Using the concept and architectural components of a Bazaar as a means of creating architectural spaces that stimulate and awaken the senses

Shahrzad Najdjavadipour
ID: 1261626

A Research Project submitted in partial fulfillment of the requirements for the degree of Master of Architecture Professional

Unitec Institute of Technology, 2011
ACKNOWLEDGEMENT

I would like to firstly thank my supervisors, Kerry Francis and Krystina Kaza, who have guided me through this entire design process. I would like to thank my parents Zohreh and Hassan, and my sister Parisa for putting up with all the emotions, and constantly caring. I would also like to thank all my friends who have been with me along this amazing journey, encouraging me through all the all nighters; we have truly had some unforgettable times!
I would like to especially thank Daniel for being so understanding, motivational and inspiring.
ABSTRACT

This research project aims at researching the different architectural components and programmes of a traditional Iranian bazaar, and at exploring ways in which a new architectural space in Auckland city can awaken the four senses using contemporary versions of such components. An important part of this project is to create more than just retail spaces, but to create a series of transparent workshops, a colourful maze of corridors that lead to brightly lit outdoor courtyards and social areas, creating a stimulating journey for the visitor.

Research was carried out into the forms and functions of Iranian bazaars and also Auckland markets and shopping centres through a series of annotated sketches/diagrams, photographs and through communication with the local community.

The chosen site was seen as a good brownfield candidate, an opportunity to develop the site to meet the community needs and enhance social living in the area. The bazaar program was established from the ethnicity and religious affiliation of the majority of people living and working within the surrounding area.

The design process was highly influenced by the surrounding context, and has required a sensitive approach towards issues such as the form, height levels and programme locations within the site.
# TABLE OF CONTENTS

1.0 **INTRODUCTION**............................................................................................................. 5  
  1.1 RESEARCH QUESTION  
  1.2 WHAT IS A BAZAAR?  
  1.3 DIFFERENCE BETWEEN A SHOPPING CENTRE AND A BAZAAR

2.0 **PRECEDENTS**.................................................................................................................. 11  
  2.1 EXISTING MARKETS AND SHOPPING CENTRES WITHIN AUCKLAND  
  2.2 TRADITIONAL BAZAARS IN IRAN  
  2.3 TABRIZ BAZAAR, TABRIZ, IRAN  
  2.4 ISFAHAN BAZAAR, ISFAHAN, IRAN (illustrated study)

3.0 **THE SENSES AND ARCHITECTURE**.......................................................................... 35

4.0 **AIM/ OBJECTIVES**........................................................................................................... 36  

5.0 **CHOSEN SITE**.................................................................................................................... 37  
  5.1 SITE HISTORY

6.0 **DESIGN PROCESS AND DEVELOPMENT**................................................................. 46  
  6.1 ESTABLISHED DESIGN PRINCIPLES  
  6.2 PROPOSED BAZAAR PROGRAMME

7.0 **DESIGN STRATEGY AND ELEMENTS**......................................................................... 54

8.0 **DESIGN DEVELOPMENT**............................................................................................... 56

9.0 **CONCLUSION**.................................................................................................................... 61  
  9.1 CRITICAL APPRAISAL
1.0 INTRODUCTION

1.1 RESEARCH QUESTION

Can the concept and architectural components of a traditional Iranian bazaar be used as a means of creating a new type of retail/social environment that engages the senses, within a less traditional Auckland setting?

1.2 WHAT IS A BAZAAR?

The word bazaar is derived from the Persian word ‘bazar’, one of the most adopted Persian words in the world. Its meaning has changed over time from ‘a place where a variety of goods can be found’ to a place that creates disorder and chaos.

A traditional bazaar is designed to strike the senses, seeing large crowds and varied goods in amazing architectural spaces covered by highly decorated and colourful domes and arches, hearing porters shouting at the crowd of people to get out of their way as they transport the goods from one end of the Bazaar to the other, costumers haggling with the retailers over the price of goods, smelling the different spices, odours and perfumes and touching the different textured fabrics and textiles draped over entrances.
Traditionally goods were brought into the bazaar by caravan trade. These goods were gathered from the surrounding countryside and some goods, such as metal, wooden ornaments, pottery, textile, rugs or freshly baked bread, made within the bazaar walls and sold either by the craftsmen themselves or by retailers (bazari’s).

Bazaars consist of production, retail and food spaces and are connected to the caravansary, madreseh, Mosque and bathhouse.

The bazaars best known in the western world are probably the bazaar of Tabriz, the great bazaar (Kapali Carsi), the Egyptian bazaar of Istanbul, and the Cairo bazaar. The problem with most of these bazaars is that with the growth of the urban population and modernization over time they have increased in size and their original bazaar section has become a very small part of their infrastructure, dominated by modern and un-exotic forms. Parts of the old bazaars have been slowly destroyed to make room for wider streets and roads. Therefore, retailers have been forced to build their shops along the exterior of the bazaar facing the road.  

---

An important part of a traditional Persian bazaar is the mosque, where the community gather together, especially on Fridays (masjed-e jomeh) for midday prayers.

The mosque consists of a Minaret from which the muezzin calls everyone for prayer. There is also a Fountain, which is a work of art in most mosques. Here the worshiper purifies parts of his body before starting to pray. The floor space in front of the mosque entrance and within the mosque is usually carpeted, or covered by vast spanning rugs, as shoes are removed for purity reasons.

The interior of a mosque requires: a clock for regulating services, a mihrab, a niche in the middle of the qibla wall, defining the direction of Mecca (the holy city of Islam and the birth place of prophet Muhammad), a window above the mihrab, showing its position from the exterior, and a Minbar, a place used by the imam to read out prayers.²

Traditionally, teaching was linked to religion and seminaries (madresehs) were built in close proximity to the mosque and bazaar. The architectural form of the madreseh is very similar to that of a caravansary, a rectangular court surrounded by a row of arches, with a large arch in the middle of one or more of the sides.³

---

³ Ibid. 24-25.
The different functions and residents of a bazaar require architectural spaces that are made up of different forms and elements:

**Linear walkway** - usually bordered on either side by rows of shops and covered by a vaulted ceiling, which started to be used not just for light and aesthetics but also because locally there was a shortage of trees. Therefore, earth was used as the principle material. In a dry-hot climate the vault provides thermal insulation, keeping the spaces cool in summer and warm in winter and its shape resists tension and compression.\(^4\)

**Rectangular or oval hall** - covered by a large dome, or several domes set one within the other.

**Caravansary** ‘place of the caravans’ - A rectangular open courtyard, bordered on three sides by one- or two-storeyed arcades, with one of the sides consisting of a large, arched opening, leading to a covered hall for storage.

These three basic elements are repetitively assembled in a very complex manner, creating the form of a bazaar.

---

A bazaar may, at first glance, seem like an unorganised spatial arrangement, but when looked at closely one can clearly see that it is spatially organised according to two main principles: the separation of activities and the hierarchical arrangement of activities.

The separation and position of activities - Retail spaces of the same sort occupy the bazaar along a single walkway, or the outer boundary of a caravansary. This creates a strong visual, auditory and olfactory accumulation which awakens the visitor’s senses as he walks through the bazaar. The grouping of retail space is usually based on convenience, as it is easier to deliver materials to similar trades when they are positioned in close proximity to each other. Also, shops selling heavier and larger products are positioned closer to the loading zones. Trades such as tanneries, coppersmiths and carpentry, which create high noise levels, dust, pollution and bad odours are positioned on the outer walls of the bazaar to create fewer nuisances. The mosque is usually positioned close to the centre of the bazaar and, because of religious considerations, activities and spaces close to it must relate to its programme (shops selling religious objects and books). The only spaces that do not follow any hierarchical grouping are cafes (qahvekhana) or tea houses (chaykhana), as they are heavily used by visitors to the bazaar throughout the day. They are usually small, cosy spaces with seating consisting of beautifully handmade rugs and large pillows, facing an open courtyard or water feature.

---

5 http://www.360cities.net/image/iran-isfahan-the-bazaar#0.00,0.00,70.0
Tea houses also provide delivery within the bazaar. Tea is usually ordered by retailers to thank a customer for a purchase they have made.

The bazaar also contains one or two public baths where the workers can freshen up before heading home or going to the mosque for prayers.6

1.3 DIFFERENCE BETWEEN A SHOPPING CENTRE AND A BAZAAR

Although some may argue that a bazaar is not much different to our everyday shopping centres, one important difference between the typical shopping centre and a bazaar is that in a traditional bazaar most of the goods are produced within the bazaar, rather than being made in distant manufacturing centres. A traditional bazaar is more than just a retail environment: it consists of activities such as baking, sewing, shoe making, metal smithing and so on. This allows the customers to learn how the goods they are buying come about, and the hard work and talent required in creating them. The presence of such activities creates an active, enlivened environment, but it can also cause an incredible amount of noise and dust, which can become an issue for the bazaar population and the nearby residents.

As people become more aware of the mass production of goods and their lack of individuality and quality, everyday shopping centres start to become less and less attractive. People start to look elsewhere for goods that set them apart from the rest of the crowd and help them express their individual identity. They start looking at smaller, private retail stores, antique stores and even online searching for products that possess quality and character rather than quantity and sameness. The bazaar environment will help deal with this problem of mass production that we are facing with our typical shopping malls, as most goods sold at a bazaar are handmade and no item is identical to another.

Another difference between a bazaar and shopping centres is the mix of indoor and outdoor space, more precisely the use of courtyards. Courtyards are major spaces for social gathering in a bazaar and also places for relaxation and getting away from the hustle and bustle of the interior corridors. Most courtyards consist of seating spaces, built as an arched niche in one or two of the four walls around a courtyard. These courtyards are also beautifully landscaped with shallow water features and vegetation for shade.

The bazaar is pedestrian-oriented and the experience is all about the journey through the spaces, which is something we don’t see in our local shopping centres. Shopping centres are designed to cater for fast-paced lives; they are all about getting one to the destination and then out again in the easiest and fastest way. They are surrounded by large parking spaces and have very clear set interior pedestrian walkways. On the other hand in a bazaar the aim is to keep one occupied and entertained within its walls as long as possible. The visitor is slowed down and starts to linger and get lost in the maze of never ending shops and corridors.

---

2.0 PRECEDENTS

2.1 EXISTING MARKETS AND SHOPPING CENTRES WITHIN AUCKLAND

The Auckland Night Market is located in the car park under the Warehouse at Pakuranga Plaza. The dull, grey space, filled with cars during the day, is transformed with approximately 250 stalls, selling original goods and international and local food (every Saturday from 6pm till midnight). The food which is mostly Asian is made fresh in front of you and consists mainly of Asian food. There are also stalls selling pastries, donuts, cupcakes and candy floss. There are plenty of car parking spaces available nearby at street level and in front of the Pakuranga Food town. The market has a very multicultural atmosphere, with people of all ages, and ethnicities gathering for free live entertainment and food. Some of the services and goods provided within the market are body art, tattoos, Maori carvings, clothing, jewellery, tools, electronic games, hairdressers, foot massage, fortune telling and fire dancers. Alcohol is not permitted to maintain a family friendly environment.
The Avondale Sunday market was founded in the early 1970’s and is located at the Avondale racecourse every Sunday from 7am-12pm. The market is fully open to the sky, although each individual stall usually has some sort of canopy to protect their goods from the sun, rain and wind. The market is strongly influenced by Asian and Polynesian cultures and the stalls provide goods and services such as arts and crafts, clothing, shoes, second hand items, pot plants, key cutting, jewellery, fresh fruit and vegetable, sea food, and hot food. Stall holders must arrive before the 7am opening time as the parking grounds get very crowded. Almost anyone can become a casual stall holder at the Sunday market, although there is a fee of $20 per day, and $10 for hiring a table. Many people sell their goods straight from their car boot. The Avondale Sunday market has become one of New Zealand’s biggest one-day markets and its visitor population can reach 20,000 every Sunday.⁷

Sylvia Park Mall started retail construction in 2005. The centre receives approximately 12 million visitors per year and consists of The Warehouse, PAK’n SAVE, Foodtown, and Hoyts cinemas, which occupy 49% of the area. The centre also offers 62,000m² of lettable area for restaurants/bar, cafe, integrated community uses and future residential development in the small area adjacent to the northern boundary. There are several points of attraction such as entertainment facilities, convenience of transportation, parking and diversity in tenant range.⁸

⁷ http://www.avondalesundaymarkets.co.nz/
⁸ http://www.kipt.co.nz/f551.27033/25651_4162_SylviaPark_Update_Presentation_June_2005-16.05.05.pdf
The shopping centre is located next to a purpose built train station which runs between Britomart and Papakura. The station is located on the eastern side of the centre and bus stops are located within the centre on the internal ring road beneath the flyover, closest to Mt.Wellington Highway. There are five vehicle access entrances off Mt.Wellington Highway, Waipuna Road and Carbine Road. The centre provides 4,000 car park spaces located in, above and around the centre. Walking and cycling facilities are provided throughout the site and there are bicycle racks located at various points.

**Westfield St Lukes** receives approximately 9 million visitors per year and consists of 47,080m² of retail space- 196 retail shops (major retailers being Farmers, Countdown, Kmart and Event Cinemas), five banks and a 644-seat food court. The centre is based on an inward facing design, with minimal use of natural light and fresh air. It is well connected to the surrounding road network and is in walking distance of the Morningside railway station, connected to several bus routes and provides 2018 car parking spaces. The main points of attraction within the centre are; Event Cinema, crèche, personal style sessions, fashion shopping tours and live entertainment.⁹

2.2 TRADITIONAL BAZAARS IN IRAN

2.3 TABRIZ BAZAAR, TABRIZ, IRAN

The city of Tabriz, once the capital of Iran, has been regarded as the place of cultural exchange since antiquity. The Tabriz Bazaar, one of the most important points on the Silk Road, is the largest covered bazaar in the world and the oldest bazaar in the Middle East. The Tabriz bazaar consists of a maze of streets, warehouses, restaurants, gardens and various sub-bazaars, the main ones being: Amir Bazaar (gold and jewelry), Mozzafarieh (carpets and rugs), Kafashaan Bazaar (shoemakers), Kolahdozaan Bazaar (hat makers) and many more. The bazaar is also connected to two schools and several mosques, and is used as a hosting site for important religious ceremonies, when trading is put on hold for ten days to make time and space for religious activities.\(^\text{10}\)

In Farsi (spoken language of Iran), covered halls are referred to as timche. These spaces are similar to courtyards, but are smaller in size, and are roofed. Both courtyards and timches are surrounded by retail spaces, usually two storeys high. One of the major timche’s in the Tabriz bazaar is Amir timche, located near the main entrance to the bazaar and surrounded by a two storey retail space containing the largest most highly decorated brick dome of the bazaar. Connected to this space is a large open courtyard surrounded with different retail and green spaces.\(^\text{11}\)

The main halls of the bazaar are covered and sheltered from rain, snow and direct sun by one-layer domes, the biggest dome being the one above Amir timche. The domes allow the space to store heat in winter and keep them cool in summer.

The shops and workshops are the most important and yet smallest and simplest architectural components of the bazaar. These spaces range from single-storeyed, two-storeyed or double height spaces according to their function or importance (the spaces rarely change in plan width). The double-storeyed spaces usually consist of retail/workshop space on the first floor and storage/office space on the second floor. The area of these shops ranges from 10m\(^2\) to 25m\(^2\). The shops are approximately 15cm above street level and workshops are usually 15cm lower than the corridor/ street level. This is all dependent on the function of the space and how much customer contact or privacy the space requires. In the coppersmith and carpentry corridors, the main workshop spaces are connected to the main corridor via narrower and shorter corridors for health and safety reasons.\(^\text{12}\)

The Tabriz bazaar is an economically sustainable environment. Its architectural shell houses different activities and land uses, with a mix of built space and outdoor space. The central courtyards of the bazaar help regulate interior air and provide beautifully landscaped open spaces. By using local materials in the construction process and providing a pedestrian oriented environment the bazaar reduces air, land and water pollution. The bazaar not only provides a safe and healthy environment for both the workers and shoppers, but also creates employment and produces goods.

\(^{10}\) http://en.wikipedia.org/wiki/Tabriz_Bazaar


2.4 ISFAHAN BAZAAR, ISFAHAN, IRAN (illustrated study)
Drawings by author, based on sketches by Kenneth Brown in *Bazaar route from Friday Mosque to the Maidan*.
Looking south - the Naqshe Jahan square surrounded by two storey arcades.
A section through the Qaysariya gateway and the bazaar

Dome rises over every street crossing, usually above a central water feature
Exit: dark arched passage way, defines the transition between the quiet stillness of the mosque and the busy outside world.

Open courtyard surrounded by walls of blue tiling.

Friday Mosque
Nearly a thousand years old and one of the most important buildings in Isfahan.
Friday Mosque

Sketch showing the entrance to the mosque from the south east courtyard. Lines of retail stores occupy both sides of the entrance, importance is given to the entrance of the mosque by its mass height and span compared to the retail spaces on either side. The entrance to the retail stores is protected from the weather by canopies, which also help define each individual store entrance and also portray a separation from the mosque. The Friday Mosque sits on a higher ground level in the landscape to gain emphasis in its importance as a place for prayer.

Arched entrances lead straight to the south west bazaar space which is roofed by brick vaulting.
The mosque is well woven with the urban fabric through its many entrances, blurring the boundaries between the mosque and the residential/commercial spaces.
Sketch showing small retail spaces on both sides of the linear walkway of the bazaar.

The brick vaulting is the main feature in this route.

The merchandise display helps soften the harsh tunnel design of the bazaar.
Entrance to the bazaar through the Qaysariya gate
Ali Qapu was used as a grandstand by the royal family for viewing the activities that occurred within the bazaar. The building extrudes outwards from the line of shops, demanding authority.
The passageway to the central domed space is dark and disorientating until it leads to a sudden splash of colour of the domed space.

Richly tiled entrance set back from the line of shops. The main square is not oriented towards Mecca therefore the mosque is oriented to be aligned with Mecca.
Sketch showing goods displayed in front of the line of shops and the Shah mosque and its high standing minarets in the distance. The entry to the mosque consists of glistening tiles.
Monajem caravansary

Golshan caravansary (one of the largest in Isfahan)
Golshan caravansary

Commercial complexes around a large courtyard consisting of vegetation and a central water feature.

Several entrances lead to this space, one of the entrances leads to a warehouse where goods are weighed, examined, listed and stored. Another entrance is used by merchants, leading them to the administrative centre where again the goods are examined.
**Madasseh (religious school)**

Where students are trained to become imams (holy men). The entrance is usually arched and closed by a large wooden door which leads to a dimly lit octagonal hall. These spaces surround a large courtyard 25m by 30m. A shallow pool is located at the center of the courtyard, helping keep the air cool.
3.0 THE SENSES AND ARCHITECTURE

Today’s contemporary construction conveys flatness and a weak sense of materiality. Natural materials, such as brick, wood and stone allow the vision to penetrate their surfaces, portraying a sense of honesty. Natural materials allow for their age and history to be read, creating a certain enriching quality and experience.13 The new bazaar design aims to use natural materials, allowing the bazaar to slowly age, and to reuse materials that currently exist on the site, such as the aged bricks of the existing 105-109 structures on the site.

The central themes of Modern Architecture are transparency and weightlessness, but in recent decades a new type of architectural imagery has arisen, consisting of reflection, transparency, layering and juxtaposition to create spatial thickness, alongside subtle changing atmosphere of light and movement.14

“A walk through a forest is invigorating and healing due to the constant interaction of all sense modalities.” 15

Architecture is basically an addition of nature into the man-made territory, the ground used for perception and the horizon for experiencing the world. Architecture must have a multi-sensory quality in order to be experienced successfully. The qualities of space, matter and scale are measured equally by all senses. 16

“The eye is the organ of distance and separation, whereas touch is the sense of nearness, intimacy and affection...During overpowering emotional experiences, we tend to close off distancing sense of vision; we close the eyes when dreaming, listening to music, or caressing our beloved ones. Deep shadows and darkness is essential, because they dim the sharpness of vision, make depth and distance ambiguous, and invite unconscious peripheral vision and tactile fantasy.”17

Light and shadows play an important part in the overall experience of a bazaar; they add depth, mystery and create spaces of significance by illumination. When shadows and light are combined together they create inviting and intriguing spaces. Brightly/evenly lit spaces disable the imagination and erase the sense of space. “The human eye is most perfectly tuned for twilight rather than bright daylight.”18

Sound provides a space with a sense of intimacy and interiority. The significance of hearing in spatial experience is usually not noticed, even though sound plays an important factor in bringing a space to life and creating spatial continuity. Today’s contemporary spaces, due to their wide corridors do not return sound, echoes are absorbed and suppressed, and the recorded music frequently played in public spaces and shopping malls screens our ears from experiencing the acoustic volume of space.19

13 Juhani Pallasmaa, The Eyes of the Skin, (Hoboken, NJ:John Wiley & Sons Ltd, 2005), 31
14 Ibid, 32
15 Gaston Bachelard, The Poetics of Reverie, (Boston, MS: Bacon Press, 1971), 6
16 Pallasmaa, Eyes of the Skin. 41
17 Ibid, 46
18 Ibid, 46
19 Ibid, 51
Often the most dominant memory of any space is its smell. A particular smell instantly triggers memories and we unintentionally re-enter a space which had been forgotten by the visual memory.\textsuperscript{20} The smell of different spices, odours and perfumes within a bazaar keeps the visitor moving from one space to another.

4.0 AIM/OBJECTIVES

The aim of this research project is to explore the ways in which an architectural space can awaken the four senses using the architectural form and function of a bazaar. In order to do this, one must aim to create more than just a retail environment but rather a stimulating journey. The bazaar is the perfect example of architecture that leads one through a journey of senses. It does this through its spatial arrangement, its compression of programme, and through architectural components. These include glazed arches that play with vision, natural light and shadows, and mazes of corridors that create anticipation for the traveller, leading them into large halls filled with rays of light that shine through decorated pierced domes.

This bazaar is also more than a retail environment in that it is a place where one learns about different trades and about how various goods are created. This not only increases our knowledge, but makes us appreciate the hard work and skill that goes into creating handcrafted products.

The bazaar therefore allows tradesmen to not only sell their work, but to showcase and pass down their talent and knowledge. For such an environment to be successful a certain amount of architectural transparency is required, allowing the visitors to view and enter the workshops, therefore public and private spaces must be established.

A traditional bazaar is linked to a mosque and school. Therefore this bazaar design will create a connection with the May Road Primary School, which is across the road from the site. A performance/storytelling space will attract the students of the school to the bazaar, where they can experience and learn about different trades, arts, crafts and cultures.

Mt. Roskill is home to the majority of Auckland’s Muslim population, especially in areas close to the site, such as Richardson and Stoddard Road. A small mosque is located on Stoddard Road across from a row of Middle Eastern and Indian stores. The local community has expressed its concern that the Mosque is too small. The growing Muslim population in the area has created a need for a larger, more pedestrian friendly Mosque. At present the Mosque is mainly used by the male population and women are not welcome at all times, due to the male dominated atmosphere. Therefore a larger Mosque will be built within the bazaar that accommodates men and women, and solves the pedestrian traffic problems that the existing Mosque is facing.

\textsuperscript{20} Ibid., 54
5.0 CHOSEN SITE

The site is located at 105-109 May Road, in the Auckland suburb of Mt. Roskill. The site contains two semi abandoned structures. The structure at 105 May Road was originally used by “Royal Chef Houseware”, and at the moment is used as a storage facility. The building at 109 May Road was originally occupied by M.I. Mansell Enterprises and seems to have been used for storing car parts. At the moment it is partially used for storage and the rest of building is abandoned and in poor condition. Both buildings have good potential for recycling parts of their brick walls. Because the main building material used in bazaars is brick, the reuse of existing brick walls will, not only create a link with the history of the site, but will also link to the traditional construction of a bazaar.

The site is interesting as it separates May Road’s high-rise area with its low-rise residential area. The site is vast, which makes it ideal for a bazaar. There is an issue with the site with regard to its connection to the main road (May Road,) as there is a change in elevation of 1.5m from the site to the road. Also, there is a lack of connection between the existing residential area and the site, which needs to be addressed in order to bring the local population into the site through pedestrian corridors.

The site’s location is ideal as Mt. Roskill is home to one of the most multicultural suburbs in N.Z. With a mix of East and South-Asians, Indians, Pacific Islanders, and European middle class community all living in this area.

The site is in close to May Road Primary School, Winstone Park, and Richardson Road Medical Centre and also has easy access to the South Western Motorway and Auckland Airport.
Mt Roskill Religious Affiliations

Highest percentage of the Muslim religion in NZ, according to the Mt. Roskill electorate profile.

Mt Roskill Ethnic Makeup

People reporting themselves in more than one category have been counted in each.

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>European</td>
<td>38.9%</td>
</tr>
<tr>
<td>Maori</td>
<td>5.8%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>14.6%</td>
</tr>
<tr>
<td>Asian/Middle-Eastern</td>
<td>42.3%</td>
</tr>
<tr>
<td>Other</td>
<td>5.4%</td>
</tr>
</tbody>
</table>
5.1 SITE HISTORY

- 1841. Ngati Whatua sold the land around the volcanic cone of Puketapapa (Mt. Roskill) to the crown.

- 1844. Plots of land were bought by Alexander Kennedy, the New Zealand manager of the Union Bank of Australia.

The public assets of the district consisted of seven formed roads. The roads were built to allay the fears of attack from Maori tribes during the decade of war, to provide quick escape, and May Road was one of the seven.²¹

Later owners included the first chairman of the Mt. Roskill highway district, Deputy Province Superintendent and Franklin MP, Joseph May (after whom May Road is named).

- 1849. Joseph May bought 429 acres of land, which included Mt. Roskill. His homestead reached from Mt. Albert to Epsom Road by a long, private avenue lined with stately trees. The estate was bounded on one side by May Road, which is 2.6km long. When he died the Winstone family bought May’s estate from his sons and the land was gradually subdivided.²²

- 1879. The area around Mt. Roskill was described as ‘a cleared, beautifully undulating country dotted with picturesque homesteads and shining in emerald green with the verdure of luxuriant crops’²³.

- 1912. The only outlet to the Waitemata side of the Auckland peninsula was May Road, then a narrow cattle path through muddy land where vehicles could not venture in wet weather²⁴.

- 1920. May Road had a clustering of clothing manufacturers, including the Korma Textile Mills. By 1955 the company employed 936 staff and covered more than five acres of land²⁵.

- 1940. State housing development began in the area.

- 1970. Developments of industrial land on Stoddard Road and May Road included trades associated with building construction, engineering, manufacturing and warehousing were established²⁶.

- 2011. May Road has recently taken on some new developments, with the renovation of Gilmores next to the site and new apartments built across the street.

²²Ibid, 32.
²⁴Reid, Not Just Passing Through, 58.
²⁵Ibid, 117.
6.0 DESIGN PROCESS AND DEVELOPMENT

6.1 ESTABLISHED DESIGN PRINCIPLES:

- Developing a series of routes connecting the bazaar to the existing residential and commercial/industrial on either side
- Creating a central pedestrian route running through the bazaar
- Working with the two existing structures on the site
- Incorporating the two existing programmes on the site (cutting workshop/panel beaters) into the new bazaar design
- Matching the height and grain of massing on the site, according to the surrounding environment
- Allowing pedestrian and vehicle access ways to the bazaar
- Mixing of traditional and contemporary architectural aesthetics

6.2 PROPOSED BAZAAR PROGRAMME:

- Mosque
- Loading zone / storage
- Retail space / workshops
- Tea houses/cafes/restaurants
- Market and performance spaces
- Courtyards
- Parking zone
- New residential housing
ACCESS POINTS

There are several access points located into the bazaar, including four main pedestrian access ways from the residential side of the site to the bazaar, plus access from four of the existing residential homes on the south side of the site. Three pedestrian access ways and one vehicle access way are located on the South East side of the bazaar, facing May Road. Three pedestrian access ways and one vehicle and truck access point are located on the North side and one pedestrian and vehicle access ways are on the North West side.

PARKING ZONE

A bazaar is predominately a pedestrian oriented zone; therefore the design of the May Road bazaar puts more emphasis on pedestrian walkways to and throughout the bazaar than it does on vehicle zones. There are three main parking zones located on the industrial/commercial side of the site, providing 155 parking spaces. The bazaar will make use of existing parking spaces located on the North to North East side of the site. These parking spaces will be mostly used at the weekends when the visitor population of the bazaar is expected to be the highest. These parking zones of the companies located on the North are mainly empty during the week and unused during the weekend. The parking space located at the back (North West side) of the bazaar has been elevated by two metres to separate it from the pedestrian walkway in front of the retail shops and also to allow for seating and vegetation around the parking perimeter.
MOSQUE

The Mosque will consist of an exterior water fountain for purification ritual, a prayer hall for both men and women and a mihrab (niche in the middle of the Qibla wall), defining the direction of Mecca, 261° from true north) magnetic north will be about 20 degrees east of true north in NZ, therefore the mihrab will be facing the South West side of the chosen site. A window located above the mihrab will show its position from the exterior.

The Mosque will be positioned on the highest existing point of the site (South West), and will connect to both the existing residential areas and to the bazaar space.

The mosque is to have a subtle exterior form and use materials similar to those found in the surrounding residential buildings, such as weather board and brick. This will create a feeling of welcome for visitors as a religious building, such as a mosque, may create an unwelcoming feeling for visitors to the bazaar.
The interior of the mosque will contain an inward designed dome, and steel braced structure. The steel braced structure creates a visual and material link to the two existing buildings on the site.

A cluster of spherical lights will be suspended by cables from the mosques walls and steel ceiling structure. This lighting system will also be used throughout the bazaar, and will reference the suspended naked bulbs used in a traditional bazaar.

When entering a mosque shoes must be removed in order to show respect and maintain hygiene. Therefore, built in shoe storage will be provided on the back wall of the mosque, opposite the mihrah wall. Pierced screens will be used in the mosque to create a transitional walkway from the semi-lit corridor to the brightly lit prayer hall.

The mosque is semi-hidden from the bazaar so that visitors to the bazaar come upon it as they make their way through the bazaar. The retail spaces located around the mosque contain functions such as Islamic arts and crafts and Islamic motifs (functions relating to the mosque).
LOADING ZONE / STORAGE

The loading zone and storage facilities are located on the North side of the site which allows for a separate truck and vehicle access from the existing industrial/commercial side of the site. The loading zone will retain existing businesses such as a cutting workshop and a panel beater currently housed in buildings that will be removed from the West side of the site. These programmes will be kept as they are well suited to the function of the bazaar. Their relocation will advantageously position them close to the commercial/industrial side of the site, away from the quieter residential areas. The cutting workshop, panel beaters and storage space will be positioned around a north-facing courtyard, which will consist of parking spaces, screened-off seating and a vegetation zone.

RETAIL SPACE / WORKSHOPS

The different programmed retail spaces and workshops are located within the bazaar according to the existing site environment. Less noisy spaces such as Arts & crafts workshops, pottery, textile/rugs, spices and fruit/vegetable retailers are mainly located towards the residential side of the site while louder programmes such as metal works, carpentry/woodworks, cutting workshop and panel beaters are located towards the industrial commercial side. Tea houses/cafes and restaurants are widely dispersed throughout the bazaar, as they will be highly used by the bazaar population. Spice shops and fruit & vegetable shops are located by the main entrances to the bazaar to help attract visitors by opening their senses to the smells and colours. The bazaar consists of programmes in fixed retail zoning and also retail spaces for mixed-used programmes. The main pedestrian route of the bazaar runs from the South side to the Northwest side, through the centre of the bazaar. The size and height of the retail spaces are determined mainly by the scale and height of the existing surrounding buildings. The retail spaces range from 15m² to 56m², and are no more than two levels, although the floor to ceiling height varies. A bazaar space is more than just a retail environment, therefore these spaces have to house both retail and workshop zones. In these retail shops/workshops, retail will be on the ground floor while workshops will be on the top floor. There is to be a certain transparency between the workshops and the visitors to allow the visitors to observe how the goods they purchase are created and to bring the bazaar environment to life visually and with sounds and smells. Each shop/workshop is provided with interior and exterior display greens where goods will be hung to be viewed and touched by visitors the bazaar.
MARKET AND PERFORMANCE SPACE

The bazaar consists of two market zones, mainly used during the weekend by the community. The outdoor market space lies at the South side of the bazaar and next to the existing plantation resort. The market space makes use of the existing 1.5m drop in the ground level which separates the market space May Road. The second market zone is located within the bazaar space which makes use of the existing 109 building on the site. The indoor market zone is bordered with textile/rug retail spaces and opens to a North facing exterior courtyard.

A large performance space is located beyond the Southern pedestrian access to the bazaar. The space will be largely used by the May Road Primary School, for story telling sessions dance and drama performances. This creates a link with the school and brings the community together to learn about different cultures. The performance space is surrounded by mixed use retail spaces, workshops, tea houses and cafes. The space steps down by one m and is screened off on two sides to create a sense of separation from the retail/workshops and cafes. This interior space also opens up to the South-western courtyard, which is also accessible through the plantation reserve and the existing residential.
COURTYARDS

An important part of a bazaar is the mix of indoor and outdoor spaces. Seven open courtyards are located throughout the bazaar. These contain vegetation, water features and seating and will be used for relaxation and social gatherings. The covered corridors and walkways of the bazaar will be dimly lit; therefore, there will be a strong visual transition as the visitor walks through a semi dark corridor into a large, naturally-lit courtyard.

NEW RESIDENTIAL HOUSING

In traditional bazaars housing is sometimes provided on the second floor of the retail stores or on the second of the caravansary. The housing above the retail store is occupied by the owner of the retail store below, or is rented to a tenant of the owner. The housing around a caravansary is usually considered to be temporary, or overnight housing used by the men of the caravan trade, as they usually travel long distances to deliver the goods.

The May Road bazaar consists of twelve, two level housing units behind the retail stores closest to the residential side of the site (North-west). Each residence has two entrances; one at the back on the ground floor, the other up a stairway next to the retail space. Each residence is approximately 84 m² and contains three bedrooms, two bathrooms, a kitchen and a living space. Open space and a social space are provided at the back of the housing complex. Housing at the North-west end of the site provides a convenient housing option for those who work in the bazaar and creates a sense of security during the night for this end of the site.
INCORPORATING THE TWO EXISTING STRUCTURES ON THE SITE

Two of the existing factory buildings on the site are to be kept and incorporated into the new May Road bazaar design. Both factories have very poor exteriors, but their interior, primary steel structures has been well-maintained. The exterior skin of the factories consists of timber, corrugated steel and brick. The brick is in moderately good condition; and will be reused throughout the new bazaar.

The adaptive reuse of the two structures into adds visual and historical depth, as it creates a connection with the site’s history. Both structures occupy a large portion of the overall site, and their set forms create fixed points for the planning of the bazaar and the positioning of the mosque and loading zone. The space in between the two structures, which is approximately at the centre of the bazaar, becomes the start of the main path. Both structures will be bordered by retail stores, some positioned within the existing boundary of the factories and some along the outside of them. The structure at 105 May Road is to be dedicated mainly to the rug/textile trades of the bazaar; this will create a strong visual impact and give the space a sense of importance, as this is one of the most important trades within a bazaar. The rug/textile arcade has three entry points: one from the main central path, one from the South-east side through the pottery arcade, and the third from the North-east courtyard, which is linked to the parking zone. The large 715m² space in the middle of the rug/textile arcade will be used for indoor market days, mostly on weekends.

The second significant trade of a bazaar is the jewellery trade. Therefore the structure at 109 will primarily be dedicated to this trade. The space in the centre of this structure will be occupied by a large water feature and seating for social gatherings. There are four access points to this space, two from the main central route of the bazaar and two from the southern path.
7.0 DESIGN STRATEGY AND ELEMENTS USED IN THE MAY ROAD BAZAAR

One of the most prominent features of the Iranian bazaar is the concentration on interior spaces and surface, rather than on the exterior facades. In fact the only exterior architectural elements with any emphasis on surface treatment and geometry are the entrance portals, which provide the visitor with a hint of what is awaiting them inside. The enclosed spaces of the bazaar, as defined by walls, vaults and arcades, are decorated with geometric patterns and Islamic motifs in the form of brickwork, reflective/shiny materials such as polished ceramics and pierced screens/ facades, which in the right light, can create a ghostly and weightless appearance.

The use of pierced screens in the bazaar allows for the pattern on the screen to cast shadows on to adjacent walls, ceilings and floors, linking the planes together and creating continuity of surface. A series of pierced screens will be used throughout the May Road bazaar to separate spaces, and to create a visual link between different spaces. The screens will also be used to give the visitor a glimpse of a space beyond the screen and help draw the visitor towards that space. The pierced screens will also act as display surfaces for the retail shops, as an important aspect of the bazaar interior is the display of goods in front of each retail space. These displays create a strong visual effect of decorative layering and awaken the sense of touch to life as the visitor passes the different textured goods. The screens materiality will be determined by their place within the bazaar. For example, the screens located close to the residential side of the site will be made of timber while the screens towards the commercial/industrial side of the site will be fabricated from steel or concrete.

The screens patterns will be used repetitively on other surfaces in the bazaar such as floors, seating, water or plant features and niches.

The green wall system is another element that will be used throughout the bazaar to help link the exterior spaces with the interior. Green walls also provide cleaner air, as their leaves, roots and all of the microorganisms within them assist with air cleaning. The green wall system will allow visual thickness to be added to the walls, as traditional bazaar walls are approximately 500mm thick due to the use of brick as their major material.

Bazaars often make use of intruding surfaces, such as wall niches for seating and resting zones. These niches and surfaces are decorated with layers of brightly coloured cushions, textile and rugs, which create visual complexity and bring these spaces to life.

The maze of pedestrian corridors in a bazaar is usually covered by pierced, vaulted or arched ceilings. In the May Road bazaar, the concept of the vault and arch have been used in a more contemporary manner.
An interesting feature of Iranian bazaars is the use of suspended, draped, and folded textile curtains over entrances, for privacy, decoration and protection from the elements. An example is shown in the picture on the right: large textile curtains are draped and the corners slightly folded back over the Qaysariya gate at Isfahan bazaar, Iran.

Inspired by this curtain that combines hard and soft materials, a series of contemporary draped and folded concepts were designed for the entrances of the May Road bazaar shops in order to create a sense of visual importance, and protect shops from the elements. Two curtain types were developed. Type one, which consists of carbon fibre (plastic reinforced by graphite textile) is used on the residential side of the bazaar, and type two which is made from light weight, pre weathered steel is used on the industrial/ commercial side of the site.
8.0 DESIGN DEVELOPMENT
SECTION THROUGH THE MOSQUE COURTYARD AND RETAIL SPACES
1. MOSQUE
2. LOADING ZONE/STORAGE
3. CUTTING WORKSHOP
4. PANEL BEATERS
5. OPEN MARKETS
6. INDOORMARKETS
7. PERFORMING/ STORY TELLING ZONE
8. DISPLAY ZONES

MAIN ROUTE
PEDESTRIAN ACCESS
VEHICLE ACCESS
WATER FEATURES
VEGETATION
GREEN WALLS
PIERCED SCREENS
RESIDENTIAL

W/C
STORAGE
TEA SHOPS/ CAFES/ RESTAURANTS
JWELLERS
TEXTILE / RUGS
POTTERY
FRUITS & VEGETABLES
SPICES
ISLAMIC ART & ARTEFACTS
METAL WORKS
CARPENTRY / WOOD WORK
PLAN OF MAY ROAD BAZAAR

1. MOSQUE
2. LOADING ZONE / STORAGE
3. CUTTING WORKSHOP
4. PANEL BEATERS
5. OPEN MARKETS
6. INDOOR MARKETS
7. PAPERMAKING / STORY TELLING ZONE
8. DISPLAY ZONES

MAIN ROUTE
PEDESTRIAN ACCESS
VEHICLE ACCESS
WATER FEATURES
GREEN ROOFS
PERIODIC SCREENS
RESIDENTIAL
WC
STORAGE
TEA SHOPS / CAFES / RESTAURANTS
JEWELLERS
TEXTILES / RUGS
POTTERY
FRUITS & VEGETABLES
SPICES
ISLAMIC ART & ARTIFACTS
METAL WORKS
CARPENTRY / WOOD WORK

CUTTING WORKSHOP
PLAN OF MAY ROAD BAZAAR

1. MOSQUE
2. LOADING ZONE / STORAGE
3. CUTTING WORKSHOP
4. PANEL BEATERS
5. OPEN MARKETS
6. INDOOR MARKETS
7. PERFORMING / STORY-TELLING ZONE
8. DISPLAY ZONES

MAIN ROUTE
PEDESTRIAN ACCESS
VEHICLE ACCESS
WATER FEATURES
GREEN WALLS
PIERCED SCREENS
RESIDENTIAL
WIR
STORAGE
TEA SHOPS / CAFES / RESTAURANTS
JEWELLERS
TEXTILE / RUGS
POTTERY
FRUITS & VEGETABLES
SPICES
ISLAMIC ART & ARTIFACTS
METAL WORKS
CARPENTRY / WOOD WORK

PANEL BEATERS
STORAGE
TEA SHOPS / CAFES / RESTAURANTS
FRUITS & VEGETABLES
SPICES
ISLAMIC ART & ARTEFACTS
CARPENTRY / WOODWORK
PARKING
PLAN OF MAY ROAD BAZAAR

MAIN ROUTE

1. Mosque
2. Loading Zone / Storage
3. Cutting Workshop
4. Panel Beaters
5. Open Markets
6. Indoor Markets
7. Performing / Story Telling Zone
8. Display Zones

MAIN ROUTE
PEDESTRIAN ACCESS
VEHICLE ACCESS
PIERCED SCREENS
CONCLUSION

9.1 CRITICAL APPRAISAL

The research project slightly changed direction over the past several months, as originally the aim was to provide a social/cultural centre for the Iranian community within the context of a bazaar. The programme was changed to broaden the cliental market and to cater for not just the Iranian community, but also the wider community.

The decision to also cater for the wider community provided the project with design issues, such as the type of bazaar programme and to what extent they will be used to not only attract the Iranian community but also the wider community.

The research project aimed at using the concept and architectural components of a bazaar in a contemporary manner in order to create spaces that stimulate and awaken the visitor's senses. Therefore, it was crucial to conduct research on existing bazaar programmes and spaces. The research was carried out through a series of annotated analytical sketches and plans of two traditional Iranian bazaars, and also through readings on the traditional a bazaar, its different components, how they work together and how they affect the senses.

As established in the precedent research, the bazaar has a strong connection with the mosque; therefore research had to be done regarding the function and rules of a mosque. Decisions had to be made with respect to the architectural form of the new mosque, its relationship to the existing site environment and its connection to and relationship with the residential side of the site.

Research was also done on existing markets and shopping centres within Auckland City, concentrating on their visitor and vehicle population, layout, function of their programmes and size comparisons with the chosen site of the new bazaar.

The decision was made halfway through the project to incorporate the two existing structures on the site into the bazaar design. This allowed for a connection to the site's history and also established fixed programmatic and spatial points on the site. Similarly the two existing programmes (cutting workshop and panel beaters) were moved to more appropriate locations within the new bazaar. The two programmes were kept as their function was suitable for the bazaar programme, which aims at extending the retail environment to include spaces of production.

The overall bazaar design was highly influenced by the surrounding environment, which determined the forms, heights and programmes within the bazaar.

9.2 FINAL DESIGN EVALUATION

RESEARCH QUESTION - Can the concept and architectural components of a traditional Iranian bazaar be used as a means of creating a new type of retail/social environment that engages the senses, within a less traditional Auckland setting?
The combination of traditional bazaar design, and contemporary design has proven to be a difficult issue throughout the design process. Issues were faced regarding the positioning of the mosque on the site and its close proximity to the existing residential development on the West side of the site. To maintain sensitivity to the existing environment, the mosque was made to be less imposing, by positioning it on a lower ground than the existing residential. The lowering of the ground level allowed the mosque to still be positioned on the highest point of the site, while creating a slight visual division with the residential.

Another important design decision was determining the positioning and amount of vehicle parking provided for the bazaar. This was a difficult issue as bazaars are pedestrian-oriented spaces and do not provide allocated parking zones. To ensure that this pedestrian-oriented quality is kept, parking zones have been broken up, partially hidden, and limited to designated areas around the bazaar. Use has been made of existing parking zones, especially on weekends when the number of visitors to the bazaar is expected to rise.

The architectural design of the bazaar consists of a mix of traditional components and elements with a contemporary twist such as experimenting with different screens/ green walls, curtain types, natural and artificial lighting means and outdoor spaces, together creating an environment that is more than just retail, but rather a stimulating journey for the senses.
**BIBLIOGRAPHY**


“Avondale Sunday Markets”  
http://www.avondalesundaymarkets.co.nz/

“Sylvia Park centre”  
http://www.kipt.co.nz/f551,27033/25651_4162_SylviaPark_Update_Presentation_June_2005-16.05.05.pdf

“Tabriz Bazaar”  
http://en.wikipedia.org/wiki/Tabriz_Bazaar

“Bazaar of Tabriz; A sustainable architecture and urban area”  

“History of Mt. Roskill”  