





# A NEW APPROACH TO MULTI FAITH ARCHITECTURE

## *The Jerusalem Project Case*

POLITECNICO DI MILANO

SCHOOL OF ARCHITECTURE  
MASTER COURSE OF ARCHITECTURE  
THESIS WORK JULY 2014

Author: GALINA ZAPREVA 782701  
Supervisor: arch. BARBARA E.A. PIGA  
Co-supervisor: arch. EUGENIO MORELLO

# CONTENTS

## 0. GENERAL INTRODUCTION TO THE THESIS WORK

## 1. GUIDELINES FOR DESIGN OF MULTI FAITH BUILDINGS FOR MUSLIMS, CHRISTIANS AND JEWS

1. Introduction to the topic
2. Focus of the work in Chapter I
3. Study of standard religious buildings: mosque, church, synagogue

3.1. Aim

3.2. Methods of work

3.3. Graphical representation of the data

## 4. Conclusions, theoretical discussions and guidelines for the design of multifaith religious buildings

4.1. Typical places for location of standard religious buildings: mosque, church, synagogue

- A) In a complex with other representative buildings and in a central place in the city
- B) On a hill, higher point of the city topography
- C) In a neighborhood
- D) Guidelines

4.2. Footprint and building orientation

- A) Footprint
- B) Building orientation
- C) Guidelines

4.3. Special organization; decoration. Single praying hall vs Separate praying

A) Shared praying halls

1. Practical issues
2. The problem of pluralism
3. Perception of the place
4. Problems with attracting users
5. Postmodern critique of multifaith spaces
6. Conclusion

B) Individual praying halls

1. Practical and ethical issues

2. Interaction between people
3. Community creation concept
4. Places for creation of a community

## **5. Study existing multi faith buildings**

- 5.1. Aim
- 5.2. Methods
- 5.3. Graphical representation of the data
- 5.4. Conclusions and guidelines

## **6. Final conclusions and guidelines for design of multi faith buildings for Muslims, Christians and Jews**

# **II. INTRODUCTIO TO THE DESIGN PROJECT AND ITS SITE**

## **1. Project site – Jerusalem, Israel**

- 1.1. Reasons for choosing a project site in Jerusalem
- 1.2. Location of the project site in the urban fabric and its place in Master Plan 2020
- 1.3. Description of the archeological remains at the site
- 1.4. Tourist center Kedem Compound- presentation of the future project program and public opinion about it
- 1.5. Alternative to Kedem Compound projects by organization Emek Shaveh

## **2. Functions and goals of the thesis project**

- II.1. Presentation of the project program and it relations to the needs of locals and requirements set in Master Plan 2020
- II.2. Justification of the program
  - Aim
  - Methods
  - Graphical representation of the study
  - Conclusion

### **III. DISTRIBUTION OF FUNCTIONS ON THE PROJECT SITE**

#### **1. Analysis of “nodes” of the pedestrian flow on the project site**

- 1.1. Framework
- 1.2. Aims
- 1.3. Methods
- 1.4. Graphical representation of data
- 1.5. Conclusion
- 1.6. Guidelines

#### **2. Points of view to the project site**

- 1.1. Framework
- 1.2. Aims
- 1.3. Methods
- 1.4. Graphical representation of data
- 1.5. Conclusion
- 1.6. Guidelines

#### **3. Visibility from the project site**

- III.1. Framework
- III.2. Aims
- III.3. Methods
- III.4. Graphical representation of data
- III.5. Conclusion
- III.6. Guidelines

#### **4. Conclusion**

- 1.1. Framework
- 1.2. Aims
- 1.3. Methods
- 1.4. Graphical representation of data
- 1.5. Conclusion
- 1.6. Guidelines

#### **IV. DISTRIBUTION OF FUNCTIONS WITHIN THE RELIGIOUS COMPLEX**

##### **1. Location of the buildings on the site. Comparison of possible design solutions.**

- 1.1. Framework
- 1.2. Aims
- 1.3. Methods
- 1.4. Graphical representation of data
- 1.5. Conclusion

##### **2. Outline buildings and public spaces within the religious complex**

- 1.1. Framework
- 1.2. Aims
- 1.3. Methods
- 1.4. Graphical representation of data
- 1.5. Conclusion
- 1.6. Guidelines

#### **V. BUILDING DESIGN**

##### **1. Building height**

- 1.1. Framework
- 1.2. Aims
- 1.3. Methods
- 1.4. Graphical representation of data
- 1.5. Conclusion
- 1.6. Guidelines

##### **2. Local architectural tradition**

- 1.1. Framework
- 1.2. Aims
- 1.3. Methods

- 1.4. Graphical representation of data
- 1.5. Conclusion
- 1.6. Guidelines

### **3. Building material**

- 1.1. Framework
- 1.2. Aims
- 1.3. Methods
- 1.4. Graphical representation of data
- 1.5. Conclusion
- 1.6. Guidelines

### **4. Example of most holy buildings for each religion**

- 1.1. Framework
- 1.2. Aims
- 1.3. Method
- 1.4. Graphical representation of data
- 1.5. Conclusion
- 1.6. Guidelines

### **4. Examp**

**e of possible design solutions**

### **5. Example of possible design solutions**

- 5.4. Mosque
- 5.5. Church
- 5.6. Synagogue



## **VI. RELIGIOUS OPEN AIR SPACES**

### **1. Main religious square and secondary ones**

- 1.1. Framework
- 1.2. Aims
- 1.3. Methods
- 1.4. Graphical representation of data
- 1.5. Conclusion
- 1.6. Guidelines

### **2. Pedestrian flow and seclusion on main religious square**

- 1.1. Framework
- 1.2. Aims
- 1.3. Methods
- 1.4. Graphical representation of data
- 1.5. Guidelines
- 1.6. Conclusion

### **3. Gathering areas and areas for preparation for worshipping ( semi-private area)**

- 3.1. Framework
- 3.2. Aims
- 3.3. Methods
- 3.5. Graphical representation of data
- 3.6. Conclusion
- 3.7. Guidelines

### **4. Thermal comfort on main religious square (sun- shadow study)**

- 1.1. Framework
- 1.2. Aims
- 1.3. Methods
- 1.4. Graphical representation of data

- 1.5. Conclusion
- 1.6. Guidelines

## **5. Example of possible design solution**

### **VII. PUBLIC SPACE AND ARCHAEOLOGICAL SITE**

#### **1. Introduction**

#### **2. Street level**

1.1. Framework

1.2. Aims

1.3. Methods

1.4. Graphical representation of data

1.5. Conclusion

1.6. Guidelines

#### **3. Level -5.50**

1.1. Framework

1.2. Aims

1.3. Methods

1.4. Graphical representation of data

1.5. Conclusion

1.6. Guidelines

#### **3. Level -9.00**

3.1. Framework

3.2. Aims

3.3. Methods

3.4. Graphical presentation of data

3.5. Conclusion

3.6. Guidelines

#### **4. Vertical connections**

- 1.1. Framework
- 1.2. Aims
- 1.3. Methods
- 1.4. Graphical representation of data
- 1.5. Conclusion
- 1.6. Guidelines

#### **5. Example of possible design solution**

### **VIII. IMACT OF THE PROJECT**

*For further information and the complete version of the thesis work please go to:  
[www.labsimurb.polimi.it](http://www.labsimurb.polimi.it)*







*United States Holocaust Memorial Museum interior, Washington*

*copyright: AgnosticPreachersKid*



*Blake Catanese sits near 40 candles at the Flight 93 Memorial Wall of Names in Shanksville*

*copyright:Jack Gruber, USA TODAY*



*Demonstrators protesting against Islamization in Berlin*

*copyright: [www.spiegel.de](http://www.spiegel.de)*





*A cow in a Swiss meadow next to billboard against minarets in Zwillikon*

*copyright: Christian Hartmann*



*Pope Francis embraces friends- an imam and a rabbi at the Western Wall in Jerusalem*

*copyright: Getty Images*

## **A SHORT LIST OF INTERFAITH ORGANIZATIONS**

American Jewish Committee (AJC) Dept of Interreligious Affairs, established 1906

Berkley Center for Religion, Peace, and World Affairs at Georgetown University

Council for a Parliament of the World's Religions, established 1988

European Council of Religious Leaders, established 2002

Fellowship of Reconciliation (FOR), established 1914

Focolare Movement

Humanity's Team, established 2003

Institute for Interreligious Dialogue

The Interfaith Encounter Association

Interfaith Worker Justice

The International Association for Religious Freedom (IARF), established 1900

International Council of Christians and Jews (ICCJ), established 1975

International Council for Inter-Religious Cooperation (ICIRC), established 2009

Interreligious and International Federation for World Peace

International Humanist and Ethical Union

North American Interfaith Network (NAIN), established 2000

The Religious Institute on Sexual Morality, Justice, and Healing, established 2000

Temple of Understanding (ToU), established 1960

United Religions Initiative (URI), established 2000

The Vatican's Pontifical Council for Interreligious Dialogue, established 1964

The World Conference of Religions for Peace, established 1970

The World Congress of Faiths established 1936 - 'a fellowship of faiths'

World Council of Churches Team on Interreligious Relations, established 1948

Sacred Space International, established 2002

The Elijah Interfaith Institute, established 1997

Universal Interfaith Peace Mission, renamed 1998, established 1990

## **0 GENERAL INTRODUCTION TO THE THESIS WORK**

*Introduction*







**I. GUIDELINES FOR DESIGN OF MULTI FAITH BUILDINGS  
FOR MUSLIMS, CHRISTIANS AND JEWS**

*Guideline for design of multi faith  
buildings for Muslims, Christians  
and Jews*

**1. Introduction to the topic**



## 2. Focus of the work in Chapter one

| 5

Chapter I seek to derive design guideline for multi faith religious buildings for Muslims, Christians and Jews. The new approach should allow people from the three different faiths to interact and potentially appreciate the values and commonalities between themselves. The buildings(s) should be organized in such a way that three congregations are able to attend their respective ceremonies, pray and perform religion related rituals without disturbing and interrupting each other.

*Guideline for design of multi faith buildings for Muslims, Christians and Jews*

This chapter focuses in understanding: (1) how the praying areas and adjacent spaces should be organized to provide uninterrupted prayer at any point of the day/week/year for the three congregations; (2) how the particular volumetric features, exteriors and interior decoration of each religion's architecture should be distributed so that the multi faith religious building corresponds to the requirements, canonical and otherwise, of each religion.

The design guidelines serve for the development of the design project represented in the following chapters of this thesis book, but they are also adequate for real project cases.

## 3. Study of standard religious buildings: mosque, church, synagogue

### 3.1. Aim

The analytical study seeks at understanding what the essential characteristics of each religious building typology are and how and when the temples are used. This will eventually help in understanding how the various requirements can be combined together for the design of a multi faith religious building.

### 3.2. Methods of work

The study represented in the next pages is a comparative one. The data is organized in charts in which for every criterion there is represented systematized information about each religion and its architecture.

There are discussed aspects of the three religious buildings which bring light in: the organization of functions (primary and secondary), arrangement of spaces and nevertheless when and how people use the spaces.

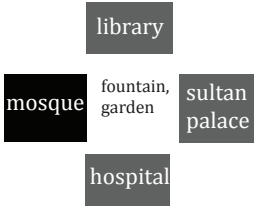
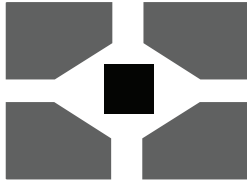
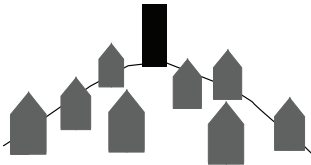
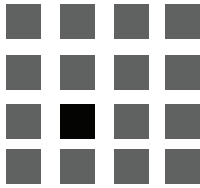
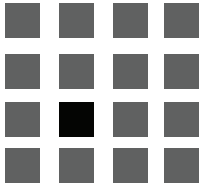
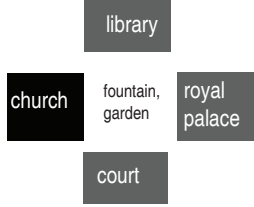
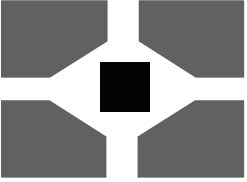
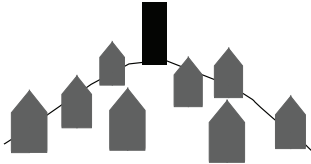
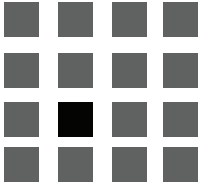
The study begins with a comparative analysis of the *typical places of urban location* of the three types of religious buildings. This is necessary to understand what role the religions/ temples have in the society and hence what are the best places for location of a multi faith building with respect to the needs of each religion. This is followed by an analysis of the architecture of the mosque, synagogue and church and how worshipers used them. "Overlapping" this information helps to show the relationship between the temples and the users and how a multi faith building should be designed in order to serve all the three congregation groups. The research includes a (1) study of the canonical requirements of the organization of temples' interiors; (2) the typical volumetric and decorative features; (3) a study

of the relationship between the etymology of the words for the religious buildings and their secondary functions; and nevertheless how pilgrims perform prayers.

Finally, the daily, weekly prayers and religious festivals are represented in a timeline. The graphic includes other key information, specifically; whether events are marked by a specific sounds or whether the prayers/ masses are performed in silence, with or without a service (speech) of a religious figure. This part of the study seeks to discover whether there is overlapping of the time of the prayers and if so whether the different masses could be performed in the same space.

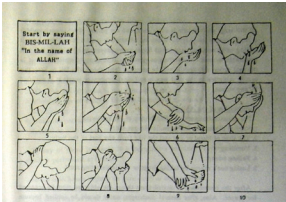
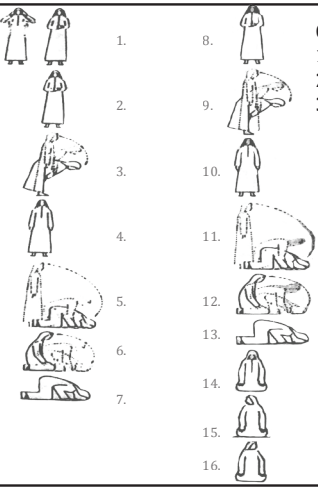

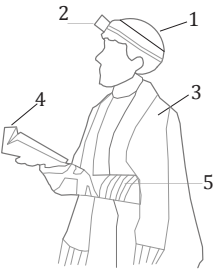
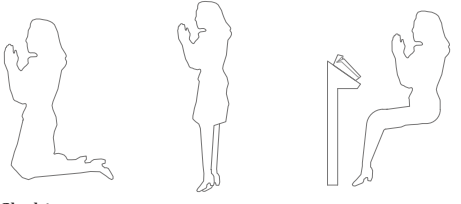
### **3.3. Graphical representation of the data**

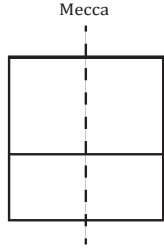
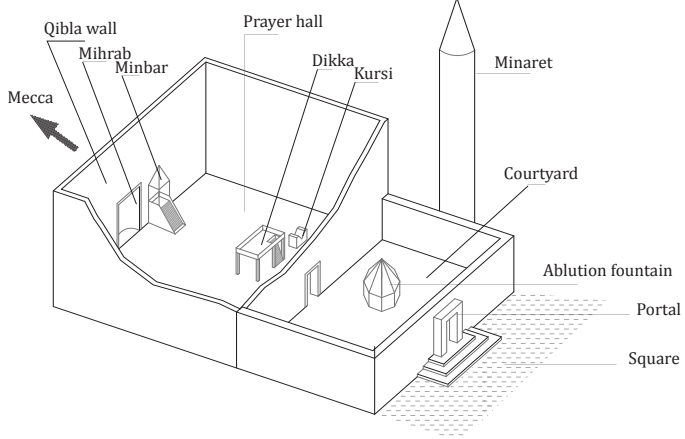
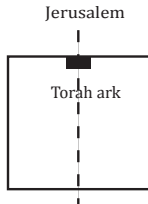
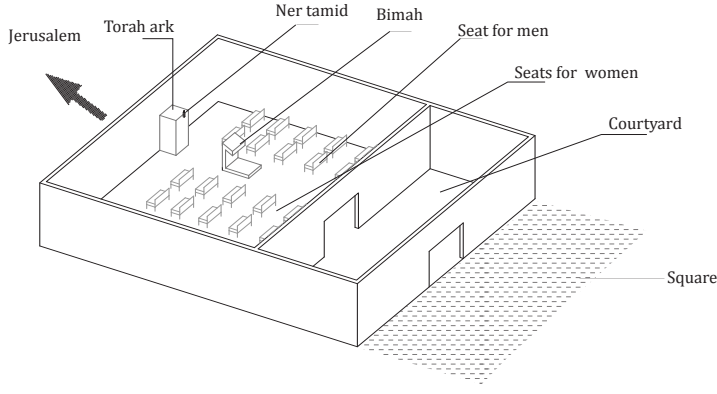
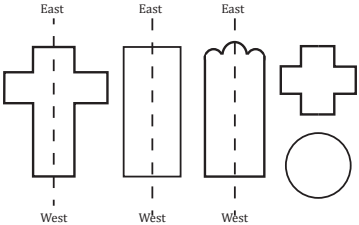
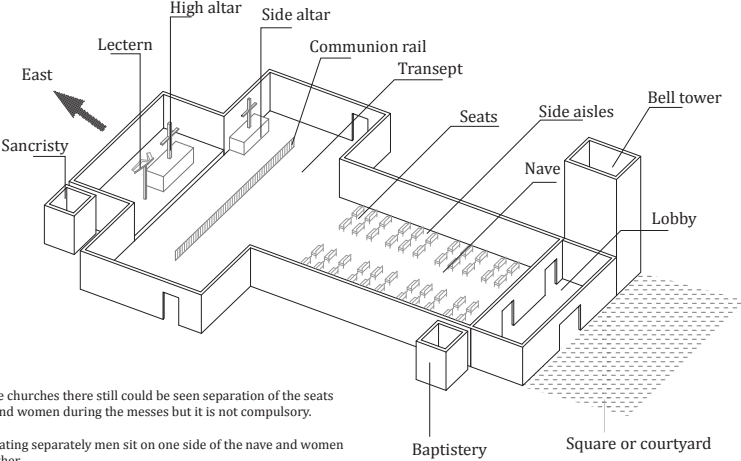
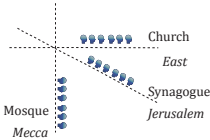
Typical places for location

Islam				
	<p>+ In complex with other representative buildings</p> <p><i>representative function: used for inaugurations, royal weddings, other formal occasions, city symbols of wealth</i></p>	<p>+ Central place in the city + On a main axis</p> <p><i>representative function: used for inaugurations, royal weddings, other formal occasions, city symbols of wealth</i></p>	<p>+ On a hill, higher point of the city topography</p> <p><i>symbolic function: mainly in old time as an attempt to be closer to God</i></p>	<p>+ In a neighborhood</p> <p><i>practical function: to be closer to the community and to serve better its day-to-day religious needs</i></p>
Judaism				
				<p>+ In a neighborhood</p> <p><i>practical function: to be closer to the community but also synagogues were till recently supposed to be "hidden" as Judaism was not an official religion</i></p>
Christianity				
	<p>+ In complex with other representative buildings</p> <p><i>representative function: used for inaugurations, royal weddings, other formal occasions, city symbols of wealth</i></p>	<p>+ Central place in the city + On a main axis</p> <p><i>representative function: used for inaugurations, royal weddings, other formal occasions, city symbols of wealth</i></p>	<p>+ On a hill, higher point of the city topography</p> <p><i>symbolic function: mainly in old time as an attempt to be closer to God</i></p>	<p>+ In a neighborhood</p> <p><i>practical function: to be closer to the community and to serve better its day-to-day religious needs</i></p>
Overall	<p><b>Mosques</b> and <b>churches</b> could be found in the central, representative parts of the city fabric, as well as in more obscure ones such as in neighborhoods.</p> <p>Nowadays <b>synagogues</b> could be mostly found in neighborhoods as Judaism, except in Israel, is not a main religion of any country and hence very unlikely to be located in a central part of a city. Moreover still recent time Jewish people were often discriminated and needed to hide their places of worship behind facades attracting less attention as possible.</p>			
Conclusion	<p>A multi faith building could be located in any of the fourth locations. Nowadays there don't exist in the same degree the interreligious issues there were in the past but still how successful a multi faith building is depends on the local society.</p> <p>As described in the location cases up, a multi faith religious building would have certain variations in concept and function depending on its location in the urban fabric.</p>			

Religion	Religious building name	Secondary functions of the religious building
Islam	<p><b>Mosque</b></p> <p>meaning: "place of worship", "prostration in prayer", "to bow down in prayer", "worship"</p>	<ul style="list-style-type: none"> <li>+ The courtyard- gathering place</li> <li>+ Cultural center</li> <li>+ Courthouse</li> <li>+ School</li> <li>+ University</li> <li>+ Bazaar and thus center of public life.</li> </ul>
Judaism	<p><b>Synagogue</b></p> <p>meaning: assembly, house of assembly, house of prayer, learning together, school, temple,</p>	<ul style="list-style-type: none"> <li>+ Place for meeting for Jews</li> <li>+ Day care</li> <li>+ Community center</li> <li>+ Charity</li> <li>+ Town hall ( matter of importance to the community can be discussed)</li> <li>+ Hebrew learning</li> <li>+ Bible study</li> <li>+ Bible hand-copy</li> <li>+ Kasher shop</li> </ul>
Christianity	<p><b>Church-</b> a building used for religious activities meaning: belonging, assembly, congregation</p> <p><b>Basilica-</b> a large and important church that has been given special ceremonial rights by the Pope meaning: open public court building</p> <p><b>Catherdral-</b> is a Christian church which contains the seat of a bishop thus serving as the central church of a diocese, conference or episcopate. meaning: seat, bench</p>	<ul style="list-style-type: none"> <li>+ Charity</li> <li>+ Day care</li> <li>+ Help groups</li> </ul>
Overall	<ul style="list-style-type: none"> <li>+ The common word for the temples for the three religions is prayer.</li> <li>+ Synagogue and church share the meaning for assembly (community).</li> <li>+ Synagogue's meaning also emphasizes on learning.</li> <li>+ The only meaning of a mosque is to pray.</li> </ul>	
Conclusion	<p>There could be observed close relationship between the meanings of the names of the temples and their secondary functions. This explains why these secondary functions developed in exactly this way and hence how people look at the religion itself.</p> <p><b>Mosque-</b> the shaded court yard of the mosque seen as a gathering place is mainly a consequence of the hot climate of many of the Islamic countries. Apart from that it could be seen that the mosques serves many other public functions. This could be explained by the fact that the Quran / the religion / is a central source of all rules of living and teaching and for the pronouncements of law.</p> <p><b>Synagogues</b> - beside of a place for worship it is a place for preservation of the Jewish culture, language and traditions and a place where Jewish people were able to meet freely.</p> <p><b>Church-</b> its meaning emphasize on belonging and assembly which gives understanding why Christians tend to go to the same church / to the same mini society. As consequence it is established a strong relationships between the members of church which lead to a desire to help each other.</p>	

Performance standard praying rituals

	Food, alcohol consumption during certain festivals, rituals	Ablution	Way of praying and clothing
Islam	No, food, no alcohol consumption. Alcohol is forbidden by the Quran.	<p>.Required facilities: fontain with running water.</p> <p>.The process: It is called ( 'Wudu' ) - washing of the part of the body which are generally exposed to dirt before a prayer. The ablution should be done in exact order and each washing of each part of the body should be done three times.</p> 	 <p>Clothing: 1. Shoesless 2. Hijab 3. Modest clothing</p>
Judaism	No, any sort of consumption is forbidden in the synagogue.	<p>.Required facilities: fontain/ tap with running "live" water; source of "live" water; pool with "live" water for full body immersion</p> <p>.The process: (Yiddish): before worship pour water on each hand three times for most purposes using a cup, and alternating the hands between each occurrence; a special cup is used for such washing.</p> <p>(Tevilah) - full body immersion in "living water". It is required in the following circumstances:  <ul style="list-style-type: none"> <li>. conversion to Judaism</li> <li>. contact with or carried a dead body that hadn't been killed by shechita</li> <li>. bodily fluids and skin conditions</li> </ul> </p>	<p>1. Ancient praying</p>  <p>2. Contemporary praying- standing up or sitting</p>  <p>Clothing + for man: 1. Dress hat or a kippa 2. Tefillin (set of small cubic leather boxes, containing scrolls of parchment inscribed with verses from the Torah) 3. Tallit (prayer shawl) 4. Siddur (prayer book) 5. Tefillin + for woman: 1. Dress hat 2. Tallit (prayer shawl) 3. Siddur (prayer book)</p>
Christianity	Yes, during certain rituals red wine and bread are consumed in the church.	No	<p>1. On knees    2. Standing up    3. Sitting and reading</p>  <p>Clothing: Modest clothing for both man and women</p>
Overall		In Islam and Judaism ritual ablution is required but not in Christianity.	Inside the religious buildings Jewish and Christians pray in the same way- sitting – or in the case of some Christians on their knees. When there is not enough space on the inside, worshipers from both religions can pray also standing up.
Conclusion		In a multi faith building the ablution facilities for both Muslims and Jewish could be combined in such a way that corresponds to the requirements of the two religions.	In a multi faith building, Muslims cannot pray in the same place Jewish and Christians pray and vise-versa as the firsts require clean, covered by carpet ground, free of furniture and the seconds ( Christians and Jewish) benches for sitting or chairs.

	Footprint and building orientation	Special organization and interior arrangement of religious buildings
Islam	<p>Building name: <b>Mosque</b></p> <p>+ The Qibla wall should face Mecca, 90degree perpendicular.</p> <p>+ No requirements in regard of the building footprint; usually it is a rectangle as fits more people.</p>  <p>*There are required separated praing and ablution areas for men and women</p>	
Judaism	<p>Building name: <b>Synagogue</b></p> <p>+ When one standing in from of Torah ark he should be facing Jerusalem.</p> <p>+ No requirements in regard of the building footprint.</p>  <p>* In more Orthodox synagogues there are required separated seating areas for men and women</p>	
Christianity	<p>Building name: <b>Church</b></p> <p>+ Main axis oriented East-West with the Altar facing East and the entrance West</p> <p>+ The common shape of the church's footprint is a cross but it can also be a rectangle with long axis positioned East-West.</p> 	 <p>* In some churches there still could be seen separation of the seats of man and women during the messes but it is not compulsory.</p> <p>When seating separately men sit on one side of the nave and women on the other.</p>
Overall	<p>The three temples have in common the rectangular shape of the footprint but they all have different orientations.</p>	<p>There are found only 7 commonalities among the features listed above between the three type of religious buildings:</p> <ol style="list-style-type: none"> <li>1. Facing the sacred direction when praying</li> <li>2. Courtyard / square in front of the praying hall</li> <li>3. Underlined entrance of the building/ courtyard</li> <li>4. Separation of the seats for man and women</li> <li>5. House and/or office for the clergy positioned next to the religious building</li> <li>6. A reader's place from where worshipers are faced (Islam, Christianity)</li> <li>7. Tower from which are marked the hours for prayers (Islam, Christianity)</li> </ol>
Conclusion	<p>Without considering very small and exceptional number of locations, the axis towards EAST, JERUSALEM and MECCA don't overlap. Hence in a single-hall multi faith building, the praying areas of each religious group will be distributed along their axis of orientation and consequently each congregation will have its own section of the common place for worship.</p> 	<p>From the analysis it is concluded that the three types of religious buildings have much more differences that similarities (7). For the design of a multi faith building this insufficient amount of commonalities becomes an issue which can be approached in two ways:</p> <ol style="list-style-type: none"> <li>1. combining together only the things that are in common and excluding the differences entirely from the design (reductionist approach) or</li> <li>2. combining together the things that are in common and developing "on the side" the things that are different (separating approach).</li> </ol>

Description of spaces of the religious buildings: use, symbolism, requirements

Islam

- + **Semi-private courtyard**- in front of the entrance of the courtyard of the mosque is preferably left a square which is used mainly for transition to and from the religious building / the courtyard is used for gathering /. The square emphasize the importance of the mosque in the urban fabric.
- + **Portal**- general characteristic of the architecture of the Muslim world is the concealment of the interior of a building from the view; The single impressive portal represent the threshold between the outer world and the tranquil atmosphere within.
- + **Courtyard**- sahn ( surrounded by three of sides by a colonnade )
- + **Ablution fountain**- a pool with or without a fountain and it may be intended for the prescribed ritual ablution before prayers, but sometimes active.
- + **The minaret**- the original purpose beside a landmark was to ensure that the voice of the muezzin making the adhala could be heard at a maximum distance. Smaller mosques rarely require minarets.
- + **Prayer hall**- haram. Women can either pray in the back of the hall or have separate hall within the main one with separate entrance.
- + **The Dikka**- wood platform or tribune positioned in the line with the Minbar. From this raised platform the respondents (qadi) repeats the ritual postures of the imam and speaks the responses of prayers so that the stages of prayers can be transmitted to a larger congregation. Depending on the side and the climate the dikka can also be positioned in the courtyard.
- + **The kursi**- the lectern on which the Qur'an is placed.
- + **Mihrab and Qibla wall** - the wall facing Mecca. On the midpoint of that wall is placed the mihrab, a niche that is the most decorated feature of the mosque. The mihrab is semicircular in plan and has a semicircular arch on top.
- + **Minbar** - always positioned in the right of the mihrab and consists of staircase leading to a platform which is often crowded by a cupola type roof. Its origin was the small set of steps (like the one introduced in libraries) which was introduced in the house of Muhammad's house in Medina at the time when his followers had increased in number, so making it advisable for him to position himself above his audience in order to make his words more easily heard. The imam deliver the khutba (oration) from it. In practice the imam speak from a step below the top of the minbar.

0.85sq.m. praying space per person

Judaism

- + **Semi-private square**- in modern times , when Jews communities are free to built synagogues, in front of the building is left a square which function is mainly for transition.
- + **Courtyard** - it is used for: preparation for the prayers; positioning of the ablution fountain; praying of the poorer people who did not have private seat in the synagogue; gathering of people; place where kids play; back in the days hiding of all these activities from the people in the street; If there is no a courtyard these activities can be transferred in the open square in front of the building.
- + **Bimah** - a reader's platform where the Torah scroll is placed to be read. The Bimah is placed so that the reader
- + **Ner tamid the "Eternal Light"**-a lit lamp or lantern , used as a reminder of the western lamp of the menorah of the Temple in Jerusalem, which remained miraculously lit always. It should face the Torah ark, hence Jerusalem, when reads.
- + **The Torah ark**, (Hebrew: Aron Kodesh) (called the heikhal by Sephardim) is a cabinet in which the Torah scrolls are kept. This is the holiest spot in a synagogue.
- + **Seats for man/ woman**- in most of the synagogues the man and women seat separately. If the synagogue has a central plan, the women's seats will be placed on the outer rows of the circularly arranged seats.

0.4-0.5 sq.m. of praying space per person

Christianity

- + **Square** - back in the days the church was place only for the "servant of God" and the common people often had to remain outside in the courtyard, what is today usually a square- in the "paradise"
- + **Lobby** - it is used for entrance hall, place for gathering of people. It is important for places with colder climate
- + **Baptistery** - it could be in the nave or in the side chapel. It is where the ritual of baptism occurs.
- + **Nave** - the main axis leading from the entrance to the altar. It is clear from seating and it serves for passage of the religious procession.
- + **Side aisles** - they are usually separated from the nave with colonnade. It is where the seats are positioned. The aisles are present in bigger churches.
- + **Seats**- in more conservative churches man and women seat in separately on both sides of the nave. The seats could provide a wooden board for more comfortable kneeling of the worshipers during prayers.
- + **Transept** - the short, perpendicular to the main axis part of the church plan.
- + **Communion rails** - it serves to separate the clergy from the worshipers
- + **Altar** - it should be slightly raised for good visibility. A table is required for the missal ( Gospels ) and the vessels and also a seat for the priest and servers ( not a throne), usually of the vertex of the altar facing the congregation. Relics of saints or martyrs may be set into the altar or sunk into the ground beneath.
- + **Side altar** -it held the Blessed Sacrament- it is kept in a secure tabernacle at a place marked by the sanctuary lamp. In front of the tabernacle place a table for the vessels and kneelers for private prayers
- + **Lectern** (ambo)- it is fixed. The sermon (humility) and intercessions should be given from the right as seen by the congregation.
- + **Decoration** - the 14 stations of the way of the cross with symbolic artistic depictions and the crosses of the 12 apostles are distributed evenly for the people to walk around
- + **Sacristy**- it is used to keep robes and vessels and to prepare the services. It should be situated near the altar
- + **Clergy house**- churches should always have it attached to them.

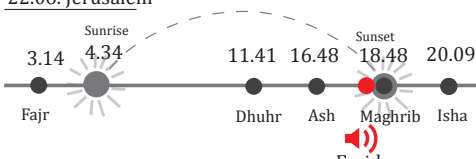
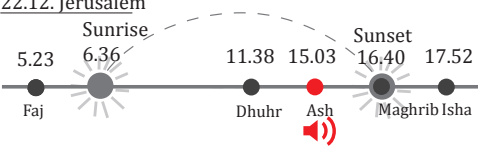
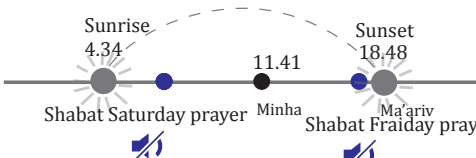
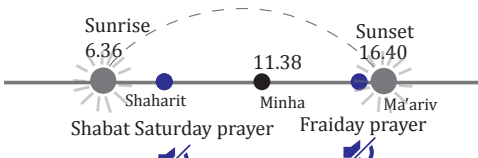
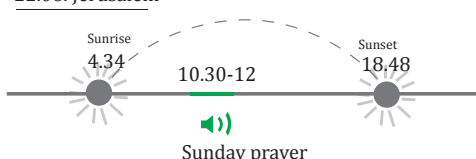
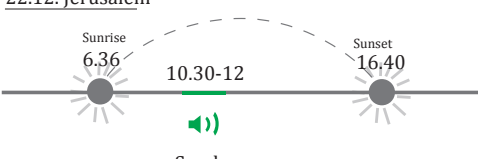
0.4-0.5 sq.m. of praying space per person

## Standard rituals- daily prayers

	Daily prayers	Religious person speaking during prayers	Timing
Islam	5	No	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><u>22.06. Jerusalem</u></p> </div> <div style="text-align: center;"> <p><u>22.12. Jerusalem</u></p> </div> </div> <p>.The exact time of the prayers depends on the position of the sun.            Fajr- down to 15min before sunrise            Dhuhr- after true noon until Asr            Ash- Afternoon till sunset            Maghrib- After sunset until dusk            Isha- Dusk until down</p> <p>. The sound is the voice of the muezzin making the "adhala" before every prayer time. The muezzin should be heard as far as possible. 🔊</p>
Judaism	3	It is possible to be with or without.	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><u>22.06. Jerusalem</u></p> </div> <div style="text-align: center;"> <p><u>22.12. Jerusalem</u></p> </div> </div> <p>The exact time of the prayers depends on the position of the sun.            .Shaharit - morning prayer - up to 4h after sunrise            .Minha -afternoon prayer - half an hour after noon            .Ma'ariv or Arvit -evening prayer - after sunset</p> <p>. There is no sound related to the prayer time 🚫🔊</p>
Christianity	3	It is possible to be with or without.	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><u>22.06. Jerusalem</u></p> </div> <div style="text-align: center;"> <p><u>22.12. Jerusalem</u></p> </div> </div> <p>. Morning prayer            . Noon prayer            . Evening prayer            It is not compulsory at all to pray in these hours. One can choose himself when to do his daily praying.</p> <p>.The sound is a bellring that marks the hour for every praying. 🔊</p>
Overall			<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><u>22.06. Jerusalem</u></p> </div> <div style="text-align: center;"> <p><u>22.12. Jerusalem</u></p> </div> </div>
Conclusion			<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><u>22.06. Jerusalem</u></p> </div> <div style="text-align: center;"> <p><u>22.12. Jerusalem</u></p> </div> </div> <p>The only overlapping is in the time for Dhuhr and Minha and it could be problematic for the Jewish worshipers because of the of sound /"adhala"/ coming from the mosque and the Rabbi service, if there is such.</p>



Standard rituals- Important weekly prayer

<p>Religious person speaking during prayers</p>	<p>Yes</p>	<p>22.06. Jerusalem                    22.12. Jerusalem                    Friday prayer</p> <p>Mo Tu We Th Friday Sa Su                  early afternoon</p>
<p>Islam</p>	<p>Yes</p>	<p>22.06. Jerusalem                    22.12. Jerusalem                    Shabat Saturday prayer                  Friday prayer</p> <p>Mo Tu We Th Friday Sa Su                  afternoon                  Saturday morning</p>
<p>Judaism</p>	<p>Yes</p>	<p>22.06. Jerusalem                    22.12. Jerusalem                    Sunday prayer late morning</p> <p>Mo Tu We Th Fr Sa Sunday late morning</p>
<p>Christianity</p>	<p>Yes</p>	<p>Mo Tu We Th Fr Sa Su</p> <p>Friday EarlyAfternoon</p> <p>Friday afternoon</p> <p>Saturday morning</p> <p>Sunday late morning</p>
<p>Overall</p>		<p>Mo Tu We Th Fr Sa Su</p> <p>Friday EarlyAfternoon</p> <p>Friday afternoon</p> <p>Saturday morning</p> <p>Sunday late morning</p>
<p>Conclusion</p>	<p>The overlapping is in the time of weekly prayers ( Friday services for Jewish and Muslims). All the weekly important prayers are accompanied by a service.</p>	

## Religious festivals

	Festival name / Description	Timing				
		Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
Islam	Lunar calendar, based on 354-355 day Years (12 lunar cycles) beginning AD622 when prophet Mohammed emigrated from Mecca to Medina. This year is 1435 AH. . Eid Al-Fitr - End of Ramadan- . Eid Al-Adha - Sacrifice an animal	Jan 6 Orth Christmas 7 Armenian Orth Christmas	Jan 6 Orth Christmas 25 Lens	Jan 6 Orth Christmas 7 Armenian Orth Christmas 10 Lens	Jan 6 Orth Christmas 7 Armenian Orth Christmas 1 Lens	Jan 6 Orth Christmas 7 Armenian Orth Christmas 14 Lens
		Feb 5 Lens	Feb 4 Passover 5 Easter 11 Passover	Feb 27 Easter 23 Passover 30 Passover	Feb 11 Passover 16 Easter 18 Passover	Feb 15 Passover 20 Easter 22 Passover
		Mar 29 Eid Al- Fitr 31	Mar 18 Eid Al- Fitr 21	Mar 6 Eid Al- Fitr 9	Mar 25 Eid Al- Fitr 28	Mar 14 Eid Al- Fitr 17
Judaism	Based on lunar calendar. Compared to solar calendar loses ~11 days per year, but adds one month every 2-3 years to make up difference. Generally, Jewish celebrations start from sunset of preceding day. .Passover Starts night of full moon in April. Lasts ~8 days Celebrates exodus of Jews from Egypt. Strict Jews do not work on first 2 and last 2 days. .Rosh Hashanah Jewish new year - festive holy day Most Jews celebrate (similar to Christmas is even non-religious people may attend synagogue). .Yom Kippur 10th day after Rosh Hashanah Fasting and repentance to atone for mistakes over last year.	Apr 24 Rosh 26 Hashanah 4 Yom 7 Kippur Eid Al- Fitr	Apr 13 Rosh 15 Hashanah 23 Yom Kippur 23 Eid Al- Fitr	Apr 2 Rosh 4 Hashanah 12 Yom Kippur 11 Eid 14 Al- Fitr	Apr 20 Rosh 22 Hashanah 30 Yom Kippur	Apr 9 Rosh 11 Hashanah 19 Yom Kippur
		May 29 Eid Al- Fitr 31	May 18 Eid Al- Fitr 21	May 6 Eid Al- Fitr 9	May 25 Eid Al- Fitr 28	May 14 Eid Al- Fitr 17
		Jun 22 Eid 25 Al- Fitr	Jun 22 Eid 25 Al- Fitr	Jun 22 Eid 25 Al- Fitr	Jun 22 Eid 25 Al- Fitr	Jun 22 Eid 25 Al- Fitr
Christianity	.Lent Starts 40 days before Easter Sunday Some Christians exclude Sundays - lasts 38-44 days depending on denomination. Main idea is preparation for celebration of Easter through prayer, penance, giving, self-denial. Often preceded by a pre-Lent festival Main celebration is Ash Wednesday - first day of Lent for Catholics and most protestants. .Easter Celebration of resurrection of Christ 1st Sunday after first full moon following March equinox-.Shares some symbolism with Jewish Passover (although obviously not celebrating same thing) .Christmas - 25 December Birth of Christ	Sep 25 Christmas	Sep 25 Christmas	Sep 25 Christmas	Sep 25 Christmas	Sep 25 Christmas
		Oct 25 Christmas	Oct 25 Christmas	Oct 25 Christmas	Oct 25 Christmas	Oct 25 Christmas
		Nov 25 Christmas	Nov 25 Christmas	Nov 25 Christmas	Nov 25 Christmas	Nov 25 Christmas
		Dec 25 Christmas	Dec 25 Christmas	Dec 25 Christmas	Dec 25 Christmas	Dec 25 Christmas
		31 Dec	31 Dec	31 Dec	31 Dec	31 Dec

**4.1. Typical places for location of standard religious buildings: mosque, church, synagogue**

*Guideline for design of multi faith buildings for Muslims, Christians and Jews*

The following text represents comments on three aspects which have to be considered in the design of a multi faith building: location in the urban fabric, function(s) and visual perception. The remarks are not definitive as the particular place for the temple and the society have a major role in shaping religious buildings.

**A) In a complex with other representative buildings and in a central place in the city:**

A multi faith religious building in a central place of the city and/or in complex with other representative buildings would work as a city symbol which means few things.

On one hand the idea about equality between religious groups is more definitively stated. This would enhance the social cohesion between minority and majority groups. It would improve the relationship between the people from the different religions too but it could also receive negative reactions from the population representing the religious majority – the main religion of the country/city.

On the other hand central religious buildings are often the place where important national celebrations are held (royal weddings, inaugurations and others). In this case in the design of a multi faith building it should be taken in consideration that even during these events all religions should still be equally represented in terms of symbolism – i.e. none of the religions should be more emphasized than the others.

A city symbol, in this case the multi faith building, is visited by tourists who if too much, may disturb the praying of pilgrims. Nevertheless all three – synagogue, mosque and church have squares or courtyards in front of the praying halls which may require a certain amount of isolation or protection from the street flow when in the central area. This aspect is reinforced by the fact that in some Western cities it is very common for people to socialize (consume alcohol, food, play musical instruments) in open public spaces, activities which might be found inappropriate if too close to religious buildings.

Another aspect of central religious buildings is that in their surroundings, there is generally a low density of residential buildings and high one of offices and commercial areas from which it could be concluded that this type of multi faith building will serve mainly as a worship place for the compulsory weekly prayers for people who happen to be close to it in a given moment.

In other words the worshipers will not be constant and hence certain of the secondary functions of the temples won't be required (community center, help groups and others).

Moreover it has to be considered how the building is perceived when one approaches to it and when observing it from different points of view. In a central city place, the temple will be perceived mainly from small distance (on the surrounding streets) to middle one (from back streets and approaching to the site); the parts of the structure which rise above the

level of the surrounding buildings will be perceived also from a distance.

As a multi faith building states the concept of equality, the religious symbols of the different congregation groups should have the same “weight” as in terms of imagery on the exterior of the building as well in the volumetric distribution.

### **B) On a hill, higher point of the city topography:**

A multi faith building located in a hill or other higher point of the city topography will act as a city symbol and hence it would have the same features as one described in *point a*.

In this case it has to also be taken in consideration that hills are harder to reach which leads to smaller number of local visitors/ smaller capacity.

On the other hand, positioned in a higher, not so easily accessible point, the religious building will be mainly seen from afar, rather than from middle and close distance as in *point a*. In term of design this means that there have to be given even greater attention to the silhouette, volume of the building and how the three dimensional religious symbols are distributed in relation to the points of its perception.

### **C) In a neighborhood**

In the scale of a neighborhood, a multi faith building could have mainly the role of place for worship, but it could also be a point around which the life in the neighborhood orbits.

In this case a multi faith building should have a specious open area in front, which should serve such function(s) that attract people gather and spend time there – public space and/or market and/or others.

In the design of the congregation building, as in the other cases, there should be considered the main axis from which the structure will be perceived when approaching to it as well as point of view to it from close, middle and big distance.

### **D) Guidelines**

#### ***Guideline 1:***

Based on the analysis in the previous pages, we can conclude that a multi faith building can be in any one of the described location and the location will have an impact on both the concept of the building as well as certain secondary functions.

The society for which the buildings is designed remains the main factor defining one location as appropriate or not as the multi faith place of worship challenges the traditional idea of a religious building and hence it might not be accepted by a given society and strongly approved by another.

### A) Footprint

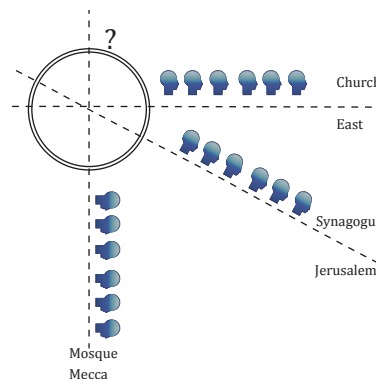
**Guideline 1:** As all three, church, mosque and synagogue have a rectangular footprint (church also cross one); the latter also can be a design solution for a multi faith building.

*Guideline for design of multi faith buildings for Muslims, Christians and Jews*

### B) Building orientation

According to the canonical requirements each congregation group prays facing its sacred direction (East, Mecca or Jerusalem).

In most of the cases the three orientations do not overlap which means that pilgrims worship along three different axes, this means in three different sections of the common praying hall (*figure 1*).



*Figure 1: Praying orientation Muslims, Christians and Jews*

### C) Guidelines

**Guidelines:** In the intersection on two or three of the axes in has to be taken in consideration the following:

1. Muslims pray differently from Christians and Jews, i.e. they require different furnishing.<sup>1</sup>
2. Although Christians and Jews pray sitting/ kneeling in a temple the seat require different orientation (*figure 1*).

From 1 and 2 it can be concluded that in intersections between Muslim, Jew and Christian axis, the following design solutions is made:

- The area can be left empty not serving any congregation or
- It can be serving to certain of the congregation(s) when there is not enough space in the assigned for praying area.
- Other solution could be that the area is “given” to one of the religious groups.
- And as Christians and Jews worship sitting, the area could be for both congregations at a time. In this occasion, the seats should be able to rotate/ move as the worshipers from both groups will be facing different directions ( East and Jerusalem)

In the rare occasions when the praying axis to Jerusalem and East overlaps, the furniture and special arrangement should correspond to the needs of the two religions.

### 4.3. Special organization; decoration – single praying hall and separate praying halls

In this research it is accepted the assumption that in a multi faith building, as in a single faith one, worshipers experience at a time its spatial organization, architectural and decorative features. Based on that consideration, in the following text the three design aspects are regarded as a system of interconnected elements and discussed together.

In practical terms multi-faith architecture is an architectural means for interreligious dialogue and as such it seeks to improve the tolerance and understanding between different congregations<sup>2</sup>.

This can be achieved in two main ways: 1) by focusing to the greatest on the numerous similarities there are between the religions; and 2) by showing people their similarities but also teaching them to value and respect others' individualities and differences<sup>3</sup>.

In architectural aspect, the first philosophy results in a design which includes the common features between the designs of the three religious buildings and excludes the rest. In the thesis work this approach is called *reductionist approach*. This approach is widely used in multi faith architecture as it leads to the design of a single praying space which is the common response to this new building typology.

The idea behind the reductionist approach and the common multifaith praying hall is to provide people from different congregations with a suitable-for-all common space where they are pushed to interact, contributing to the interfaith dialogue.

The second approach leads to a number of spaces in which the areas of common use are combined together but the ones with different purpose are still present, developed apart. This method is given the name *separative approach* in the thesis. The separative approach has been used only in seminars for interfaith dialogue (3FF organization) but in this work it is considered to have potential to also be applied in architectural design.

In the analysis in *point III*, it is observed that the three architectural typologies have very different requirements for the spaces of the praying halls<sup>4</sup> and by developing them apart and combining only the "overlapping" secondary functions<sup>5</sup>, *separative approach*, the design of the multi faith building and its congregation areas will be more complete and functional.

---

2 Interfaith dialogue, Wikipedia, 27.05.2014; 17.18

3 Approach used in the organization Three Faiths Forum (3FF)

4 Study: Special organization and interior arrangement and Decorative elements and architectural typology

5 Study: Religious building name morphology and Secondary functions of the religious buildings

## **A) Shared praying hall**

*Guideline for design of multi faith  
buildings for Muslims, Christians  
and Jews*

In order to establish an interreligious dialogue, multi faith architecture faces the challenge of bringing people from different congregations together and making them interact. This is usually done by designing a shared praying hall- a space where people from different faiths worship side by side- as this solution is naturally associated with the concept of interreligious dialogue.

In order to make the hall suitable for all congregations, it is necessary to establish a balance between absence and inclusion<sup>6</sup> of religious imaginary; certain symbols should be included in order to attract users, but not so as to threaten or cause discomfort to users from some of the other congregations.

As this equilibrium is very fragile, it is generally achieved by the expression of the *reductionist approach*- including only what is in common between the faiths. And although this design is commonly used in the architectural practice, it contains certain practical and conceptual disadvantages..

### **1. Practical issues**

The placement of different congregations together leads to the issue of overlapping of services<sup>7</sup> during which the priest, rabbi and muezzin will be speaking one over each other and that will trouble the normal worshipping of all of the visitors. In addition, certain Christian rituals include the consumption of wine and bread; activities which are not allowed by the other religions: Judaism forbids any consumption of food in the temples and Islam forbids consumption of alcohol in general.

### **2. The problem of pluralism**

Pluralism in this context is the idea that all religious paths have the same purpose. The problem with pluralism in the religious context is that it requires people to deny their beliefs about the “superior Revelation of their own religion.”<sup>8</sup> The latter creates a sense of “self and other” with regard to other religions, and give their subscribers a sense of exclusive religious identity.<sup>9</sup>

In other words, religious people by definition are likely to believe that their religion is the “right way,” and that people from other religions are “getting it wrong”<sup>4</sup>.

The pluralism of multifaith spaces can be uncomfortable for religious people as they may feel either that they are not allowed to express their own religious beliefs properly, or they may be forced to see people from other religions engaging in worship that they see as wrong.

---

6 Multifaith.org

7 Study of daily, weekly prayers and religious festivals

8 Engebretson. Note that the rest of Engebretson’s theory is problematic – she believes that we are all Christians who just don’t know it yet.

9 Terry Billington “Towards a Theological Reading of Multifaith Spaces”

### 3. Perception of the place

Worshippers from the right site of the continuum in *figure 2* define a religious place as such if it contains the majority of the features associated with the architectural typology, usually at least  $\frac{3}{4}$ .<sup>10</sup>

Nevertheless when these conditions are present, they notice a significant improvement of one's praying comfort and ease the emotional relation to the temple<sup>5</sup>

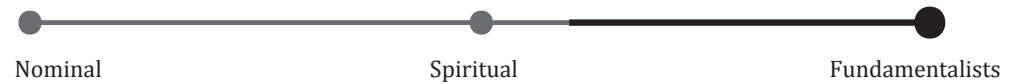


Figure 2: Continuum of different levels of religious belief

### 4. Problems with attracting users

Within religion, belief exists along a continuum from “nominal” (ie not really religious) to “fundamentalist/literalist” (ie those who believe everything in the Bible/Torah/Quran). A multifaith space is likely to attract only those towards the “nominal” end due to the practical and conceptual issues discussed at the points above, from 1 to 3.

### 5. Postmodern critique of multifaith spaces

Religion is something that occurs in the private sphere. A religious space brings a notions of “home” – it is personal, safe. It also offers privacy and protection for “preformed routines and discourse.”<sup>11</sup> For religious people, a religious space is necessarily somewhere private and non-challenging.

Auge<sup>12</sup> and Foucault<sup>13</sup> recognize a difference between “space” and “place.” A space becomes a place when it is “stamped” or imbued with culture and identity. Auge argues that when you force several identities to coexist within a space, you create a “non-place” – somewhere where people are “always, and never, at home.” Foucault calls this a “heterotopia” and argues that it is an impossible ideal. Identities always compete, and on this view a multifaith space tries to create competing places within one space. It is impossible because people bring their own values and culture to the space – for a Christian, the multifaith space will always be perceived as Christian, and so on.<sup>14</sup>

10 Sanjoy Mazumdar “Religious place attachment”

11 Kearney and Taylor.

12 Auge, 1996b:178

13 Space, knowledge and power: Foucault and geography, 2007

14 On the other hand, Lefebvre sees this as a good thing. He argues that there are three types of space: perceived, conceived and lived. Space is constructed according to social values, and given a political character. A multifaith space is a “lived space” and demonstrates the “kaleidoscopic... and chaotic nature of today’s society” and attempts to negotiate conflicting norms by facilitating rapprochement between different religions.



## 6. Conclusion

From the analysis in *point A* it could be concluded that a single praying hall does not meet the goals set from the thesis work as it does not provide certain practical and ethical requirements needed from committed worshippers and thus it does not attract them as users.

| 21

*Guideline for design of multi faith  
buildings for Muslims, Christians  
and Jews*

### B) Individual praying halls

The other represented above approach for a multi faith design is the separative one. It consists in expressing the individuality, differences of each congregation groups in separate spaces and combining only the things that pilgrims will not find too challenging.

Based on point A and the analytical study, the spaces which cannot be combined together, that need to be developed apart are the individual praying halls for each congregation group.

## 1. Practical and ethical issues

The multi faith architecture based on the *separative approach* is distinguishable from the previous method in two main ways.

One is that by providing each religious congregation with its own praying hall, all of the practical and ethical issues discussed in *point A* are solved. And the other is that *separative approach* and the philosophy it expresses changes the point of view toward the interreligious dialogue itself. This approach underlines the fact that people should learn to respect each other despite their religious differences, and hopefully bring people to see differences as an opportunity for cultural enrichment, rather than as a threat.

## 2. Interaction between people

Although use of a single praying hall leads to direct contact between people while praying, the separation of the congregations is not considered to be disadvantageous for interfaith dialogue between users.

This is because worship is a solitary activity. During prayers and services the communication among people is very limited and the actual interaction between them occurs outside prayer times, usually when they are outside the religious hall. Outside the worship space, all of Christianity, Judaism and Islam emphasize the importance of the community functions of their religions<sup>15</sup>. This common ground can be used to design shared spaces for all three congregation groups where people can interact and create one multi faith community.

### 3. Community creation concept

People develop emotional attachment to places that are distinguishable for their surrounding physical characteristics (view from altitude, access to sea/ lake or others)<sup>16</sup> but also to places which are associated with religion (sacred cities, structures or natural places). The latter can foster emotional attachment to a great extent and can become an important component of the relationship one feels to particular place.<sup>17</sup>

Once the attachment is developed, the place becomes a “significant place”<sup>18</sup>. It provides “stability and security”<sup>19</sup>, act as “an anchor”<sup>20</sup> and becomes “field of care”<sup>21</sup>. These places shape a “sense of individual identity, of who we are”<sup>22</sup> as well as a “sense of community, of being a part of a larger group, whether a family or a neighborhood”.<sup>23</sup>

In such communities the relationship between the people and the place “becomes a very powerful one in which each reinforce the identity of the other **and in which the landscape is very much an expression of the communal held beliefs and values and of interpersonal involvement**”.<sup>24</sup>

Thus making people from the three congregations attach emotionally to a place with particular characteristics (religious and/or physical) and its development to a “significant place”<sup>25</sup> can become a tool for the establishment of a relationship between the religious groups and creation of a community.

### 4. Places for creation of a community

Places of a multi faith building to which all worshipers can develop a sentimental attachment are the ones that are common for all and where people would gather. Physical spaces of that character could be the courtyard/ square in front of the praying hall and/or other public area adjacent to the temples

The courtyard/ squares are considered in a certain degree as part of temples but combining them together in the design of a multi faith building would not cause similar issues to those that would result from use of a single praying hall. This is so because these spaces are not considered sacred and they do not contain the same emotional value for users as the inside of the church/mosque/synagogue does.

Historically the square in front of the church used to symbolize the gardens of heaven and it was where people were praying but nowadays it is just an area where worshipers gather before and after the service

The use of courtyard in the architecture of synagogue was introduced to serve as a barrier from the street so Jews can prepare for prayers without being judged from the people passing by.

On the other hand the courtyard of the mosque is also serving for preparation

16 Urban Transformation, Peter Bosselmann, 2008

17 Religion and place attachment: Study of sacred places, S. Mazumdar and S. Mazumdara, 2004

18 Relph 1976

19 Brown and Perkins, 1992

20 Marcus, 1992

21 Relph 1976

22 Orum and Chen, 2003

23 Orum and Chen, 2003

24 Relph 1976

25 Relph 1976

for prayer, ritual ablution, but because of its shadowed environment it became a center of the social life and a place where the weekly market used to be held.

Another positive aspect of pushing people to interact together in a common religious square is that in this way worshipers can learn simultaneously about each other religions and religious rituals. In this way the level of interfaith education will improve and this is of vital importance for the establishment of dialogue between different congregation groups<sup>2627</sup>.

Other places for the creating of a multi faith community could be the overlapping of certain shared secondary functions<sup>28</sup>. Among all, the ones that would be the most influential are the charity and community center as there the worshipers from the three faiths will support and help each other.

The establishment of a day care center could also play a useful role in the improvement of the interreligious relationship. A daycare center would cause children to interact, play and create friendships from a young age and that will decrease significantly the chance of creation of religious-based prejudices later on in their lives. It would also lead to contact between the children's parents during the times when parents drop off and pick up the children from the centre. In addition, contact with children of different backgrounds may be beneficial for parents, as it should reinforce the similarities between people.

The establishment of a day care center could also play a vital role in the improvement of the interreligious relationship. In it children will interact, play and create friendships from a young age and that will decrease significantly the chance of creation of religious-based prejudices later on in their lives.

The day care center is not further developed in the design project in chapter two as its function itself is a mean for interfaith dialogue. The building does not require any particular design for the specific case unlike the rest of the functions and because of that is not considered of interest in the thesis.

## C) Guidelines

***Guidelines based on point A and B for a multi faith building aiming to attract religious people and seeking to contribute to the improvement of the interfaith dialogue***

***Guideline 1:*** In order to attract users a multi faith building people should provide *individual praying hall* for each congregation group for practical, perceptual and ethical reasons.

***Guideline 2:*** In order to contribute to the interfaith dialogue a multi faith building should focus on creation of a multi religious community. This could be achieved in several ways

- a) Create a physical space to which people will develop emotional attachment by:
  - providing unique features to it and by;
  - giving to the place additional religious and/or ethnical value equally important for each congregation group;

---

26 Paulo Freire

27 Puette

28 Study: Religious building name morphology and secondary functions

*Such physical spaces might be: the temples, the square/courtyard in front of the praying halls, other public spaces adjacent to the multifaith building.*

*Guideline for design of multi faith buildings for Muslims, Christians and Jews*

- b) Combining secondary function for which it is expected to forge the sense of help and support among worshipers as well as the friendship relation.

*Such secondary functions might be: charity organization, community center, day care center.*

## 5. Study existing multi faith buildings

### 5.1. Aim – study of the organization and functioning of existing multi faith buildings

The study aims to understand how existing multi faith buildings are structured in terms of functions as well as architectural and decorative features. This is will give more adequate understanding of the place of the theoretical conclusions in the architectural practice.

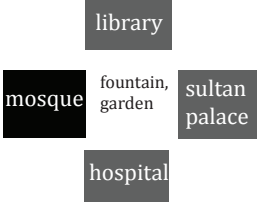
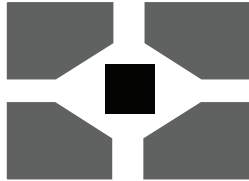
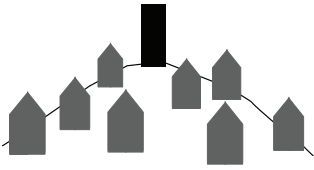
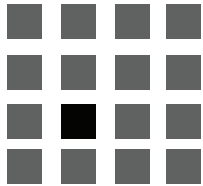
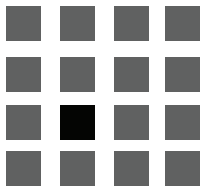
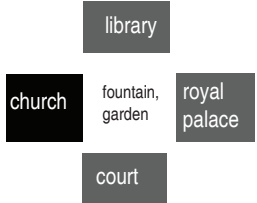
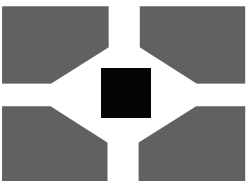
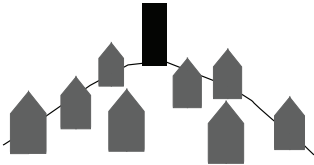
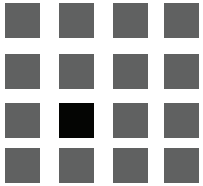
### 5.2. Methods of work

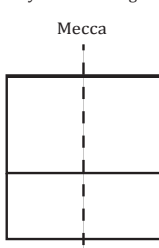
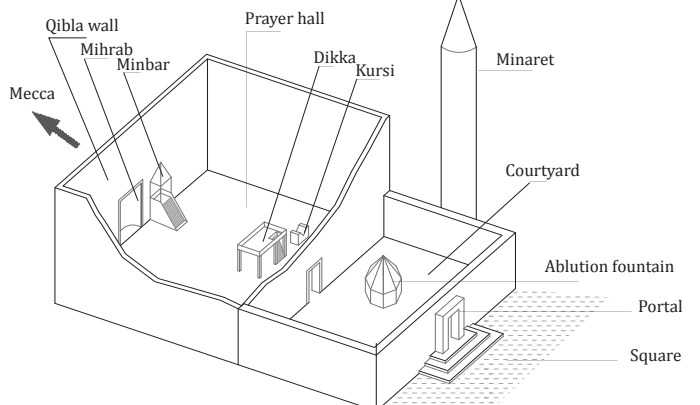
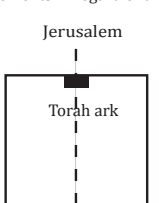
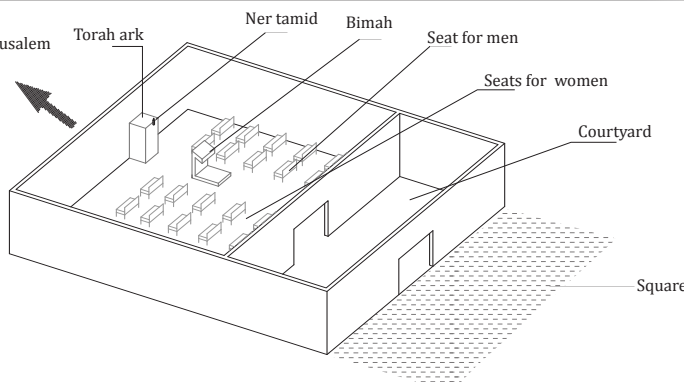
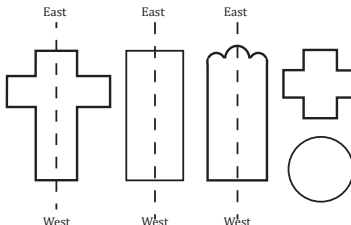
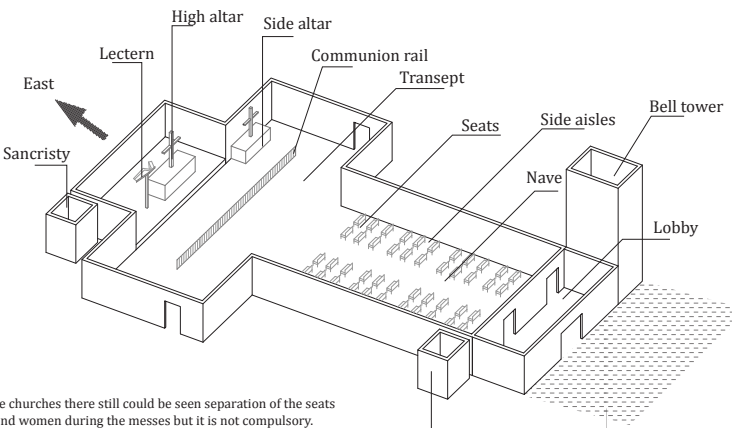
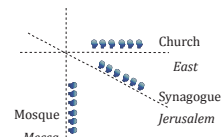
The study examines buildings in three categories: (a) pavilions, (b) new buildings, and (c) renovations and change of function of existing buildings. For each project there are represented drawings and perspective views accompanied by comments from various sources. For every project there was also written a personal comment. Each project is shown through drawings and perspective views, accompanied by comments from different sources and a personal critique.

### 5.3. Graphical representation of the data

Religion	Religious building name	Secondary functions of the religious building
Islam	<p><b>Mosque</b></p> <p>meaning: "place of worship", "prostration in prayer", "to bow down in prayer", "worship"</p>	<ul style="list-style-type: none"> <li>+ The courtyard- gathering place</li> <li>+ Cultural center</li> <li>+ Courthouse</li> <li>+ School</li> <li>+ University</li> <li>+ Bazaar and thus center of public life.</li> </ul>
Judaism	<p><b>Synagogue</b></p> <p>meaning: assembly, house of assembly, house of prayer, learning together, school, temple,</p>	<ul style="list-style-type: none"> <li>+ Place for meeting for Jews</li> <li>+ Day care</li> <li>+ Community center</li> <li>+ Charity</li> <li>+ Town hall ( matter of importance to the community can be discussed)</li> <li>+ Hebrew learning</li> <li>+ Bible study</li> <li>+ Bible hand-copy</li> <li>+ Kasher shop</li> </ul>
Christianity	<p><b>Church-</b> a building used for religious activities meaning: belonging, assembly, congregation</p> <p><b>Basilica-</b> a large and important church that has been given special ceremonial rights by the Pope meaning: open public court building</p> <p><b>Catherdral-</b> is a Christian church which contains the seat of a bishop thus serving as the central church of a diocese, conference or episcopate. meaning: seat, bench</p>	<ul style="list-style-type: none"> <li>+ Charity</li> <li>+ Day care</li> <li>+ Help groups</li> </ul>
Overall	<ul style="list-style-type: none"> <li>+ The common word for the temples for the three religions is prayer.</li> <li>+ Synagogue and church share the meaning for assembly (community).</li> <li>+ Synagogue's meaning also emphasizes on learning.</li> <li>+ The only meaning of a mosque is to pray.</li> </ul>	
Conclusion	<p>There could be observed close relationship between the meanings of the names of the temples and their secondary functions. This explains why these secondary functions developed in exactly this way and hence how people look at the religion itself.</p> <p><b>Mosque-</b> the shaded court yard of the mosque seen as a gathering place is mainly a consequence of the hot climate of many of the Islamic countries. Apart from that it could be seen that the mosques serves many other public functions. This could be explained by the fact that the Quran / the religion / is a central source of all rules of living and teaching and for the pronouncements of law.</p> <p><b>Synagogues</b> - beside of a place for worship it is a place for preservation of the Jewish culture, language and traditions and a place where Jewish people were able to meet freely.</p> <p><b>Church-</b> its meaning emphasize on belonging and assembly which gives understanding why Christians tend to go to the same church / to the same mini society. As consequence it is established a strong relationships between the members of church which lead to a desire to help each other.</p>	

Typical places for location

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Islam</p>	 <p>+ In complex with other representative buildings</p> <p><i>representative function: used for inaugurations, royal weddings, other formal occasions, city symbols of wealth</i></p>	 <p>+ Central place in the city + On a main axis</p> <p><i>representative function: used for inaugurations, royal weddings, other formal occasions, city symbols of wealth</i></p>	 <p>+ On a hill, higher point of the city topography</p> <p><i>symbolic function: mainly in old time as an attempt to be closer to God</i></p>	 <p>+ In a neighborhood</p> <p><i>practical function: to be closer to the community and to serve better its day-to-day religious needs</i></p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Judaism</p>				 <p>+ In a neighborhood</p> <p><i>practical function: to be closer to the community but also synagogues were till recently supposed to be "hidden" as Judaism was not an official religion</i></p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Christianity</p>	 <p>+ In complex with other representative buildings</p> <p><i>representative function: used for inaugurations, royal weddings, other formal occasions, city symbols of wealth</i></p>	 <p>+ Central place in the city + On a main axis</p> <p><i>representative function: used for inaugurations, royal weddings, other formal occasions, city symbols of wealth</i></p>	 <p>+ On a hill, higher point of the city topography</p> <p><i>symbolic function: mainly in old time as an attempt to be closer to God</i></p>	 <p>+ In a neighborhood</p> <p><i>practical function: to be closer to the community and to serve better its day-to-day religious needs</i></p>
<p>Overall</p>	<p><b>Mosques</b> and <b>churches</b> could be found in the central, representative parts of the city fabric, as well as in more obscure ones such as in neighborhoods. Nowadays <b>synagogues</b> could be mostly found in neighborhoods as Judaism, except in Israel, is not a main religion of any country and hence very unlikely to be located in a central part of a city. Moreover still recent time Jewish people were often discriminated and needed to hide their places of worship behind facades attracting less attention as possible.</p>			
<p>Conclusion</p>	<p>A multi faith building could be located in any of the fourth locations. Nowadays there don't exist in the same degree the interreligious issues there were in the past but still how successful a multi faith building is depends on the local society.</p> <p>As described in the location cases up, a multi faith religious building would have certain variations in concept and function depending on its location in the urban fabric.</p>			

	Footprint and building orientation	Special organization and interior arrangement of religious buildings
<p style="text-align: center;">Islam</p>	<p>Building name: <b>Mosque</b></p> <p>+ The Qibla wall should face Mecca, 90degree perpendicular.            + No requirements in regard of the building footprint; usually it is a rectangle as fits more people.</p>  <p style="text-align: center;">Mecca</p> <p>*There are required separated praing and ablution areas for men and women</p>	
<p style="text-align: center;">Judaism</p>	<p>Building name: <b>Synagogue</b></p> <p>+ When one standing in from of Torah ark he should be facing Jerusalem.            + No requirements in regard of the building footprint.</p>  <p style="text-align: center;">Jerusalem</p> <p>* In more Orthodox synagogues there are required separated seating areas for men and women</p>	
<p style="text-align: center;">Christianity</p>	<p>Building name: <b>Church</b></p> <p>+ Main axis oriented East-West with the Altar facing East and the entrance West            + The common shape of the church's footprint is a cross but it can also be a rectangle with long axis positioned East-West.</p>  <p>* In some churches there still could be seen separation of the seats of man and women during the messes but it is not compulsory.            When seating separately men sit on one side of the nave and women on the other.</p>	
<p style="text-align: center;">Overall</p>	<p>The three temples have in common the rectangular shape of the footprint but they all have different orientations.</p>	<p>There are found only 7 communalities among the features listed above between the three type of religious buildings:</p> <ol style="list-style-type: none"> <li>1. Facing the sacred direction when praying</li> <li>2. Courtyard / square in front of the praying hall</li> <li>3. Underlined entrance of the building/ courtyard</li> <li>4. Separation of the seats for man and women</li> <li>5. House and/or office for the clergy positioned next to the religious building</li> <li>6. A reader's place from where worshipers are faced (Islam, Christianity)</li> <li>7. Tower from which are marked the hours for prayers (Islam, Christianity)</li> </ol>
<p style="text-align: center;">Conclusion</p>	<p>Without considering very small and exceptional number of locations, the axis towards EAST, JERUSALEM and MECCA don't overlap. Hence in a single-hall multi faith building, the praying areas of each religious group will be distributed along their axis of orientation and consequently each congregation will have its own section of the common place for worship.</p> 	<p>From the analysis it is concluded that the three types of religious buildings have much more differences that similarities (7). For the design of a multi faith building this insufficient amount of commonalities becomes an issue which can be approached in two ways:</p> <ol style="list-style-type: none"> <li>1. combining together only the things that are in common and excluding the differences entirely from the design (reductionist approach) or</li> <li>2. combining together the things that are in common and developing "on the side" the things that are different (separating approach).</li> </ol>

## Description of spaces of the religious buildings: use, symbolism, requirements

### Islam

- + **Semi-private courtyard**- in front of the entrance of the courtyard of the mosque is preferably left a square which is used mainly for transition to and from the religious building / the courtyard is used for gathering /. The square emphasize the importance of the mosque in the urban fabric.
- + **Portal**- general characteristic of the architecture of the Muslim world is the concealment of the interior of a building from the view; The single impressive portal represent the threshold between the outer world and the tranquil atmosphere within.
- + **Courtyard**- sahn ( surrounded by three of sides by a colonnade )
- + **Ablution fountain**- a pool with or without a fountain and it may be intended for the prescribed ritual ablution before prayers, but sometimes active.
- + **The minaret**- the original purpose beside a landmark was to ensure that the voice of the muezzin making the adhala could be heard at a maximum distance. Smaller mosques rarely require minarets.
- + **Prayer hall**- haram. Women can either pray in the back of the hall or have separate hall within the main one with separate entrance.
- + **The Dikka**- wood platform or tribune positioned in the line with the Minbar. From this raised platform the respondents (qadi) repeats the ritual postures of the imam and speaks the responses of prayers so that the stages of prayers can be transmitted to a larger congregation. Depending on the side and the climate the dikka can also be positioned in the courtyard.
- + **The kursi**- the lectern on which the Qur'an is place.
- + **Mihrab and Qibla wall** - the wall facing Mecca. On the midpoint of that wall is placed the mihrab, a niche that is the most decorated feature of the mosque. The mihrab is semicircular in plan and has a semicircular arch on top.
- + **Minbar** - always positioned in the right of the mihrab and consists of staircase leading to a platform which is often crowded by a cupola type roof. It origin was the small set of steps (like the one introduced in libraries) which was introduced in the house of Muhammad's house in Medina at the time when his followers had increased in number, so making it advisable for him to position himself above his audience in order to make his words more easily heard. The imam deliver the khutba (oration) from it. In practice the imam speak from a step below the top of the minbar.

0.85sq.m. praying space per person

### Judaism

- + **Semi-private square**- in modern times , when Jews communities are free to built synagogues, in front of the building is left a square which function is mainly for transition.
- + **Courtyard** - it is used for: preparation for the prayers; positioning of the ablution fountain; praying of the poorer people who did not have private seat in the synagogue; gathering of people; place where kids play; back in the days hiding of all these activities from the people in the street; If there is no a courtyard these activities can be transfered in the open square in front of the building.
- + **Bimah** - a reader's platform where the Torah scroll is placed to be read. The Bimah is placed so that the reader
- + **Ner tamid the "Eternal Light"**-a lit lamp or lantern , used as a reminder of the western lamp of the menorah of the Temple in Jerusalem, which remained miraculously lit always. It should face the Torah ark, hence Jerusalem, when reads.
- + **The Torah ark**, (Hebrew: Aron Kodesh) (called the heikhal by Sephardim) is a cabinet in which the Torah scrolls are kept. This is the holiest spot in a synagogue.
- + **Seats for man/ woman**- in most of the synagogues the man and women seat separately. If the synagogue has a central plan, the women's seats will be placed on the outer rows of the circularly arranged seats.

0.4-0.5 sq.m. of praying space per person

### Christianity

- + **Square** - back in the days the church was place only for the "servant of God" and the common people often had to remain outside in the courtyard, what is today usually a square- in the "paradise"
- + **Lobby** - it is used for entrance hall, place for gathering of people. It is importance for places with colder climate
- + **Baptistery** - it could be in the nave or in the side chapel. It is where the ritual of baptism occurs.
- + **Nave** - the main axis leading from the entrance to the altar. It is clear from seating and it serves for passage of the religious procession.
- + **Side aisles** - they are usually separated from the nave with colonnade. It is where the seats are positioned. The aisles are present in bigger churches.
- + **Seats**- in more conservative churches man and women seat in separately on both sides of the nave. The seats could provide a wooden board for more comfortable kneeling of the worshipers during prayers.
- + **Transept** - the short, perpendicular to the main axis part of the church plan.
- + **Communion rails** - it serves to separate the clergy from the worshipers
- + **Altar** - it should be slightly raised for good visibility. A table is required for the missal ( Gospels ) and the vessels and also a seat for the priest and servers ( not a throne), usually of the vertex of the altar facing the congregation. Relicts of saints or martyrs may be set into the altar or sunk into the ground beneath.
- + **Side altar** -it held the Blessed Sacrament- it is kept in a secure tabernacle at a place marked by the sanctuary lamp. In front of the tabernacle place a table for the vessels and kneelers for private prayers
- + **Lectern** (ambo)- it is fixed . The sermon (humility) and intercessions should be given from the right as seen by the congregation.
- + **Decoration** - the 14 stations of the way of the cross with symbolic artistic depictions and the crosses of the 12 apostles are distributed evenly for the people to walk around
- + **Sacristy**- it is used to keep robes and vessels and to prepare the services. It should be situated near the altar
- + **Clergy house**- churches should always have it attached to them.

0.4-0.5 sq.m. of praying space per person



The analysis shows that all of the buildings have been designed with a common praying hall using the reductionist approach. This means that in the process of their use all of the issues discussed in *point III, 4, A, Single praying hall* will occur. This makes the buildings not usable and bad example of multi faith architecture.

*Guideline for design of multi faith buildings for Muslims, Christians and Jews*

The United States Air Force Academy Cadet Chapel is the only building to have the potential to function completely as a temple. It provides individual praying hall for each faith and thus allows the different congregations to worship according to their needs. The Air Force Academy Cadet Chapel has received support and financing from different religious organizations and it is used on daily bases by students. This project supports the proposition that individual praying halls are required for the proper use of a multi faith building.

On the other hand the building can be criticized for having a particularly Christian appearance and that could be find offensive from certain worshippers. Another observation is that the chapel serves only as a place for worship and does not have common spaces for gathering, nor additional/secondary functions which means that we cannot draw conclusions regarding the aspect of secondary function combination and creation of community.

**Guideline 1:** From *point IV* it can be concluded that practice confirms the results of the theoretical studies.

Thus for the design of a multi faith religious building aiming to function completely as a temple, to attract religious people and provide them comfort for praying; and seeking to contribute to the improvement of the interfaith dialogue, there should be considered the guidelines derived in *point III*.

## 6. Final conclusions and guidelines for design of multi faith buildings for Muslims, Christians and Jews

Based on the conclusion in point III and IV, the guidelines for a multi faith buildings aiming to attract religious people and to contribute to the interfaith dialogue should be the ones derived in *point III*:

**Guideline 1:** In order to attract users a multi faith building people should provide *individual praying hall* for each congregation group for practical, perceptual and ethical reasons.

**Guideline 2:** In order to contribute to the interfaith dialogue a multi faith building should focus on creation of a multi-religious community. This could be achieved in few ways

- a) Create a physical space to which people will develop emotional attachment by:
  - providing unique features to it and by;
  - giving to the place additional religious and/or ethnical value equally important for each congregation group;

*Such physical spaces can be: the temples, the square/courtyard in front of the praying halls, other public spaces adjacent to the multifaith building.*

*Guideline for design of multi faith  
buildings for Muslims, Christians  
and Jews*

- a) Combining secondary function for which it is expected to forge the sense of help and support among worshipers as well as the friendship relation.

*Such physical spaces can be: charity organization, community center, day care center.*



*View to the Jerusalem Old City*  
*copyright: National Geographics*

*Temple Mount*

*copyright: [www.frontpagemag.com](http://www.frontpagemag.com)*

*Orthodox Jewish men seen praying at the Western Wall in  
Jerusalem's Old City on a snowy winter morning*

*copyright: Nati Shohat*

*Israeli police in Jerusalem at the tower Aviram*

*copyright: Valdman*

*“ Kids and Guns” in Israel and the West Bank*

*copyright: Stephen Rives*



*Palestinians pray outside Al-Aqsa Mosque after Israeli police limited access to the mosque for young worshipers to prevent possible clashes*

*copyright: Activestillsor*

*Riots in Jerusalem after religious woman's arrest*

*copyright: Los Angeles Times*

*Artists Yuda Braun (right) and Jonathan Pelleg stand in Jerusalem as a part of performance titled The White Soldier*

*copyright: Dusan Vranic*

## II. INTRODUCTION TO THE DESIGN PROJECT AND ITS SITE

*Introduction to the design project  
and its site*

### 1. Project site – Jerusalem, Israel

#### 1.1. Reasons for choosing a project site in Jerusalem

The project site is chosen to be in Jerusalem because this is a place that is divided strongly by religions and where interfaith dialogue is of crucial importance. The city is visited every year by millions of tourists from all over the world. As such, a successful multi-faith project would spread the “message” of multi faith architecture beyond the boundaries of Israeli-Arab conflict.

#### 1.2. Location of the project site in the urban fabric and its place in Master Plan 2020

The project is located in South-East Jerusalem, just outside the walls of the Old City. In This part of the city contains the greatest concentration of tourist sites, including the Old City, itself.

The area is densely built with low to middle- rise structures with prevailing residential function all around the area. Because of the high density there is lack of public spaces, sports fields, playgrounds and parking.

According to the future master plan the project site will be preserved for construction of a facility in the tourist industry.

The site 5000m<sup>2</sup> site is currently excavated at a depth of -7.00m to – 20.00m below street level. Archeological remains have been discovered at the site. Before the excavation, the project site was used as a parking lot (Givati parking lot) and also for wedding celebrations.

#### 1.3 Description of the archaeological remains at the site

On the site there are remains of a residential neighborhood from the Abbasid period (8th-9th cent CE). Adjacent to the site there are also Muslim graves. Under the ‘Abbasid neighborhood, at the Easter end of the excavation area, there are layers of Byzantine and Roman structures. Excavators discovered a large residential structure from the Late Roman Period (2-3 cent CE) which has a mosaic floor.

In the northwestern part of the excavation area, excavators found a large structure built around a columned atrium (central courtyard); in its southern portion, a two-story building from the first century CE was also revealed.

Beneath this structure there is evidence of a destruction phase (probably that of 70 CE), as well as artifacts dating to previous periods, as early as the Iron Age.

The main remains that are still present in the area are part of a big structure form the Early Roman (Second Temple Period), Late Roman and the Byzantine periods.

During the years of the excavation, archaeologists made exceptional findings such as the largest cache of Byzantine gold coins ever discovered in Israel and a structure from the Second Temple period, identified as the palace of Queen Helena of Adiabene (“Heleni HaMalka”).

#### **1.4. Tourist center Kedem Compound- presentation of the future project program and public opinion about it**

The projected future project on the site (Kedem Compound) is designed by Rahamimoff Architects and it is expected to serve as an alternative to the tourist center currently located at Jaffa Gate – it will be used by visitors as a starting point for their routes around the neighborhood and the Old City.

The project site and the Ophel/Davidson Center excavations are already connected through a tunnel. The excavations, on the other hand, are connected to the Shiloah Pool in the southern part of the Village of Silwan.

There are also two future projects that will provide direct access to the Givati Parking Lot: the underground connection to the City of David visitor center, located across the street to the east, and another underground connection to the Ritual Bath Trail, positioned in the Ophel excavation area, adjacent to the Old City Wall and finishing just a few meters away from the Givati Parking Lot.

The building of Kedem Compound is to be 16 000 square meters and to rise up to 4 stories, reaching the height of the City Walls. The project is currently undergoing public evaluation and is receiving strong criticism by citizens, as well as peace and archaeological organizations.

##### *Criticism*

Criticism of the project revolves around two main issues, namely: *the use of the project to underline the Jewish- Israeli presence in Silwan and the imposing appearance of the building.*

Public opinion appears to be that Emek Shaveh, Kedem Compound and indeed the entire master plan of Jerusalem are being used as a government tool to gain control over this part of the city and to displace Palestinians within and from Jerusalem. They believe that the program of the compound is completely unrelated to locals’ needs and that the building will shadow the surrounding houses and trouble access to them.

Another criticism is that the future building will significantly alter the landscape between the Old City and Silwan and will change the way in which the area is visually perceived, creating the impression that it belongs solely to Israel.

## 1.5. Alternative to Kedem Compound project proposals by Emeh Shaveh archaeological organization

*Introduction to the design project  
and its site*

This part presents three alternative proposals to Kedem Compound.

The projects are developed by the organization Emeh Shaveh which represent a group of archaeologist and community activists focusing on the place of archaeology in Israel and the Israeli-Palestinian conflict.

### *SUGGESTION 1*

One of the alternatives suggested by Emek Shaveh is to cover the excavations with earth and re-open them for public needs. In this way the archaeological remain will be protected from damage. According to the organization another positive aspect of this solution is that covering the site in this way will make it unsuitable for heavy construction, This will prevent the state of Israel from appropriating the area, which will inturn decrease the tension between Palestinians and Israelis.

### *SUGGESTION 2*

Other proposal from the organization is leave the archaeological remains open to the public but limit the access of visitors with a small fence so they don't damage them.

Exhibiting the excavations in this way will give locals the possibility to relate to the place and the remains of their culture.

The findings in Givati Parking Lot are chronologically similar to the ones in Ophel Excavation and leaving the former open will encourage better understanding of the past of Jerusalem. Beside that, a chronological representation of the remains will prevent the possibility of a certain historical period being emphasized at the expense of another.

### *SUGGESTION 3*

The third proposal from Emek Shaveh is the combination of the two previous described ones – to partially cover the area with earth and to give it to locals to use as a playground and a public space; and leave parts of the remains open to the public.

This combination of the two approaches will still allow people to visit the remains but it will also strengthen the connection between the people from the neighborhood and will create community interest in the history of Jerusalem.

## 2. Functions and goals of the thesis project.

### 1.1 Presentation of the project program and it relations to the needs of locals and requirements set in Master Plan 2020

The project includes three religious buildings (church, mosque, and synagogue) and a public space on different levels (street level and -7.00m). The design is

oriented towards locals and tourists and thus considers the needs of both groups.

The project as an expression of the needs of the locals, considers the presence of accessible and adequate religious buildings and a public spaces where one gather and socialize.

The design for tourists focuses in attractive architecture and the unusual program of the buildings ( multi faith temple) as well as on interesting presentation of the archaeological remains in the public space.

## **1.2. Justification of the program**

### **Aim – justification of the project program**

The following analysis aims to understand whether the functions of the project program described above are adequate for the needs of locals and whether they will be interesting for tourists..

### **Methods of work**

#### *Analysis of the program for locals*

This part of the research is developed in two maps. The first one points the public spaces in radius of 1km of the project site and the other the presence of religious building in the same distance.

As residential areas require the described facilities, if such are not found is relatively close distance,that might suggest that the project program for locals is justified.

#### *Analysis of the program for locals*

The thesis project will create two main tourist attractions on the site: the archaeological remains and the multi faith architecture.

The appeal of the multi-faith architecture is difficult to judge as it depends on the design of the buildings. This is unknown at this stage, so we cannot draw conclusions on this aspect of the project. However, the unique building program is likely to interest tourists.

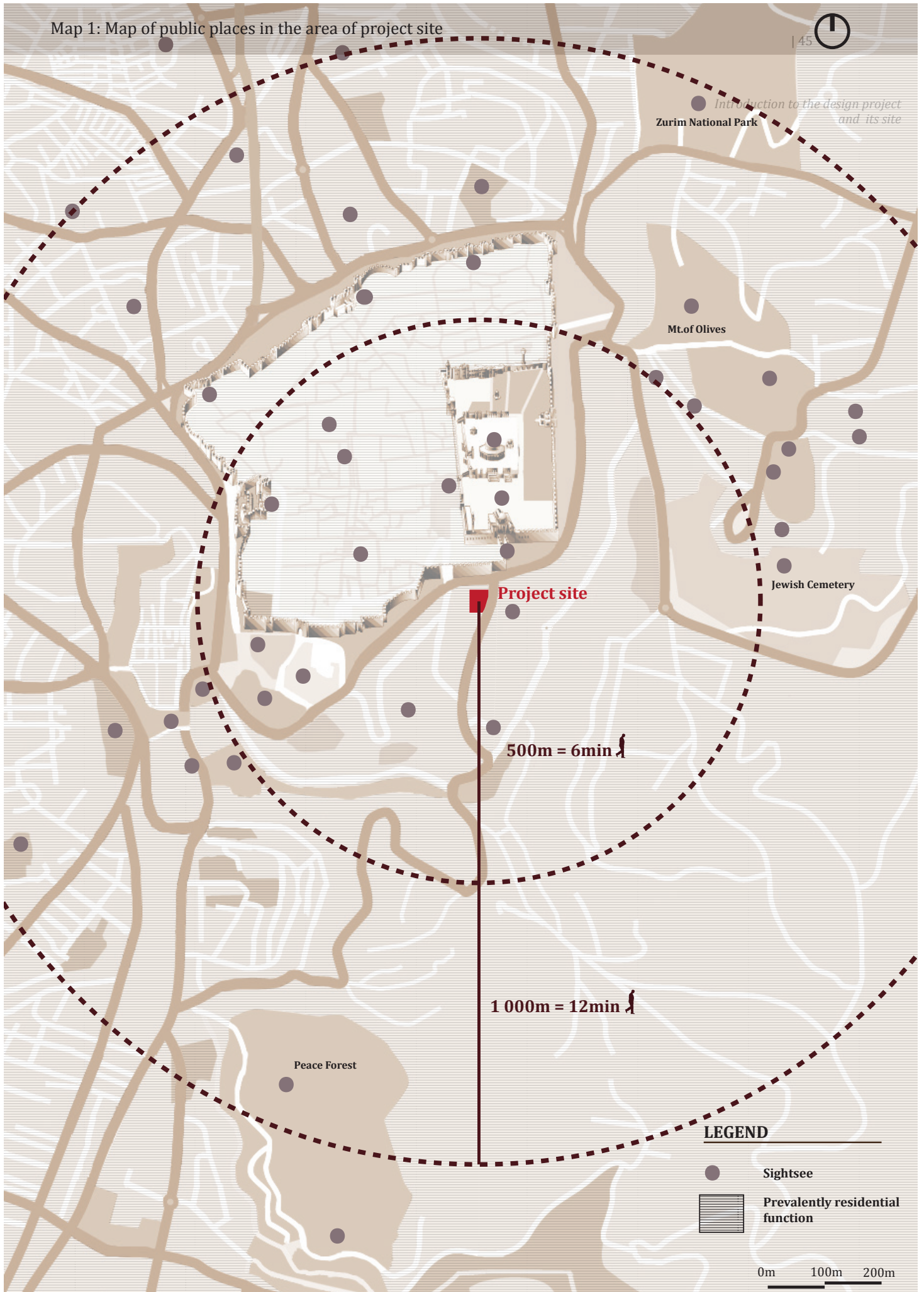
It is unlikely that tourists will come from far away to visit this project. However, if tourists happen to be in the area, they may visit. As such, the thesis analyses the presence of other tourist attractions within a 1km radius. The same logic applies to the archaeological remains. A separate map shows the other archaeological sites in the area of Givati Parking Lot.

### **Graphical representation of the data**

*Introduction to the design project  
and its site*



Map 1: Map of public places in the area of project site



*Introduction to the design project and its site*

Zurim National Park

Mt. of Olives

Jewish Cemetery

Project site

500m = 6min

1 000m = 12min

Peace Forest

**LEGEND**

- Sightsee
- ▨ Prevalently residential function

0m 100m 200m

Map 2: Map of religious buildings in the area of project site



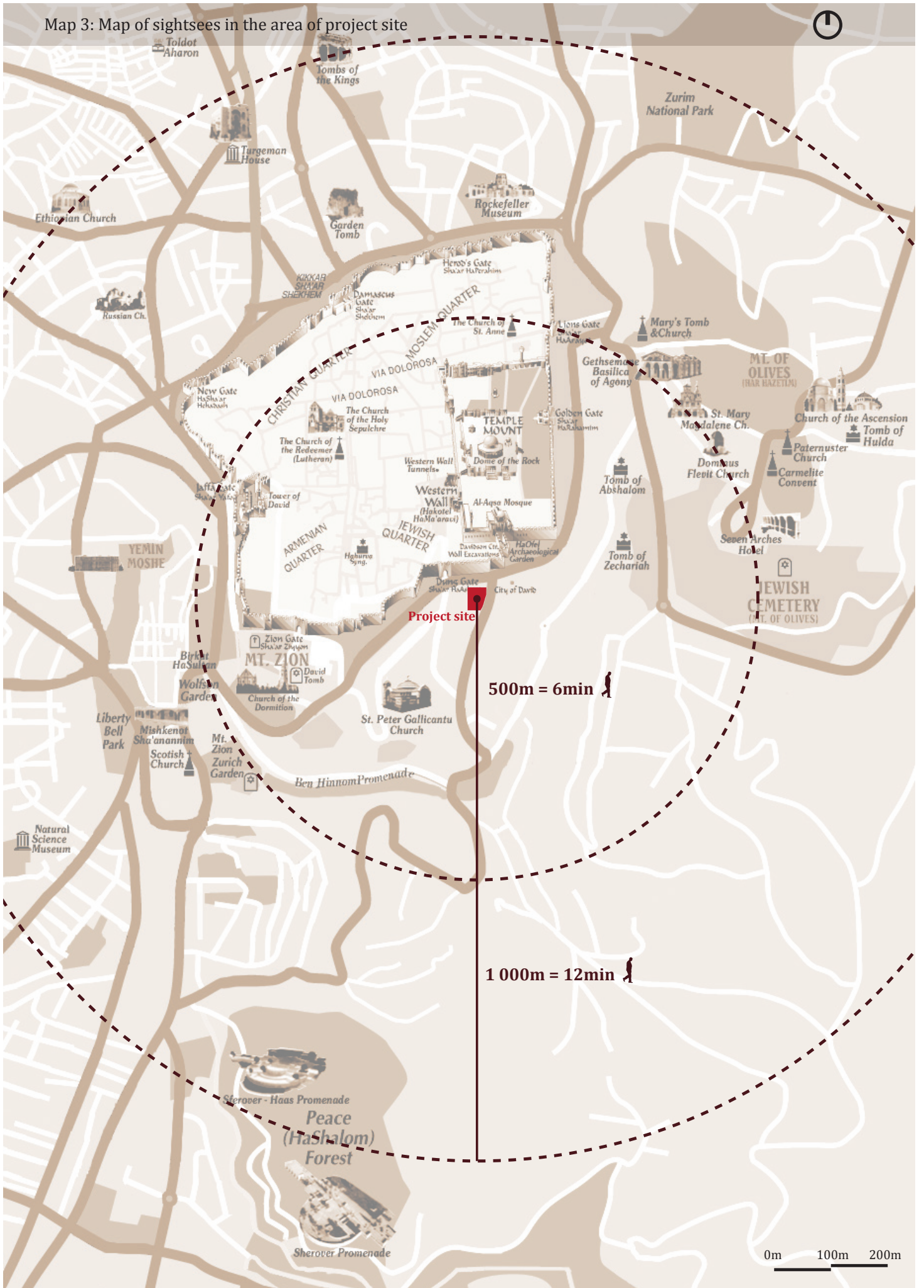
Project site

500m = 6min

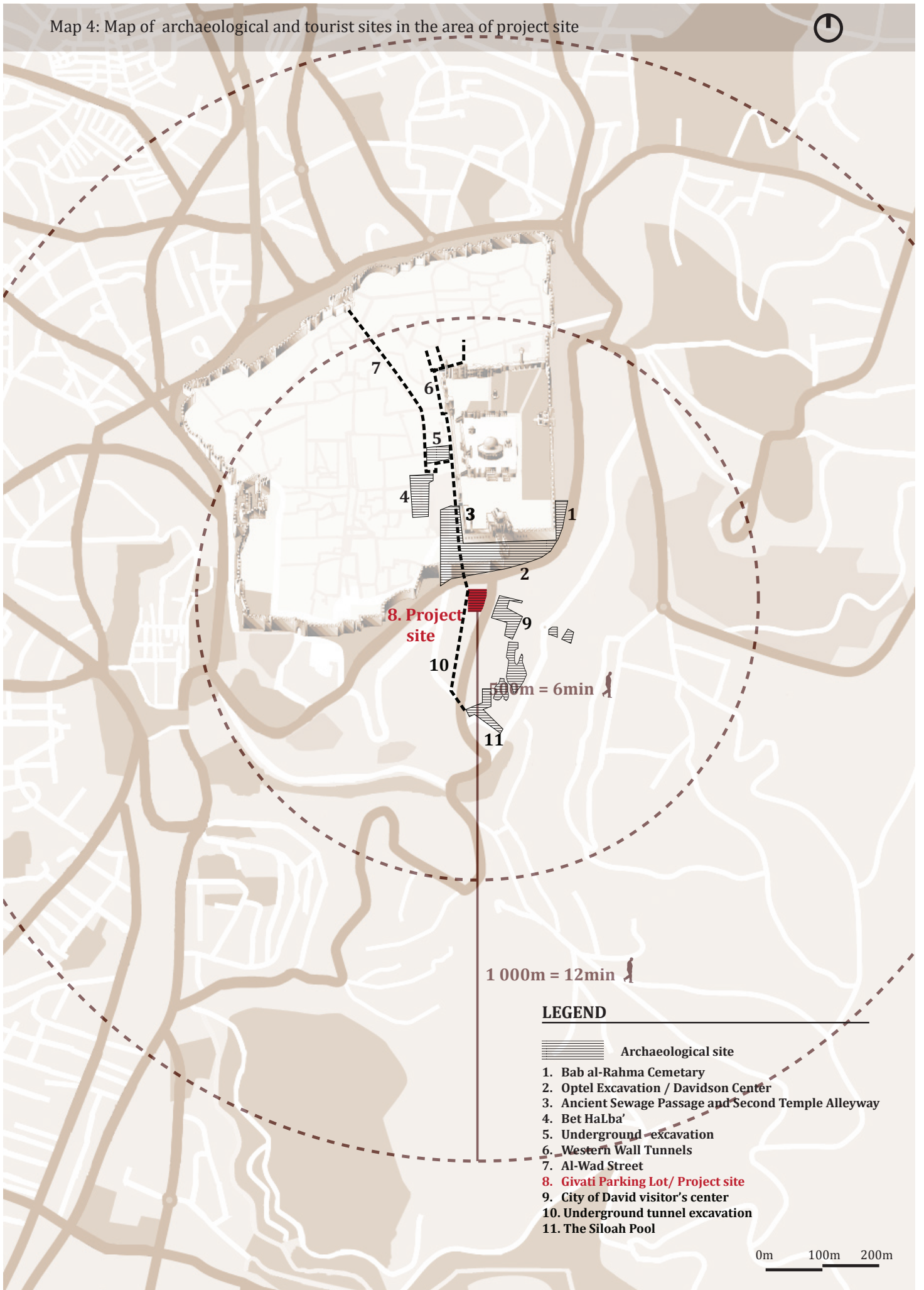
1 000m = 12min

0m 100m 200m

Map 3: Map of sightsees in the area of project site



Map 4: Map of archaeological and tourist sites in the area of project site





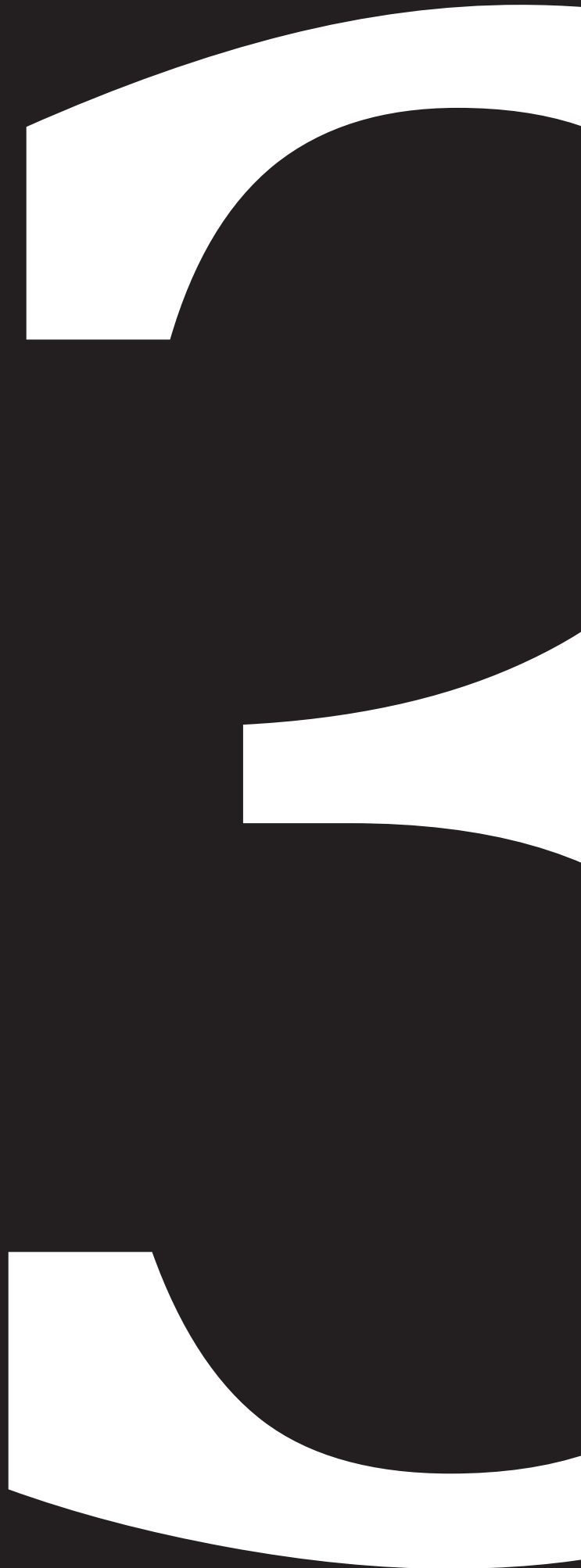
## Conclusion

50 |

*Introduction to the design project  
and its site*

Based on the analysis there the project program for both locals and tourists is justified.

The level of adequacy of the program for locals is reinforced by the fact that the site has been previously used as a public space and that Emek Shaveh alternative proposals mention numerous times that the site should be re-opened to the public.



### III. DISTRIBUTION OF FUNCTIONS ON THE PROJECT SITE

*Distribution of functions on the project site*

#### 1. Analysis of “nodes” of the pedestrian flow on the project site

##### 1.1. Framework:

The project is oriented towards tourists, who move around the city by foot or public transport; and to locals arriving from close distance from around neighborhood. For this reason only pedestrian accessibility is considered.

As the project has two main groups of users, the following analysis must show from where each of them arrives and how they cross Givati area.

##### 1.2. Aims:

The analysis aims to understand from where visitors (locals and tourists) will arrive to the site in order to understand which are the areas of higher density of pedestrians (“nodes”). This shows where on the site areas for gathering are required.

On the other hand mapping the “nodes” and the directions of people helps in understanding where there is potential of pedestrian crossing to occur. This is important as the project seeks to create the continuation in urban scale which is now missing. Beside of practical reasons, this will also encourage locals to pass by the site and thus engage them more easily with both religious and public spaces. The areas of the “nodes” are further used in the design project in understanding how the site will be visually perceived.

##### 1.3. Method:

For the tourist flow analysis, it was considered that the “nodes” are the part of the site which are closest to sightsees in the surrounding. The main nodes are the one closer to areas with high density of tourist attractions.

For the local flow analysis, there were considered sides walks, pedestrian paths but also “shortcuts” though the neighborhood. The main “nodes” are the one surrounded mainly by residential buildings.

##### 1.4. Graphical representation of data



*Distribution of functions on the  
project site*

## Guidelines Distribution of Functions on the Site

---

### ANALYSIS OF “NODES” OF PEDESTRIAN FLOW ON THE PROJECT SITE

---

**Framework:** The site is accessible on by foot (no parking is considered) and it has to suits the pedestrian circulation to the site and through it. It should also be organized to considering the needs of locals and tourists as the project is oriented to both groups of visitors.

**Aim:** Analysis the “nodes” of pedestrian flow to/ from the project site. This gives understanding from where one will arrive to the project site, from where it is mainly perceived and how visitors will move through the plot. This shows where the areas for free for pedestrian circulation need to be organized and if they need to be connected.

**Method:** For the tourist flow analysis, it was considered that the “nodes” are the part of the site which are closest to sightsees in the surrounding. The main nodes are the one closer to areas with high density of tourist attractions. For the local flow analysis, there were considered sides walks, pedestrian paths but also “shortcuts” though the neighborhood. The main “nodes” are the one surrounded mainly by residential buildings.

**Conclusion from analysis:** The “nodes” (points of higher pedestrian flow) are in the four corners of the site. The main two for locals are in the South part of the site and the main two for tourists on the North one.








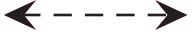
#### Guidelines:

*Guideline 1:* In the area of the “nodes” which also represent entrances to the project site, there should be established larger areas allowing gathering of people.

*Guideline 2:* The four “nodes” should be connected on diagonals creating continuation in urban scale. Beside of practical, this will also encourage locals to pass by the site and thus engage them with more easily with the religious and public spaces.

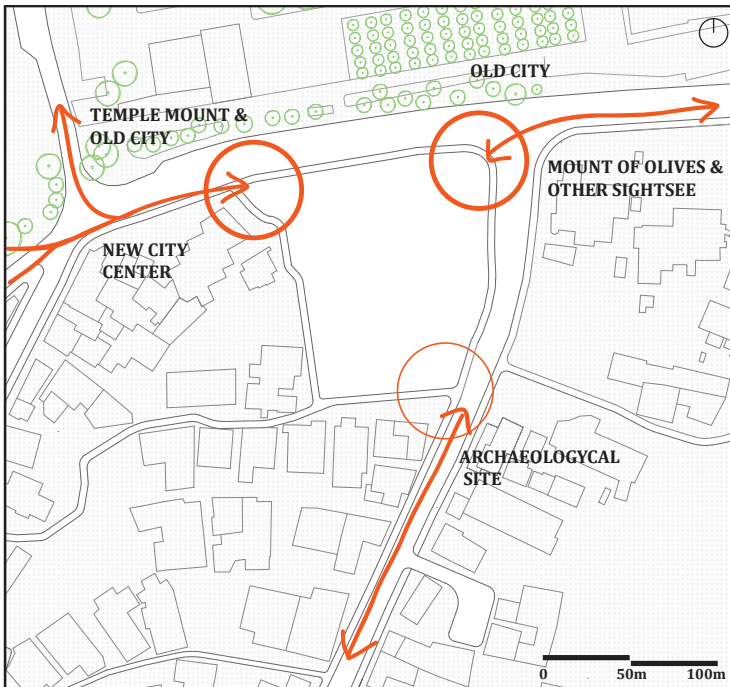
#### LEGENDE

---

	PRIMARY NODE TOURISTS		SECONDARY NODE LOCALS
	SECONDARY NODE TOURISTS		PEDESTRIAN FLOW LOCALS
	PEDESTRIAN FLOW TOURISTS		MAIN AXIS PEDESTRIAN CROSSING THROUGH THE SITE
	PRIMARY NODE LOCALS		SECONDARY AXIS PEDESTRIAN CROSSING THROUGH THE SITE

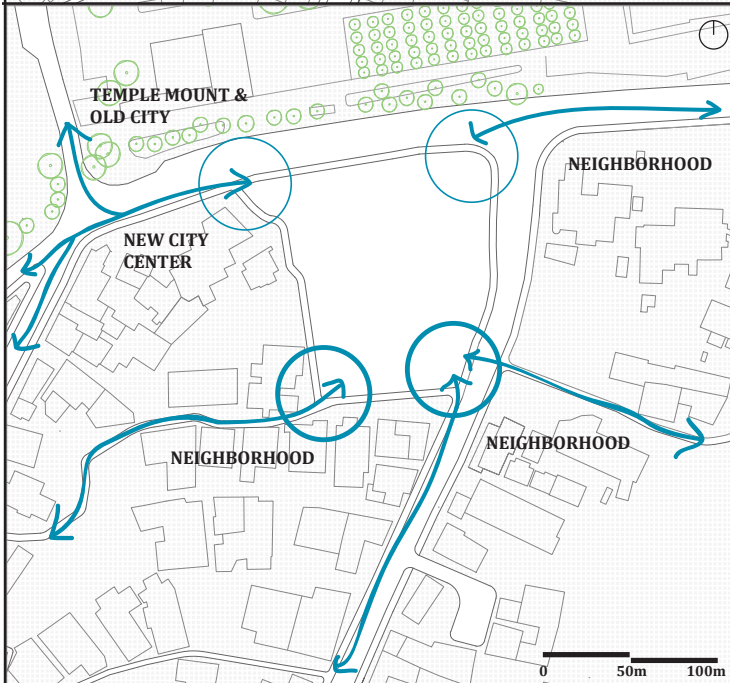
## NODES OF PEDESTRIAN FLOW OF TOURISTS

There is expected that tourist will arrive from/ head to the main tourists attractions in the surroundings.



## NODES OF PEDESTRIAN FLOW OF LOCALS

The locals will arrive from around the neighborhood passing on side walks and and "shortcuts" in the area.



## GUIDELINES AND NODES ANALYSIS OVERLAPPING

### CITY ENTRANCES 1 and 2

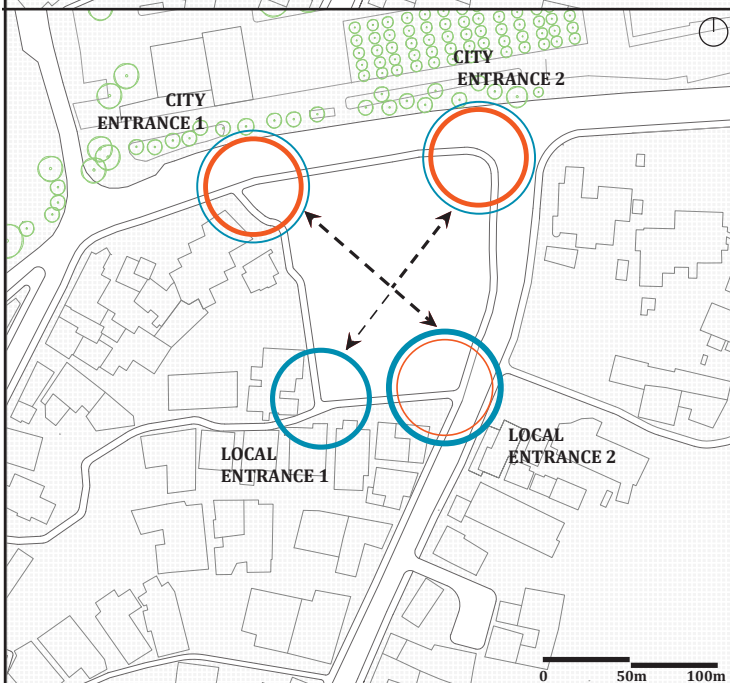
This entrance is open to the arrival direction of the new and old city and will be mainly in use of tourists. These entrances should be open and formal ones and should provide easy access to the site.

### LOCAL ENTRANCE 1

From this entrance it is expected to pass only locals. The access point is in a back narrow street so the view to the site from it should open in a scale similar to the one of the surrounding.

### LOCAL ENTRANCE 2

This entrance will be mainly in use by locals but also by tourists passing through the site. It is still a formal entrance but less than the ones in North.



## 1.5. Conclusion

From analysis: The “nodes” (points of higher pedestrian flow) are in the four corners of the site. The main two for locals are in the South part of the site and the main two for tourists on the North one.

## 1.6. Guidelines

Guideline 1: In the area of the “nodes” which also represent entrances to the project site, there should be established larger areas allowing gathering of people.

Guideline 2: The four “nodes” should be connected on diagonals in order to allow pedestrian crossing which creates the required continuation in urban scale.

## 2. Points of view to the project site

### 2.1. Framework

According to the Master Plan 2020 of Jerusalem, which is still in process of finalizing, the area has great importance for the tourist industry because of the archaeological remains found on the site. So the visibility to the site should be preserved in such a way such a way that the site as a whole is appealing for foreign visitors.

### 2.2. Aims

The aims of the study of understand how the project site is visible from the “nodes”, as they are the point from which the site will be firstly perceived.

This information, along with the goals of creation of a tourist attraction without neglecting the local users and the creation of a continuation in the urban fabric, shows which points to the site have to remain visible.

### 2.3. Method

With the help of GOOGLE MAPS streets view pictures from the main arrival points / “nodes” were selected. The points of view of the pictures are places on a map. On the pictures themselves are marked the project are so the reader understands more easily where are the boundaries of the project site.

### 2.4. Graphical representation of data

*Distribution of functions on the  
project site*

## Guidelines Distribution of Functions on the Site

### POINTS OF VIEW TO THE PROJECT SITE

**Framework:** According to the master plan 2020 of Jerusalem, the land plot is considered important for tourists. Because of that the latter should be organized in such a way that the site is appealing as tourist attraction.

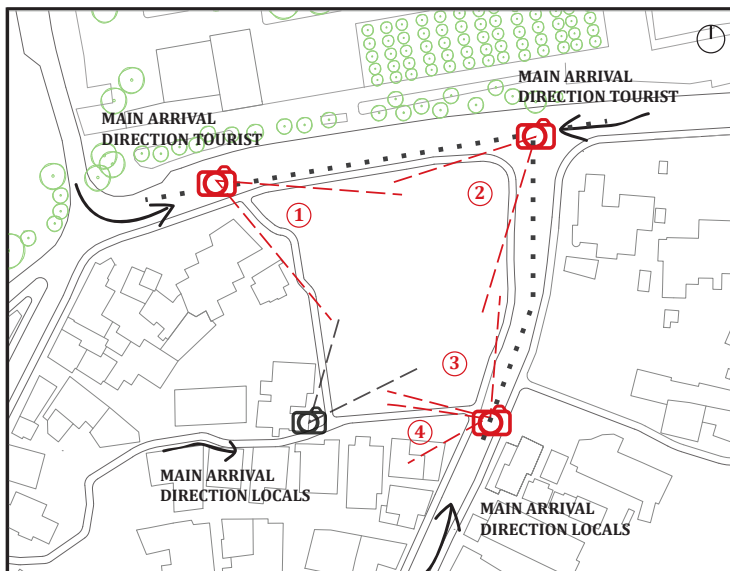
**Aims:** The aims of the study of understand how the project site is visible from the “nodes”. This information, along with the goals of creation of a tourist attraction and a continuation in the urban fabric, shows which points of the site have to remain visible.

#### Guidelines:

*Guideline 1:* To provide visibility to the entire project site (religious complex and public spaces) from the main points of view for tourists on the North of the plot (points of view 1 and 2).




*Guideline 2:* To provide visual connection between the main axis of pedestrian flow through the site ( between points 1-3; points 2-4).

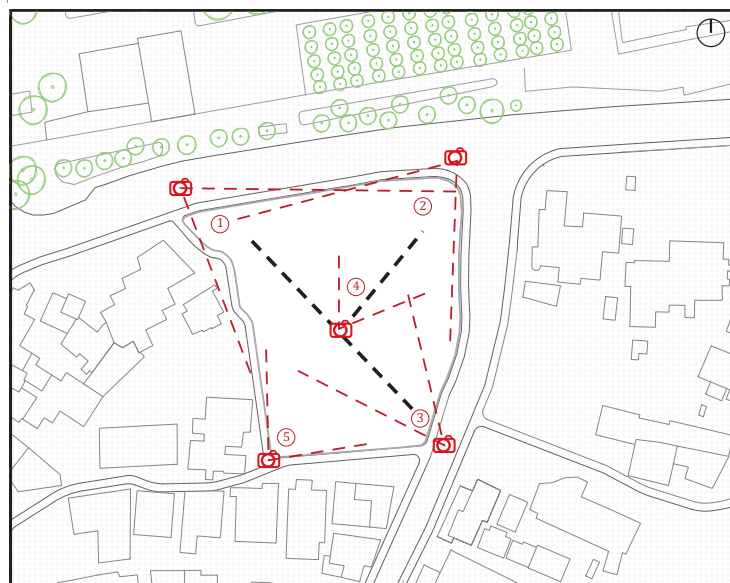
*Guideline 3:* From the Southern nodes (entrances to the site for locals) to have visibility to the project site as well (points of view 3 and 5).



#### POINTS OF VIEW TO THE PROJECT SITE



##### LEGENDE

-  POINT OF VIEW TO THE PROJECT SITE
-  NO PHOTO AVAILABLE
-  MAIN AXIS FROM WHICH SITE IS VISIBLE



#### MAP GUIDELINES

##### LEGENDE

-  POINT OF VIEW TO THE PROJECT SITE
-  MAIN AXIS PEDESTRIAN FLOW



## 2.5. Conclusion

60 |

*Distribution of functions on the project site*

From the analysis and the aims for creation of a tourist attraction it would be concluded that from the Northern “nodes” the entire site have to remain visible. In this way the travelers will be able to see from distance the various functions of the site. This will attract more visitors and thus make the site more successful as a tourist attraction.

On the other hand the two sides of the pedestrian diagonal axes should remain from one end to the other so the connection works in a better way.

Besides the project has a strong orientation to tourists, there should not be neglected the locals users. Because of that from the “nodes” of locals view to the project site should also be preserved.

## 2.6. Guidelines

*Guideline 1:* To provide visibility to the entire project site (religious complex and public spaces) from the main points of view for tourists on the North of the plot.

*Guideline 2:* To provide visual connection between the main axis of pedestrian flow through the site

*Guideline 3:* From the Southern nodes (entrances to the site for locals) to have visibility to the project site as well.

## 3. Visibility from the project site

### 3.1. Framework

One of the used means for interfaith dialogue is to create a public space to which locals will attach and this will make them feel as a group, member of the same society.

In order to achieve that a public space with particular characteristics should be designed (Peter Bosselmann, Urban Transformation 2008).

In the specific case of Givati parking lot, the specific characteristic is the view from the site to the Old City walls and Mount of Olives.

### 3.2. Aims

To distribute the functions (buildings, public spaces) in such a way that from the public spaces the view to the Old City and Mount of Olives is preserved.



### 3.3. Methods

| 61

From GOOGLE MAPS views from the project site to the surrounding were found. From them it could be seen from which points of the landmarks are visible.

*Distribution of functions on the  
project site*

### 3.4. Graphical representation of data

## Guidelines Distribution of Functions on the Site

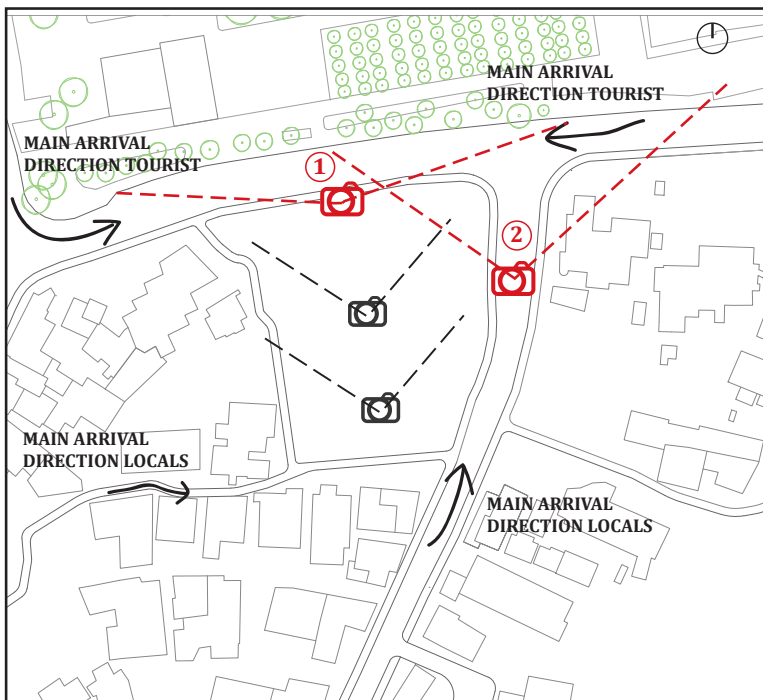
### VISIBILITY FROM THE PROJECT SITE

**Framework:** The project aims to design a public space which creates emotional attachment into people. For this reason the project seeks to create a place with unique for its place characteristics (*Peter Bosselmann, Urban Transformation 2008*).

**Aims:** The distribution of functions should be such that from the public spaces there are visible the local landmarks (the Old city and Temple Mount) in order to design a place with specific for its location features. In this way the public spaces will create emotional attachment into users (locals and tourists).

#### Guidelines:

**Guideline 1:** Positioning of the buildings in such a way that there is visibility to the Old City and Temple Mount from the public space(s).



#### VISIBILITY FROM THE PROJECT SITE

##### LEGENDE



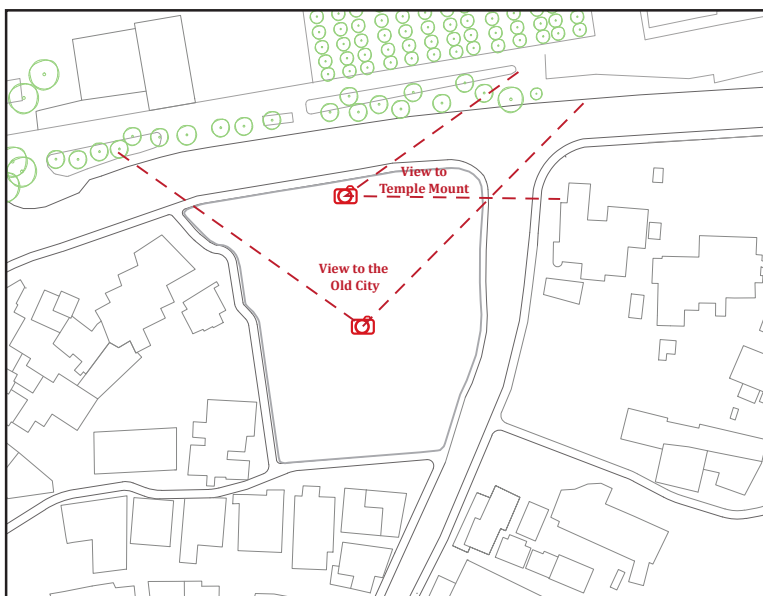
VISIBILITY FROM THE PROJECT SITE



NO PHOTO AVAILABLE



LANDMARKS THAT NEED TO REMAIN VISIBLE



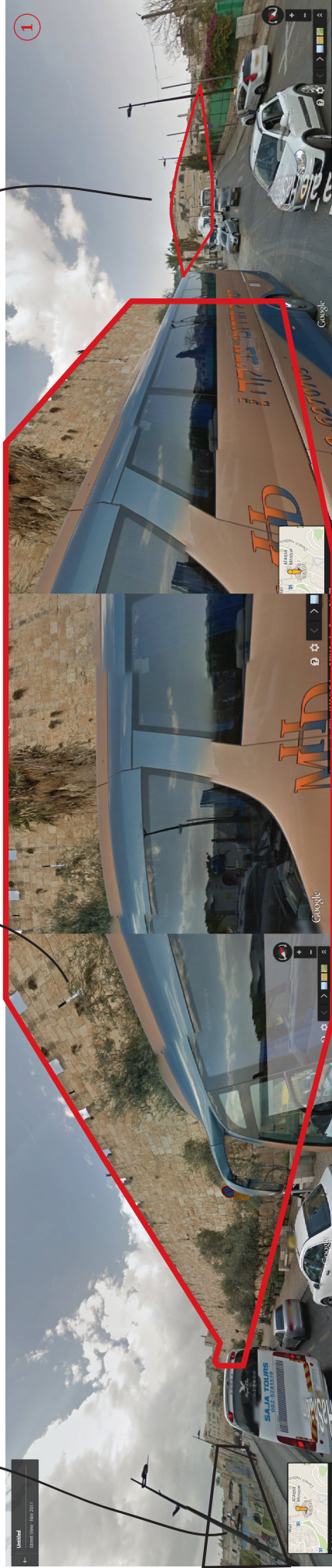
#### MAP GUIDELINES

##### LEGENDE



VISIBILITY FROM THE PROJECT SITE

West end of project site



Old City Walls

Mouth of Olives

1

Project site



Old City Walls

Mouth of Olives

2

### 3.5. Conclusion

From the available picture of GOOGLE STREET VIEW it is visible that from the entire project site is visible the Old City. On the other hand only from the from part of the area one can perceive the Mount of Olives.

*Distribution of functions on the project site*

### 3.6. Guidelines

*Guidelines 1:* Positioning of the buildings in such a way that there is visibility to the Old City and Temple Mount from the public space(s).

## 4. Conclusion

### 4.1. Framework

In points I to III the main aspects defining the distribution of functions (buildings, public spaces, archaeological park) on the project site were discussed. Based on the guidelines derived from them there should be made final ones describing the distribution of functions on the project site.

### 4.2. Aims

The aim of point IV is to distribute the function on the site in such that the previously derived guidelines are respected as much as possible.

### 4.3. Methods

The previously made guidelines are re-described, through maps and text. The maps are overlapped composing the map GUIDELINES AND DISTRIBUTION OF FUNCTIONS. In it, the final function distribution is presented which respect all of the requirements of the individual analysis.

### 4.4. Graphical representation of data

*Distribution of functions on the  
project site*

# Guidelines Distribution of Functions on the Site

## CONCLUSION

### Framework:

#### Guidelines NODES OF PEDESTRIAN FLOW ( MAP 1 )

Guideline 1: In the area of the “nodes” there should be larger than the side walk area / public space that allow gathering of people.

Guideline 2: The four “nodes” should be connected creating pedestrian paths from one side of the plot to the other.

#### Guidelines POINTS OF VIEW TO THE PROJECT SITE ( MAP 2 )

Guideline 1: To provide visibility to the entire project site (religious complex and public spaces) from the main points of views for tourists on the North of the plot (points of view 1 and 2).

Guideline 2: To provide visual connection between the main axis of pedestrian flow through the site ( between points 1-3; points 2-4).

Guideline 3: From the Southern nodes (entrances to the site for locals) to be visible all of the three religious buildings and their common public space (points of view 3 and 5).

#### Guidelines VISIBILITY FROM THE PROJECT SITE ( MAP 3 )

Guideline 1: Positioning of the buildings in such a way that the public spaces are “open” to the North and that all landmarks are visible.

### Aims:

Distribution of the functions in such a way that the guidelines are respected as much as possible.

### Final Guidelines:

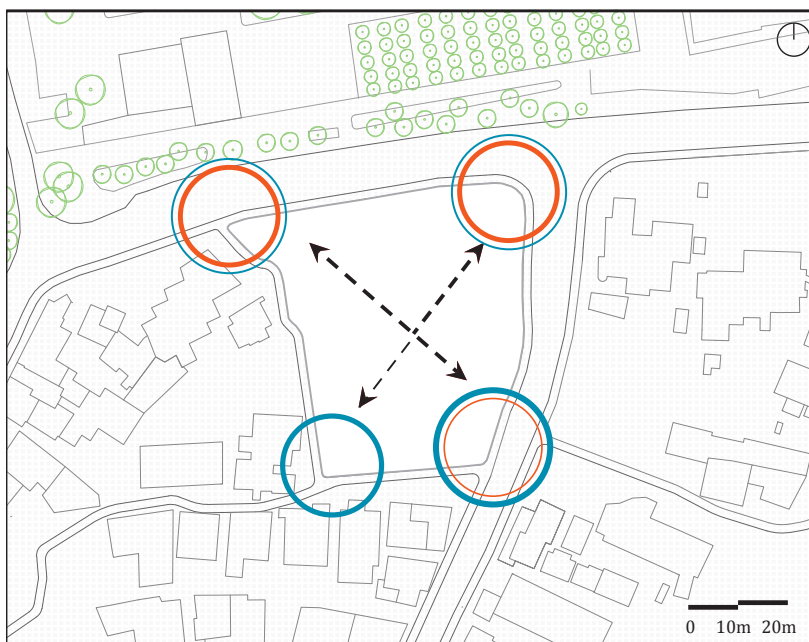
*Guideline 1:* Location of the main public space in the North part of the plot and secondary smaller ones in the two South corners of the site, at the entrances of the project site.

*Guideline 2:* Location of the buildings in the South part of the plot.

*Guideline 3:* Creating pedestrian path connecting the four “nodes” on diagonals.







Guideline 4: Organization of the space in such a way that there is a visual connection between *points A-A* and *points B-B*.

*Guideline 5:* Organization of the space in such a way that there is visual connection between the Southern entrances to the plot and the secondary public space of the religious complex.

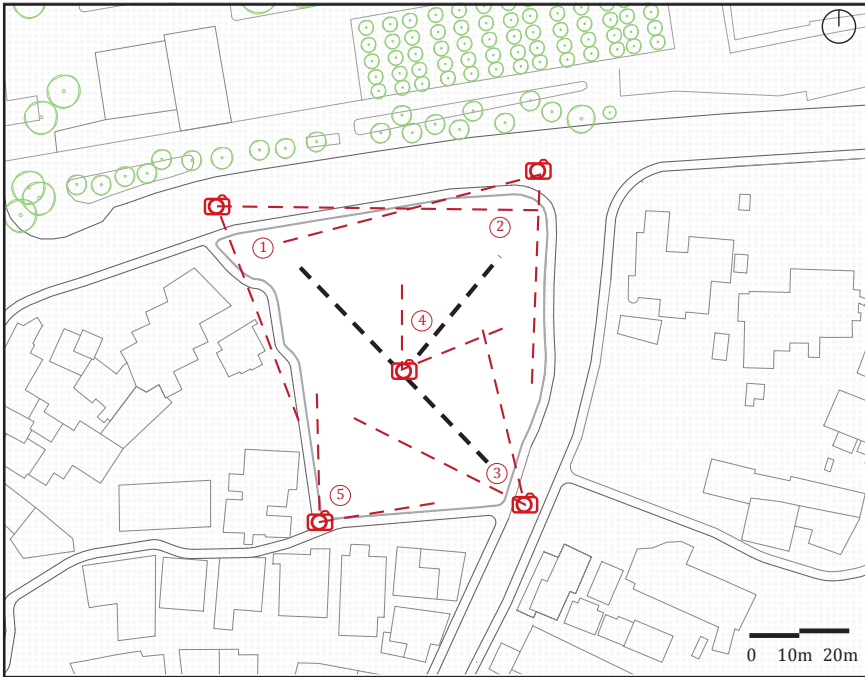


**MAP 1: NODES AND PEDESTRIAN FLOW**



### LEGENDE

-  PRIMARY NODE TOURISTS
-  SECONDARY NODE TOURISTS
-  PRIMARY NODE LOCALS
-  SECONDARY NODE LOCALS
-  MAIN AXIS PEDESTRIAN CROSSING THROUGH THE SITE
-  SECONDARY AXIS PEDESTRIAN CROSSING THROUGH THE SITE

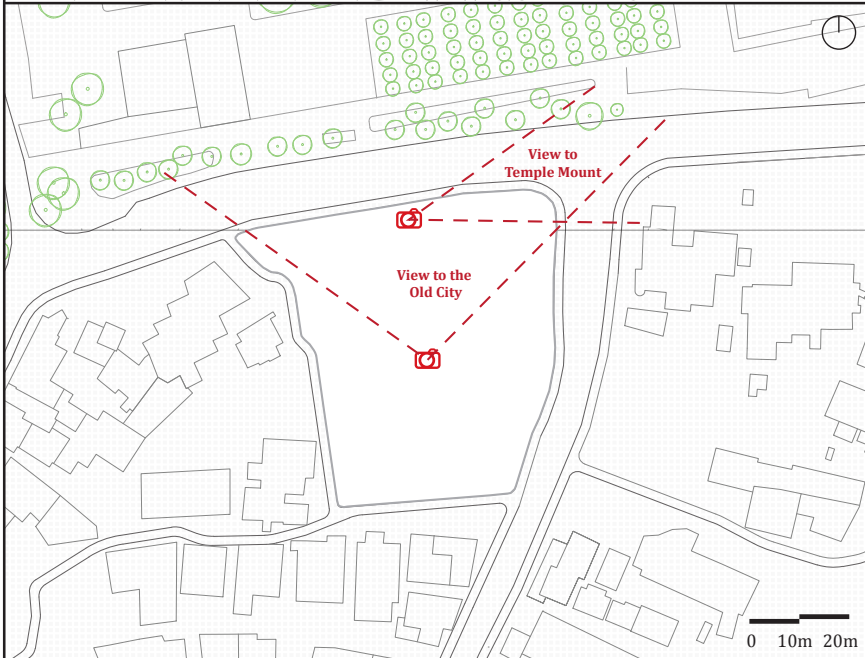
## MAP 2: POINTS OF VIEW TO THE PROJECT SITE




### LEGENDE

-  POINTS OF VIEW TO THE PROJECT SITE
-  MAIN PEDESTRIAN AXIS THROUGH THE SITE

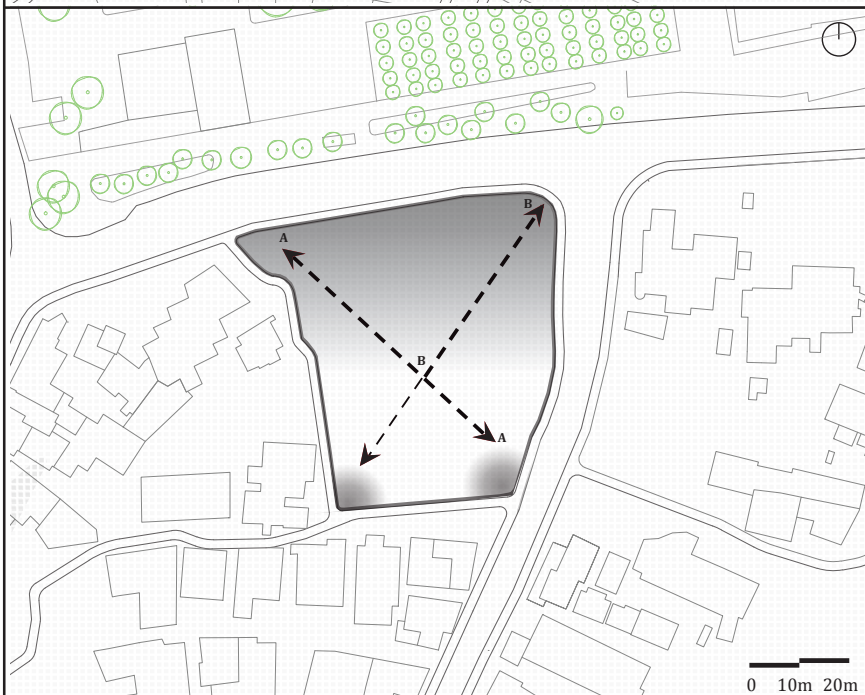
## MAP 3: POINTS OF VIEW FROM THE PROJECT SITE







### LEGENDE

-  POINTS OF VIEW FROM THE PROJECT SITE

## MAP GUIDELINES DISTRIBUTION OF FUNCTIONS



### LEGENDE

-  AREA BUILDINGS
-  AREA PUBLIC SPACES PEDESTRIAN PATHS
-  MAIN AXIS PEDESTRIAN CROSSING THROUGH THE SITE
-  SECONDARY AXIS PEDESTRIAN CROSSING THROUGH THE SITE

#### 4.5. Conclusion

*Distribution of functions on the project site*

Based on the analysis, the buildings should be placed in the back of the plot (South) so they do not block the visibility from the main arrival points of tourists to the site. The buildings though should not go to the Southern ends to the site (“nodes” locals) as there areas for gathering is defined.

The rest of the site, Northern part, is preserved for public space.

As there was said that diagonal pedestrian axis should also be provided, such are also presented on the map. The building s’ volumes should be distributed in such a way that a visual connection between the two ends of each axis is present.

#### 4.6. Guidelines

*Guideline 1:* Location of the main public space in the North part of the plot and secondary smaller ones in the two South corners of the site, at the entrances of the project site.

*Guideline 2:* Location of the buildings in the South part of the plot.

*Guideline 3:* Creating pedestrian path connecting the four “nodes” on diagonals.

*Guideline 4:* Organization of the space in such a way that there is a visual connection between points A-A and points B-B.

*Guideline 5:* Organization of the space in such a way that there is visual connection between the Southern entrances to the plot and the secondary public space of the religious complex.



4

## **IV. DISTRIBUTION OF FUNCTIONS WITHIN THE RELIGIOUS COMPLEX**

*Distribution of functions within the  
religious complex*

### **1. Location of the buildings on the site. Comparison of possible design solutions.**

#### 1.1. Framework

According to the final guidelines represented in point IV of chapter three, possible solutions of buildings' location are compared.

The buildings are positioned according to the guidelines but also according to the requirements of their sacred orientation.

#### 1.2. Aims

Few main aspects of the possible building distribution are considered.

One is that the buildings should form a common square where pilgrims gather and socialize as part of the interfaith dialogue. In addition to this from the religious public space, the Old city should also be visible. In this way the "unique" public space to which locals develop emotional attachment and which create a community is again present.

Another main aspect is that all three buildings need to have equal importance on the site. Thus they all need to be visible from the "nodes" and public space in North of the plot.

#### 1.3. Methods

In the next page, three design solutions are presented. On each there are made comments regarding the aims discussed in point 2: religious public space, diagonal crossing through the site, visibility to and from the project site.

#### 1.4. Graphical representation of data

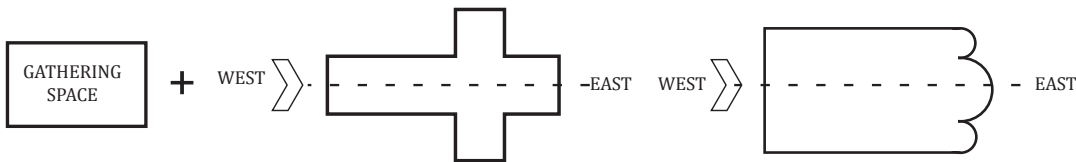
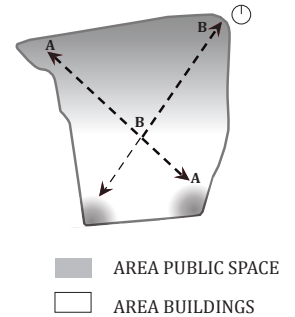


## Guidelines Distribution of Buildings

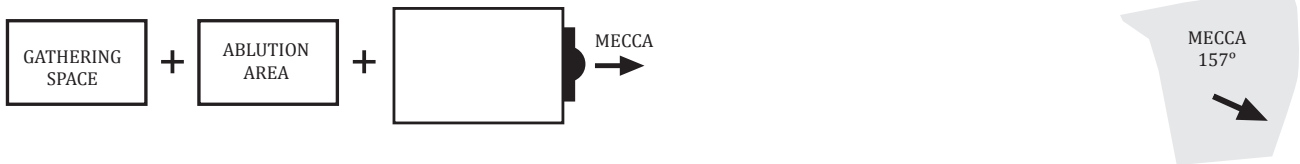
### LOCATION OF BUILDINGS ON THE SITE. COMPARISON OF POSSIBLE DESIGN SOLUTIONS

#### Framework:

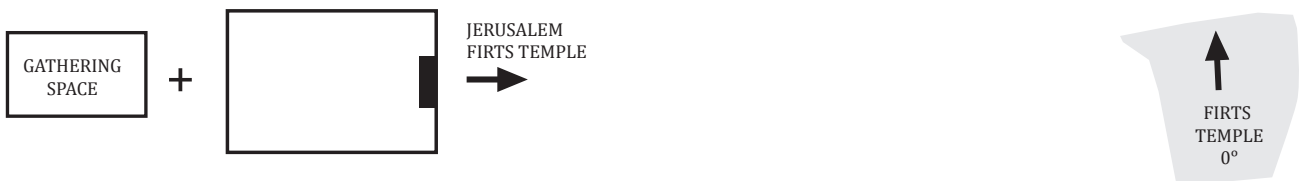
1. Positioning of the buildings in the South of the plot and the public spaces in the North of it so the entire project site is visible from the points of view of tourists.
  2. Gathering areas in the "nodes".
  3. Pedestrian crossing on diagonals and along the project site.
  4. Visual connection between points A-A and B-B
5. Respecting building organization and orientation.  
CHURCH BUILDING: Orientation of axis East-West, Gathering space (in front), Building footprint



MOSQUE: Orientation of Qbla Wall, Ablution area, Gathering space



SYNAGOGUE: Orientation of Torah Arc, Ablution area ( in or out of the synagogue), Gathering space



#### Aims:

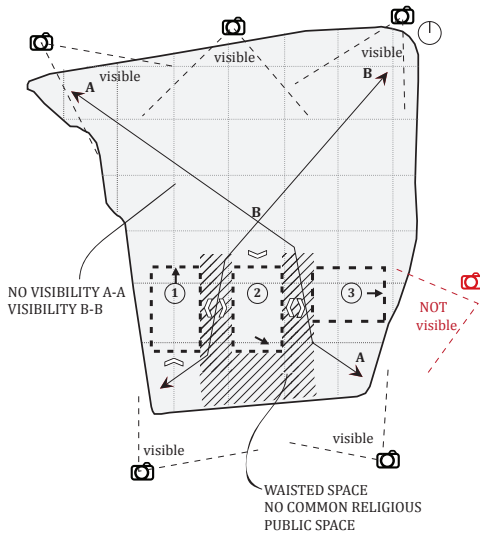
1. Organization of one common public space in the religious complex where people will be pushed to interact.
2. The common public space to be in close distance to buildings ( in front).
2. View from the common public space to the Old City. In this way there is present the particular characteristic of the site, hence people will develop stronger emotional attachment to the site.
3. All three buildings visible from "nodes" and centre of public space.

#### Conclusion:

From the comparative analysis it could be concluded that *DESIGN SOLUTION 2* is the most suitable in regard to the framework and the established aims.

*DESIGN SOLUTION 2* is the one that is further developed.

## Design solution 1



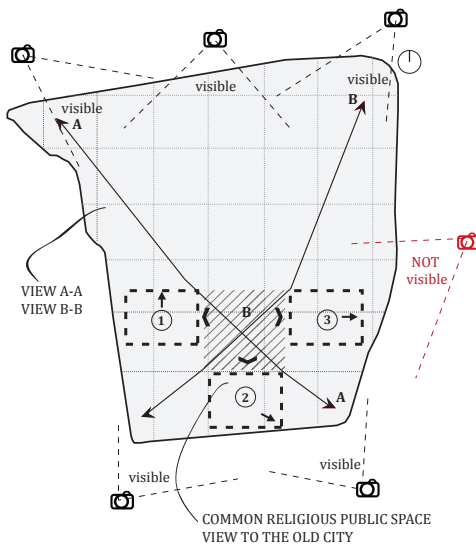
### Visibility:

- Very good visibility to the project site
- Lack of visibility between points A-A

### Public space and buildings:

- The space between the buildings is too narrow, approximately 5m. It could be used only for passage.
- The most appropriate entrances for the buildings are in opposite sides so there won't be a good common public space in front of the religious buildings.

## Design solution 2



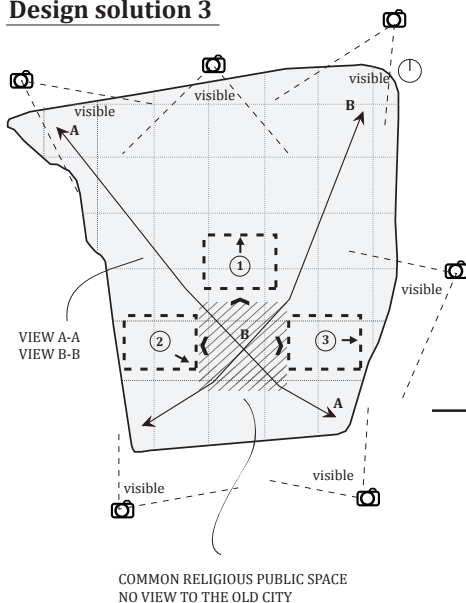
### Visibility:

- Very good visibility to the project site
- Visibility between points A-A and B-B

### Public space and buildings:

- The secondary public space in front of the religious buildings is less secluded than in DESIGN SOLUTION 1 but it has a view to the sightsee in North. This means that there won't be needed other ways to create a unique space in order for users to develop strong emotional attachment to the place.
- The secondary public space might require additional separation from the main one in order to provide privacy to pilgrims.

## Design solution 3



### Visibility:

- Very good visibility to the project site
- Visibility between points A-A and B-B

### Public space and buildings:

- A secondary public space is located in the back of the plot. Its main advantage is that it is secluded and thus pilgrims won't feel observed by tourists and users of the main public area.
- No view to the Old City from the public space.

### LEGEND

GRID 10 x 10m.

	PUBLIC SPACE		POINT OF VIEW TO THE PROJECT SITE		SACRED DIRECTION
	RELATIVE BUILDING OUTLINE		SYNAGOGUE		POSSIBLE MAIN ENTRANCES
	CROSSING THROUGH THE SITE		MOSQUE		MOST APPROPRIATE MAIN ENTRANCE IN RELATION TO SACRED DIRECTION
			CHURCH		

## 1.5. Conclusion

*Distribution of functions within the religious complex*

Based on the comparative study, we can conclude that design solution 2 meets in the best way the previously presented requirements.

It provides a common public space in front of the temples with view to the Old City. This is an essential requirement as the project main focus is the multi faith architecture as a mean for interfaith dialogue.

Another advantage of the design solution is that all buildings are visible from the "nodes" and that there is also visibility along the diagonal pedestrian axis. This will improve the role of the path as a continuation in urban scale.

## 2. Outline buildings and public spaces within the religious complex

### 2.1. Framework

The relative dimensions of the buildings and the religious public space need to be such that the previous guidelines are respected.

In the analysis there must also be considered the sacred directions and canonical requirements of each building typology.

### 2.2. Aims

As the religious complex is one part of the entire project, it should occupy relatively half of the project site.

One of the main aspects of the multi faith architecture is that the building should be given equal weight/ importance on the site. Thus the buildings should seem to have equal foot print and equal visibility of the main façades from the surrounding. In the particular case equal visibility of the main façades from the religious square in between the buildings, the public space in North, as well as from the "nodes" for locals" in the South of the plot.

Another multifaith aspect of the project is the design of one or more but always common religious public spaces where people are pushed to interact before and after services.

### 2.3. Methods

According to the selected design solution in point I, there were examined variations of buildings sizes and respectively public spaces.

To each of them were applied the previously stated requirements.

At the end of the study, it is defined the relative positions and dimensions of buildings so that all aims and guidelines are met.

### 2.4. Graphical representation of data



# Guidelines Distribution of Functions within the Religious Complex

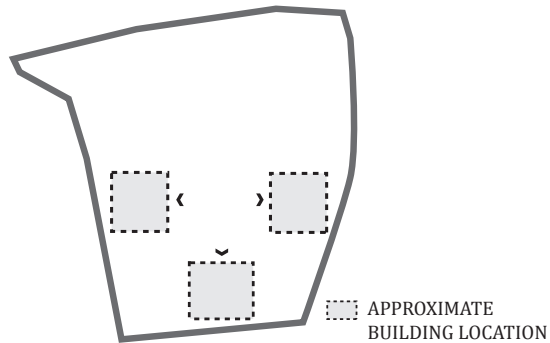
---

## OUTLINE BUILDINGS AND PUBLIC SPACES

---

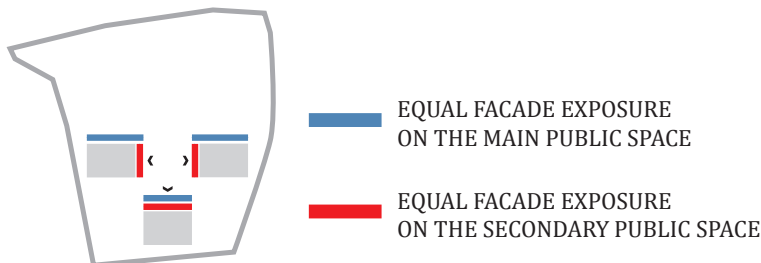
### Framework:

Distribution of building according to the selected design solution.



### Aims:

1. Buildings to occupy relatively up to half of the project site.
2. Creating one common religious public space ( but not several smaller ones) so people are pushed to interact.
3. Semi-private public spaces in front of temples serving only for preparation for praying (ablution and others).
4. Building to have equal footprint area.
5. Buildings to have equal façade exposure on the side of the religious public space.
6. Buildings to have equal façade exposure on the side of the main public space.



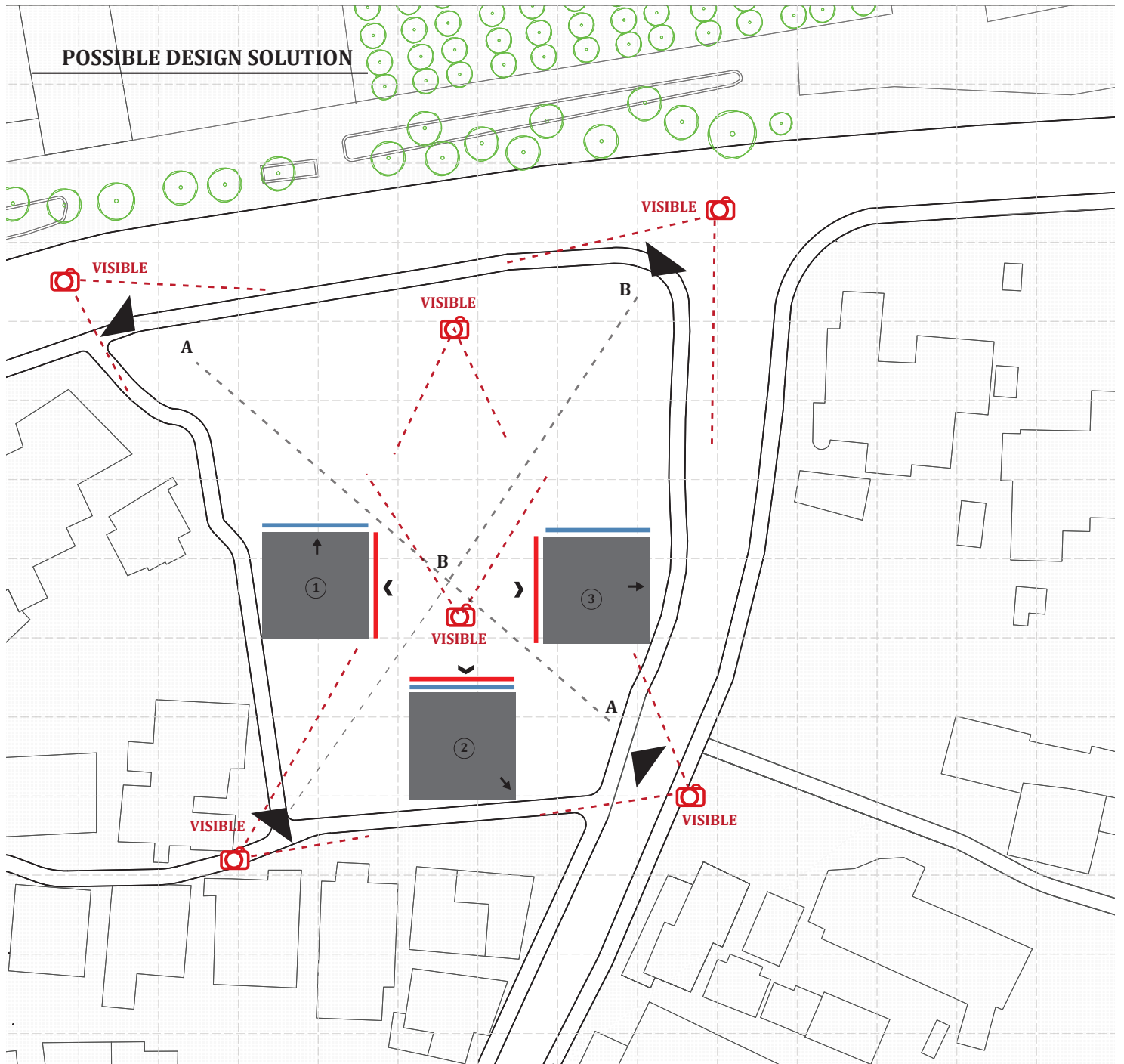
7. From the entrance to the site to have (relatively) equal visibility to the main facades of all three buildings
8. To provide visibility between points A-A and B-B
9. Religious public space to have visibility to the Old City.
10. Visibility to all three buildings from the main entrances of the project site and the center of the main public space.

### Guidelines:

*Guideline 1:* The buildings need to have central plan and each temples must have equal façade treatment on all sides.

*Guideline 2:* The distance between the buildings must be around 6m and the building dimensions around 14m X 14m. In this way the religious complex occupies relatively half of the area of Givati parking lot and to provide visibility along the diagonal pedestrian axis





**SYNAGOGUE**

APPROXIMATE BUILDING DIMENSIONS: 14m X 14m; AREA 196sq.m.  
 APPROXIMATE BUILDING CAPACITY: 120 🧑🧑🧑

**MOSQUE**

APPROXIMATE BUILDING DIMENSIONS: 10m X 19.6m; AREA 196sq.m.  
 APPROXIMATE BUILDING CAPACITY: 110 🧑🧑🧑

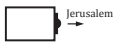








**CHURH**

APPROXIMATE BUILDING DIMENSIONS: 14m X 14m; AREA 196sq.m.  
 APPROXIMATE BUILDING CAPACITY: 120 🧑🧑🧑

**RELIGIOUS PUBLIC SPACE**

APPROXIMATE AREA: 480sq.m.  
 APPROXIMATE CAPACITY: 460 🧑🧑🧑

**LEGEND**

- ① SYNAGOGUE 
- ② MOSQUE 
- ③ CHURCH 
- 
-  RELATIVE BUILDING OUTLINE
-  MAIN ENTRANCE TO THE BUILDING
-  SACRED DIRECTION
-  MAIN ENTRANCE TO THE SITE
-  POINTS OF VIEW

## 2.5. Conclusion

*Distribution of functions within the religious complex*

In respect with the requirements of visibility of main facades it was concluded that the simplest solution is the central plan of the temples. Thus each façade of a building can be treated in the same way

## 2.6. Guidelines

Guideline 1: The buildings need to have central plan and each temples must have equal façade treatment on all sides.

Guideline 2: The distance between the buildings must be around 6m and the building dimensions around 14m X 14m. In this way the religious complex occupies relatively half of the area of Givati parking lot and to provide visibility along the diagonal pedestrian axis



## **V. BUILDING DESIGN**

### **1. Building height**

#### **1.1. Framework**

One of the main critics to the project Kedem Compound is that it is too high but also too massive for its location. Thus with its dimensions but at too close distance to the Old City walls the project competes with it and changes the current skyline of the city of Jerusalem.

The religious buildings are not as massive as Kedem compound but they are also located at three times bigger distance from the Old City walls. Anyway in the following study it is analyzed what the maximum height of the buildings should so they do not create the issues Kedem Compound does.

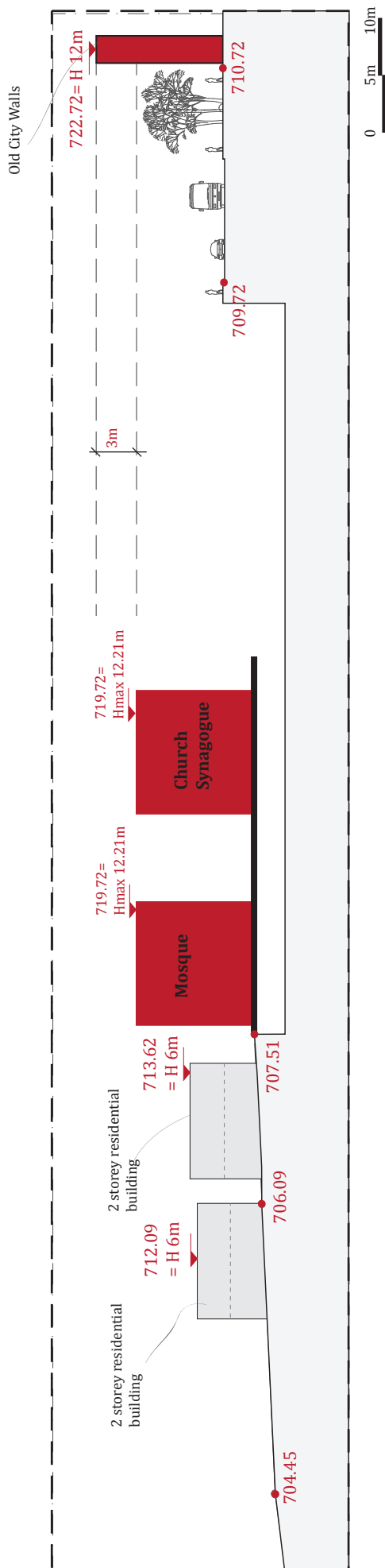
#### **1.2. Aims**

The aim of the following analysis is to set a maximum height of the religious buildings. This maximum height will be lower than the upper level of the Old City walls so there are no changes in the city skyline.

#### **1.3. Methods of work**

The method of work consists of making a section through the project site in direction North-South. From the drawing it is understood how the terrain moves in altitude and where it is the upper point of the city walls and respectively where it should be the highest point of the buildings.

#### **1.4. Graphical representation of data**



## Guidelines Building Height

### BUILDING HEIGHT AND CITY SKYLINE

#### Framework:

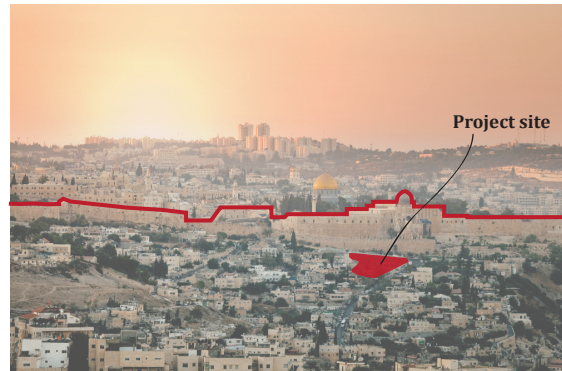
1. To preserve the current skyline of Jerusalem.

#### Aims:

1. The maximum height of the buildings to be such that they are perceivably lower than the Old City Walls.

#### Conclusion:

The buildings' maximum height could be up to 3m below the top of the Old City Walls. The towers such as bell towers and minaret can rise higher to the establish limit as they are not massive elements and won't be perceived as significant ones which can change the city skyline.



## 1.5. Conclusion

As the religious buildings are at relatively big distance from the Old City (around 55m), it is considered that if the highest point of the temples is up to 3m under the lowest point of the walls, they will not have a negative impact on the skyline.

## 1.6. Guidelines

*Guideline 1:* The religious building to rise to level up to 3m under the lower point of the walls of the Old City standing across the street.

## 2. Local architectural tradition

### 2.1. Framework

The issue of multi faith architecture is that challenges the traditional understanding of a single faith place for worshipping (church, mosque or synagogue).

In order to try to make people relate more easily to the new type of place, it is important that the appearance of each religious building is simultaneously associated with its typology and corresponds to the common expectation of people

### 2.2. Aims

The aims of the study is analyzing shapes ( in plan and elevation) characterize the local architectural style of all three building typologies- church, mosque, synagogue; and later on to apply those characteristic to the thesis project. The analysis is also used to understand how the buildings should be designed so they compose a system (religious complex) but also mean while express and preserve the individual characteristics of each typology.

### 2.3. Methods of work

With the help of pictures there were analyzed plans and façade elevations of the most important in the area temples.

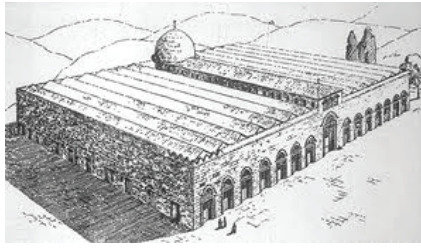
On the plans there were made comments mainly about the shape of the building footprint.

From the pictures of the temples' are redrawn the shapes of the buildings' elevations, type of arches that have been used as well as other specific decorative or other features. The specific characteristics are summarized at the end of each building type analysis.

At the end of the entire study in a comparative way are presented the three summaries of describing three building typologies.

### 2.4. Graphical representation of data

# MOSQUES TYPICAL FEATURES



## AL-AQSA MOSQUE

Location: **The Old City of Jerusalem**

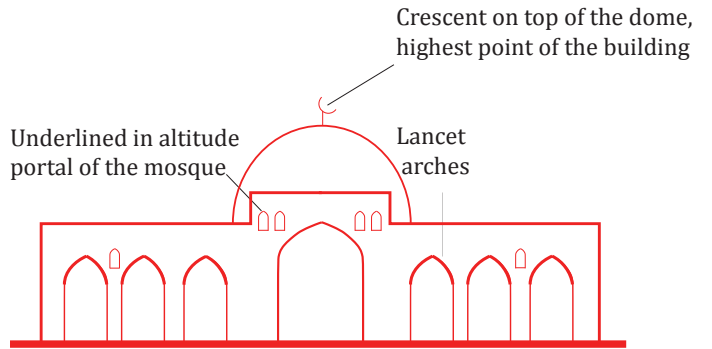
Architectural Style: **Early Islamic**

Built: **705**

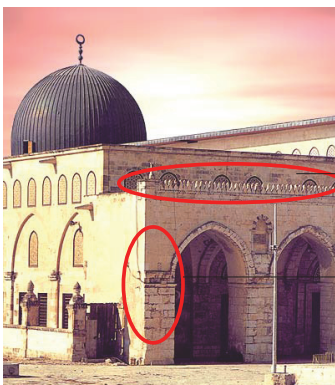
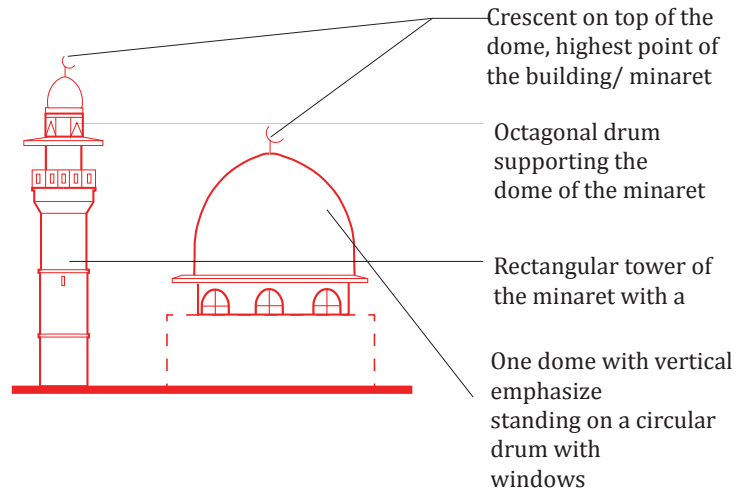
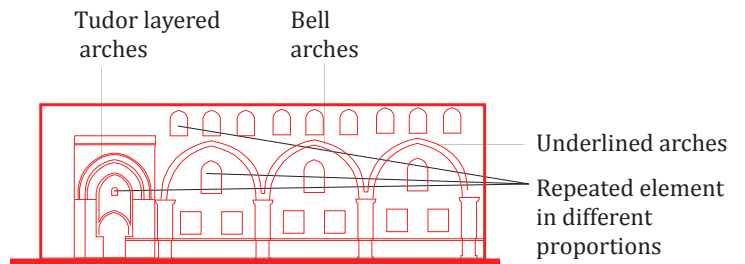
Materials: **Limestone, Gold, lead, marble**



View to the mosque from the main square

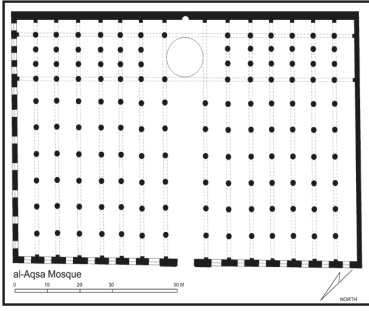


View to side entrance of the mosque



Crown

Differently worked stone.  
Ruff in the base;  
Fine above



Plan of the mosque - Peristyle



Interior of the peristyle mosque



Ablution fountain in front of the main entrance of the mosque.

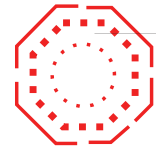
Around a central circular water fountain are organized seats with taps.



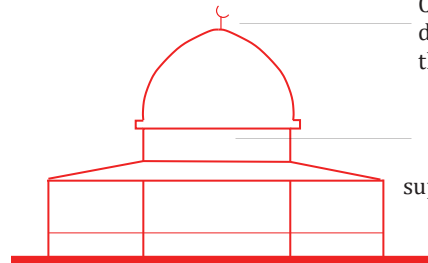
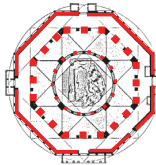


## DOME OF THE ROCK

Location: **The Old City of Jerusalem**  
 Architectural Style: **Umayyad**  
 Built: **691**  
 Materials: **Stone, Ceramic tiles**

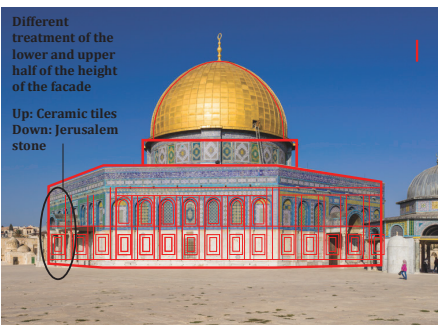


Octagonal peristyle building plan.



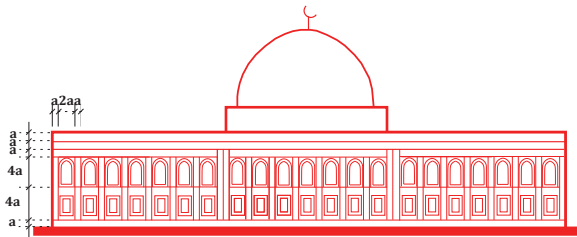
Crescent on top of the dome, highest point of the building

Circular tall drum without windows supporting tall dome.

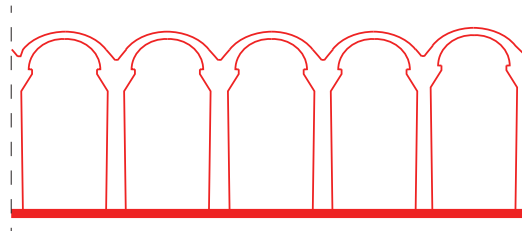


Different treatment of the lower and upper half of the height of the facade

Up: Ceramic tiles  
Down: Jerusalem stone

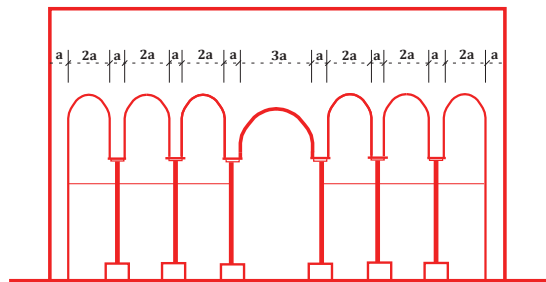
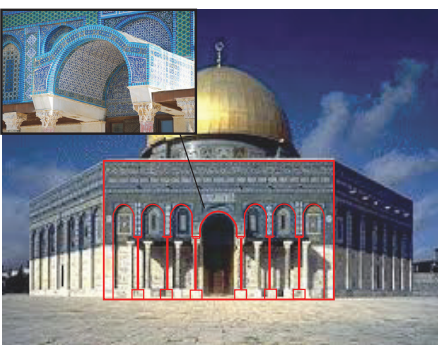


Each side of the octagon is symmetrical-divided into seven "span". In height there is also proportional division of the facade.



The peristyle interior of the mosque. The colonnade supporting the drum.

Bell arches.



Underlying the entrance of the mosque both in size and architectural decoration. (The upper part of that facade is a cantilever supported by the columns unlike the rest of the facades which are plain).



Calligraphy

Symmetrical decoration organized in rectangles and squares

Symmetrical decoration

Symmetrical decoration and Calligraphy

Symmetrical decoration organized in squares in 90 and 45 degrees

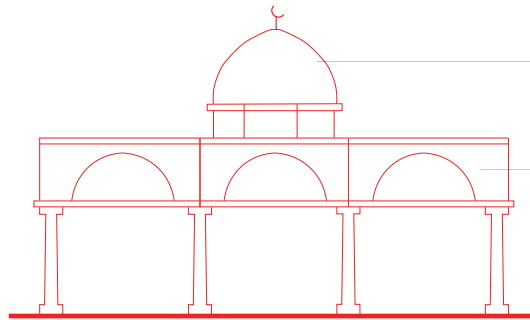


The ablution fountain in front of the main square of the mosque.

It is a miniature of the mosque itself.

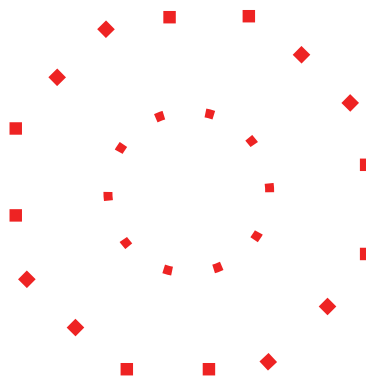


Upper part: Jerusalem stone  
Columns: Marble

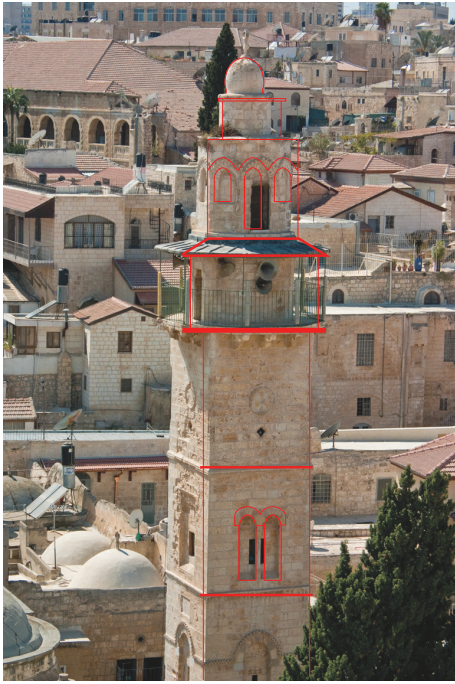


Tall dome supported by an octagonal drum

Single bell arches above the columns

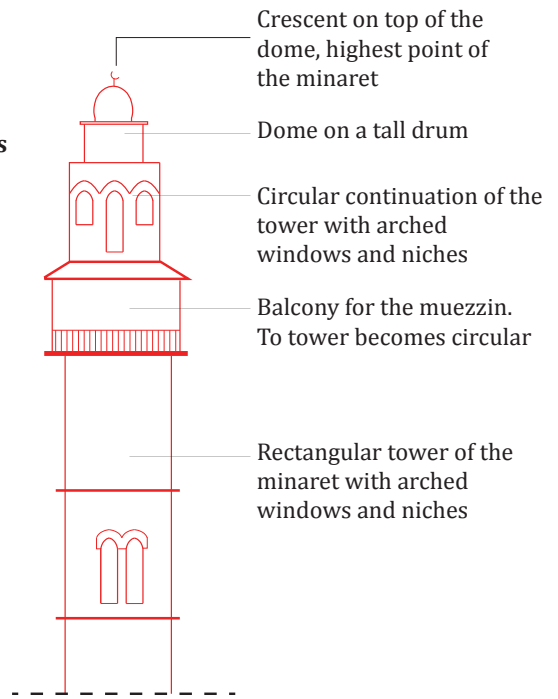


Plan of the ablution fountain - Peristyle



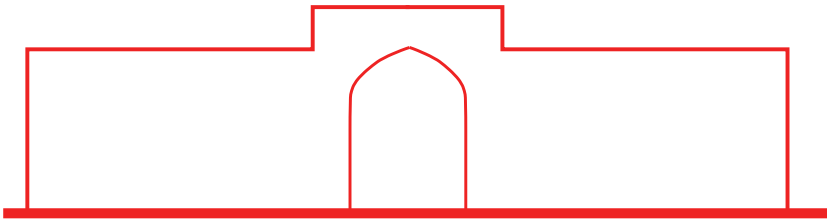
## MOSQUE OF OMAR

Location: **The Old City of Jerusalem**  
Architectural Style: **Ayyubids**  
Built: **1193**  
Materials: **Stone**



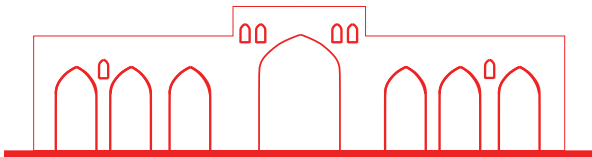
# MOSQUES SUMMARY: TYPICAL FEATURES

## 1. FRONT FAÇADE - Most often rectangular or square with strongly emphasized entrance

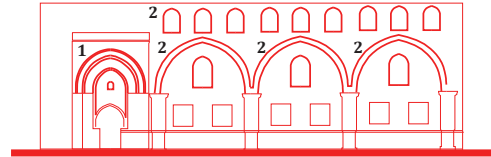


## 2. TYPE OF ARCHES, USE

Lancet (layered) arches- collonades, openings, main entrance

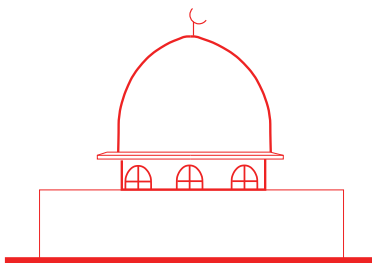


(1) Tudor (layered) arches- collonades, openings, main entrance  
 (2) Bell (layered) arches- collonades, openings, main entrance

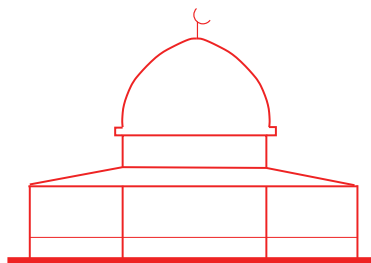


## 3. ROOFING

Flat roof with one or more domes on a drum



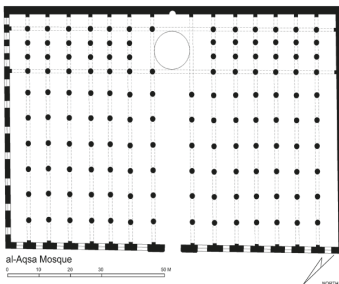
Drum with openings



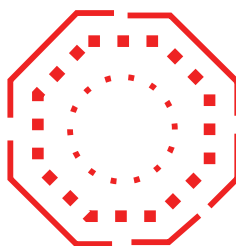
Drum without openings

## 4. PLAN

Rectangular peristyle plan



Central peristyle plan



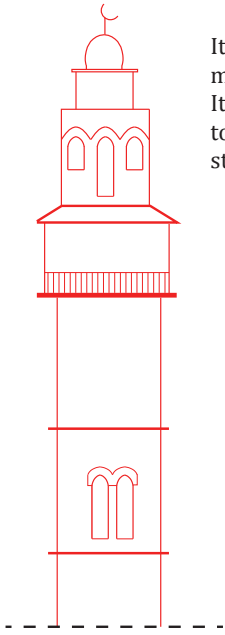
## 5. PRAYING ORIENTATION

The worshipers are always facing the Qbla Wall ( the sacred direction)



## 6. TOWER, VERTICAL ELEMENT- MINARET.

It could be free standing or attached to the mosque.  
It is also often domed or with pitched tower like-roof depending on the local style.

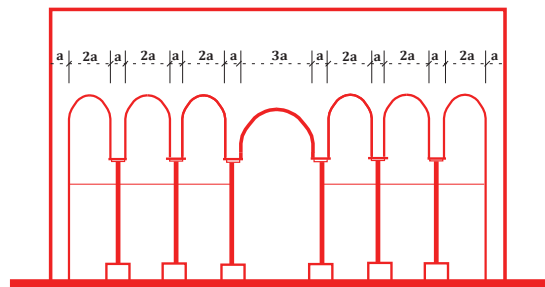


## 7. EXTERIOR DECORATION

Architectural elements



Crown

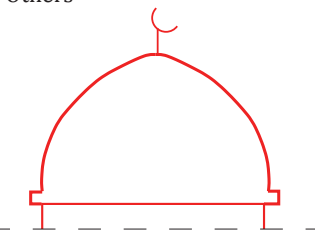


Arches, Symmetrical compositions



Change in material (Treatment)

Others



Crescent on the highest point of the mosque



Calligraphy

Symmetrical decoration organized in rectangles and squares

Symmetrical decoration

Symmetrical decoration and Calligraphy

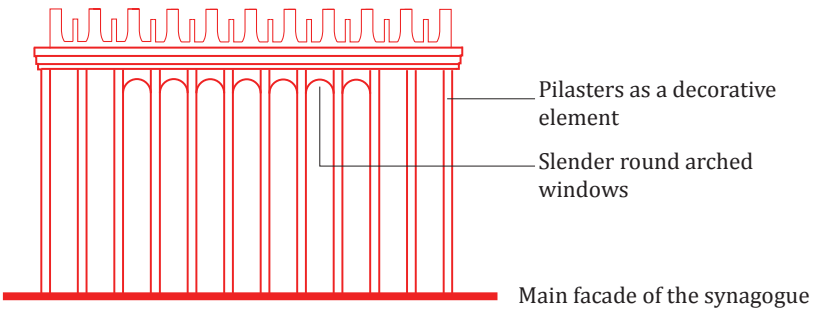
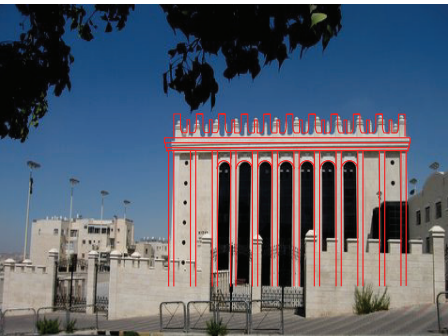
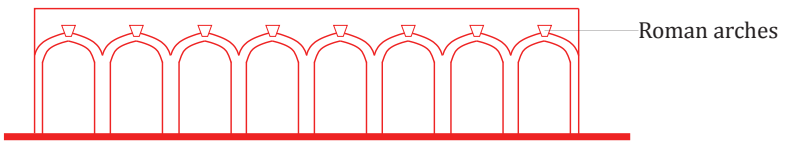
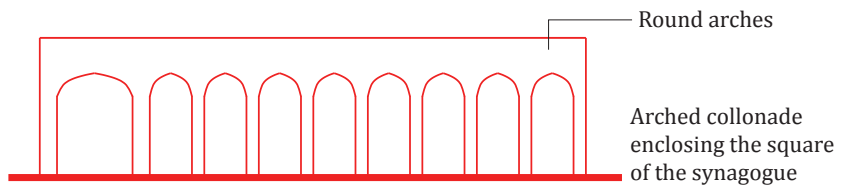
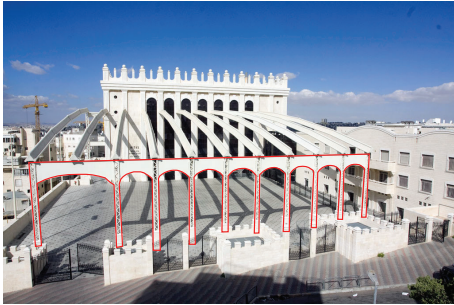
Symmetrical decoration organized in squares in 90 and 45 degrees

For both interior and exterior decoration

# SYNAGOGUES



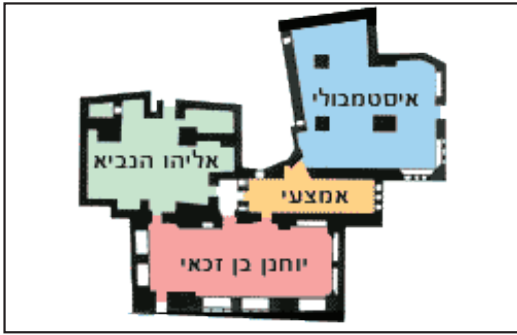
**BELZ GREAT SYNAGOGUE**  
 Location: **New City of Jerusalem**  
 Architectural style: **Undefined**  
 Built: **2000**  
 Materials: **Stone, Steel, Concrete**



Memorah (candle stick) as a decorative element on the main facade



When seating people are facing each other. Having eye contact will increase the feeling of community. The bimah is placed in the middle.



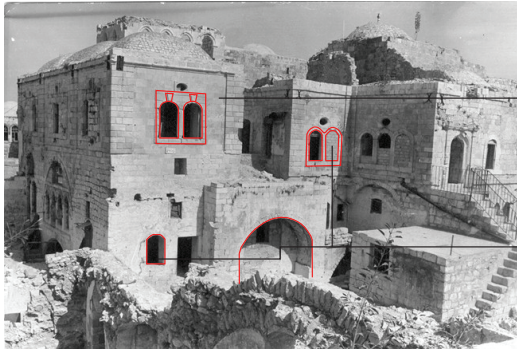
**FOUR SEPHARDIC SYNAGOGUE, Orthodox Judaism**

Location: **The Old City of Jerusalem**

Architectural style: **Undefined**

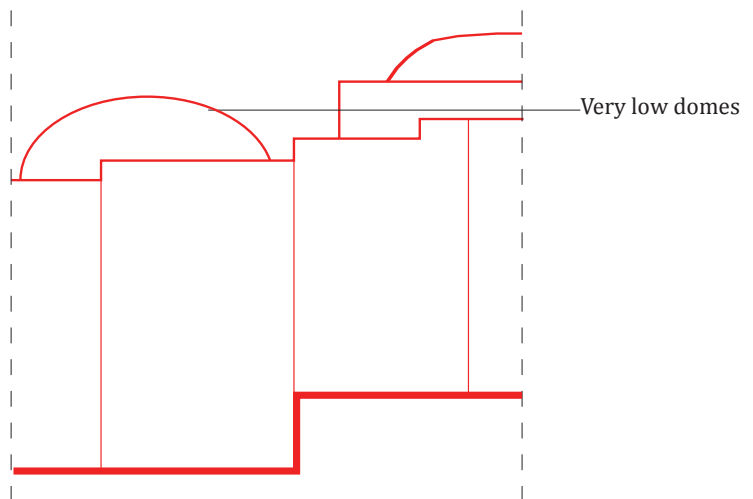
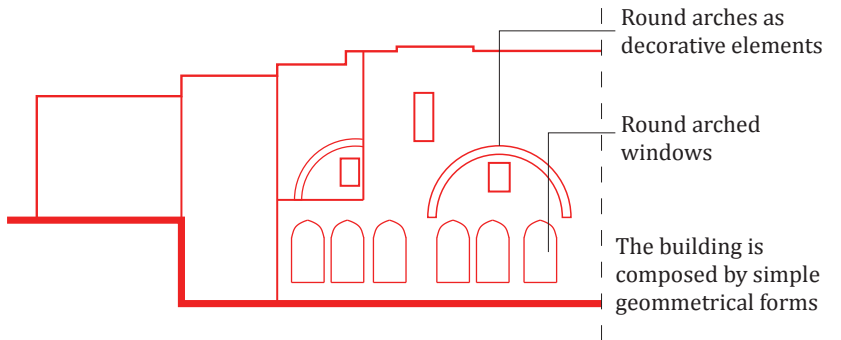
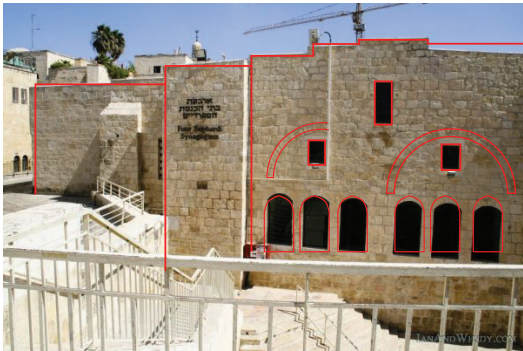
Built: **Completed 1835**

Materials: **Stone**



Roman arched windows

Round arched windows





Pendentives

Torah arch placed in a niche

Facing seats so people have eye contact during service

Synagogue 1



Torah arch placed in a niche

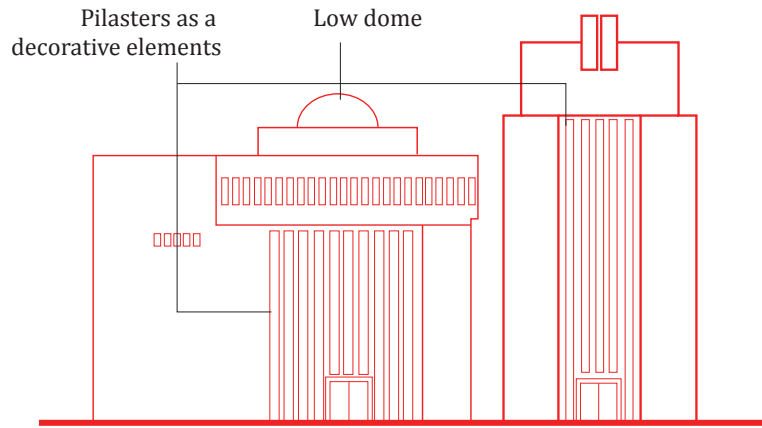
Facing seats so people have eye contact during service

Synagogue 2

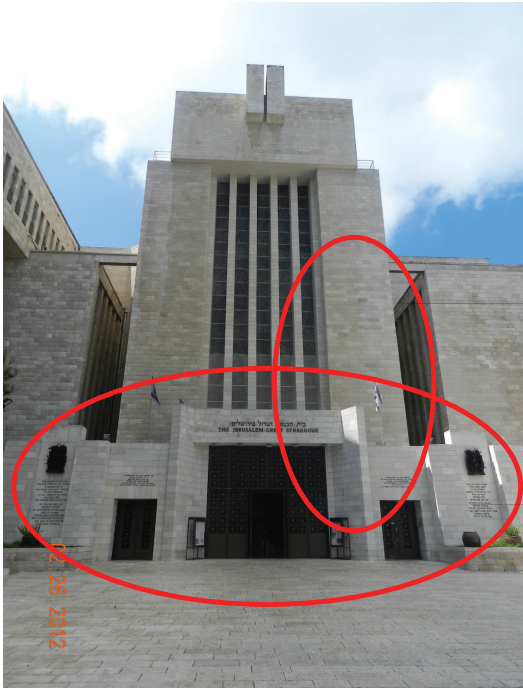




**GREAT SYNAGOGUE, Orthodox Judaism**  
 Location: **New City of Jerusalem**  
 Architectural style: **Undefined**  
 Built: **1982**  
 Materials: **Stone**



The building is composed by simple geometrical forms.  
 Both entrances are underlined.



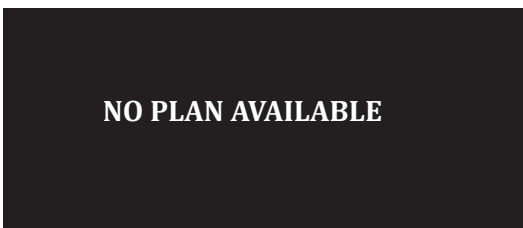
Differently worked stone in the ground floor and in the upper ones

Three entrances.  
 The central one is underlined with vertical halls stepping out of the main facade.



Round arches in the interior

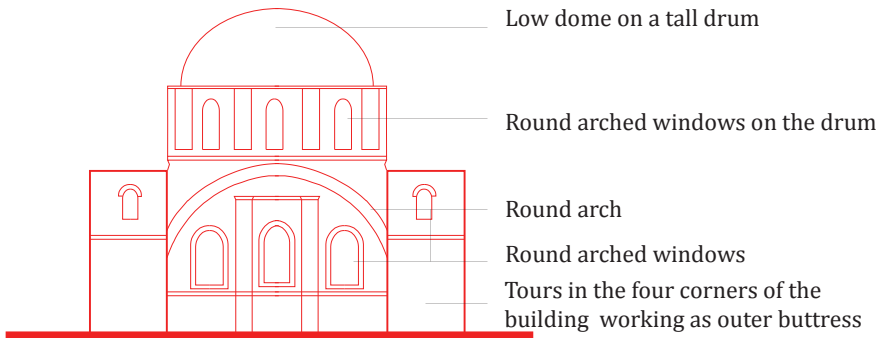
Stained glass as decorative element



**NO PLAN AVAILABLE**



**HURVA SYNAGOGUE, Orthodox Judaism**  
 Location: **The Old City of Jerusalem**  
 Architectural style: **Neo-Byzantine**  
 Built: **1856**  
 Materials: **Stone**



The building facade is composed by clear geometrical forms.



Judging by the building elevation, the synagogue has a central plan.

The bimah is again placed in the center of the hall. In this example though all the seats are facing the Torah Arch.



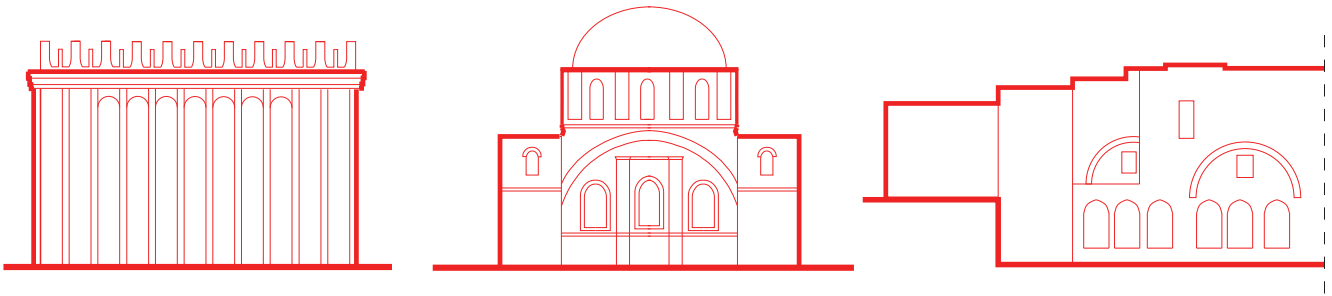
Round arched windows in the interior



Round arched windows in the interior

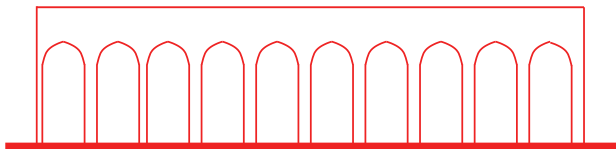
# SYNAGOGUES SUMMARY: TYPICAL FEATURES

1. FRONT FAÇADE- Most often rectangular/ square one. The building is often composed by clear geometrical elements

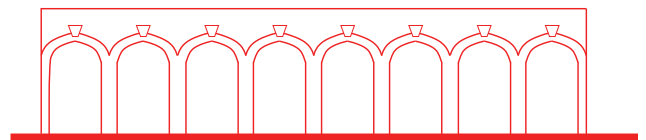


## 2. TYPE OF ARCHES, USE

Round arches- collonades, openings, main entrance

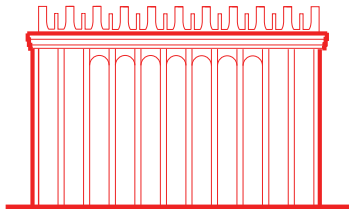


Roman arches- collonades, openings, main entrance

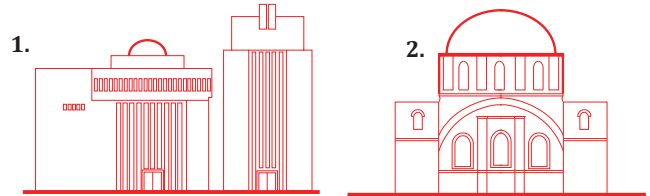


## 3. ROOFING

Flat roof

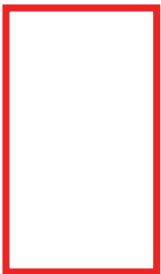


Domes- low one (1) , tall one on a drum (2)



## 4. PLAN

Rectangular



Central



### 5. Seats orientation



Seats facing each other

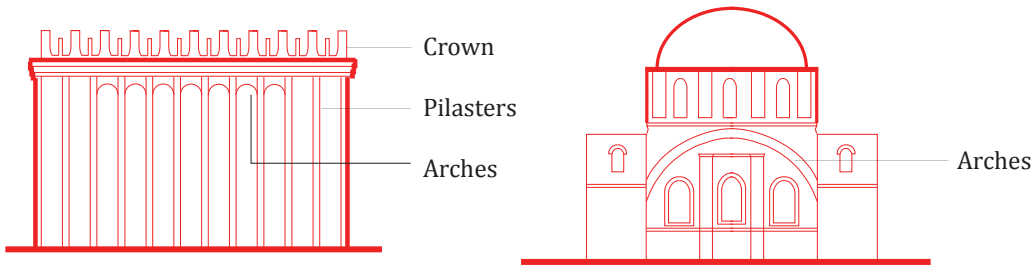


Seats facing the Torah Arch

### 6. TOWER, VERTICAL ELEMENT - NO

### 7. EXTERIOR DECORATION

Architectural elements



Change in material (Treatment)



Others



Memorah

### 8. INTERIOR DECORATION

Stainless glass



Architectural elements: arched windows and niches



# CHURCHES

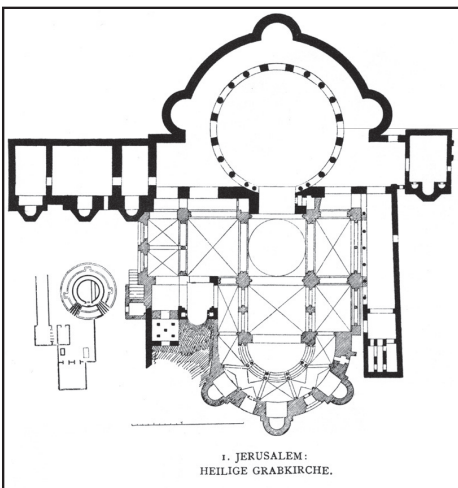
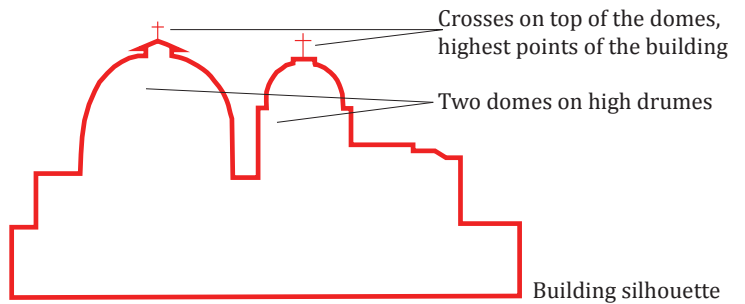
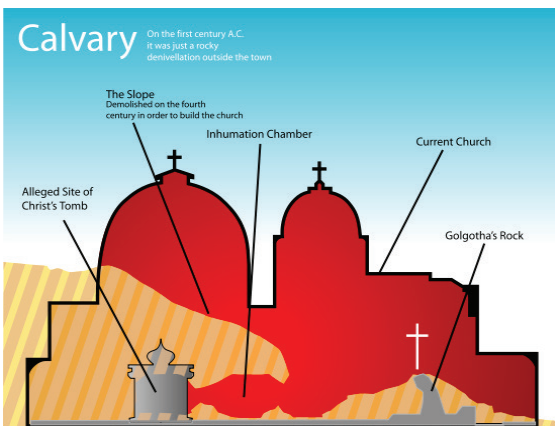


## CHURCH OF THE HOLY SEPULCHER, Orthodox church

Location: **Old City of Jerusalem**  
 Architectural style: **Romanesque, Baroque**  
 Built: **335**  
 Materials: **Stone, wood**



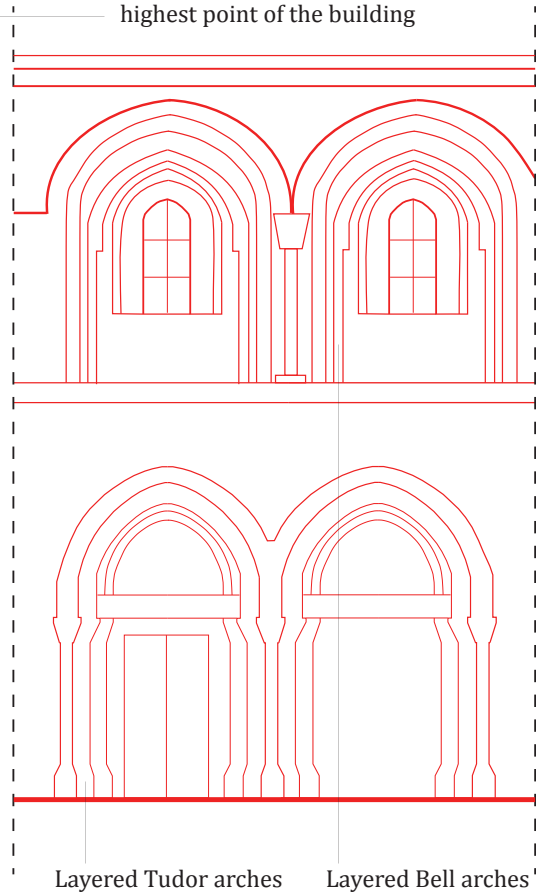
Altar niche expressed in the architecture



Center of the church surrounded by a row of columns supporting the dome



Cross on top of the dome,  
highest point of the building



Layered Tudor arches

Layered Bell arches



The dome is supported on a tall drum. The latter has many round arched voides and niches.

The sun-light penetrates from the top of the dome through a lantern-like extension.

The light used as a decorative element symbolizing God.



Round arched colonnade in two levels surrounding the center of the church where is placed the tomb of Jesus



**CATHEDRAL OF SAINT JAMES, Armenian Orthodox Church**

Location: **Old City of Jerusalem**  
Architectural style: **Domed basilica**  
Built: **12th century**  
Materials: **Stone**

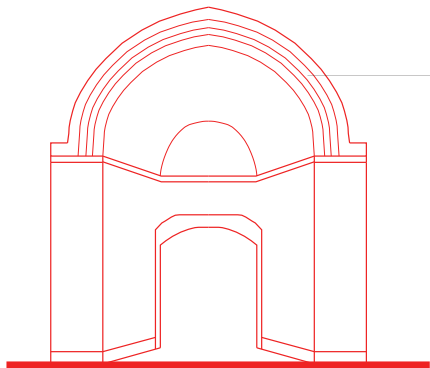


Cross on top of the dome,  
highest point of the building

The circular central part of the church  
and the towers in the four corners are  
covered with a tower-like pitched roof.

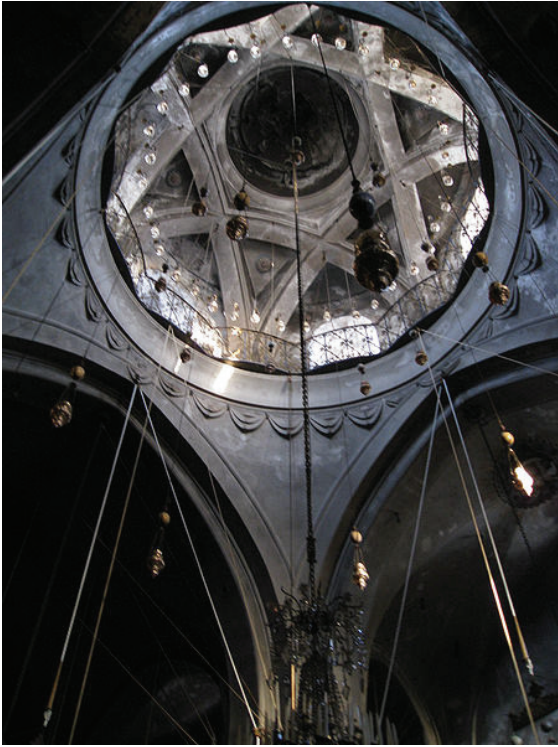


Lancet arched colonnade



Layer lancet arched  
main entrance

**NO PLAN AVAILABLE**



Interior view to the tower-like roof.

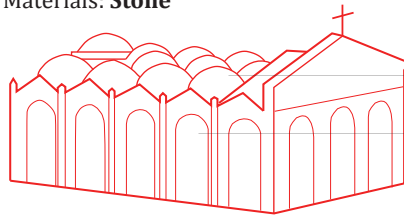
It is supported on pendentives.  
There is also a drum with windows from which  
penetrate sun light.





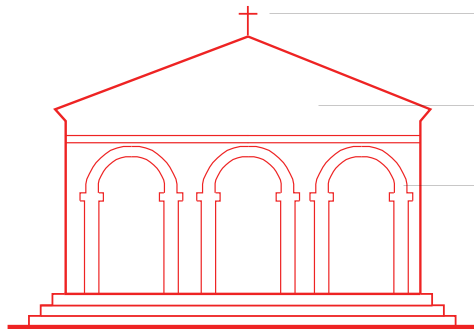
**CHURCH OF ALL NATIONS / BASILICA OF AGONY**

Location: **Mount of Olives**  
 Architectural style: **Byzantine**  
 Built: **First church on the site- 4th century, Second 12th century, Current church finished in 1924**  
 Materials: **Stone**



Multiple domes on pendentives

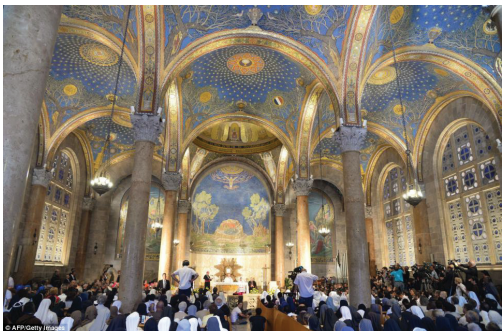
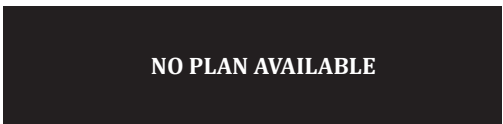
Round arched windows



Cross on the top of the main facade, highest point of the building

Pitched roof-like front facade

Bell-arched colonnade on the main entrance



Interior view of the pendentives.  
 Decoration in gold and blue representing "The Poor Bible"  
 (depicted parts of the Bible)



Decorative elements of representing "The Poor Bible"  
 (depicted parts of the Bible)



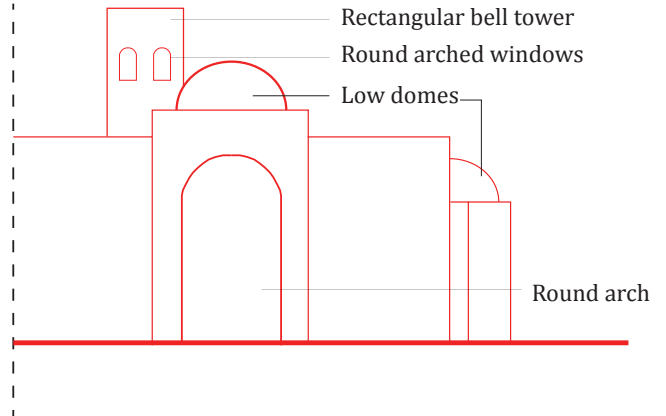
**SAINT ANDREW CHURCH, Scottish church**

Location: **South-West of the Old City, relative distance from it 400m**

Architectural style: **Undefined**

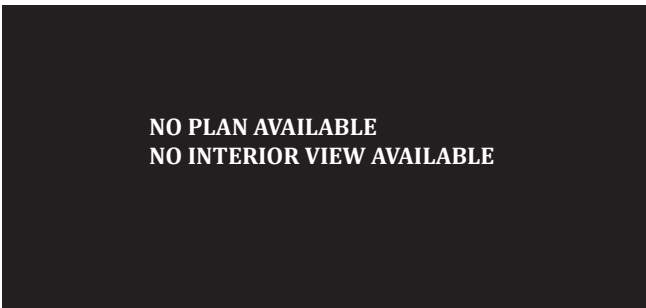
Built: **1930**

Materials: **Stone**



Cross on top of the tower,  
highest point of the building

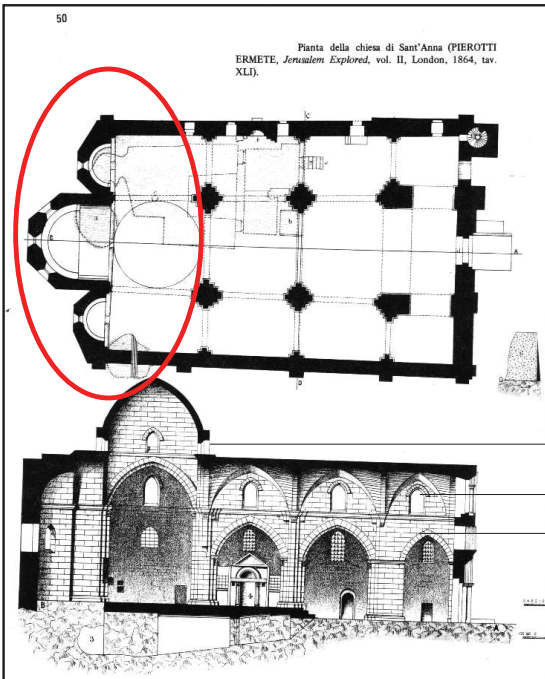
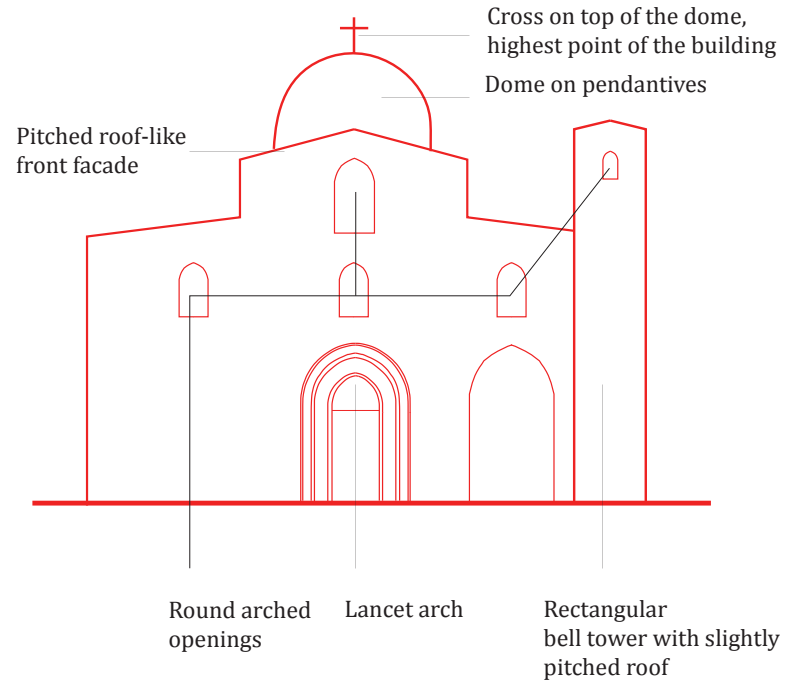
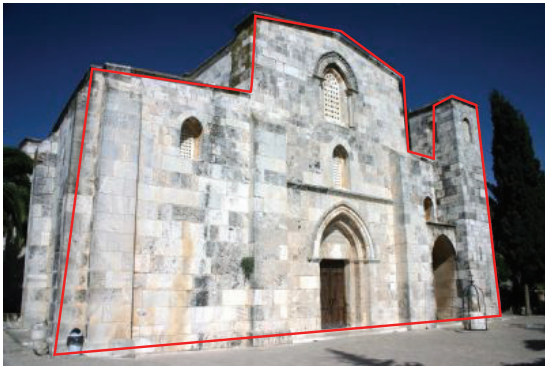
The building facade is composed by simple geometrical figures.  
All the openings on the facades are round arches.





**SAINT ANNE'S CHURCH, Roman Catholic church**

Location: **Old City of Jerusalem**  
 Architectural style: **Romanesque**  
 Built: **1138 over the shrines of 5th century**  
 Materials: **Stone**



Drum with windows from which light penetrates  
 Round arched windows  
 Lancet arches



View of the interior:  
 Multiple layered Lancet arches.

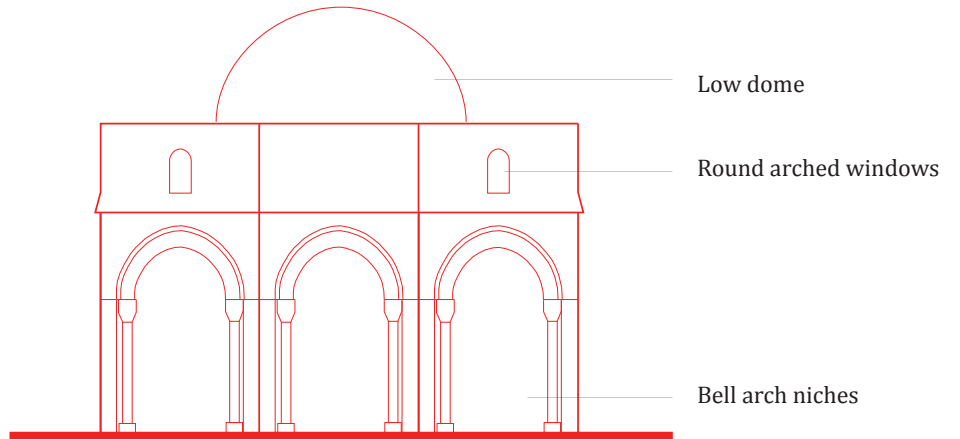
## CHAPEL OF ASCENSION

Location: **Mount of Olives**

Architectural style: **Romanesque**

Built: **First church 390, Current church 1150**

Materials: **Stone**



Round arched windows from which penetrate light in the interior.



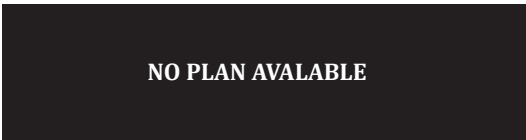
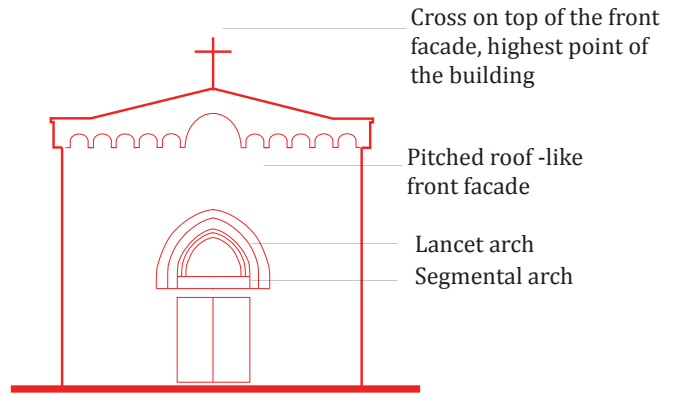
**CHURCH OF THE CONDEMNATION AND IMPOSITION OF THE CROSS,  
Roman Catholic Church**

Location: **Old City of Jerusalem**

Architectural style: **Byzantine**

Built: **First church in Byzantine era, the current church is completed in 1904**

Materials: **Stone**



Interior view  
View to the pendentives and the altar



Depiction of crucifixion of Jesus



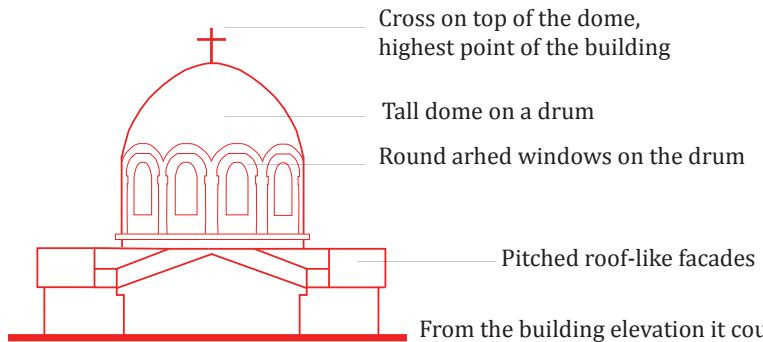
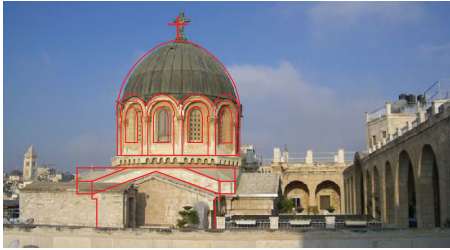
**ECCE HOMO, Roman Catholic Church**

Location: **Old City of Jerusalem**

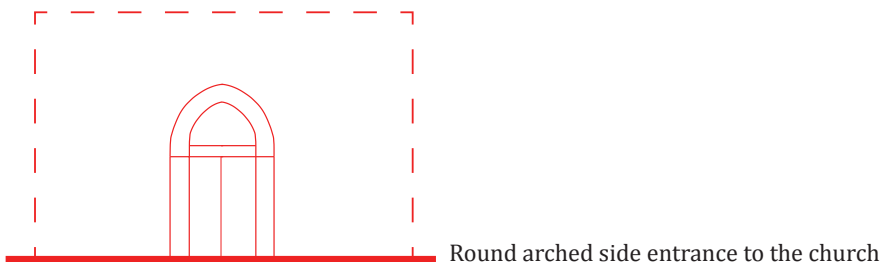
Architectural style: **Undefined**

Built: **1587**

Materials: **Stone**



From the building elevation it could be concluded that the church has a central plan



**NO PLAN AVAILABLE**



View from the interior.  
View to the altar niche and the light penetrating from the windows of the drum.



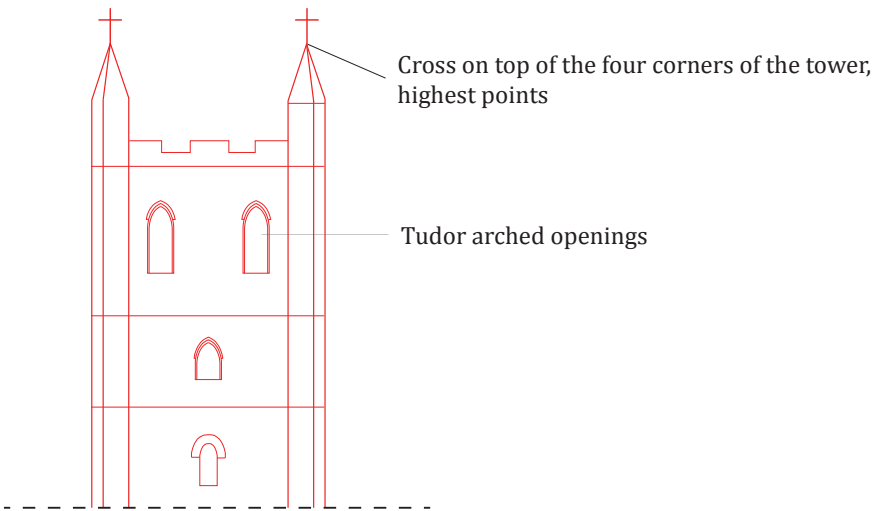
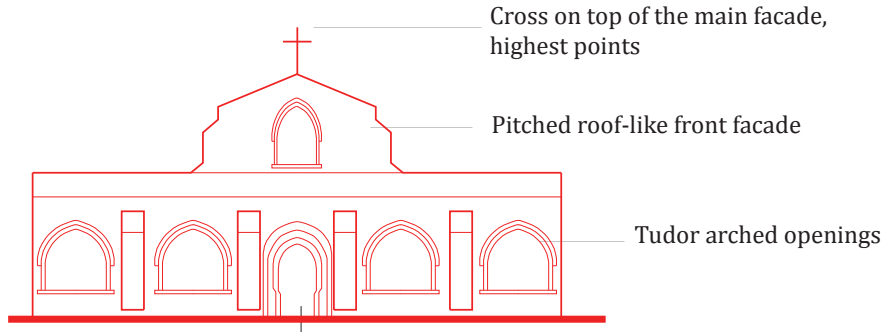
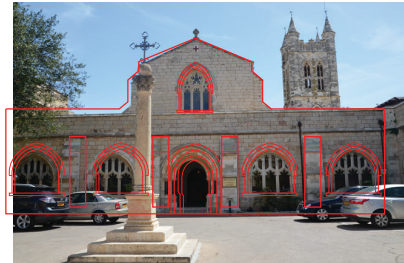
### SAINT GEORGE'S CATHEDRAL, Anglican Episcopal Cathedral

Location: North of the Old City of Jerusalem, approximate distance 500m

Architectural style: Undefined

Built: Late 19th century

Materials: Stone



NO PLAN AVAILABLE



View to the interior  
View to the altar and the Tudor arches in the interior



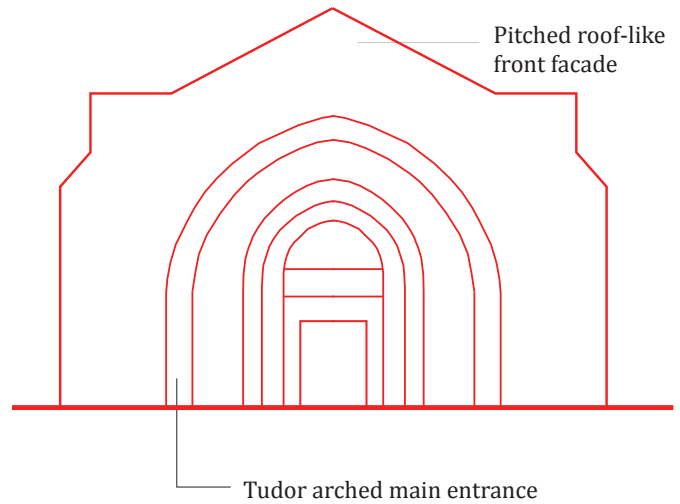
## TOMB OF VIRGIN MARY

Location: **at the foot of Mount of Olives**

Architectural style: **Undefined**

Built: **Late 5th century**

Materials: **Stone**



View to the interior



View to the interior





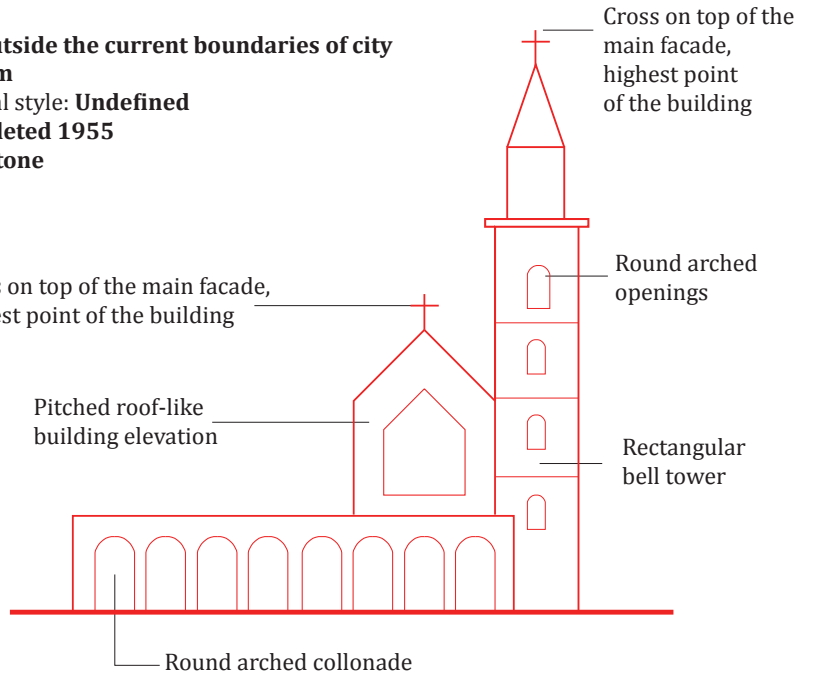
**CHURCH OF VISITATION, Roman Catholic church**

Location: **outside the current boundaries of city of Jerusalem**

Architectural style: **Undefined**

Built: **completed 1955**

Materials: **Stone**



**Exterior decoration: depicted Biblical scenes**



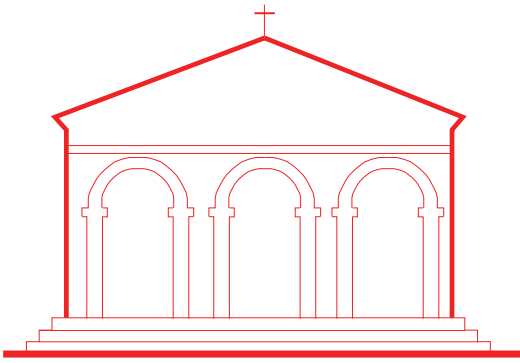
**Interior decoration: depicted Biblical scenes**



**Interior decoratin - altar: depicted Biblical scenes**

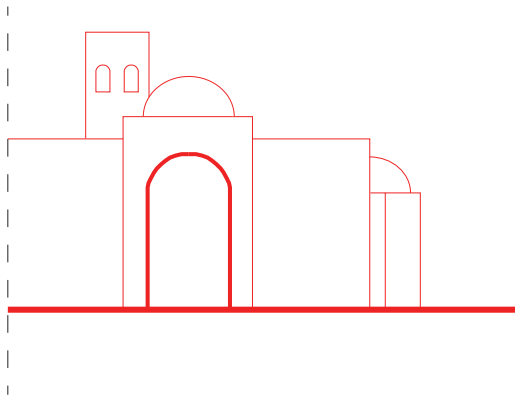
# CHURCHES SUMMARY: TYPICAL FEATURES

## 1. FRONT FAÇADE - Pitched roof-like outline of the main facade



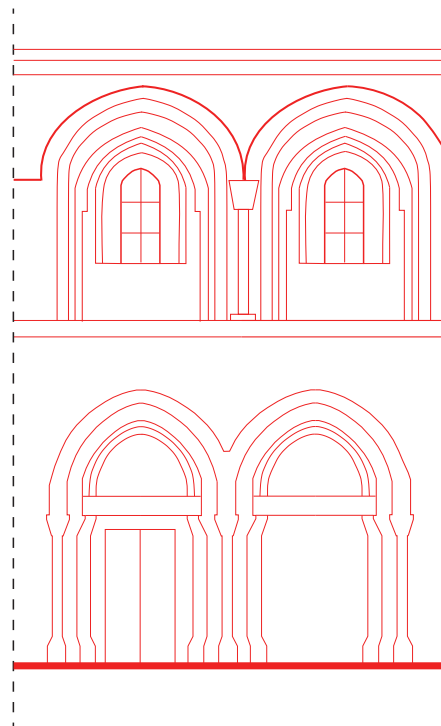
## 2. TYPE OF ARCHES, USE

Round arch: collonade, openings, entrances



( Layered ) Bell arches: openings, entrances (top)

( Layered ) Tudor arches: openings, entrances (bottom)



## 3. ROOFING

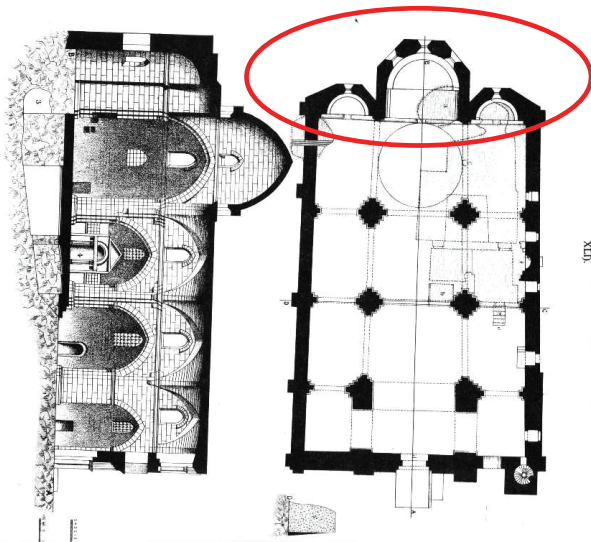
Pitched roof only



Pitched roof with a central dome



#### 4. PLAN - Central or Rectangular

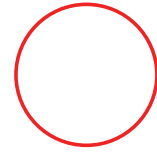


50

Plano della chiesa di S. Spirito (GREGOTTI)  
EMERLE, *Archtecture Explorées*, vol. II, London, 1864, tav.  
XLII.



Central square plan  
( ECCE HOMO )



Central circular plan  
( CHAPEL OF ASCENSION )

Rectangular plan with expressed in the facade and plan East end

#### 5. SEATS ORIENTATION

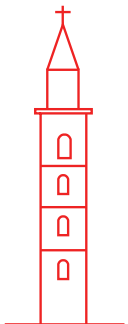
Seats are always facing the altar



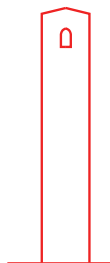
#### 6. TOWER, VERTICAL ELEMENT

It could be free standing or attached to the church

Rectangular/ square or Circular in plan



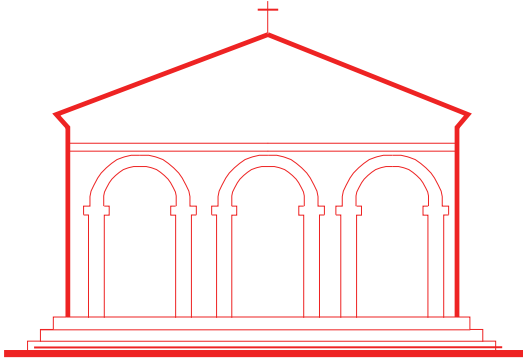
With pitched  
tower-like roof



With slightly pitched roof

## 7. EXTERIOR DECORATION

Architectural elements: (layered) arched colonnades, windows and niches



Others: depicted Biblical scenes



## 8. INTERIOR DECORATION



Architectural elements: (layered) arched colonnades, windows and niches



Depicted Biblical scenes



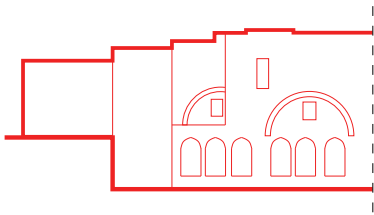
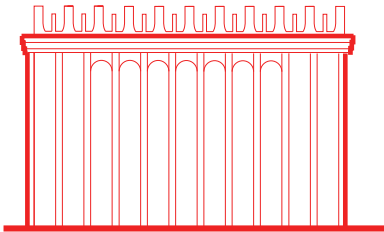
Light coming from above, usually the drum of the dome and/or windows.  
The light is a symbol of God in Christianity

# OVERALL SUMMARY

## 1. FRONT FAÇADE

### SYNAGOGUES

Rectangular/ square one.  
The building are composed by simple geometrical forms.



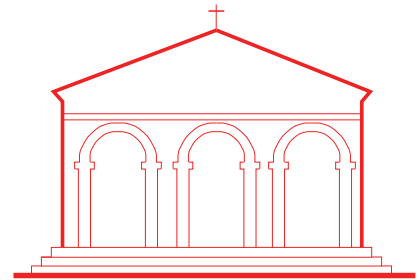
### MOSQUE

Rectangular/ square one with strongly emphasized entrance.



### CHURCH

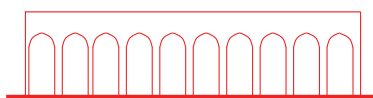
Pitched roof-like outline of the main facade with or without a central dome.



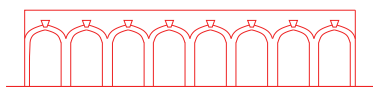
## 2. TYPE OF ARCHES, USE

### SYNAGOGUES

Round arches- collonades,  
openings, main entrance

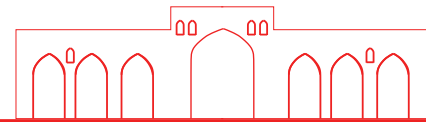


Roman arches- collonades,  
openings, main entrance



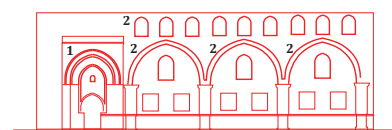
### MOSQUE

Lancet (layered) arches- collonades,  
openings, main entrance



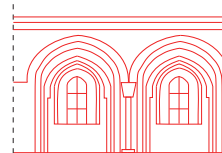
(1) Tudor (layered) arches- collonades,  
openings, main entrance

(2) Bell (layered) arches- collonades,  
openings, main entrance

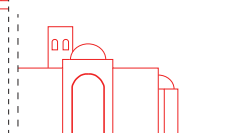
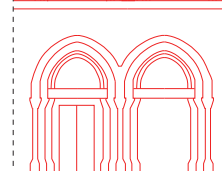


### CHURCH

( Layered ) Bell arches (top):  
openings, entrances  
( Layered ) Tudor arches (bottom):  
openings, entrances

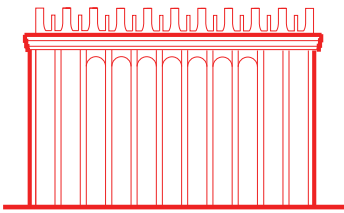


Round arch:  
collonade,  
openings, entrances

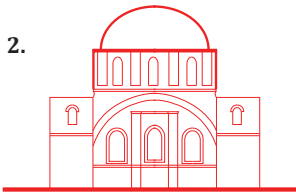
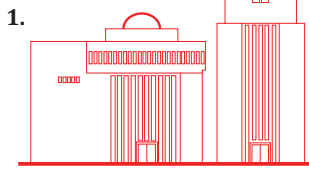


### 3. ROOFING SYNAGOGUES

Flat roof

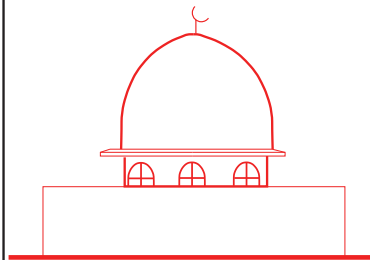


Domes- low one (1), tall one on a drum (2)

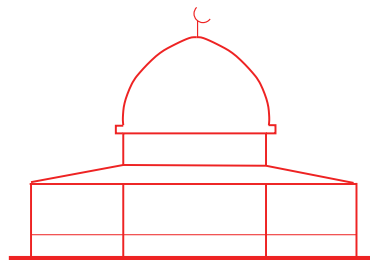


### MOSQUE

Flat roof with one or more domes on a drum



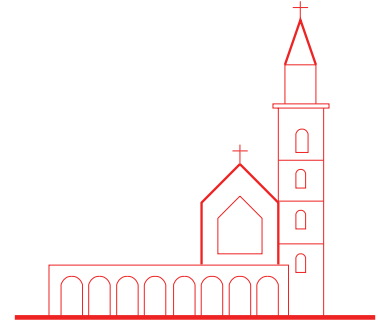
Drum with openings



Drum without openings

### CHURCH

Pitched roof only



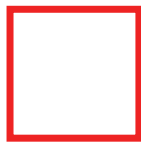
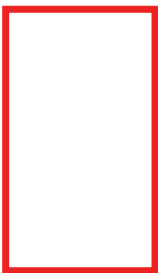
Pitched roof with a central dome



### 4. PLAN SYNAGOGUES

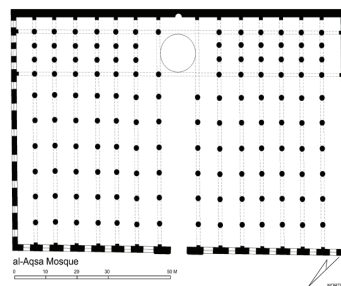
Rectangular

Central

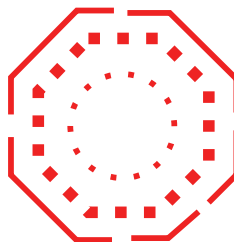


### MOSQUE

Rectangular peristyle plan

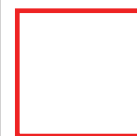
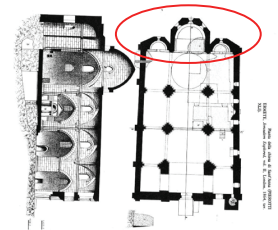


Central peristyle plan

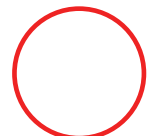


### CHURCH

Rectangular plan with expressed in the facade and plan East end



Central square plan  
( ECCE HOMO )



Central circular plan  
( CHAPEL OF ASCENSION )

## 5. Seats orientation

### SYNAGOGUES



Seats facing each other



Seats facing the Torah Arch

### MOSQUE

The worshipers are always facing the Qbla Wall ( the sacred direction)



### CHURCH

Seats are always facing the altar

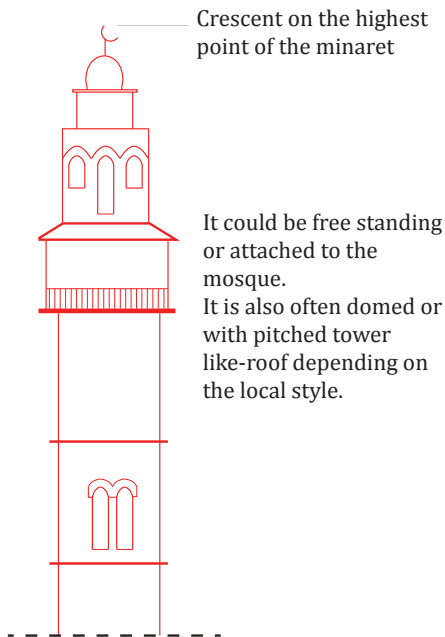


## 6. TOWER, VERTICAL ELEMENT

### SYNAGOGUES: No

### MOSQUE

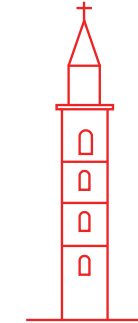
MINARET: It could be free standing or attached to the church



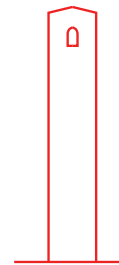
### CHURCH

BELL TOWER: It could be free standing or attached to the church

Rectangular/ square or Circular in plan



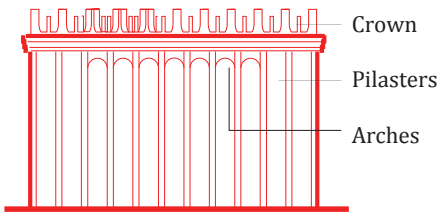
With pitched tower-like roof



With slightly pitched roof

**7. EXTERIOR DECORATION  
SYNAGOGUES**

Architectural elements



Change in material  
(Treatment)



Others -  
religious symbols



Memorah

**8. INTERIOR DECORATION  
SYNAGOGUES**

Architectural elements:  
Arches and niches

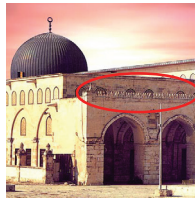


Stainless glass

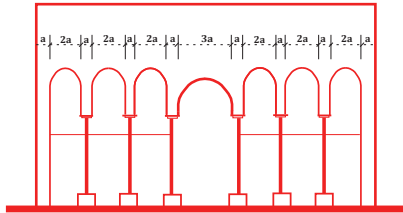


**MOSQUE**

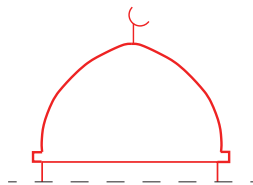
Architectural elements



Crown



Others - religious symbols



Change in material (Treatment)



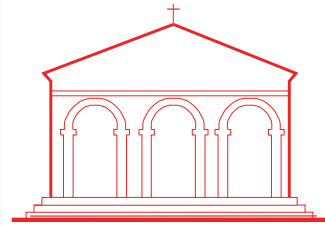
**Both for EXTERIOR and INTERIOR  
decoration**

Top to Bottom:

- Calligraphy
- Symmetrical decoration organized in rectangles and squares
- Symmetrical decoration
- Symmetrical decoration and Calligraphy
- Symmetrical decoration organized in squares in 90 and 45 degrees

**CHURCH**

Architectural elements



(Layered) arched colonnades,  
windows and niches

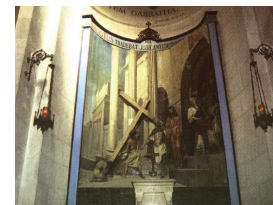
Others



Depicted Biblical scenes

**CHURCH**

(layered) arched  
colonnades, windows and niches



Depicted  
Biblical scenes



Light coming  
from above,  
usually the  
drum of the  
dome  
The light is a  
symbol of God  
in Christianity



From the analysis it could be concluded that the buildings do share many common features but they also have specific for each typology characteristics. This characteristic can be used in the design of the buildings themselves so they correspond to the described aims at point 2.

*Building design*

2.6. Guidelines

*Guideline 1:* The buildings' plan to correspond to the local typology

*Guideline 2:* The buildings' elevation to correspond to the local typology

*Guideline 3:* The external decoration of the buildings to express the characteristics of each typology.

*Guideline 4:* The buildings to have easily distinguishable from each other appearance but to be also design in such a way that they compose one system of different elements; to have unifying features.

**3. Building material**

3.1. Framework

One way to create a system of different architectural elements, as required in point 2, guideline 4, is to apply the same material to all of the volumes.

3.2. Aims

The aim of the study is to demonstrate that in Jerusalem a particular type of stone is very commonly used from ancient times.

3.3. Method

The method of work consists in demonstrating with pictures the uses of Jerusalem stone in modern and ancient buildings in the city.

3.4. Graphical representation

## JERUSALEM STONE

The Jerusalem stone, Meleke in Arab, is the name of various types of pale yellow/creme limestone, dolomitic limestone found in Jerusalem.

The stone is used in religious, public and residential buildings as well as in the construction of the West Wall and according to historical documents also for the construction of the First and Second Temple.

Nowadays all of the buildings in the Old City of Jerusalem, with very few exceptions, are constructed from massive stone. For the construction of the buildings in the new part of Jerusalem the concrete is most commonly used but the stone is used as finishing for the facades.

Different use of Jerusalem Stone:



*Quarries of Solomon in the Old City of Jerusalem*



*The stone in its natural state*



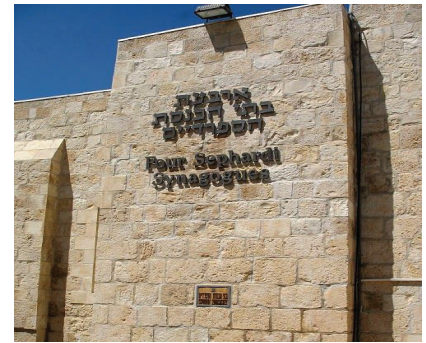
*The stone in its natural state*



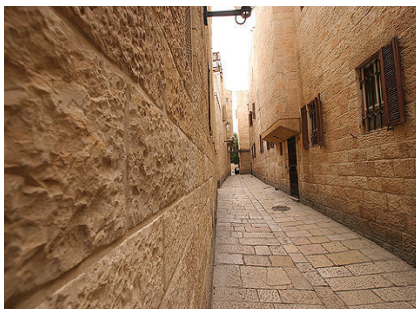
*Western Wall, Old City of Jerusalem*



*Al-Aqsa Mosque, Old City of Jerusalem*



*Four Sephardic Synagogues, Old City of Jerusalem*



*Residential buildings, Old City of Jerusalem*



*Residential buildings, Old City of Jerusalem*



*Jewish cemetery, Old City of Jerusalem*



*Contemporary architecture,  
Public space, Temple Mount*



*Contemporary architecture,  
Belz Great Synagogue, New City of Jerusalem*



*Contemporary architecture  
Hotel building, New City of Jerusalem*

From the analysis we can conclude that the stone is used today as it was in the past. It is applied in all types of: architecture residential, public, special, public spaces.

*Building design*

Beside from these analysis and the previous one (*Local architectural tradition*) it is concluded that the stone is a specific feature of the local style.

### 3.5. Guidelines

*Guideline 1:* To be used Jerusalem stone in the architecture of the religious complex. This will make the buildings correspond better to the local traditions as well as will unify them and make them parts of one system.

## 4. Example of most holy buildings for each religion

### 4.1. Framework

One way to increase the ease of emotional attachment and relation to a place is to re-create significant religious buildings/ places from the past. For this reason there are analyzed the most significant for each typology building. With the following study there are selected specific architectural features. Including them in the design of the religious complex will foster the meaning each congregation group gives to its own temple but also to the entire project site as a whole.

### 4.2. Aims

The aim of the study is to define which are the specific features of the most holy buildings of each religious building typology.

### 4.3. Method

The method of work is the same as in point 2 *Local architectural traditions*. There are selected a range of mosque, churches and synagogues which are considered very important for the respective faith. Based on pictures of plan, facades and perspective, their most specific features are distinguished.

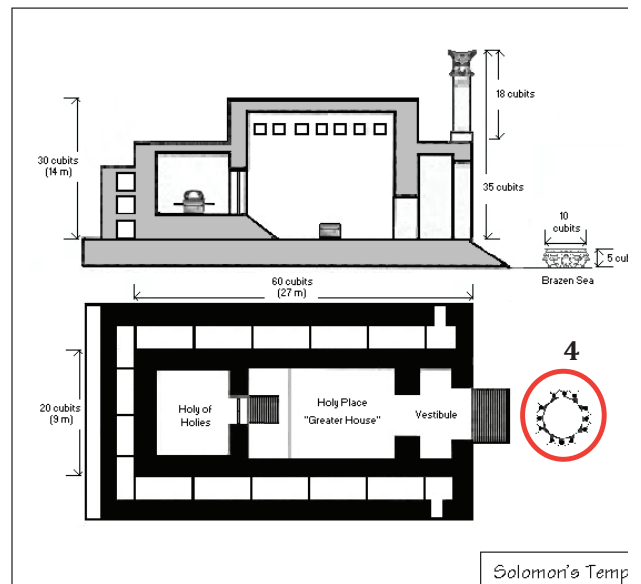
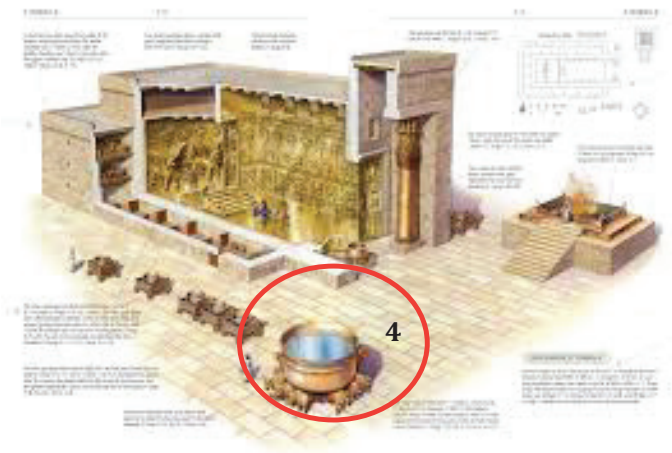
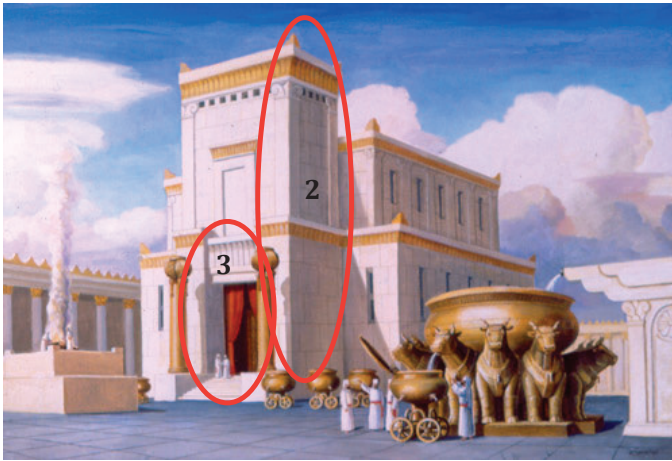
### 4.4. Graphical representation of data

# MOST HOLY SYNAGOGUES

## FIRST SOLOMON'S TEMPLE, Temple Mount, Jerusalem



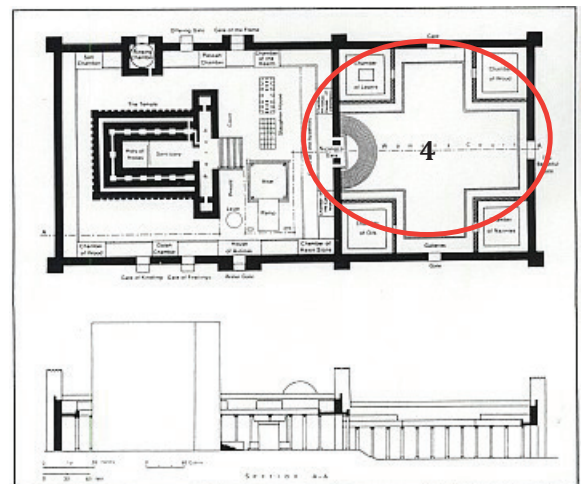
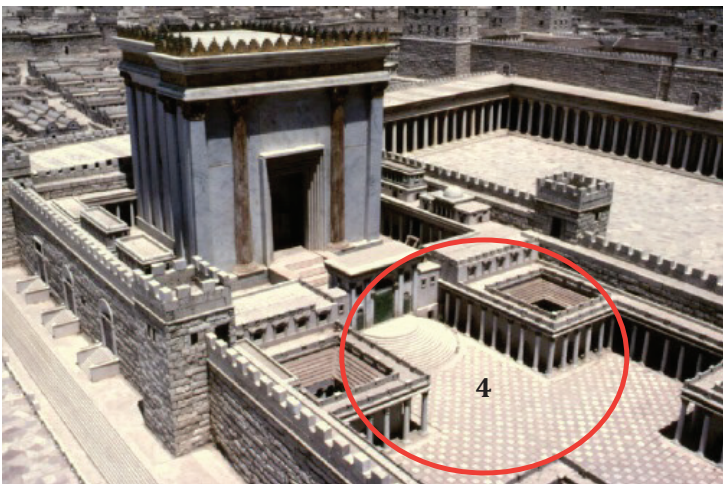
1. Cornice with a crown supported on pilasters (2)
2. Rectangular pilasters
3. Underlined main entrance to the synagogue
4. Ablution fountain in front of the main entrance



**SECOND SOLOMON'S TEMPLE, Temple Mount, Jerusalem**

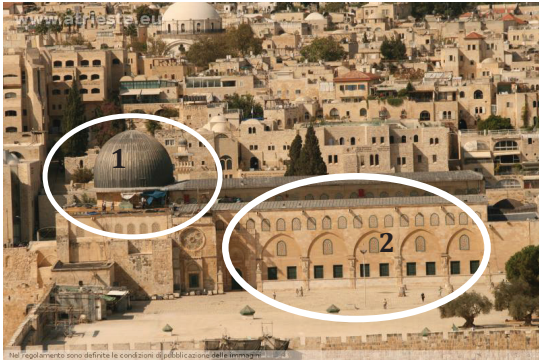


- 1. Cornice with a crown supported on pilasters (2)
- 2. Rectangular and semi-circular pilasters
- 3. Underlined main entrance to the synagogue
- 4. Internal court yard

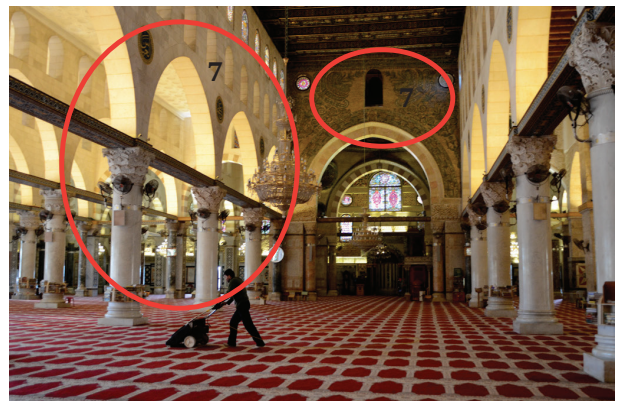
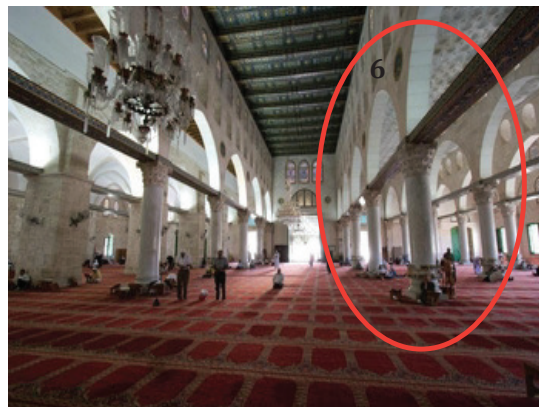


# MOST HOLY MOSQUES

## AL-AQSA MOSQUE, Temple Mount, Jerusalem



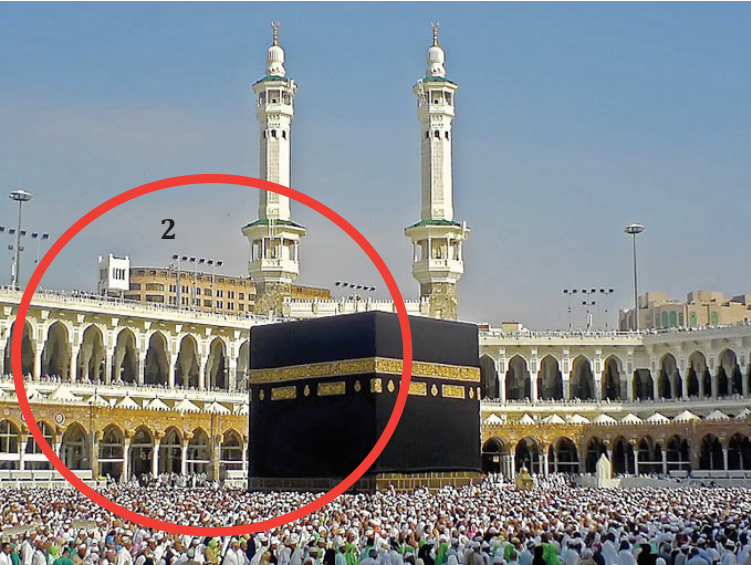
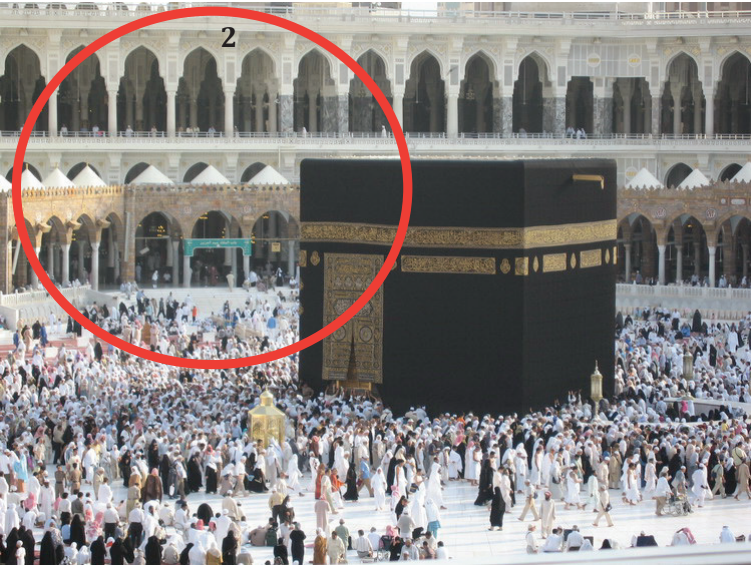
1. Central dome on a drum with windows
2. Symmetrical arched facade
3. Underlined main entrance in altitude and in decoration
4. Crown
5. Courtyard
6. Peristyle interior
7. Symmetrical distribution of arched openings above the arched colonnade in the interior



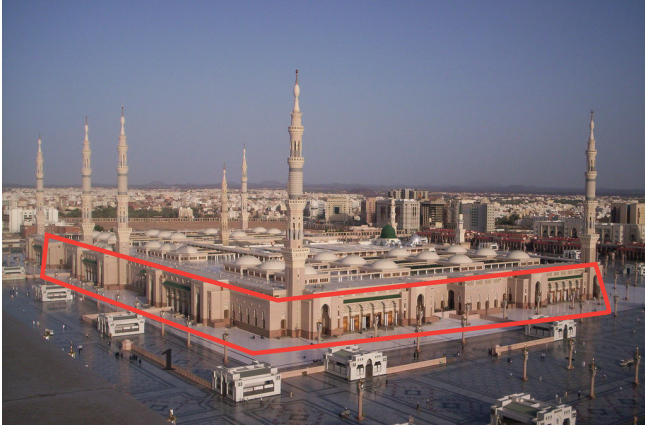
MASJID AL-RAHAM, Macca, Saudi Arabia



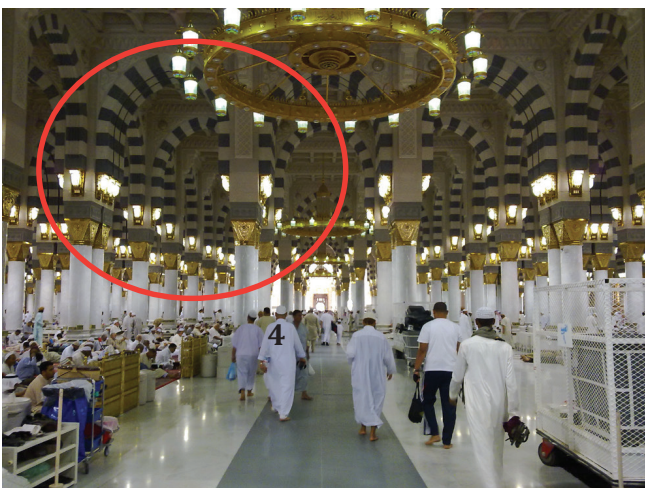
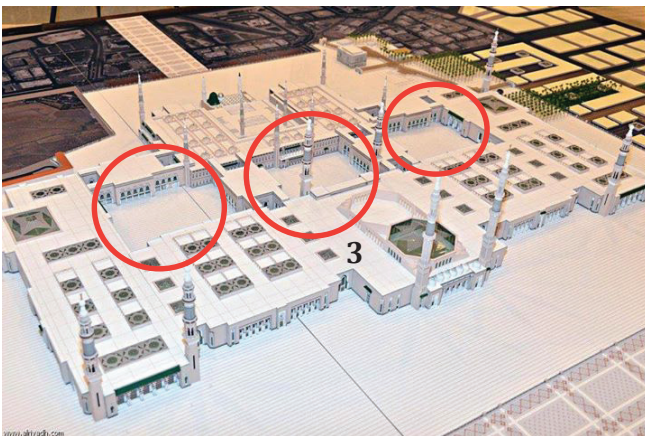
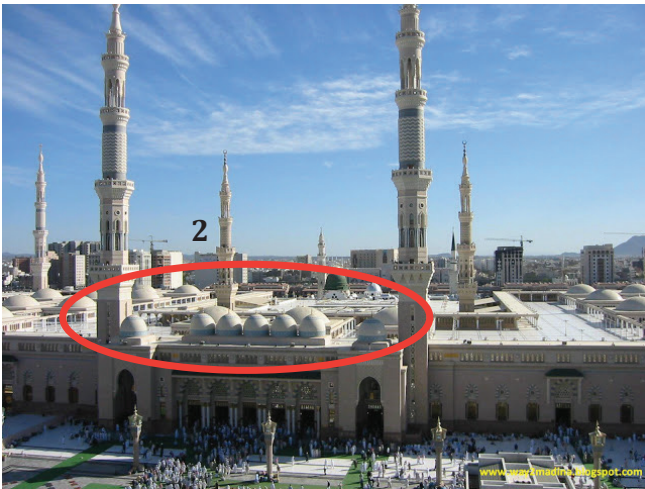
- 1. Undelined main entrance of the mosque in altitude and decoration
- 2. Peristyle court yard of the mosque



## MASJID AN-NABAWI, Medina, Saudi Arabia



1. Undelined main entrance of the mosque in altitude and decoration
2. Multiple domes
3. Peristyle court yard
4. Peristyle interior



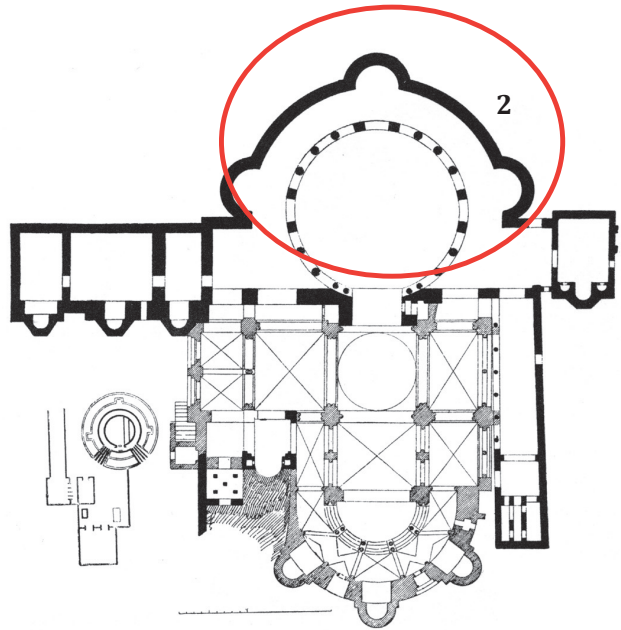


# MOST HOLY CHURCHES

## CHURCH OF THE HOLY SEPULCHER, Jerusalem



1. Domes on drums with windows
2. Expression of the altar niche in plan and elevation
3. Light from above



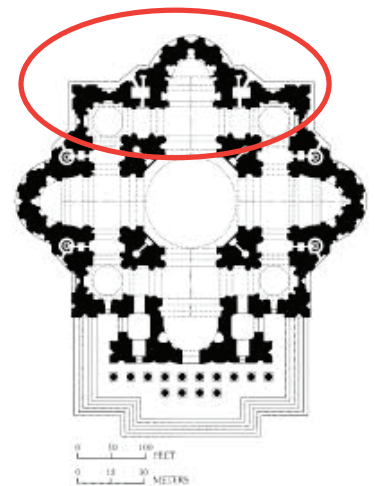
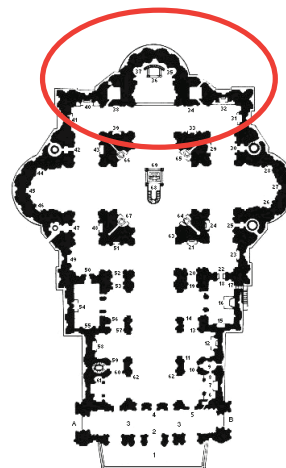
1. JERUSALEM:  
HEILIGE GRABKIRCHE.



# SAINT PETER BASILICA, Rome



- 1. Domes on high drums with windows
- 2. Light from above
- 3. Expression of the altar niche in plan and elevation



### *Synagogues:*

Both the First and Second Temples are of significant importance for the Jewish culture and religion.

Their shared specific features are the flat roof with a decorative crown, the rectangular façade openings and the pilasters. The plans are rectangular.

*Building design*

### *Mosques:*

The represented sacred mosques do not have any specific features besides the ones commonly associated with the building typology.

Anyway, it is interesting to observe that all of the building have a peristyle plan of both the praying hall and the courtyard. It is so vastly used as the prototype of the mosque comes from the house of Mohamed which had a rectangular footprint and a peristyle courtyard all around its internal perimeter.

### *Church:*

Neither of the represented churches have features, beside the ones that are common for the typology.

In both case though the high domes are used to let sun light from above in the interior. This is a common approach in churches as it symbolizes the presence of God.

## 4.6. Guidelines

*Guideline 1:* To introduce in the design of the temples some of the particular for the most holy buildings characteristics.

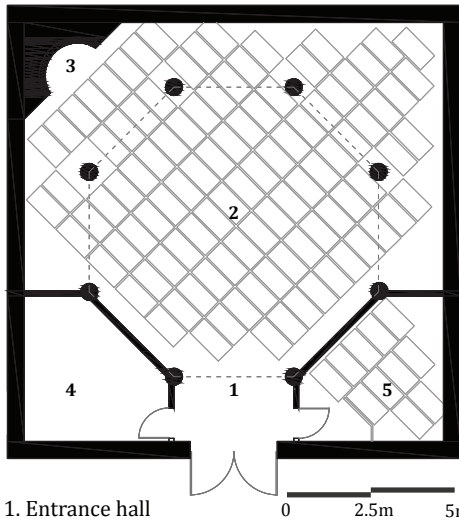
## **5. Example of possible design solution**

5.1. Mosque

5.2. Church

5.3. Synagogue

# MOSQUE

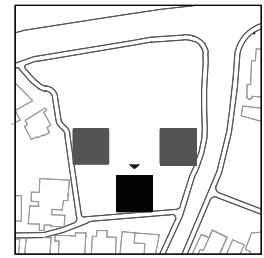


1. Entrance hall
2. Praying hall
3. Qibla wall
4. Technical/ service rooms
5. Women praying hall

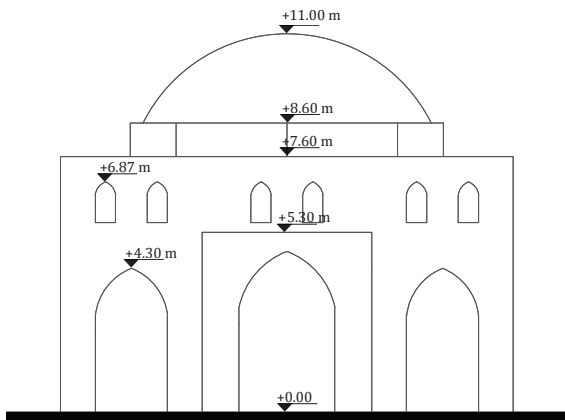
**BUILDING DIMENSIONS:**  
13.5 x 13.5

**BUILDING AREA:**  
182.25sq.m.

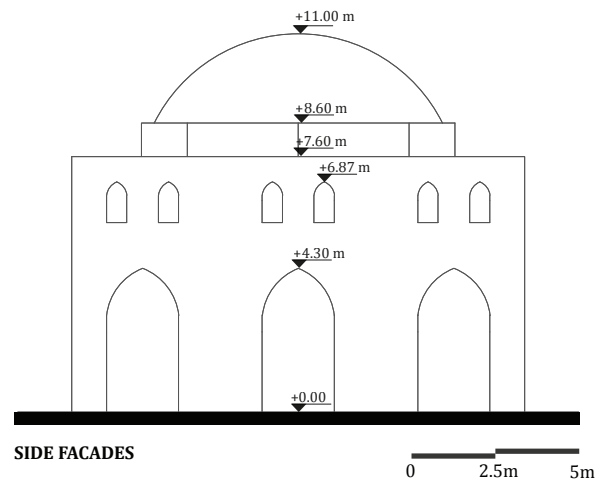
**CAPACITY:**  
total - 113  
men - 101  
women - 12



Building location

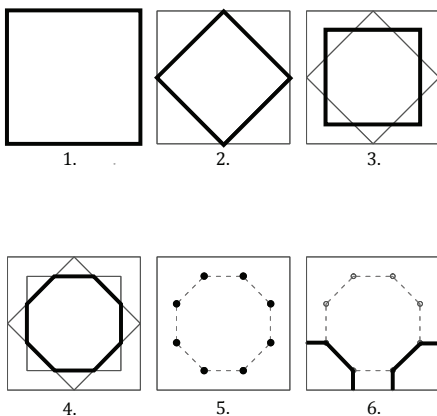


FRONT FACADE



SIDE FACADES

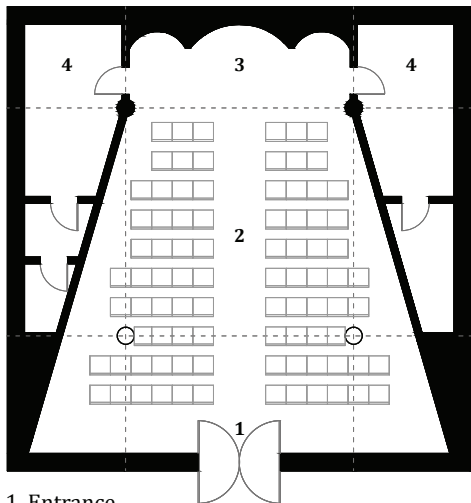
## Diagrammatic analysis of symmetrical mosque plan



Architectural features associated with the local tradition and holy temples:

- Symmetrical plan – the symmetry is a very important part of the Islamic architectural tradition.
- Peristyle plan (*local and holy temple tradition*)
- Lancet arches for openings (*local and holy temple tradition*)
- Symmetrical façade – symmetrical arrangement of opening (*local and holy temple tradition*)
- Dome (*local and holy temple tradition*)

# CHURCH

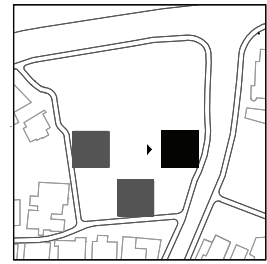


1. Entrance
2. Praying hall
3. Altar
4. Technical/service rooms

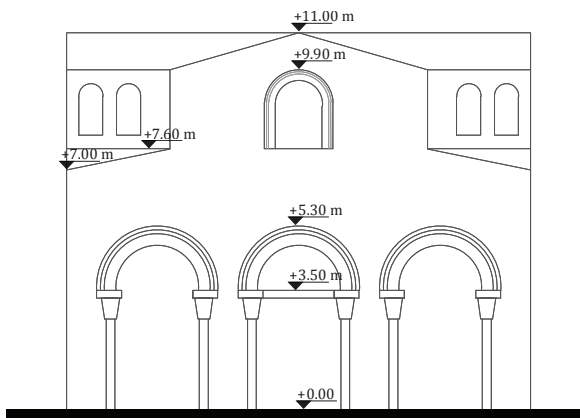
BUILDING DIMENSIONS:  
13.5 x 13.5

BUILDING AREA:  
182.25sq.m.

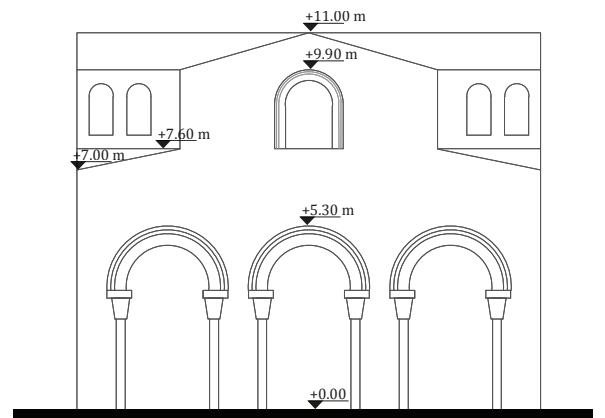
CAPACITY:  
total - 88



Building location



FRONT FAÇADE



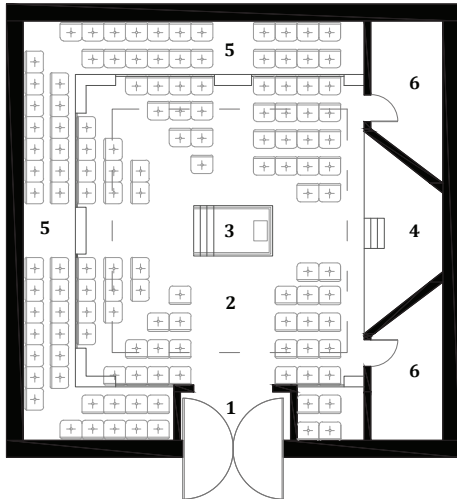
SIDE FAÇADES

0 2.5m 5m

Architectural features associated with the local tradition and holy temples:

- Rectangular plan with vaulted in plan altar (*local tradition*)
- Pitched roof-like façade (*local and holy temple tradition*)
- Opening in the upper part of the façade in order to let light from above (*local and holy temple tradition*)
- Bell- arches used in for openings (*local tradition*)

# SYNAGOGUE

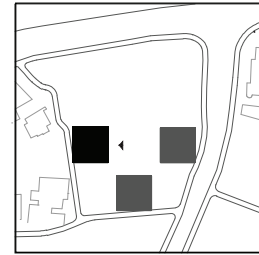


1. Entrance hall
2. Praying hall
3. Bimah
4. Torah Arc
5. Seat for women
6. Technical/service rooms

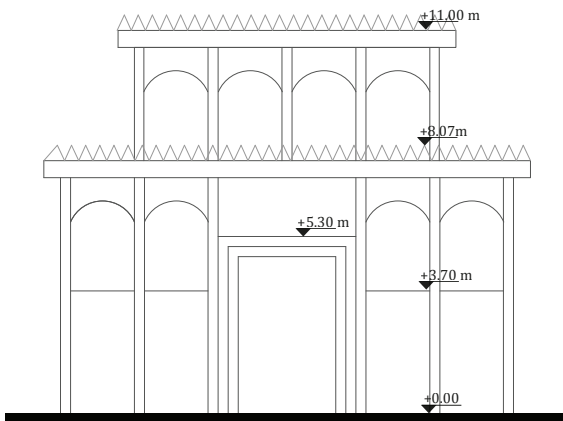
BUILDING DIMENSIONS:  
13.5 x 13.5

BUILDING AREA:  
182.25sq.m.

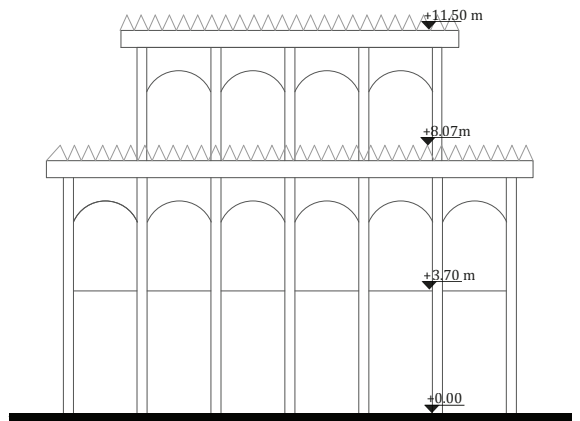
CAPACITY:  
total - 132  
men- 76  
women - 68



Building location



FRONT FACADE



SIDE FACADES

0 2.5m 5m

Architectural features associated with the local tradition and holy temples:

- Terraced elevation (*holy temples*)
- Flat roof (*holy temples*)
- Crown as a decorative elements in the exterior (*holy temples*)
- Round arched windows (local tradition)
- Pilasters on the facades as a decorative elements (*local tradition*)
- Underlined entrance with flat arches (*holy temples*)

*The cult to the First Temple has a central role in the Jewish faith. Integrating features of it into the design will make the member of the Jewish congregation relate to the building more easily. Nevertheless this is a convenient way to express the individuality of the religion: synagogues do not have its established forms and most of the temples look similar to other building typologies.*







## VI. RELIGIOUS OPEN AIR SPACES

*Religious open air spaces*

### 1. Main religious square and secondary ones

#### 1.1. Framework:

The idea the thesis work expresses is that a more efficient way to establish an interfaith dialogue through architecture is to push the congregation groups to interact on the “neutral territory” of the religious square which belongs equally to all and expresses the individuality of each religion. There the worshipers will socialize, create acquaintance, friendships and thus start overcoming difference. Moreover the characteristics of the public space (religious square, view to the Old City and archaeological site in North) will make worshipers develop strong emotional attachment to the site, . This will create a “sense of community” and an environment “in which the landscape is very much an expression of the communal held beliefs and values and of interpersonal involvement” –*the interfaith dialogue. (Part I, point 3 Community creation concept)*

From the paragraph above it is concluded that a central point of the entire work is designing one main religious square where worshipers are pushed to interact, rather than several smaller ones as this is a predisposition for people to spread according to their religion. For this reason it is crucial that the central public space of the religious complex is underlined as being one. One of the ways to do that is by providing greater comfort on it (*benches, shadow, others*) and/or designing the side open-air space more as places for transition.

#### 1.2. Aims

Underlining the central religious square as the main open air space of the religious complex

#### 1.3. Methods of work

Through a map and a section of the site, an analysis of the topography and the specific needs of the site is made. Based on it, guidelines were derived which will make the side piazzas places to pass by and the central one an area for gathering and establishing of the interfaith dialogue.

#### 1.4. Graphical representation of data



## Guidelines Religious Open Air Spaces

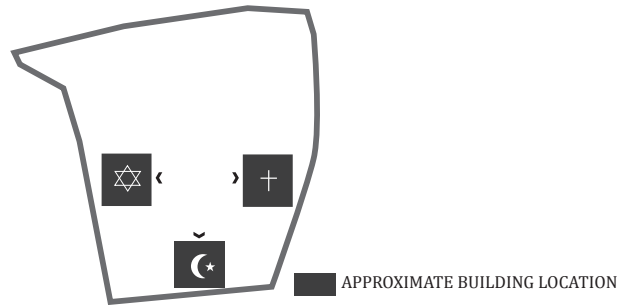
---

### MAIN RELIGIOUS SQUARE AND SECONDARY ONES

---

#### Framework:

Creating one common central/ main public space, but not several small ones, so people are pushed to interact and socialize and thus establish interfaith dialogue.



#### Aims:

Underling the central religious square as the main open air space of the religious complex.

#### Guidelines:

*Guideline 1:* Use the side squares as places to overcome the denivelation of 1m on the site: stairs, ramps.

*Guideline 2:* Provide areas for gathering: standing up and places to sit on the side squares.

*Guideline 3:* Provide one common seating area in the main religious square so people are pushed to interact.

*Guideline 4:* On the main religious square there should be comfort for gathering and seating (comfortable urban furniture) for:

- small and bigger groups;
- on sun and shadow
- oriented to views in North ( but not only)

*Guideline 5:* Organize the square in such a way that the possibility of diagonal crossing of the project site is preserved.

**MAIN RELIGIOUS PUBLIC SPACE**  
EXAMPLE OF POSSIBLE DESIGN SOLUTIONS:



Seats for groups



Seats oriented to different views



Water fountain



Water fountain

**OVERCOMING DENIVELATION**  
EXAMPLE OF POSSIBLE DESIGN SOLUTIONS:



Ramp required length 10m for 10% inclination



Stairs approximate 6 steps with H=16.6

**SECONDARY, SIDE SQUARES**  
EXAMPLE OF POSSIBLE DESIGN SOLUTIONS:



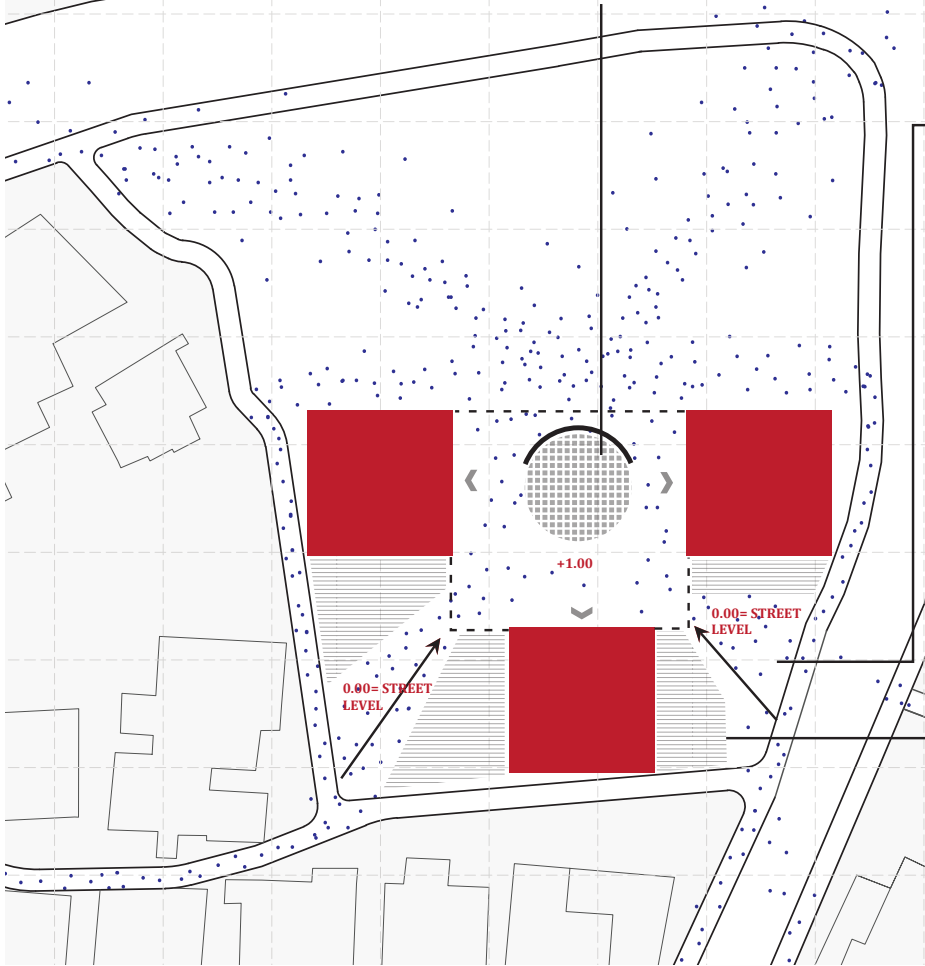
Stairs with seats on the side



Steps used for seating



(Standard) benches



**LEGEND**



MAIN PEDESTRAIN FLOW OF PEOPLE THROUGH THE SITE



BUILDINGS



AREA FOR GATHERING ON SIDE SQUARES



AREA FOR GATHERING ON MAIN SQUARE



PERIMETER OF VISIBILITY TO ARCHAEOLOGICAL SITE AND OLD CITY



RELATIVE BOUNDARY OF MAIN RELIGIOUS SQUARE



DIRECTION UP, OVERCOMING DENIVELATION

## 1.5. Conclusion

8 |

*Religious open air spaces*

This part of Jerusalem is very densely built and there is big lack of public spaces. Because of that on the side squares, it should still given the possibility to remain but they should intentionally be made less appealing than the central square. These parts of the site are also a convenient place to overcome the denivelation of 1m which will gives them a character of squares of places for transition. From the main square, on the other hand, should be provided a view to the Old City and the archaeological site as they are part of the “specific” for the site characteristics. Besides it should be organized in such a way that the area for seating is one for all congregation groups so they are pushed in interact. The seating areas should also have greater comfort compared to the side squares (places to sit, shadow, fountain and/or others) and it should be more aesthetically designed (*choice of pavement material, urban futures and/or other*).

## 1.6. Guidelines

*Guideline 1:* Use the side squares as places to overcome the denivelation of 1m on the site: stairs, ramps.

*Guideline 2:* Provide areas for gathering: standing up and places to sit on the side squares

*Guideline 3:* Provide one common seating area in the main religious square so people are pushed to interact.

*Guideline 4:* On the main religious square there should be comfort for gathering and seating (comfortable urban furniture) for:

- small and bigger groups;
- on sun and shadow
- oriented to views in North ( but not only)

*Guideline 5:* Organize the square in such a way that the possibility of diagonal crossing of the project site is preserved.

## 2. Pedestrian flow and seclusion on main religious square

### 2.1. Framework

The square must be comfortable for one to prepare for worshipping in order that the religious complex attracts users and achieves the goals of the multi faith dialogue. Thus worshipers should not feel in a secluded space, not being observed from other people on the streets and public space in North.

### 2.2. Aims

In order to provide privacy to worshipers, there should be created a boundary between the religious complex and the public area in North. This step is important as on the open air space people will not just pass by, but they will have the opportunity to stop and observed pilgrims. To increase the level of comfort of worshipers, the pedestrian flow through the religious complex must be reduced. Besides it should also be considered that worshipers will prepare for services in

the space in between the buildings. This means that the different use of that square should be emphasized in order to distinguish it from the two public spaces in the sides of the mosque and thus increase the feeling of seclusion and privacy. Nevertheless, the visibility to the religious complex from the Northern public space should be preserved; as well as the one from the religious square to the Old City, archaeological site and along the diagonal pedestrian axis.

### 2.3. Methods

The method of work in this point consists of representing possible design solutions for each aim described in point 2. The place of “intervention” is marked with simple graphic on the map of the project site.

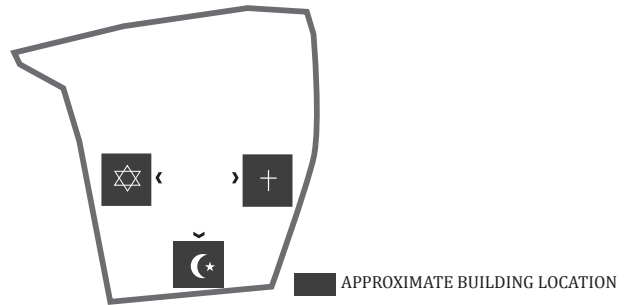
### 2.4. Graphical representation of data

## Guidelines Distribution of Functions within the Religious Complex

### PEDESTRIAN FLOW AND SECLUSION ON MAIN RELIGIOUS SQUARE

#### Framework:

Distribution of building according to the selected design solution (location of buildings and parameters)



#### Aims:

To design the religious public space so it is enclosed and has feeling of privacy and seclusion.

1. Decrease the flow of pedestrians through the site
2. To design the contour of the religious square so pilgrims are not observed when preparing for worshiping.
3. Preserving the views to and across the project site from the nodes (four corners of the site)
4. Preserving the view to the Old City from the public space of the religious complex.
5. Preserving the view from the main public space to the religious complex.

#### Guidelines:

##### 1. BOUNDARY BETWEEN RELIGIOUS COMPLEX AND PUBLIC SPACE IN NORTH

Introduce design elements which emphasizes the boundary between both type of spaces without compromising the visibility in both directions.

Thus the religious public space will feel more enclosed and secluded which would make people feel more comfortable to worship, an activity that is personal for them.

#### Example of possible design solutions



Collonade

Arches

Free-standing Portico

Portico

Change in pavement

Stairs

##### 2. EAST-WEST PEDESTRIAN AXIS

Design an emphasized horizontal pedestrian axis as well as entrances to the site from it.

This will make pedestrians more prone to pass from there rather than through the religious complex. That will lead to smaller flow of people through the latter and incensement of the feeling of privacy.

#### Example of possible design solutions



Emphasize with vertical elements

Change in pavement

Covered passage

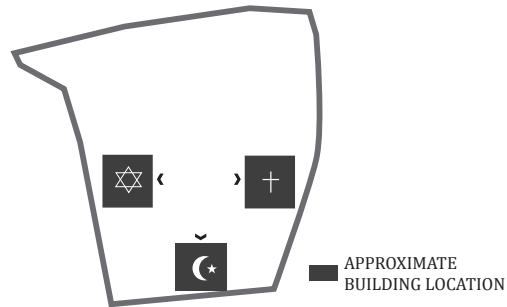


# Guidelines Distribution of Functions within the Religious Complex

## COMFORT OF PRAYING ON MAIN RELIGIOUS SQUARE

### Framework:

Distribution of building according to the selected design solution (location of buildings and parameters)



### Aims:

To design the religious public space so it is enclosed and has feeling of privacy and seclusion.

1. Decrease the flow of pedestrians through the site
2. To design the contour of the religious square so pilgrims are not observed when preparing for worshipping.
3. Preserving the views to and across the project site from the nodes (four corners of the site)
4. Preserving the view to the Old City from the public space of the religious complex.
5. Preserving the view from the main public space to the religious complex.

### Guidelines:

#### 1. BOUNDARY BETWEEN RELIGIOUS COMPLEX AND PUBLIC SPACE IN NORTH

Introduce design elements which emphasizes the boundary between both type of spaces without compromising the visibility in both directions.

Thus the religious public space will feel more enclosed and secluded which would make people feel more comfortable to worship, an activity that is personal for them.

Example of possible design solutions



Collonade



Arches



Free-standing Portico



Portico



Change in pavement



Stairs

#### 2. EAST-WEST PEDESTRIAN AXIS

Design an emphasized horizontal pedestrian axis as well as entrances to the site from it.

This will make pedestrians more prone to pass from there rather than through the religious complex. That will lead to smaller flow of people through the latter and incensement of the feeling of privacy.

Example of possible design solutions



Emphasize with vertical elements



Change in pavement



Covered passage

## 2.5. Conclusion

12 |

*Religious open air spaces*

The described intervention will influence in a favorable way the feeling of seclusion of on the religious square without compromising the visibility to, from and across the religious complex.

The increase of comfort on the square will attract more pilgrims and thus the interfaith dialogue will have greater impact on the local society.

## 2.6. Guidelines

Guideline 1: Boundary between the religious complex and the public space in North of it.

Guideline 2: Perpendicular pedestrian axis in order to decrease the flow of pedestrians through the

# 3. Gathering areas and areas for preparation for worshipping (semi-private areas)

## 3.1. Framework

Beside a place for interacting and establishing of interfaith dialogue, the main religious square have to provide areas where pilgrims prepare for worshipping (ritual ablution and others). These semi-private parts should not be separated from the rest of the square as that is stands against the concept of the thesis that it is a common and belonging to all space.

The area for preparation for worshipping should be comfortable for the required activity and should be in close distance to the temple itself.

## 3.2. Aims

Defining the semi- private areas of the square so that they are out of the main pedestrian flow so worshipers are not disturbed and that they are in close distance to the respecting temple.

## 3.3. Methods

With the use of map and considering the previous analyses and guidelines there are defined the areas out of the pedestrian flow. On them are distributed the semi-private parts of the religious square so that they are in a close distance to respective temple.

## 3.4. Graphical representation of data



## Guidelines Religious Open Air Spaces

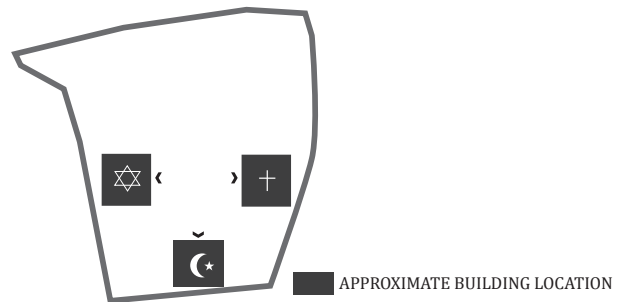
---

### GATHERING AREAS AND AREAS FOR PREPARATION FOR WORSHIPPING ( SEMI-PRIVATE AREAS)

---

#### Framework:

Create semi-private areas for preparation for worshipping which are part of the main religious square; not separated, defined from it.



#### Aims:

Defining the semi-private areas of the square so that they are out of the main pedestrian flow so worshipers are not disturbed and that they are in close distance to the respecting temple.

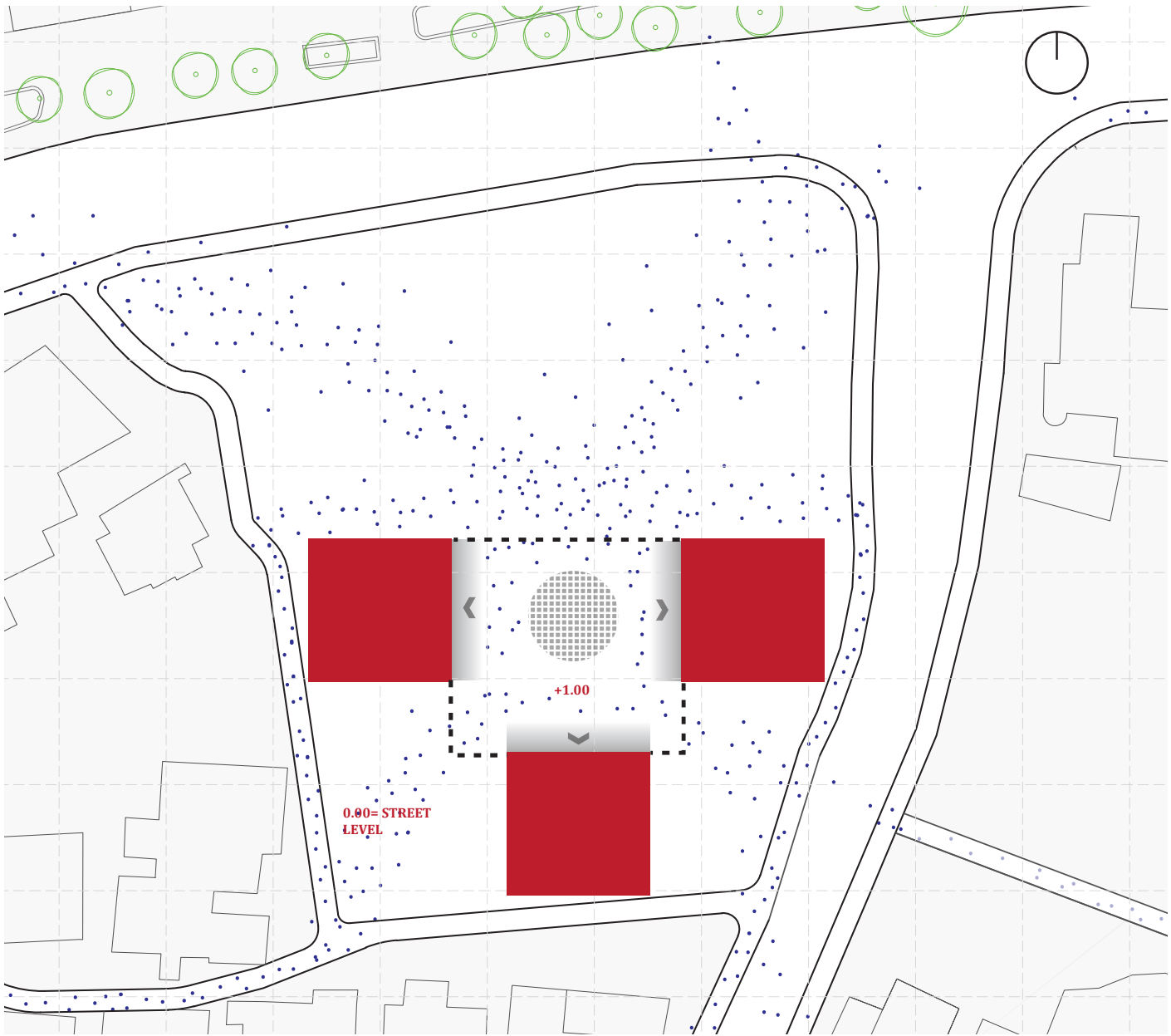
#### Guidelines:

*Guideline 1:* Organizing the semi-private areas in front of each temple.

*Guideline 2:* The semi-private areas should be out of the pedestrian flow – around them there is no stairs so it is create a sort of boundary.

*Guideline 3:* The semi-private area should not be separated from the rest of the main religious square in any way as this will decrease the effect of the multi faith dialogue.

*Guideline 4:* The semi-private areas should cover equal part of the main religious square and their sizes should suit the functions that they have.



**LEGEND**



MAIN PEDESTRAIN FLOW OF PEOPLE THROUGH THE SITE



RELATIVE BOUNDARY OF MAIN RELIGIOUS SQUARE



BUILDINGS



AREA FOR GATHERING ON MAIN SQUARE



SEMI-PRIVATE AREAS ( AREAS FOR PREPARATION FOR PRAYING)  
*Relative dimension 13.5m long X 3.5m wide*

### 3.5. Conclusion

16 |

*Religious open air spaces*

The ritual preparation for worshipping of the respecting religion should be placed in front of each temple. It should not overlap with the gathering area in the center of the square as this can create conflicting situation such as seats around ablution fountains occupied by people who are simply socializing and not giving the possibility to worshipers to do the required ritual.

Nevertheless the semi-private areas should serve only for preparation for worshipping. Their use as a place to remain should be limited. Otherwise the square could end up being “polarized” and no interfaith dialogue would occur.

### 3.6. Guidelines

*Guideline 1:* Organizing the semi-private areas in front of each temple

*Guideline 2:* The semi-private areas should be out of the pedestrian flow – around them there is no stairs so it is create a sort of boundary.

*Guideline 3:* The semi-private area should not be separated from the rest of the main religious square in any way as this will decrease the effect of the multi faith dialogue.

*Guideline 4:* The semi-private areas should cover equal part of the main religious square and their sizes should suit the functions that they have.

## 4. Thermal comfort on religious squares (sun- shadow study)

### 4.1. Framework

The success of a multi faith architecture lies to a great extend in its common religious square. It should attract people and it should make them prone to stay on it. For these reasons, beside all other requirements, the public space should also provide thermal comfort.

The hot climate in Jerusalem needs additional consideration of the sun-shadow study which is represented in the following point. It shows what guidelines should be established considering thermal comfort.

### 4.2. Aims

The aim of the analysis is to understand the sun-shadow relation on the main religious square and secondary ones. The three buildings have height of 11m and volumes as already presented in point III- 5.

### 4.3. Methods

For the analysis it was used the software GoogleSketchUp. The buildings with their parameters were put on site.

The analysis was made for first day of every second month starting from January ( exp: Jan-Mar- May...). Based on the information received from

the program there are made conclusions about the part of the religious squares that need additional design.

| 17

#### 4.4. Graphical representation of data

*Religious open air spaces*

## 01 of JANUARY

### JERUSALEM

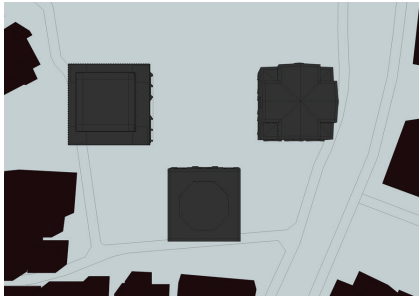
Average high (C): 11.8

Average low (C): 6.4

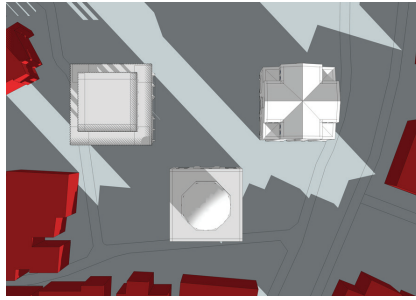
### MILAN (for comparison)

Average high (C): 4.6

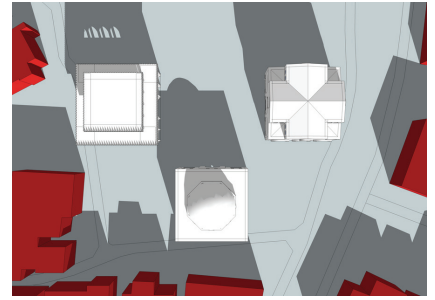
Average low (C): -1.9



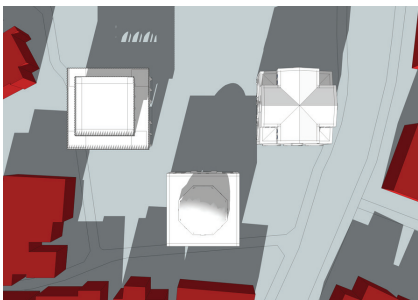
07.00 am



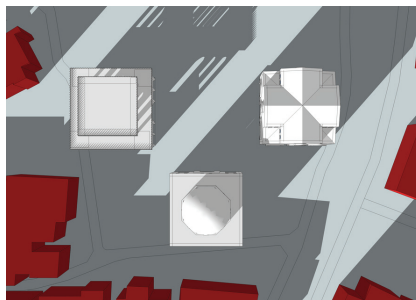
09.00 am



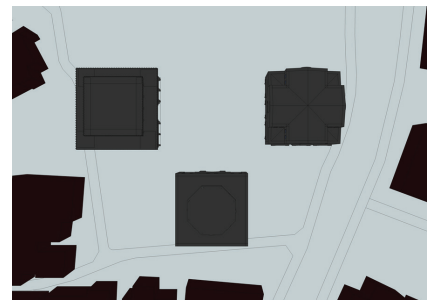
11.00 am



13.00 pm



15.00 pm



17.00 pm

## 01 of MARCH

### JERUSALEM

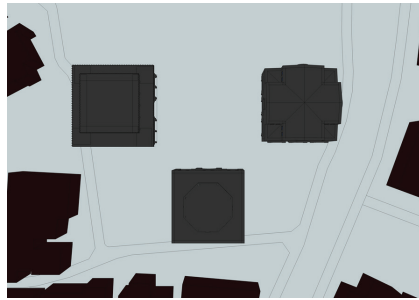
Average high (C): 15.4

Average low (C): 8.4

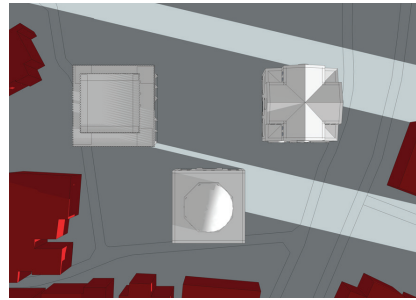
### MILAN (for comparison)

Average high (C): 13.2

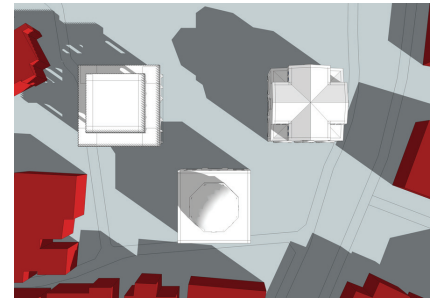
Average low (C): 3.3



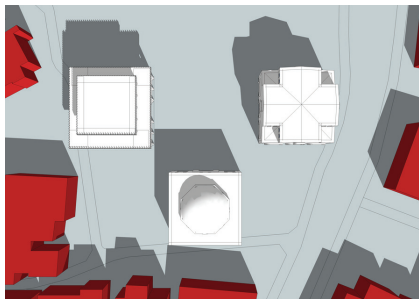
06.00 am



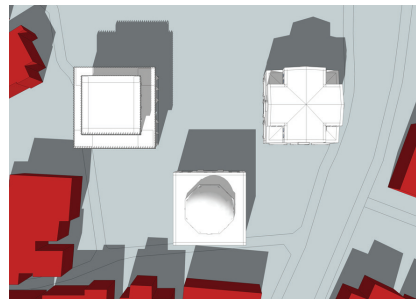
07.00 am



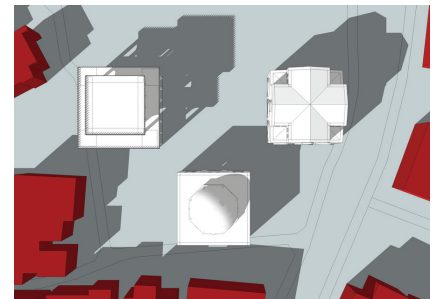
09.00 am



11.00 am

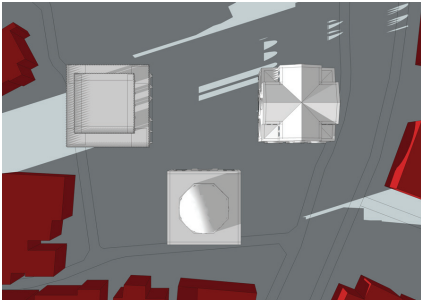


13.00 pm

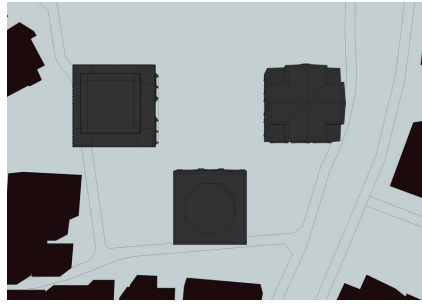


15.00 pm





17.00 pm



19.00 pm

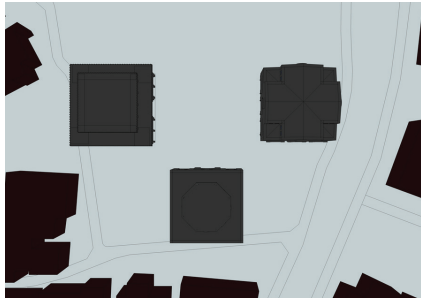
### 01 of MAY

#### **JERUSALEM**

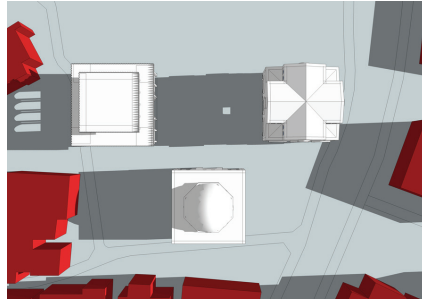
Average high (C): 25.3  
Average low (C): 15.7

#### *MILAN (for comparison)*

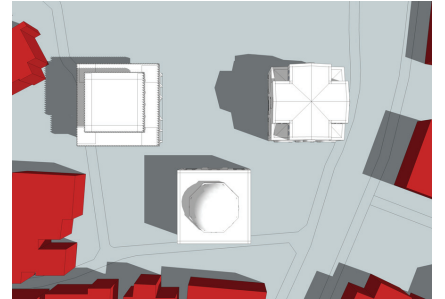
Average high (C): 21.9  
Average low (C): 11.2



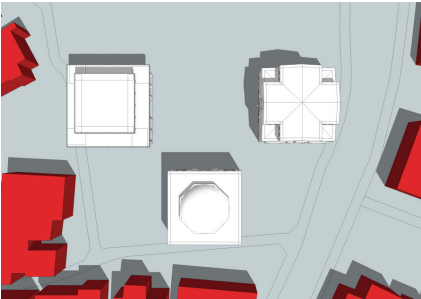
05.00 am



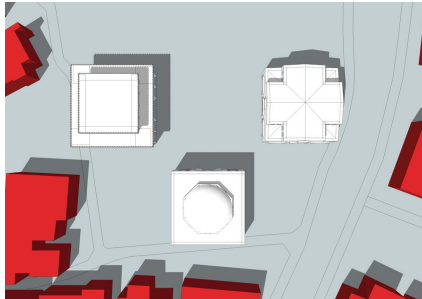
07.00 am



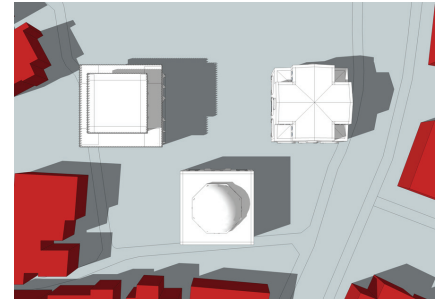
09.00 am



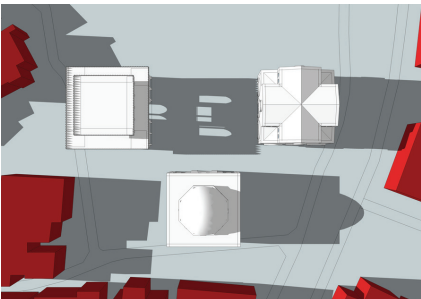
11.00 am



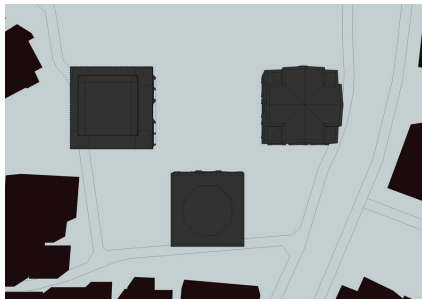
13.00 pm



15.00 pm



17.00 pm



19.00 pm

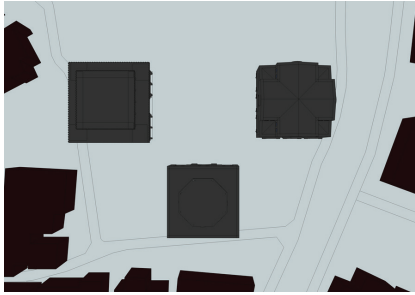
01 of JULY

**JERUSALEM**

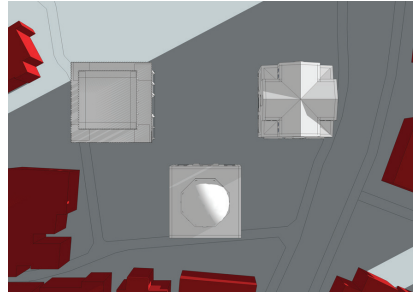
Average high (C): 29  
Average low (C): 19.4

*MILAN ( for comparison)*

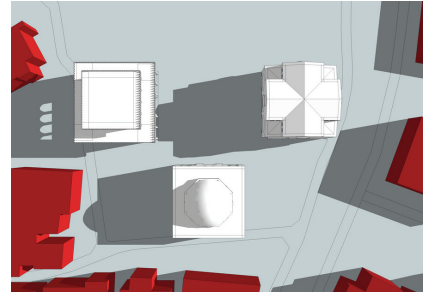
Average high (C): 28.9  
Average low (C): 17.3



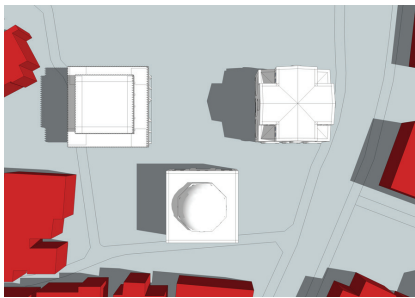
04.00 am



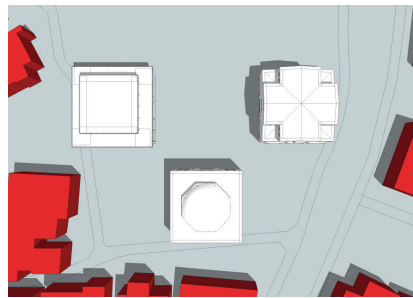
05.00 am



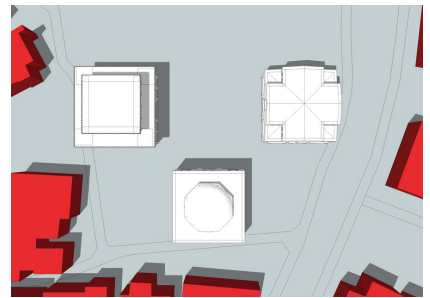
07.00 am



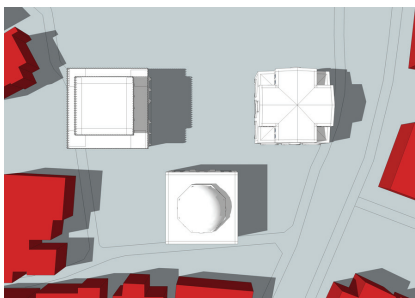
09.00 am



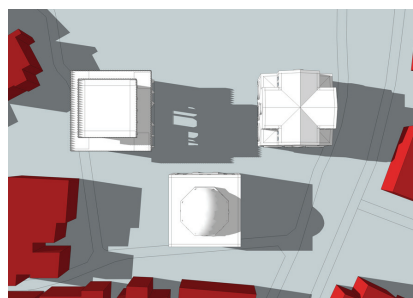
11.00 am



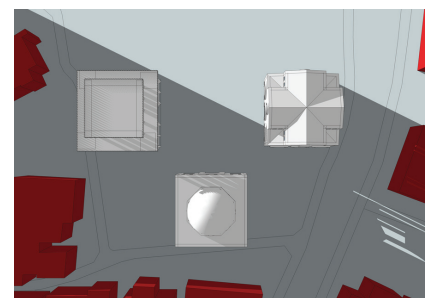
13.00 pm



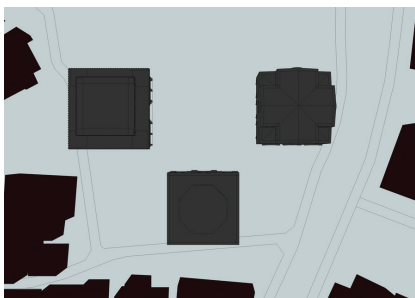
15.00 pm



17.00 pm



19.00 pm



21.00 pm

**01 of SEPTEMBER**

**JERUSALEM**

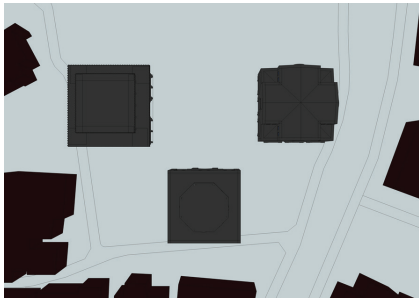
Average high (C): 28.2

Average low (C): 18.6

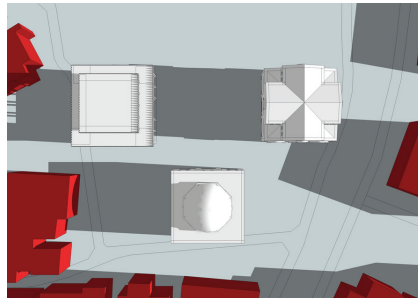
*MILAN (for comparison)*

Average high (C): 24.3

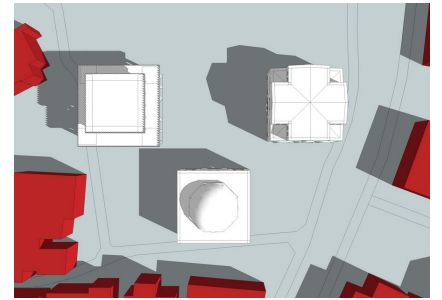
Average low (C): 13.5



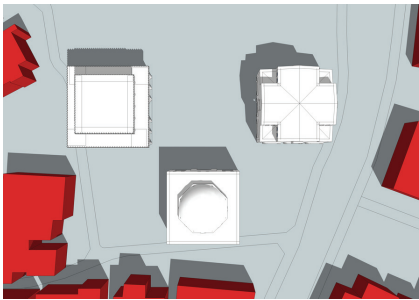
05.00 am



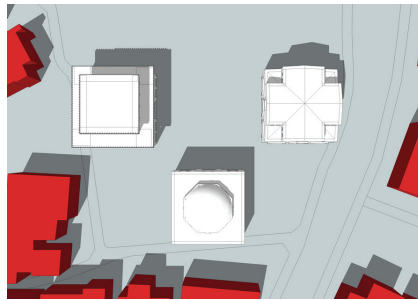
07.00 am



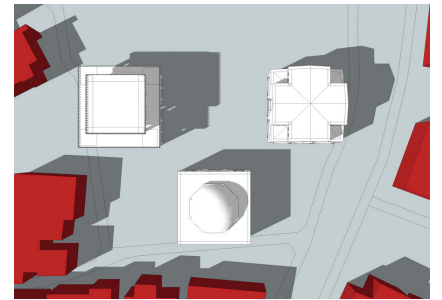
09.00 am



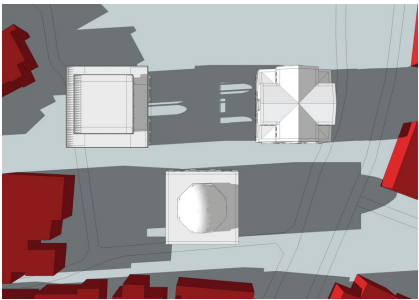
11.00 am



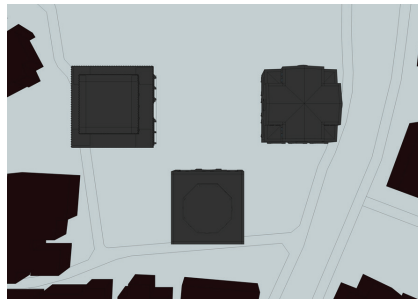
13.00 pm



15.00 pm



17.00 pm



19.00 pm

**01 of NOVEMBER**

***JERUSALEM***

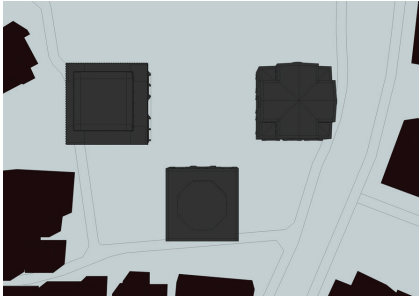
Average high (C): 18.8

Average low (C): 12.3

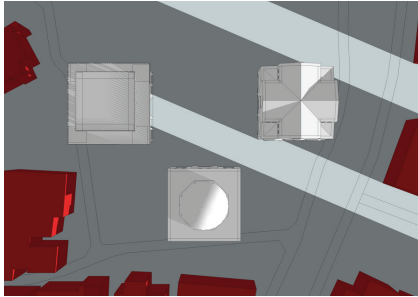
*MILAN ( for comparison)*

Average high (C): 10.2

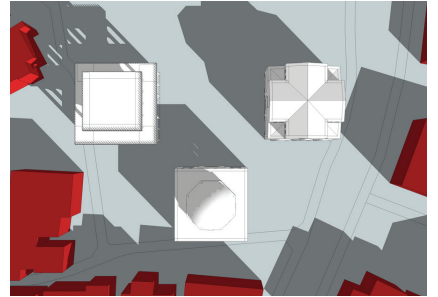
Average low (C): 3.6



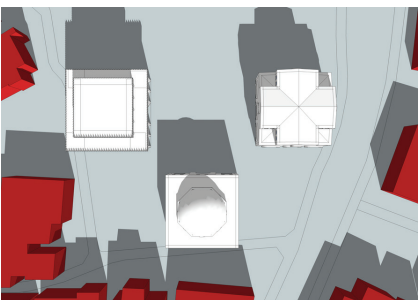
05.00 am



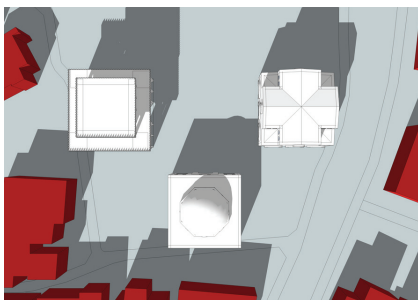
07.00 am



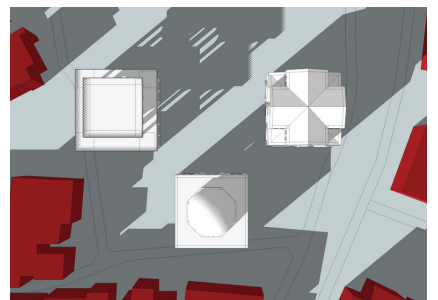
09.00 am



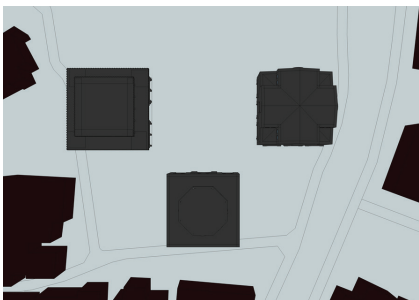
11.00 am



13.00 pm



15.00 pm



17.00 pm

#### 4.5. Conclusion

In summer months all public spaces of the religious complex need additional shadowing (main religious squares and secondary once). It is an important to provide such only in the hot part of the year because this is the gathering area of the site and it should be thermally comfortable throughout the entire year.

*Religious open air spaces*

#### 4.6. Guidelines

Guideline 1: On all open air spaces of the religious complex square there should be organized additional shadowing in summer months (small threes)

Guideline 2: The design elements, introduced for shadowing in summer months, should not compromise the visibility to the religious complex, to the individual buildings.

Guideline 3: The design elements, introduced for shadowing should not trouble the visibility from the religious complex to the landmarks in North ( Old City and archaeological site).

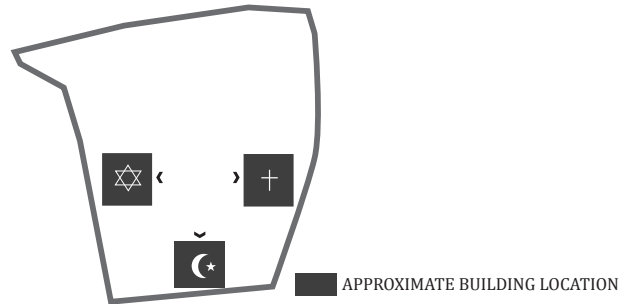
#### 4.7. Graphical representation of guidelines

### THERMAL COMFORT ON MAIN RELIGIOUS SQUARE SUN-SHADOW STUDY

---

#### Framework:

To design a square that is appealing for people and comfortable for people so they can interact more and establish interfaith dialogue.



#### Aims:

The aim of the analysis is to understand the sun-shadow relation on the main religious square and secondary ones.

#### Guidelines:

*Guideline 1:* On all open air spaces of the religious complex square there should be organized additional shadowing in summer months (small trees).

*Guideline 2:* The design elements, introduced for shadowing in summer months, should not compromise the visibility to the religious complex, to the individual buildings.

*Guideline 3:* The design elements, introduced for shadowing should not trouble the visibility from the religious complex to the landmarks in North ( Old City and archaeological site).

**Shading elements**  
Example of possible design solutions



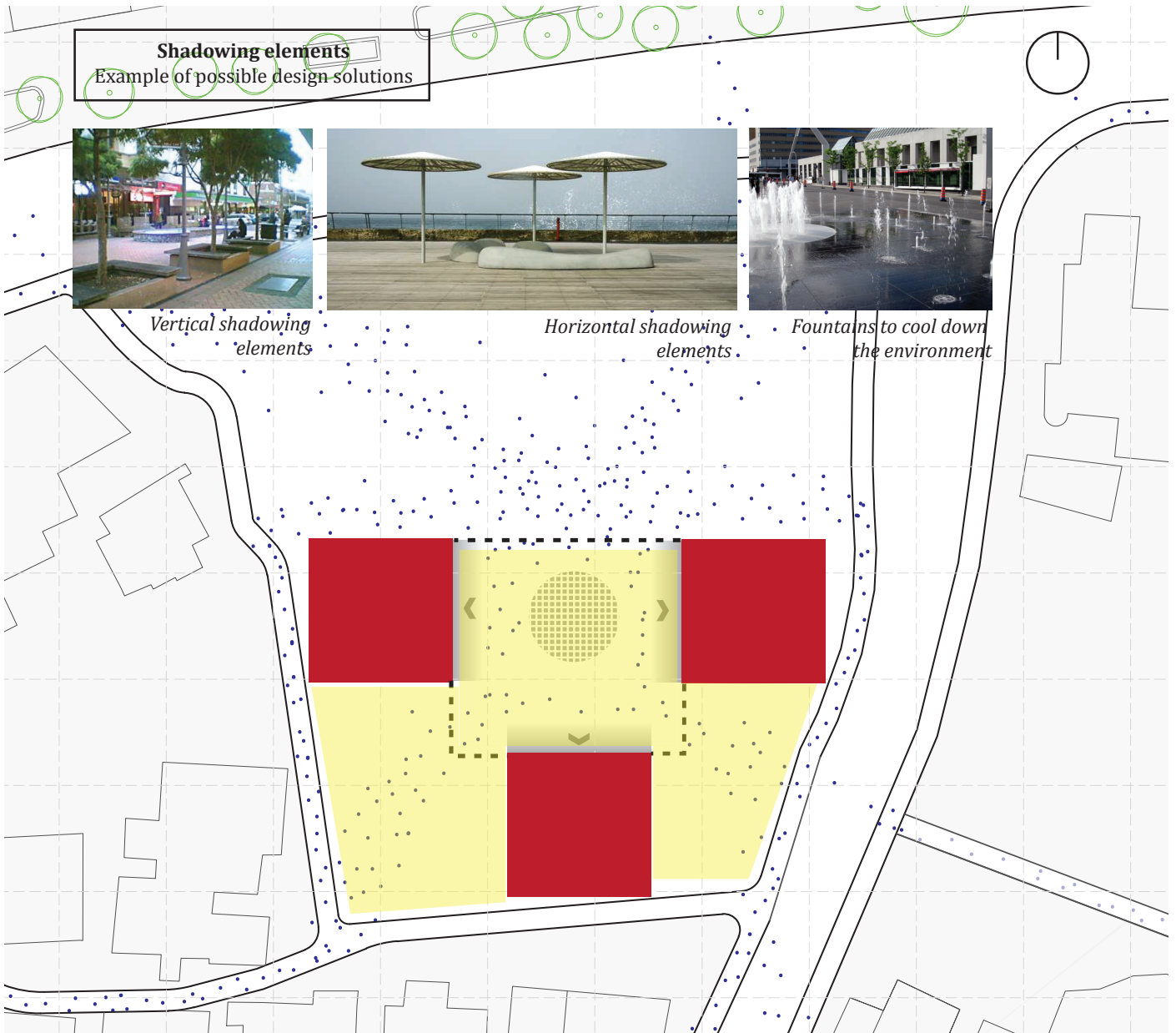
Vertical shading elements



Horizontal shading elements



Fountains to cool down the environment



**LEGEND**



MAIN PEDESTRAIN FLOW OF PEOPLE THROUGH THE SITE



RELATIVE BOUNDARY OF MAIN RELIGIOUS SQUARE



BUILDINGS



PARTS OF THE PUBLIC SPACE THAT NEEDS ADDITIONAL SHADOWING IN SUMMER



AREA FOR GATHERING ON MAIN SQUARE



SEMI-PRIVATE AREAS ( AREAS FOR PREPARATION FOR PRAYING)

Relative dimension 13.5m long X 3.5m wide

## SELECTED BIBLIOGRAPHY:

- Interfaith dialogue, Wikipedia (*date:27.05.2014; 17.18pm.*)
- Approach used in the organization Three Faiths Forum ( 3FF)
- Multifaith.org (*date:15.03.2014; 13.20pm*)
- Engebretson
- Terry Billington "Towards a Theological Reading of Multifaith Spaces"
- Sanjoy Mazumdar "Religious place attachment"
- Kearney and Taylor
- Auge, 1996b:178
- Space, knowledge and power: Foucault and geography, 2007
- Urban Transformation, Peter Bosselmann, 2008
- Religion and place attachment: Study of sacred places, S. Mazumdar and S. Mazumdara, 2004
- Relph 1976
- Brown and Perkins, 1992
- Marcus, 1992
- Relph 1976
- Orum and Chen, 2003
- Relph 1976
- Website of the organization *Emek Shaveh, Archaeology in the shadow of conflict*  
[www. alt-arch.org/en/](http://www.alt-arch.org/en/) (*date: 20.05.2014; 9.46am.*)



## **LIST OF GRAPHICS:**

### **Maps:**

#### CHAPTER II

1. Map of archaeological and tourist sites in the area of project site
2. Map of public spaces in the area of project site
3. Map of religious buildings in the area of project site
4. Map of sightsees in the area of project site

### **Drawings:**

### **Schemes:**

#### CHAPTER I

1. Praying orientation Muslims, Christians and Jews
2. Continuum of different levels of religious belief
- 3.

### **Tables (information of researches/ analysis represented synthetically):**

#### CHAPTER I

1. Typical places for location of church, mosque, synagogue
2. Religious building name and secondary functions of the religious building
3. Performance of standard praying rituals
4. Footprint and building orientation; Special organization and interior arrangement of religious buildings
5. Description of spaces of the religious buildings: use, symbolism, requirements
6. Standard rituals- daily prayers
7. Standard rituals- important weekly prayers
8. Religious festivals
9. Examples of multi faith buildings ( 4 pages)

#### CHAPTER III

10. Analysis of “nodes” of pedestrian flow on the project site ( 2x A4)
11. Points of view to the project site ( 2x A4)

12. Visibility from the project site ( 2x A4)

13. Conclusion ( 2x A4)

#### CHAPTER IV

14. Location of buildings on site. Possible design solutions ( 2x A4)

15. Outline buildings and public spaces ( 2x A4)

#### CHAPTER V

16. Building height and city skyline

17. Analysis of local architectural tradition ( 33x A4)

18. Building material

19. Most holy buildings ( 7x A4)

#### Photos:

#### CHAPTER 0

1. United States holocaust Memorial Museum, Interior, Washington,  
copyright: Agnostic Preacher Kid
2. Blake Catanese sits near 40 candles at the Flight 93 Memorial Wall of Names in Shanks Ville  
copyright: Jack Gruber, USA Today
3. Demonstrators protesting against Islamization in Berlin  
copyright: [www.spiegel.de](http://www.spiegel.de)
4. A cow in Swiss meadow next to billboard against minarets in Zwillikon  
copyright: Christian Hartmann
5. Pope Francis embraces friends- an imam and a rabbi at the Western Wall in Jerusalem  
copyright: Getty Images

#### CHAPTER II

6. View to Jerusalem Old City  
copyright: National Geographic's
7. Temple Mount  
copyright: [www.frontpagemag.com](http://www.frontpagemag.com)

8. Orthodox Jewish man seen praying at the Western Wall in Jerusalem's Old City on a snowy winter morning  
copyright: Nati Shohat
9. Israeli police in Jerusalem at the tower Aviram  
copyright: Valdman
10. "Kids and guns" in Israel and the Western Bank  
copyright: Stephen Rives
11. Palestinians pray outside Al-Aqsa Mosque after Israeli police limited access to the mosque for young worshipers to prevent possible clashes  
copyright: Activestillsor
12. Riots in Jerusalem after religious woman's arrest  
copyright: Los Angeles Times
13. Artist Yuda Braun and Jonatham Pelleg stand in Jerusalem as a part of performance titled The White Soldier  
copyright: Dusan Vranic
14. Picture of Kedem Compound  
copyright: [www.jpost.com](http://www.jpost.com)