

**INTEGRATION THROUGH ARCHITECTURAL INTERVENTIONS:  
EASING THE TRANSITION FOR MIGRANT POPULATIONS**

by  
Oliver Dang

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

at  
Dalhousie University  
Halifax, Nova Scotia

April 2008



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*Your file* *Votre référence*

*ISBN: 978-0-494-42602-9*

*Our file* *Notre référence*

*ISBN: 978-0-494-42602-9*

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## **ABSTRACT**

Edmonton, Alberta, Canada, is currently experiencing an economic boom that is simultaneously attracting migrants from around the world and causing drastic shortfalls in affordable housing. This thesis explores how architecture can facilitate the transition of these migrants by designing housing and a community for them to integrate into. More specifically, it will explore how the design of the street, the programs, and informal and formal spaces can foster multiculturalism, cultural sustainability, and cultural integration. This thesis attempts to prove that creating a greater sense of community, where both the new and existing populations will be able to interact and integrate with each other, will foster a greater tolerance of cultures and customs and will aid in the transition of the immigrant.

## ACKNOWLEDGEMENTS

I would first like to thank Brian Lilley for his guidance and ideas throughout this thesis, to Niall Savage for his sharp design critiques that pushed this to what it is now, and to Steve Parcell for his vigilance over this whole process.

A big thanks to my colleagues and friends for their laughter and encouragement throughout the four years. To Jason for your jokes, critiques, talks, and fun. To Jacob for being yourself. Asher, Catherine, Daves, Josh, KG, Nikki, Tom, and the gang for all the good times.

This thesis is dedicated to my parents Bac and Chanh, my sister Chi and my brother Quynh, and my entire family for all your love and support. They have been a constant source of inspiration and love, for without them, this would not have been possible.



## **Introduction**

As modern technology allows people to travel to other countries around the world in a relatively quick and accessible manner, immigration into foreign countries has become commonplace for people to start a new life with greater opportunities, better lifestyles and conditions. Although immigration brings about the promise of a better life, it also brings about the universal obstacles of language, education and the shock of cultural adaptation. Language is a major influence on the successful transition of a migrant into their new surroundings. Without a decent knowledge of the local language, a person is not able to converse with the locals, attain a job, and they may even be an outcast from the community. Education also plays an important role as many countries will not acknowledge the qualifications gained from other countries, thus creating another major setback for the immigrant. Regardless of the new migrants' educational degrees or employment qualifications, they may be relegated to menial jobs well below their capabilities simply to survive. In terms of cultural shock, people may not be accustomed to the ways of life that await them in their new environment, thus creating another layer of hardship that they must face. If they are not able to surmount these problems, the migrant may become alienated from their new community and will feel like outsiders instead of becoming integrated into society.

This thesis is a search into questions about the role that architecture can play with respect to immigration. Is it possible that architecture can facilitate integration into

the community and therefore encourages the immigrant to become a contributing member of society? What sorts of interventions can be made so that the culture shock is minimized? How can architecture frame interaction with the existing community so as to view the immigrant as a contributing member of society? And in general, how can architecture foster a greater sense of multiculturalism?

By examining these issues, the thesis hopes to arrive at some conclusions about transitional housing for immigrants that will aid their integration into society. It will explore how the balance of the program and its arrangements can assist the immigrants and gather the community together. Housing will be explored as a necessity in creating dense neighborhoods which are vital to the growth of communities. These neighborhoods act as receptors that can form a network that will ease the transition for the immigrant while creating a larger and integrated community.

Looking at a specific urban example in Edmonton, Alberta, this thesis will examine the current conditions of immigrants in the city and will explore how architectural interventions can aid their transition and integration into the community and society.



World map showing top source countries that immigrate into Canada - larger circles represent a greater number of immigrants (Based on a map from World Map, "World Political Map")

## Crossing Cultures

### *Allure of Canada*

The allure of Canada is evident in that over the past five years, from 2001 to 2006, Canada's population grew by 1.6 million people, with immigrants accounting for two-thirds of the growth (1.2 million people coming from other countries).<sup>1</sup> A major reason why Canada is such an attractive prospect is that it is a welcoming, tolerant country with many ethnic groups; where immigrants make up almost twenty percent of the total population. Also, it ranks the highest in the world for new citizenships per capita at 6,500 new citizens per one million people.<sup>2</sup> In addition to being a tolerating and multicultural country, Canada is currently ranked 4th in the United Nations Human Development Index rating (having previously been ranked 1st three times since 1990), where:

The HDI – human development index – is a summary composite index that measures a country's average achievements in three basic aspects of human development: health, knowledge, and a decent standard of living. Health is measured by life expectancy at birth; knowledge is measured by a combination of the adult literacy rate and the combined primary, secondary, and tertiary gross enrolment ratio; and standard of living by GDP per capita (PPP US\$).<sup>3</sup>

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1 Bruce Cheadle, "Immigration Critical to Canadian Population Growth, yet Policy Debate Lacking," <http://www.triec.ca/index.asp?pageid=21&int=newsite/news-media/inthenews/MediaClippings/CanadaPressMar1307.htm>

2 "New Citizenships Per Capita," Nation Master, <http://www.nationmaster.com/country/ca-canada/imm-immigration>

3 "What is the Human Development Index?" Human Development Reports, <http://hdr.undp.org/en/statistics/faq/question,68,en.html>.

With its high standard of living and with a vast multicultural population living in a tolerant society, it can be seen that Canada is one of the most attractive countries for people to migrate to. Looking at these statistics and the current trends, migration into Canada will only increase as more people seek to start new lives with greater opportunities. As the immigrant population continues to form the composition of the Canadian fabric, their successful transition is an issue that architects and society in general must address so that they can become active citizens within this multicultural society.



Main source countries of immigrants into Canada (Based on a map from World Map, "World Political Map")

### ***Cultural Make-up***

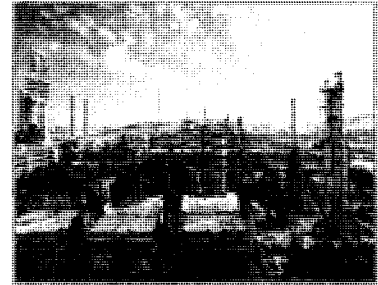
Historically, the cultural fabric of Canada has been mainly made up of migrants from European countries such as Britain, Germany, and the Ukraine. However, within the past decade, this trend has significantly shifted to the Southern Asian countries such as China, India, Pakistan and the Philippines. In 2006, a total of 251,538 people immigrated to Canada, with the top ten source countries of migrants coming from China, India, Philippines, Pakistan, United States, Iran, United Kingdom, Republic of Korea, Colombia and France.<sup>4</sup> However, the population of migrants from China, India, Philippines, and Pakistan accounted for nearly 40% of the total immigration amount. It can be clearly seen that the majority of the migrants are coming from countries that have drastically different cultures, both sociopolitical and environmental climates, religions and general ways of life. As more immigrants make up a

<sup>4</sup> "Immigration in Canada: A Portrait of the Foreign-born Population, 2006 Census: Immigrants came from many countries," <http://www.statcan.ca/>

greater percentage of Canada's population, the cultural fabric of Canada will hopefully continue to become a rich and diverse tapestry of the world.

### ***Alberta Advantage***

While Canada has experienced the largest overall population increase of the Group of Eight (G-8) Nations at 5.4%,<sup>5</sup> Alberta has seen the greatest population increase among the provinces in Canada at 5.3%.<sup>6</sup> This influx of people into Alberta is a direct result of the economic boom brought on by the oil sands located within the province. This has allowed Alberta to maintain a relatively low tax rate, while being able to have higher wages, more jobs and greater opportunities. To give a context, Alberta has the highest average weekly earnings at \$845 among all provinces and is higher than the country average by almost 9%. At the same time, unemployment in Alberta is lowest at 3.5% compared to the national average of 6.0%.<sup>7</sup> This boom has brought in a large amount of wealth, prosperity and opportunities that have attracted people from all over Canada and the world, and it is predicted to continue for many more years to come.



Suncor Energy Inc., Fort McMurray, Alberta (photo from Econbrowser, "Oil Sands")

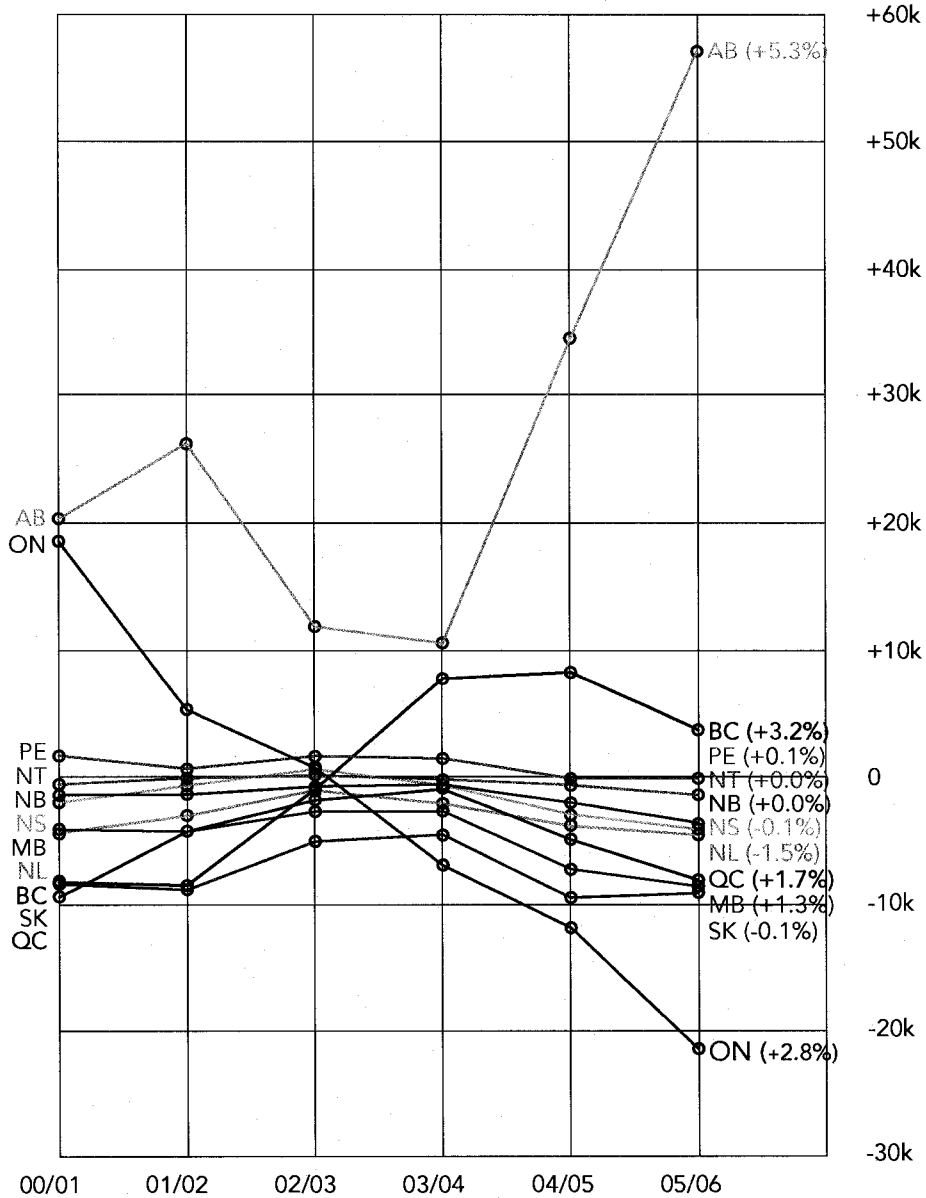
Although the boom is one of the major alluring aspects of Alberta, multiculturalism within the province is

<sup>5</sup> Bruce Cheadle, "Immigration Critical to Canadian Population Growth, yet Policy Debate Lacking," <http://www.triec.ca/index.asp?pageid=21&int=newsite/news-media/inthenews/MediaClippings/CanadaPressMar1307.htm>

<sup>6</sup> "Portrait of the Canadian Population in 2006: Population of the provinces and territories," Statistics Canada, <http://www12.statcan.ca/english/census06/analysis/popdwell/ProvTerr5.cfm>

<sup>7</sup> "Current Economic Indicators," Alberta Finance and Enterprise, [http://www.finance.alberta.ca/aboutalberta/economic\\_bulletins/current\\_economic\\_indicators.pdf](http://www.finance.alberta.ca/aboutalberta/economic_bulletins/current_economic_indicators.pdf)

also an attractive aspect for immigrants from around the world. The capital city of Edmonton has recently been designated a 'Cultural Capital of Canada' by the Canadian government,<sup>8</sup> in which the city boasts over 30 festivals that celebrate the arts, cultures and heritages within the city.



Graph of provincial net migration and population growth

<sup>8</sup> "Edmonton Is Named a Cultural Capital of Canada," Images of Edmonton, [http://www.imagesedmonton.com/culture/Edmonton\\_Is\\_Named\\_a\\_Cultural\\_Capital\\_of\\_Canada.php](http://www.imagesedmonton.com/culture/Edmonton_Is_Named_a_Cultural_Capital_of_Canada.php)

Edmonton's Fringe Festival is the second biggest festival in the world after Edinburgh's Fringe Festival, and Edmonton's Heritage Days festival celebrates Canadian immigration with the participation of over 70 national groups.<sup>9</sup> In addition, there are over 30 associations and centers that preserve, display and share the various cultures from around the world. The great amount of art and culture found within the cities, combined with the economic advantage of Alberta, is an attractive prospect for anybody looking to start a new life with greater opportunities.

### ***The 'Catch'***

There are many benefits for a person to migrate to Edmonton but there are also obstacles that stand in their way. A local partnership between the Edmonton Mennonite Centre for Newcomers, Multicultural Health Brokers Co-op, and the ASSIST Community Services Centre has produced a research paper that gathered immigrant perspectives on Edmonton and provided a great indication of the difficulties that a new immigrant may face coming to the city. The study interviewed eight different ethnic groups (Afghan, African, Cambodian, Chinese, Eritrean, Kurdish, Somali, Sudanese), and got their perspectives on issues about life in Edmonton such as finance, education, employment opportunities, discrimination and isolation. Reading through the report, one can start to see that there are some common issues that all the groups identify with that are major obstacles in their integration into the community. The common issues that have been identified deal with a lack of community, their difficulties with the language,

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<sup>9</sup> "Living in Canada: Alberta," AK Canada, [http://www.akcanada.com/lic\\_alberta.cfm](http://www.akcanada.com/lic_alberta.cfm)



difficulties regarding their qualifications, and the state of housing and its affordability.

The lack of community seems to be the most common issue and one of the biggest obstacles faced where "people are isolated and lonely, and it is very difficult for newcomers to integrate."<sup>10</sup> As well, immigrants have found that "they expect the same closeness with their neighbor just like it is [at home], but it is not the case,"<sup>11</sup> and "it is very hard and [they] feel like nobody is going to take care of [them]."<sup>12</sup>

This isolation and loneliness is a debilitating issue because it can often leave the immigrant feeling alienated from the rest of the community with no place to turn for help.

Here it is difficult. Even my neighbour here now in Canada, I do not know if it is a man or a woman. All the doors are closed and I do not know who is living here, and we are living in the same place.<sup>13</sup>

Without a sense of belonging, it is extremely difficult for one to integrate into the environment and this can lead to the immigrants becoming insular instead of contributing members of society. Therefore, one of the main aspects that this thesis will deal with is how architecture can create a greater sense of community in which both the immigrants and local populace will feel a part of, and allows them to meet in informal ways.

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10 Multicultural Families Connections Program, "Mapping the life experiences of Refugee and Immigrant families with preschool children," 25, <http://www.emcn.ab.ca/research/Research>.

11 Ibid.

12 Ibid., 42.

13 Ibid., 65.



'Luxury' condominiums lacking a sense of community

Many of the immigrants interviewed have little to no knowledge of the English or French language and this is a major cause for the hardships they face. For instance, in reference to what obstacles there are for finding work, many have said that "language is the main reason"<sup>14</sup> that they are not chosen for jobs and are sometimes discriminated against for it. As well, their children are often discriminated against where "sometimes when [they] speak English, the [other] students laugh at [them],"<sup>15</sup> and "it is very hard for the children to adapt, to be friends with the other Canadian children because they do not know the language."<sup>16</sup> Although there are numerous English as a Second Language (ESL) classes to aid the immigrants, these classes are sometimes inaccessible due to the costs or to the availability of time, as many have to work during the day. Given the opportunity to learn the language, these immigrants would be able to "communicate with people, read, and write, and after that to find a job."<sup>17</sup> The new immigrants have stated that they, and especially their children, would like to be around other Canadians because "it will give them more chances to learn about both Canadian culture and [their] community"<sup>18</sup> as well as to learn the language. With this in mind, one can

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14 Ibid., 79.

15 Ibid., 49.

16 Ibid., 48.

17 Ibid., 58.

18 Ibid., 50.

start to see how creating a greater sense of community can aid the immigrants by alleviating their problems of integration into society.

The problem of educational and employment qualifications is an extremely difficult issue that hinders the transition for immigrants. Although some programs do exist in provinces like Manitoba, most of the other provinces have strict rules regarding educational and employment certifications that cause immigrants to be left with menial jobs that are well below their capabilities. For example, a Chinese immigrant stated:

You know most ... people at least have a bachelor degree and half of them have a master's degree. Some of them have PhD degrees. Nevertheless, when we come to Canada, we cannot find professional jobs. It is too difficult.<sup>19</sup>

Not only is this a detriment to the immigrant, but Canada is losing out on bright minds because the system does not allow these immigrants to use their qualifications to their fullest potential. At the same time, most of the immigrants must take up jobs so that they can survive and feed their families, which leaves no time for them to upgrade their education to meet the new standards. However, many of the immigrants agree that "education is the key ... [and that] they can go anywhere and do anything."<sup>20</sup> By providing the means to attain their qualifications or to learn similar skills, their integration and the immigration process would be a much smoother transition and both the community and the immigrants would benefit from it.

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<sup>19</sup> Ibid., 79.

<sup>20</sup> Ibid., 66.

Although there are services to aid immigrants with the previously stated issues, a greater challenge is that Edmonton does not have many resources for affordable housing. The economic boom has attracted people to the city and caused vacancy rates to drop to 1.2%, while simultaneously increasing the prices of housing beyond what people can afford. Currently there are over 40,000 households that pay over 30% of their income on rent, while another 18,000 pay over 50%.<sup>21</sup> Average rents have increased almost 40% within the past five years, while in some instances, apartment tenants have had their rent increased to almost double what they previously paid.<sup>22</sup> To give a further indication of the dire situation that people face in Edmonton, in June 2007 a makeshift "tent city" was set up by almost 200 people who were homeless because of the rising housing rates in the city. Although the tenants lived in this compound for several months before the government assisted a majority of the people in finding new affordable accommodations, it has recently been shut down by city officials, leaving a few with nowhere left to go.

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21 Edmonton Joint Planning Committee on Housing. "Community plan 2005-2009.PDF" (19 January 2005), [http://www.moresafehomes.net/images/research/Community%20Plan\(web\).pdf](http://www.moresafehomes.net/images/research/Community%20Plan(web).pdf).

22 "Alberta rent aid programs overspending by \$10M and counting," CBC News (Nov. 20, 2007), <http://www.cbc.ca/canada/edmonton/story/2007/11/19/housing-matters.html?ref=rss>



Tent City in Edmonton

The issue that many immigrants face is that the money they get from the government is not enough to pay for their rent. In one instance, a family had to “pay the rent from the money [they] get for food for the children.”<sup>23</sup> Not only are the costs of living exorbitant, the conditions of affordable housing are in no greater shape. To give an indication on the housing conditions, one interviewee recounts:

The people in our country that know I live in Canada think I actually have the best life in the world, but I live like hell. I live in a two-bedroom, very small apartment. I feel like a child.<sup>24</sup>

It is difficult to be thrust into a new situation that leaves one feeling like they are alone, but moreso if their accommodations make them feel like they are a prisoner in their own home. It is in the opinion of this thesis that the housing situation in Edmonton should be significantly improved in terms of quality, quantity,

<sup>23</sup> Multicultural Families Connections Program. “Mapping the life experiences of Refugee and Immigrant families with preschool children”, 48, <http://www.emcn.ab.ca/research/Research>.

<sup>24</sup> Ibid., 55.

and affordability, not just for immigrants, but for the city in general.

Without a decent knowledge of the English or French language, the immigrants will have an onerous time in interacting with the community and they may not be able to find adequate jobs to survive. The language barrier, coupled with not having the correct educational certifications, will greatly impede their ability to get an occupation that takes advantage of their potential. Having housing that is inadequate and unaffordable will greatly question whether their new life is all that much better than their previous one.

The problems that immigrants face coming to Edmonton are substantial in that without adequate support, they will not be able to become self-sufficient or accepted and will become alienated from the community and the city. This thesis explores how architecture can assist these new migrants in their transition between countries, cultures and customs. By starting with the design of transitional housing for immigrants, this thesis addresses the prevalent issues of affordable housing while attempting to aid their transition and integration into Canadian culture. Through the design of a community center and support programs, this thesis attempts to create a greater sense of community so that both the new and existing populations will be able to interact and integrate with each other, thus allowing this reciprocity to foster a greater tolerance of cultures and customs in the hopes of alleviating the problems of discrimination and racism.

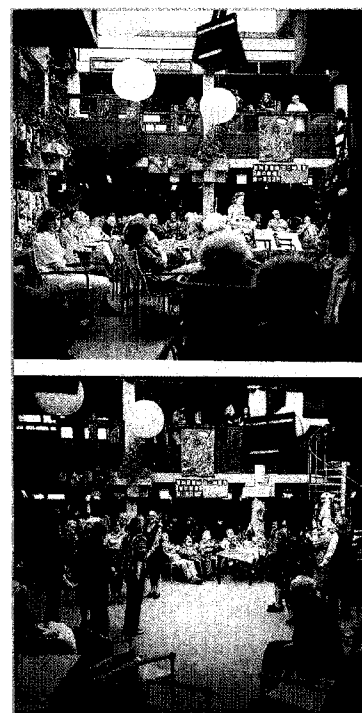
## Programmatic Functions

### **Case Studies**

In the pursuit of generating a communal atmosphere, one must first look to previous precedents in order to examine where a project succeeds or fails in fostering a sense of community. The following housing case studies were chosen because they most adequately reflected the communal and interactive environments that would be ideal for an immigration housing project. These projects were studied in terms of both architectural quality of space and programmatic elements that fostered communal living and interaction, and they helped shape the program for this thesis.

### ***Herman Hertzberger, De Drie Hoven***

The first case study is the De Drie Hoven project in Amsterdam by Herman Hertzberger, which is a residential building for the elderly. The complex is divided into four different wings that are arranged with respect to the needs of the various inhabitants, ranging from those that require constant care to those that are relatively independent. At the center of the four wings is the Village Green in which various communal programmatic functions are located. It contains programs such as laundry rooms, a podium/ stage, billiard hall, fireplace, occupational therapy rooms, a cafe, library, hairdresser, and post office. The various programs of the Village Green are arranged and simultaneously utilized in a way which creates a dynamic environment where everybody interacts with one another and the space can accommodate any function required.



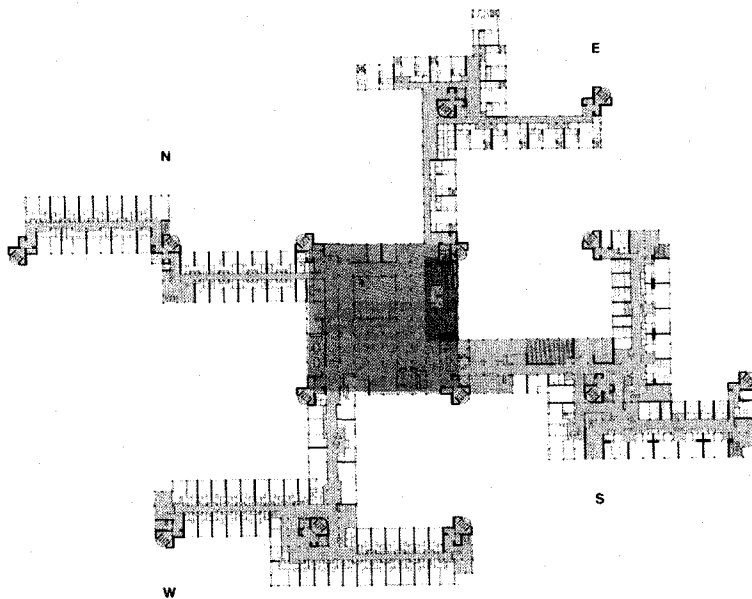
Village Green's various programs. From Hertzberger and Lüchinger, *Herman Hertzberger* (1987).

Although large scale events such as fashion shows, dancing, plays, concerts, religious services and parties are held here, there is also provision for those who wish to indulge in more intimate activities such as drinking coffee, and playing cards or billiards together.<sup>25</sup>

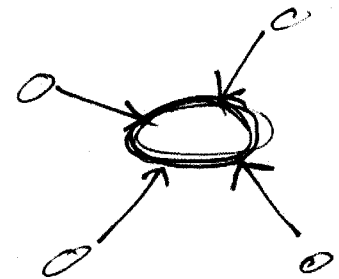


Billiard hall and Village Green to the right. From Hertzberger and Lüchinger, *Herman Hertzberger* (1987).

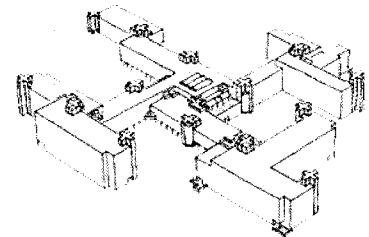
The concept of the Village Green is that it acts as a central node, or a hearth, that connects all sections of the building where all inhabitants can gather to form the life of the community. By introducing a central node in the city that focuses on the immigrants and invites the surrounding communities, this will allow the different groups to gather and interact with each other, which can then aid in the integration of the new migrants.



Plan highlighting the public streets leading to the Village Green. From Hertzberger and Lüchinger, *Herman Hertzberger* (1987).



Conceptual diagram of Village Green



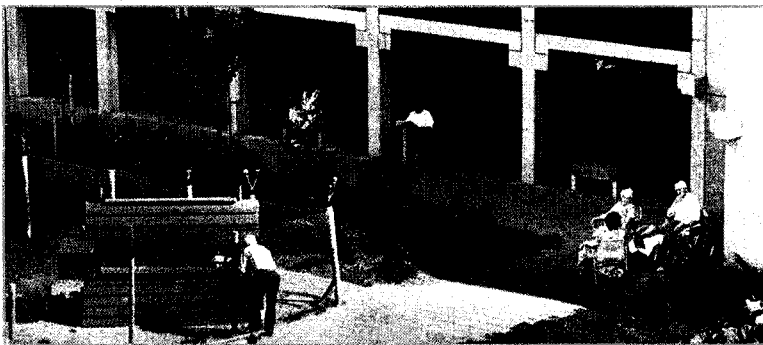
Aerial perspective of De Drie Hoven. From Hertzberger and Lüchinger, *Herman Hertzberger* (1987).

Another aspect of this project that can foster a greater sense of community is the Zoological Garden. Although this is a garden with real animals, such as goats, chickens,

<sup>25</sup> Herman Hertzberger and Arnulf Lüchinger. *Herman Hertzberger : Bauten Und Projekte, 1959-1986: Buildings and Projects* (1987), 157.



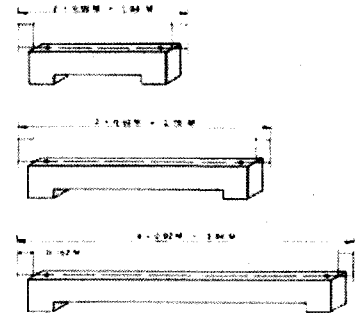
pheasants and peacocks, it also has some greenhouses in which the residents can cultivate plants for personal use. By providing a garden for the inhabitants as well as the surrounding communities to use, the project creates another venue for interaction as it provides the opportunity for people to bond over a common interest. As there is a lack of space for gardening within the urban core, the idea of an allotment garden in this thesis would allow both the immigrants and the surrounding communities the means to interact and engage in this common interest.



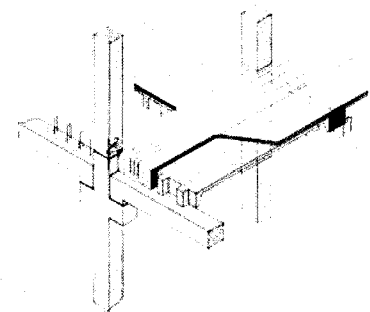
Zoological Garden. From Hertzberger and Lüchinger, *Herman Hertzberger* (1987).

The construction methods of the building are interesting because they account for a wide range of uses and program elements within the project by using flexible and modular construction techniques. The structure of the building is a "single continuous structural framework, based on the same modular unit, to meet the requirements of the highly varied and complex programme."<sup>26</sup> By calculating the smallest required room size as a single modular unit, the structural grid can then accommodate any function of the program by increasing the modules as required.

<sup>26</sup> Ibid., 151.



Modular units - based on a 92cm dimension. From Hertzberger and Lüchinger, *Herman Hertzberger* (1987).



Modular precast components. From Hertzberger and Lüchinger, *Herman Hertzberger* (1987).

Hertzberger is also sensitive to the various users that are to inhabit this space and is thoughtful in many of the design features of the building. For example, in the design of the windows and their placements, he has accounted for the various circumstances that the users of this building will be in, and has given provision so that users that are lying down, sitting, or standing will all have a view outside.

These design considerations allow the building to be used for different functions by different users, as they also allow the building itself to have a lifespan beyond its original intention. The ideas of modularity and flexibility will be a major design influence for immigrant housing because by allowing the space to be adjusted to suit one's needs, the architecture can then respond to the various traditional and cultural requirements of each inhabitant.

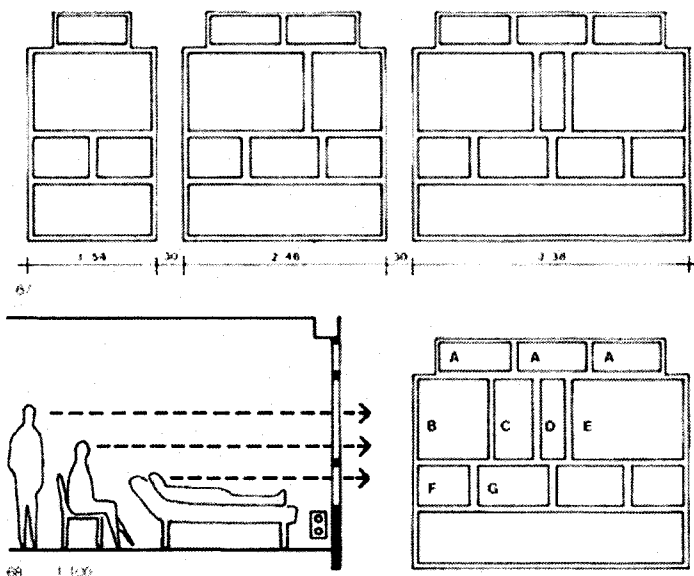


Diagram of the various window arrangements to accommodate various users. From Hertzberger and Lüchinger, *Herman Hertzberger* (1987).

### ***Pyatok Architects, Inc., Hismen Hin Nu Terrace***

The Hismen Hin Nu Terrace project is a development for low income families in a "racially diverse"<sup>27</sup> neighborhood in Oakland, California. As this project deals with a diverse range of cultures, including recently arrived immigrants, many of the programmatic functions and design interventions are applicable to this thesis. As well, it is admirable that this project is "intended to inspire a spirit of cooperation not only among the tenants ... [but] it seeks to transmit that spirit of mutual understanding to a much wider audience."<sup>28</sup>

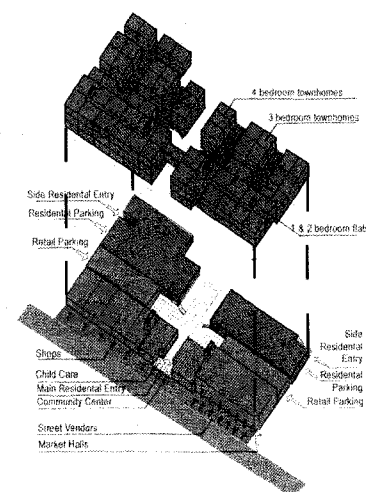
The program included in this project already starts to address a few of the Edmonton immigrant perspectives by including such things as a community center, child care facility, retail shops, a market hall, and street vendor stalls. As well, the placement of the programmatic elements is also key in the success of the project. By addressing the main street with the community center, day care, and retail and markets, the project is engaging the city by providing a public face in which the inhabitants and the greater community can interact. By separating the residences to the upper floors, and providing them private courtyards and terraces, the project bestows the inhabitants a sense of privacy and sanctuary from the public realm, but is careful to not create a sense of confinement. This is achieved by creating courtyards that are private and somewhat secluded, but they are still physically and visually connected to the public realm.

<sup>27</sup> Design Matters. "Hismen Hin-Nu Terrace." Cited February 22, 2008 ([http://wall.aa.uic.edu:62730/ahc/catalog/idc\\_htx\\_files/project\\_gallery.idc?projectID=198](http://wall.aa.uic.edu:62730/ahc/catalog/idc_htx_files/project_gallery.idc?projectID=198)).

<sup>28</sup> Ibid.



Opening ceremony with various cultural dances (Pyatok Architects, Inc., from Design Matters.)

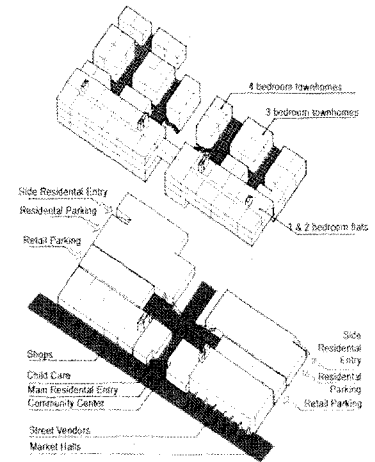


Program diagram of project  
 Red - residence  
 Green - public facilities  
 Blue - public street  
 (Pyatok Architects, Inc., from Design Matters.)

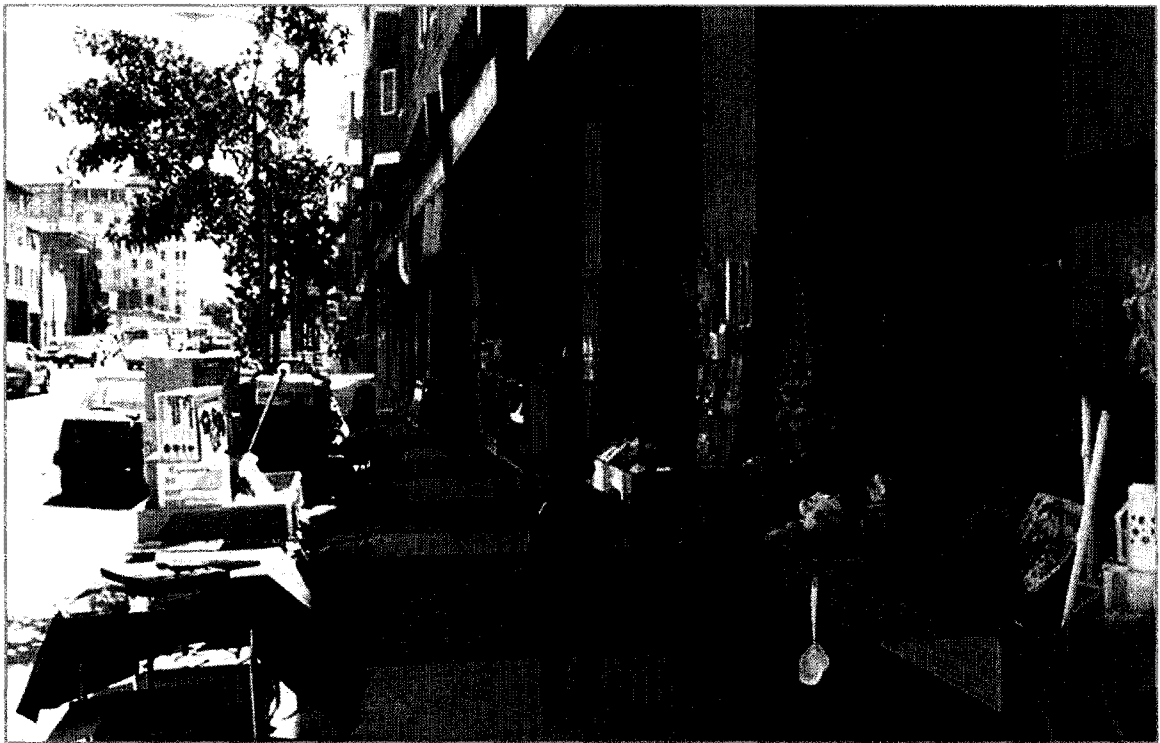
The concept and design of the vendor stalls is an intriguing proposition because it allows the inhabitants, who have little means, an entrepreneurial opportunity that they may never have. As well,

Not only does this design strategy contribute to local economic development, but also it helps to 'activate' the street with people, contributing to a livelier, more attractive, and safer environment.<sup>29</sup>

The stalls are just that: niches cut into the wall with an awning overhead that can all be hosed down at the end of the day, and they require minimal maintenance and their use is open to individual interpretation. Conceptually it is an interesting idea that can potentially be applied to different projects, expanding the activated street into an active boulevard.



Program diagram of project  
 Red - private terraces  
 Blue - public paths  
 (Pyatok Architects, Inc., from Design Matters.)

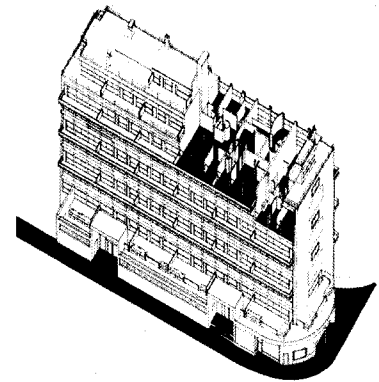


Street market stalls study - vendors spill out of the stall onto the street, creating a diverse sidewalk (Pyatok Architects, Inc., from Design Matters.)

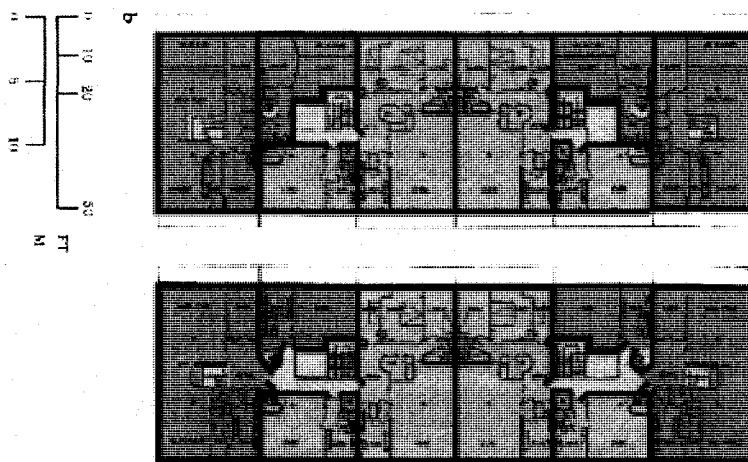
<sup>29</sup> Ibid.

### ***Le Corbusier, Immeuble Clarté***

This project is looked at for the ideas about housing and the variations that can exist within it. Within the building, there is a variety of units from bachelor suites to multiple bedroom apartments, single story to multiple stories, and through units to half units. This diversity is sophisticatedly done so that there are a number of different layouts that can accommodate the various requirements of the users, but it is done in such a way that the building maintains a relatively shallow envelope. By creating two central cores that reach all units, Le Corbusier avoids having to include hallways that would split the building in two, and this allows for through units to exist. As well, he has included additional staircases in certain units so that they can be multiple stories, thus accommodating a larger family. This variety of units would be useful in an immigration project because there are different concepts of the term "family" within the cultures of the world, and to attempt to accommodate them there must be a wide variety of dwelling types.



Axonometric of Immeuble Clarté. From Roger Sherwood, *Modern Housing Prototypes* (1978).

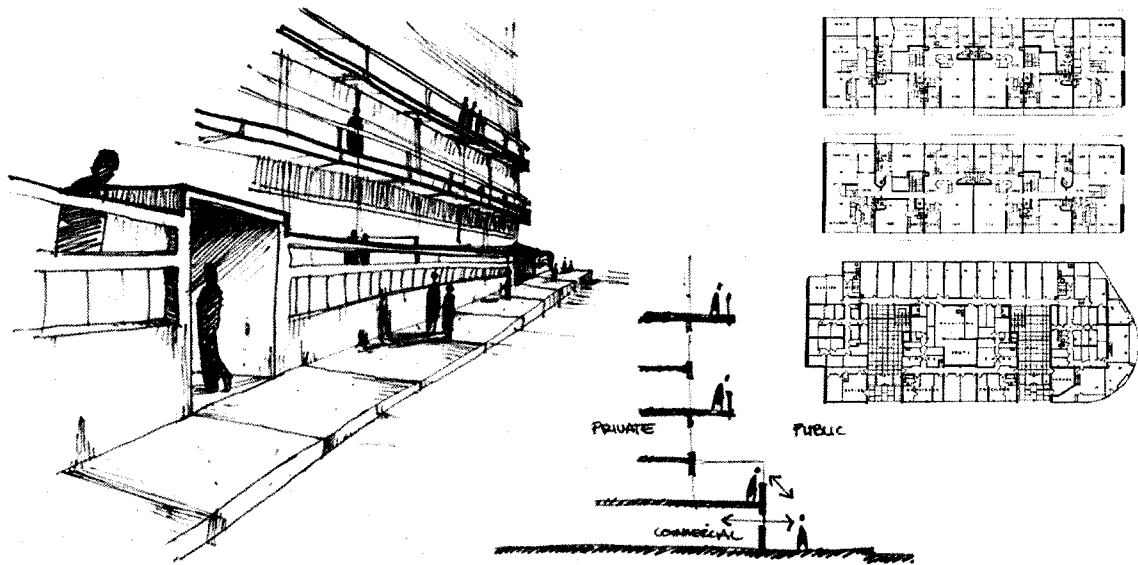


Third Floor

Second Floor

Plans showing the various units: orange = circulation; green = single storey units; blue = double storey units. From Roger Sherwood, *Modern Housing Prototypes* (1978).

In addition to the ideas about housing layouts, another interesting aspect of this project is how Le Corbusier attempts to create a dialogue between the street and the building by designing balconies that are visible and "approachable" by the pedestrians on the sidewalk. By creating a terrace above the first floor, the people on the terrace have a visual connection to the people on the street below. This creates a new layer of interaction with the street that many buildings neglect. Visually, this also allows for the height of the building to be set back a little so that its mass is less overwhelming from the sidewalk.



Immeuble Clarté street study sketches - plans by Le Corbusier. From Roger Sherwood, *Modern Housing Prototypes*, (1978).

### **Program Anchors**

By examining the previous case studies and the immigrant perspectives, four main "anchor" programs have been selected that will be the grounding point for the project: housing, a market, communal hall, and workshops.

Like the Immeuble Clarté, the housing will vary in terms of size, rooms, storeys, layouts, materials, etc., so that the users will have maximum choice based on their specific needs. In addition to the various physical variations, the users will also be able to decide on the anticipated length of stay. This will be done by specifying that a certain amount of housing be for long term and another amount for short term. The architectural manifestations of these ideas can be done in various ways such as altering the size, relationships and programmatic adjacencies. For example, by giving smaller dimensions to the more temporary dwelling while providing a larger storage space, this will allow the inhabitants the ability to live comfortably with minimal furniture and belongings while they search for a permanent residence. Conversely, the larger dwellings will be able to accommodate the inhabitants' belongings so that they can feel comfortable and make it a home. By connecting the market and residential programs, the live/work type can also signify a permanent residence by allowing the inhabitants to live and set up their own business within the same space.

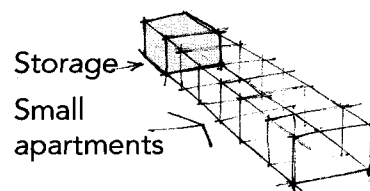


Diagram of temporary residence

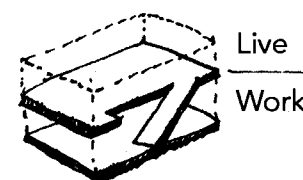
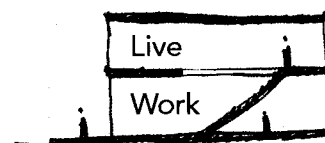
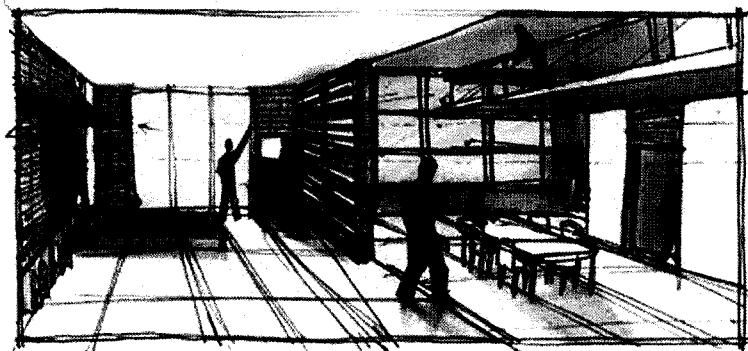


Diagram of live/work type

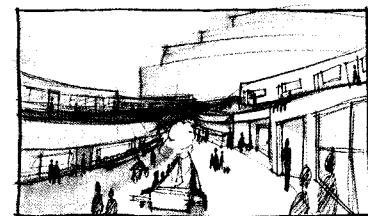


Sketch of housing concepts - larger apartments with multiple stories for permanent residences can accommodate larger families

Having a market would allow the newly arrived migrants the opportunity to start their own business and to share their culture. As well, an open market would attract users from around the community and the city because, as Jane Jacobs noticed, "the sight of people attracts still other people,"<sup>30</sup> making the market a "node" in the city. Taking the idea that it is more economical for people with lower incomes to set up ad-hoc markets and shops, an avenue being explored is the idea of mixing living with the market by creating an "inhabitable wall." Taking inspiration from both the Hismen Hin Nu project and Vito Acconci and Steven Holl's Storefront for Art and Architecture in New York City, the housing will explore the idea where the "inhabitable wall" in one instance is a protective wall from the elements, and in another, the wall is activated for the inhabitants to use as shop fronts for their products.



Photo of a market in New York



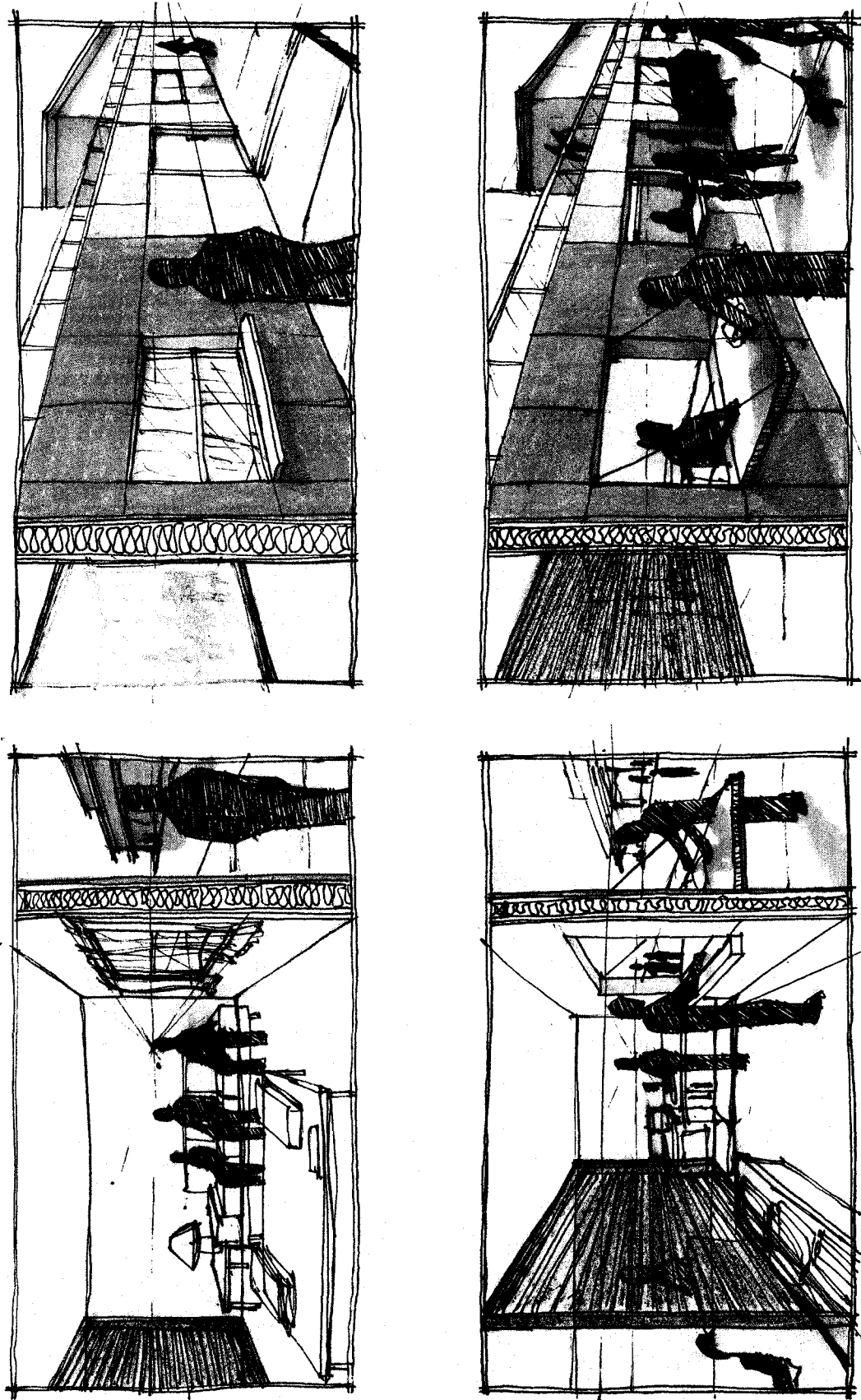
Sketch of a potential market



Storefront for Art and Architecture, New York

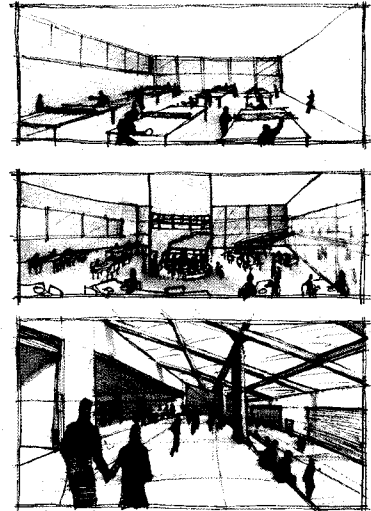
<sup>30</sup> Jane Jacobs, *Death and Life of Great American Cities* (New York: Random House, 1961), 35.



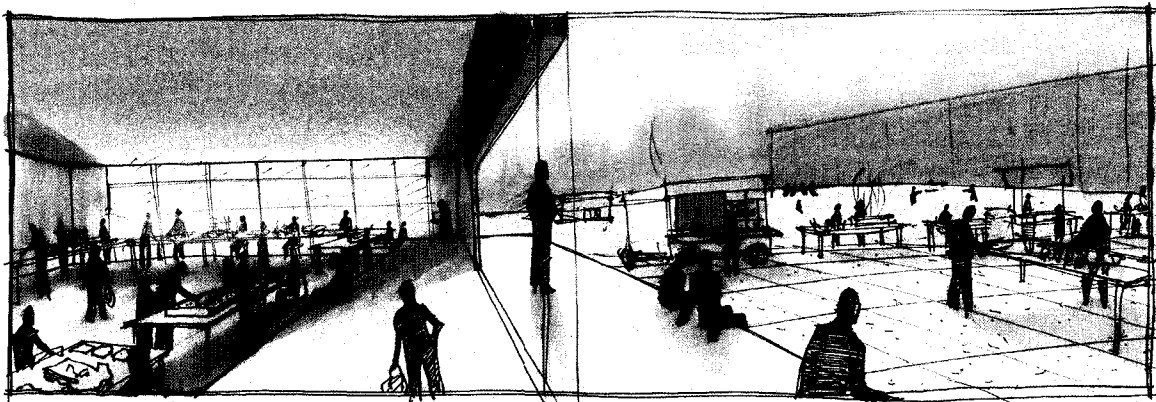


"Inhabitable wall" sketch - Top row shows the wall in a living situation; bottom row shows the wall in a market situation

For the communal hall, the programmatic element is that it will act as a civic building and will be a marker and a beacon for both the city and the newly arrived immigrants. The hall will take over the duty of "swearing in" the new migrants as Canadian citizens, as well as to act as a venue for cultural gatherings and performances, much like the Village Green in the De Drie Hoven project. As the official building to mark the project, the hall will also house offices and classrooms for administrative purposes, as well as outreach and support services. In addition to these official programs, on the ground floor and accessible to the greater community, the hall will include a children's day care that will serve both the immigrants and the surrounding communities. These program elements will hopefully allow the building to be a central node with multiple functions where people from all areas of the city can interact, much like that of the Village Green.

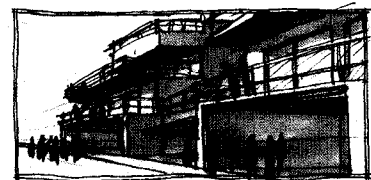


Conceptual sketches of various programs in the central hall



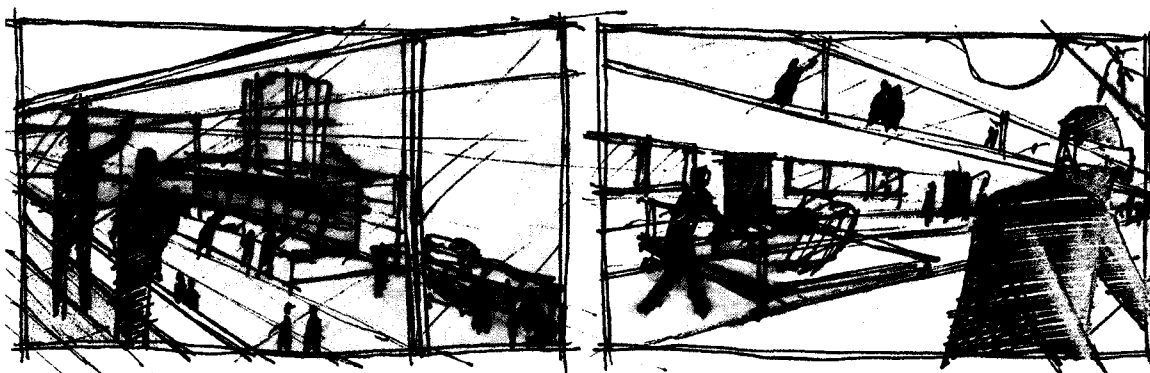
Flexible hall sketch - Indoor and outdoor market fair

The workshops are intended to assist the new immigrants in attaining the necessary skills so that they can integrate within the community. The program elements of the workshop will be both educational and vocational in purpose. The educational services will assist in ESL programs, aiding the immigrants in



Exterior sketch of the workshop

obtaining certification equivalencies like a high school diploma, and any other classes required such as getting accustomed to Canadian culture, health care, etc. The vocational program will consist of having workshops that can aid the immigrants, as well as the greater community, in getting skills for a variety of industries, such as metal work and computers. As there are some major universities and colleges in Edmonton, a partnership with an established educational facility would be extremely beneficial.



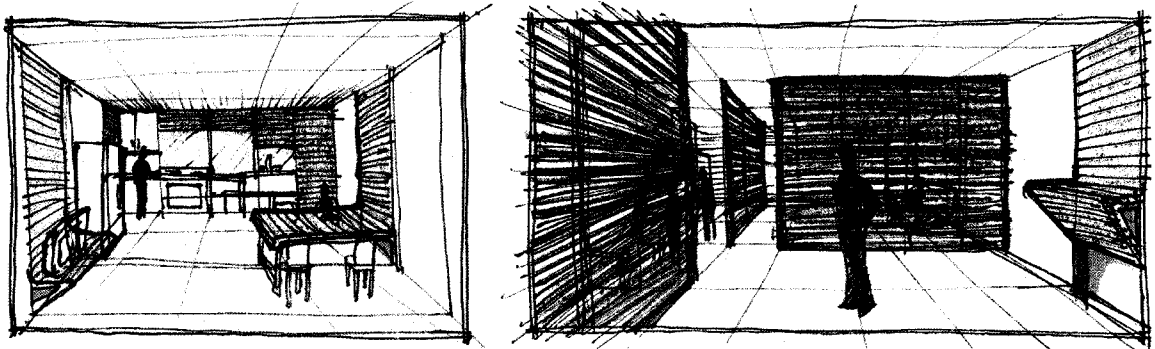
Workshop sketches - possible architectural spaces to accommodate program functions

Throughout each of these four anchor programs, there is a high degree of flexibility required in order to accommodate the various functions and users they will serve. Taking cue from Herman Hertzberger, an auxiliary programmatic element that will be introduced is the idea of polyvalency and flexibility. Polyvalency is the idea that a space "can be used for all kinds of functions without any adjustment being required to the building itself."<sup>31</sup> This will be a helpful design tool because it allows the users themselves to arrange the space whenever and however it is required with minimal

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31 Bernard Leupen, "Time-based Architecture," in *Towards time-based Architecture*, ed. Bernard Leupen, René Heijne, and Jasper van Zwol (Rotterdam: 010 Publishers, 2005), 13.

effort. To supplement a polyvalent space, having a flexible element that can be altered with minimal effort will allow for a wide variety of alterations. These ideas will be explored throughout the design process to create an architecture that is responsive to the users, and allow the building to have an extended life after its intended use.



Polyvalent spaces - change of use and interpretation with minimal effort

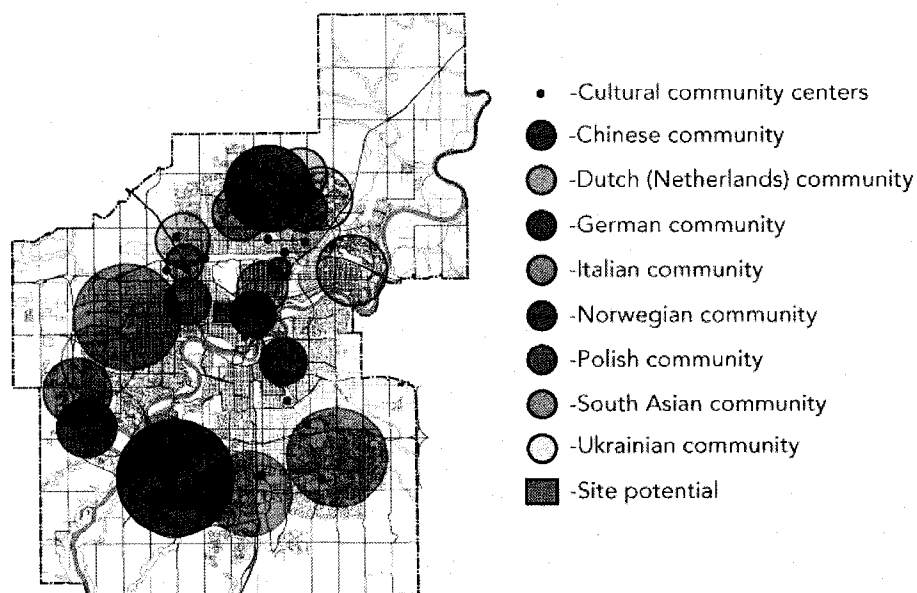
These four anchors for the project are chosen because they are the main programs that will hopefully relieve the problems that an immigrant would face, as mentioned above. The transitional housing will be designed with maximum flexibility and quality so that the arrived migrants will have an adequate and affordable home that they can adapt to suit their needs for their anticipated length of stay. To address the problems of isolation, the programmatic elements of the market and the communal hall will serve to foster a greater sense of community and acceptance. With these highly public venues, the newly arrived migrants will get exposure and interaction with the greater population of the city as well as through the interaction with each other. As well, by having a market in which the inhabitants can produce and share their traditional foods, clothing and merchandise, the greater community will be exposed to

different cultures and customs that will create a more knowledgeable and tolerant society. For the problems of education and language, the workshop programs will augment the existing support services that are located around the site so that a full range of services are available to those in need. These program elements will hopefully aid in the transition for the immigrants by providing them with the support required for their integration and acceptance into the community.

## Urban Conditions

### *Situate*

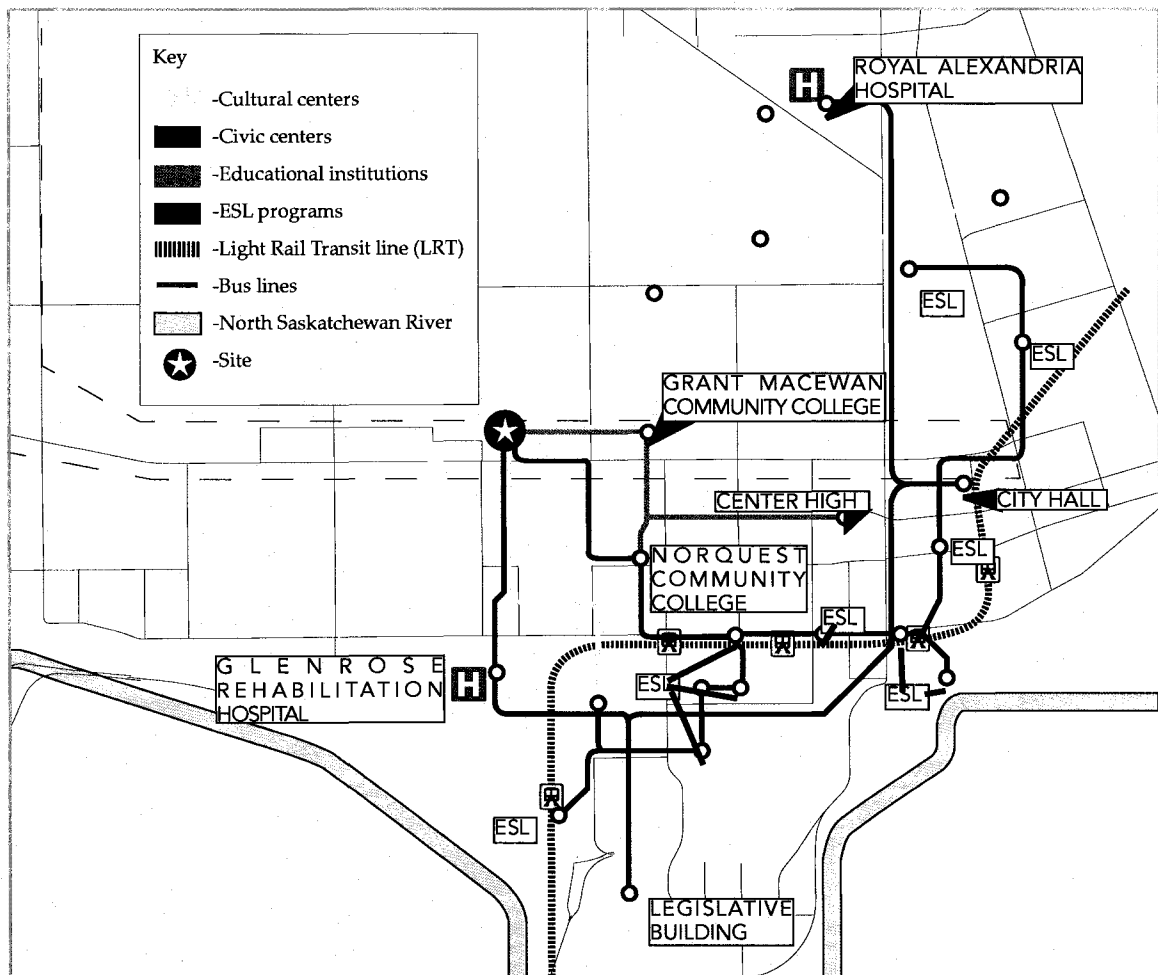
Choosing a site in the city is a crucial decision that will ultimately determine the success or failure of the project. If placed properly with nearby resources and support, the new project will be a beacon for both the new immigrants and the rest of the city. However, if the project gets placed in an area that is disconnected from the rest of the city, the new immigrants would surely think of it as an urban prison with no nearby support systems. Therefore, the site is to be centrally located with resources nearby. In analyzing Edmonton, one can start to map out the corresponding resources that would be beneficial to new immigrants by easing their transition into the city. First, looking at the cultural make-up of the city, one can start to see where the majority of different cultures tend to group together and form their own communities with their own specific support networks, such as cultural centers and shops.



Edmonton city - Mapping the predominant ethnic groups and the various cultural community centers (map from City of Edmonton)

As can be seen, the downtown core, where the "site potential" is indicated, seems like a promising area as it is centrally located with respect to the major enclaves of the various cultural communities as well as with the city in general. Being centrally located also allows the new project to become a "node" for both the immigrants and the rest of the city where the project has the opportunity to become a major attraction point.

Looking at a detailed study of the downtown core shows the resources that are located within the area that would be of great assistance to the newly arrived immigrants.



Edmonton downtown core - Mapping nearby support services (Based on a map from Google Maps)

Located within reasonable distance to the site, the immigrants would have access to required services such as: English as a second language (ESL) programs; educational facilities, such as colleges and continuing education facilities; hospitals and civic institutions like the Legislative building, city hall, and the central library. As well, there are major public transportation routes that are readily available for the area such as main bus routes as well as the Light Rail Transit (LRT) lines. With this chosen site, the newly arrived immigrants would not be cast off in a remote area, but are put in a central location with amenities and resources nearby.

### **Past**

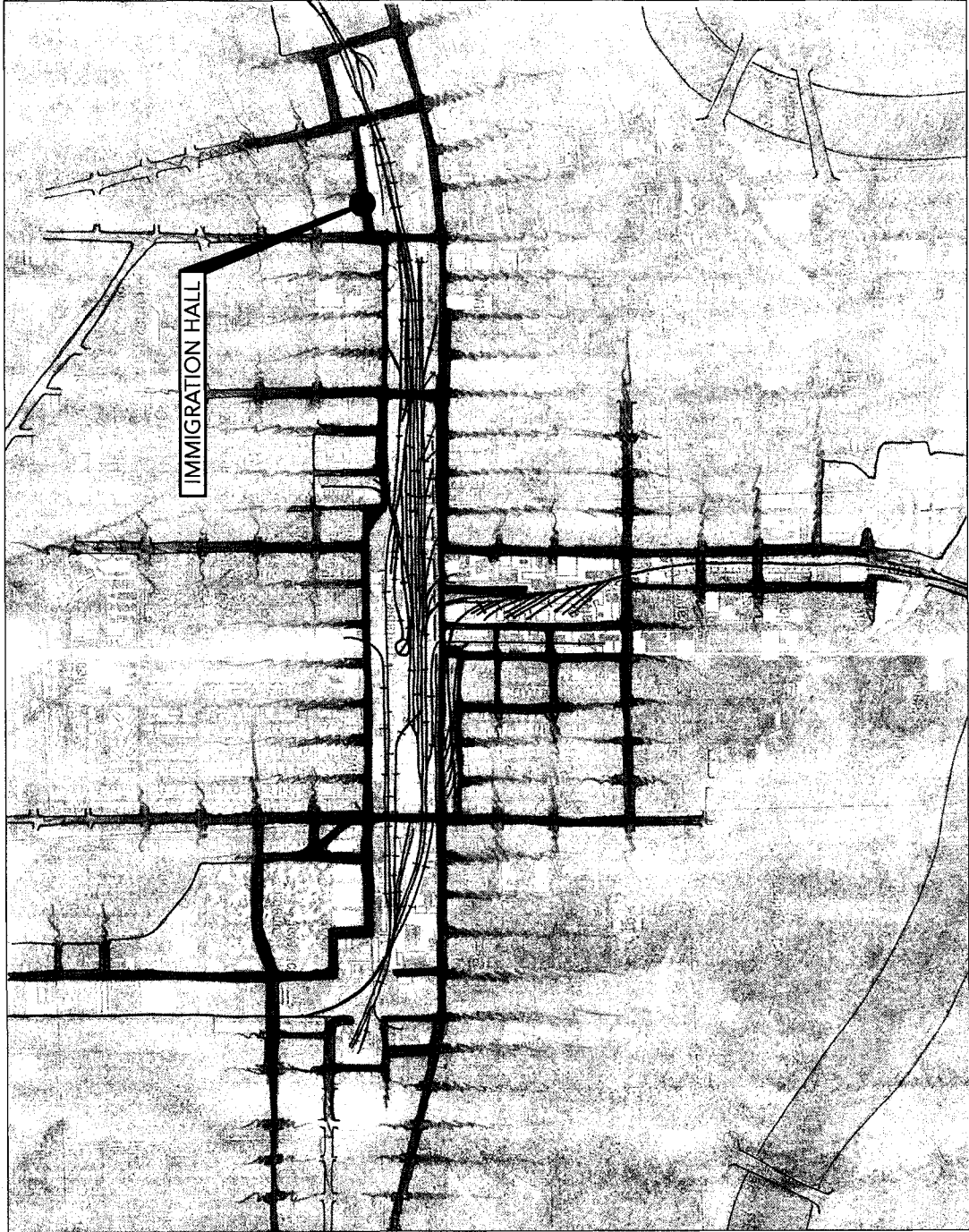
In order to understand the context of the site, an historical study will show how the area has developed to its present-day form. In 1905, the CN (Canadian Northern) railway was extended to Edmonton that caused a growth in prosperity and population. The rail yards were located in downtown Edmonton and this generated a vibrant community of people and trade. Like many major cities across Canada, an immigration hall was built near the railway, at 105 Avenue and 100 Street, to provide temporary accommodations for the newcomers.<sup>32</sup> The hall was often overcrowded and was a major focus for the community during the population booms that resulted from the introduction of the railway and the discovery of oil in 1946. The railway and the hall were important markers because they represented the heart of the city and symbolized the foundation for the newcomers. However, in the late 1980's the CN rail



Lawrence Herzog, photo of immigration hall, Edmonton (2004). From Herzog, "Edmonton's Immigration Hall Languishes" (2004).

<sup>32</sup> Lawrence Herzog, "Edmontons Immigration Hall Languishes," *Edmonton Real Estate Weekly* vol. 2, no. 17 (April 29, 2004), [http://www.rewedmonton.ca/content\\_view2?CONTENT\\_ID=674](http://www.rewedmonton.ca/content_view2?CONTENT_ID=674).



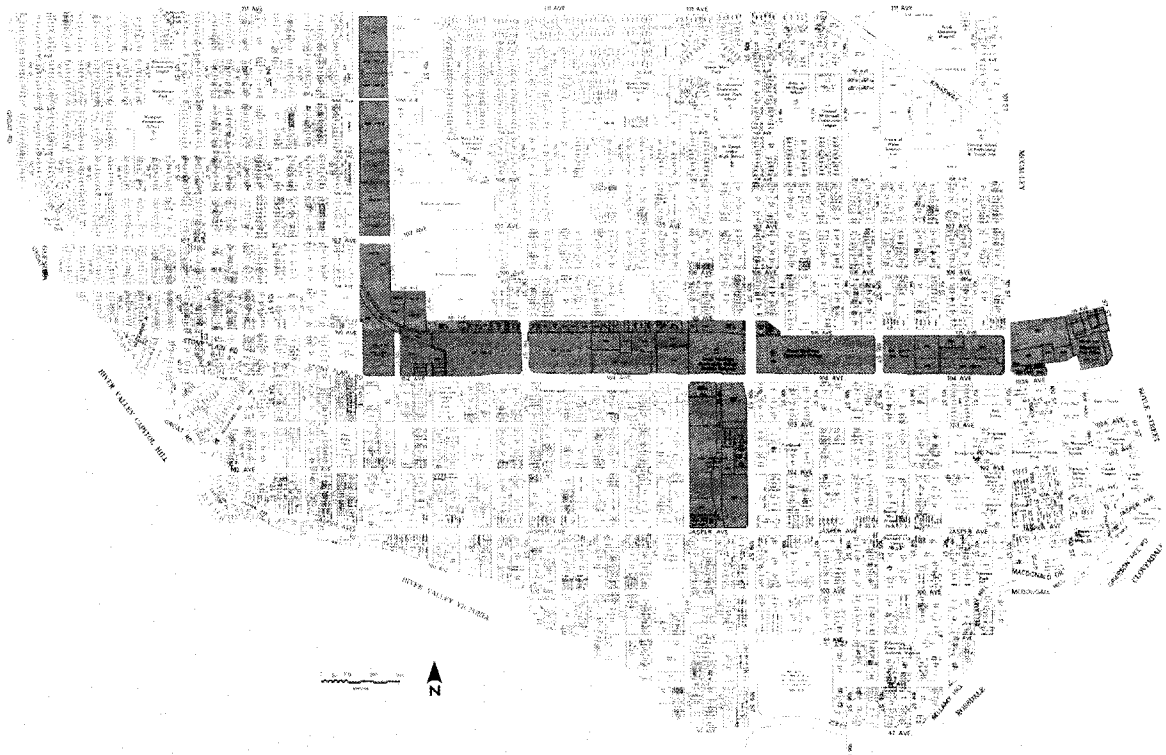


Map of downtown Edmonton and rail lines in 1900s (map courtesy of Dalhousie University library map department)

lines were moved out of the downtown core and the immigration hall turned into a vacant building. What was once the heart of the city turned into an area devoid of any street life or vibrancy. The original immigration hall was the seed of a vibrant downtown core where immigrants arrived and the community thrived around. By situating this thesis in the downtown core and on the old rail lands, the new buildings can reconstitute the intentions and symbols of the original immigration hall by becoming a new beacon for immigrants and act as a seed for the community to grow from.

### **Present**

The impact of the railway is still evident today as the swaths of land that it once occupied are still intact and continue to divide the downtown core from north Edmonton.



The CN railway lands dividing north from the downtown core (map courtesy of Edmonton Planning and Development Department)

Unlike the rest of the urban fabric, these lands run several blocks and cause a division between the two areas. Although these lands have recently been built upon, the new buildings are haphazardly placed as there is no coherence in the built fabric. Most of the buildings do not address the street because they are built in the middle of the block and are surrounded by vast parking lots. However, the main Grant MacEwan Community College building does attempt to deal with the urban fabric by building to the street edge and addressing the streets that run perpendicular to the block. To the west of the main campus, the college has constructed some new buildings that add to the urban fabric, but there is a large parking lot that hinders the further growth of the area. This is where the intervention of this thesis will take place. By anchoring the end of the college campus, the project will act as a hinge between the school and the other buildings along the old rail lands. The combination of the campus, existing fabric, and proposed immigration center will be the key to rejuvenating the now defunct area into a lively and vibrant community.

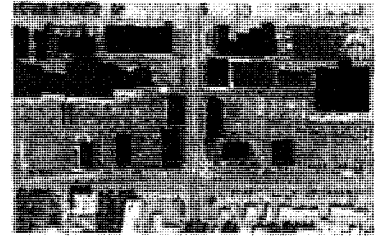


Diagram of built space  
yellow - parking lots  
red - buildings  
(map from Google Maps)

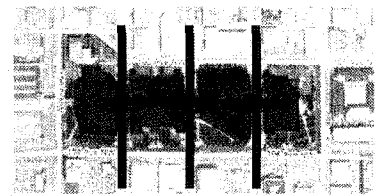


Diagram of Grant MacEwan  
Community College  
yellow - campus grounds  
red - building  
blue - connecting street  
paths  
(map from Google Maps)

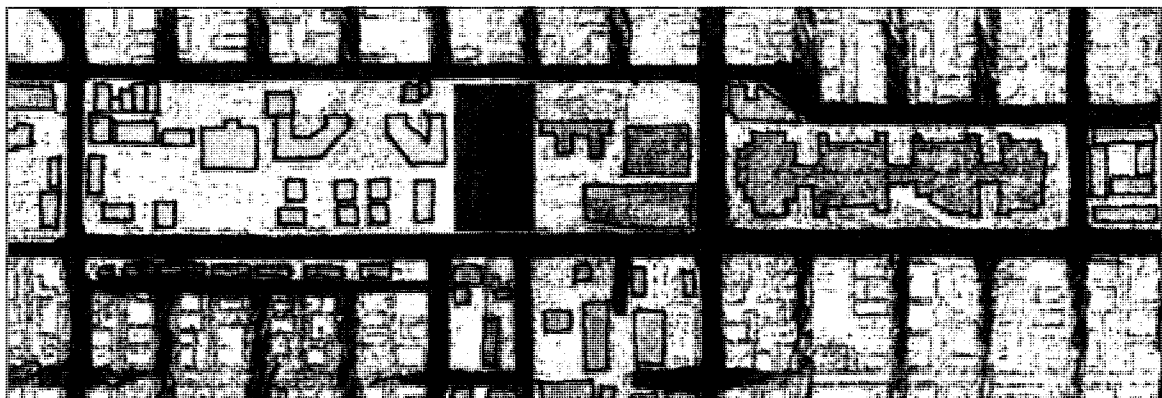
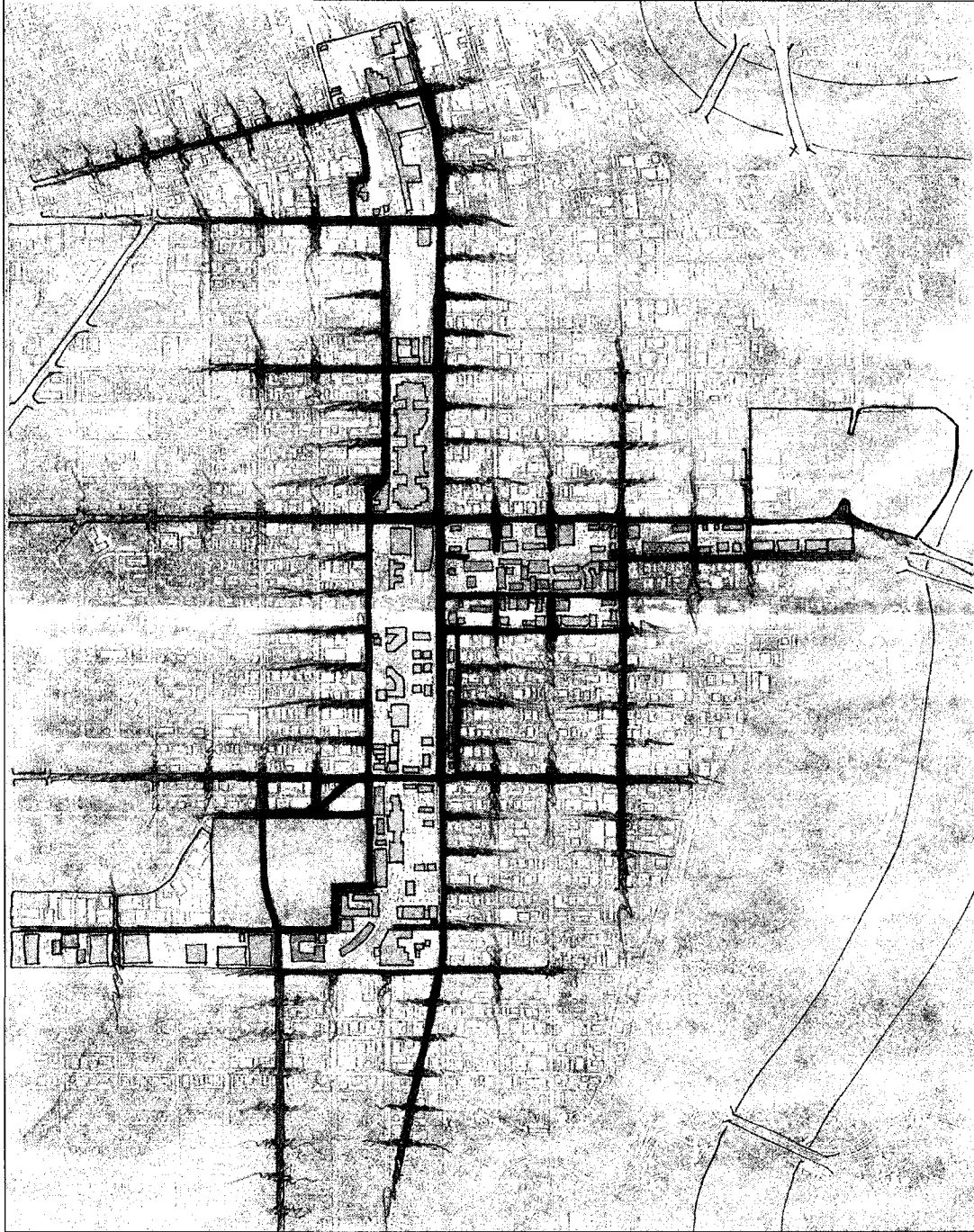


Diagram of college buildings (blue), built fabric (orange), and site potential (red) (map from Google Maps)



Present-day map of downtown Edmonton and built fabric (map from Google Maps)

## Context

Analyzing the indicated site potential, the immediate surrounding buildings are industrial complexes to its north, a new student residence for the community college on its east side, commercial buildings to its south, and luxury condominium complexes to its west. The site fronts on 2 streets: a major thoroughfare to the south edge (104th Ave), and a tertiary residential street (105th Ave) to the north. 104th Ave is a major route for commuters, as it acts as a gateway from the downtown core to other parts of the city and it is also designated as a 24-hour truck route.



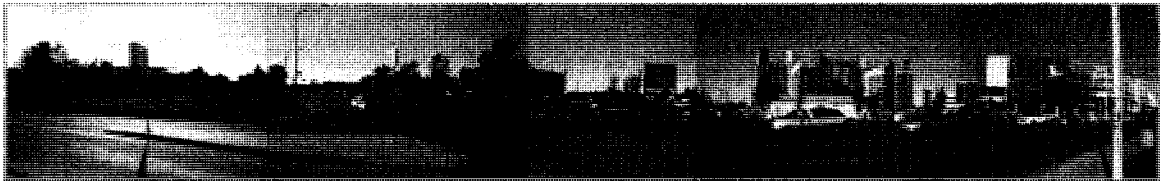
Site context - Residence in the middle of the photo; condominiums on the right; industry on the left



Program study of downtown Edmonton (Based on a map from Google Maps)

## ***Analysis***

This site is ideal for this project because it is in an area that has an abundance of near-by resources that will aid in the integration of the immigrants. However, although rich in resources and support systems, paradoxically, this area suffers from a bleak and sparse urban fabric that has no distinct character and little life around the site.



Looking down 104 Ave - Bleak surroundings

Looking at the urban fabric study of the downtown core, despite it looking dense, there are many voids that break up the street edges and effectively ruin the urban fabric of the neighborhoods and the city. The main reason for this is that along 104 Avenue, there are an abundance of parking lots that sit relatively empty and create large swaths of land that are uninviting and un-walkable. A study of the parking lots shows how the street edge of 104th Avenue is almost completely comprised of parking lots that are simultaneously non-pedestrian friendly and are an unattractive sight for the neighborhood. In addition, looking at a study of the green spaces and parks located within the downtown core, it can be seen that there are more parking lots than parks and around the immediate area of the site there are few park areas to be found.



Photo of parking lot along  
104 Ave

This analysis shows that the site is abundant in resources but requires an intervention to act as the catalyst for the community to grow. The intentions of this thesis is to act as the catalyst that can aid the area to develop into a vibrant community that is an attraction for both the immigrants and the city.

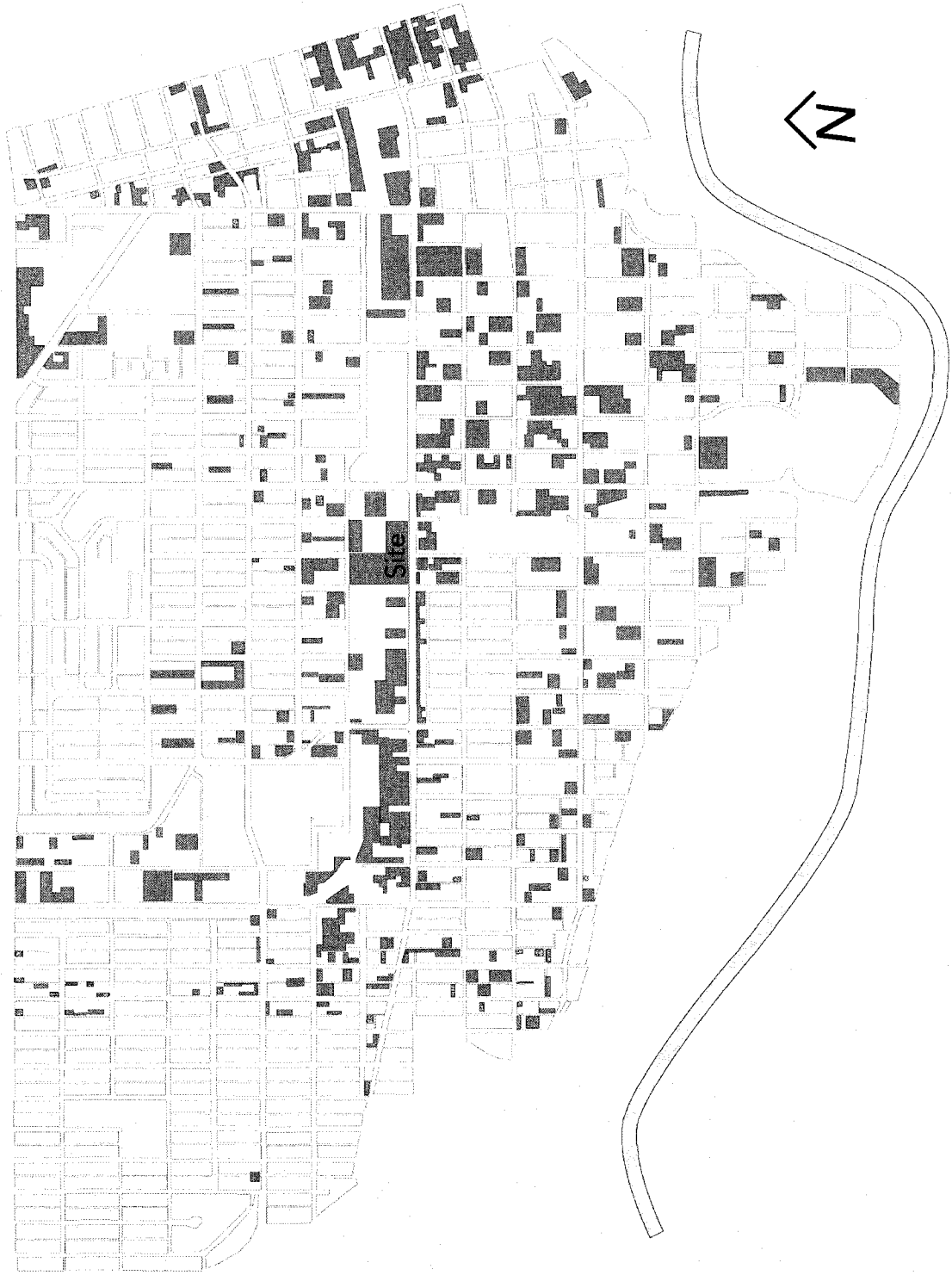


Large parking lots make the urban fabric of the downtown core



Urban fabric study (Based on a map from Google Maps)





Parking lot fabric study (Based on a map from Google Maps)



Park and green fabric space study (Based on a map from Google Maps)

## **Urban Intervention**

To aid and ease the transition for the new immigrants, this thesis argues that the resulting design must create a greater sense of community and social interaction with the surrounding neighborhoods and the greater city. Like the Hismen Hin Nu Terrace, creating a communal environment that is integrated and integral to the whole city will provide a sense of belonging for the immigrants which will make the transition and integration process easier.

As vibrant communities are built up over time, the design of this project is dealt with in phases that are spread out over many years. Analyzing the potentials of the past and present conditions, this thesis attempts to generate an urban scheme that acts as a "seed" for the community to grow from.

## **Design Proposal**

The main proposal of this thesis is to design an immigration center that can aid and facilitate the transition period for the new residents. By keeping the previous studies in mind, this proposal will reconstitute the symbol of the original immigration hall of being a beacon for new migrants, and will act as a hinge in the existing fabric to create a seed for the community to grow from.

To appropriately respond to the site and the surrounding contexts, one must first devise a site strategy that will oversee the design of the project.

### Site Strategies

In reading the site, a primary issue that must be addressed are the massive blocks that divide the downtown core from its northern counterparts. Observing that these blocks divide up the two areas, and consequently stifle the life that could exist within this region, a main design strategy is to bridge across the blocks to connect the disparate neighborhoods. As Jane Jacobs noted, "frequent streets and short blocks are valuable because of the fabric of intricate cross-use that they permit among the users of a city neighborhood."<sup>33</sup> As the site is placed relatively close to the center of the block and it is currently vacant, the proposal is to fully connect 112 Street through the site so that it does not disturb any existing building while cutting the block in half. Connecting the street and developing it into a dense urban fabric will allow the new street, in conjunction with the immigration center, to become a major node and focal point that will bridge the gap between neighborhoods and attract people from the whole city.

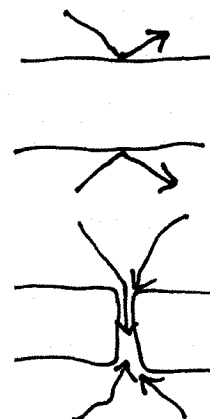
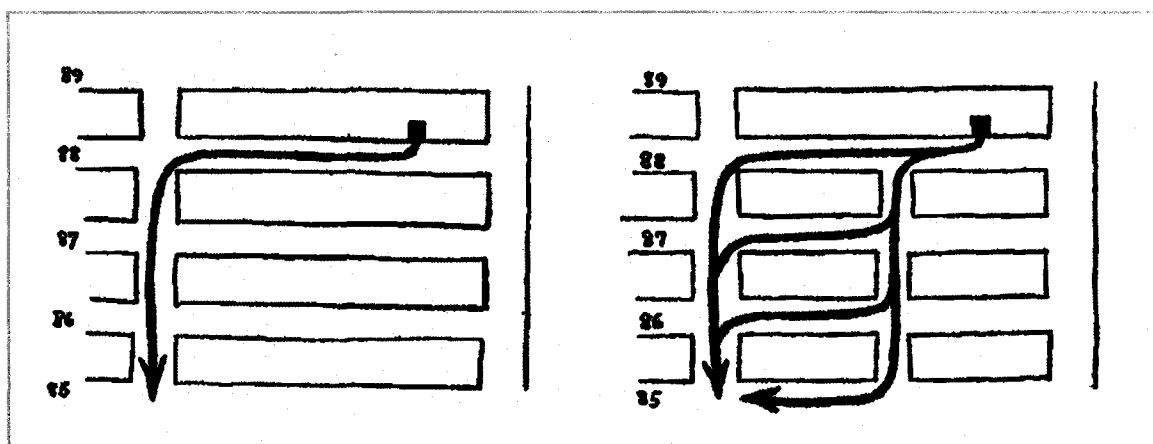
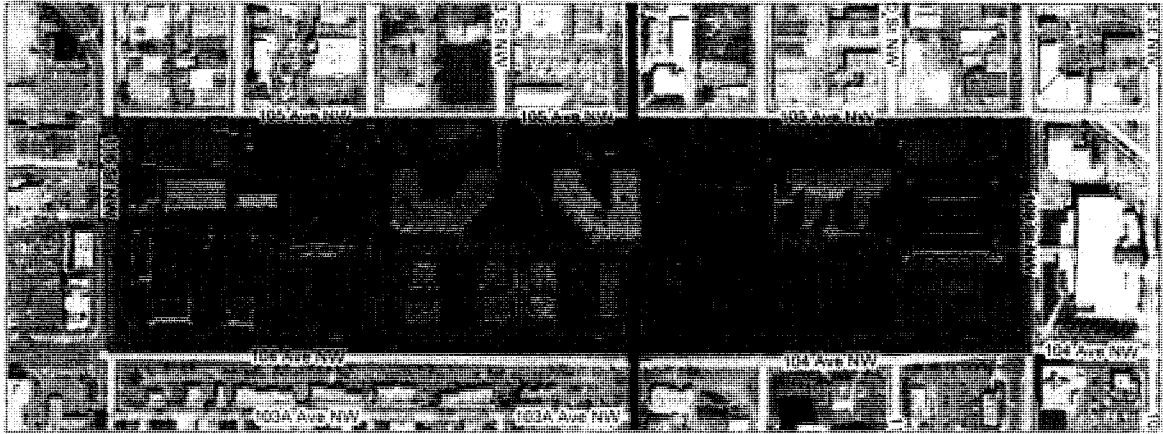


Diagram of increased activity by connecting streets



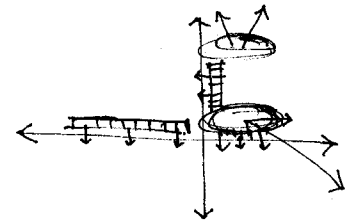
Breaking up of large blocks (Jane Jacobs, *The Death and Life of Great American Cities*, 1961)

<sup>33</sup> Jane Jacobs, *The Death and Life of Great American Cities* (New York: Random House, 1961), 186.

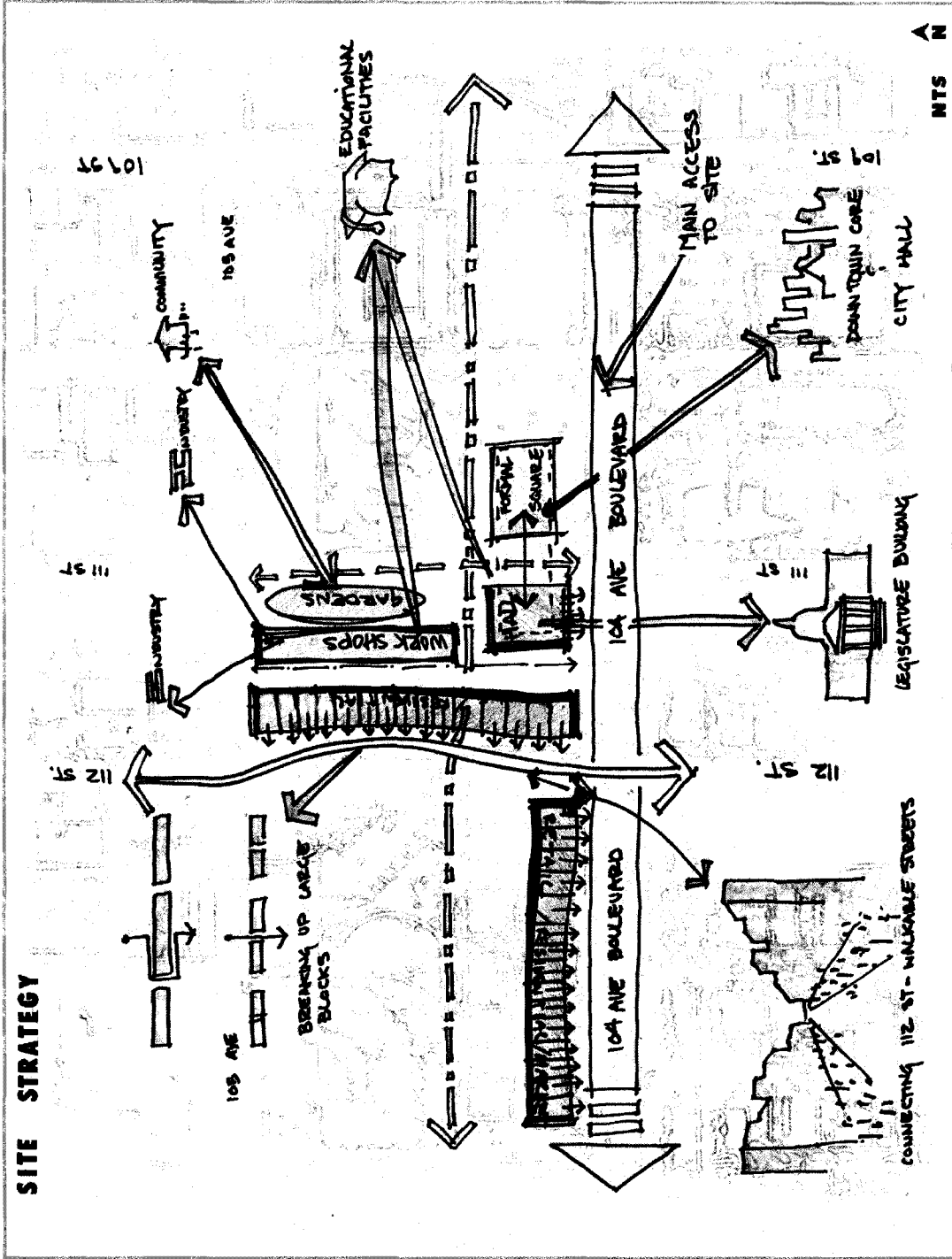


Connecting 112 Street through the block (map from Google Maps)

The next site strategy concerns marking out the existing relationships so that the resulting design can respond to and augment the current situation around it. As previously noted, the site is bordered by an industrial area, the business district, some loose commercial activity, and some nearby residences. To the south and east of the site lie the business district, the major educational facilities in the area, and the main 104 Avenue which will be the main access point for the project. To address these contexts, the central hall with the main programmatic elements, such as the official swearing in of new citizens, performance spaces and support services, will be located to the south end of the site to formally mark the presence of the immigration center on the street. The center of the site is the location of the luxury condominium and the newly connected 112 Street. The new street will be lined with a mix of housing and workshops to create a new residential street that connects the avenues and addresses the nearby industrial sector. The southwest side of the site is where a live/work housing type will engage and activate the street.



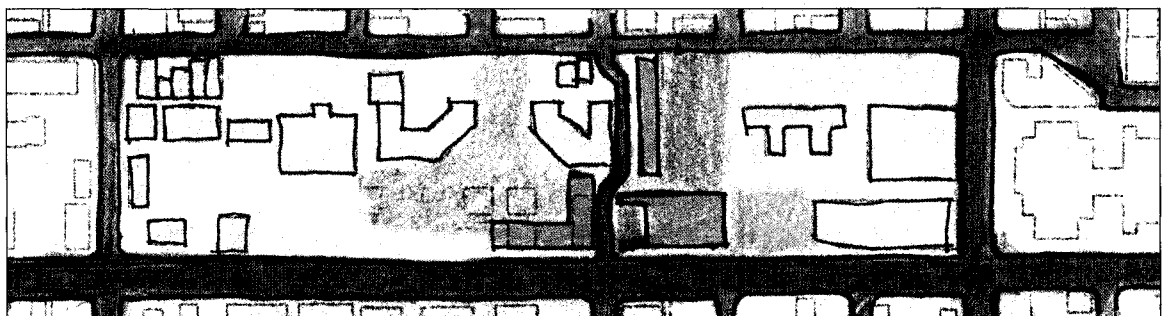
Concept sketch of relationships to the surrounding contexts



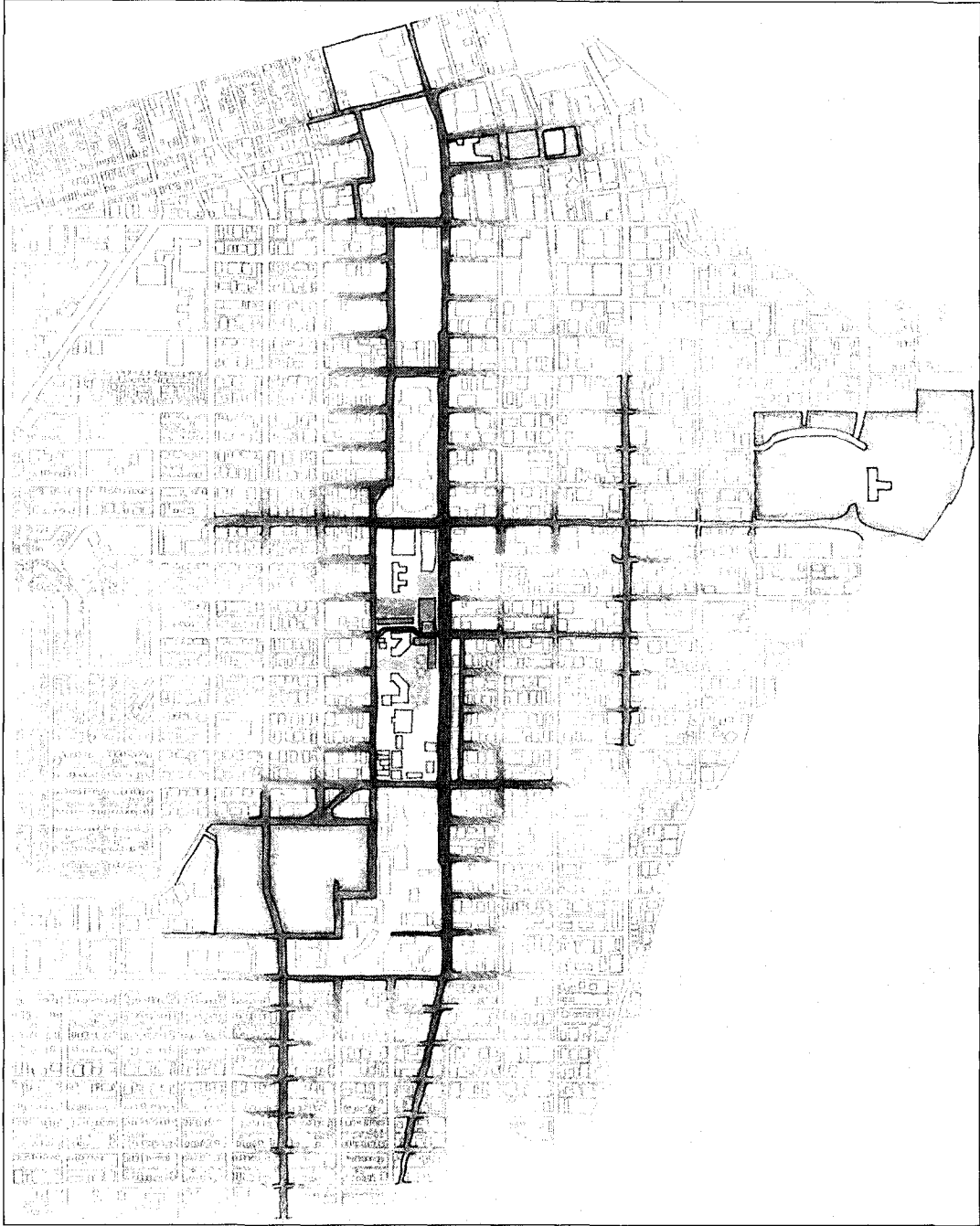
Site strategy showing relationships, programmatic layout, and path strategies (Based on a map from Google Maps)

### ***Site Proposal***

Based on the site strategy, a general design can be formulated that lays out the proposed programs on the site. To act as a marker for the project, a central hall is placed on 104 Avenue and adjacent to the college building, creating a public square between the two buildings. As the anchor for the project, the central hall will connect the disparate elements of the neighborhoods and will be the focal point for people to interact. To the north of the hall, housing with workshops will be built to address both the residential and industrial neighbors around it. The workshops are intended to provide the industrial area a venue for vocational training and to allow the immigrants an opportunity to become apprentices. To the east of this housing will be allotment gardens that are open to the whole community. A work/live housing type will be built to the east of the hall on 104 Avenue. This building will provide additional entrepreneurial opportunities for the immigrants and will extend the retail street edge with the potential of creating a boulevard. By connecting the disparate elements of the neighborhood, the industrial, collegiate, residential, and retail areas, this proposal has the potential to rejuvenate the area into a vibrant community in the city, and ease the transition for the immigrants.



Proposal of intervention - orange buildings are the proposed design









Proposal for immigration center and housing (Based on a map from Google Maps)



## Central Hall

The first design intervention is the creation of the central hall. This hall is open to the public and is programmed so that it is utilized throughout the day and throughout the seasons. By providing both formal and informal functions, the use of the building can be catered to accommodate the various interpretations and requirements of the community. The formal programs are:

-  - formal venue for special occasions
-  - official swearing-in
-  - classrooms for ESL and higher learning
-  - support services such as housing and employment
-  - meeting rooms
-  - office space

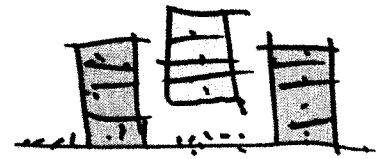
For the informal programs will include:

-  - reading and study areas
-  - coffee shops and places to lounge
-  - market stalls for various businesses
-  - public computer access
-  - informal meeting spaces
-  - recreational activities - such as chess, pool, etc.
-  - day care facilities
-  - allotment gardens for the greater community

In addition to these spaces, there is a restaurant and bar on the top floor for informal and formal occasions.

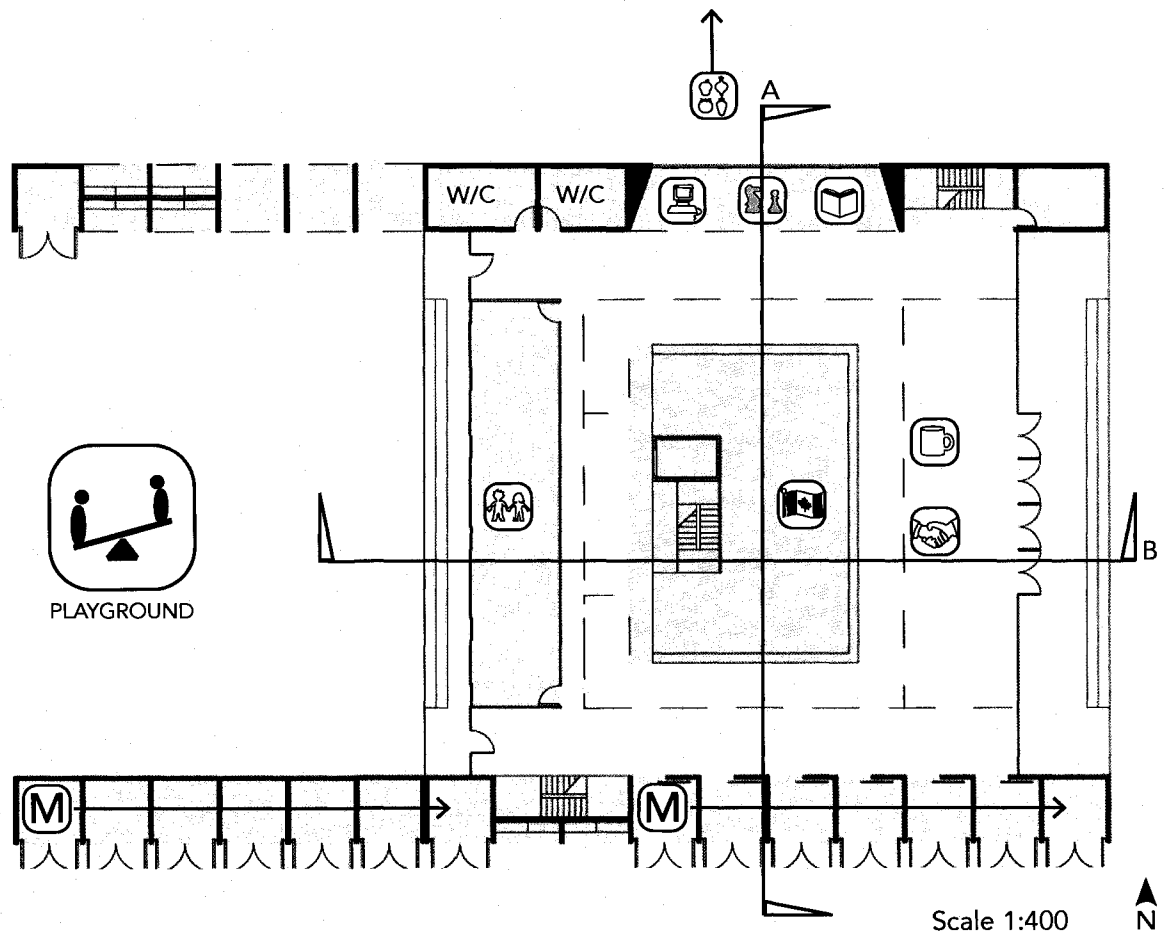


The basic concept of the hall is to wrap the informal programs around the formal ones. The building is designed so that there are "inhabitable walls" for the informal functions, and a suspended "pendant" in the center for the formal functions. The informal public functions address the streets and perimeter of the building so that people who enter are not overwhelmed by an imposing private building, but walk into a public zone that is welcoming. The formal program acts as the anchor for the community and the immigrants, and is located at the core of the hall.

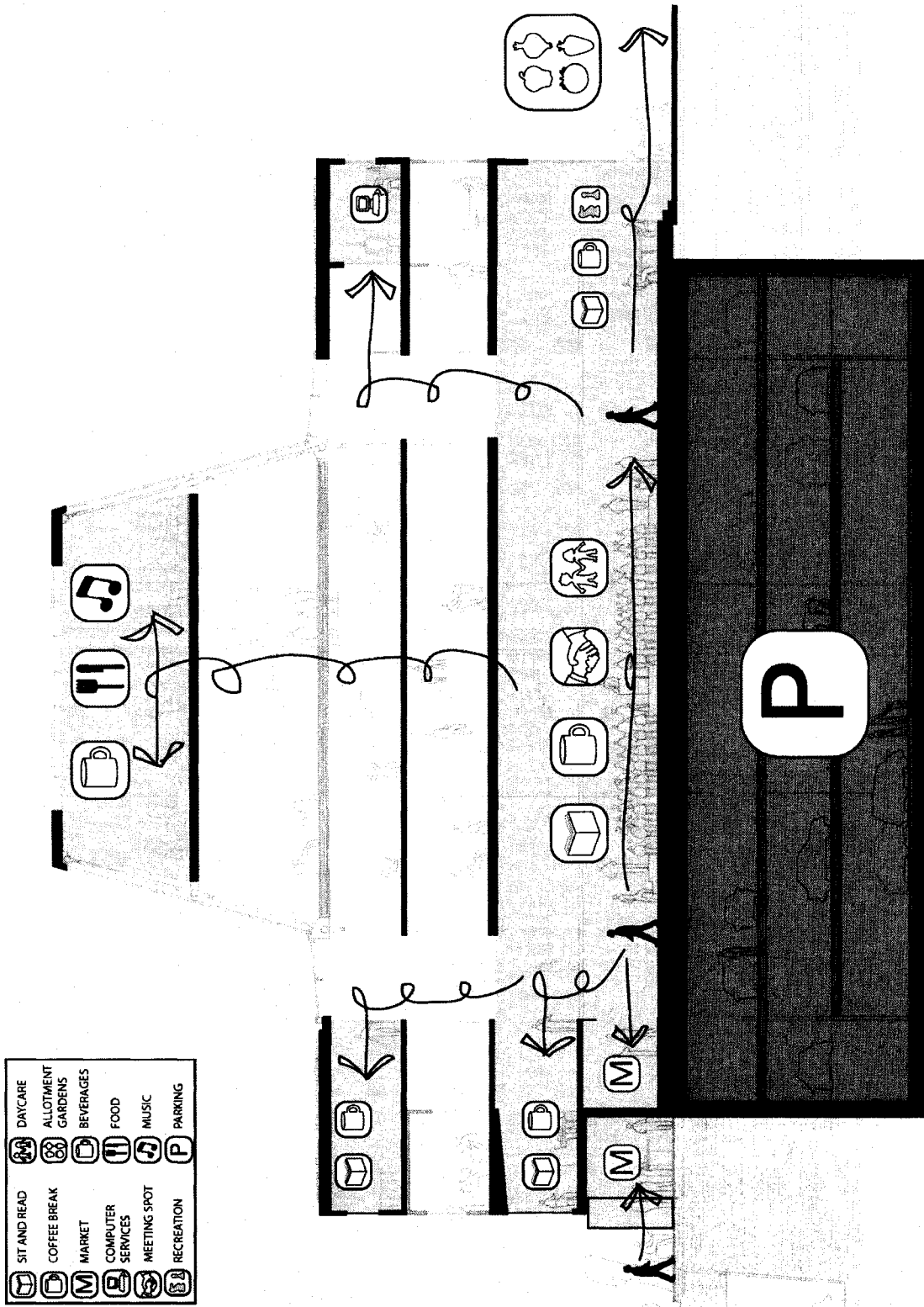


Concept sketch of central hall

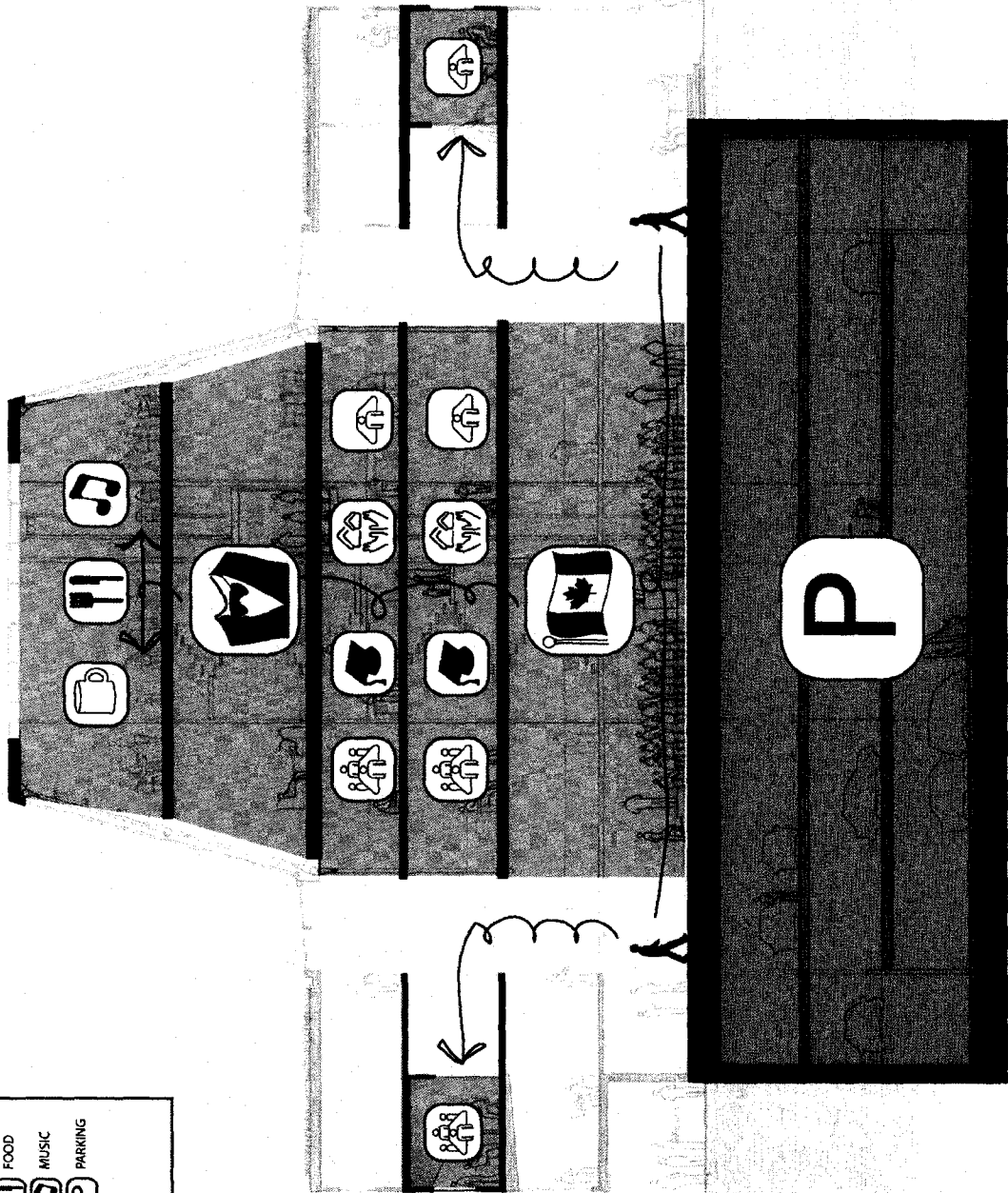
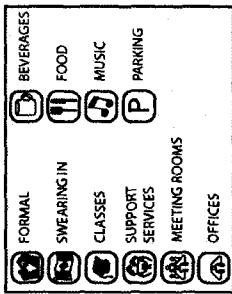
Blue - informal program  
Red - formal program



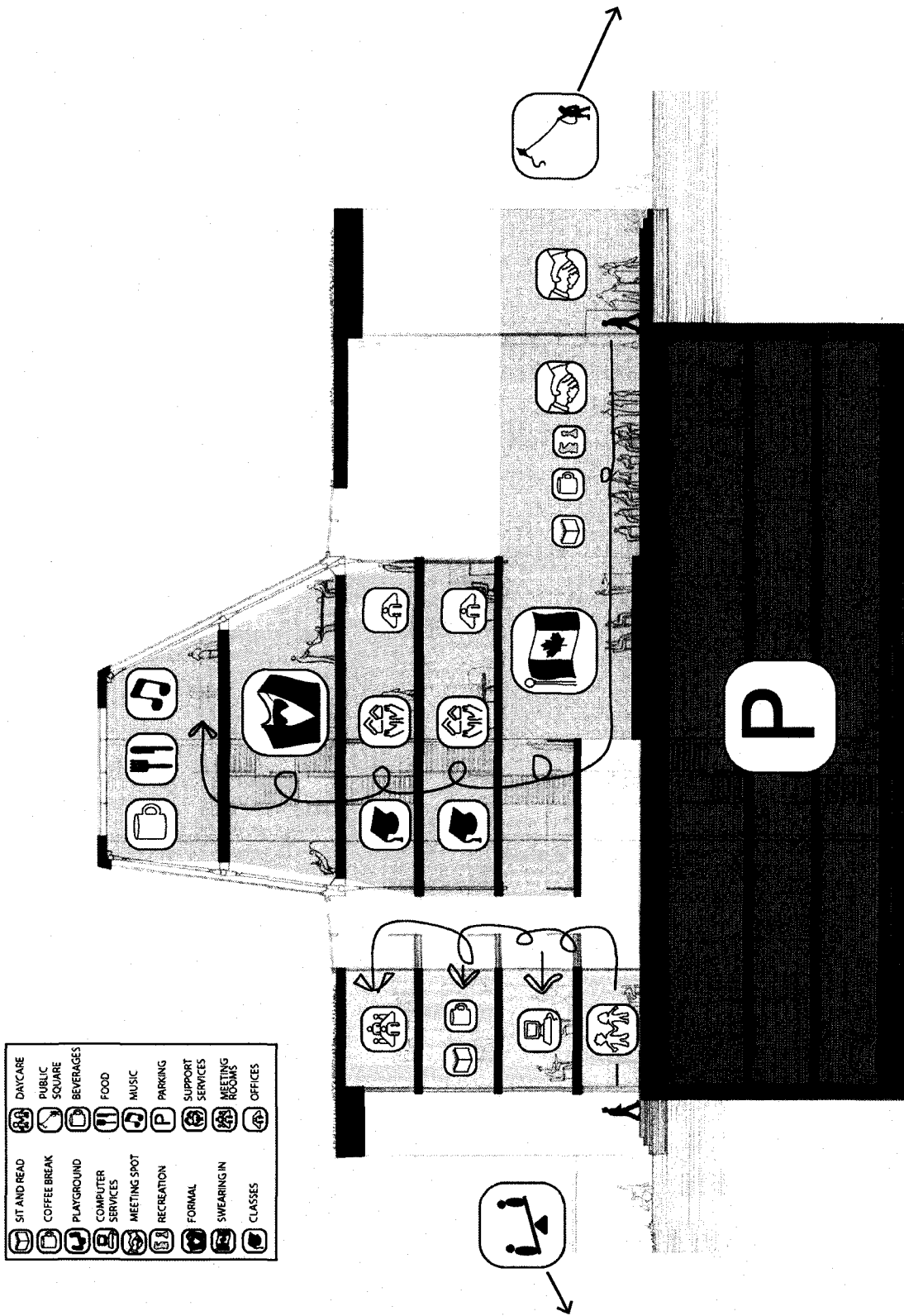
Ground floor plan of central hall - public functions (blue) with private (red) at the core



Section A - mapping the various informal functions that happen throughout the day

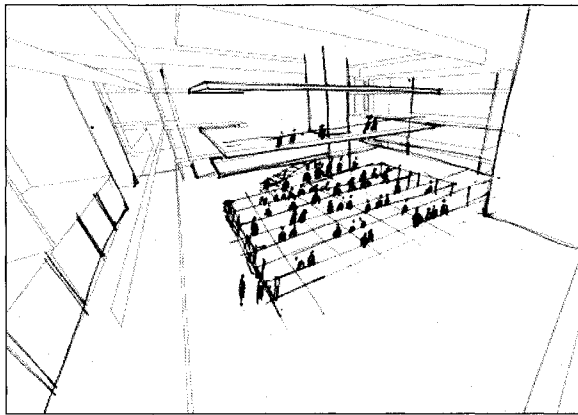


Section A - mapping the various formal functions that happen throughout the day

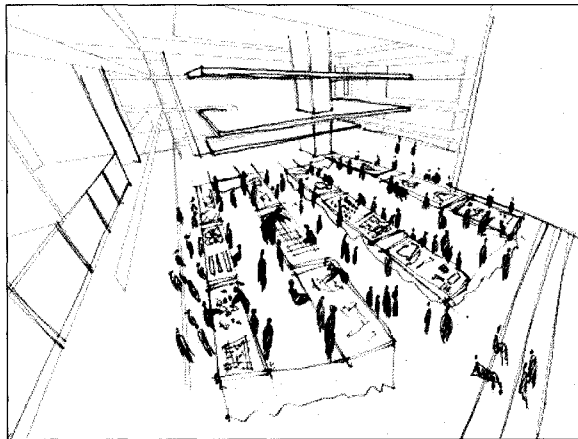


Section B -mapping the various formal (red), informal (blue), and mixed (purple) functions throughout the day

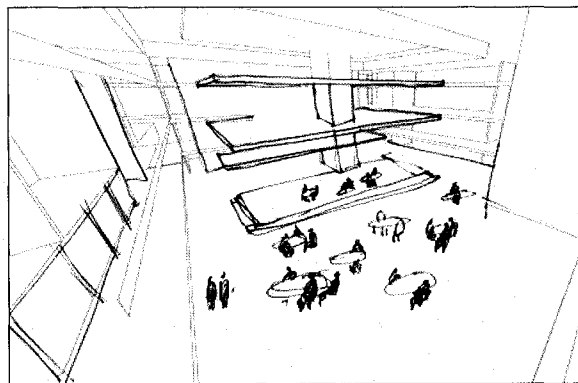
The main ground floor of the hall is a triple height atrium that can be used for a variety of functions. For example, it is able to support the function of the official swearing-in ceremony, but can also be rearranged for an indoor market or for a general public space in which people can read, converse, study, etc.



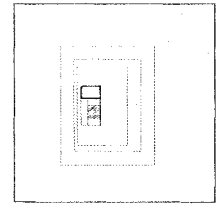
Official swearing-in ceremony



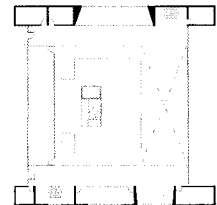
Indoor market fair



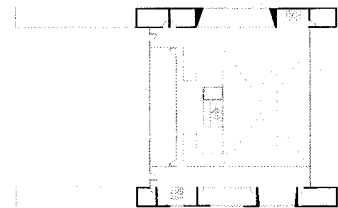
General use space



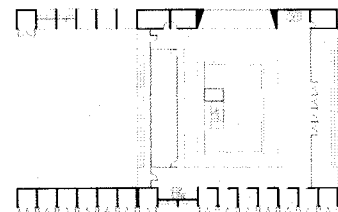
Fifth and sixth floor plan



Third and fourth floor plan



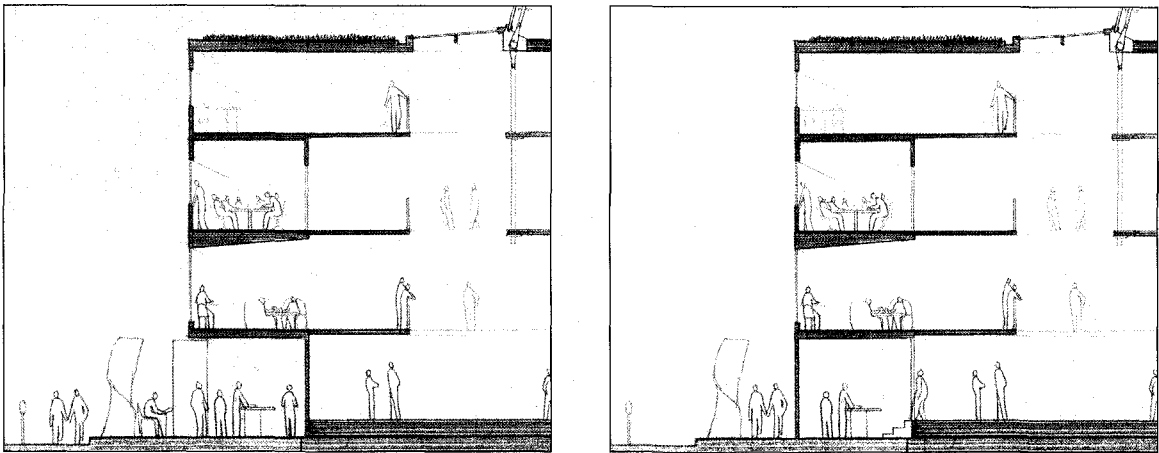
Second floor plan



Ground floor plan

Central hall floor plans

The ground floor of the “inhabitable wall” contains the ad-hoc market stalls that are modelled after the Hismen Hin Nu Terrace project. These stalls provide the immigrants an inexpensive entrepreneurial opportunity within the community and allows them to become contributing and active members of society. These stalls are “carved” out of the south wall, and can address both the interior and exterior of the hall. During the summer, the stalls can open up to create a lively and animated street, while in the winter, some of the stalls can open up into the hall to bring the life inside.

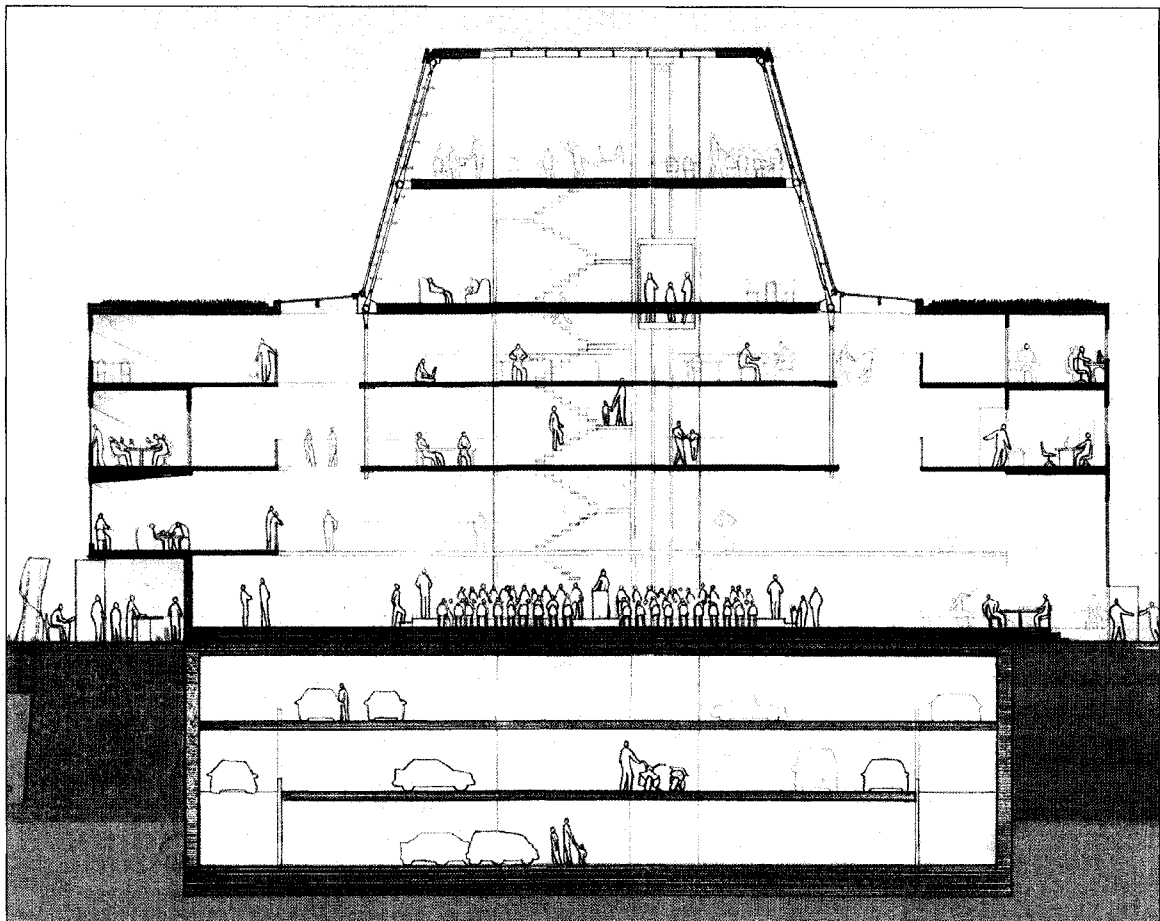


Market stalls open on the street in the summer (left) and into the hall in winter (right)



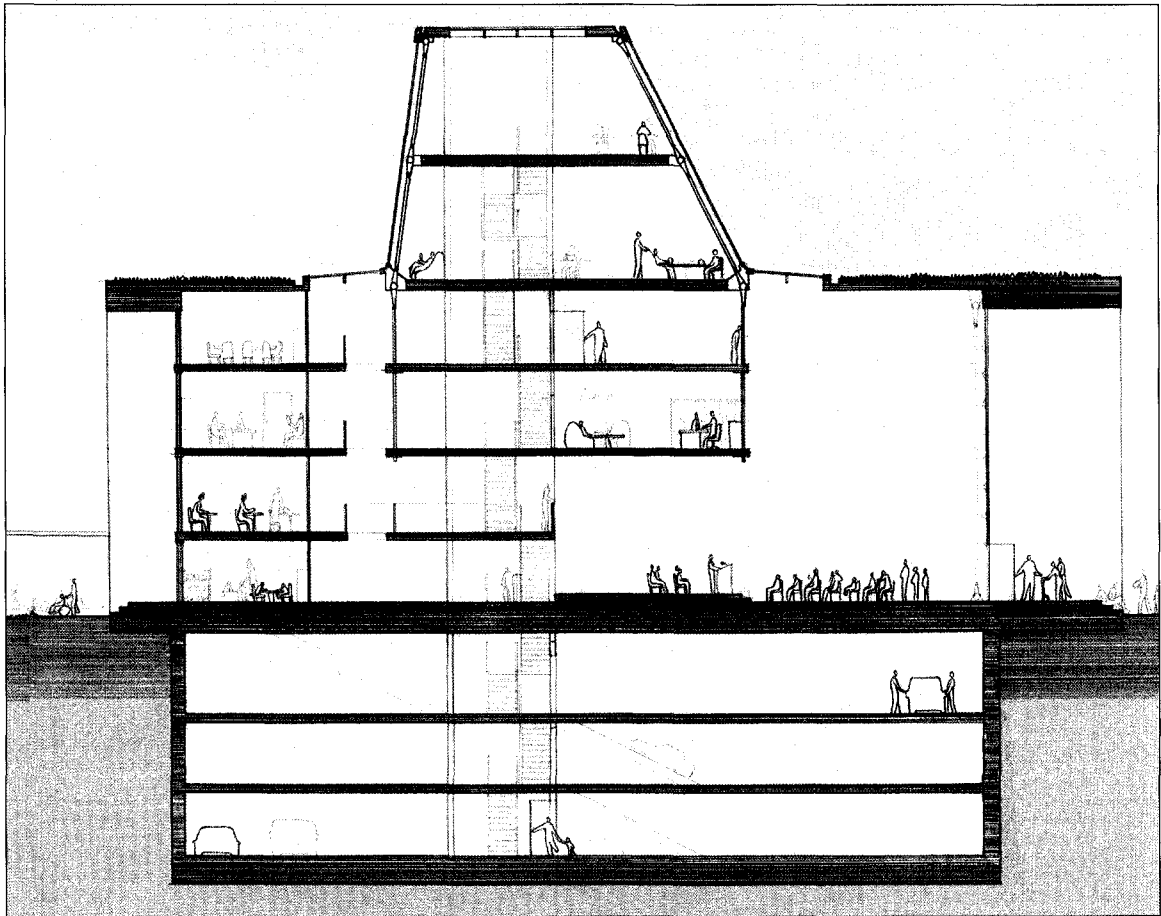
Rendering of market stall in the exterior wall of the central hall

The formal functions of the hall are contained within the "pendant" of the building and are elevated off the ground floor. This allows the ground floor to be open for public use while creating a hierarchy between the formal and informal programs. The support services, ESL classes and offices that aid the transition for the immigrants, are aptly placed at the core of the central hall and act as the anchor for the entire project. Culminating at the top of the pendant is a double height restaurant and bar that is open to the public, and a double height multipurpose room that can be booked for special occasions. When the multipurpose room is not booked for a special occasion, it will function as a recreational room that is open to the public.



Section A - placement of the formal programs in the elevated pendant



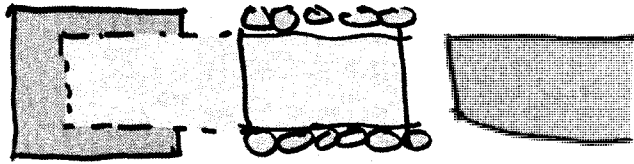


Section B - placement of the formal programs in the elevated pendant

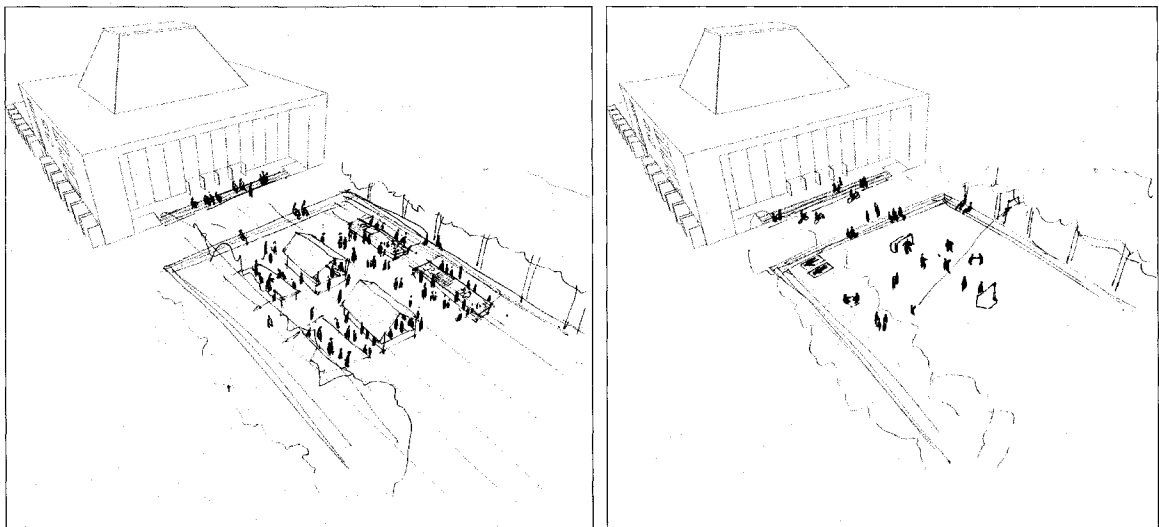
Being the location of the swearing-in ceremony, support services, ESL classes and market stalls, the central hall is designed to assist the transition for immigrants and provide them with a symbolic building that can act as their foundation in the city. By having public programs such as study spaces, meeting and recreational rooms, the market, and a restaurant and bar, this building acts as the hinge between the college campus and neighboring communities where the users can enjoy the space and interact with each other.

## **Public Square**

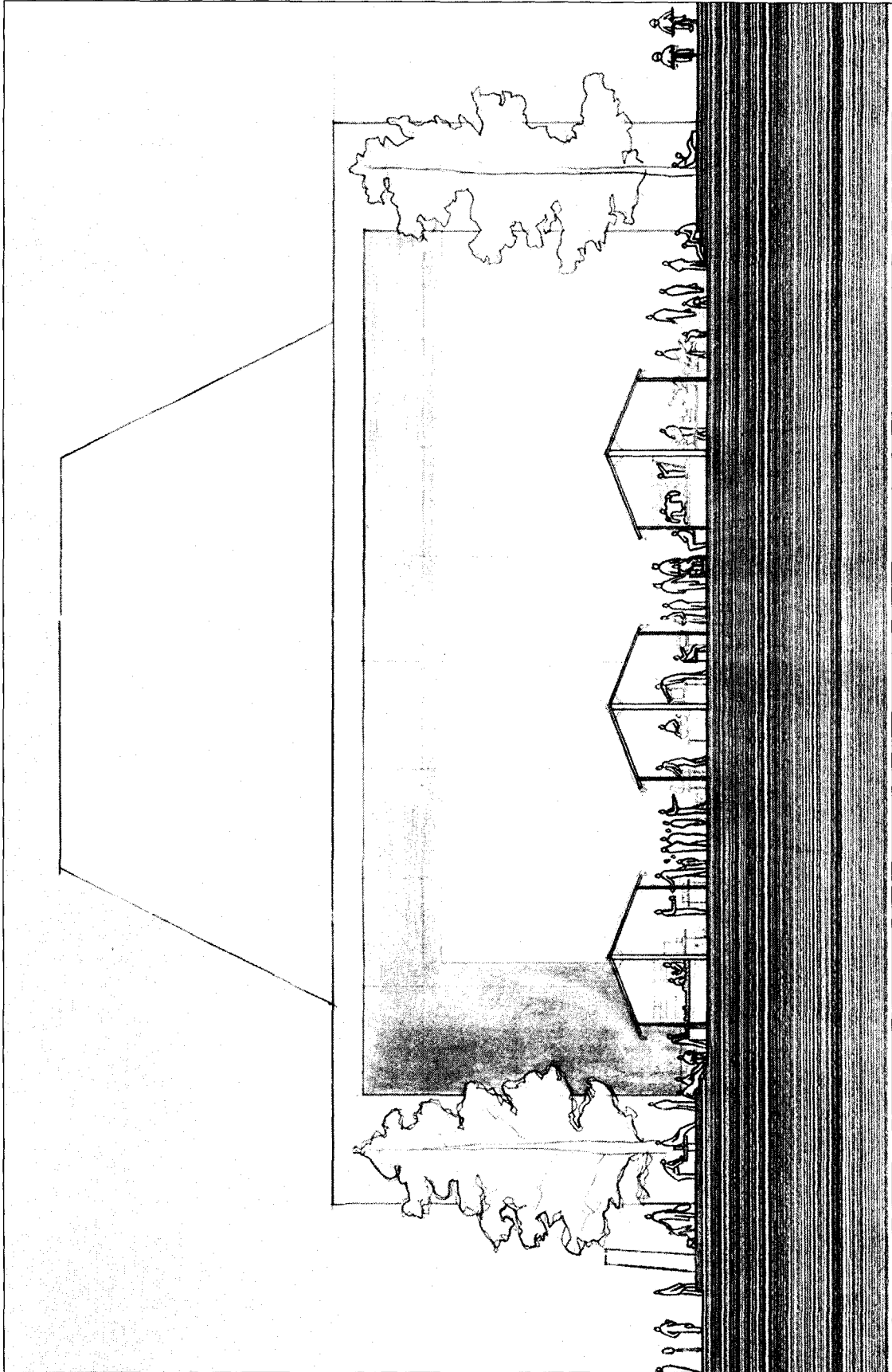
A public square will lie between the hall and the adjacent college buildings to extend the "public room" of the central hall to the exterior. To be a flexible space, the square is open and flat and is depressed a couple of steps below grade. The north and south edge are lined with trees to provide a border and to enhance the spatial quality of the "room" with the hall. As a public space, the square is open for interpretation and can be used for various functions such as soccer games, picnics, and informal meetings. But, it can also be used for formal functions such as a farmers market, multicultural festivals, or plays and concerts.



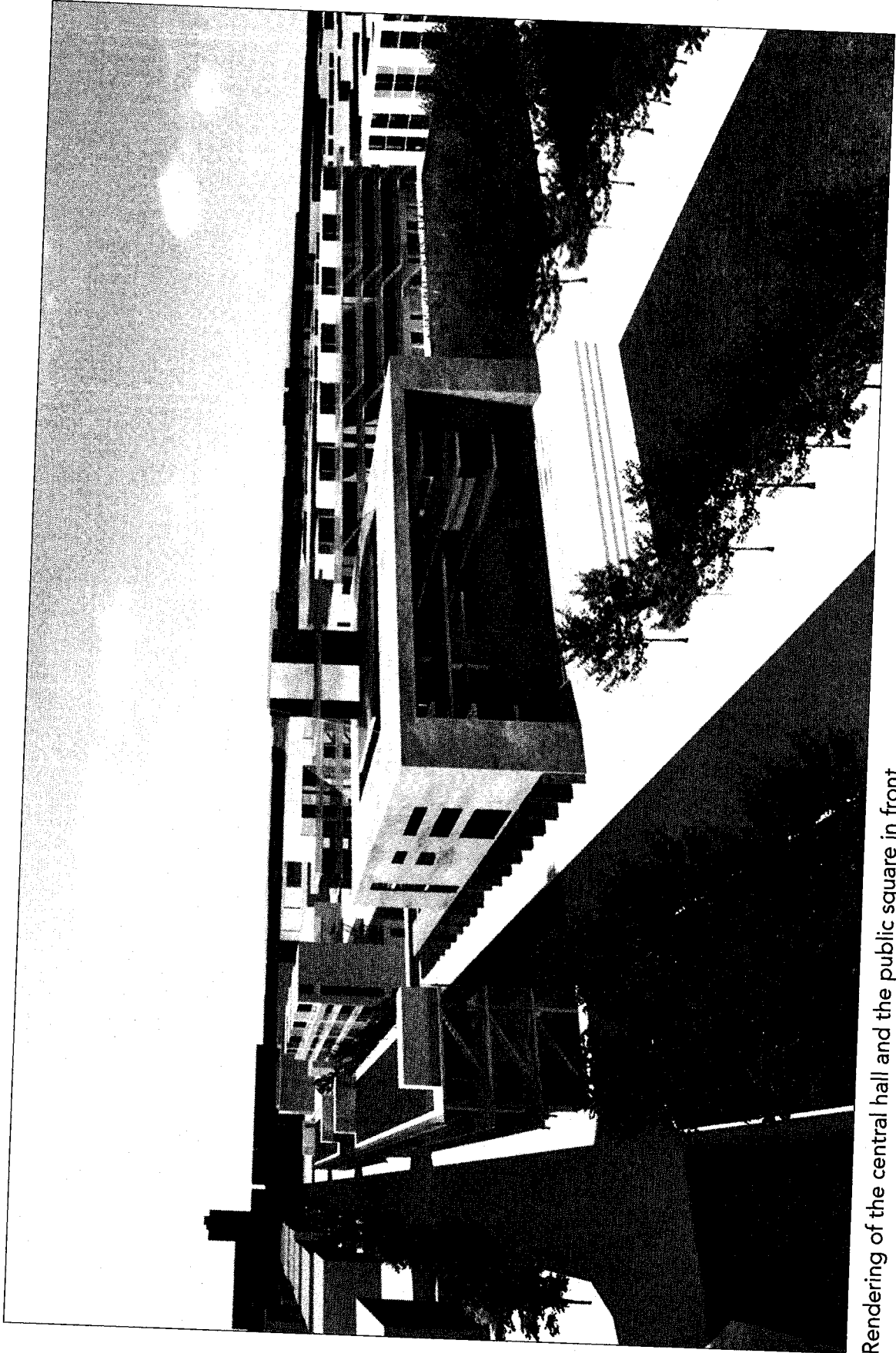
Concept sketch of the square as an exterior "room" of the hall



Sketches of the various functions of the square - outdoor market (left) and general public use (right)



Section cut through the square during an outdoor market

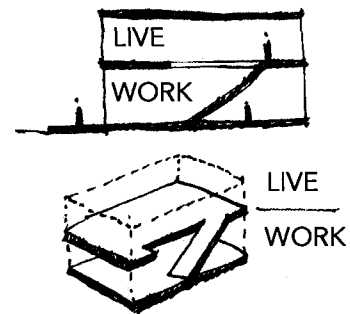


Rendering of the central hall and the public square in front

## Housing

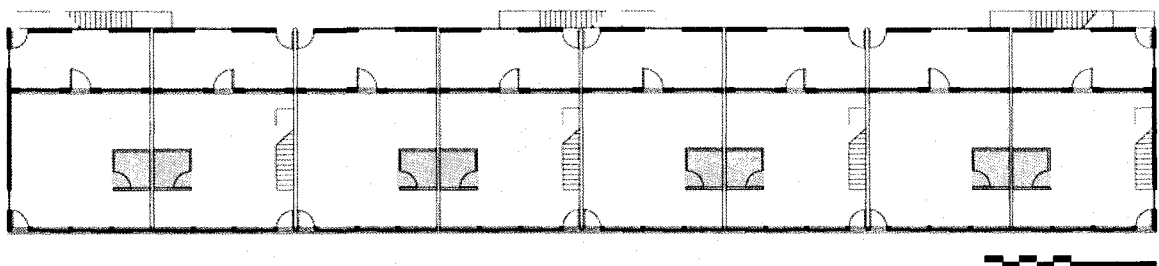
Although the central hall has programs that can aid the transition for immigrants, it does not deal with the problems of affordable housing. Therefore, the other main component of this proposal is to design affordable housing that is flexible to accommodate the various users requirements.

First, to address the streets, public functions will be combined with the housing units to attract the city and bring life to the area. As 104 Avenue is a main thoroughfare, the housing units that face this street will be a live/work combination to create a vibrant area. 112 Street is a quieter residential street and the units here will combine housing and workshops to address the nearby industrial area.



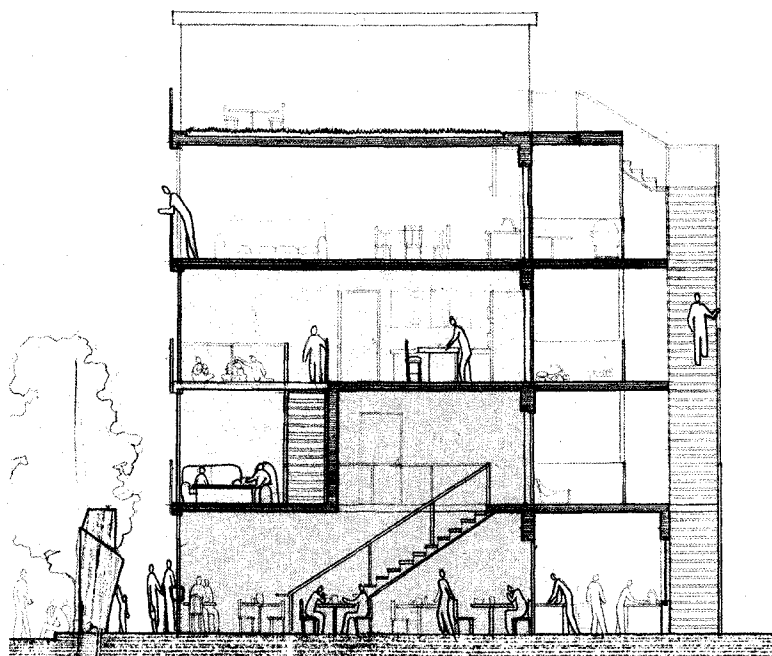
Concept sketch of live/work housing type

The live/work housing type allows for flexibility in its interpretation and it is up to the residents to define the type of "work" that is to take place in these spaces. To keep the floor plans free of columns and walls, the building is designed with a load-bearing façade and fixed service cores. This flexibility allows the "work" to range from restaurants, to retail, to personal services, and home offices.



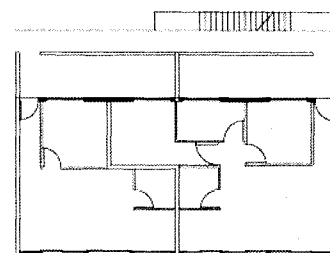
Ground plan of the work/live housing type - load-bearing façade (red) and service cores (blue)

In addition, the floors can be connected with staircases to allow for greater flexibility. In this scenario, the second floor is split up into half units that are shared between the first and the third floors.

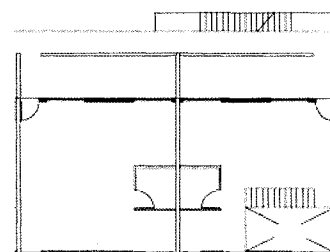


Section through work/live housing type - the first and third floor sharing the second floor half units

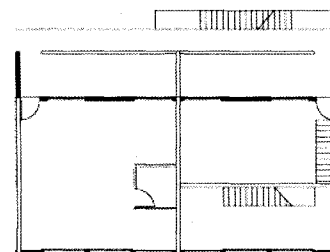
This arrangement allows the ground floor to be a restaurant or store while the upper floor is the living quarters. Conversely, the third floor can use the shared half unit as a living room, office or a study. The flexibility of this type caters to the various needs of the users and creates a dynamic architecture that changes over time. By having a flexible "work" space, the street will become a lively mix of retail, office, and restaurants that can change with the inhabitants, seasons, and years.



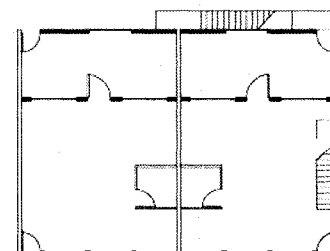
Fourth floor plan



Third floor plan



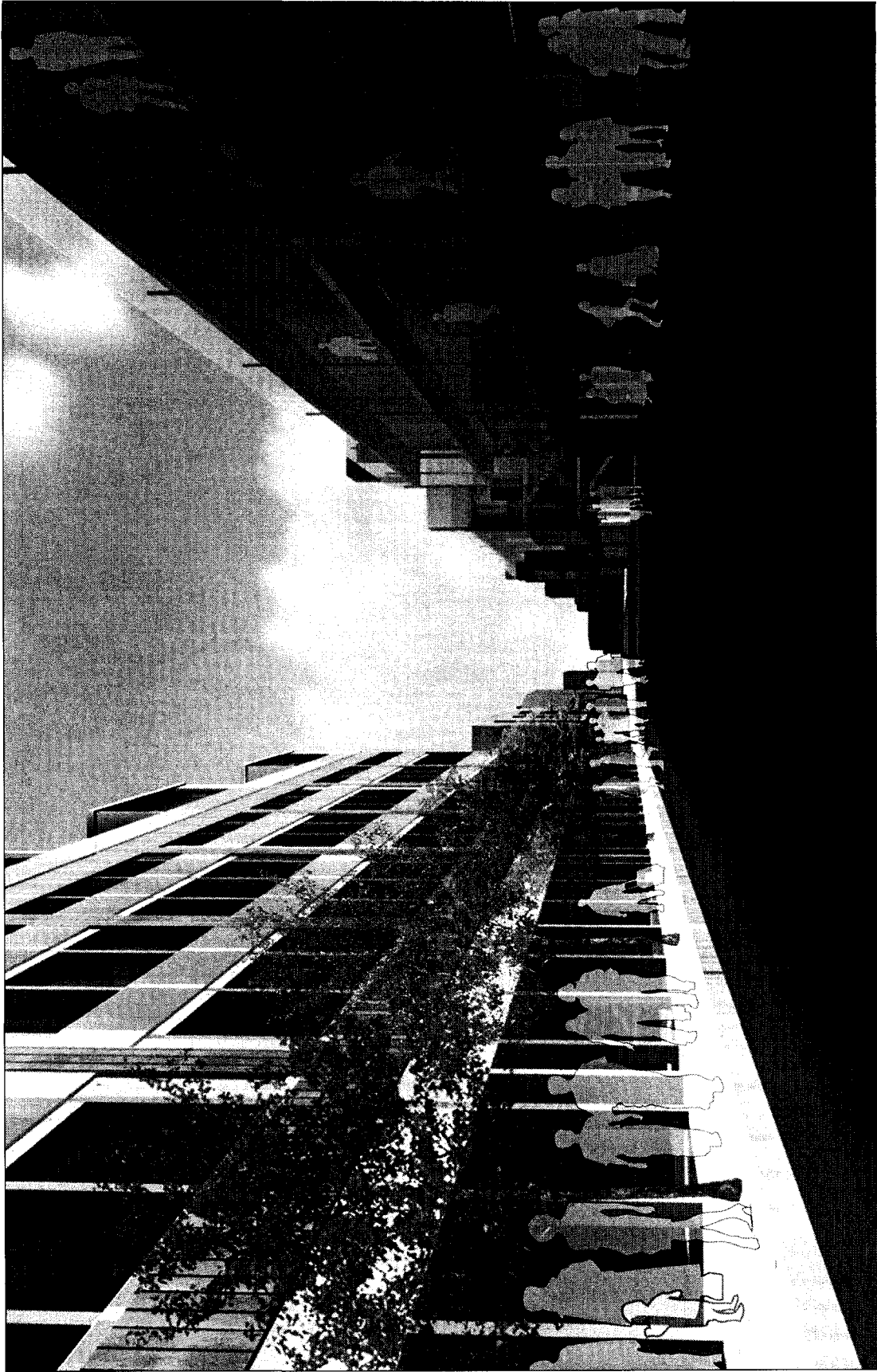
Second floor plan



Ground floor plan



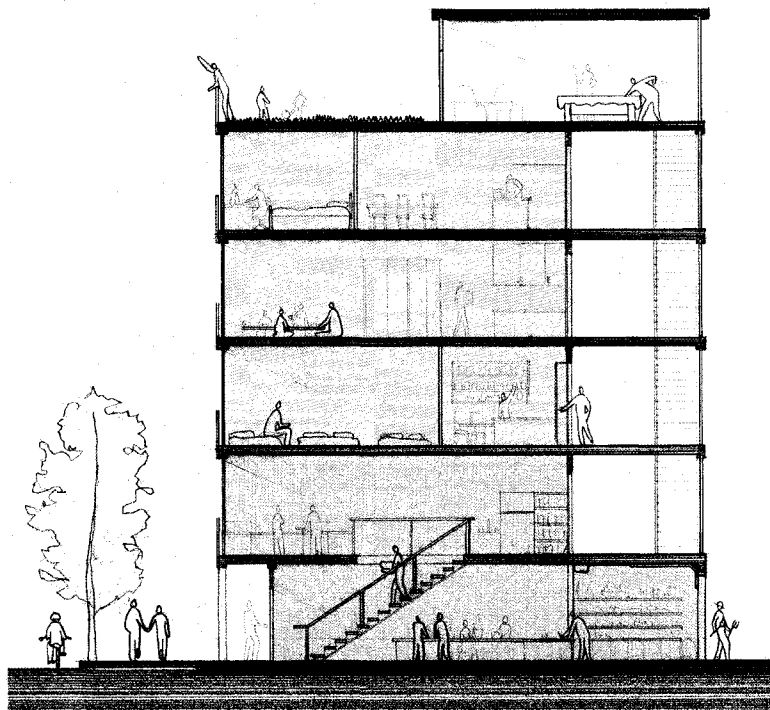
Work/live floor plans  
Scale 1:400



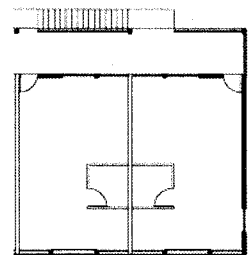
Rendering of housing and market type - the markets and businesses create an active boulevard

The housing and workshop type is designed in a similar manner, with the workshops on the first two floors and housing units above, but with different dimensions. These units are thinner and longer to allow for a greater number of housing unit, but also proposes that these units are not for permanent inhabitation, but for immigrants that need temporary housing while finding a home of their own.

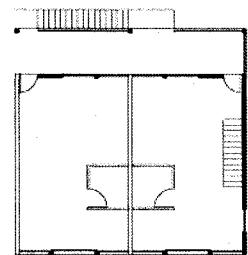
Like the work/live type, this building uses a load-bearing façade and localized service cores to allow for maximum flexibility. While the first and second floors are connected with stairs, the second floor is kept whole and is not divided into half units. This allows the workshops to utilize both floors or for the second floor to act as housing for more tenants. For the workshops, there are large garage doors on the east side of the building to allow for services and shipping.



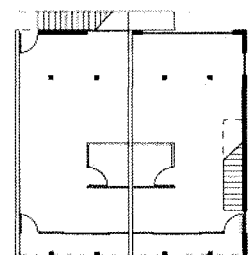
Section through housing and workshop type - housing (red) above workshops (blue)



Third, fourth and fifth floor plans



Second floor plan



Ground floor plan



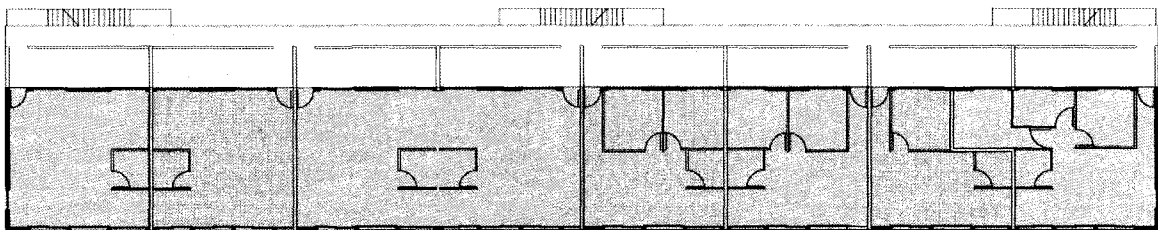
Workshop - housing floor plans

Scale 1:400



The "work" space and workshops are intended to support the immigrants by providing opportunities that may not exist. By mixing these programs with the housing, the immigrants are given an entrepreneurial opportunity and access to workshops for vocational training and certification. For the community, these programs augment this proposal by integrating with the neighboring services to foster more interaction and collaboration between the city and the immigrants

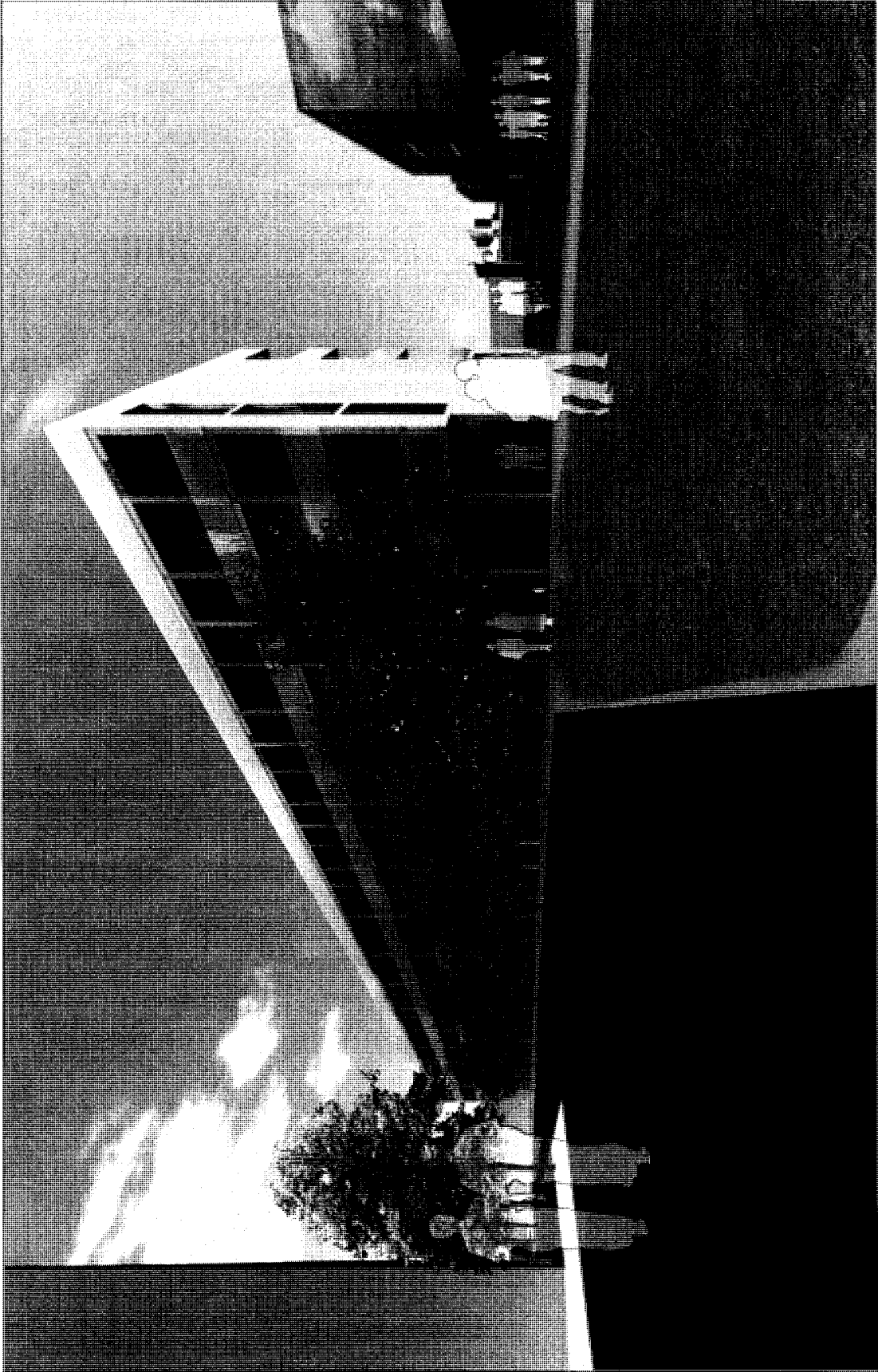
The design of the housing units for both of these buildings is based upon the idea of polyvalency. Polyvalency is the idea that a space can be "used for all kinds of functions without any adjustment being required to the building itself."<sup>34</sup> Thus, by having an open floor plan without columns or set walls, the interior spaces can be altered to accommodate the requirements of the various users. For example, the size of the apartments can be altered to accommodate couples to families with children, and even multi-generational families. By adjusting the party wall, the space can grow or shrink depending on the users needs.



Housing floor plans - flexible units to accommodate various requirements

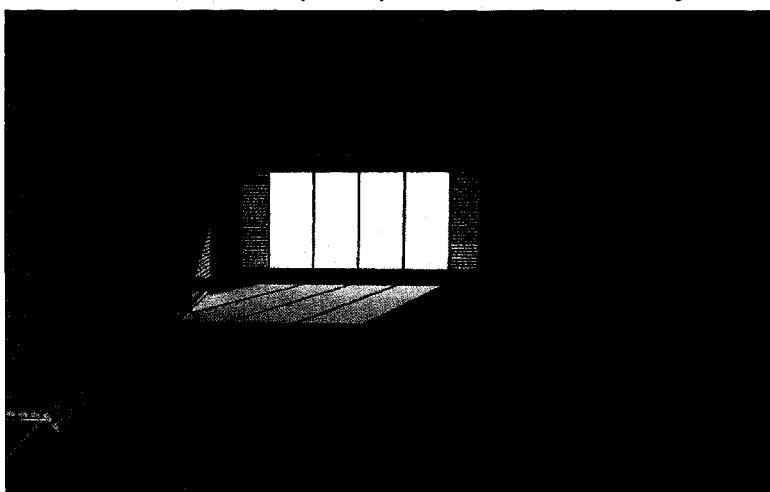
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<sup>34</sup> Bernard Leupen, René Heijne, and Jasper van Zwol, *Time-Based Architecture* (Rotterdam: 010 Publishers, 2005), 13.

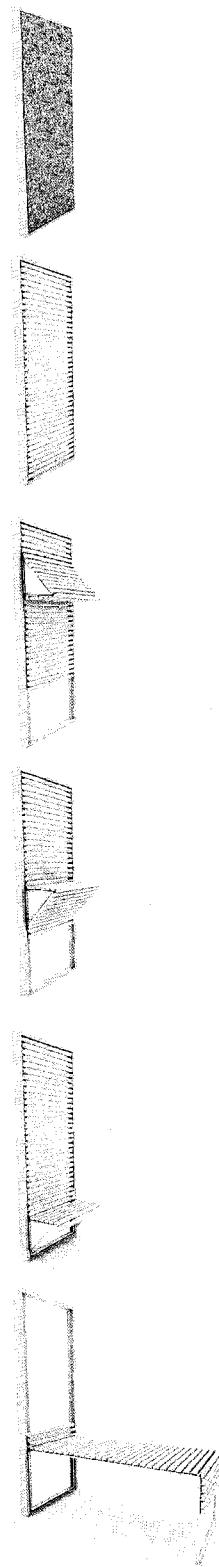


Rendering of housing and workshop type

In conjunction with a polyvalent space, a flexible wall system was designed to provide an extra depth for the users to customize. This wall system is a structural frame that supports a flexible surface that can be altered to perform various functions from a table, a seat, coat rack, or shelf. This flex wall allows the users to quickly alter their space as they see fit with minimal effort. It is especially useful for bachelors or for transitory people because it can fulfill the furniture requirements of a kitchen, living room, or bedroom. Housing for immigrants should be as flexible as possible to reflect the various customs from around the world, and the flex wall is the attempt to provide that flexibility.



Rendering of flex wall system during different times of day

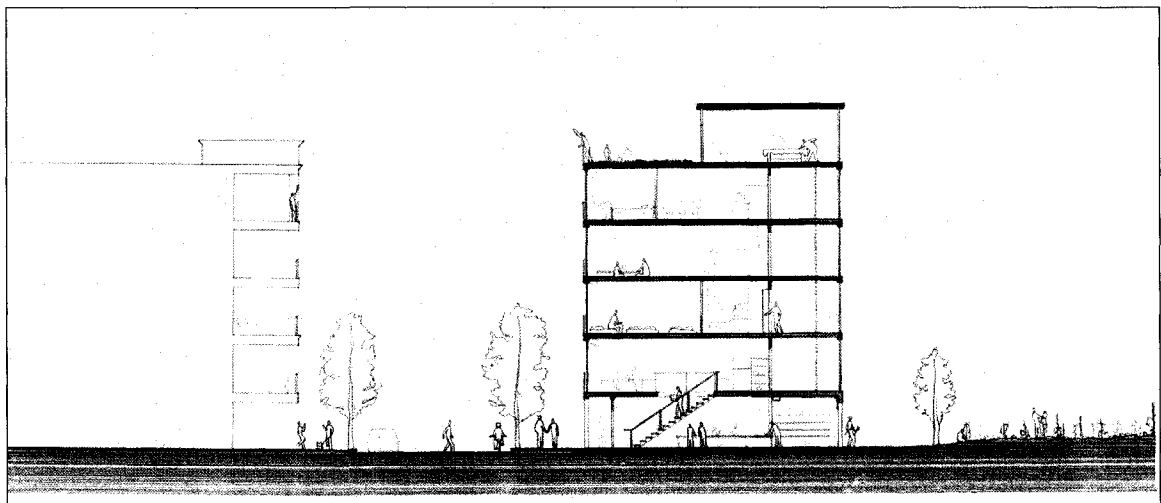


Rendering of flex wall system and its various functions

By designing flexible housing, this proposal attempts to provide the immigrants with affordable housing that is responsive to the users various requirements to make their transition to Canadian life easier. Coupled with the workshops and the entrepreneurial opportunity, the housing buildings can become the foundation for the immigrants to integrate into society and start their new life. For the city, these buildings signify a rich source of talent and skill that can enhance the community and economy.

### ***Allotment Gardens***

The last intervention of this proposal is the creating of an allotment garden to the north of the central hall and behind the housing and workshop building. These gardens are for the immigrants as well as the greater community. The intention of these gardens is to cultivate a greater sense of community by providing a space where the city and the immigrants can gather to share the common interest of gardening. As well, it provides a nice green space within the downtown core that is used productively by the community.



Section through housing and workshops with the allotment gardens to its east

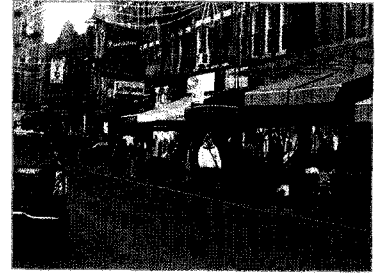
## Future Potential

After the implementation of the proposed scheme, the immigration center would become the seed for the community to grow. The market stalls of the central hall and the work/live housing building sets up a framework for other interventions along 104 Avenue. By creating a lively street with thriving businesses, other businesses will likely start up or relocate to the area and extend the energy of the street. This is evident in any city where a string of successful shops spur on more shops to the area, creating a vibrant community. As well, the success of the workshops would spur on additional workshops that would create an industrial area that trains and employs skilled laborers.



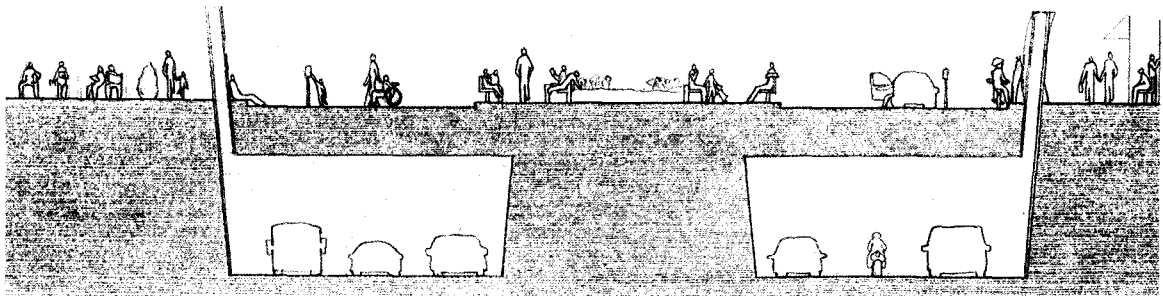
Future potential of the neighborhood - 104 Avenue grows into a lively boulevard with more shops and businesses, and additional workshops on the north section of the site

If the immigration center can be seen as the heart of the community, then 104 Avenue would be the spine for other neighborhoods to grow from. Canal Street in New York City is a prime example where many different communities, like Chinatown and Little Italy, have grown off this main street to create lively and vibrant neighborhoods. Like Canal Street, the life of 104 Avenue would allow pockets of communities to grow and develop their own vibrancy within the neighborhoods.



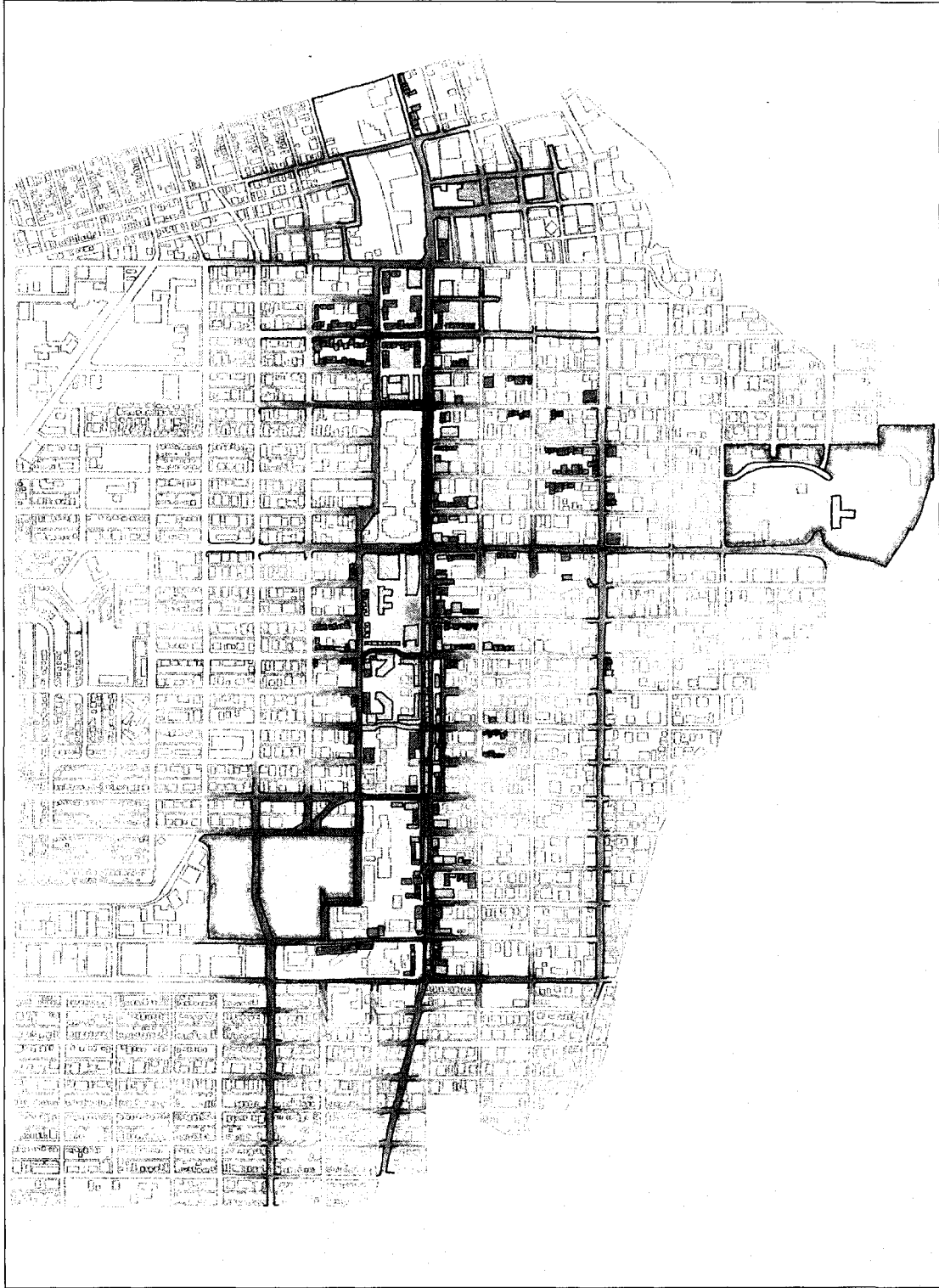
Thriving neighborhoods of Little Italy (top) and Chinatown (bottom) which feed off Canal Street

By having lively streets that are used by pedestrians, perhaps the traffic could be re-routed underground to allow for the growth of the boulevard while keeping the main 104 Avenue traffic artery. This would permit a greater densification of the area that would provide more entrepreneurial opportunities and services for the immigrant and the community.

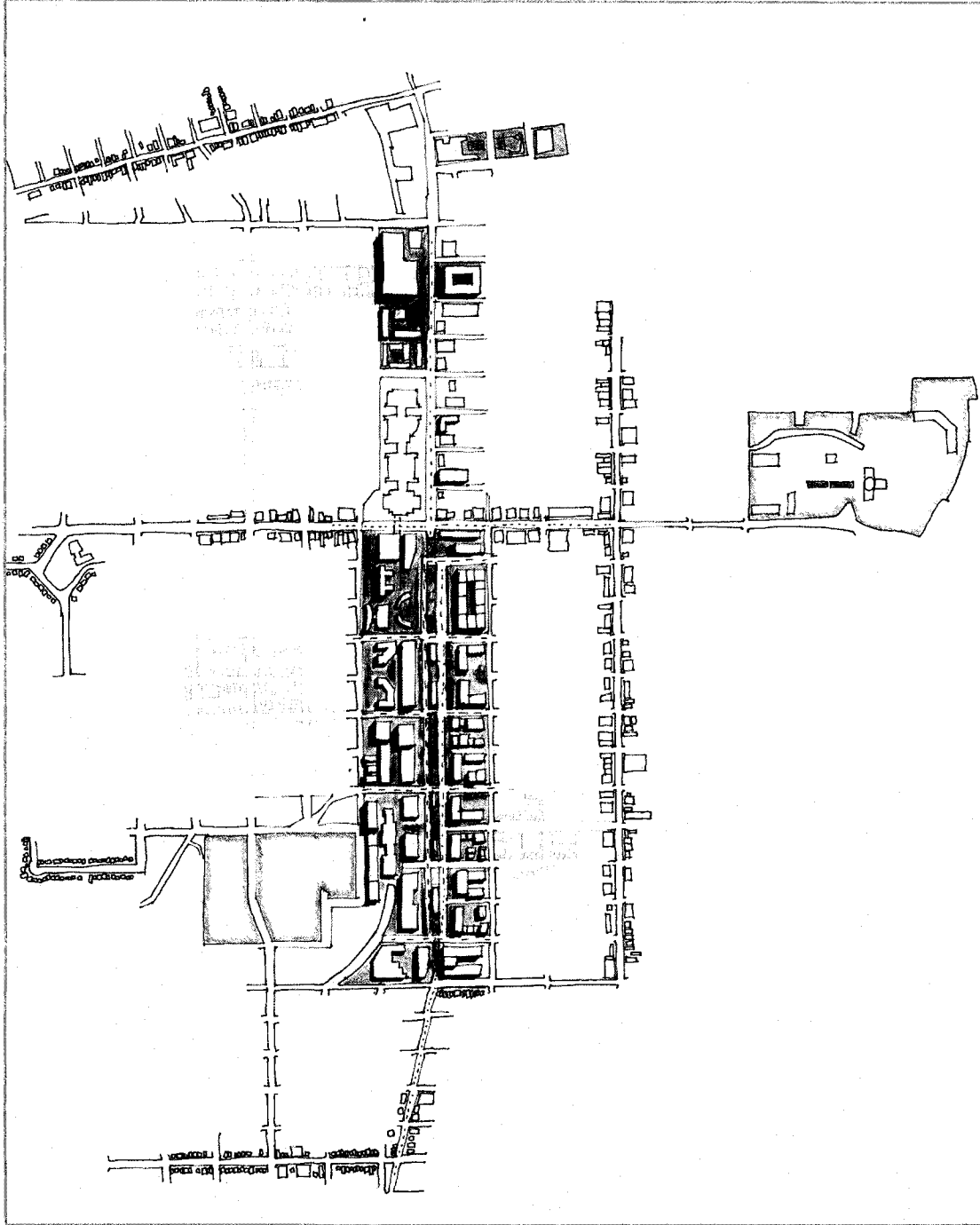


Re-routing the main 104 Avenue traffic underground - allowing the boulevard to grow and fostering a pedestrian friendly street

The potential of the immigration center is that it can become the foundation for the immigrants, but also as a major node within the city. It has the potential of the original immigration hall to become the center of a vibrant and bustling community that can bring the life back to the downtown core.

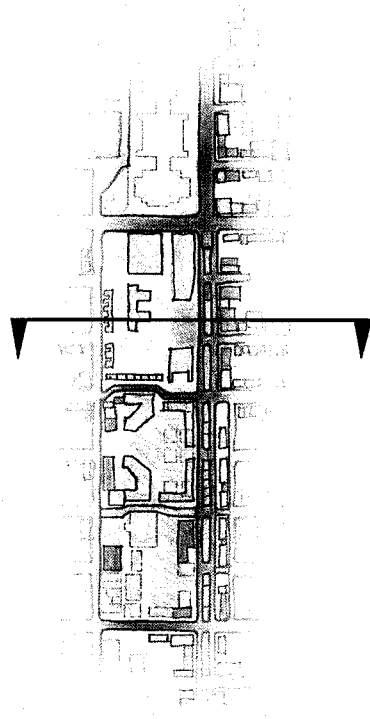
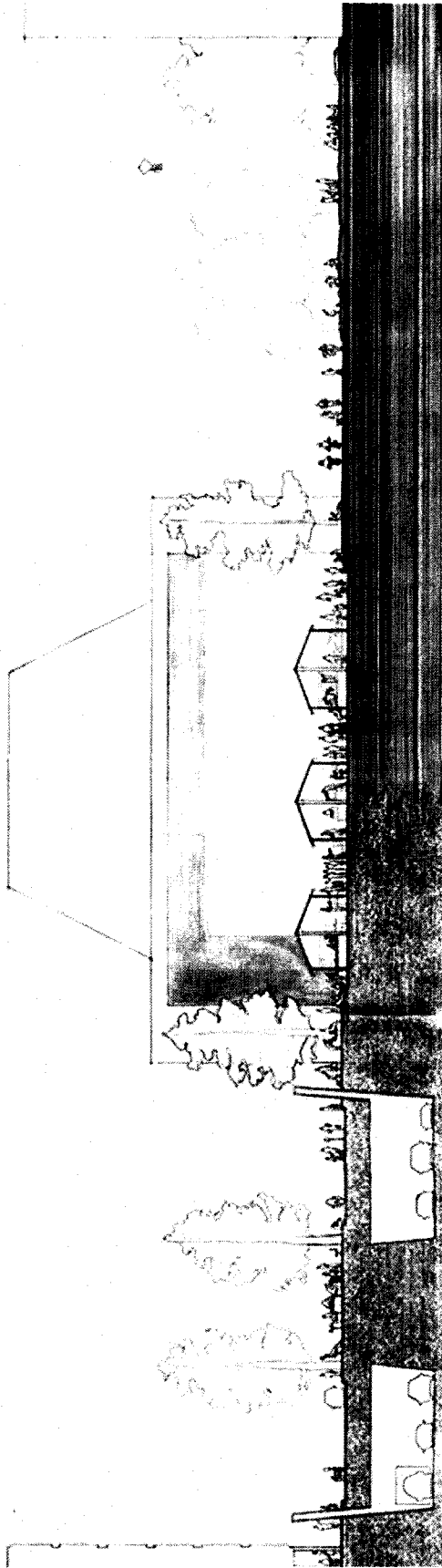


Future potential - growth along 104 Avenue with the orange indicating potential buildings (Based on a map from Google Maps)

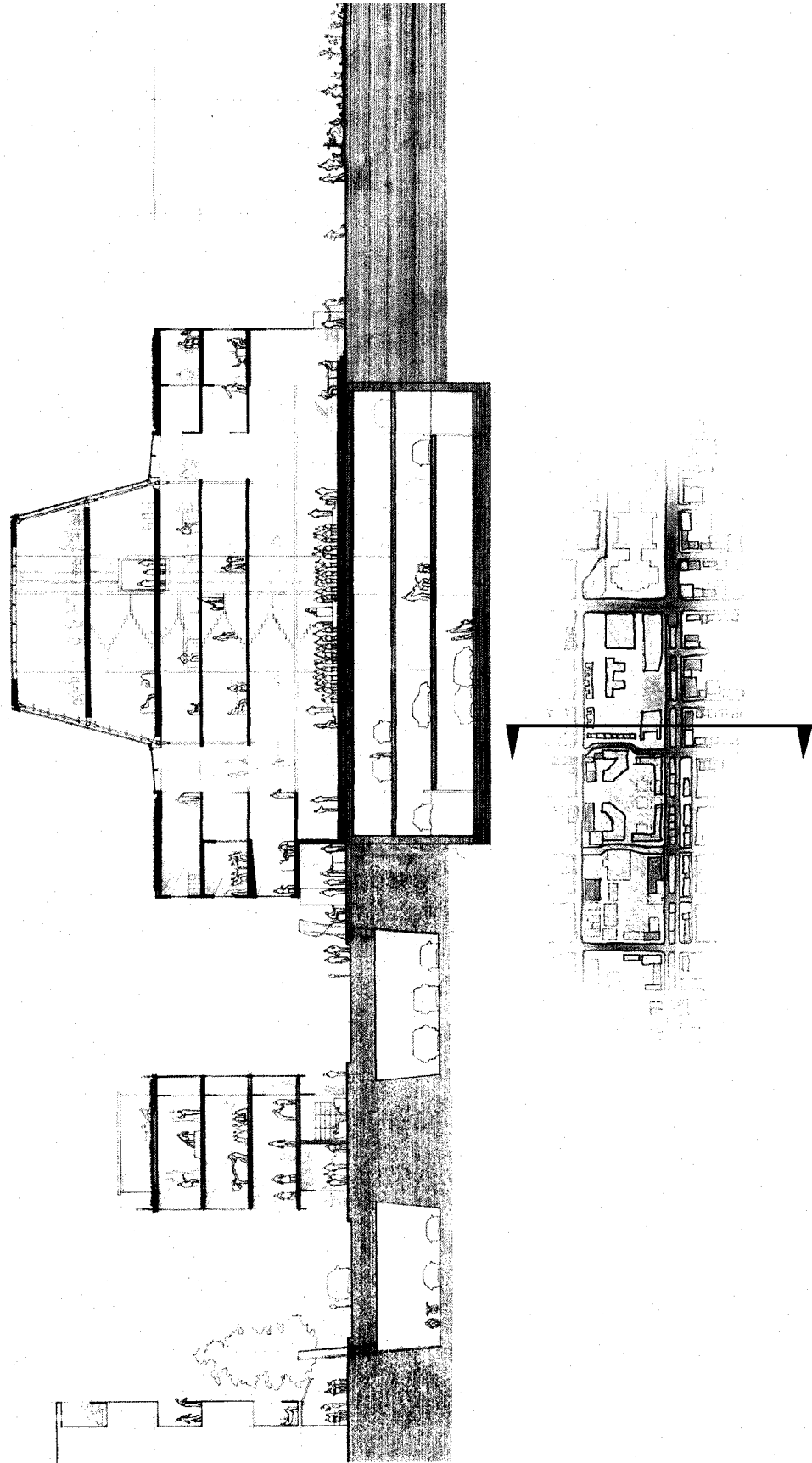


Future potential - communities would grow off of the "spine" of 104 Avenue (Based on a map from Google Maps)

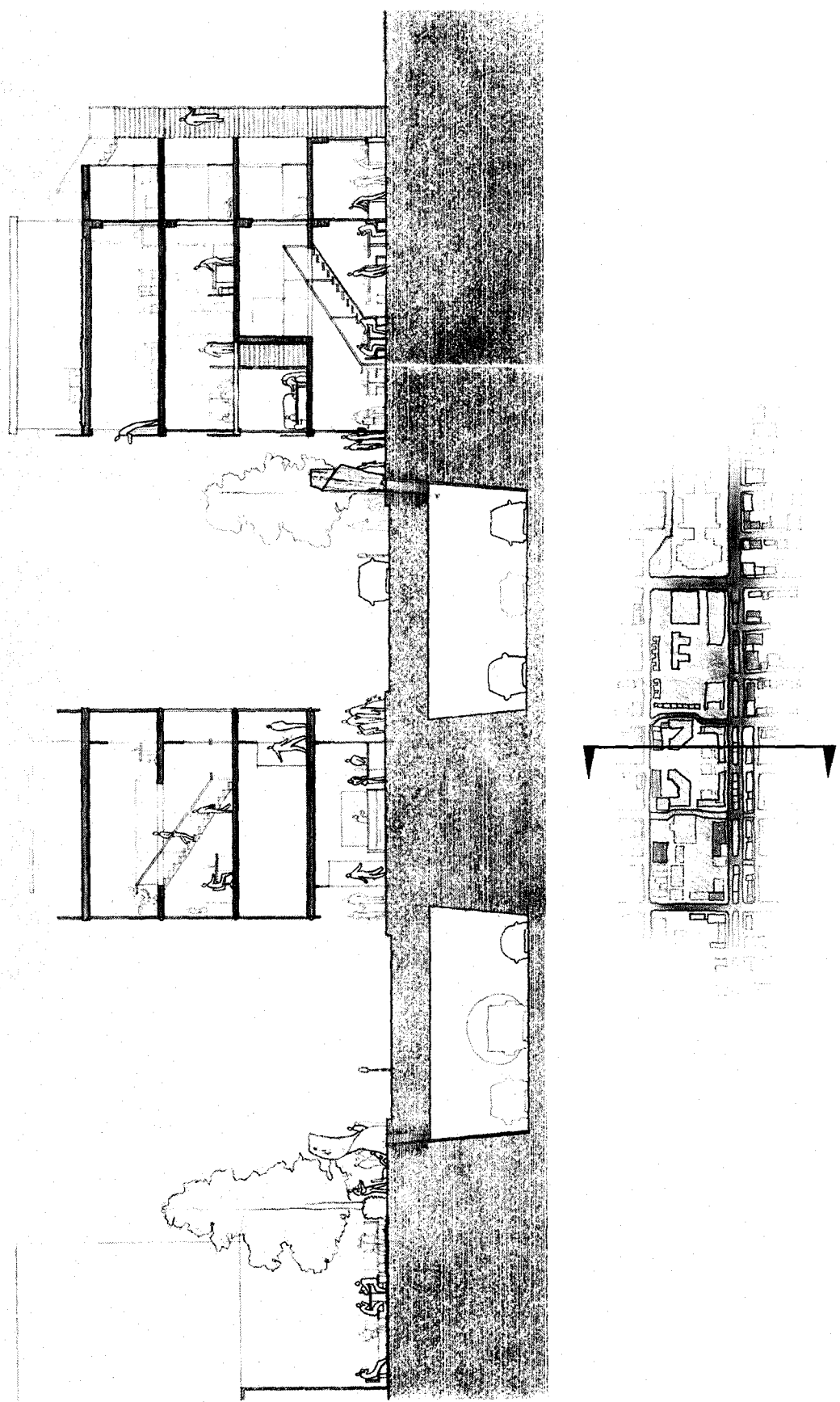




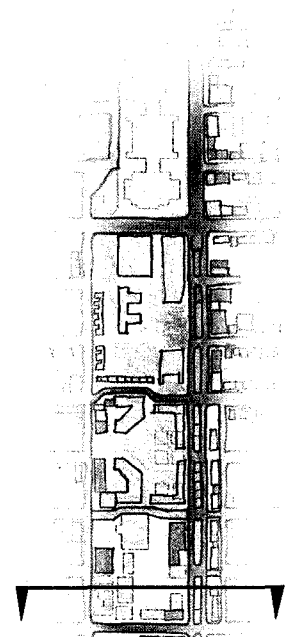
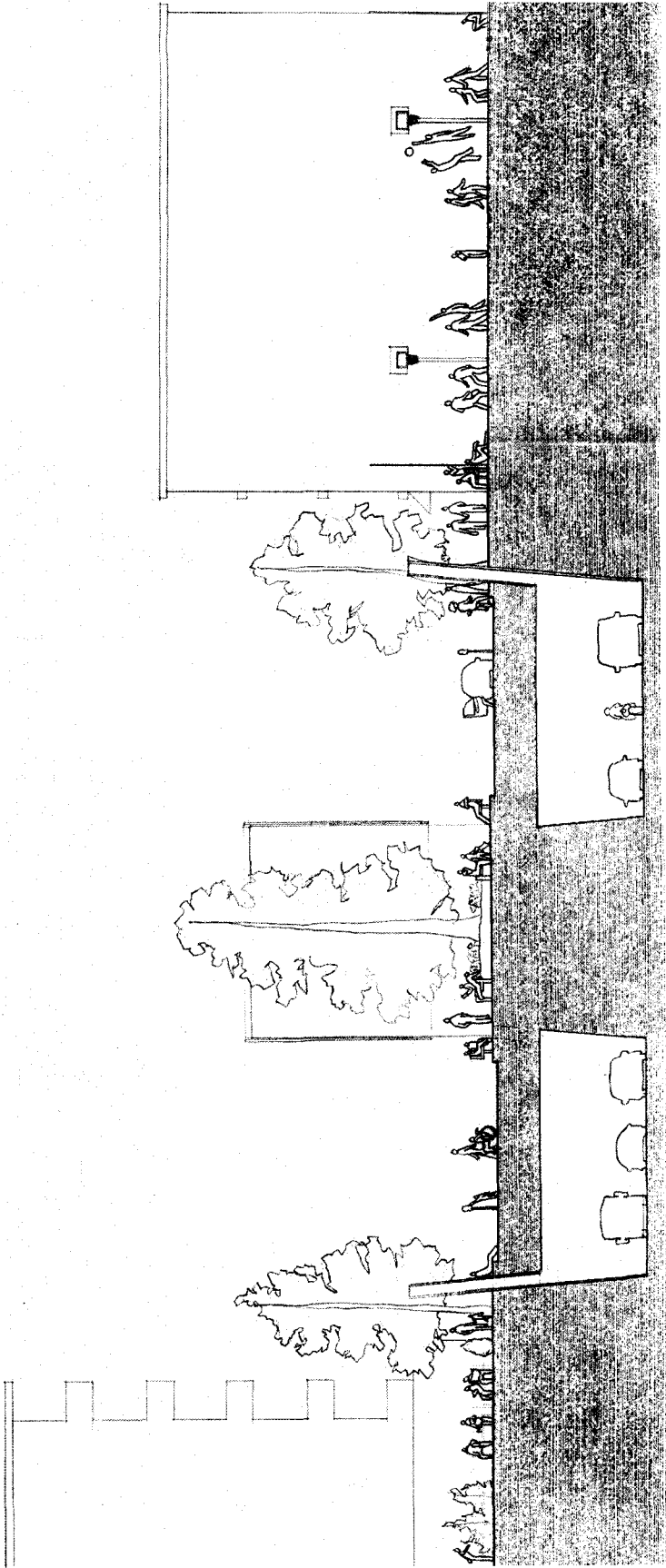
Section through boulevard and square - showing the relationships between the informal street and formal square



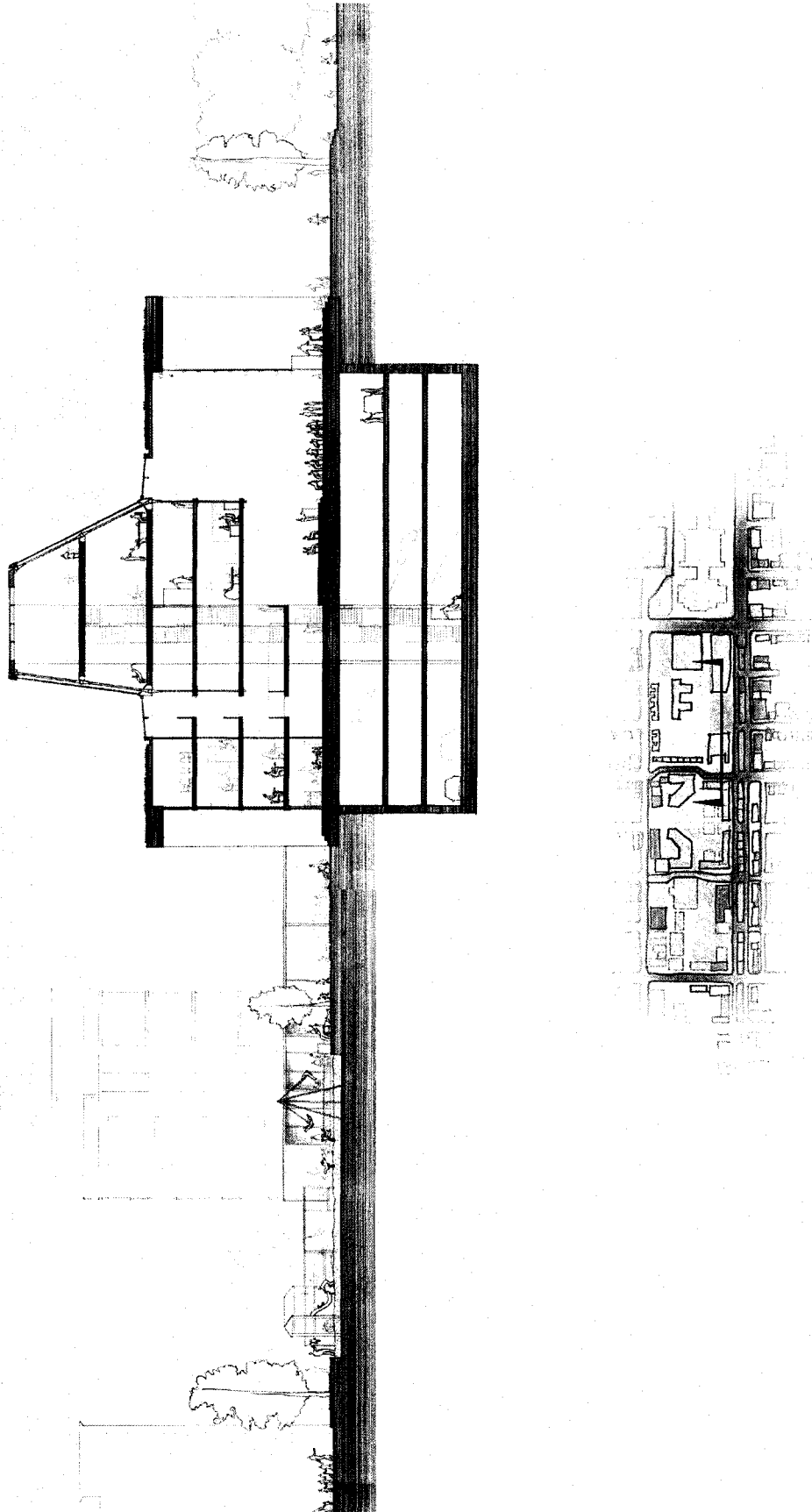
Section through boulevard and central hall - formal and informal programs activate the street and the buildings



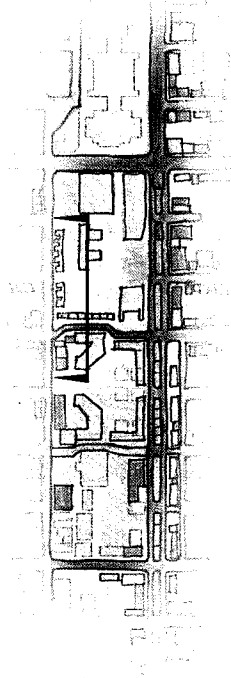
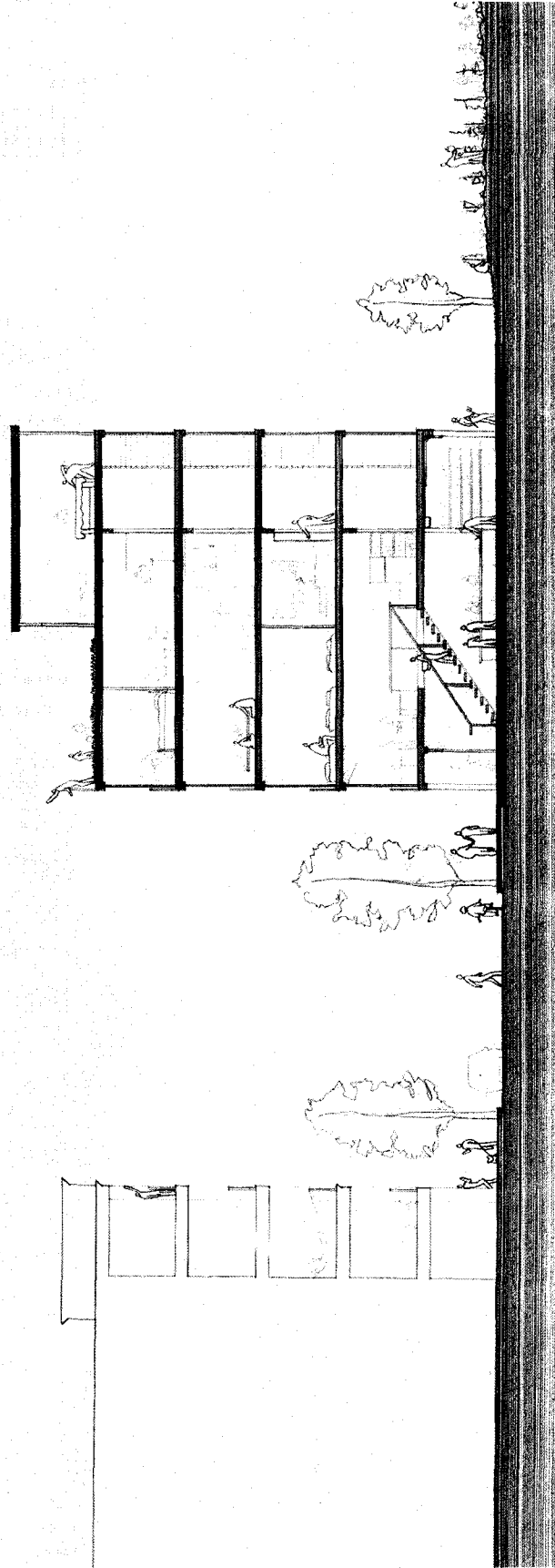
Section through boulevard and residences - the market and housing type create an active street scene



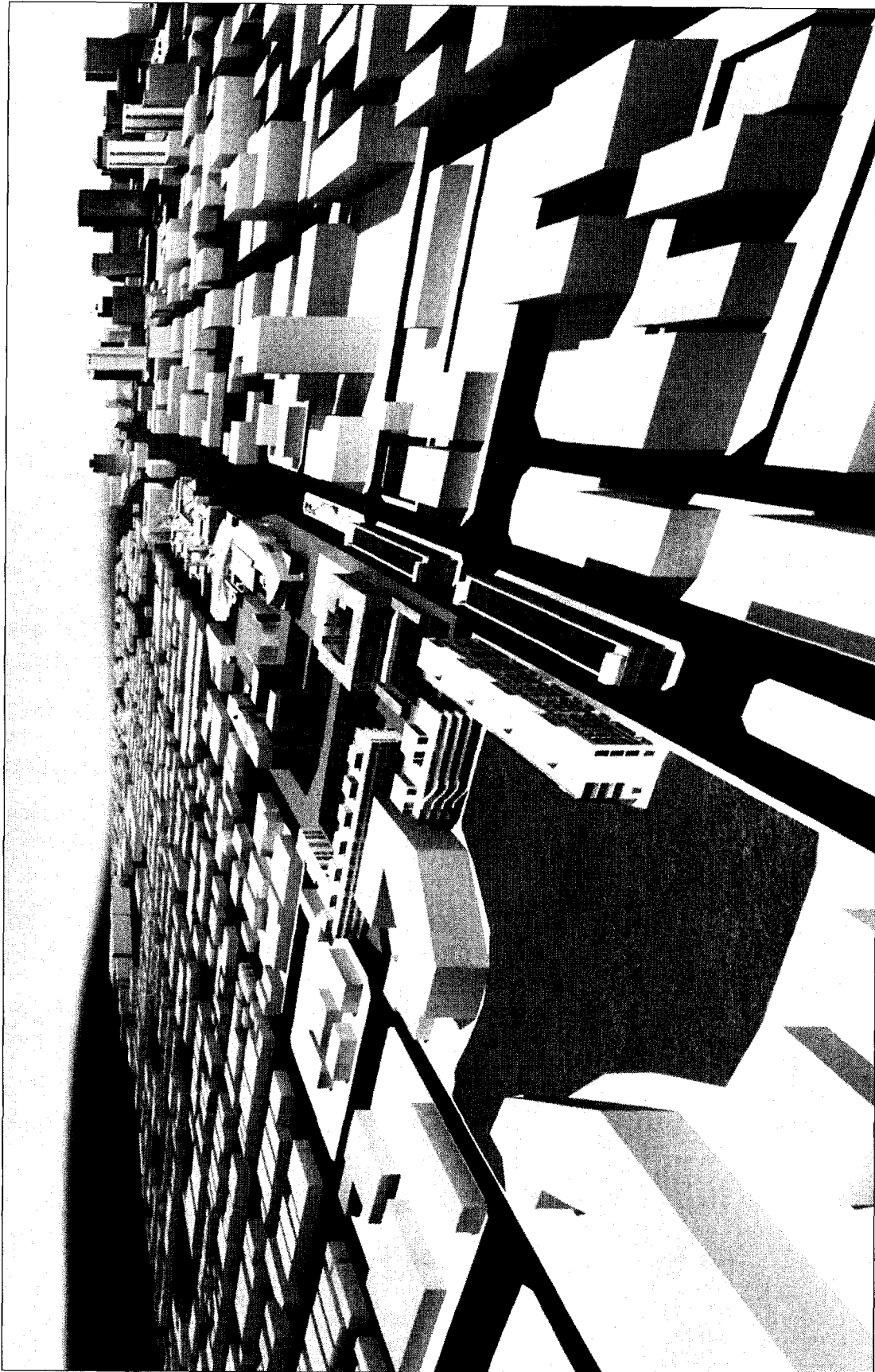
Section through boulevard and park - informal programming provides opportunities for parks and quiet areas



Section through central hall and 112 Street - showing the relationship between the park, hall and square



Section through the residences and 112 Street - the workshops attract people into the quiet residential street with allotment gardens behind



Rendering of the potential future boulevard within the downtown

## Summary

Looking at the issues of immigration into Edmonton, it can be seen that the major problem lies within the lack of community and affordable housing. Without a sense of community, the immigrants will not feel welcome and can become alienated from the city. Without affordable housing, the immigrants would not be able to survive given the present economic conditions. The research of this thesis has reinforced the fact that these two issues are inseparable from one another, and that building affordable housing without regard to the social well-being of the inhabitants is just as harmful as not building the housing at all.

The case studies have illustrated how good design can influence and affect the lives of many people and how architecture can actually foster the growth of a community. Like the Hismen Hin Nu Terrace project, allowing the users an opportunity to own a business creates a greater sense of goodwill and inclusion within the community. Combining affordable housing with support programs and entrepreneurial opportunities will empower the immigrants to interact and integrate with the community and city. Having the immigrants share their cultures and traditions will also help reduce the problems of discrimination and racism. Being exposed to different cultures can dispel certain myths and stereotypes that are typically prevalent in society.

Although communities are built over time, architecture can play an important role by considering the framework



for the growth of the community. This is where the fault and opportunity of Edmonton lie, as an urban plan has never been designed and the communities are haphazard and dissociated. The urban design scheme of this thesis was perhaps the most integral part of the intervention because it formulated a framework for the rest of the project to grow from. If successful, the project would become the seed and lay the foundations for the future growth of the community. The streets would become enlivened with people and shops, the neighborhoods would increase in density, and the community would gain a legibility within the city. However, if unsuccessful, the project would stop there and the building would become another disparate element in the urban fabric.

In attempting to address the issues of affordable housing and the lack of community, this thesis had to consider the urban scheme as well as the building design as they are both required to deal with these issues. However, as tackling both of these issues is a large undertaking, this thesis resolved the buildings up to the schematic design stage. As the design proposal was a framework for future growth, this thesis will be a framework for future research. For example, this research could expand and explore environmental issues and adaptations to the architecture, refinement of façade and construction details, flexibility and variations that can exist within the units, and the design of various aspects of the boulevard.

The design and programming of the central hall supports the growth of the community and provides the

immigrants many services and opportunities to aid their integration into the city. As well, mixing the housing with businesses and workshops gives the immigrants a chance to start their own business or attend the workshops, but it also creates a dynamic environment that fosters the informal interaction between the existing and new populations.

The boulevard is a key aspect for the success of the proposal because it will draw people in and bring life to the community. The lively streets will become an attraction point that allows the immigrants and the locals to interact and converse. The potential of re-routing the traffic underground would support the growth of the boulevard and create a pedestrian friendly area, while maintaining the major vehicular route to the west of the city. As well, the boulevard provides the neighborhood with many informal spaces that balance the formal node of the hall. Both are essential to a vibrant community. This creates a sense of identity for the neighborhood that is vibrant and welcoming, and provides a stage for the local population to interact with the immigrant population.

Architecture can be a vital expression of the life of a community, and a useful device for the well-being of its inhabitants. This thesis can aid in the research of how one can start to design a framework and an intervention that will be accepted, used, and integrated into the life of the city.

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