



**RAHAMIMOFF ARCHITECTS**  
PROJECTS OVERVIEW - PRELIMINARY EDITION



Architect Arie Rahamimoff received his Masters Degree in Architecture & Urban Planning from HELSINKI UNIVERSITY OF TECHNOLOGY in Finland in 1969. He has been practicing Architecture in his private office in Jerusalem since 1970 with his wife Architect Salme Rahamimoff.

His work covers a wide variety of fields: Public buildings, urban planning and master plans, climatic and environmental design, rehabilitation of rivers, preservation of historical sites, and residential projects. The synergy between man and place is a major principle in his architectural vision. Matters of environment, history and society play major roles in his work.

In the course of his professional work Arie Rahamimoff combined designing, teaching and public positions in Israel and abroad. His practice won over 10 design competitions, and his work was published in several international exhibitions. Over 30 of his articles were included in architectural publications throughout the world.

Arie and Salme live in Jerusalem and have three children and three grandchildren.



## LIST OF PROJECTS:

1. 1997-2001 **World Center for Jewish Studies - Rabin Center.** Hebrew University, Mt. Scopus, Jerusalem.  
Winning entry in a design competition. (In collaboration with Arch. Salme Rahamimoff)
2. 1999-2004 **The Albert Katz International School for Desert Studies.** Sede Boker.  
Winning entry in a design competition. (In collaboration with Arch. Salme Rahamimoff)
3. 2006-2011 **Guest House and Tourism Center.** Old City of Akko. (In collaboration with Arch. Salme Rahamimoff and Arch. Heli Rahamimoff)
4. 2007-today **The Ruppin Academic Center, School of Marine and Environment Sciences.** Miconoret.  
Winning entry in a design competition. (In collaboration with Arch. Heli Rahamimoff)
5. 1993-2013 **Lake Side Retirement Homes.** Genosar. (In collaboration with Arch. Heli Rahamimoff)
6. 1983 **Educational Center.** Sede Boker. (In collaboration with Arch. Salme Rahamimoff)
7. 1983-1984 **Sultan's Pool - An Open Air Amphitheatre.** Jerusalem.
8. 1991-2000 **The "Ofel" Promenade & The Old City Observation points.** Mount of Olives, Jerusalem.
9. 1998-2013 **A Comprehensive Plan for the Yarkon River.** (In collaboration with Arch. Amos Brandeis)
10. 2008 **The Central Precinct of Israel.** Jerusalem.  
Winning entry in a design competition. (In collaboration with Arch. Itay Peleg and Arch. Yossi Burstein)
11. 2010-today **The Kidron Valley - Wadi El Nar. Master Plan and Action Plan.**  
(In collaboration with Arch. Liora Meron and Prof. Reuven Laster)
12. 2011-today **"D" Quarter.** Beit Shemesh. (In collaboration with Arch. Ofer Ta-Or)
13. 2009 **Jerusalem Main Entrance.**
14. 2005-today **Copper Mine.** Timna, Southern Israel.
15. 2005-2007 **The Diaolou Towers and the Villages of Kaiping. Conservation and Development.** Kaiping, China.  
(In collaboration with Arch. Giora Solar)
16. 2006-2008 **Ming Tombs Valley Conservation Master Plan.** China. (In collaboration with Arch. Giora Solar)
17. 2008-2009 **Tang Da Ming Gong - Urban Heritage Park and Palace Preservation.** Xi'an, China.  
Winning entry in a design competition.

Arie Rahamimoff would like to thank Salme Rahamimoff and Heli Rahamimoff for the wonderful mutual work throughout the years.

Arie Rahamimoff would like to thank all clients, employees, colleagues, photographers, model makers and other excellent people who worked with him on these projects. A full list of credits will be added to the final edition of this publication.

## **THE CENTER FOR JEWISH STUDIES**

### **Jerusalem, Israel**

The Center for Jewish Studies is a research institute - A part of the Hebrew University on Mt. Scopus in Jerusalem. This project is a result of an architectural design competition (1997) and the construction was completed in 2002.

The building is one of the largest research institutes for Jewish studies in the world. Approximately 100 scholar research various aspects of Judaism such as Kabbalah, Talmud, the Dead Sea scrolls, Jewish history in various parts of the world etc.

The main public open space is designed to promote exchange and dialogue between the different disciplines of Jewish studies - this was the vision of Prof. Yair Zakowitch, the head of the center during the initial design process. The research takes place in three terraced wing allowing for "horizontal and vertical dialogue".

The library is the highest component of the building symbolizing the importance of the book in Judaism. Below it are seminar rooms and lecture halls. The roof allows for 360 degrees view including a distant view towards Mt. Nebo across the Jordan valley, from where Moses observed the Holyland.

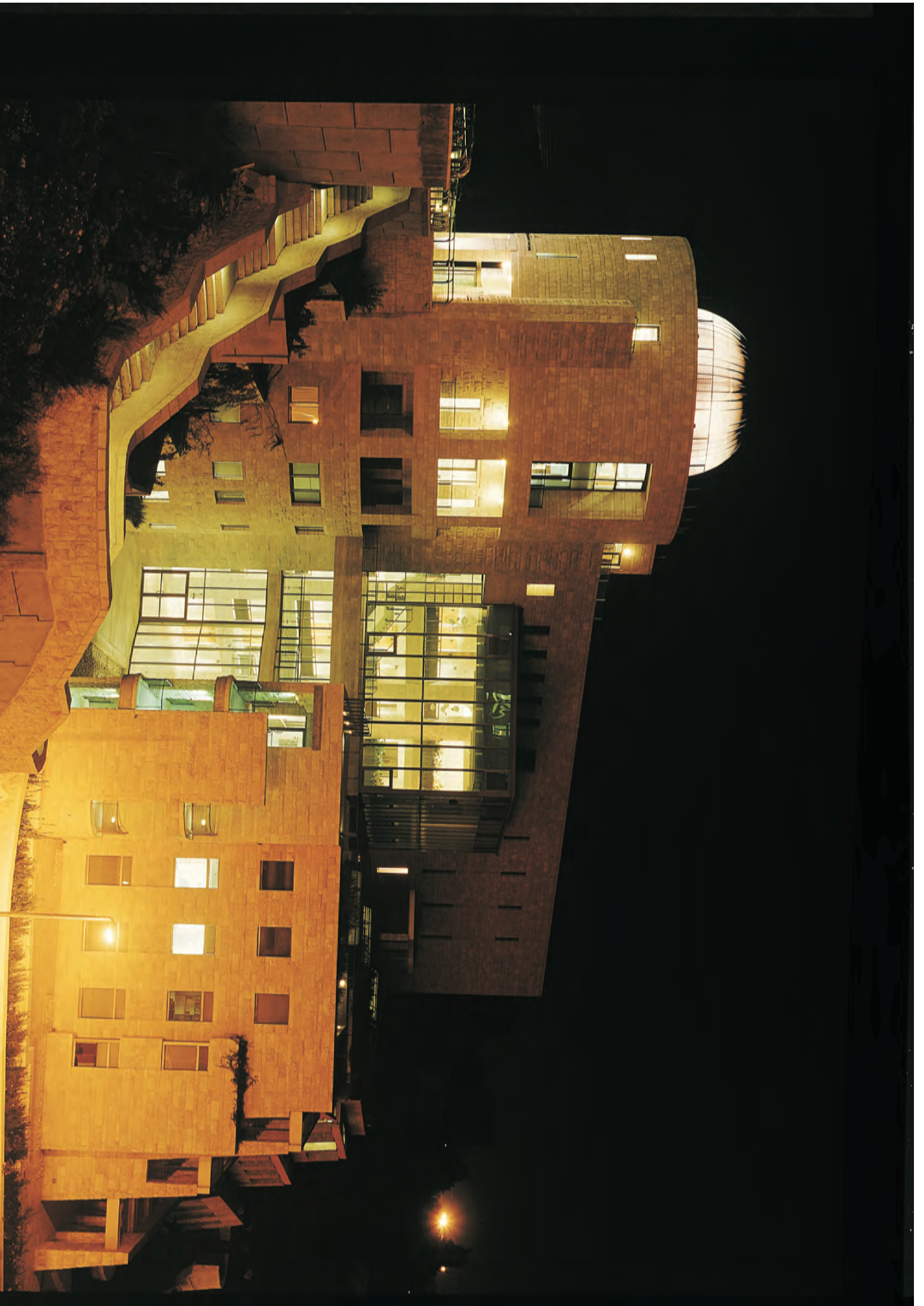


► On the opposite page: The main entrance to the center with the library above it.













▲ The dome of the library allows for natural day light.



▲ Steps details.



▼ The “Philosophers Path” connects the three research wings and allows for informal dialogue between scholars.



▼ The lecture hall is daylight and has the form of an acoustic shell.

# THE ALBERT KATZ INTERNATIONAL SCHOOL FOR DESERT STUDIES

Sede Boker, Israel

The Albert Katz International School for Desert Studies at Sede Boker is home to some 120 graduate students from around 30 countries worldwide. In designing the housing project, we aimed to demonstrate that high quality residential accommodation is possible even in the Israeli desert, with its extreme conditions in summer and winter, by applying architectural principles appropriate to the environment. Moreover, this led to saving in energy and improve human comfort.

The Ramat HaNegev region, where Sede Boker is situated, has a hot, arid climate in summer and is cold in winter, with extreme temperature differences between day and night, high solar radiation, due to low cloud coverage, can actually be exploited to control the building's temperature passively, i.e, in an energy-efficient manner, by allowing the sun's rays to penetrate the residences during winter and preventing heat escaping during the night.

This was achieved via a range of planning strategies:

**A sun "envelope"**: all rooms in the project are south facing and no building creates shade on the building behind it between 9AM and 3PM during winter when the sun is low.

**Insulation**: high-quality roof and wall insulation is used to prevent solar energy absorbed during the day, escaping at night.

**Insulated shutters and double glazed windows**: these augment the savings in energy and add to the thermal comfort of the residents.

**Thermal mass**: the buildings are constructed from insulated concrete and are clad in stone, enabling them to retain the heat absorbed during the day for night time comfort.

**Landscaping**: stones from local streams cover most of the area around the buildings to help contain the dust. Deciduous trees provide shade in summer but allow the sun's rays through in winter. The public gardens' topography is designed to contain run-off water for supplementary irrigation.

Through building the project with stone from Mitzpeh Ramon quarries (approx. 30 km from Sede Boker), the project receives an additional element of local building, the houses are merged into the scenery while their color tones and that of their surrounding are similar. The dust accumulating on the facades of the buildings, reinforces the "Sede Bokerian Patina". Complimentary planning strategies ensure physical comfort and energy saving in summer and winter.

► On the opposite page:

The main entrance to the campus - The design principles of natural light and air circulation are being implemented in the public space through the "Cooling Tower".









- ▲ 107 apartments are serving the international community of young scientists. Several models were designed to accommodate singles, couples and families. The units are mainly facing south but slight variations in the positioning of the apartments are creating unique identities.



▲ View of the campus from west with the Zin Valley at the background.

▼ Internal view of the “Cooling Tower”.







▲ Exterior details of the “Cooling and Light Tower” .



▼ The outdoor spaces were designed to receive direct sunlight from south according to the “Sun Envelope” for the short winter days. The topography is slanted inwards to collect run off water and to divert it towards the vegetation. Deciduous trees were chosen to achieve maximum shade in the summer and to allow for the sun to penetrate in the winter.





The "Oasis Effect" is a significant concept for design and planning in the Negev. Concentration of resources and saving in resources are core values. This concept is valid in a variety of scales: the entire settlement, group of houses and the individual structure.

Saving the resource of water is vital not just because water is rare, but as an expression of a design effort to concentrate the vegetation in the areas where they are the most effective.

The election of the proper trees is emphasizing the relationship and connection to the local surrounding.

► On the opposite page:

The International School for Desert Studies - #1

The "National Park of the Ben Gurion Tomb" - #2

The "Neve Zin" neighbourhood - #3, an additional example of sustainable-solar planning. Partially designed by Arie and Salme Rahamimoff.

The Educational Center - #4, designed by Arie Rahamimoff.

The "Mud House" - #5, One of the first climatological responsive project in Israel, built in 1978 when Arie Rahamimoff served as the Head of the Desert Architecture Unit In Sede Boker.



▲ In the middle of the Negev, multi cultural scientists are investigating the secrets of the desert together.

▼ Economical water consuming vegetation - demonstrating the connection between the project and its surroundings through its core values.







## **GUEST HOUSE AND TOURISM CENTER**

### **Old City of AKKO, Israel**

A contemporary building within historic context of Old City is a special challenge for the architect.

The following planning strategies were applied in order to assure that the new building is integrated with its surroundings:

- 1. Morphology** - in the densely-built old city courtyards are the "breathing device" of the urban form. Mosques, Churches, Caravanserais - all are built around internal courtyards. The guest house is designed around 3 courtyards.
- 2. Skyline** - the volume of the building is limited to the average high of the urban surroundings 2-3 stories high buildings.
- 3. Visual axis** - linear extension of major building components (arcades, open courtyards) interlink with the dominant monuments of old Akko: Mosque, Citadel, Turrets of city wall.
- 4. Roofs** - all roofs, at all levels have 100% accessibility for visitors. Belvederes, roof promenades and places for celebration compose the "roof scope".
- 5. Materials** - the dominant building material of the guest house is sand stone. High quality sand stone for building is not available any more in Israel. Therefore the stone had to be brought from Jordan.
- 6. Exposure of heritage** - every single site in the old city of Akko has presence of previous periods.  
The site of the guest house was transversed by an ottoman Aqueduct (15-19 centuries) and water cistern and tower.  
Below ground exists an important crusaders village (12-13 centuries). Therefore the quadrangle courtyard is actually a "horizontal window" looking down towards the relics. The entire space below the guest house is on pilotis and can be excavated in the future.

The urban cultural landscapes of an Old City such as Akko have "vertical" and "horizontal" dimensions. Contextual integration of this new building with the surroundings is crucial 3D. The building has 76 guest rooms and suites, lecture rooms and tourism and community activities. The central location of this project is by the northern entrance to the city and next to the city walls, enables the guest house to perform as an "interpretation station" and a starting point for cultural tourism walks in and around the Old City.

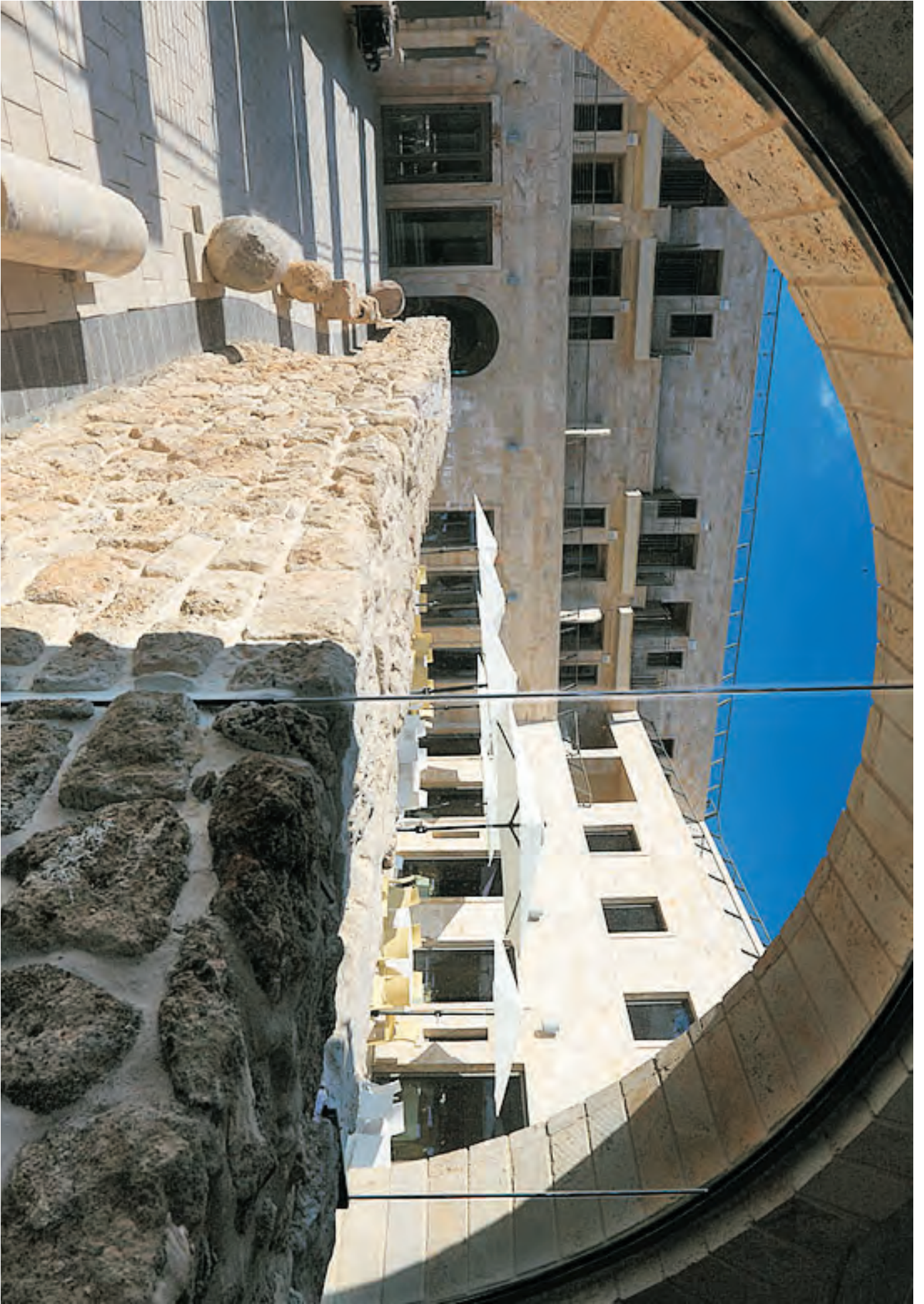
In 1994, 17 years before the completion of this building I prepared the Master and Action Plans for the Old City of Akko, which guided the realization of many urban architectural projects (residential, restorations projects, the Citadel Knight's Halls, markets, hotels, archaeological excavations, landscape, projects etc.) This Action plan generated investment of more than 200 millions USD. The guest house is one of these projects. Thus the architectural accomplishments are the extend and the materialization of the overall urban context. In year 2001 the Old City of Akko was inscribed by UNESCO as a world heritage site

► On the opposite page: Aerial view of the Guest House within the Old City of Akko.













▲ Natural light flows through the building.

▶ The curved gesture of the upper levels compliment the round element at the entrance facade, and allowing for the lobby space to grow towards the dome, whose round windows are glowing the lights of the lobby towards the city at night.





Articulation between old and new - Materials, colors, scale.



The Crusaders' village within the modern courtyard - Excavation can continue in the future.





The Eastern Courtyard and the preserved Ottoman aqueduct integrated within.





## **THE RUPPIN ACADEMIC CENTER SCHOOL OF MARINE AND ENVIRONMENT SCIENCES Micmoret, Israel**

The school of marine sciences and the Mediterranean research center will be the main academic institution of this field in Israel. Its location in the immediate proximity to the sea supports greatly the academic and environmental qualities of the new campus. The immediate contact of academic staff and students to marine environment intensifies and deepens the research and the educational experience. The direct visual contact and the exposure to marine environment will inspire the students, academic staff and visitors.

The campus is designed around an internal courtyard that can serve for educational gatherings. The main entrance is elevated so the visitors are entering through a bridge while walking above a educational and research pool.

Lecture and convention halls, observatory tower, laboratories, library, and a cafeteria were designed within the building.

The campus will contribute to the local community of Mikhmoret and to the national park located nearby.



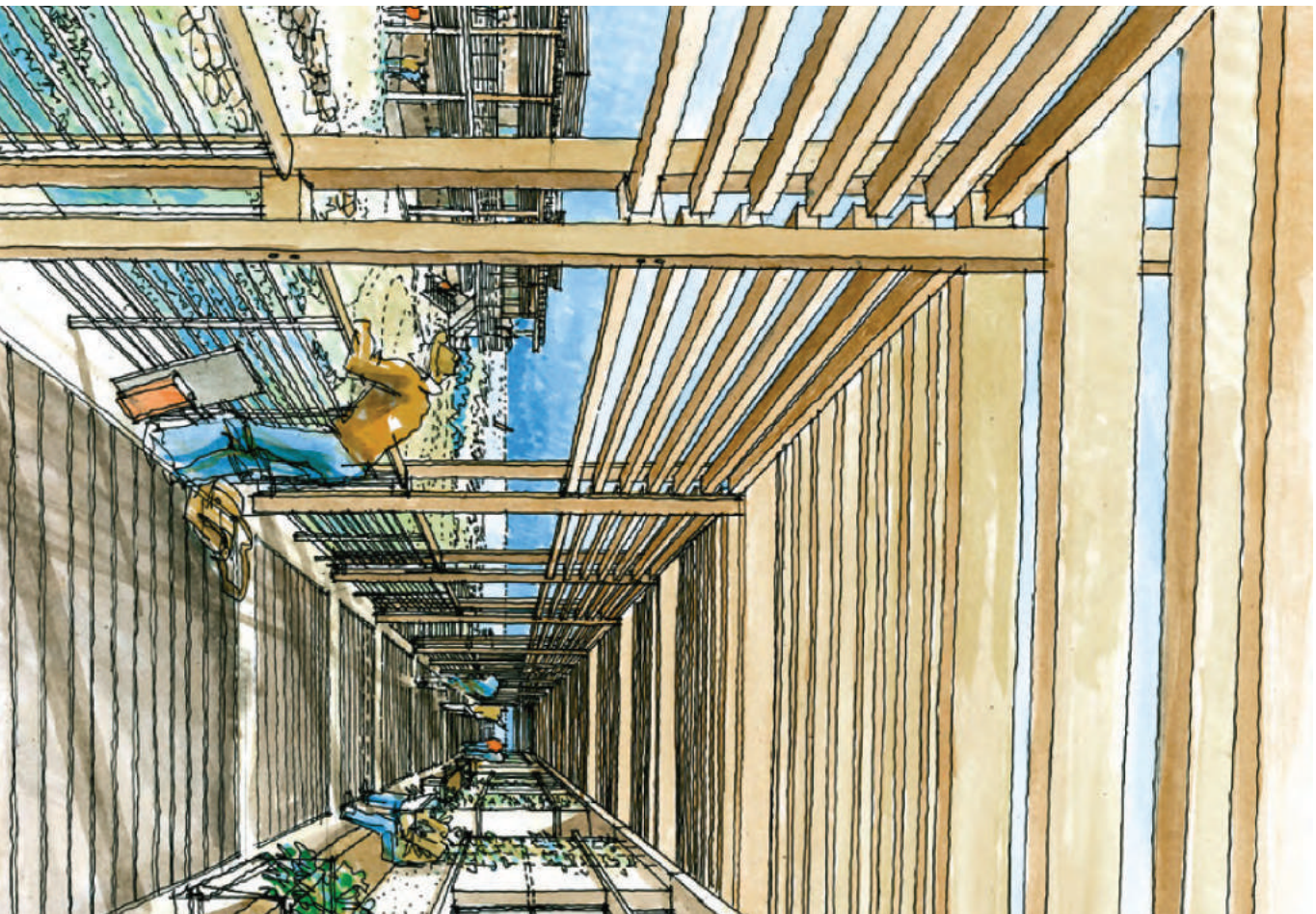
▲ The Ruppin Academic Center (Model) in close proximity to the Mediterranean shore.





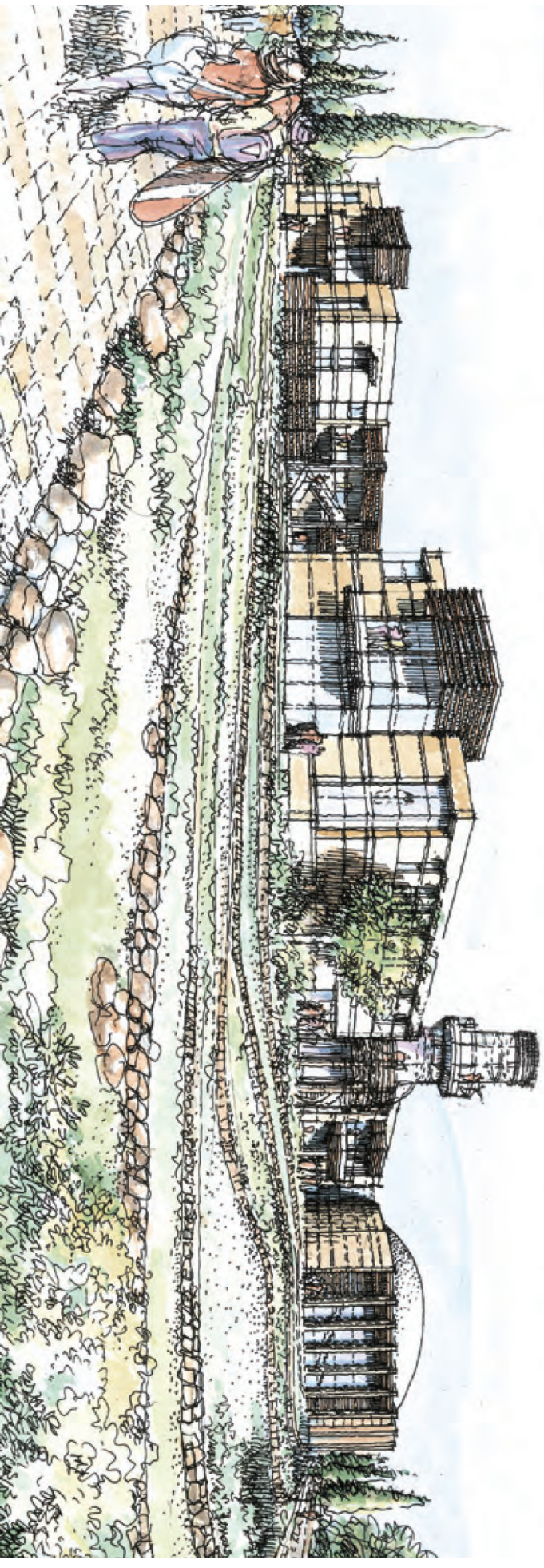
▲ The building welcomes those who come from the sea - A view from west. (Model)

▼ The campus buildings: Library, labs, lecture and convention halls surround the central courtyard. Outdoor shaded passages provide constant contact between the building and its surrounding.



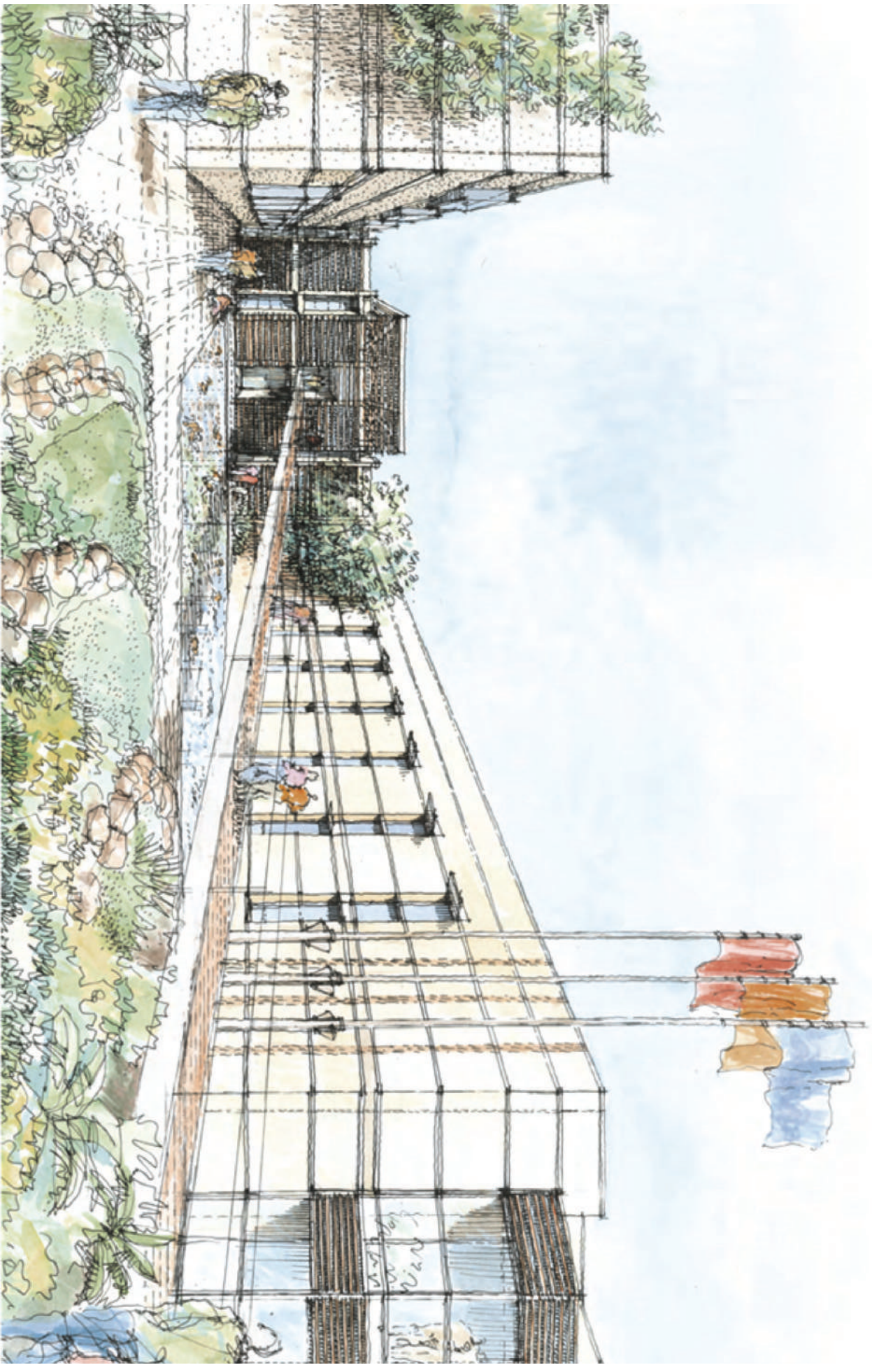


▼ A view from the west towards the convention hall and the observation tower.





▼ A view from the east above the bridge towards the entrance.





## **LAKE SIDE RETIREMENT HOMES**

**Genosar, Israel**

Kibbutz Genosar added a retirement village to the north - along the Sea Of Galilee. The form of this project undulates to allow undisturbed views to the lake from each room. The promenade along the lake and the courtyards compliment with the dwellings. The first stage of 60 residences (out of 300) was recently completed.







▲ Late afternoon view from the Sea Of Galilee.



▲ Materials and patterns studies.

▼ A view of the village from the east

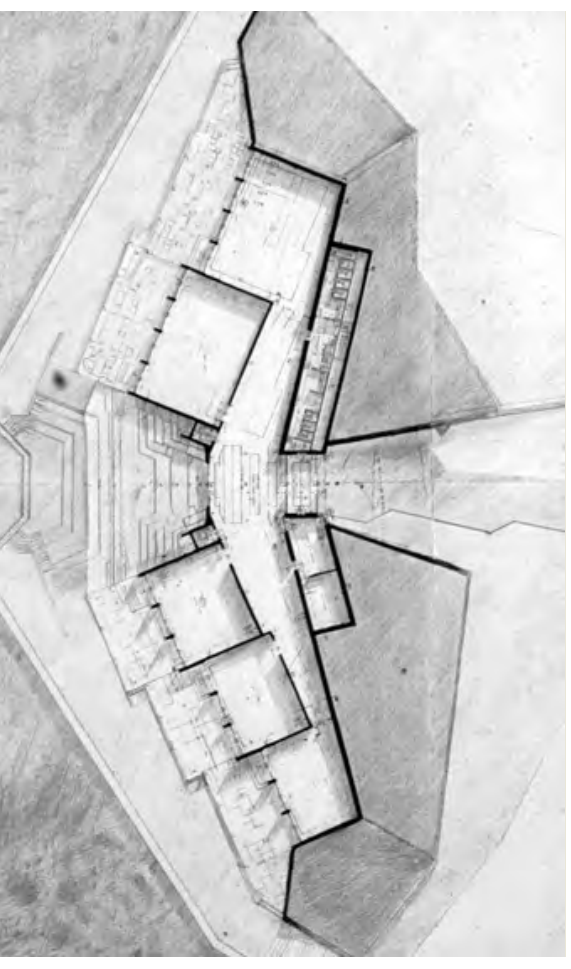
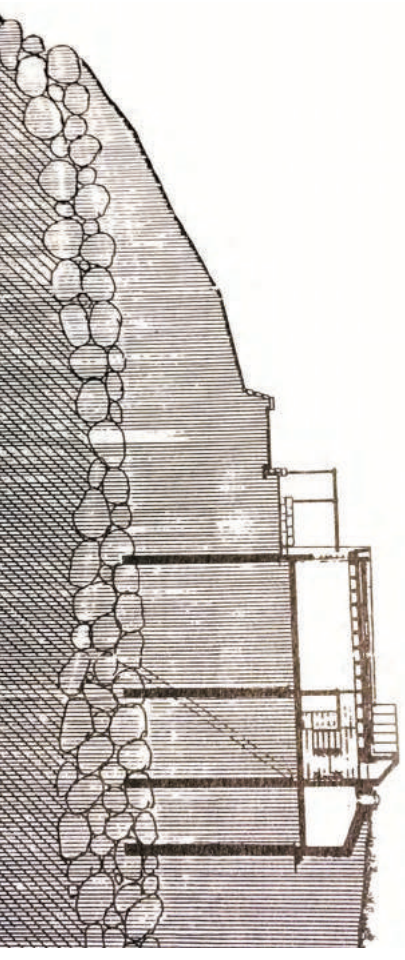




## **EDUCATIONAL CENTER**

### **Sede Boker, Israel**

The “Gadna” Desert Educational Center demonstrate through architecture the importance of sustainable design in harmony with the natural setting. Bioclimatic design was the first priority in this project. The over-riding concept was to design the educational center as an earth sheltered building, responding to major hot/cold variations of the area so as to create a stable and moderate temperature inside the building. The building was located on a slope, built into the hill, with a predominant views to the desert. As a special feature, stone pieces from around the region were displayed in the wall design. The building spread like wings, embracing the desert and sitting low in the landscape, almost unnoticed when approaching from the north. On the exterior southern walls, a steel sun trellis allowed for shade and protection. The whole desert was the focus of the building and was the outdoor arena for the site.

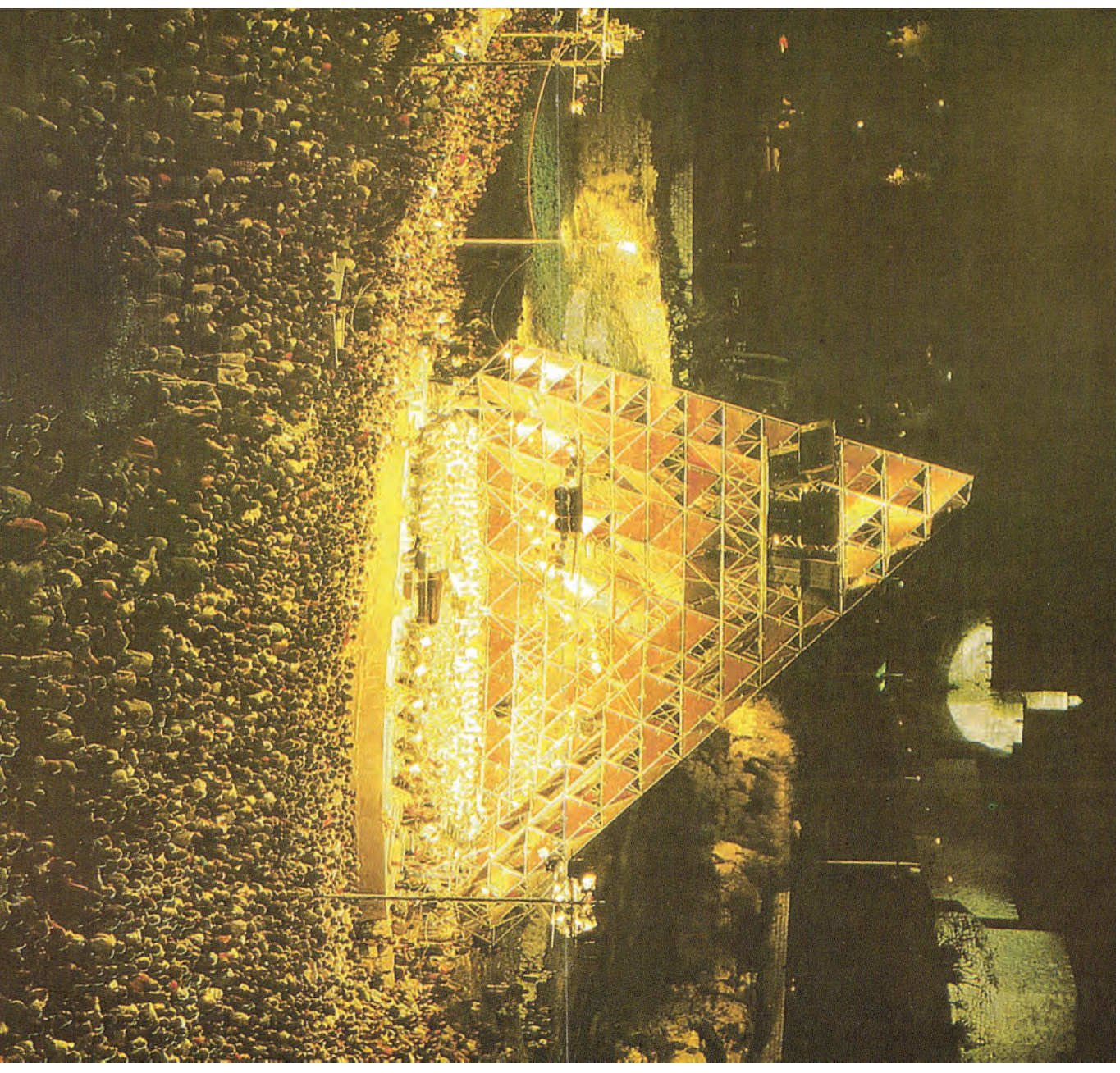




## **SULTAN'S POOL - AN OPEN AIR AMPHITHEATRE** Jerusalem, Israel

Cradled in the Hinnon Valley that lies to the west of the Old City of Jerusalem is the Sultan's Pool. This Natural valley was dammed by King Herod and in 1536 by Sultan Suleiman The Magnificent to contain water for the Old City and is now an open air amphitheatre. The area was designed so as to terrace the amphitheatre with the existing natural stone while stone stage is enhanced by a large steel space frame backdrop - an "acoustic shell" that breaks down after each summer season and is stored under the stage. The amphitheatre then becomes a landscaped valley through the winter until the summer performance season returns. The backdrop for this theatre is the Old City of Jerusalem.

\* For the past years the acoustic shell wasn't build and several changes were made to the original plan.





## **THE “OFEL” PROMENADE & THE OLD CITY OBSERVATION POINTS**

### **Mount of Olives, Jerusalem, Israel**

In 1990 we prepared for the Municipality of Jerusalem the master plan for the Mount of Olives - from the Eastern Wall of the Old City to the Ridge of the Mountain. The total area of the plan was 106 hectares, slightly larger than the Old City. Its main objectives were to preserve the biblical landscapes of the mountain facing the Old City and to allow public access to this unique part of Jerusalem. Until 1990 it was barely possible to access the Mount of Olives and there was no location from which to observe the Old City from the East.

A series of promenades and belvederes have been planned and built:

1. Lion's Gate - St. Stephen's Gate - a segment of the Via Dolorosa and the ascent to the Gate.
2. Absalom's Monument Observation Point below the highest part of the Old City Wall.
3. The Ofel Promenade below the Golden Gate facing the Kidron Valley and the Mountain.
4. The Gethsemane Square and Jericho Road Promenade.
5. The Cohanim Ascent to the mountain and, finally.
6. The Mount of Olives - three observation theaters overlooking the Old City.

This is an ongoing project. It has continued intermittently for more than 20 years and the work is still progressing connecting the mountain with the Hebrew University and up the hill from Gethsemane. There are some advantages to the slow development of such a project: It allows for contemplation and reevaluation of the spiritual and visual "treasures" of this unique space and for careful enhancement of the experience of the Mount of Olives and Kidron Valley.



▲ Visual dialogues accross the Kidron Valley - A view towards Gethsemane



▼ The observation points serve as “introductory stations” to the Old City.



The principles of the plan are as follows:

1. The new additions to the valley and mountain participate in a dialogue with the monuments of this defined space: The Square in front of All Nation's Cathedral forms an axis with the Golden Gate across the valley. Each of the 3 seating areas on the Upper Promenade faces a different segment of the Old City's Panoramic setting: The Al Aqsa Mosque above the "Kotel"; the Dome of the Rock and the Church of the Holy Sepulchre; The Golden Gate and St. Stephen's Gate.
2. The architectural elements combine the light transparency of the metal work with the heavy agelessness of the stone work. The benches are heavy stone blocks (approx. 200 kg) and presumably will remain in place for some time.
3. The Promenades and Observation Points are placed in strategic locations to expose views in all directions. The visual complexity of this sacred space required a balanced distribution of attention to the many varied focal points on this mountain.
4. The system of paths is intended to serve the large groups of persons using this space - residents, tourists, pilgrims.
5. An open planning process was structured in order to allow collaboration with other architects (such as S. Ahronson).
6. The Observation Points focus attention on the major monuments of Ancient Jerusalem.



▶ The Kidron valley "frames" the Old City from the east



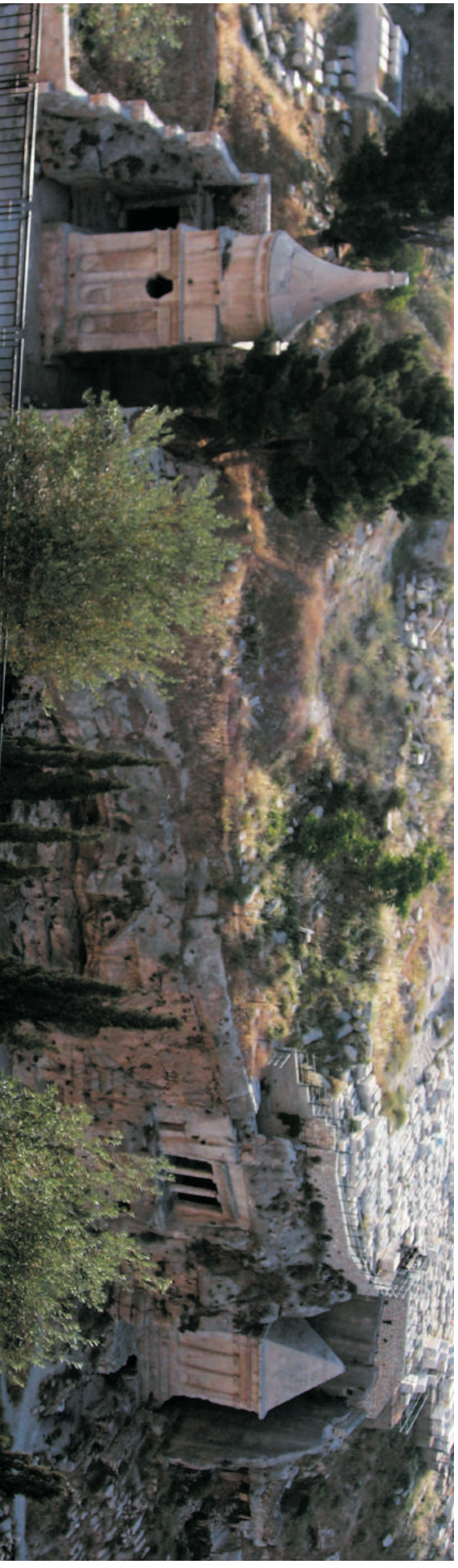


▲ The “Ofel” Promenade - Detail of seating places facing the Mt. of Olives, vegetation and stairs.



▲ The “Ofel” Promenade below the Old City of Jerusalem.

▼ The Absalom and Zacharia Tombs as seen from the “Ofel” Promenade.









# **A COMPREHENSIVE PLAN FOR THE YARKON RIVER**

## **Israel**

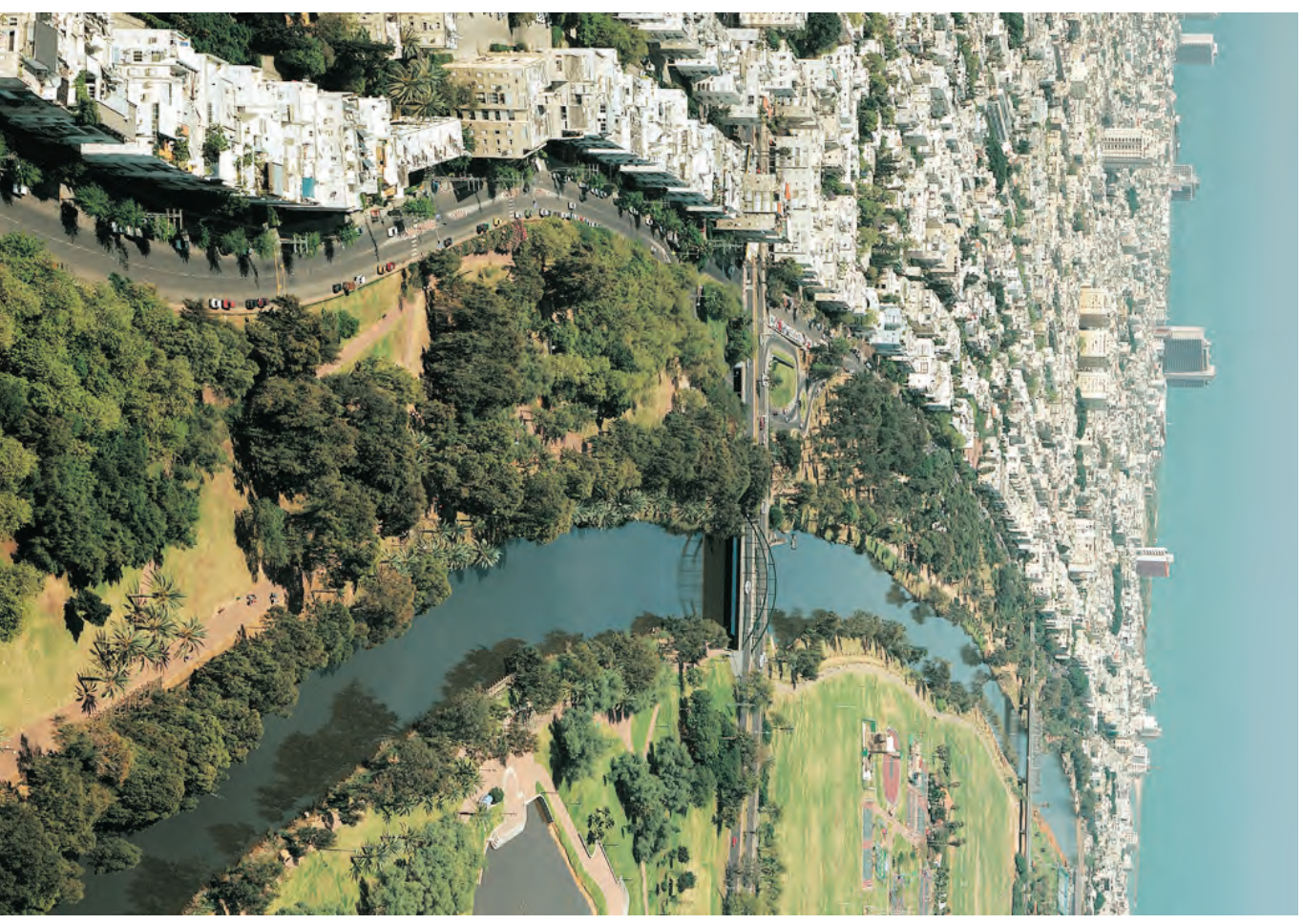
Rivers have hydrological function.

However their urban and social function is unique and it can change the quality of life of communities that reside along the river.

The Yarkon river comprehensive plan transformed the quality of life of millions of residents of the most densely populated area of Israel. The decline of the Yarkon river basin which started in the 50ies of last century was a result of intensive pumping of spring water diverted to cities for urban usage and for irrigating the agriculture of the Israeli desert. The wasteland which resulted from this loss of water supply created a poor urban environment along the Yarkon.

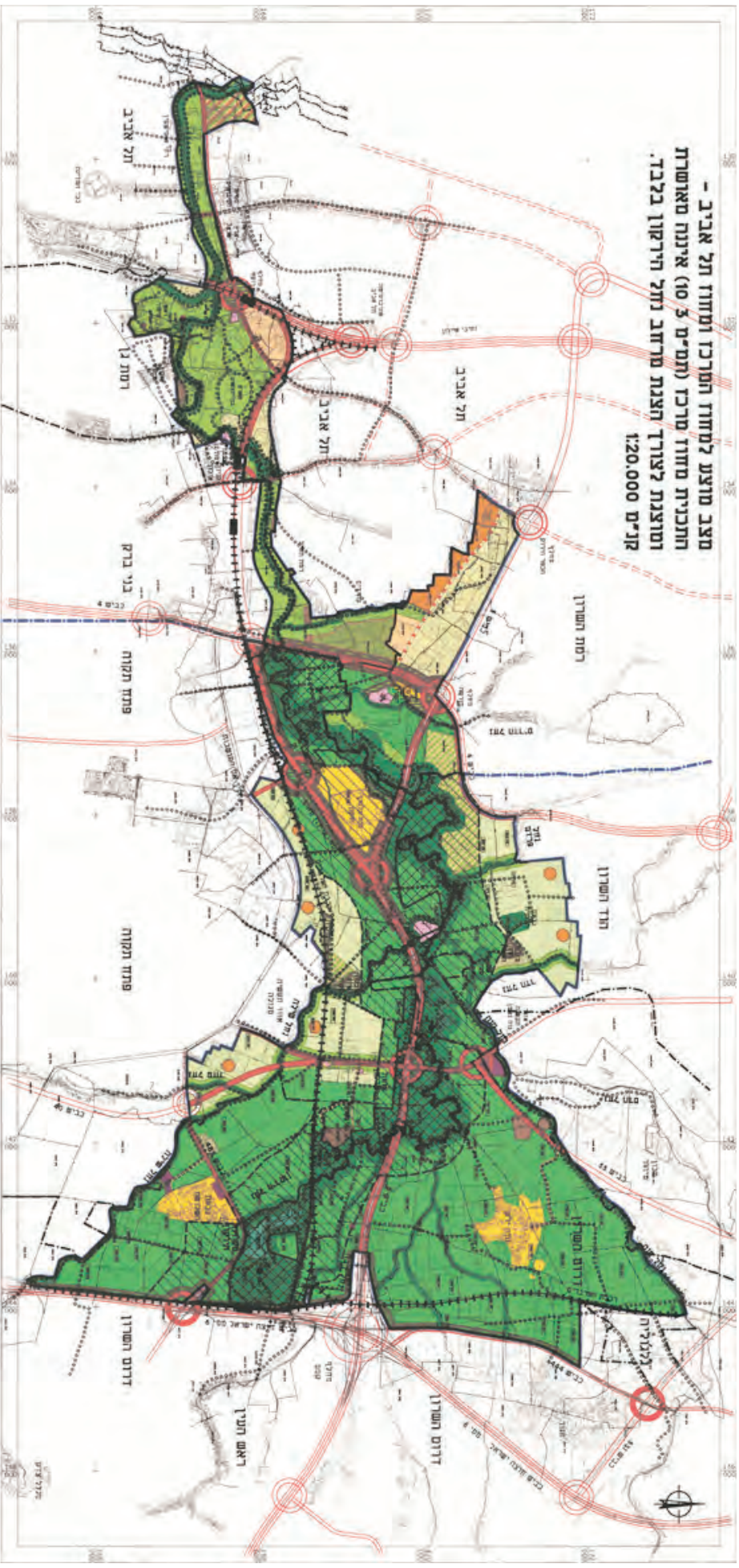
The master plan for the Yarkon river created an holistic approach to a region that stretches for 28 km and is 38 square kilometers connecting the slopes of the hills on the east to the Mediterranean. 7 urban continuous municipalities dwell along the Yarkon River that creates together the longest conurbation in the country.

- ▶ A view from east towards the meeting point of the Yarkon and the Mediterranean.
- ▶ On the opposite page: The Yarkon - Metropolitan Park, links the Mediterranean to the mountain ridges (to the east) connecting 7 cities and over 1 million residents.





**מצב סוציאל-כלכלי ומרחבי תל אביב -  
התכנית מרחבית (תמ"מ 5/10) איננה מאושרת  
ומוצגת לצורך הצגת מרחב תל הירוק בלבד.  
קני"מ 1:20,000**



	ראשת ים גז (תמ"מ 5/10)
	אתר לטיפול באשפה (לפי תמ"מ 5/10)
	בת עליס
	שטח להכנס בעתיד
	שטח לשימוש בעתיד
	שטח להכנס בעתיד - שטחים מתוכם
	שטח להכנס בעתיד - שטחים מתוכם יאבדו
	אזור יערי/בדש ממוזג
	גבולות
	גבול תחנות
	גבול תחום שטחים מוגנים/מיועדים

	מפני ציבור
	שטח למבנה ציבורי
	כבישים ותשתיות
	דרך מוארה
	דרך פרברית מוארה
	דרך ראשית
	דרך אזורית / דרך מסומנת
	דרך תחומית - סימן סכמתי
	מחלה
	שטח למסילת ברזל ותחנה
	מתחם תשתיות
	קו תעמול, לר"מ תמ"מ 5/10

	<b>מקור: תמ"מ 5/2 / מצב מוצע:</b>
	נחלים
	נחל הירוק
	יובל ראשית/מעשה/עזרת נקוד
	שטח מתוח
	שטח לעיסוקים נגי חיות
	שטח לעיסוקי תעשייה סביב נגה
	שטח חקלאי מיוחד
	שטח למכא ונושא אינסופי וספורט
	שטח ציבורי מתוח
	שטח לעיסוקים נגי חיות
	אתר מרתון/אתר עתידות
	שביל אופניים וחולכי רגל



# **THE CENTRAL PRECINCT OF ISRAEL**

## **Jerusalem, Israel**

### **"Democracy, Culture, Knowledge, Leisure"**

The highest prize in an open national planning and urban design competition.

In 2008 the municipality of Jerusalem initiated a public planning and design competition for the most central precinct In Israel:

A total area of 360 hectares (3,600 dunams ) - this precinct Includes the Knesset , the Israel Museum and Shrine of the Book, the Hebrew university, the Government Center as well as 5 major parks.

To the north this precinct connects to Jerusalem CBD, Jaffa Street, the Central Railway Station and Central Bus Station. To the east, west and south the precinct borders with 10 residential neighborhoods (with population of more than 60,000 residents) and with the major Sport Center of Jerusalem.

The precinct is surrounded by the main arteries of Jerusalem that actually disconnect it from the city due to the heavy traffic. At present this huge territory is not conceived as united urban entity.

This plan has several objectives:

#### **1. The Centrality of the Precinct within Metropolitan Jerusalem -**

It connects the major entrances to the city and the 4 major regional parks (on 4 directions) - that are now disconnected. The Old City Park, the Refaim Valley, the Herzl Mountain and the Hatarazim Valley.

#### **2. Within the Precinct there are 5 parks, gardens and natural open spaces -**

The plan proposes to connect all these 5 separated urban entities into one continuous urban park.

This park will supply "Green Connections" between all components of the precinct - for residents, visitors and employees (there are over 30,000 employees in the Precinct).

#### **3. The Ruppim diagonal -**

The urban grid of precinct is based on the orthogonal directions (north - south and east-west). Ruppim Boulevard is the only major axis which is diagonal. This orientation establishes unique situation in central Jerusalem. It connects all orientations (north, east, south and west) with the most important national and urban functions. By doing so, Ruppim Boulevard establishes itself as the most important public boulevard in the city (and in the country).



#### **4. National institutions along Ruppin.**

At present there are no "addresses" on Ruppin. It functions as a drive-through road. In our analysis of the site we identified more than 30 major institutions that are situated in the proximity to Ruppin but at present are disconnected from this boulevard. The plan proposes to direct all front facades of major institution towards Ruppin Boulevard.

Since the competition ended - 3 major institutions have already adopted this concept and have positioned their main entrance on Ruppin Blvd. The National Library, the Government Center and the Nature Museum.

#### **5. "Green Bridges"**

The 10 neighborhoods that are situated around the precinct are at present, practically, disconnected from the precinct by heavy traffic arteries. Crossing from homes to the "Central Park" is a dangerous endeavor. The plan proposes several "Green Bridges" and few on-grade pedestrian friendly crossings. This is much more than traffic improvement. This is "a change in mind-set". The residents will become connected to the university, museums, parliament, government, center, library and parks.

The implementation of such a vision will take several years. This is a long, natural process. However the direction is important. The stage by stage realization and the dynamics of change are crucial. This is a national and urban transformation, from disconnection and governmental alienation - to democratic and civil integration between the citizen and public domain.

#### **6. The "Citizen - Institutions" relationship.**

The development of the Central Precinct of Jerusalem will create a "new bond" between the most important institutions of the country and the citizens. The institutions of "Democracy, Culture, Knowledge and Leisure" will have synergic relationship with the nearby residents and in a metaphoric way with the citizens of the entire country.






























## מקרא

	פארק ציבורי אינטנסיבי
	פארק נוף ותרבותי
	טבע עירוני / פארק אקסטנסיבי
	בניינים קיימים / מאושרים
	בנייני ציבור קיימים / מאושרים
	בנייני ציבור מוצעים
	כביש ראשי
	כביש משני
	שביל לחולכי רגל ולאופניים
	קו רכבת קלה
	תחנת רכבת קלה
	שדרה עירונית ראשית
	גשר ירוק
	קישור בין שכונה לפארק
	מעבר ירוק
	חניית מסע
	גוף מים
	ערוץ מים - ניקוז מי נגר עילי
	מתקני ספורט
	ציר ספורט
	תחנת השכרת אופניים



► The National Precinct contains 6 major parks. They will be interconnected and transformed into the “Central Park” of Jerusalem.





▲ The bicycle trails



▲ Green bridges connect the National Precinct with 10 residential neighbourhoods.

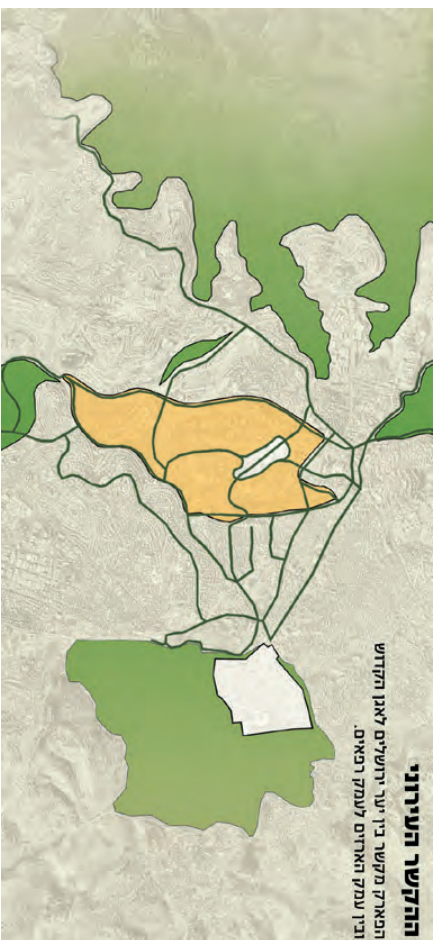


▼ Ruppin Boulevard



▼ The main square in front of the Knesset and the National Library.





- ▶ The "Central Park" is connected to the four major parks in Jerusalem - Including the Old City.
- ▶ Green connections to urban structure.





## **THE KIDRON VALLEY - WADI EL NAR MASTER PLAN AND ACTION PLAN**

The Kidron Valley/Wadi Nar begins in the Jerusalem neighbourhoods of Meah Shaarim and Talbieh, skirts the ridges of Mount Scopus and the Mount of Olives, passes through Silwan and continues through the Judean Desert to the Dead Sea. Some of the Middle East's most famous cultural, religious and historic sites dwell in harmony in the valley, along with underground watercourses, monasteries and breathtaking desert landscapes.

Unchecked development and neglect, however, together with an increase in population, has had major health, environmental, and economic consequences. Today one of the great centres of civilization serves as a conduit for raw sewage and a depository of solid waste. The amount of raw sewage from Jerusalem and the riparian towns in the Palestinian Authority exceeds 15 million cubic meters a year. This unacceptable situation requires immediate action, ignoring borders and political differences. It also requires political decisions without regard to the final agreement between Israel and the P.A.

In 2009 the Dead Sea Drainage and River Authority decided to meet the challenge, and with the City of Jerusalem, set up a steering committee including representatives from the Ministry of Environment, the Peres Center for Peace, the Jerusalem Institute for Israel Studies and the Milken Institute to oversee the development of a Kidron Valley Master Plan. The steering committee is chaired by Professor Richard Laster.

The Master Plan, headed by Arie Rahamimov and Liora Meron, and composed of a multi-disciplinary team of experts, was completed in January 2012. It identifies the issues, concerns and problems of the Kidron Valley/Wadi Nar and recommends solutions. A master plan, based on ecological, historical, physical, economic and geographical terms agreed upon by both sides will serve the best interests of the Valley, regardless of present or future political sovereignty issues. There is no alternative to collective action when managing a shared international basin. Nature, ecosystems and the intricate interaction between water, climate, soil, flora, fauna and people can only be protected by collective action.

During the Master Plan process, contacts were made in East Jerusalem and beyond the Green Line to improve communication in the Valley. The active involvement of Suleiman Al Assa, the Mayor of Ubadia, a small town of ten thousand residents, changed the debate over the treatment of sewage from a political issue to a health imperative. Suleiman also engaged the mayors of the adjoining towns to create an association of towns for environmental protection, to put pressure on the Palestinian Authority to resolve the sewage issue. His efforts have borne fruit and the P.A. sees the benefits of a joint treatment plant for all the sewage in the Valley, and is willing to cooperate with Israel on this issue.

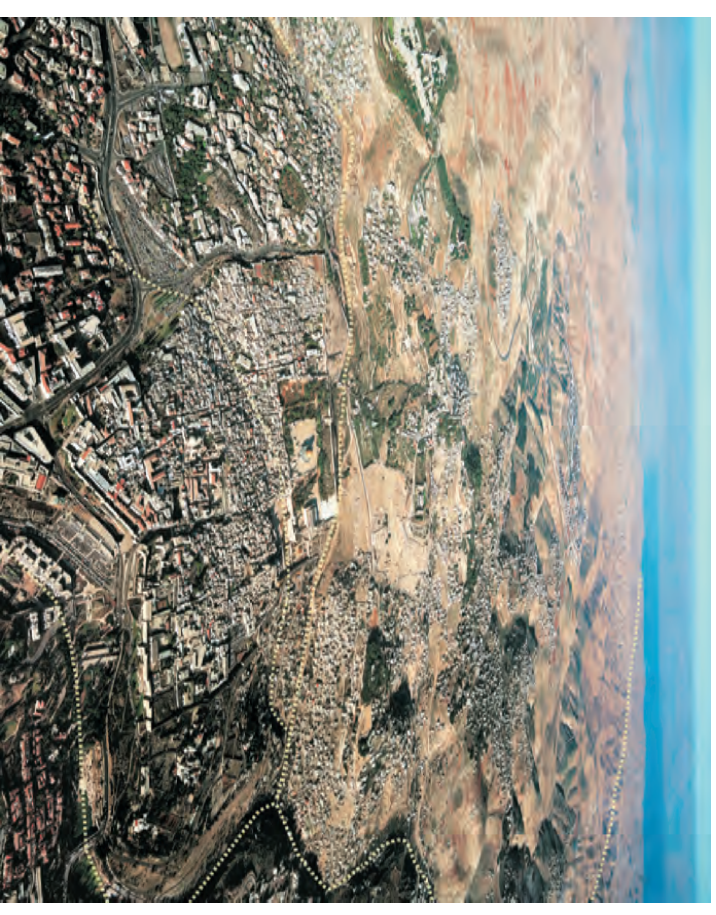
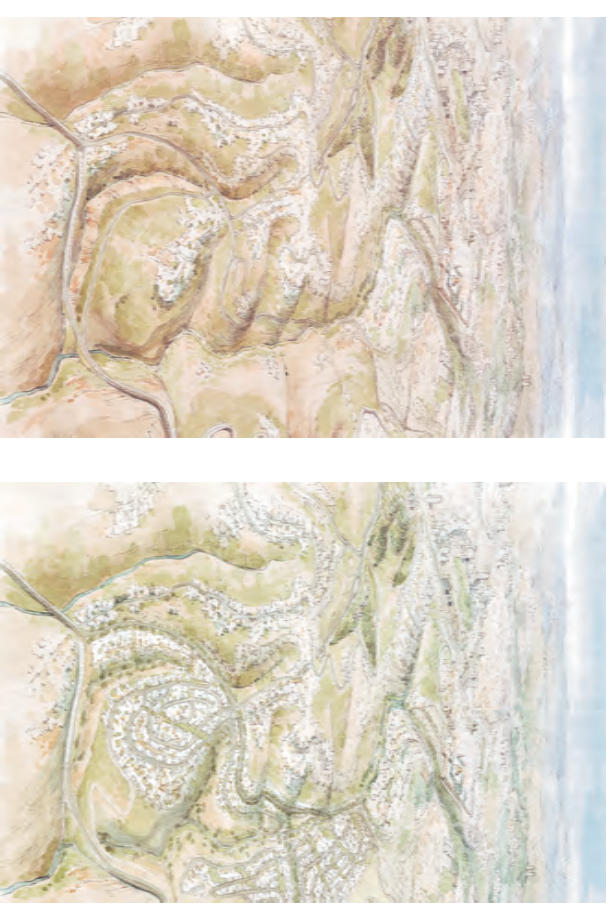
In time the steering committee has been replaced by a basin committee, composed of representatives of Israel and the Palestinian Authority. The basin committee works through smaller committees, each working on an environmental initiative in the basin. At present there are some 15 initiatives working parallel in the field of water pollution, irrigation, solid waste, recycling, rain water harvesting,



environmental education, bio gas and joint scientific initiatives.

Improving the quality of the discussion, we have joined forces with numerous experts from all over the world, as well as institutions who support our efforts, such as the Portland Trust, scholars from European institutions and Rotary International. One of the most active supporters of the master plan process is an NGO known as Engineers Without Borders. EWB has members in Israel and the Palestinian Authority and they have worked untiringly to improve the quality of the environment in the basin. Due to their efforts, the basin committee has adopted a slogan for our work: to bring environmental dignity to the people and the environment in the Basin.

The major beneficiaries of the Master Plan are the Valley residents themselves, both the citizens of Jerusalem, Bethlehem, Ubadiya and the other towns in the region, as well as the region's Bedouin and monks. Improved planning, land usage and infrastructure will convert the Kidron Valley/Wadi Nar from the back door of history to its rightful place as a showcase for residents and visitors alike. It is now clear to everyone involved that the basin approach reduces impassable problems to manageable levels. Just by changing one's viewpoint, ignoring borders and concentrating on improving the quality of the environment gives everyone a chance to improve their own livelihood, without compromising their political position.



Top left: Upper region at present.

Top right: Illustration of the region as planned and initiatives to be carried out in the short term.

Bottom: The boundaries of the project.

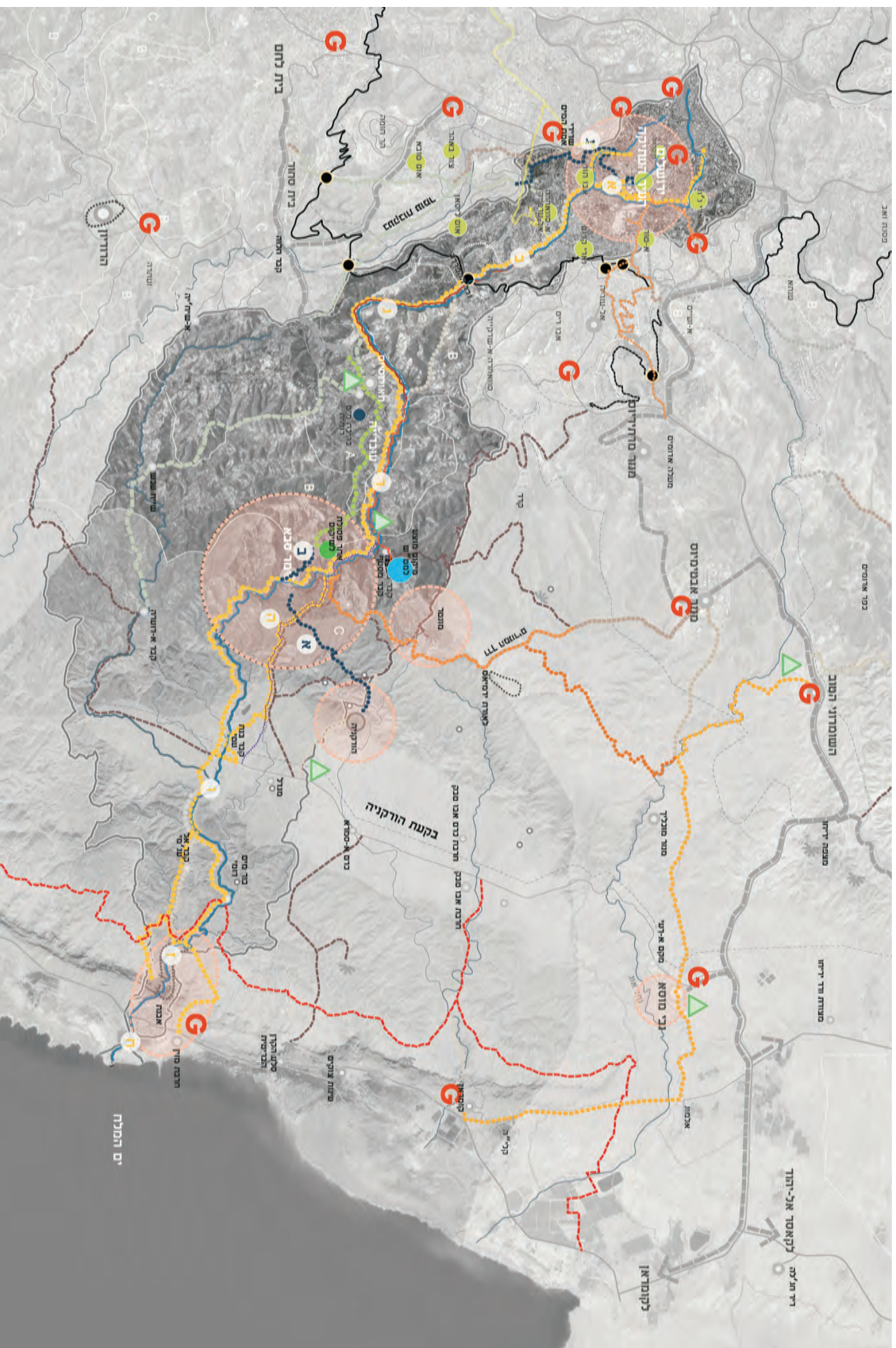












▲ Regional trails and major projects for implementation in the near future.





▲ The Kidron during flood

▼ Raw sewage flows at present freely along the valley



▲ Marsaba monastery

▼ The educational system in 17 schools in the valley are orienting towards the Kidraon. A major social and educational transformation.





## **“D” QUARTER**

### **Beit Shemesh, Israel**

The city of Beit-Shemesh has the largest land reserve in the Jerusalem district. 90,000 citizens reside in Beit-Shemesh today and the city is planning to expand to 250,000 inhabitants during the next 20 years. “D” quarter will have 50,000 inhabitants.

The quarter is located in a terrain which is ecologically and visually sensitive. It is also rich with archaeology sites and heritage. Tel Yarmuth, in the northern part of the quarter, is more than 3,000 years old palace and walled city. “Khirbat Kayafa” town is dated to King David’s period and it overviews the Ella Valley where, according to the myth the fight between David and Goliath occurred.

The quarter planning is based on ecological and environmental principles: Conservation of fertile valleys and agricultural terraces and high respect to endemic vegetation. Intensification of employment within the residential neighborhoods is an important planning principle. The major educational institutions are located in visually prominent locations and they will enrich the urban scene. The traffic hierarchy focuses on pedestrianization, bicycle lanes, public transportation and finally private vehicles. Major urban arteries are landscaped as boulevards with 3-4 lanes of shading trees. Diversity of housing types responds to variety of social groups - religious and non-religious populations.

The overall plan of the quarter is detailed within 6 neighborhoods - each one contains 1,000-2,000 families.

► On the opposite page:

An overall view of the residential quarter - 8,650 dwelling units



► Preliminary sketches of the residential quarter of Beit Shemesh.



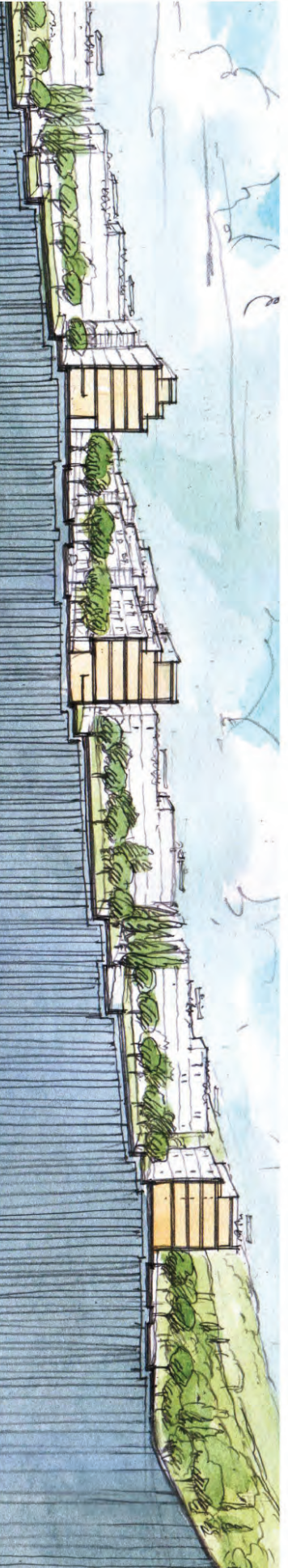






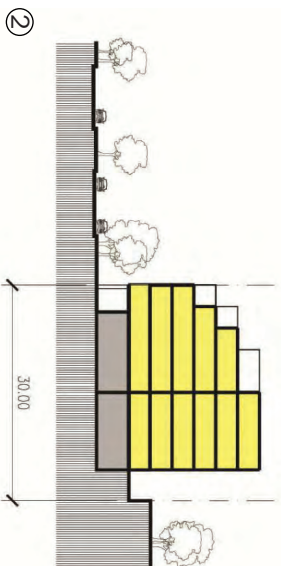
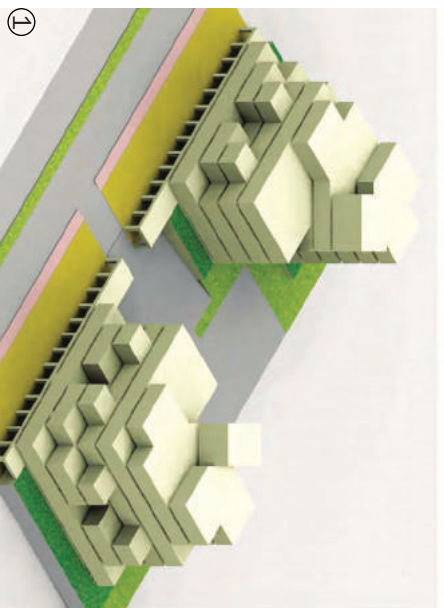






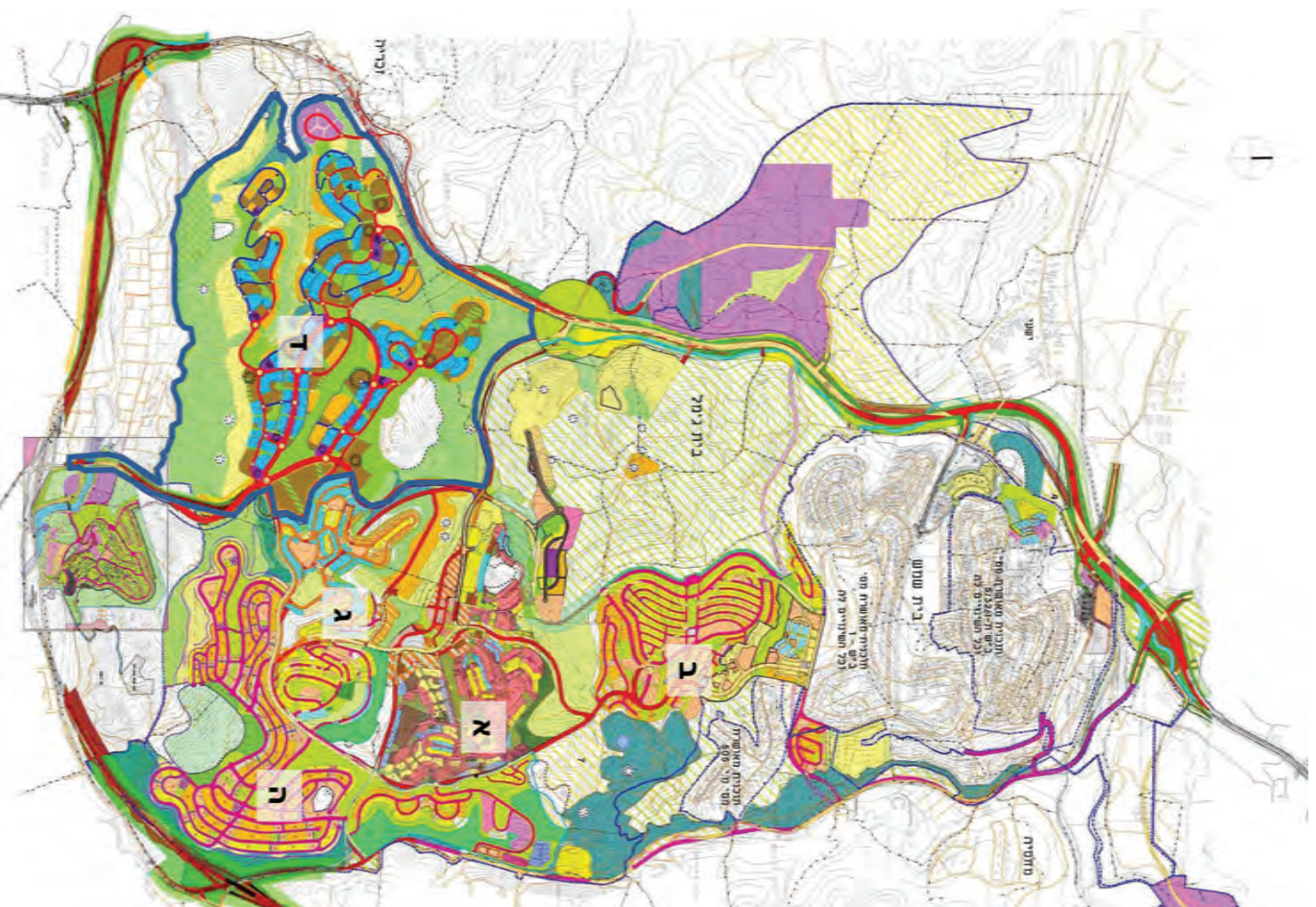
- ▲ Open valleys serve as linear parks.
- ▶ On the previous page: "Horse Shoe" shaped boulevard is the urban spine of the quarter.





תוכן א

- גבול חסימת
- גבול מרדף מבני
- מחלף עוקף עיריית בית שמש
- מחלף מסלול רחוב
- חומות חסימת מאשיות ספורט
- גבול נוש
- מספד נוש
- דרך קיימת או מאושרת
- דרך תוצעת או הרחבת דרך
- דרך לכביש
- מספד חודד
- קו בנין לדרך
- רדוב חודד
- שטח למעבר קווי חשמל ראשיים
- שטח למתקני תדפיס
- מתקני תדפיס חשמלי-יחומת מעשה
- מרכז תערי
- מרכז רובעי
- אזור מגורים
- שטח למסעדות
- שטח ספורט ונופש
- שטח פתוח ציבורי
- שטח חקלאי חידוד
- אזור מנוח או מנוע ליעור
- שטח נוף
- שטח לעיבוד נופ
- שטח סבט
- אזור חקלאות
- בית עמילן
- אזור עתידות לעיבוד
- אזור עתידות
- אזור תעשייה ומלאכה
- אזור תעשייה מלאכה ונופש
- שטח להכונן במחיד
- סטי אזור בשטח להכונן במחיד
- שטח להחנות רכבת
- קיימת או מאושרת
- מסלול רכבת קיימת או מאושרת
- מסלול למסעדת רכבת עתידית
- פסים עליונית



- ▶ "Building Blocks" of the residences.
- ▶ The residential quarter as a part of the entire plan of Beit Shemesh.





▲ Green valleys remain unbuilt - as linear parks.



▲ The "Israel Trail" connects the parks with the national "Green Grid".

▼ More than 3,000 years old "Tel Yarmuth" ancient city.



▼ "Khirbat Kayafa" overlooks the battle field of David and Goliath.





## JERUSALEM MAIN ENTRANCE

### Israel

The new main entrance to Jerusalem intended to herald the capital of Israel as its main cultural center. In addition to the Convention Center - Opera House and major exhibition areas were proposed.

The heights of buildings were restricted to 14 floors to preserve the fragile skyline of Jerusalem. Continuous pedestrian boulevards connect this area with the rest of the town.

This scheme received 3rd prize in the National Design Competition.

- ▶ Empowerment of the cultural experience and transferring it to the public domain. A spacious public square for performances, concerts and fairs.
- ▶ On the opposite page: The architecture of the complex is preserving the city's skyline.











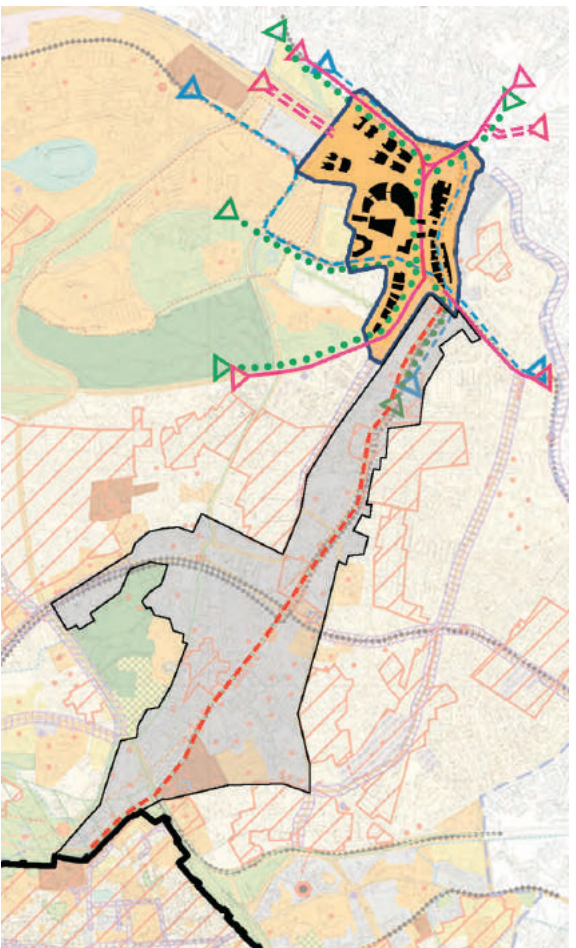
▲ The entrance to the city of Jerusalem is alive with different activities 24 hours a day. Activities related to residence, employment, culture and entertainment constantly intertwine, promising optimal utilization of infrastructure and vibrant urban life.

▼ A section. Natural light and vegetation are important at all levels.

They are accentuating the relation between transportation, commerce and parking facilities to the cultural events above ground.







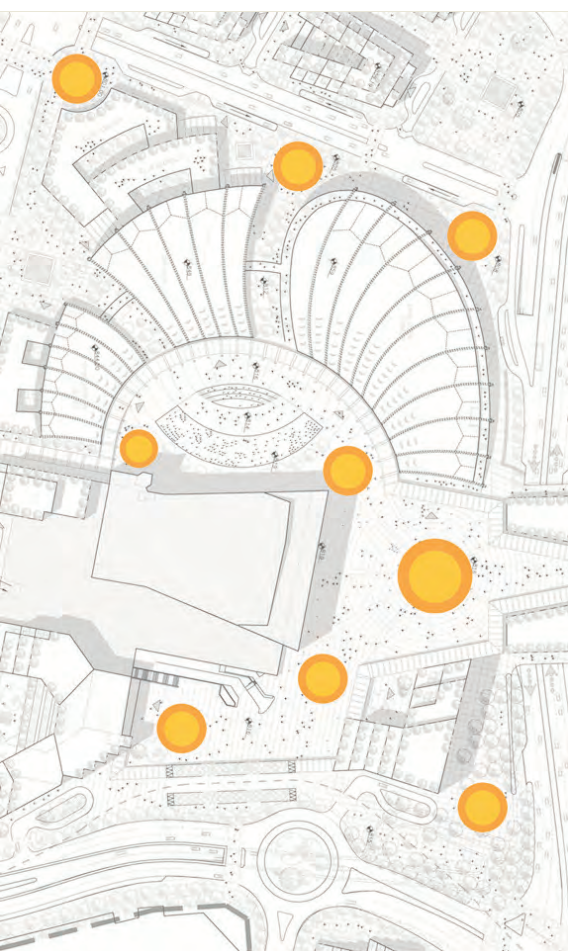
▲ Urban connections from the entrance of city to the main cultural, touristic, historical sites and the neighbourhoods.



▲ Biking as the preferable transportation strategy.



▼ Shaded "Green Routes", gardens, connections to main parks, urban nature and bird-watching. A sustainable entrance to the city of Jerusalem.



▼ Natural light penetrates the underground levels through several locations.





Components of urban structure - Culture, housing, employment, commerce.





▲ Aerial view. (Model)

▼ Employment as a leverage for development. Employment compound of a high standard for Israeli and international companies. Excellent proximity to public transportation, in Jerusalem, in Israel and to the airport. Proximity to the national decision making institutions: The Government and The Knesset.





## **COPPER MINE**

Timna, Southern Israel

Timna, located in the southernmost part of Israel, is among the oldest copper mines in the world. Although referred to as King Solomon's Copper Mines, Timna was actually an important copper supplier to the Egyptian Empire. Indeed copper, as a very important ingredient of the ancient weapon industry, played a major role in shaping the Middle East in ancient times. Then for thousands of years there was no mining at the Timna. Following establishment of the State of Israel, the modern copper mine served in the 1950s as a major employment source in the Israeli Negev. However, copper production declined in the 80s remaining dormant until 2005 when the Mexican Company AHMSA renewed copper production in Timna and initiated planning for a new plant.

According to these plans the new plant will cover a very large area of 1,500 hectares. There are two primary objectives for this project:

1. Establish a modern copper production plant which is based on underground mining, heap and tank leaching, solvent extraction and electrowinning.
  2. Rehabilitate the large open pits (remnants of the old 1980 plant) that have a very negative impact on the landscape of the Israeli desert. The plans have now been approved by the Israeli planning authorities and construction will start in the near future.
- The project incorporated the following architectural principles:
1. Minimization of earth works
  2. Use of local materials
  3. Use of bioclimatic planning methods for shading and ventilation
  4. Enhancement of the oasis effect within the plant

► Entrance to the Mine (top right) heap leaching pads (top left) and the copper production plant. (2009)











▲ A study model of an early version of the plant.

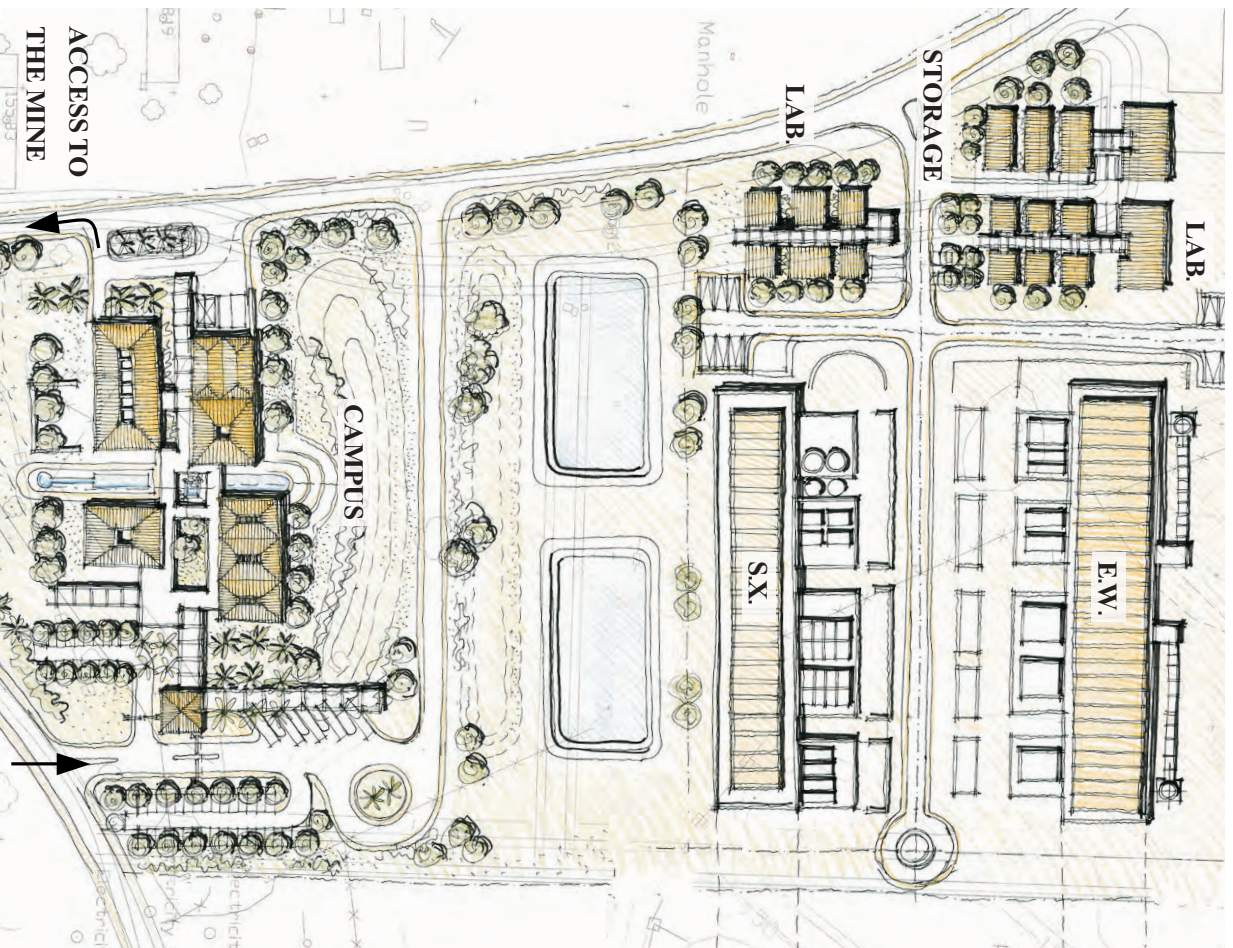


▲ Entrance to the mine - before restoration.

▼ General view of the Timna copper mine before restoration began. Open pits on the left are the result of mining in the 1970s.





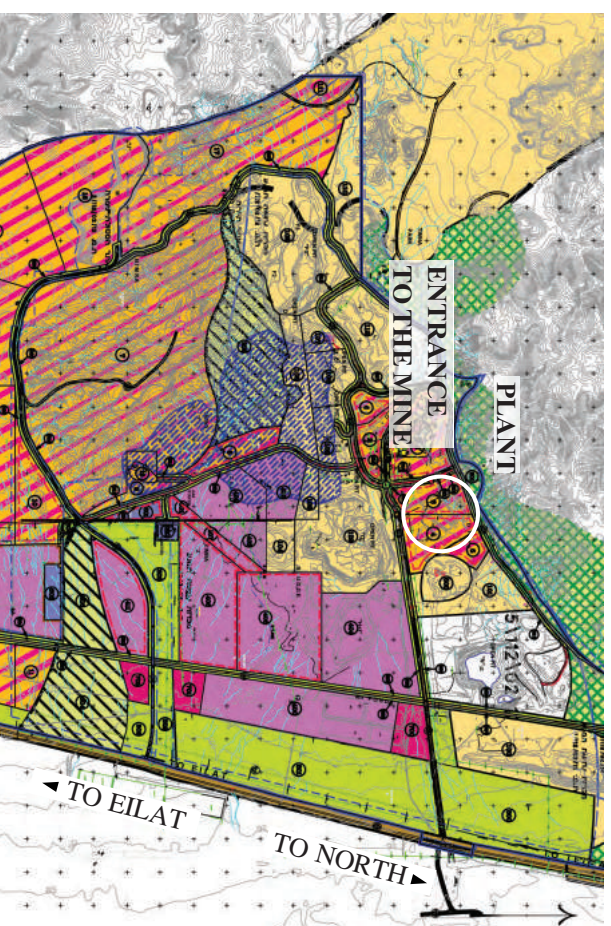


▲ An early study of the copper production plant - Electrowinning, solvent extraction, laboratories and campus.



▲ An early study for the headquarters of the mine-bioclimatic principles defined the form of the project.

▼ The entire plan is about 1,500 hectares.



▲ An early study of the copper production plant - Electrowinning, solvent extraction, laboratories and campus.



## **THE DIAOLOU TOWERS AND THE VILLAGES OF KAIPING - CONSERVATION AND DEVELOPMENT**

**China**

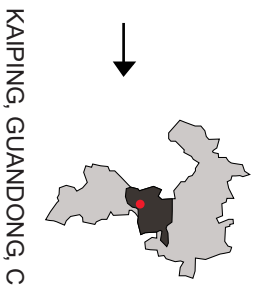
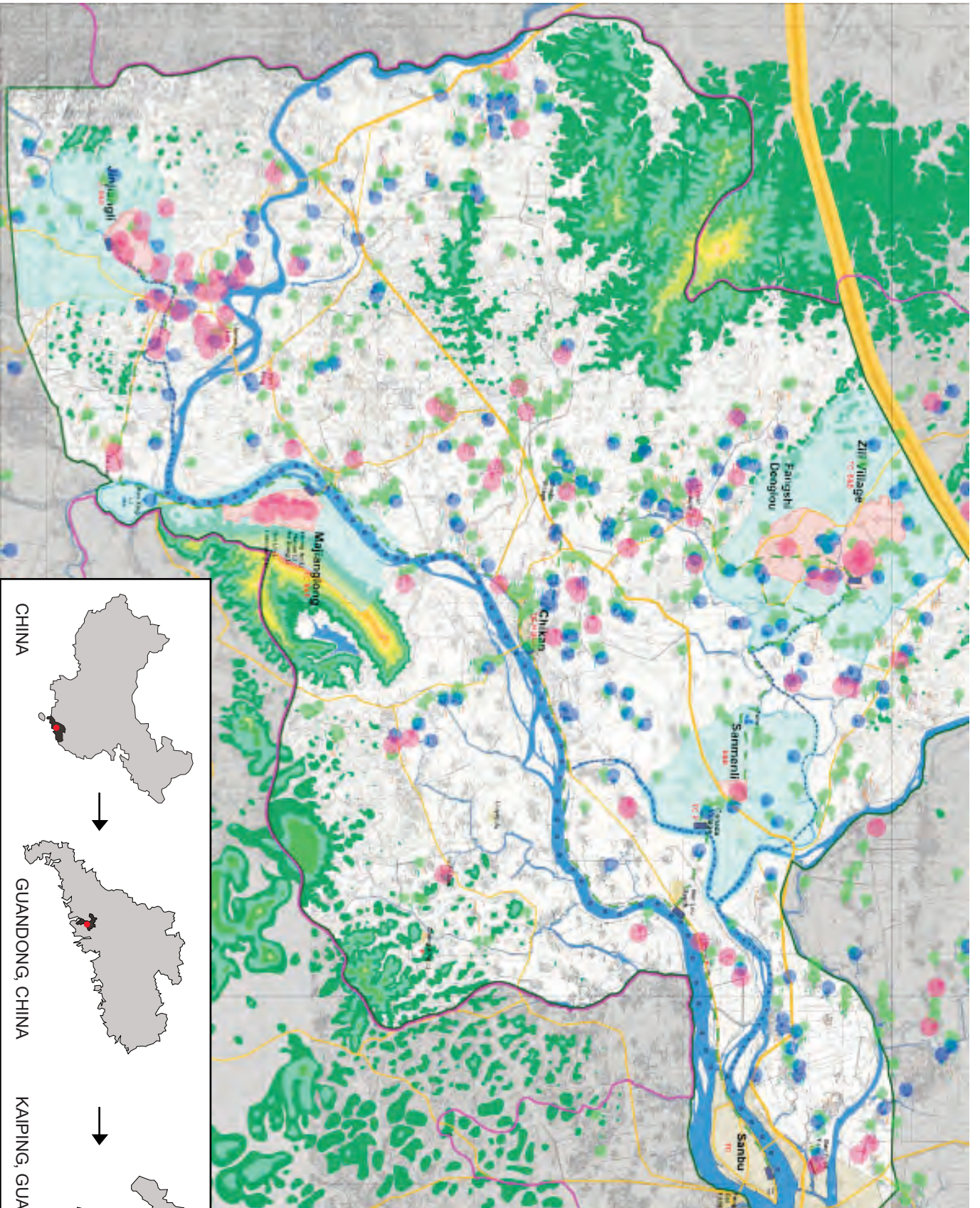
1,200 major towers have been built in Kaiping at the beginning of the twentieth century. They represent fine examples of republican, eclectic and historic styles. The plan transforms the towers and villages of Kaiping into major cultural tourism destination in the Pearl River Delta. This is a short review of a comprehensive study carried out by the Kaiping Protection and Management Office of Diaolou and Villages, during the years 2005-2006. Its main objective is to conserve and develop the cultural and natural heritage of the region, for the benefit of its inhabitants and visitors.

The area has been inscribed by UNESCO as a World Heritage Site, in 2007.

This project was prepared with Arch. Giora Solar.











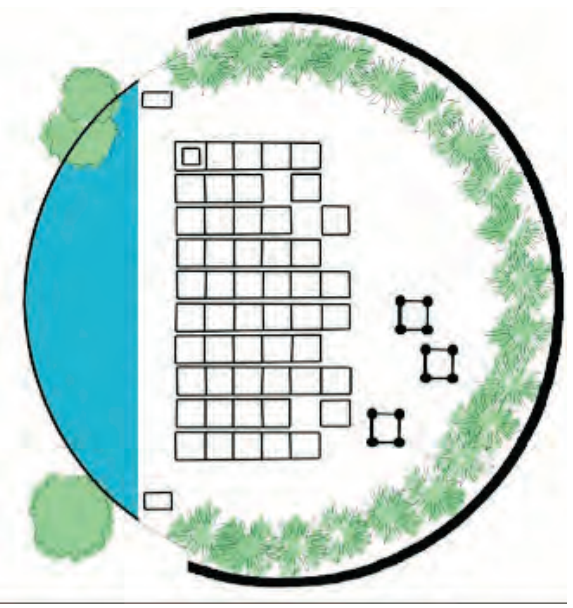
▲ The oldest watch tower (14th century).

▼ Private and communal Diaolous.



▲ A fine example of private Diaolou.

▼ A village and tower transformation to a cultural tourism destination.



▲ A model of a village and 3 Diaolous with bamboo walls, fish pond in the south, gate buildings and Banyan trees. A fine Feng Shui diagram.





▲ Highly ornate facade in the village.



▲ Typical residential building may be transformed into unique small historic hotel.

▼ 1,200 Diaolous - Watch towers were built along the river systems of Kaiping.





# MING TOMBS VALLEY CONSERVATION MASTER PLAN

China

The Ming Tombs Valley Conservation Master Plan was initiated by the State Administration of Cultural Heritage, commissioned by the Ming Tombs Special Administration and supported by the Changping district, Beijing.

The objective of the project is to develop a vision for the future of this important world heritage site. The plan deals with the conservation issues of the tombs and the entire valley. It deals also with crucial issues of land uses, traffic, drainage, tourism, and the development of a gateway to the valley.

The final chapter of the project is action plan to be implemented between now and year 2020. The Conservation Master Plan can be seen also as the management plan for the safeguarding and development of this world heritage site.

This project was prepared with Arch. Giorgia Solar.

► The three panoramas represent three phases of the valley:

1. Ideal view of the Ming Tombs Valley as it probably looked during the Ming Dynasty.
2. Present-day situation with villages, roads, powerlines, and other environmental conflicts.
3. Proposed situation with orchards instead of most villages, reduced traffic impact and reconstruction of the valley image.







► Conservation and construction control zones





Xianling



Qingling



Yuling



Yongling



Changling

Leaving as is



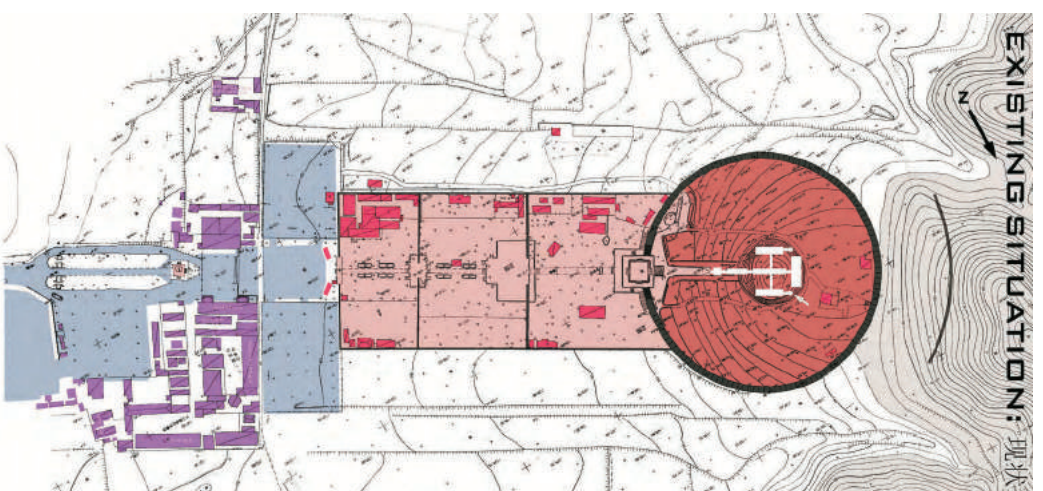
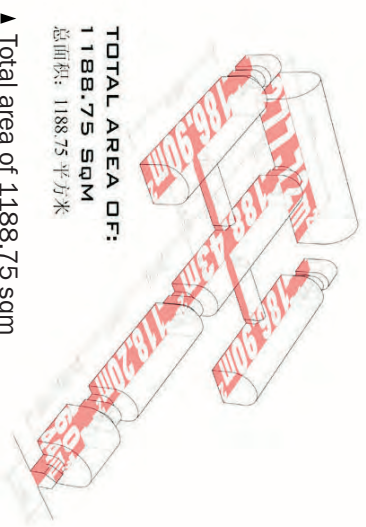
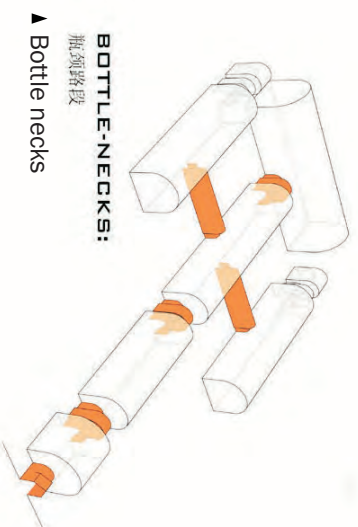
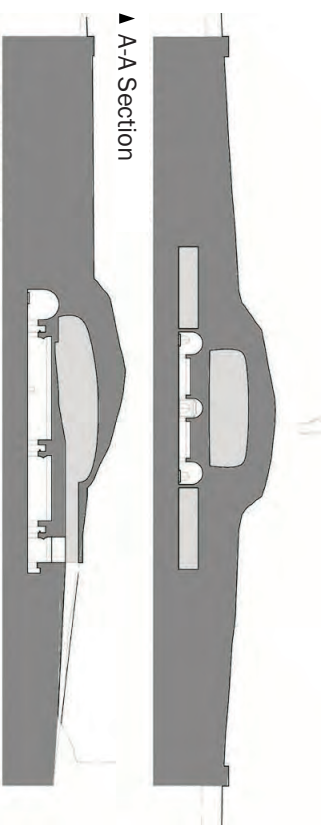
Renovation

▼ Protective screen - Different states of conservation

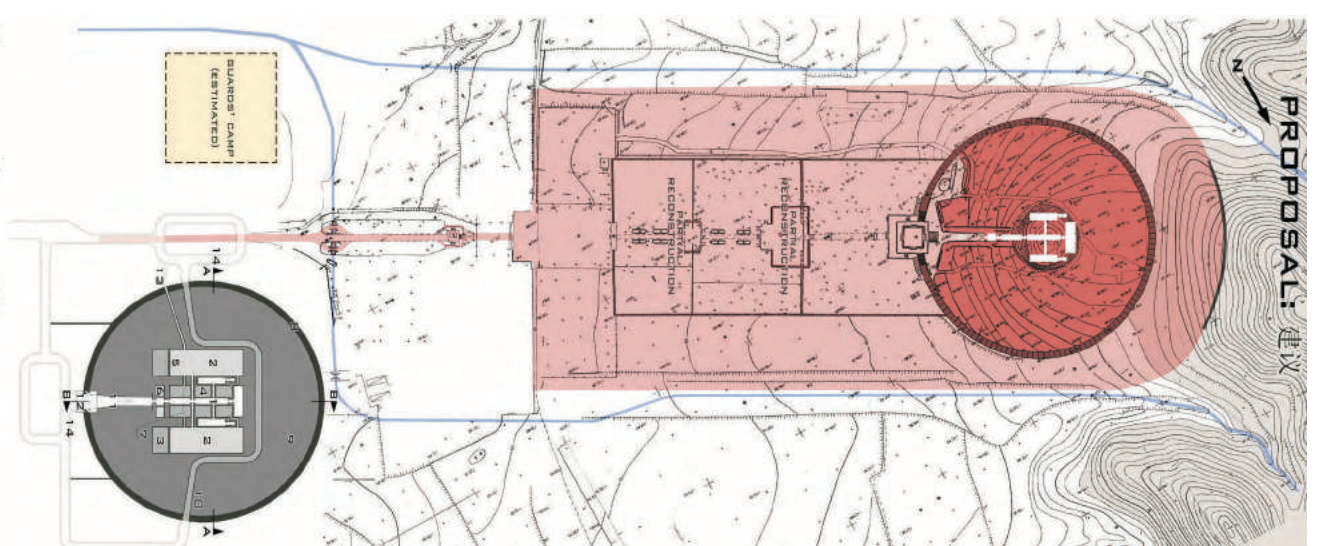
▼ Entrance to the valley







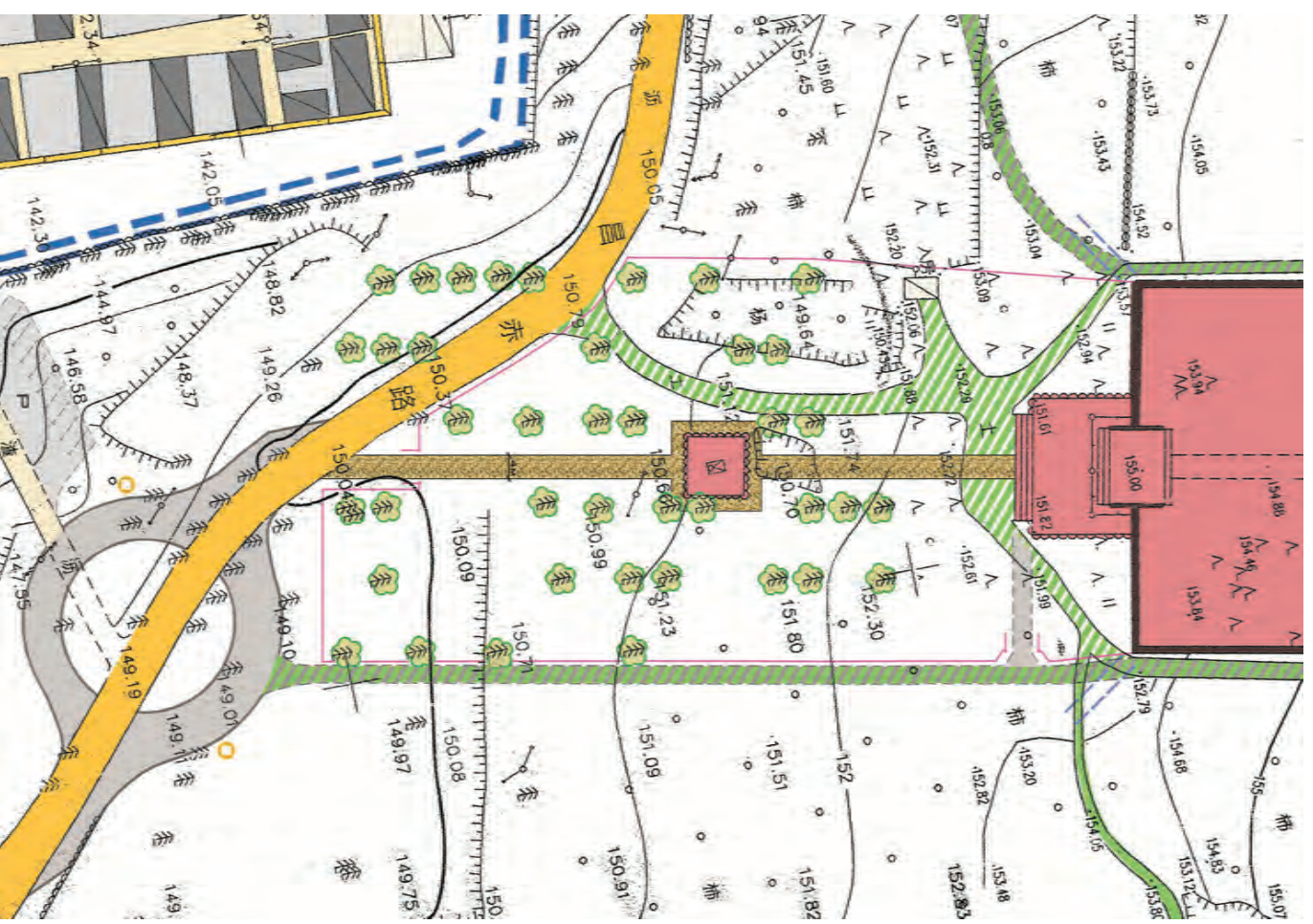
▲ Existing underground museum



▲ Proposed underground museum

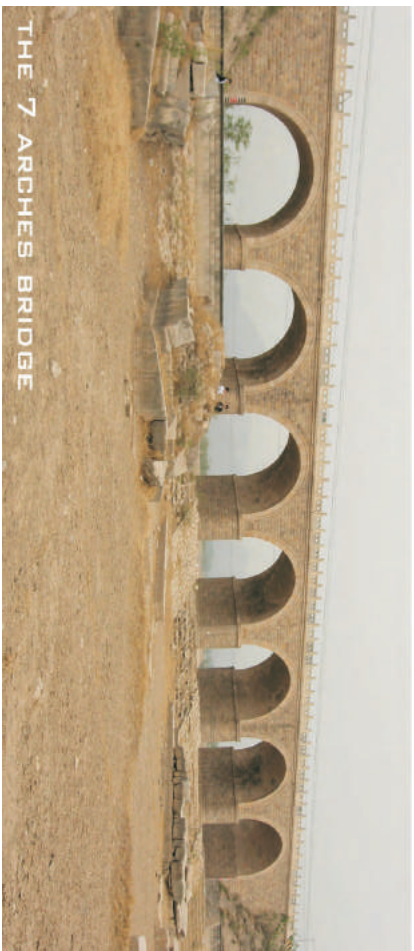


-  TREES TO BE PRESERVED  
将被保存的树木
-  ROAD TO BE CANCELED  
将被取消的公路
-  MAINTENANCE ROAD  
供视察维修使用的道路
-  AGRICULTURAL ROAD  
供农业使用的道路
-  MAINTENANCE AND AGRICULTURE ROAD  
供农业和视察维修使用的道路
-  PROTECTIVE FENCE, GATE TO SITE  
通往遗址的保护网和门
-  PARKING  
停车场
-  DRAINAGE  
排水系统
-  HISTORIC GUARDS' CAMPS  
古代皇家保护营
-  BUILDING TO BE DEMOLISHED  
将被拆除的建筑物
-  SHUTTLE BUS STATION  
旅游穿梭巴士站
-  MAOLING SACRED WAY  
茂陵神道
-  TAILING SACRED WAY  
泰陵神道
-  HISTORIC ROAD- PAVEMENT RENOVATION  
古径-人行石路整修



► Pilot project - Maoling. Access to the tomb.





THE 7 ARCHES BRIDGE



YULING



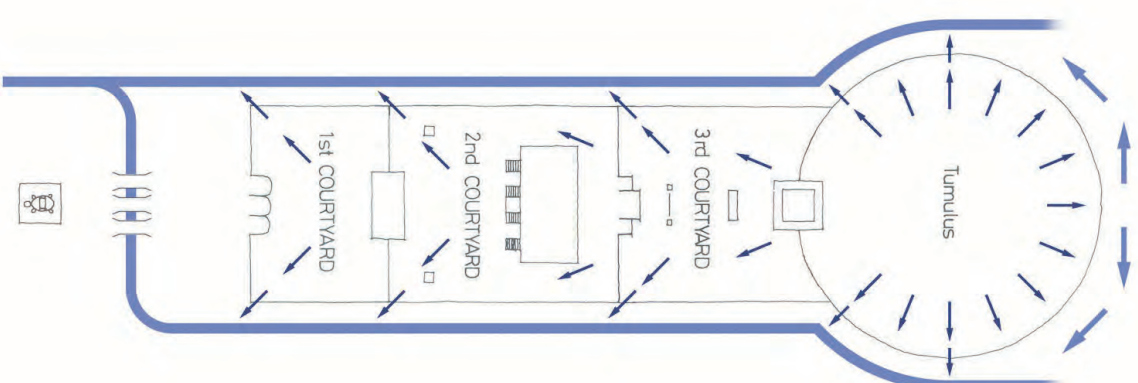
CHANGLING



DELING



ZHAOLING



▲ 3 Scales of drainage:

The entire valley, surrounding the tombs, tombs drainage system.



# **TANG DA MING GONG - URBAN HERITAGE PARK AND PALACE PRESERVATION**

Xi'an, China

The imperial city of Xi'an was the capital of several dynasties in China. The largest city in the world with population of 1 million inhabitants for several centuries.

The Silk Road to the west was initiated from Xi'an.

The Tang Dynasty emperors established their palace to the north of the city wall - from where they ruled China.

The palace itself was indeed a vast city of a colossal dimensions 1.5X2.5 km - the embodiment of Tang Dynasty glory.

After the decline of the Dynasty, the palace was destroyed and neglected. New neighborhoods and factories were built on top of its ruins in the twentieth century.

Large archaeological excavations were done in the palace for 50 years during the second half of the last century.

The glory of the Tang Dynasty stirred the idea to revive the heritage of the palace, and by doing so to contribute to the environment, and quality of life of modern and fast-expanding Xi'an.

International invitation architectural design competition was organized and our scheme received the highest prize.

The drawings and visual documents present the 3 stages of the development of the project:

- a. The international competition entry.
- b. Our detailed design for the central area of the palace.
- c. Actual partial reconstruction of gates, walls, palaces and park - as actually built by between 2009-2011. (Detailed design work was done by Chinese architects).

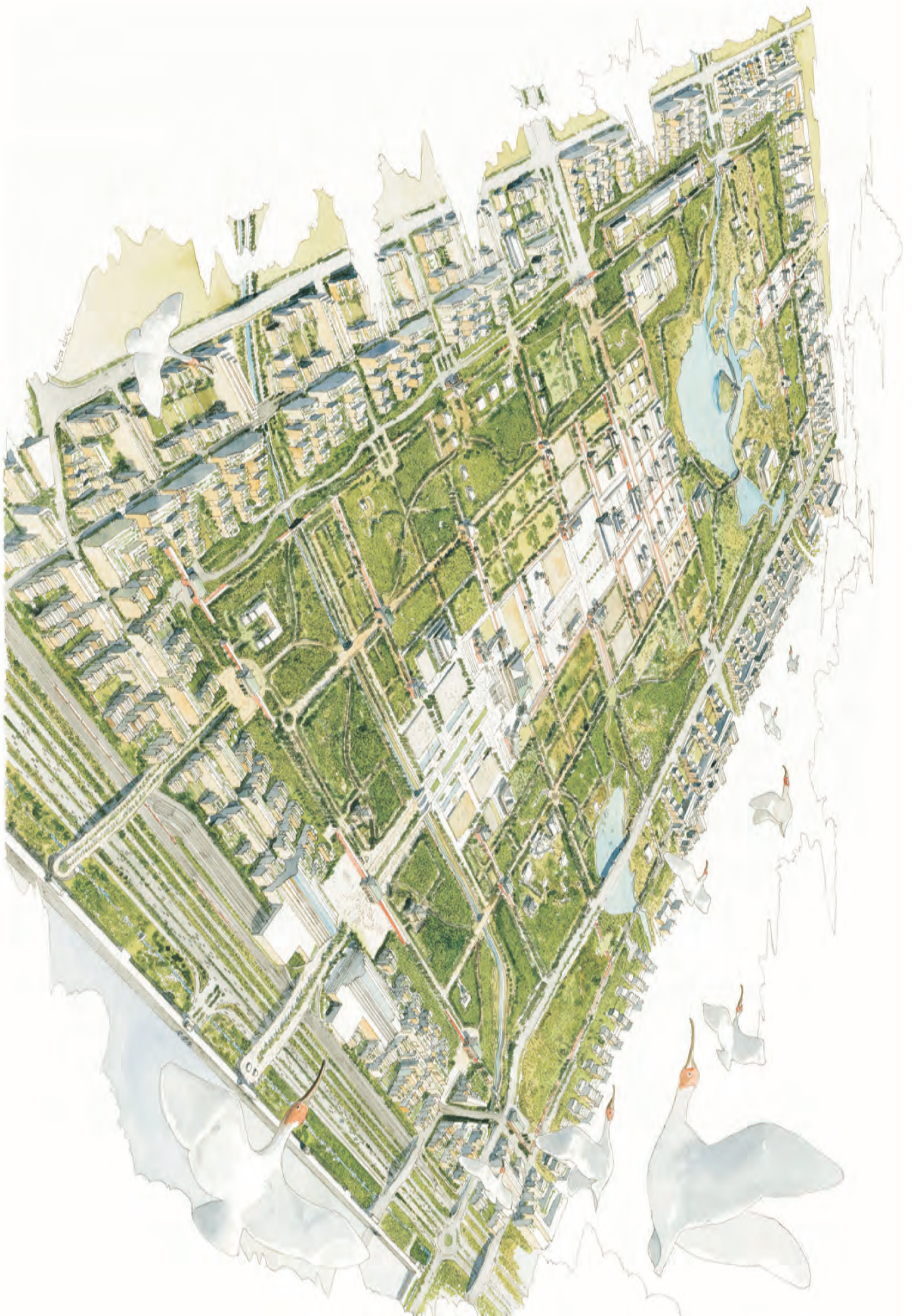
The process of reviving cultural heritage - as experienced in the Daming Palace in Xi'an leads us to several conclusions:

1. Although it is impossible, practically and ethically to fully reconstruct ancient monuments - partial reconstruction by modern means is a powerful methodological tool to present and express cultural values within modern context.
  2. Revived cultural values and their renewed presence in the city contribute immensely to the quality of urban life.
  3. The composite image of the city is a result of the layers of significant periods of its history.
- The presence of history is expressed "vertically" and "horizontally". The synthesis of past layer into modern city structure is a crucial component of its future success.

This project was prepared with Arch. Gióra Solar.

► On the opposite page: The Imperial Palace of Tang Dynasty as viewed from south west - The starting point of the Silk Road.



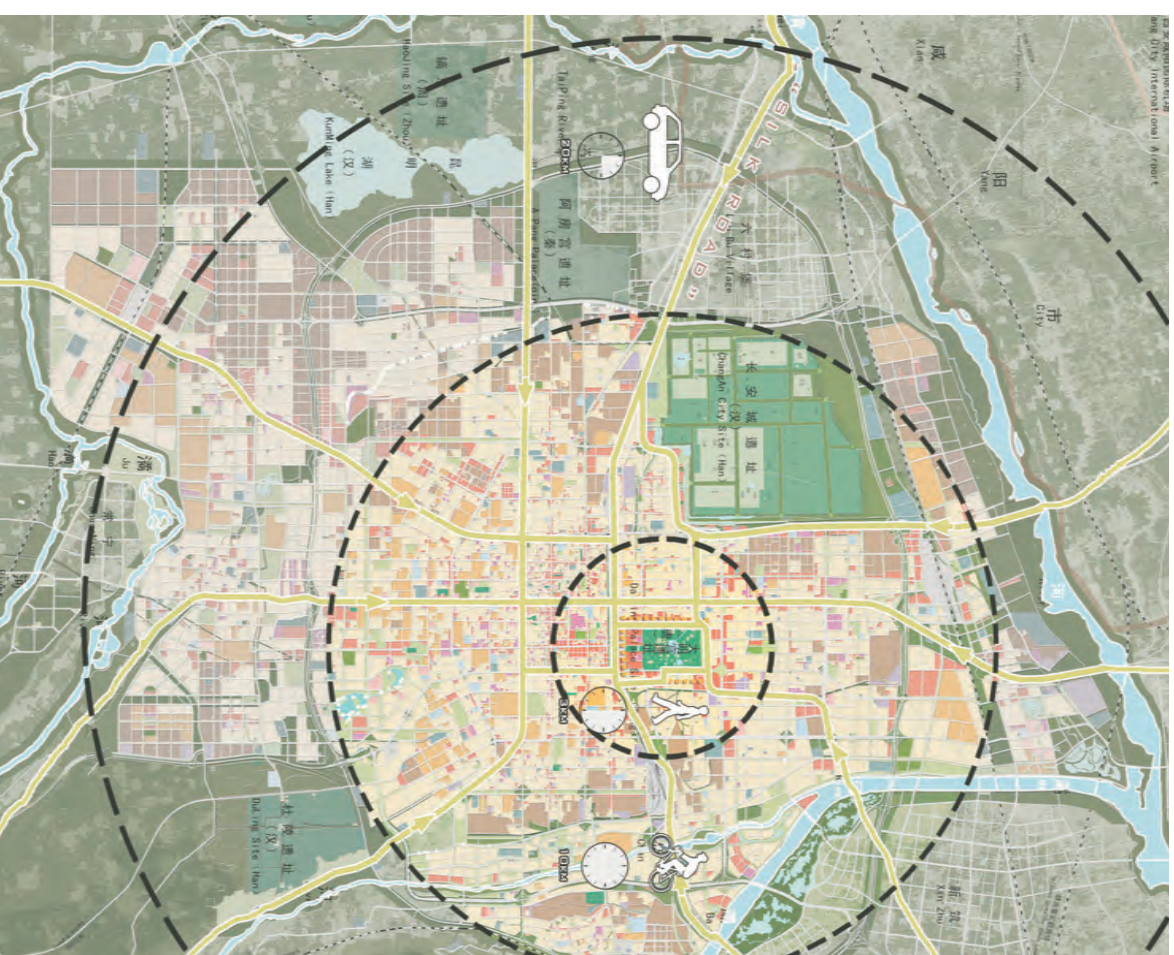
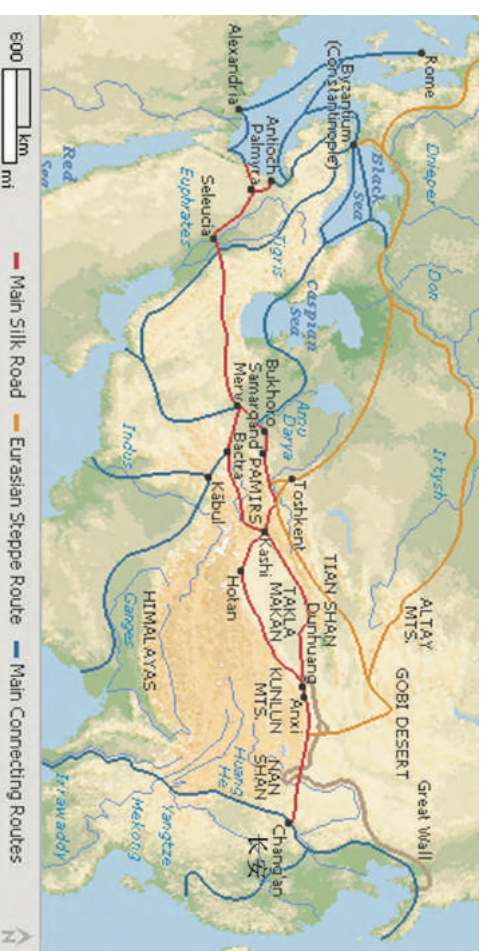




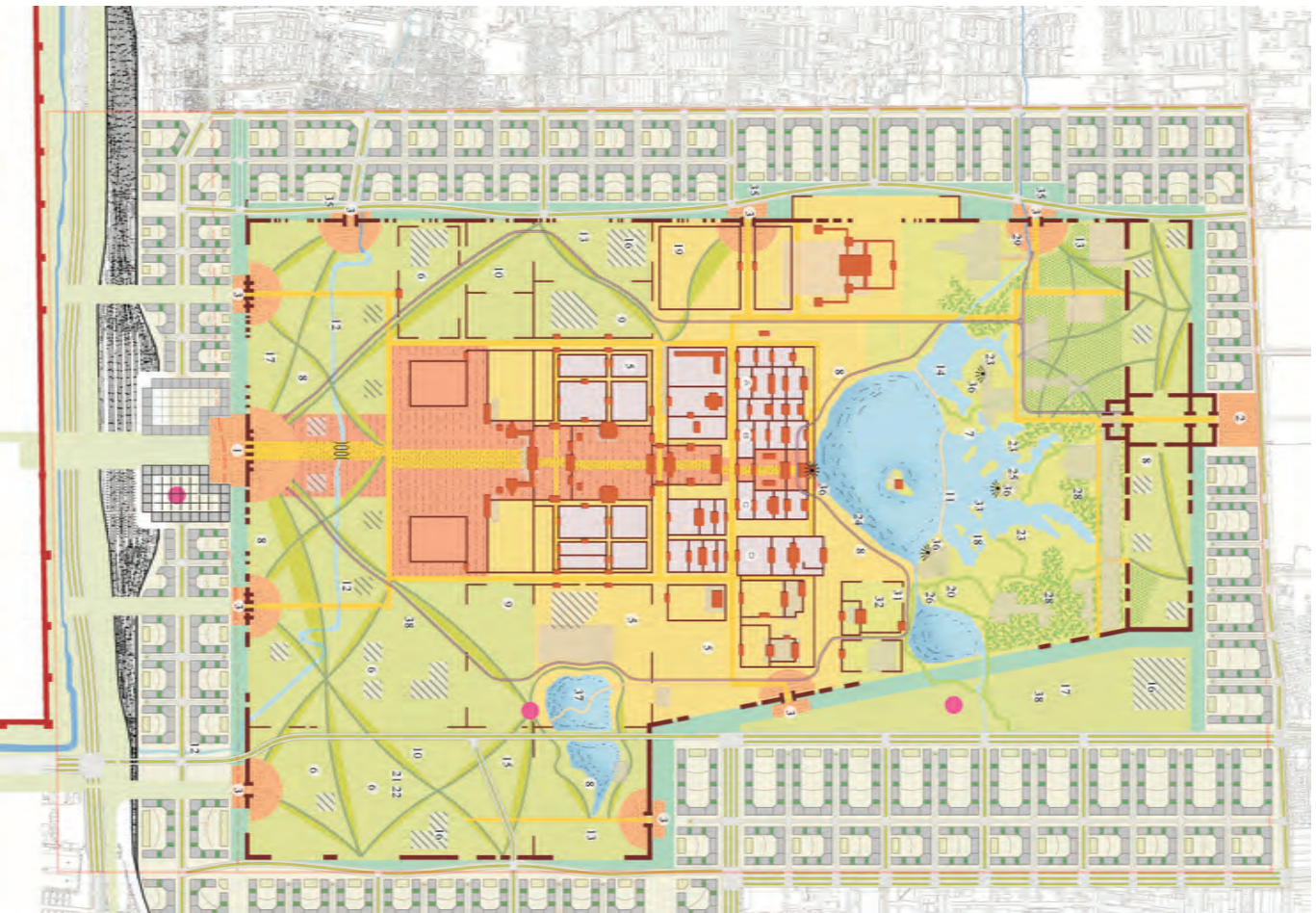
- The plan for DA MING DONG PARK will include various aspects.
1. Designation of areas for archeological research
  2. Conservation of sites
  3. Traffic control in the park
  4. Environmental monitoring
  5. Guidelines for detailed design
  6. Phasing of development & investment
  7. Management of public
  8. Construction supervision
  9. Maintenance

▼ DA MING GONG has an outstanding universal value.

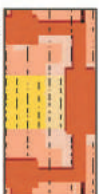
A focal point of the Silk Road at the center of metropolitan Xi'an.



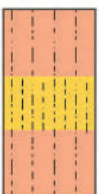




保护，展示和阐释  
CONSERVATION,  
PRESENTATION  
& INTERPRETATION



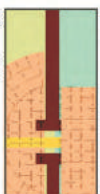
古迹  
MONUMENTS



“仗仗之路”  
CEREMONIAL AXIS



文化因素  
CULTURAL INSTITUTIONS



墙，门  
WALL & GATE

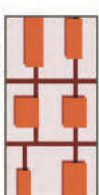


排水系统：湖，运河  
LAKE, CANALS



“丝绸之路” 公园  
“SILK ROAD” PARK

园林美化  
LANDSCAPING



文化公园  
CULTURAL PARK



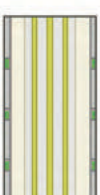
社区活动公园  
COMMUNITY PARK



自然之园  
NATURE PARK



细线形公园  
LINEAR PARK



城市大道  
BOULEVARDS

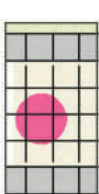


路径  
PATHS

现代城市化  
MODERN URBANISM



住宅建筑群  
RESIDENCE



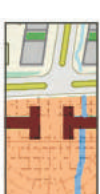
铁路和地铁站  
RAILWAY & METRO



酒店和办公楼面向公园  
HOTELS & OFFICES



商业区  
COMMERCE



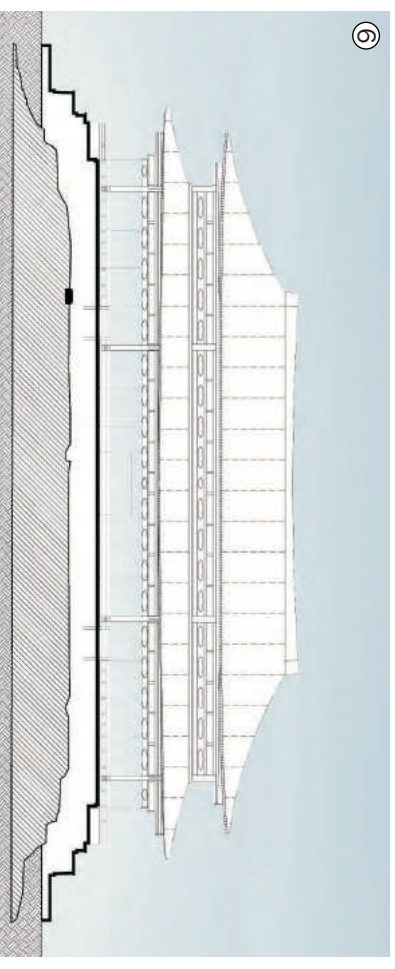
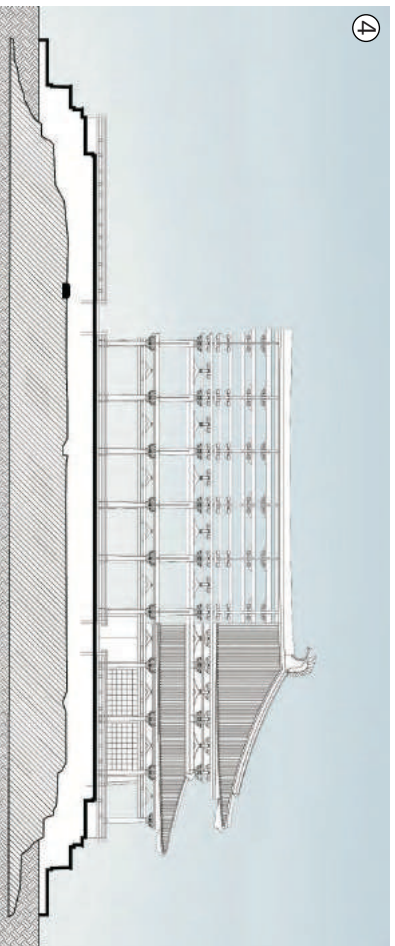
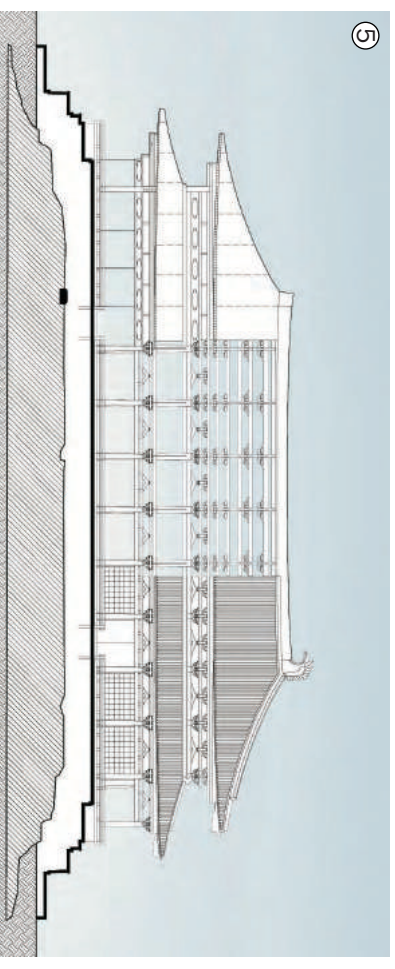
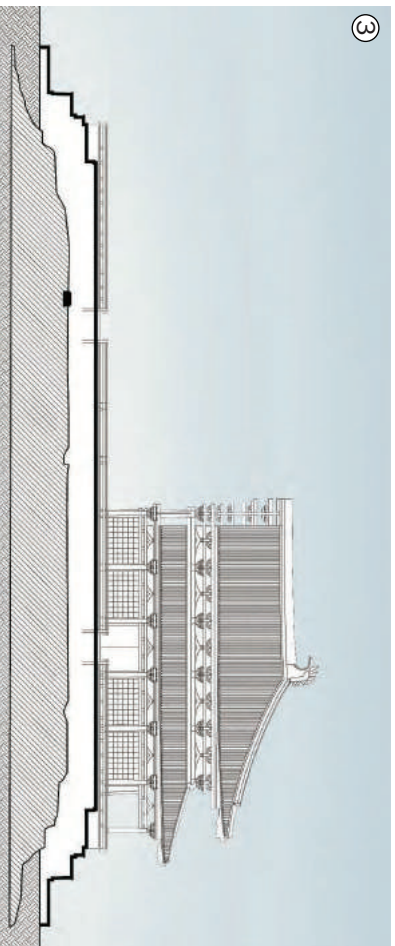
公园新入口  
NEW GATE

The principles of the plan are:

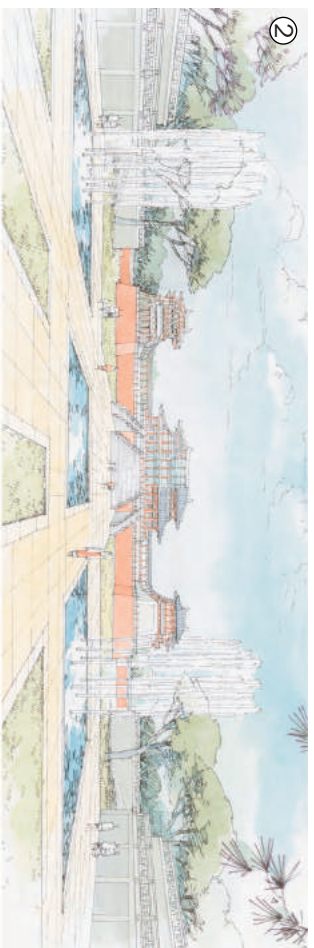
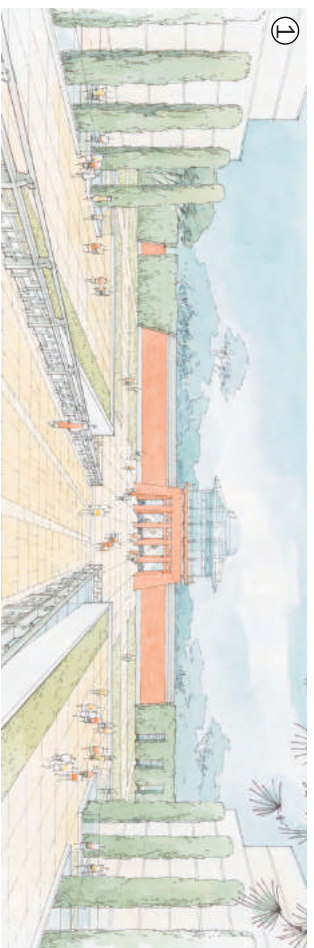
- The park is a laboratory of modern archeological presentation
- The park is a laboratory for urban positive transformation
- The DA MING DONG PARK green philosophy is extended to the entire city
- 105 urban blocks frame the park
- 75% of all blocks face the park - direct visual link of all flats & hotel rooms to park
- 4 pedestrian ramps link the “Silk Road Boulevard” to the park



- ▶ Innovative conservation and presentation approach - from "modern form of Tang building" to "no intervention".
1. Earthen platform as found
  2. Earthen platform under protective shelter
  3. Partial reconstruction on top of shelter
  4. Partial reconstruction with exposed skeleton
  5. Partial reconstruction, exposed skeleton, new segment
  6. Complete new structure (volume of original building)





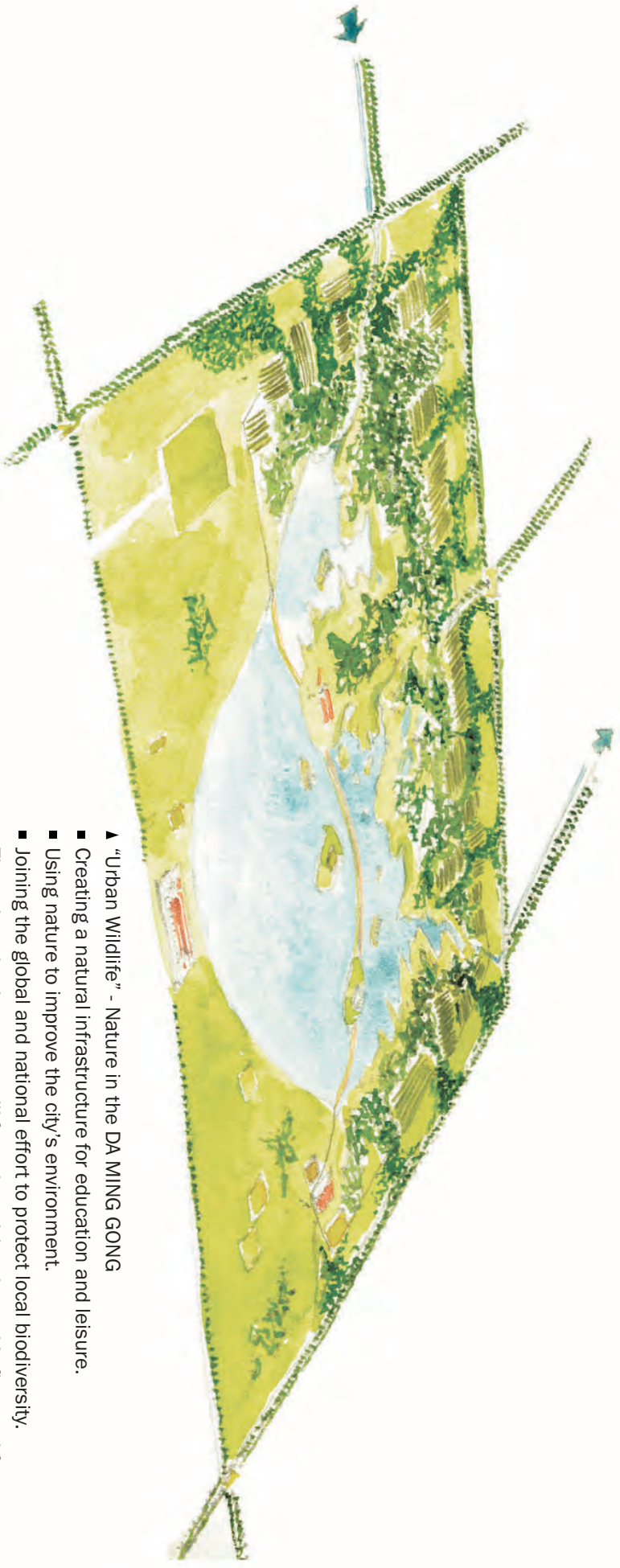


- ▶ Sequential Tang dynasty experience from Danfeng Gate to Taiye Lake
1. Danfeng Gate and Square. Partial reconstruction of palace wall.
  2. Hanyuan Hall and Longwei Path. Partial reconstruction and skeleton reconstruction, platforms/shelters over archaeological excavations.
  3. Zichen Hall. Modern structure in Tang form.
  4. Taiye Lake and Mount Penglai Island - Nature in the park

▼ A section showing the different forms of conservation, presentation and interpretation.  
 Above ground - partial and symbolic reconstruction.  
 Below ground - Modern cultural institutions.







▼ Basic elements of the “reconstructed wildlife”



小河溪流到处都是鱼，蜻蜓和乌龟  
Wild creek habitat



沼泽湖泊湿地对鸟，鱼，  
和湿地昆虫很适合  
Wetland habitat, wild marsh and lake habitats



传统农业栖息地  
Traditional agriculture habitat



古木栖息地，大量飞鸟，昆虫，  
爬行动物，和众多的野花  
Ancient woodland habitat



朱鹭 - 希望的象征  
The crested ibis - Symbol of hope

- ▲ “Urban Wildlife” - Nature in the DA MING GONG
  - Creating a natural infrastructure for education and leisure.
  - Using nature to improve the city's environment.
  - Joining the global and national effort to protect local biodiversity.
  - The re-introduction center will focus in reviving the park's flora and fauna, involving the public in all aspects.
  - Establishment of a natural history museum and a visitor center.

► On the opposite page:







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