

CIVVIH-ICOMOS _CIVVIH SCIENTIFIC SYMPOSIUM

Climate change in historic towns and villages of the Mediterranean area

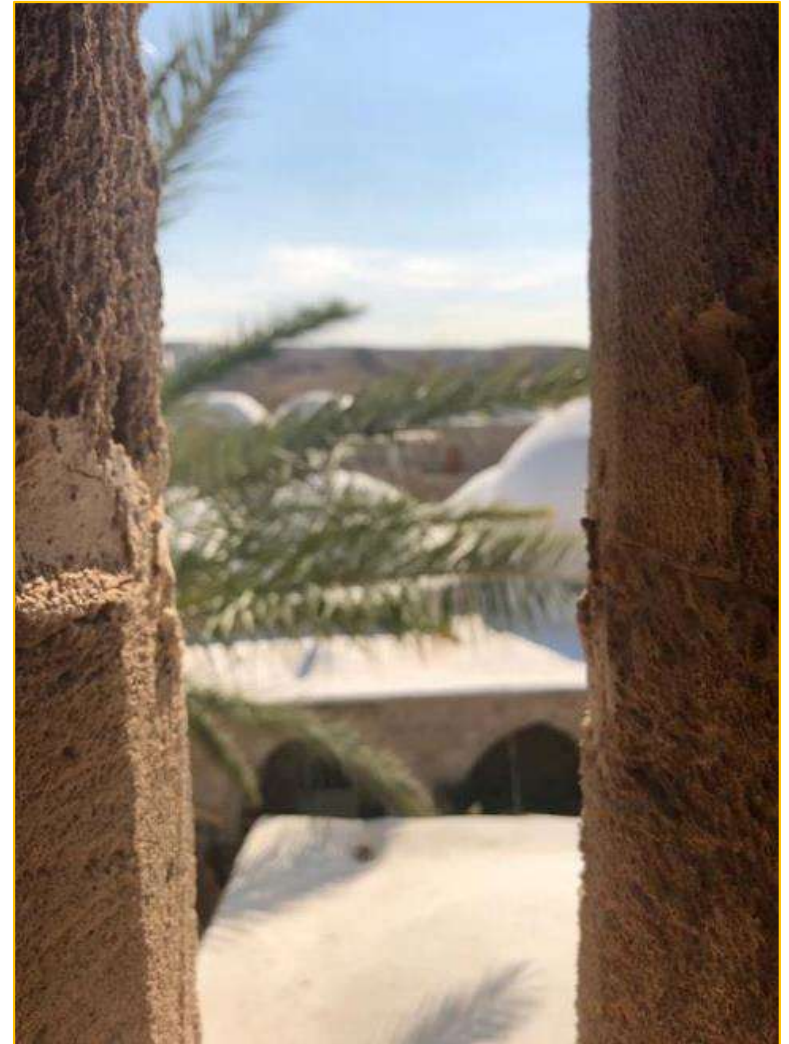
Sinassos - Cappadocia - TURKY

September 5th - 6th 2024

Urbanization and Climate changes, Risks to the development of cultural Heritage Tourism

Shadi Ghadban, Associate Prof.
Palestine

September, 5th - 6th, 2024



Content

1. **Urban Growth in Palestine- Trends, needs and consequences;**
2. **Urbanization Impact on the Cultural and Natural Landscape in Palestine;**
3. **Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;**
4. **LCARS-LAB approach within CARISMED Project;**
5. **Concluding Notes;**



Content

1. **Urban Growth in Palestine- Trends, needs and consequences;**
2. Urbanization Impact on the Cultural and Natural Landscape in Palestine;
3. Cultural Heritage Sites in Palestine;
4. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;
5. LCARS-LAB approach within CARISMED Project;



1. Urban Growth in Palestine- Trends, Needs and Consequences;

- **RAPID urbanization and high population growth rates** are problems that face many countries in the developing world;
- **Cities are expanding and urban populations are increasing;** as more people are moving to the cities looking for job opportunities and better living conditions;
- The majority of **countries are working intensively to explore these challenges,** and the potential that exists for **introducing a more sustainable urban development pattern,**
- This **growth** has been the **responsive concept to the growing needs to curb adverse impacts of urban sprawl on the natural and built environment;**



1. Urban Growth in Palestine- Trends, Needs and Consequences;

- **Smart Growth, as a pervasive new urban approach** that sums all the principles and founding strategies of a sustainable urban growth agenda;
- This growth concurrently **translates urban planning theory into practice** through manifestations of **community participation** and merits of **compactness** would arguably guide the **sustainability of today's cities**;
- The target is aiming theoretically to **provide a fertile environment to test the promotion of** implanting the seeds of **Smart Growth, at least as a demonstration and a new way of life**;
- **the impetus is** the Smart Growth strategies especially to **promote, mixed land-use, compactness, and transportation relations** providing a practical account for implementation, in light of the high population densities;



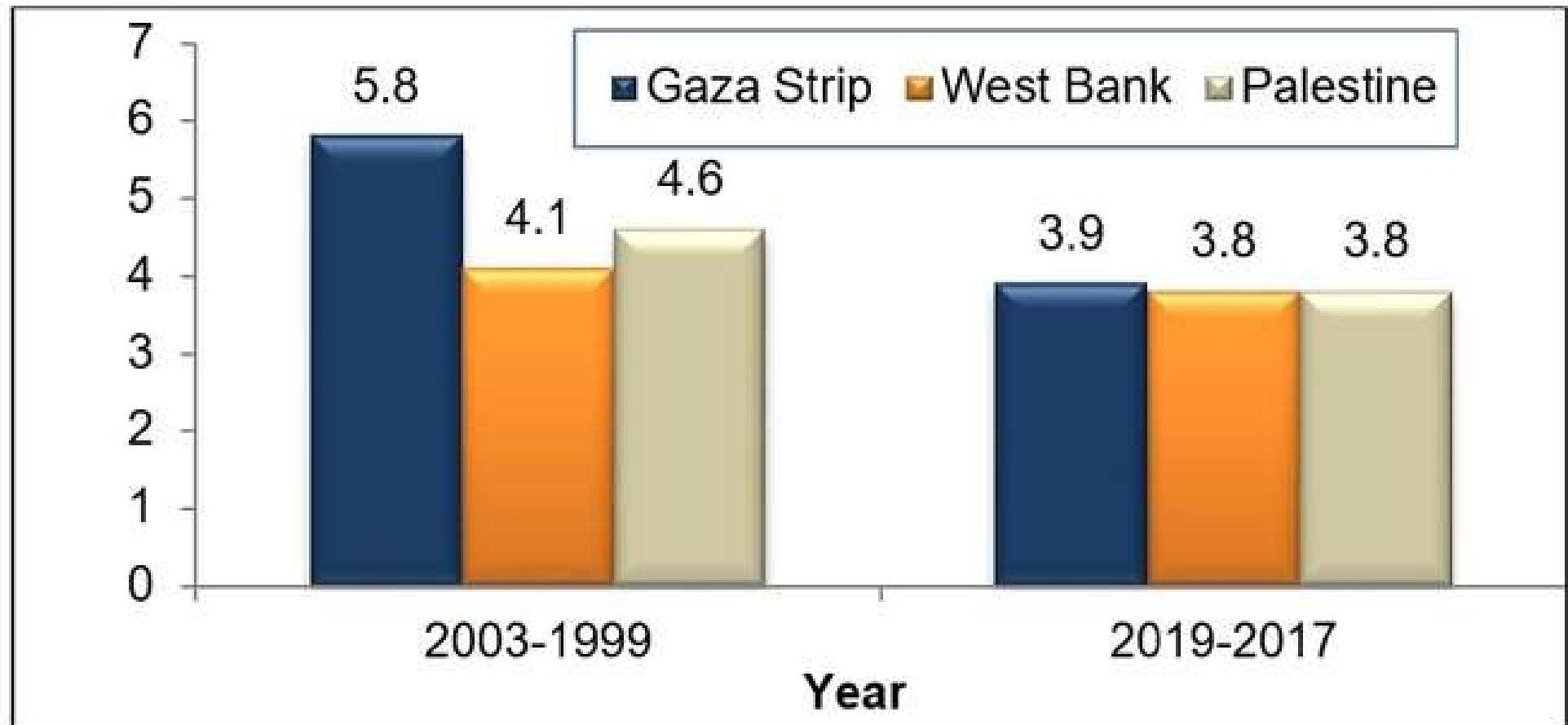
1. Urban Growth in Palestine- Trends, Needs and Consequences;

- **Demographic growth, rapid urbanization growth and high population growth rates** are one of the main challenges affecting the urban environment in Palestinian cities. (Shaheen...)
- **Total fertility rate in 2007 was 4.8%**, and is expected to decline by 25% **by 2050 to reach 3.09%.**
- **Life expectancy will increase for males from 70.3 years in 2007 to 77.1 years in 2050, and for females from 73.1 years in 2007 to 80.9 years in 2050.**
- **More than 1,000,000 returnees are expected during the period 2020- 2035.**
- **The population is expected to rise to 7,329,934 in 2025 and to approximately 13,238,550 in 2050, while this number was 3,719,189 people in 2007. This represents an increase in the population by 97% in 2025 and by 256% in 2050.** (Ghadban...)



1. Urban Growth in Palestine- Trends, Needs and Consequences;

Fertility Rate in the State of Palestine, Selected Years



Source: Palestinian Central Bureau of Statistics, 2021. Database of the Demographic and Health Survey, 2004. Ramallah - Palestine.

Source: Palestinian Central Bureau of Statistics, 2021. Database of the Palestinian Multiple Indicator Cluster Survey 2019-2020. Ramallah - Palestine.



1. Urban Growth in Palestine- Trends, Needs and Consequences;

- *In Palestine*, cities face a number of additional challenges alongside high population growth rates and rapid urbanization: land scarcity and territorial fragmentation due to Israel's occupation of the Palestinian territories;
- To understand the complexities facing the urbanization process in the Palestinian cities, it is essential to highlight the main challenges facing the Palestinian urban environment and hindering its sustainability.
- In this regards, it is essential to disclose:
 - I. **The physical development and urbanization processes in Palestine;** and
 - II. the **political and socio-economic context** created specifically by the **Israel's occupation;**



1. Urban Growth in Palestine- Trends, Needs and Consequences;

- In cities, a range of **economic, demographic, social, political and natural factors** commonly affect the urban environment and shape current and future patterns of development;
- Moreover, still there is a **lack of regulations and laws implementation, public awareness, information and professional capacity,**
- As well as **institutional gaps**, are common factors negatively affecting the local environment, especially in developing countries including Palestine;
- however, the Palestinian environment exhibits a unique case: **Lack of full sovereignty over the land, natural resources or economy.** (Shaheen...)
- **At risk are not only archaeological sites, but traditional architecture and other locations of cultural heritage.**



2. Urban Growth in Palestine- Trends, Needs and Consequences:

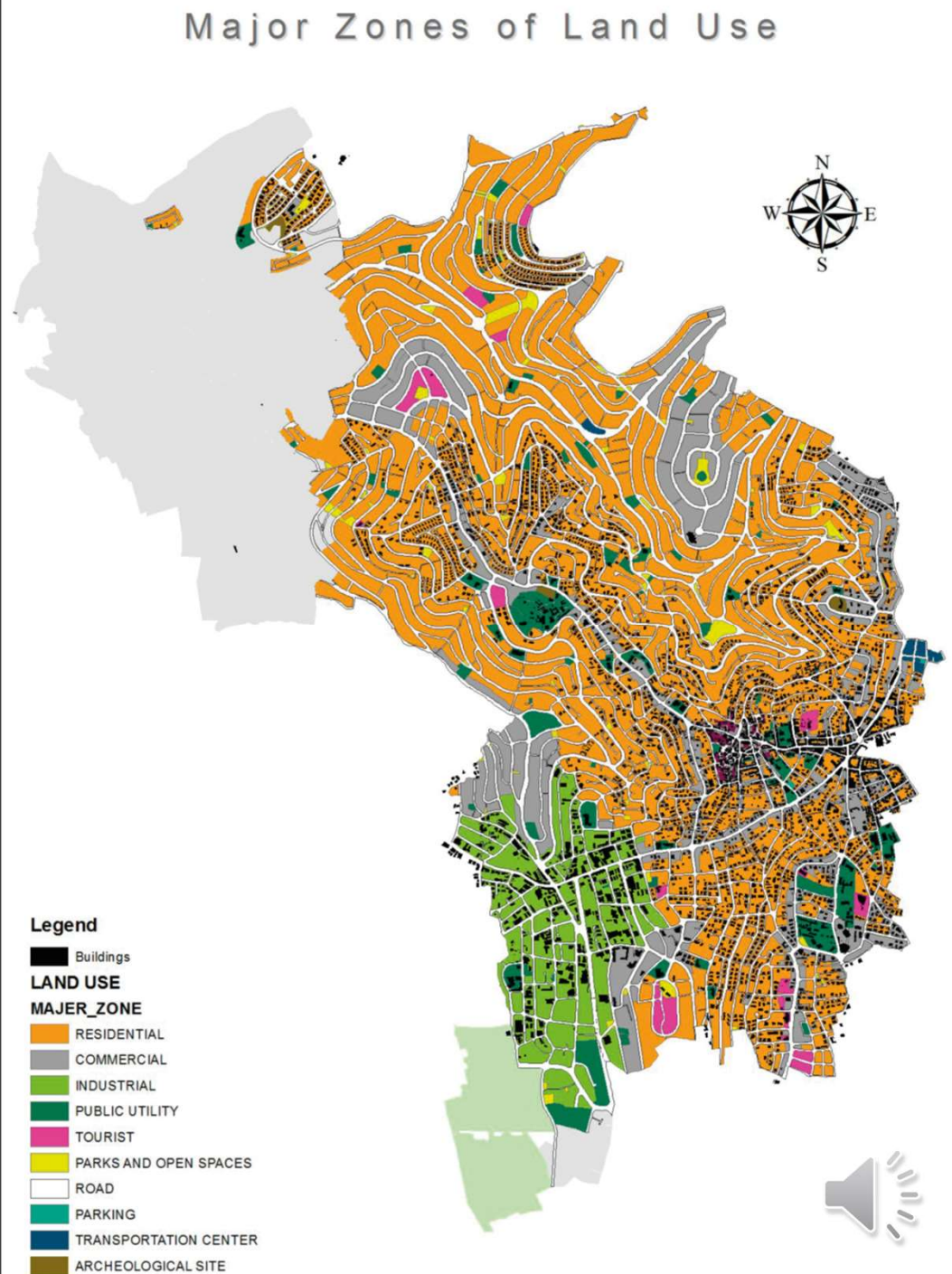
- **The introduction of the Israeli occupation in 1967 would again wrest control over urban development away from local jurisdictions.** From 1967 until 1993, municipal and village committees were rendered effectively powerless in planning decisions because Israeli military authorities Order 418, established the Higher planning Committee, which maintained complete control over land use policies and planning in the West Bank.⁸, while Gaza was ruled by Egyptian Planning Law,
- **Throughout the Israeli civil administration, urban planning was accomplished through a nonobjective master plan that systematically disregarded the needs of Palestinian society** and urban development was, at times, **spontaneous, random, and inconsiderate of the environmental and cultural heritage** ⁹,

The Allon Plan



1. Urban Growth in Palestine- Trends, Needs and Consequences;

- All that has been accompanied by rapid urbanization, creating growing pressure on land availability, as well as infrastructure and resources, and increasing the need for more job opportunities and housing,
- As a result, random and uncontrolled developments continue taking place in the large cities and around the fringes of towns and villages, encroaching on surrounding agricultural land, and putting additional pressure on already inadequate and ailing infrastructure (Shaheen...)



1. Urban Growth in Palestine- Trends, Needs and Consequences:

- These measures have cut up the Palestinian areas;
- Disturbed their continuity, creating small cantons separated by Israeli colonies and military areas, which makes any national or regional planning unfeasible;
- Other consequences include limiting and restricting the physical expansion of the Palestinian cities, towns and villages through (Shaheen...):
 - I. Geographical division of the occupied West Bank into areas A, B, and C as part of the Oslo in 1993, resulted in Israel retaining full control over area C, which comprises 61% of the West Bank.
 - II. Palestinians are left with control over areas A and partial control over areas B, *which are mainly urban areas surrounded by a limited areas of agricultural land.*
 - III. This restriction has negatively impacted the Palestinian physical environment and led to sprawl on agricultural and natural land.



1. Urban Growth in Palestine- Trends, Needs and Consequences:

As a result of post-Oslo developments in Areas (A & B):

- **Rapid acceleration** of urban development mainly in **areas A and B**.
- **Establishment of state institutions** and their concentration in the **main cities** in the two mentioned areas,
- Return of many Palestinians from the diaspora working in the institutions of the ***Palestine Liberation Organization***,
- **Increased need for various facilities** to meet the needs of the emerging authority,
- **Expansion of the government employee sector**, as well as workers in the emerging private sector, and international institutions,
- **Growth of the education sector, especially higher education**, and an increase in the number of university graduates,
- **A qualitative change in the functional structure of society**,
- **Active migration towards these centers**, imposed the need for new residential areas,
- **Establishment of the banking sector**, and the growth of lending operations, especially for housing purposes,
- **Intensification of economic activity initially around the historical areas**, and then its **gradual transfer to the new urban expansion areas**, and constitutes a repellent force for investment and development outside the historical areas,
- The **need for new residential areas** to accommodate the housing demand,
- **Scarcity of land allocated for housing in areas A and B**, within the approved master plans,



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

1. Urban Growth in Palestine- Trends, needs and consequences;
- 2. Urbanization Impact on the Cultural and Natural Landscape in Palestine;**
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4. LCARS-LAB approach within CARISMED Project;
5. Concluding Notes;

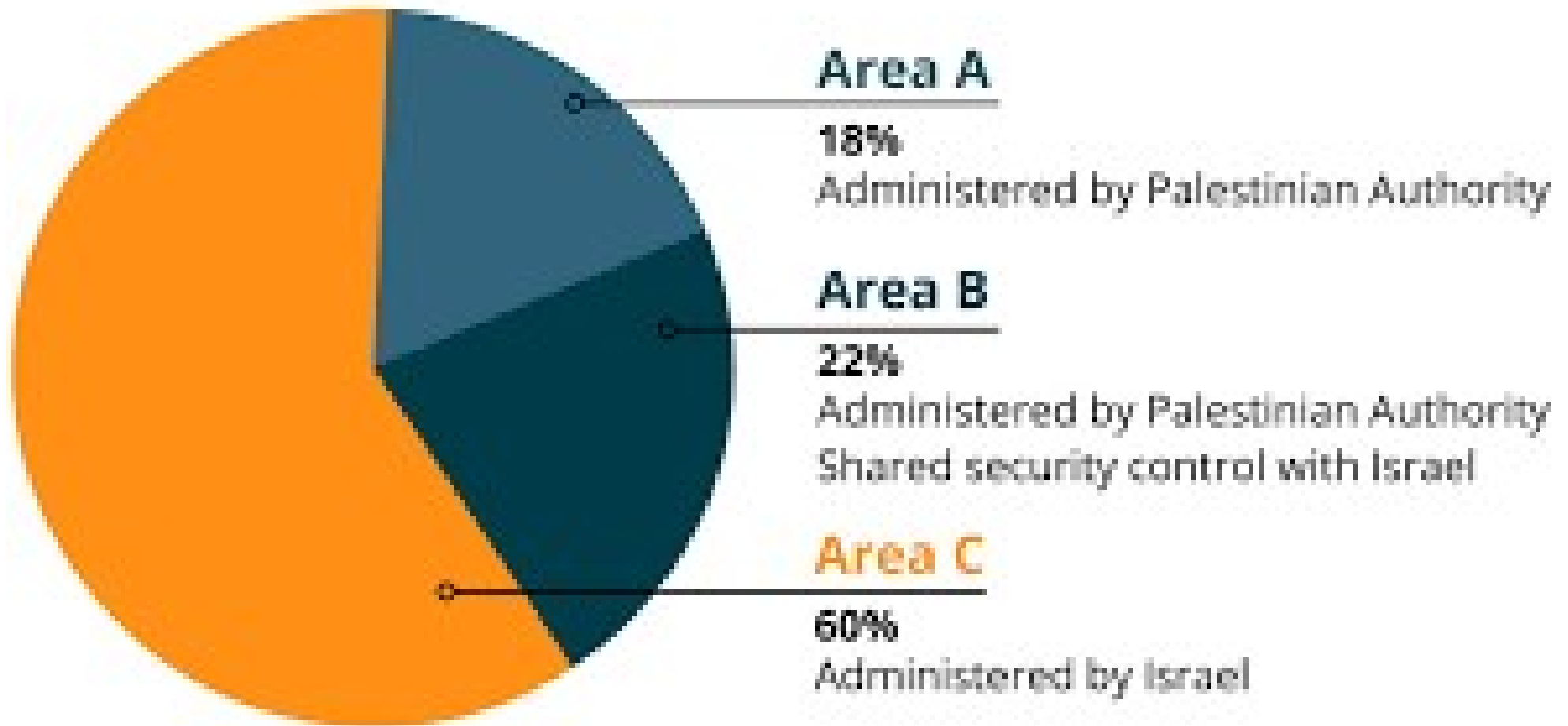


2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

- With the signing of the **Oslo Accords** in 1993 and the **advent of limited Palestinian sovereignty**, a new era of urban development was ushered into Palestine.
- The result is that **West Bank** remains divided the same three cantons stated in Oslo negotiations from 1993: A, B and C,
- They enabled the fledgling **Palestinian Authority** to **assert only a limited degree of sovereignty**, to control over development and planning **in the largest urban centers**: initially, Gaza, Jericho, Nablus, Ramallah, Bethlehem, Jenin, Qalqilieh, and Tulkarem,
- **Therefore**, rather than exerting sovereignty over the entirety of the West Bank, which was the goal of the Oslo process, **the Palestinian Authority has the ability to enact urban planning decision only in Area A and marginally in Area B.**



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

- Palestine can serve as a practical case showing how the **process of urbanization affects the cultural heritage of the country**, due to the **increased rate of development** over the past three decades.
- This urbanization has proceeded with relatively **little governmental oversight and administration by the Palestinian National Authority (PNA)** and is typified by a planning practice; yet it was particularly in terms of **private investment and housing construction, mainly in areas A & B,**
- This urbanization, often places sites of **cultural, historical, and archaeological significance in severe jeopardy**. At risk are not only archaeological sites, but traditional architecture and other locations of cultural heritage.



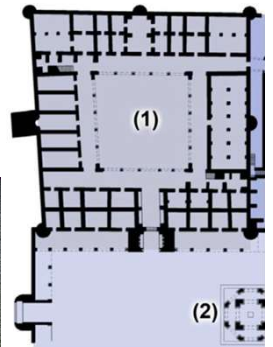
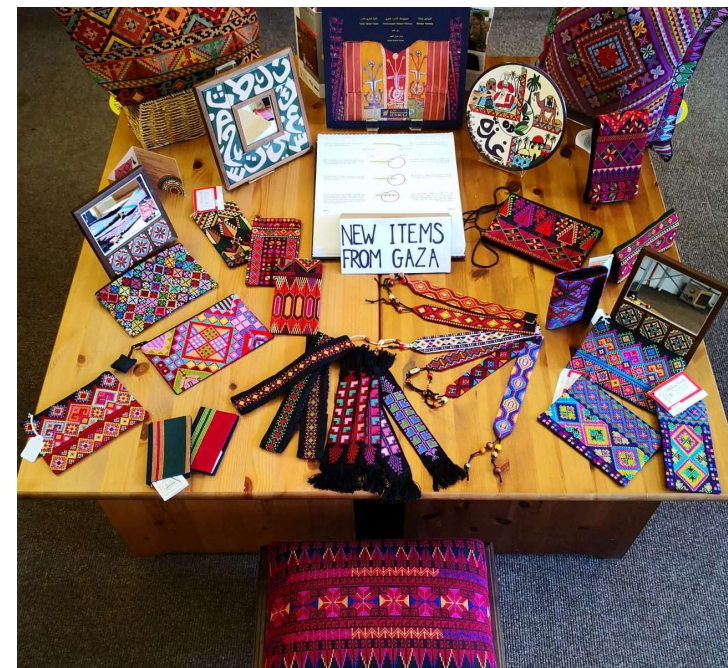
Nablus Main Square



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

The most significant cultural heritage resources in Areas A & B and associated with tourism are:

1. Traditional Buildings;
2. Archaeological Sites;
3. Historic Centers;
4. Handicrafts;
5. Traditional Cuisine;
6. Cultural and natural Trails;
7. Religious Celebrations and Traditional Festivals.

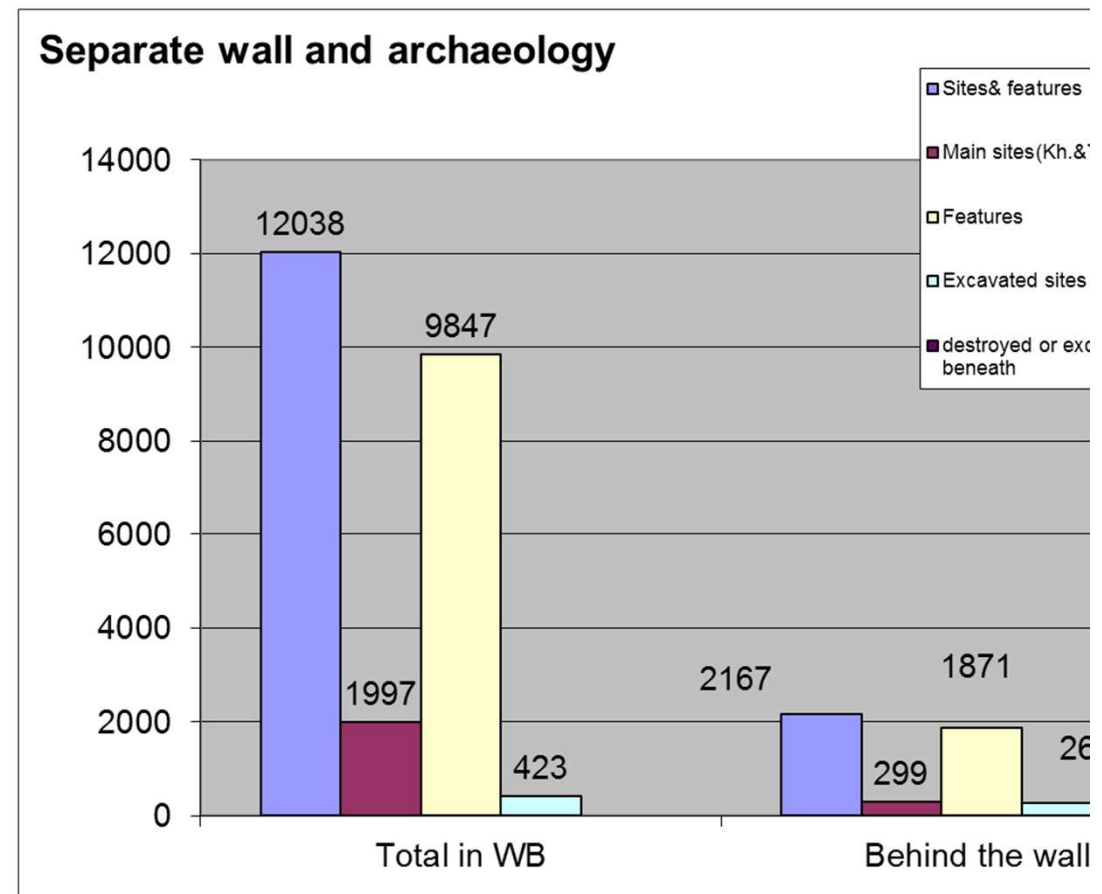


2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

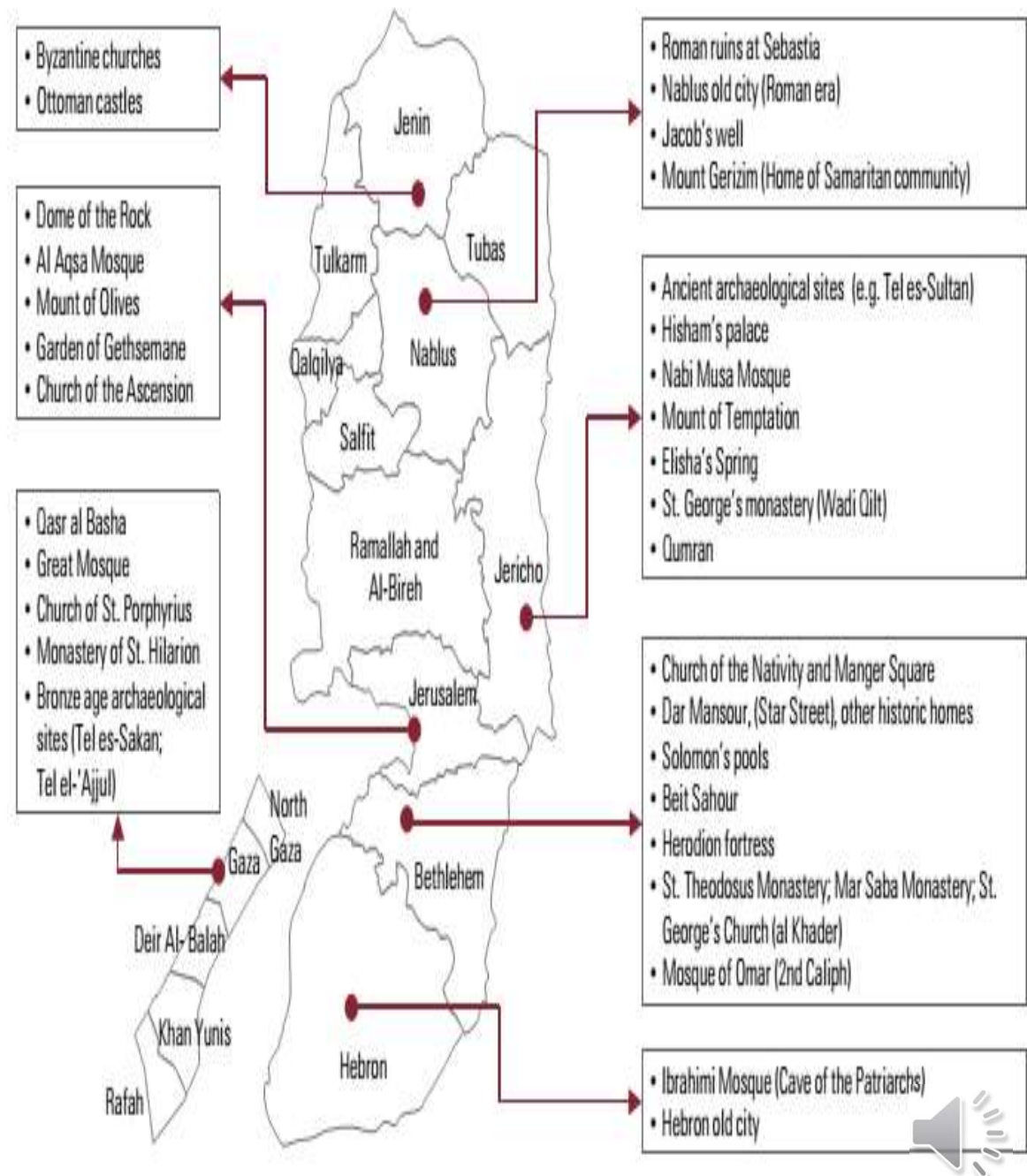
AFTER Oslo Accords 1995:

Two survey actions conducted by the Palestinian Department of Antiquities (1999) and PECДАР (2002) in A and B areas); both built on previous surveys and stated the following:

- **The availability of about 50000 architectural ownerships mainly in the West Bank,**
- **More than 45% are in fair or bad shape,**
- **Around 50% are partially used or totally abandoned.**



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

Israeli Occupation instruments of surveillance and control

1- Urban policies and Zoning: Division of Palestinian Land, according to Oslo Accord II of 1995 into **3 Zones**:

- Zone A (18%): Palestinians have both administrative and security control over the land,
- Zone B (21%): Palestinians had only administrative control over the land, and
- Zone C (61%): Fully under the Israeli control,

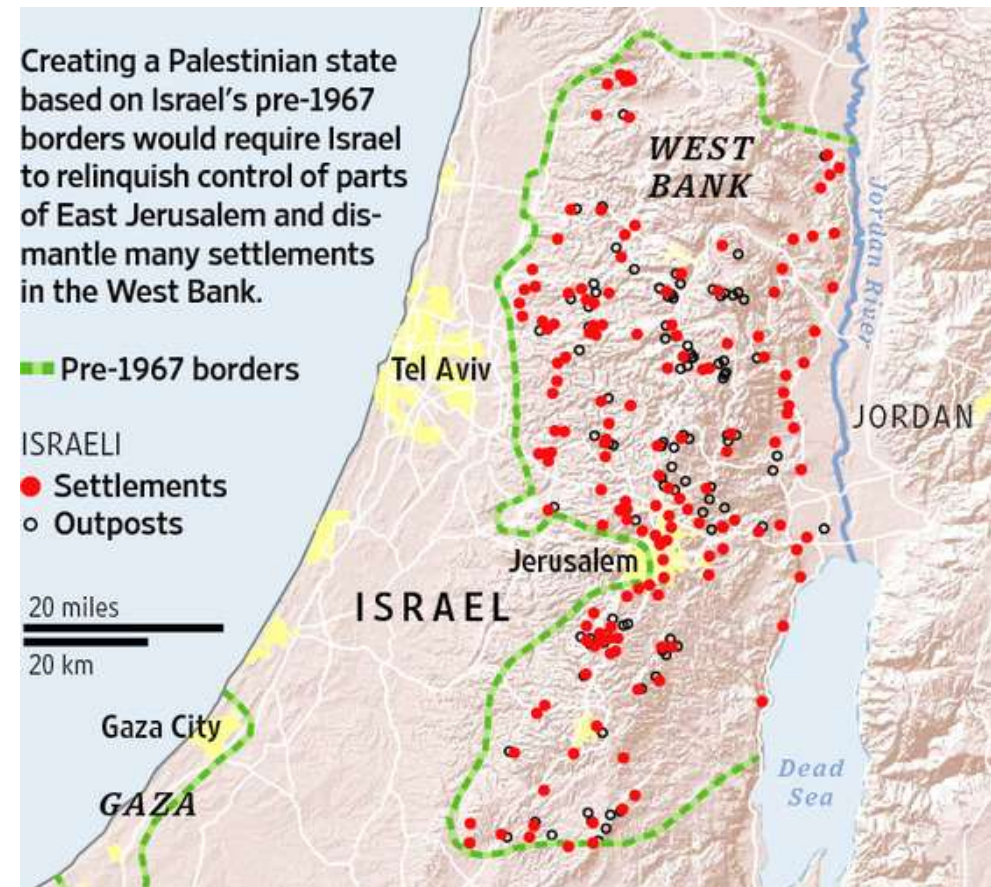


2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

These developments led to:

2- Colonial settlements :

A total number of 247 settlements have been built in Palestinian territories between 1967 and **2023** with total number of settlers reaching **550,000** approximately.





Abu-Ghneim Mountain (Harhoma)- Next to Bethlehem



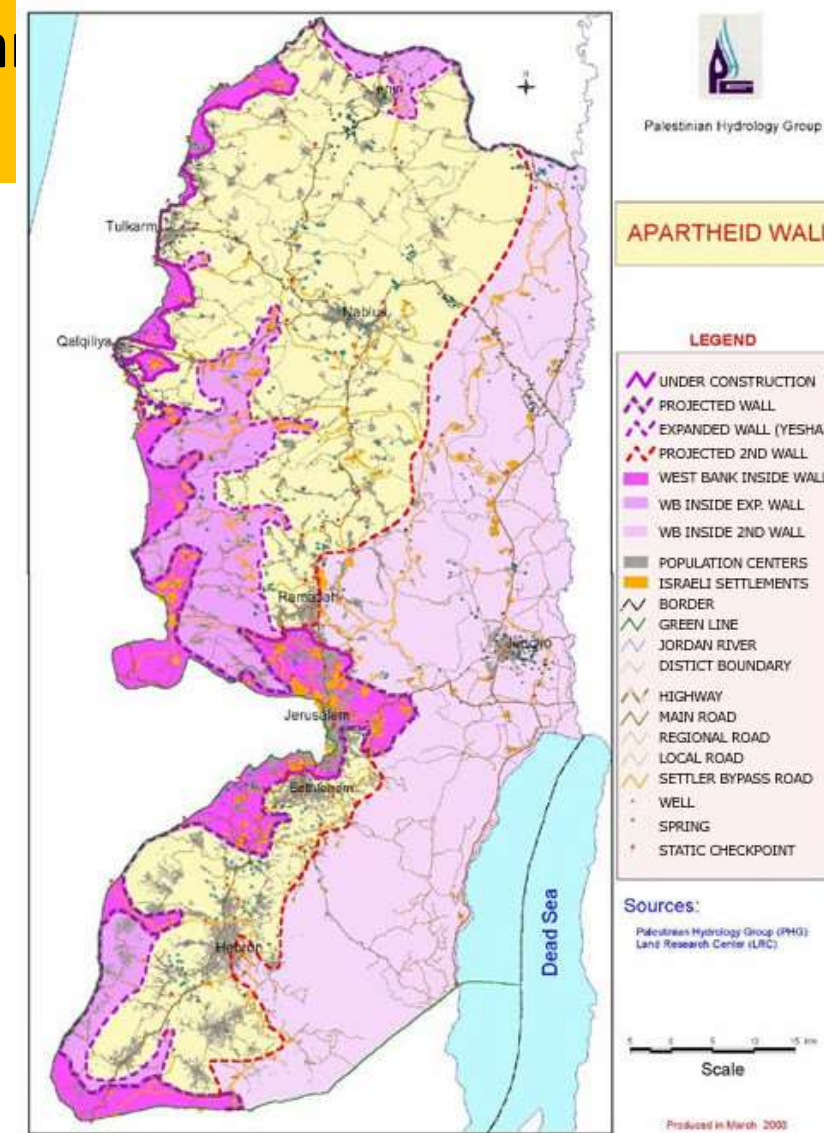
2. Urbanization Impact on the Cultural and Palestine

These developments led to:

3- Apartheid Separation Wall:

The wall consists of:

- ✓ Concrete walls, fences, ditches, razor wire, groomed sand paths, an electronic monitoring system, patrol roads, and a buffer zone.
- ✓ The Barrier's total length (constructed and projected) is approximately 708 km, more than twice the length of the 1949 Armistice ('Green') Line, which separates Israel from the occupied West Bank,
- ✓ Approximately 62.1% of the Barrier is complete, a further 8% is under construction and 29.9% is planned but not yet constructed,
- ✓ When completed, some 85% of the route will run inside the West Bank, rather than along the Green Line, isolating some 9.4% of the West Bank, including East Jerusalem,
- ✓ 71 of the 150 Israeli settlements in the West Bank and over 85% of the total settler population are located on the 'Israeli' side of the Barrier's route.



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

These developments led to:

4- By-pass roads:

- Bypass roads are very well equipped with a lighting system, hedges, and rainwater drainage system,
- They are located almost above underdeveloped Palestinian roads with no signs, no lighting and rainwater drainage system through bridges and higher ground.
- This process created two road systems one above the other:

Thus, there is one free network and the other under continuous surveillance and control



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

These developments led to:

5- Military Watchtowers:

- 71 Cylindrical watchtowers,
- With **minute windows**, Israeli soldiers,
- As it is quite difficult to tell whether a **soldier is actually in the tower** or not,
- **This idea of self surveillance**, a natural result of this intense system of control, only speaks to the **continuous fear** instilled in **Palestinian minds**,



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

These developments led to:

6- Military Gates:



8- Road Signs:



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

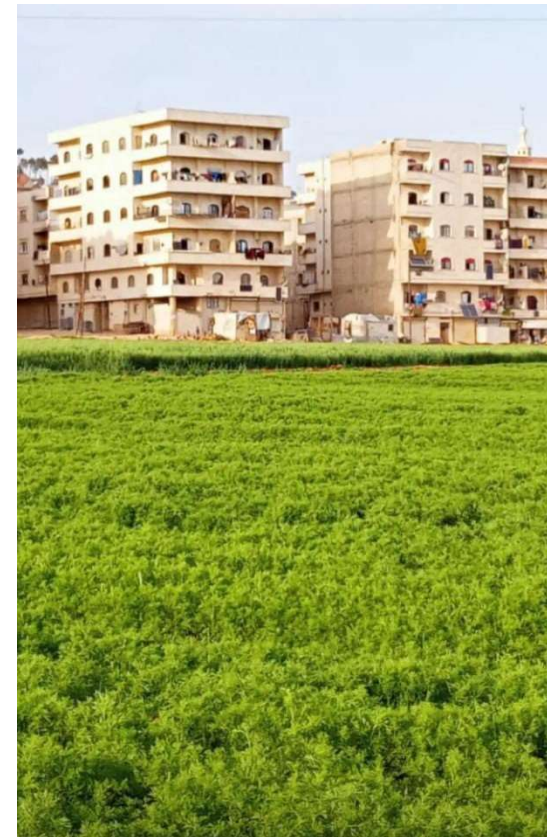
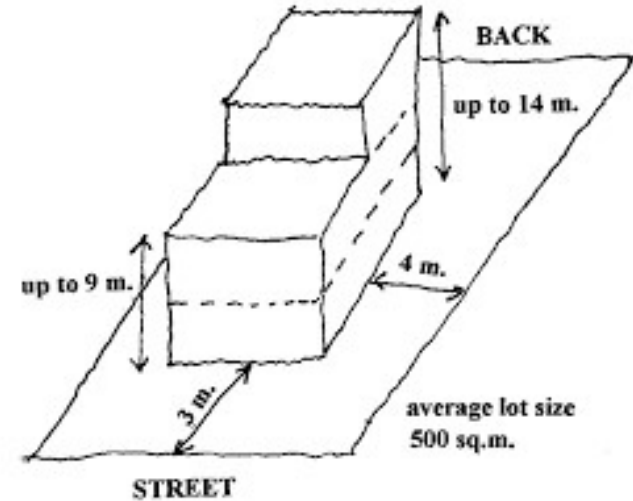
These Israeli Occupation Instruments led to:

- Depletion of lands allocated for urban expansion, including those assigned for agricultural and natural landscape purposes on the outskirts of major cities,
- Intensification of the manipulation of open spaces adjacent to historical areas for commercial, administrative and residential activities,
- Encroachment on a significant part of the historical core changing their characteristics; this continued until the issuance of the Law for the **new Bylaw No. (11), 2018 concerning the cultural and material heritage.**



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

- **Preparing new master plans as permitted by the Oslo Accords;** approval of the Israeli occupation authorities to expand some plans is compulsory, tedious and time-consuming,
- **Developing the building system regulations to be compatible with the new emerging needs,** especially with regard to setbacks and building ratios,
- **Adoption of a modern building system;** its impact on existing centers, including historical areas started being noticeable,



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

Impact on the climate/ environment:

- **Blockage of the natural ventilation paths characterizing the planning and design of historical Mediterranean cities**, in terms of directing the air flow for ventilating the main internal pedestrian paths and courts coping with the prevailing air circulation in the area,
- **Increase in the number of vehicles and their impact on the quality of the air and the environment within these areas**, and consequently on the material used in the historical buildings: **limestone with high porosity** interacts with vehicle smoke/- Exhaust gases , this leads to changing its color and ability to resist climate factors,



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

The impact on the climate/ environment:

- Increase in asphalt areas, use of irrelative building materials, yet, the stone construction techniques became used only for cladding losing their structural significance and thermal properties,
- Intensive use of air conditioning devices and the increase of the amount of their thermal emissions due to these practices,
- Increased pressure on the wrecked infrastructure, that requires a radical repair,
- Destruction of more and more underground water resources,
- - Disrupting the relationship between building heights and street widths, which allowed for proper ventilation, privacy and sun exposure.



shutterstock.com - 2390537221



3. Climate Changes Impact on the Heritage sites in Palestine

Direct results of this include:

- Bad and worrying sanitary and waste pollution impact due to exhausted infrastructure, mainly in the old quarters.



2. Urbanization Impact on the Cultural and Natural Landscapes in Palestine

Direct results of this include:

- Rehabilitation and restoration policies and actions dictated by the funding agencies in the absence of a clear and long-term national policy and strategy to enhance the role of these historical areas in social, economic and cultural life, especially in the tourism aspects,
- insufficient programmes and investments for socialization the rehabilitated urban areas and encouraging cultural, economic and social activity.
- Continuation of the trend to deal with independent buildings/ group of buildings rather than dealing with larger urban scale in an integrated manner,



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3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;

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3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;

- According to the Initial National Communication Report, the Climate Change Adaptation Strategy and Program of Action for the Palestinian Authority has identified *water and food security as the most vulnerable issues in Palestine with knock-on implications for all sectors, including Cultural Heritage and Tourism.*
- *As mentioned before, the Israeli occupation substantially reduces Palestine's adaptive capacities in many issues, thereby compounding climate vulnerabilities,*
- Despite that **these capacity limitations are most prevalent in Area C, but they are exceptionally visible in Gaza Strip**, due to the ongoing heartless Israeli military actions,
- Yet, the **Israeli occupation also increases vulnerabilities everywhere else all over Palestine.**



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;

Based on the “Report - Triple Line about Climate Changes” it can be concluded that:

- ✓ **Palestine does not have a legal framework for heritage and climate change.** Typically, different ministries oversee the two topics,
- ✓ **Making cultural heritage fit for climate change while avoiding maladaptation is a huge challenge**, involving continuous monitoring and retrofitting of buildings to avoid heat loss and use of unsustainable building materials (concrete as an example),
- ✓ **The role of research and innovation in protecting cultural heritage from climate change is not paramount**,
- ✓ **Education is not a primary importance in understanding the role cultural heritage plays in society**,
- ✓ **Awareness of the vulnerability of cultural heritage and the threats due to climate change are low**, whether within the scientific community, heritage professionals and often also among local communities,
- ✓ **Fragmentation of the sector and lack of coordination are obstacles that impede protection**, and there are no coherent methodologies for obtaining reliable information, quantitative data or deep knowledge about the decay and loss of cultural heritage,



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;

THUS:

- **Adaptation to the adverse impact of climate change is considered among the high priorities of the Palestinian government,**
- **Palestine has adopted a list of proposed adaptation actions in 12 different sectors,** including the water, agriculture, food, industry, local government, energy, gender, health, tourism, cultural heritage and transportation sectors:
 - Developing rainwater harvesting technologies,
 - **Adopting climate-smart practices,**
 - **To focus on Circular Economy, use of solar PV and solar water heating technologies, smart technologies and green architecture is advised.** Although solar water heating is used extensively in the residential sector, its capacity is still limited in sectors such as service provision and industry,
 - **Increasing energy efficiency** is another approach **to decrease energy demand,** considering the differing needs and requirements of women and men and their subgroups as related to climate change,
 - **The impact of climate change by gender has not been fully analyzed or addressed in current climate change adaptation actions,** this gap was addressed in many other projects that were concluded recently.



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;

MAIN DISCOURSE:

1. Preserving cultural heritage and utilizing it as a tool for development;
2. Building local capacities in conservation techniques and methods of rehabilitation;
3. Generating employment that aims at improving the quality of life of the local inhabitants;
4. Raising community awareness to the value and importance of climate changes on cultural heritage,
5. Introducing the vital need for circular economy, smart tools and green environment into the cultural heritage sites. (Ijha....)



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;

Bethlehem, Rehabilitation of Morcos Nassar Palace to be used as a Hotel



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;

Before



After



Bethlehem, Rehabilitation of Morcos Nassar Palace to be used as a Hotel



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;

Bethlehem, Rehabilitation of Hosh Shahin to be used as Guest House (Dar Sitti Aziza)



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;

Bethlehem, Rehabilitation of Hosh Shahin to be used as Guest House (Dar Sitti Aziza)



Before



After



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Bethlehem, Rehabilitation of Hosh Shahin to be used as Guest House (Dar Sitti Aziza)



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;



Bethlehem, Rehabilitation of Hosh Al Syrian to be used as a Guest House



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;



Before

After

Rehabilitation of Abu Sa'da to be used by Beit Sahour Municipality



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;



Rehabilitation of Abu Sa'da to be used by Beit Sahour Municipality



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;

Bani Na'im, Rehabilitation of Dar Jada' –to be used by the Municipality



Before



After



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;

Before



After

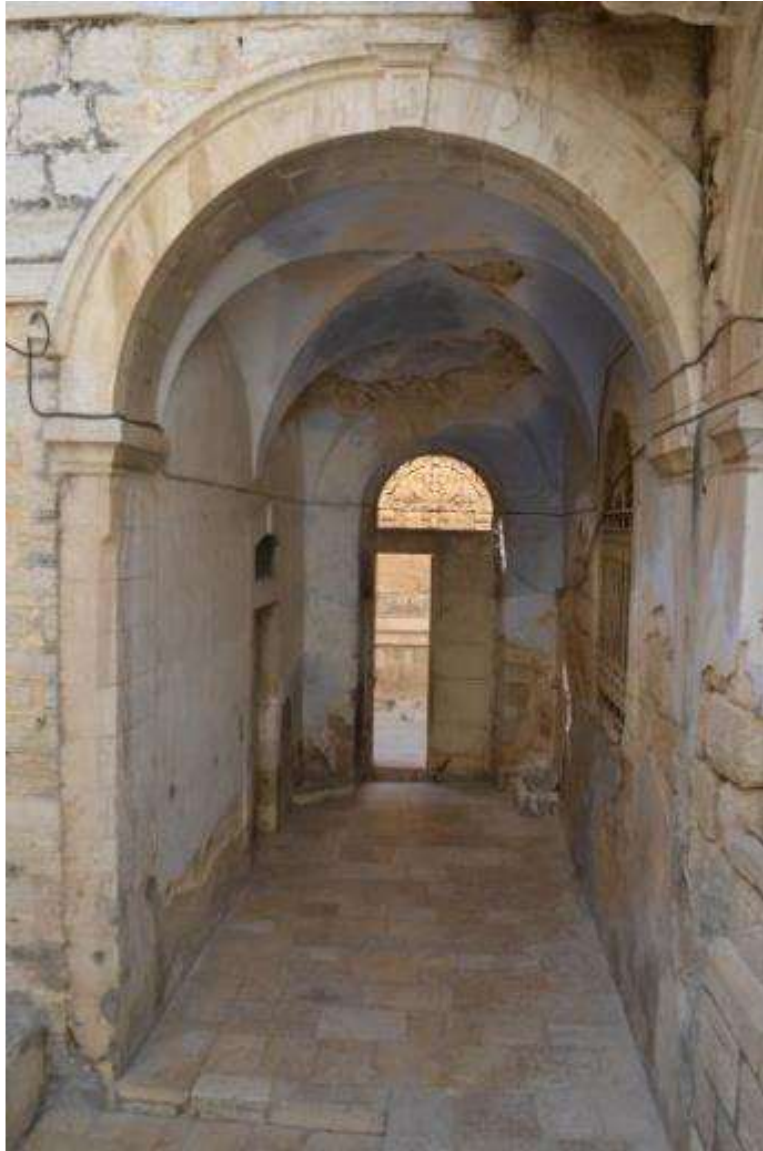


Bani Na'im, Rehabilitation of Dar Jada' –to be used by the Municipality

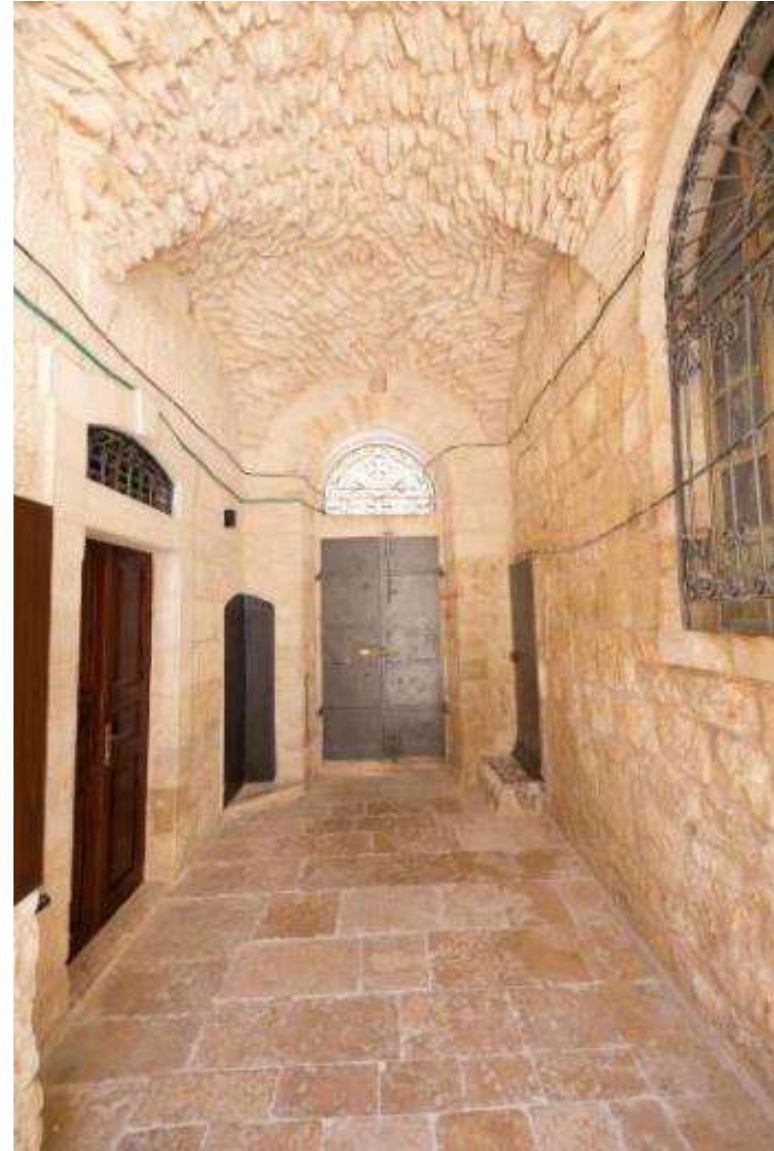


3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;

Before



After



Bethlehem, Rehabilitation of Dar Al-Sabagh to be used as a Diaspora Studies and Research Centre



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Before



After



Rehabilitation of Hosh Shawasheh to be used as a Kindergarten



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;



Before



After



Beit Jala- Rehabilitation of Dar Makhoulf to be used by local institutions



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;



Before



After



Rehabilitation of Dar Sababa & Ishaq to be used by Bethlehem Fair Trade Artisans



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;



Before



Rehabilitation of Hosh Abu Jarour to be used by Bethlehem Icon School



After



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;



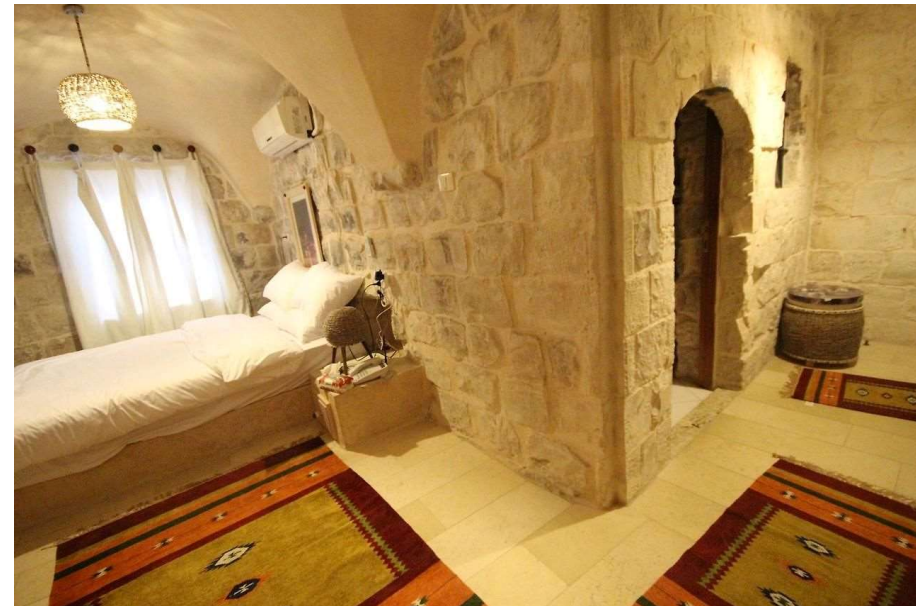
Rehabilitation of Hosh Abu Jarour to be used by Bethlehem Icon School



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;



**Nablus, Rehabilitation of
Hosh Khan Alwekala-
to be
used as Hotel and Community
Center**



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;



The Aqaba Green School in Aqaba is the only one of its kind in the West Bank to date that is designed in an environmentally friendly manner.

The school's principal, Amna Abu Khaizaran, describes the atmosphere in the school as not being affected by the high temperatures to a great extent in May and June, but during severe heat waves, the building resorts to cooling methods.

She said that her school relies on solar energy, reuses gray water, stores rainwater, and does not use heating methods in the winter.



3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;



**Hebron, Rehabilitation of
the Main Square of the
Old City to be
used as community
space**



**Nablus, Rehabilitation of
the Al-Qarioun Main
Square of the Old City to
be
used as community
space**



4. LCARS-LAB approach within CARISMED Project;

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CARISMED

<https://carismed.eu/>



4. LCARS-LAB approach within CARISMED Project;

The LCARS Model:

- The purpose of the Low-cost Adaptive Reuse Strategy (LCARS) Model in the Mediterranean is to capitalize the whole knowledge and experience gained during the implementation period of CARISMED.
- **More specifically**, this model is built to exhibit the resetting of the built environment through the implementation of creative studios in six Mediterranean cities following the concepts of Low-Cost Adaptive Reuse Strategy (LCARS) in underutilized or abandoned urban stock, being area, space or building.
- It pretends to be a useful tool for further entities that are interested in improving knowledge on sustainability and applying good practices in rebuilt environment.



4. LCARS-LAB approach within CARISMED Project;

- The main pillars of LCARS that are identified by CARISMED project cover:
 - **Fostering Green architecture:** the building will be environmentally friendly, and the outdoor space will be exploited, solar energy system will be applied, and environmentally friendly solutions will be used in heating and air conditioning.
 - **Implementing SMART systems and solutions:** in addition to using of the Internet, a technological infrastructure (ICT) will be applied to foster SMEs skills, knowledge and experience in the various fields of community policy and legislation, environment and
 - **sustainable development, the entrepreneurial culture, business innovation, training and transfer of best practices** and experiences, and socio-economic development...etc.
 - **Recycling Recycled furniture and supplies (Circular economy):** recycling- recycled furniture and supplies will be used inside the building, old used equipment and tools will be re-managed to serve the beneficiaries. Craftsmen will be encouraged to manufacture the furnishing and decorating of the LCARS Studio.



4. LCARS-LAB approach within CARISMED Project;

- In that sense, three pilots (in Palermo and Murcia and Irbid) were implemented in underutilized premises managed by the local partners, the pilot in Athens consists of an itinerant exhibition kiosk on LCARS that can be transported in several neighborhoods to promote the LCARS methodology, while the pilot in Irbid and Hebron was implemented in underutilized buildings owned by the municipalities,
- As such, the content of the prepared guide will assist readers to get familiar with the **CE concept both in theory and practice**, by encouraging especially the Cultural Creative Industries Small-Medium Enterprises (CCI SMEs) to:
 - ✓ **Adopt a new paradigm shift that proves its potential to decouple economic activity from the consumption of finite resources.**
 - ✓ **The community to be more aware of the Low-Cost Adaptive Reuse Practices (LCARs) and their benefits**, that if/ when applied within the urban setting, they will give the opportunity to CCI SMEs to be less dependent on raw materials and to achieve a smarter use of our planet's limited available natural resources.
 - ✓ **The provided LCARS model practices combine in a useful approach the necessary circular practices with sustainable urban development practices for the Mediterranean cities,**
 - ✓ **Yet, it adds significant contribution to the wide and global discussion on shifting towards a more livable urban environment in the future.**



4. LCARS-LAB approach within CARISMED Project;

Tourism, Heritage and Antiquities Center- Hebron



4. LCARS-LAB approach within CARISMED Project;

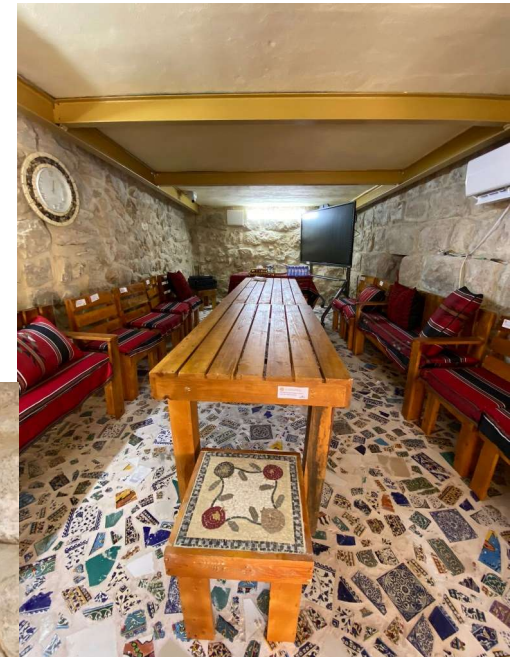


Before



Hebron

After

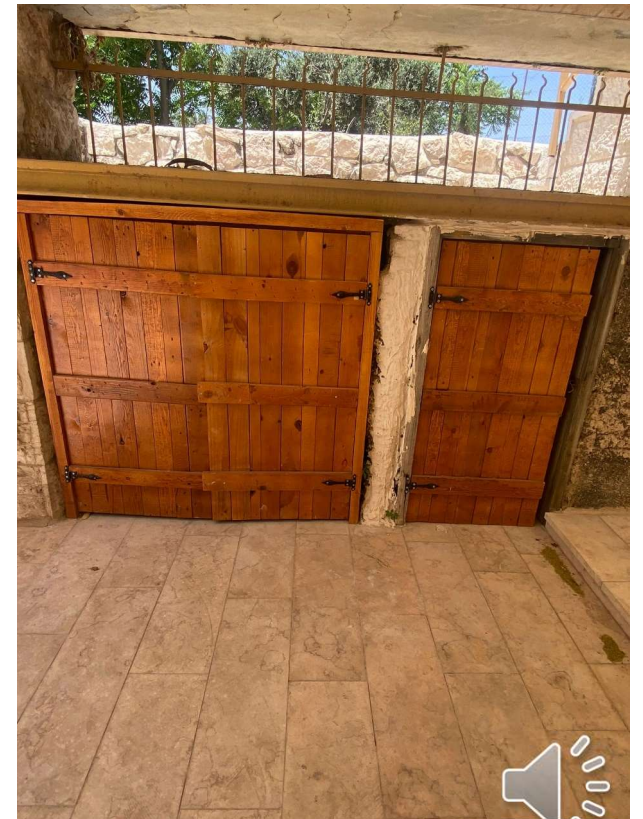
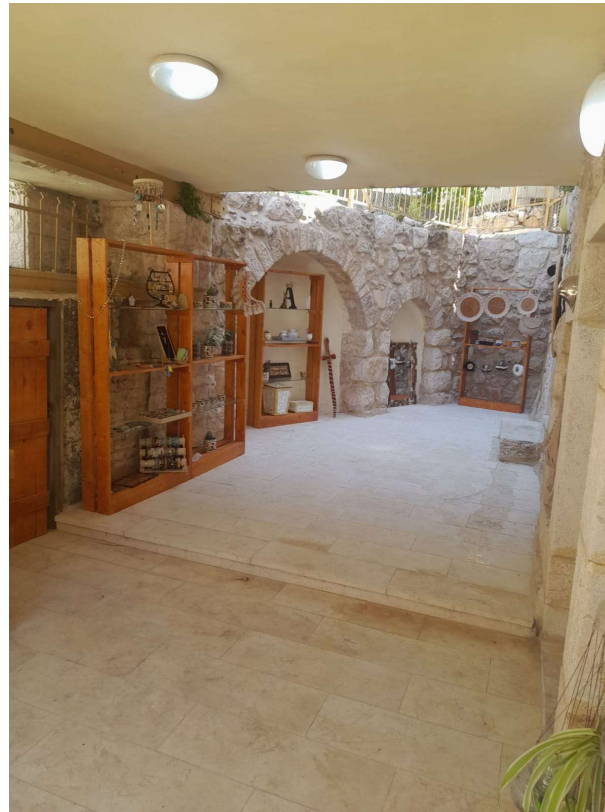


4. LCARS-LAB approach within CARISMED Project;

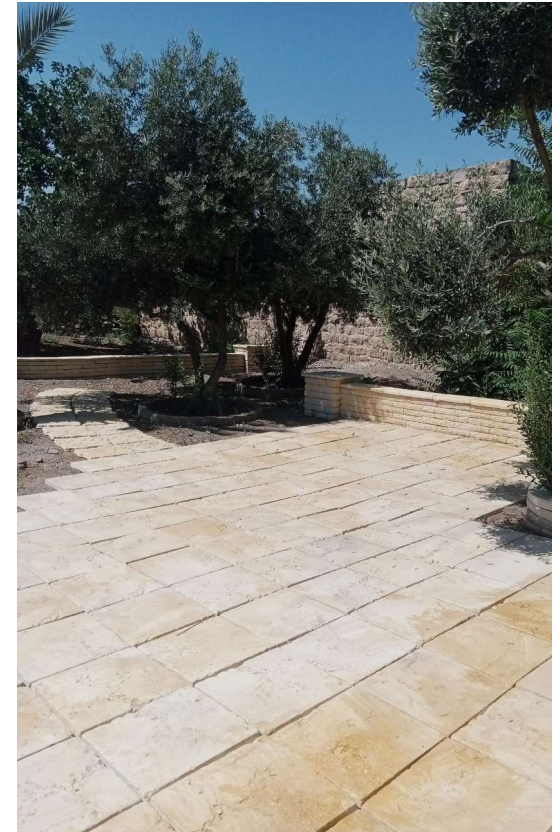
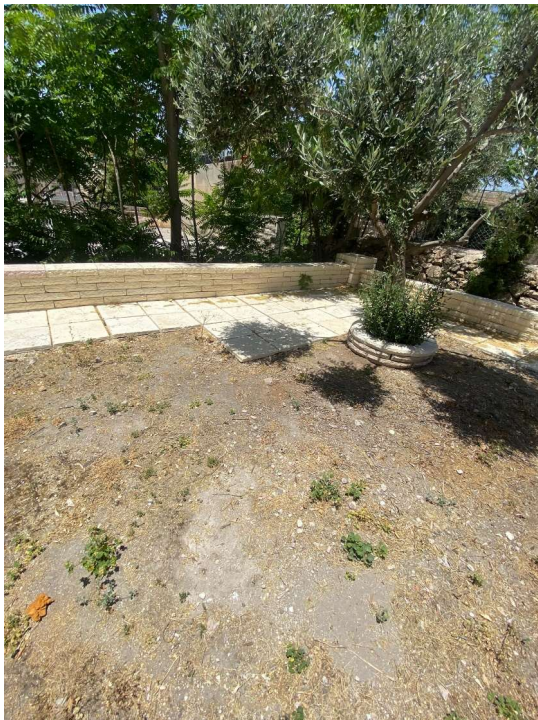
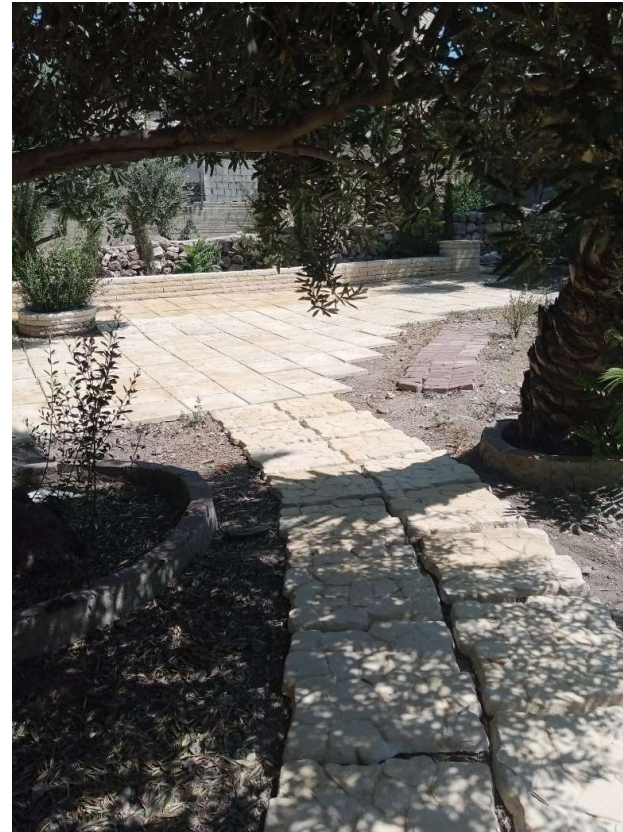


Hebron

Applying Circular Economy Principles to obtain the recycled furniture



4. LCARS-LAB approach within CARISMED Project;



Hebron

Applying Recycling Technology Principles to produce new tiling from Stone Debris to refurbish the outdoor space



4. LCARS-LAB approach within CARISMED Project;

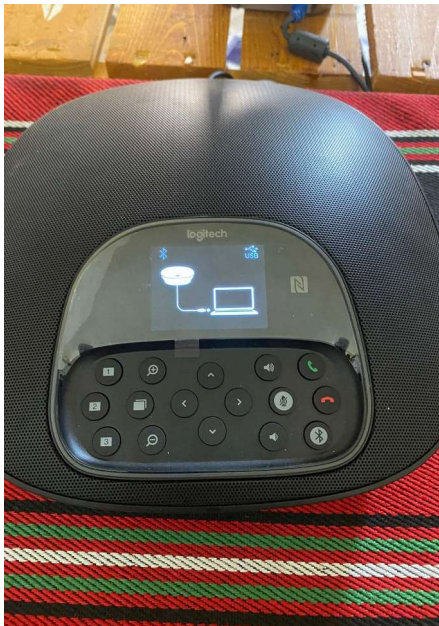


Hebron

Applying Smart Technology Principles to ensure electrical sustainability for the Center



4. LCARS-LAB approach within CARISMED Project;



Hebron

**Applying Smart Technology
Principles to ensure
communication
sustainability for the Center**



4. LCARS-LAB approach within CARISMED Project;

Al-Zahra Park- Management Office IRBED

**Applying Recycling Technology
Principles, Smart and Green
Tools to Adopt
And refurbish
the building and the outdoor
space**



4. LCARS-LAB approach within CARISMED Project;

Al-Zahra Park- Management Office- IRBED



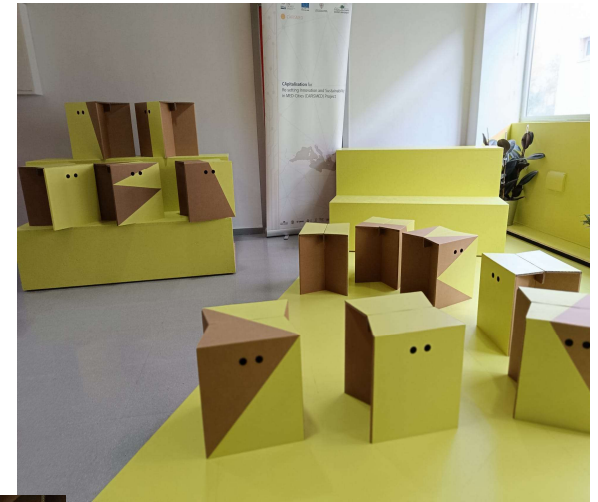
**Applying Recycling Technology Principles, Smart and Green Tools to Adopt
And refurbish the building and the outdoor space**



4. LCARS-LAB approach within CARISMED Project;

MURCIA

Applying Circular Economy,
Smart and Green
Tools to obtain the
recycled furniture



5. Concluding Notes;

1. Urban Growth in Palestine- Trends, needs and consequences;
2. Urbanization Impact on the Cultural and Natural Landscape in Palestine;
3. Tendencies and interventions to protect heritage sites from the consequences of climate change due to urban growth;
4. LCARS-LAB approach within CARISMED Project;
5. **Concluding Notes;**



Battir- World Heritage Site in Risk

5. Concluding Notes;

Based on this review/presentation and referring to the “Report- Triple Line about Climate Changes, it is recommended the following notes to be addressed:

A- Major actions to include:

- **Further integration of cultural heritage into mainstream climate change policies, incentives for cultural heritage to mitigate climate change effects and long-term monitoring of cultural heritage to document changes;**
- **Careful advancement of the knowledge on the scale and dimension of climate change damage and loss of cultural heritage to cover other aspects of urban expansion and use of new technologies and their possible impact on the old ambient;**
- **A coherent methodology for obtaining reliable information and quantitative data regarding the urgent need for new smart and green tools and for the potential circular economy interventions within the old quarters resources to research and implement actions;**
- **Quantitative data on costs and benefits of adaptation measures; an inventory or central information point on loss and damage to cultural heritage; cross-sectoral cooperation;**



5. Concluding Notes;

B- The likely areas of interest to emerge in the coming years include:

- ✓ Cultural resilience, and impact on gender and post-colonial studies;
- ✓ Cultural resilience, oral traditions, and Intangible cultural heritage;
- ✓ Development of specific appraisal tools for cultural heritage assessment regarding energy management, and life cycle approach;
- ✓ Economic appraisal of the social and resilience value of cultural heritage.

C- Other trends or areas to be supported include:

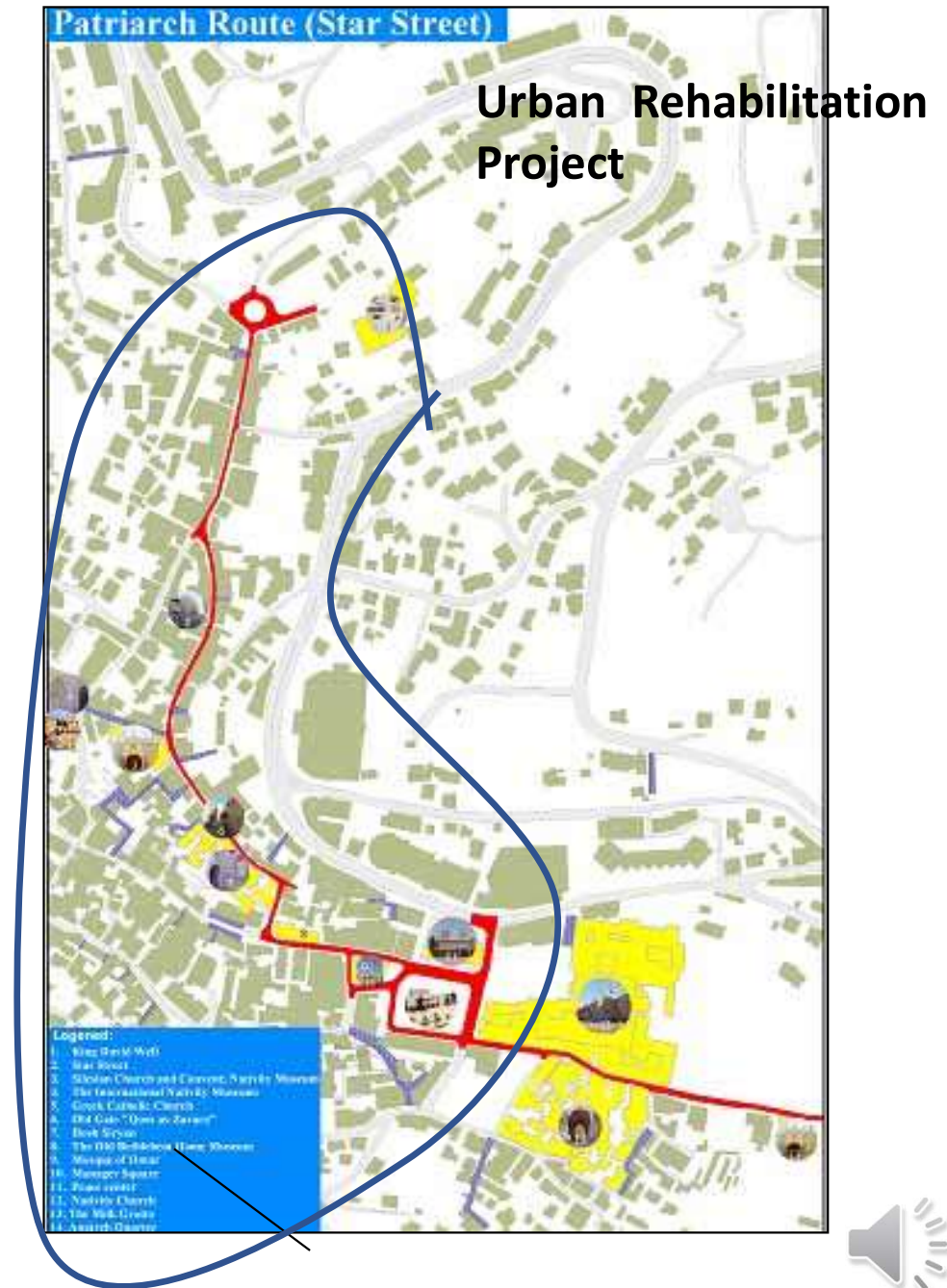
- ✓ The roles and responsibilities of stakeholders to assess and document climate change impacts including those of loss and damage;
- ✓ Research on economic and social impacts of climate change on cultural heritage;
- ✓ Identification of resilience measures, and areas of research for the impact of urban growth on the climate changes within the cultural heritage sites;
- ✓ The management of scientific and climate-relevant information for these sites.



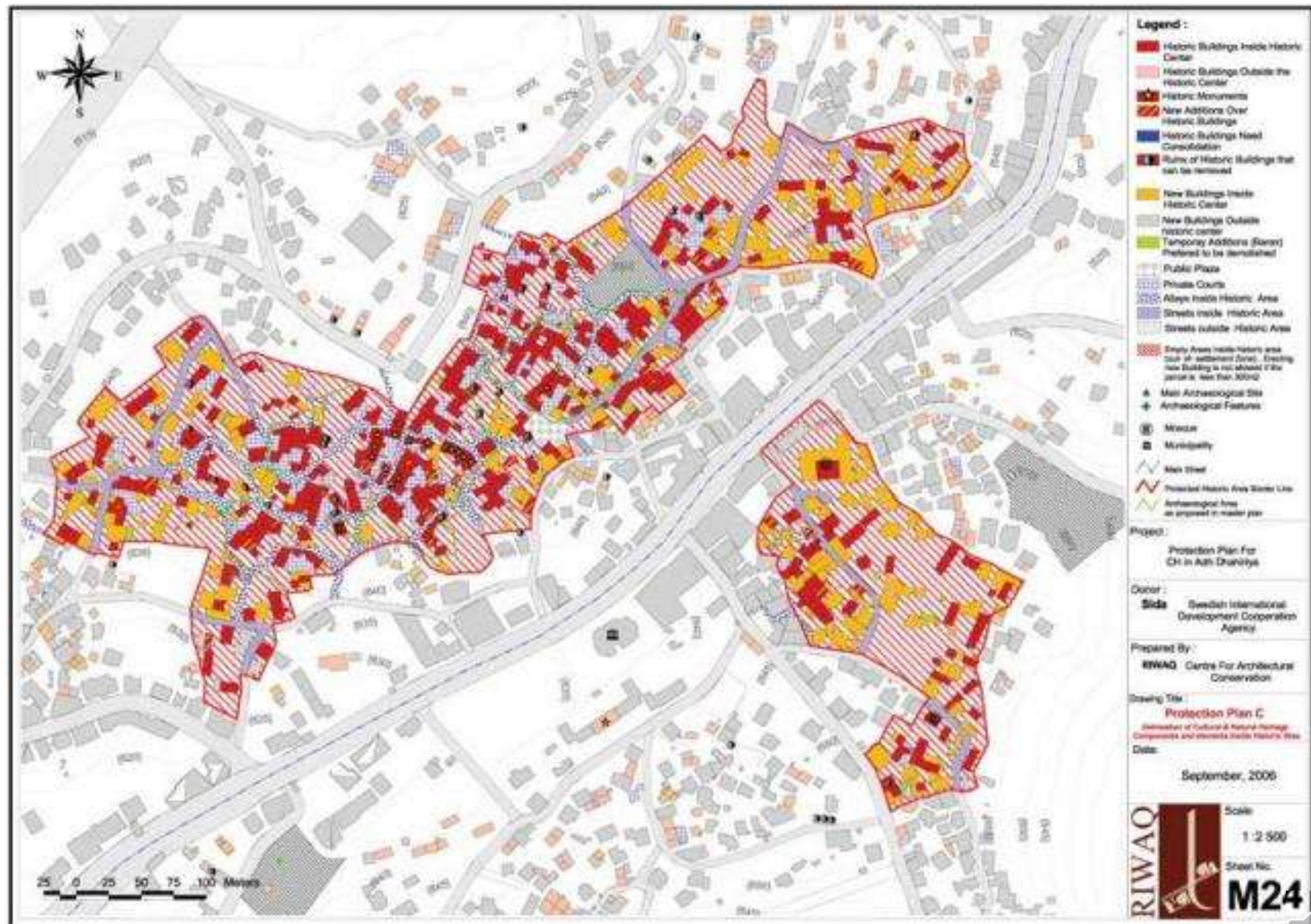
5. Concluding Notes;

D- Actions at Regional and Urban Scale to be supported and to include

D.1- Actions at Urban scale to deal with larger urban area rather than a single building, street or block. The target/ masterplan must cover the entire old fabric in addition to the periphery zones adjunct to the new urban extension to ensure integrity, sustainability and clear skyline for the area.

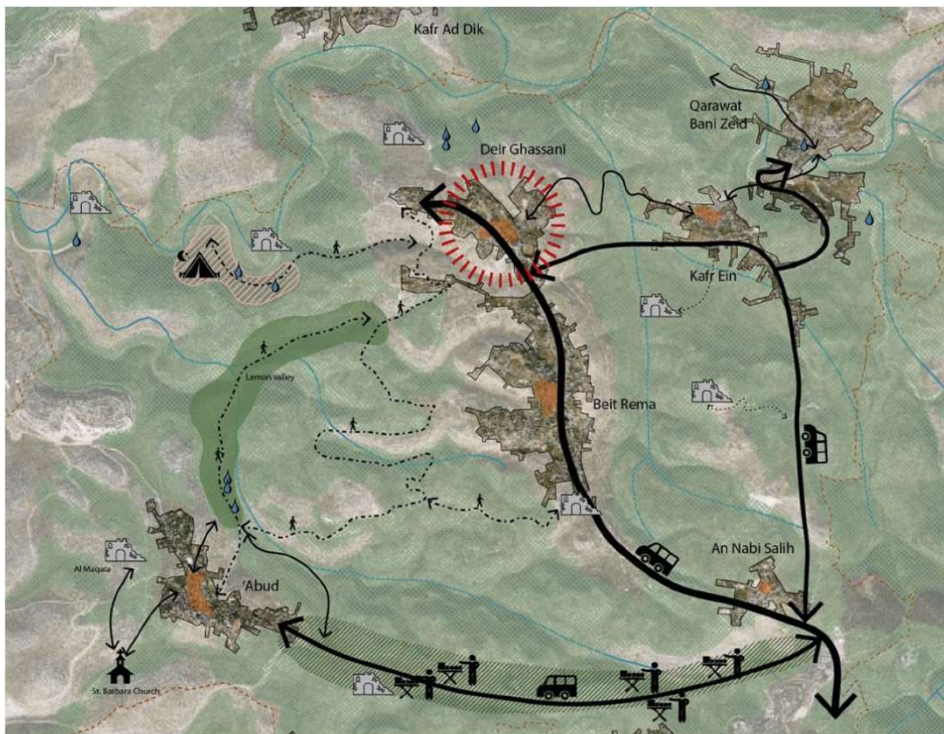


5. Concluding Notes;



5. Concluding Notes;

D.2- Actions at Regional scale as the target is covering a certain geographic area/ natural and cultural landscape with all its traditional and modern features. In other words; preparation of a developmental framework for the cultural heritage at regional level including potential available touristic trails and the necessary regulations and guidelines for their operation and sustainability.



THANK YOU



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Triple Line about Climate Changes

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CARISMED GUIDE

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