedia gallery, a classroom, and two editing suites

With the availability of a small cinema and multimedia gallery within the same building as the elementary school, they can be used during the school day by students. When learning about plants and animals, the grade two class can watch documentaries and other educational films. When experimenting with light, the grade four class can shine prisms with the projector in the multimedia gallery.

Family Housing

Three apartments occupy the top floors of the proposed building. Each apartment is conceptualized to contain some of the elements that young families are looking for when they move to a suburban home - three or four bedrooms for a growing family, private outdoor space for gardens, a large foyer and ample storage space. By providing these facilities, the apartments offer an alternative to the suburban, single-detatched family home. What makes it a better alternative is the dense and diverse urban location, close to workplaces, services, everyday institutions and cultural amenities.

Site

The thesis proposal is situated on a modest site within the historic grid of downtown Halifax, Nova Scotia, Canada. The site has three street frontages - Argyle Street, Grafton Street, and Prince Street. The most significant frontage is Argyle Street, a popular street for cafes and restaurants as well as one of the four bordering streets of the grand parade square and cenataph. Both Argyle and Grafton streets follow the ground elevation contour and are relatively flat, while Prince Street runs perpendicular to the slope that downtown Halifax is situated on. There is approximately a five metre drop from Grafton to Argyle Street. The 572 sq. m., T-shaped site surrounds two small brick buildings on the South side, and butts up against a 7-storey office building on the North side. The site also falls below one of the historic viewplanes from Citadel Hill, located West of the site, overlooking the harbour. In 1974 this viewplane, along with several others, became legally protected so no building can be built that would obstruct it. Building in a tight and variegated urban environment provides many programmatic and architectural challenges. However, to build so closely to other institutions with such a high density also provides many opportunities for partnerships and community.



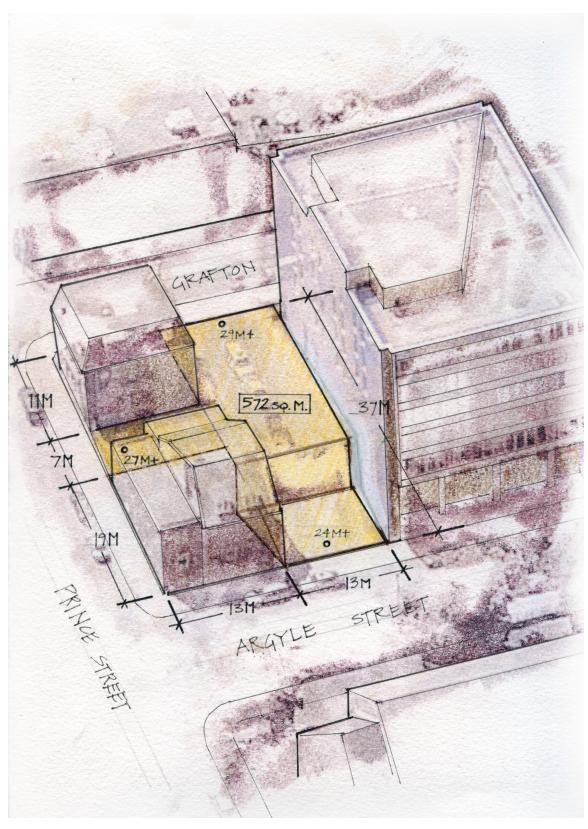
Buildings adjacent to the site (2011).



Bookstore neighbouring the site (2011).



Argyle Street frontage (2011).



Site dimensions and adjacencies.



The proposed school site (centre, currently a parking lot) and the future Nova Centre convention centre (left) (2011).

Temporality in the Urban Milieu

When life in the city is projected onto the phenomenon of day and night, it throws the inadequacy of rectilinear thinking into the correct light - it brings the cyclical to the fore, out of the darkness, and with it the wonder of metamorphosis. - Aldo van $\mbox{\rm Eyck}^{31}$

Contemporary urban planning tends to overlook the concept of time. If it is addressed, it is often expressed through the creation of separate 'time zones' - entertainment districts for night use, and business districts for day use. To make matters worse, typically neither of these places are deemed appropriate for housing. By utilizing the temporal aspects of the urban environment through the careful configuration of progam, one can intensify the dynamic character of the urban experience.

The juxtaposition of an elementary school, a neighbouring nightclub, and a cenotaph may seem chaotic. But, when time is introduced into the equation the latent potential of the adjacencies is revealed. As a place for gathering and remembering fallen soldiers, the cenotaph requires a large open space surrounding it. It's placement in the grand parade signifies it's cultural importance though, functionally, it is only used once a year, on November 11. The rest of the year it is available for different types of expropriation. An elementary school would certainly put such a large open space to use before the school day

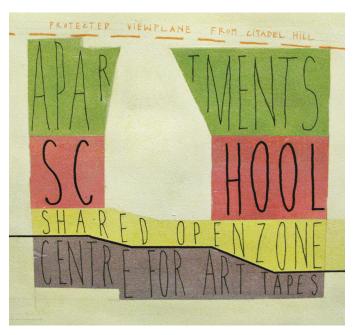
³¹ Aldo van Eyck, from the translation of a sketch proposal for an unpublished issue of Forum, late 1959, quoted in Vincent Ligtelijn, ed. and Francis Strauven, ed., *Aldo van Eyck: Collected Articles and Other Writings* 1947-1998 (Amsterdam: SUN Publishers, 2008), 279.

starts, at lunch time, and during recesses. This new stewardship would not require any modifications or investment into the space. There are enough stairs, ledges, paving stones, railings, grassy patches, trees and lamp posts to engage a child's imagination. Contrary to what playground equipment manufacturers seem to believe, children do not require a bright red plastic slide to have fun. In the evening, when the school day is done and the children have gone to hockey, swimming, piano lessons or home, the street begins to fill up with the after-work crowd, looking for a pint and a bite to eat. Parents, university students, and businesspeople convene and exchange. As the hours go by, the self-organizing mob recalibrates. Parents go home to relieve sitters from their duties. Sitters arrive to meet their friends. The energy and the music slowly changes. What was Celtic, folk, and rock becomes pop, hip hop, and techno. A line up forms and big bouncers arrive to stake their territory. A snack vendor pulls up near the cenotaph with his cart. What was a playground and a ceremonial grounds, is now a temporary hot dog eatery. As the night goes on, the nightclub closes and people disperse onto the street. Some wait for cabs, while others walk and the street slowly becomes quiet again, in time for the first light of gradually marking another school day or another work day.

Chapter 2: Design

Program Adjacencies

The three main program elements of the building are organized to optimize the potential of the site. The two more public program elements - the Centre for Art Tapes in the basement and the school in the first three storeys of the building have direct visual and physical access from Argyle Street. The housing element of the program is placed on top of the school, occupying the fourth to sixth (top) floors, allowing for more privacy and a visual and sound separation from the busy Argyle Street below. Access to the apartments is from an elevator on the quieter Grafton Street side. Locating at on the top floors also gives the opportunities for roof terraces that provide secluded outdoor space.

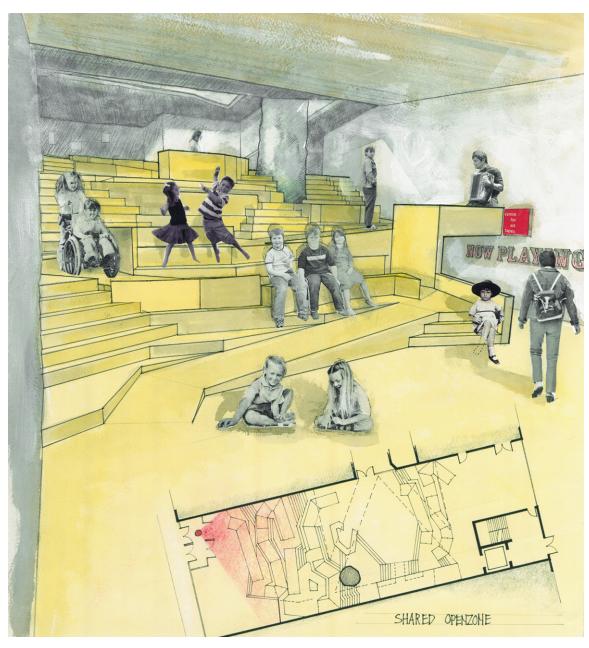


Programmatic section.

Shared Openzone

An openzone extends throughout most of the ground floor and is shared amongst tenants, the neighbouring restaurant (The Wooden Monkey), and open to the greater urban community. Its dynamic form allows for a variety of uses. A 1:12 wheelchair accessible ramp meandering its way up the 5 metres (with landings at every vertical 600mm interval) provides the framework for the series of steps and benches radiating around it. Along the southern side of the openzone is a direct route through for people in a hurry. The space will be used by the school as a place for lining up in the morning, eating at lunch-hour, gathering during school assemblies as well as the occasional school carnival. The Centre for Art Tapes will use the space as a foyer in the evening for people to congregate before or after a showing or exhibition. The presence of tables along the Grafton Street side, served by the Wooden Monkey restaurant, will enhance the function of the space as a fover as people can grab a bite to eat before a show, or a glass of wine after. This diversity of functions and use will ensure that the openzone will not become a dead-zone and will always have a mix of people with activities to engage them. The space in the public main floor will be given to the Wooden Monkey restaurant in return for the use of their rooftop for the daycare's playground. This mutual partnership could result in more programmatic mixing, such as a lunch program, or possible cooking and local foods classes for the children attending the school.

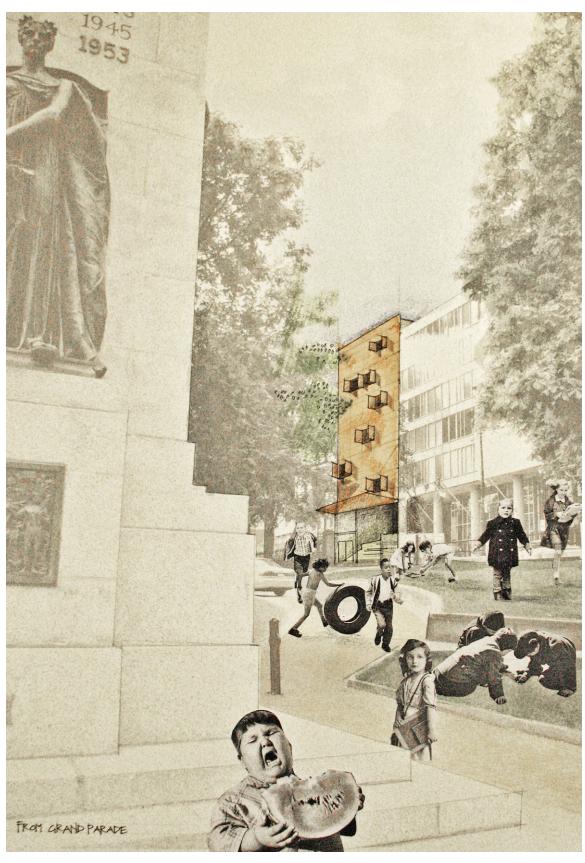
Providing public space in the ground floor of an elementary school can lead to security issues. Like the Halifax Independent School, an administrative assitant's workplace is situated in direct view of the front door. Also, after school hours when all the students have left the ramp to the first floor is lifted like a drawbridge to restrict access to secure stairwells.



Shared Openzone.

Line Up

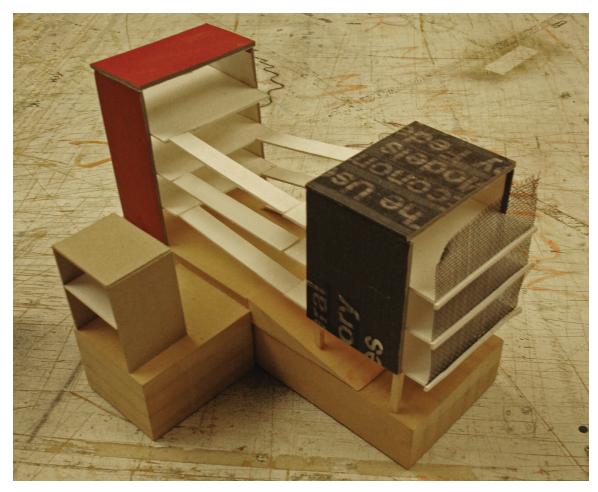
Around 8:45am, the teacher on duty yells "line up!" to the children playing on the grand parade. The crosswalk attendant readies her sign and greets the children as they cross Argyle Street to the school. They race down the sidewalk and into the front doors of the school - they each know where to go from here. Students gather with their classes in the areas they chose together at the beginning of the year. Ms. Chatham's 3/4's by the hearth, Mr. Gregson's Primaries around the pit, Mr. Paul's 1/2's on the long bench halfway up and so on until everyone has settled. Everyone is quiet while Mrs. Smith reads the announcements. "We are still waiting for some persmission slips to go to Hatfield Farms next Wednesday" she explains with a forboding tone, "if we don't get them by Monday, you will have to stay behind." she warns. Gavin gasps, he had completely forgot. Brittany and Jermaine look at each other and roll their eyes, "come on you dodo, don't forget or you won't get to come with us" Brittany giggles. After a few more announcements the children get up from their pods and race up to the atrium and follow the ramps to their respective classrooms for the morning lessons.



Morning play and afternoon recess in the Grand Parade, with the school in the background.

Vertical School

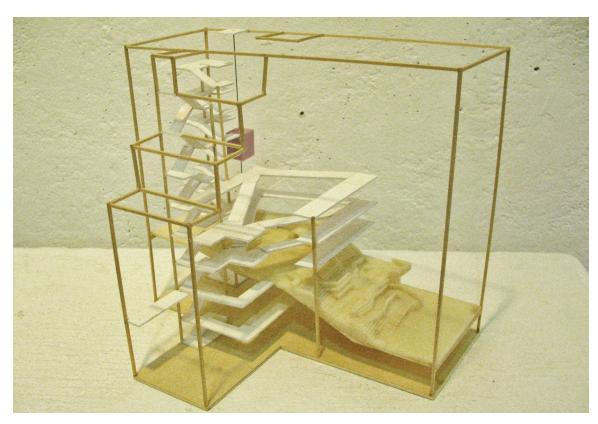
Like Jan Duiker's Open Air School in Amsterdam, the proposed elementary school adapts the conventional double loaded corridor typical of North American Schools into a 'double-loaded' vertical circulation space in response to the tight urban site. A series of ramps and catwalks operate like their corridor counterpart as a space for cubbies, coat hooks and circulation, as well as offering informal working areas. These spaces are more conducive to informal working and learning than a artificially lit unarticulated corridor due to the abundance of natural light and the presence of smaller break-out spaces.



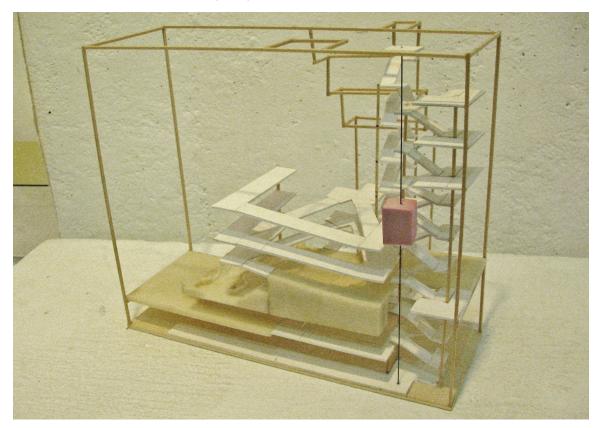
Preliminary model of school exploring ramp circulation and vertical program organization (2011).



Program and context of the proposed elementary school.



Circulation model from Southeast (2011).



Circulation model from Northwest (2011).

Atrium

The centre of the school is illuminated from an enormous conical skylight which pours natural light down into the open public space, catwalks and ramps. Similar to a courtyard, the atrium allows light into the centre of the tight urban site, while still providing usable interior space in Halifax's often harsh climate. A hearth in the atrium is radiantly heated and within reach at each floor. This is a communal element where children can warm their hands on a cold winter's day. Its thermal mass qualities will help regulate the temperature and humidity of the space.



Preliminary sketch of the hearth.



Looking into the atrium from a ramp.



Partial section through the shared openzone, tunnel, atrium, and adjacent office building.

Classrooms

This place should be something of a 'nest' from which you take off and to which you keep returning; a place to leave your things, to fall back on and to meet up again. - Herman Hertzberger³²

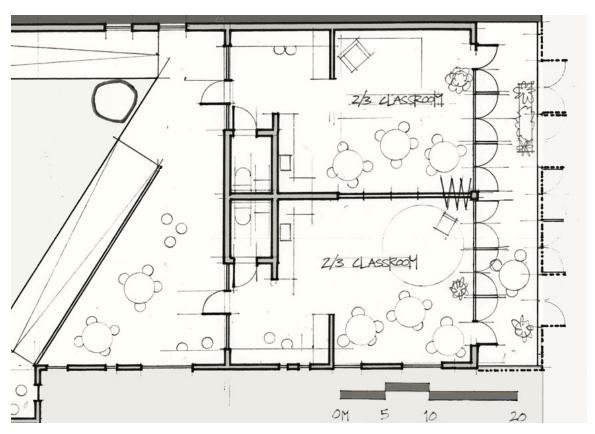
The six classrooms are organized into pairs, two on each floor. The grades are organized vertically with kindergarten and grade one on the bottom, grades two and three in the middle, and grades four and five on top. Rather than segregating the children by individual grade, each classroom is a split of two grades - as opposed to a kindergarten classroom and grade one classroom next to each other, both classrooms are a mix of kindergarten and grade one students. This allows for the formation of different relationships and associations based on learning style and dispositions outside of the confinements of age. The pairs of classrooms are separated by a large partition wall that may be opened during times of collaboration between the two classes. Perhaps class 'a' would like to perform a play for class 'b', or class 'b' needs some help designing and building a solar system. In these situations there is opportunity to pool their spaces together into a larger space, meet and learn about each other, and work collaboratively with people outside of their everyday class.

To strengthen the feeling of 'home base' each classroom is equipped with their own bathroom, large sink and balcony. The individual unisex bathroom will reduce the amount of times the child must leave

³² Herman Hertzberger. Space and Learning: Lessons in Architecture 3. (*Rotterdam: 010 Publishers*, 2008) 35

the classroom, and get distracted. The large sink and counter is a place to clean up after fingerpainting, peel apples, and experiment with volcanoes. The balcony provides an outdoor space for growing plants and can be fully opened to the classroom on warm days by a glazed foldable wall. This feature takes ideas from J. Duiker's Open Air School, while providing more privacy offered by the screen beyond which conceals the balcony from the street.

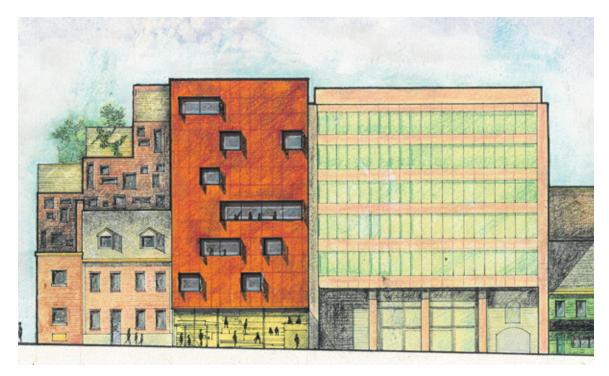
During the school year the classrooms are solely used by the children, they are not used in the evening by other community groups. This reinforces the space as what Hertzberger describes in the above quote, "a place to leave your things, to fall back on and to meet up again."



Typical classroom and informal learning space plan.

Unity and Diversity

With such a diverse mix of programs, the deliberate expression of each would result in an architectural mess and is unnecessary in the effective functioning of the building. A screen extending from the floor of the second storey to the top of the rooftop parapet on the Argyle Street facade presents a unified face lining the Grand Parade. While the wall behind undulates to provide balconies for the classrooms and more indoor space for the apartments above, it is not visible from the street. The transparency on the first floor allows for a visual connection to the people using the shared openzone, the school reception, and signage for the Centre for Art Tapes. If each program element was clearly and individually expressed it would prevent the free mixing and sharing of spaces between them through their aesthetic delineation.



Argyle Street facade of school (centre) and surrounding buildings.



Argyle Street facades of the Nova Centre (left), and the block from Prince to Carmichael Streets.

Section through the screen on the Argyle Street facade.

Light

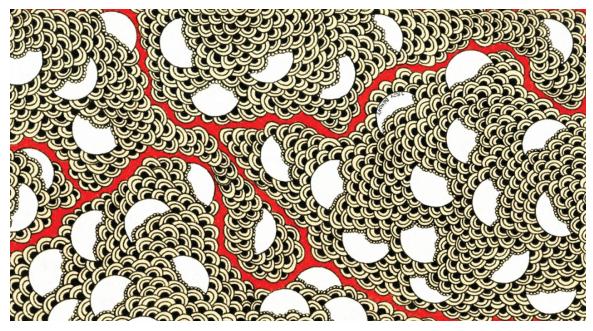
In great architectural spaces, there is a constant, deep breathing of shadow and light; shadow inhales and illumination exhales light. - Juhani Pallasmaa³³

Light is employed to emphasize space and use. From a functional standpoint, the location of the Centre for Art Tapes in the basement is choosen due to the lack of natural light, a necessary characteristic when showing films and other multimedia installations.

Screen

The classrooms are animated with the dappled light filtered through the screen on the Eastern facade. The pattern from the screen comes from an ink drawing by a local Nova Scotia artist, Troy Benoit. Adapting his repetitous, geometric, assymetric pattern into a perforation pattern for corten steel provides a unique characterizing detail that manipulates natural light in a dream-like way as the children paint, build, read, write and perform. From the exterior, the pattern will only be subtly visible as the eye will instead read the entire rusted facade as a larger unified element.

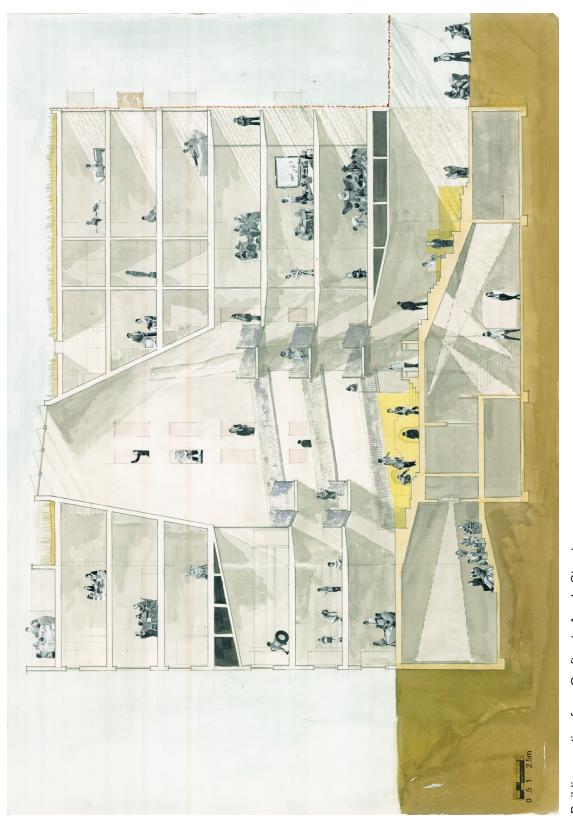
³³ Juhani Pallasmaa. Eyes of the Skin: Architecture and the Senses. (New York: John Wiley, 2005) 47



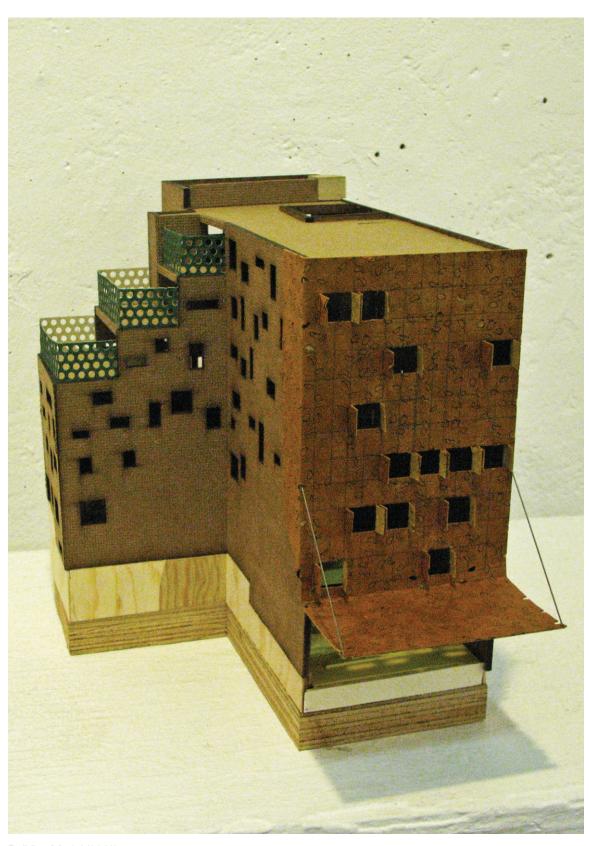
Dragon Eggs by Troy Benoit, ink and coloured pencil on watercolour paper.



Screen Sample (2011).

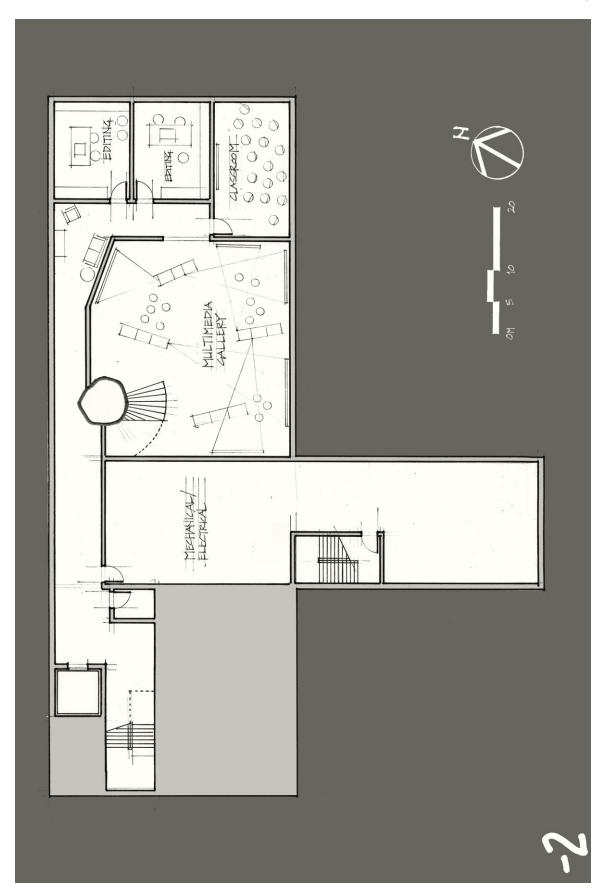


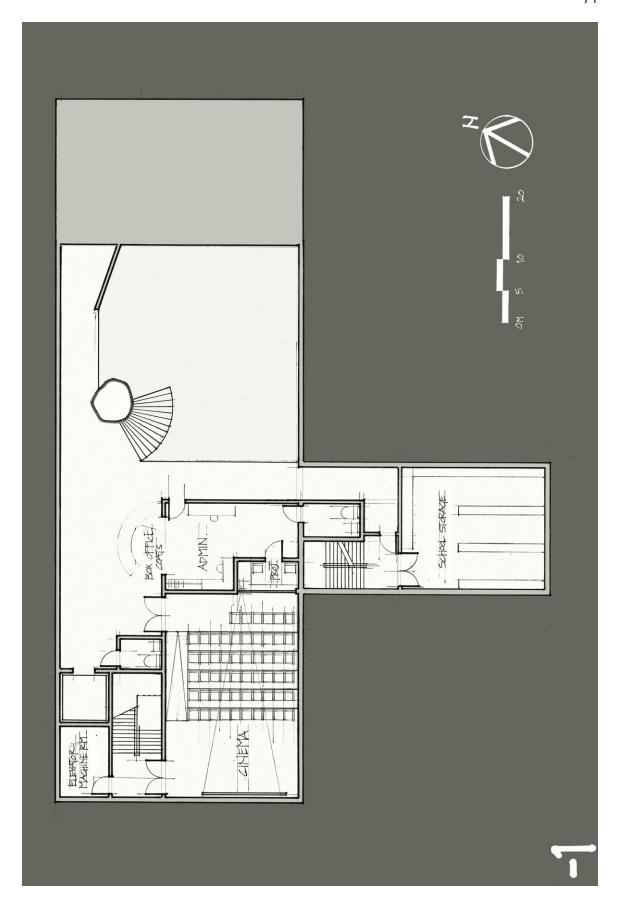
Building section from Grafton to Argyle Street.

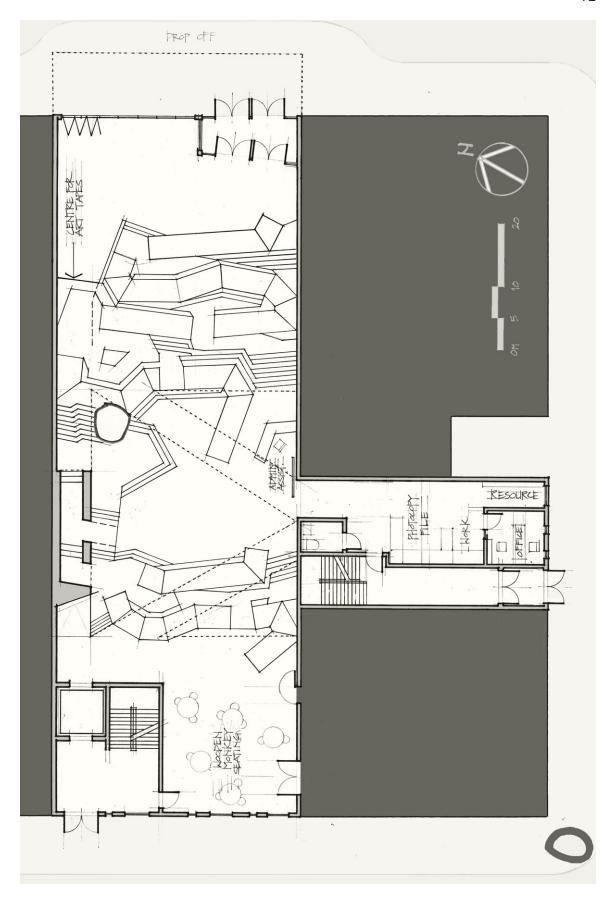


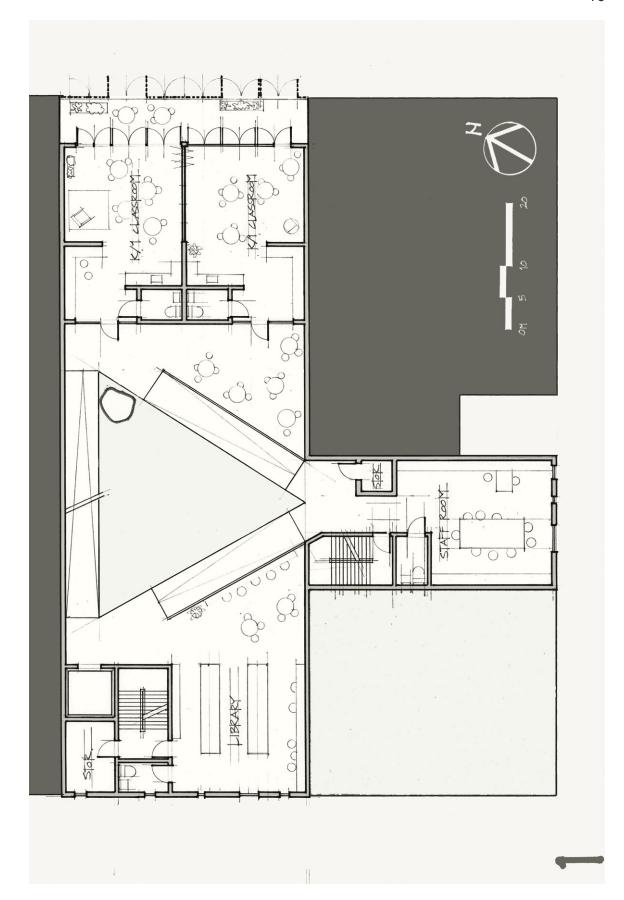
Building Model (2011).

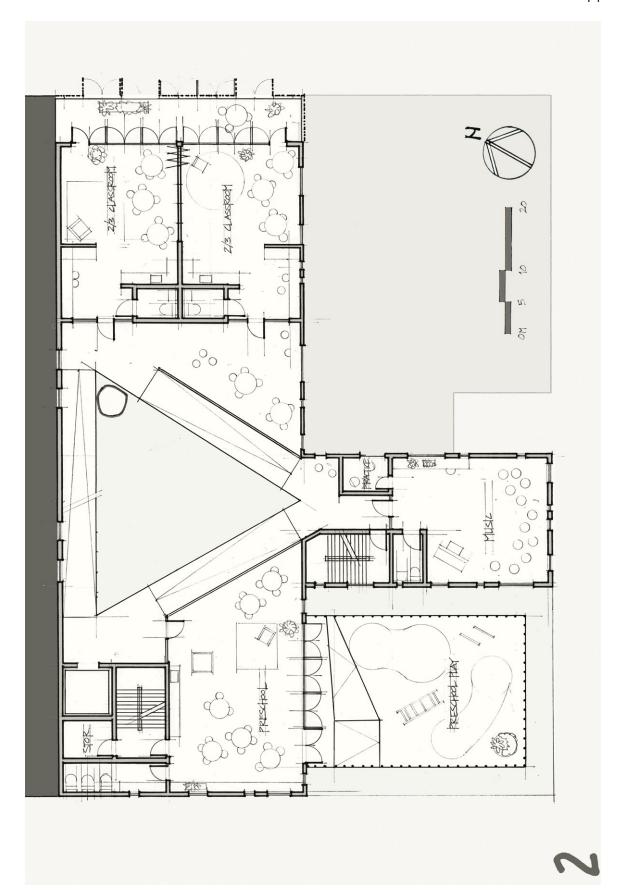
Floor Plans

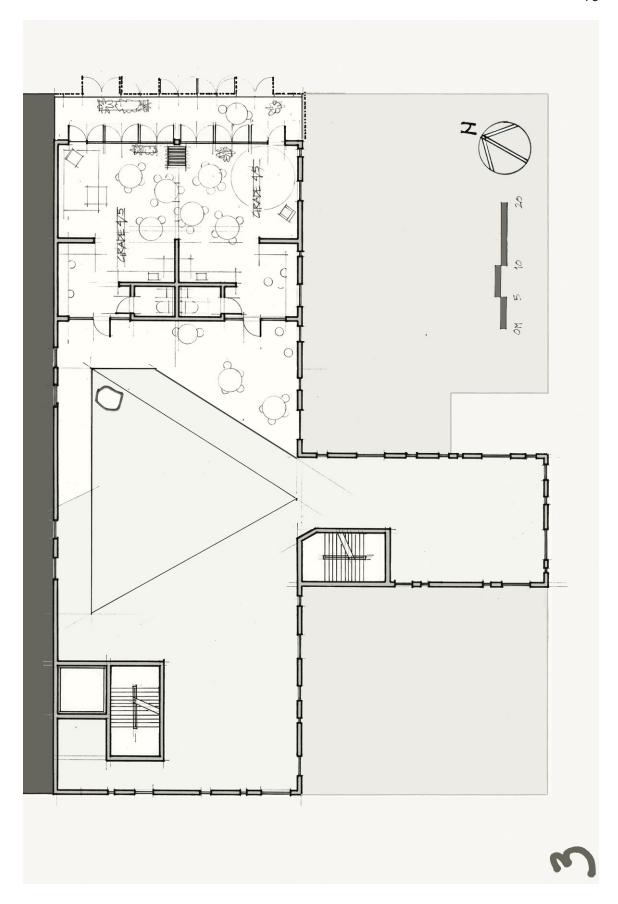


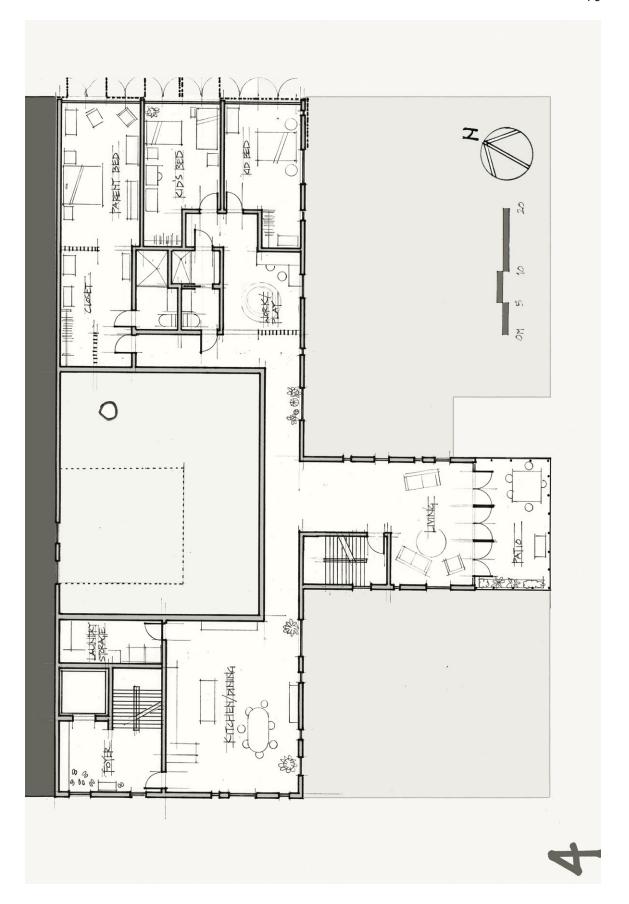


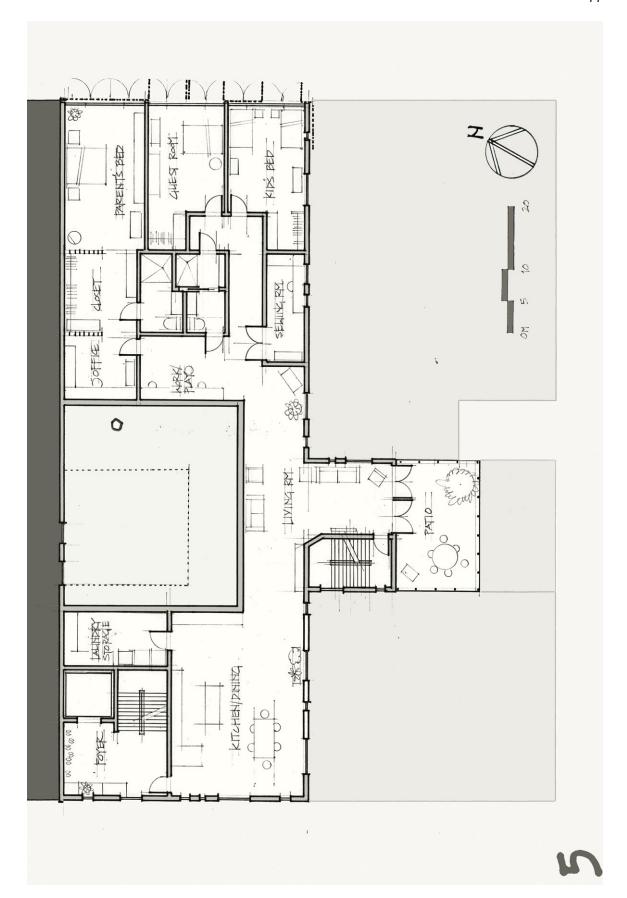


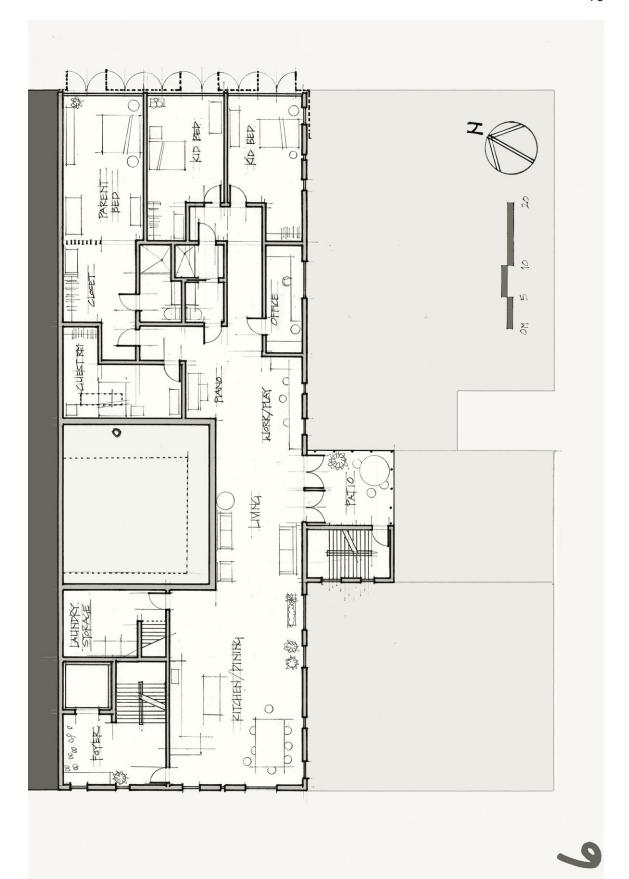


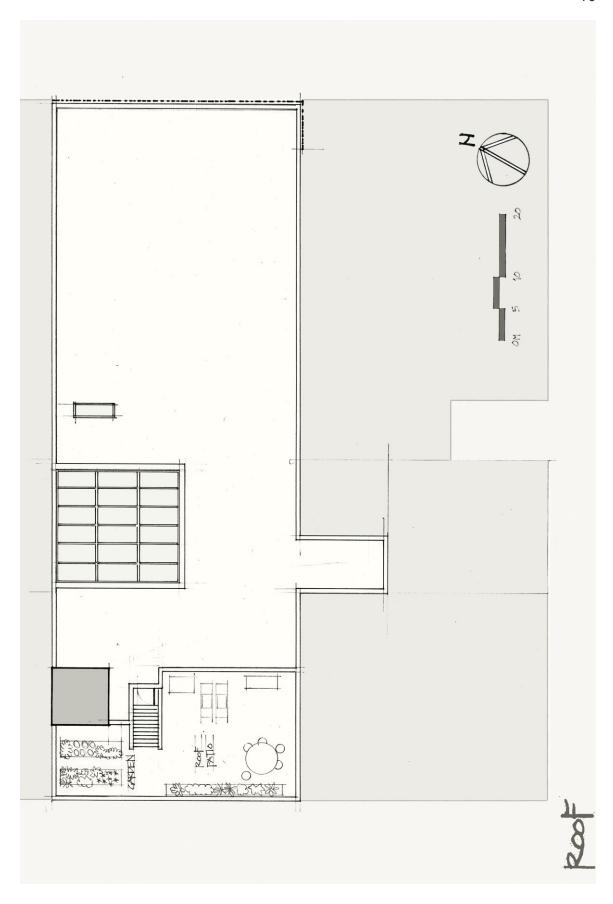






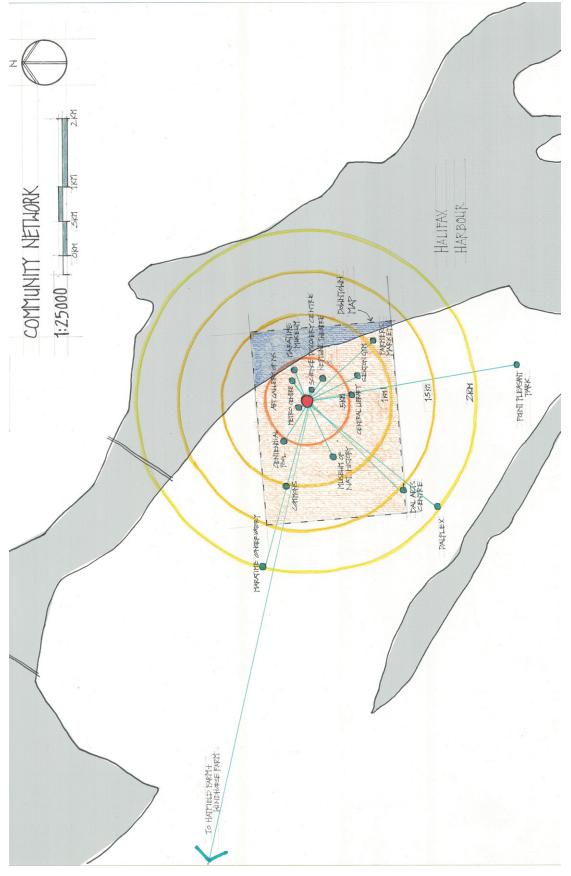




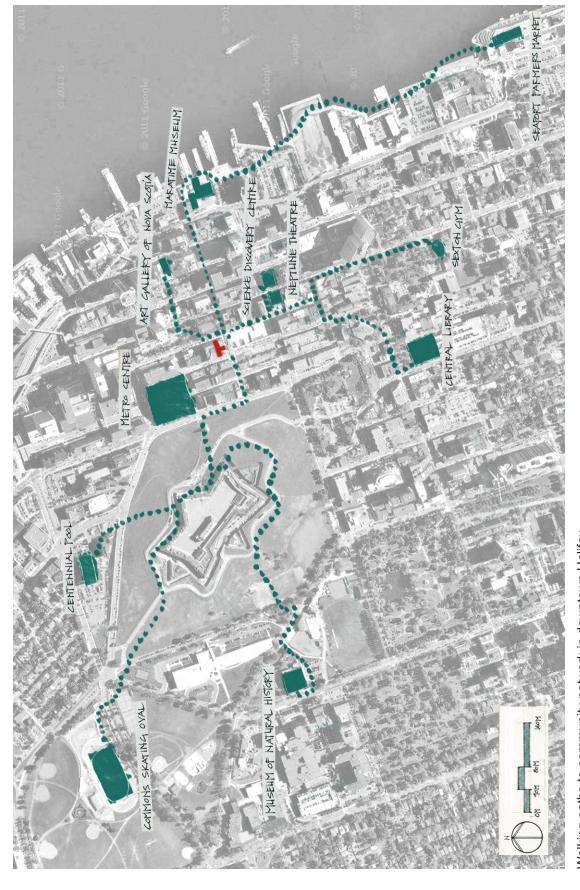


Community Network

From this new site the children are able to walk to most of their partnering institutions. This allows for daily discovery and informal interactions with people from other demographic groups sharing the city. They can watch a construction site over a period of several months to see how a building is constructed. The can make regular visits to the local museums to watch the changing exhibits. Regular walks to the Seaport Farmers market will show first hand which vegetables and fruits are harvest during different times of the year, and what farmers do in the off-season with canning and other preservation methods. On their way to these places they will meet bankers on their way to lunch, university students between classes, pizzaria workers having a quick smoke and tourists snapping photos. This diverse exposure provides a better framework to understand the intimate workings of their city.



Community Network of proposed elementary school.



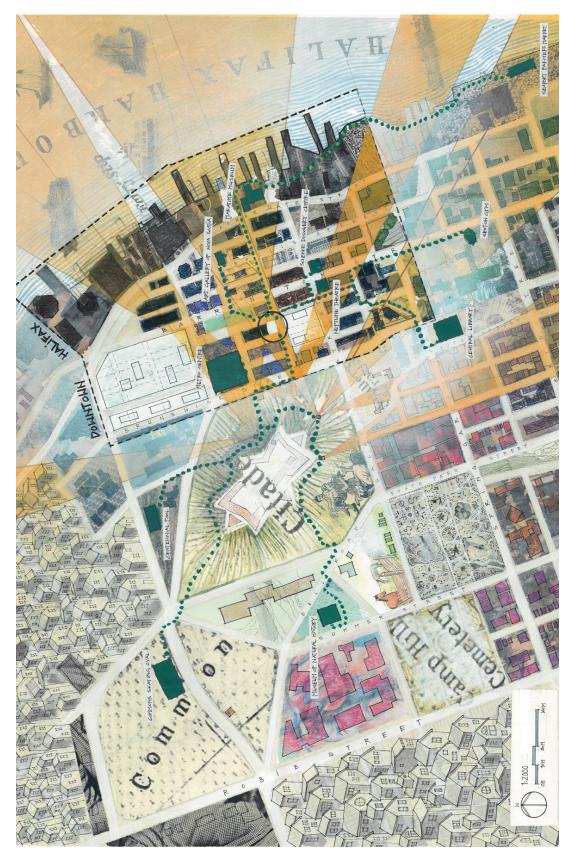
Walking paths to community network in downtown Halifax.

Chapter 3: Conclusion

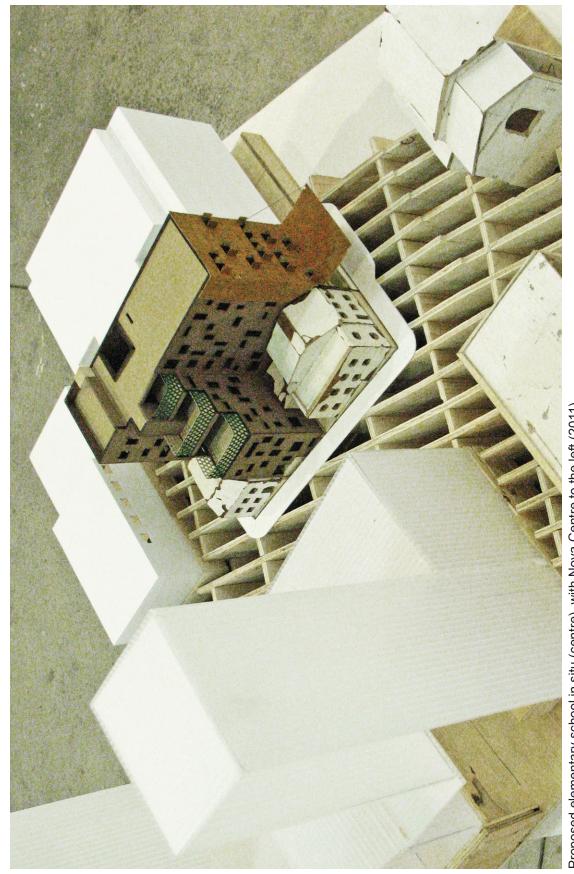
Though not directly addressing the proposed Nova Centre convention centre, this thesis was a proposal for a piecemeal mode of development in downtown Halifax, Nova Scotia. A mode that also addresses a diversity of uses and user groups. That is not to say the downtown cannot be a successful business district as well as a place to live, play and learn. Vancouver, British Columbia's urban core acheives a high level of desirability as a place to live, play and learn while still being one of the leading business districts in Canada. In Vancouver, they have also recently completed a new convention centre in 2009 that successfully improves the urban environment without erasing the city grid.

Whether a convention centre is programmatically the best solution for strengthening the economic future of Halifax was not examined within this thesis - but it's siting and currently proposed design was critiqued as destructive to the historic fabric and character of the downtown area. While the convention centre should be located within the urban centre, there are many open sites along the harbourfront as well as the possibility of expropriating the land of the Cogswell Interchange. Then, within an appropriate site, a developer could pursue the design of a new convention centre with as much architectural merit as it's Vancouver counterpart, not a non-descript copy of any office tower anywhere.

As illustrated with this thesis project, in tandem with promoting the downtown as the premiere place to do business in Atlantic Canada, it can be developed as a place to live and raise children as well. This will add vibrancy to the downtown environment and further promote it as a great place to not only do business, but to pursue a holistic lifestyle with a reduction in commute time and an integration of family involvement and physical health.



Drawing representing the richness of experience available in downtown Halifax.



Proposed elementary school in situ (centre), with Nova Centre to the left (2011).

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