

Globalization, Multiculturalism and the Evolution of Suburban Toronto,

Richmond Hill Iranian Community

by

Farimah Tehrani

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AUTHOR'S DECLARATION

Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

ABSTRACT

Canadian cities and their built form will continue to evolve as they are affected, by trends in globalization and its consequent mobilization of populations in mass immigration. This thesis investigates the impact on the buildings of the suburban areas that immigrant communities move to, and proposes to develop design strategies to establish a common built identity for communities shared by Canadians and new immigrants seeking a life in Canada.

This Architecture will deal with the impact of mass migration of North American Suburb and the creation of the ethnic enclaves. In particular, how the Iranian immigrant community can manifest their traditional building formats in the new urban context of the Toronto suburb of Richmond Hill.

The research is based on the study of the joint form and functions of typical buildings, both in Iranian traditional cities and the suburbs of Toronto. The concern of the design case studies is to develop a new interpretation building form and function, which answers to the needs of Iranian-Canadian citizens of Richmond Hill. Each interpretation is based on a transformation of a Canadian suburban building type using the forms, uses, and culturally defined habits found in the traditional Iranian architecture.

This thesis is looking at hybridized architecture, which combines the original architecture of home culture and standardized commercial and residential architecture of North American suburb. This study presents a house project as a private realm and represents a public realm; a café, and shopping plaza.

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DEDICATION

Dedication

To my Family

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INTRODUCTION

Intro.1 The Thesis Overview

Today's economic and cultural globalization is especially driven by innovation and technology. Expanded communication networks and access to globalized transportation have made movement of peoples and their cultures easier around the world. Such free movement in the world today, and the mass communication associated with it, has affected all societies. These effects can be felt across politics, economies, the environment, and culture.

Immigration is one of the major characteristics of this new globalization, one where different cultures can meet and affect each other. Canada is already a country with one of the highest number of immigrants, at 20 % of the nation's population. The largest number of immigrants is between the ages of 18 to 35. Their new life in Canada typically occurs in two stages, the early stages when they are new to country and struggling to adapt to the new conditions, and the latter stages when they have some success in their new society as professionals and business people. In the second stage, since they communicate with more people, and can share the diverse cultures in Canada's mosaic, they can have more influence on the shape of their community and they can confidently bring many aspects of their original culture into the wider Canadian community. Many of the new Canadians, at this time in their lives, migrate to suburban communities for larger family homes; this stage reflecting their increasing economic success, and also for increased business opportunities. Many become investors, bringing their money and cultural background into the new context enriching it with greater diversity.

Multiculturalism is defined as a policy of a state in which the guidance of the public domain is based upon the shared quality of communication and civic respect between different groups, while the private domain permits the diversity that exists between groups to continue to co-exist. The multiculturalism can be reflected in the physical manifestation of culture, or as a mirror that represents the nature of culture.

In the case of Canada as a whole the prevailing official philosophy and policy for decades has been one of the “Cultural Mosaic” and less of the American “melting pot”^[1].

This thesis focuses on the Iranian enclave in Richmond Hill, and the built out urban forms and functions that might be expected of the new Iranian-Canadian population in shaping their new suburban GTA neighborhoods. The question is, should we expect new diverse buildings and urban functions and activities that Iranians with a different cultural past would seek to manifest in shaping their neighborhood buildings, public spaces, and homes. Also, how would these integrate with the existing framework of Canadian suburban building to create a new hybrid architecture and setting?

This thesis is going to examine the underlying situation, review precedents of Iranian traditional architecture, and produce a series of case study forms that reflect a jointly created hybrid of new forms and functions of a fusion of Canadian suburban architecture and Iranian architectural culture.

1 Shahrzad Faryadi. “Urban Representation of Multiculturalism in a Global City: Toronto’s Iranian Community.” Tehran: Globalization and Autonomy Online Compendium, n.d. 2-4.

Globalization, Multiculturalism and the Evolution of Suburban Toronto

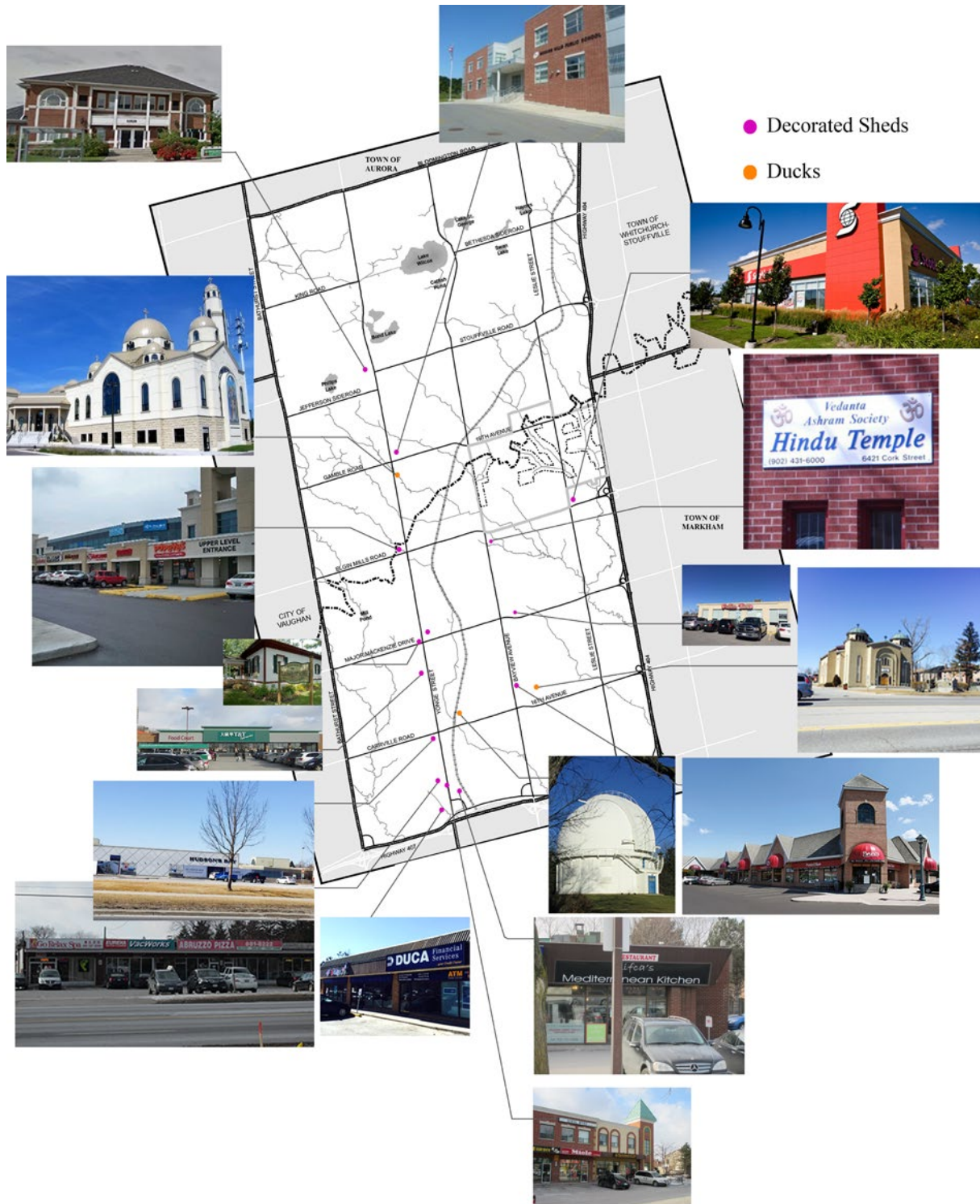


Figure Intor.01: Examples of duck and decorated sheds in Richmond Hill based on Robert Venturi's definition

Intro.2 The Design Process

The thesis case study design work take place in Richmond Hill, a GTA suburb of the City of Toronto with high population of Iranian immigrants, and is divided in to three building case studies presented in three chapters.

For the purpose of the case studies, the daily life of an Iranian immigrant to the GTA is categorized into two realms. One is domestic and the second is social. Work is assumed here to be integrated into the larger society as a whole. Each of the domestic and social spaces is needed in order to have a healthy local society. The repetition and lack of diversity can be seen around categories of buildings in the Suburbs^[2]

Domestic and social are represented in a home and a café and shopping plaza, the latter are the social world.

The formation of the designed buildings is very similar to almost any building in today's suburb. Robert Venturi and Denise Scott Brown in their book, *Learning from Las Vegas*, used the term decorated sheds for these types of decorated generic buildings. For them ducks are the opposite of decorated sheds, meaning that they are a type of building that illustrates by their symbolic form that they are just what they are. Following Venturi and Brown's lead, the case study designs are based on a hybrid of Iranian architectural typology and Canadian suburban buildings with their superficial decorative elements, both which may also be considered as decorated sheds.

2 Oldenburg, Ray. *The great Good Place*. 1st ed. New York: Paragon House, 1989.15.

CHAPTER 1

House In Suburb

1.1 A New Interpretation of a House in a GTA Suburb

An important aspect of architecture is identity, which in part is based on the culture of people who live in a particular space. Identity initially emerges from the climate, religion, and beliefs of people, and is valued even when members of a culture transition to other climates and places. For instance, immigrants generally bring their own background culture to their new setting and try to adapt those cultures to the new environment. However, despite a wealth of immigrants, suburban architecture in the province of Ontario rarely reflects the demographics and culture of people who live there. In fact, most suburban areas in this province look similar although they are home to many different cultures. In response, this chapter focuses on the design of a house in a suburban area of Ontario, Richmond Hill, to incorporate certain features of a traditional Iranian house. This house transformation is a metaphor for Iranian immigrants who come to Richmond Hill and adapt to their background culture in this new setting.

The Greater Toronto Area is home to 57,000 Iranians – who form one of the largest expatriate-Iranian communities in the world. An increasing number have chosen to make their home in Richmond Hill. In the 2011 National Household Survey Profile on the Town of Richmond Hill, 14,415 residents (14.25%) had originated in Iran. This number was exceeded only by the 15,055 residents (14.88%) who named China as their place of birth.

Iran has a variety of climates, warm and dry, cold and dry, wet and temperate. The uses of traditional Iranian houses in warm and dry climates are very wide spread in Iranian cities. These houses, referred to as courtyard houses, act as a typology. They are built in a variety of sizes for different income circumstances, but they all share similar characteristics. Rituals, culture and climate have been the most important aspects of their development, and most are built for extended families. The connection to nature is key focus of their design. The courtyard, which is a center of activity, encourages this connection, being places where much household activity happens. This Physical circulation around the courtyard from indoor to outdoor ensures that entering the house does not shut out the outside world

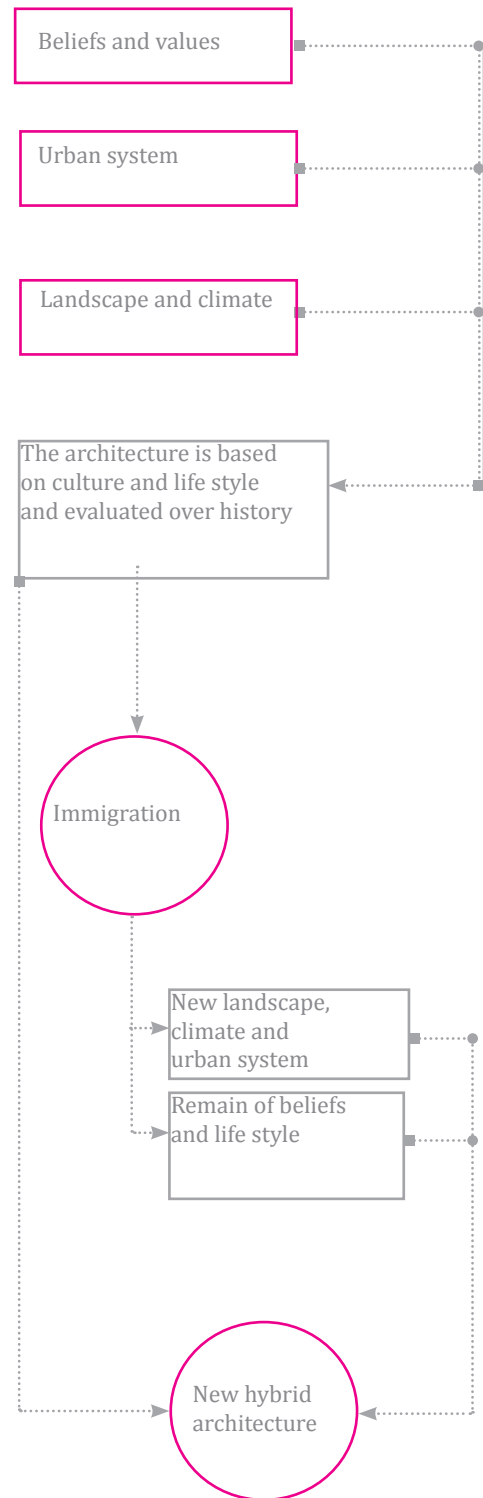


Figure 1.01: Appearance of new hybrid architecture



Figure 1.02: Example of need for privacy in Thorncliffe Park

entirely, which is often the case with traditional Canadian houses. At the same time, residents are unseen and apart from life and people on the street; and emphasis on private life is another aspect of these houses. This desire for privacy is illustrated in houses in Thorncliffe Park whose Middle Eastern owners have covered the windows with newspaper.

The design of this project's house envisions an Iranian family who has moved to Canada recently. They are going to build their dream house at Bloomington and Yonge, which is an area of upper middle class new developments. The cheaper land in this area in addition to the larger lots enables them to build aspects of Iranian design into the house for their extended family. The goal is to incorporate the values of Iranian families into the new environment. Among other features, since working from home is popular, the house needs to accommodate a space for doing so. For instance, a young mother of an Iranian family might be a kindergarten teacher. She would be interested in owning a daycare in her house so she can live at home and work in the same place.

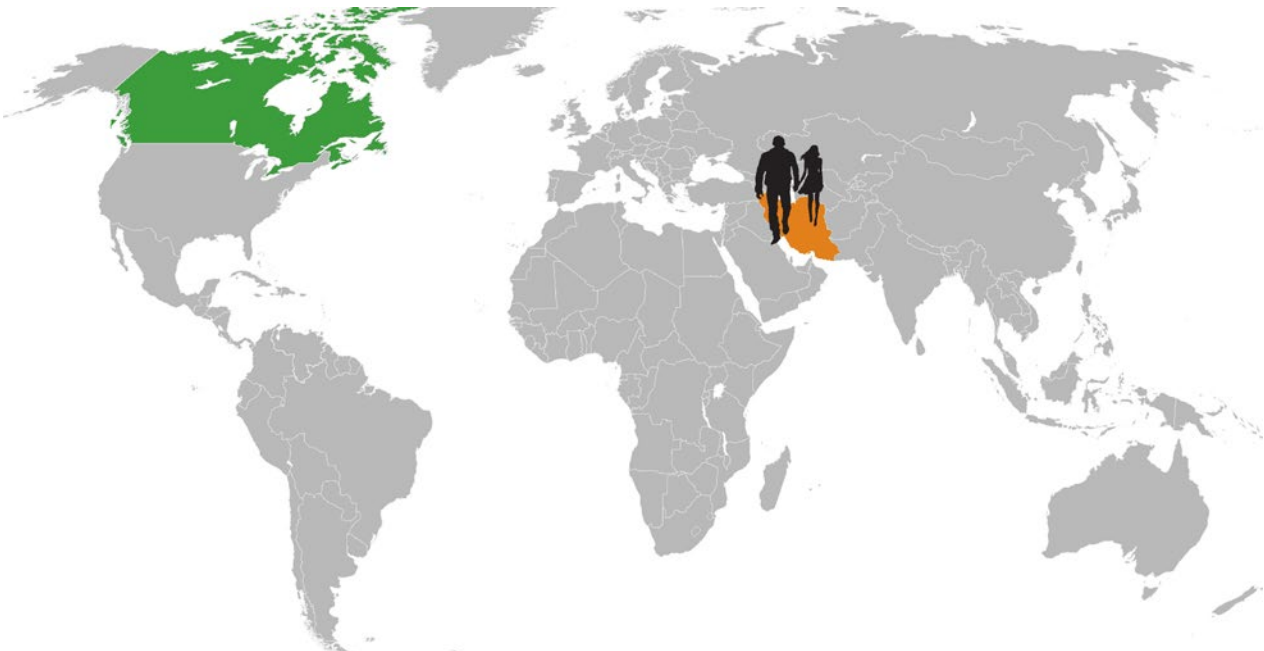


Figure 1.03: Immigration from Iran to Canada

Keeping a large home for an extended family would make the house project model larger than a usual suburban house. It is more like two houses in one. The role of nature is highlighted in these houses by two courtyards. As a result, this specific design for the imaginary family also shows the physical effects of immigration in a suburban neighborhood. The suburban houses are usually consisting of a backyard and large windows in the front. In this model the backyard is excluded and we have courtyard as open space. Also the entrance is the only spot where family can interact with neighbors.

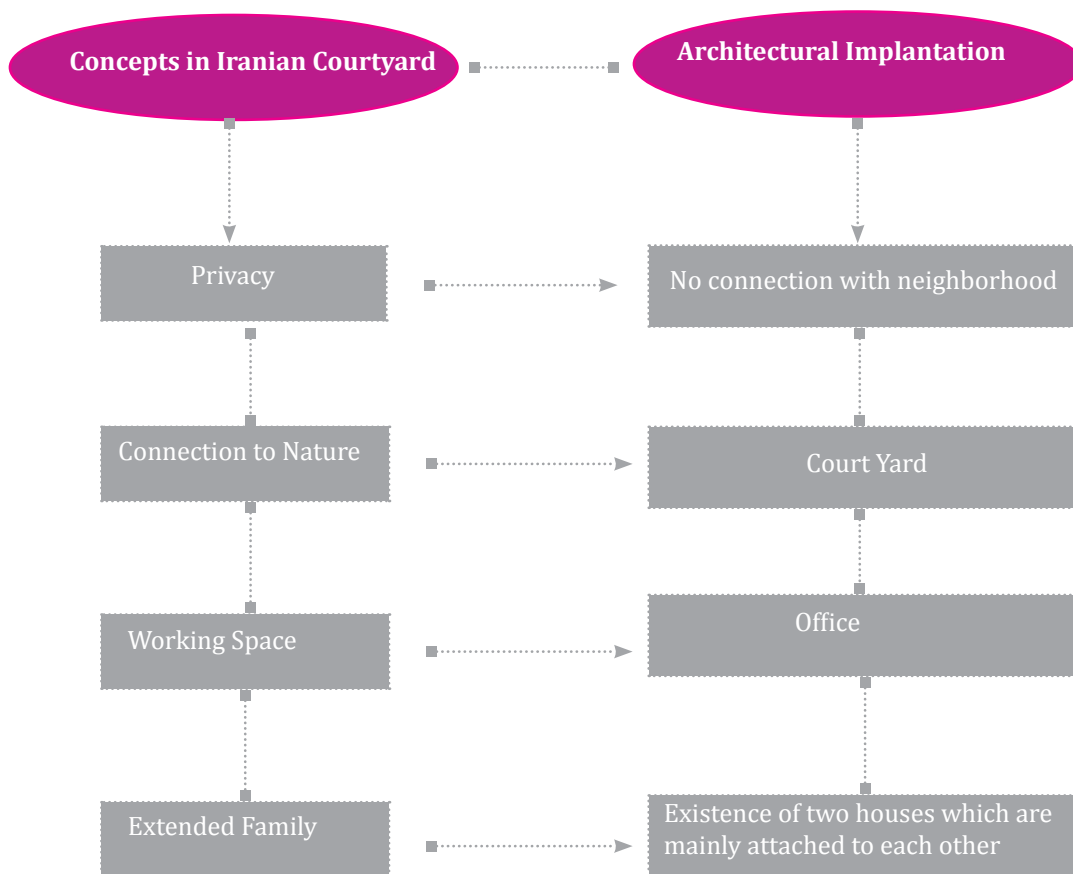


Figure 1.04:Illustration of concepts and their architectural implication in Iranian courtyard houses

These concepts are shown in Iranian courtyard examples and they are main idea of proposed case study project of this chapter.

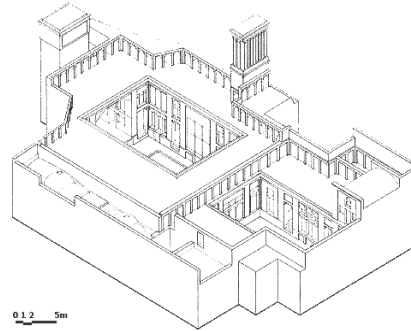
1.2 Examples of Iranian Courtyard Houses

Iranian courtyard houses are the basis of the case study design, and which are adapted for the suburban neighborhood. The examples selected show use of similar concepts in most Iranian courtyard houses. These particular houses were built in same period, the Qajar dynasty also known as Ghajar, Kadjar, Qachar, was native Iranian royal family which ruled Persia (Iran) from 1785 to 1925.

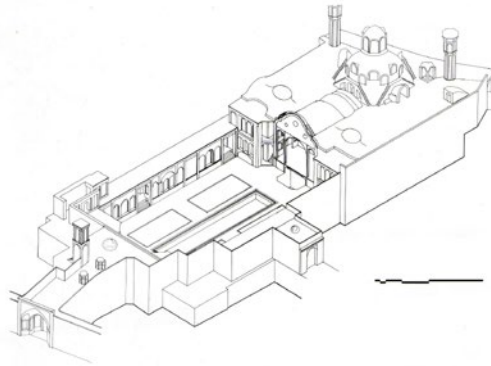
These courtyard houses all belonged to upper middle class Iranian families in that era. These are good examples of Iranian houses and some, such as Gerami house and Banikazem house, are still being used for family homes today. Other examples such as Tabatabayi house and Brojerdi house are now being used as motels for tourists.

Examples of Court yard Houses

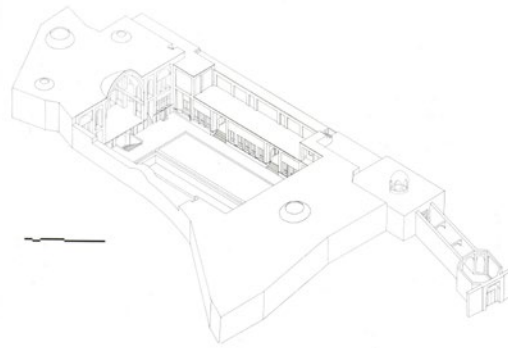
Gerami House
Around 1884



Brojerdi House
1875



Sharifian House
1814



Tabatabaei House
1880

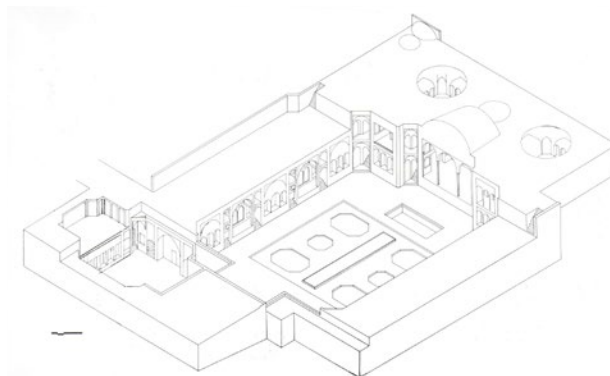


Figure 1.05: Examples of Iranian court yard houses-Isometric perspective

Five Examples of Court yard Houses

Gerami House
Around 1884
Figure 1.06:Gerami House, court yard vignette, image.



Brojerdi House
1875
Figure 1.07:Brojerdi House, court yard vignette, image.



Sharifian House
1814
Figure 1.08:Sharifian House, court yard vignette,



Bani Kazem House
1790
Figure 1.09:Bani Kazem House, court yard vignette



Tabatabaei House
1880
Figure 1.10:Tabatabayi House, court yard vignette



1.2.1 Gerami House

Gerami house was built in the late Qajar era, out of two different houses for an extended family. Each section has its own central courtyard. These two joined houses obey similar rules and concepts, but they are very different in size and structuring of space. The bigger house belongs to the larger family and the smaller house belongs to smaller family.

The two courtyards are aligned along a northeast- southwest axis parallel with the street. The circulation throughout the house is based on the two courtyards; in order to go from one space to the other you need to use the courtyard. You can also observe the courtyard from most rooms in the house. The southern courtyard is larger than the northern, and the spaces surrounding it are more substantial; therefore, the southern courtyard was built for the larger family.

The larger courtyard is surrounded on all four sides by building spaces, but rooms around the smaller courtyard are only on the eastern and western sides. The eastern and western facades are solid walls, which are covered with arcades. The arcades not only create shadows in the yard but also give a wall a non-solid look.

This room on the eastern side of the smaller courtyard belongs to the larger courtyard, with no connection to the smaller courtyard.

The larger building is two storey. The corner areas have higher ceilings and roofs. The smaller courtyard is built in one story. The proportions of the courtyard area to the surrounding wall in the two courtyards are almost similar.

The first entrance of the building is similar between the two houses and is followed by the second private entrance for each house. The two courtyards do not have direct views of each other. In this case, the two houses act as two individual homes. The two houses share storage and a kitchen, which is located in the eastern part. The large balcony on the southern facade is the highlight of the courtyard. The Shah-Neshin (a sitting area for guests) is located behind large balcony; this feature is almost similar in every traditional Iranian courtyard house. It can be part of the saloon, which has a higher ceiling (mainly a half dome). The Sardab (an underground space in a building) is located under the Shah-Neshin. During the warm seasons of Kashan (40-50°C), the

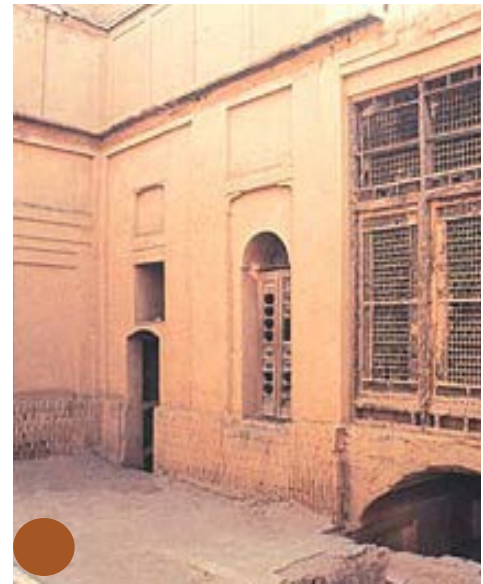


Figure 1.11:Gerami House- Larger Courtyard, , Sash window

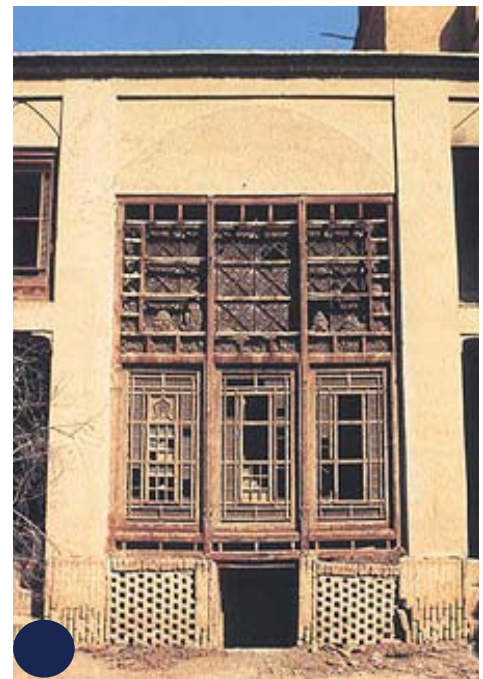


Figure 1.12:Gerami House- Larger Courtyard, , Sash window

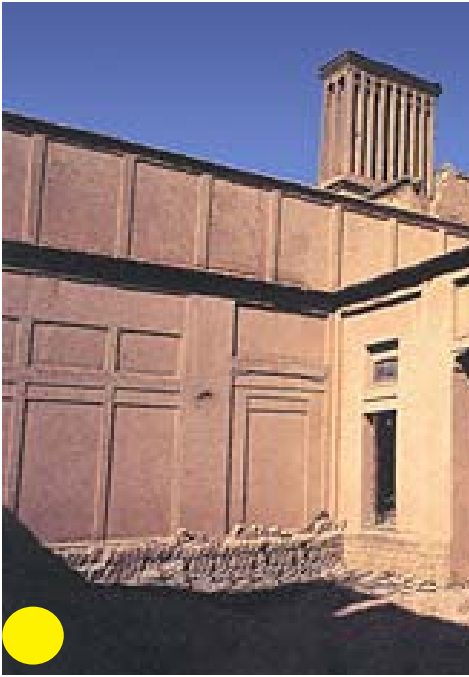


Figure 1.13: Gerami house, smaller courtyard elaborated on plan



Figure 1.15: 6-Badgir-water reservoir in the world at the ancient Iranian city of Yazd

temperature difference between the Sardab and Courtyard is about 10-15°C. The Shah-Neshin is located under the wind-catcher, or Badgir.^[1]

Badgir or wind-catcher is an Iranian element for natural ventilation, which is built, in different forms. The typical forms of wind-catcher can be categorized into five different groups unidirectional, two-directional, four-directional, octagonal with two vents on each side, four-directional with two “false” vents on two opposite sides.^[2]

The five-door room is located on the northern facade of the courtyard. A five-door room is a room with five doors, which usually opens up to open space. The combination of balcony, along with the water pool and five-door room highlight the linear format of the courtyard.

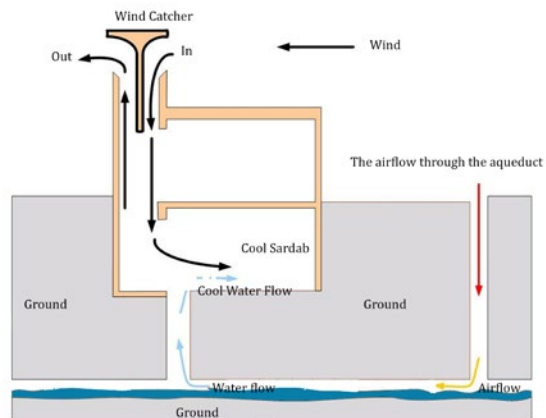


Figure 1.14: Badgir (wind Catcher) system in Iranian courtyard houses

1 Ghasemi, Kambiz Haji. Ganjnameh, Cyclopaedia of Iranian Islamic Architecture. Ed. Maryam Tabatabaee. Trans. Claude Karbasi. Vols. Fourteen, Yazd houses. Tehran: Faculty of architecture and urban planning of Shahid Beheshti university, 2005.

2 <http://www.kavehfarrok.com/iranica/learning-knowledge-medicine/professor-s-roaf-badgir-irans-ancient-air-conditioning-system/>.

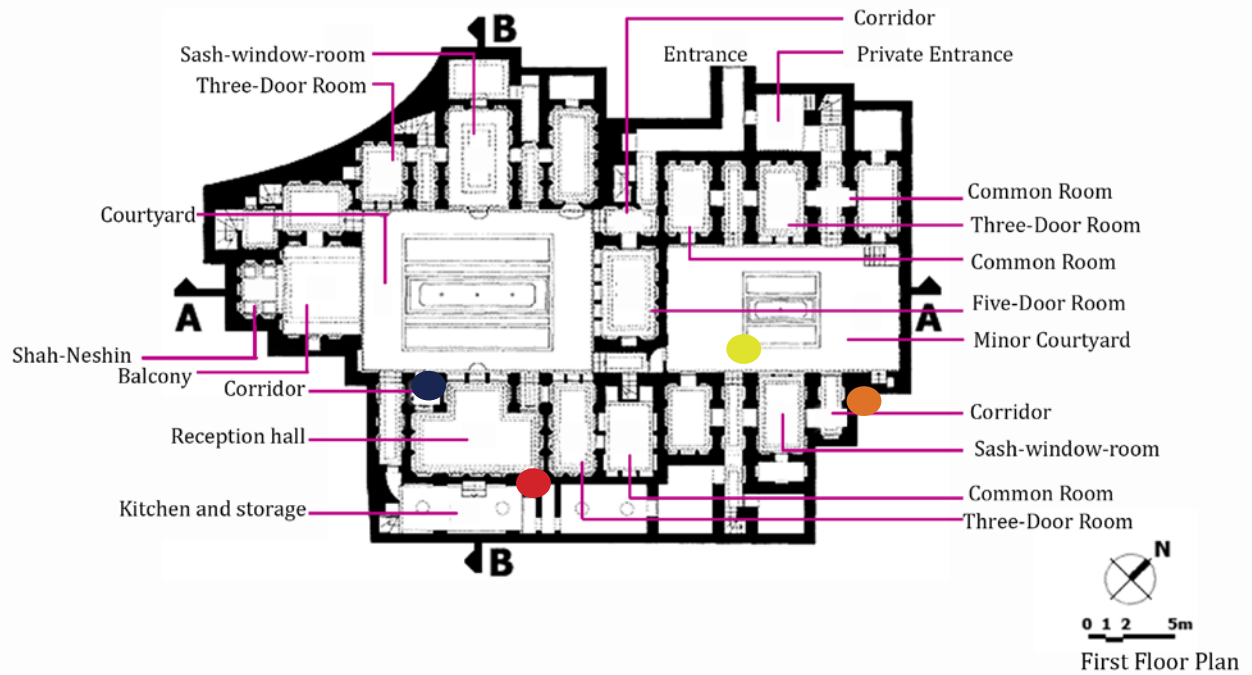


Figure 1.16:Gerami house Plan

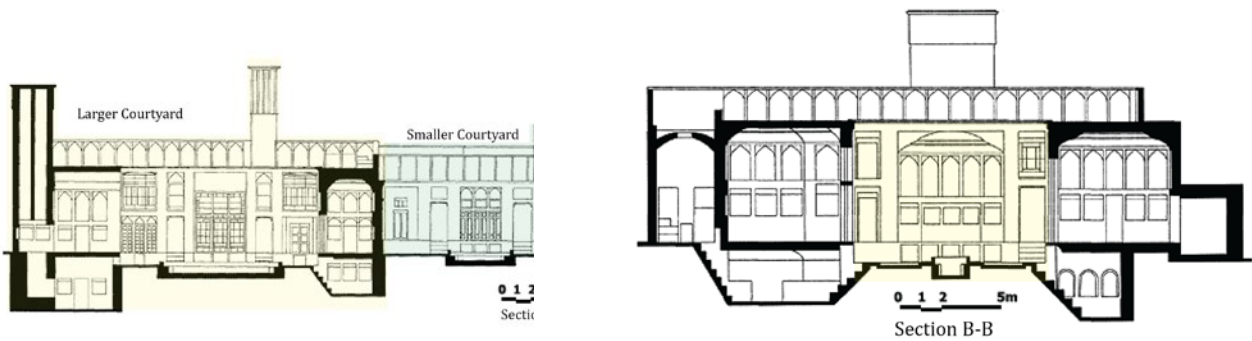


Figure 1.17:Gerami house sections



Figure 1.18:Gerami house reception



Figure 1.19: Brojerdi house wind catcher



Figure 1.20: Brojerdi house southern balcony

1.2.2 Brojerdi House

This house is located in Kashan, Iran and is an example of a dwelling for a high-income family. A famous architect named Ali Maryami Kashi built this house in the Qajar period. The building has three floors and the courtyard as a main exterior room is surrounded on four sides by built areas. The architecture of this house consists of spaces similar to those in most old houses in Kashan and this house is built on 1700 square meters with courtyard of 3000 square meters. The house belonged to a very wealthy family and it contains beautiful decorative moldings and paintings. Brojerdi house, like other traditional houses, was designed to correspond to the climatic and atmospheric conditions of its city, in this case, Kashan a city in Central Iran. Extreme summer heat is the climatic condition and the construction of wind-catchers, combined with underground streams, cools the interior air.

Many Iranian traditional houses for high-income families consist of two individual spaces, the interior and exterior. The plan shows the division between the two. The interior of the houses is primarily for women, children, and the servants. The exterior, office area, is particularly for the use of men. Outside spaces are used as a type of office space where men could have their meeting. These two spaces can be separated with a narrow corridor, a courtyard with lots of flowers, fruit trees, and thick curtains.

Brojerdi house is also made up of the internal and exterior spaces, which are shown in the plans (Figure 1.24 and 1.27). The southern part of the central courtyard has a large reception hall with a Mahtabi in front of it; a balcony with no roof, and walls on three sides. In Brojerdi house, mahtabi is decorated with mirror work. The upper floor contains two rooms on each side which open to the main reception hall.^[1]

Boroujerdi house's paintings were done by famous artists of the late Qajar era; Mirza Hasan Ghaffari Kashan (the founder of the first school of painting in Iran) and his nephew Mirza Mohammad Ghaffari Kashani, known as Kamal-ol-molk, are the great artists of this house.

1 Farah Yar, Hossien. Take a look at historical monuments of Kashan. Trans. author. Tehran: Moalef, 1990.

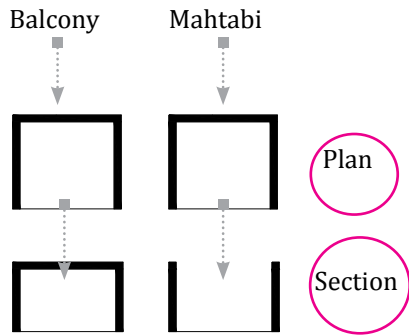


Figure 1.21: Illustration of mahtabi and balcony



Figure 1.22: Brojerdi House courtyard

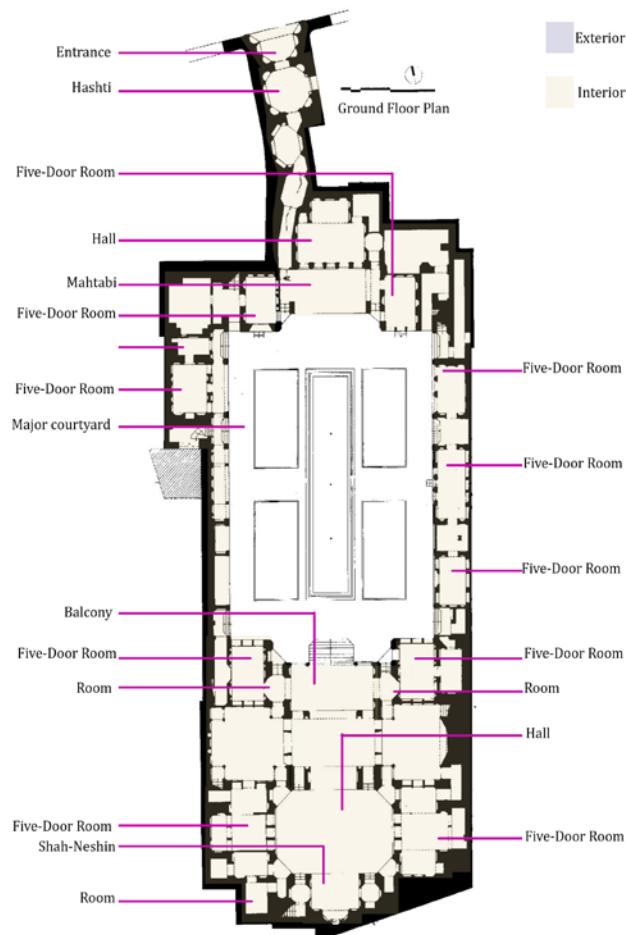


Figure 1.24: Brojerdi house. Ground floor plan



Figure 1.23: Brojerdi House courtyard View from Balcony



Figure 1.25: Brojerdi House-Details and openings in the main hall ceiling



Figure 1.26: Brojerdi House entrance

House

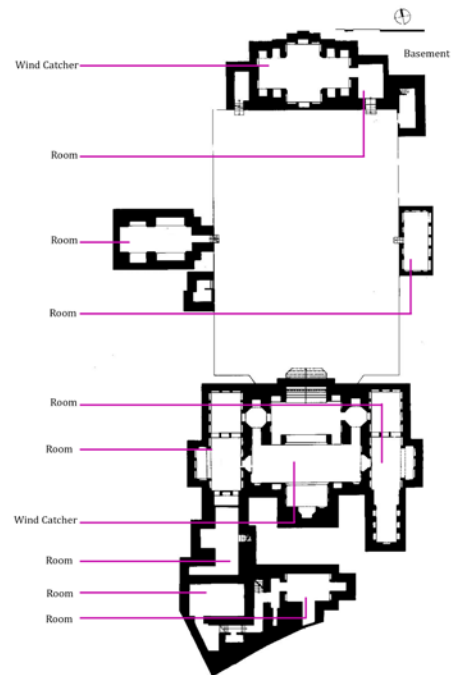
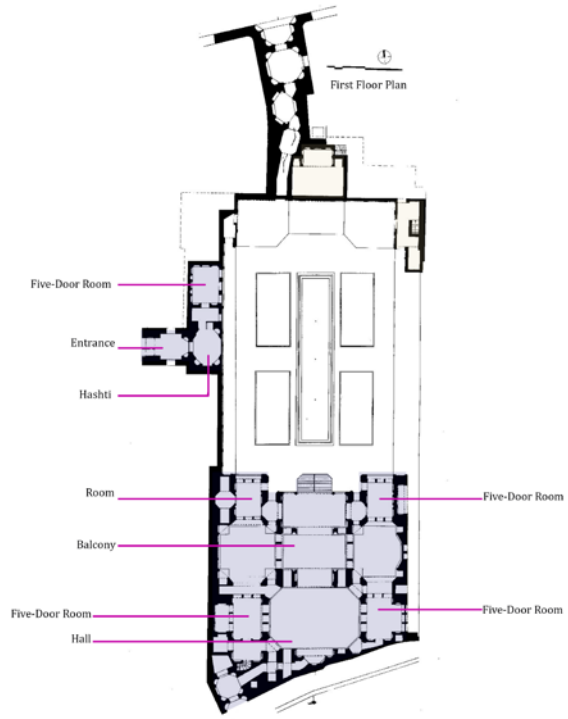


Figure 1.27: Brojerdi house. First and basement plan.

1.2.3 Sharifian House

This house was built in 1814 and consists of three parts, a contrast with the two previous examples. Each part of Sharifian House is located on each corner of its rectangular courtyard. The tall balcony arches in the southern facade of the courtyard make this facade the most significant one of the house. There are two three-door rooms along with the rooms for removing shoes. The Sardab is located under the southern part. The northern facade is made up of five-door rooms plus the Shah-Neshin (a room for mainly guests with a view toward courtyard).

The Char-Safe room is located behind Shah-Neshin. A Char-Safe room is on built in the shape of a square or rectangle with a semicircular dome above it. This room is connected to Shah-Neshin.

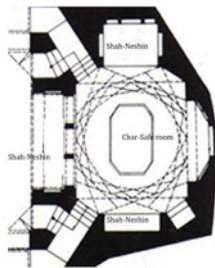


Figure 1.30:Sharifian House, char-safe- illustration of ceiling



Figure 1.28:Sharifian house, decoration of ceiling



Figure 1.29:Sharifian house, view from south of the courtyard

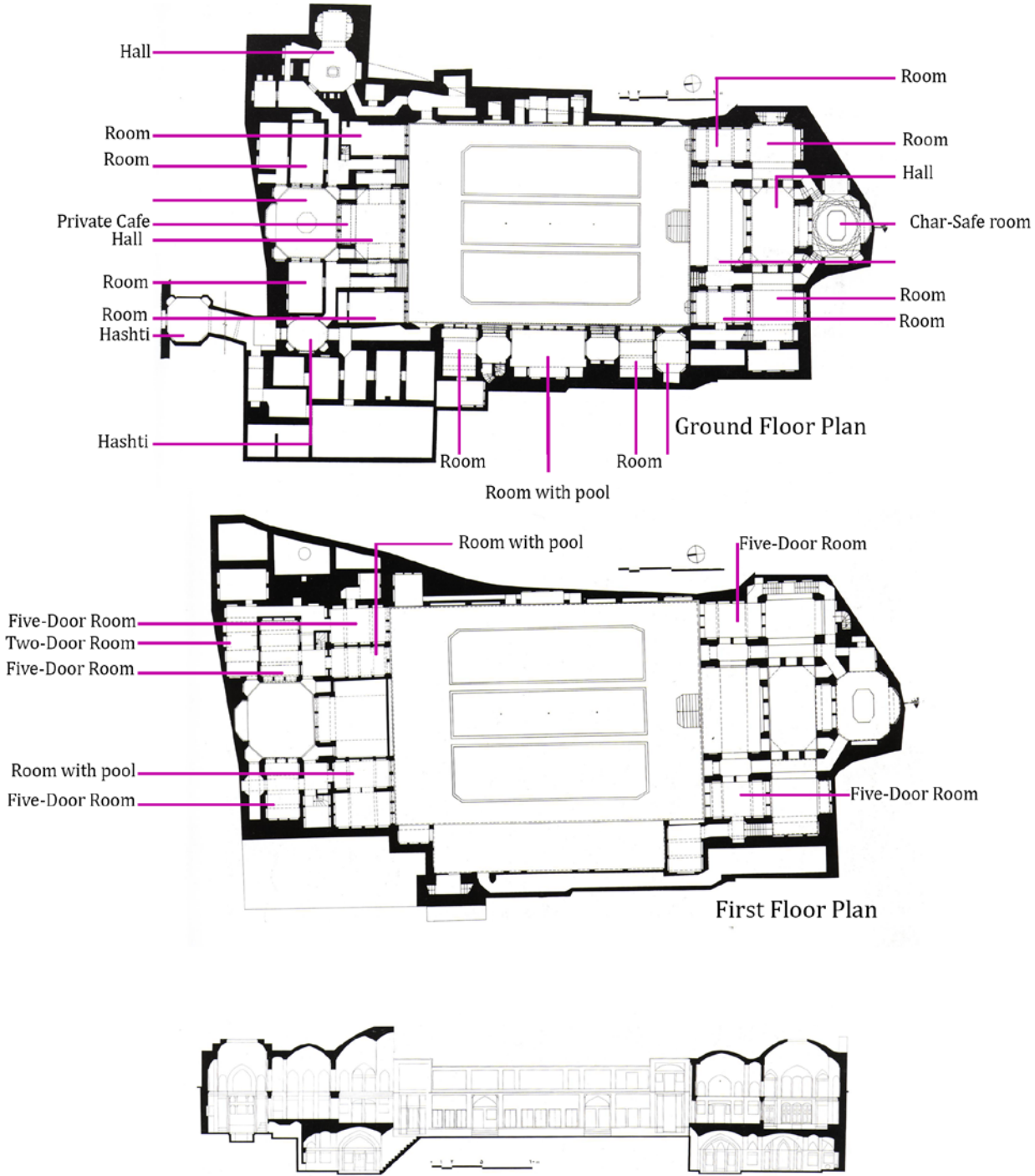


Figure 1.31:Sharifian House, plans and section

1.2.4 Bani Kazem House

This house was built in 1790 in Kasahn, for Bani Kazem Family. The main spaces of this house are located on the northern and southern sides of the courtyard. These two spaces are built in two floors. The spaces located on the eastern side of the courtyard are less deep than the northern and southern spaces because of the location of the site and the street.

The main hall is located on the southern side of the courtyard, to take advantage of sunlight. The large hall is open to a high ceilinged balcony in order to use the view and the light, is captured, by the balcony. The connection to nature is emphasized in this house by locating a saloon between two open areas, the backyard and the courtyard. Rooms are on both sides of the balcony and Saloon on both floors. These rooms are designed with Persian ornamentation. The salient arch in the southern face of the courtyard makes a magnificent feature. There are two wind catchers at the very end of the southern facade, which provide the natural ventilation for the house.

The northern facade of the courtyard consists of several rooms and two pool- rooms (rooms with a small pool in middle, for ventilation purposes). Three- door- rooms are those with three doors that can open onto the courtyard. There are two small balconies between these rooms with one room for taking off shoes behind each of these rooms. The rooms with small pools along with other rooms are located behind the three- door- rooms. The rooms on the upper floor have a pleasant view toward the pool rooms. The second pool room is located on the western side of the northern facade.

The basement is located under the northern and southern façades, and large water-storage feature is built in the basement. Three entrances are located on the northern facade. The main entrance is a combination of the two vestibules and a hashti. This hashti, is located behind the entrance, and is mainly a resting area. Hierarchy is an important factor in Iranian traditional houses, and the hashti plays an important role in it. The connection between distinctive spaces is through the hashti and hallways.^[1]

1 Qassemi, Kambiz Haji. Yazd Houses. Yazd: Beheshti University, 2003.



Figure 1.32: Bani Kazem house entrance

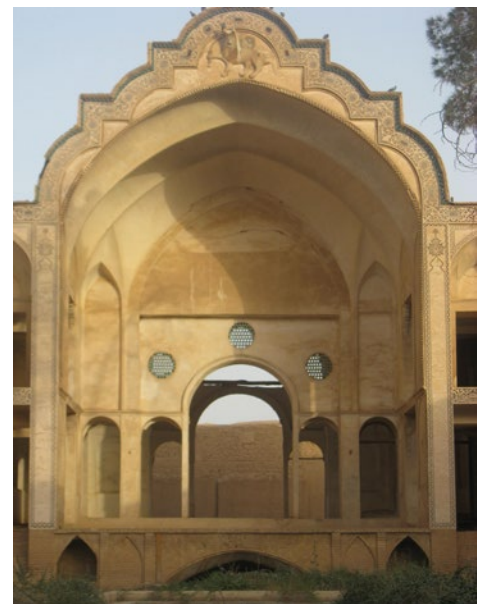


Figure 1.33: Bani Kazem house balcony

The hashti is built in a variety of shapes such as octagonal, hexagonal, square and rectangular. The main entrance works with the slope of the site and the hallway and the hashti acts as a ramp, which connect the entrance to the courtyard.

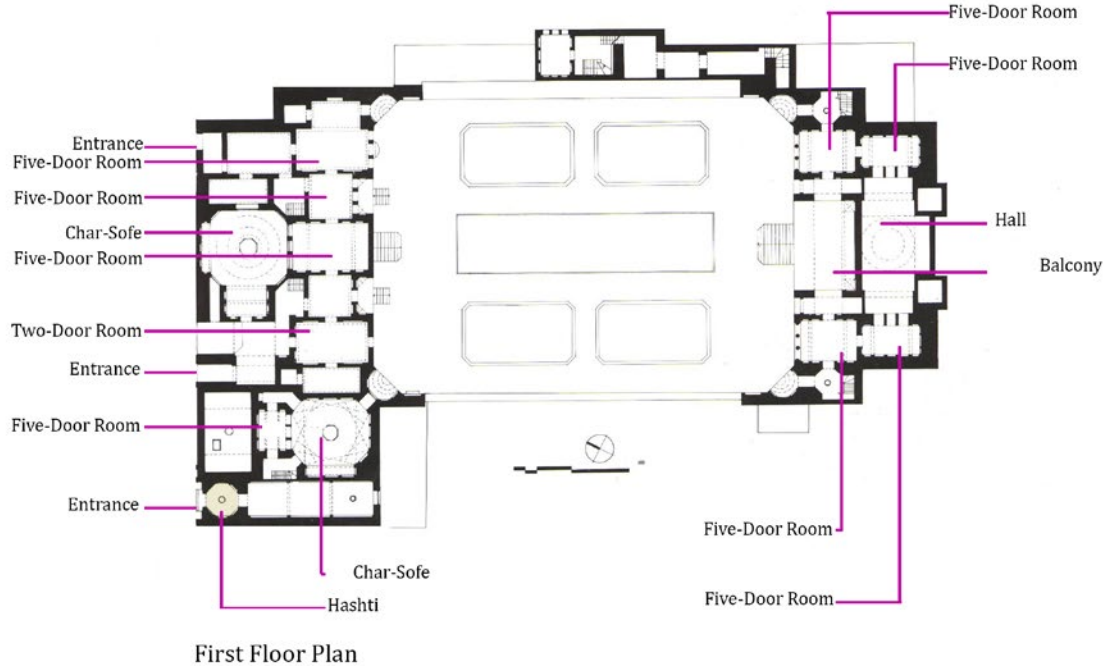
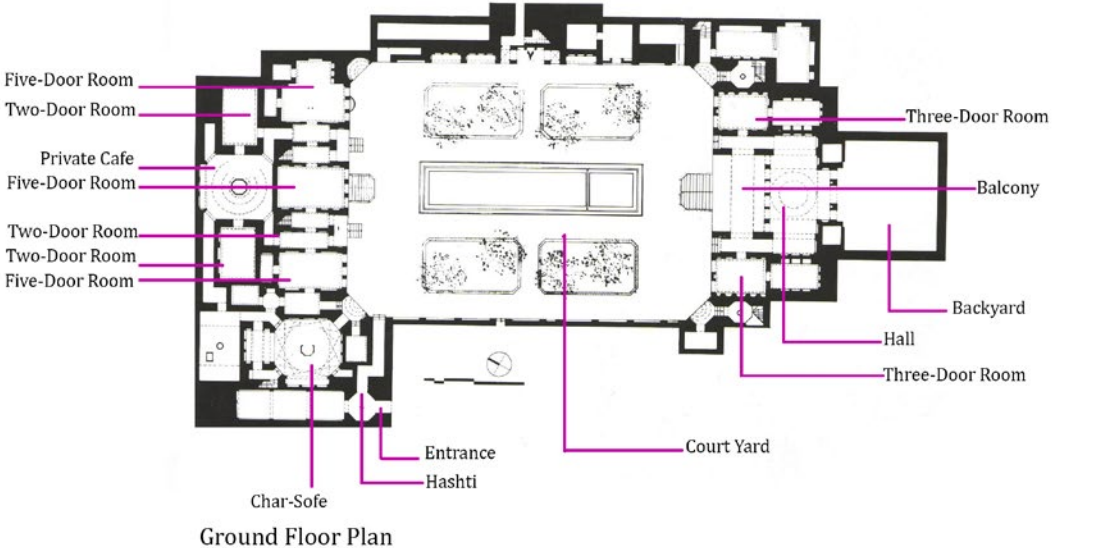


Figure 1.34: Bani Kazem. Plans

1.2.5 Tabatabaei House

This house was built in 1880 in Kasahn, for Tabatabaei family. This house is also a combination of two dwellings to accommodate an extended family, and is similar to Gerami house. The southern façade is comprised of a balcony with high ceilings. The higher height of the ceiling accompanied with the semicircular arch makes this facade the most significant elevation. The big hall plus the shah-neshin is behind the main balcony on the southern façade. This hall is located between two smaller yards. In this case, the main hallway has a view of nature from three sides. These smaller yards are surrounded with the two-floor building, both of which are used in winter. The three-door rooms on the second floor open to the smaller yards.

A mahtabi as an extension to the courtyard has made the yard look larger. Two balconies with ceilings are located on each side of the larger balcony. The saloon is located behind the balcony and connects the two houses.

The western part consists of the saloon and three-door rooms. The eastern elevation is symmetrical with the western façade, including the two balconies. Generally the design of this house is based on symmetry. The main entrance is located on the northeast side of the building. The sardab is located in the southern part of the building in the basement. The smaller house has balconies on the eastern and western sides. The five-door room is located on the southern side and the three-door room is located on the northern side.



Figure 1.35: Tabatabaei house shash windows



Figure 1.36: Tabatabaei house backyard

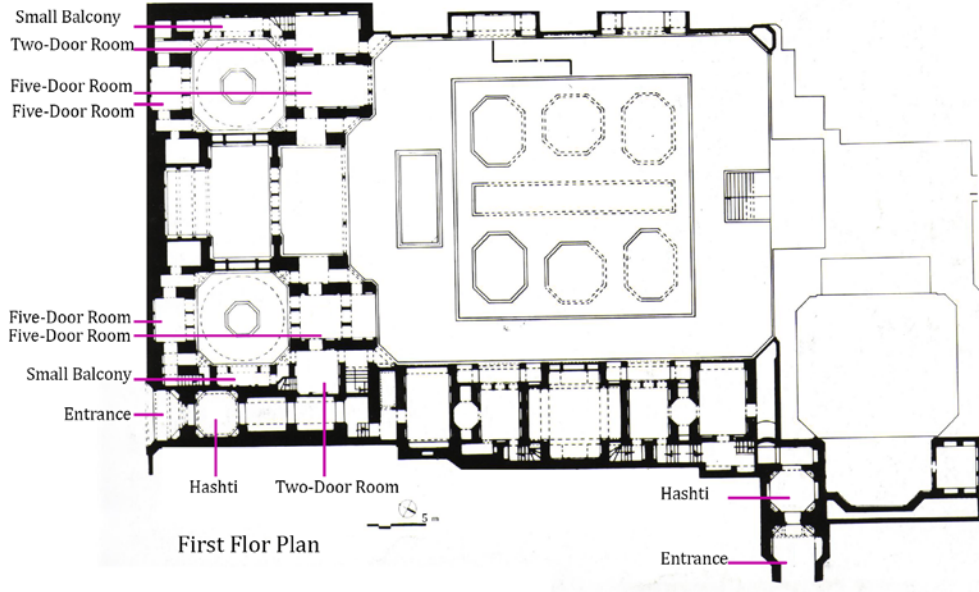
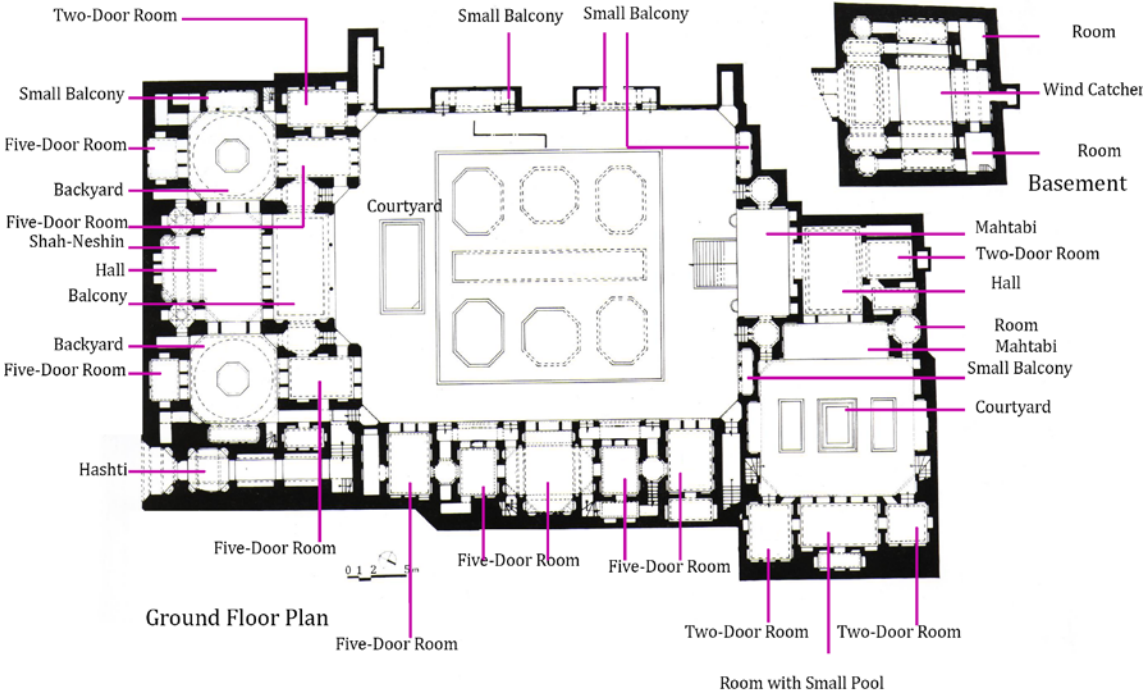


Figure 1.37:Tabatabaei house floor plans

1.3 Example of Contemporary Courtyard Houses

1.3.1 Residential House in Niavaran by Mohammadreza Nikbakht

There are not many examples in modern architecture of Iran to obey the similar rules of the historical courtyards but the residential house in Niavaran is a good example as a case study.

Today in Iran, and in other cities, with the increasing national population growth and migration to cities, especially Tehran, the need for construction in Iranian major cities has doubled and tripled. This dramatic increase in construction has caused land that once contained urban landscape and public green space to be converted into a site for buildings.

The residential building by Mohammadreza Nikbakht in the Niavaran area is located on the slopes of the Alborz Mountains and benefits from the good temperate weather of northern Tehran.

Privacy and the courtyard are brought into this residential building. Other factors, such as building for an extended family and office area could not be incorporated into this house since the land is expensive. Because privacy is an important factor in Iranian life small colorful rectangular pieces of glass are used in the windows in each dwelling. The building has also been designed to fit the existing trees and its circulation flows around the courtyards via stairways and other connections.



Figure 1.38: Residential House in Niavaran, Tehran, courtyard

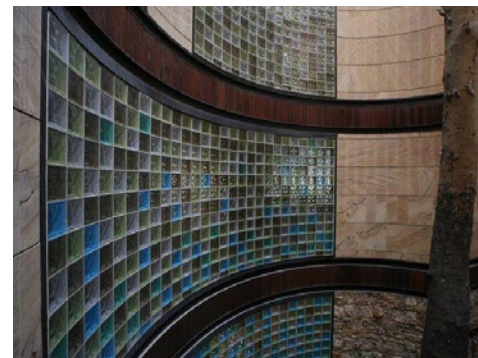


Figure 1.39: Residential House in Niavaran, Tehran. Elaboration of privacy

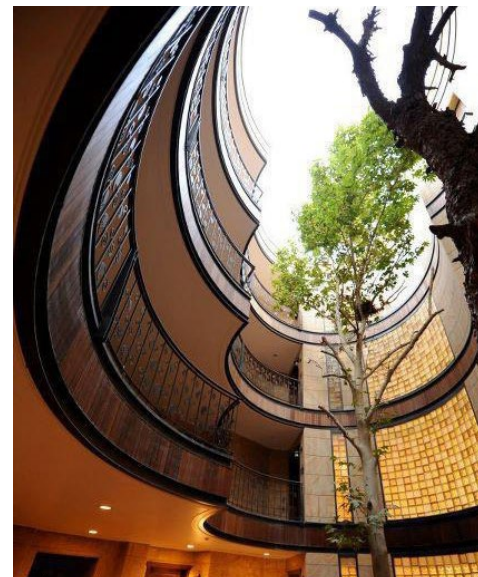


Figure 1.40: Residential House in Niavaran, Tehran. The circulation around courtyard and views of the building toward it

1.4 Adaption of Iranian Courtyard House to Suburban House in Richmond Hill

The examples of the Iranian traditional houses that have been shown in this thesis are built for different income levels. The house designs all follow similar rules. The most important room in all these houses is the courtyard, which defines the circulation of the houses. These courtyard houses are mainly associated with the Safavid and Qajar era.

The Brojerdi House was built for a high-income family and the Gerami house was built for a lower income family in comparison. The ornamental design of the Brojerdi house is more complicated and the house is bigger, but the main concepts and spaces between all five houses are very similar.

The aim of this case study design is to use the concepts uncovered in those house designs and translate them to fit a Richmond Hill suburban house. The existing new developments in Richmond Hill are not only similar in locating their facades toward the street, but they also share similar plans and interiors. The house typology of a floor plan plus a basement and a two-car garage door is repeated in almost every neighborhood in Richmond Hill. The figure on page 29 show the neighborhood in Richmond Hill and how these houses are similar to each other.

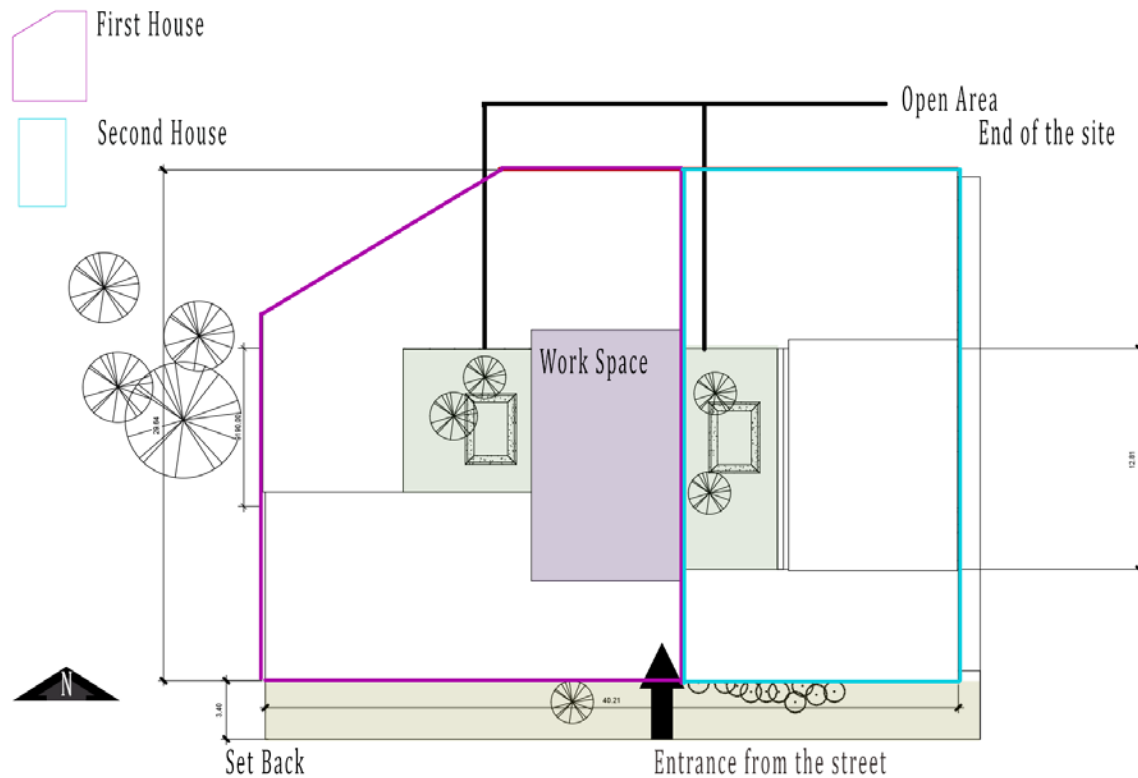


Figure 1.41: Location of Richmond Hill

A corner building lot has been chosen since it is larger than a typical building lot; the chosen case study site is actually combination of two lots, one corner and one ordinary.



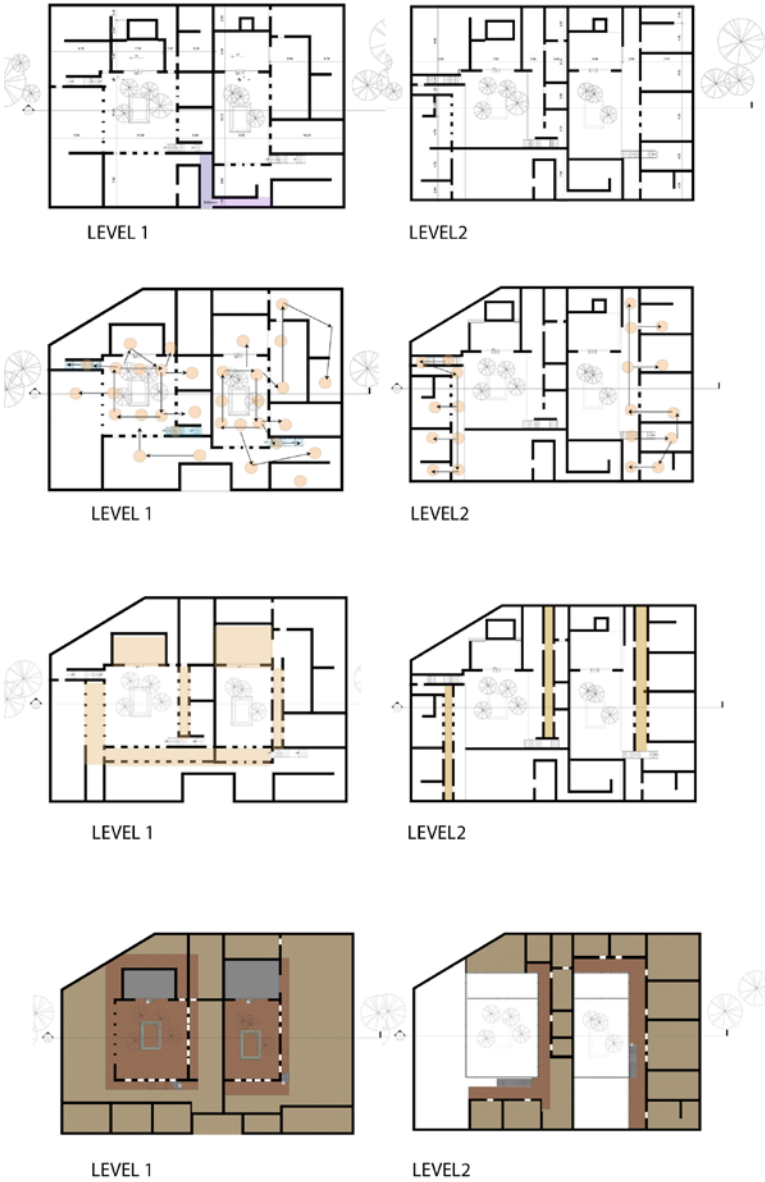
Figure 1.42: Location of the chosen site in Richmond Hill, Jefferson Forest



The spaces in traditional Iranian houses are categorized into three groups: open, semi-open, and closed. The first group includes courtyards, which form the main characteristic of these houses. Such places in residential areas have diverse functions, some associated with cultural and ritual practices. One of the most important functions of enclosed central courtyards is to create a safe space. The walls of the building block the view of passers by and strangers so that the courtyard functions as a private area for the family, suggesting that the use of courtyards is based on cultural phenomena. The courtyards also encourage the relationship between humans and nature, and create spaces with high quality.

Architecture elements and methods in different houses, try also to improve environmental living conditions in places of more extreme climate like hot and dry regions. One of these elements is a wind catcher or badgir which process air and reduce the home's temperature. The second novel element is rooms with a small pool which also cools down the home's temperature.

Figure 1.44:Initial diagram of the proposed house based on Iranian courtyard house examples for the proposed site



This figure shows how a typical suburban house in Richmond Hill can be transformed into an Iranian-influenced house. The circulation in Iranian traditional houses is based on the fact that in order to go from one space to another, you always need go out to the courtyard and come back in. The Iranian courtyards ensure the relation between nature and people based on the circulation around the house. The circulation is kept as in a traditional home but inside the house envelope. The flooring material, which is brown brick, is extended to the inside area in order to highlight this type of circulation.

Figure 1.46:Adaption of the Iranian courtyard house in to suburban context



Figure 1.47: Floor plans of proposed house

Glass Wall: This feature provides courtyard view and warms the house.

Courtyard: The circles show the circulation around the courtyard

Glass Box: The wind catcher is translated into a glass box on the northern side of the site, which warms the house through the cold and long winters.

The office area, which is a daycare center in this case study, is connected to the bigger house and has its own entrance

The entrance as a focal point is the only spot where neighbors and the household can meet. It acts as a semi-open and semi-public.

Separation of two homes

Walls with minimum opening for privacy purposes house.

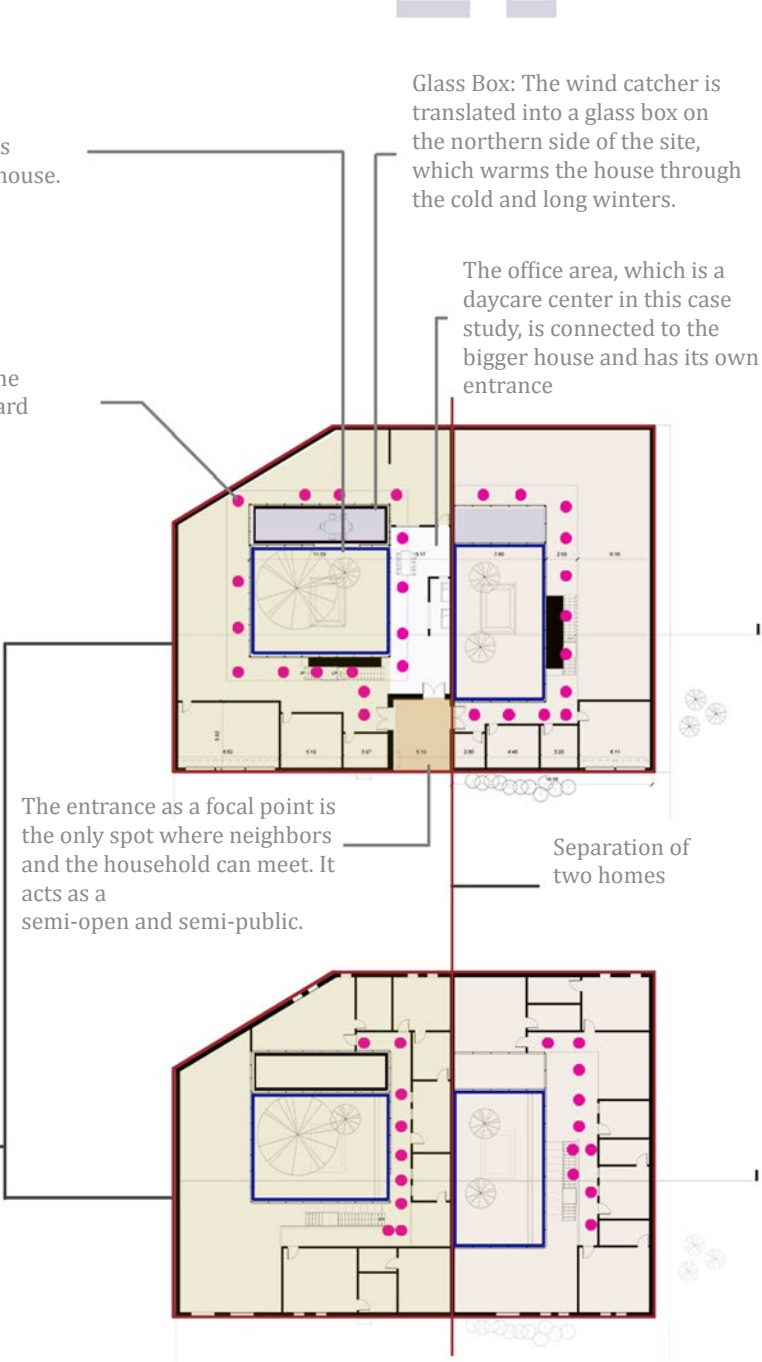


Figure 1.48: Final Diagram of plan



Figure 1.49:Section of the proposed house

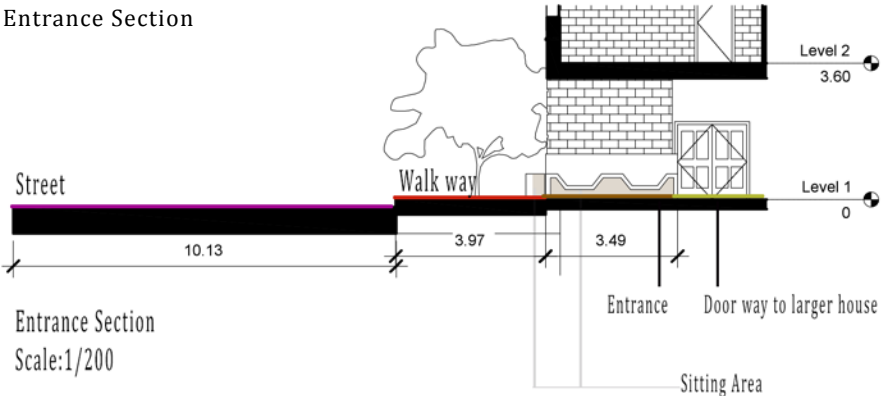
The roof slopes toward the courtyard, and rainwater can be collected in order to irrigate the central courtyard. Any extra water can be kept in the small pool in the middle of the courtyard. Figure 1.50 shows the visual and programmatic effects of this cultural house on the neighborhood. Although the material of the elevation is similar to that of the adjacent building, this house certainly changes the view of the neighborhood. The opposite slope of the roof and fewer openings on the exterior facade are the characteristics of this elevation.



Figure 1.50:Street elevation of the proposed house

House

Figure 1.51: Entrance Section



The two connected Iranian Richmond Hill houses have same entrance, which leads to a second entrance for each part of the connected overall house. The two courtyards do not have any view of each other, and the only connection between the houses is the main entrance. These characteristics are similar to those in the Gerami house.



Figure 1.52: Entrance Plan



Figure 1.53: Entrance vignette



Figure 1.54: Example of entrances in Jefferson Forest Richmondhill



Figure 1.55: Entrance vignette



Figure 1.56: Entrance vignette



Figure 1.57: Example of entrance in Yazd courtyard house

The similar approaches toward entrance used as a sitting area to interact with neighbourhood both in Suburb of Richmond hill and Iranian court yard houses



Figure 1.58:Court yard vignette

This case study design explored in this thesis focuses on the translation of the features found in Iranian traditional houses, to a Richmond Hill suburban home for two families, probably related. In these designs, the most important space is the central courtyard or courtyards, which are developed as a main element in the proposed house.



Figure 1.59: View of courtyard from indoor

The glass walled box on the eastern facade of the courtyard increases the temperature of the adjacent spaces during cold weather. The day-care is located on the southern side of the large courtyard



Figure 1.60: Glass box vignette

Wind catchers would not be efficient in a house in a suburb of Toronto. Due to the Canada's cold climate and long winters, a glass room is designed instead to cover the courtyard. This indoor/outdoor room could bring the sunlight into the house and increase the temperature. The glass walls and corridors along the courtyards will increase the effect of nature, and improve the view for anyone who lives in this house.



Figure 1.61: Second floor hallway vignette

The Iranian carpet is based on repetitive geometry, which is inspired by the geometry of nature. The colors are also based on the colors of nature. The carpet is a symbol of a paradise, and paradise in the warm and dry climate of central Iran is defined in nature. The Iranian carpet geometry (in Toranj carpets) is based on unification and repetition. The lines and shapes unify at the center of the carpet, which is a symbol for the highest level of paradise. The primary goal of carpet designs is creating delicate and elegant visual expression. ^[1] Almost every Iranian house has an Iranian carpet, no matter where that house is located, and has an important role in the organization of the furniture.

1 Mohammad Mehdi Mirza Amini, Jalaledin Basam. "Examination of the symbolic role of Toranj in Iranian Carpet." Scientific research Forums of Iran Carpet 18 (2011): 9-12.



Figure 1.62: Child care vignette

The day-care center is also connected to the courtyard, and children can play in courtyard, which can be seen from every perspective of the house.

The day-care center is a translation of the office area of the Brojerdi House. It is a space created within the house for business purposes.

CHAPTER 2

CAFÉ

2.1 Tim Horton's and Persian Café Experience

In sociologist Ray Oldenburg's book, *The Great Good Place*, a café, though privately owned, can be recognized as a public place. The importance of cafés is that they are not only places in which to escape from life duties and work stresses, but also as a getaway from life's domestic and workday tedium. Such public places allow interaction between members of societies, where simple consumers of refreshments can also compare their lifestyles and even ideas. Cafes bring in everybody from every social or economic circumstance to allows them an opportunity to get together.^[1] For Oldenburg, cafés are important elements of a culture's social life. This chapter looks at the local Tim Horton's donut shop as an example of a popular Canadian café in a Richmond Hill neighborhood.

Almost every plaza consists of a café, which is mostly franchised in the suburbs. Fifty-nine percent of the food industry in Canadian cities is quick service restaurants (QSRs), which are affordable to a large part of the population. The basic concept underlying QSR restaurants is that they are mostly chain restaurants, one of many similar, or even identical, restaurants scattered throughout a city, a region, a country, or even globally. In this, QRS restaurants are usually a form of fast food restaurants, which provide compatible services within a wide local society.^[2] Every Tim Horton's branch is similar around the world. "Tim's" has a common combination of physical features, and the interpretation of those physical features based on common human experiences, which, taken together, gathers varied neighborhoods together. (Figures 2.01 to 2.04) show the widespread use of Tim Horton's in Canadian cities.

As a design case study, this chapter considers an interpretation of Tim Horton's as an Iranian Islamic café, or phrased differently, it's an interpretation of a typical café found in Iranian cities as a Tim Horton's. The scenario looks at Tim Horton's and its characteristics and compare it to Persian cafés and then design-style an Iranian Tim Horton's.

1 Oldenburg, Ray. *The great Good Place*. 1st ed. New York: Paragon House, 1989, 20-21

2 Parpal, Monica. 22 Sep 2014 <<http://www.foodservicewarehouse.com/education/how-to-start-a-restaurant/what-is-a-quick-service-restaurant/c28983.aspx>>.

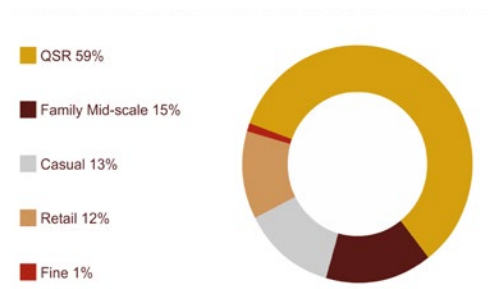


Figure 2.01: Classification of Canadian food services sector

QSR represents 59% of the Canadian food services sector and Tim Hortons represents 42% of the QRS sector

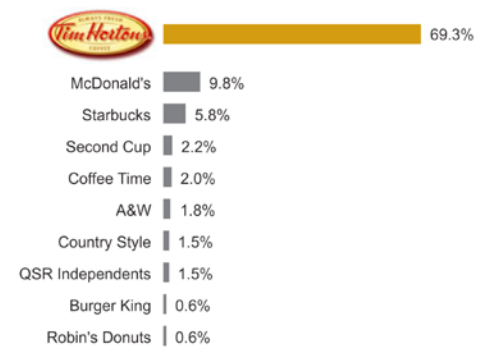


Figure 2.02: Percent of traffic share of Canadian morning meal day part

Tim Hortons represents 69% of the morning meal

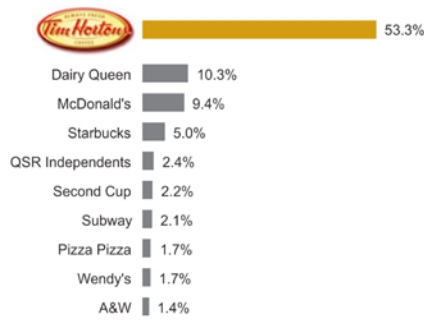


Figure 2.03:Percent of traffic share of Canadian evening snack

Tim Hortons represents 53% of the evening snack choice

The QRS estimation above shows the popularity of Tim Horton’s among Canadians. Because of this popularity, challenging the standard architecture of Tim Horton’s and trying to create a more-interesting model based on the imported architecture of one particular group of immigrants will affect the kind of transformation of an immigrant suburban community that will create identity and diversity.

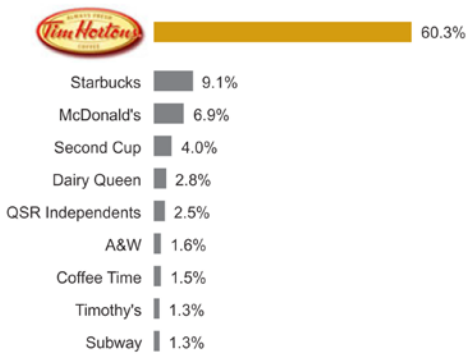


Figure 2.04:Percent of traffic share of Canadian afternoon snack

Tim Hortons represents 60.3% of the afternoon snack

2.2. Iranian Café

2.2.1. Modern café in Tehran

The aim of the case study project is to create places, which keep both the Canadian's and the identity of the new immigrants who live in that area. The globally franchised company, which is the source of this case study, is Tim Horton's and the cultural immigrant identity, to be examined is Iranian.

One of the major questions in this thesis is how to add Iranian feature to, Canadian buildings and so represent a new hybrid identity. This new identity should not be the repetition of Canadian standardized suburban boxes and it is not also foreign to nations other immigrants than Iranians. Instead, the hoped for transformation should use Iranian tradition in a way suggested by *Louis Kahn in Isfahan in 1970: "Traditions are as golden dust falling in space. If one but had the possibility of grasping this golden dust, we would possess the powers of anticipation of the future."*

The Figure 2.06 shows the location of suburbs in Tehran, and the examples of luxury café, which are no different with the cafes in western societies. In terms of program and design, these cafes are no different to French or Italian cafes nature. In contrast from 2002, there has been a natural drive in bringing out the ancient identity of Iranian architecture in public spaces, there are also efforts of previous architects in late Pahlavi era to create a modern architecture based on Islamic architecture. These efforts created impressive buildings such as the Tomb of Omar Khayyam, Tomb of Avicenna and so on. This wave of modernism stopped with the start of the Islamic revolution in 1979, however, in 2000 a new mood among Iranians in general made investors think of giving old buildings a new life by giving them new purposes. Today many old palaces and houses are being used as spots for gathering and especially as cafés. However, according to one source, not everyone want to fit in with the local vernacular.



Figure 2.05: Tomb of Avicenna, Hamedan, Iran

CAFE

- Tehran Suburb
- Tehran Suburb Showed in Figure bellow
- Tehran City center

The figure shows the location on the outskirts of Tehran, and examples of deluxe coffee shops. These cafés are basically copy of European café.

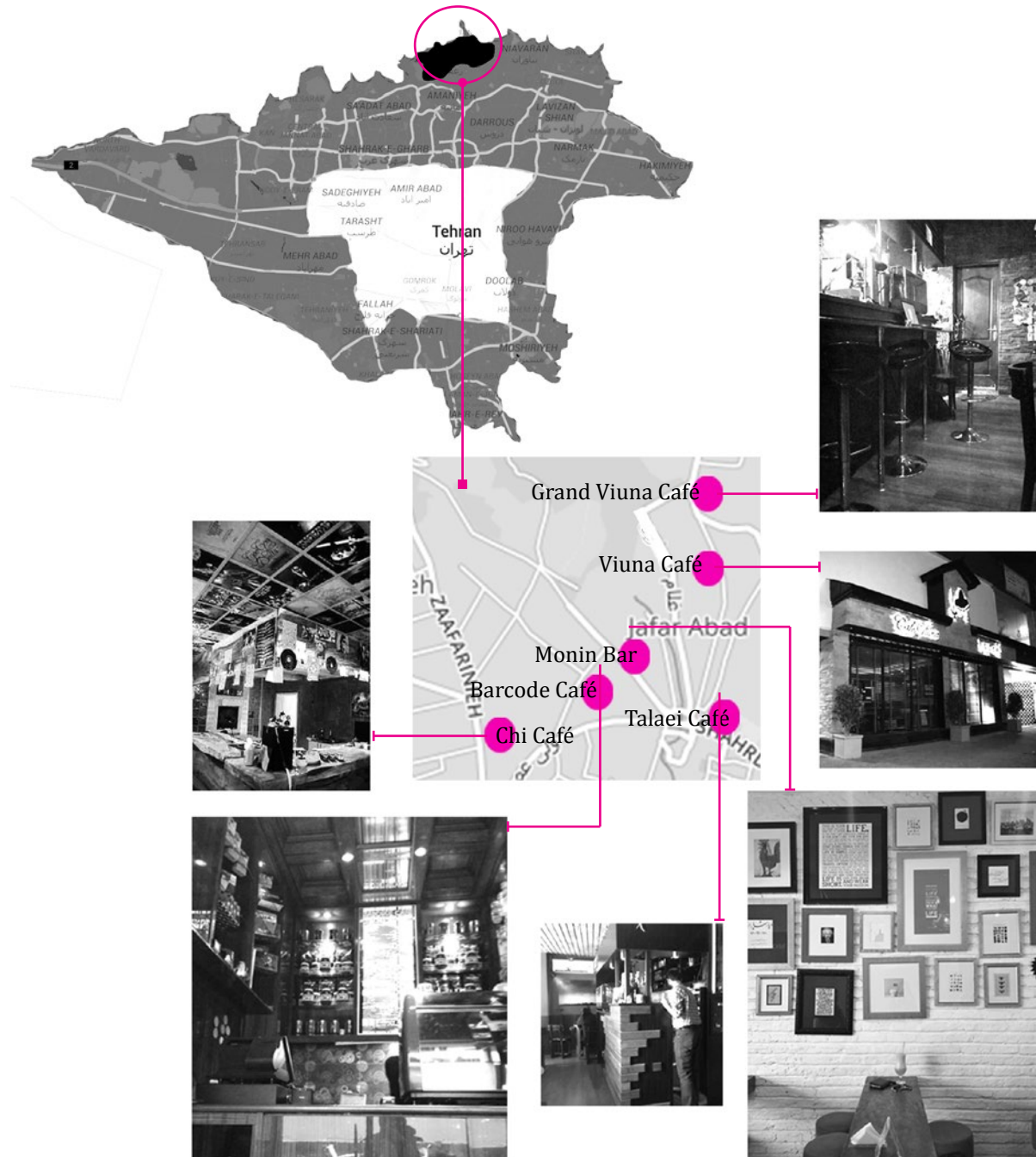


Figure 2.06: Examples of Luxury Cafes in Tehran



Figure 2.07:Chai Bar ,Tehran- Iran

The example below shows how traditional houses and palaces can be transformed into local public spaces in this case scenarios café. The use of open spaces in some cases courtyards and semi open spaces, balconies, are essential parts of these cafés.

The walls are decorated with Islamic ornaments and geometries. The semi open space is used as a sitting area.



Figure 2.08:Bagh Ferdos café, Tehran- Iran

This building is an example of an Iranian garden transformed into café.



Figure 2.09:Dr.Hesabi café, Tehran- Iran

The use of water in semi-open spaces and open courtyard is another influential character of Iranian architecture that is demonstrated in this café.

2.2.2. Iranian Café Categories

A café is called ghahve-khane in Farsi, which means a coffee house. Traditional Iranian café can be categorized into six groups.^[1]

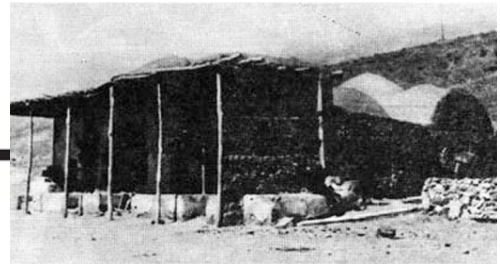
1. Cafes in shopping plaza



2. Privite cafés



3. Roadside cafés



4. Temporary cafés



5. Public bath cafés



6. Moveable cafés



Figure 2.10: Iranian café categories

1 Ahmad Rahimi, Jalil Khalil Azar, Vahid Moini. "Space design for cultural teature ." Honar-Haye-Ziba 17.1 (2012): 25-26.

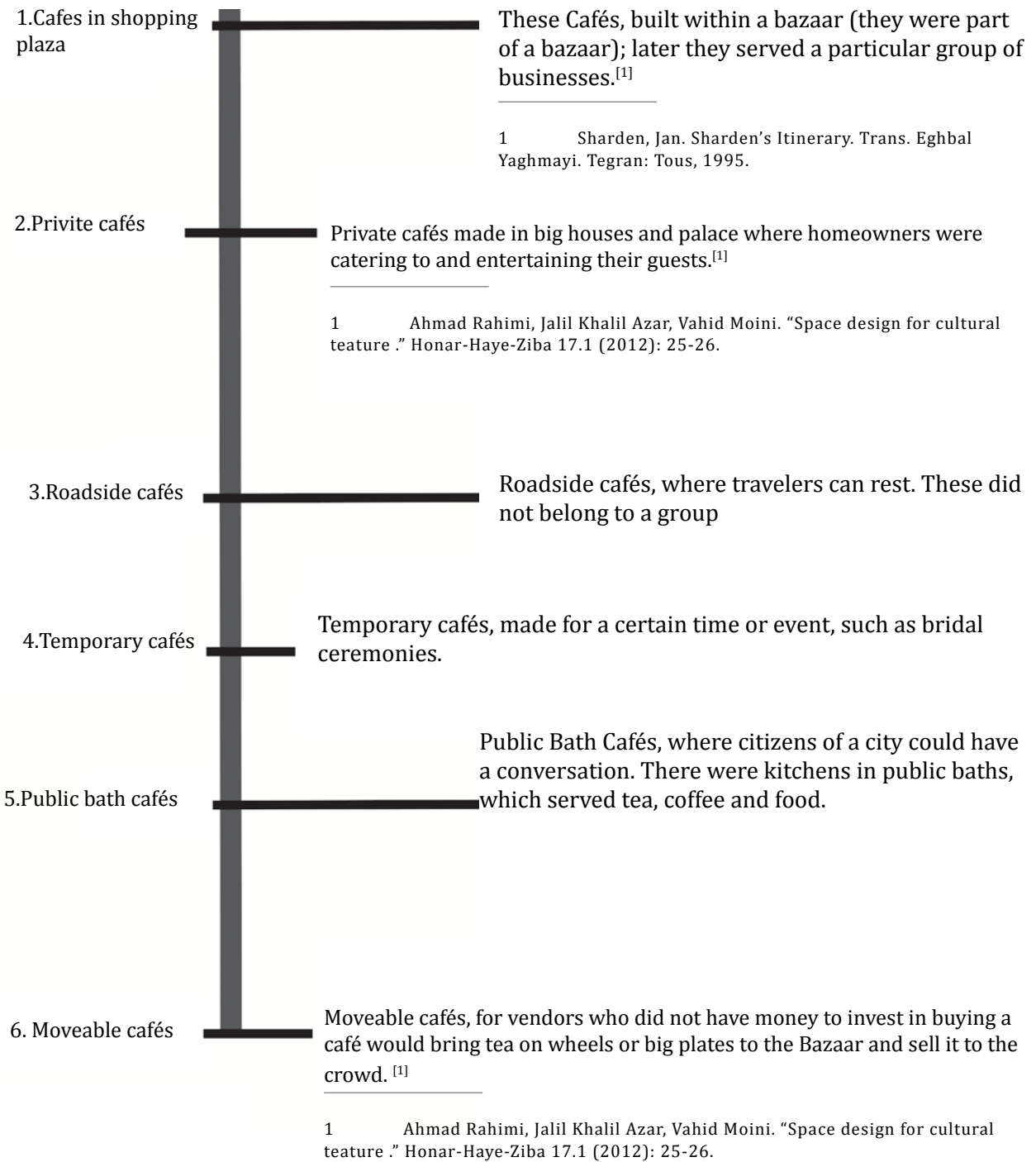


Figure 2.11: Iranian café categories

2.2.3. Three Iranian restaurants in Downtown Toronto

The concept beyond these restaurants is not only to provide customers a new taste of food but also provide a different ambience, which is based on Iranian culture. The aim of this chapter case study project, hybrid Tim Horton's', would introduce an atmosphere based on Iranian traditional coffee shops.



Figure 2.12:Awtash cafe ,Toronto, example of Iranian café, The chambers are similar to Iranian cafés

Awtash Restaurant is a nice and cozy hookah place in downtown Toronto. The special dish in this place is an Iranian stew in the form of pizza. In fact, the interesting phenomenon in this restaurant is the mixture of dishes from two cultures: Pizza, as a representative of western culture, and Iranian stew, both on one plate. The restaurant décor is based on Iranian cafes. Pictures on the walls include iconic elements of Iranian society such as ancient Iranian money or a Peykan, a car that used to be very popular in Iran.



Figure 2.13:Awtash cafe, example of Iranian café, the materials used in this café is very similar to the colors used in Iranian café

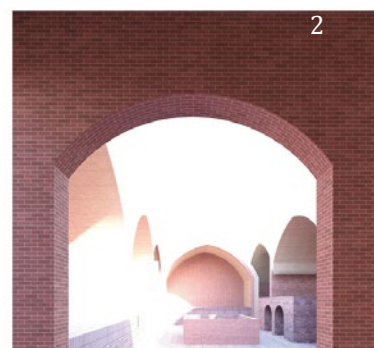
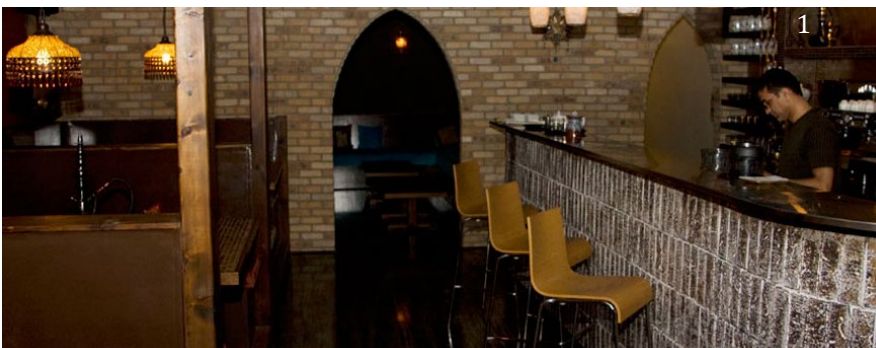


Figure 2.14:Example of Iranian café, The openings in the wall are similar to Iranian old cafe hallways

- 1.Awtash cafe
- 2.Conceptual vignette of Iranian cafe

Awtash and other Toronto Iranian cafes are famous for their hookahs, liquid-based instrument for smoking. Historically the date for the start of hookah use in Iran is not known, but the painter, Reza Abassi, finds the first image in a drawing in (c. 1565–1635).

Figure 2.15: Takht-Tavoos, example of Iranian café in downtown Toronto, interior based on Iranian old café



Pomegranate, Shahrzad and Takhte Tavoos, interiors stress on Iranian cultural ambiance with Persian textiles, tablecloths, lush rugs, copper enamel work, lanterns, and paintings from Shahname, depicting Iranian legends and heroes. The walls of Shahrzad restaurant are decorated with Persian poetry and calligraphy.

Figure 2.16: Shahrzad, example of Iranian café in downtown Toronto, the decoration of walls with Persian poetry and calligraphy



Figure 2.17: Shahrzad, example of Iranian café in downtown Toronto, the use of symbolic statues based on Iranian culture



2.2.4. Typology and Functions of Iranian Café

The café in a Iranian Bazaar, is chosen as a precedent for the aim of this case study project since it is the closest to the Tim Horton's typology found in any suburban plaza. Figure 2.18 shows the similarities between Iranian cafés in a bazaar and Tim Horton's.

The conceptual design bellow shows a conceptualization of a typical of an Iranian café and is based on the types in the Qajar era.

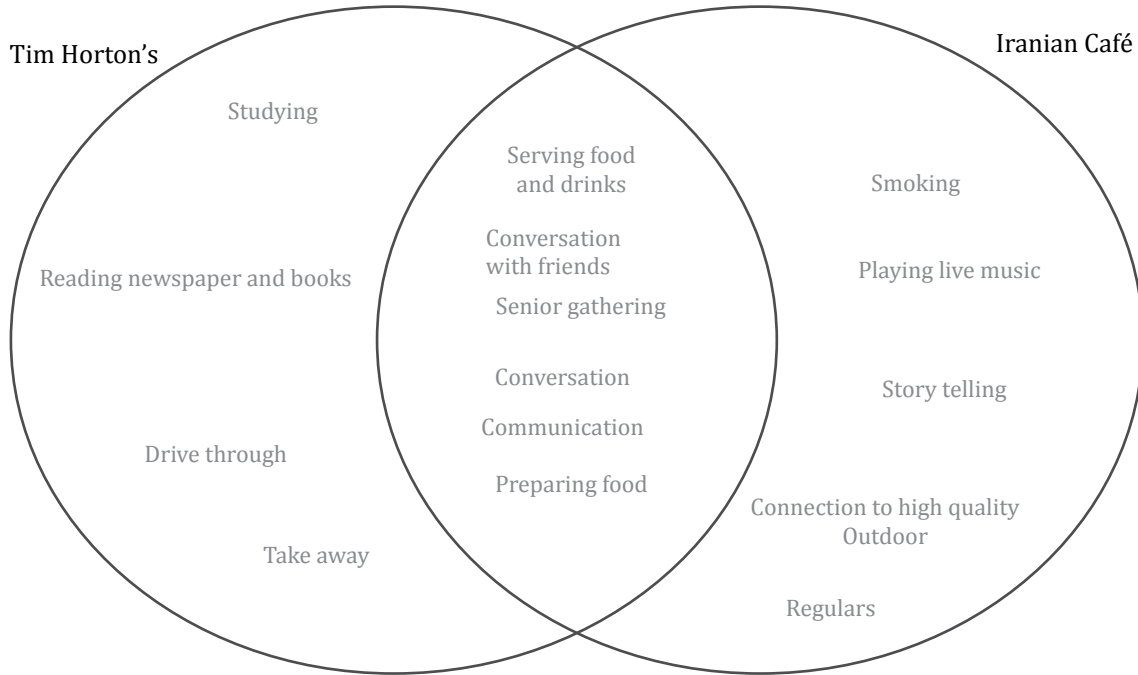


Figure 2.18: Comparison of Tim Horton and Persian cafe

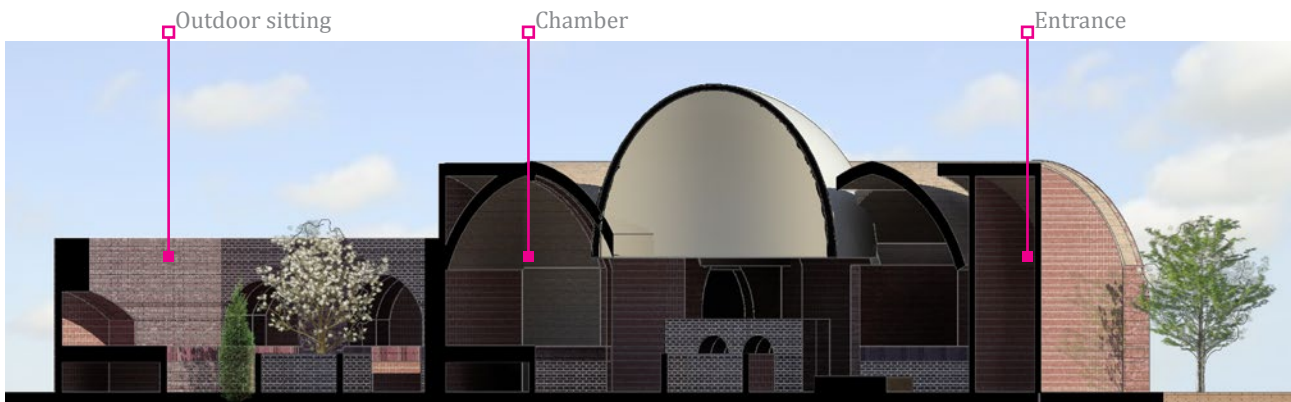


Figure 2.19: Iranian cafe, conceptual section

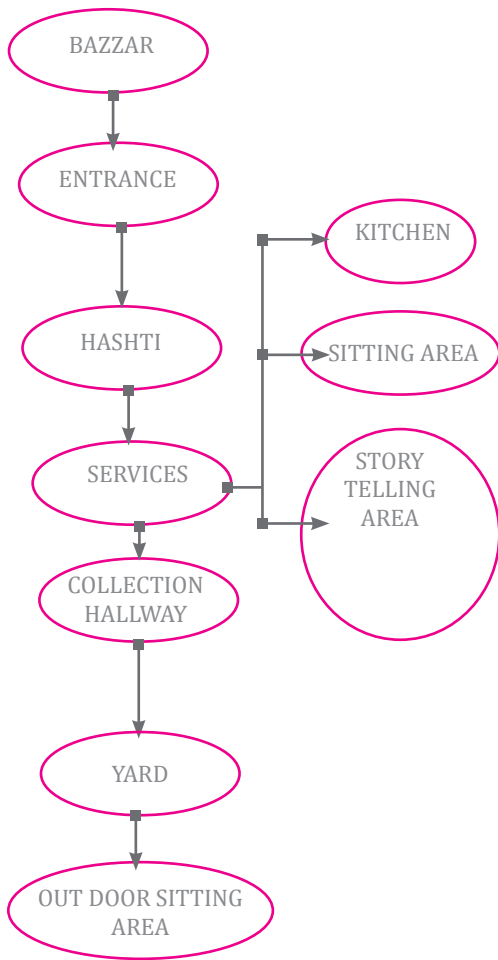


Figure 2.20: Iranian cafe, program

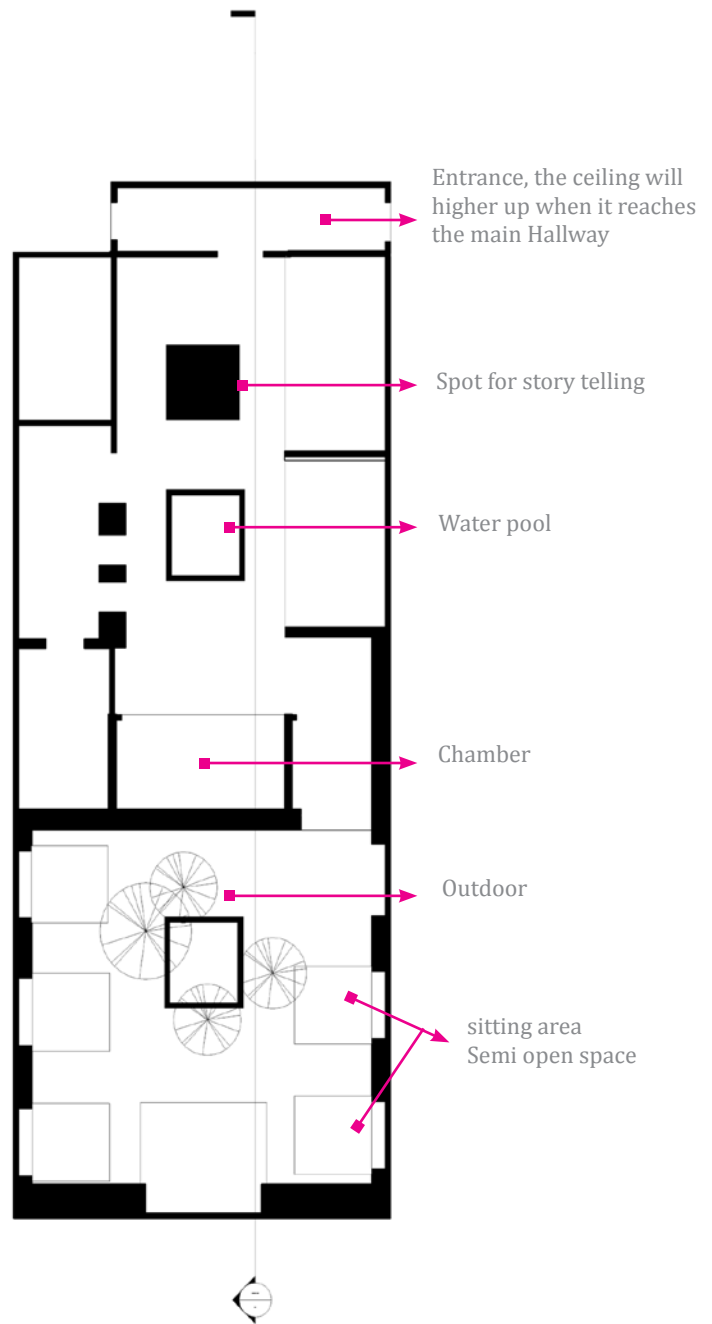


Figure 2.21: Iranian cafe, conceptual plan



Figure 2.22: Iranian café, interior

People must somehow fill their leisure time after a day of work. So places as coffee houses were born. These spaces in Iranian cities are rooted in history. Safavid and Qajar period was the peak of presence of cafés.



Figure 2.23: Iranian café, exterior



Figure 2.24: Iranian café, interior



Figure 2.25: Iranian café, Entrance

2.3 Tim Horton's

"Multinational companies and global enterprises often come with their own branding and image identity that is paramount for their international marketing continuity"

Nader Ardalan^[1]

The purpose of this project is to preserve the global identity of a franchised company mixed with the cultural identity of the people who are living in that location. Tim Hortons is the franchised store that is going to be examined.

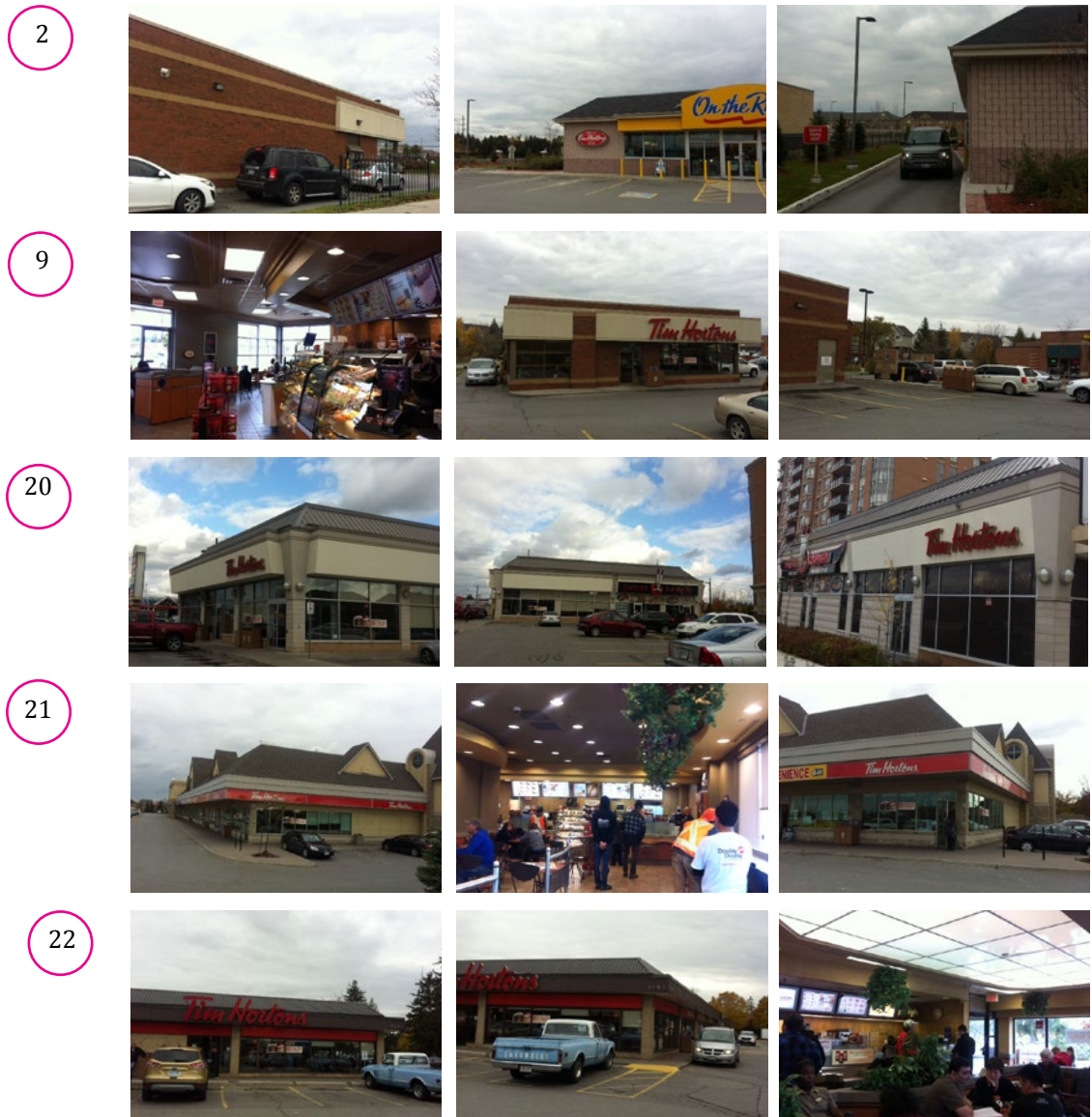
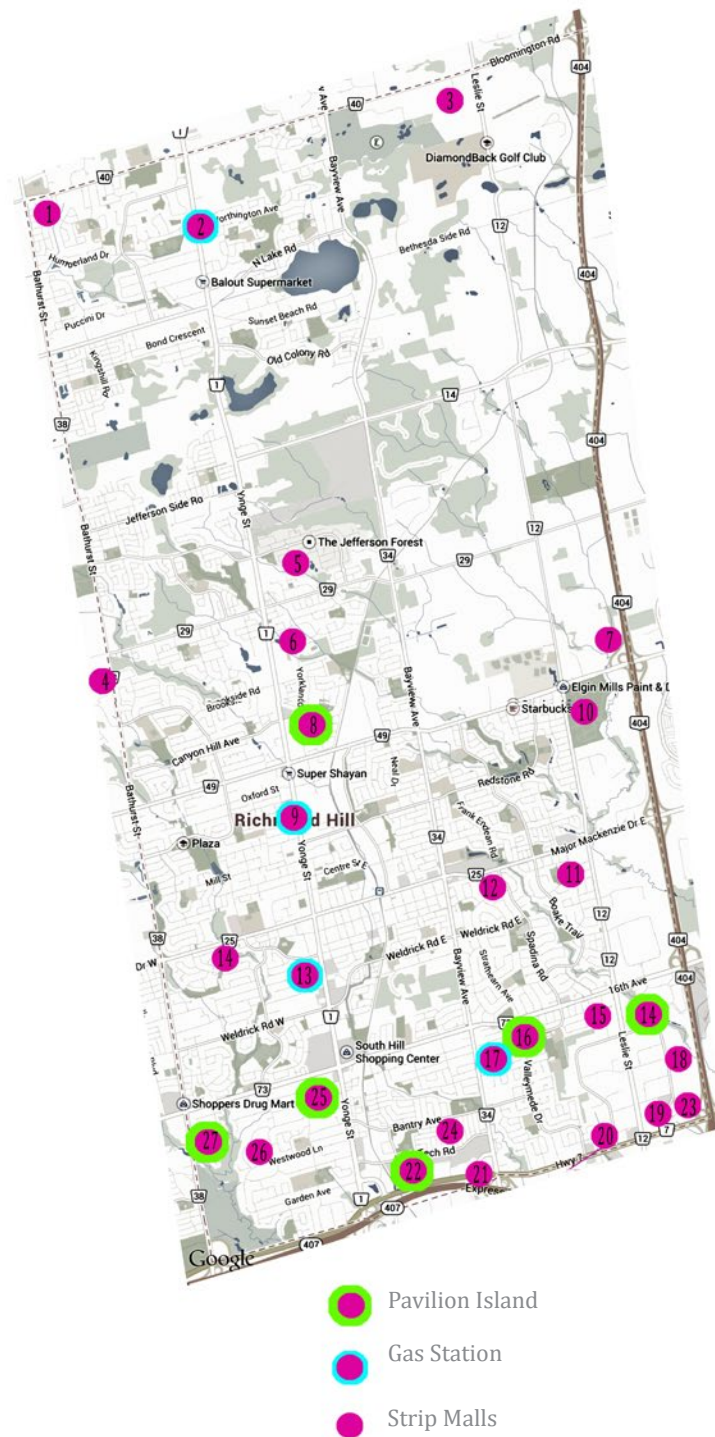


Figure 2.26: Examples of Tim Horton's in Richmond Hill

1 Ardalan, Nader. "archnet." archnet. 24 Oct 2014 <archnet.org/system/publications/contents/4750/original>



The Tim Horton's are categorized in three categories:

1. The ones that stand alone as an pavilion island (Island TimHortons)
2. The ones which share a wall or two in a strip malls
3. The ones that are located in gas stations

There are also three general view points:

1. The view of a driver
2. The view of a walker
3. The view of a customer when seated

Figure 2.27: Location of Tim Horton's in Richmond Hill

The Tim Horton's chain was founded in 1964 in Hamilton, Ontario, and today in many part of the world Canada is associated with this famous chain. QRS estimation shows the popularity of Tim Horton's among Canadians. Because of this popularity, I am challenging the standard architecture of Tim Horton's and trying to create a more-interesting model based on the imported architecture of Iranian immigrants.

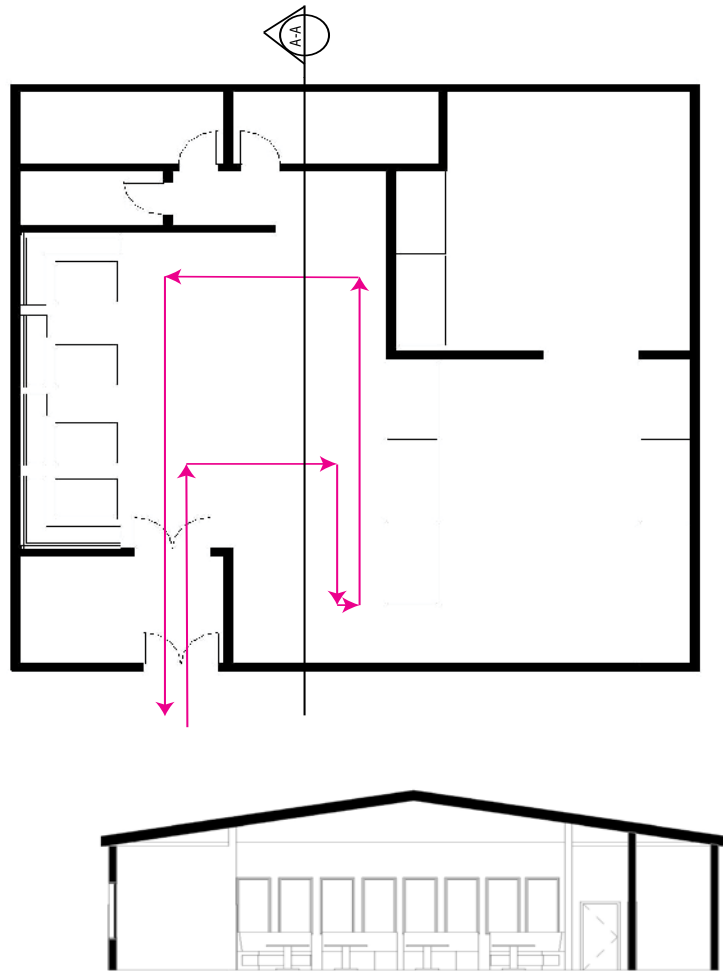
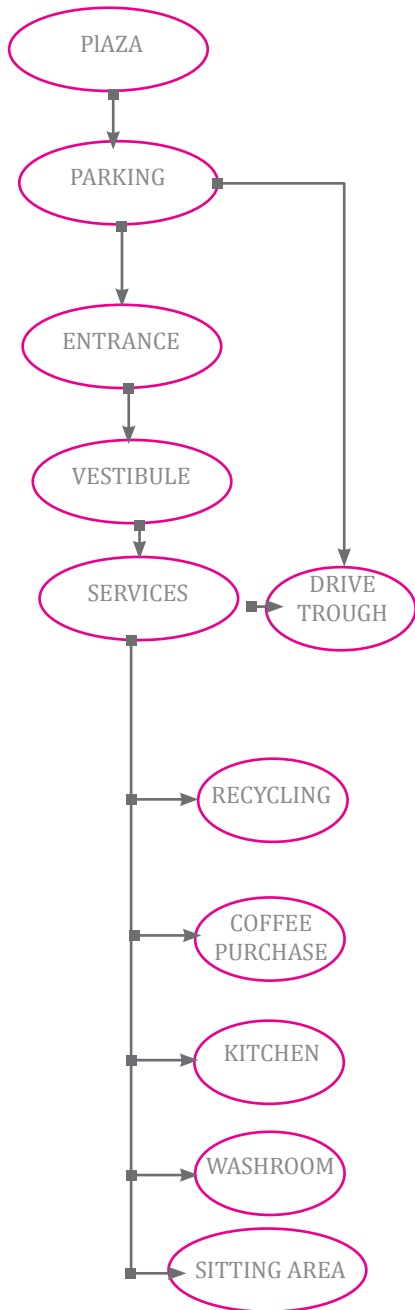


Figure 2.29: Conceptual plan and section of Tim Horton

Figure 2.28: Tim Horton's - Program

2.4 Precedents

2.4.1 Café by 314 Architecture Studio in Athena, Greece

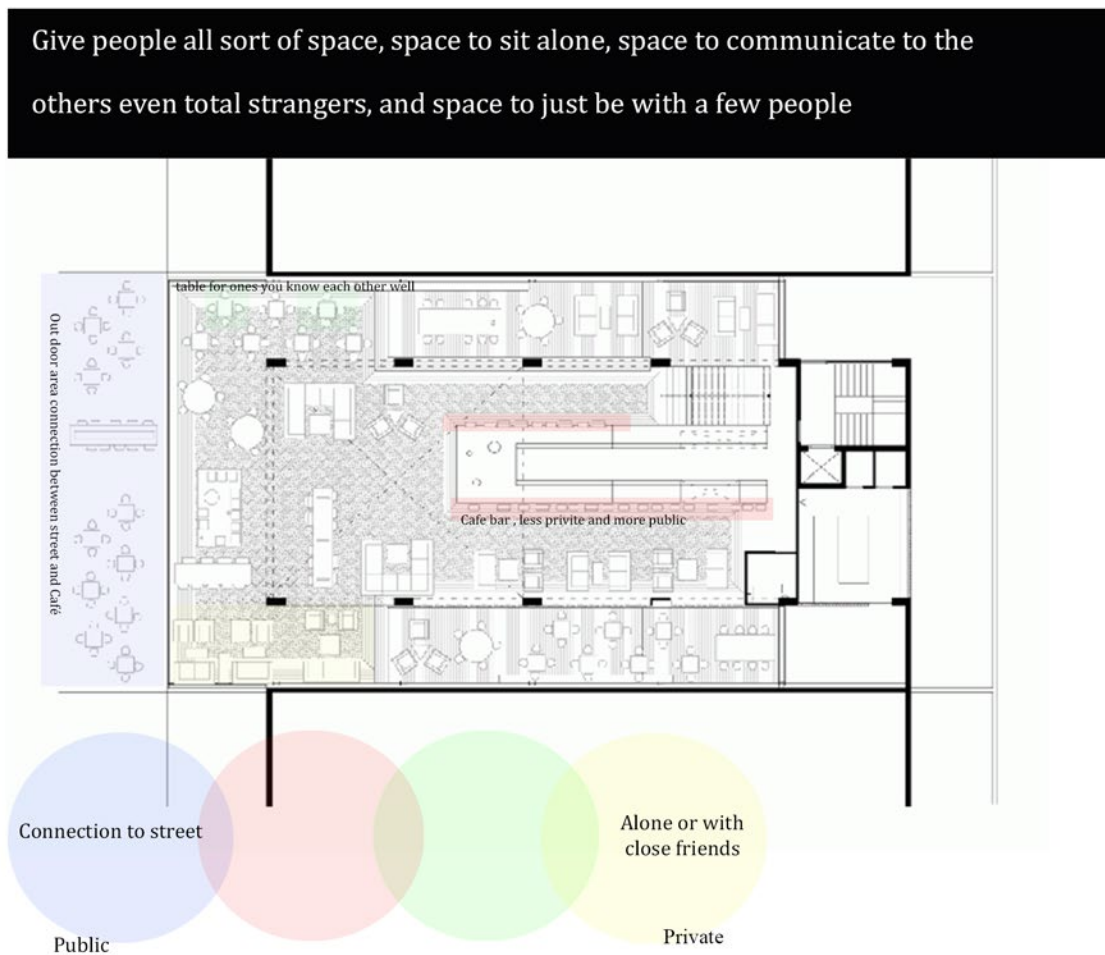


Figure 2.30: Plan-Café by 314 Architecture Studio

This coffee place is located in Athens and has an area of 300 square meters. The main similarity of this coffee place to traditional Iranian coffee places is in attachment to nature.

An interesting fact in this café is the quality of spaces related to privacy. Rooms and chambers on one side of the café provide more private areas, while the communal table is a spot for strangers to sit together.^[1]

1 Design Ruiz. Design Ruiz. 2009. 2 March 2014 <<http://www.designrulz.com/design/2013/04/modern-coffee-shop-314-architecture-studio-athens-greece/>>

CAFE



Figure 2.31: Café by 314 Architecture Studio in Athena, Greece, interior

In this café, the green wall and the open roof make semi-open spaces. The yard at the end of the café is integrated with the neighborhood as an open space.

Figure 2.32: Café by 314 Architecture Studio in Athena, Greece, green Wall, semi Open Space



Figure 2.33: Café by 314 Architecture Studio in Athena, Greece, communal table

2.4.2 Starbucks café by Kengo Kuma & Associates, Dazaifu, Fukuoka Prefecture, Japan

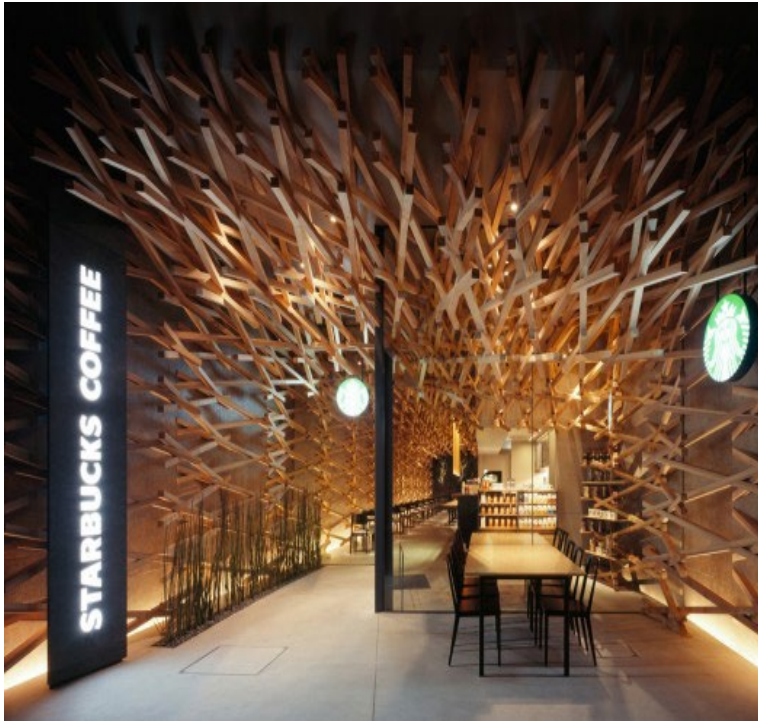


Figure 2.34: Starbucks café by Kengo Kuma & Associates, Dazaifu, Fukuoka Prefecture, Japan



Figure 2.35: Starbucks café by Kengo Kuma & Associates, Dazaifu, Fukuoka Prefecture, Japan, Wood Structural System

This project, which is located close by the Dazaifu Tenmangu, one of the major shrines in Japan. Kengo Kuma designed the café. This project shows the evolution of the Starbucks as a franchised café based on the attractions of the site. This Starbucks café not only respects the architecture of the site but also carries on the iconic elements of Starbucks as a franchised café. The structure is based on the traditional Japanese architecture, which evolves piling up of small parts from the ground and was highly developed in the traditional architecture of Japan and China.^[1]

1 de zeen. Starbucks Coffee at Dazaifu Tenman-gū by Kengo Kuma and Associates. 22 Feb 2012. 22 Sep 2014 <<http://www.dezeen.com/2012/02/23/starbucks-coffee-at-dazaifu-tenman-gu-by-kengo-kuma-and-associates/>>.

Iconic Elements of Starbucks

“Scholars in marketing and sociology have suggested that cosmopolitan consumers whose tastes and desires are becoming standardized increasingly populate the world.”^[1] These similar experiences are being exported in every country, and as a human being we can digest these experiences by our senses. The iconic elements of Starbucks are the sight, hearing, taste and touch and smell.



Figure 2.36: Elements of starbucks



Figure 2.37: Elements of starbucks



Figure 2.38: Elements of starbucks



Figure 2.39: Elements of starbucks

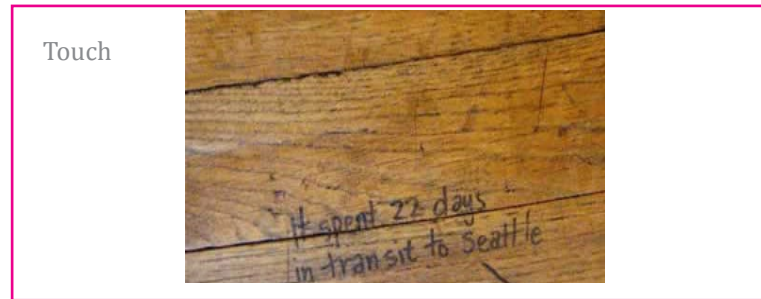


Figure 2.40: Surfaces of starbucks

1 Alon, Ilan. “Global Franchising and Development in Emerging and Transitioning Markets.” Journal of Macromarketing (2004): 156.

2.4.3 Negar-Ol- Saltane Café, Qazvin , Iran



Café is part of the Qazvin bazaar and home to many artists, architects, and students. They spend several hours a day conversation together. Musical presentations also take in this café from time to time. The Café has elements from both modern and conventional Islamic architecture.

Figure 2.41:Sad-Ol-Saltane Bazaar is where Negar-Ol- Saltane café is located, Qazvin, Iran, image.



Figure 2.42:Negar-Ol-Saltane café yard, Qazvin, Iran



Figure 2.43:Interior Negar-Ol- Saltane café, Qazvin, Iran

2.5 Observation of Iranian Businesses in the GTA

Iranian business in the GTA is defined as a business that is owned by Iranians, or it has an Iranian name. The businesses that are advertised in Iranian community are also defined as an Iranian business. Based on Iranian yellow pages the sales and services our biggest proportion of what Iranian does in Toronto. In the table bellow you can view the category of these businesses.

There are total of 49 Iranian restaurants and cafes in Toronto. This number indicates not only the quantity of it but also the cultural weight. Food is a one of the main essential needs of the human body, has been evolved through time, and plays a big role in culture.

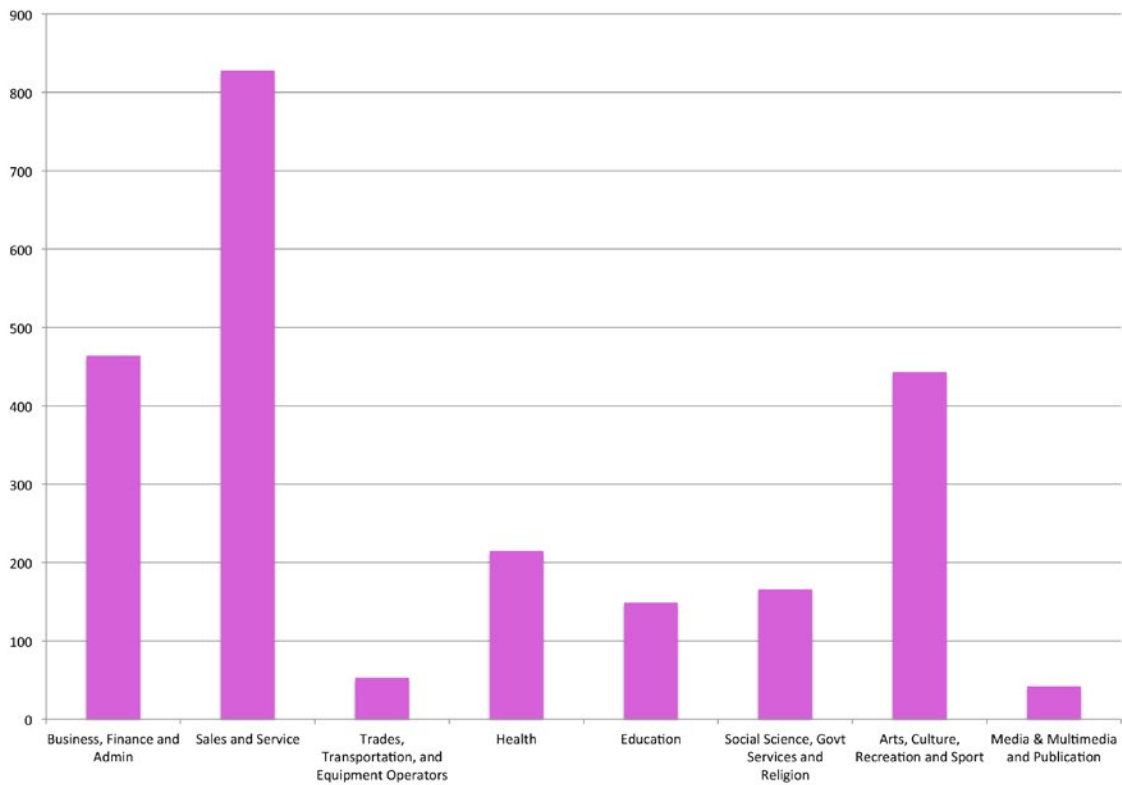


Figure 2.44: Number of Iranian labor force by occupation sorted by categories, Toronto GTA

Globalization, Multiculturalism and the Evolution of Suburban Toronto

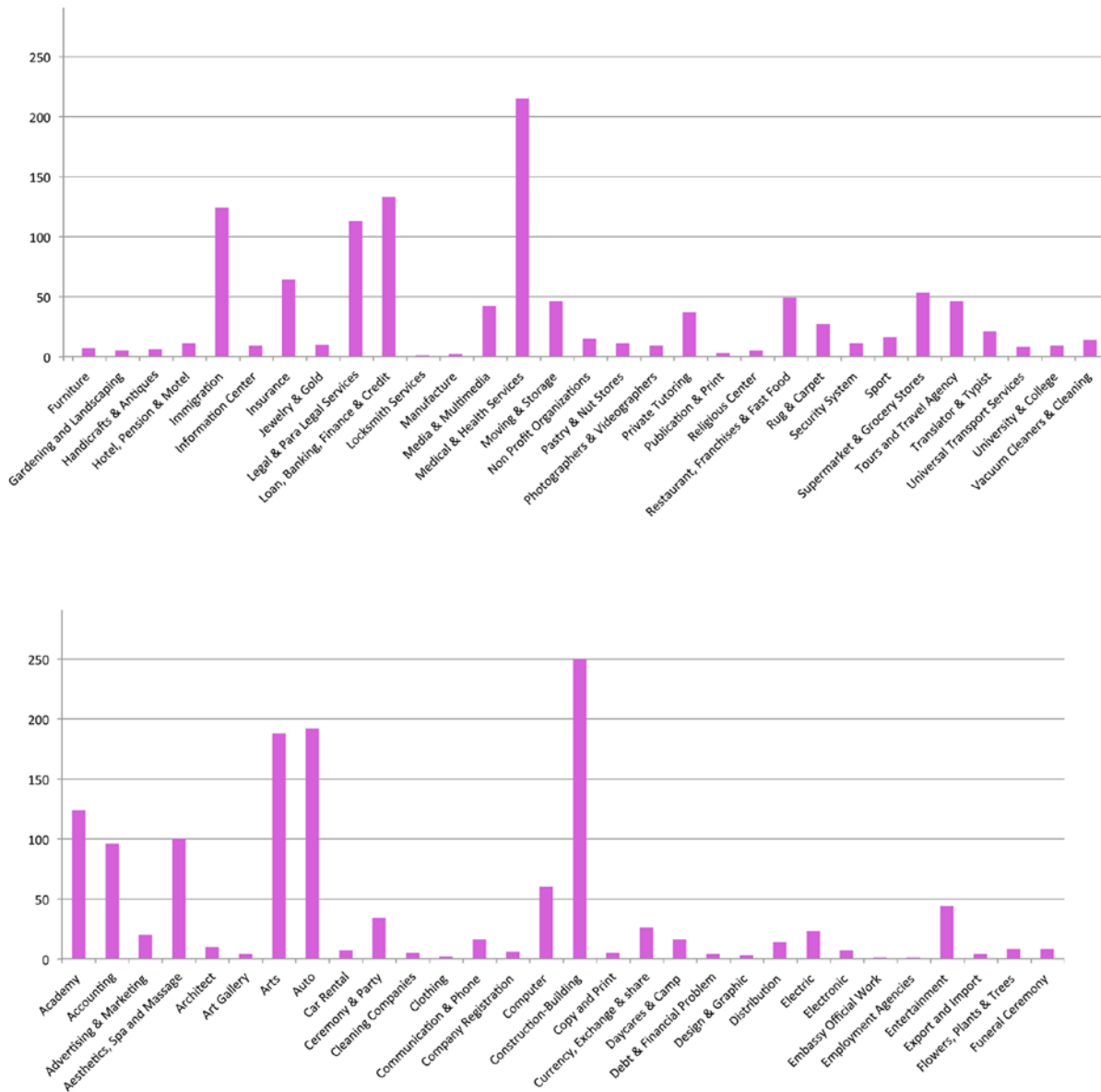


Figure 2.45: Number of Iranian labor force by occupation, Toronto GTA

2.6 A Translation of the Iranian Café in to Tim Horton's

The redesign of the Tim Horton's as a Persian-style café is based on hybrid of the program and spaces of both types. The spaces in the new Richmond Hill Iranian Tim Hortons café are divided in three categories; open space, semi-open and closed.

The geometry is developed based on the polygon of a hexagon, which is a decorative and formal element and repeated in this building, and acknowledges one of the main aspects of Islamic Persian Architecture: the geometrical patterns. Since the drawing of human beings and nature was forbidden for early Muslim architects, they used geometrical shapes to express their feelings. These shapes are repetitive and carry on the sense of unity. In the design of the café these patterns become screening the windows and create the formation of all the sitting areas.

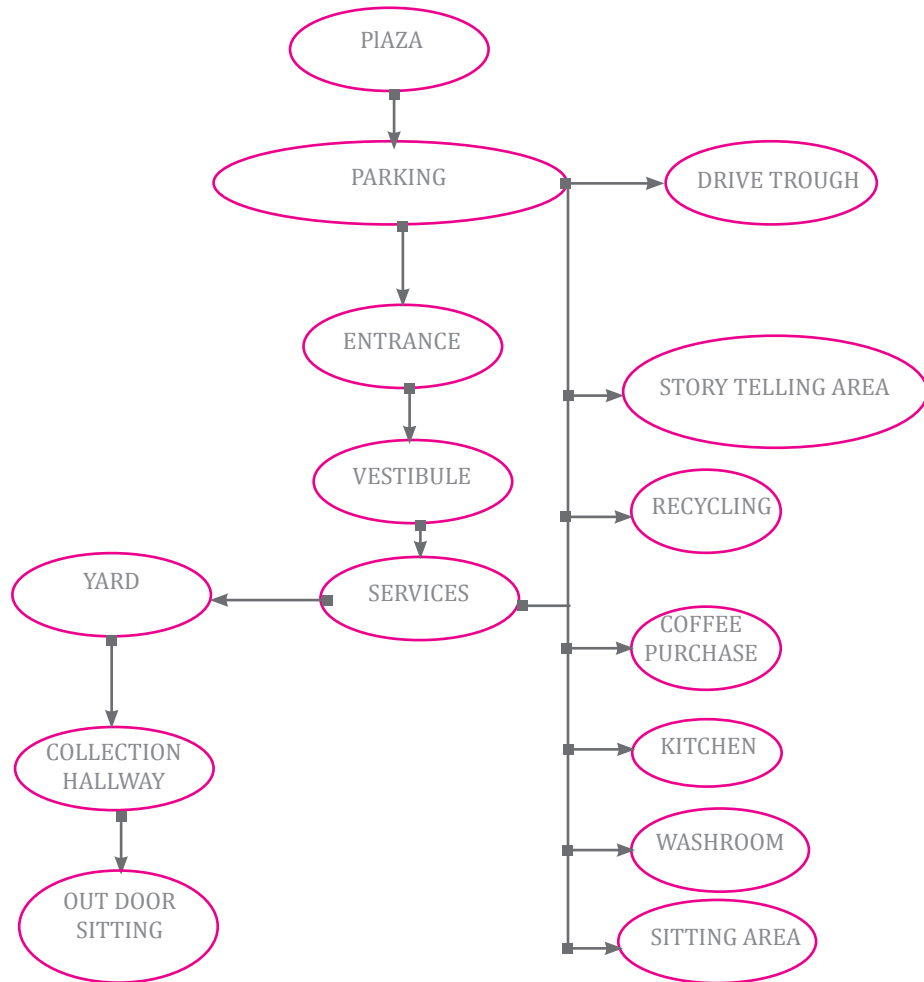


Figure 2.46: New combined program for proposed cafe

2.7 Significant Elements in Persian Architecture Used In the Transformation

The significant physical elements of traditional Persian and some contemporary Iranian, architecture that this case study design is appropriating are geometry, courtyards, and water.

All of the following case study designs involve creating facades, interiors, and interpretations of traditional building typologies in public spaces. These new Richmond Hill commercial or public spaces represent the mixture of these elements into a modern hybrid formation with Canadian suburban building forms and types.

In most Tim Horton's building, the exterior facade presents a similar market tested iconography. Interior elements are also all the same in every aspect from floor to ceiling. The corporate Tim's logo is attached to the building with no difference from any other Tim Horton branches.

In the case study redesign, the furniture is changed based on an Islamic hexagonal geometry but the seats and tables are still attached to floor. The sitting areas also have more spatial variety than in an existing Tim Horton's.

The hallway floor tile is designed based on the hexagonal geometry, preferred in late 13th–14th century Persia. The wall in some parts is also covered with fabric with the hexagonal patterns found in Persian carpets. The tile panel shown is a copy of the tile in Nishapur, which is based on the repetitive characteristic of hexagonal geometry.

The iconic visual element of the coffee shops exterior is the Tim Horton's sign in elevation. Since this visual element is seen in every Tim's coffee shop, this element needs to be included in any hybrid transformation. This element is also, one of the most important in Venturi's concept of the decorated shed and reflects the visual connections needed in a car-driven suburban lifestyle. The most important common element in the Tim's interior is the front showcase in which the pastries and other foods are presented. Another shared element is the furniture, which is immovable for easier service organization, cleaning, and maintenance.

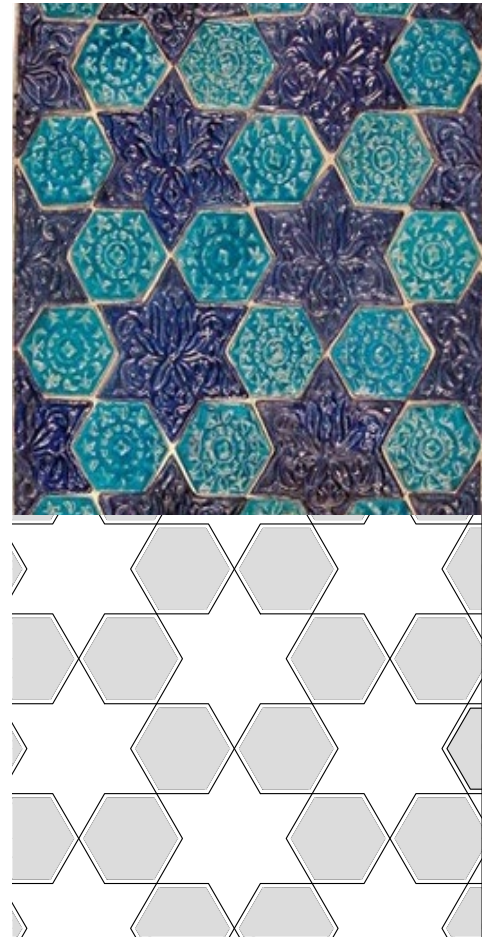


Figure 2.47: Stonepaste; polychrome tiles. tile panel in Late 13th–14th century, Iran, Nishapur

Use of Geometry as Flooring, based on Star- and hexagonal,



Figure 2.48: The sitting areas in final design of cafe based on, hexagon geometry

2.7.1 Geometry

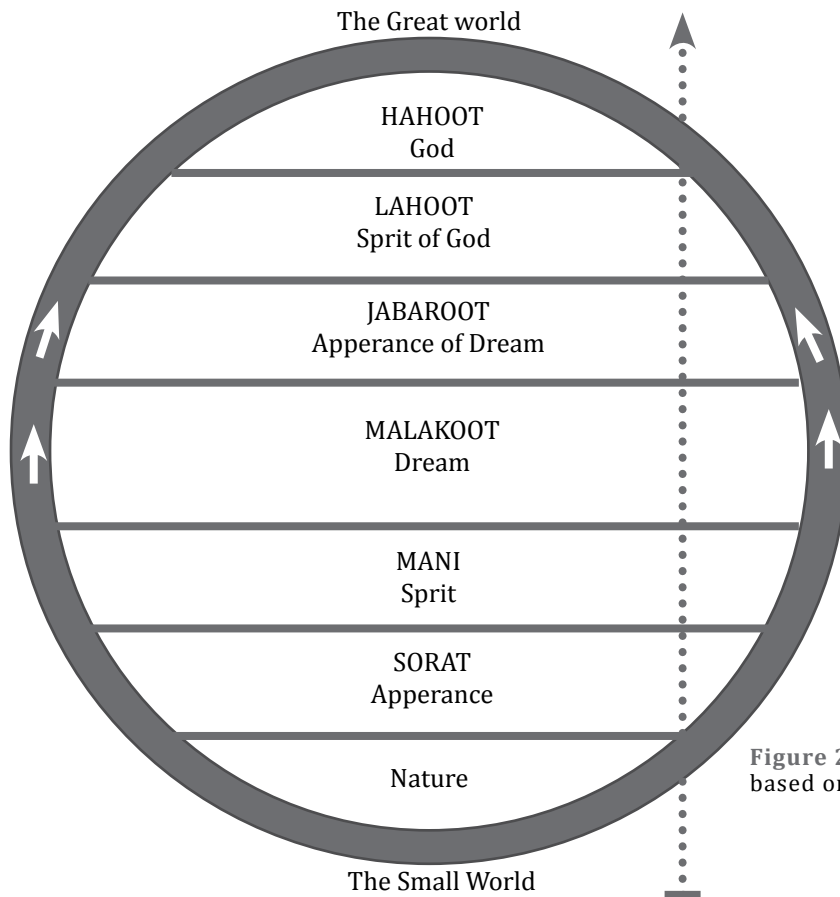


Figure 2.49: The idea of creation based on Sufi Tradition

In order to understand the importance of geometry in Iranian architecture, we need to understand the mindset of Iranian architects. Who is an Iranian architect and how does he design buildings. The artist/architect is a person who is inspired by the worlds above. He recreates symbols in architecture with the tools of nature, both physical and the immaterial order of space and time, and the actual materials needed to carry out the task of construction. The architect/artist's understanding of the great world appears in physical symbols. ^[1]

The Iranian artist travels to his Malakoot Alam to create physical symbols. Alam in Persian is the situation where someone or something is at a specific time, with people and things that are in that same state, and can create a unique feeling and understanding.

1 Ardalan, Nader. *The Sense of Unity : The Sufi Tradition in Persian Architecture*. Tehran: ABC International Group, 1974.

The world of a vertebrate animal will makes no sense to an insect. A vertebrate animal cannot experience the feelings of a plant. Thus, every living creature has the feelings and understandings of the world of physical elements or as we call it, Nature. The world of Nature is the first world that is being presented based on Sufi tradition.

It is believed that Iranian artists got the inspiration for their designs from the Malakkot Alam, which itself is similar to heaven. It is a form of dream of a sufi or muslim artist, and the source of this dream is the Holy Koran.^[2] The artist flies to the other world and brings back the impressive geometry, which is inspired by nature, and its underlying true geometry.

One of the amazing aspects in most Islamic Iranian buildings is the geometry, which in its nature is similar to fractal geometry. In this world, the fractal is the basis of creation; everything that you see in this world is based on fractal geometry and its self-repetitive models. Islamic artists with no knowledge of the contemporary theory of fractal phenomenon would create similar fractal patterns in the 16-century.

Philosopher and mathematician Gottfried Leibniz first offered the mathematical theory of fractal geometry in the 17th century. One of the most basic examples of fractal geometry is a Sirprinsky triangle. Figure 2.54 shows the evolution of this geometry^[3]. Another example is a snowflake particle, illustrated in Figure 2.52.

The snowflake has a basis similar to a Sirprinsky triangle but instead of growing internally it grows

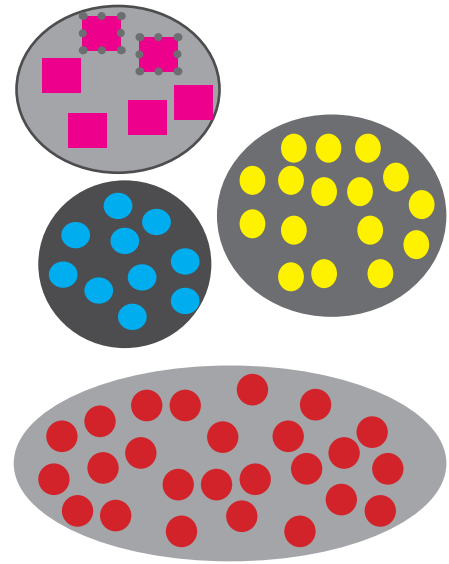


Figure 2.50: Illustration of Alam

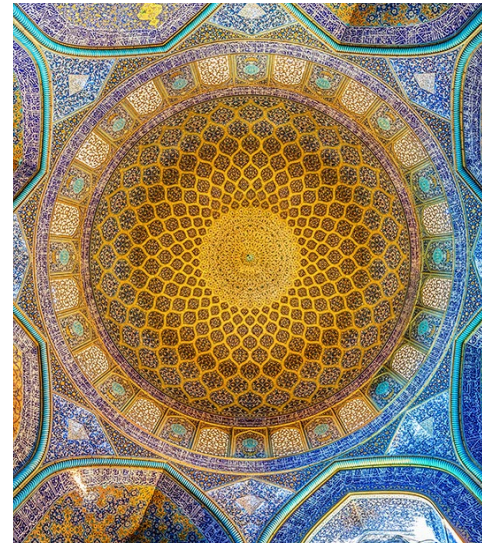


Figure 2.51: Sheikh-lotf o Allah MasqueDome represents sky and the walls act as a connection of sky with earth

2 Taheri, Jafar. "Rethinking the concept of residence in Architecture." *Journal of Iranian architecture* 2 (2013), 6-8.

3 Mandelbort, Benoit B. *The fractal geomatry of nature*. NY: W.H Freeman and company , 1977, 142

externally^[4].

The comparison between the Islamic Iranian architectural geometry and today's fractal geometry of nature shows that the self-repetitive characteristics of both geometries are similar. Islamic geometry is not just imitation from nature in architecture but represents a deeper underlying natural orders itself a part of God. The geometry is a valuable element among Iranians and these patterns are created according to the religious beliefs of an Iranian architect. In the Koran is written that God created this world based on a specific geometry.^[5] Iranian architects believed that repetitive geometry is a base of creation.^[6]

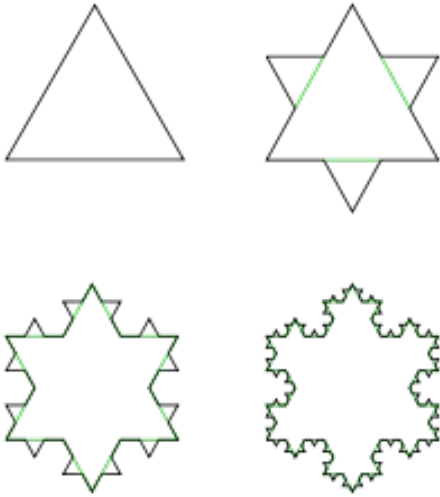


Figure 2.52: Snowflake

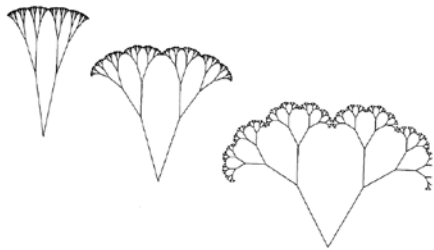


Figure 2.53: Brassica tree which is an example of umbrella trees and fractal canopies

Geometric symbolism in Persian Islamic Architecture, is one of the main aspects carried into Iranian Architecture, and reproduces paradise in this world. There are two ways to produce paradise in Iranian Architecture: the direct way, whose examples are gardens and the indirect way, using of geometry and numbers.^[7]

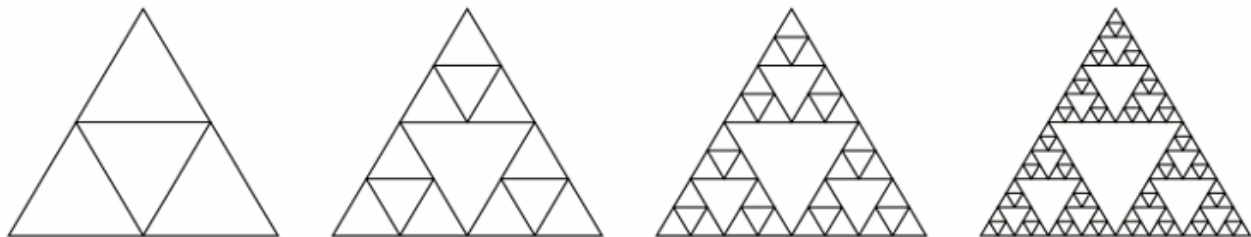


Figure 2.54: Sierpinski triangle

4 Mandelbort, Benoit B. The fractal geometry of nature. NY: W.H Freeman and company , 1977. page 42
 5 Nasr, Syed Hossein. Islamic Science: An Illustrated Survey. London: World of Islam Festival Publishing, 1976.
 6 Saheb Mohammadianmansour, Sina Faramarzi. "The comparison of the geometry of Iranian with the quasi-crystalline silicon." Journal of Fine Arts - Visual Arts (2012): 69-80.
 7 Mohammadreza Bemanian, Hadi Safayii Pour. The role of qualitative and quantitative numbers on Islamic architecture. 28 oct 2014

2.7.2 Water

Water, one of the most important elements of Iranian architecture, has been changed and evolved throughout the different religions that shaped Iranian cities.

As a symbol, water has been used in mosques, bazaars, and hammams. In these typologies of buildings the circular dome on top is the symbol of the great world or paradise. The imaginary vertical axis through the dome is the middle of this form and connects these two worlds together. This vertical imaginary line connects the center of the square to the highest point of the dome and in the center of the square in gardens, hammams and bazaars is a water pool.

Anahita temple in Kangavar was the first example of this kind of usage of water. Nahid or Anahita was a major deity in pre-Islamic Persia. She was the protector of water and the goddess of beauty. During the Parthian period Anahita's worship became popular and venerated.^[1]

In Sufi tradition, which is the source of the basic concepts of Iranian Islamic Architecture, the sky is a symbol for the great world and water, which reflects the sky, is the symbol of the smaller world. Walls, as the vertical elements, that connect these two worlds together, try to reflect the world above by the colors (blue) and the geometry that bring the sense of unity and repetition to the building.

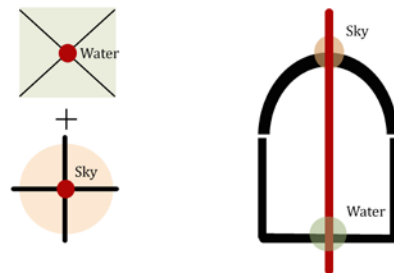


Figure 2.55:Water and sky relation

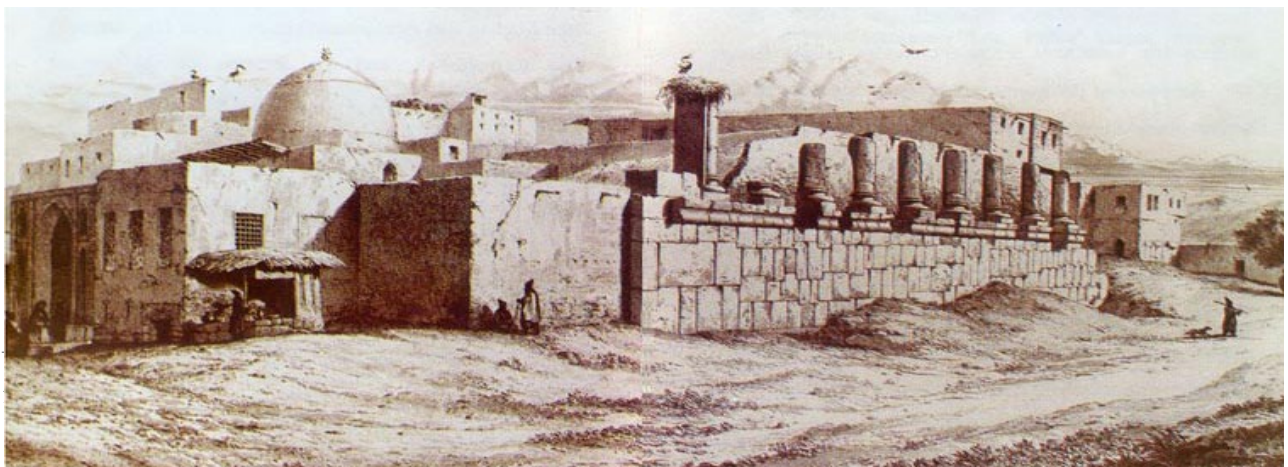


Figure 2.56:Anahita Temple_Kangavar (Midway between Hamadan and Kermanshah), Iran



Figure 2.57: Agha Bozorg Mosque, Kashan Iran, example of court yard

2.7.3 Courtyard

One of the main goals in Iranian Architecture is to reproduce paradise in this world. As it was mentioned before, two ways of symbolizing paradise in Iranian architecture are: direct way, gardens and the indirect way, using of geometry and numbers^[1].

Two of the elements in the Iranian architecture are the garden and yard. In the philosophy of the Persian artist, the world is created internally and externally. The phrases, which define these two visions, are the great world, which is centrifugal and the small world which is centre-oriented.

Gardens and yards, with their lush plants and water are very important in the dry and warm climate of Iran, and they both represent paradise. A garden is a representative of the great world, the world that a human is going to after his life in this world. In the center of the garden is a pool of water. The water reflects the sky, the great world, and the human being is reflection of him. The water is a starting point and the end point. Water paths bring water from the source (central pool) to all parts of the garden. Humans connect with the source through nature. A very high-income family can only build a garden. In order to bring nature to the life of Iranian families, court yards were created as a parallel form to the garden. .^[2]

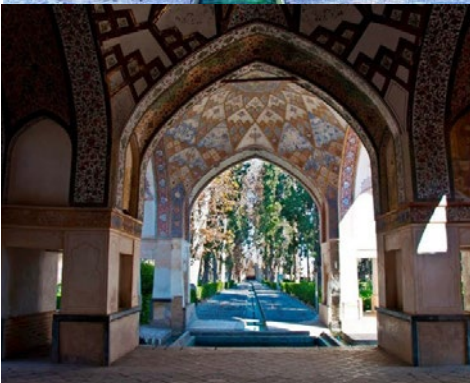
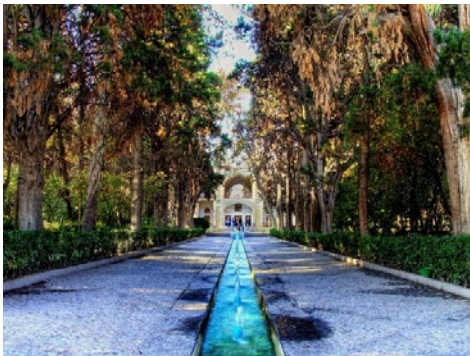


Figure 2.58: Fin Garden, Kashan Iran, example of garden

1 Mohammadrea Bemanian, Hadi Safayii Pour. The role of qualitative and quantitative numbers on Islamic architecture. 28 oct 2014
 2 Ardalan, Nader. The Sense of Unity : The Sufi Tradition in Persian Architecture. Tehran: ABC International Group, 1974.

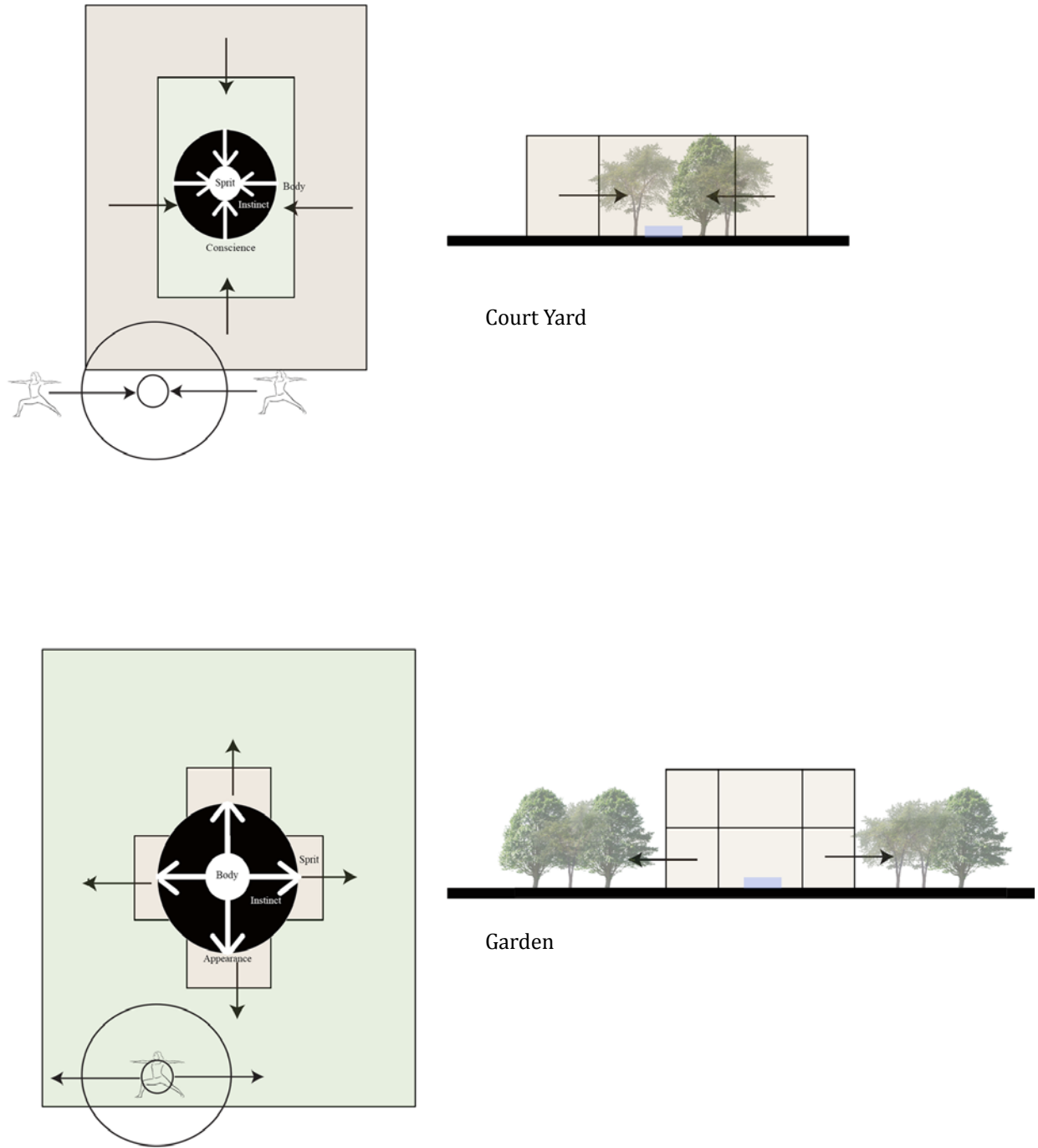
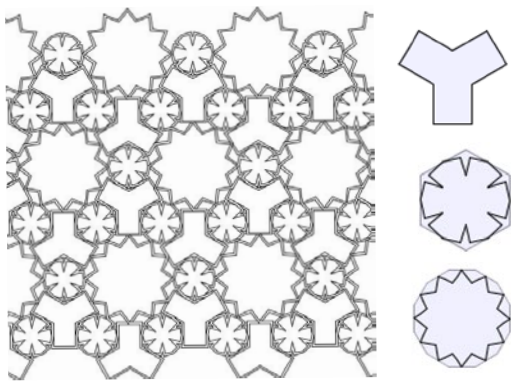


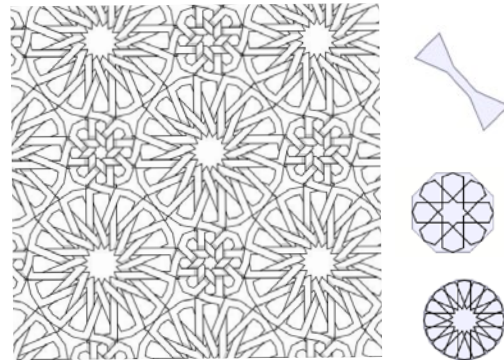
Figure 2.59: Illustration of Garden and Yard in Iranian architecture

2.8 Geometry for the screens

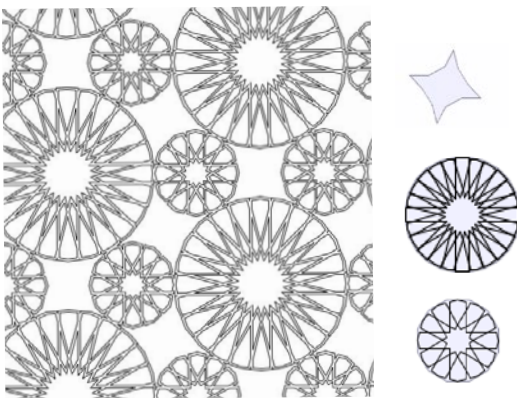
There are more than seventy two basic geometry forms found in Islamic architecture.^[1] The inspiration of the geometry used in this case study design is based on the hexagon division. There are two different ways of inventing Islamic geometry. The first method is based on polygons and the empty spaces between them.^[2] The second method is based on different versions of tiling, which produce different tiling systems.^[3] The geometrical results of both these methods are similar. This part of the case study work is about creating different forms for the exterior facade based on Islamic geometry. The software used here is Taprat, designed by Craig S Kaplan of the University of Waterloo. This software reproduces the Islamic shapes and tiles.



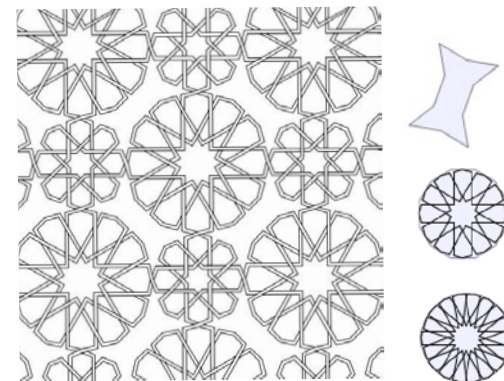
Geometry tile 1C



Geometry tile 2

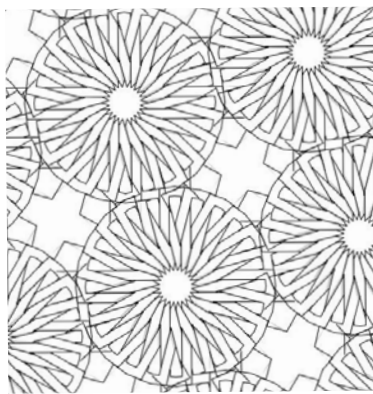


Geometry tile 1C

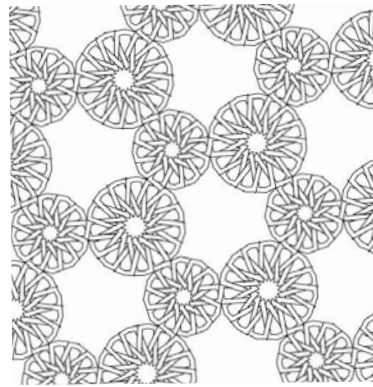


Geometry tile 3

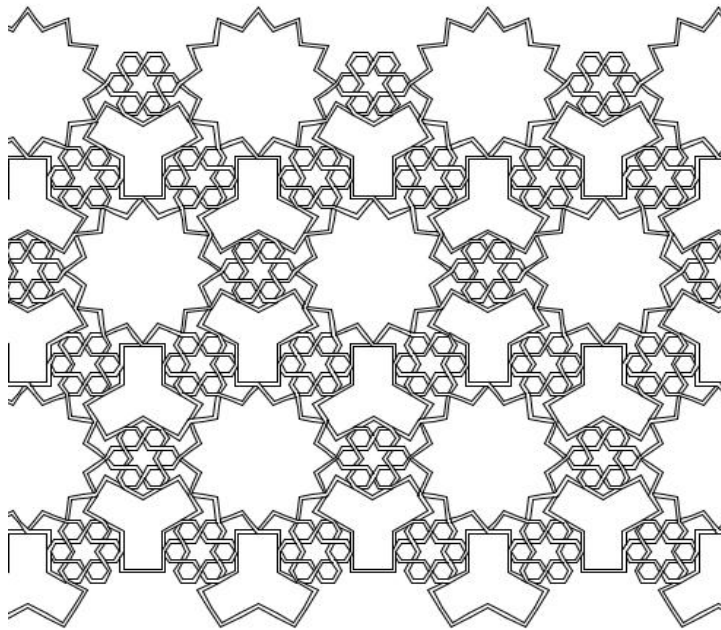
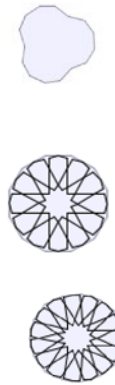
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- 1 Nasr, Syed Hossein. *Islamic Science: An Illustrated Survey*. London: World of Islam Festival Publishing, 1976.
 - 2 Gangopadhyay, T. "Further Tiling Patterns Involving Islamic Stars with an Odd Number of Vertices." *International Journal of Computer Applications* (0975 – 8887) Volume 67. No.1 (2013): 1-5.
 - 3 J.Lu, Peter. *Decagonal and Quasicrystalline Tilings in Medieval Islamic Architecture* Harvard University. Feb 2007.



Geometry tile 1E



Geometry tile 4



Geometry tile 1A

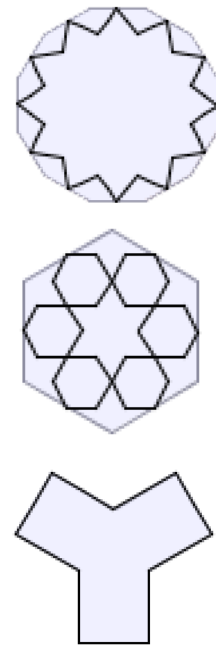


Figure 2.60: Investigation for the geometry of the screen, Islamic geomatery produced by taprat sotware

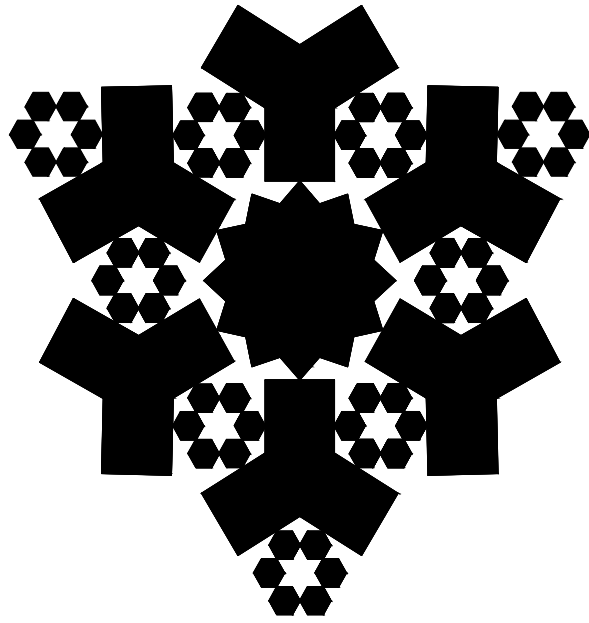
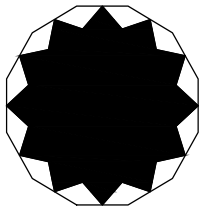
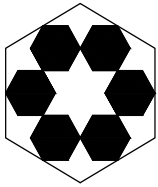
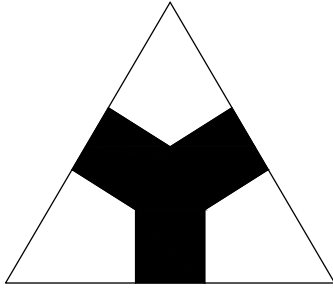


Figure 2.61: Panel of hexagonal tiles

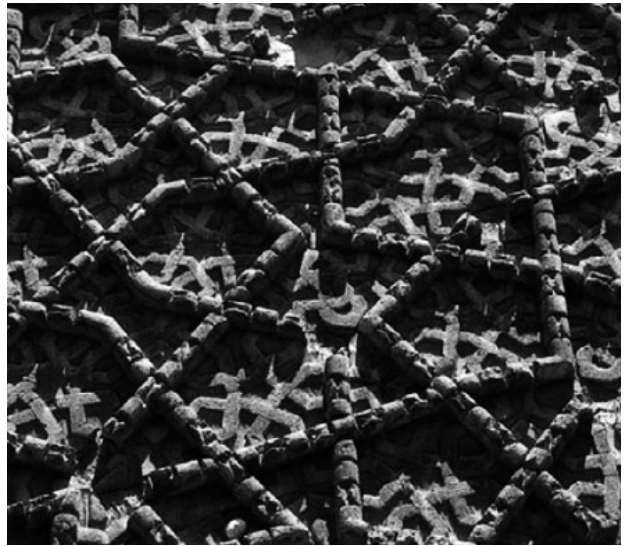


Figure 2.62: Detailed brickwork of blue dome

THIS TILE IS painted and glazed from Turkey or Syria and belongs to 1550-1600. It is kept in Victoria & Albert Museum, London

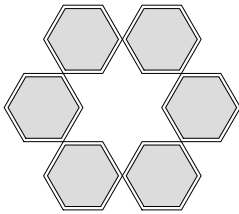


Figure 2.63:The Basic Modular

These diagrams show how geometry is used and repeated in different spaces of hybridized café.

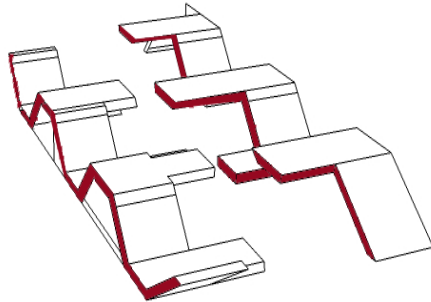


Figure 2.64:Chairs and tables

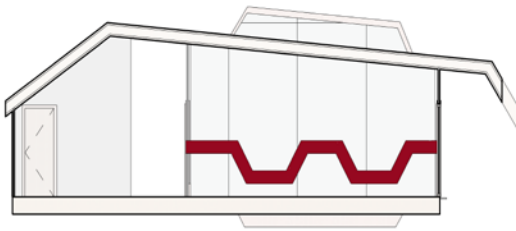


Figure 2.65:Chairs and tables section

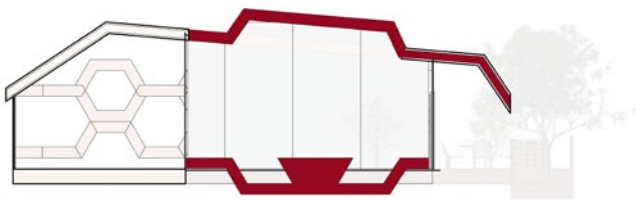


Figure 2.66:The ceiling and sitting area of semi outdoor

The roof is created based on the geometry, which has been investigated in 2.8.

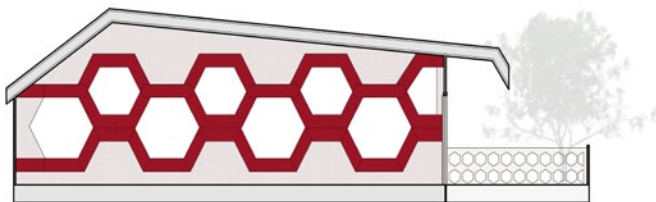


Figure 2.67:The Window frame

Geometry for the screens

The Tim Horton's typological case study design is based on the re-evaluating a Tim Horton's in a Canadian suburb as well as examining Iranian traditional cafes. In this design strategy, a typological Tim Horton's is designed, and it is transformed based on two different sites in Richmond Hill. The design is a transformation of the coffee shop's/café's spaces as well as producing more Iranian exterior screens both for the interior and the symbolic exterior screen decoration for the suburban shed.

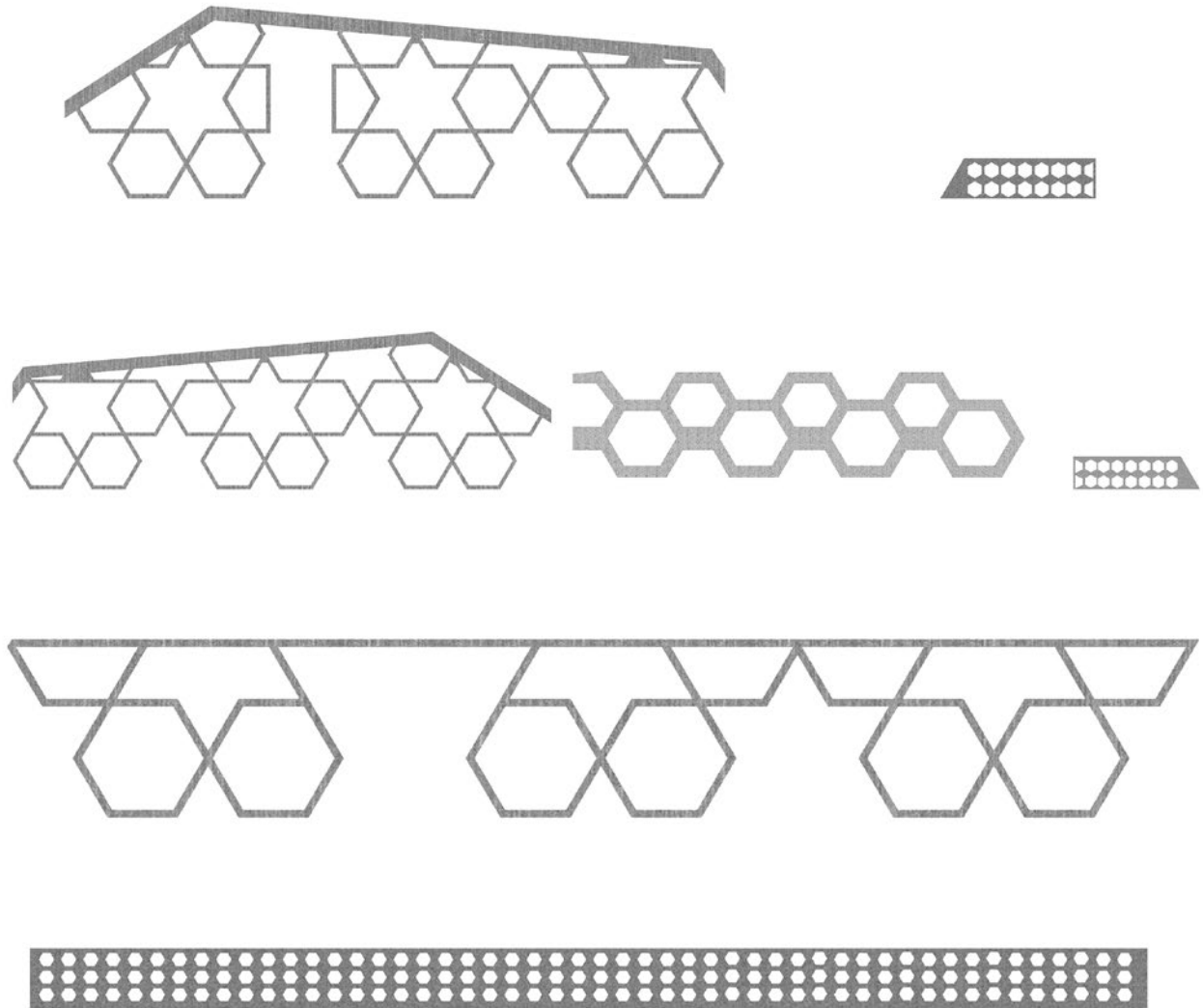


Figure 2.68: The final screens

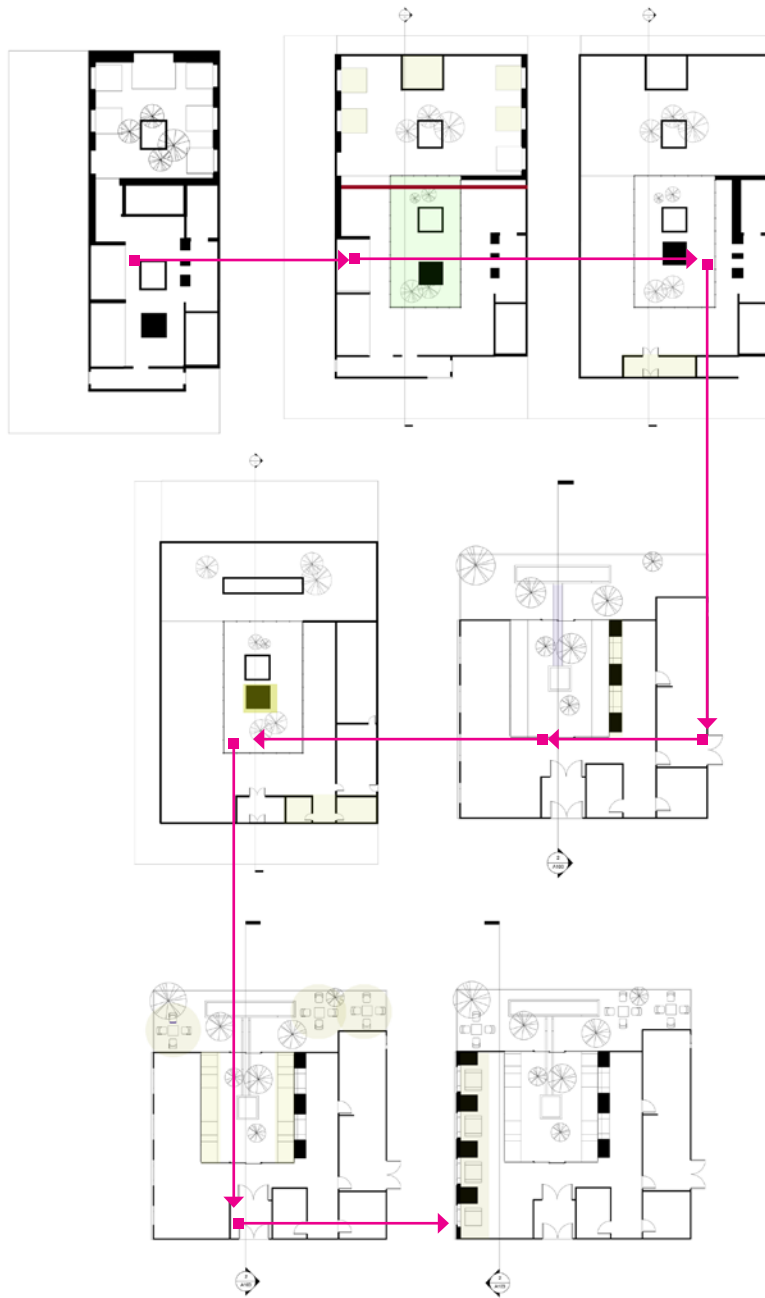


Figure 2.69: Transition of Iranian café to Tim Horton's shown in plan

The diagram above shows the transformation of the Iranian café to hybridized Iranian, Tim Horton's, step by step. The semi open space is added at the center of the new café with the glass walls and glass roof, which can easily act as an extension to the yard. The tables are installed instead of chambers. The vestibule is similar to any other Tim Horton's and has taken the place of the Iranian hallway.

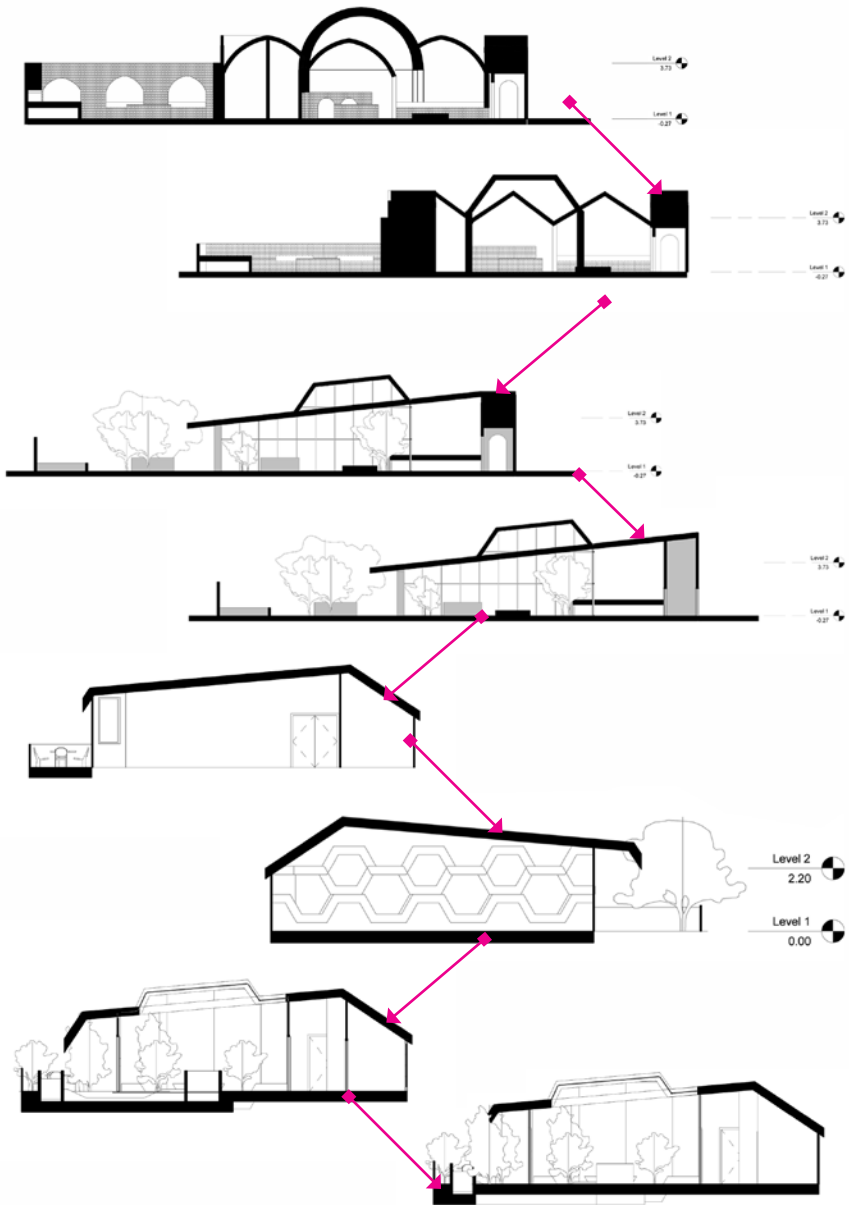


Figure 2.70: Transition of Tim Horton's to Iranian café shown in section

The transformation in sections shows how the Iranian domes can be modernize in order to fit suburban neighborhood. The sections are created in respect to the geometry, which has been discussed in 2.7.1 and 2.8.

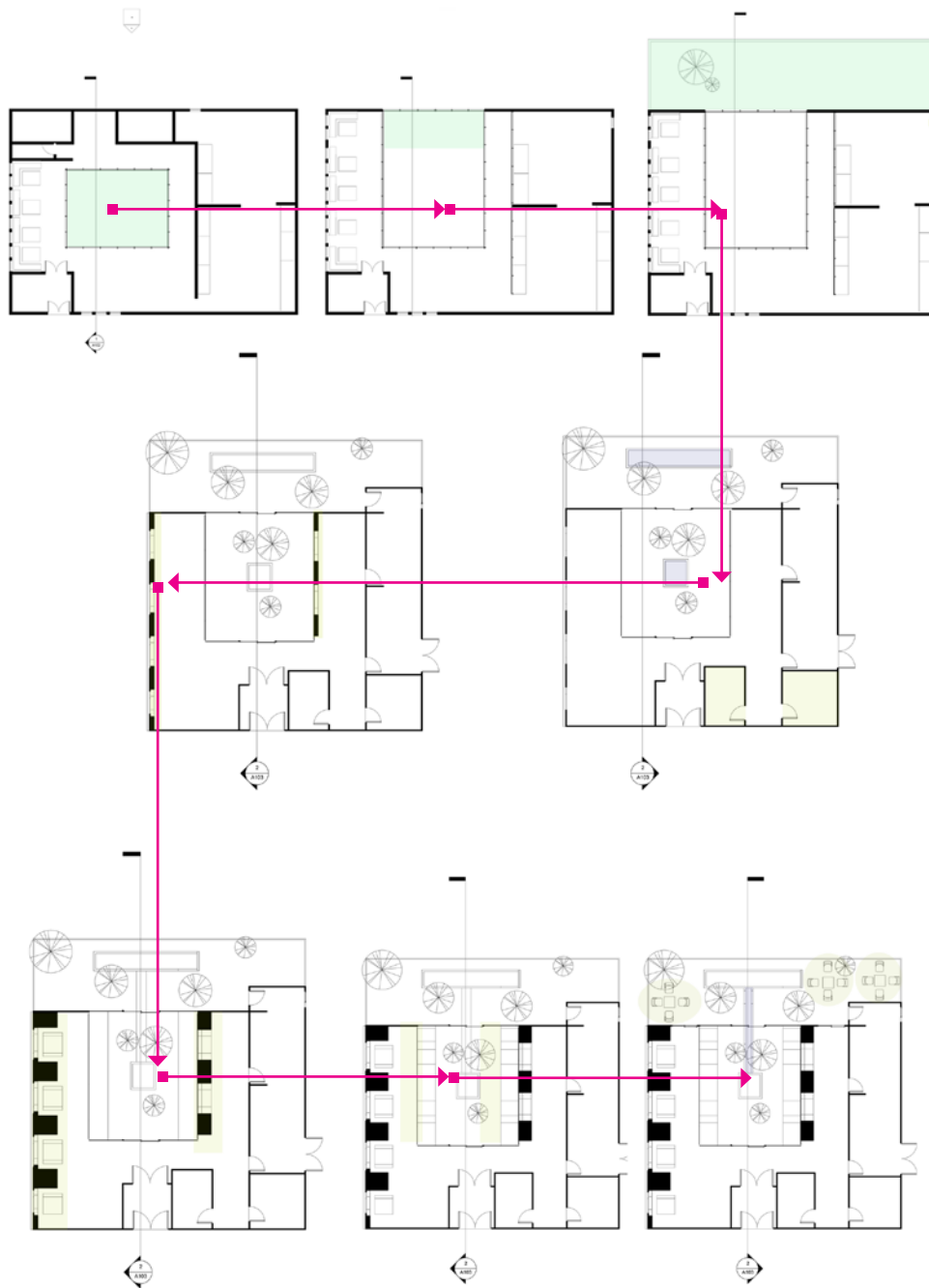


Figure 2.71: Transition of Tim Horton's to Iranian café shown in plan

The transformation of Tim Horton's is based on the discussion in 2.7. The open, semi open spaces has been added to the plan. The water path acts as a connection of two small pools.

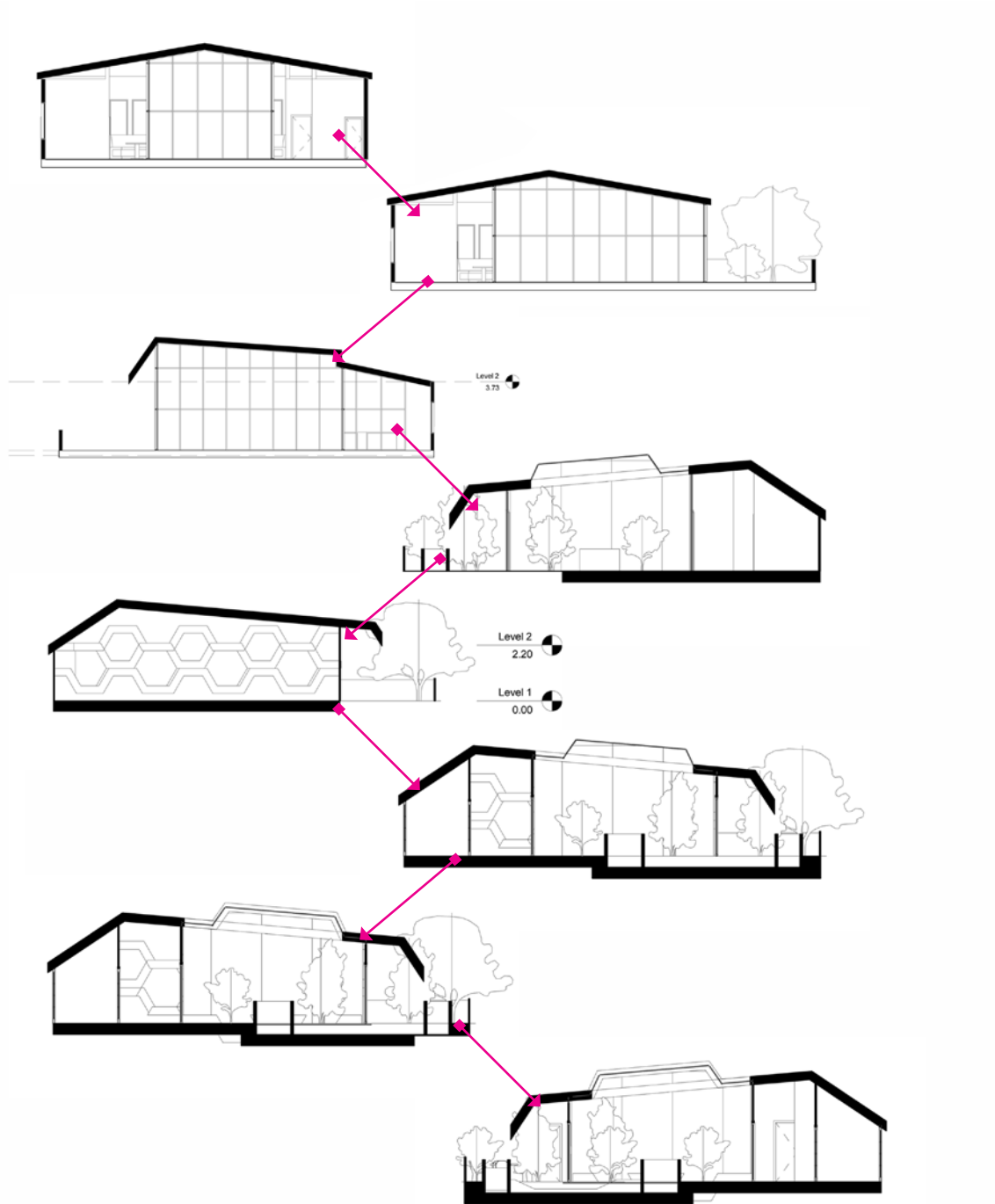


Figure 2.72: Transition of Tim Horton's to Iranian café shown in plan

The transformation shows how the roof and furniture in Tim Horton's can transform. The broken roof defines the start and the end point of café similar to Iranian version.

2.9 The Tim Horton's Case Study Design

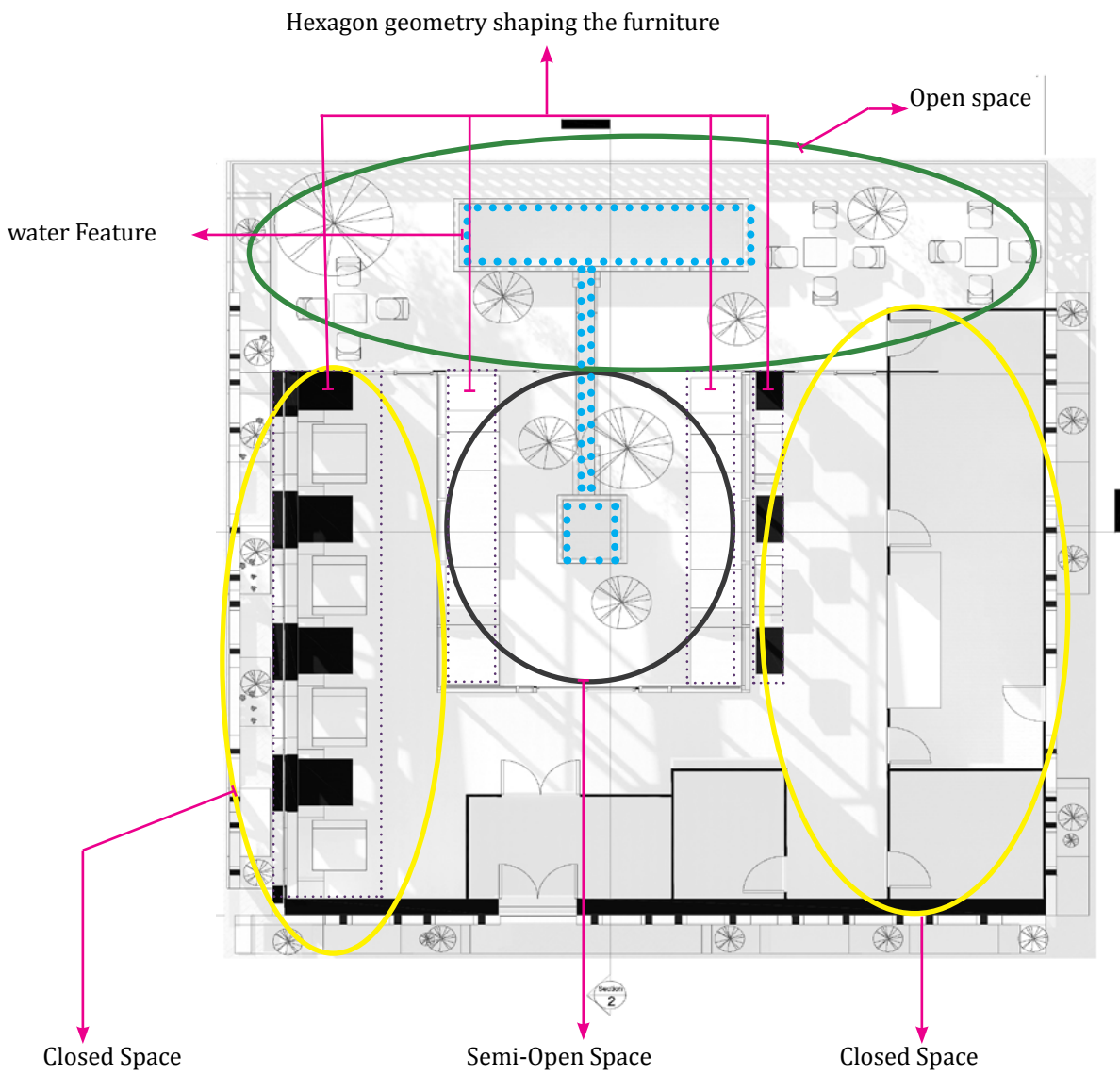


Figure 2.73: Typological plan

2.10 Adaption of the Designed Café Into Two Sites in Richmond Hill

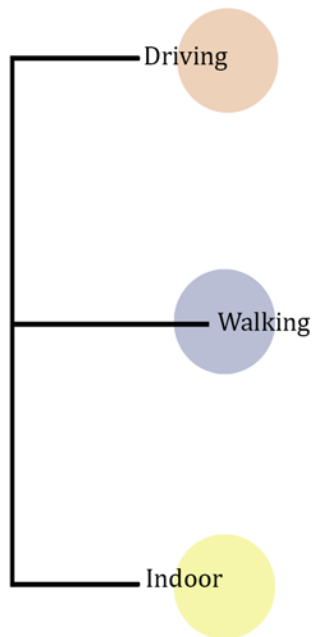


Figure 2.74: Three typical views of the Tim Horton's that almost every customer would experience

Every person is responsible for creating new experiences in his or her routines of daily life. Not all of us are wealthy enough to live in a city center where one can find the concentration of cultural events. To localize this cultural experience, this project creates the new experiences in Tim Horton's, a café that is home to many middle class citizens of the Canadian suburbs. The project changes the exterior facades of a common Tim Horton's model coffee shop. The design also enhances the interior relationship between people and nature, and it, creates a variety of different sitting areas based on a complex but ordered hexagonal geometry.

Much of the new Iranian Tim Horton's café design is just a modification of what already exists in the suburbs, and the case study design just evolves the existing features in a way that citizens can experience new perspectives in their daily lives.

That more complex perspective that can be experienced in the new immigrant suburbs is in three different scales: the car scale, which is basically what you feel when you are driving around the Tim Horton's; the walking scale, when you are walking toward Tim Horton's; and the sitting scale, when you are sitting in Tim Horton. The case study design evaluates, experiments, and compares in all of these perspectives.

The case study Tim Horton's design is evaluated in two Richmond Hill sites. The perspective drawings compare the existing setting with the proposed modified Tim Horton's.

2.10.1 Neighborhood for two case study design of Tim Horton's in Richmond Hill

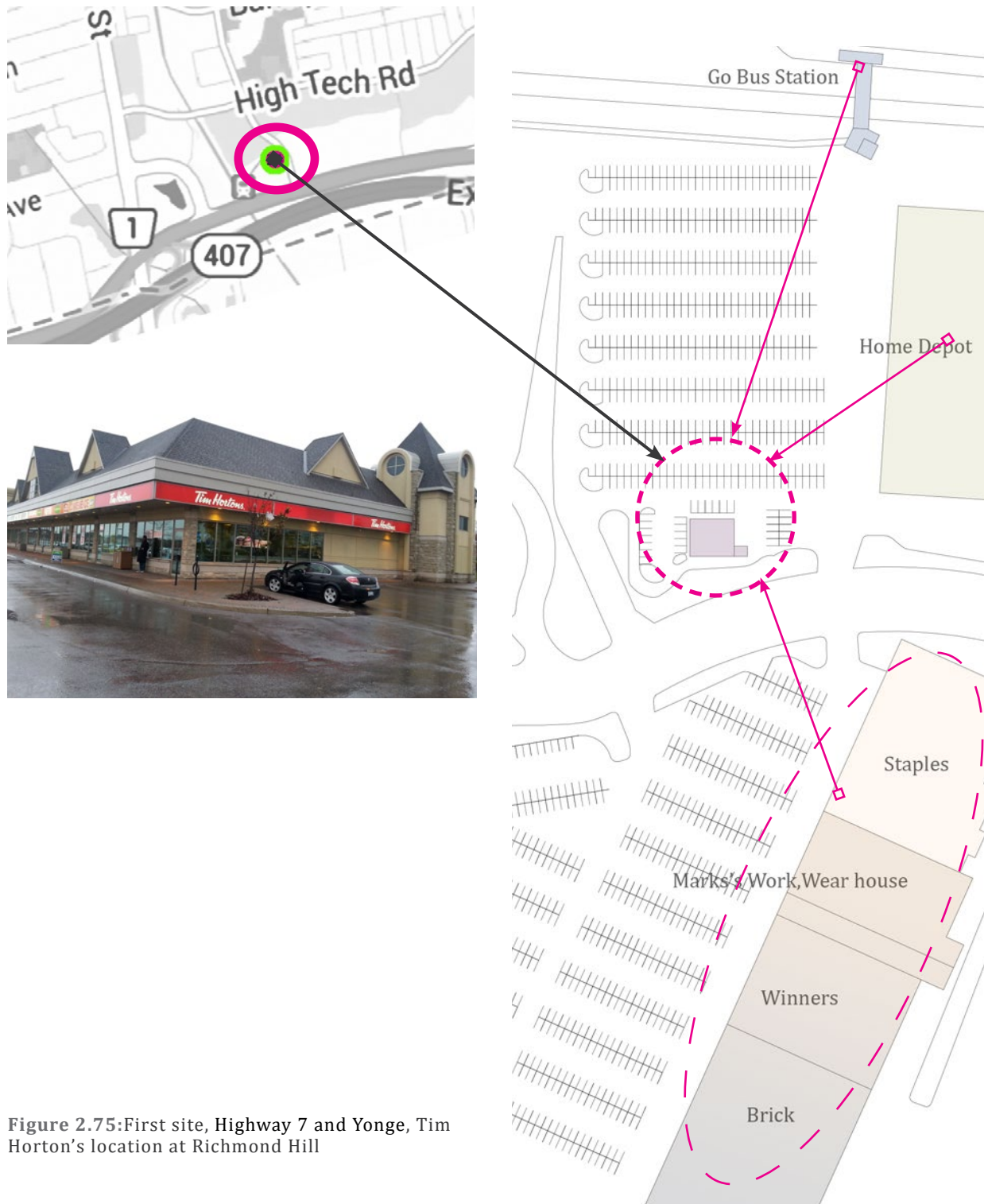


Figure 2.75: First site, Highway 7 and Yonge, Tim Horton's location at Richmond Hill

CAFE

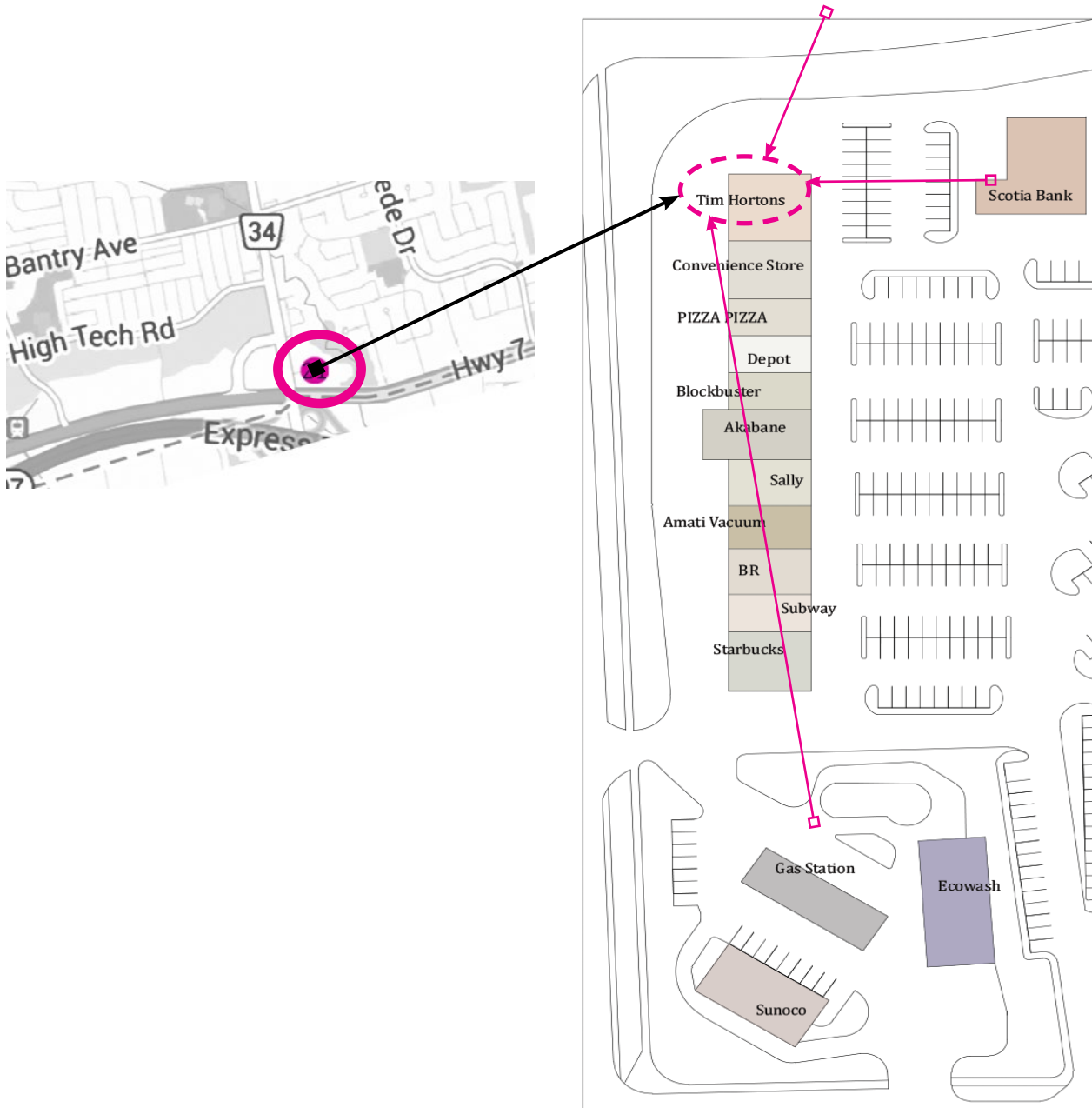


Figure 2.76: Second site, Highway 7 and Bayview, Tim Horton's location at Richmond Hill

2.10.2 Adapted Tim Hortons -Plans



Figure 2.77: Plan of adapted Tim Horton's, first site

CAFE

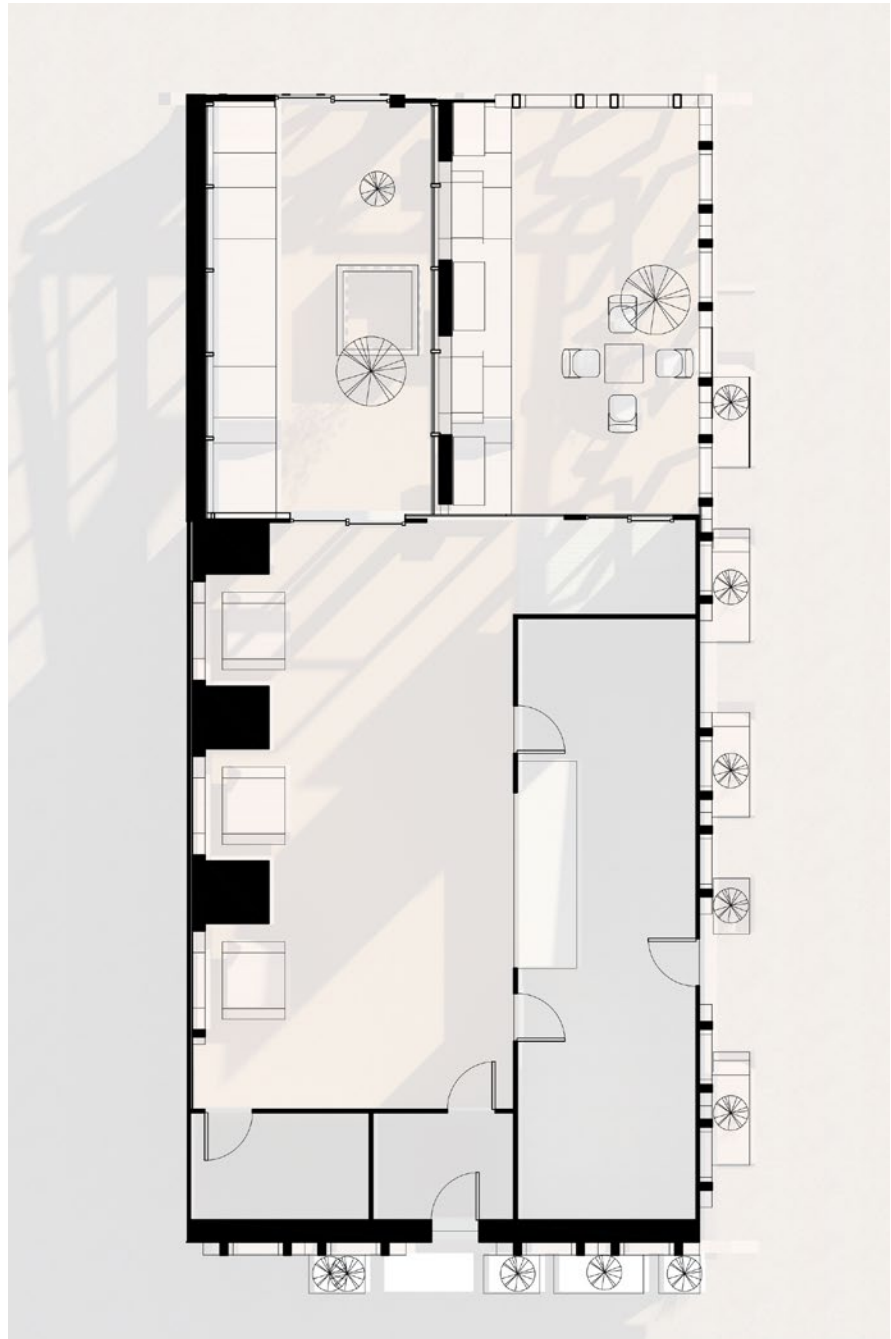


Figure 2.78: Plan of adapted Tim Horton's, second site

2.10.3 Comparison of the previous Timhortons with the proposed one based on three-perspective views

1. Driving
2. Walking
3. Sitting

Driving



Proposed vignette of first site



Existing vignette of first site



Figure 2.79: First site, visual comparison of the existing and proposed vignette for drivers

CAFE

Walking



Existing vignette of first site



Proposed vignette of first site

Figure 2.80:First site, Visual comparison of the existing and proposed vignette when customers are walking around the plaza

Sitting

Existing vignette of first site

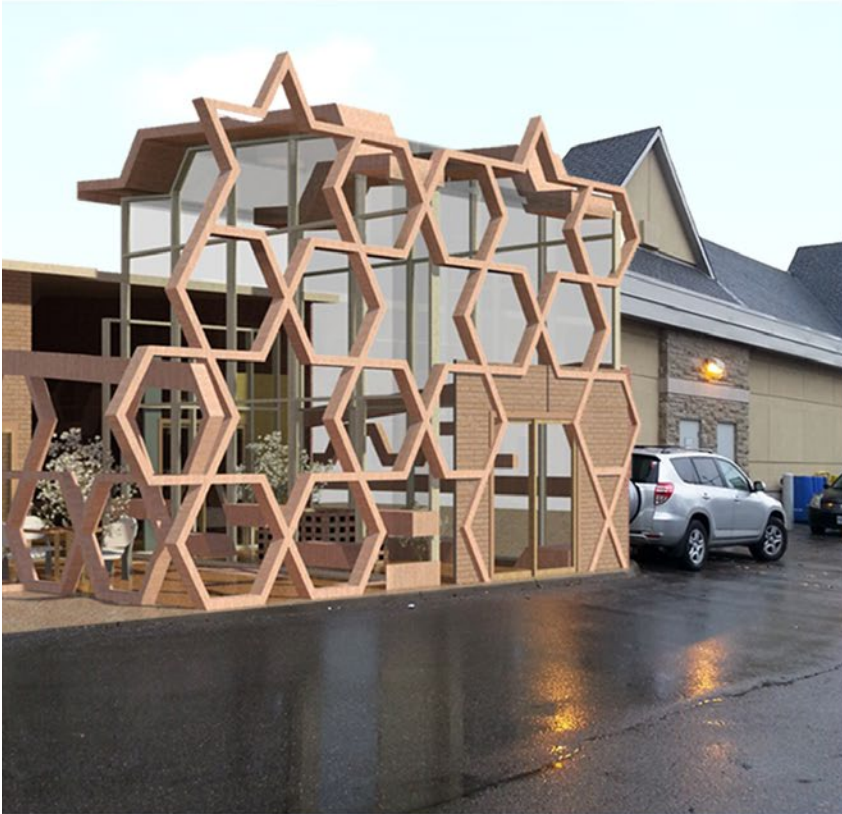


Proposed vignette of first site



Figure 2.81: First site, Visual comparison of the existing and proposed vignette for when customers are sitting in Tim Hortons

Driving



Existing vignette of second site



Proposed vignette of second site

Figure 2.82: Second site, visual comparison of the existing and proposed vignette for drivers

Walking

Existing vignette of second site

Proposed vignette of second site



Figure 2.83: Second site, visual comparison of the existing and proposed vignette when customers are walking around the plaza

Sitting

Existing vignette of second site



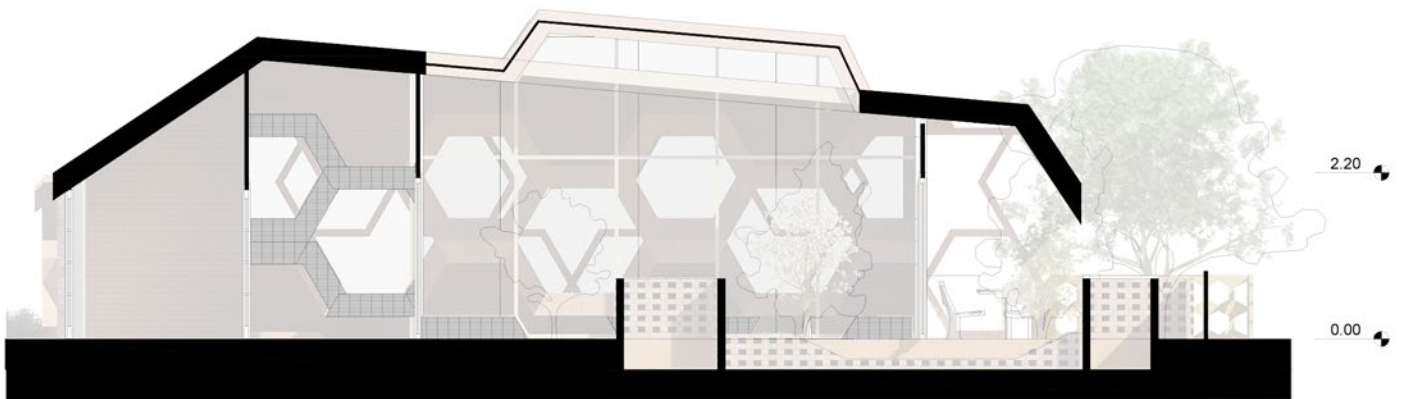
Proposed vignette of second site



Figure 2.84: Second site, visual comparison of the existing and proposed vignette for when customers are sitting in Tim Horton's



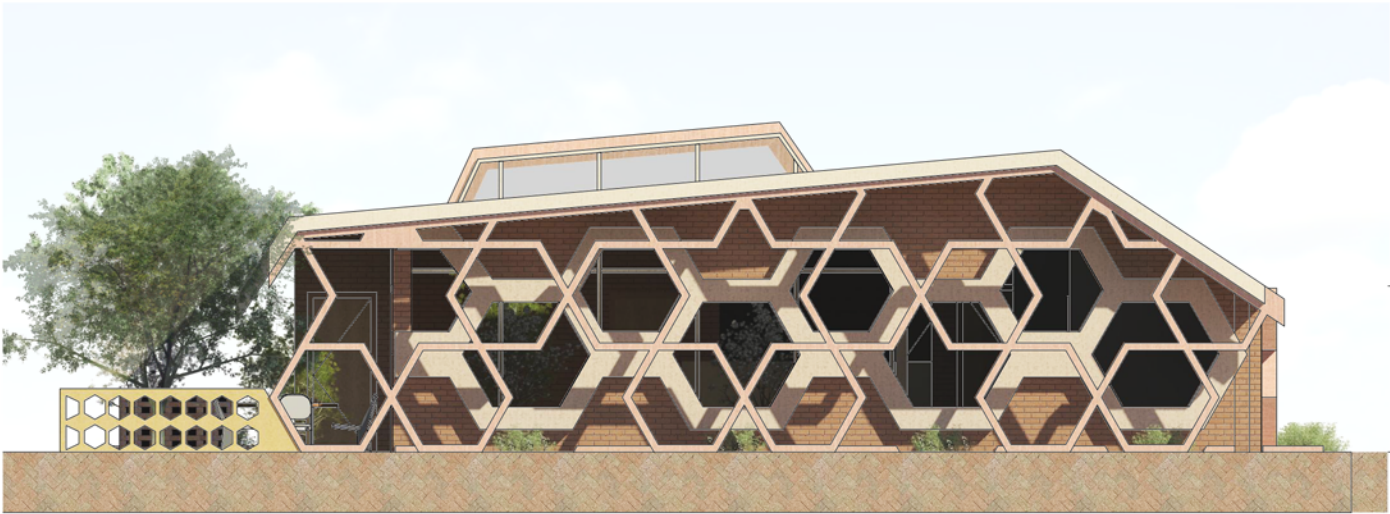
Section 1
Scale:1/100



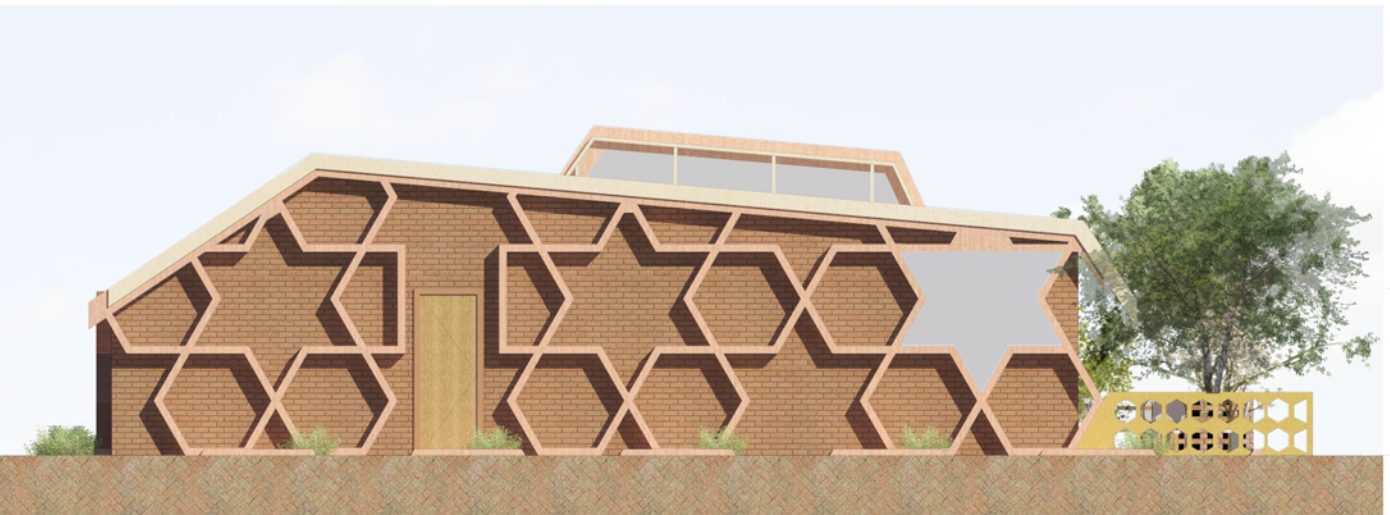
Section 2
Scale:1/100

Figure 2.85:Section of Tim Horton's, first Site

CAFE



West Elevation
Scale:1/100



East Elevation
Scale:1/100

Figure 2.86:Elevation of Tim Horton's, first Site



South Elevation
Scale:1/100



North Elevation
Scale:1/100

Figure 2.87: Elevation of Tim Horton's, first Site

CAFE



Figure 2.88: Interiors of Tim Horton's, sitting area



Figure 2.89: Interiors of Tim Horton's, open Space



Figure 2.90:Section projection of adapted Tim Horton's, first Site

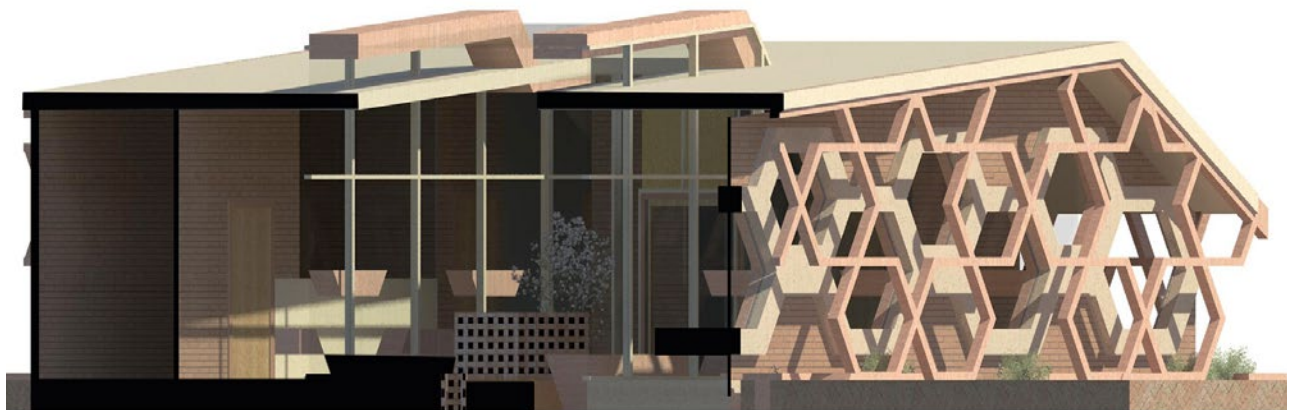


Figure 2.91:Section projection of adapted Tim Horton's, first Site

CHAPTER 3

SHOPPING PLAZA

3.1 The Shopping Plaza or Bazaar

“Humanity cannot just focus on the price tag of materialism as its primary goal”

(Ervin)^[1]

In today’s North American suburban lifestyle, the suburban shopping plaza acts as a place to purchase goods. Iranian bazaars, the traditional Persian equivalent of the plaza, originally went beyond the goal of purchasing material goods and also acted as public spots, or sociologist Ray Oldenburg’s third places (those outside home and work) for community gatherings and socializing.

Given our common human needs, no matter where one lives, or in which century, all of us require to at some frequent point the life needs of food, water, and air. The concept of purchasing products for basic survival is central to civilization and happens in both plazas in suburbs and in the bazaars of Iranian cities. Since meeting material need is a universal preoccupation for all people of all times, it is only natural that these places have traditionally also acted as gathering places for citizens of a city. The case study designs of this chapter explore the idea of shopping plazas as public spaces, other than those of home and working, which not only help consumers to meet their needs but also provide them with spaces in which to communicate with their neighbors and friends, and with the civic world beyond.

The design work of this chapter modifies the architectural design of the typical Canadian suburban shopping plaza with concepts drawn from the Iranian bazaar. In doing so, it also considers the advantages of this merging of forms in a multicultural society. Canada was the pioneer in developing the concept of multiculturalism as an ideology and a practice in order manage the relationship between different ethnic groups. The aim of multiculturalism is to keep in ethnical culture as well as providing a unified Canadian culture.^[2] The result of this chapter is the adaption of the form and functions of Iranian shopping plazas (in particular of the Qajar era) to the suburbs of Richmond Hill.

Before the next series of thesis cases studies, a series of design precedents are presented to indicate the common aspects of the thesis case study design approach. These all touch on the hybrid relationships between traditional Islamic and Iranian/Persian architecture and the modernization of those forms in contemporary buildings. The precedent buildings are all “high-end” architecture and not the Venturian suburban decorated sheds of this thesis but the lessons learned are still useful.

1 Ervin, Laszlo See. Goals for Mankind. New York: J Tinbergen, et ai, Reshaping the International Order, 1978.

2 Ho Hon Leung, Raymond Lau, and Sharon Shaw-McEwen. Investigating Diversity: Race, Ethnicity, and Beyond. Yarrnton : Linton Atlantic Books, Ltd , 2008.

3.2 Design Precedent

3.2.1 Institut du Monde Arabe

The similarities between the Arab Institute and the cases study project are that they are both based on a westernized appropriation and interpretation of Islamic architecture, and they both take place in a different context than the Islamic countries of origin. Architect of the Institut du Monde Arabe, Jean Nouvel, tried to represent the iconic elements of Islamic architecture in the modern format of an office building in Paris.

The Institute du Monde Arabe (IMA), Arab World Institute, was built in 1987, in order to publish information about the Arab culture and share information in the arts, sciences and modern technologies with French culture. This building won prizes: the Agha Khan Award and the Equirre d'Argent for French architecture.^[1]

The curtain wall in the southern elevation of the Institut du Monde Arabe is an interpretation of Islamic architecture in a contemporary French context. The southern envelope works like different sizes of camera, for which the diaphragms open, based on the sunlight. This detail shows the southern wall exterior shading mechanism, which is similar to camera technology and is connected to daylight sensors. In this case, the wall adjusts the opening based on sunlight.^[2]

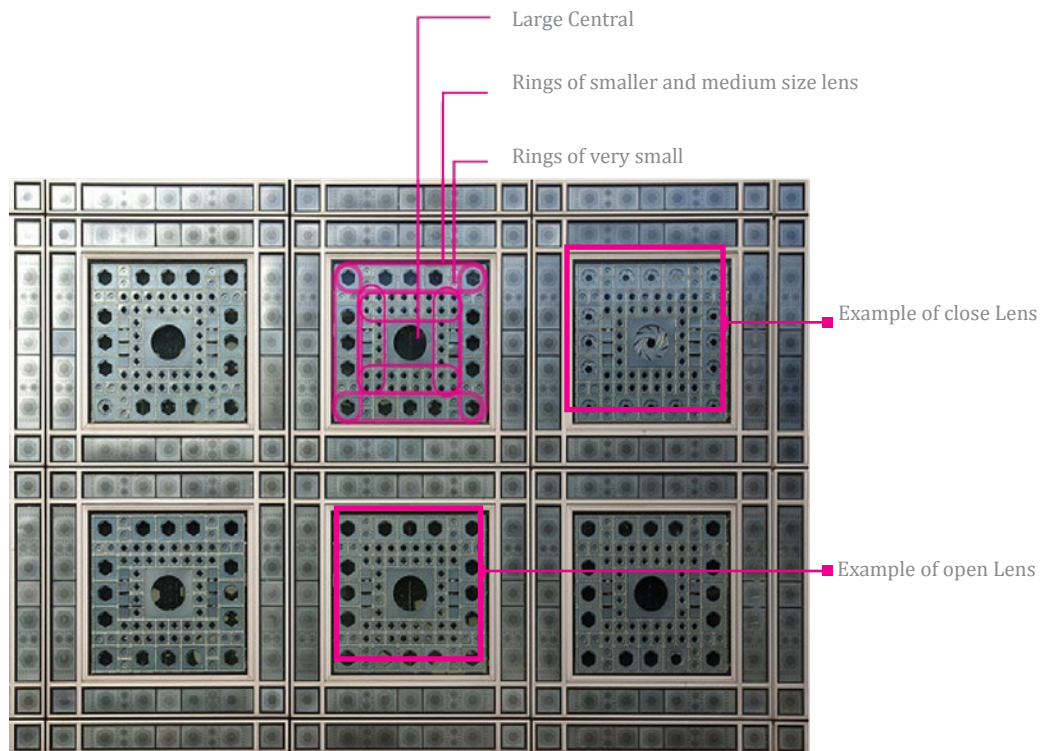


Figure 3.01: Institut du Monte Arabe, The southern envelope which works like camera

1 Winstanley, Tim. Arch Daily. 2 Oct 2011. 9 Sep 2014 <<http://www.archdaily.com/162101/ad-classics-institut-du-monde-arabe-jean-nouvel/>>.

2 Yu, Mayine L. *Skins, Envelopes, and Enclosures*. New York and London: Routledge, 2014.

□ Institut du Monde Arabe Iconic Elements

■ Draw Toward Islamic Architecture

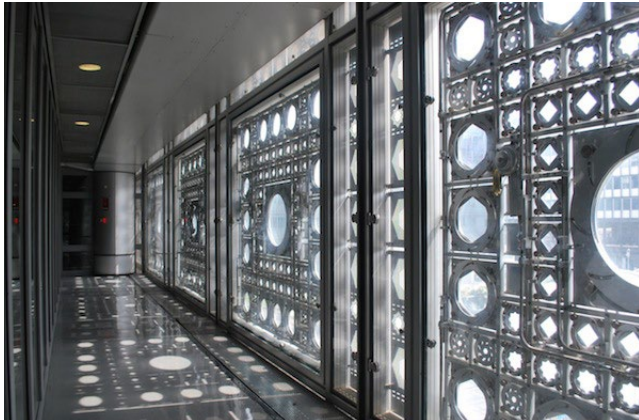


Figure 3.02: Institut du Monde Arabe, view of facade from inside

The most iconic element used in this building is the exterior south wall. It is based on the sash windows in Islamic architecture.

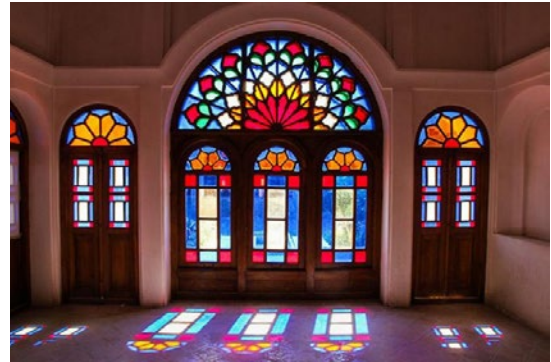


Figure 3.03: sash window in Tabatabaei house

■ Draw Toward Site and Paris

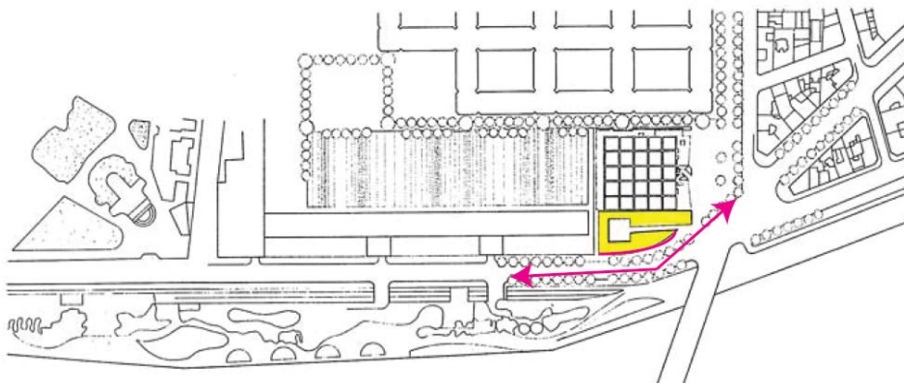


Figure 3.04: Arab World Institute site plan

River Sein: The movement of plans is based on the attraction of the site, mainly the Seine River. The plan also follows the curvature of the road.

 Institut du Monde Arabe Iconic Elements
 Draw Toward Islamic Architecture

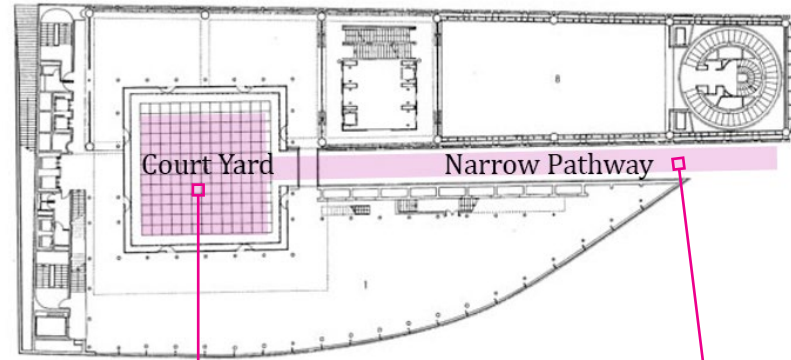


Figure 3.05: Institut du Monde Arabe site plan



Figure 3.06: Court yard of Abbasi house, Kashan, Iran



Figure 3.07: Reconciliation alley in Fahadan, Yazd

Courtyard and narrow hallways are elements of Islamic architecture. These two elements not only provided privacy for the citizens of Islamic cities but they also worked well with the climate conditions of dry and warm areas.

 Draw Toward Site and Paris

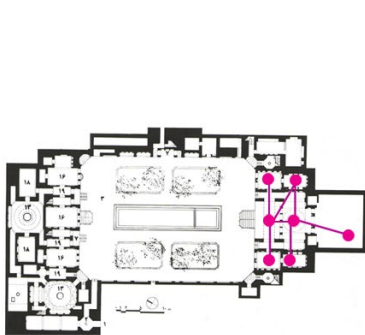


Figure 3.08: Circulation in Bani Kazem House, Kashan, Iran

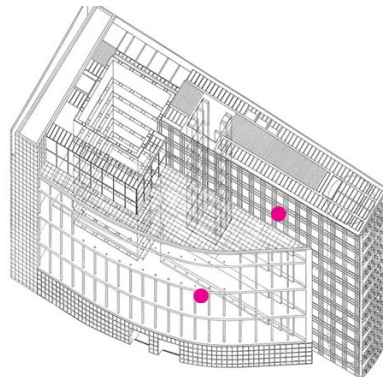


Figure 3.09: External perspective of Institut du Monde Arabe

Unlike Islamic Architecture since the perspective is closed from one room to the next, the Arab Institute has an open concept.

□ Institut du Monde Arabe Iconic Elements

Draw Toward Site and Paris



Figure 3.11: Arab World Institute, Illustration on materials



Figure 3.12: Illustration on materials and colors of DolatAbad garden, Yazd

Institut du Monde Arabe has metal grey exterior, which is opposite to the warm colors of Islamic Architecture.

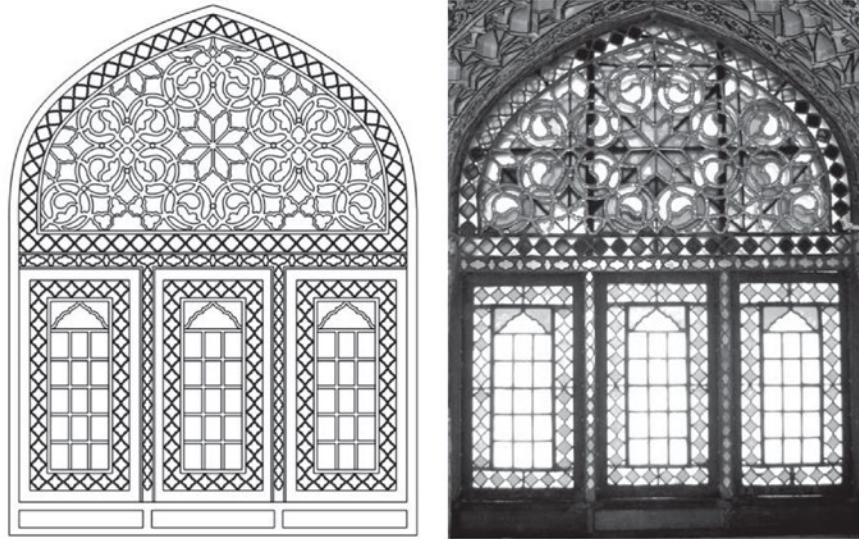


Figure 3.13:Orsy, first Floor, Shams-ol- Emare, Tehran, Iran

The Comparison between Iranian sash window (orsy)and Institut du Monde Arabe Facade

An orsy is a kind of sash window with a wooden frame, which is used in Islamic architecture. There are different patterns used for orsys and various kind of design. Orsy also limits visibility from the outside to the inside, which creates privacy. The range of functions of the orsy are as follows:

- Providing light for the building's interior
- Providing views
- Reducing the intensity of sunlight and heat
- Creating a beautiful façade
- Providing privacy
- Warding off insects with windows with colored glass which creates colorful lights keeping insects away
- The sash windows allow useful amounts of light to enter the interior ^[1]

Orsy can be made with different kinds of nodes and designed with colorful glass simply to create extraordinary combinations. Psychologically, the different colors of light and the color of the glass create different effects on people; as an example, blue light intensifies feelings of security in most people. Imitation of human and animals was inappropriate in Islamic art so Islamic artists used such geometrical patterns.

The Monde Arabe project used not only the geometry and formation of the Orsy in the exterior decorative façade but was successful in using the environmental effects and functions of the orsy in a modern platform.

1 Alipour, Niloufar. "Orsy in Qajar Palace, Tehran." Scientific Research Quarterly Journal 6 .18 (2011): 5-16.

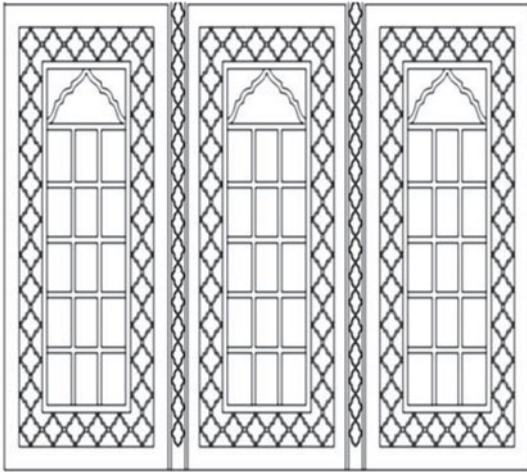


Figure 3.14: Window pattern, first floor, Shams-ol-Emare, Tehran, Iran

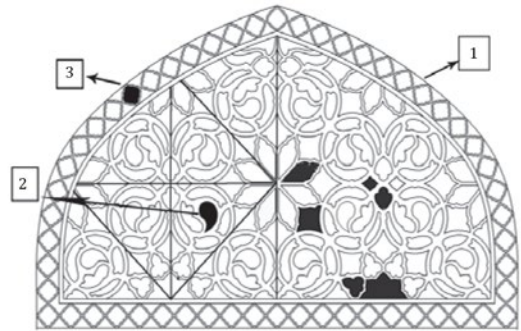


Figure 3.15: Inscription pattern, first floor, Shams-ol-Emare, Tehran, Iran



Figure 3.17: Frame pattern, first floor, Shams-ol-Emare, Tehran, Iran

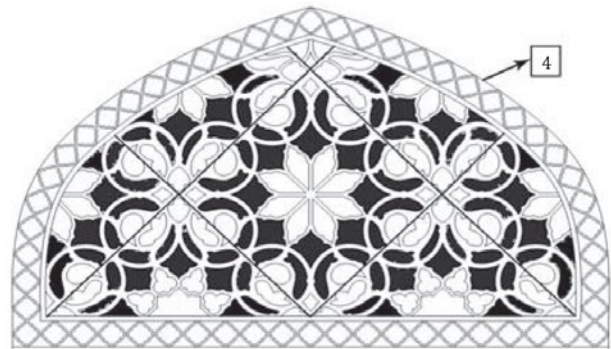


Figure 3.18: Flower pattern, Inscription Pattern, first floor, Shams-ol-Emare, Tehran, Iran

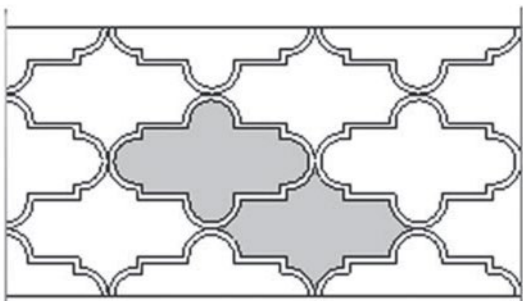


Figure 3.19: Wide margin inscriptions Pattern, Massoude-yeh-Emare, Tehran, Iran

Figure 3.20: Orsy, second and third Floor, Shams-ol- Emare, Tehran, Iran

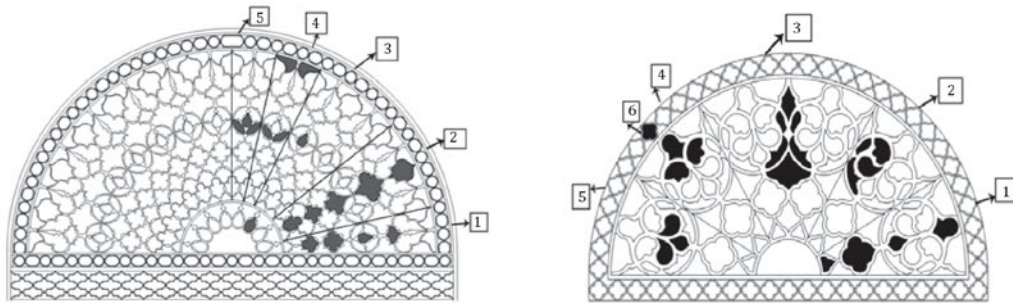
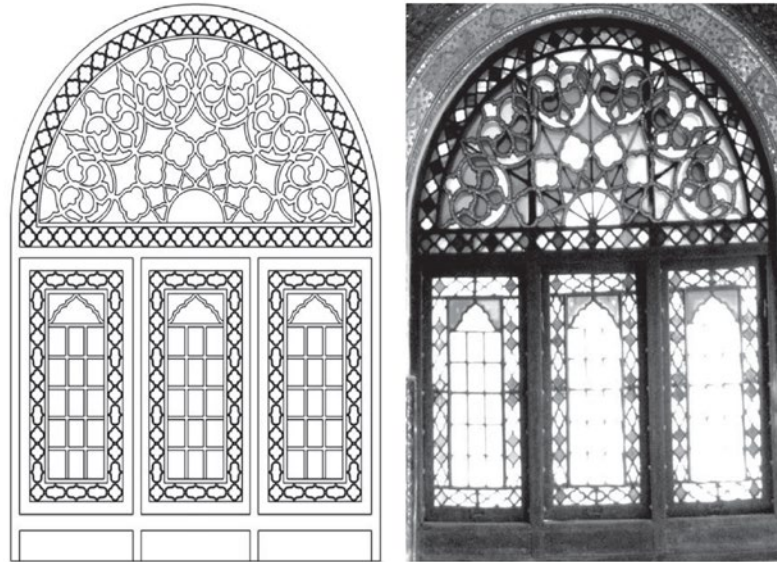


Figure 3.21: Main inscription pattern, Massoude-yeh-Emare, Tehran, Iran

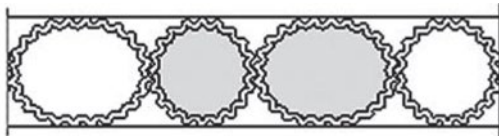


Figure 3.22: Frame pattern, Massoude-yeh-Emare, Tehran, Iran



Figure 3.23: Frame pattern, Massoude-yeh-Emare, Tehran, Iran

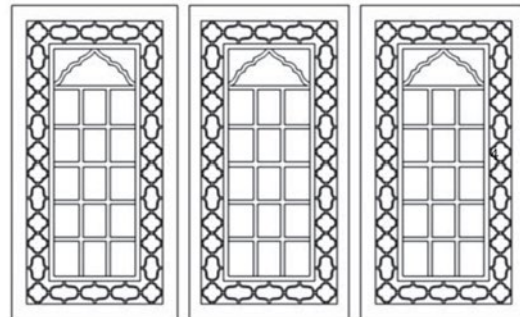


Figure 3.24: Window pattern, Shams-ol-Emare, Tehran, Iran

3.2.1 Center for Early Childhood Development



Figure 3.26: Example of wind catcher, Yazd, Iran



Figure 3.25: Giant magic three, which serve as wind towers

This project was done by Cebra, based on cultural and Islamic icons of Arab and Islamic architecture. The similarity between this project and the case study project is in the translation of cultural elements of Islamic architecture into a contemporary context. The three elements that form the essence of this project are drawn from tent structures, courtyards, and wind catchers. The wind catcher, which is broadly used in Islamic architecture, is one of the main elements of this building. There are wind catchers in the courtyard, are also magic trees that children can play with.^[1]

A wind catcher is a traditional Persian architectural element used to create natural ventilation in buildings. There are three different designs for wind catchers: uni-directional, bi-directional, and multi-directional. Wind catchers are still used in many countries and are known as a traditional Persian-influenced architectural feature throughout the Middle East, including in Pakistan, Afghanistan and the Persian Gulf states.^[2]

This project is very successful in the interpretation of Islamic icons as contemporary elements. An interesting fact about this project is that the designer was able to define new usage for the Islamic elements: the wind catcher is used as a magic tree; the tent structure formation is similar to exterior façade, and the courtyard as a playground.

1 Cebra Architects. CENTER FOR EARLY CHILDHOOD DEVELOPMENT. 2013. 18 Sep 2014 <<http://cebraarchitecture.dk/project/ecec/>>.

2 Javaheri, Alireza. panoramio. 27 Jan 2013. 14 Sep 2014 <<http://www.panoramio.com/photo/84803171>>.

3.3 The Shopping Centre Retail Urban Heirachy

Retail hierarchies are central to modern neighborhood and community urban planning processes and conventional practices, since they provide necessary goods and items for citizens of one area. This chapter is looking at the different categories of the shopping malls in both chosen countries. The goal of this categorization and comparison is to choose two similar categories, based on size and function. This comparison is the basis of the design exercise.

The International Council of Shopping Centers classifies shopping malls into eight basic types. ^[1]



Figure 3.27:Neighborhood Center in Richmond Hill

1.Neighbourhood Centres:

This center is for day to day shopping of costumers. The appearance of supermarket has been seen in half of the neighborhood center and drugstore has been seen in one third of these shopping centers. The neighborhood centers are mainly in shape of straight line with a walking area, closed or open. The area for neighborhood centers is usually between 2,700 – 13,000 square meter.



Figure 3.28:Community center in Richmond Hill

2.Community Centers:

Community center plazas focus on a group of suburban neighbourhoods, and are usually located at an intersection of main roads. They can be in the shape of a line, an L, or a U and are larger than the more local neighborhood centers. They have a variety of different stores. The area for these shops ranges from 9,300 to 32,500 square meters. Today's grocery stores prefer to be in their own big box type of building so any supermarkets are a legacy of past development.

1 International Council of Shopping Centers. ICSC Shopping Center Definitions. New York: International Council of Shopping Centers, 1999.



Figure 3.29:Hillcrest Mall, Richmond Hill

3.Regional Center:

A regional center is an indoor shopping environment. They are focused on providing a varied shopping environment for an urban region. They are also a spot for higher-end stores; in this case a bigger population catchment area is needed. A regional shopping mall today can consist of many department stores arranged on a perimeter and linked by arcades lined with smaller specialty shops . The area for this type is between generally 37,000- and 74,000 square meters.



Figure 3.31:Square One Shopping Centre, Mississauga

4.Super-regional Centers:

A super-regional center is larger than a regional center with many of the same characteristics, and can be combination of several buildings on several levels. These centers serve even larger population catchments than regional centers do. The area can be more than 74,000 square meters.



Figure 3.30:Holt Renfrew and Co. Ltd. Vancouver, British Columbia

5.Fashion/Specialty Centers

These smaller shopping malls contain high-end stores and are located in high-income areas. Exclusive high-end boutiques and restaurants are the characteristic features of fashion/specialty centers.



Figure 3.32: Smart center located at Sudbury

6. Power Center:

Power centers, also known as smart centers, are big shopping malls usually out of the city center. Unlike regional centers, they consist of several big box retailers set on independent property islands.



Figure 3.33: Distillery District-Toronto

7. Theme/Festival Center:

These centers are more touristic areas consisting of themed stores. They are mainly located in city centers but are corporate and chain store in retail mix.



Figure 3.34: Premium Mall, Milton

8. Outlet Centers:

These more rudimentary stores can be in the form of a village or a closed mall and sell items direct from the manufacturer to customers making the merchandise much cheaper.

3.4 The Typology of Suburban Public Places in Richmond Hill

“Most people enjoy the magic of a traditional city center and urban sprawl takes it away from them. Only a few people are lucky enough or rich enough to live close to the largest centers.”^[1]

Christopher Alexander

Richmond Hill as a suburb shares many similarities with other suburbs both in the GTA and in North America. They often have the advantages of more open space and greenery than what is typically found in a city core, but most suburban retail areas are usually regarded as dull and generic, without the charm and variety older more traditional urban developments like city or town main streets:



Figure 3.35: Toronto Little Italy

In this thesis, the magic attractiveness of city life is defined as arising from diverse spaces and the original forms of the urban formation, forms like main streets and town squares. In Toronto's downtown center, Little Italy, and China town are examples of communities that show the deep influence of immigrant culture in their urban formation. All suburbs, however, share a similar look, although they are home to a variety of different cultures as well. The focus of this thesis is to bring attention of the practices and conventions of Iranian suburban formation to the suburbs of Richmond Hill.

1 Christopher Alexander, Sara Ishikawa, Murray Silverstein, Max Jacobson, Ingrid Fiksdahl-King and Shlomo Angel. *A Pattern Language*. New York: Oxford University Press, 1977.



Figure 3.36: Chinatown Toronto Spadina Avenue Sullivan Road

One of the major problems of suburbs, which is similar among all suburbs, is the lack of diverse spaces. The automobile suburb multiplied rapidly in North America after World War II. Thirteen million plus returning veterans qualified for government loan assistance for buying single-family dwellings, requiring no down payment, in the new private builder developments on the peripheries of North American cities. This was how the suburbs started.^[1] The efficient repetition of form and function of the urban streets and buildings, made the industrialized building of cookie cutter houses, shops, and plazas the norm of a large scale corporate building boom. The result today in the suburbs makes them boring and lacking diversity.

This thesis imagines modifying the design of an existing suburban public space to create a hybrid one where middle-class immigrants can interact in a more meaningful environment for them. This reimagining will add building and urban functionalities more in keeping with the tradition of Iranian public space, making the modified cases study projects more suitable for everyday Iranian social activity such as talking, visiting, and short walks.

1 Oldenburg, Ray. *The great Good Place*. 1st ed. New York: Paragon House, 1989,3

3.5 The General Effects of Globalization on the Suburban Retail Environment



Effect of the immigration

Franchised Store

Figure 3.37: Two categories of the effects of Globalization in Suburb Toronto

The effects and presence of globalization in Toronto suburban plazas can be categorized into two areas: the strong presence and dominance of standard international franchised stores such as Tim Hortons, McDonalds, and Starbucks, and the other contrary globalization effect caused by immigration. Toronto's central edge Thorncliffe Park community is one site of this latter phenomenon.

New immigrants to the suburb of Richmond Hill assume that places for connecting and associating with others are somehow already there, since when they come to their new neighborhoods, the houses are already built, and the newly franchised restaurants and cafés are already in place. This situation is opposite to that in other cultures where locals build public places and then take care of them in order to encourage a neighborly and collective life, one that of course is also commercially viable.

Each place in an Iranian community is unique in character. Non-places (to use Oldenburg's term), those generic mass-produced commercial ventures that characterize franchise operations, are found in most modern North America towns. In these operations, with a pre-packaged image developed by a corporation, character and individuality developed locally is irrelevant. The primary relationship for a franchiser, while sensitive to a general standard of good service, is only based on a pure customers and seller relationship.^[1]

1 Oldenburg, Ray. *The Great Good Place*. 1st ed. New York: Paragon House, 1989, 205

PLAZA

Thorncliffe Park, formerly one of Toronto's early peripheral developments, is located in the inner edge of the suburbs of Toronto. Up to 64% of its residences are permanent residents in Canada, meaning that they are new immigrants, not quite citizens but on the path to citizen status. Most have been living in Canada less than four years .^[1] There are two Neighbourhoods Centers (shopping plazas) on the main street in Thorncliffe Park. The first is similar to any other big box shop shpping areas and includes stors like a Target and Fido. The other plaza, which is located on the other side of the main street, contains more local "mom and pop" stores and restaurants like Afghan Cuisine, Samosa House, and a Halal Butchery. New immigrants who are living in this community own these commercial enterprises.



Stores owned by immigrants



Franchised store

Figure 3.38:Thorncliffe Park Franchised store, Thorncliffe Park, Stores owned by immigrants

1 Rahmanyar, Roya. "Final Report of Thorncliffe Park." 12 March 2010. tcld. 20 Dec 2014 <http://test.tcld.org/wp-content/uploads/2012/11/ThorncliffePark_2009-10_CRNA.pdf>.



Figure 3.39: Rug Store in Richmond Hill



Figure 3.40: Spice Shop in Thorncliffe Park

One great example of such a commercial property owned by recent immigrants is a spice shop in an old industrial and office area of Thorncliffe Park. This spice shop is located on Thorncliffe Drive and the shop is owned and managed by two Indian couples. ^[1] Shopping for food from the corporate retailers like Loblaws and Food Basics (and other franchised big box stores) is very different in character to shopping at this spice shop. The difference in the two experiences is in the customer and seller relationship, the merchandise and the organization of items. The combination of the great smell of Indian and Pakistani spices and the colorful shelves full of different tastes creates a place, which brings in a very different experience. Educating their more diverse Canadian clientele, including other non-Indian immigrants, Bharat and Apexa Kotak, the owners of this shop, approach customers in a friendly manner and help them to learn about the different spices of a different culture. Even large stores like Loblaws are now learning from this open educational approach in their merchandising to Toronto's diverse ethnic populations.

A second example of the businesses that are brought to suburbs by immigrants is Royalty Persian Rugs. The interior is basically stacks of rugs plus smaller carpets hanging from the walls and ceiling. The owner will explain the virtues and symbols of carpets to customers, as Persian carpets are an essential part of Persian art and culture. ^[2] Carpet weaving is undoubtedly one of the most distinguished manifestations of Persian culture and art, and dates back to ancient times.

The two retail store approaches, shopping centres and big box shops, and the more locally developed shops owned by immigrants, are very different in their character and their goods but they often share similar architecture, type of urban location, and their overall formation. The problem of this type of commonly sourced shopping mall building, then, is not in the distinctive goods and items found inside. The problem is the similar building formation with no localized aesthetic value, and is one that is repeated in every neighborhood in every GTA suburb.

1 Bain, Jennifer. Exploring an Indian spice shop in Thorncliffe Park. 29 August 2012. 1 Dec 2014 <http://www.thestar.com/life/food_wine/2012/08/29/exploring_an_indian_spice_shop_in_thorncliffe_park_saucy_lady.html>.

2 Kwan, Amanda. "Iranians in Richmond Hill: global business "enclave" says expert." Centennial Journalism's Notebook Work by Centennial College Journalism students in Toronto 30 Oct 2009.

3.6 The Effect of Globalization on a Regional Center in a Suburb

3.6.1 Pacific Mall

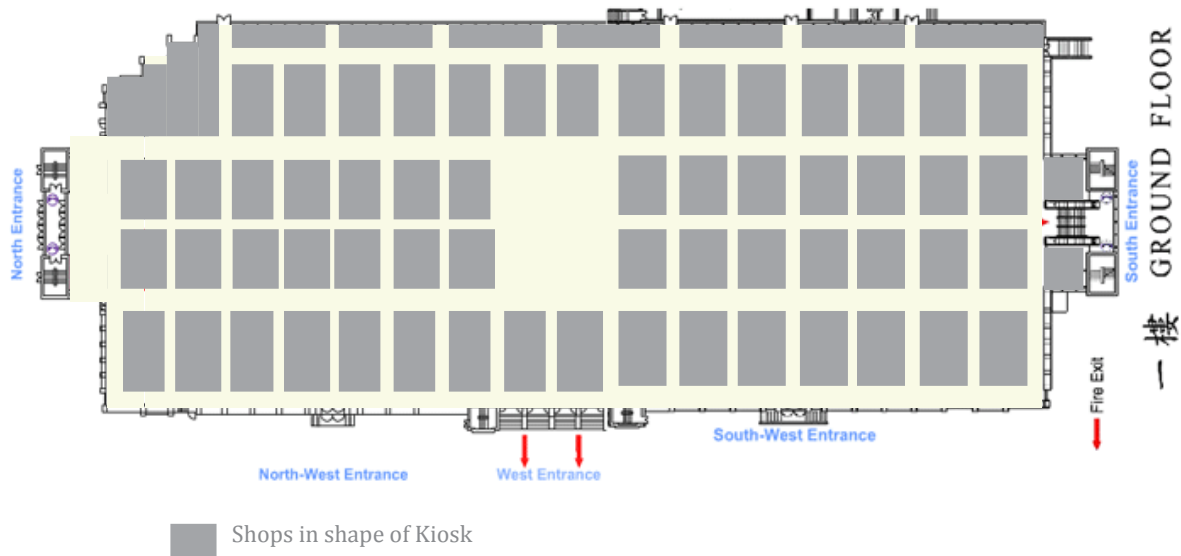


Figure 3.41: Floor Plan-Pacific Mall, diagram.

One place to view the effects of globalization on suburban commercial enterprises is the GTA Town of Markham's Pacific Mall. This Chinese mall is a superregional center. For better understanding of the differences between this mall and other superregional centers, this thesis compares it to Hillcrest Mall in Richmond Hill, constructed by large scale corporate developer of retail properties, Oxford Corporation. Pacific Mall is the largest Chinese shopping mall in Canada and it is not built by the normal Canadian corporate mall developers like Oxford. It is instead a reflection of local Chinese culture and acts as a symbol of Chinese rituals.

The development of ethnic malls like the Pacific Mall started in the 1980's in the eastern Toronto suburban borough of Scarborough. The exterior of the mall consists of redbrick and large glass windows, and so it is similar to any other commercial construction in Toronto. However, the interior of this mall is very different from that of any other mall. Cost and time efficiency can be seen in every aspect of the mall. It has a lattice corridor, and each corridor (north-south) is named after a name of a street in Hong Kong.^[1]

1 Ho Hon Leung, Raymond Lau, and Sharon Shaw-McEwen. Investigating Diversity: Race, Ethnicity, and Beyond. Yarrton: Linton Atlantic Books, Ltd , 2



Figure 3.42: Inside Pacific Mall

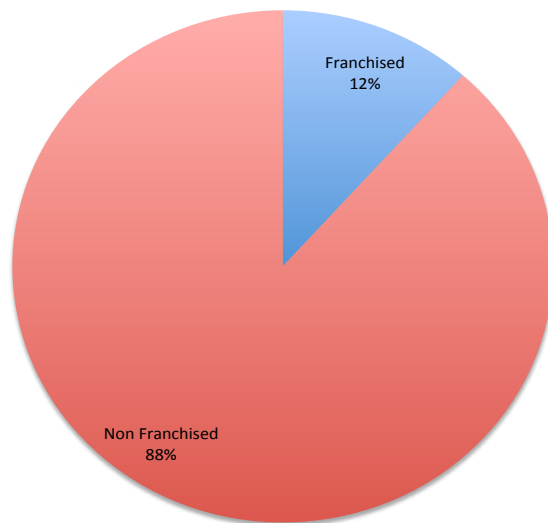


Figure 3.43: The comparisons between franchised and non-franchised stores in Pacific mall

3.6.2 Hillcrest Mall



Figure 3.44: Floor Plan-Hillcrest mall

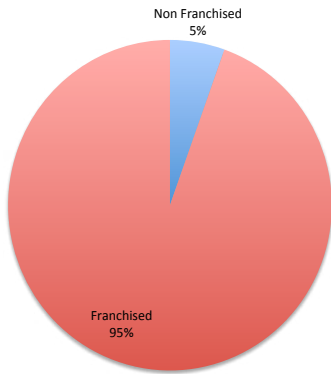


Figure 3.45: The comparisons between franchised and nonfranchised, stores in Hillcrest mall



Figure 3.46: Inside Hillcrest mall

Hillcrest Mall, by contrast, is a 54,419 square meter enclosed shopping centre located in the town of Richmond Hill on the northwest corner of Yonge Street and Carrville Road. It has 135 shops, services, and restaurants. The circumstances in this mall are very different from those of Pacific Mall. This is the typical Canadian internalized regional shopping mall filled with national and global franchised shops, all of which share the same values all around the world. A Gap store located in Toronto has little difference from the Gap in Berlin. Hillcrest Mall presents a place which is similar to that of any mall in North America, whereas Pacific Mall is based on Chinese malls and represents a new formation to the town of Markham.

3.7 Public Spaces in Iranian Architecture

This thesis examines two typologies of public spaces in two different countries. The examples in previous chapter, the study of Tim Horton's and the Iranian Café, showed the present effects of globalization on small scale commercial places like the type found in a GTA neighbourhood plaza in the Town of Richmond Hill. This chapter further explores how enhancement of these hybrid building strategies can change the overall function and formation of such suburban plazas.

The Iranian public spaces that this thesis is examining have been strongly influenced by the Qajar and Safavid era. The Safavid dynasty was founded about 1501 and was followed by the Qajar dynasty.^[1] Despite the change in ruling family, the two periods share a similar architectural aesthetic with extremely widespread and long lasting repetitions of public space typologies in the central states of Iran. This repetition represents architecture as a symbol, and these buildings were constructed based on the culture, climate, and functions of the cities. Today's new Iranian architectural era has been formed based on influence from the West and does not provide good examples of traditional Iranian architecture.

"In traditional Islamic culture, the places of informal public gatherings are bazaars, streets, and covered pathways. In the modern architecture we must add airports, railroads, stations, sport arenas, and so on to our roster of public gathering-places."^[2] In this thesis, Bazaars (market places) are the initial public space examined.

The word bazaar means place of prices in Persian. Historically, the term Bazaar refers to the local market where buyers and sellers exchanged goods or services. Social, economic and institutional markets even today are the basic skeletons of cities and villages.^[3] Iranian bazaars acts as a spinal column for Iranian cities.^[4] Iranian Bazaars are not only a places for the purchase of goods but also social spots for many informal gatherings of the citizens of the city. The basic cores of such traditional markets formed around the main city gate and along the main routes of

1 Iranica, "Ismail Safavi" Encyclopædia. n.d.

2 Ardalan, Nader. "Places of Public Gathering." 1980.

3 Molahossieni, Mohammad. "Introduction to the Old Market Qom." 29 Feb 2012.

4 Faculty of Architecture and Urban Planning Documentation and Research Center. Ganjname. Tehran: Rowzaneh, n.d.

the city, and expanded and continued developing afterwards. In the development of the market and organization of space, functions were dependent on the economic growth of a city.^[5]

There are three main building forms which make up a bazaar. These three buildings are Saras, Carvansaries and the Tim and they are connected with each other by a passage called a Rasteh Bazaar which is an element that acts as a main body of Iranian shopping malls and has a linear or plant-like form. It is a branching connection between different buildings of the overall bazaar and it works as a passage. The Charharsu is a part of this main passage of bazaars, where two passages of the bazaar meet each other with a dome above. Bazaars themselves have a general format, which is a central space surrounded by chambers. The central space can be either a courtyard or an enclosed space. Some building will include two central spaces, one open and one closed. The buildings are comprised of open, closed and semi-open spaces, which continue in a line.^[6]

Tim
Figure 3.47:Qom, Great Tim



A large tall-enclosed space with a specific star point, which usually ends with a yard.

Carvansaries
Figure 3.48:Hamadan, Carvansara Hossien Khani



A loading space for Caravansaries, with a large courtyard and smaller chambers.

Sara
Figure 3.49:Qom, Shin Sara



A shopping market building with a large central courtyard surrounded by chambers.

5 Molahossieni, Mohammad. "Introduction to the Old Market Qom." 29 Feb 2012.
 6 Faculty of Architecture and Urban Planning Documentation and Research Center. Ganjname. Tehran: Rowzaneh, n.d.

3.8 Bazaar Type Precedent

3.8.1 Qom, Grand Tim

This building goes back to the Qajar period. There are two reasons that this building has been chosen as an example. Firstly, is extensively used in today's Qom. Secondly, this building has all the characteristics of a traditional Tim which are:

- A defined start and end point
- The existence of open and semi-open spaces
- A distinctive character defined by the center's by light and height



Figure 3.50:Qom, Great Tim, Section



The passage area consists of three vaults with a central opening for the light. The central vault has a higher ceiling and is wider in comparison with the two others. The opening in the half domes lets the light enter the main passage. The existence of the bigger dome in the middle highlights the central space by bringing more light to the interior.

Figure 3.51:Qom, Great Tim, Central Dome

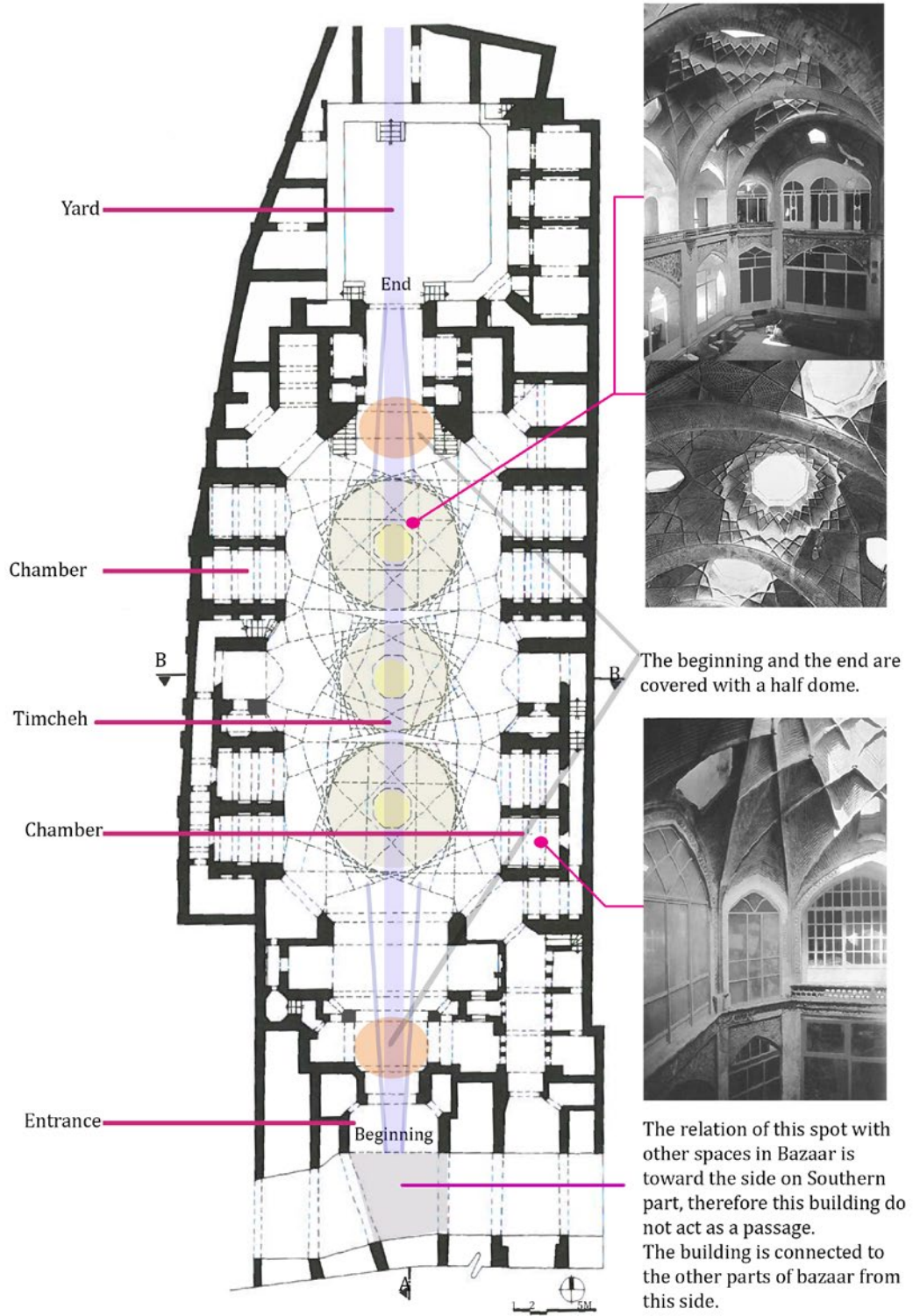
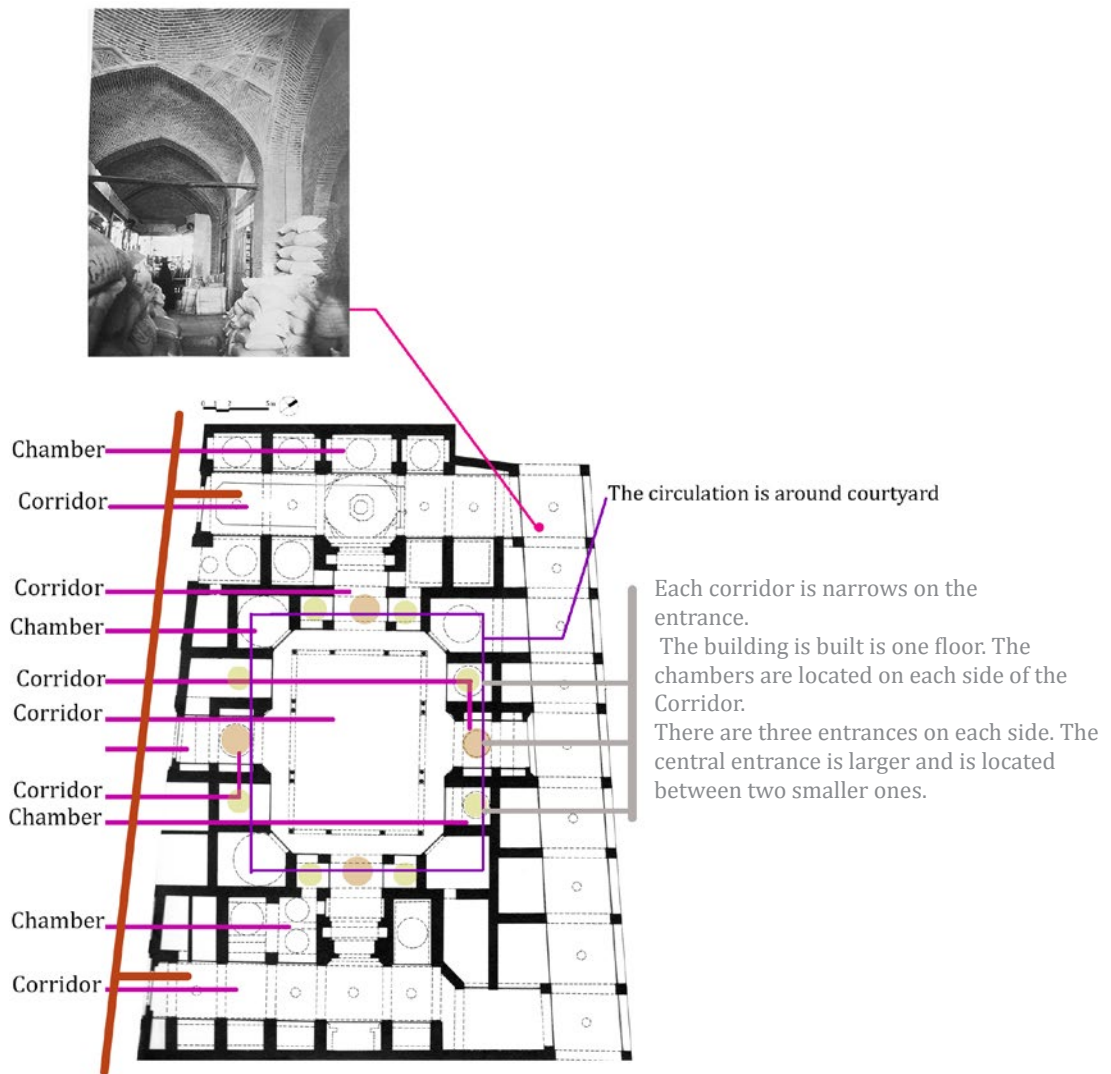


Figure 3.52: Great Tim, Qom, Iran, plan

3.8.2 Qom, Shin Sara

This example greatly elaborates on the characteristics of Saras, being a simple example of a Sara, built in one level. Chambers have been created around a courtyard in this building, similar to in other buildings of this typology. The chambers are spots for selling goods and services. The symmetrical geometry is also typical. In contrast with a Tim, where there is a linear circulation toward open space, this building has a circular traffic pattern around the open space. Shin Sara is now being renovated and used in Qom.



There are two corridors on each side of the building, which lead to the Shin Street and the geometry of this building is based on the existed streets.

Figure 3.53:Shin Sara, Qom, Iran, plan

3.8.3 Hamadan, Hossien Khani Carvansary

This building was built in the late Qajar period. This Caravansary was connected to the city bazaar before the Pahlavi (1925), but new developments disconnected it from the main bazaar. This disconnection allowed this building to remain safe from alteration. Thus, Hossein Khani Carvansary is a good case study for its typology.

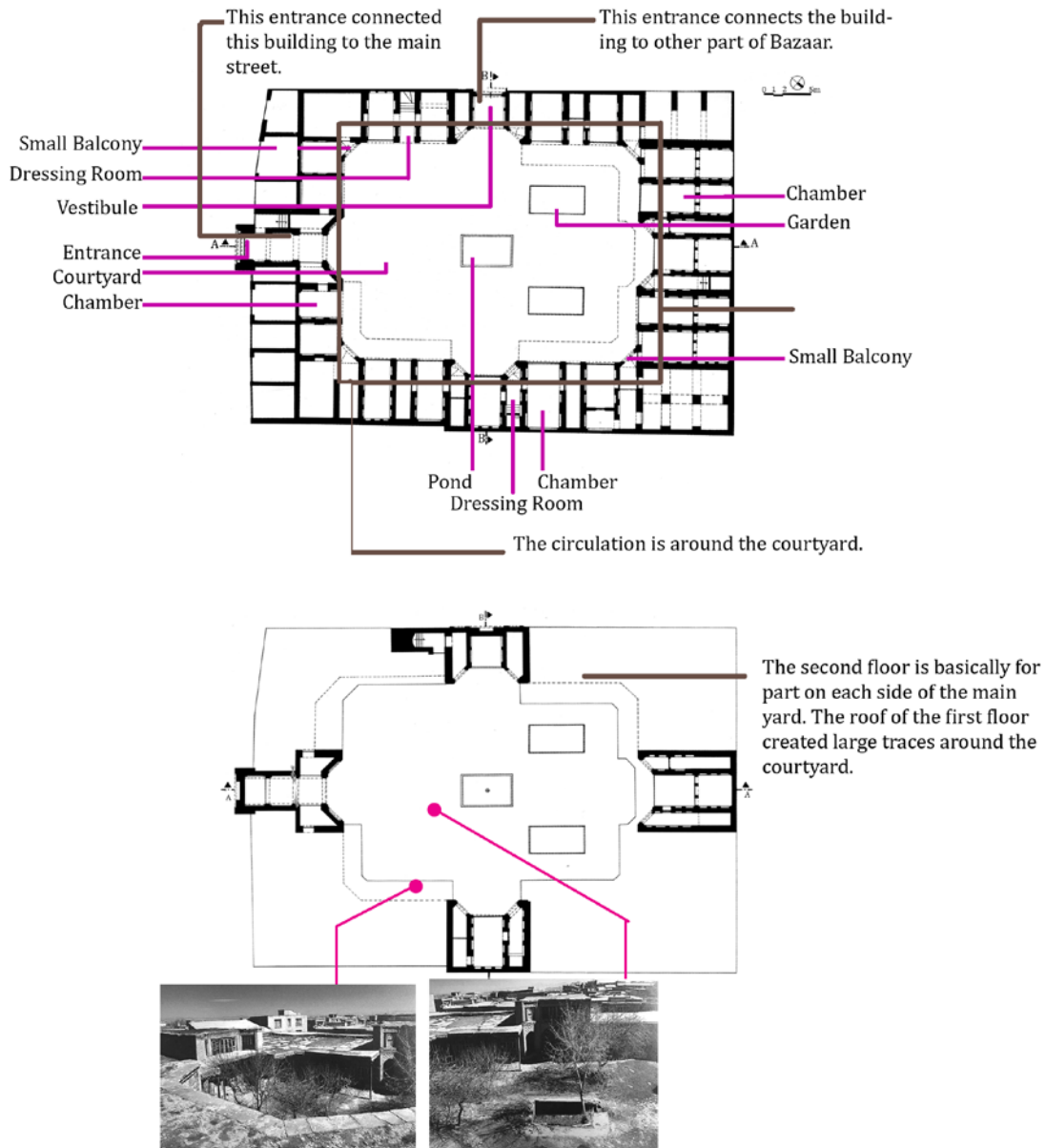


Figure 3.54: Hossien Khani Carvansary, Hamadan, Iran, plan

3.9 Comparison of the Iranian Tim and a Canadian Suburban Neighborhood Center

Neighborhood center and Tim both have similar functions. They both consist of shops, which provide the daily needs of the citizens of a particular neighborhood. They both have a similar size. They usually consist of 5-12 shops. The linear format along the main passage or street is another similar characteristic of both neighborhood centers and saras. In this case this typology is chosen to transform in Suburb of Toronto.

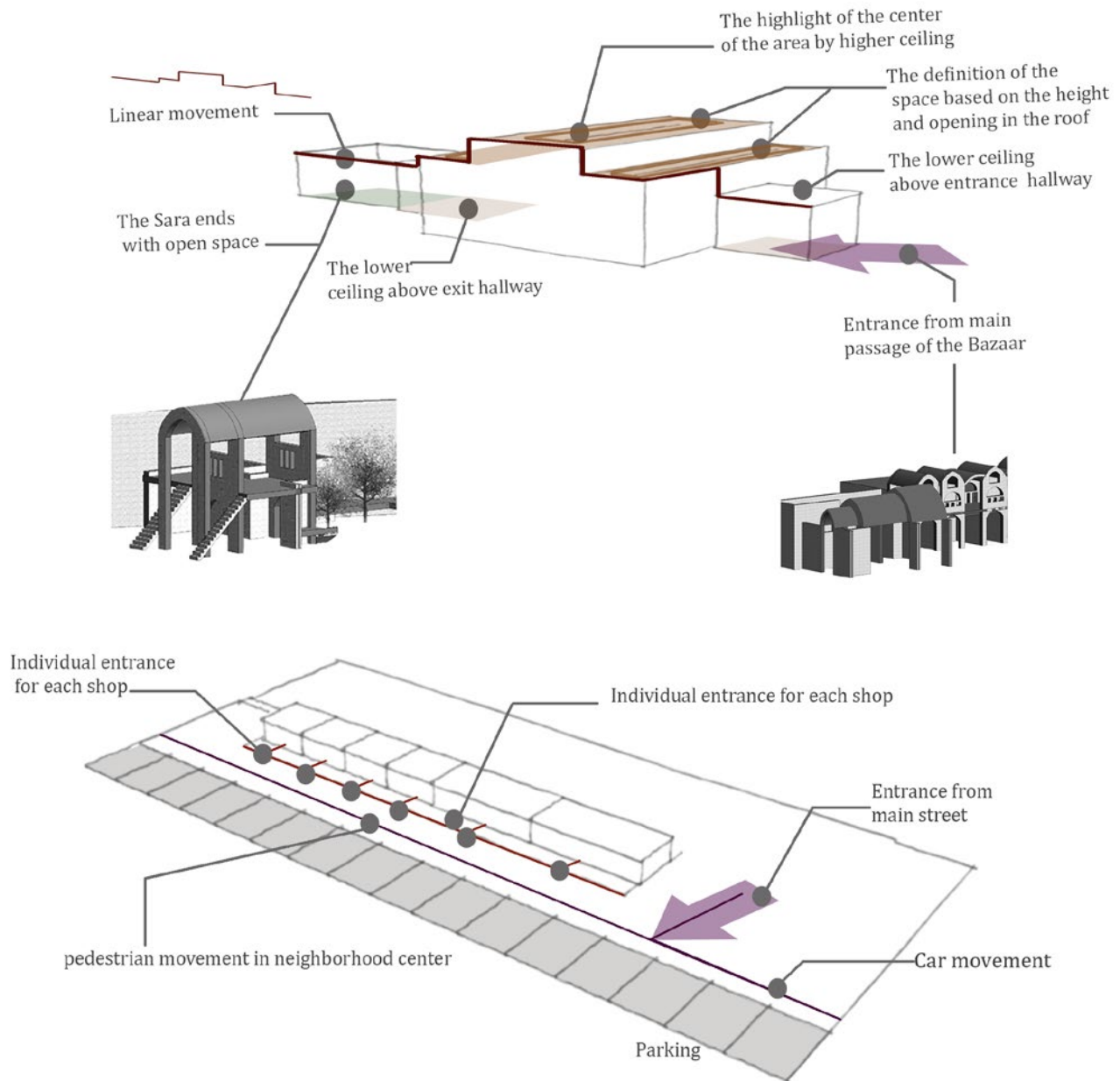


Figure 3.55: Illustration and Comparison of a Tim and a Neighborhoods center

3.10 Modification of Suburban Plaza Typology On Two Sites

Examination of the design of two case study sites is similar to the previous design exercise on the Tim Horton's pavilion retail. The hybrid design is being adapted based on the characteristics of the chosen sites. The aim is to limit the modification of suburban typology as much as possible while adapting it to Iranian social frameworks and aesthetics. The chapter describes shopping plazas from three perspectives. The first view is that of a person driving a car. The second view is the vision of people when they are walking outside of the building, the third view is that of users inside the building.

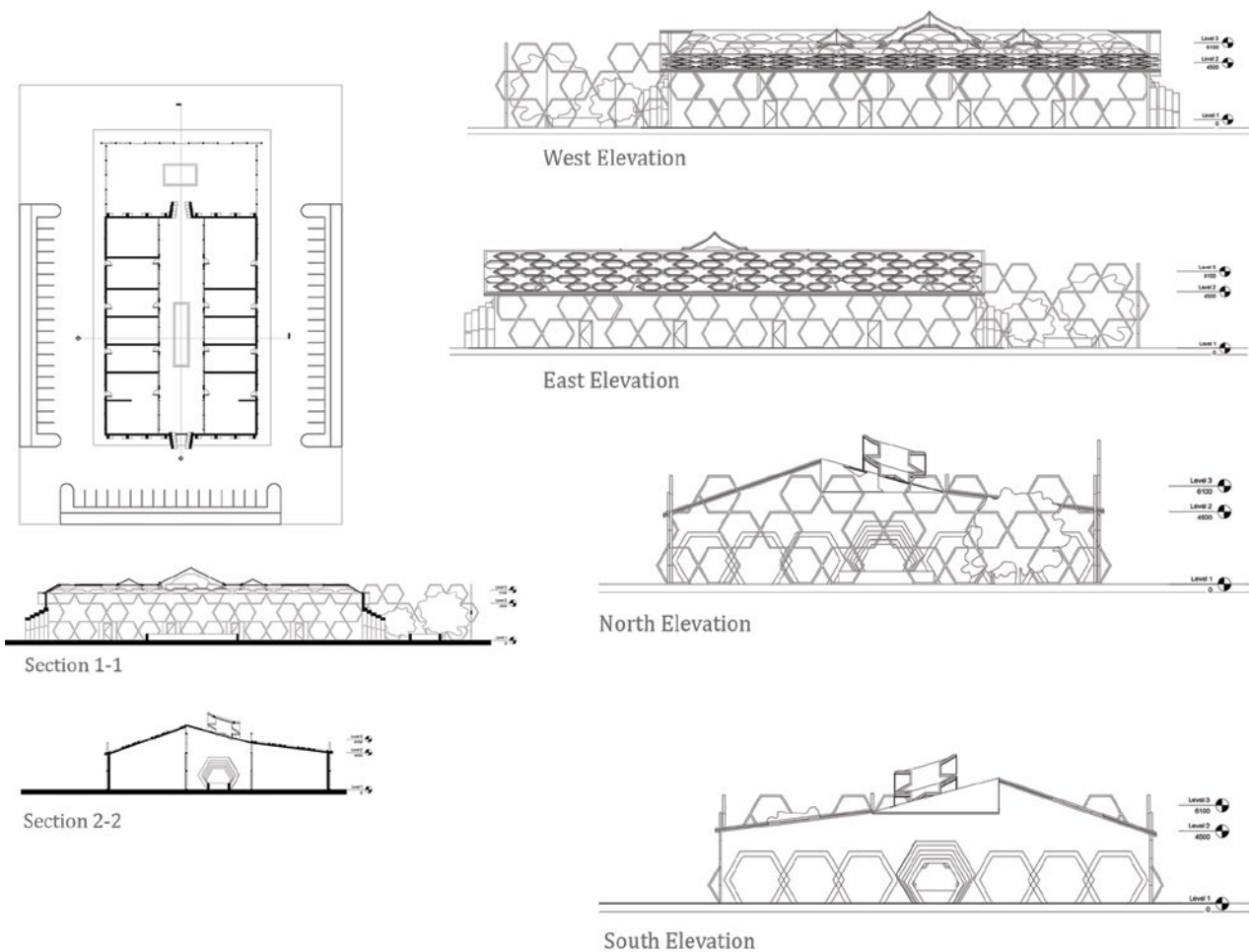


Figure 3.56: The typological plan, elevations and sections, which are going to be adapted to two sites

3.10.1 The Location of Both Sites

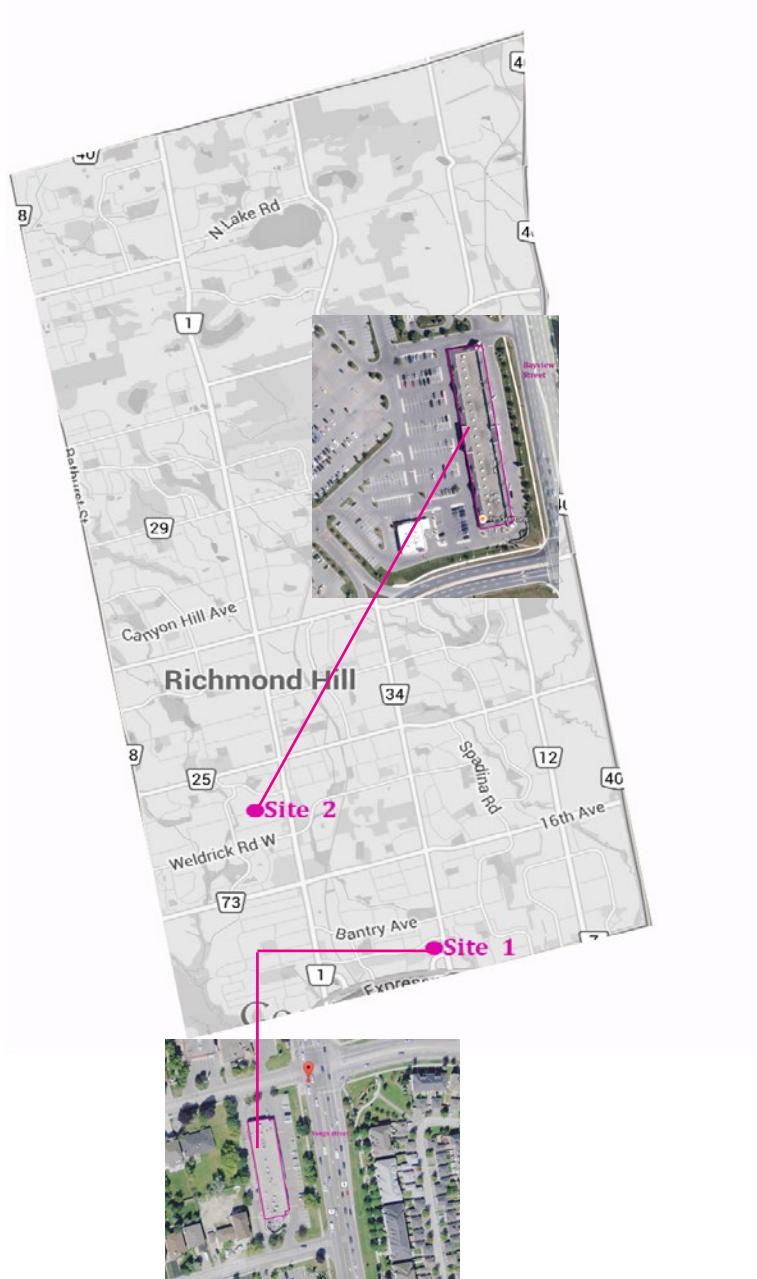


Figure 3.57: Location of two sites which the typological plan is going to be adapted to them

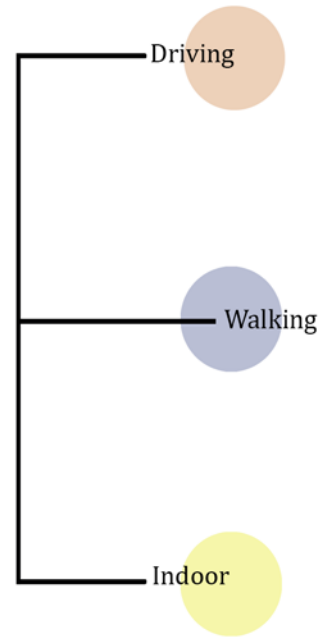


Figure 3.58: Three typical views of suburb plaza that every customer would experience

3.10.2 Adaption of Typological Plan On Site One

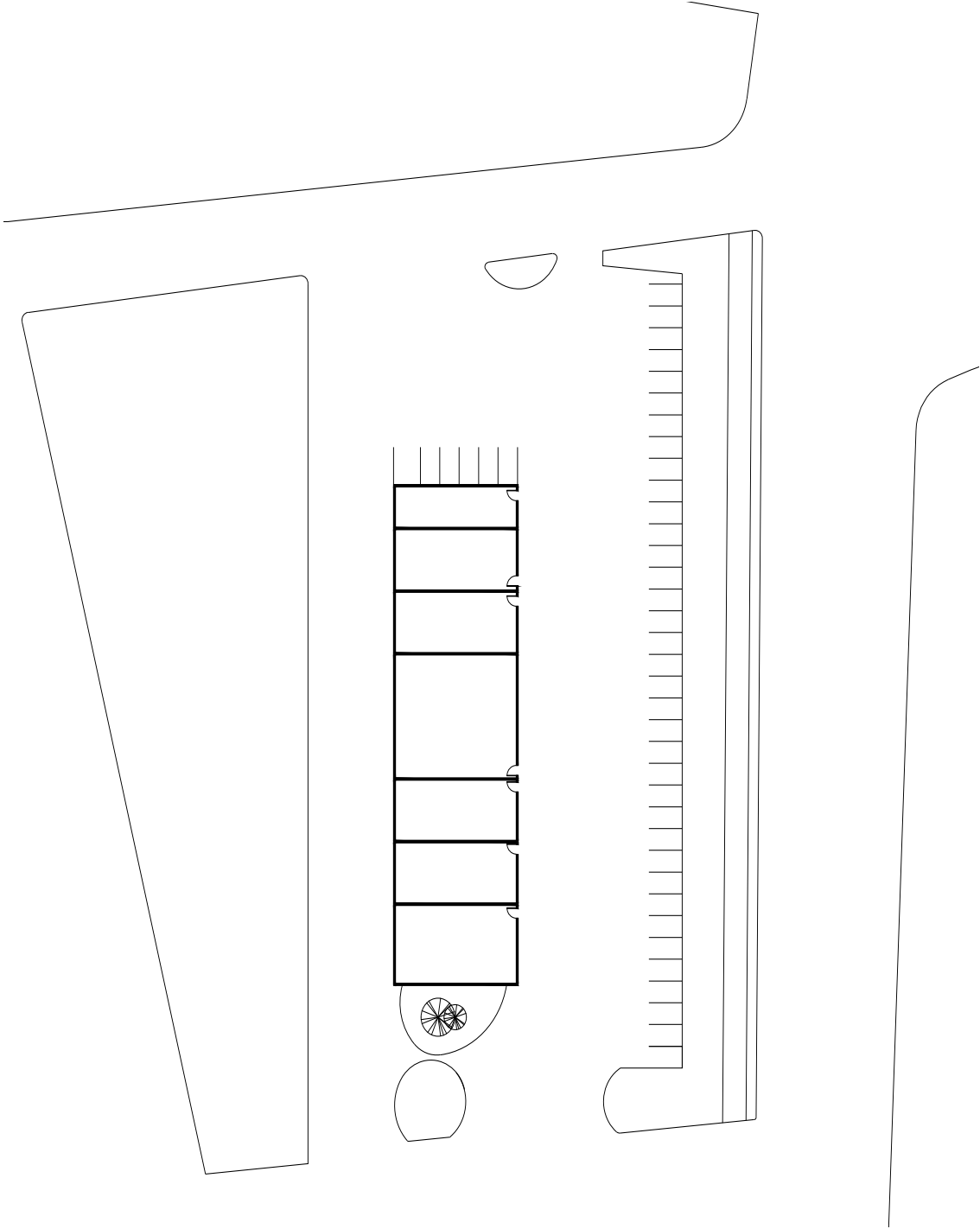


Figure 3.59: Existing site “number one” on Yonge street, the current plan of plaza on site

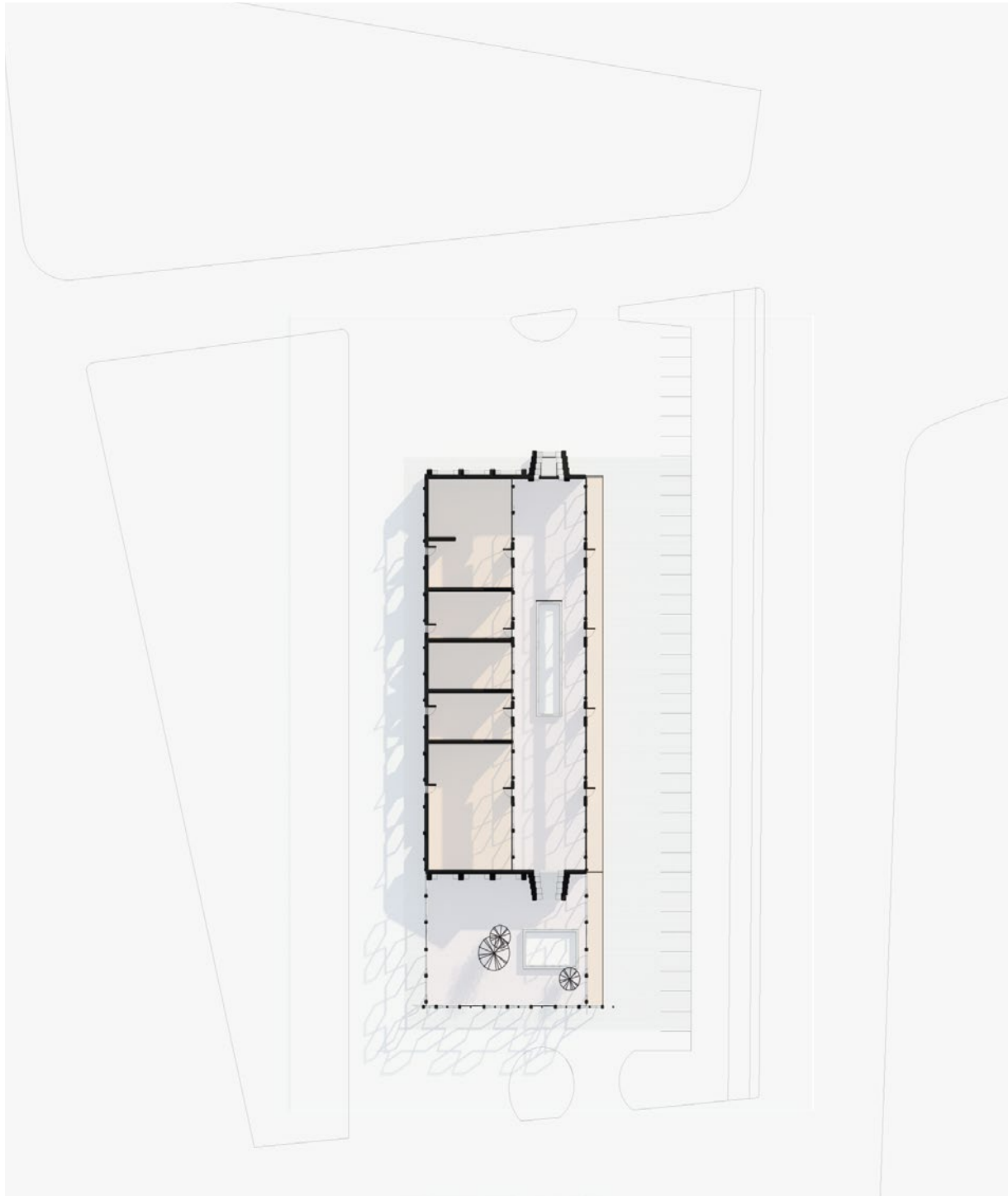


Figure 3.60: Site number one on Yonge street, the modification of the plans based on the designed typology regardless of landscape and surrounding area

3.10.3 Adaption of Typological Vignette on Sites one

Driving



Existing vignette of first site

Proposed vignette of first site



Figure 3.61: Site number one on Yonge street, visual comparison of the existing and proposed vignette for drivers

Walking

Existing vignette of first site



Proposed vignette of first site

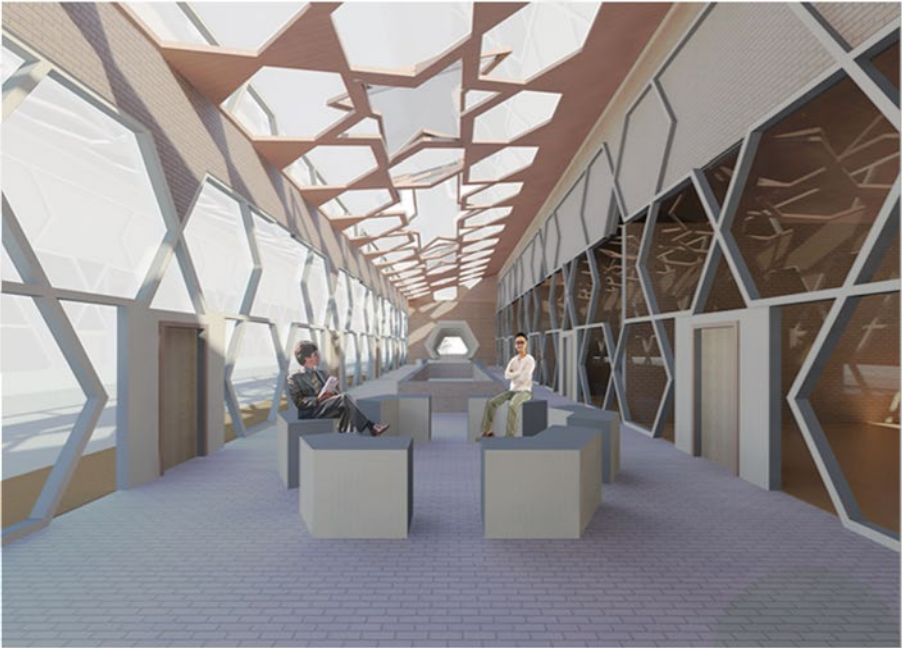


Figure 3.62: Site number one on Yonge street, visual comparison of the existing and proposed vignette when customers are walking around the plaza

Indoor



Existing vignette of first site



Proposed vignette of first site

Figure 3.63: Site number one on Yonge street, visual comparison of the existing and proposed vignette for when customers who are inside the plaza

3.10.4 Adaption of Typological Plan on Site two

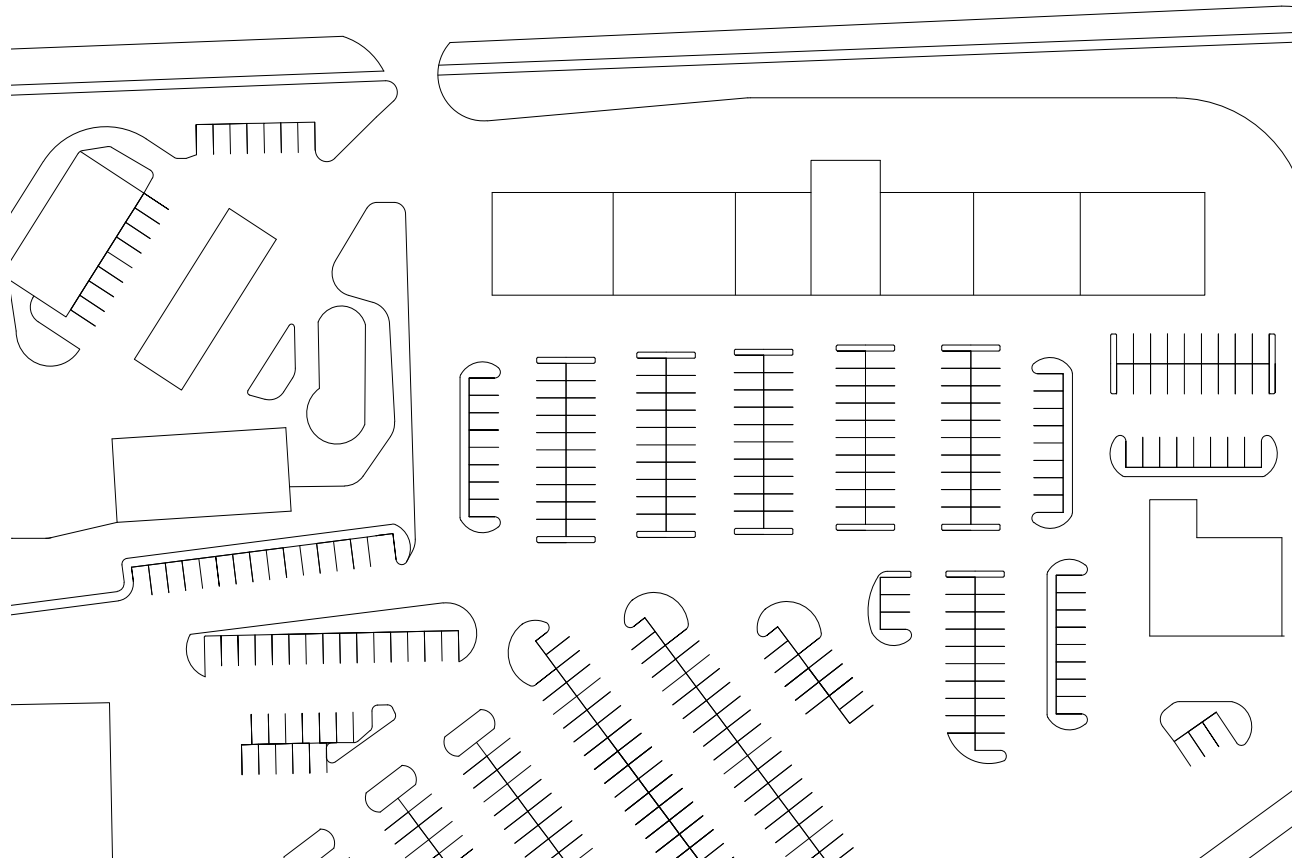


Figure 3.64: Existing site "number two" on Bayview street

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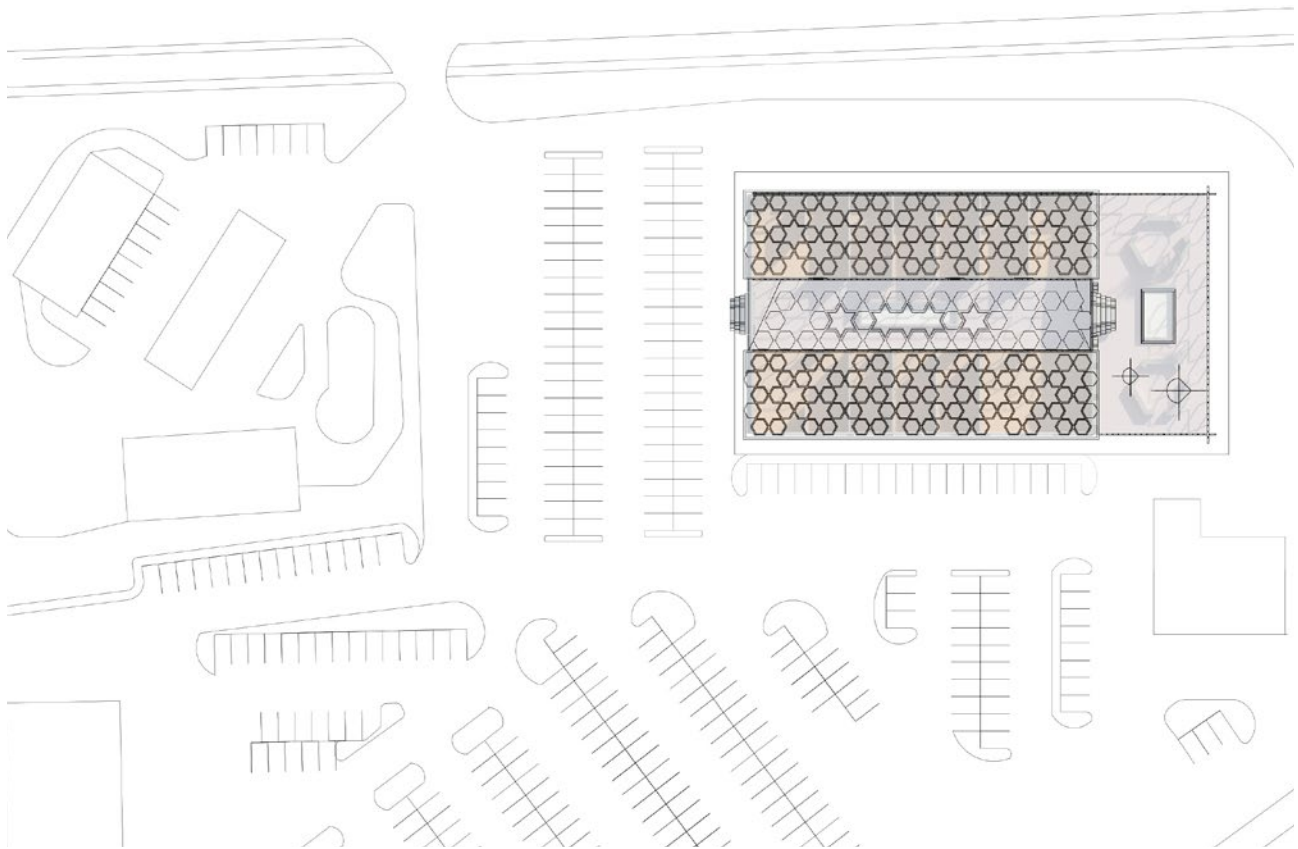


Figure 3.66:Site number two on Bayview street, The modification of the plans based on the designed typology regardless of landscape and surrounding area

3.10.5 Adaption of Typological Vignette on Sites two

Driving



Existing vignette of first site

Proposed vignette of first site



Figure 3.67:Site number one on Bayview street, visual comparison of the existing and proposed vignette for drivers

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Walking



Existing vignette of first site

Proposed vignette of first site

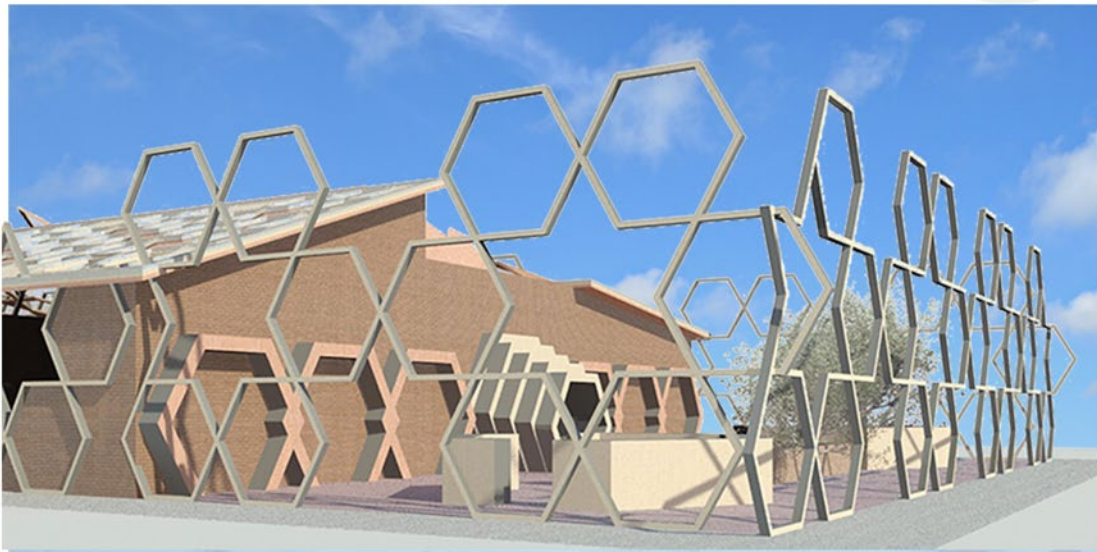
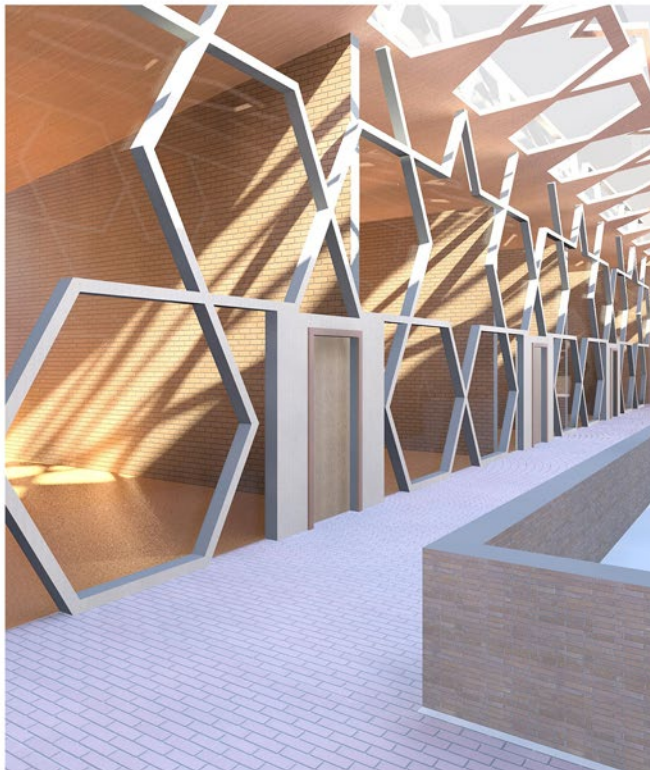


Figure 3.68: Site number one on Bayview street, visual comparison of the existing and proposed vignette when customers are walking around the plaza

Indoor



Existing vignette of first site



Proposed vignette of first site

Figure 3.69: Site number one on Bayview street, visual comparison of the existing and proposed vignette for when customers who are inside the plaza

3.11 The Suburban Parking Area as Public Space



Figure 3.70: Existing Plaza, Yonge and Highway 7 - Richmond Hill



Figure 3.71: The same plaza, conceptual vignette of the shopping plaza after modification

The parking area is one of the largest areas in suburban shopping plazas and provides a space for the many cars needed in a suburban lifestyle. Rarely full of cars, during the summer, this area can be used as a temporary public space with a sitting area. Temporary kiosks brings in new opportunities to enhance the environment of these plazas.

The figures 3.70- 3.75, show the modification of the parking area before and after public areas are added to this plaza.



Figure 3.72: Existing Plazas, Yonge and Highway 7, Richmond Hill

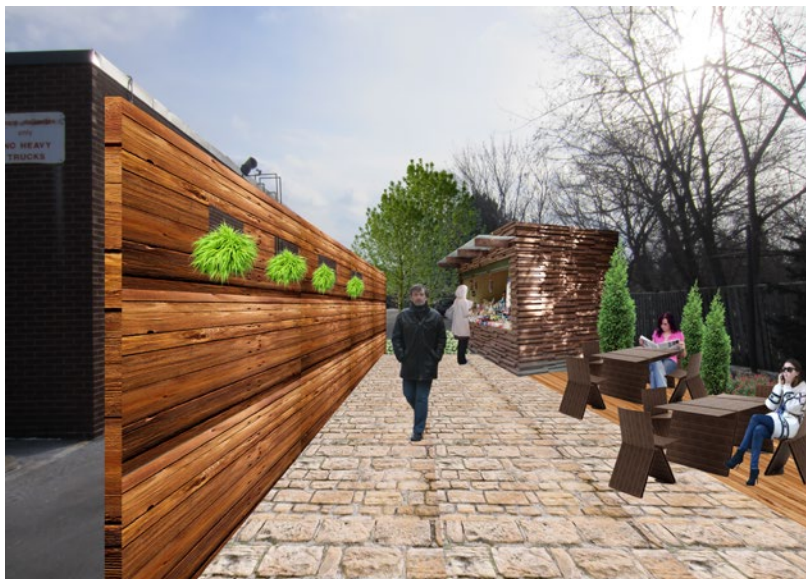


Figure 3.73: The same plaza, conceptual vignette of the shopping plaza after modification

In this example the back door of the plaza which provide more parking area is transformed in to some green area , kiosk, and sitting area. This area has a high quality view toward natural greenery.

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Figure 3.74: Existing Plazas, Yonge and 16th – Richmond Hill



Figure 3.75: The same plaza, conceptual vignette of the shopping plaza after modification

In order to enhance the quality of public life in this plaza some out door sitting area is added. The screen around the shopping walking pathways provides a shelter for the one who are cycling and walking.

3.12 Hybrid Design Strategy

3.12.1 The Extensions of Stores

One of the aspects of Iranian bazaars is the use of hallways as a spot for communication. This project not only tries to look at the formation of this shopping plaza but also to recreate a social dynamic that enables the residence to communicate and socialize. The shops will extend beyond their borders and give customers the ability to look at the merchandise on the neutral ground, of the hallway and pedestrian way. This phenomenon not only recreates a new function but also ties this plaza to the surrounded urban fabric.

In the proposed case study design, an interesting aspect is that the connection of commercial shops with the urban surrounding happens with the use of small front doors. The aim of this exercise is to enhance this connection through outdoor and indoor elaboration of the shops. To deal with the car use issue, the most common retail scenario in this plaza was examined. Based on the Socio-Economic Study for the Town of Richmond Hill, 7.3% of travel for Richmond Hill residents is to visit markets and shops. The highest purpose is toward home, at 41.5%, followed by going to work, at 18.1%. It was found that 80% of the trips made by residents of Richmond Hill are by car; this estimation was made during morning peak periods. Driving is the most-used mode of transportation in Richmond Hill.^[1]Based on the above facts, the residents of Richmond Hill are mainly driving to shopping plazas, parking their cars, shopping and then driving back home.



Figure 3.76: Shiraz main bazaar, Shiraz, Iran



Figure 3.77: Bakery, Shiraz, Iran

The examples of extension of the storefront toward neutral ground, of bazaar hallway and pedestrian pathway in Iran.

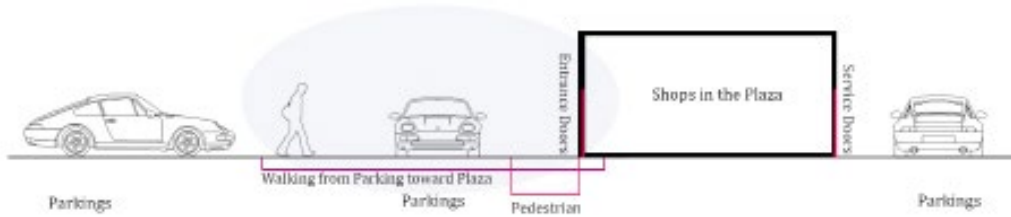
In opposition to Iranian bazaar this bakery in Richmond hill as an example of typological shops in suburb do not interact with surrounding areas



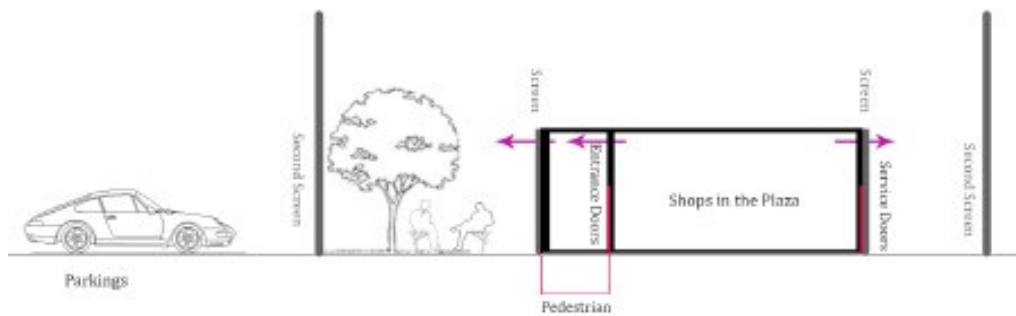
Figure 3.78: Bakery in Richmond Hill- Yonge street

1 2011 National Household Survey Profile on the Town of Richmond Hill: 1st Release. Survey Profile. Richmondhill: Town of Richmond Hill; 2011

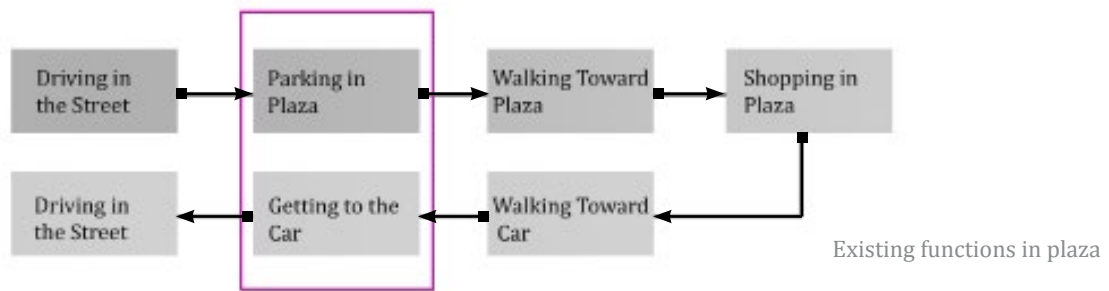
3.12.2 The Parking Investigation



Current circulation of people in suburb shopping Plaza



Proposed landscape surrounding Plaza



Existing functions in plaza

Figure 3.79: The current situation in shopping plaza versus the proposed landscape-surrounding plaza

The Figure 3.80-Figure 3.91 show the car parked during the named days in Plaza located on Yonge Street. This investigation shows the number of parking that can be eliminated in the design of the landscape.

The cars parked in the plaza were counted during the hours shown. The maximum number of cars parked in this plaza is fifty percent less than anticipated for the existing spots. Based on a three-day investigation this number of parking spots was eliminated and the space was opened up for other purposes such as walking and sitting. An outdoor garden in the parking area will not only enhance the public life but also the views from certain areas of the shops.

The diagram above shows the programs and interactions in the plaza. The screens provide the enclosed areas. The new functions will be added to the existing functions in plaza.

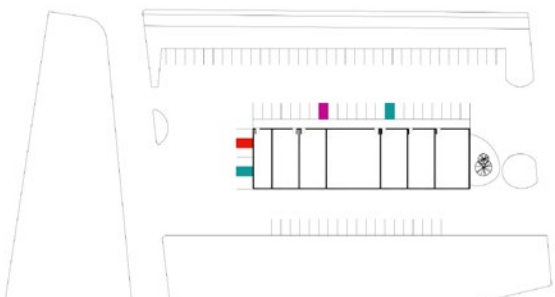
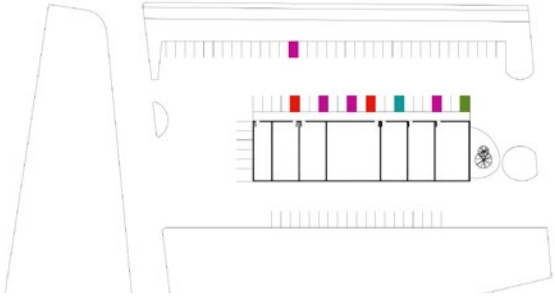
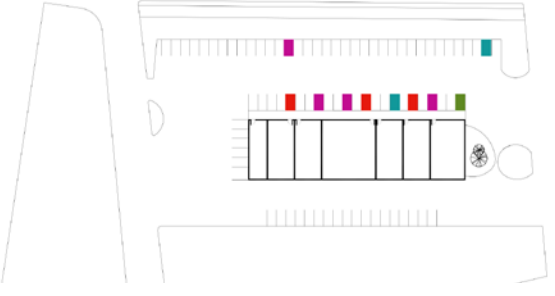
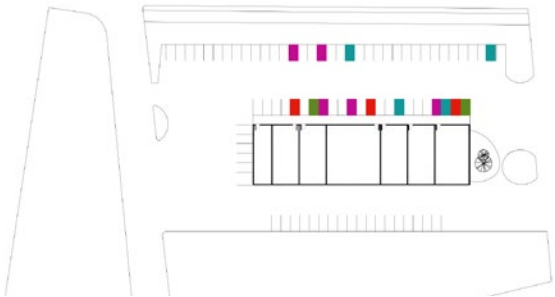
Tuesday, Jan 20 2015	Plan
9:30 AM- 10:30 AM	
10:30 AM- 11:30 AM	
11:30 AM -12:30 PM	
12:30 AM -2:30 PM	

Figure 3.80:Site study of parking spaces in site number one on Jan 20, 2015 from 9:30 am-2:30 pm

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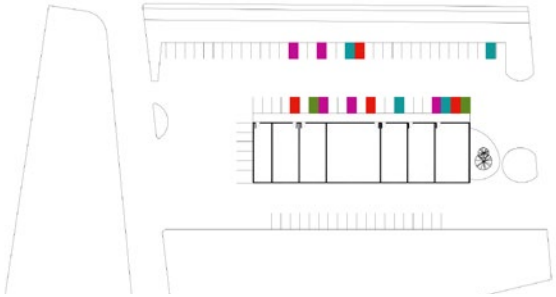
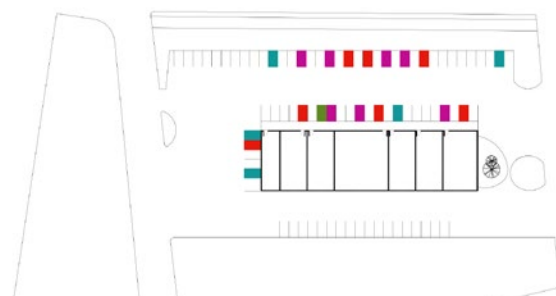
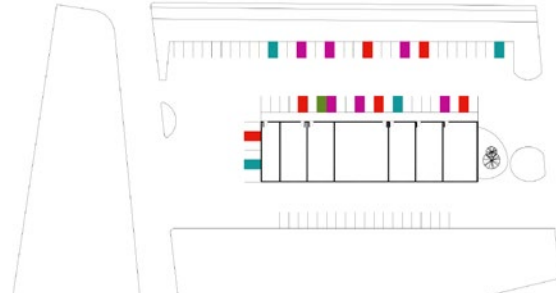
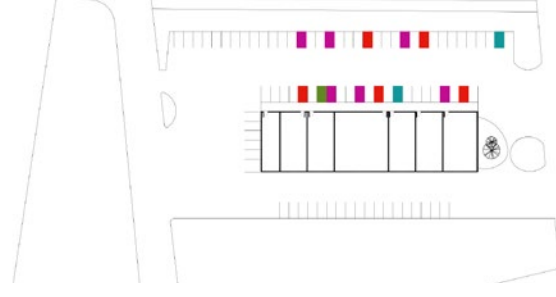
Tuesday, Jan 20 2015	Plan
2:30 PM- 3:30 PM	 <p>A site plan diagram showing a parking area with two rows of spaces. The top row has 12 spaces, and the bottom row has 8 spaces. Colored markers (magenta, red, green, cyan) indicate occupied spaces. In the 2:30 PM- 3:30 PM period, the top row has 4 occupied spaces (magenta, magenta, red, cyan) and the bottom row has 4 occupied spaces (magenta, red, green, cyan). A building outline is on the left, and a plaza area is at the bottom.</p>
3:30 PM- 4:30 PM	 <p>A site plan diagram showing a parking area with two rows of spaces. The top row has 12 spaces, and the bottom row has 8 spaces. Colored markers (magenta, red, green, cyan) indicate occupied spaces. In the 3:30 PM- 4:30 PM period, the top row has 6 occupied spaces (cyan, magenta, red, red, magenta, red) and the bottom row has 4 occupied spaces (red, cyan, magenta, red). A building outline is on the left, and a plaza area is at the bottom.</p>
4:30 PM -5:30 PM	 <p>A site plan diagram showing a parking area with two rows of spaces. The top row has 12 spaces, and the bottom row has 8 spaces. Colored markers (magenta, red, green, cyan) indicate occupied spaces. In the 4:30 PM -5:30 PM period, the top row has 6 occupied spaces (cyan, magenta, red, magenta, red, cyan) and the bottom row has 4 occupied spaces (red, cyan, magenta, red). A building outline is on the left, and a plaza area is at the bottom.</p>
5:30 PM -6:30 PM	 <p>A site plan diagram showing a parking area with two rows of spaces. The top row has 12 spaces, and the bottom row has 8 spaces. Colored markers (magenta, red, green, cyan) indicate occupied spaces. In the 5:30 PM -6:30 PM period, the top row has 6 occupied spaces (magenta, magenta, red, magenta, red, cyan) and the bottom row has 4 occupied spaces (red, cyan, magenta, red). A building outline is on the left, and a plaza area is at the bottom.</p>

Figure 3.81: Site study of parking spaces in site number one on Jan 20, 2015 from 2:30 pm-6:30 pm

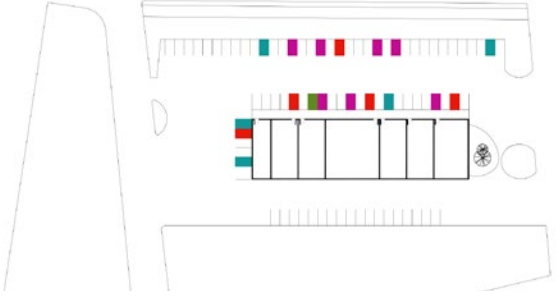
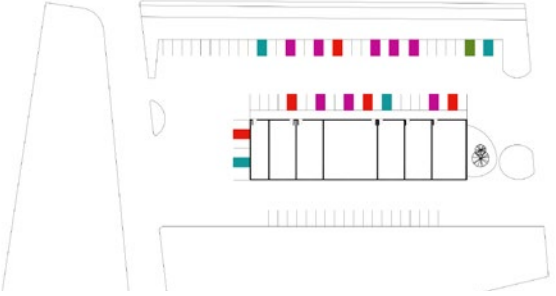
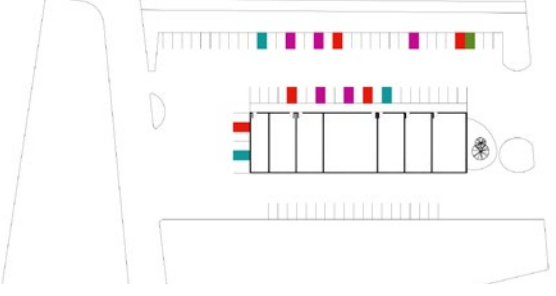
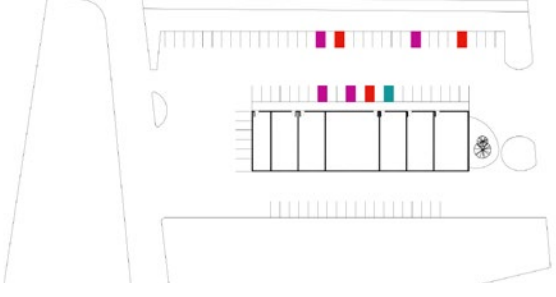
Tuesday, Jan 20 2015	Plan
6:30 PM- 7:30 PM	 <p>A site plan diagram showing a parking lot layout. The lot is bounded by a building on the left and a road on the top and right. There are two rows of parking spaces. The top row has 12 spaces, and the bottom row has 10 spaces. Colored markers (red, green, blue, purple) are placed in various spaces to indicate occupancy. In the top row, markers are in spaces 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12. In the bottom row, markers are in spaces 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.</p>
7:30 PM- 8:30 PM	 <p>A site plan diagram showing a parking lot layout. The lot is bounded by a building on the left and a road on the top and right. There are two rows of parking spaces. The top row has 12 spaces, and the bottom row has 10 spaces. Colored markers (red, green, blue, purple) are placed in various spaces to indicate occupancy. In the top row, markers are in spaces 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12. In the bottom row, markers are in spaces 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.</p>
8:30 PM -9:30 PM	 <p>A site plan diagram showing a parking lot layout. The lot is bounded by a building on the left and a road on the top and right. There are two rows of parking spaces. The top row has 12 spaces, and the bottom row has 10 spaces. Colored markers (red, green, blue, purple) are placed in various spaces to indicate occupancy. In the top row, markers are in spaces 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12. In the bottom row, markers are in spaces 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.</p>
9:30 PM -10:30 PM	 <p>A site plan diagram showing a parking lot layout. The lot is bounded by a building on the left and a road on the top and right. There are two rows of parking spaces. The top row has 12 spaces, and the bottom row has 10 spaces. Colored markers (red, green, blue, purple) are placed in various spaces to indicate occupancy. In the top row, markers are in spaces 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12. In the bottom row, markers are in spaces 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.</p>

Figure 3.82: Site study of parking spaces in site number one on Jan 20, 2015 from 6:30 pm-10:30 pm

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Friday, Jan 23 2015	Plan
9:30 AM- 10:30 AM	
10:30 AM- 11:30 AM	
11:30 AM -12:30 PM	
12:30 AM -2:30 PM	

Figure 3.83:Site study of parking spaces in site number one on Jan 23, 2015 from 9:30 pm-2:30 pm




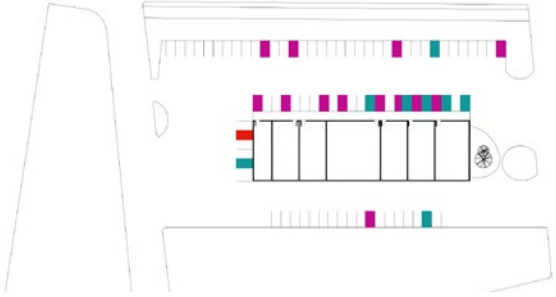
Friday, Jan 23 2015	Plan
2:30 PM- 3:30 PM	
3:30 PM- 4:30 PM	
4:30 PM -5:30 PM	
5:30 PM -6:30 PM	

Figure 3.84: Site study of parking spaces in site number one on Jan 23, 2015 from 2:30 pm-6:30 pm

PLAZA

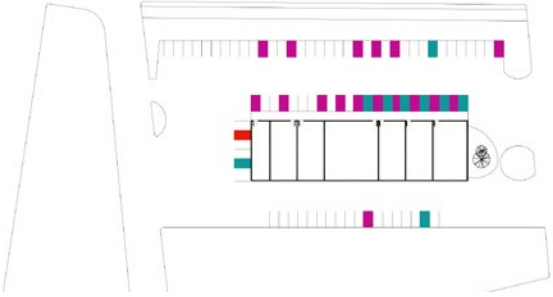
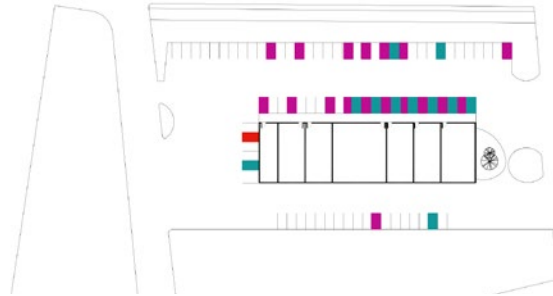
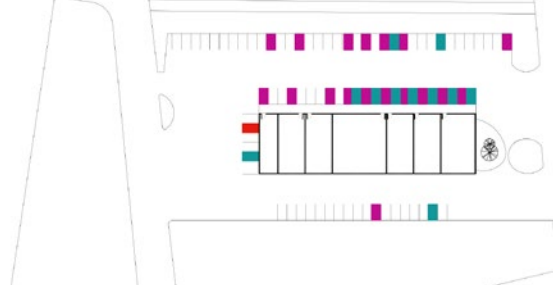

Friday, Jan 23 2015	Plan
6:30 PM- 7:30 PM	
7:30 PM- 8:30 PM	
8:30 PM -9:30 PM	
9:30 PM -10:30 PM	

Figure 3.85: Site study of parking spaces in site number one on Jan 23, 2015 from 6:30 pm-10:30 pm

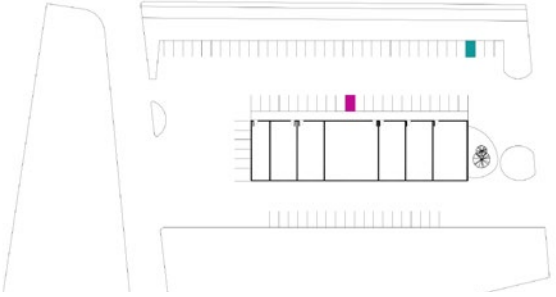
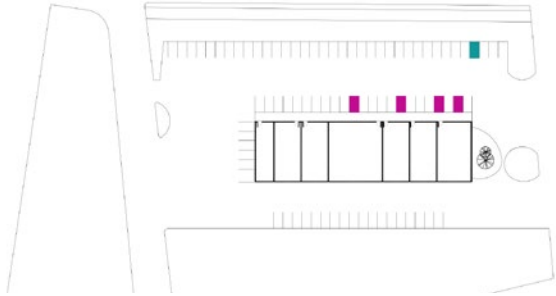
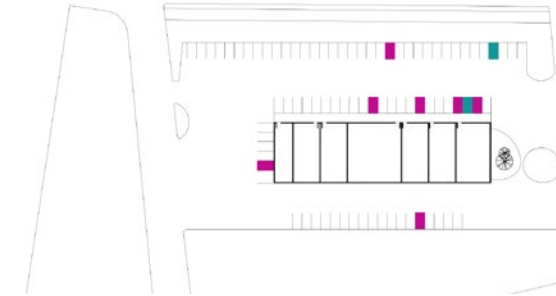
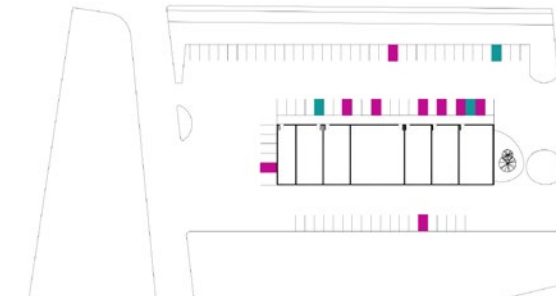
Saturday, Jan 24 2015	Plan
9:30 AM- 10:30 AM	
10:30 AM- 11:30 AM	
11:30 AM -12:30 PM	
12:30 AM -2:30 PM	

Figure 3.86: Site study of parking spaces in site number one on Jan 24, 2015 from 9:30 pm- 2:30 pm

PLAZA

Saturday, Jan 24 2015	Plan
2:30 PM- 3:30 PM	
3:30 PM- 4:30 PM	
4:30 PM -5:30 PM	
5:30 PM -6:30 PM	

Figure 3.87: Site study of parking spaces in site number one on Jan 24, 2015 from 2:30 pm- 6:30 pm

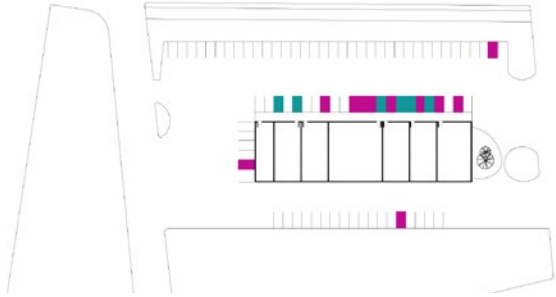
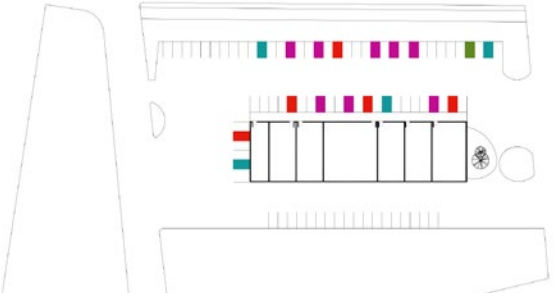
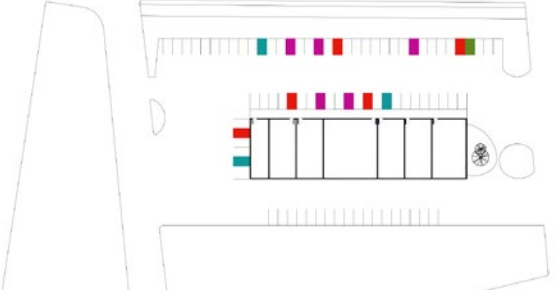
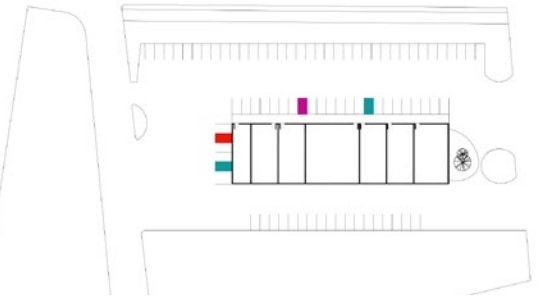
Saturday, Jan 24 2015	Plan
6:30 PM- 7:30 PM	
7:30 PM- 8:30 PM	
8:30 PM -9:30 PM	
9:30 PM -10:30 PM	

Figure 3.88:Site study of parking spaces in site number one on Jan 24, 2015 from 6:30 pm- 10:30 pm

PLAZA

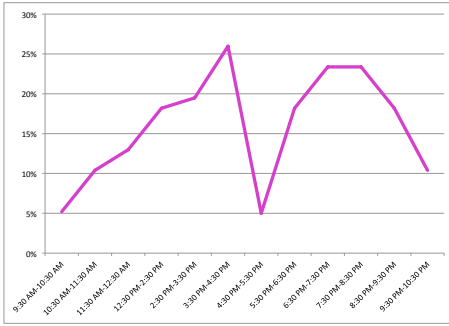


Figure 3.89:The percentage of the car parked on the designated site on Tuesday, January 20,2015



Figure 3.90:The percentage of the car parked on the designated site on Friday, January 23,2015

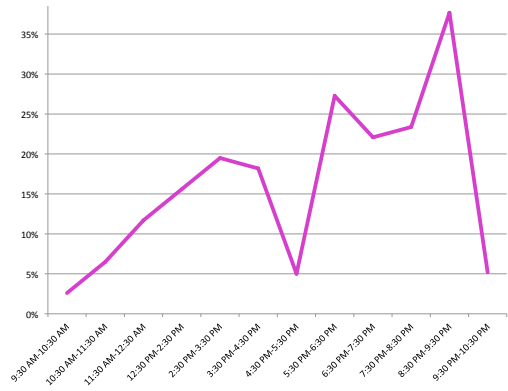


Figure 3.91:The percentage of the car parked on the designated site on Saturday, January 24,2015

3.13 The investigation of the screens and how they evolve based on Islamic geometry

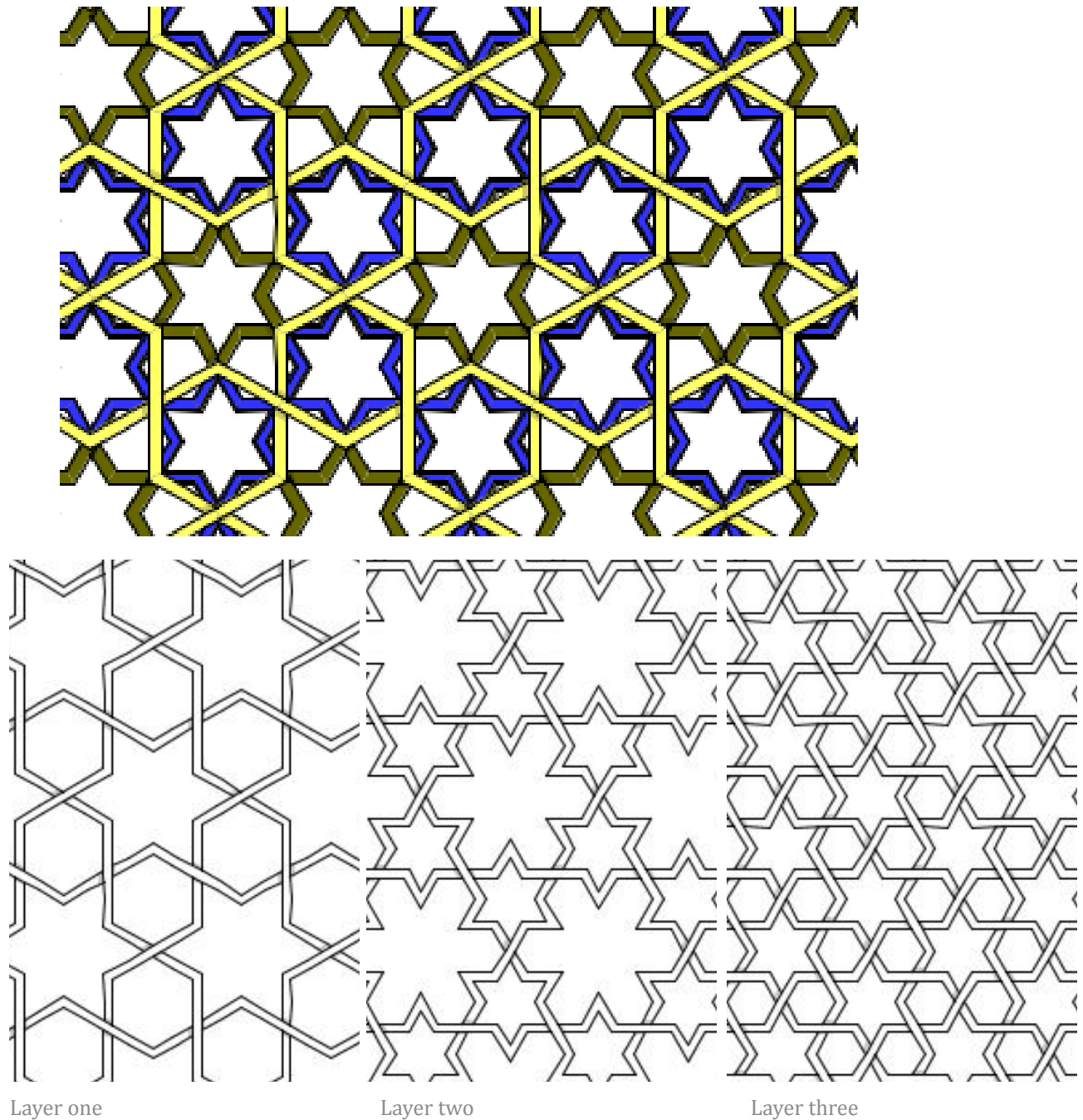


Figure 3.92: The investigation of the screens and how they evolve based on Islamic geometry

The geometry of screens in plaza case study project is similar to café project. The combination of several layers is used in this project will create the screens which separates different pedestrian platform and sitting areas.

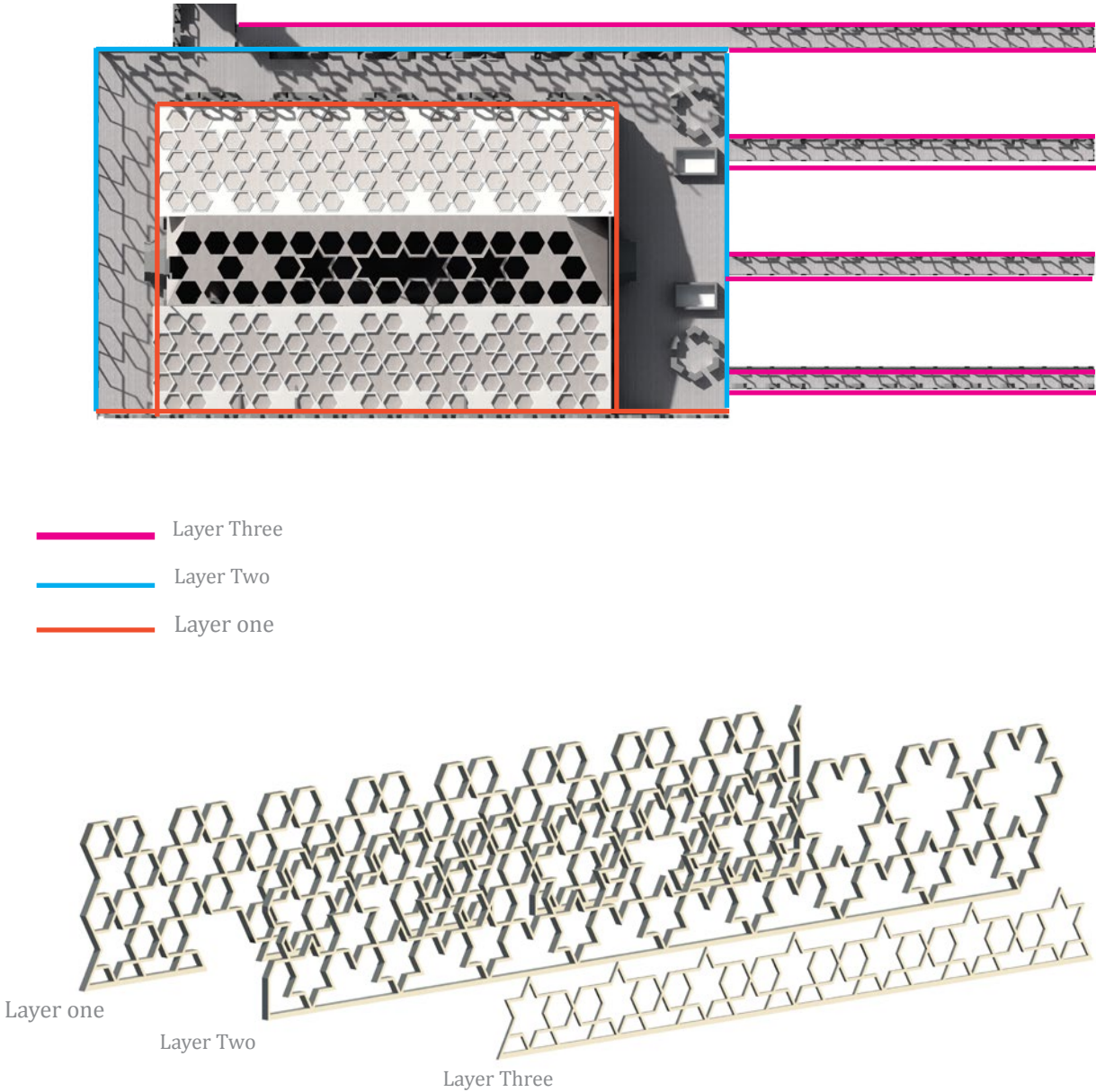


Figure 3.93: Illustration of the screens on the site plan

3.14 Functions of Proposed Plaza

The diagrammatic functions of the proposed plaza based on the parking studies, which enable the designer to eliminate the number of parking. In this case the new functions and spaces can take over the parking space.

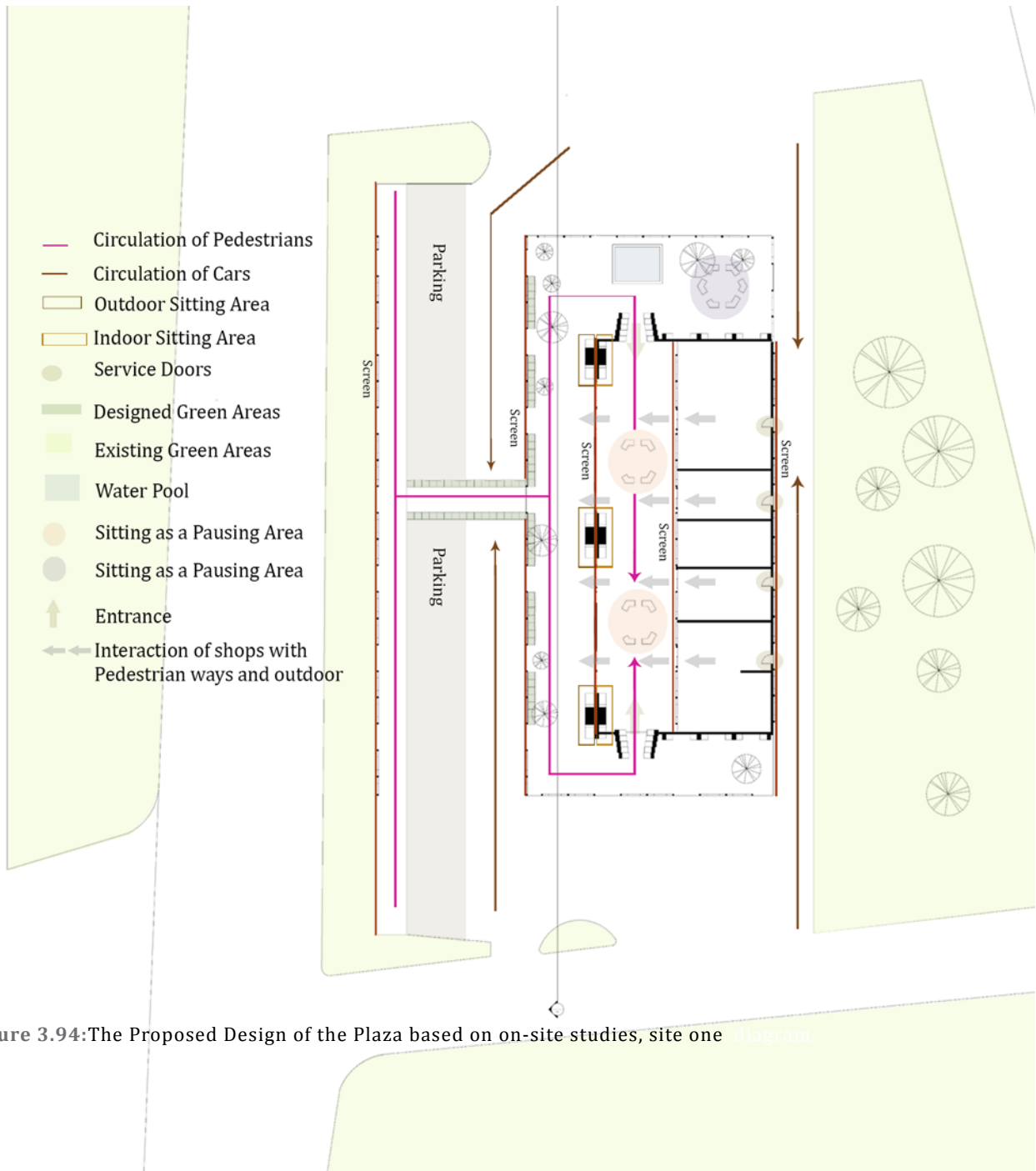


Figure 3.94: The Proposed Design of the Plaza based on on-site studies, site one diagram.

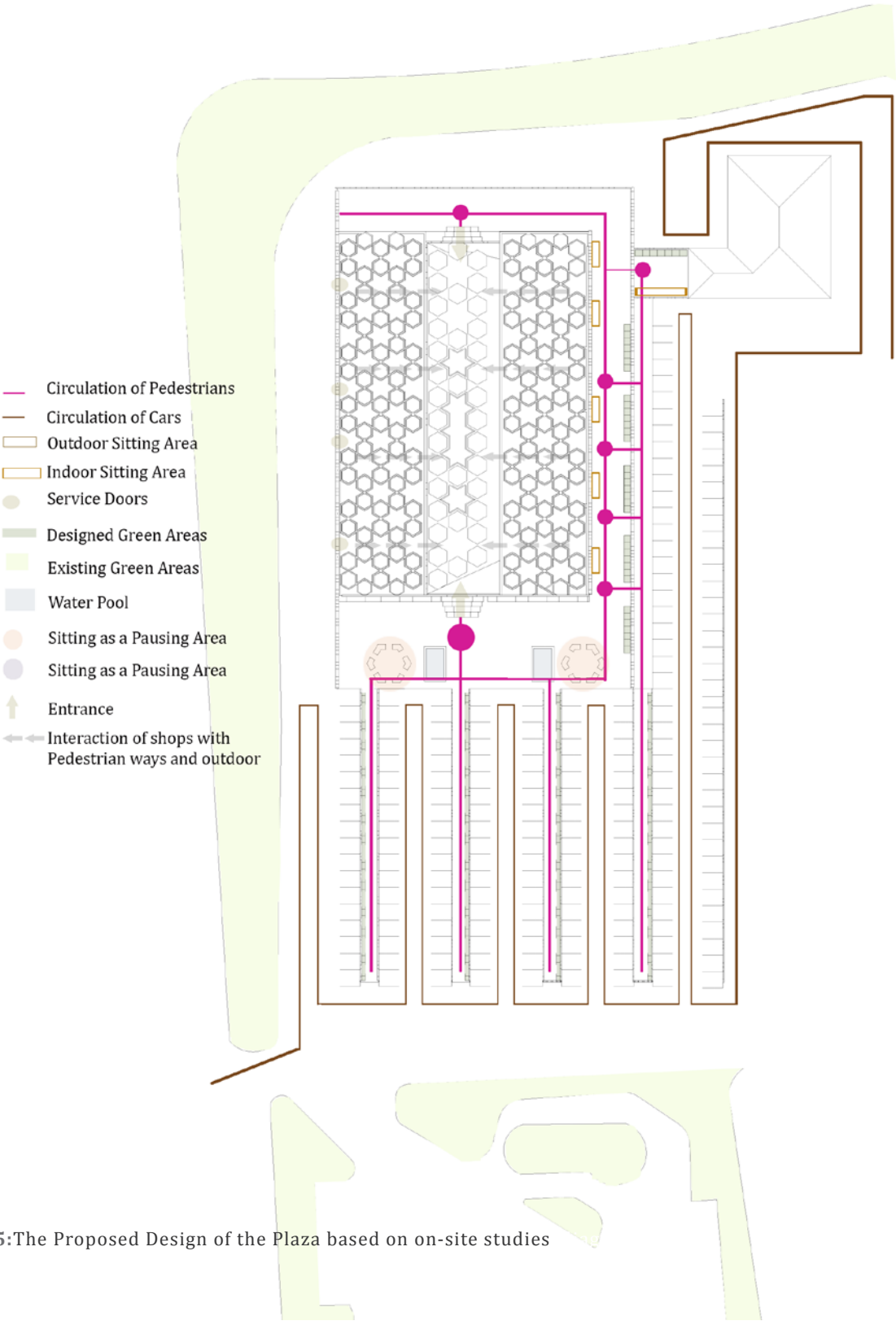


Figure 3.95: The Proposed Design of the Plaza based on on-site studies

3.15 Drawings of Plaza for two site studies

Not Scaled

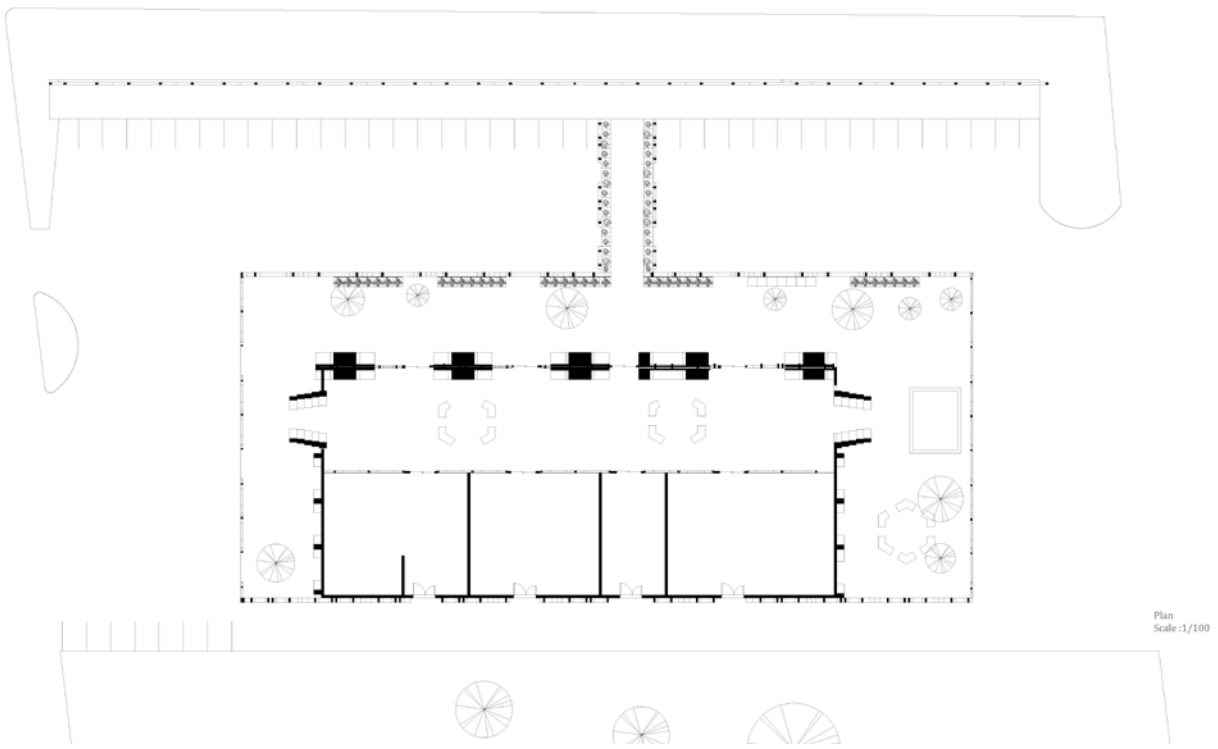


Figure 3.96: First site, plan

PLAZA

Not Scaled

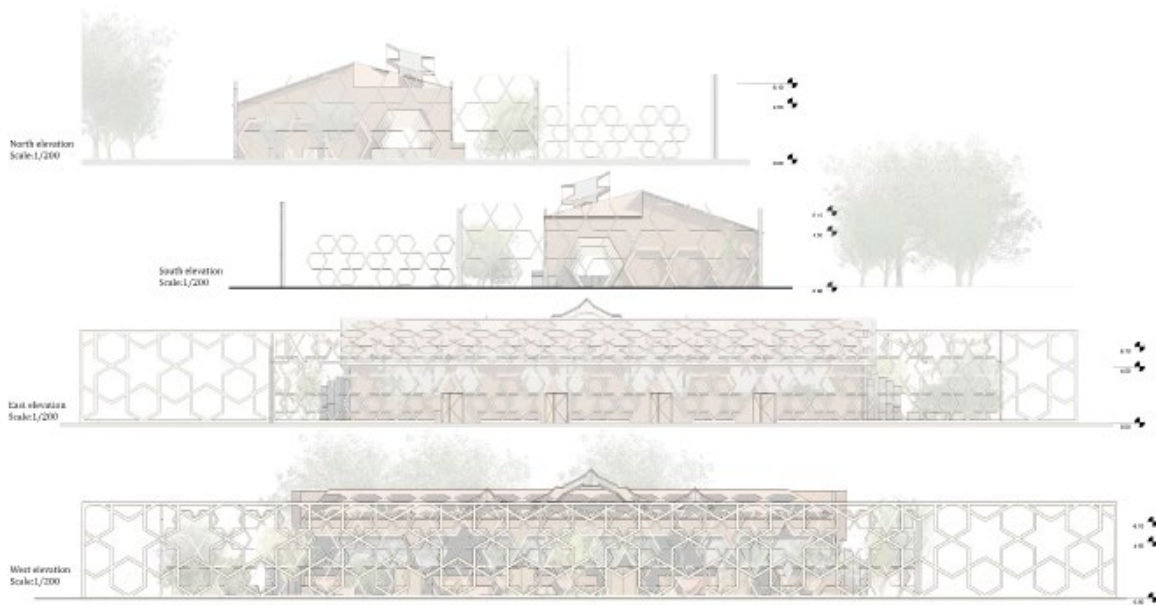


Figure 3.98: First site, elevation

Not Scaled

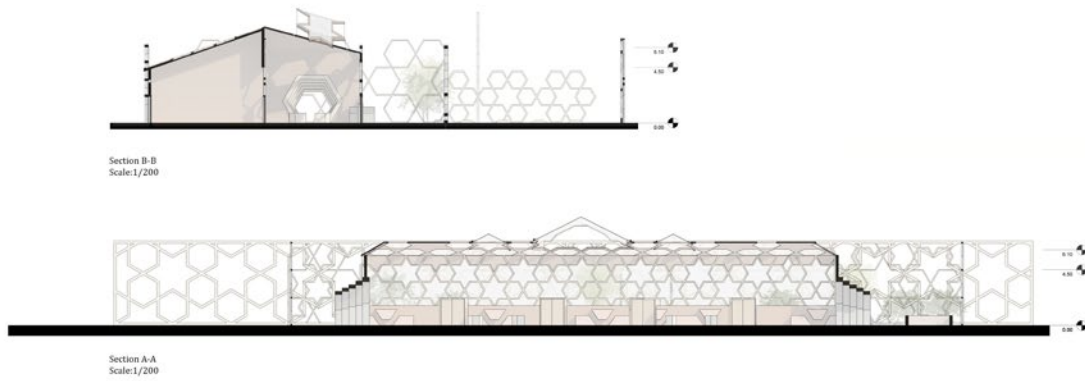


Figure 3.99: First site, section

PLAZA

Not Scaled

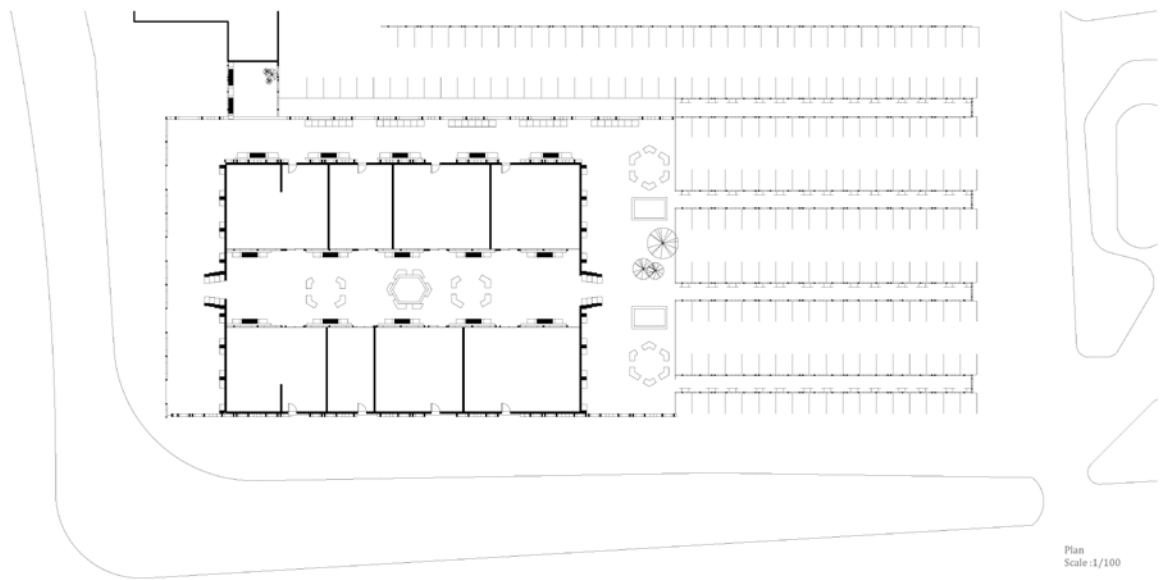


Figure 3.100: Second site, plan

Not Scaled

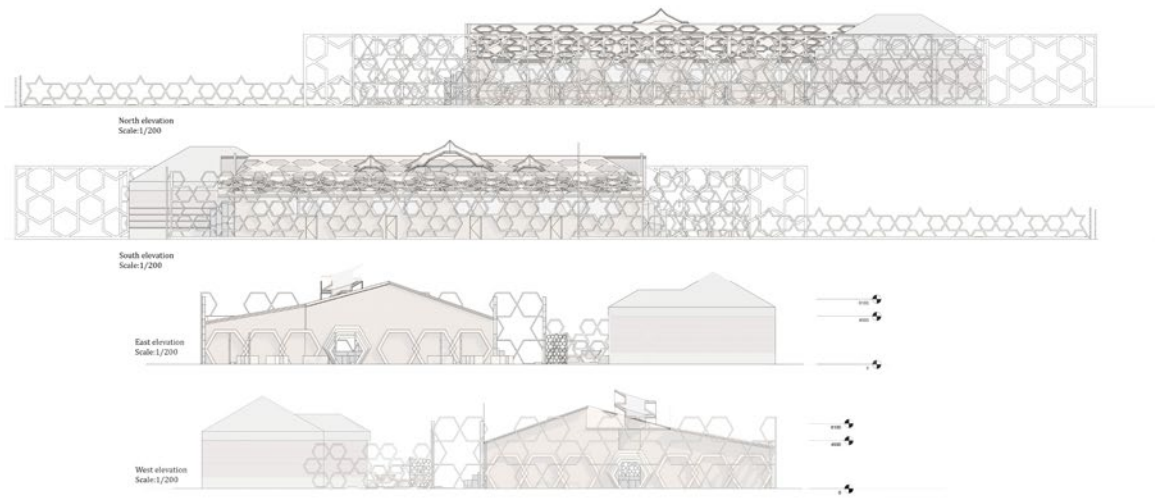


Figure 3.101: Second site, elevation

PLAZA

Not Scaled

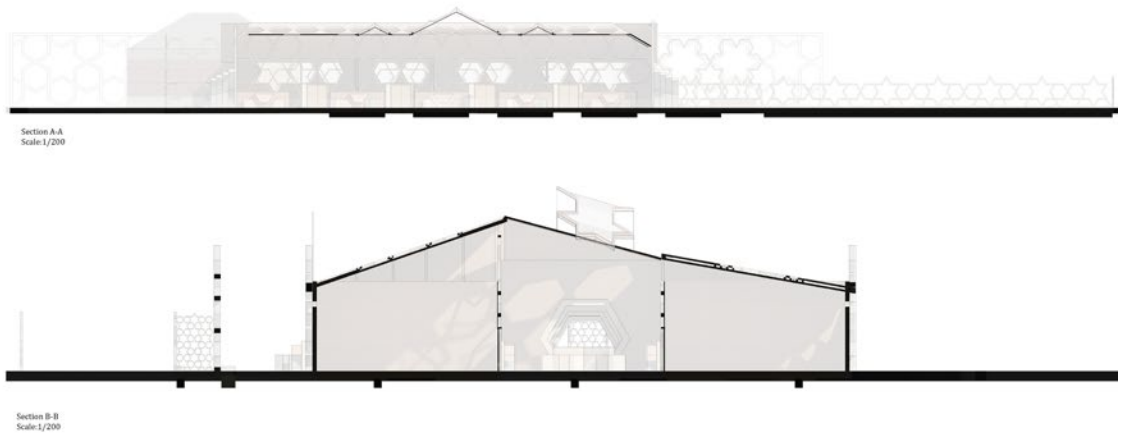


Figure 3.102:Second site, section



Conclusion



Conclusion

“Architects must improve their visual literacy and develop a greater understanding of the multitude of adaptations to our suburban environments being initiated by a range of ethnic and cultural groups living in the GTA.”

Ian Chodikoff, Editor of Canadian Architect magazine ^[1]

In today's world the modern transportation network and the expansion of communication system have made the spatial mobility across the world easier. Such free movement across the world increased the number of immigrants coming to developed nations of North America and Europe.

The suburbs of Toronto are home to many different cultures, and various formal and informal activities can be observed among these different cultural groups. Formal- informal activities and the ultimate physical adaptation are examples of the expanding influence of immigration on society.

The thesis investigates the impact on the buildings of the suburban areas that immigrant communities move to, and proposes to develop design strategies to establish a common built identity for communities shared by Canadians and new immigrants seeking a life in Canada.

This thesis is going to highlight the cultural effects of globalization on the business architecture and the built-out urban form of the recently completed suburban-style neighborhoods of Richmond Hill, a historical community in the Greater Toronto Area. A large number of diverse immigrant groups have relocated from the City of Toronto to suburban neighborhoods in the Greater Toronto Area (GTA), greatly and rapidly expanding their populations.

Several informal events for the Iranian immigrant communities and others, which took place in Richmond Hill in recent years, are: the annual Arya Nowrouz Bazaar, the Multicultural Foods Festival, and the Chinese Moon Festivals.

Every year new immigrants make the suburbs of Toronto their home. It is necessary that architects along with other professions try to understand the needs of such new immigrants and try to implement their traditions as well as their expectations into to the suburb of Toronto.

1 Chodikoff, Ian. in *Ourtopias: Cities and the Role of Design*. Cambridge : Riverside Architectural Press, 2008.

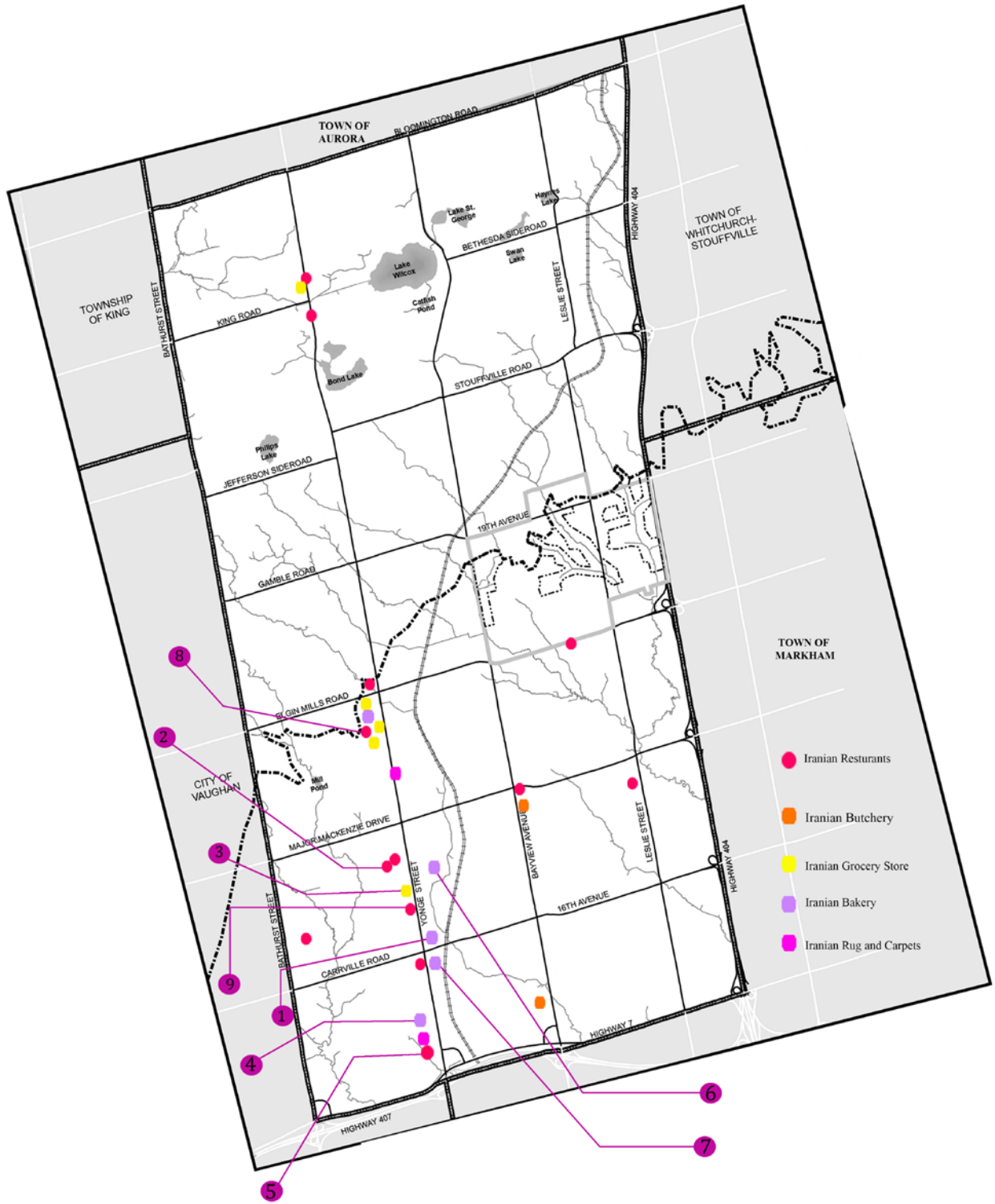
Similar to Pacific Mall analyzed in 3.6.1 the three case study projects deal with spaces those immigrants of middle class citizens are involved with in their daily outlines.

The case study projects in this thesis are located in Richmond Hill where Iranians are concentrated. Based on research by Sharzad Faryadi, *Urban Representation of Multiculturalism in a Global City of Toronto's Iranian Community*, the neighborhoods with high population of Iranian are in the GTA town of Richmond Hill, a heritage town now surrounded by the GTA's suburban expansion. Faryadi discusses several services that are provided for the Iranian population, services located in Iranian stores along Yonge Street with Iranian signs and Iranian cuisine with multiple dishes.

In the same research by Faryadi she also introduces several important functions that are not met in Richmond Hill as a global suburb for the new Iranian immigrants. In the research she argues that the criteria below are not met in today's Iranian neighborhoods. “

- Enclosed private yards
- Distinct urban design of public spaces in different ethnic neighborhoods
- Different urban designs for the development of different ethnic neighborhoods.
- Applying some symbolic signs or forms in public buildings in neighborhoods centers.
- Development and creation of buildings that are tied to ethnic origin.
- Development of an almost integrated urban texture comprising relevant forms of buildings.
- Distinctive design of housing, including interiors, facades, and roads in different ethnic neighborhoods.
- Rows of trees along the sides of streets.”^[2]

2 Shahrzad Faryadi. “Urban Representation of Multiculturalism in a Global City: Toronto's Iranian Community.” *Tehran: Globalization and Autonomy Online Compendium*, n.d. 2-4



CON.01: Mapping for Iranian stores and restaurants in Richmond Hill



CON.02: Iranian stores and restaurants in Richmond Hill

This thesis has designed case study projects that would fulfill Faryady's criteria. There are three projects, one domestic, and the other two social. All three projects are tied to Iranian ethnic origins and present new functions and facades and offer a window into diversity for both Canadians and other immigrant groups. Since these projects take place in suburbs they are expected to follow the similar rules of other buildings in these areas.

Architect Robert Venturi, developed a theoretical approach in his Las Vegas studies in 1970s which state that most modern architecture is truly a box which he called a decorated shed; a standardized box that presents a symbolic signage and decorative form in the creation of community identity through a layer of hybrid type and decorative architecture.

This thesis is not challenging the existing formation of the suburb instead it creates identity by shifting a building types where citizens from different ethnicity can claim these buildings as their own. Venturi's philosophy, accepting and translating the typology in suburb and investing on decorated sheds instead, is key to this approach.

Urban spaces in suburbs are designed favoring car traffic. The decorate shed is built to extend suburban automotive types of building; Rober Venturi accepts such sheds in suburbans and their relation to street traffic and signage.

In this thesis, the decorative sheds of Tim Hortons and Suburban places connected by symbols, which represent Iranian traditional culture. If Venturi presents architecture as an object of culture, one which appreciates the role of decorative surfaces like Islamic architecture dose, then the three case studies effectively cover the hybrid architecture identity which can bind together contemporary but diverse communities in Canada's suburban metropolitan areas.



Bibliography



2011 National Household Survey Profile on the Town of Richmond Hill: 1st Release. Survey Profile. Richmondhill: Town of Richmond Hill:, 2011.

Ahmad Rahimi, Jalil Khalil Azar, Vahid Moini. "Space design for cultural teature ." Honar-Haye-Ziba 17.1 (2012)

Alipour, Niloufar. "Orsy in Qajar Palace, Tehran." Scientific Research Quartley Journal 6 .18 (2011)

Alon, Ilan. "Global Franchising and Development in Emerging and Transitioning Markets." Journal of Macromarketing (2004)

Ardalan, Nader. "archnet." archnet. 24 Oct 2014 <archnet.org/system/publications/contents/4750/original>.

—. "Places of Public Gathering." 1980.

—. The Sense of Unity : The Sufi Tradition in Persian Architecture. Tehran: ABC International Group, 1974.

Bain, Jennifer. Exploring an Indian spice shop in Thorncliffe Park. 29 August 2012. 1 Dec 2014 <http://www.thestar.com/life/food_wine/2012/08/29/exploring_an_indian_spice_shop_in_thorncliffe_park_saucy_lady.html>.

Cebra Architects. CENTER FOR EARLY CHILDHOOD DEVELOPMENT. 2013. 18 Sep 2014 <<http://cebraarchitecture.dk/project/ecec/>>.

Chalipa, Kazem. Hassan Esmaelzadeh- The painter of the Cafe School. Vol. 1. Tehran: Nazar, 2006.

Chodikoff, Ian. in Ourtopias: Cities and the Role of Design. Cambridge : Riverside Architectural Press, 2008.

Christopher Alexaander, Sara Ishikawa ,Murray Silverstein, max Jacobson, Ingrid Fiksdahl-King and Shlomo Angel. A Pattern Language. New York: Oxford University Press, 1977.

de zeen. Starbucks Coffee at Dazaifu Tenman-gū by Kengo Kuma and Associates. 22 Feb 2012. 22 Sep 2014 <<http://www.dezeen.com/2012/02/23/starbucks-coffee-at-dazaifu-tenman-gu-by-kengo-kuma-and-associates/>>.

Design Ruiz. Design Ruiz. 2009. 2 March 2014 <<http://www.designrulz.com/design/2013/04/modern-coffee-shop-314-architecture-studio-athens-greece/>>.

Ervin, Laszlo See. Goals for Mankind. New York: J Tinbergen, et ai, Reshaping the International Order, 1978.

Faculty of Architecture and Urban Panning Documentation and Research Center. Ganjname. Tehran: Rowzaneh, n.d.

FarahYar, Hossien. Take a look at historical monuments of Kashan.

Bibliography

Trans. author. Tehran: Moalef, 1990.

Gangopadhyay, T. "Further Tiling Patterns Involving Islamic Stars with an Odd Number of Vertices ." *International Journal of Computer Applications* (0975 – 8887) Volume 67. No.1 (2013)

Ghalijkhani, Behnam et al. *Ganjname House*. Tehran: University of Shahid Beheshti, 2004.

Ghasemi, Kambiz Haji. *Ganjnameh, Cyclopaedia of Iranian Islamic Architecture*. Ed. Maryam Tabatabaee. Trans. Claude Karbasi. Vols. Fourteen, Yazd houses. Tehran: Faculty of architecture and urban planning of Shahid Beheshti university, 2005.

Golstone, Robert. *Suburbia: Civic Denial*. New York: The Macmillan Company, 1970.

Ho Hon Leung, Raymond Lau, and Sharon Shaw-McEwen. *Investigating Diversity: Race, Ethnicity, and Beyond*. Yarrnton : Linton Atlantic Books, Ltd , 2008.

International Council of Shopping Centers. *ICSC Shopping Center Definitions*. New York: International Council of Shopping Centers, 1999.

Iranica, "Ismail Safavi" *Encyclopædia*. n.d.

J.Lu, Peter. *Decagonal and Quasicrystalline Tilings in Medieval Islamic Architecture* Harvard University. Feb 2007.

Kwan, Amanda. "Iranians in Richmond Hill: global business "enclave" says expert." *Centennial Journalism's Notebook Work* by Centennial College Journalism students in Toronto 30 Oct 2009.

Mandelbort, Benoit B. *The fractal geomatry of nature*. NY: W.H Freeman and company , 1977.

MohammadMehdi Mirza Amini, Jalaledin Basam. "Examination of the symbolic role of Toranj in Iranian Carpet." *Scientific research Forums of Iran Carpet* 18 (2011)

Mohammadreza Bemanian, Hadi Safayii Pour. *The role of qualitative and quantitative numbers on Islamic architecture*. 28 oct 2014 <<http://rasekhoon.net/article/show/>

Molahossieni, Mohammad. "Introduction to the Old Market Qom." 29 Feb 2012. *HAMSHAHRI ONLINE*. 12 Dec 2014 <<http://hamshahrionline.ir/details/162152>>.

—. "Introduction to the old markets of Iran." 7 May 2011. *HAMSHAHRI ONLINE*. 19 Dec 2014 <<http://www.hamshahrionline.ir/details/134191>>.

Nasr, Syed Hossein. *Islamic Science: An Illustrated Survey*. London:

World of Islam Festival Publishing, 1976.

Oldenburg, Ray. *The great Good Place*. 1st ed. New York: Paragon House, 1989.

Parpal, Monica. 22 Sep 2014 <<http://www.foodservicewarehouse.com/education/how-to-start-a-restaurant/what-is-a-quick-service-restaurant/c28983.aspx>>.

Qassem, Kambiz Haji. *Yazd Houses*. Yazd: Beheshti University, 2003.

Rahmanyar, Roya. "Final Report of Thorncliffe Park." 12 March 2010. tcld. 20 Dec 2014 <http://test.tcld.org/wp-content/uploads/2012/11/ThorncliffePark_2009-10_CRNA.pdf>.

Roaf, S. "Iran's Ancient Air Conditioning System." 15 December 1988. <http://www.kavehfarrokh.com/>. 23 Nov 2014 <<http://www.kavehfarrokh.com/iranica/learning-knowledge-medicine/professor-s-roaf-badgir-irans-ancient-air-conditioning-system/>>.

Saheb Mohammadianmansour, Sina Faramarzi. "The comparison of the geomatry of Iranian with the quasi-crystalline silicon." *Journal of Fine Arts - Visual Arts* (2012)

Shahrzad Faryadi. "Urban Representation of Multiculturalism in a Global City: Toronto's Iranian Community." *Tehran: Globalization and Autonomy Online Compendium*, n.d.

Sharden, Jan. *Sharden's Itinerary*. Trans. Eghbal Yaghmayi. Tegrans: Tous, 1374.

Taheri, Jafar. "Rethinking the concept of residence in Architecture." *Journal of Iranian architecture* 2 (2013).

Winstanley, Tim. *Arch Daily*. 2 Oct 2011. 9 Sep 2014 <<http://www.archdaily.com/162101/ad-classics-institut-du-monde-arabe-jean-nouvel/>>.

Yu, Mayine L. *Skins, Envelopes, and Enclosures*. New York and London: Routledge, 2014.

Yucel, Atilla. *Arabe World Institute. Technical review summary*. Paris: Aga Khan Award for Architecture, 1989.