

MACHANE YEHUDA

by
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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

Modern Jerusalem has developed against a background of conflict between the European powers and the Ottoman Empire, between Jews and Arabs, and between religious and secular Jews. These conflicts have fragmented the urban fabric and have created a city of ethnically segregated enclaves.

The thesis investigates this urban condition through detailed study of a particular institution, Jerusalem's Machane Yehuda Market. Since its foundation at the end of the nineteenth century, the market has undergone numerous transformations as the city grew and the conflict evolved but, throughout, it has remained a rare place of cultural and economic exchange between otherwise separate communities. The cosmopolitan character of the market suggests a more hopeful alternative for the city and the region, but this character is threatened by changing circumstances. Persistent sectarian tensions continue to encourage increased segregation and, at Machane Yehuda, the problem is compounded by a severe lack of infrastructure, which restricts the market's ability to operate in the face of increased economic competition and the redevelopment of the surrounding area.

In response to these operational requirements, a new logistics terminal is proposed for Machane Yehuda. By ensuring the market's economic viability, the terminal will sustain an institution that encourages coexistence in the centre of Jerusalem.

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to Mom and Dad, and to Myriam

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Once I was sitting on the steps near the gate at David's Citadel and I put down my two heavy baskets beside me. A group of tourists stood there around their guide, and I became their point of reference. "You see the man over there with the baskets? A little to the right of his head there's an arch from the Roman period. A little to the right of his head." "But he's moving, he's moving!" I said to myself: Redemption will come only when they are told, "Do you see that arch over there from the Roman period? It doesn't matter, but near it, a little to the left and then down a bit, there's a man who has just bought fruit and vegetables for his family.

- Yehuda Amichai, "Tourists"

INTRODUCTION

I visited Jerusalem for the first time as a fourteen year old on a family trip, a year after my bar mitzvah. I had heard about the holy city for years in Hebrew school and I had high expectations. Inevitably, my encounter with the real city was a disappointment. The Jerusalem I found seemed too ordinary; life here was too much like every other place in the world. Traffic jams and garbage trucks had no place in my idealized image of Jerusalem. The city of Jewish history I was expecting to find turned out to be a few barely recognizable ruins, often in neighbourhoods we were afraid to enter.

Over the next few years, I visited Israel several times and in May 2006, I moved there for an internship. At first, I did not see much to change my initial impression. I had spent a month and a half in Haifa a few years earlier and by comparison, Jerusalem, despite being much larger, seemed dull and provincial.

Much of the city's problems are the result of the political conflict. The population is rigidly divided. Approximately one third of Jerusalemites are Palestinian Arabs, who were living in East Jerusalem when Israel conquered the area in 1967. The remainder are Israeli Jews who are further divided by religious observance and ethnic origin. Each group has its own neighbourhoods, commercial districts, and communal services. Phillip Misselwitz and Tim Rieniets write:

The notion of the city as the “unified city” remains fragile rhetorical acrobatics. In reality, residents of the city do not experience the urban territory as a continuum, but conduct their everyday lives within almost completely separate social and economic systems.¹

The deepest divisions, described above, exist between Jews and Arabs, but similar conditions can even be found between various components of the Jewish population. The Jewish Jerusalemites are split religiously into three groups: secular, nationalist religious and Haredi or ultra-orthodox; and ethnically into two: Ashkenazim, of European ancestry and Sephardim, of North African and Middle Eastern ancestry. Secular and nationalist religious Jews share a common urban realm, but the Haredim live in distinct enclaves within the Jewish city in order to protect their way of life from corrupting outside influences. A class divide exists between Ashkenazim, who continue to dominate Israel's political and cultural elite, and Sephardim, who suffer from discrimination.

Yet, Jerusalem is still, paradoxically where these communities interact most. Despite efforts to segregate the city, Israeli Jews and Palestinian Arabs live in closer proximity here than they do anywhere else. In the introduction to an essay about the Arab taxi drivers who work in Jewish West Jerusalem Yaakov Garb explains:

As I continued to live in the city, however, I kept hearing and seeing things that crossed the ethnic, religious, and national lines many of us have come to hate. These stories were no longer anomalous but evidence of a hidden shared life. Away from the posturing and political declarations about a united/occupied Jerusalem, everyday passions, kindnesses, mischief, and creativity weave us together—more than anyone dares to acknowledge. I share some of these stories because they are what makes life in Jerusalem livable, even enjoyable, for me. But I also want to suggest that they are indicative of a different kind of life, the kind that has been, is, and could be possible.²

Historically these encounters have occurred in the city centre. While the residential quarters have always been segregated, the commercial districts were mixed and straddled the boundaries between the communities. As tensions rose, the city centre was abandoned by much of the population for ethnically homogenous shopping centres in the suburbs. By the time I arrived, Jerusalem's downtown had shrunk to little more than a single pedestrian street, frequented by tourists.

When I began working on this thesis, I wanted to find a way to restore the vitality of this centre. I started by searching for a site where I could intervene. The first location I considered was an empty triangle of land, in front of Damascus Gate. The empty lot is a vestige of the no man's land that once divided East and West Jerusalem. It sits at a strategic point where the Arab city centre of East Jerusalem and the Jewish city centre of West Jerusalem meet in front of an important gate to the Old City. I thought the site would offer an opportunity to create a project that would bridge between east and west, and old and new, but as soon as I began, I started to doubt those assumptions. The permanent status of Jerusalem remains in question. Every peace plan contains some proposal for division, shared sovereignty or internationalization. Under many of these proposals, the site I imagined as a bridge might instead become an international border. In order to design on this site, I would first need to take a position on the final status of the city. This would inevitably shift my focus from the prosaic aspects of life

in Jerusalem to the realm of international relations and peace plans. This is a subject on which much has already been written and on which I felt I had little new to offer.

My personal bias as a religious Jew also restrained me. Although I do believe that an agreement between Israel and the Palestinians to equitably share the city is the most optimistic ending to the conflict, the re-division of the holy city is still a scenario I find emotionally difficult to contemplate and I hesitated to write a thesis on the subject. My identity also held me back in other ways. The Damascus Gate site is more a part of East Jerusalem than it is of West Jerusalem. Even though I lived in Jerusalem for a year and feel reasonably at home in the western half of the city, I have rarely ventured into the Arab neighbourhoods of East Jerusalem and they remain unfamiliar. My clothing, mannerisms and complexion mark me unequivocally as a Jew and a foreigner and I do not feel safe in the eastern city. Also, as a Jew who speaks Hebrew and not Arabic, I do not have the tools to design for the Arab inhabitants of the city.

I chose to shift my focus to a site in West Jerusalem that was more familiar and where issues of ownership and sovereignty were less controversial. The site was largely vacant, with a few abandoned institutional buildings occupying the remainder of the area. I liked the site because it was adjacent to the Machane Yehuda Market, which I already knew well from the seven months I spent living nearby. Unlike the desolate city centre, the market was always crowded with shoppers, and I enjoyed visiting to buy fresh produce or eat at its authentic and affordable restaurants.

I thought I could draw on the vitality of the adjacent market to create an interesting urban project but as I studied the context, my focus shifted to the market itself. My research gave me a new understanding of the market as a social institution; one that had the potential to unite the population of this otherwise fragmented city. The market became my primary focus and the adjacent site became secondary. I finally abandoned any intention to design on this site when construction suddenly began for a residential tower on part of the area.

Machane Yehuda owes its vitality to the unique role it plays in the divided city. It acts as the gateway to Jewish West Jerusalem, both physically because of its location on the main road from the coast, and economically as a place where goods enter and are distributed to the population. The market also straddles the boundary between the Haredi enclave and the rest of the Jewish city. Its location makes it a natural meeting

place for diverse elements of Jerusalem's population who work or shop in the market. The commercial nature of these interactions blunts the tensions that would otherwise make such meetings impossible.

As a result, the market has been a frequent target for Palestinian terrorists who wish to violently destroy any opportunity for coexistence. Various groups of Jewish extremists have sought to cynically exploit the resulting tensions in order to turn the disadvantaged Sephardim against the even more disadvantaged Arabs or the Ashkenazi establishment. Despite all these challenges, the interactions in the market still provide a rare opportunity to create real personal relationships between the various groups that share Jerusalem. The shop owners of Machane Yehuda are notably right wing and are opposed to accommodation with the Palestinians, yet they employ Arab workers and have long-term relationships with them. The customers of the market are a cross section of the Jewish population of the city. In Machane Yehuda, a poor, ultra-orthodox mother buying food for her family might encounter a group of secular students looking for authentic Yemenite cuisine. It is the only place in Jerusalem where such a meeting could conceivably happen.

After a period of neglect in the 1970's, the market has undergone a renaissance that was only made possible by fostering these personal relationships. Uri Amedi, a social worker who initiated the revival, was successful because he approached the vendors in the market as real individuals. He explained, "What's on the other side of the table? Not a stall owner, not a hooligan, there is a man, part of a community, part of a family, with a wife and children."³ Eventually Amedi was able to use these personal relationships to create a real community with an elected leadership that could renovate and operate the market. Their success has made Machane Yehuda a rare example of coexistence in the centre of Jerusalem.

Unfortunately the market today is being threatened once again. Boutiques and gourmet restaurants have opened in Machane Yehuda and are gradually changing its character. Simultaneously, a massive redevelopment project is occurring in the surrounding area that will increase residential densities and replace personal vehicles with improved public transit on a new tramway. Many aspects of the plan are commendable, but it does not allow for the high volume of shipping that is required to supply the market. As a result, it is becoming increasingly difficult and expensive for the traditional food stalls to operate and more boutiques and restaurants are taking their place. Unless the

situation changes, the unique community that exists in Machane Yehuda will gradually disappear and Jerusalem will have lost one of its most diverse public spaces.

In response, this thesis proposes a logistics terminal to be constructed at Machane Yehuda. The terminal provides service spaces to satisfy the market's operational needs and is supplied by a cargo tram that overcomes the traffic restrictions by using the new tramway's right of way. By providing new infrastructure to satisfy the market's operational needs, the terminal will preserve one of the few meeting places that still exist in this divided city.

The first part of the thesis, 'History,' describes the growth of the market and the evolution of its social role in the context of the modern development of Jerusalem. The second part, 'Analysis,' documents the forces that influence Jerusalem's growth and explains the operational challenges that the market now faces. The final part, 'Design,' presents the logistics terminal and cargo tram.

Providing groceries for the Sabbath meals is the market's most important function and determines its weekly rhythm. The Sabbath begins at sunset on Friday and ends after sunset on Saturday night. Work is forbidden on the day itself, so all food must be purchased in advance. On Sunday the vendors restock and prepare their shops for the week ahead. Shoppers arrive throughout the week, but their numbers grow as the Sabbath approaches.

A typical day begins in the early hours of the morning when the majority of the trucks come to unload. By the start of the morning commute, the trucks have left and the shops are ready for business. Most shops stay open until the early evening. Some of the restaurants are open later and host jazz concerts in the empty streets. At about 11:00 p.m., more trucks pull up in the open street to haul away empty boxes and start unloading the next day's produce.

Friday has a special character. Since most Israelis do not work that day, the market is filled with both leisure visitors and last minute shoppers. The mood is more relaxed in the morning: musicians play in the street and tourists mingle with the customers. By midday, the musicians are forced out by the jostling crowd. Prices drop towards the end of the day as the vendors desperately try to hawk what remains. This is because the market does not open on Saturday and most of the produce will spoil by the time the market reopens on Sunday morning. A couple of hours before sunset on Fridays, as the shops begin to close, the poorest shoppers arrive, usually from the Haredi neighbourhoods to the north. They pick through the piles of discarded, unsold vegetables. What they find will feed themselves and their families for the next week. Finally, just before sunset, a group of ultra-orthodox men, dressed in the striped blue and gold Sabbath robes of Jerusalem's Hasidim, descend on Machane Yehuda, armed with trumpets, to chase any stragglers out of the market before the Sabbath begins.

Figure 0.1. A truck unloads produce on Machane Yehuda Street before dawn.



Figure 0.2. As the sun rises, vendors arrive and begin preparing their shops for the day ahead.



Figure 0.3. Trucks continue to unload for several hours.



Figure 0.4. Arab workers use a hand truck to move emptied bins.



Figure 0.5. The first shoppers arrive while the last trucks are still unloading.



Figure 0.6. Friday is the busiest day. In the morning, buskers play in the open street.



Figure 0.7. Jerusalemites do their Sabbath shopping.



Figure 0.8. Vegetable, fruit and nut shops in one of the alleys of Machane Yehuda.



Figure 0.9. Most transactions occur across tables at the front of each shop.



Figure 0.10. The Friday crowd.



Figure 0.11. In recent years, the market has become popular with casual visitors, who frequent its coffee shops and boutiques.



Figure 0.12. A florist sells his remaining stock before the market closes on Friday afternoon.



Figure 0.13. Shops begin to close a couple hours before sunset on Friday. This is the cheapest time to shop in Machane Yehuda.



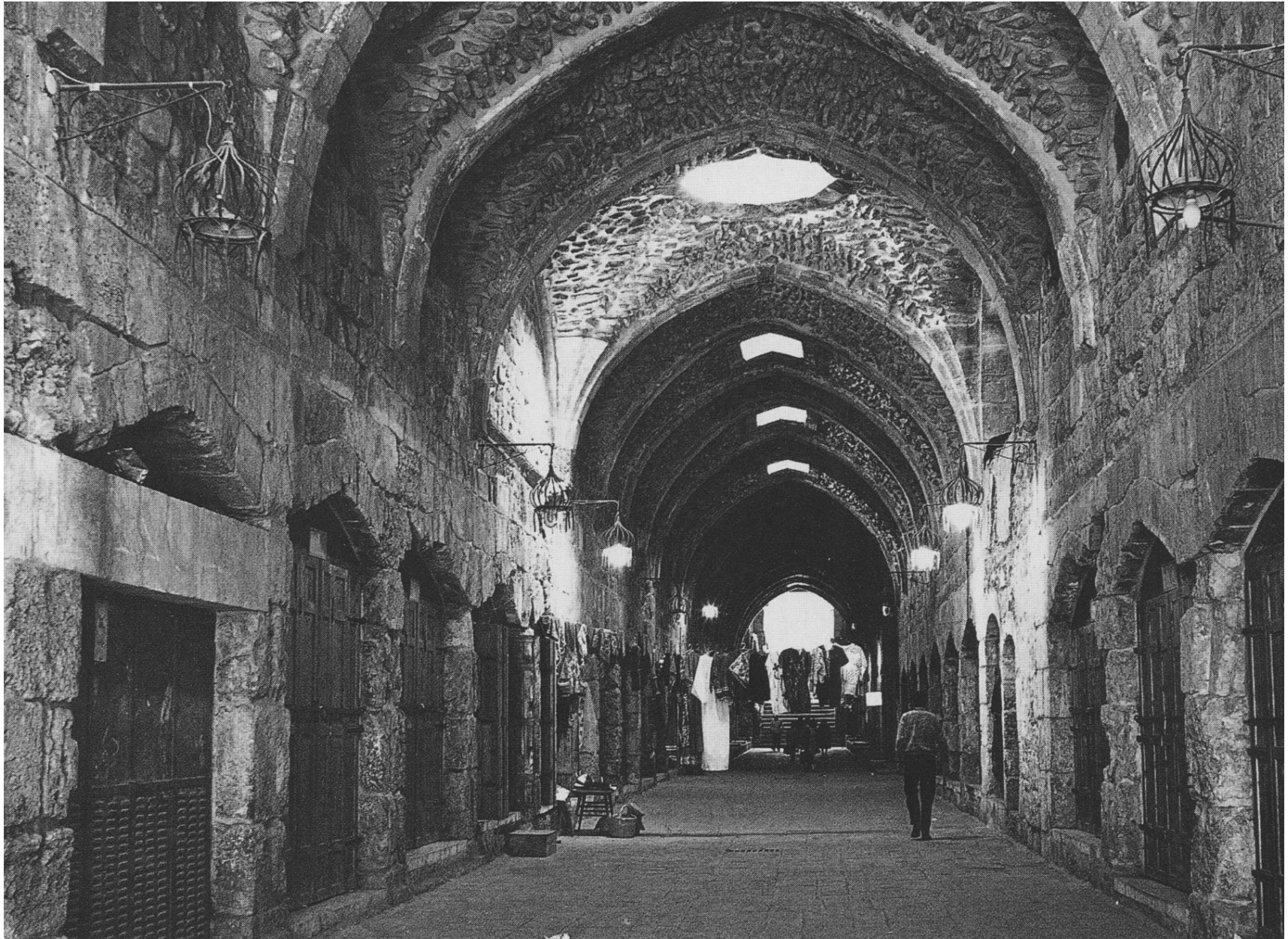
Figure 0.14. Last minute shoppers leave the market as a truck arrives to collect unsold produce and empty boxes.



Figure 0.15. Closed shops, Friday at sunset.



PART 1: HISTORY



THE BAZAAR OF JERUSALEM

All the markets are crowded with shops from one end to the other, and... are named for the merchandise sold in them. For example, one market is full of shops selling cotton and silk clothing and fabrics of all kinds... Others feature luxury goods; yet others, all kinds of scents which perfume the air from afar, not to mention nearby. There is a market selling foodstuffs, a market for shoemakers, for gold- and silversmiths, for coppersmiths, for blacksmiths, for cotton-merchants, for grain and pulse-sellers, and apothecaries.¹

- M. Reicher, 1870

Until the second half of the nineteenth century, Jerusalem was a minor town of the Ottoman Empire confined within the medieval walls. The city has always been a centre of pilgrimage but its remote mountain location isolated it from the important caravan routes that cross the region and connect the Mediterranean with the Indian Ocean. As a result, it has never played an important role in the transcontinental trade between Europe and the Far East. Instead, Jerusalem's markets serviced only its immediate hinterland and the pilgrims who came to visit the holy sites.²

The layout of the Old City still follows the Roman plan. The area enclosed by the walls is as close to square as the difficult terrain allowed. It has two main entrances: the Jaffa Gate, in the centre of the western wall is the terminus of the roads to the west and south, and the Damascus Gate, at the centre of the northern wall, is the terminus of the roads to the north and east. Two roads bisect the Old City. The first, on the alignment of the Roman *cardo*, runs south from Damascus Gate, and the second, on the alignment of the *decumanus*, runs east from Jaffa Gate to the Temple Mount. Jerusalem's markets are located along these roads. A wider central market is located northwest of the intersection of the two roads, the site of the old Roman forum. The markets divide the city into its four quarters: Christian, Muslim, Jewish and Armenian.³ The residential quarters were largely homogenous but the markets were shared by the entire population.⁴ Within the markets, the most intense commercial activity occurs inside the main gates and on the routes leading to the important holy sites.

The streets of Roman Jerusalem were broad thoroughfares lined with colonnades. Through the middle ages, the open spaces were divided to create the narrow streets characteristic of a Middle Eastern souk or bazaar. A similar process occurred in many

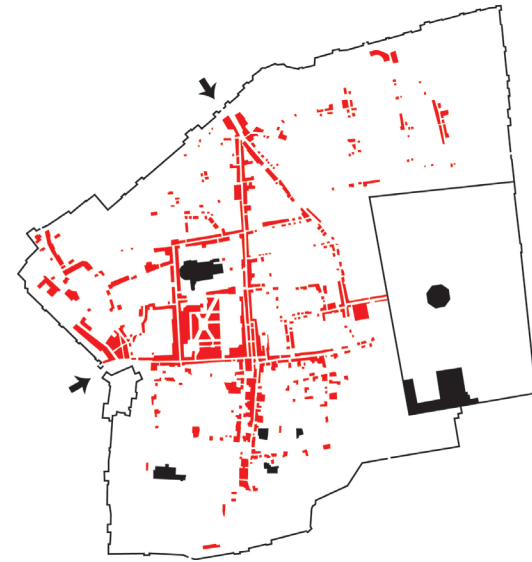


Figure 1.1. Facing: The Cotton Merchants Market is the most architecturally significant of Jerusalem's bazaars.

Figure 1.2. Above: Old City plan with businesses and workshops marked in red. The structure of the Roman city and the boundaries of the quarters are clearly visible.

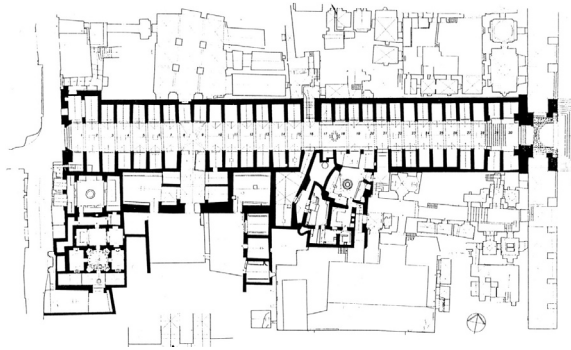


Figure 1.3. Above: Cotton Merchant's Market, plan. The vaulted street is flanked by shops on both sides. The market complex also incorporates a khan (caravanserai) and two bathhouses.

Figure 1.4. Facing: 1886 map. The future location of the Machane Yehuda Market is outlined in black. Only a few structures are shown outside the Old City walls.

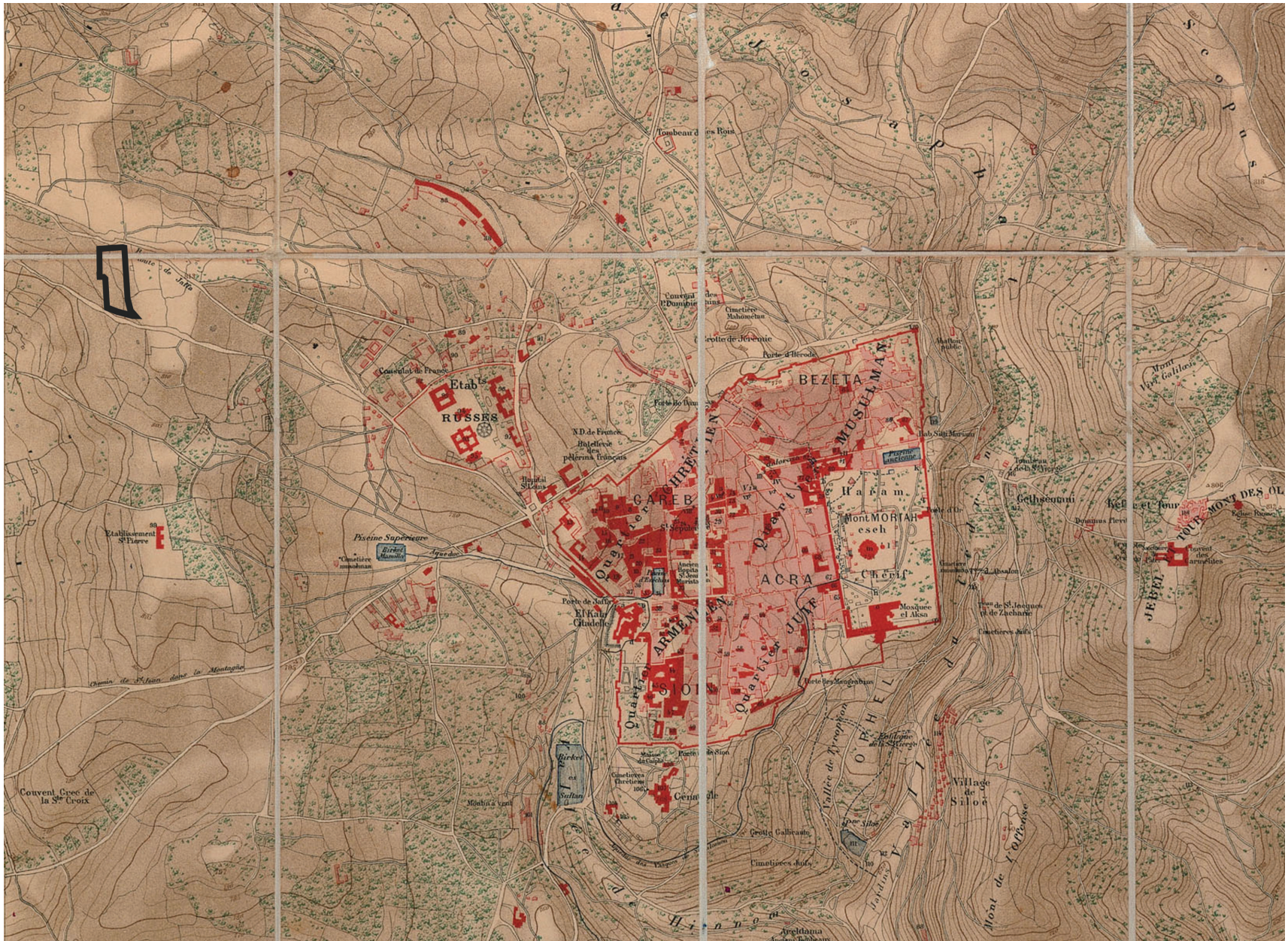
of the old Roman cities of the Levant, including Damascus and Aleppo. The streets of the bazaar are narrow, typically five or six metres wide. Both sides are lined with shops, often only a couple metres wide and three or four metres deep. The small interiors are used for storage or workshops. Goods are displayed in front of the shops and most transactions occur on the street, which is often protected from the elements by a vaulted stone roof. In Jerusalem, many of the vaults date from the crusader period and have been in continuous use.⁵








NEW CITY

Jerusalem only began to grow outside the walls in the second half of the nineteenth century. The Christians, backed by the European powers, were the first to build on the hills surrounding the Old City. They built a series of large churches and hostels to accommodate increasing numbers of pilgrims who were now visiting Jerusalem.⁶ The German Protestants built the Schneller orphanage northwest of the Old City in the 1850's⁷ and, soon after, the Russians received permission to build a compound just outside Jaffa Gate, on the former Ottoman parade grounds.⁸ Many more institutions followed as the powers competed for influence in the city.

The Jews were next to leave the walls. The population of the Jewish Quarter almost tripled during the first half of the nineteenth century, mainly due to immigration from Eastern Europe.⁹ The Jewish Quarter, the smallest in the Old City, quickly became overcrowded. In 1860, the British philanthropist, Sir Moses Montefiore built the neighbourhood of Miskanot Sha'ananim, southwest of Jaffa Gate. The twenty-two houses of the neighbourhood were given to poor Jews to alleviate crowding in the Old City. Despite the poor conditions in the Jewish Quarter, Montefiore's agents found it difficult to entice Jews to live outside the walls. Bedouin raids were still frequent and people were afraid to leave the city at night. In order to fill the houses, Montefiore was forced to pay people to live in the new neighbourhood. Even then, the new tenants did not stay overnight in the houses. They would spend a few hours there during the day but would return to the city at night.¹⁰

Through the 1860's, conditions gradually improved outside the walls. In 1867, the first attempt was made to pave the road to Jaffa, the closest Mediterranean port, which significantly improved transportation to the city and further spurred its growth.¹¹ A series of watchtowers were built to protect the road and the surrounding countryside.¹²



- Old City 
- Jaffa Road 
- Other Roads 
- Streambeds 
- Watershed Boundary 
- Valleys 
- Machane Yehuda 

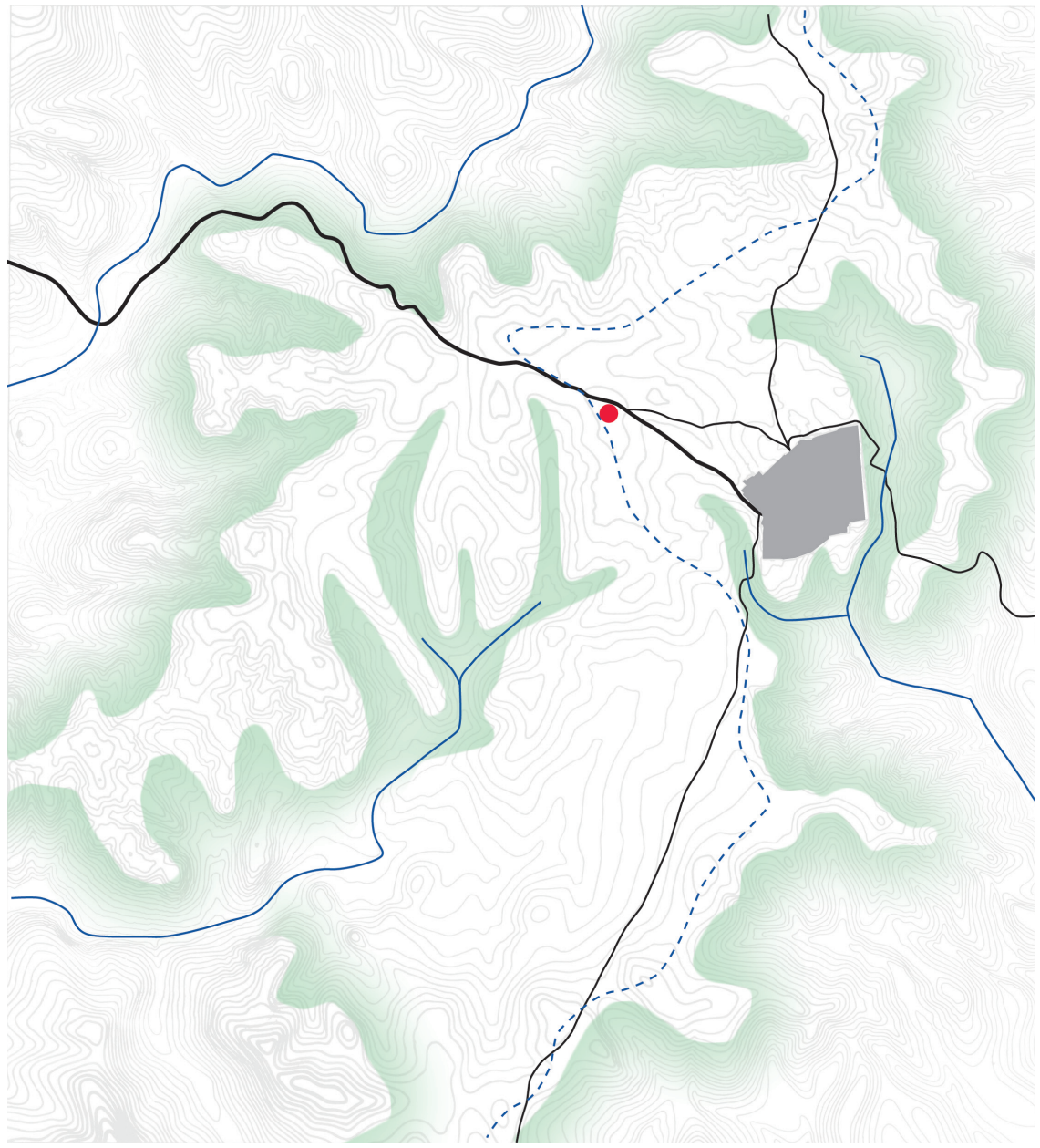


Figure 1.5.
**PHYSICAL STRUCTURE OF THE
 JERUSALEM PLATEAU**



More neighbourhoods were built at the end of the decade and new Jewish city outside the walls gradually took shape.

In the Jewish Quarter, people lived around communal courtyards. In many ways, life in the new neighbourhoods continued a familiar way of life. The early Jewish neighbourhoods were self-contained compounds. Houses were built in long rows, enclosing a central courtyard, from which they were entered. The backs of the houses formed a continuous wall along the street for protection. Openings between the houses were gated and locked at night for security. The homes, which were spacious compared to the Old City, had only one or two rooms and a small private garden. Communal facilities, including a synagogue, cistern and oven were located around the courtyard. Some of the neighbourhoods developed distinct identities; European, Oriental, North African, and Yemenite Jews, as well as various sects of Hasidim, each built compounds of their own.¹³

The new city spread across a wide plateau, north and west of the Old City. Its boundaries are defined by steep valleys, but inside this area, gentler topography allowed for the development of a contiguous urban fabric. The plateau sits at the crest of the Judean mountains and forms the boundary between two watersheds. To the west, the land drops steadily to the Mediterranean coast, and to the east, it drops to the Judean Desert and the Jordan Valley.¹⁴ Within the plateau, growth was concentrated along the main roads leading to the city.¹⁵ Of these routes, Jaffa road was the most important because it served as the primary entrance from the coast.¹⁶

By the end of the nineteenth century, a clear pattern of settlement had already emerged. Christian institutions clustered around the northwest corner of the Old City, near the Church of the Holy Sepulchre. Christian residential neighbourhoods, for Arabs and Europeans, were built in the southwest. Muslims lived north of the Old City, near the Muslim Quarter. As the land south and east of the Old City, near the Jewish Quarter is very steep, Jewish neighbourhoods were built to the north and west along Jaffa Road.¹⁷ The Jewish block grew the fastest and due to its central location, became the core of the new city.



Figure 1.6. Above: Settlement outside the Old City by religion from the 1944 master plan. Jewish settlement is marked in blue, Christian in yellow and Muslim in green. The location of Machane Yehuda is shown in red.



Figure 1.7. Above: View of Jaffa Road in front of the market looking towards the Old City. The dip towards the Old City is still noticeable even though modern construction in the city centre has blocked the view of the Old City walls.

Figure 1.8. Facing: 1894 map. A block of Jewish neighbourhoods is shown along Jaffa Road, northwest of the Old City. The market, outlined in black, is located at the western entrance to the Jewish block.

MACHANE YEHUDA

Markets followed the population outside the walls. The first new markets were established immediately outside Jaffa and Damascus Gates. Arab farmers from the surrounding villages would sell their produce in the open or in poorly built shacks. The Arab villagers soon took advantage of the new Jewish neighbourhoods established in their vicinity. They could avoid the trip to the Old City by selling directly to their new neighbours. Additional markets began to operate at the edges of the new city, near the neighbourhoods of Meah Shearim, the Bukharan quarter, and Machane Yehuda.¹⁸

The Machane Yehuda Market sits at a natural focal point in the geography of the new city, where Jaffa Road crosses the crest of the ridge that separates the Mediterranean watershed from the Jordan Valley.¹⁹ Before construction began outside the walls, this was the first location where a traveller to Jerusalem from the coast would see the city walls. Just past the market, a second road, the Street of the Prophets, branches off to Damascus Gate. For these reasons, the market is a strategic control point at the entrance to the city and there was already a police station here at the end of the nineteenth century. South of the market, a secondary route, Agripas Street, runs parallel to Jaffa Road.

Although the site is at the edge of the Old City's visual basin, by the 1880's it was surrounded by new Jewish neighbourhoods. Even Yisrael became the first neighbourhood in the vicinity of Machane Yehuda. It was built east of the market in 1875. The neighbourhood of Mishkenot Yisrael was founded south of the market in the same year.²⁰ The full plan was never completed, but, in 1882, two additional neighbourhoods were established by the Moses Montefiore Testimonial Fund on the remaining land.²¹ Beit Ya'akov was built west of the site in 1877 and for a long period, its row of domed houses remained the westernmost building in Jerusalem.²² Finally, the neighbourhood of Machane Yehuda was built to the north in 1887.²³

Throughout this period the future site of the market remained an empty field. Haim Valero, a respected Jewish businessman purchased the site with the intention of building a neighbourhood there but his plan never materialized.²⁴ A popular legend describes the purchase of the site:

So, this is how it was. One day Mr. Valero came here with the Arab landowner and after them walked a donkey with a sack of rice. The Arab took a rock,

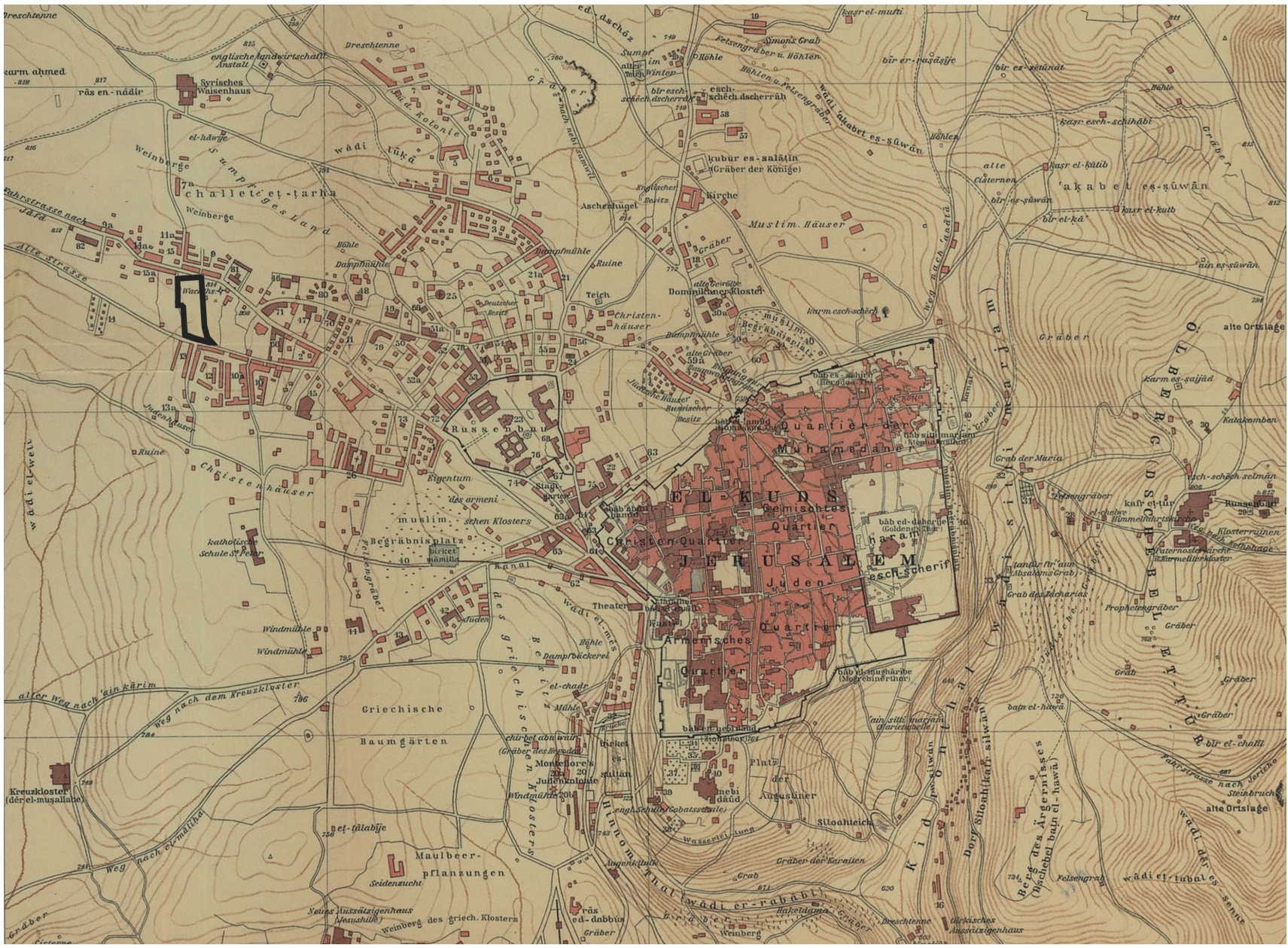




Figure 1.9. Above: Arab vendors in Machane Yehuda, undated.

Figure 1.10. Facing: Detail of 1926 survey. Courtyard neighbourhoods surround the market site. The first shops built by Etz Chaim in 1910 on Jaffa Road as well as the first two streets built in 1922 are shown.

placed it in the hand of Mr. Valero and told him, “Throw the rock with all your strength; from here until where the rock lands, that’s the land I’ll give you for the sack of rice.” He threw and measured. They wrote a contract. The Arab took the sack of rice and the sale was completed. That’s how they used to buy land.²⁵

The market was first established by the founders of Beit Ya’akov, who set up a central market for the sale of fruits and vegetables in their neighbourhood.²⁶ Arab farmers from the village of Lifta soon joined them and used the adjacent open field to sell their wares. Lifta was located three kilometres northwest of Jaffa Gate, along the main road. Machane Yehuda’s location, halfway between their village and the Old City, greatly shortened their trip.²⁷

In the new Jewish city outside the walls, the market was notable as a place where Jews and Arabs met and interacted. In this sense, it continued the multicultural tradition of the markets of the Old City. Gabriel Cohen described the market next to his childhood home in Beit Ya’akov:

It was a market without any special arrangements. Baskets and boxes were piled, one next to another, in the open field. The towers of vegetables, and the sellers, often women, sat next to their wares and waited for customers. The buyers were Jews and the sellers, Arab peasants from the villages near Jerusalem and thus, the members of the two nations stood, one facing the other, something that gave the market a special character. Jewish housewives tried to speak Arabic and the Arab farmers and farmwomen tried to peddle their merchandise in Yiddish. There was a big commotion and in this commotion of yells, haggling, bartering and cursing, children would try to take advantage. It wasn’t easy to walk off with a fresh cucumber, a green onion or a tasty leaf of lettuce.²⁸

In the early days the market was often referred to as the Beit Ya’akov market or the market in Valero’s field, but it eventually became known as Machane Yehuda, after the neighbourhood on the opposite side of Jaffa Road. The original Machane Yehuda was absorbed by the larger neighbourhood of Mekor Baruch and the name Machane Yehuda is now used exclusively to refer to the market. Gradually, the source of the name has been forgotten.





Figure 1.11. Above: The shops on Jaffa Road, a few years after construction.

The new market became the entry point for travellers to the city. Before the railroad was built in 1892, carriages would carry travellers to the city from the port at Jaffa. After a two-day journey, the carriages would make their first stop in Jerusalem at Machane Yehuda. Machane Yehuda was also the terminus of one of the two public carriage lines that operated between Jaffa Gate and the new Jewish neighbourhoods outside the walls. In 1875, one could pay 0.2 piasters for a trip along Jaffa Road to the market.²⁹ Even after the construction of the railroad, the market remained the main entrance to the city by road. In his book from 1947, Yitshak Shapira describes the experience of arriving in Jerusalem:

When you go up to Jerusalem by car and when you stop at the first station, you enter a lively and bustling area. On one side: noisy traffic of every kind of public and private vehicles, for cargo and for the army; all this gives you the impression of a big European city. On the other side: spacious coffee shops, full of old and young Sepharadim, amusing themselves with a game of dice, enjoying a cup of Turkish coffee, water pipes and meat roasted on small metal skewers (called “Kebab”), served in a pita; all this reminds you of an eastern city. East and West are mixed. This is the neighbourhood of Machane Yehuda.³⁰

The Etz Chaim Yeshiva was the first to take advantage of the new opportunities created by the market. The yeshiva, a Jewish seminary based in the Old City, began opening branches in the new neighbourhoods outside the walls towards the end of the nineteenth century. In 1908, following the success of the new branches, the Yeshiva purchased a large plot of land on Jaffa Road, next to the market, in order to create a new centre for the yeshiva in the new city. A large building was planned for the site, but in the interim an old abandoned house at the centre of the lot was opened up and used by the yeshiva. In 1910, in order to support their operations, the yeshiva built a row of sixteen shops on the northern edge of the site, along Jaffa Road. Rents from the shops subsidized the seminary’s operating costs for one month a year.³¹ These were the first permanent shops in the market.

Still, the majority of business continued to take place outdoors in the open field. Some of the grocers built makeshift shacks, of wood and corrugated metal, along Jaffa Road. The Ottoman rulers paid little attention to the market and made no attempt to regulate it.



Figure 1.12.
**MACHANE YEHUDA MARKET
 AND SURROUNDINGS, 2010**



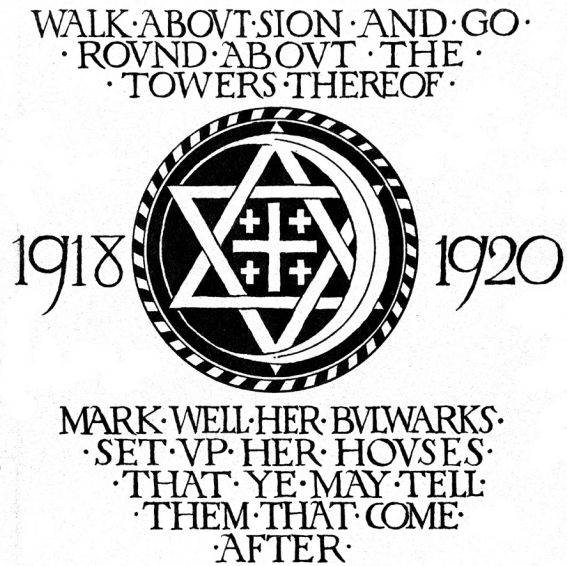


Figure 1.13. Above: The Logo of the Pro-Jerusalem Society incorporates the symbols of the three monotheistic religions: star of David, crescent and cross.

REGULATING THE MARKET

In December 1917, the Ottomans made a final attempt to hold the city in the face of the approaching British army. Sixteen cannons were placed on the high ground of the market and were heard firing all night. By morning they had disappeared and the British held Jerusalem.³² The new era officially began when General Allenby, the commander of the British forces, entered the Old City on foot on December 11.

British rule in Jerusalem and the holy land was to be a demonstration to the world of responsible British stewardship. The British considered it their “privilege to restore Jerusalem and Palestine to their place among the nations.”³³ The military governor of the city, Ronald Storrs, initiated a series of measures designed to protect the image of Jerusalem’s Old City as a timeless oriental town while creating a model European city outside the walls. Within a few months of the capture of the city, new building regulations were introduced. Construction surrounding the Old City was severely curtailed to create a greenbelt and preserve the Old City as an isolated hill town. In addition, all new buildings needed to be faced with the local limestone. Foreign, modern materials were not allowed.³⁴ Storrs set up the Pro-Jerusalem Society in order to implement the restoration process. The society was an independent, non-governmental organization with representatives from all the city’s ethnic and religious groups.³⁵ The markets of Jerusalem were among the first places to receive the society’s attention. In his first report on the work of the council covering 1918 to 1920, Charles R. Ashbee, the secretary of the society and a well-known Arts and Crafts designer, wrote:

We will deal with the latter first, because it illustrates the horrible conditions of disorder, slovenliness and squalor with which the Administration has to deal. It is the market in the Jaffa road to the [north-west] of the city, sometimes known as Haim Valero, or Mahanna Yudah. The row of corrugated iron shacks and petrol tins, of which it is mostly constructed, is one of the first landmarks as we enter the Holy City from the Jaffa side. It expresses for the visitor the New Jerusalem as left us by the Turk.³⁶

At Machane Yehuda, Ashbee proposed a new modern market. The market would be square and enclosed by high stone walls with a gate in the centre of each wall. Shops were located around the perimeter and stalls were located in the centre, under a roof, surrounding a fountain.³⁷ Ashbee’s design employs oriental motifs, including domes above the gates and at each corner, but it is essentially a European typology. Many sim-

ilar designs were built in Europe in the nineteenth century. The objective was to enclose the market in a defined area where sanitation could be easily regulated and where it would not interfere with the flow of traffic.³⁸ These markets have little in common with the narrow souks of the Old City, which also serve as the main thoroughfares.

In his next report, from 1920-1922, Ashbee made a similar proposal for the market outside Jaffa Gate³⁹ but he was unable to secure funding and none of the projects were built. By 1927, the work of the society had stalled due to rising ethnic tension.⁴⁰

Although the Pro-Jerusalem Society was never able to implement their plan, the new British sanitation department gradually transformed the character of the market. The department worked to improve conditions throughout the city, and in Machane Yehuda, they published regulations banning the sale of produce outdoors and required the demolition of the poorly built shops along Jaffa Road. Frequent inspections increasingly made business difficult for the merchants of Machane Yehuda.⁴¹

During this period, oriental Jews had begun to replace the Arab farmers in the market. In order to meet the new regulations, a group of ten Jewish grocers, mainly of Persian origin, decided to build permanent shops. After obtaining loans and the support of the Jewish committee of the municipality, they were able to purchase a plot of land from the Valero family and construct the first two streets of the market in 1922. The ramshackle shops along Jaffa Road were demolished shortly after.⁴²

Each new market street was built as a unit. The shops on both sides of the street were built simultaneously to create a two-sided public space with similar dimensions to the souks of the Old City. The streets were approximately six metres wide and produce could only be displayed within forty centimetres of the entrance to each shop.⁴³

Despite the efforts of the sanitation department and much to the chagrin of the new shop owners, produce continued to be sold in the open field alongside the new shops. The shop owners were forced to sell their produce at considerably higher prices because of the obligations they had undertaken to build the new shops and they found it difficult to compete with the illegal hawkers.⁴⁴

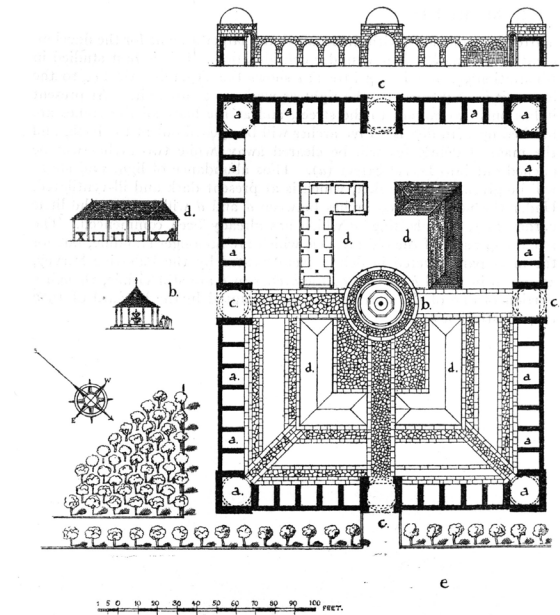
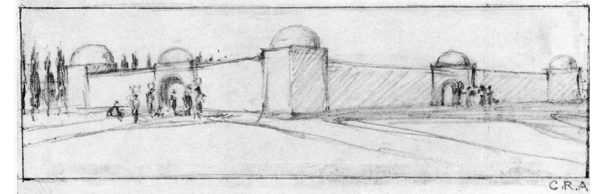


Figure 1.14. Top: Poorly built shops along Jaffa Road.

Figure 1.15. Middle: View of Machane Yehuda as proposed by Ashbee.

Figure 1.16. Above: Plan of Machane Yehuda as proposed by Ashbee: (a) shops, (b) central sibil or fountain, (c) entrances, (d) stalls under cover, (e) Jaffa Road.



Figure 1.17. Above: View of Banai Street, one of the streets built in 1922. The 1922 shops can be recognized by their arched openings.

RISING TENSIONS

British military rule had been formalized in 1920 when Britain was given a mandate from the League of Nations.⁴⁵ The objectives of the mandate were ambiguous:

Whereas the Principal Allied Powers have also agreed that the Mandatory should be responsible for putting into effect the declaration originally made on November 2nd, 1917... in favour of the establishment in Palestine of a national home for the Jewish people, it being clearly understood that nothing should be done which might prejudice the civil and religious rights of existing non-Jewish communities in Palestine.⁴⁶

The nature of the national home, and how it would be established without infringing on the rights of the non-Jewish population, was never explained by the League of Nations. Tension between Jews, Arabs, and their British rulers was inevitable. The Arabs became apprehensive in the face of a fast growing and increasingly well-organized Jewish community. The Zionists mistrusted British intentions, especially following the White Paper of 1939, which set drastic limits on Jewish immigration.⁴⁷

The first outbreak of Arab violence occurred in 1920 during the Nebi Musa festival, an annual pilgrimage for local Muslims from Jerusalem to the traditional tomb of Moses in the Judean Desert. At the beginning of the march, fierce speeches were made and a riot broke out.⁴⁸ A more severe bout of rioting broke out in 1929. The ancient Jewish community of Hebron was massacred and in Jerusalem an angry mob burst out of Jaffa Gate and attacked Jewish businesses along Jaffa Road.⁴⁹

The riots began a process of economic separation between Jews and Arabs in the city. Jewish shoppers and businessmen left the mixed markets inside the Old City and outside its gates and transferred their business to the western city where the Jewish population was already concentrated.⁵⁰ Many of the businessmen relocated to Machane Yehuda and crowded the open field. The crowding attracted the attention of the sanitation department and inspections were increased.⁵¹

In order to secure their livelihood, a group of eighty-one merchants decided to organize and build additional shops. Like the earlier group, they approached the Jewish committee of the municipality. The committee concluded negotiations to purchase land south of the existing shops from the Valero family and arranged for financing

from the Loan and Savings Bank, one of the first Jewish banks in the country. The new market was officially named the Loan and Savings Market in recognition of the bank's contribution. The cornerstone was laid in an official ceremony on July 15, 1930.⁵² The following year a group of twenty-two merchants organized to build additional shops. They also received the assistance of the Loan and Savings Bank, despite the objections of the original group who feared competition. The shops were built west of the existing market, near Jaffa Road. They were officially named Market 'B', but are popularly known as the Iraqi market, after the origin of many of the merchants.⁵³

The British authorities regulated the construction of the new market, both to create a unified appearance and ensure sanitary conditions. The shops had matching facades and were sixteen square metres in area. Their reinforced concrete walls were clad in grey or pink limestone with a *tubazeh* finish, a traditional style of chiselling where the edges of the block are squared but the centre of the block is left rough and protrudes. The authorities initially demanded nine metre wide streets but agreed to five and half metre wide streets after negotiations with the merchants. One of the shops became a public washroom, which was one of the first public lavatories outside the walls.⁵⁴

The Jewish character of the market was enforced by regulations; only Jews could purchase shops and the shops could not be leased or resold to a gentile. Three of the merchants were elected on an annual basis to form a committee that would represent the market.⁵⁵ From the beginning, the market was notable for its ethnic segregation. The merchants were primarily oriental Jews from the Middle East or North Africa. Two areas of Machane Yehuda, the Georgian and Iraqi Markets, were named for the origin of the sellers.⁵⁶

The remainder of the market buildings were built over the next two decades. The process was accelerated when the Arab revolt began in 1936. That year, the Etz Chaim Yeshiva decided to leave its original premises in the Old City and built a new two storey building in Machane Yehuda. At the same time, they built a new row of shops along the western side of their land, facing the market.⁵⁷ With the original sixteen shops built in 1910, the new shops brought the total number of shops owned by the yeshiva to forty.⁵⁸ A few years later, the Alliance Israelite Universelle built a row of shops on the boundary of their schoolyard facing the southeast corner of the market and Agripas Street.⁵⁹ The Alliance was a French-Jewish institution, established in 1882, that operated a boy's school, a girl's school, and a vocational school adjacent to



Figure 1.18. Above: The Loan and Savings Market.



Figure 1.19. Above: Shoppers in the open lot on Jaffa Road, 1943.

Figure 1.20. Facing: The Moriah building a few years after construction, 1949.

the market.⁶⁰ The shops built by Etz Chaim and the Alliance completed the western side of Etz Chaim Street, the most important alley in Machane Yehuda.

One of the buildings built in the 1930's was the Casino de Paris; it was located on the main street of the market near Jaffa Road. The four-storey building was built by the Mizrachi family who also operated two cinemas in the city. The interior was luxuriously decorated. Italian artists were hired to paint the walls with pastoral landscapes. A large terrace on the third floor hosted dances on summer nights. The café was frequented by British officers, and the elite of Jerusalem, both Jewish and Arab. The casino did not operate for long. During the Arab revolt of 1936, the customers left and the building was converted to apartments.⁶¹

Until the early forties, an open lot remained in the market facing Jaffa Road. Arab farmers still came to the market and sold produce in the open field. By the end of the decade, a contractor purchased the lot and a large building was built. The building, known as the Moriah Building, contains ten shops facing Jaffa Road with three floors of apartments above. The Moriah building was the last major building constructed in Machane Yehuda. It occupies the entire frontage of the market on Jaffa Road and hides the market from the busy thoroughfare. Over the years, most of the apartments were converted to office space, due to the noise and pollution from the market and Jaffa Road.⁶²

Before the 1929 riots, Machane Yehuda was one of many informal, ethnically mixed markets in the city. When economic separation occurred, Machane Yehuda was the natural place for a Jewish market to develop because of its location at the centre of the Jewish new city. The construction that followed, unique from the other informal markets outside the walls, made Machane Yehuda the pre-eminent market of the Jewish new city.

DIVISION

By 1947, escalating violence had forced the British to give up hope of governing Palestine. The British asked the United Nations, as successor to the League of Nations, to decide the fate of the Mandate. On November 29, 1947, the United Nations approved a plan to partition Palestine between an Arab and a Jewish state. Jerusalem would not be part of either state; the city and surrounding area was to be placed under





Figure 1.21. Above: Jaffa road is blocked by a concrete barrier at the edge of West Jerusalem. The citadel of the Old City is visible in the background.

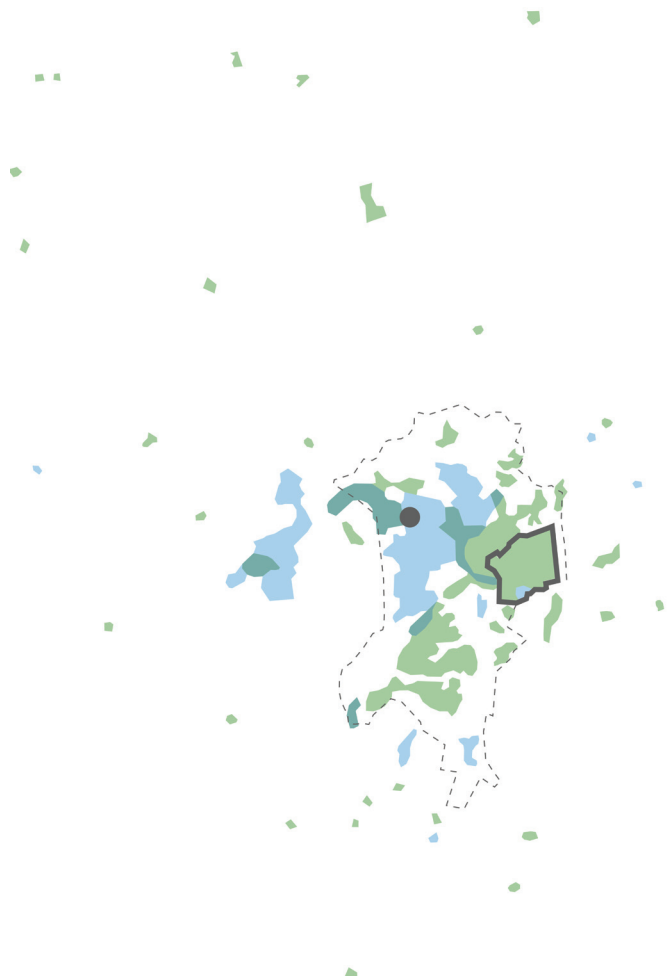
Figure 1.22. Facing: Jewish and Arab urbanized area, 1948 and 1967. At the end of the British Mandate most of the residential zones of the city were segregated but many of the commercial zones were still mixed. Construction outside the walls was concentrated on the plateau to the north and west. From 1948 until 1967 Jerusalem was divided between Israel and Jordan. The 1949 Armistice line, the green line, marked the border between the two zones. Arabs and Jews who found themselves on the wrong side of the line were forced to move. The two halves of the city developed independently for nineteen years. Israeli West Jerusalem expanded to the western hills where new neighbourhoods and a ceremonial government centre were built. There was no similar program of construction in Jordanian East Jerusalem but informal growth did occur in the surrounding Arab villages which were gradually absorbed into the city.

an international trusteeship due to its universal religious importance. The Zionists reluctantly accepted the plan but the Arab states rejected it outright. By the time the British left on May 14, 1948, fighting had already broken out in the city. Without the agreement of both sides, none of the Western powers were willing to risk their soldiers and attempt to enforce the internationalization of the city. When the fighting ended, Jerusalem was divided between Jordanian and Israeli positions. Israel held the Jewish new city in the northwest as well as many of the Christian neighbourhoods in the southwest of the city. A narrow corridor connected Jewish West Jerusalem to the Israeli population centres on the Mediterranean coast. The Jordanians held the Old City, including the holy sites and the Jewish Quarter, which was badly damaged. They also held the Arab business district north of Damascus Gate and most of the surrounding villages. The border between the two zones, known as the green line, was defined by the Israeli-Jordanian armistice agreement of 1949 and ran through the centre of the city. Jews and Arabs who found themselves on the wrong side of the line were forced to move and large areas along the border were abandoned.⁶³

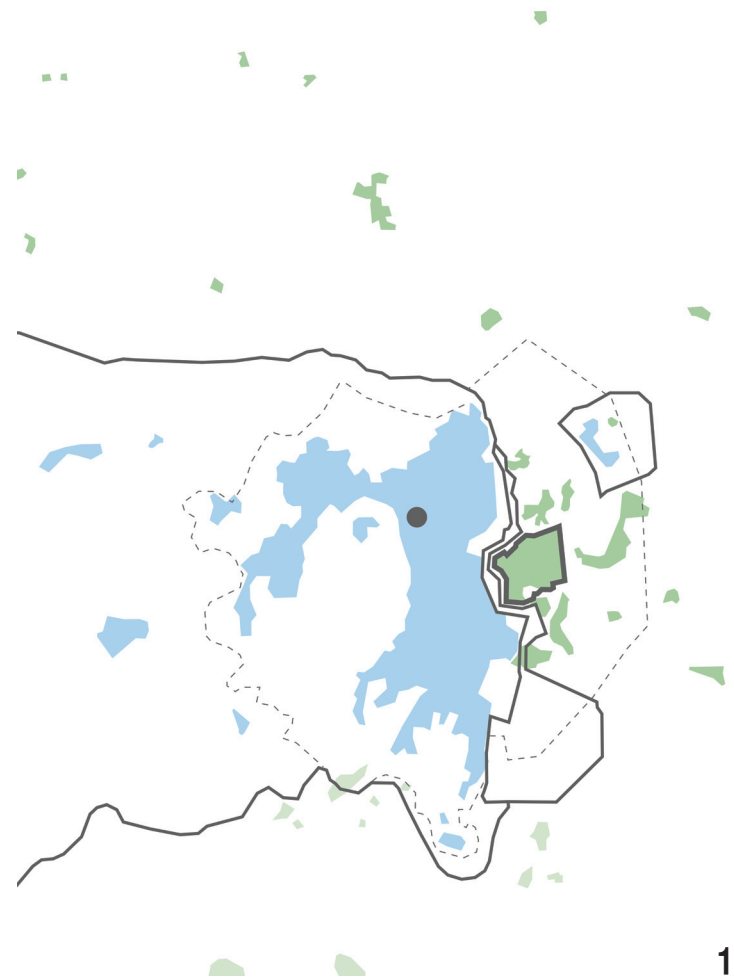
From 1949 to 1967, West Jerusalem was cut off from the Old City. The gradual transfer of Jewish businesses to Machane Yehuda from the older markets that occurred during the Mandate was now complete. During this period, the market and the surrounding area acquired a new cultural role. After the loss of the Jewish Quarter in 1948, Machane Yehuda and the neighbourhoods around it formed the oldest block of Jewish settlement in the city. Jerusalemites and visitors would go to the area to try to recapture something of the character of the Old City.

As Machane Yehuda absorbed the business that originally took place in the eastern city, it expanded physically and encroached on the surrounding residential neighbourhoods. The food wholesalers, who originally operated outside Jaffa Gate, were forced to relocate since the area was now stranded in no-man's land between the two armies. A provisional wholesale market was set up on Hashikma Street, a street of four or five storey apartment buildings just west of Machane Yehuda.⁶⁴ The wholesalers occupied the ground floors of the buildings, to the misfortune of the residents, until they were relocated to the new wholesale market on the edge of the city in 1962.⁶⁵ A letter from the residents describes the conditions:

We, the undersigned, have suffered very much since the establishment of the state from filth and noise, day and night because of the Asfei-Yarkonim (Gro-



1948



1967

- Jewish built up area
- Muslim/Christian built up area
- Old city wall

- 1949 Armistice line
- Municipal boundary
- Machane Yehuda





cers Collective) Company. Our children wake up at night from the noise and our wives have become very annoyed.⁶⁶

At the same time, unlicensed vendors crowded the original market and an informal market began operating south of the main market on an empty lot on Agripas Street. In the years immediately following the division of the city, the municipality had very few resources and had trouble maintaining sanitary conditions in the market. The unlicensed vendors exacerbated the situation, since they operated in the open street and left their garbage where they worked. They also made passage difficult in the narrow alleys.⁶⁷

The municipality made efforts to improve the situation. They succeeded in closing down the market on Agripas Street and set up two alternate markets for the wandering vendors. The first, Vendors Market 'A,' was set up in 1949 in the courtyard behind the Moriah Building near Jaffa Road. Stalls were constructed and rented by the municipality.⁶⁸ In 1956, the municipality set up a second market, Vendors Market 'B,' in the courtyard behind the Iraqi market.⁶⁹ Stalls were never constructed here; the municipality only paved the area and tried to provide the vendors with carts. Both of these courtyards were zoned for public open space or a right of way and it seems that the new markets were only intended as a temporary solution until a new building could be constructed elsewhere. The new building never materialized and the markets became permanent. The residents of the buildings surrounding the new markets sent numerous letters of complaint to the municipality. In 1952, the residents of the former Casino de Paris Building, which backs on to Market 'A,' wrote:

The market is very dirty and bad, disgusting smells waft from it day and night. In the building there is a stairwell and at the bottom of the stairwell there are three large bins, which the municipality placed there to collect the garbage. We do not know why the Municipality or the sanitation department chose our stairwell specifically for the bins.

The grocers of the market throw all the spoiled vegetables in these bins and the stench and decay that rises from the bins is carried up. Also, the fourteen families have over thirty young children and the children, of course, go up and down the stairs and soak up all the smell and decay and this causes all sorts of diseases.⁷⁰



Figure 1.23. Facing: Etz Chaim Street in the 1950's.

Figure 1.24. Above: A sidewalk vendor near the market, 1955.

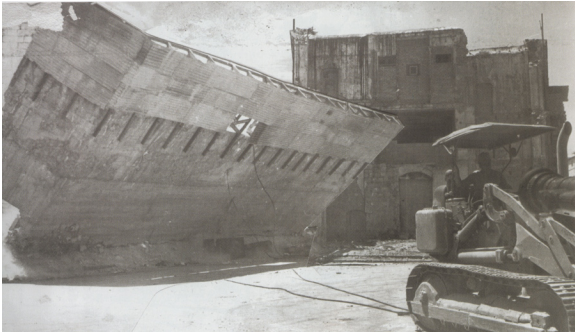


Figure 1.25. Above: Unification of Jerusalem in 1967. Israel demolished the barriers between the two halves of the city.

Figure 1.26. Facing: Jewish and Arab built up area, 1987 and 2005. Since 1967, Jewish neighbourhoods have been constructed on open land surrounding Arab east Jerusalem in order to create a continuous band of Jewish settlement around the city. Palestinian neighbourhoods grew during the same period due to private construction. In 2002, Israel began constructing a security barrier around the West Bank. Much of the barrier surrounding Jerusalem is now complete, which has improved security in the city but has broken the connection between Arab East Jerusalem and its West Bank hinterland.

The residents of Market 'B' had similar complaints:

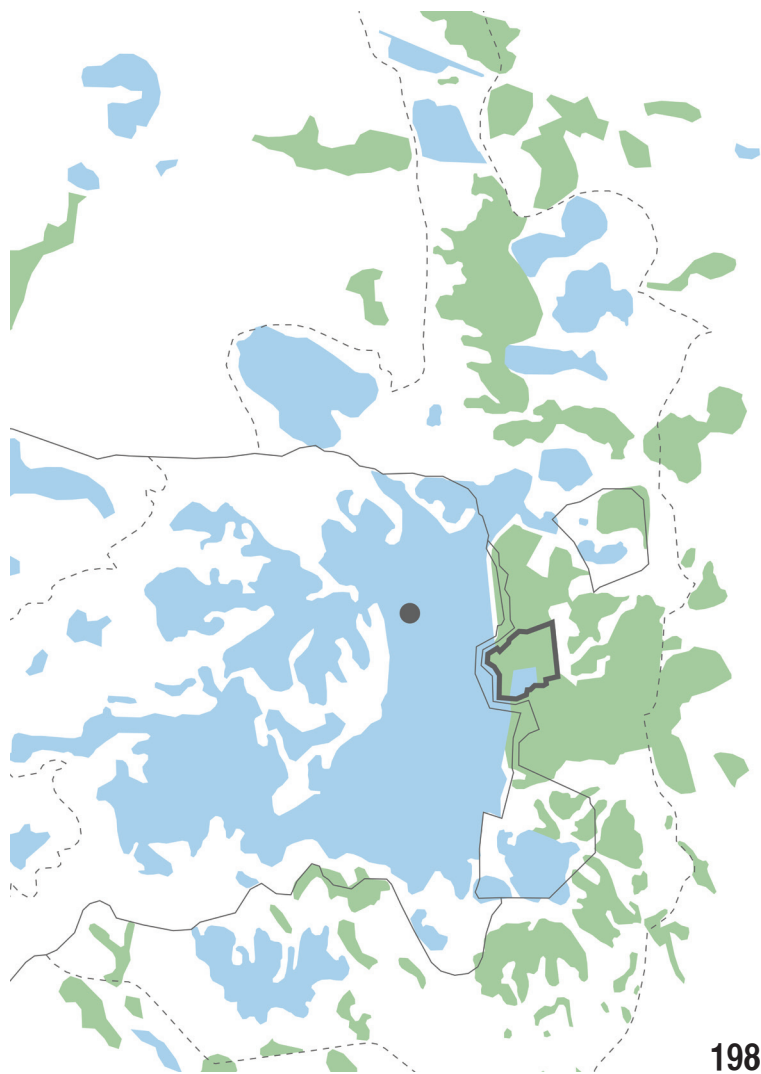
We the undersigned, residents of Market 'B' in Machane Yehuda, have suffered for over two years from noise, filth, mosquitoes, stench in the summer, and puddles and mud in the winter that obstructs access to the homes. Our children are closed in the houses after school, without space to play. There have already been a number of accidents, even the death of one of the neighbour's children.⁷¹

Because of the poor conditions, much of the housing around the market was abandoned or converted to other uses. Even where the markets themselves did not encroach, workshops and industrial bakeries operated, which degraded the quality of life.⁷²

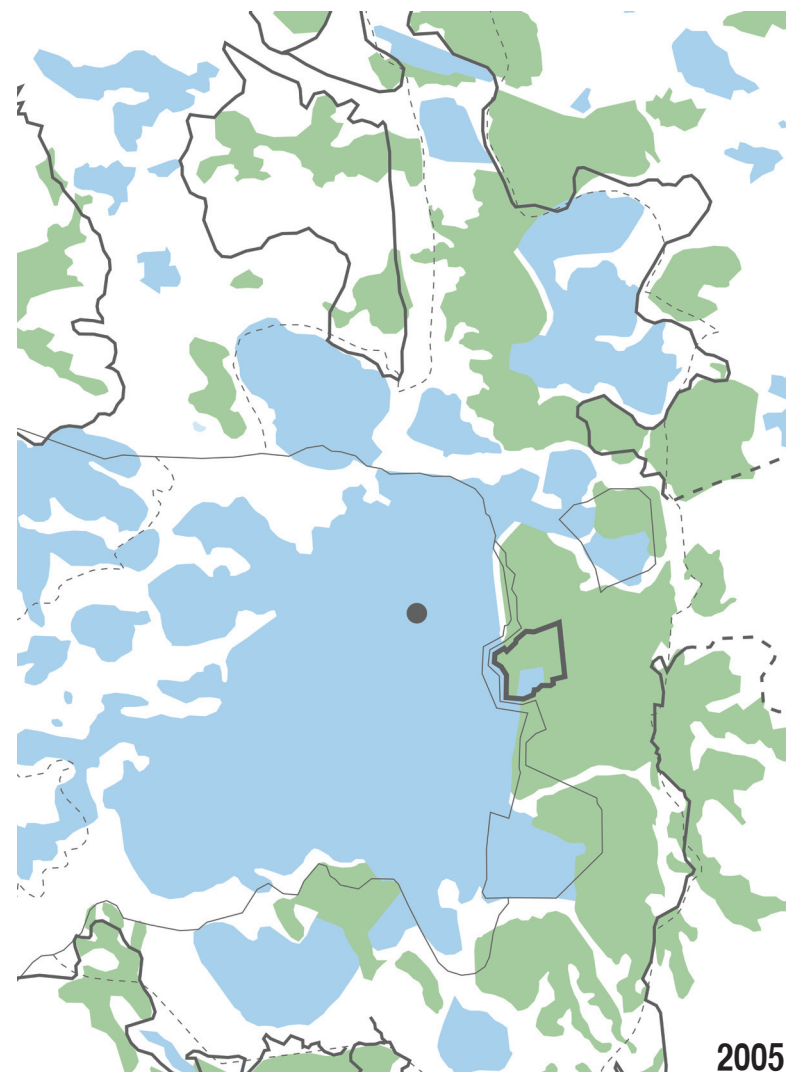
UNIFICATION

In June 1967, Israel fought a six-day war against Egypt, Jordan, and Syria. On June 7, the third day of the war, Israel conquered the Old City of Jerusalem, along with the rest of the West Bank.⁷³ The war was an overwhelming victory for Israel: in addition to the West Bank, Israel also conquered the Gaza Strip and Sinai Peninsula from Egypt, and the Golan Heights from Syria. In a few days, the territory controlled by the Jewish state had tripled. The unexpected victory triggered a fundamental shift in the Israeli collective identity. Before the war, Israeli nation building was a secular project, based on the principles of international modernism. After the victory in 1967, it acquired religious overtones. Jerusalem and the surrounding mountains is the core of the biblical land of Israel. For many Jews, the Israeli conquest of these areas, coupled with the overwhelming victory, was an event of messianic portent.

During the early years of the state, the historic importance of Jerusalem was recognized but the modern city of Tel Aviv and the development of the agricultural hinterland took precedence. The situation was reversed in the messianic narrative of post-1967 Israel. The imposition of Jewish sovereignty over the historic capital became essential.⁷⁴ Twenty days after the end of the war, Israel annexed almost seventy square kilometres of the West Bank surrounding the Old City to the Israeli municipality of Jerusalem. The new boundaries included as much of the strategic high ground overlooking the city as possible while avoiding the densely populated cores of nearby Arab

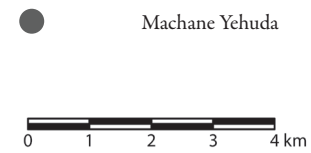


1987



2005

- Jewish built up area
- Muslim/Christian built up area
- Old city wall
- Separation Barrier
- 1949 Armistice line
- Municipal boundary



villages.⁷⁵ In August 1970, Israel expropriated over 4000 acres of that land to build Jewish neighbourhoods.⁷⁶ Twelve neighbourhoods were eventually built, each the size of a small city, to create a ring of Jewish settlement surrounding East Jerusalem that would prevent re-division.⁷⁷ Before construction began in 1967, Jerusalem had a population of 267,800. In 2007, the population of the city reached 747,600 and it continues to grow.⁷⁸

While the government invested heavily in construction on the periphery, the centre of West Jerusalem lagged behind. More affluent families left the crowded neighbourhoods of the city centre for the heavily subsidized, spacious and modern apartments the housing ministry was building in East Jerusalem. The population who remained in the centre was underprivileged, had fewer resources, and was easily ignored in the euphoria of the period.⁷⁹

The poor Jews of Jerusalem generally belong to two groups: the Haredim or ultra-orthodox and the Sephardim, from North Africa and the Middle East. The neighbourhoods north of the market are primarily inhabited by Haredim since they are contiguous with the centre of the Haredi community in Mea Shearim. Haredim object to the Jewish state on theological grounds and try to isolate their community from the corrupting influence of modern Israeli society. Haredi families are usually large and the men devote much of their time to Torah study instead of work. As a result, a large portion of the community lives in poverty.

The neighbourhoods south of the market are more mixed but historically contained a large number of Sephardim. These are some of the oldest neighbourhoods of the new city. When newer suburbs were built during the Mandate, many of the original residents left. After the creation of the state, hundreds of thousands of Jews were expelled from Arab countries and many of them arrived as refugees in Israel. Some of these refugees were settled in the abandoned houses, as well as in other rundown parts of the city. They joined other Sephardim who had already been living in the neighbourhoods during the Mandate.⁸⁰ The Sephardim, who also make up the majority of the vendors in Machane Yehuda, constitute a socially deprived underclass in Israeli society. Few resources were made available to the Sephardic immigrants when they arrived in the 1950's and they were never able to catch up to the Ashkenazim who controlled the institutions of the state and benefited from their European background and western education.⁸¹

The years following the 1967 war also saw the beginnings of violent Palestinian resistance to Israeli rule. The attacks were designed to disrupt Israeli civilian life by attacking crowded areas in the heart of the major cities. In November 1968, the first major attack after the war occurred when a truck bomb exploded on Agripas Street, outside the market. Twelve people were killed and over seventy were injured.⁸² Another major attack occurred in 1978, which killed two and injured forty-seven.⁸³

When the first attack occurred, a little over a year from the conquest of East Jerusalem, Arabs labour had already become an integral part of the market. Arabs from East Jerusalem were attracted to Machane Yehuda by higher wages and were either employed by the Jewish shopowners or worked as unlicensed hawkers. At the time of the attack, about one thousand Arabs were working in Machane Yehuda. Most were forced to take refuge in the police station when an angry crowd demanded revenge; others were hidden by their employers in closed shops.⁸⁴

The disorder and neglect in Machane Yehuda provided cover for criminal activity. In 1984, the market had the worst crime rate of any area in Jerusalem. It served as a convenient meeting place for Arab and Jewish criminal elements, and drugs and stolen goods were sold openly. The problem was exacerbated by the common practice of rehabilitating prisoners by providing them with a market stall.⁸⁵

These social problems developed against a decaying physical infrastructure. Over the years, the vendors constructed an ad hoc roof over the market streets to protect the produce from sun and rain. The roof was a mix of corrugated metal sheets and canvas awnings that darkened the alleys and leaked during rainstorms. Jerusalem can receive occasional snowfalls and a heavy storm would collapse the roof, often causing injuries. The pavement was also in bad condition. The runoff from the vegetable and fruit stands is quite corrosive and the asphalt would crack quickly. The uneven pavement was difficult to clean and puddles of runoff from butcher shops, vegetable stands and the leaky roof would collect in the cracks. By the 1970's, the rudimentary sewers installed by the British fifty years before had deteriorated and did little to improve the situation.⁸⁶

The worsening condition of the market was accompanied by a drop in customers. The market had acquired a bad reputation because of the social problems and its poor physical condition and customers chose to avoid it in favour of the new Western style



Figure 1.27. Top: A burnt out car on Agripas Street after the 1968 bombing.

Figure 1.28. Above: The roof of the market before the renovation.

grocery stores that had begun to open. Jerusalemites who wanted to experience the character of an authentic Levantine bazaar also had other options; after the conquest of the West Bank the Arab markets of the Old City and Bethlehem became easily accessible and the prices were cheaper.⁸⁷ The customers who remained loyal to the market were the ones who had no other option, the poor Haredim and Sephardim who lived in the area and could not afford the higher prices in the supermarkets.

The market became a place where Jerusalem's weakest, overlooked populations, Sephardim, Haredim, and Arabs, met in an environment of poverty, crime, and violence. It was a place where extremist politics could flourish. During the 1970's, the Haredim and Sephardim became increasingly active politically and their protest parties were popular in Machane Yehuda.⁸⁸ Terror attacks, as well as the economic competition between disadvantaged Jews and Arabs working in the market made right wing sentiments popular. After the first attack, in 1968, bystanders predictably demanded revenge:

Around the emptied, abandoned stalls stand gawkers and a crowd of youngsters with time on their hands, facing the destruction and the streams of people who pass by, trying to predict the results of the murderous thunder. They argue if restraint is really wise, if it isn't better to go eastwards and take revenge, if it isn't appropriate to "do to them what they did to us here. So they will know, so they'll learn a lesson."⁸⁹

These sentiments were exploited by Rabbi Kahane's Kach party, the most extreme political group to operate in Machane Yehuda. Rabbi Kahane believed that God created the state of Israel in order to punish the gentiles for humiliating his chosen people. Only the violent defeat of gentiles by Jews could heal the wound of exile.⁹⁰ Kahane advocated violence as a religious imperative. His platform called for the expulsion of all Arabs, including those with Israeli citizenship, from the biblical land of Israel and violent retribution against Arab civilians for each act of terror.⁹¹ Kach activists exploited economic competition between Jews and Arabs in the market to win followers to their cause. When Kahane was elected as a member of Knesset in 1984, the party headquarters were located in Machane Yehuda.⁹² He sat in Knesset until 1988, when Kach was banned from participating in elections due to its racist platform.⁹³

RENOVATIONS

Gradually, the municipality recognized the need to improve the condition of the market. In 1978, it initiated a comprehensive renovation program that would include a new roof and pavement for all the alleyways. Hatapuach (The Apple) Street, one of the original two alleyways built in 1922, was renovated first as a prototype for the entire market. The new roof, designed by the architects Gabriel Kartes and Sadiah Mendel, had several shortcomings. It darkened the street below and the heavy anchors damaged the shop facades. The new concrete paving was not impervious and runoff penetrated below and putrefied. Despite complaints from the vendors, the same architects were asked to design a roof for Etz Chaim, the longest alley in the market, a few years later. This time they designed a lighter roof to avoid damage to the facades but it suffered from similar problems. It was stifling in the summer, leaked in the winter, and quickly suffered damage from vandals that was not repaired. The project was never completed.⁹⁴

The situation did not change significantly until Uri Amedi, a social worker who grew up in the neighbourhood, began working in the market in 1984. At the time, Amedi was working for the community centre as a community social worker in the neighbourhood of Mekor Baruch, opposite the market on Jaffa Road. In this position, Amedi experienced the deterioration of the city centre firsthand. He decided that it was imperative to reverse the decline and proposed a project to that end. Amedi approached Jerusalem's mayor, Teddy Kollek, for support but received little help. He describes Kollek's reaction below:

He said, "You might be right Uri, but even if you want to change things, who are your partners? The hooligans from Machane Yehuda? You want to change things with them? The only thing on their minds, in the best case, is to burn the football stadium..." and then I understood that it is not enough to see a situation, not enough to make a diagnosis, not enough to analyse the urban condition. In order to start a change, you need to create success.⁹⁵

Amedi was forced to begin independently with no resources other than his social worker's salary. He decided to test his ideas in the market first. His first task was to gain the trust of the vendors in the market. At first they mistrusted his intentions but gradually the vendors began to accept him and he began organizing community events. The events were designed to build the self-confidence of the vendors and teach

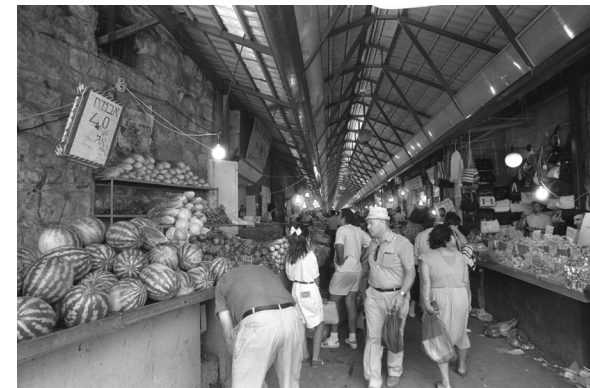


Figure 1.29. Top: Hatapuach Street with the 1978 roof.

Figure 1.30. Above: Etz Chaim Street in 1988, with roof designed by Kartes and Mendel.

them to act as a group. With Amedi's assistance the workers in the market organized a sports day for an IDF brigade, created a soccer team, and cleaned up the garbage during a municipal strike.⁹⁶ Amedi's description of the clean up illustrates his approach:

After four days of the strike the height of the garbage in the market reached, I'm not exaggerating, over half a metre. The garbage of the market is garbage: scraps of meat and fish, fruits and vegetables. I went to the guys in the market and I said to them, "Tell me, how can you live in garbage?"

So what did they say? "Is there a municipality? Don't we pay taxes? What do you want from us?"

What do they do? Make coffee, yell and decide to clean up the garbage of the market... but there are hundreds of businesses. Next to the market was the experimental school. What's the experimental school? It's North Tel Aviv, the Carmel in Haifa...⁹⁷

I went with a group of vendors to the principal of the school, Itai Zimran. He ran the experimental school. I told him, "Itai, we've decided to clean the garbage of the market. Give me a class of students to help out." At the time, it helped him teach responsibility, personal responsibility. He said "Fine, not a bad idea." He gave me a class of students and then there was an amazing meeting... an amazing meeting between the students at the experimental school and the vendors in the market on the mounds of garbage.

Do you know what happened during that meeting, when the vendors and the students stuck their hands in the juices of the market? Many the stereotypes we have about each other were shattered on the mounds of garbage, because the vendors in the market did not believe that those wimps, those nerds from the experimental school were able to clean the garbage of the market, and the opposite, the students and teachers, westernized cultured society, did not believe that the thugs from Machane Yehuda could clean the garbage of the market.⁹⁸

After three years in the market, Amedi was finally able to organize elections for the market committee in 1986.⁹⁹ The members of the committee were chosen from among

the shop owners of Machane Yehuda to represent the market and make communal decisions.

Shortly after the committee was established, the municipality approached them with a new proposal to renovate the market. This time the renovations were run very differently. The Market Committee cooperated with the municipality and the vendors were consulted throughout the process. The renovations included a new roof, cleaning and repairing the facades, and repaving the streets.

The designers, Ofer Kolker, Amir Kolker, and Randy Epstein, learned from the experience of the previous renovation. The new roof is much higher than the earlier ones and has vents to allow for natural ventilation. It is made of translucent polycarbonate, which is lightweight, and allows natural light to reach the street below. The polycarbonate is curved for strength. The streets were paved with black granite, after testing proved that it could withstand the acids and oils. Under the pavement, underground services were installed including telephone lines and three separate drainage systems: one for butcher shops and restaurants, one for rainwater, and one for the water used to wash down the streets. At the sides of the streets, steps were constructed in front of the shops to define the boundaries of the area where produce could be displayed; the centre of the street slopes to suit the topography. As part of the renovations, a parking lot with 250 spaces was built nearby for visitors to the market.¹⁰⁰

Before renovations began, a full scale mock up of a market street with the new roof was constructed in the municipal maintenance yard and presented to the vendors for comment and approval. In response to their comments, the number of lights was doubled to properly show the produce.¹⁰¹

The renovations began in 1988 in the southern part of the market. Work was done in stages to minimize disruption but each market street was still closed for a month. In addition to a month of lost wages, each shop owner was required to contribute 3,000 shekels for improvements to the public realm.¹⁰² Eventually the Iraqi Market or Market 'B,' one of the two temporary markets built in the 1950's was renovated as well. The courtyard was rezoned as a permanent market and proper shops were built.¹⁰³ The Iraqi Market was closed for three months to complete the work.¹⁰⁴ Most of the work was completed within a few years except for Etz Chaim Street, where the roof from the early 1980's was only replaced in 1996.¹⁰⁵



Figure 1.31. Above: The new roof.



Figure 1.32. Above: Partially demolished stalls in the Georgian Market.

Figure 1.33. Facing: Damage after the 1997 bombing.

The last area of Machane Yehuda to be touched by the renovations is Market 'A,' the Georgian Market. The Georgian Market was the first hawker's market set up in the 1950's and its original poorly built stalls and corrugated steel roof remained long after the rest of the renovations had been completed. Because the buildings surrounding the narrow courtyard are relatively tall, the municipality was reluctant to renovate it as a permanent market.¹⁰⁶ In May 2010, demolition of the old stalls finally began. Only half of the stalls are to be rebuilt.¹⁰⁷ The remainder of the courtyard will be left open, to reduce overcrowding.

INTIFADAS

As work progressed on the renovations of the market, the numbers of customers were growing. A popular Palestinian uprising had begun in the West Bank and Gaza. During the uprising known as the Intifada, demonstrations and rioting occurred throughout the West Bank, Gaza, and East Jerusalem. Israeli Jews stopped visiting Arab cities and residential segregation increased.¹⁰⁸ Jews no longer felt safe in the markets of Bethlehem and the Old City, and returned to Machane Yehuda.¹⁰⁹

The market benefited until it too was struck by the violence. On May 28, 1990, a pipe bomb exploded on Etz Chaim Street, killing one and injuring nine.¹¹⁰ The attacks increased in severity after Israel signed the Oslo Accords with the Palestine Liberation Organization in 1993. The accords created a framework for negotiations that was designed to lead to eventual Palestinian independence. Extremists who sought to disrupt negotiations planned attacks at crowded locations where they could cause maximum damage. The crowded market was a favourite target. One of the worst attacks occurred in 1997 when two suicide bombers attacked consecutively, killing sixteen and injuring 178.¹¹¹ When talks broke down in 2000, a second Intifada began and the attacks continued. On November 2, 2000, a car bomb that was aimed at the market exploded on a nearby street killing two and injuring ten, and on April 12, 2002, a female suicide bomber detonated her bomb at a bus station on Jaffa Road outside the market, killing six and injuring 104.¹¹²

Because of the frequency of attacks, Israelis started avoiding crowded places and public transportation. The market acquired a particularly bad reputation because it had been struck so often. In order to rehabilitate the image of the market, Uri Amedi and the Market Committee organized a concert by the Israel Philharmonic in the market





Figure 1.34. Above: Clal Centre, from Jaffa Road.

Figure 1.35. Facing: Clal Centre, interior atrium.

in 2002. The concert, like Amedi's earlier efforts, was also designed to improve the self-image of the vendors. After the concert the chairman of the committee greeted the crowd and said, "We, Machane Yehuda Market, proved that the Opera is not in heaven and we aren't in the dirt."¹¹³ After the concert, security gradually improved and customers began to return to the market.

GENTRIFICATION

As the renovations progressed and the conflict with the Palestinians escalated, a gradual shift in the official policy towards the market occurred. During the first two decades after independence, international style modernism was the official national style. The Machane Yehuda market, with all its inefficiencies, was regarded as an anachronism and urban blight. The 1948 official plan called for the complete reconstruction of the area as a modern city centre:

The centre will be established on the area between Herzl Street (formerly Jaffa Road) and Agrippa's Way. The reconstruction of this part of the city will not entail great difficulties as a preliminary survey has shown that only a small fraction of the present buildings are of appreciable financial value, and the land for building purposes will be easily obtained.¹¹⁴

A 1971 planning report, prepared as part of the 1967 master plan, again calls for the complete reconstruction of the area. A new enlarged covered market square would replace the existing buildings.¹¹⁵

The Clal Centre, built next to the market in 1978, is probably the type of project the planners were suggesting. The centre replaced the 1882 Alliance vocational school. The school moved to a different location in the 1920's and by that time the building housed various workshops and printing presses. The new centre contains a fourteen-storey office tower built above a multi-level shopping atrium. It was cheaply built and the design is confusing and unwelcoming.¹¹⁶ The shops were never successful and are now run down and half abandoned.

Also during the 1970's, an attempt was made to relocate the market to the Talpiyot industrial park, in the southern part of the city. A new market was built but the customers never came and the market was a failure.¹¹⁷





Figure 1.36. Top: Shukanion, exterior.

Figure 1.37. Above: Shukanion, interior.

Figure 1.38. Facing: View of the Machane Yehuda area. The old neighbourhoods are identifiable by their red tile roofs. The towers are part of the Clal Centre.

Yet another attempt to construct a modern market was initiated in 1995. The project, named the Shukanion, an amalgamation of the Hebrew words *shuk*, meaning market and *kanion*, meaning mall, is located on Agripas Street, just west of Machane Yehuda. The Shukanion is a three-storey enclosed shopping centre. Market stalls are located on the ground floor and the upper floors have larger shops. The Shukanion has also been a commercial failure.¹¹⁸ Only a few of the stalls are occupied there are very few customers. Recently, some of the empty stalls have been rented to artists. If they are successful, the entire building could become an art centre.

The new projects lacked the historic fabric and character of Machane Yehuda and they were resented by Jerusalemites because of their size, anonymity, and obvious commercialism. Machane Yehuda and the Ottoman neighbourhoods that surround it support a unique community that is firmly attached to their physical surroundings. Most of the shopkeepers in the market own their own shops freehold and are reluctant to leave for a new development where they would be forced to give up their independence and become tenants.

The consistent failure of every project designed to replace Machane Yehuda seems to have convinced the planners that it should be left in place. In the interim, the design philosophies that justified the redevelopment of the market were largely discredited. After 1967, Israeli architectural discourse turned away from the modernist philosophy of the early years. The new neighbourhoods in East Jerusalem required a new architectural language to express the ancient connection between Jews and the holy city. The task was given to a new generation of Israeli architects. Alona Nitzan-Shiftan analyzes the process:

During the 1960s and 1970s, these architects found themselves inextricably bound up in modernism's developing crises. At the same time that architects worldwide were questioning the premises of the Modern Movement in architecture, Israelis were becoming more vocal in challenging the modernization project of Labour Zionism, which had campaigned for decades for 'progress and development.' This twofold crisis strongly affected Israeli-born architects, the so called *sabra*, the first natives of the Israeli State. Their emerging critique of both architectural and Zionist modernisms led them to the Palestinian vernacular, particularly to 'the Arab village' which had fascinated them for almost a decade by the time post-1967 construction was underway.¹¹⁹



As a result, the architecture of the new Jewish neighbourhoods in East Jerusalem incorporates Palestinian motifs. When the conflict with the Palestinians intensified in the 1990's, this ideological contradiction could no longer be ignored. For the most part, Israeli architecture has now returned to the modernism of the 1950's.¹²⁰

In this context, Machane Yehuda became attractive because it offers an example of vernacular oriental architecture that is also unquestionably Jewish. The renewed appreciation for oriental Jewish heritage has coincided with an improvement in the socio-economic status of the Sephardim in Israeli society. The most recent master plan, defines the market and the surrounding Ottoman era neighbourhoods as a conservation area. Additions are allowed to increase density in the neighbourhoods but they must respect their historic context. Often, red tile roofs are required since they are the area's most easily identifiable feature.

The rehabilitation of the market has brought a new type of cultural visitor. A visit to Machane Yehuda on Friday afternoon has become a standard part of the itinerary for tourists from Israel and abroad. Coffee shops and high-end boutiques have appeared to serve these new visitors. The number of high-end businesses is steadily growing and the change is noticeable.

The process of gentrification in Machane Yehuda has been generally positive and was probably necessary for the market's survival. Since the 1970's, the market has lost a large portion of its customer base as the grocery chains grew and people moved out of the city centre. There are still customers, primarily poor and ultra-orthodox, who remain loyal to the market and cannot afford to shop anywhere else but increasing numbers of people no longer find it convenient to buy most of their groceries in Machane Yehuda. Many of these people return to the market occasionally and while there they might purchase some fresh fruit or a snack, but they are primarily looking for a cultural experience. The coffee shops and boutiques allow the market to profit from the new situation.

Unlike gentrification that has happened elsewhere, the gentrification of Machane Yehuda did not involve a replacement of the original population. The shopkeepers in the market renovated their businesses, opened new restaurants and improved their economic standing. Some outside businesses moved to Machane Yehuda, but in many cases they moved into abandoned shops and the original community of the market

remains intact. Still, gentrification and commercialization are changing the identity of the market and the future of Machane Yehuda as a traditional market place is in question.

TRANSFORMATIONS

The cultural identity of the market has evolved with the development of Jerusalem. When Machane Yehuda was first established it was at the edge of the city, where travellers arrived from the coast. As the city grew, it found itself at the centre of the new Jewish city outside the walls. Since the residential quarters of the new city were strictly segregated, Machane Yehuda stood out as a place where Jews and Arabs mixed. The market has maintained a cosmopolitan character ever since.

The makeup of the market changed during the British Mandate as tensions rose between Jews and Arabs. Jewish grocers replaced the Arab farmers who used to sell produce in the open field. To satisfy the new health regulations, the grocers built shops and established the market as a permanent institution in the city. Machane Yehuda became the Jewish market and the other markets became predominantly Arab.

Although the market was now predominantly Jewish, it was still relatively cosmopolitan. Over the years the Jewish population has become increasingly divided by origin and religious observance and, while the market may be located at the centre of the Jewish city, it is also located on the border between a few different Jewish populations. At Machane Yehuda, the Haredi neighbourhoods in the north meet the Sephardic neighbourhoods around the market and the richer Ashkenazi neighbourhoods in the south. All these groups meet and interact in the market. After unification in 1967, Palestinian Arabs were again part of the mix, now as employees of the Jewish grocers instead of independent vendors.

In the 1970's, as the conditions in Machane Yehuda deteriorated, the market became increasingly associated with the Sephardic underclass. When their political protest movements grew, it acquired a political identity. Before elections, the leader of every major party now makes a symbolic visit to Machane Yehuda to connect with the working class.

The renovations of the market occurred as the image of the Sephardim was improving and the situation with the Palestinians deteriorated. In this new context, Machane Ye-

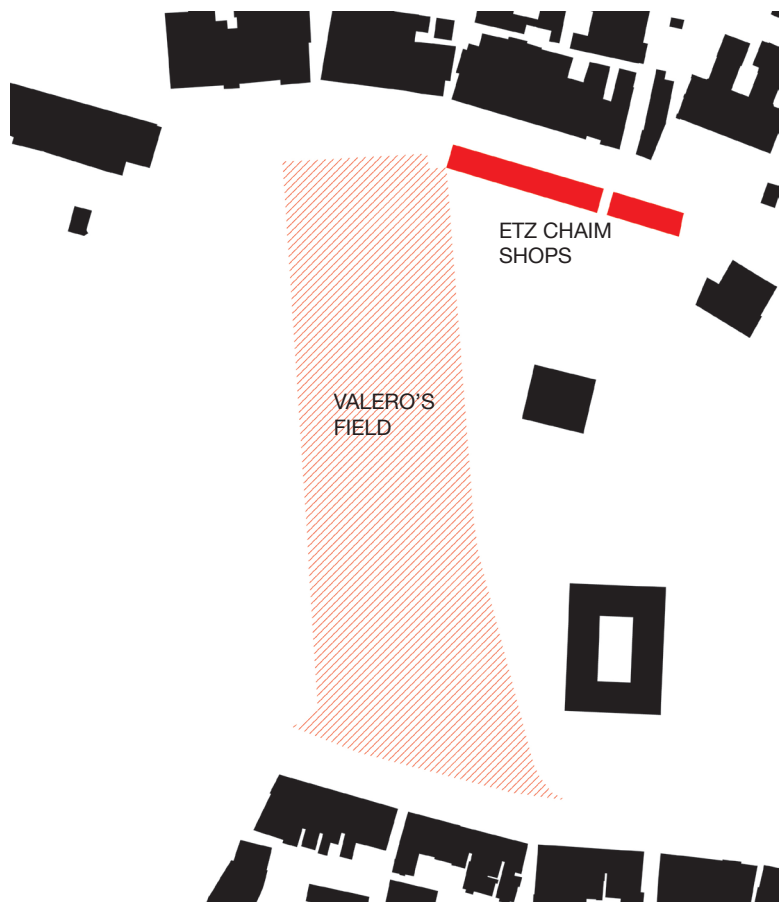


Figure 1.39. Above: 'Aroma,' an Israeli coffee house chain has opened a location in Machane Yehuda.

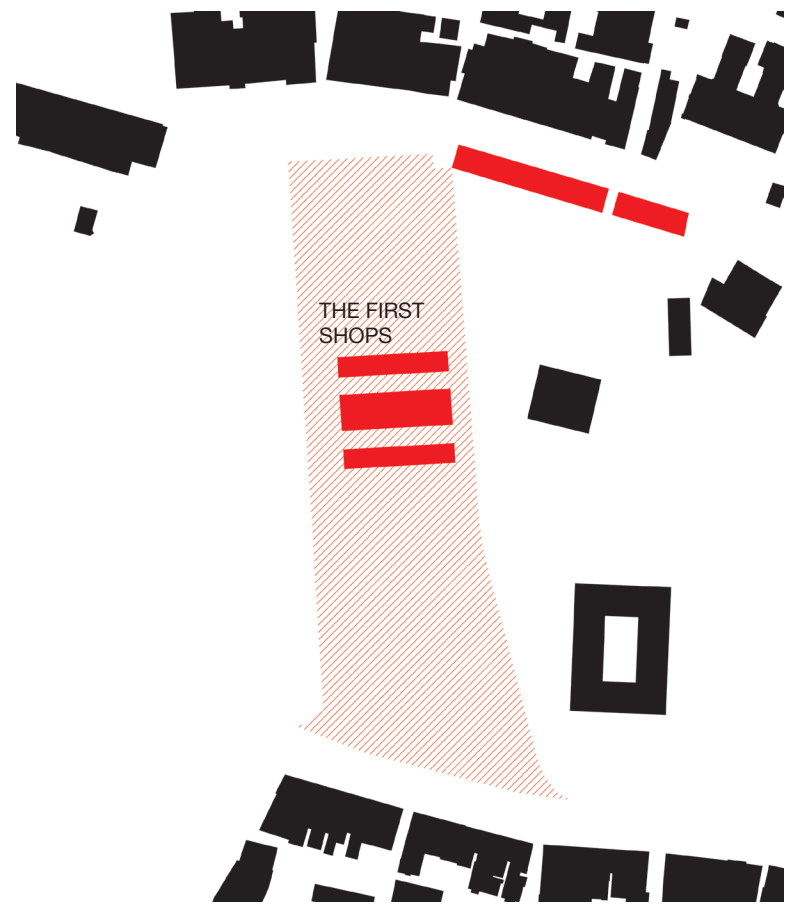
huda gained popularity as a cultural symbol since it offered an oriental character without problematic Palestinian associations. It is this oriental character that has made Machane Yehuda an attractive target for gentrification. The boutiques and cafes that accompany gentrification have provided the market with a much-needed new source of income but also threaten to irrevocably change its character.

Figure 1.40. Facing: A clothing boutique in the market.



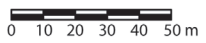


1910



1923

Figure 1.41.
MARKET GROWTH, 1910 -1946





1936



1946

Buildings

Market buildings

Market space





1950



1960

Figure 1.42.
MARKET GROWTH, 1950-2010

0 10 20 30 40 50m





1970



2010

Buildings

Market buildings

Market space



PART 2: ANALYSIS

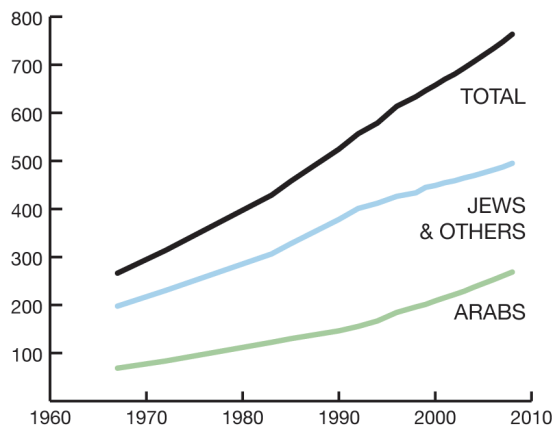
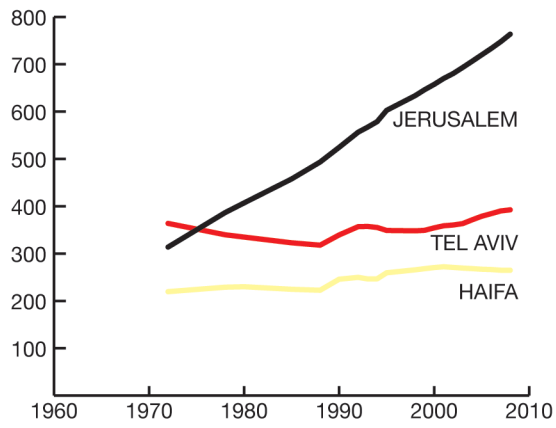


Figure 2.1. Top: Population growth (thousands) of Israel's major cities.

Figure 2.2. Above: Population growth (thousands) of Jerusalem, broken down by group.

GROWTH

The annexation of East Jerusalem, in 1967, brought a large Palestinian population into the Israeli municipality and created a demographic condition which does not exist in Israel's other major cities. The population of Jerusalem is 35% Arab, compared to 10% in Haifa and a mere 4% in Tel Aviv-Jaffa.¹ The Arab population in Jerusalem is growing much faster than the Jewish population, because of a higher birth rate as well as migration to the city from the West Bank. While the Arab population grows, many Jews are leaving the city for jobs and a better standard of living elsewhere in Israel. Between 1997 and 2007, the Arab population in Jerusalem grew by 3.0% annually, while the Jewish population only grew by 1.3%.²

This trend is worrying for the Israeli government, which has sought to maintain a decisive Jewish majority in the capital to support their claim to the city. In order to encourage Jewish migration to Jerusalem, the government has constructed subsidized housing on the periphery of the city, especially in East Jerusalem. Yet in recent years the land available for new construction has been depleted and the government is searching for other options.

Two plans have been proposed to expand the municipal boundaries and create new Jewish neighbourhoods. The first, known as E1 or East 1, proposes a new neighbourhood east of Jerusalem between the city and Ma'aleh Adumim, the largest West Bank settlement and a bedroom suburb of Jerusalem. The plan was first advanced in 1994 and received statutory approval in 2005. It proposes a neighbourhood of 3,500 residential units as well as an industrial zone. The remaining 75% of E1 is to be a large park. Territorially, the plan is designed to create a continuous Jewish built up area east of Jerusalem and secure the highway to the Dead Sea. It has been fiercely opposed by the Palestinians and the international community because it would prevent territorial contiguity between the northern and southern halves of the West Bank and isolate Arab East Jerusalem. The Israeli police headquarters for the West Bank and other infrastructure has been constructed in E1 since 2004 but the rest of the plan has been frozen due to intense international pressure.³

Given the political difficulties involved in expanding eastwards, a plan was proposed to expand to the west instead. The plan, designed by the architect Moshe Safdie, proposed 20,000 new residential units, primarily in two new high density neighbourhoods to be built on the hills west of the city. One of the neighbourhoods was proposed for

an undeveloped hilltop and the other would replace two agricultural settlements. A new ring road would serve the neighbourhoods.⁴ The plan was vigorously opposed by a coalition of environmental groups because of the damage it would cause to one of the few forested regions of the country and the most important green space in the Jerusalem region. As a result, the plan was never approved and was definitively rejected in 2007.⁵

With E1 frozen indefinitely and the Safdie Plan cancelled, Jerusalem's growing population can only be accommodated within the existing city limits. Some of the growth can be accommodated by developing pockets of unused land but most of the new housing units need to be created by increasing the density of existing neighbourhoods. As part of this strategy, the new master plan for Jerusalem proposes a high-rise addition to the existing central business district of West Jerusalem. The existing Jewish central business district is located northwest of the Old City, anchored by the triangle created by the Jaffa Road, King George Street and the Ben Yehuda pedestrian mall. The extension is to run northwest along Jaffa Road from the existing centre through Machane Yehuda to the western entrance to the city.⁶ An intermodal transit hub that will include the existing central bus station and the terminus of the new high-speed train to Tel Aviv will anchor the northwestern end of the extension.

High-rise construction has a controversial history in Jerusalem. The British planners limited construction to a mere 15m to preserve the horizon line of the ancient city.⁷ During the 1960's, the modernist Israeli planners removed the height limits and approved the construction of several high-rise structures. When the buildings were completed in the 1970's they were hated by the population and, as a new appreciation for the oriental city developed after 1967, height limits were reintroduced.⁸

Although the new master plan has not yet received statutory approval, it is already being used as a guideline by the municipality since the most recent approved statutory plan predates the reunification of the city.⁹ The increased densities proposed by the plan do provide a real opportunity to support the revitalization of the city centre with a strong population base but if the plans for high-rise construction proceed unchanged, they will obliterate the existing historic fabric surrounding Machane Yehuda.

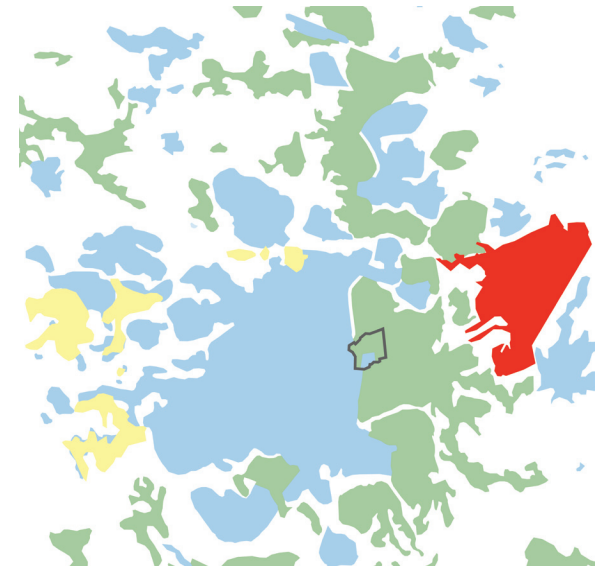


Figure 2.3. Above: Location of E1 (red) and Safdie plan (yellow) relative to Jewish (blue) and Arab (green) built up areas.

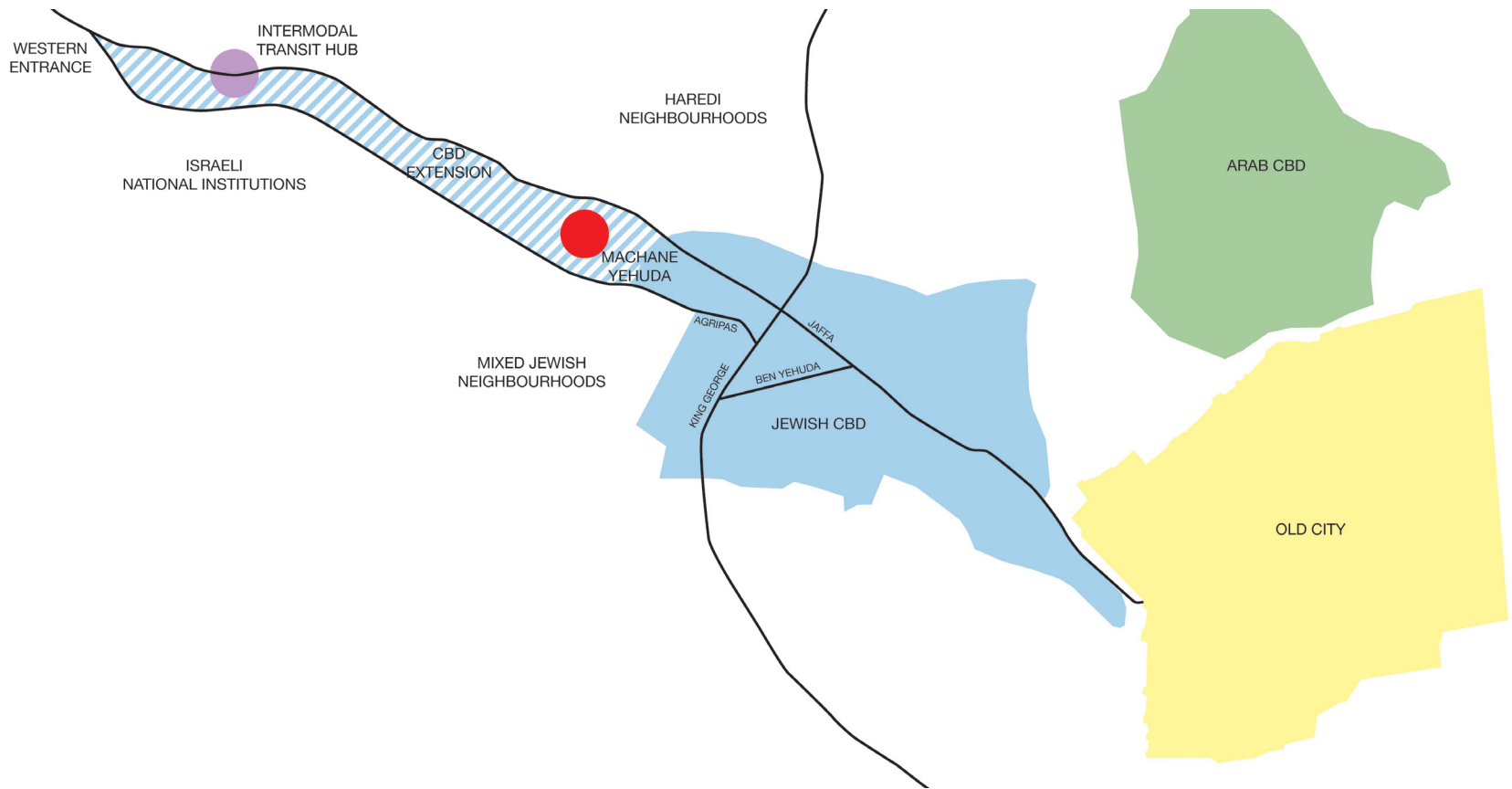


Figure 2.4.

CITY CENTRE STRUCTURE

Two parallel Central Business Districts (CBD's) developed in the New City: a Jewish CBD northwest of the Old City and an Arab CBD to the north. The new master plan proposes extending the Jewish CBD westwards along Jaffa Road to connect with a new intermodal transit hub at the entrance to the city.



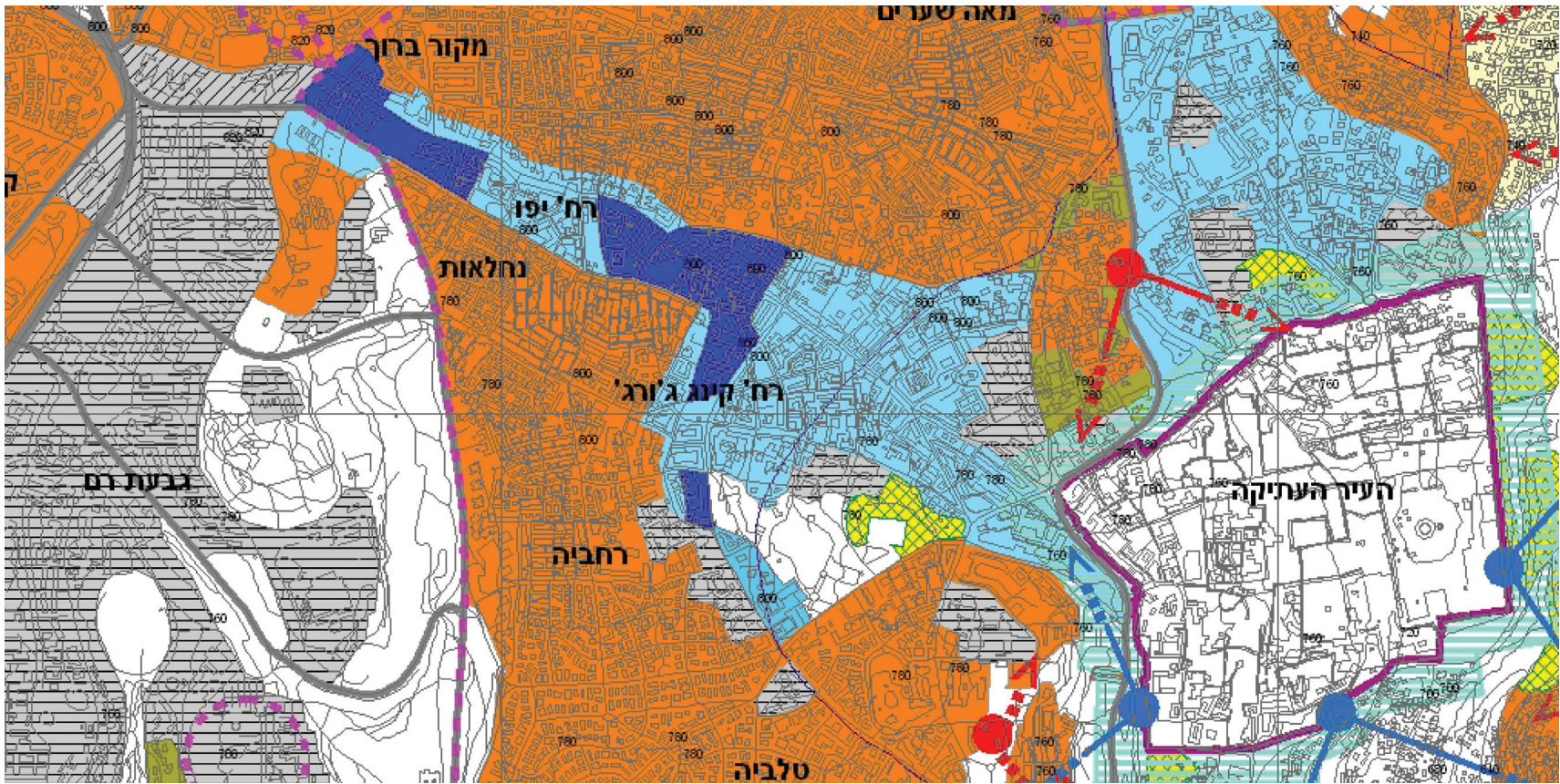


Figure 2.5.
**PROPOSED HEIGHTS, JERUSALEM
 OUTLINE PLAN 2000.**

A maximum of six storeys (orange) is allowed in the established residential neighbourhoods, ten storeys (cyan) in the CBD and twenty-four storeys (dark blue) in the CBD extension. In Machane Yehuda itself only ten storeys are allowed.





Figure 2.6. Above: Artist's Rendering, Davidka Tower.

Figure 2.7. Facing: Fabric of the Jaffa Road corridor.

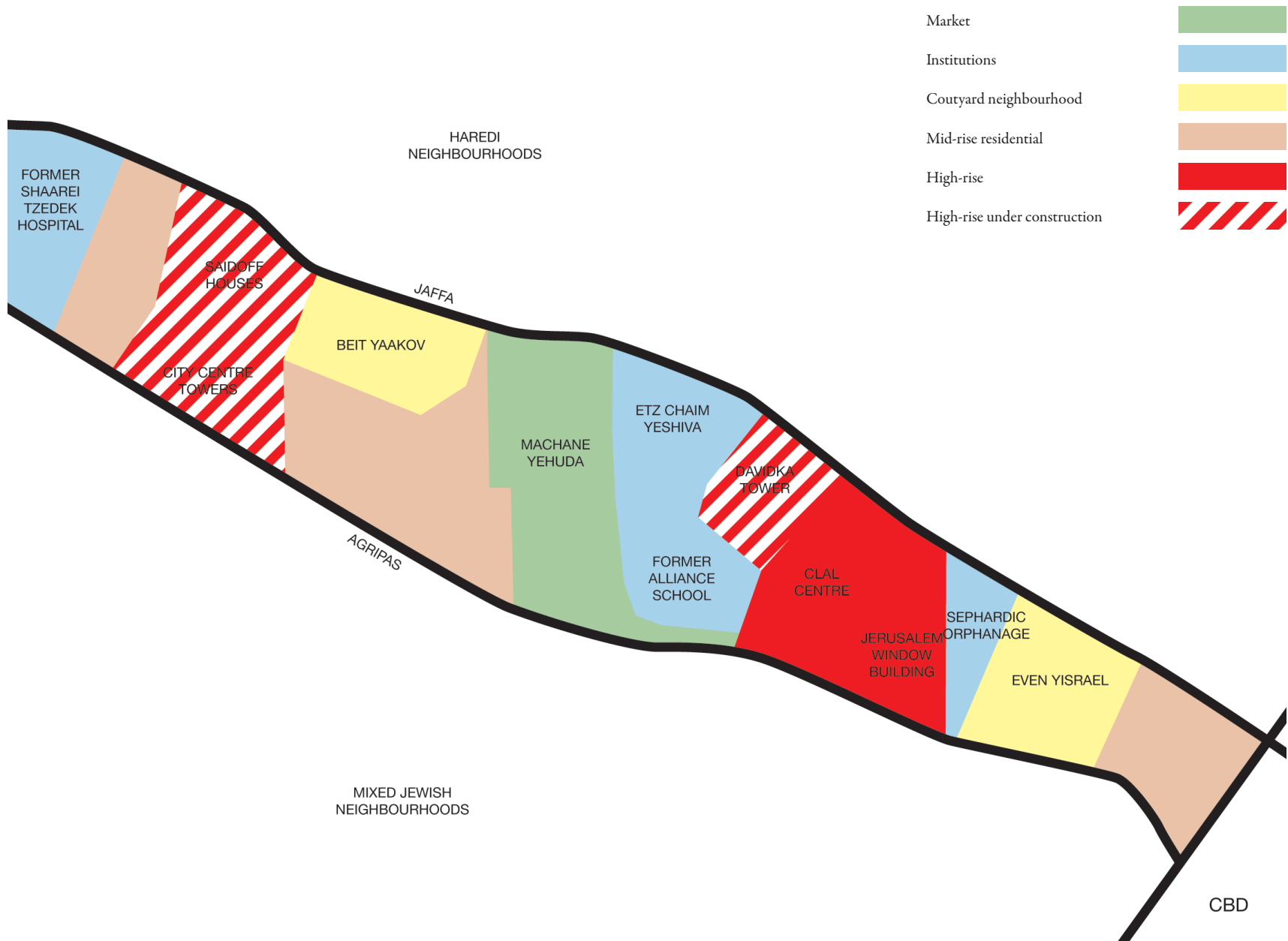
THE JAFFA ROAD CORRIDOR

High-rise construction has been proposed along a narrow strip of land, between Jaffa Road and Agripas Street. The corridor separates two large residential areas. The largest block of Haredi neighbourhoods begin immediately north of Jaffa Road. The Nachlaot block of courtyard neighbourhoods is located immediately south of Agripas Street. Nachlaot was once a poor area but has gentrified over the past twenty years. The luxury neighbourhoods of Rechavia and Talbiya begin south of Nachlaot.

The corridor itself never developed a consistent fabric. A couple courtyard neighbourhoods, Even Yisrael and Beit Yaakov, were built in the 1870's but they remained isolated. A series of Jewish institutions, including the Alliance Israelite Universelle school complex, the Etz Chaim Yeshiva, the Sephardic Orphanage, and the Sharei Tzedek Hospital, were built slightly later. Most of these institutions have since relocated and the buildings have not been maintained. The market occupies a large portion of the zone and the remainder was infilled with mid-rise apartment buildings during the Mandate.

The lack of a cohesive urban fabric in the corridor and its central location has made it an attractive target for high-rise redevelopment. The Clal Centre, built in 1978, was the first high-rise in the area. It contained the first covered shopping centre in Israel and was expected to set a new standard. When the project proved to be a commercial failure, similar projects were discouraged and high-rise construction in Jerusalem stopped for three decades.¹⁰

Now, under the influence of the still unapproved master plan, a new generation of high-rises is under construction. Unlike Clal, the new developments are all luxury residential towers since there is little demand for office space. Most of the apartments are sold to American or European Jews who can afford to pay higher prices than all but the wealthiest Israelis. The units are used as vacation homes and sit empty for most of the year. The first tower, a residential addition to the Clal Centre, was built between 2000 and 2004.¹¹ Construction slowed when real estate prices fell during the Second Intifada, but now that the market has recovered, several new projects are under construction. One of the projects, known as the Davidka Tower, is actually the first phase of a much larger development that will cover the entire area between the Clal Centre and Machane Yehuda and replace the former Alliance School, the Etz Chaim Yeshiva, and the market's parking lot.¹²



ACCESS

The centre of West Jerusalem is built along a ridge that runs north-south, just west of the Old City. Most of it was built before 1948 when car ownership was low, and it was never designed to accommodate modern traffic or parking. Since then, a network of highways and arterial roads was built in the periphery to serve the new suburbs. Two arterial roads were built in the valleys on either side of the ridge, but the network was not extended into the city centre because of the demolition that would be required. In order to access this area, drivers must use small neighbourhood streets that cannot carry the traffic. The market sits at the crest of the ridge and as a result, access is difficult.

Most produce arrives in Jerusalem at the wholesale market near the western entrance to the city. From there it must be carried by truck along Jerusalem's narrow streets to reach Machane Yehuda. The garbage produced at the market must be trucked back along the same streets to the Jerusalem's Waste Transfer Station, not far from the wholesale market. Much of the traffic occurs in the early morning when the market is preparing to open for the day. The noise from this traffic, which continues for much of the night, disturbs residents along the route and has contributed to the area's decline.

Suburban Jerusalemites, who drive to the market, are forced to take the same crowded streets and once they get there, have a hard time finding parking. A parking lot for the market with 250 spaces was built in the 1990's as part of the renovations. It was usually full, until it was demolished in February 2010 when construction began on the Davidka Tower. Part of the parking lot of the tower will be public parking for the market but until it is complete drivers will be left without an easy option.¹³

Over the years, proposals have been made to solve the traffic problem in the city centre by digging tunnels under the ridge to connect the two arterial roads. The tunnels would provide access to underground parking garages and loading docks in the city centre.¹⁴ The most recent proposal is now under consideration but even if the municipality does decide to proceed, it would take several years before a tunnel could be completed.¹⁵

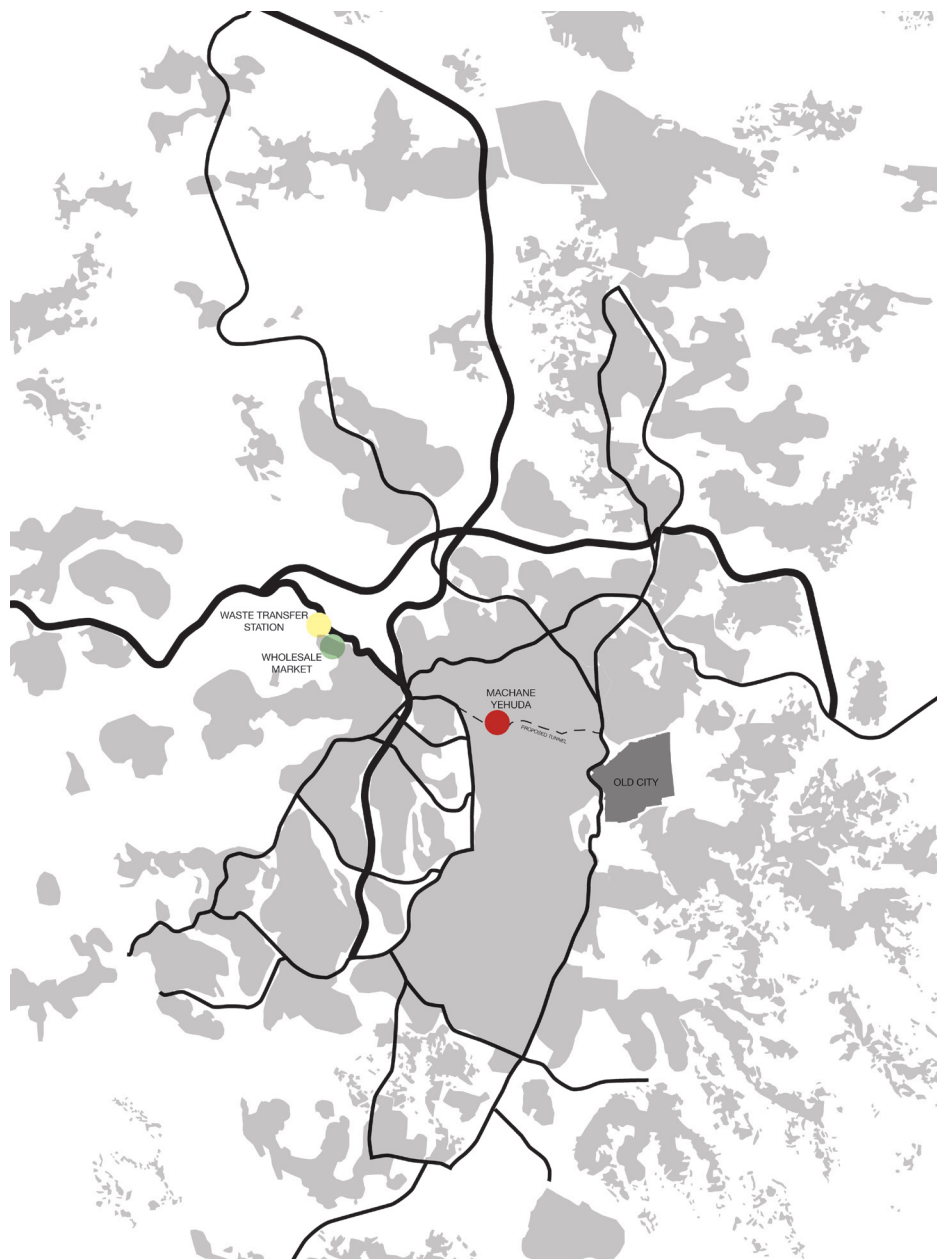


Figure 2.8.

EXPRESSWAYS AND ARTERIAL ROADS

The central neighbourhoods of west Jerusalem, including Machane Yehuda are poorly served. The route of a possible road tunnel is shown dashed.





Figure 2.9. Above: Buses on King George Street. A stopped taxi or bus on a narrow street can back up traffic for blocks.

TRANSIT

The municipality is in the midst of implementing a plan to revive the city centre. The plan includes upgrades to the public realm, and doubling the floor space in the city centre with infill construction.¹⁶ In order to attract business, the city centre needs to be easily accessible. Because the road network is inadequate and there is no easy way to expand it, the plan depends on improved public transit to replace private vehicles.

The existing transit system consists entirely of buses. The buses are slow since they depend on the same overburdened roads. Most of the bus routes pass through the city centre, further overloading the antiquated road network. Because of the heavy bus traffic, many of the major streets in the area, including Jaffa Road and King George Street are reserved for public transit but they still lack capacity. Most of the roads have only two lanes, so when a bus stops at a station, the rest of the traffic is forced to wait behind it.

According to the new transportation plan, the busiest bus routes will be replaced by light rail lines, which will provide greater capacity and more comfortable service. Feeder bus lines will connect outlying areas to the light rail transit (LRT) stops. The full plan calls for eight lines to be built by 2020.¹⁷ The first line, which is now under construction, will run from the western suburbs to the central bus station, continue along Jaffa Road past the market, through the city centre to the edge of the Old City and turn north from there and terminate in Pisgat Zeev, a Jewish neighbourhood in East Jerusalem. The work is several years behind schedule but the first line is expected to finally begin operation in April 2011.¹⁸ A second dedicated rapid transit route that runs north-south through the city centre is also under construction but it will operate as bus rapid transit (BRT) that could eventually be replaced by light rail.¹⁹

The city centre is to become a pedestrian priority zone that will be accessed primarily by the LRT. The busiest shopping area, including a large section of Jaffa Road, is to be completely pedestrian except for the LRT. The rest of the zone will be subject to traffic calming measures that will not allow through traffic. Private vehicles will be stopped at a two-way inner ring road surrounding the area. A network of one- and two-way roads will carry traffic from the arterials to the inner ring road. As part of the plan Jaffa Road and Agripas Street will each become one-way, in opposite directions, carrying all the public transportation between the intermodal hub at the entrance to the city and the city centre.

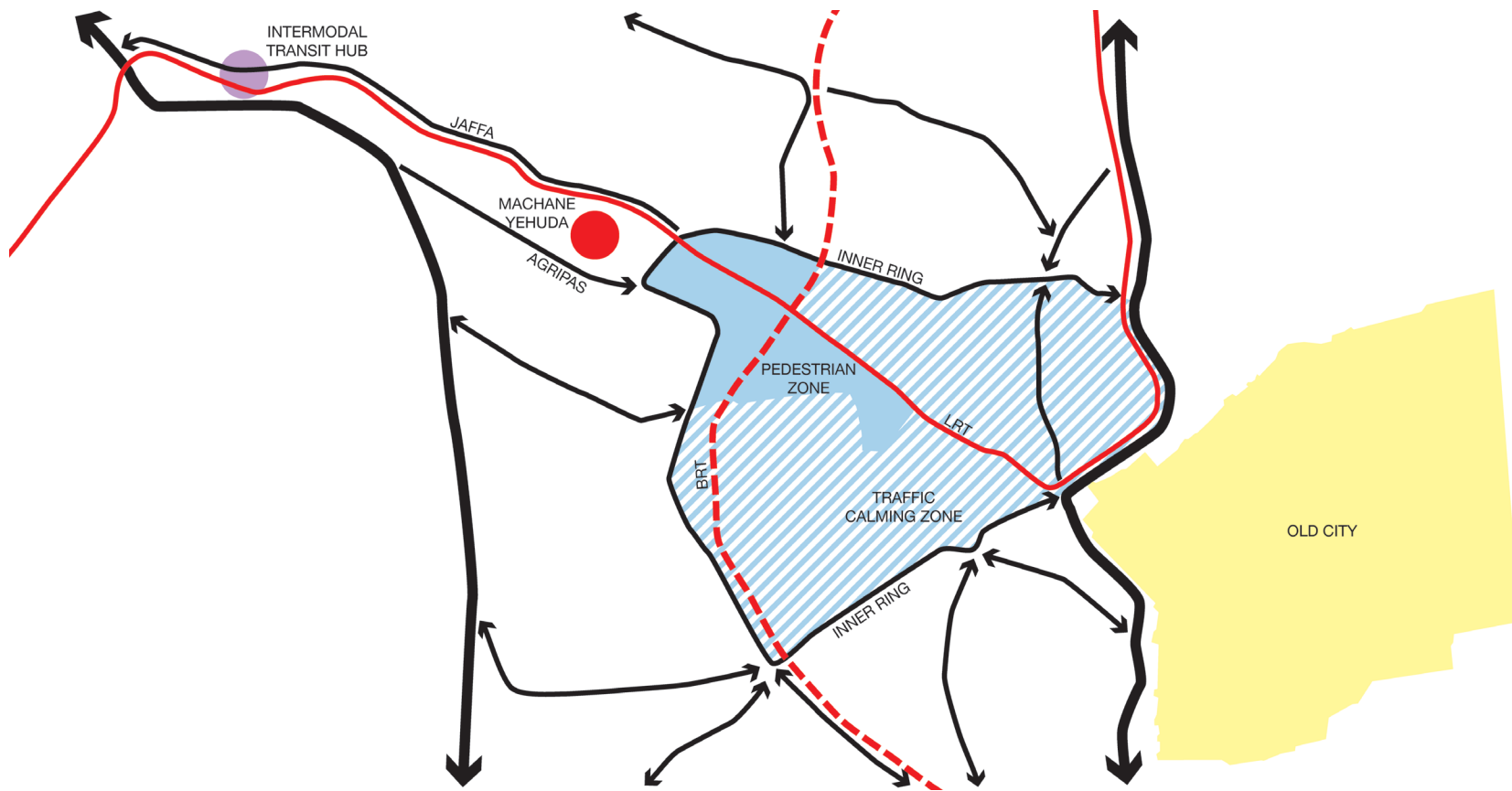


Figure 2.10.

NEW TRAFFIC ARRANGEMENTS FOR THE CENTRE OF WEST JERUSALEM

The pedestrian zone is surrounded by a two-lane inner ring road. One- and two-way roads bring traffic from the arterials to the inner ring. Jaffa Road and Agripas Street near the market have been designated as one-way roads that are expected to carry most of the bus traffic, as well as private vehicles, between the entrance to the city and the city centre.

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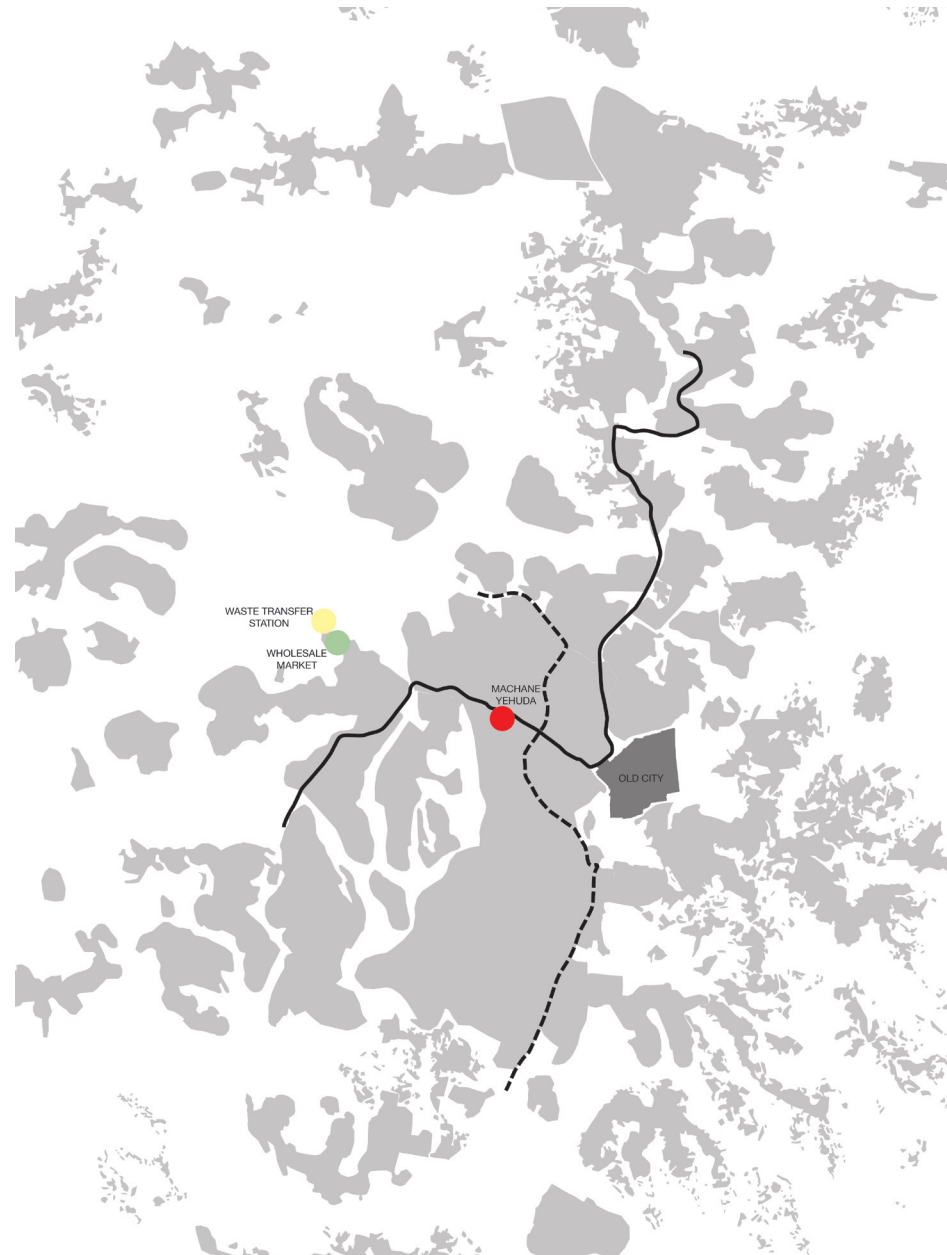


Figure 2.11.

FIRST RAPID TRANSIT SYSTEM

Projected completion April 2011. An LRT (solid line) will run from the western suburbs to the city centre and terminate in the north of the city. A north-south BRT (dashed line) is also under construction.



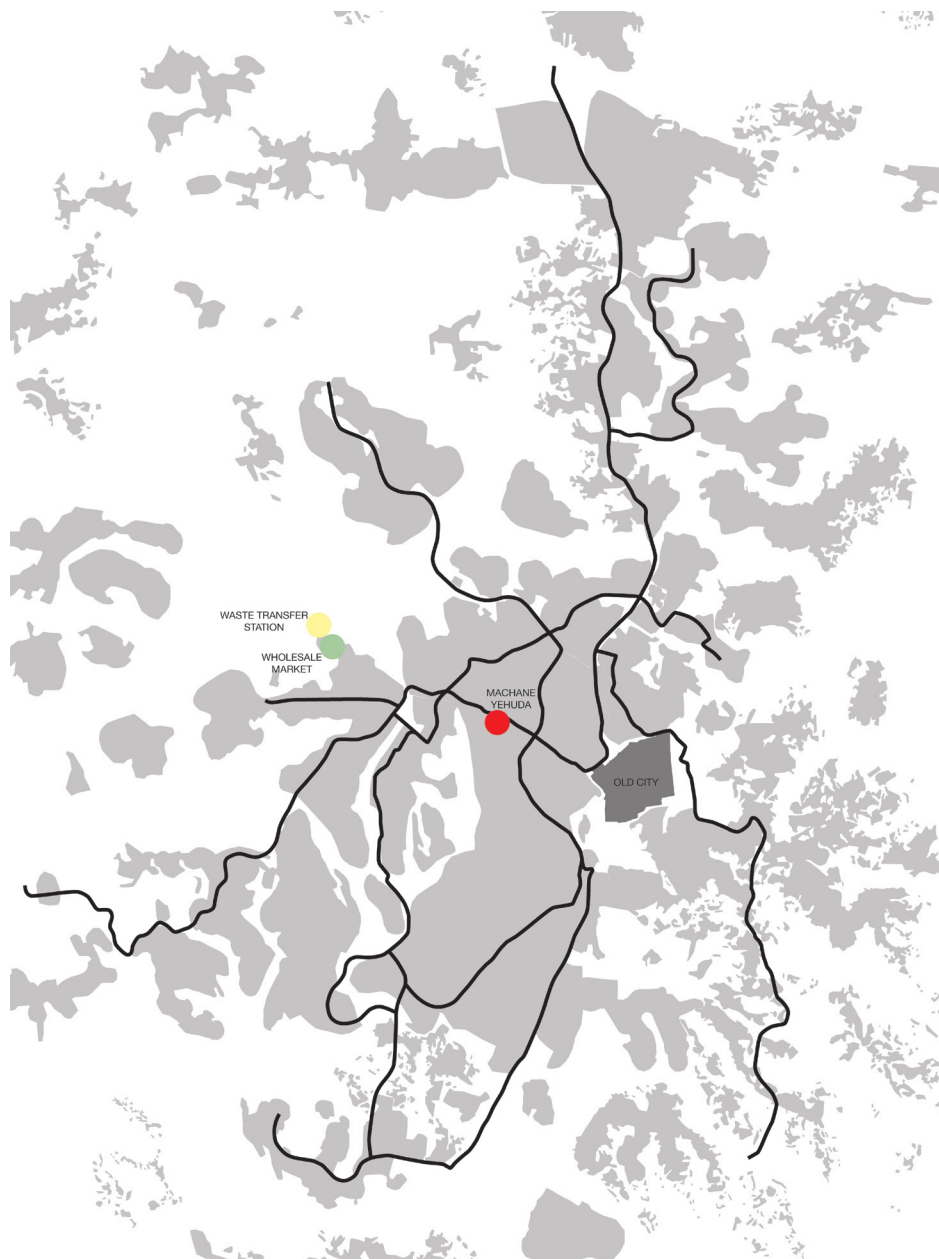


Figure 2.12.

COMPLETE RAPID TRANSIT SYSTEM

Projected completion 2020. LRT lines will serve most of the built-up area including the major university campuses and hospitals.

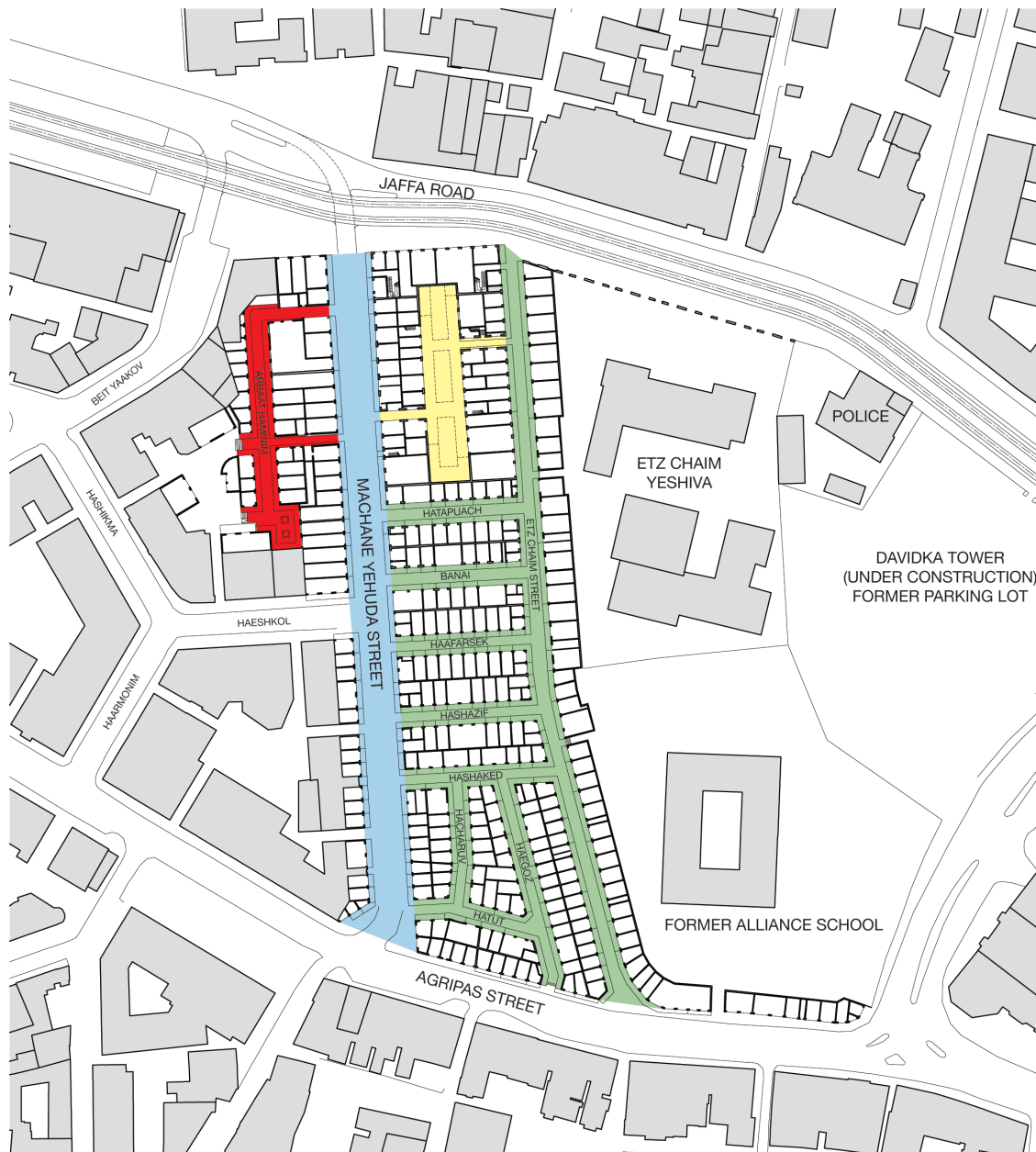


MACHANE YEHUDA

The two main streets of the market, Machane Yehuda Street and Etz Chaim Street, run between Jaffa Road and Agripas Street. Machane Yehuda Street is open to the sky and wide enough for two lanes of traffic, although it is closed to vehicles for most of the day. Etz Chaim Street is much narrower and covered like the rest of the market. A series of covered side alleys, named after various fruits connect Machane Yehuda Street and Etz Chaim Street.

There are four distinct zones in the market: the covered market, the open market, the Iraqi Market and the Georgian Market. The covered market is the most characteristic part of Machane Yehuda. It consists of dedicated, single story market buildings along five and a half- to six-metre wide streets. Each shop has a one and a half-metre wide display area in front of the entrance where produce is displayed and sold. This is where most sales occur. A three-metre wide right of way is left between the displays for people and carts to pass. A step in the paving defines the boundary between public right of way and private display areas. The covered market spills over into the open market or Machane Yehuda Street. At busy times, buskers or hawkers will occupy the centre of the open market. At night and in the early morning, it is used as an unloading area for trucks. The Iraqi and Georgian markets were residential back courtyards that were converted to market use in the 1950's. Proper market structures were not built and the courtyards remained neglected. Over the years, many of the apartments in the surrounding buildings were abandoned due to the resulting pollution and noise. In the 1990's, the Iraqi Market was renovated, a new row of shops and a canopy was built such that it now resembles the covered market. Renovations on the Georgian Market only began in May 2010. Because of the increased crowding in the area, only a third of the stalls will be rebuilt. The rest of the market will become an open courtyard.

The entire zone of the market is strikingly low rise, especially compared to the new high rises going up in the area. Most of the purpose built market buildings are single story. Where upper storeys do exist, they are either used as storage or abandoned.



Covered market
 Open market
 Georgian market
 Iraqi market



Figure 2.13.
THE MARKETS



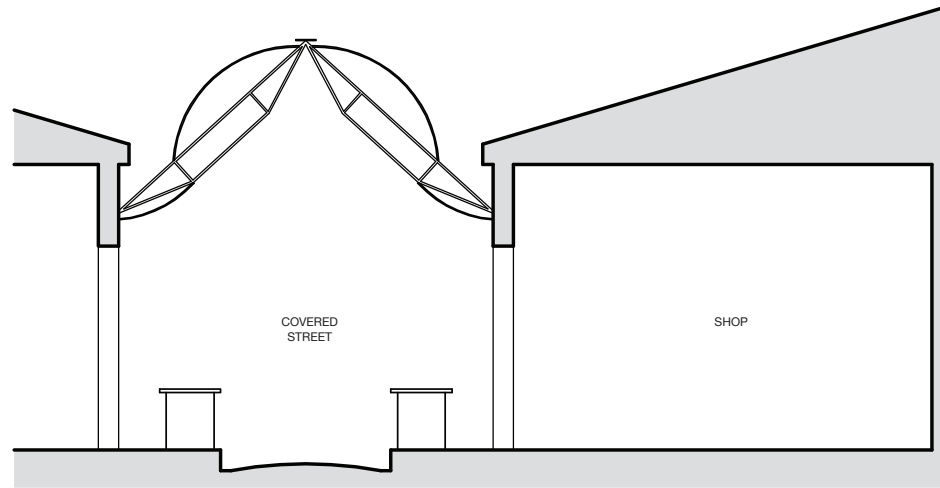


Figure 2.14. Top right: Typical covered street, section.

Figure 2.15. Bottom right: Typical covered street, plan. The streets in the market are between 5.5m and 6m wide. A 1.5m zone on either side of the street is reserved for display from each shop, leaving a 3m wide right of way for pedestrians and cart traffic. The centre of the street slopes to suit the topography while the display areas are stepped and level with the interior of the shops. Most of the shallower shops or businesses that require a large interior preparation space, such as butcher shops and fishmongers, conduct all their sales from the front entrance. Some of the other larger shops have interior display as well which is accessible to the public.

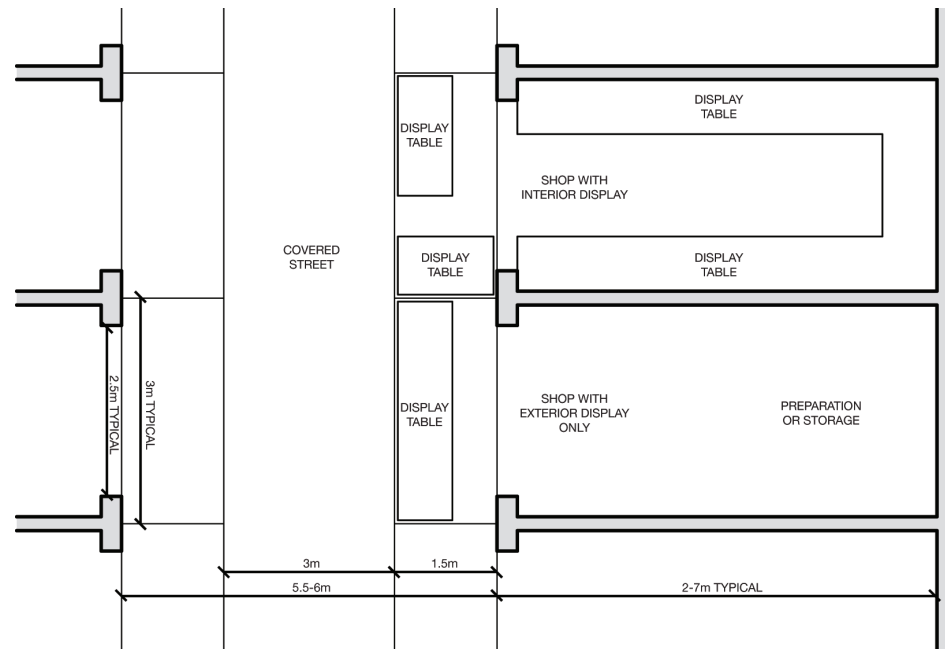


Figure 2.16. Facing: Shops in the covered market.



OPERATION

The primary entrances to the market are from Jaffa Road and Agripas Street. The main bus station and the future LRT station are located just west of the Jaffa Road entrance. The eastbound bus station was recently relocated to Agripas Street, after Jaffa Road was reduced to one-way traffic, but Jaffa Road will remain the primary entrance for transit users since the LRT is expected to carry most of the traffic. Jaffa is also the most convenient entrance for the Haredim who live to the north. Because these two groups are generally poorer and because of the ad hoc character of the Georgian and Iraqi markets, the Jaffa Road side of Machane Yehuda caters more to bargain shoppers. The richer residents of Nachlaot and Rehavia generally enter from the Agripas Street side. The higher end shops that recently appeared in Machane Yehuda are located there. Drivers used to park on a vacant lot east of the market. From there they would enter from a narrow side entrance between two shops. Since construction began in February 2010, most of the parking has been demolished and drivers are forced to park further away.

Border police watch the four main entrances to the market. During the violent years of the Intifada, shoppers were individually stopped and searched before they could pass. Now that the situation has improved, the security check is cursory.

The majority of the shops sell various types of groceries. Others sell clothing and household goods. These shops are mixed in among the food shops but tend to cluster in a few locations on Machane Yehuda Street and Haafarsek Street. There is no clear pattern for the arrangement of various types of food shops although their location is somewhat influenced by shop depths; industrial bakeries, fishmongers, and butcher shops all require significant preparation space while a small vegetable stand can operate with almost no storage. For this reason, the Iraqi Market, where the shops are very shallow, consists almost entirely of produce stands.

There has always been some prepared food sold in Machane Yehuda but the number of food stands and restaurants is growing as the area gentrifies. Higher end restaurants have also appeared. The food stands are scattered throughout but most of the restaurants are located in the south, closer to the wealthier neighbourhoods.





Various services have been added over the years to support the operation of the market. Public toilets were built at the same time as the shops and are located throughout the

market. In the 1980's one of the shops on Haegoz Street was converted into a synagogue, so that the vendors would not need to congregate in the street for afternoon prayers.²⁰ The market committee's offices are located in two portable cabins next to the former parking lot. For recreation, the workers go the backgammon halls or *chamarot* in the vernacular of the Machane Yehuda. The *chamarot* are grouped around a square near the Iraqi Market, which is filled with backgammon and card games for most of the day.²¹

Unloading the trucks that supply the market and removing the garbage it produces are the most problematic aspects of Machane Yehuda's operation. Because of heavy vehicle traffic on Jaffa Road and Agripas Street and heavy pedestrian traffic in the market, almost all deliveries must be done late at night or early in the morning. At these hours, Machane Yehuda Street is opened so that trucks can park there to unload. Around eight trucks can unload at one time. The trucks come in stages; a few come after the market has closed for the night, around 11 p.m. and the rest arrive early in the morning, starting after 4 a.m. Forklifts and handcarts are used to unload the trucks and carry the produce through the narrow alleys. The noise disturbs area residents, as well as the cafes that are beginning to stay open later in the evening. Unloading activity spills over onto sidewalks and lay-bys on Jaffa Road and Agripas Street. During the day, when Machane Yehuda Street is closed to traffic, at least five or six trucks can usually be found unloading here.

The developer of the neighbouring high-rise towers is required to build a small underground loading area as part of the project but the design is flawed and seems unlikely to make a significant impact. The loading area can only accommodate five trucks, does not allow space for forklift movements, and unloaded produce will need to be taken up an elevator and carried into the market through a narrow side entrance.

Garbage is collected by municipal workers with handcarts throughout the day. The handcarts are emptied into two trash compactors that sit on the sidewalks of Jaffa Road and Agripas Street. Odours and blowing garbage make the surrounding area unpleasant.

- LRT station 
- Bus station 
- Parking 
- Former parking 
- Main entrance 
- Secondary entrance 
- Security checkpoint 

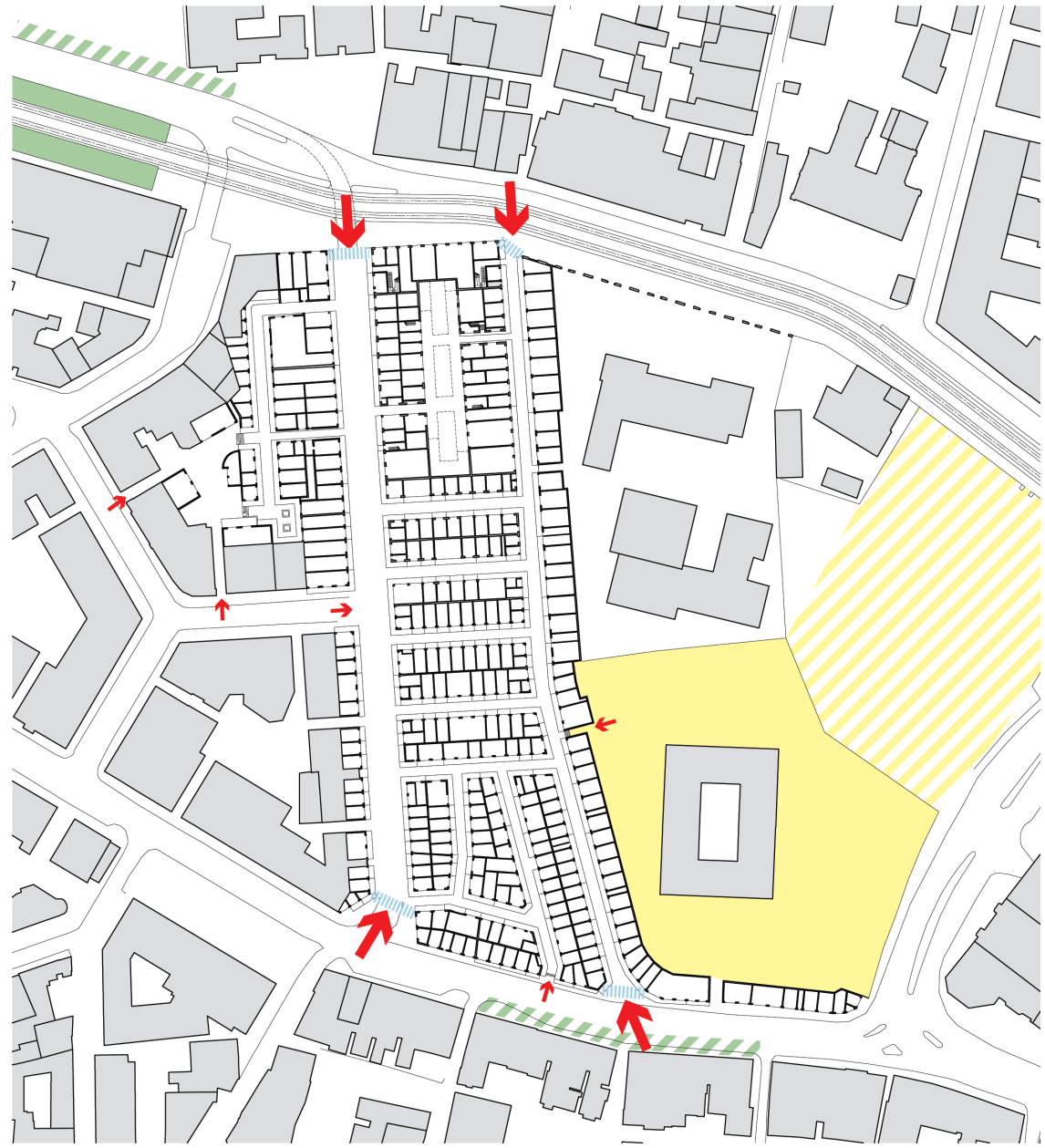


Figure 2.17.
ARRIVAL PLAN

The market has four main entrances at each end of Machane Yehuda Street and Etz Chaim Street. Drivers generally enter from a narrow side entrance near the parking lot.





- Food
- Snack stands and restaurants
- Clothing and household goods

Figure 2.18.

SHOP CLASSIFICATIONS

There are no strict patterns although shops selling clothing and household goods tend to cluster in a few locations.





Figure 2.19.

FOOD SHOP CLASSIFICATIONS

Food shops can be divided into several distinct types. They are not arranged according to any clear pattern although shop depth does have some influence. Bakeries and butcher shops need significant preparation space, while produce stands can operate without any. Note that the Iraqi Market is almost entirely produce because the shops are so shallow.





Restaurants, boutiques and judaica



Figure 2.20.

GENTRIFICATION

Restaurants, boutiques, and judaica shops (selling Jewish ritual items) cater most to tourists and recreational visitors. They are concentrated on the side alleys at the southern end of the market.







- Market committee offices 
- Backgammon halls 
- Synagogue 
- Toilets 

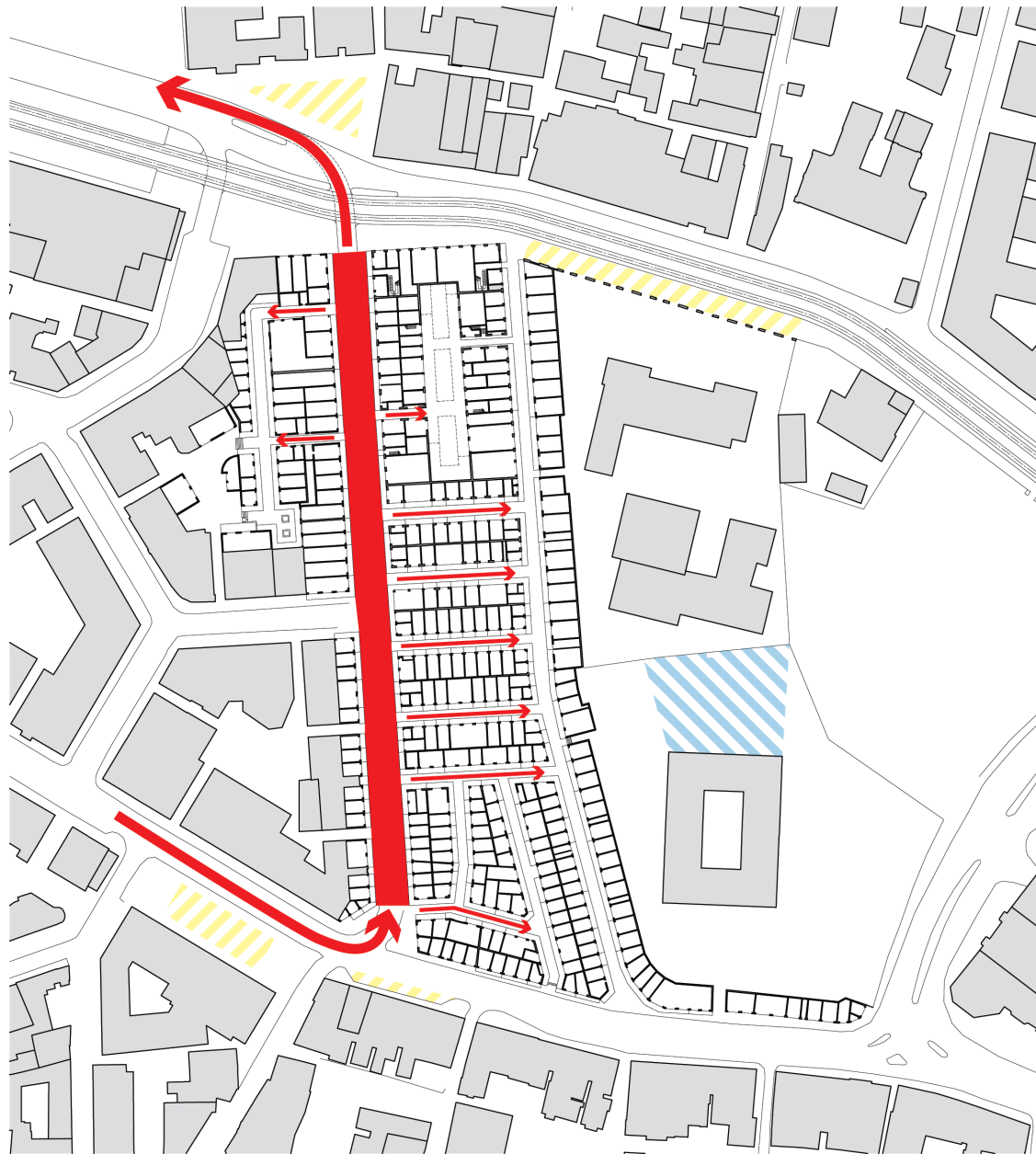


Figure 2.21.

SERVICES

Public toilets are used by shoppers and workers. The remaining services are primarily used by the workers.










- Primary unloading 
- Overflow unloading 
- Proposed underground unloading 
- Truck circulation 
- Forklift and handcart circulation 

Figure 2.22.

UNLOADING AND DISTRIBUTION

Primary unloading, located on Machane Yehuda Street is available only at night. Activities spill over onto the surrounding sidewalks where deliveries occur throughout the day. The underground loading to be built as part of a new highrise development is unlikely to be of much use as it is currently designed due to its inconvenient location.



Waste compactor
Truck circulation
Handcart circulation

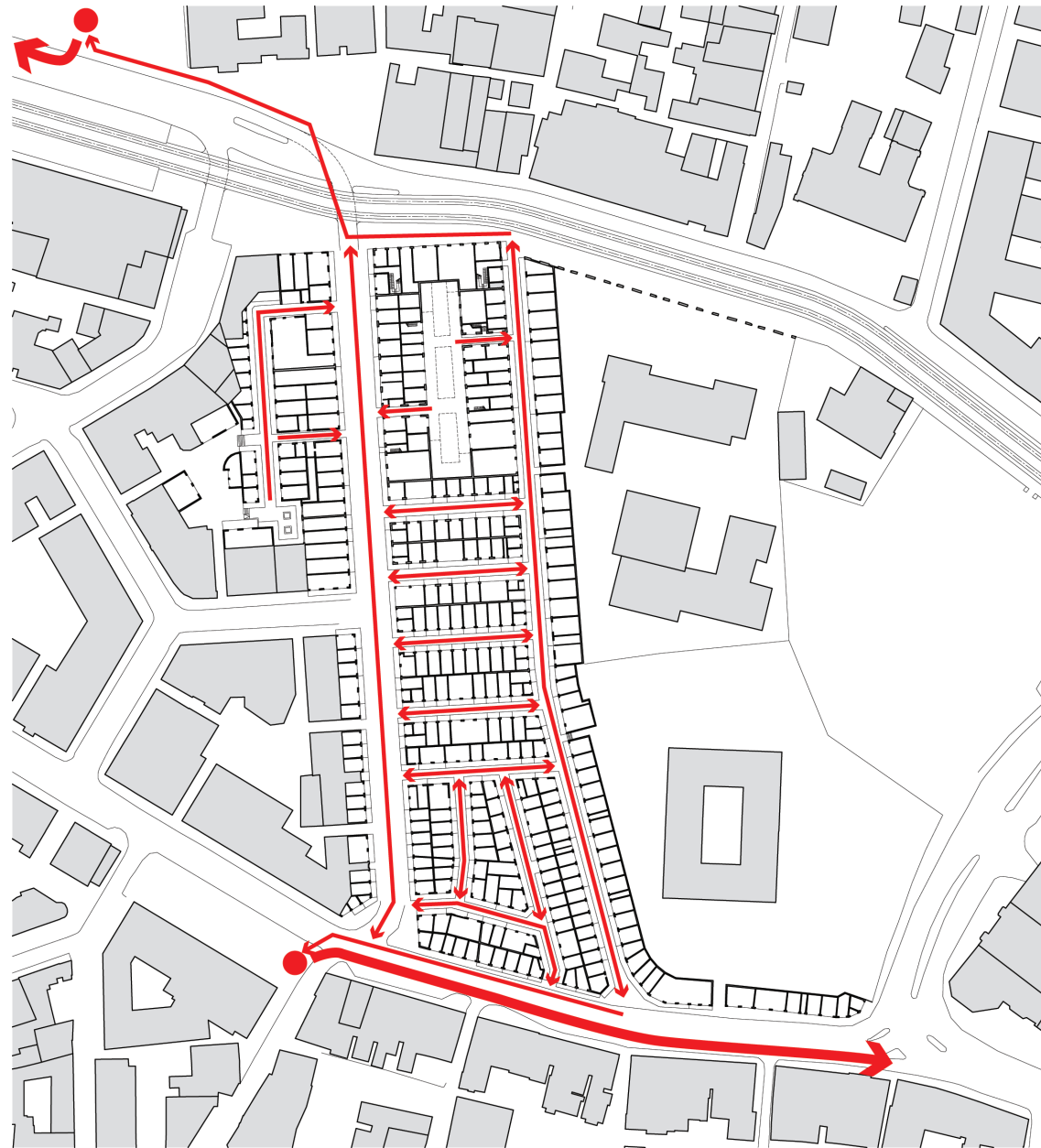


Figure 2.23.

GARBAGE COLLECTION

Waste is collected throughout the day in handcarts and carried to two waste compactors that sit on the sidewalk. The compactors are removed periodically by trucks and are emptied at the transfer station.

0 10 20 30 40 50 m



PROGNOSIS

The situation will become more difficult over the next few years. As part of the work for the LRT, the sidewalks on Jaffa Road have been repaved in granite and trees are being planted. Once the work is complete, it seems unlikely that unloading will be allowed to continue there. Agripas Street will need to carry much of the traffic that is being rerouted from Jaffa Road, so daytime unloading is unlikely to continue there as well. Once the high-rises are completed, nighttime unloading will also be threatened. There have been frequent complaints about the noise from residents over the years, but the poor residents lacked the political clout to get attention. The new residents of the luxury apartments have resources so it will be more difficult for politicians to ignore them. If a workable solution is not found soon, the market could be pushed out of the centre.

PART 3: DESIGN

APPROACH

Machane Yehuda's economic viability is threatened by poor access for deliveries, and extremely limited space for storage and food preparation. Since 1948, there have been multiple attempts to solve this problem by relocating the market to a more accessible location outside the city centre where modern facilities could be built. In the 1970's, a new market was even built in Talpiyot,¹ an industrial park in the southern part of the city, to replace Machane Yehuda but it never became popular. Most of the market's poor customers do not drive and, while it is inconvenient for delivery trucks, Machane Yehuda's central location, which is within walking distance to many of Jerusalem's poorest neighbourhoods and at an important node of the public transportation system, makes it convenient for shoppers. Jerusalemites also have a strong cultural attachment to the old marketplace. The market and the surrounding courtyard neighbourhoods form one of the oldest and largest blocks of Jewish settlement in the city. Most of the Jewish neighbourhoods of Jerusalem are relatively modern, so this Ottoman era urban fabric has become an important symbol of Jewish continuity in the holy city.

The 1968 master plan for Jerusalem sought to improve vehicular access to the market and rest of the city centre by constructing new roads and expanding existing routes.² The plan would have required large-scale demolition and now that the importance of the historic urban fabric has been recognized, it is no longer under consideration. More recent proposals have advocated the construction of road tunnels under the city centre to provide underground access to loading docks and parking garages.³ Tunnels would minimize the disturbance to the existing neighbourhoods but are expensive to construct and seem unlikely to be realized in the near future.

In order for the market to survive an efficient, dedicated infrastructure is required to bring goods into the market and distribute them to individual shops. At the same time, the existing fabric of the market is culturally and historically significant and deserves preservation. The following proposal seeks to provide the market with the facilities it needs while maintaining its historic fabric and avoiding the need for new roads that are difficult and expensive to provide. The proposal contains two parts: a cargo tram that uses the new LRT tracks to provide deliveries to the market and a logistics terminal at Machane Yehuda to provide facilities for unloading, garbage collection, storage, and food preparation.

CARGO TRAM

The logistical situation has continued to deteriorate since construction began on the LRT, which further reduces the road space available for deliveries, but the LRT also creates a new opportunity to transport freight to the market by rail. Throughout the nineteenth century, tram and streetcar tracks were commonly used to transport freight as well as passengers. As truck traffic increased, these services were gradually discontinued due to the difficulty of operating rail vehicles in mixed traffic and the noise such vehicles created.⁴ Over the past decade, the concept has regained popularity in Europe as an efficient and clean way to transport freight in crowded historic cities. Technological advances have eliminated many of the shortcomings of the older systems. Modern LRT vehicles are now much quieter than delivery trucks and operate on dedicated rights of way to avoid mixed traffic.

Dresden was the first city to introduce a modern cargo tram in 2001 to supply Volkswagen's Transparent Factory. The route from the rail yard where car parts arrive to the new factory crosses the historic centre. In order to avoid heavy truck traffic across the city, Volkswagen constructed cargo tram vehicles that use the rails of the public transit system. Cargo trams run every hour, but can run every forty minutes if necessary. The trams provide the factory with reliable, regular shipments without inconveniencing the residents of the city centre.⁵

In 2003, Zurich implemented a cargo tram service to collect bulky items for recycling or incineration. Since previously these items were only accepted at a suburban recycling centre, illegal dumping was common in the central neighbourhoods. In order to solve this sanitation problem, the waste collection and recycling agency decided to provide regular collection for these items at various locations in the city. The tram proved to be the most efficient method as it could use existing infrastructure and avoid traffic. The cargo tram now visits nine stations distributed throughout the city, once per month each. The program could be implemented very quickly because it reused old vehicles and unused sidings. It has since been expanded to include special collection for electronics as well.⁶

A much more ambitious cargo tram system was piloted in 2007 in order to overcome traffic problems in Amsterdam's historic centre. The system was designed to include a fleet of fifty cargo vehicles that would transport goods to a network of distribution hubs in the centre of the city. From there, the containers would be transferred to small



Figure 3.1. Top: The Dresden Cargo Tram, a dedicated vehicle that supplies Volkswagen's Transparent Factory.

Figure 3.2. Above: Zurich's cargo tram pulls a standard waste container to collect electronics and a special container equipped with a press to compact larger items.



Figure 3.3. Top: A forklift unloads a container from a former passenger tram modified for cargo during Amsterdam's pilot project.

Figure 3.4. Above: The small electric vehicle used to deliver the container to its final destination.

electric vehicles and delivered to their final destinations. It was intended to replace half of the 5000 trucks that enter Amsterdam each day. The pilot, which involved two converted passenger trams, was successful and preparations began to implement the full system.⁷ Unfortunately, the project was cancelled in 2009 when it failed to receive private funding due to the financial crisis.

Moving freight by light rail has several advantages. The dedicated right of way ensures regular timely deliveries regardless of traffic. This can be provided without adversely affecting passenger service since peak loading times do not overlap with peak operating times for public transit. When the transit system is not operating at full capacity, there is sufficient time between passenger vehicles for the cargo tram to pass without causing any delay. Like the passenger vehicles, the freight vehicles use electrical energy, which does not pollute the city centre, and could be produced from renewable sources. Each cargo vehicle can carry the load of several trucks, greatly reducing the number of trips required. Unlike the proposals to service the market with underground tunnels, the cargo light rail vehicle would use infrastructure that is already under construction. As a result, the system could begin operation much sooner with fewer costs.

A freight tram system in Jerusalem would begin with a limited service to Machane Yehuda but could eventually be expanded to serve a much larger area. The Old City and central business district of West Jerusalem are both located along the LRT line. The narrow, stepped, medieval streets of the Old City have always excluded vehicles and the recent pedestrianization of the central business district is creating a similar situation there. Deliveries for the Old City could be unloaded at Damascus Gate, adjacent to the tram route, and a series of sidings could be built along Jaffa Road to supply the city centre. Like in Machane Yehuda, the introduction of cargo tram service here could extend delivery hours while reducing pollution and congestion.

The tram would run from the waste transfer station and the wholesale market at the western entrance to Jerusalem to Machane Yehuda. A two-kilometre spur line would be required to connect the waste transfer station and the wholesale market to the existing track but almost a kilometre of that route follows a planned extension to the system, so only one kilometre of additional track is needed. A loop is included in the complete network that would allow the cargo tram to bypass congestion near the central bus station if necessary.

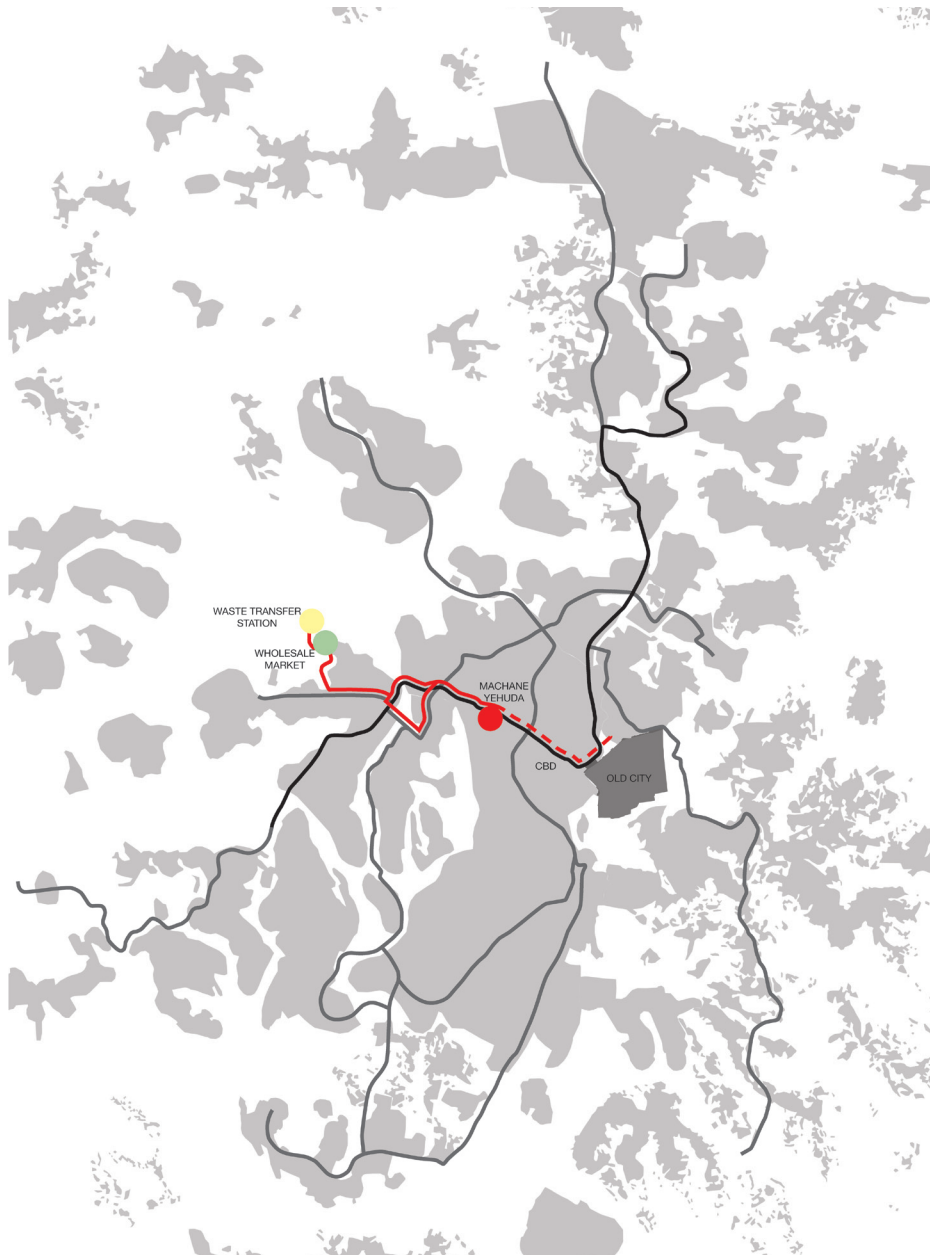


Figure 3.5.

CARGO TRAM ROUTE

The route between the waste transfer station, wholesale market, and Machane Yehuda is shown in red. A possible extension to serve the central business district and the Old City is dashed. The unloading locations are all located along track that is already under construction (black). The full LRT network is shown in dark grey.





Figure 3.6. Top: Refrigerated pallet boxes would allow the cargo tram to carry refrigerated cargo with other freight.

Figure 3.7. Above: A garbage container with a compaction press, at Machane Yehuda.

Figure 3.8. Facing: Cargo tram and garbage compactor, plan and elevations.

VEHICLE

The cargo tram is a dedicated freight vehicle that uses the tramway's right of way. The vehicle is constructed using standard components but the bodies are custom built to suit cargo service. It is only slightly longer than a passenger tram but its rectilinear form, which provides maximum cargo space, clearly distinguishes it from the rounded passenger vehicles. A driver's cab is located on both ends to allow for bidirectional travel. The centre cars are freight units with retractable canvas sides that allow forklift trucks to load and unload from both sides.

Each tram has a cargo area equivalent to four nine-metre long trucks, the largest truck that can enter the market. As a result, only two trams are needed to replace eight trucks, the maximum number that can currently unload simultaneously on Machane Yehuda Street. Faster unloading, consolidated loads, and extended hours of operation would further boost the capacity of the new system in order to accommodate increased demands in the future. Refrigerated pallet sized containers could be used to transport temperature sensitive shipments, such as dairy and meat products, alongside unrefrigerated products. Smaller refrigerated containers allow cargo space to be allocated more flexibly, unlike larger refrigerated vehicles, which often travel partially empty. A similar container, known as the Pallet Reefer, is currently being used in the United States and Europe to transport less-than-truckload refrigerated shipments in unrefrigerated trucks.⁸

Garbage is collected in large containers, equipped with a compaction press, similar to what is currently in use. Similar to the containers used by the Zurich cargo tram, they are towed on flatbed railcars. Empty containers are hitched to the back of the cargo tram for transport to the market and left there until they are filled. When the containers are full, they are hitched to the back of the cargo tram and returned the waste transfer station to be emptied.

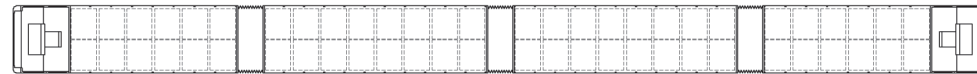
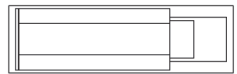
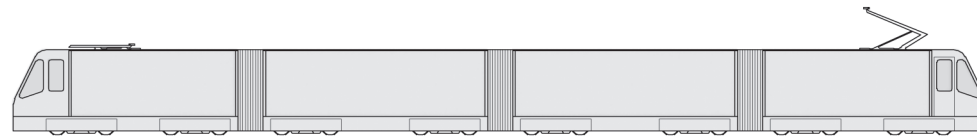




Figure 3.9. Top: The 1931 market buildings on Machane Yehuda Street.

Figure 3.10. Above: Backgammon players in the Iraqi Market.

SITE

At Machane Yehuda, a new logistics terminal will be constructed to provide space for unloading, garbage collection, workshops, and storage. These functions currently occur informally in the surrounding area and create conflict with residents. The terminal is located at the northwestern edge of the market, adjacent to the tramway on Jaffa Road and facing the market's main street. Smaller side roads provide vehicular access.

This site is currently occupied by a heterogeneous group of buildings. Those facing Machane Yehuda Street were built in 1931 for a smaller group of merchants who were not given shops in the original Loan and Savings Market, built one year earlier on the opposite side of the street.⁹ Residential buildings occupy the remainder of the block. In 1956, the municipality hastily established a makeshift hawkers market in the centre of the block to relieve overcrowding in the main market.¹⁰ The area is now known as the Iraqi Market, after the origin of many of the vendors. Since the establishment of the market, many of the surrounding apartments were abandoned because of the resulting noise and pollution. Improvements were made to the market in the early 1990's, as part of the renovation in all of Machane Yehuda. New shops and a roof were constructed at grade, but the apartments on the upper floors were left in their dilapidated state.¹¹ The shops are relatively small and irregularly shaped since they were wedged against existing structures. A small open courtyard remains behind the market, where the merchants of Machane Yehuda can be found playing backgammon and cards in their leisure time.

The Iraqi Market, along with the Georgian Market on the opposite side of Machane Yehuda Street, are known for selling the most affordable produce, and support the poor Haredi community north of Jaffa Road. The Iraqi Market and backgammon halls are an integral part of the market but the remainder of the block is abandoned or underused. The new terminal will provide new shops for the Iraqi Market and a backgammon hall while replacing the underused apartments with service spaces, vital to the marketplace's survival. The terminal will concentrate a series of operations, which currently occur in a disorganized fashion in the surrounding area. By removing these activities from the streets, the terminal will improve the quality of life for residents and allow for increased residential density as called for in the official plan.

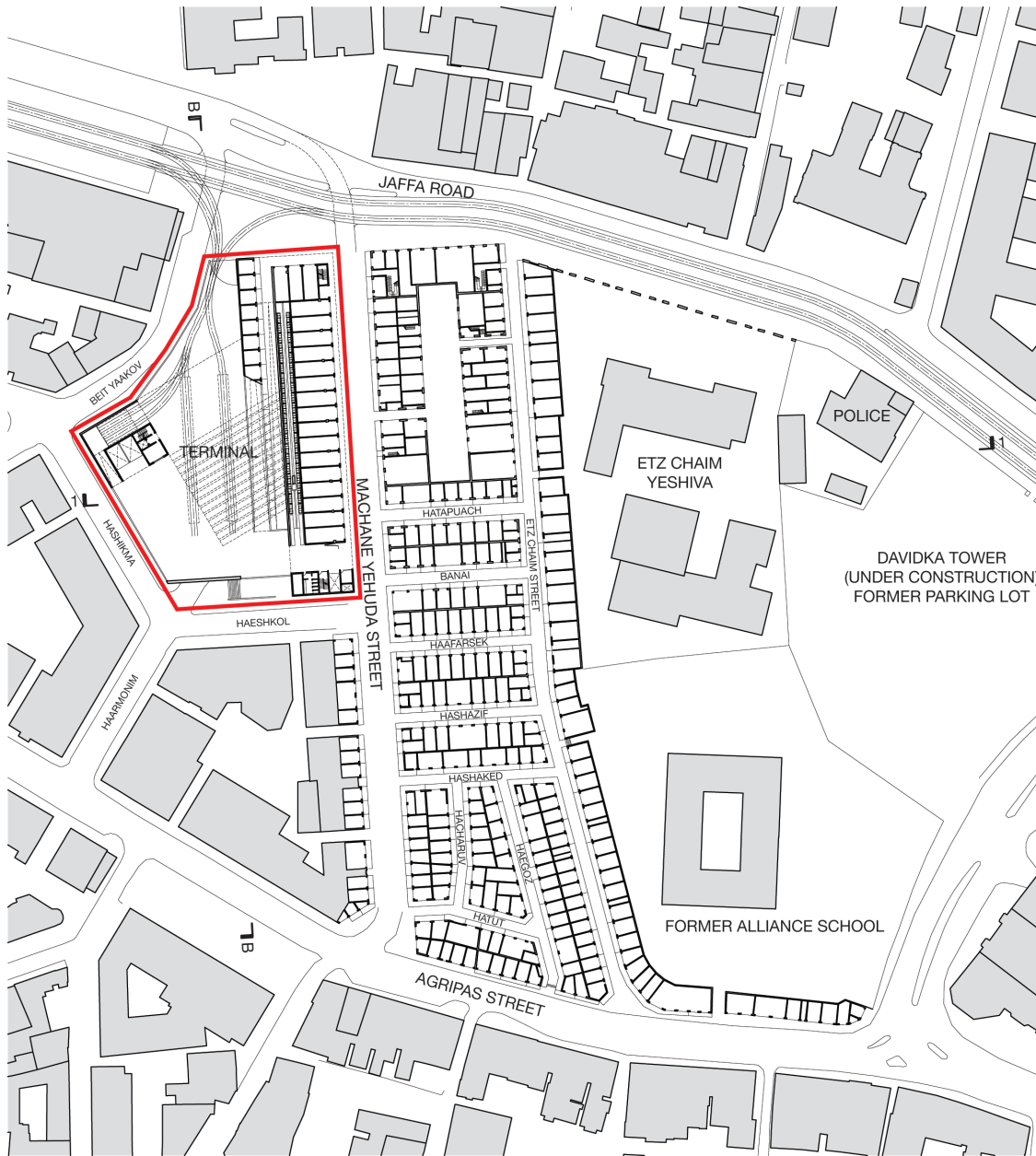
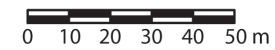
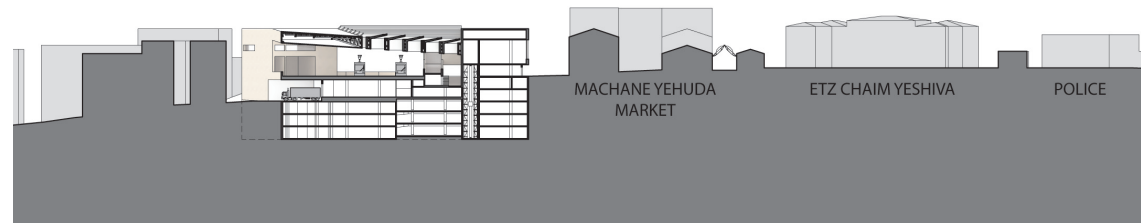


Figure 3.11. Above:
EXISTING PLAN

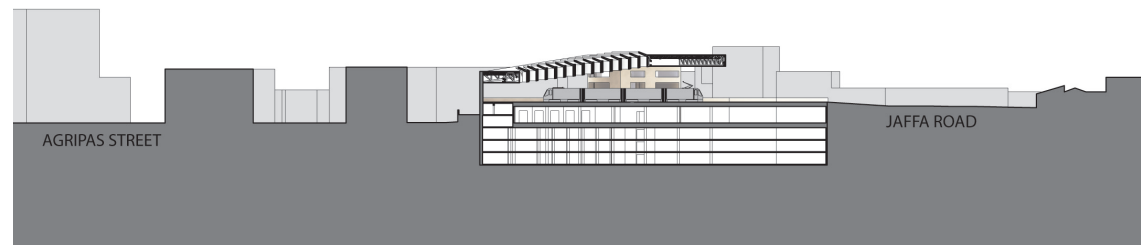
Figure 3.12. Left:
SITE PLAN

The Terminal is located in the northwestern section of the market with access to the LRT tracks on Jaffa Road and Machane Yehuda Street.





SECTION 1



SECTION B

Figure 3.13.

SITE SECTIONS

Figure 3.14. Facing: View from Jaffa Road, approaching the market from the west.





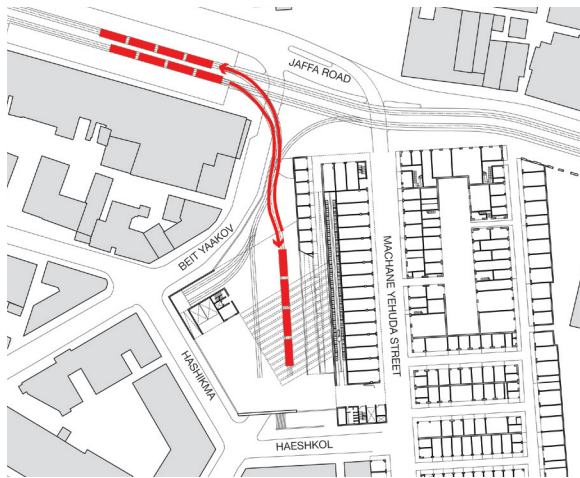


Figure 3.15. Top: Cargo delivery by tram.

Figure 3.16. Above: Garbage collection by tram. In order to place the empty compactor in position, the tram must back into the terminal.






Figure 3.17. Facing: Cargo Tram leaving the Machane Yehuda Terminal.

CIRCULATION

Most goods arrive at the terminal by cargo tram. The tram travels east from the wholesale market along the public transit tracks. At the market, the cargo tram turns into the terminal to avoid obstructing passenger vehicles during unloading. Inside, two sidings are provided so that two trams can be unloaded simultaneously. Other goods, that cannot easily be delivered in the cargo tram, continue to arrive by truck. Five loading docks are provided, facing Hashikma Street, for these deliveries. In the terminal goods are transferred to forklift trucks or handcarts for delivery to the individual stalls. The carts exit the terminal onto Machane Yehuda Street. From there, they can travel up the small alleys to reach each individual shop.

Municipal workers with carts continue to collect garbage since larger vehicles cannot enter the market, especially when it is crowded with shoppers. The two trash compactors where the carts are emptied are relocated inside the terminal, from their current locations on Jaffa Road and Agripas Street. The compactors are mounted on flatbed rail cars to facilitate their removal by rail. When a container is full, it is hitched to the back of a cargo tram leaving the terminal and transported to the waste transfer station to be emptied. The empty container is towed back to the market by another cargo tram bringing supplies to Machane Yehuda. In order to position the compactor, the tram must continue past the terminal and back the container into place. Collection times for the two compactors can be staggered to ensure that one is always available.



- Cargo tram unloading 
- Truck unloading 
- Cargo tram circulation 
- Forklift and handcart circulation 
- Truck circulation 

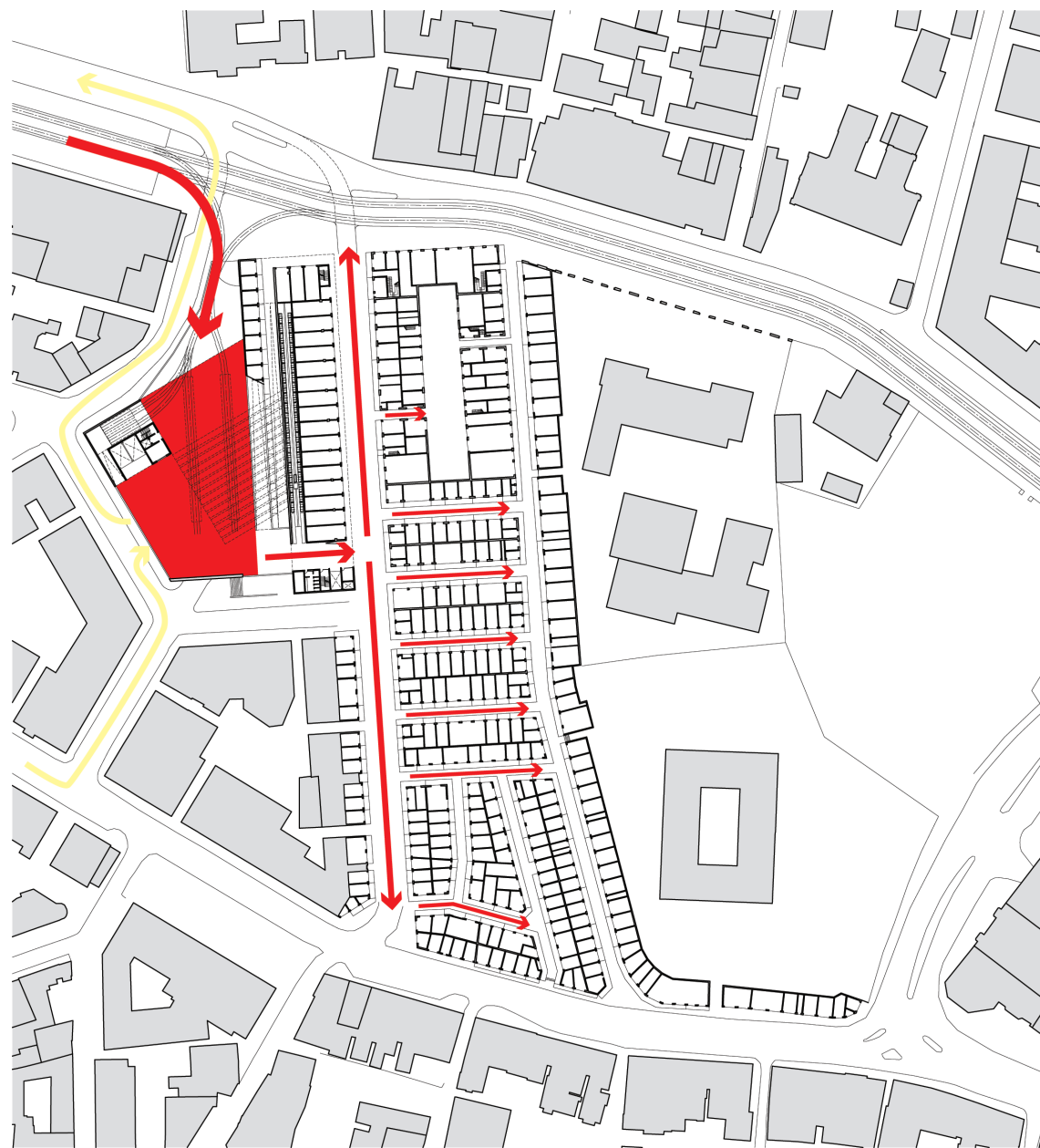
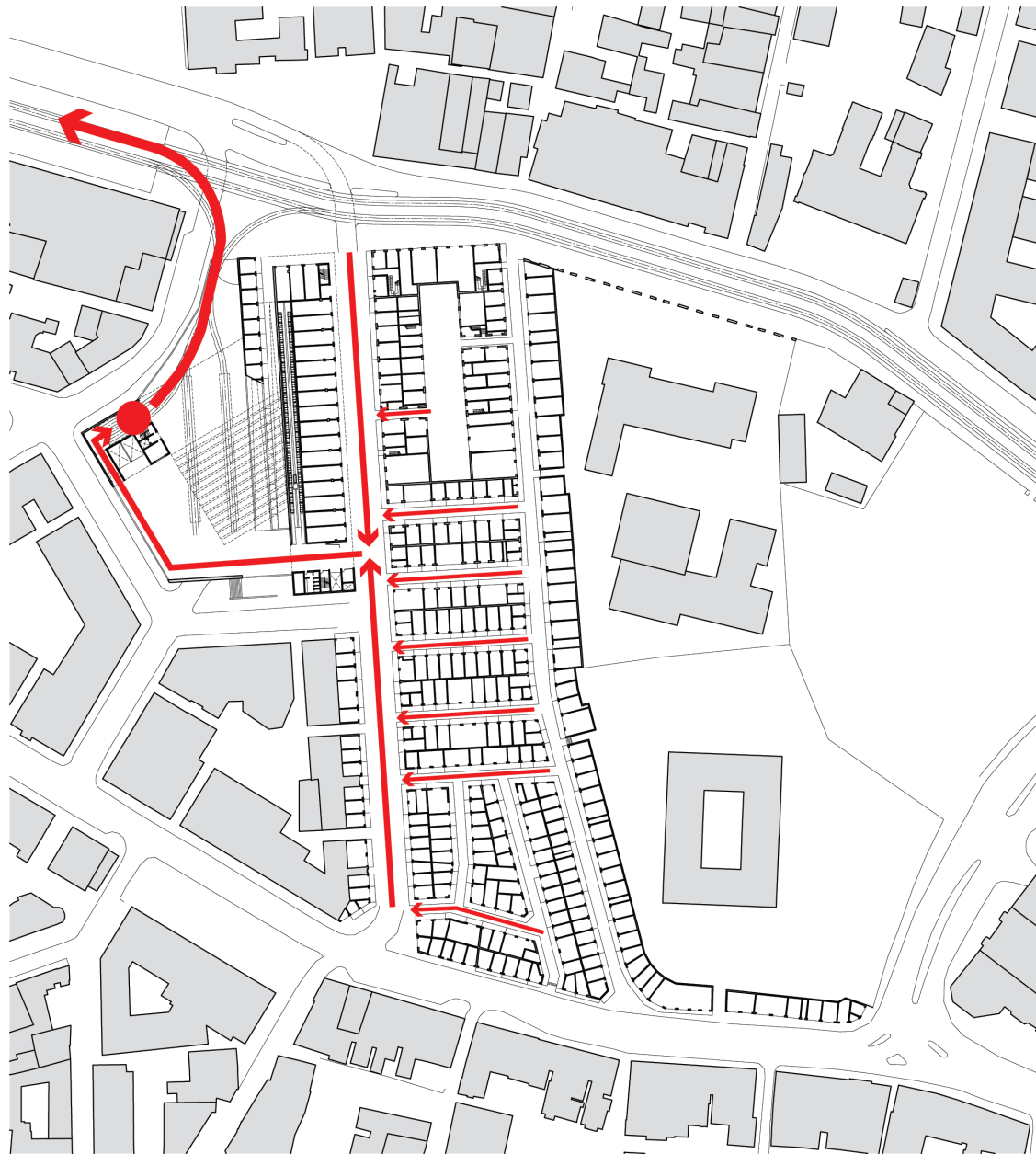


Figure 3.18.
PROPOSED UNLOADING AND DISTRIBUTION

All unloading activities occur inside the terminal. The cargo tram unloads on the upper level. Truck loading docks are located below and accessed from a side street. Goods enter the market by handcarts and forklift trucks via Machane Yehuda Street.





Waste compactors

Cargo tram circulation

Handcart circulation



Figure 3.19.

PROPOSED GARBAGE COLLECTION

Garbage continues to be collected by handcarts inside the market. The handcarts are emptied into trash compactors located inside the terminal. Full compactors are removed by cargo tram. The carts no longer obstruct traffic on Jaffa Road and Agripas Street and the receptacles have been removed from the sidewalks.

0 10 20 30 40 50 m



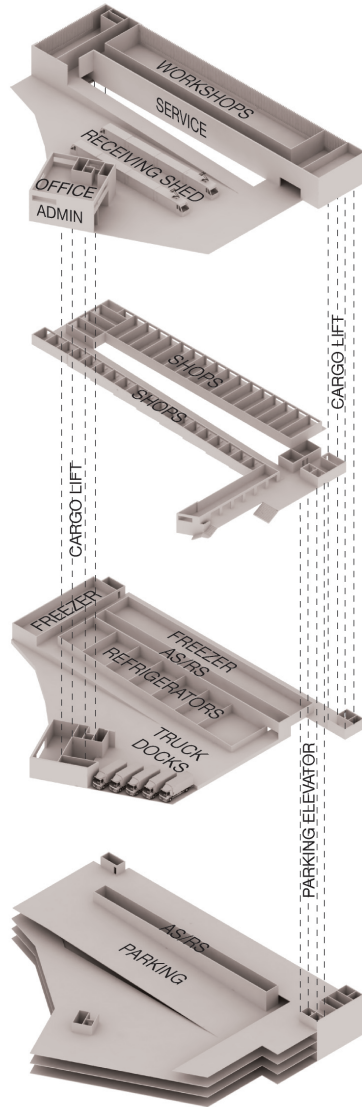


Figure 3.20. Above: Organization of terminal, exploded axonometric.

Figure 3.21. Facing: Interior view of receiving shed.

TERMINAL

The terminal is divided into three components; the receiving shed at the centre of the complex is bordered by the administration building on the western side of the site and the service building to the east, facing Machane Yehuda Street. Loading docks for trucks and a four hundred and forty spot underground parking garage are located below.

The receiving shed is the most important space in the terminal. In the shed, goods are unloaded from the cargo trams by forklift trucks, sorted, and then transferred directly to a shop in the market or to a storage space or workshop within the terminal. The shed is designed to moderate the extremes of Jerusalem's long, dry summers and relatively cold, rainy winters without requiring mechanical climate control. A long span roof covers the shed to protect goods and workers from winter rains and shade them from the heat of the sun. Large openings to the west open the shed to the cool breezes from the Mediterranean while the building to the east blocks the hot, dry, and dusty wind that occasionally blows from the Arabian Desert. Skylights, located above the centre of the shed, are angled to accept midmorning light from the southeast when the terminal is busiest. They are shaped to block direct sunlight and glare, and instead reflect diffuse even light down to ground level. The skylights also assist in venting hot air that accumulates under the roof.

New offices for the Market Committee are located on the upper floor of the administration building, where they can easily supervise operations on the floor of the receiving shed below. Smaller foreman's offices are located below the main office to directly supervise operations at the level of the receiving shed floor and the truck loading docks, respectively. Cargo lifts to carry goods between the truck docks and the receiving shed, and space for the trash compactors are also located here.

In addition to providing space for unloading and garbage collection, the terminal consolidates Machane Yehuda's storage and workshops in the service building. The small shops of Machane Yehuda provide only limited space for storage or preparation. For many merchants, especially those who deal in perishable goods that must be sold promptly, the lack of space is not a problem. However, for others, including bakeries and butcher shops which require large preparation spaces, and dry goods dealers, who may require longer term storage, it is a severe limitation. Many of these businesses have converted shops or apartments in the surrounding area into storage or workshops



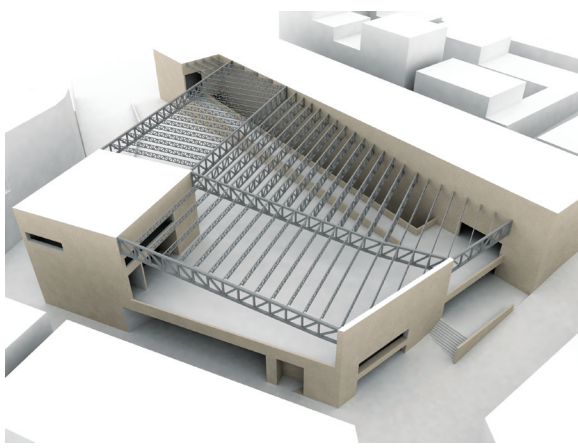


Figure 3.22. Above: Receiving shed roof superstructure, cutaway perspective. The roof is supported at the perimeter, without central columns, to avoid obstructing vehicle movements. Four large steel truss girders span between the main supports. Smaller open web steel joists bridge between the girders. Larger members are used to frame the skylights at the center of the roof.

where they prepare goods for sale in the market. Their presence has weakened the surrounding residential communities by occupying space that would otherwise be inhabited and creating noise and pollution that discourages people from living in the area.¹² In order to alleviate these problems, the terminal provides a shared storage facility for the market, as well as workshop spaces for lease by individual bakeries, butchers, and fishmongers.

The service building contains storage below grade, new shops for the Iraqi Market at street level, and workshops above overlooking Machane Yehuda Street. Storage is operated as a shared facility, which allows space to be allocated flexibly and efficiently according to the changing needs of individual merchants. Shared space also reduces the overhead costs for merchants, who only pay fees when they place items in storage, instead of paying to maintain independent facilities, which may not always be fully utilized.

The terminal offers several specialized types of storage to suit different goods. An automated storage and retrieval system (AS/RS) is designed to hold pallets and pallet boxes. AS/RS have become popular because they offer high-density storage and fast, efficient and accurate movement of goods. The system consists of three components: tall racks where pallets are stored; an automated stacker crane that stows and retrieves pallets; and a control system that manages the system. Racks are arranged facing each other across an aisle. The crane has a tall mast that travels up and down the aisle on rails. A carriage, equipped with a telescopic lifting device travels vertically along the mast so that it can reach any position in the racks. Because the crane can operate in very narrow aisles only slightly wider than the pallet itself, and can reach much higher positions than a manual forklift truck, it greatly increases the density of the storage. A control system manages both the location of the goods and controls the movements of the machinery.¹³ The control system records the location and owner of each pallet so that individual merchants can retrieve their goods from the AS/RS at any time. The racks extend the entire depth of the parking garage to provide maximum storage space. Pallets can be inserted or removed from the AS/RS directly from the main receiving shed or from the truck bays via a pick up and drop off station at each level. At the pick up and drop off stations, pallets are placed on a conveyor that moves the load into position for the stacker crane. When pallets are removed from storage, the crane places them on a second conveyor, where they can be picked up by manual forklift trucks.

Some refrigerated shipments, which arrive by cargo tram, will be packed in refrigerated boxes that can be placed in the AS/RS but others, which usually arrive by truck, need refrigerated storage space. These spaces are located on the lower level, adjacent to the truck bays. Both chilled and frozen storage areas are provided. The precise requirements for chilled storage vary greatly for different types of produce. Optimum temperatures range between 0 and 10 degrees Celsius and humidity varies as well.¹⁴ In addition, certain varieties of fruit must be stored separately because the ethylene gas they release during ripening will accelerate the spoilage of other produce.¹⁵ As a result, the chilled storage is divided into several compartments that can be individually adjusted based on the items to be stored. Frozen goods are much more stable so there is no need to compartmentalize these areas. In addition, a large open area is provided next to the truck bays for irregular items that cannot be placed in the AS/RS.

At street level, new shops continue the fabric of the market into the terminal itself. Facing Machane Yehuda Street, deeper spaces are provided to suit the shops selling household goods and the restaurants that prefer this location. A second shopping street, behind the shops on Machane Yehuda Street, descends from Jaffa Road to Haeshkol Street in order to create a new pedestrian connection between the neighbourhood west of the market and the LRT station on Jaffa Road. The shops here are relatively shallow, to suit the needs of the produce sellers who sell from the existing Iraqi Market. New backgammon halls are located at the southern end of the new market overlooking Haeshkol Street.

The workshop spaces are located on the upper level of the service building, overlooking Machane Yehuda Street. Finished goods from the workshop are carried down a ramp and into the market to be sold. A goods lift is provided at the southern end of the building to carry larger items between refrigerated storage, the receiving shed, and the workshops.



Figure 3.23. Above: An automated atorage and retrieval system.

- Covered market
- Open market
- Georgian market
- New Iraqi market

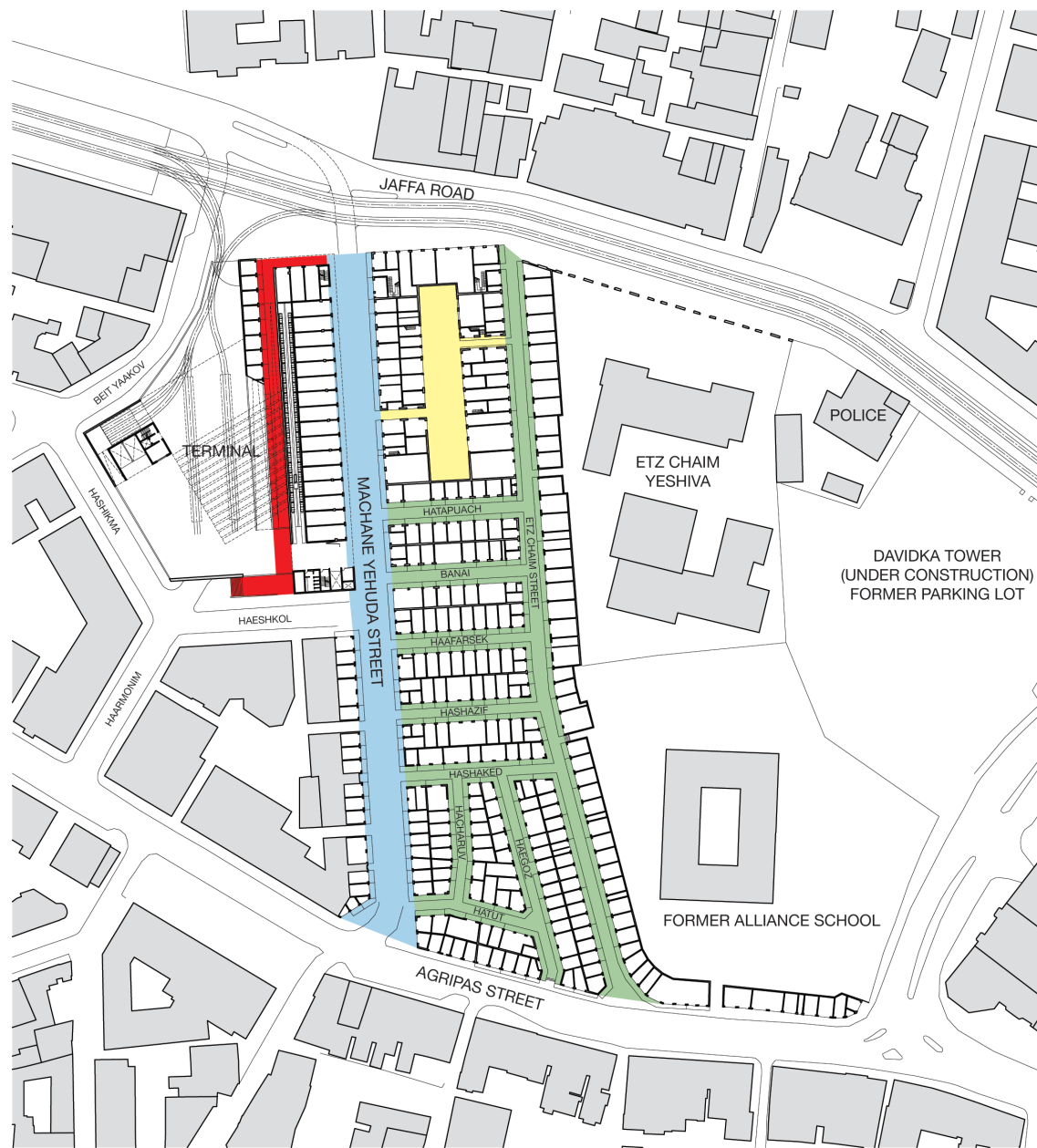


Figure 3.24.

THE MARKETS

The new Iraqi Market and backgammon halls are shown.

Figure 3.25. Facing: The new Iraqi Market.





- 1 Parking
- 2 Public elevators
- 3 Employee elevator
- 4 AS/RS
- 5 Mechanical

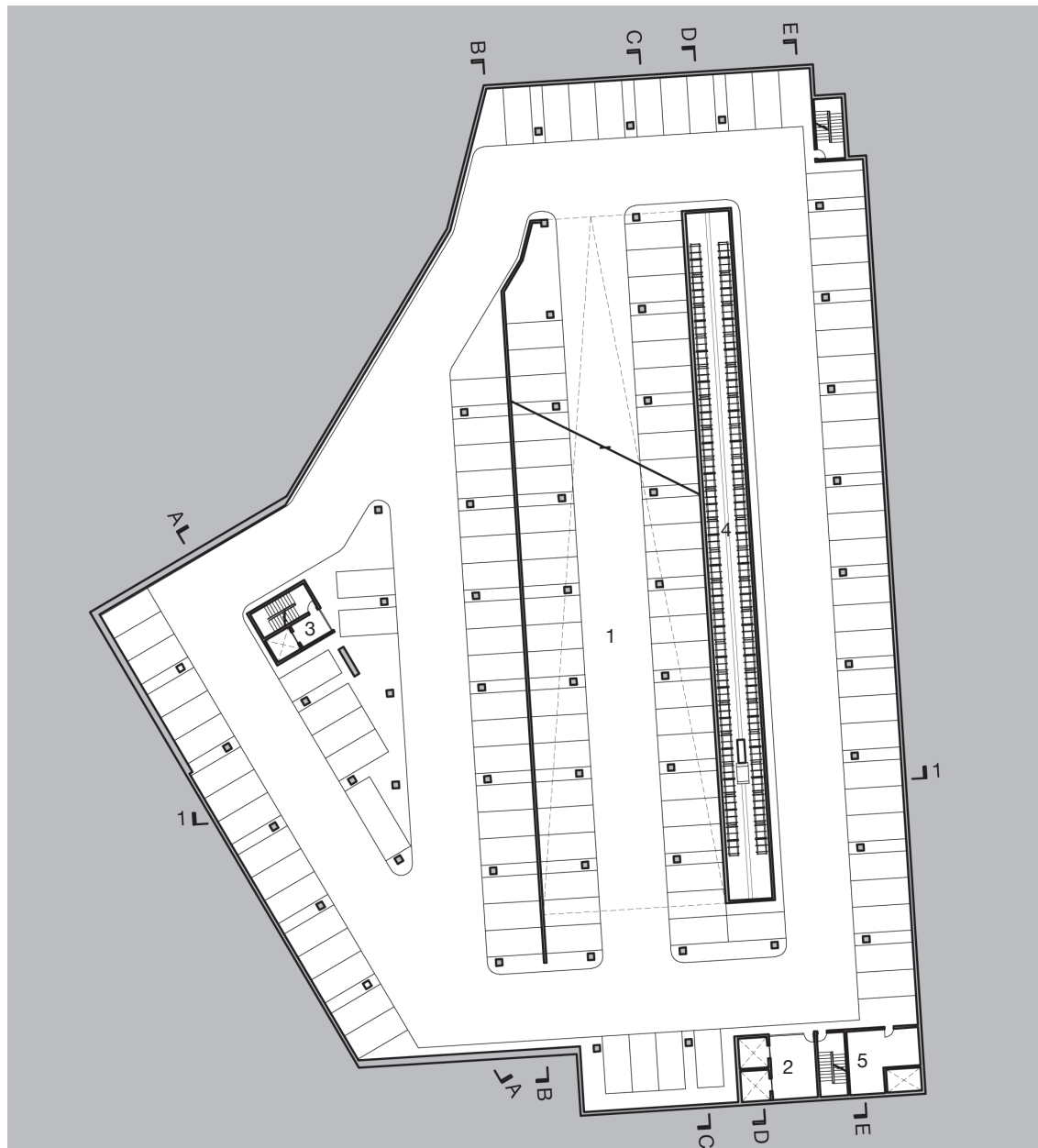
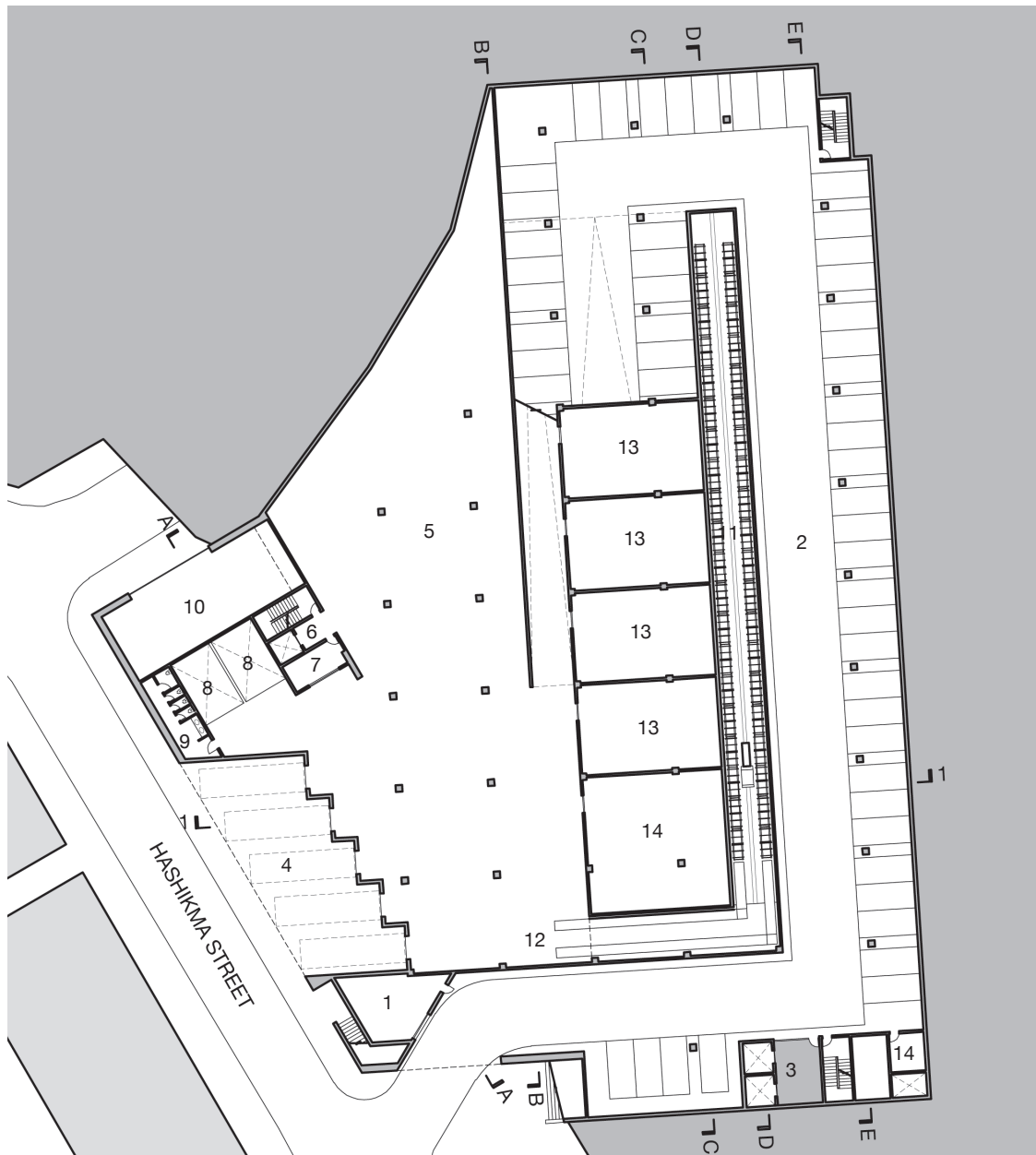


Figure 3.26.
TYPICAL PARKING LEVEL





- 1 Parking office
- 2 Parking
- 3 Public elevators
- 4 Truck bays
- 5 Flexible storage
- 6 Employee elevator
- 7 Foreman's office
- 8 Cargo lift
- 9 Employee toilets
- 10 Shop
- 11 AS/RS
- 12 AS/RS pick up and drop off
- 13 Refrigerator
- 14 Mechanical

Figure 3.27.
**FIRST FLOOR - HASHIKMA
 STREET LEVEL**



- 1 Public elevators
- 2 Public toilets
- 3 Cargo lift
- 4 Backgammon hall
- 5 Shop
- 6 Freezer
- 7 Refrigerator
- 8 AS/RS
- 9 Mechanical
- 10 Truck bays (below)
- 11 Flexible storage (below)

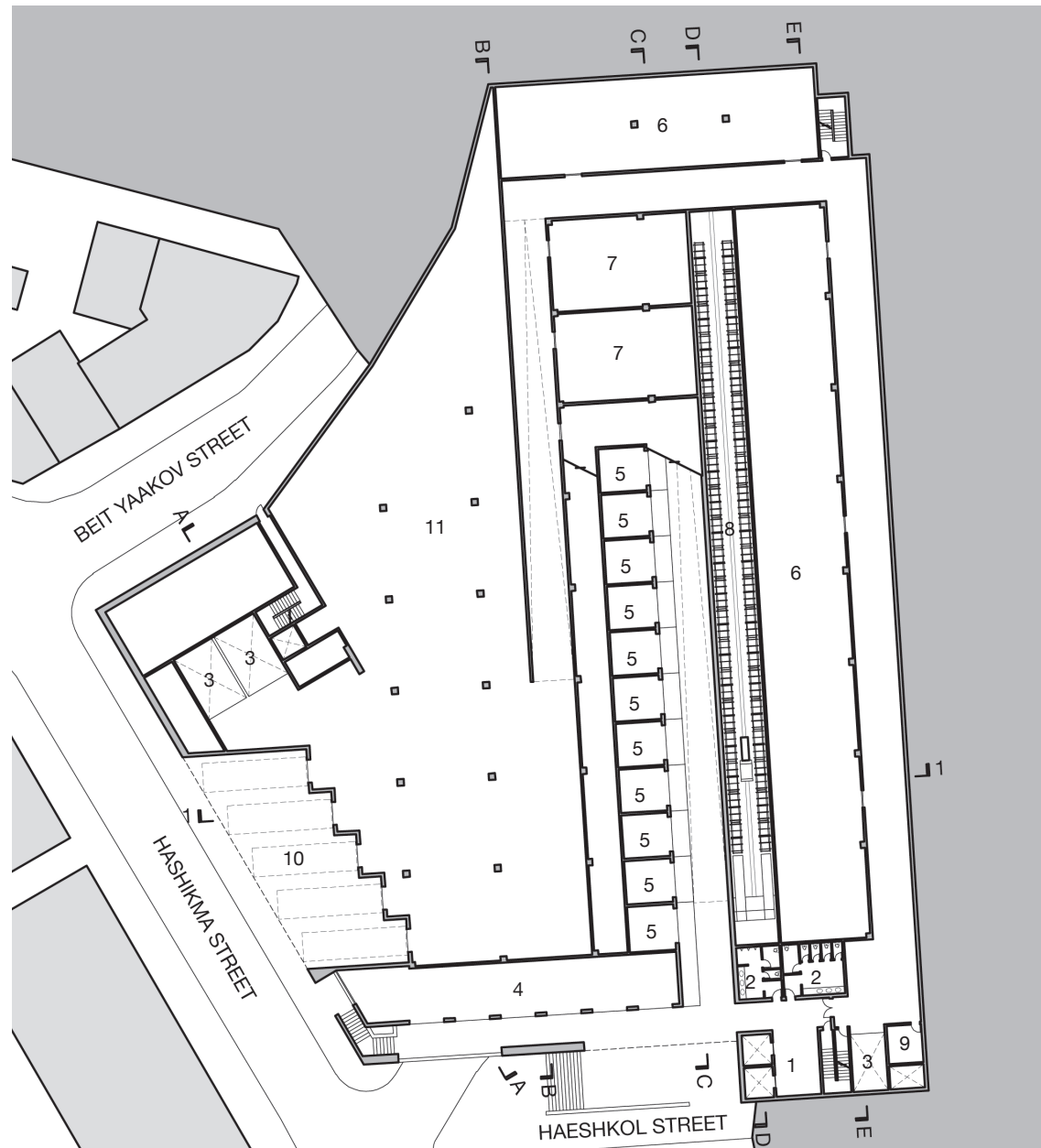
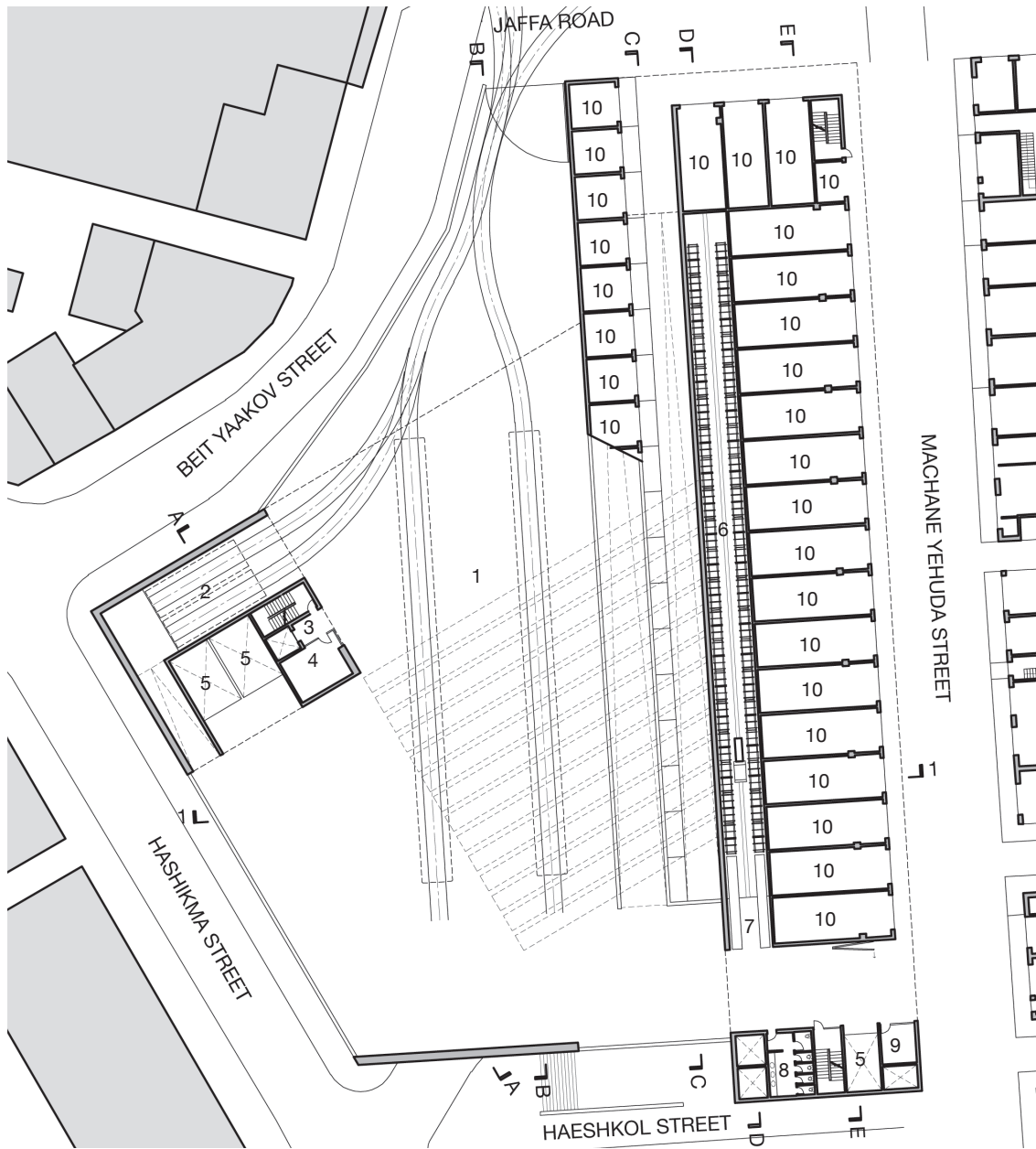


Figure 3.28.
**SECOND FLOOR - HAESHKOL
 STREET LEVEL**

0 5 10 15 20m





- 1 Receiving shed
- 2 Garbage compactors
- 3 Employee elevator
- 4 Foreman's office
- 5 Cargo lift
- 6 AS/RS
- 7 AS/RS pick up and drop off
- 8 Employee toilets
- 9 Security office
- 10 Shop

Figure 3.29.
**THIRD FLOOR - MARKET AND
 JAFFA ROAD LEVEL**



- 1 Administration office
- 2 Employee elevator
- 3 Employee toilets
- 4 Cargo lift
- 5 Mechanical
- 6 Workshops
- 7 Receiving shed (below)

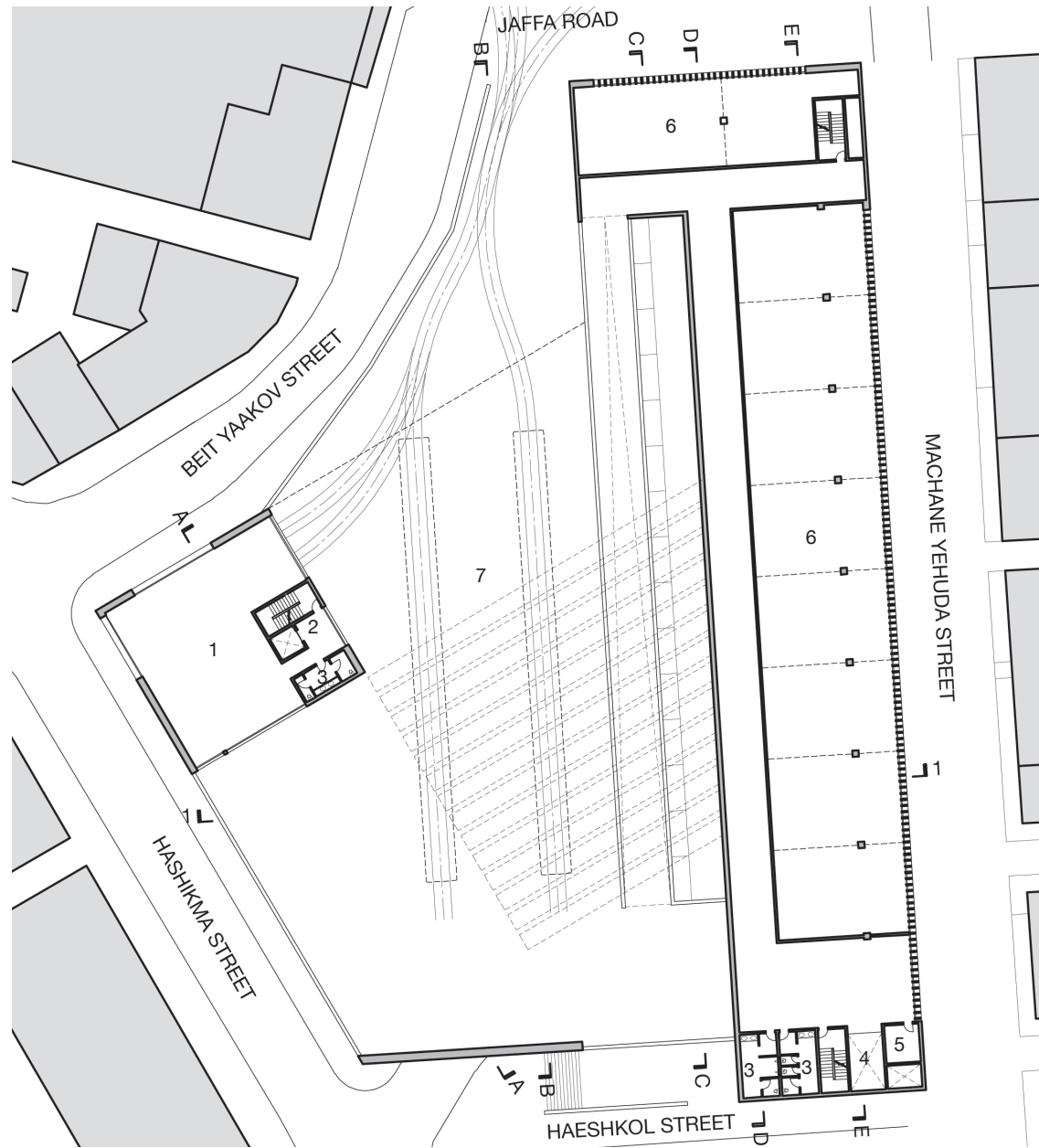


Figure 3.30.
FOURTH FLOOR





Figure 3.31.
ROOF PLAN



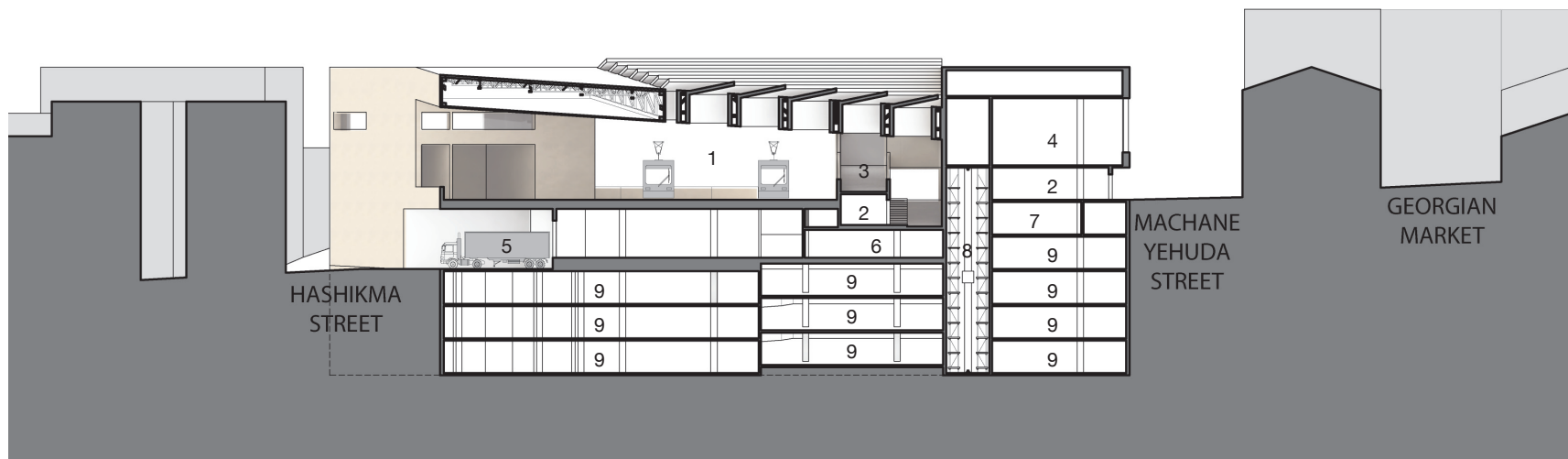
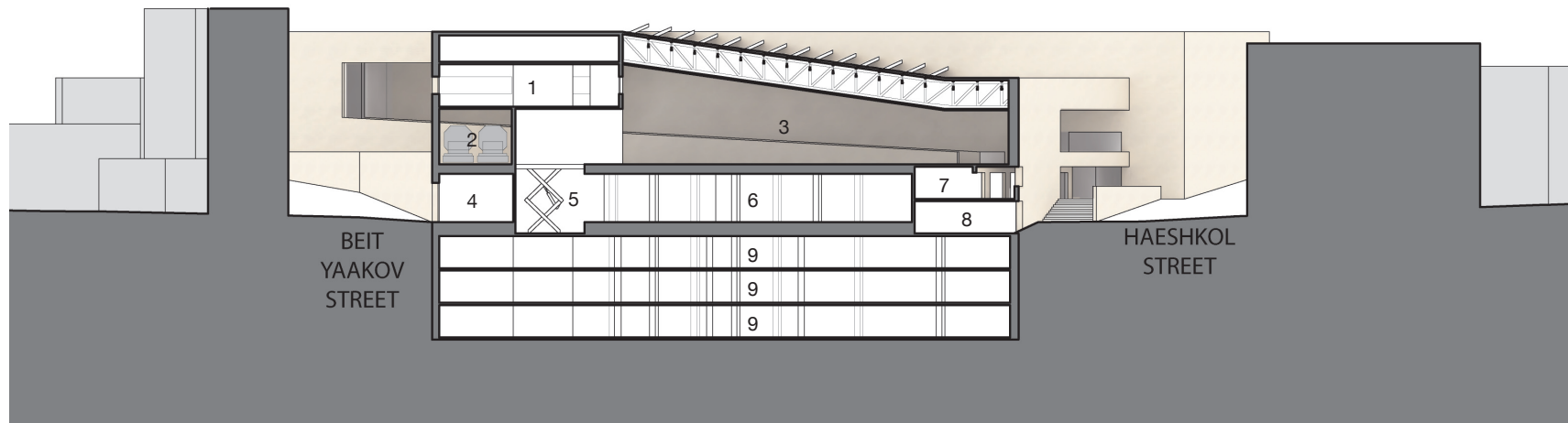


Figure 3.32.

SECTION 1



- | | | | |
|---|-------------------|---|------------|
| 1 | Receiving shed | 6 | Mechanical |
| 2 | Shop | 7 | Freezer |
| 3 | Ramp to workshops | 8 | AS/RS |
| 4 | Workshop | 9 | Parking |
| 5 | Truck bays | | |



- | | | | |
|---|-----------------------|---|------------------|
| 1 | Administration office | 6 | Truck bays |
| 2 | Garbage compactors | 7 | Backgammon hall |
| 3 | Receiving shed | 8 | Parking entrance |
| 4 | Shop | 9 | Parking |
| 5 | Cargo lift | | |

Figure 3.33.

SECTION A



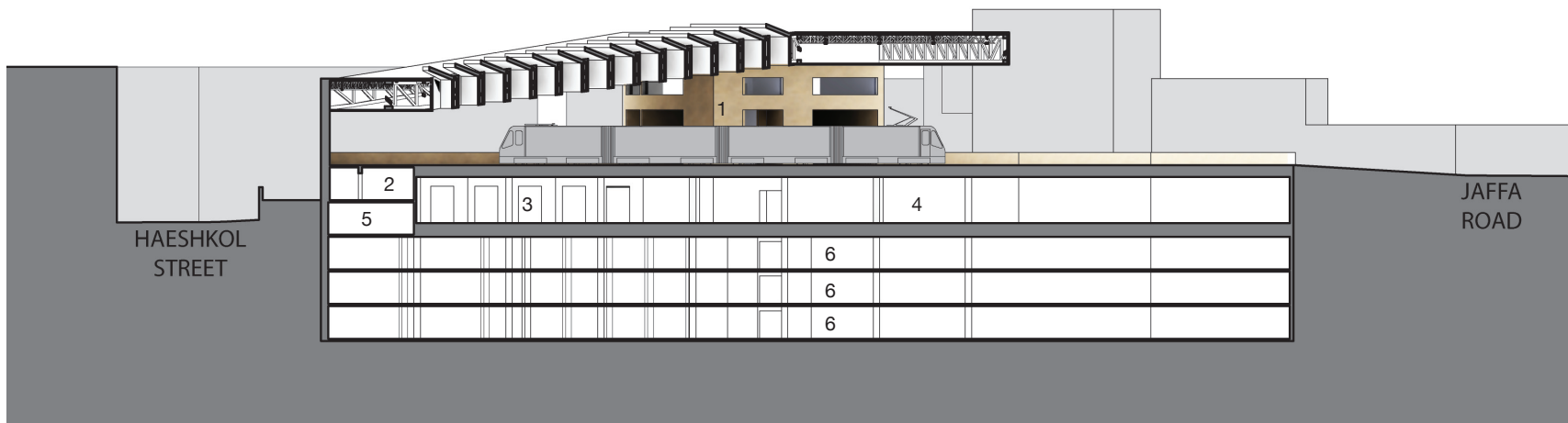
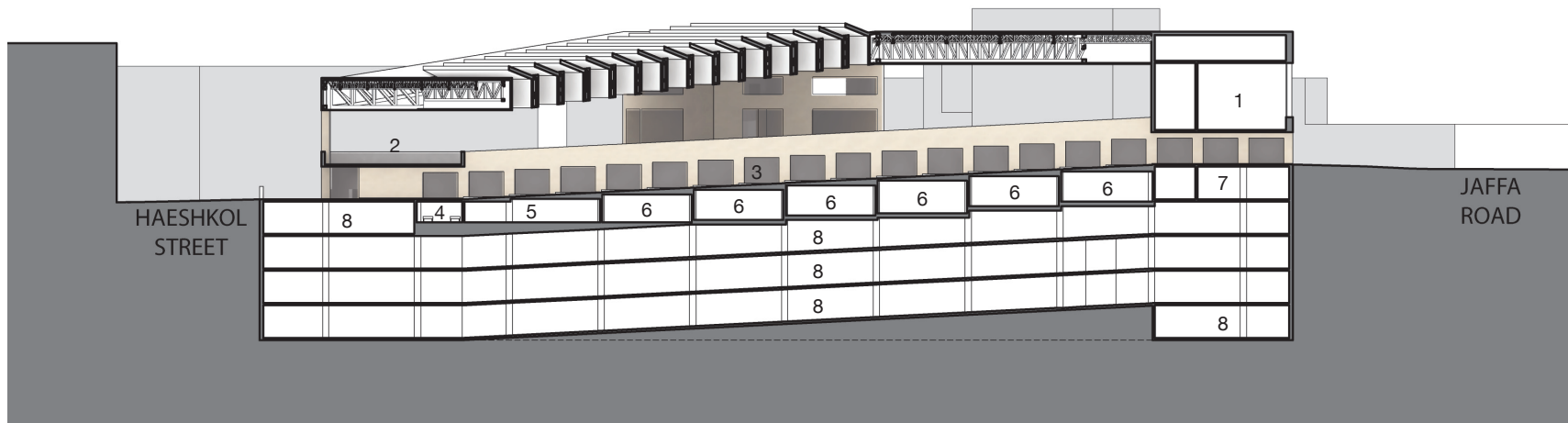


Figure 3.34.

SECTION B



- | | | | |
|---|------------------|---|---------|
| 1 | Receiving shed | 6 | Parking |
| 2 | Backgammon hall | | |
| 3 | Truck bays | | |
| 4 | Flexible storage | | |
| 5 | Parking entrance | | |



- | | | | |
|---|----------------------------|---|--------------|
| 1 | Workshop | 6 | Refrigerator |
| 2 | Receiving shed | 7 | Freezer |
| 3 | Shops | 8 | Parking |
| 4 | AS/RS pick up and drop off | | |
| 5 | Mechanical | | |

Figure 3.35.

SECTION C



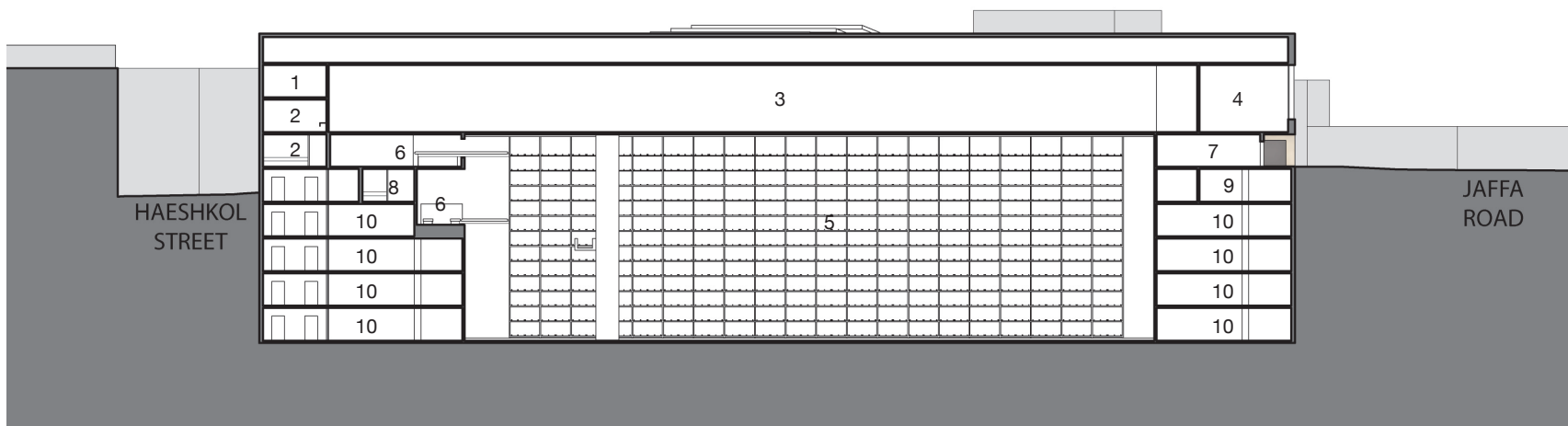
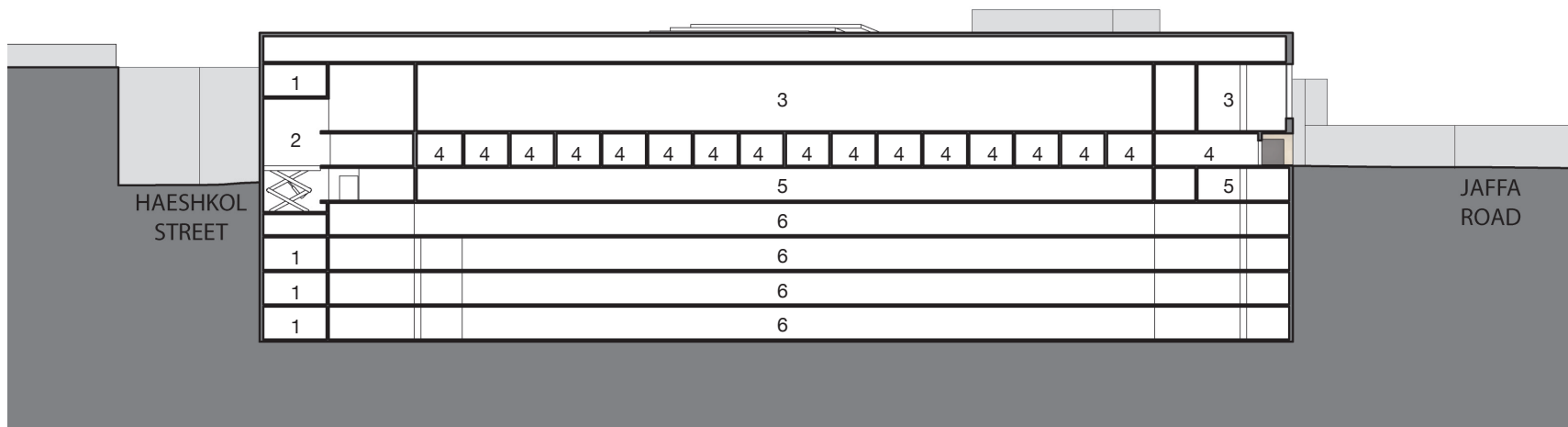


Figure 3.36.

SECTION D



- | | | | |
|---|-----------------------|----|----------------------------|
| 1 | Mechanical | 6 | AS/RS pick up and drop off |
| 2 | Employee toilets | 7 | Shop |
| 3 | Corridor to workshops | 8 | Public toilets |
| 4 | Workshop | 9 | Freezer |
| 5 | AS/RS | 10 | Parking |



- | | | | |
|---|------------|---|---------|
| 1 | Mechanical | 6 | Parking |
| 2 | Cargo lift | | |
| 3 | Workshops | | |
| 4 | Shop | | |
| 5 | Freezer | | |

Figure 3.37.

SECTION E



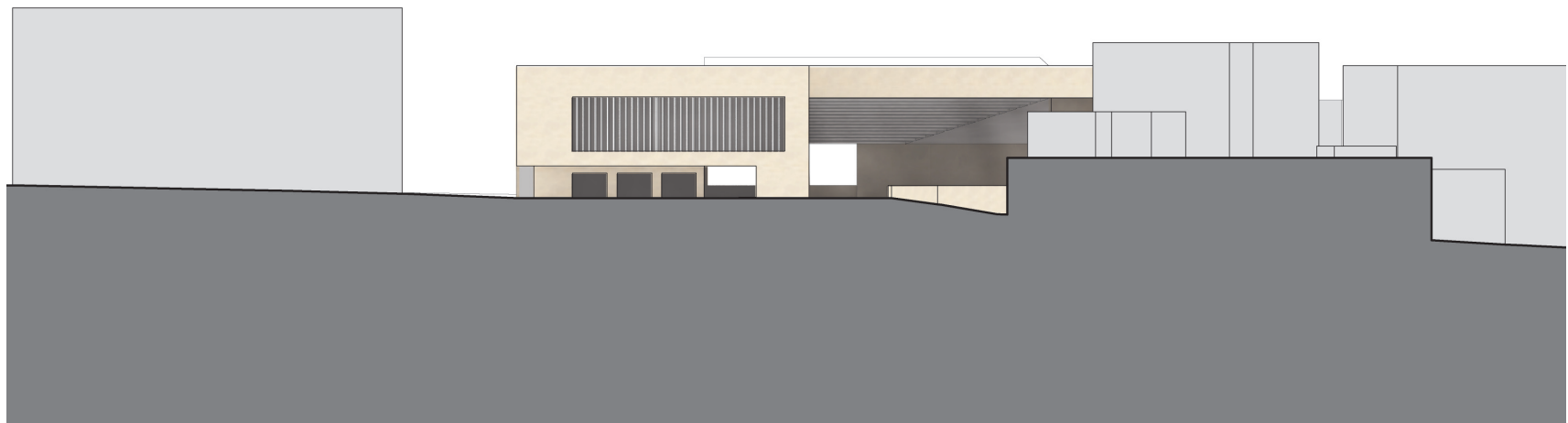


Figure 3.38.

NORTH ELEVATION - JAFFA ROAD



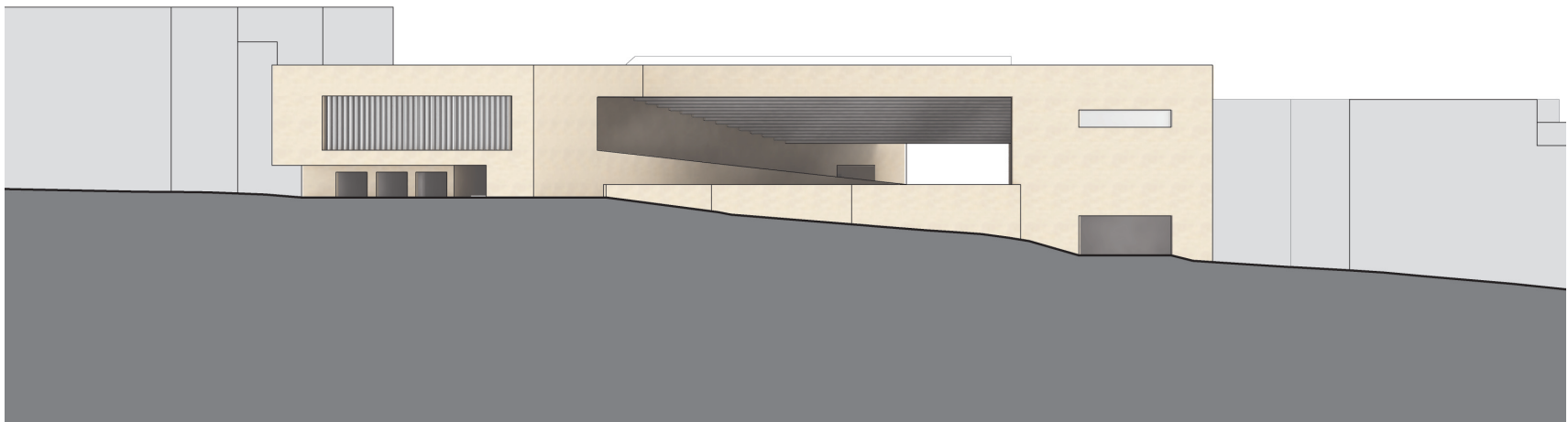


Figure 3.39.
**NORTHWEST ELEVATION - BEIT
YAAKOV STREET**



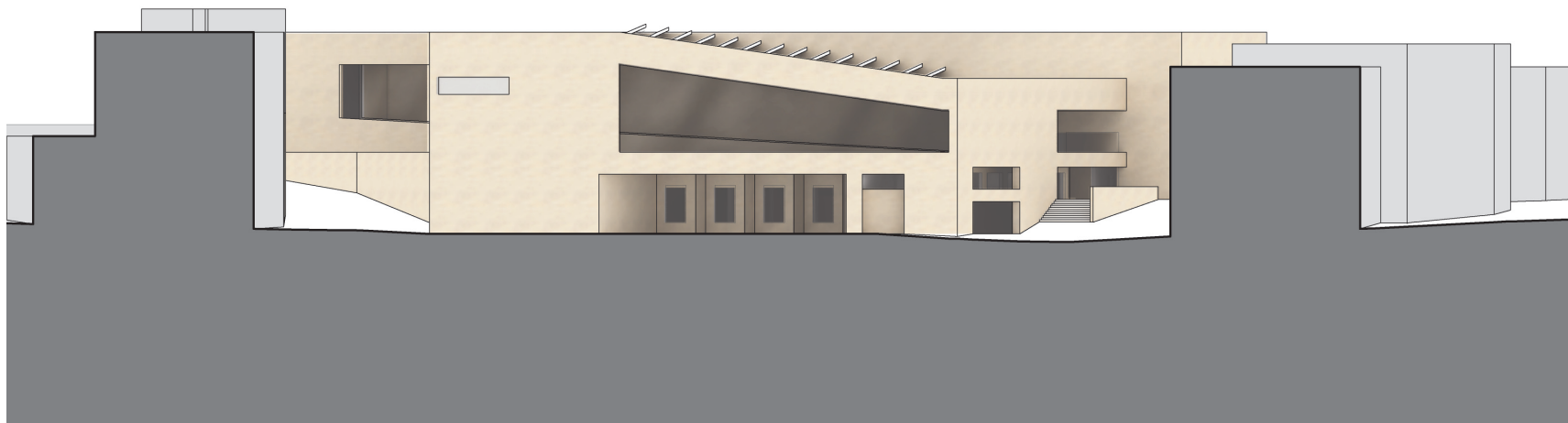


Figure 3.40.
**SOUTHWEST ELEVATION - HASHIKMA
STREET**





Figure 3.41.
**SOUTH ELEVATION - HAESHKOL
STREET**



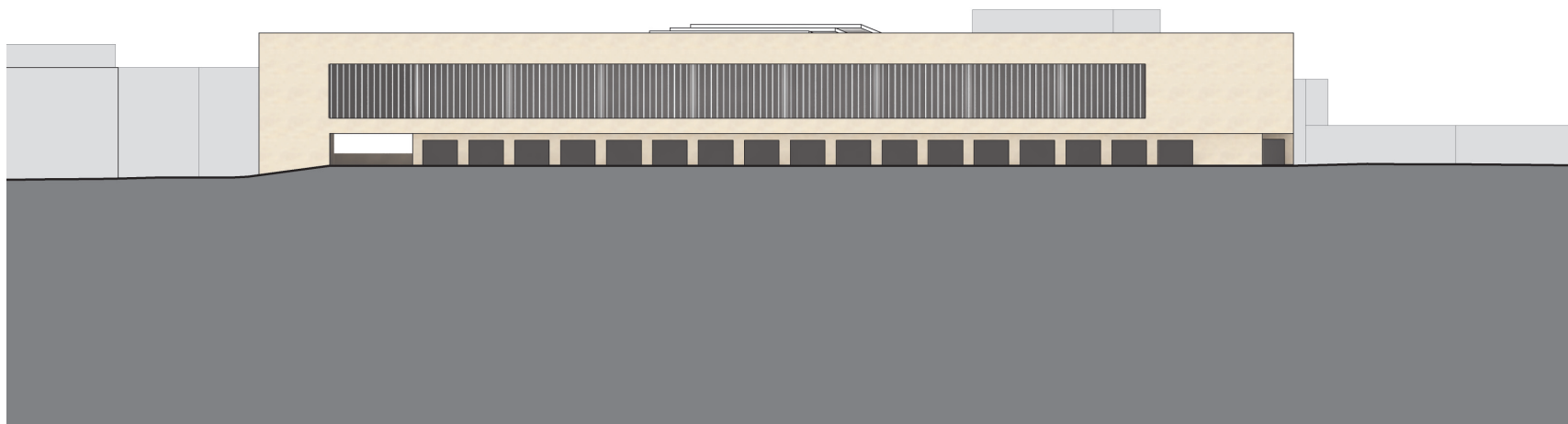


Figure 3.42.

**EAST ELEVATION - MACHANE
YEHUDA STREET**



CONCLUSION

The rehabilitation of Machane Yehuda presents a difficult problem with few precedents to draw from. The recent renovations of Barcelona's Santa Caterina Market by Enric Miralles and Benedetta Tagliabue and the Barceloneta Market by Josep Mias are only superficially similar. In both cases, the market was temporarily relocated while the nineteenth century market buildings were almost entirely rebuilt and modern services were installed.¹⁶ This approach was only feasible in Barcelona because these markets are publicly owned buildings and the vendors, as tenants, have limited rights. In Machane Yehuda, the shops are individually owned freeholds and consequently, the shopkeepers are much more difficult to relocate. Also, Barcelona's markets operate as part of a network of neighbourhood markets, unlike Machane Yehuda, which is the only market in West Jerusalem. As a result, the sixty stalls of the Santa Caterina Market and the thirty stalls of the Barceloneta Market are dwarfed by Machane Yehuda's 500 shops. Machane Yehuda's logistical needs are consequently much larger and more complex, and in order to accommodate them the terminal needs to be about the size of an entire Barcelona market.

The reconstruction of Beirut's Souk offers a regional example at a comparable scale, but that is the extent of the resemblance. The medieval souks were destroyed in 1975 during the Lebanese civil war. The new project rebuilt the original street alignments and contains architectural motifs that recall the medieval buildings but it is essentially a modern, Western-style shopping mall with new underground parking and service areas. The tenants are primarily high-end boutiques and the fruit and vegetable market, which occupied a portion of the medieval souk, has not been reinstated.

Machane Yehuda is primarily a food market and replacing the existing built fabric was not an option. The historic buildings create the oriental character that endears Machane Yehuda to Jerusalemites. The failure of the Clal Centre and the Shukanion, modern attempts to replace the market, demonstrates the importance of the historic buildings and location to Jerusalemites, and the reluctance of vendors to leave the original market, where they are independent landowners, for a modern development, where they would be tenants.

Because of these difficulties, the required services are concentrated into a single building that can be inserted into Machane Yehuda, leaving most of the fabric untouched. The necessity of having access to both the tramway on Jaffa Road in order to receive

deliveries and to Machane Yehuda Street in order to distribute goods to the market, limits the terminal to only two possible sites: The Georgian and Iraqi Markets. Once the required size of the terminal was determined, it became clear that only the larger Iraqi Market site could accommodate it. In order to provide all the necessary service spaces, the terminal needs to occupy the entire block. The site is on the periphery of the market but still includes some important spaces such as the vegetable stands of the Iraqi market and the backgammon halls. In this case, it was necessary to rebuild these spaces inside the new building since no other site exists that can accommodate the Machane Yehuda's logistical needs. The final design balances the conflicting requirements to satisfy the market's operational requirements while preserving the texture and character of the historic market.

Since ownership in Machane Yehuda is fragmented, the construction of the terminal is only possible with the agreement of most of Machane Yehuda's vendors. Such cooperation is difficult in the competitive environment of Machane Yehuda but it is achievable. The renovation of the market that began in 1988 overcame even more difficult challenges. Since then, a strong community and stable institutions have developed in the market, which make consensus building possible. The most important institution is the Market Committee, whose members are elected by the vendors of Machane Yehuda to make communal decisions and represent the market. The committee provides a vehicle to obtain the cooperation of the community, by advocating for the project and negotiating with individual shopkeepers. The existing residential buildings are also privately owned but, given their poor physical state, they should not be difficult to purchase, assuming a fair price is offered.

Capital funding will come from multiple sources. A portion of the costs can be levied on the vendors themselves, but that will not be sufficient to fund the entire project. The Market Committee will also need to liaise with various levels of government in order to obtain funding for the terminal as a piece of public infrastructure. Other funding could possibly come from the private consortium that operates the LRT, in return for future user fees for the use of their rails by the cargo tram.

After construction, the terminal will have several sources of revenue to offset its operation costs, including parking fees, user fees for storage, and rents for the workshops and shops. The Market Committee will be responsible for its management and will hire staff to oversee operations.

Compared to my initial ambitions to create a bridge between east and west, the final proposal, which deals with cargo deliveries and garbage collection, seems almost trivial. Yet, I have become convinced that it is projects like these that will lay the foundations for peace. After almost a century of efforts to end the conflict, there is no shortage of creative proposals to share the city. What is lacking is an environment of trust and mutual understanding that would allow an agreement to be implemented. Trust is not built through important announcements or grand visions. Rather, it grows from enduring personal relationships between individuals who come to recognize their mutual humanity. It is in Machane Yehuda and places like it where such interactions become possible. As Amichai writes, “Redemption will come when they are told, ‘Do you see that arch over there from the Roman period? It doesn’t matter, but near it, a little to the left and down a bit, there’s a man who has just bought fruit and vegetables for his family.’”¹⁷

Figure 3.43. Facing: Machane Yehuda Street, in front of the terminal.



ENDNOTES

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