DOCUMENTATION REPORT OF BURJ EL-KASHLA
OLD CITY OF AKKO, ISRAEL

requested by the Economic Department of Akko for future development

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Israel Antiquities Authority
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Igor Demchenko, Bin Li and Judy Zheng Jia

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INTRODUCTION

Burj el Kashla is located in the southwest border of the old city of Akko. This area used to be the Templar Compound of the Crusade period. The current structure is part of the Ottoman city wall, an important military monument of Akko dating back to the late 18th and early 19th centuries. The city wall of Akko represents well-preserved Ottoman fortification work of the Arab Sheikh Daher el 'Omar', of the succeeding Tyrkish pashas, el Jazzar, Suleiman and Abdullah, and of the Egyptian conqueror Ibrahim Phasha. And later the structure was reinforced and reused during the British Mandate.

This site appears several times in some literature, historic maps, drawings and photos as well as surveys of the old city and the city wall. However, few precedent researches or surveys have ever specified to this part of the city wall, which make our work essential for archives and interventions. As a result, this documentation report will provide preparatory information for further conservation and development projects of Burj el Kashla, as well as the southwest part of the old city of Akko.

The **basic methodologies** include:

- research of the literature, historic maps, drawings and photos, former surveys and planning
- photo documentation
- on-site observation and survey
- catagorization and comparison
- evaluation and strategic proposal

This documentation report contains four main parts:

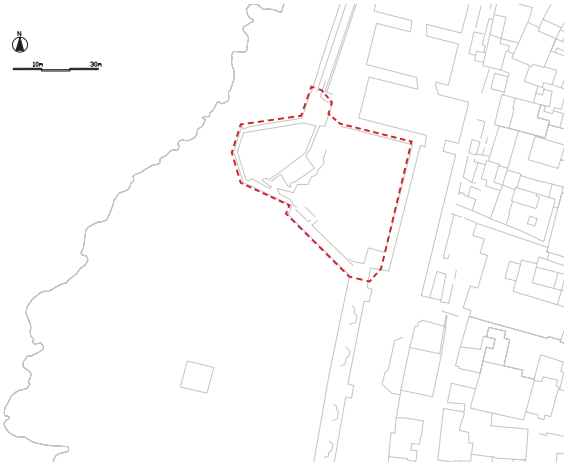
1. Historical Documentation,
studys the history of the structure and possible functions;

2. Architectural Documentation,
studys the building materials and techniques;
offers photo documentations and descriptions of each part of the ruin.

3. Urban Analysis,
analyzes the urban structure, transporation and accessibility, current pavement and activities, visual and perceptual features.

4. Evaluation and Recommendation,
evaluate the values and potentials of the site;
list principles and possible recommendations;
provide case study and strategic visions.

Due to the limit of time and the constraints of available information, this documentation is preliminary. As we did not manage to get the architectural measurement files, the chapter of architectural documentation is based on photo documentation. Further architecural servey, engineering documentation, excavations, in-depth conservation studies, planning, programming, landscpae and architectural designs are needed for proposals and interventions of next steps.

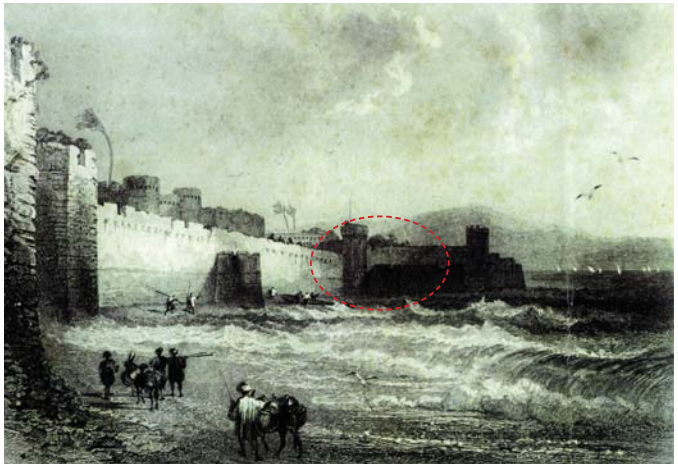


The Site of Burj el Kashla

Current Photo of Burj el Kashla

Akko in Israel

Old City of Akko



Roarque's Drawing of Saint Jean D'Acre, 1852

Aerial View of the Old City of Akko, 1994

CHAPTER 1.
HISTORICAL DOCUMENTATION

Historic Documentation of the Structure in the Northern Corner of Acre's Lagoon

(*Burj al-Kashla*)

Contents:

1. General description of the site

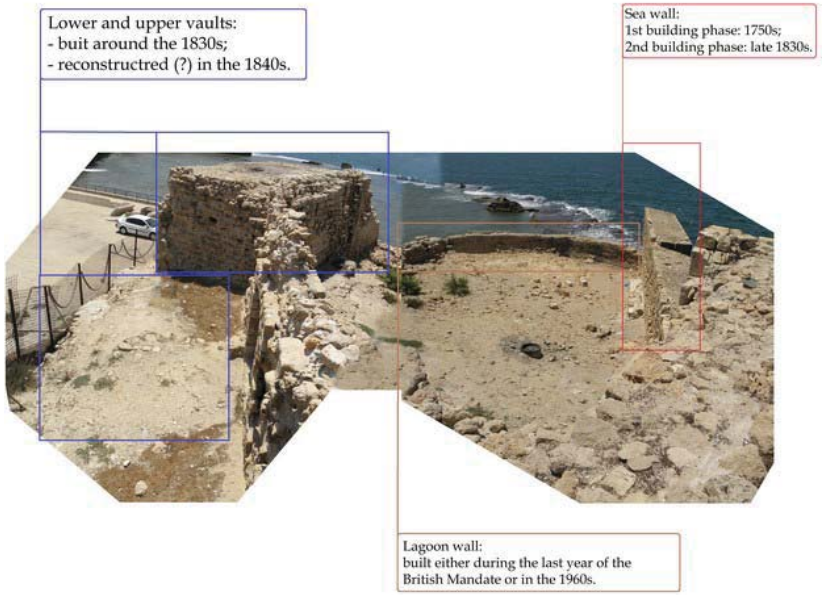


Figure 1: Construction phases of the Structure

The northern corner of the lagoon is currently flanked by a polygonal structure, known under the name *Burj al-Kashla*. The present name of the Structure is a distortion of *Burj al-Qishla*, which translates from the Ottoman Turkish as the Tower of Barracks.[1] No documental evidences that the structure ever housed barracks are preserved; however, the name of the structure might reflect the oral tradition pointing at the original function of the upper vaults.

The Structure consists of the following elements of different history and function: the sea wall, the lagoon wall comprised of several segments, lower vaults (five vaults in different state of preservation and a trace of the sixth vault pointing in

[1] I would like to thank Yavuz Sezer for sharing this information with me.

the direction of the lagoon), upper vaults (three vaults closed by walls with narrow windows on the sea side, and largely opened on the town side), and the arched gates.

Being surrounded by the waters of the sea and the lagoon on the north, west and south, the Structure is adjacent to the Observation Platform on the north and the barren open space on the east and southeast. The Observation Platform has developed out of the Tour de Garde (the Watchtower) damaged during the siege of Acre by Ibrahim Pasha in 1832. [Figure 2]

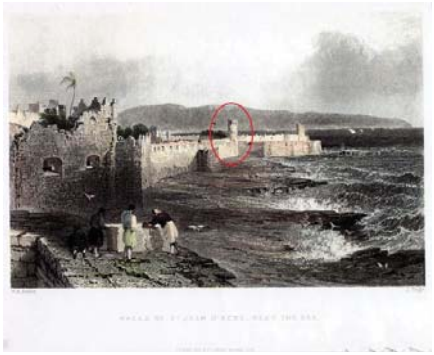


Figure 2: W. H. Bartlett. A View to the Western Walls of Acre from the North, 1836. The picture illustrates the Tour de Garde (the Watchtower) before it was demolished during Ibrahim Pasha rebuilding of Acre walls.

The opened space to the east of the Structure might contain vaults of mixed Crusader/late-Ottoman provenance.

2. History of the Structure

a. Crusader period

The Structure is either immediately adjacent to or occupies part of the crusader Templar compound that functioned between 1130 and 1291. According to Meron Benvenisti, the Templars built their residence either as an extension or on the site of the castle of Islamic ruler Vizier al-Afdal.[2]

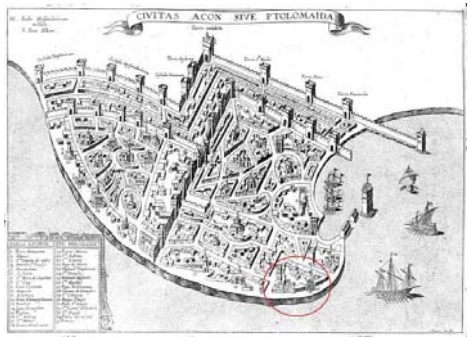


Figure 3: The 17th century reconstruction of the 13th century Acre after Sanuto map. The picture illustrates the location and the possible outlines of the Templar compound.

The ruins of the Templar compound existed until 1750, when they were demolished by the order of Dahir al-'Umar to provision stones for the construction of the city wall. These ruins are documented by the German engraving of the unknown author.

[2] Quoted in B. Dichter, *The Maps of Acre: an Historic Cartography* (Acre, 1973), p. 105.

Figure 4: 18th century engraving of the ruins of Templar castle produced in Germany by an unknown author.

At present there is no indication that the Structure incorporates any standing parts of the Crusader or Early Islamic periods; however, it might be built on medieval foundations dating back to these eras. The latter can only be established after the excavations are conducted on the site of the Structure.

b. Dhahir al-'Umar: the construction of the sea wall

The northern wall of the Structure consists of two parts: the northeastern section constructed of large carefully dressed stones (outer stone surfaces with rubble-and-mortar infill), and the northwestern section constructed of cement mixed with small stones and faced with dressed stone blocks on the sea side. [Figure 5]

Figure 5: The first picture illustrates the difference in building technology between the sea and the lagoon walls; the second picture illustrates the Ottoman technology of wall construction.

Although heavily rebuild between 1832 and 1840, the northeastern section preserves the outline and most certainly some parts of the original Dhahir al-'Umar's wall built in the 1750s. The Dhahir al-'Umar's outline of the walls is documented in a series of maps produced before and during Ibrahim Pasha's siege of Acre.

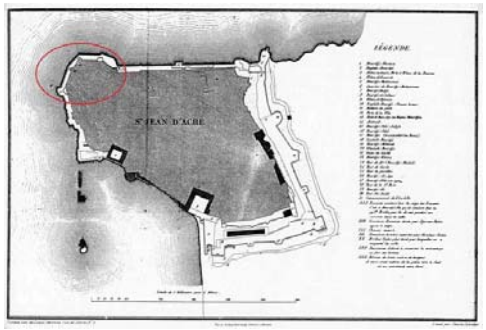


Figure 6: The 1832 map of Acre fortifications. The picture illustrates the pre-Ibrahim Pasha outline of the walls protecting the small peninsula currently occupied by the lagoon.

The comparison with the post-1840 maps confirms the continuity of fortifications, protecting a small peninsular that existed in place of the lagoon until the last period of Ottoman control over Acre, which lasted between 1840 and 1917. [Figure 6 and 7]

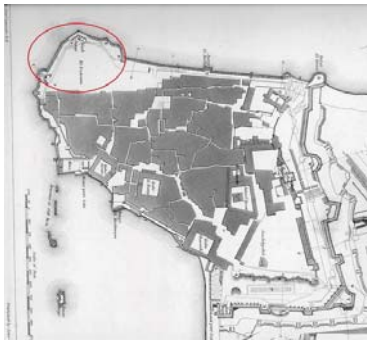


Figure 7: The 1841 map of Acre fortifications. The picture illustrates the continuity between Dhahir al-'Umar's and Ibrahim Pasha walls protecting the small peninsula currently occupied by the lagoon.

It is hardly possible now to point exactly at the parts of Dhahir al-'Umar's wall preserved in the Structure. The engraving of W. H. Bartlett produced right after the Ibrahim Pasha's siege of Acre in 1832 documents the outer surface of the sea wall, rebuilt between 1832 and 1840 with the bossed stones from 'Athlit (Château Pèlerin). [Figure 8]

Figure 8: On the left: W. H. Bartlett. A View to the Western Walls of Acre from the North, 1836. On the right: the present condition of the wall circled on Bartlett's ingraving.

However, even after being restored or reconstructed by Ibrahim Pasha, the northern section of the wall that protected El Fachoura or the Sand Bag peninsular of the old maps preserved the shape that was given to it by Dhahir al-'Umar's builders in the middle of the 18th century.[3] [Figure 9]

[3] Further in this file, the name El Fachoura will be used to denote a small peninsular currently occupied by the lagoon.

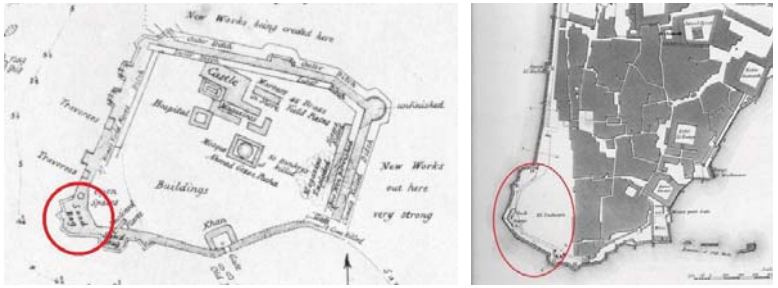


Figure 9: On the left: 1840 scheme of Acre fortifications; on the right: the 1841 map of Acre fortifications. The pictures illustrate different names given to the small peninsula currently occupied by the lagoon in the 19th century.

c. From al-Jazzar Pasha to 'Abdallah Pasha

Historic sources are mute about the evolution of the Structure in the period from 1775 to 1832. Since the main threat to Acre was coming from the land, al-Jazzar, Suleiman and 'Abdallah pashas were perhaps devoting most of their effort to the reinforcement of land fortifications. The sea walls received due repair when they were damaged by the sea waves as in the case of the northernmost point of El Fachoura peninsular that was rebuilt during this period.[4]

d. Ibrahim Pasha: from medieval to modern fortifications

Ibrahim Pasha attacked Acre in 1831 both from the land and sea, and after a six-months siege he took the city. The walls were breached from the land side; at the same time, the sea walls were also severely damaged, which is testified by W. H. Bartlett's engraving. Thomas Philipp believes that the sea walls of Acre were

[4] *Winter Report*, vol. 2, part 2, pp. 4-5.

sufficiently reinforced during the three pashas that ruled after Dhahir al-'Umar so that they could contain Ibrahim Pasha; he, however, does not support this by any documental evidences.[5] It seems more probable that Ibrahim Pasha did not have much reliance on the recently built navy and preferred to block Acre with it from the sea, while attaching the city with better prepared land troops.

After Ibrahim Pasha conquered Acre, he immediately ordered to rebuild the fortifications, including the sea walls. Even more important is that he envisioned the update of Acre walls according to the European fortification theory, which included the shift from a system of towers connected by curtains of thin and high walls[6] to low polygonal bastions armed with heavy artillery. These works were conducted under the direction of an Italian engineer Delcaretto and Polish engineer Colonel Schultz.[7] No documents exist on how much work was done to the Structure during Ibrahim Pasha's occupation of Acre; however, in the absence of documental evidences from earlier periods it is safe to assume that most of the vaults that it contains were built either on the order of the Pasha or right after the British took the city and returned it to the Ottomans, when its walls were still perceived as having certain military value. It is known that the bossed stones that cover the outer surface of the sea walls were brought from the crusader castle of 'Athlit (Château Pèlerin) during Ibrahim Pasha's occupation of Acre.[8] At that period the Structure was a part of the Flag Tower, which encompassed the El Fachoura peninsular. [Figure 11]

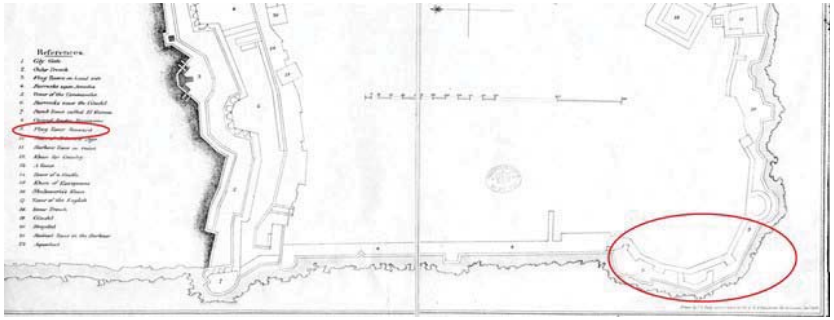


Figure 10: The 1849 map of Acre fortification. This picture illustrates the fact that the fortifications of El Fachoura peninsular were named the Flag Tower during the last phase of the Ottoman rule.

e. Last phase of Ottoman rule: 1840-1917

Ibrahim Pasha's update of Acre fortifications proved to be insufficient to resist the modern means of warfare unfolded by the joint British, Austrian and Ottoman navy. It was exactly the sea walls that were breached by the British in 1840, which allowed them to conquer the city for the Ottomans. Right after the return under the Ottoman rule, the walls of Acre were repaired; it is possible that the upper vaults of the Structure were erected or re-erected during the 1840s. Subsequently, it became clear to the Ottomans that no update can restore the military value of Acre fortifications and they were effectively abandoned. It was then that the tremendous breach in the sea walls, currently known as the 'lagoon,' developed; the 1917 British

[5] Thomas Philipp, *Acre: the rise and fall of a Palestinian city, 1730-1831* (New York: Columbia University Press, 2001), pp. 17-18.
[6] Dhahir al-'Umar implemented the same archaic fortification system in Tiberias, the walls of which is the closest existing parallel to the walls of Acre. Another extremely late example of medieval approach to fortification can be found in the 18th and early 19th century walls of Khiva, Uzbekistan.
[7] Asad Rustum, *Notes on Akka and its Defences under Ibrahim Pasha; Prepared for the Archaeological Congress of Syria and Palestine, April 1926* (Beirut, 1926), p. 21.
[8] *Winter Report*, vol. 2, part 2, p. 5.

aerial photos find the Structure and the lagoon in the conditions essentially similar to their present state. [Figure 11]

Figure11: The 1917 aerial photo of Acre. The picture illustrates the fact that the lagoon already existed at the beginning for the British Mandate period.

f. British Mandate to the present

Sometime during the British Mandate period or the last decades of the Ottoman rule the upper vaults of the Structure were converted into private houses.[9] In the late 1930s, the government ordered the dwellers of these houses to leave; the trace of this occupancy is the partially ruined town façade of the upper vaults built of local stone with cement mortar. [Figure 12]

[9] *British Mandate Record Files, Akko I*, p. 21.

Figure 12: Town façade of the upper vaults.

The British proposed and partially built the eastern reinforcement wall of the lagoon; however the lower vaults of the Structure remained opened to its waters. [Figure 13]

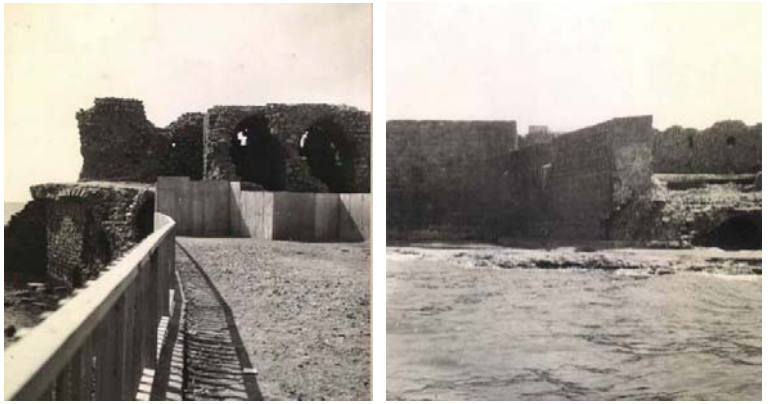


Figure 13: The 1930s photos of the Structure. The picture illustrates the fact that the lower vaults of the Structure were opened to the waters of the sea and the lagoon.

The wall was several times rebuilt during the post-1948 period: in the 1960s, 1989 and 1995.[10] Based on construction technology of the lagoon wall, this part of the Structure was presumably built either during the last years of the British Mandate of during the 1960s. It was then that the Structure took its present shape and started to be perceived as a separate tower.

[10] I owe this information to the engineers of the Old Acre Development Company.

Figure 14: The lagoon wall of the Structure built either during the last year of the British Mandate or during the 1960s reconstruction of the lagoon reinforcement wall.

3. The Function of the Structure

i. The original function of the Structure

The Structure constitutes a tiny fraction of late-Ottoman sea-side fortification system, or more precisely a bastion created by Ibrahim Pasha's engineers on El Fachoura small peninsular; it incorporates parts of the mid-18th century Dhahir al-'Umar's walls. Referred to as the Flag Tower, the polygon projected deep into the sea and allowed to control the approach to the curtains of the western sea walls of Acre; it served as a platform for heavy artillery. In fact, the British specifically pointed at the Flag Tower as a center of the sea-side defense system during the siege of Ibrahim Pasha's Acre. [Figure 15]

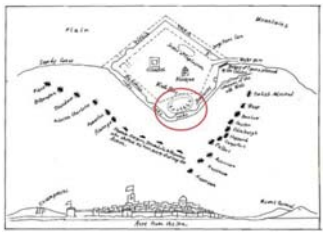


Figure 15: The 1841 scheme of Acre fortifications. The picture illustrates the centrality of El Fachoura peninsular for the defense of the city.

The lower vaults of the Structure served as casemates or a platform for heavy canons. The original function of the upper vaults is unclear; they could serve as barracks – hence the present name of the structure. Alternatively they might have been used as storages for the ammunition.

According to the Lieutenant-Colonel Alderson writing in 1844, Ibrahim Pasha's batteries of the Flag Tower were sufficiently powerful to resist the front attack of the British navy; however, they remained vulnerable to the bombardment from the harbor, which their canons could not reach, while the British navy easily took control over it.[11] Overall, despite the updates introduced by the European engineers on the order of Ibrahim Pasha, Acre's sea fortifications preserved their medieval nature, which allowed them to protect the city from the pirates, as envisioned by Dhahir al-'Umar, but proved useless in the face of the modern navy.

ii. Actual and proposed reuses

[11] Quoted in B. Dichter, *The Maps of Acre: an Historic Cartography* (Acre, 1973), p. 118.

In the second half of the 19th century, Ottomans lost interest in the fortifications of Acre and eventually abandon them. It was the general economic and demographic decline of the city that saved its walls from the 19th century urban planners and the local population. The only major threat to the walls was now coming from the forces of nature and the development of the lagoon points at the scale of neglect survived by Acre fortifications. Sometime at the end of the Ottoman rule or the beginning of the British Mandate, the upper vaults of the structure were occupied by local population and used as houses. Presumably around the beginning of the British Mandate, the Casino Café was built next to the Structure. [Figure 16]

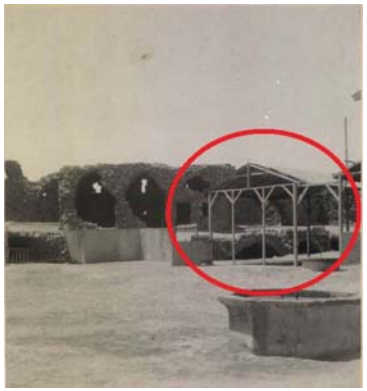


Figure 16: The 1930s photo of the site featuring the remaining structures of the Casino Café.

The café was a temporary wood-framed building; it might have used some of the upper or lower vaults of the Structure as storages or technical spaces. The shallow lagoon to the south of the Structure was used as a bathing space.

As it is documented in the British Mandate Record Files, already by the end of the 1920s the government of the British Palestine started to see tourist potential in the old Acre. During the World War II, the British architect Percy Winter prepared an extensive report that contained suggestion for the post-war development of Acre as a tourist center. By that moment, the Structure was already cleaned of private houses; the Casino Café was closed and scheduled to demolition. In relation to the Structure as a whole, Winter suggested several possible improvements:

1. To rebuild the original wall between the Structure and the Lighthouse bastion and thus to drain the lagoon. Winter envisioned this as a means of providing additional space for city, in which private houses could be built; thus, he aimed at reducing housing shortage in Acre without moving its population outside the city walls. [Figure 17]

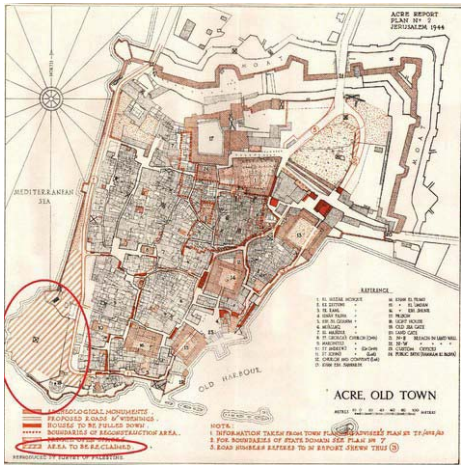


Figure 17: The 1944 map of Acre proposing the closing of the western breach and draining the lagoon.

2. To restore the upper and lower vaults of the Structure to reveal their original function as the sea batteries.[12]

[12] *Winter Report*, vol. 3, part 1, p. 12.

3. To build a scenic walk on top of the western walls of Acre beginning from the Structure and leading to the north. [Figure 18]

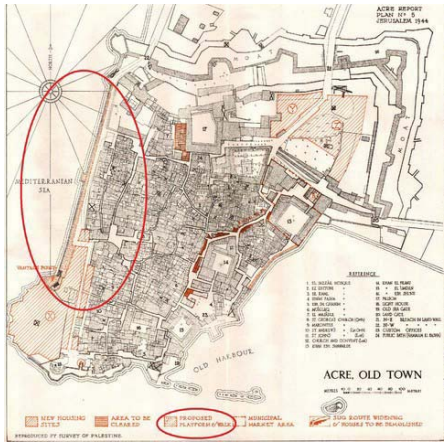


Figure 18: The 1944 map of Acre proposing a scenic walk on top of the western walls of Acre beginning from the Structure and leading to the north

Due to the end of the British Mandate in Palestine and subsequent lack of stability in the region none of Winter's suggestions were realized.

4. Conservation and restoration recommendations based on the Historic Documentation

The value of the Structure stems from it being an integral part of the unique fortification system preserved in Acre from the Late Ottoman period. Therefore, from the perspective of retaining its historic value, the following recommendations can be given:

- In agreement with the Winter Report, it can still be advised to close the breach in the western fortification of Acre with a wall, which would repeat the outline the late-Ottoman walls and built in the original technique; this will also allow draining the lagoon. The reconstruction of the wall will restore the vaults of the Structure to their original function as a casemate and a storage space and casemates of the sea-side battery. The space obtained from draining the lagoon can be used for multiple recreation purposes.
- The lagoon wall of the Structure protecting its lower vaults from the waters of the lagoon, which was constructed either in the late 1940s or during the 1960s, has no historic value. It can be removed or updated at any point if needed.
- The upper vaults of the structure should be conserved and can be reused for any suitably purposes. The partially ruined town façade walls have little or no historic value; they can be removed and at any moment if needed.
- The lower vaults of the Structure should be excavated, conserved and/or restored to their original geometric form. The vaults can be opened to the public; it is advisable to install the information board describing the original function of these vaults. The possibility of their reuse should be established based on the results of the excavations.
- The space behind the upper vaults should be excavated; subsequently it can be leveled without damaging the lower vaults and used for any suitable purposes.

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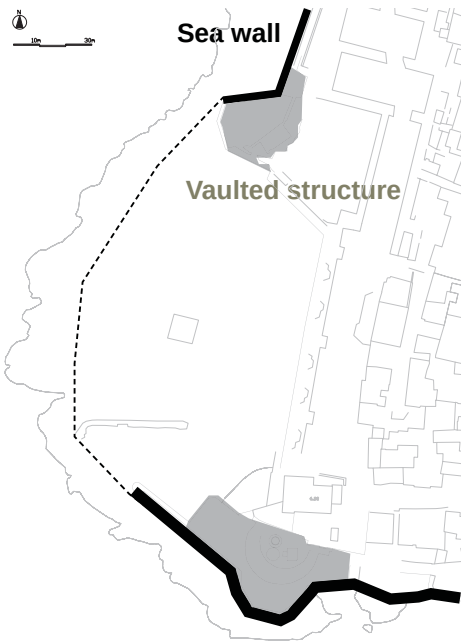
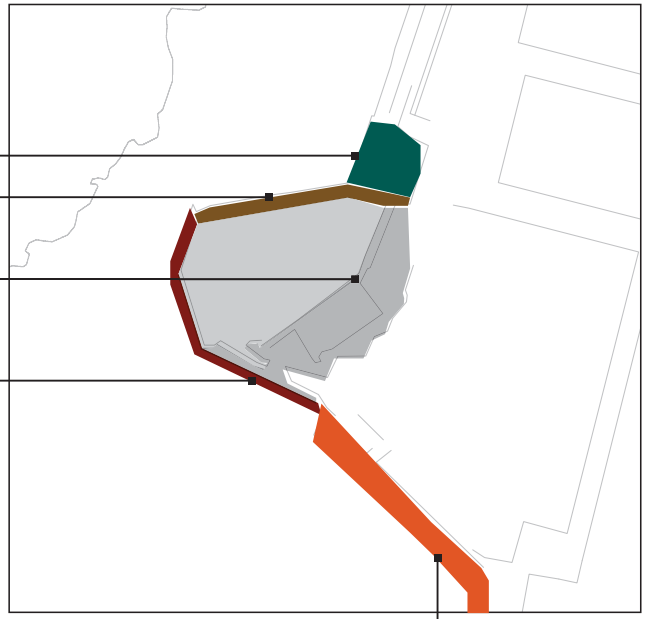


Built in 1750s
repaired in 1830s

Built in 1750s
Damaged in 1830s
took its present shape in 1840s

Probably built in 1830s

Added in 1960s



Added in 1990s

CHAPTER 3.
ARCHITECTURAL DOCUMENTATION

1. General Statement

a. The Aim

The aim of this architectural documentation is to fully document the site with photos and sketch, understand the current ruined architecture and space, categorize the material in use, indicate the on-site problems and document the architecture in coherence.

b. The Method

The method is through on-site observation, interviewing engineer and practical conservation experts, and combine the observation with the historical documents.
For fully documentation, the ruined site is divided into parts from different directions. On-site photos are integrated and put into the parts. Suspicious elements of the structure are highlighted, and waiting for further verification.

c. Structure of this Documentation

1. Name different parts of the site
2. Categorize building materials and document typical details of walls, vaults and floors
3. Problem of current condition
4. Full photo documentation (in parts)

d. Further Documentation in need

Physical survey need to be done thoroughly. Survey drawings of plans and elevations need to be done to accurately document the current structure.

e. Presenting variable building materials and techniques

The ruin of the Burj presents the method in building fortification walls. Precisely curved stones were used at sea front in the 19th century with thin layer of mortar. Roughly curved stone were used for the façade of the inner wall and the vaulted structure. The ruin partially reviews the infill layers between façade stones. The newly add-on sea wall presents the techniques of the 20's century. Various types of mortar mixture from various period can be seen in this ruin.

f. Richness in ruined architectural spaces, a combination of enclosed and open space

Two stories semi-external vaults look at to the old city. Three of the lower vaults penetrate into the open terrace at the back. The open terrace slopes down to the low western sea wall and provides broad beautiful view to the sea. The arched portal frames the sea view. The observation tower at the corner gives a high spot to look at the ruin, the sea and the city.

g. Vaulted fortification architecture

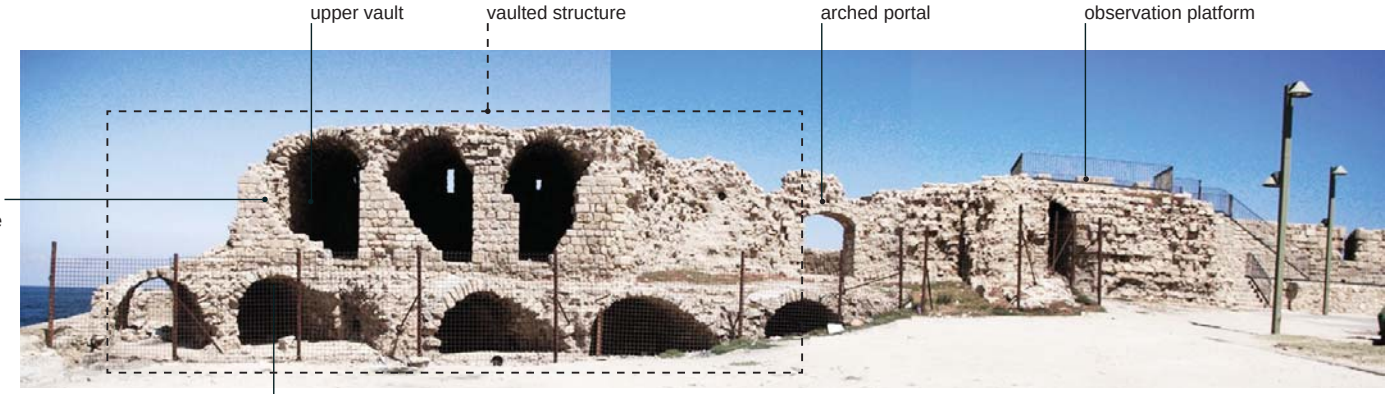
The Burj (together with the light house) as part of original sea-front fortification structure was built on vaults. It contained terrace as gun platform and attached half enclosed structure

open space: the terrace

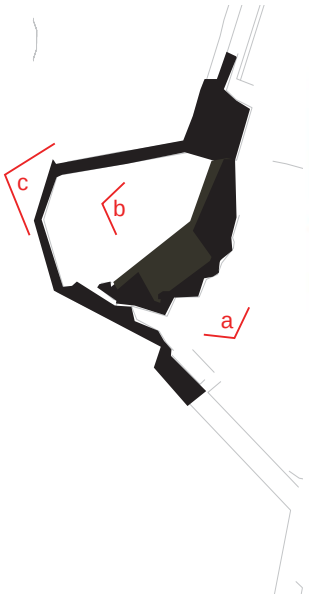
enclosed place: the vaults

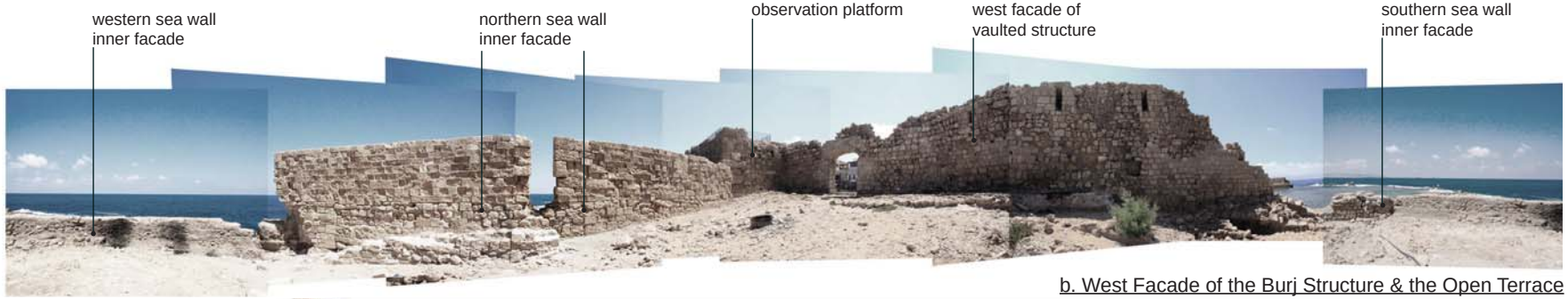
similar two storey vaulted structure beneath the light house (intergrated photos)

Burj el Kashla currently composes of a two storeys vaulted structure facing to the city in the east, an open terrace facing to the sea in the west, one part of the sea wall which was built in various stages through history and an observation platform at the north corner.

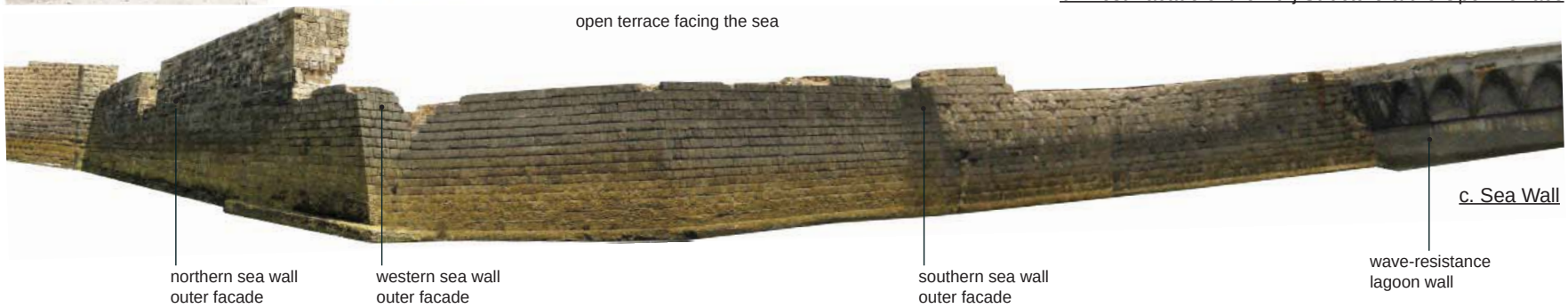


a. East Facade of the Burj Structure





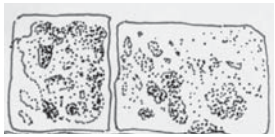
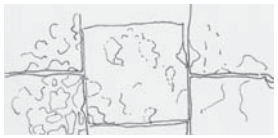
b. West Facade of the Burj Structure & the Open Terrace

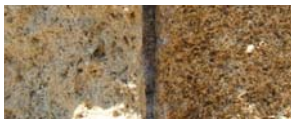


c. Sea Wall

2. Building Material and Techniques

a. Building Materials

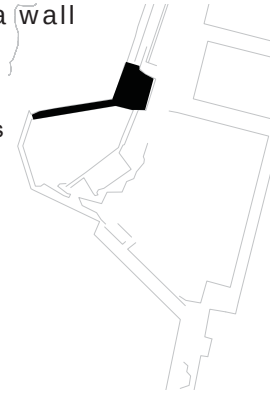
* This building material category is based on on-site observation and interviewing physical conservation experties. Further laboratorial testing need to be done to accurately understand the materials in use.		Size	Color	Shape	Texture	Distance between elements	Majority Location
Facade curcar A		average 30cm height and various in width; corner stones is larger(eg.135X65,72X55)	yellow	square or rectangle shape corner		0.5-1 cm	facade of the northern sea wall and the observation platform
Facade **curcar B**		various in height and in width	light yellow	square or rectangle round corner		2-5 cm	facade of the vault structure
Facade curcar C		average 20cm x 20cm	grey	square round corner		0.5-1 cm	facade of the western and southern sea wall; typical techniques in the period of British Mandate
Vault wall curcar		average 20cm x 20cm	red	heavily weathered into various shape		various	inner walls of the vault structure
Vault ceiling curvar		average 20cm x 20cm	grey yellow	rectangle thin width facing outside		2-5 cm	vault of the two storey structure, lower storey is in better situation
Infill rubble		average 20cm x 20cm	grey and light yellow	various		various	revealed infill part on the south and some east part of the structure
Facade gravel		average 2-3cm	grey	various		various	inner facade of the western sea wall, a typical technique in British Mandate period

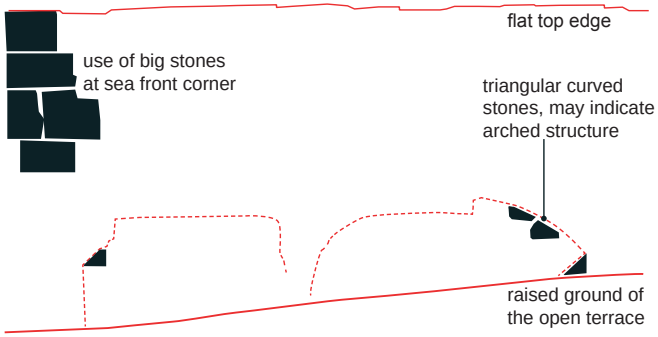
		Constituent	Color	Hardness	Fineness	Majority Location
Mortar A		soil, lime hot mixture	dark orange	hard	0.1-0.2 cm	facade of the northern sea wall
Mortar B		not sure	light pink	soft	0.1cm	facade of the northern sea wall and the obser-vation platform
Mortar C		crashed stone, lime	white	soft	1-2cm crashed stone	south and east facade where infills of the wall are revealed
Mortar D		ash, lime hot mixture	dark grey or black	midium	0.5-1 cm	inner part of the vaults
Cement		cement	grey	hard to remove, easy to crack	0.2-0.4 cm mixture	the arch portal, west facade of the vaulted structure
Concrete with gravel		soil, lime hot mixture	dark orange	hard	0.1-0.2 cm	bottom of the western sea wall
Concrete		plain concrete	light grey	hard	fine and smooth	wave-resistance lagoon wall

b. Wall details

Facade of the northern sea wall and observation platform

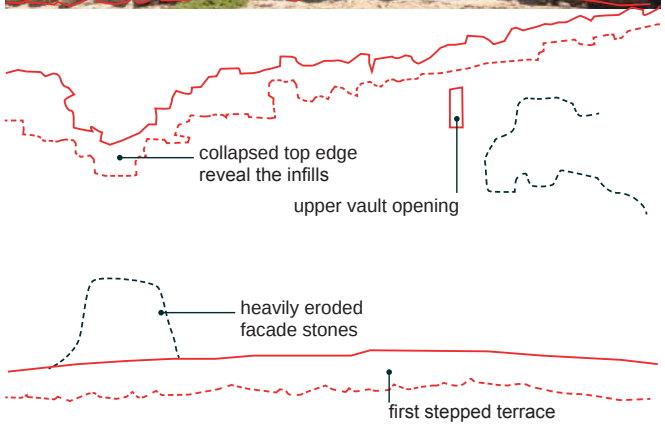
The upper part of this wall was using right angle finely curved curcar. Stones at the corner is larger.





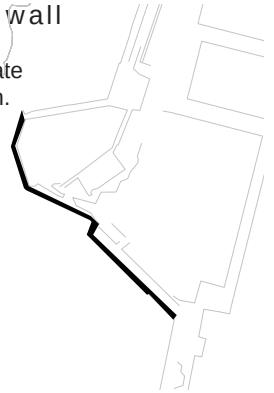
Facade of the vaulted structure

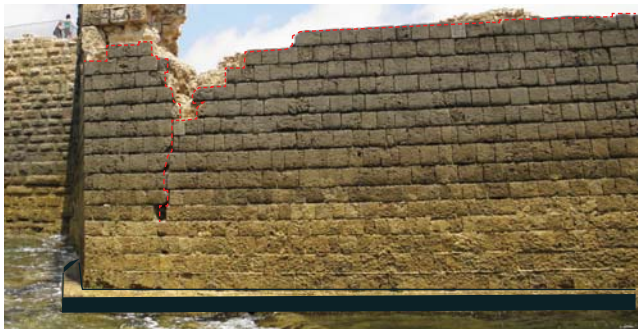
Partial stones are in poor condition, either filled with cement or without the mortar. The rectangular hole is the opening in the upper vaulted structure. Part of the wall collapsed, revealing the infill rubbles.

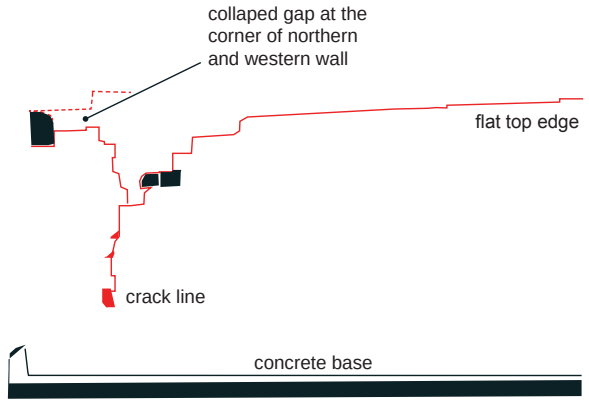


Facade of the western sea wall

This wall was built during British mandate with carved curcar and concrete bottom. A crack line is at the corner with northern sea wall.



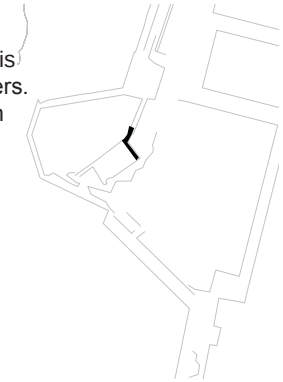




c. Vault details

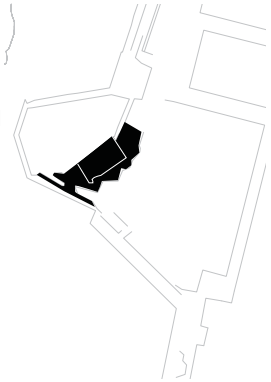
Rough rubble infills

South facade of the vaulted structure is missing, revealing the infill rubble layers. So as part of the east facade between the vaulted part and the arch portal



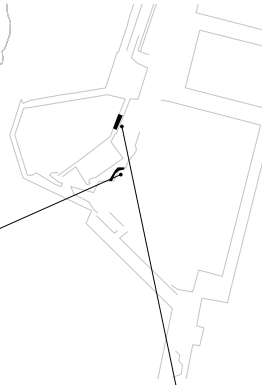
Inner part

Many parts of vaulted ceiling are loose and need mortar infills.
Inner walls which are closed to the wall at the back are highly erosed. Stones in this part are mostly red sand stones.



Facade arch

Most of facade arches of the vaults are missing, however the third lower vault remains some of facade arched stones and covered with cement. The arched portal on the east facade is filled with cement between stones.

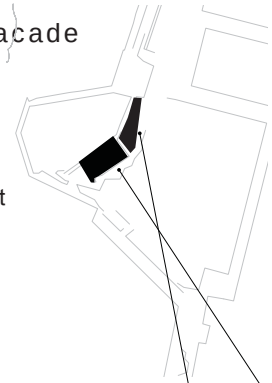


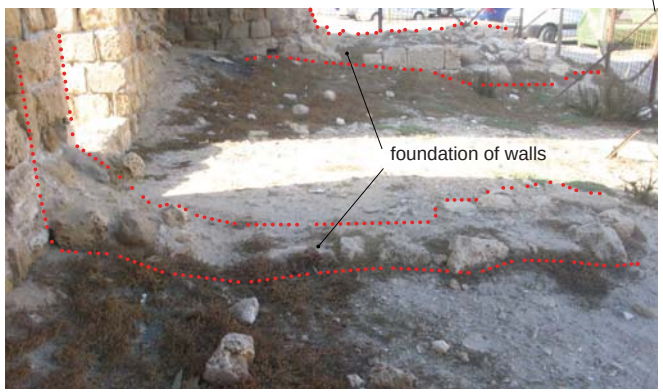
d. Floor details

Floor inside the vault and Floor at front of east facade

Floor inside the vault is covered with sand, ash and waste.

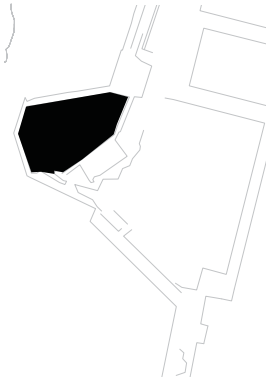
Foundation of partition or vaulted wall can be seen on the floor at front of east facade right to the three upper vaults. This could suggest there used to be more built structure on the upper level.

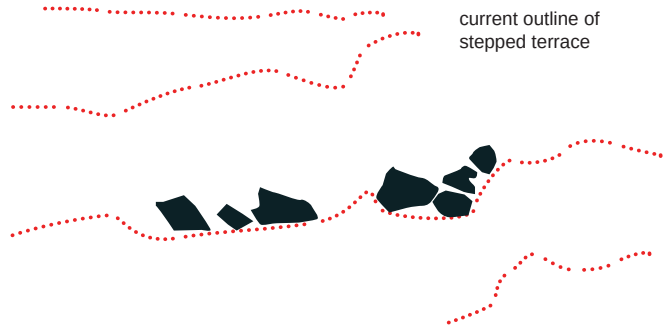




Floor of the open terrace

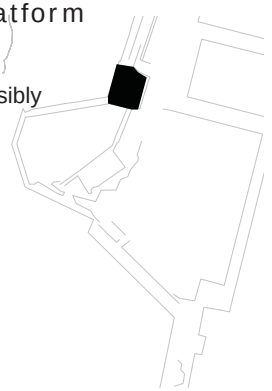
is covered with rubbles and sand. Stepped pattern can be seen from the rubble arrangment.

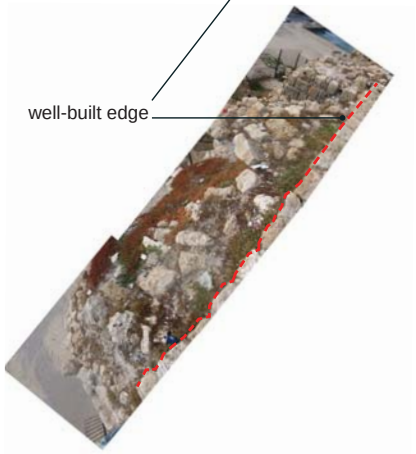




Floor of the observation platform

is with finely curved facade stone and rubble layer in the middle, which is possibly part of the missed observation tower.





3. Problems

a. Current Stone Situation

1. Variable mortar and cement on stones
Cement was used to fill in some of the gaps between stones and some part where the stone was missing.

2. No mortar connection between stones
Some stones do not have mortar in between, increasing the risk of falling off.

3. Fell-off stones
Some stones have fallen off and

4. Missing of stones
Some facade stones are missing on the east side and the south side.

5. Erosion of stones

b. Problem of current input

1. Use of cement
Cement blocks the salt water from getting out of the stones and increases the eating process of the sandstones (Curcar).

2. Steel pole & steel mesh
Steel mesh locates in front of the vaulted structure on the east side. Steel poles are used to support the mesh. The poles have pierced into the stones of the lower vaults.

c. Problem of site management

1. Inaccessibility of the Burj
Currently the Burj is unaccessible except that people are allowed to follow the steps to the observation platform. However, some people have accessed to the open terrace along the south side of the sea wall without safekeeping structure.

2. Illegal cabbage and waste
Waste can be found inside the vaults, especially the lower vaults. Cabbage sometimes appears on the open terrace.

3. Illegal firing on cabbage and metals
Vaults on both levels have ashed interior stones and floors, which indicates the firings. Some people fired metals beside the inner sea wall and burned the wall into black.


1


5


2


3


4


2a


2b


1


2


3

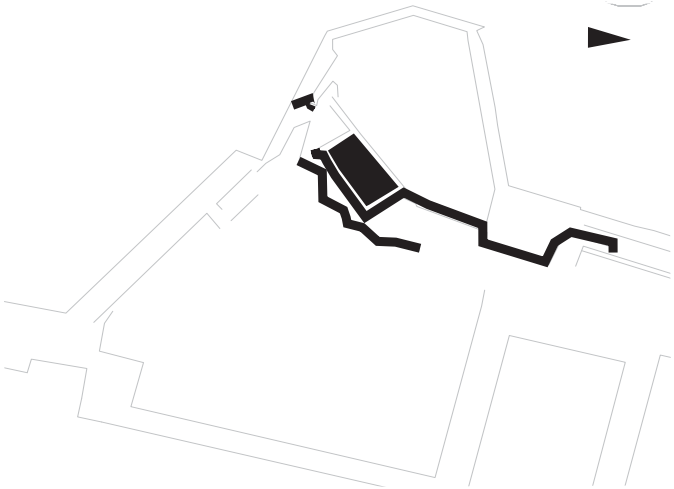
4. Photo documentation

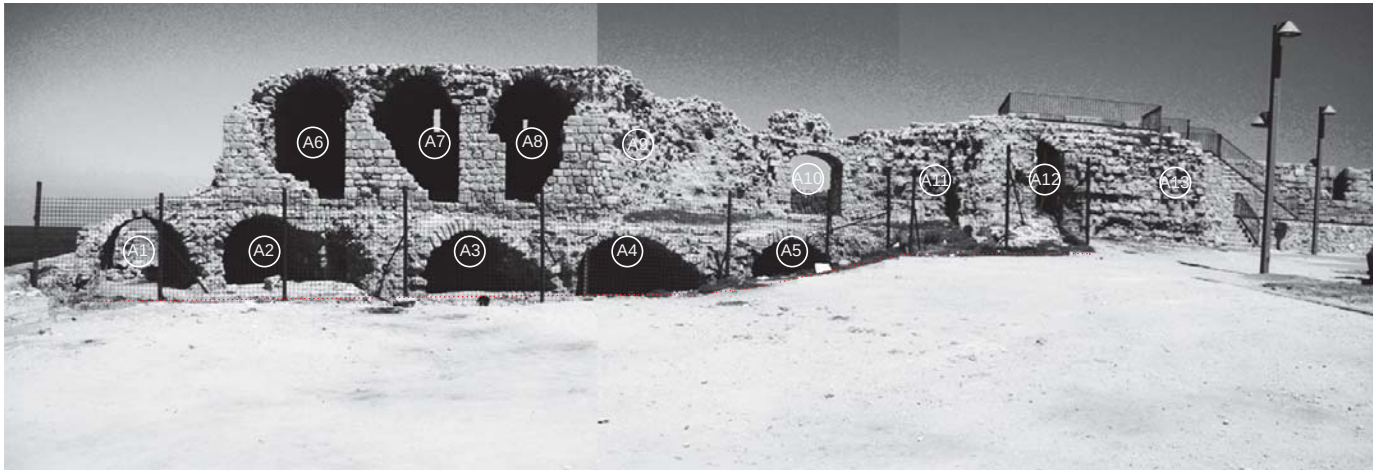
a. Vaulted structure, East facade

The vaulted structure currently has five lower vaults and three upper vaults. The lower and upper vaults are not lined up.

The left part of the first lower vault was almost disappeared. The first three lower vaults are linked to the open terrace. The fourth and fifth vaults are blocked to the terrace, and opened up to the east. The upper vaults have small rectangular windows to the west.

The open field to the east is higher on its right side, which makes the fifth lower vault slightly buried.





A1

The first vault on the lower level.

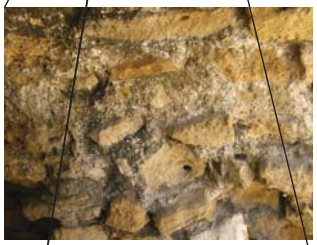
Most of the top and left parts of the vault have disappears. The right part is maintained. There are seven holes along the remained vault.

(A2)

The second vault on the lower level, connecting to the open terrace.

Gap between stones were partially filled with new mortar.
The iron support of the adjacent defence is inserted into the structure.

view from the east

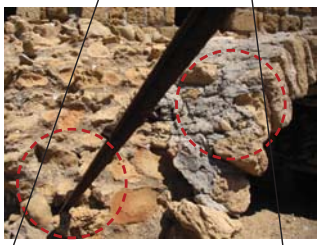


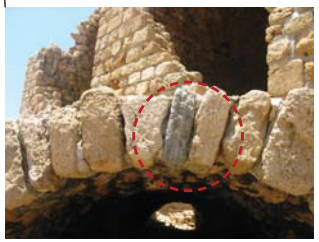
view from the west

(A3)

The third vault on the lower level, connecting to the open terrace.

Some stones are covered with cement.
Additional iron supportive pole.
Black ash on the floor and the ceiling indicates as burning ash inside the vault.

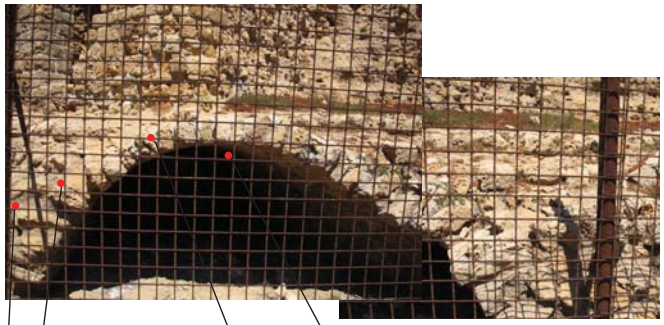




(A4)

The fourth vault on the lower level.

Additional iron supportive pole and Iron mesh at front.
The vault was blocked on its way.



A5

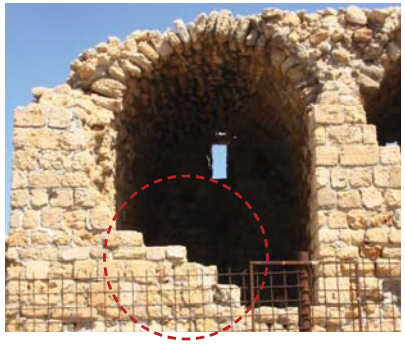
The fifth vault on the lower level.

Covered with cements at the top.
The vault was blocked on its way.

A6

The first vault on the upper level.

Lost of facade layer of stones on the left side of the vault.

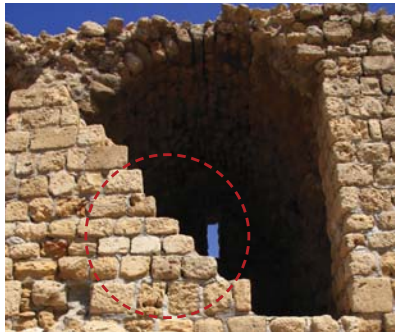


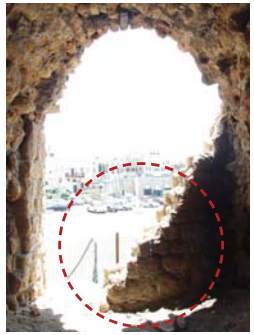
added wall in early
20th century

A7

The second vault on the upper level.

Lost of facade layer of stones of the vault.

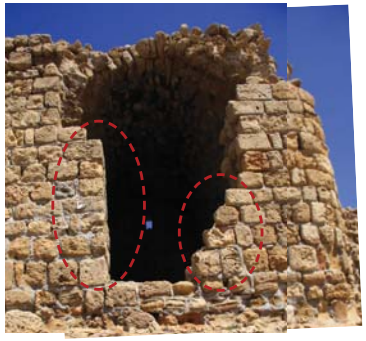




added wall in early
20th century

A8

The third vault on the upper level.
Lost of facade layer of stones of the vault.



added wall in early 20th century

A9

Part of wall right to the third vault on the upper level.
Irregular stones with mortar in-fill.
Several hollow place on the wall.

A10

The arch portal on the top of the slope.
The Arch is well preserved with carved stones.
Lost of two parts of the wall above the arch.

trace of a wall

cement

A11

Part of the wall on the right side of the arch portal

Some remains of the carved stone on the facade. The right part was collapsed.

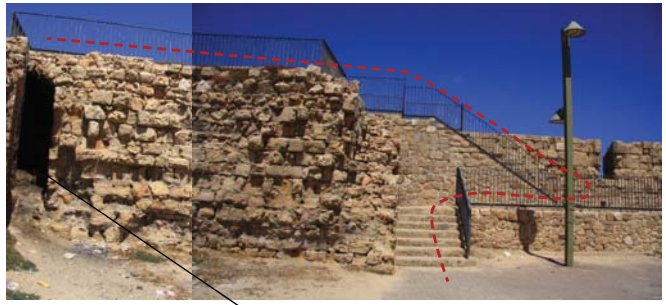
A12

The front of the collapsed wall with its foundation

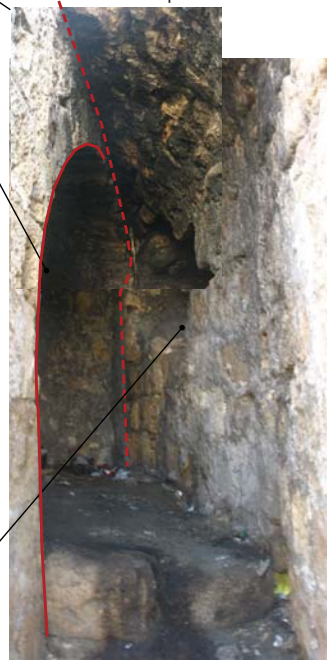
A13

Hollow area between the collapsed wall and observation platform

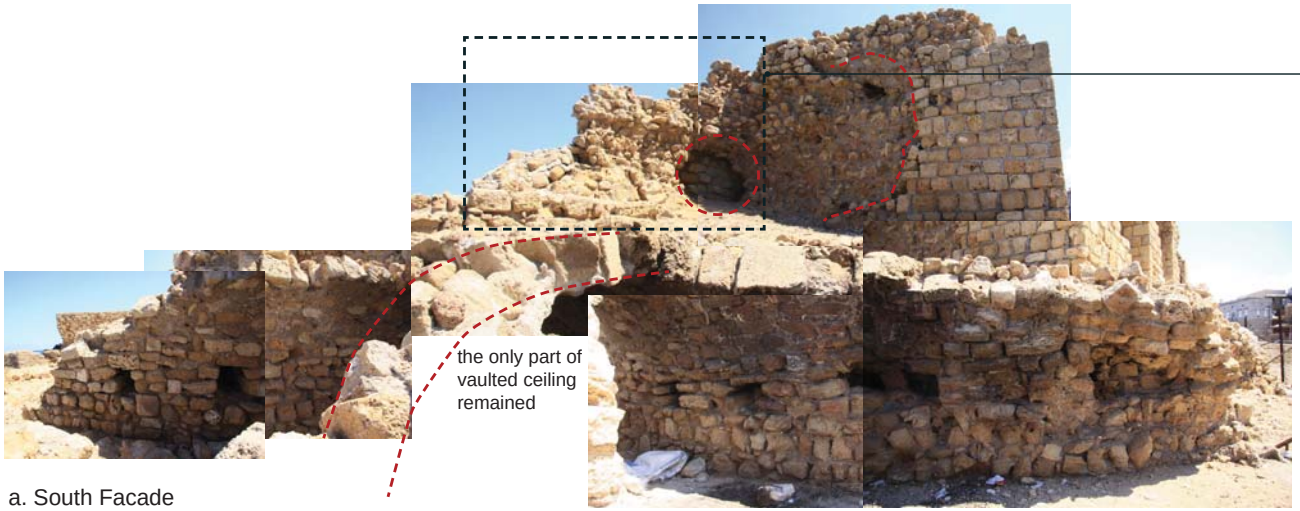
Wall on the right side of the hollow space, with two staircases leading to the observation platform.
This part of the wall is well preserved.



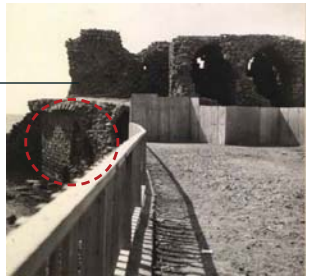
clear separation line between the wall and the observation platform



b. South facade
& the Inner Wall attached to Southern Sea Wall



a. South Facade
& North half of the first lower vault

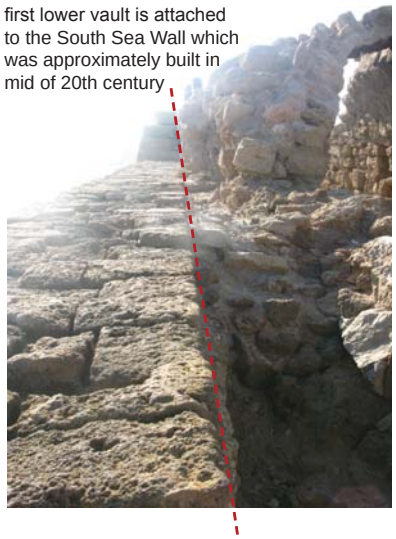


This photo was took in 1930s. It shows that there used to have more structure on the left of the current upper vaults.

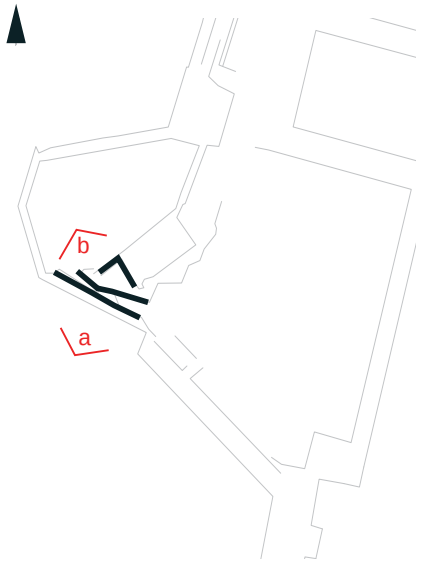
Trace of more lower vaults can be seen. During that time the current Southern Sea Wall was not there.

The first lower vault continues to the sea front.

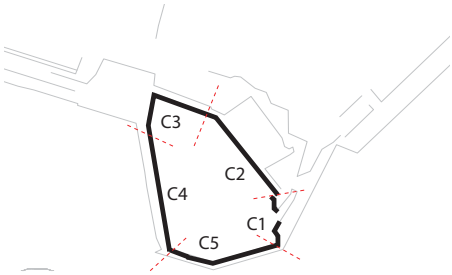
a.South half ot the
first lower vault

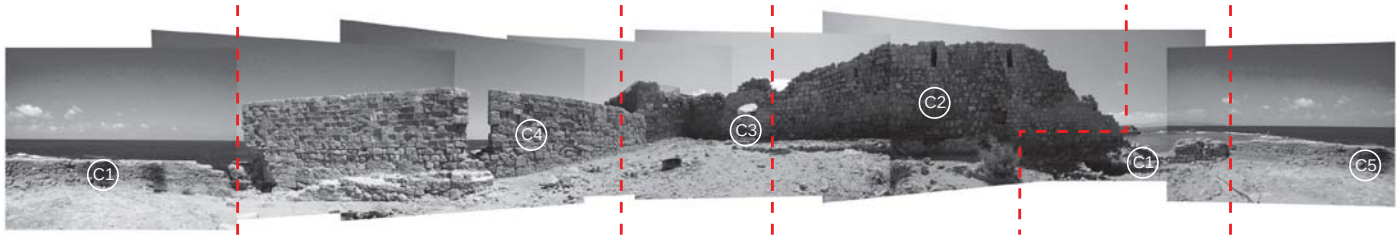


first lower vault is attached to the South Sea Wall which was approximately built in mid of 20th century



c. Inner Facade of the Burj Structure

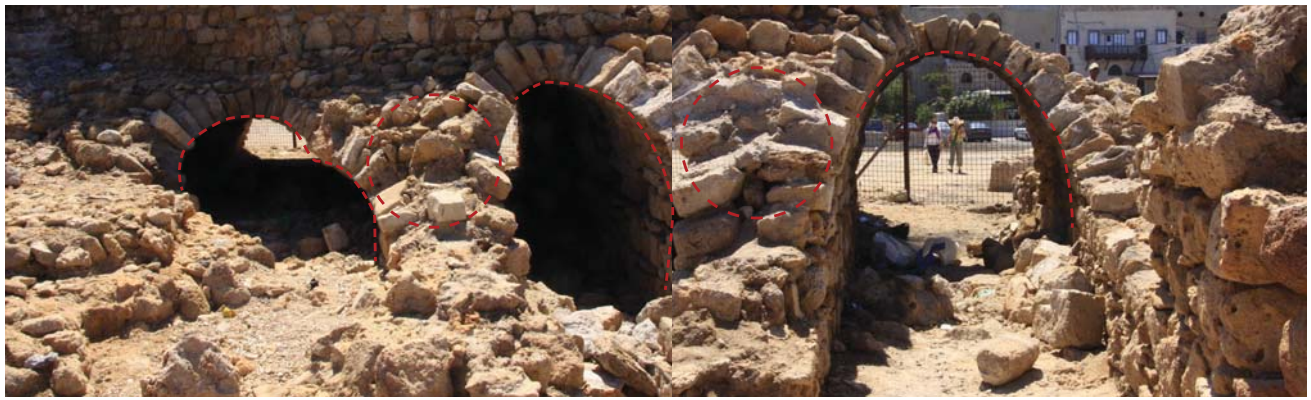




C1

Three Vaults on the Lower Level

The first three lower vault can be seen from the inner facade of the Burj structure.The vaults have collaped half way.



C2

West Facade of Vaulted Structure

Part of the facade wall is in poor condition (as the dashed curve lines highlighting). Three small thin openings of the upper vaults can be seen.

C3

Arched Portal and the Observation Platform

The arched facade stones are well preserved, together with some other facade stones, the outline of which is highlighted.

Several big stones are found at the outer corner of the observation tower. A small opening is close to the inner corner.

C4

Northern Sea Wall Inner Facade

A deep notch divides the northern sea wall into two parts. Big stones are used at the corner of the notch.
Part of stones at front could be the remains of vaults.
The curved line on the wall highlight the difference of stone condition between the lower part and the upper part.

C5

Western Sea Wall Inner Facade

This wall is much lower than the northern wall and covered with mortar gravel on the inner facade.
Two crack lines are close to the northern wall.
Stones similar to the ones used in lower vaults can be seen next this wall, which is probably part of the first lower vault structure.

CHAPTER 3.
URBAN ANALYSIS

1. Analysis of the Distribution of the Monuments

a. Important Node of Ottoman City Wall

Burj el Kashla plays as an important node in the west part of the Ottoman city wall, which is a crucial monument of the the old city of Akko.

b. Integration with the Lagoon and the Light-house

The site is not an object isolated from other surrounding monuments. It is closely integrated with the lagoon and the light-house. Historically it functioned as one comprehensive part of Crusader Templar Fortress. In Ottoman period, the Burj el Kashla could be a twin structure with the Burj Sanjak (Flag Tower) in the south, as part of the sea fortification system.

c. Imbalance of Distribution

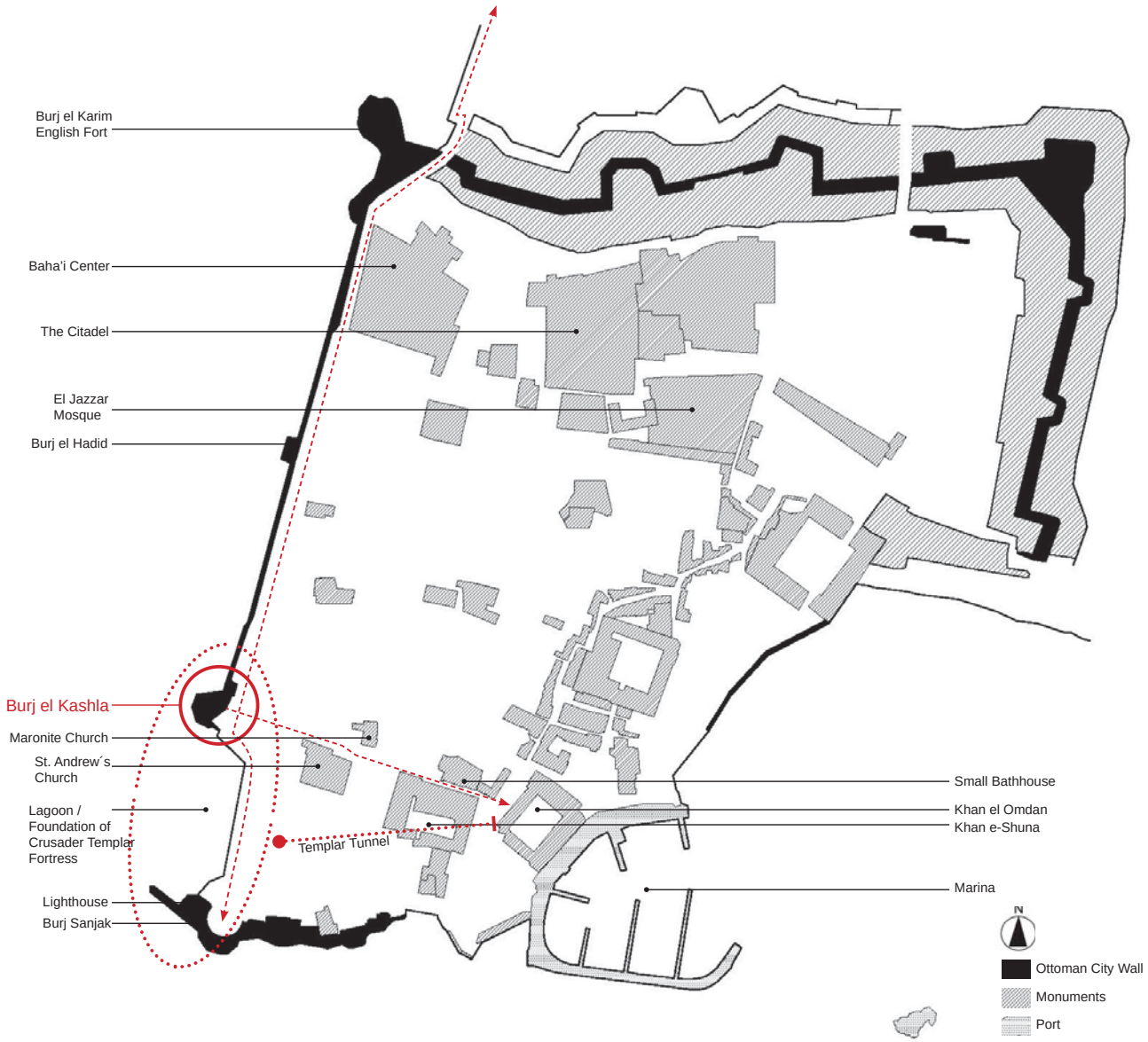
Generally the monuments are denser in the east part of the old city, while in the west the monuments distribute more dispersedly. From tourism's perspective, the burj is not continuously integrated with other monuments.

d. Potential of East-West Axis

There is potential of forming an east-west axis of monuments connecting the marina, Khan el Omdan, Kan e-Shuna, Small Bathhouse, Maronite Church and St. Andrew's Church, with Burj el Kashla as the west ending facing Mediterranean.

e. Potential of North-South Promenade

There is potential of generating a north-south promenade along or even on top of the western sea wall, connecting Burj Sanjak (Flag Tower), Lighthouse, lagoon with the foundations of Crusader Templar Fortress, Burj el Kashla, Burj el Hadid, Burj el Karim and even to the seafront promenade in the new town, with St Andrew's Church, Baha'i House, Baha'i Center and the vibrant urban life at the ground floor defining the east side of the promenade.



The distribution of monuments in the old city of Akko

2. Transportation and Access Analysis

a. Main North-south Access

Currently the main access is the north-south road along the western sea wall.

b. Current Parking Lots

The open space in front of the burj and along the western sea wall is basically functional transportation and parking space rather than a destination attracting people to stay. Most touristic buses come from the north and park right in this area.

c. Tourists' Access

From on-site observation, tourists mainly approach the site from the Western sea wall Promenade and Lighthouse in the south, by touristic bus, private cars or by walking.

d. Width of the Roads

The figure-ground analysis shows that the north-south road along the western sea wall is much wider than other narrow alleys, which form the dominant urban fabric of most part of the old city.

e. East-West Alleys

There are three east-west alleys approaching the site, one of which points directly to the burj through long steps.

f. The Underground Access to the Templar Tunnel

There is an underground path approaching the site, as the west end of Templar Tunnel is close to the burj and faces the northern part of lagoon.

g. Sea Access

The site can also probably be accessed from the sea by ship, or from the lagoon by walking or swimming.

main north-south access and the width of the road

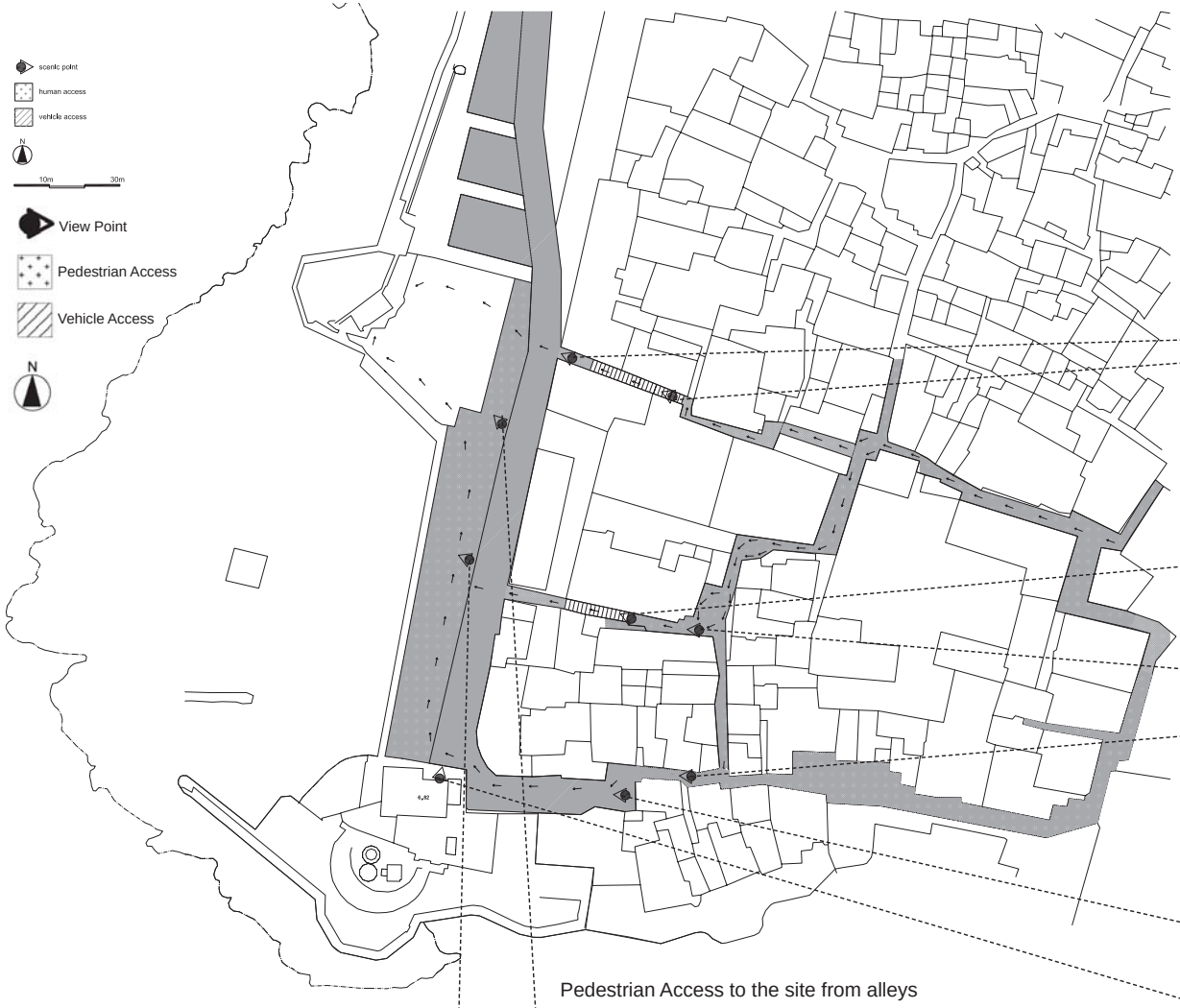
entrance of Templar Tunnel

access from the sea

promanade and parking lots

main tourists' access

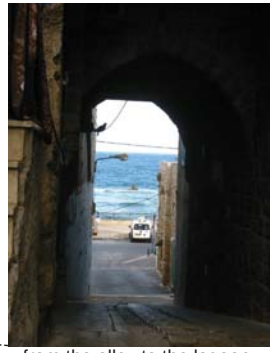
The figure-ground analysis of the old city of Akko




from the street to the alley


from the alley to the ruin


from the street to the alley


from the alley to the lagoon


from the alley to the Lighthouse

Pedestrian Access to the site from alleys


from the sidewalk to the lagoon


from Hahaganna Street to the site


from the plaza to the Lighthouse


from the Lighthouse to the site

3. Pavement Conditions

a. Categories and Basic Characters

The current ground pavements on and around the site can be grouped into 5 basic categories:

category	color	scale	permeability	hardness
dirt & sand	dirt brown	very small	pervious	flexible
gravels	coal gray	1-4 cm	pervious	flexible
paving tiles	gray/ gray red	10-20 cm	almost impervious	rigid
carved stones	light yellow, beige, dark grey	10-70 cm	almost impervious	rigid
concrete	light brown, gray	homogeneours, gravel texture	impervious	rigid

Most of the pavements are gray colored, small scaled, almost impervious and rigid.

b. Initial Design Aims

Although the pavement design takes scales and colors into consideration, it target smore to infrastructural and functional aims rather than aesthetic or conservational goals. The permeability and hardness are not intentionally designed.

c. Mess and Complexity

The current pavement shows the complexity of the ownership and development stages around the site. It lacks orientation or aesthetic value.


sand and dirt


gravel


concrete (gravel texture)


paving tiles

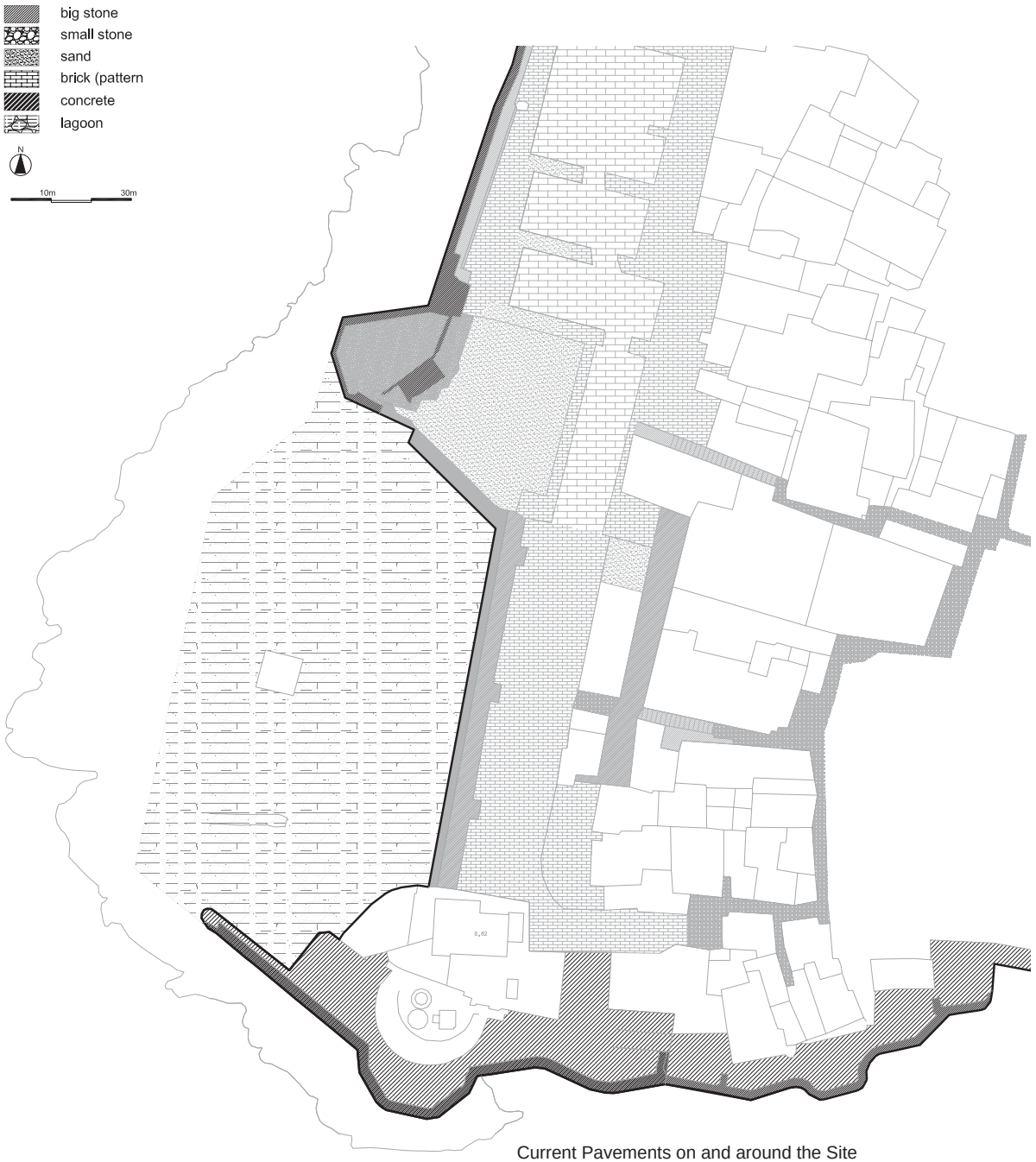

paving tiles


paving tiles


carved stones (middle size)


carved stones (small size)


lagoon



Current Pavements on and around the Site

4. Current Activities and Use of Space

Currently myriad of activities, both formal and informal, legal and illegal take place on or around the site. Some activities are designated by the planning, while some are not. The use of space shows people's demand and the potential of space, as well as the current problems.

Based on observation, 12 types of common activities are marked on the map.


retail


romance


observation


taking photos & temporary seats


vandalism: burning garbage


retail


restaurant


tour bus parking


fishing


private vehicle parking

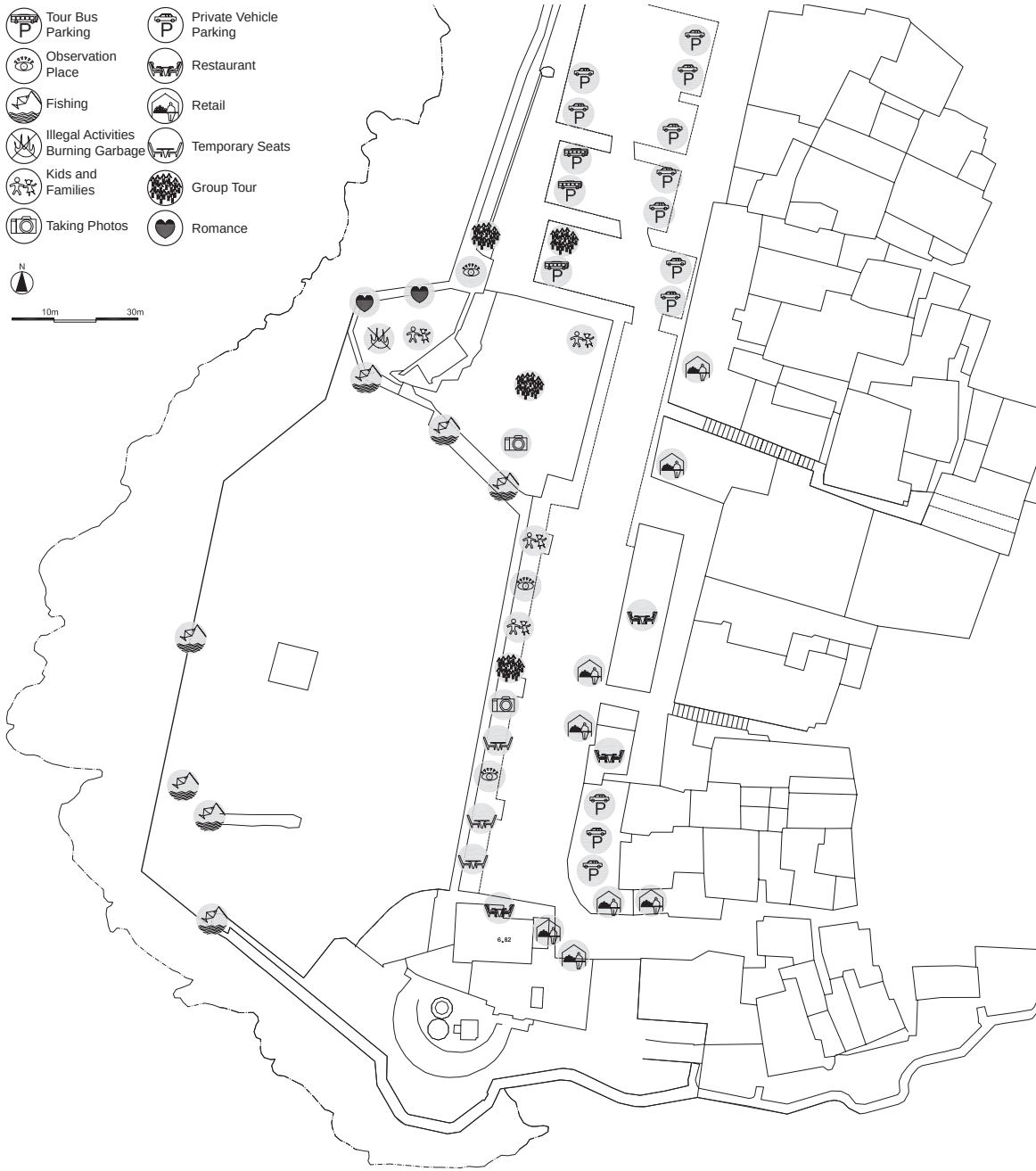

fishing


kids


group tour


panorama observation


bicycle, kids and families



Activities and Use of Space on and around the Site

5. Visual and Perceptual Analysis

a. Parking Lots

Currently too much parking (of both cars and tour buses) greatly influences the perception of place (view 2). The vehicles block the views and the parking influences people's pedestrian experience.

b. Unique Scene

The burj itself expresses the beauty of ruin. The old sandstone, the complex form of arches and the vivid skyline, combined with the vast Mediterranean as the background, define a fantastic and unique scene of "the sea and the ruin".

c. Open Space and the Panorama

The wide open space around the burj provides a high observation point with a great view for a 360-degree panorama, embracing the west façade of the old town, Lighthouse, the profile of Haifa, the lagoon, the Mediterranean, and the western sea wall (view 2, view 3). While the narrow and zigzag alleys dominate most part of the old town, the wide viewpoint of the burj creates a very unique sense of place in old Akko.

d. Visual Corridors

The narrow alley with long stone steps opening directly to the burj can be an east-west visual corridor (view 4). The perception changes from narrow visual frames to the vast view of the sea and the ruins generate a unique mood experience.

e. The Big Waves and the Sound of the Sea

The waves around the site crashed strongly against the western sea wall, the reef and the rocks. Sometimes the waves rise higher than the ground and splash onto the waterfront (view 1). As a result the sound of waves, the smell of fresh seawater and the humidity from spray bring a feeling of being surrounded by the endless blue Mediterranean.

f. The Western Facade of the Old City

The west façade of the old city is vibrant due to the ascending topography and the complex urban development history (view 2). The façade actually reveals the urban diversity mixing up commercial, residential and religious activities in old Akko, with a myriad of architecture forms marking different historic periods. It is a lively section of Old Akko as a living city.

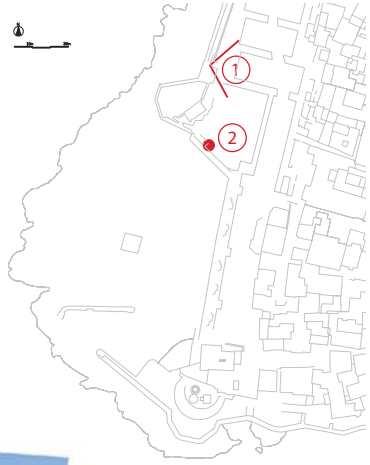
g. The Lagoon

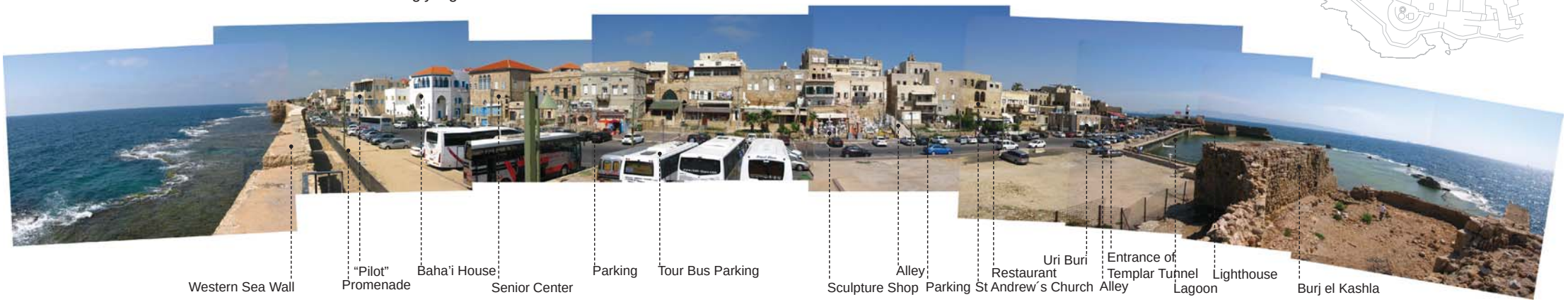
This lagoon connects the remained wall of Burj Sanjak (Flag Tower) and Burj el Kashla and generate integrated sense of place, from both accessibility and atmosphere points of view. People use the place for fishing, swimming and embracing the view of the sea.

h. The View from the Sea

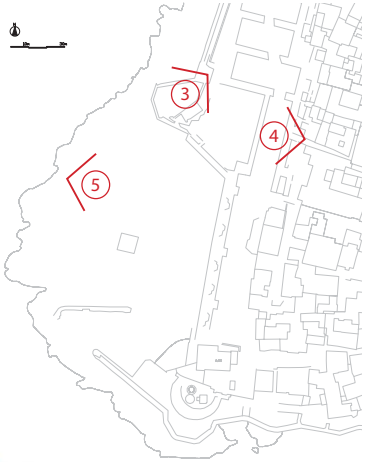
The lagoon is currently accessible by walking (view 6), as the ruins of the foundation of the pre-crusader quarry and the Templar Compound form a boundary higher than other parts of the reef. From walking on the high rocks in the lagoon people can enjoy the view to the Lighthouse, the lagoon and Burj el Kashla from the sea (view 5). On top of that, the ships passing by this area also make a further view of the west part of the old city possible.

View 1: The wave on the southeast corner of the site





View 2: from Observation Platform to the West Facade of the City



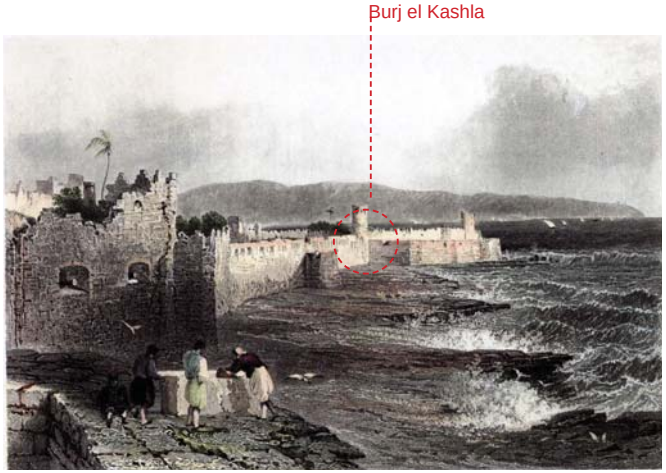
View 3: from the Observation Platform to the site

View 4: from the west end of the alley to the site

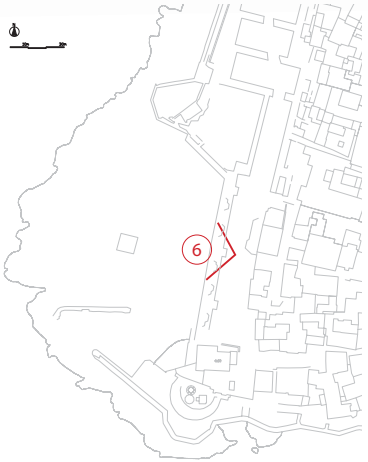
View 5: from the lagoon to the site

View 6: from the promenade to the lagoon

From W H Bartlett's drawing of 1836, Burj el Kashla is visible from the north as part of the western Sea Wall. Probably the drawing was painted from the Burj el Karim, as a similar view is still available today. This observation point provides a whole view of the sea wall promenade from the north, in which Burj el Kashla integrates into the Sea Wall fortification system.



Wall of St Jean D'Acre. Next the Sea
W H Bartlett, 1836



View 6: from the promenade to the lagoon

View 7: from Burj el Karim to the south along the Sea Wall

CHAPTER 4.
Evaluations and Recommendations

1. Evaluations of Values

A. Historic Values

Footprint of Templar Compound

The Templar castle was the last stronghold of the crusaders during the 1291 siege of Acre. The site of the lagoon bears witness to this important chapter in medieval Middle Eastern history; the future excavations at Burj al-Kashla can provide scholars with the data related to the Templars' building activity in the Holy Land.

Ottoman Maritime Fortification

Acre possesses the only preserved Ottoman maritime fortifications built by Dhahir al-'Umar in the middle of the 18th century and upgraded on the order of Ibrahim Pasha in the 1830s. Burj al-Kashla preserves a section of an original sea wall together with casemates and auxiliary structures.

The Timeline of Different Stages of Akko's History

The built structures of Burj al-Kashla reflect a series of events that shaped Acre as a unique port and fortress of the Eastern Mediterranean. Built as a part of a sea wall to protect Acre from Malta pirates, it survived Ibrahim Pasha's campaign is Syria and Palestine and served as a primary battle site during the joint operation of British, Austrian, and Ottoman navy that put the end to Muhammad 'Ali's ambitions in the region.

Part of the Well-preserved City Wall

The walls surrounding Acre are unique as a well-preserved example of a transition from medieval to modern fortification systems in the eastern provinces of the Ottoman Empire. Burj al-Kashla reflects this transition by incorporating Dhahir al-'Umar's wall built in the pre-modern fortification tradition with vaulted casemates serving as a platform for the heavy canons installed at a maritime bastion created in the 1830s.

B. Architectural Values

Presentation of variable building materials and techniques

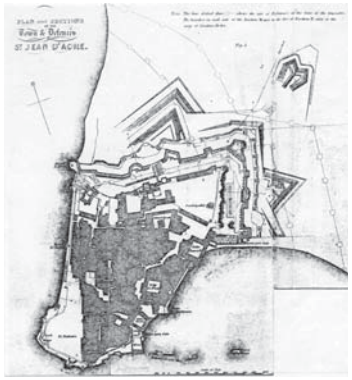
The ruin of the Burj presents the method in building fortification walls. Precisely curved stones were used at sea front in the 19th century with thin layer of mortar. Roughly curved stone were used for the façade of the inner wall and the vaulted structure. The ruin partially reviews the infill layers between façade stones. The newly add-on sea wall presents the techniques of the 20's century. Various types of mortar mixture from various period can be seen in this ruin.

Richness in ruined architectural spaces - combination of enclosed and open space

Two stories semi-external vaults look at to the old city. Three lower vaults penetrate into the open terrace at the back. The open terrace slopes down to the low western sea wall and provides broad beautiful view to the sea. The arched portal frames the sea view. The observation tower at the corner gives a high spot to look at the ruin, the sea and the city.

Vaulted fortification architecture

Burj el Kashla (together with the light house) as part of original seafront fortification structure was built on vaults. It contained terrace as gun platform and attached half enclosed structure



C. Aesthetic and Scenic Values

Picturesque Value

The ruin with two-storey vaults presents an impressive beauty of light and shadow, and the vivid curve of the skyline. It is a good shot in cameras and it has attracted many people to take pictures with it.

Unique Panorama Observation Point in Akko

Basically Akko is an old city with very dense urban fabric, in which the open space or view is scarce. The observation platform on site provides a unique and precious point for a 360-degree panorama view, from where people can see the Mediterranean Sea, the west facade of the city, the western sea wall, the lagoon, the Lighthouse and even the profile of Haifa.

Atmosphere integrated with the Sea and the City

The ruin combined with the vast view of Mediterranean as the background, define a fantastic and unique scene of "the sea and the ruin". The sound of waves, the smell of fresh seawater and the humidity from spray bring a feeling of being surrounded by the endless blue Mediterranean. The complete view of the urban facade closely link the ruin with the city.

D. Ruin/Age Value

Age Value of Ruins

The texture of the burj itself expresses the age beauty of ruin. The old sandstones, the empty vaults, the fallen pieces, the complex form of arches and the vivid skyline, evokes people´s memory of the past and the sense of nostalgia. Discarding the present society, the ruin has crystallized what is essential to our own time. This transcendent feeling of immortality is embedded in the age value of the ruin.

E. Urban Values

Northern Corner of an Important Monument

The site is not isolated from other surrounding monuments. Burj el Kashla is the northern corner of historically Templar Compound, and the Flag Tower compound in Ottoman period. Currently it is important part of the Burj el Kashla - Lagoon - Lighthouse compound, which is an important monument of the old city of Akko.

Location on the Cross of the North-South Promenade and an East-West Urban Axis

The site is located on the cross of the promenade and the urban axis, which makes the site a destination in the public space. Its integration with the urban structure also makes the site easy to find and orient in the old city of Akko.

Unique Open Space as a Stage in Akko

While the narrow and zigzag alleys dominate most part of the old town, this site offers wide open space and creates a very unique sense of place in old Akko. It is “stage space” can be potentially used for public purpose which requires large open space and impressive background.

Vehicle Accessibility

The site can be easily accessed by vehicles, which gives the site opportunities of attracting plenty of outsiders to come and stay.

Pedestrian Accessibility from Several Directions

The site can be accessed by walking from different directions of the city. Both local residents and tourists can easily access the site while wandering around the city.

F. Social and Cultural Values

Vibrant Urban Life and the Integration with the Community

There are all kinds of activities taking place on and around the site. And it is not seperated from the surrounding neighborhood. It provides a feeling of “vibrant urban life”, many of which are spontaneous rather than designated. Although some illegal activities need to be managed, the site still present a lively section of Akko.

Mixture of Locals and Tourists

Unlike the Citadel or the Templar’s Tunnel, this area is loved by both tourists and local residents. This interaction provides a different experience for tourists to understand locals’ life, and also offers the locals communicational opportunities.

Fishing as Cultural Heritage

Fishing is an important cultural heritage of Akko as a historical port city. On this site fishing is a popular activity and it is a good place to preserve and present this intangible heritage.

Educational Value and Potential of Public Awareness

The site is popular among families with little children and school pupils. It is also a popular place for all kinds of people to stay for a while. There is potential of offering information of Akko’s history and enhance public awareness of the site.

G. Economic and Touristic Values

First Stop in Akko

This place is one of the first stops for many tour groups to Akko, providing the first impression of the old city. This popularity gives opportunity of making more activities happen in this place.

Meeting Tourist’s Expectations

Most tourists to Akko are mainly interested in oriental city and the Crusader ruins. The Crusader heritages, the Islamic architecture, city and the food, as well as the Orthodox churches are what the tourists looking for. The theme of the site is important to the the Templar history and Ottoman fortification, which are attractive for the toutists of Akko.

Currently Insufficient Development

This site and the surrounding place is a “backyard“ area of Akko. On one hand, it is currently lack of development and management. On the other hand, it means opportunity for its future, with the latest concept of design and development, to turn the place into a more popular destination, and a economic/ touristic anchor in the southwest part of the old city.

Adjacency to Commercial Facade

The west facade of the city adjacent to the site is designated as “Commencial Facade“ in the 1993 Master Plan of Akko. Currently there are all kinds of commercial activities on the ground floor of that facade. The future development of Burj el Kashla and its surrounding area can make full use of this commercial facade.

Open Space and Intimacy to the Sea

The site’s intimacy to the sea is an attraction for tourists who are in love with the open-air seafront experience. It gives potential of developing open-air terrace, gardens, cafes or restaurants.

2. Principles of Conservations and Developments

a. Respect the historic, architectural, aesthetic, age, urban, social and touristic values of the site.

b. Present and utilize the uniqueness of the site.

c. Enhance the local economy as well as the life quality of Akko's residents.

d. Promote public participation and balance the interests of different stakeholders.

e. Consider a larger context (rather than narrowly focusing on the ruin alone) and plan the site comprehensively.

f. Keep a long-term perspective and divide the development into different stages.

g. Take the climate, the sea and natural disaster into consideration.

3. Recommendations

A. Research and Conservation

Excavations and surveys in need

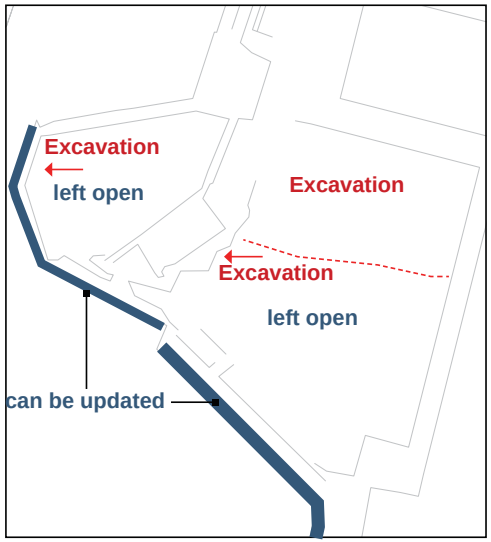
- Conduct excavation the vacant field, the open terrace and beneath the lower vaults level.
- Execute complete architectural and engineering survey of the ruin before any intervention, to locate and measure the ruin precisely, to record remaining condition, erosion and distraction factors, and to provide treatment recommendations.

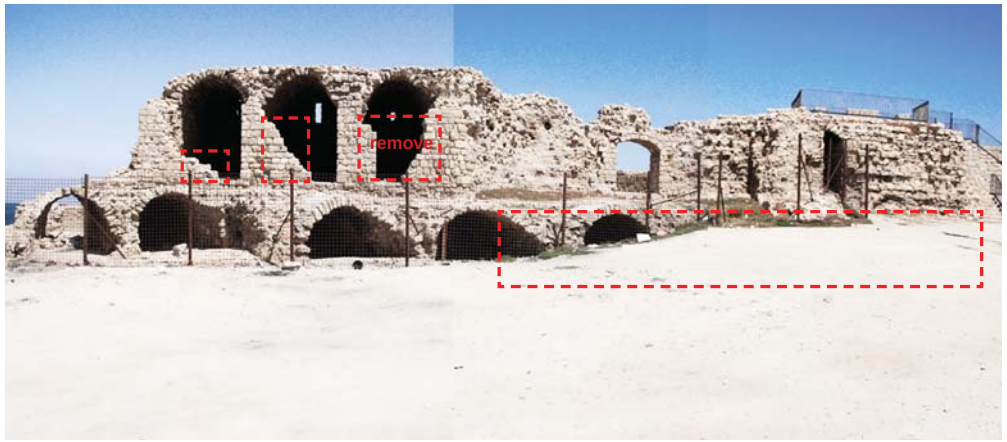
First Aid and Stabilization

- Remove the exsiting cement, concrete, temporary steel mesh and steel poles on the walls. Replace the mortar and offer new supporting structures. Stablize the two-story-vault stone structure, especially those parts with missing stones, before any intervention.

Conservation and Restoration

- The upper vaults of the structure should be conserved and can be reused for suitably purposes. The partially ruined walls covering the upper vaults have little historic value; they can be removed if needed.
- The lower vaults of the Structure should be conserved and/or restored to their original geometric form. The vaults can be opened to the public.
- The open terrace behind the upper vaults should be left open without solid building to preserve the intimacy with the sea and the skyline of the ruin. The stone floor should be preserved with reversible intervention.
- The southern sea wall of the outer facade protecting the structure's lower vaults from the waves of the lagoon, which was constructed between 1940s and 1960s, has little historic value. It can be updated if needed.
- The concrete water bank around the lagoon built during British Mandate does not look inspiring, but it is also an important part of the history of the site. In the design this layer of British history can be improved and presented to the public.





B. On-site Design and Development

Comprehensive Design with the Lagoon and the Lighthouse

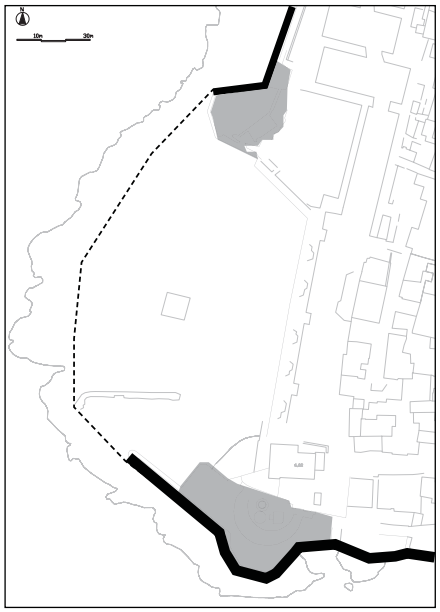
- Treat Burj el Kashla, the lagoon and the Lighthouse as a comprehensive compound of the old city of Akko, based on the ruin's historical, urban, social and touristic values. No proposal or design of Burj el Kashla should be implemented without considering the lagoon and Lighthouse together.

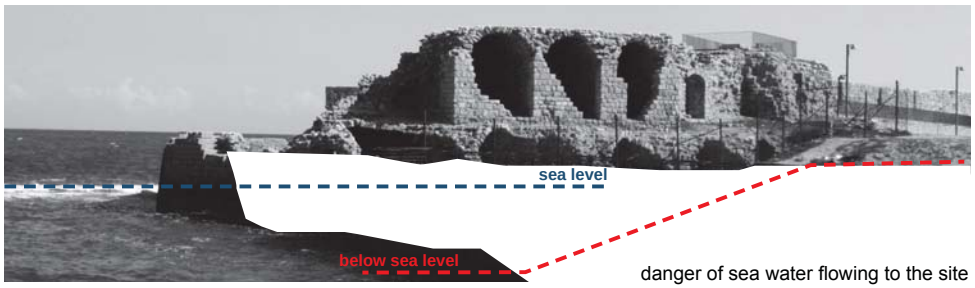
Awareness of the Sea Level

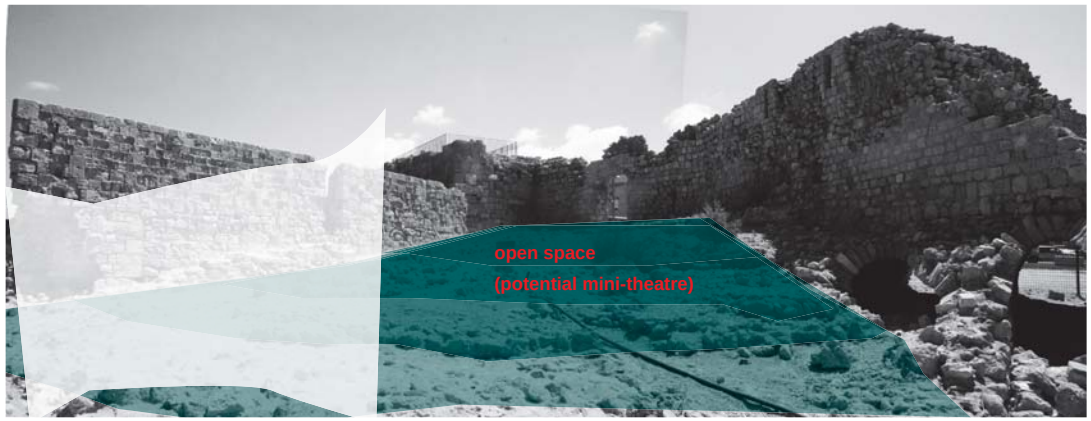
The future underground development the current vacant space east of the ruin, if needed, should take the elevation of the sea level into consideration, as there is danger of leading the sea water flowing to the site if its ground level is lower than sea level. The engineering consulting is necessary for any underground construction.

Maintenance and Make Use of the Atmosphere of Ruin and Open Space

- Keep the "atmosphere of ruin" without greatly changing its appearance, its skyline or its relationship with the surrounding environment.
- Let the open space stay open and avoid large-scale interventions blocking the views.
- Make use of the unique vacant space and the open terrace. For example, they can be used as open-air cafes or open-air theater.







Utilization of the Commercial Facade and Some of the Vaults

- The commercial facade (ground-floor buildings on the other side of the road) should be considered as a potentially comprehensive part of the reuse of the ruin, if any commercial activities are proposed. As a result, the site available for development will be enlarged. The site will generate bigger influence, as it will activate the promanade and the surrounding neighborhood.
- If any enclosed rooms are needed for maintenance or commercial purpose, some of the lower vaults, as well as the commercial facade (ground-floor buildings on the other side of the street) are suitable.

East-West Connection over the Vaults

- Create passages to the open terrace from the east side of the vault structure (a passage on top of the south wall edge, a walking ramp through lower-level vault or through the arched portal).

Presentation to the Public

- It is advisable to install the information board describing the history and original function of the structure and the site.
- Present the boundary of the Templar Compound.

Colors, Materials and Pavements

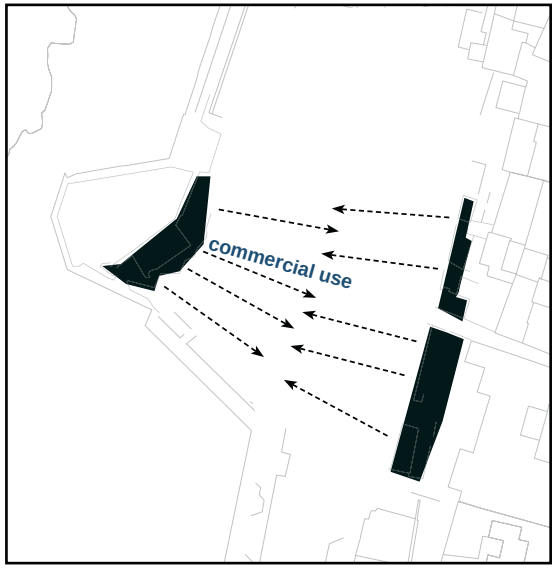
- The colors and materials of any new structure should be harmonious with the sea, the sky and the stone. It is advisible to use, small-scaled, flexible and pervious materials for pavements. And the pavements on and around the site should be designed comprehensively.

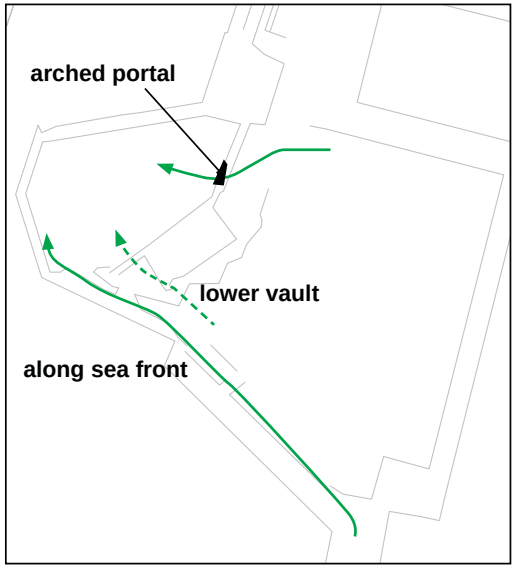
Different Needs

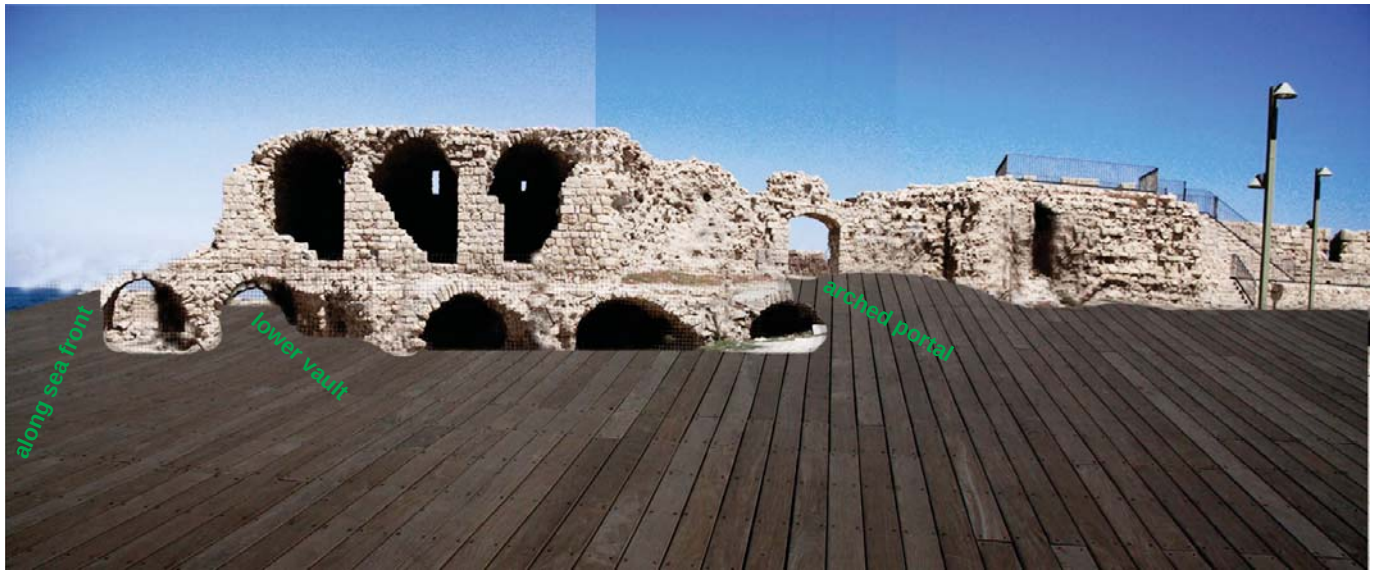
- The design should also consider the need of children, families, lovers, tour groups and the accessibility of the aged.

Protection from Waves

- The waves crash the site now and then, which should be taken into consideration into design. The open terrace needs to be designed suitable for removable facilities.







C. Urban and Touristic Development

The Opportunity of Changing the "Backyard" Situation to an "Anchor" of Development

- Basically the tourism of Akko focuses on the north and east parts of the old town. The tourism in the west part has been neglected for a long time. Now it is opportunity to improve the situation of this "backyard of Akko", using the burj and surrounding area as an "anchor" to stimulate the development.
- Make the site an attractive node on the continuous promanade along the north-south sea wall.

Remove the Parking Lots and Promote Landscape Design

- Remove the parking lots beside the site, as well as some of the curbs. Conduct landscape design around the ruin and lagoon. Change the place into beautiful and pedestrian-friendly landscape.

Potential of Commercial and Touristic Development

- Vendors and open-air seats may use the open space seasonally (for most months of the year) and make the place vibrant. It will also improve the local economy.
- Some touristic routes connecting the burj with other destinations will help to integrate the burj's program with other destinations of the city. One possible route is using the Templar Tunnel to connect the burj site with the eastern monuments such as Khan e-Shuna, Khan el Omdan and the Marina. The other possibility is to make a loop route connecting the Western Sea Wall promenade with the other monuments.
- It is possible to conserve the Crusader vaults of St. Andrew's Church and open it to the public, which can be another highlight in the western city next to the burj. The future of St. Andrew's church should be considered as a beneficial element in the development of the burj.

Potential touristic routes

Open-air cafe in Tel Aviv old port

Vision of the waterfront for kids

Vision of the landscape of the western sea wall promenade

Integration with the Urban Fabric and the Community

- The burj is not an object alone. The open space and the nearby buildings along the west façade of the city should be considered, programmed and designed as a whole.
- The planning should provide opportunities to let the local residents offer their ideas and participate in the decision-making process.
- The planning should mix both local residents and tourists rather than seperating them.
- The neighborhoods in the southwest of the old city of Akko need conservation, renovation and economic-social improvement. This improvement will interact with the development of the site.

Development of the Lagoon

- The development of the lagoon should be carefully discussed as it is a very unique place of Akko, from historic and scenic perspectives.
- It can be interesting experience if some bridges/ docks are built right on top of the lagoon and allow people walking on it to get close the sea and experience the lagoon's uniqueness.
- The fishing and swimming activities are cultural heritages of the place, which should be preserved.

Cultural Activities and Night Life

- The open space can be used as a stage for cultural activities, while the ruin and the sea are perfect background.
- Program the on-site cultural activities with other events in the old city, such as the theater festival and so on.
- The area can be designed with night life elements and integrate with other programs that can work at night (eg. concerts, outdoor movies, light and music show, etc), as overnight visitors are promoted in the city's tourism development.

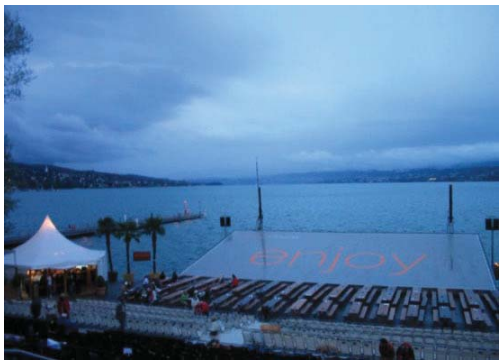
Phases of Development

- Plan the whole project into stages. The first phase may start from small part and focuse more on tourism. The second phase enlarge the targeting areas and integrates with the neighborhood.

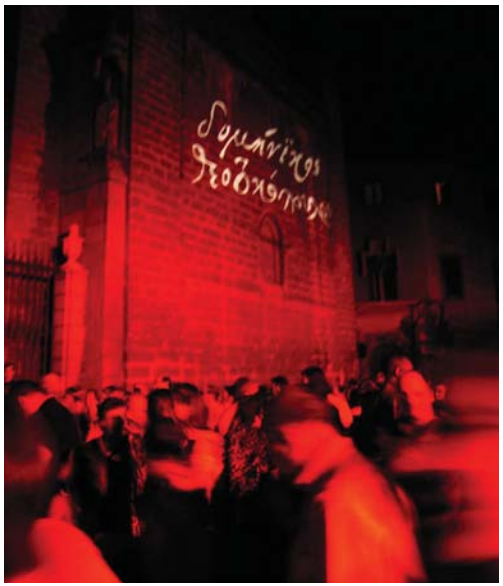
Night illumination design of Jerusalem old city wall

Vision of the docks over the lagoon

West Palm Beach Waterfront, Florida, USA



Open-air movie on the lack, Zurich, Switzerland



Light and music festival in the old city of Toledo, Spain

4. Strategic Options for Commercial Development

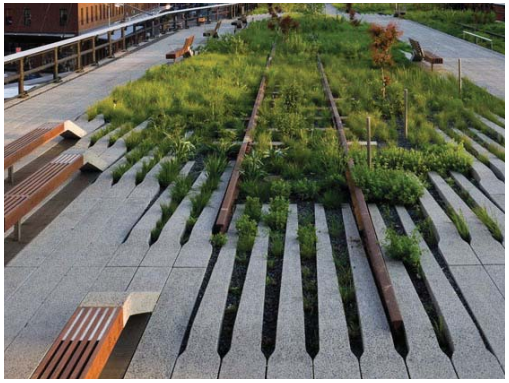
We promote two strategic options for peotential commercial usage of the place. To respect the values of the site mentioned above, we advise the future developments using the **large open space around the burj** for commercial activities rather than putting all the functions into the ruin itself (some of the vaults can be used for people to stay, too).

We advise the commercial activities should integrate with the landscape design of the Seawall promenade, making effort into topology design leaving public space as well as places for people to stay and enjoy the unique view of the “ruin and the sea“. We also suggest the new structure should be light, removable, reversable and as transparent as possible. Wood, glass and some steel with colors harmonious with the sandstone are preferable.

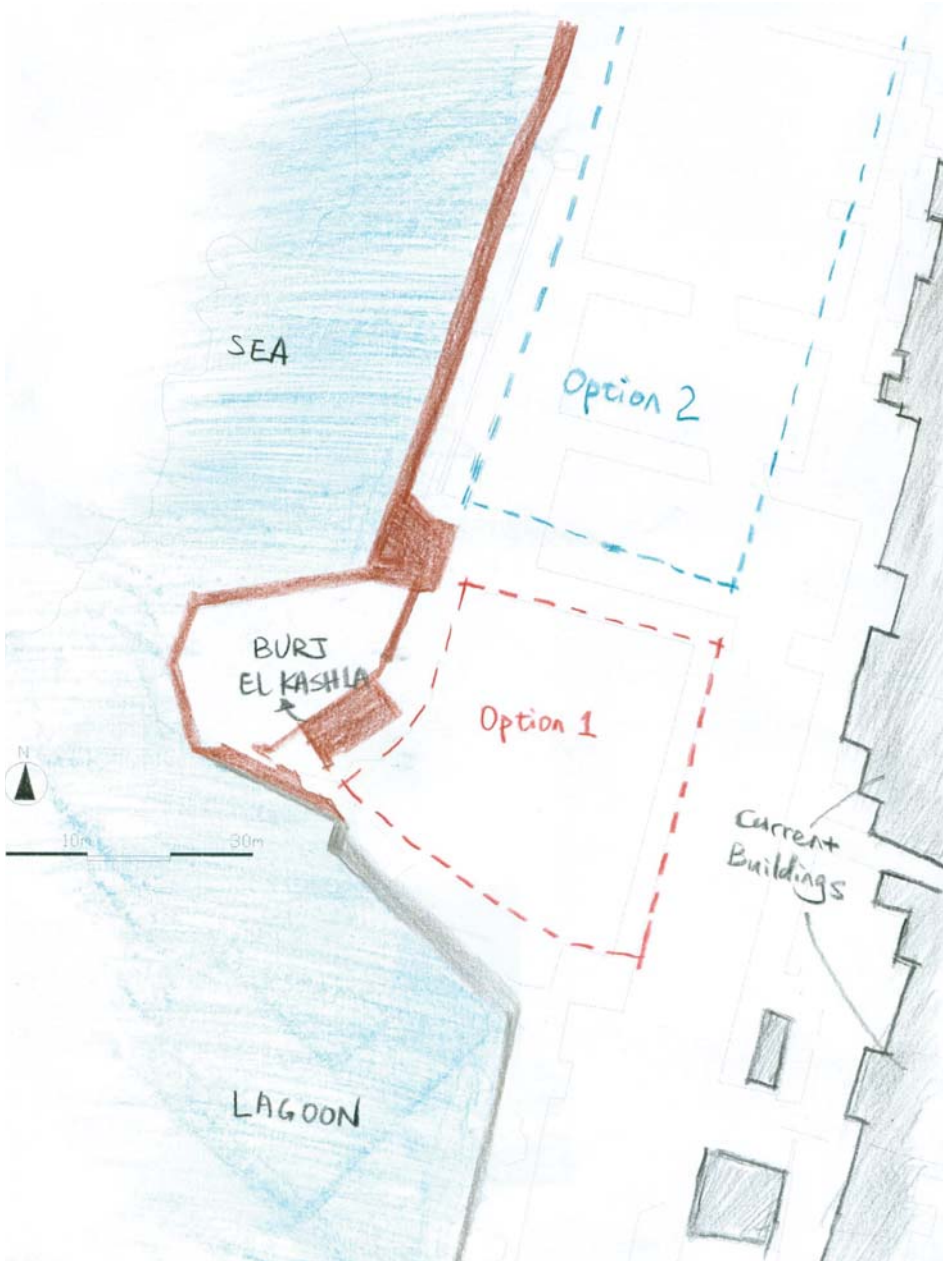
21 Essex Road house, Edinburgh

Chapel of Reconciliation, Berlin

Book Stores along Seine River bank, Paris



High Line, New York

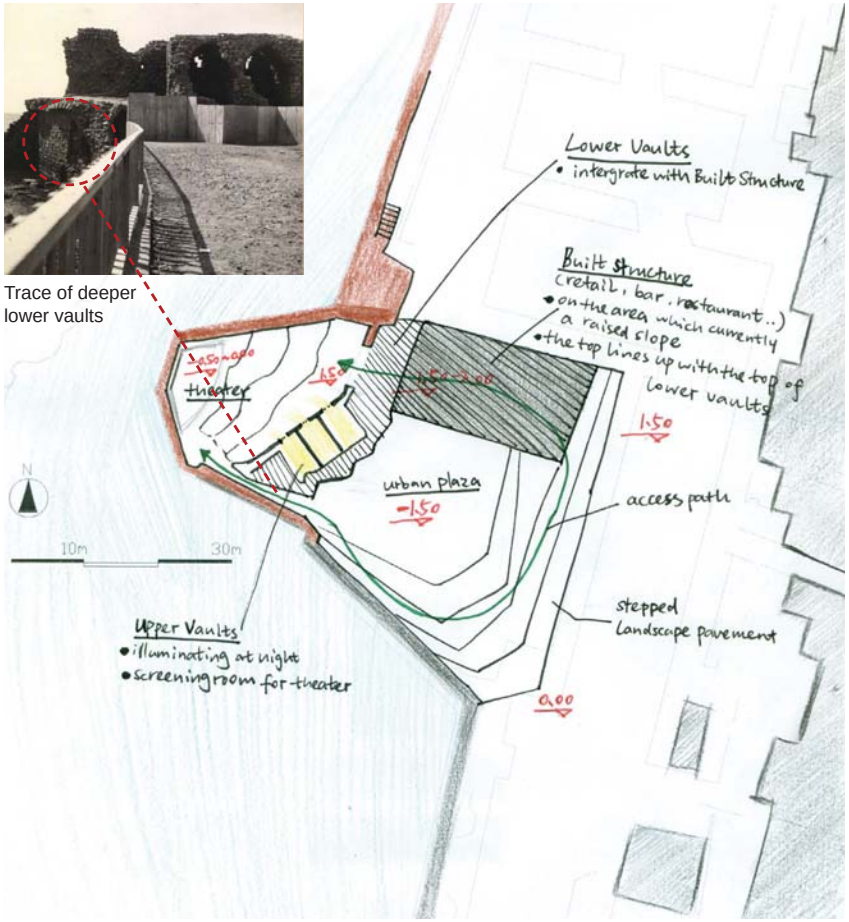


Option 1. Hidden Plaza

This option will make use of the current level difference and combine with excavation on lower vaults and front vacant field. Built structure will locate at the current raised sand bag. The structure is enclosed and will be for commercial use.

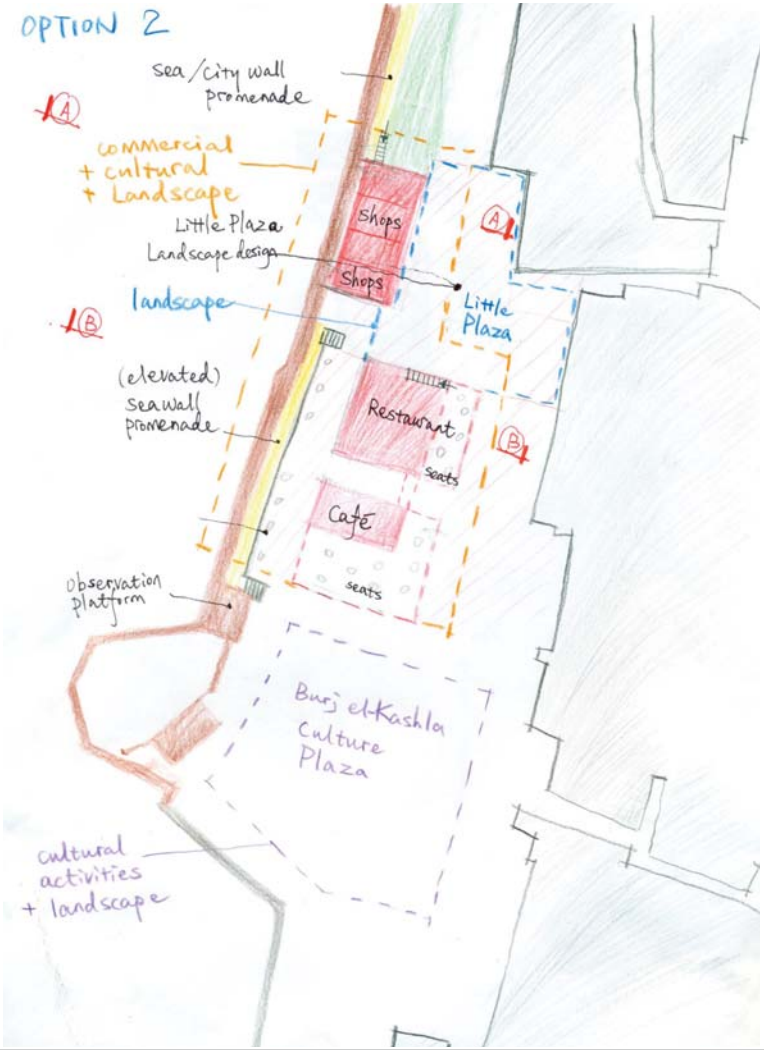
This plaza as planed will be 1.5m lower and has the risk of fulfilling with sea water. Wave and water resistant system and efficient drainage system should be seriously considered.

Trace of deeper lower vaults

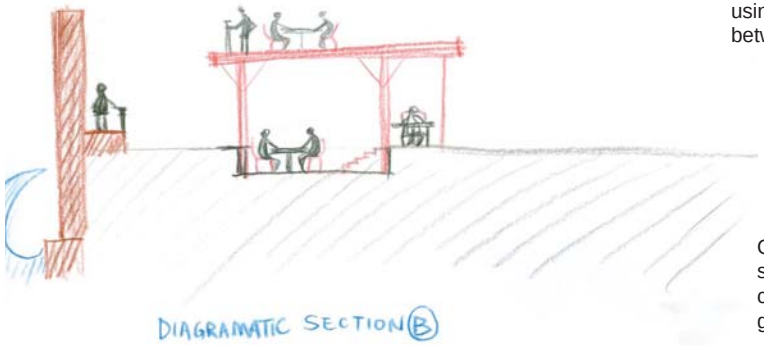


Option 2 Islands in the Promenade Landscape

Using the open space on the north of the ruin. Generate enclosed commercial space with light and removable structures. The relationship between the Seawall and the new structures are reversable and variable. The design of the new structure should integrate with the promenade landscape, provide open air seats and walkable roofs for the public to view the sea.



Cafe of Louisiana Museum of Modern Art, Copenhagen, using wood frames and glass to keep the transparency between outdoor space and the interior.



Open-air cafe, using light structure and removable facilities. The material of wood gives a feeling of intimacy.

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