

Sustainable Battir

Challenges and Opportunities





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SUMMARY

The present Sustainable Plan for Battir village has been developed with the aim of better managing the village's available natural and cultural resources and features, while at the same time creating new opportunities for local economic empowerment and improved local living standards. It has been guided by the overall objective of serving as the first model of a sustainable village in Palestine. The plan was initiated by the International Peace Cooperation Center (IPCC) in 2012, and includes detailed analyses produced by IPCC staff and collaborators. The plan itself contains five chapters.

An introductory chapter provides basic information about Battir village as well as details of the surveying process, the plan's guiding vision, and its aims and methodology.

Development of the plan was conducted over several phases beginning with a fuller understanding of the village's history and local culture, as well as its surrounding environment and geographical features and values, while taking into account the UNESCO nomination file, presented in Chapter 2.

The third chapter contains a description of different analyses conducted under this

plan. This was followed by a demographic analysis, and local social structures and relations, as well as cultural and historical traditions, and the village's main economic activities and outputs. Additional studies undertaken include a physical analysis of the built environment, an urban analysis, and an infrastructure and environmental analysis. Also studied were factors affecting the village in its entirety, including the old village core, as well as an analysis of the agricultural watch-towers (manater) as structures that are integrated into the landscape terraces.

Separate detailed studies were conducted for the old village core due to its historical significance and high cultural value, of both tangible and intangible heritage. This included identifying and developing an inventory of existing structures and sites of special significance, and undertaking an extensive field survey that takes into account structures and urban elements and a range of other factors impacting the site. All results related to the old historic core are given in the fourth chapter.

The last chapter outlines the resultant sustainable plan for Battir village, including some of the principles adhered to when developing the plan. It also contains a number of recommendations and proposed actions.



Introduction

1.0 INTRODUCTION

Battir is a Palestinian village located to the south of Jerusalem. Occupying 12,000 dunums of land, the village's name translates to "the house of birds", a reference to the many species of birds that can be found there, attesting to the land's fertility and the existence of water springs. A total of 3,500 dunums of Battir's traditional lands are located inside the Armistice Line (the Green Line) dividing Israel from the West Bank.

The village boasts a long and rich history of human settlement. Archaeological evidence of human habitation dates back to the Bronze and Iron Ages, with evidence of human activity spanning the Roman, Persian and Hellenistic periods. The village has long relied on agriculture as its main source of economic activity, which has helped shape Battir's unique landscape characterized by a series of spectacular terraces (Al-Jinan). Some of these still depend on the original irrigation system constructed during the Roman period, whereby spring water is collected in a pool before being channelled to feed the surrounding agricultural lands. An integral part of the surrounding natural landscape, these land terraces are the most important features of Battir village for which it has become famous.

Battir's cultural landscape was shaped via the intermingling of cultural, historical and natural elements, including local customs and tradition. The interaction of these elements, including local life styles, reflect the unique spirit of the place.

Battir's inscription in the UNESCO World Heritage List (WHL) and World Heritage in Danger List in 2014 testifies to the village's outstanding universal values. The nomination file for inclusion in the WHL was developed and submitted jointly by the Ministry of Tourism and Battir's local council. In particular, Battir was included under categories three and four as a cultural landscape that includes "combined works of nature and of man." 2

Under its nomination file for its inscription to the WHL, Battir was divided into two zones: a core zone and a buffer zone. Recognised features of its cultural landscape include terraces, water springs, systems for irrigation, archaeological sites, watch-towers, olive presses and the village's historic core.

Lands belonging to the village that fall within the WHS (World Heritage Site) buffer zone contain ancient agricultural terraces and the surrounding landscape, as well as some historical structures such as agricultural watchtowers.³ This land surrounds Battir from the north to the south and borders the adjacent villages of Al-Walageh, Al-Khader, Husan and Beit Jala.

The old village core is among Battir's most important asset. It has been inhabited since the Mamluk period. Old stone houses, mostly dating back to the Ottoman period, serve as valuable examples of vernacular architecture found in Palestinian villages. These houses and their design reflect local traditions and customs and reveal the skill of constructing houses with local materials. The old village is located partly within the core zone identified in the WHL nomination file, and partly within the buffer zone.

Battir also has a rich intangible heritage, a product of local lifestyles that includes traditional dance and songs, traditional embroidery and handicrafts, customs of sharing, and a distinct culinary tradition with eggplants - the main product of agriculture in Battir - a central ingredient. These traditions continue to form part of the uniqueness of Battir, and are still embraced by local residents who have a vital role to play in preserving Battir's cultural heritage. Awareness among Battir's local residents of the village's historical past and cultural traditions is especially important when promoting future sustainable development.

Battir also faces a number of challenges and threats, including losing many of its recognized values, along with a decreasing

- 1 Only sites of outstanding universal value that meet at least one of ten selection criteria qualify forinclusion under the WHL. Battir is qualified under criteria (iii) to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared and (iv) as an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history. For more information, visit: http://whc.unesco.org/en/ list/1492
- 2 UNESCO, Operational Guidelines for the Implementation of the World Heritage Convention, 2016
- 3 http://whc.unesco.org/en/ list/1492

population. The planned route of Israel's separation wall threatens Battir's valuable cultural landscape, agricultural lands and its ancient irrigated terraces. It also has a negative visual impact. Some local residents may find themselves no longer able to access their lands. This spells potentially disastrous consequences both for the local community and for the village's unique landscape. For now, Battir's nomination to the WHL has temporarily halted construction of Israel's separation wall, but the threat remains.

Furthermore, some of the stone buildings found in the old village have become dilapidated due to years of subsequent neglect. The old village core also lacks several basic facilities and local services that would otherwise better meet the needs of the local community and substantially improve living standards.

The development of the present sustainable plan is intended to make a significant contribution to the preservation, management, sustainable usage and development of Battir's available resources and landscape.

An important starting point was the recognition of the village's uniqueness. Major particularities of Battir village were used as a base for this sustainable plan, including its listing as a world heritage site of its cultural landscape. The same also applies to the potential for organic production utilizing traditional agricultural methods and existing irrigation systems.

The production of a sustainable development plan for Battir is particularly important when it comes to better coordinating a host of local initiatives and developmental projects, as well as encouraging the village's socio-economic development particularly as an attractive site for increased tourism. The village of Battir is a living space, and a primary goal has been to develop a plan that preserves Battir's uniqueness, while simultaneously meeting the demands for improved services and facilities for its local residents, in line with opportunities for future development.



Vision

Battir is a unique ecological and historical hub which integrates the wellbeing of the Palestinian community with its urban fabric, heritage and the historical landscape. Protecting and preserving the historical, environmental, cultural and local heritage of Battir will strengthen its inhabitants and will also contribute to the quality of life and the welfare of visitors to the village. It will also unlock new development opportunities, which the local community stands to benefit from.

Battir's sustainable plan is a holistic vision to enhance the village's natural environment, protect its cultural heritage, and strengthen its economy, while improving the quality of life and equal opportunities for all.

This vision also includes improving living standards, health and well-being, as well as usage of identified opportunities including equality, social inclusion and cohesion.

This plan was prepared to serve as a model for sustainable development for other localities.

Concept

The concept of the plan emerged out of the vision elaborated above. It required an understanding of the site and its particularities, which involved conducting a site analysis and survey, as well as proposing strategies and guidelines for the preservation and enhancement of Battir's heritage, including its built and natural environments, and improvement in the living conditions.

The local community were widely consulted during the formulation of the plan's vision, emphasizing the preservation of Battir's unique cultural, historical and environmental features in a way that simultaneously opens up new socio-economic opportunities for the village's local residents. The present plan includes an overview of all elements of the site and of Battir's cultural, social and economic features.

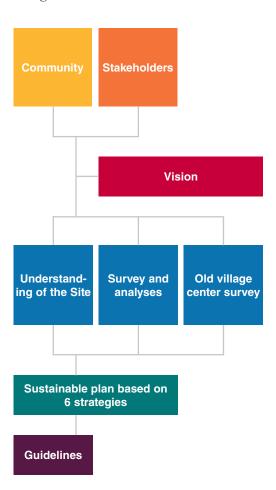
Figure 2: Sustainable plan outline

Since the old village core represents a valuable asset in itself, as an inhabited area with historical buildings, this plan includes an assessment of its site elements: their importance, values, historical content and potentials, the relation between elements, the sequence of locality development, and correlations with the local surroundings. As a key part of the planning and preservation, the old village core was zoned as a conservation area, with limited interventions permitted.

The last section of the plan outlines a roadmap towards sustainability organised around the priority areas: energy; environment; economy; culture and social inclusion; and health and well being.

Actions that provide for Battir's long term sustainable development are included under those categories.

The plan also integrates guidelines for different types of physical interventions and urban improvements, as well as environmental protection and disaster prevention strategies, and strategies to enhance local living standards.



Special emphasis is placed on both organic agricultural production and tourism, both of which have significant economic potential. Battir's long history of agricultural production was the driving force that led to the village's unique terraced landscape, and also served as the main backdrop to the village's various social and cultural traditions and life cycles. While Battir's reliance on agriculture has declined over recent years, prioritizing agricultural production is central to improving the village's economic outlook and important in preserving many of its local traditions.

For its part, tourism has steadily grown as an area of great economic potential that can also play a central role in supporting sustainable growth. Many of the village's historical and natural features provide a backdrop to developing Battir's tourism sector, leading to greater diversification of local revenue sources. Eco-tourism has particular potential in Battir, especially when leveraging the village's strong agricultural traditions that are based on ancient principles of cultivation, organic production and traditional festivals. It is also in close enough proximity to potentially benefit from tourism to Jerusalem, Bethlehem and Hebron, as well as support increased tourism to those sites.

This plan also contributes to preparing a conservation plan for the old village core. The guidelines presented are important in establishing a controlled process of preservation and usage of the cultural elements.

I.I AIMS OF THE PLAN

The intended aims of Battir's sustainable development plan were developed with reference to the core vision outlined above, and are as follows:

- 1. To ensure a healthy environment and preserve the natural ecosystem
- 2. To enhance Battir's built setting
- 3. To create a sustainable community
- 4. To boost organic agricultural production
- 5. To develop tourism as one of the key economic sectors for Battir
- 6. To preserve the villages tangible and

- intangible heritage
- 7. To enhance local living standards and economic opportunities
- 8. To strengthen social inclusion

Objectives:

- 1. Provision of public service and of new local facilities
- 2. Integrating energy efficiency into future interventions in both architecture and urban development
- 3. Strengthen the role of all levels of stakeholders
- 4. Introduce strategies for smart energy consumption and the sustainable use of natural resources
- 5. Revitalize Battir's historic village core
- 6. Identify priority projects for implementation
- 7. Set up strategies to improve physical, socio cultural and natural elements in the village
- 8. Develop guidelines for environmental and heritage preservation
- 9. Identify education and promotional programs
- 10. Provide a solid base for agricultural production
- 11.Introduce guidelines for the use, maintenance and preservation of landscape terraces

1.2 METHODOLOGY

In preparing this plan, the whole area of Battir village was studied with particular attention given to the old village core since it contains the most important elements of the locality and has significant historical and cultural value. The preparation phase included data collected from previous studies, structured interviews, questionnaires, and a field survey. Involved in the preparation was the following:

Identification of the site – understanding Battir's natural, cultural and historical features, as well as its historical and cultural traditions. This required structuring the analysis around three different categories: social, natural and built environment.

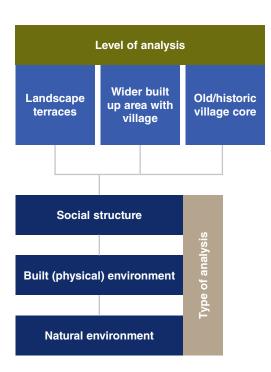


Figure 3: Levels of analyses

Social analyses of the village – the villages demographic features and main economic outputs and activities were examined in some detail as an important backdrop to Battir's social structures as well as local living conditions. This was also the case when assessing opportunities to improve the socio-economic conditions of the local residents.

Inventory and analyses of local build-

ings - Inventory forms were used to collect data on local structures, including usage and number of floors.

Urban level analyses - data was collected through in situ examinations. Roads, urban fabric, land use, vistas, parking spaces and local infrastructure were all mapped, providing an overall account of the existing state. The resultant data was compiled onto an excel sheet and Geographical Information System (GIS) was used to produce maps. This type of analyses was conducted for the wider built up area.

Factors affecting the village - General constraints and present and potential threats were also identified.

Old village core survey - Borders were identified demarcating a conservation

area of the old village core. Within these borders, a survey was conducted of all buildings on the urban level. Information was collected on heritage features. This survey included floor elevation, materials, building typology, usage, the current state of conservation, values, and ownership. Analysis of the surrounding urban environment included the status of streets and street elements, parking spaces, open public spaces, and land use. All collected data was also incorporated into the maps. It was also important to define the threats and constraints for future actions, which in turn informed the development of the plan. The outcomes of the conducted analyses and survey were used to determine the current state of conservation, level of integrity and authenticity of the old village core.

A roadmap for sustainable development and preservation of the old village core was created based on the data collected. Development strategies include recommendations and priority actions for each element of the plan. Proposed future actions also include administrative as well as financing, planning and implementation solutions, in addition to an outline of the contributions of different stakeholders and their responsibilities.

Proposals for Battir's preservation and future development target two levels of interventions:

- The entire area of Battir village as per its outline plan; and
- The old village core, with priority buildings selected for intervention.

Lastly, regulations and guidelines were developed related to the proposed interventions outlined in the sustainable plan.

Figure 4: Irrigated landscape terrace of Battir



Proposals for future actions focus on:

- Land use
- Identification of priority rehabilitation zones and priority buildings
- Building interventions
- Street revitalization
- Proposal for a tourist path arranged as walking trails through key landmarks and other attractions inside the old village core
- New infill plots
- Needed facilities to support sustainability
- Basic interventions, usage and upgrades for buildings inside village core
- Selection of sites for development, including potential projects that respond to local community needs and enhance prospects for future development.



Location



Map 1: Battir location and connection to Jerusalem and Bethlehem



2.0 LOCATION

Battir is strategically located in the Palestinian Central Highlands, about 7 km south-west of Jerusalem and a similar distance north-west of Bethlehem. It also borders the Jordan Valley, effectively acting as a buffer between the highlands and the desert area of the Jordan valley. Sitting at an altitude of 544 m to 942 m above sea level, it's topography is characterized by a network of valleys and hills. Its fertile valleys cover much of the area between Beit Jala and the Armistice Line. The lands in the southern part of the locality descend towards the north.

According to the Oslo Agreements signed in 1993 and 1995, Battir's built up area is located within Area B, while 76.3% of its lands are designated as Area C under full Israeli control. Parts of the village also fall within Jerusalem's expanded municipal borders. The historic center of Battir or the old village core is located within Area C, and thus not included in the built up area designated as Area B. Palestinians living in Area C are subject to the jurisdiction of the Israeli Civil Administration (ICA), while all Palestinian development in Area C has been severely restricted.

Core Zone

Buffer Zone

Lands owned by the
people of Battir



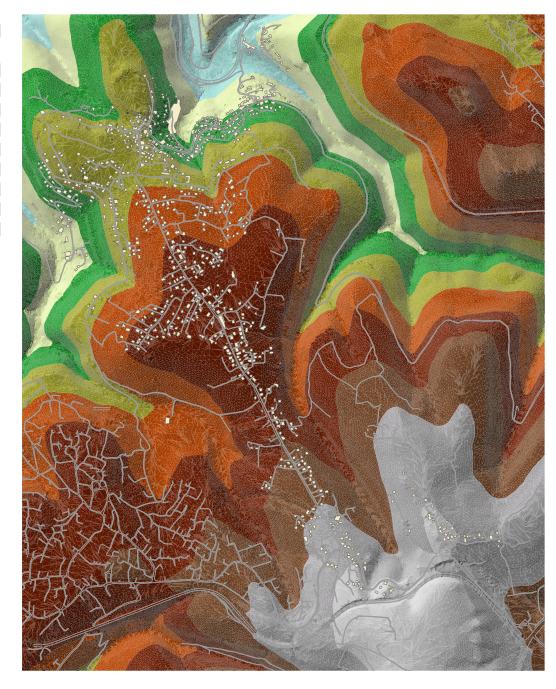
Map 2: Borders of WHS Cultural landscape Battir

2.1 HISTORICAL BACKGROUND

Battir's proximity to Jerusalem, coupled with the ready availability of water, were initially two major factors for human settlement in this area. Archaeological excavations have revealed remains that date back to the Bronze Age, Iron Age, Persian and Hellenistic Periods. Early habitations such as Khirbet El-Yahoud and Khirbet Abu Shawan date back to the Middle Bronze Age. During the Roman period, human settlement in the area moved south-east to Ein Jam'a, Husan and Khirbet Umm El-Shaqef. It is assumed that these areas continued to be inhabited during the period of the Cru-

sades. It was during the Mamluk period that the village of Battir was settled in its present location.

During the Roman period, most of the surrounding agricultural lands were serviced by water canals used to irrigate crops. Archaeological excavations reveal that agriculture was important as early as the Byzantine Period and later during the Islamic Period (Caliphate, Umayyad, and Abbasid Periods). Over time, agriculture continued to grow in importance, including throughout the Ottoman period, when Battir was one of the nine villages of Bani Hassan. At that time, Battir was located in the Governorate of Nahiyat Al-Quds.



Map 3: The topography of Battir

Battir |
Roads |
Roads |
898 - 942 |
854 - 898 |
809 - 854 |
765 - 809 |
721 - 765 |
677 - 721 |
632 - 677 |
588 - 632 |
544 - 588 |

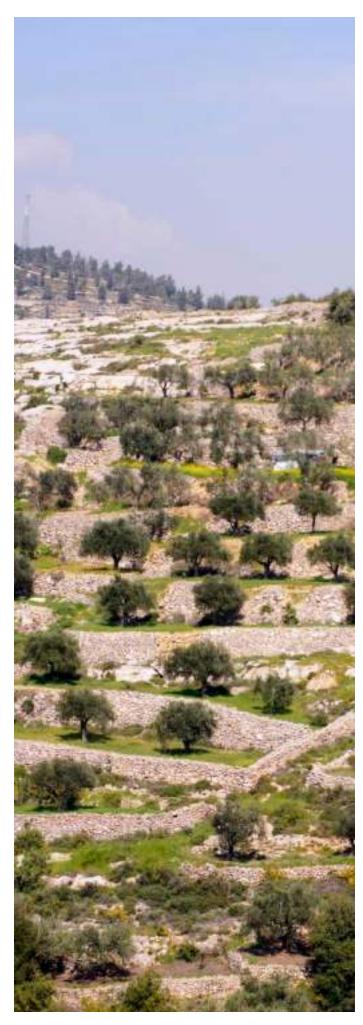
A railway service linking the Mediterranean Coast with Jerusalem was opened in 1892. Battir served as one of the five stations at which the train would stop. The other stations were Al-Lydd, Al-Ramlla, Sajd, and Deir Aban. The railway was in use right up until the 1948 war, transporting visitors to Jerusalem or the Mediterranean coast, while simultaneously serving as a mode of transport for local residents wanting to sell their goods in the market.

Prior to 1948, Jerusalem served as the main commercial hub for all produce grown in Battir. After 1948, however, many of Battir's inhabitants were displaced while Battir itself was effectively divided by the Green Line. Severed from Jerusalem, especially following the closure of the railway service along which Battir was one stop before Jerusalem, local trade in Battir subsequently gravitated towards Bethlehem. Of note, Al-Mukhtar Hassan Mustafa was able to negotiate an agreement with the new Israeli authorities allowing Battir's residents to return to their home and to continue using their lands after 1948:

"Hassan Mustafa dedicated his efforts to guaranteeing the right of the inhabitants of Battir to their land, and he was indeed able to obtain permits that gave them the right to use lands they owned despite their location behind the Armistice Line."

Figure 5: Landscape terraces of Battir





2.2 NATURAL FEATURES⁵

The natural landscape of Battir is emblematic of the Palestinian Central Highlands and is characterized by valleys, mountains, and terraces. Marine sediments, mainly dolomite and limestone, as well as chalk, clay, marl, phosphorite, chert, and porcelains can all be found in the area. The main soil type is Terra Rossa, a by-product of the Mediterranean climate and soil formation on hard limestone. Mountain marl soils and alluvial soils are also present in the area, which

are not very fertile due to poor water holding qualities and high lime content. To prevent soil erosion and improve water retention, agricultural lands were formed into terraces.

Battir's landscape has been shaped over many years by the cultivation of different crops, including olives, figs, vines, apricots and peaches. These form an essential element in the surrounding landscape. Vegetables and other types of crops like wheat and barley were also planted. Cultivated plants have replaced

5 see more in UNESCO Nomination file.



the natural vegetation of Mediterranean maquis and forest, steppe-forest and winter mushroom species. Battir's cultivated lands, after being abandoned, are also a suitable environment for herbaceous plants and low lignified plants.

Battir village traditionally relied on local water springs to irrigate the surrounding agricultural lands as well as for domestic use. The village once had access to thirteen nearby water springs. Today, seven remain active. Access to water and its use for irrigation played a central role in Battir's development. Wadi Battir serves as the main drainage channel and a tributary of the Sorek River.

In addition to local springs, Wadi Ein Jam'a and Wadi Abu Ni'ma to the West of Battir - called Wadi Halas and Wadi Al-Makhrour - have also served as an important source of water as seasonal watercourses for land cultivation. The local tradition of sharing water became one of the main features that shaped Battir's unique agricultural terraces.

Figure 6: Landscape terraces inside Battir village core





Figure 7: Syrian rock hyrax | (http://www.mahmiyat.ps/uploads/uploads/9f6e975093d-29ad978eb8504440bd387.jpg), PikiWiki Israel 4287 Capra

Battir and its surrounding lands are also home to over 730 species of animals, including mammals, reptiles, amphibians and birds. Some of the wild animals found in the area include mountain gazelles, wild boars, foxes, jungle cats, Nubian ibex, rockhyrax and (rarely seen) leopards, hyenas, jackals and wolves.



Figure 8: Nubian ibex | שאיברפ חצנ (https://commons.wikimedia.org/wiki/File:Piki-Wiki_Israel_4287_Capra.jpg), PikiWiki Israel 4287 Capra



Figure 9: Hyena | Dr. Shamshad Alam (https://commons.wikimedia.org/wiki/File:Striped_ Hyena_(Hyaena_hyaena).jpg), Striped Hyena (Hyaena hyaena)"

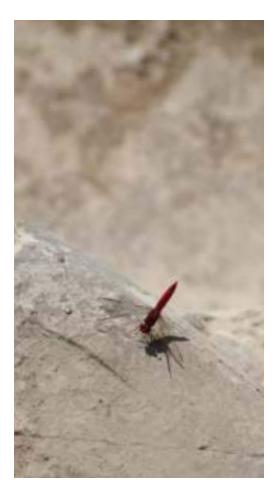


Figure 10: Dragonfly

Climate

Located in the region with a Mediterranean climate, Battir has mild winters that are short, cool, and relatively wet, while summers are hot and dry and last longer. July and August are the hottest months of the year where the average temperature is 24°C. January is the wettest and coldest month with an average temperature of 7.8°C.

The annual average rainfall is 500-550 millimetres. On occasion, strong storms can cause flash flooding in the valleys, leading to erosion, while snow can occur at its higher elevations.

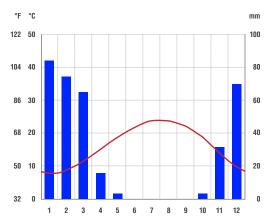


Figure 11: Temperature (red) and rain fall (blue) in Rattir⁶

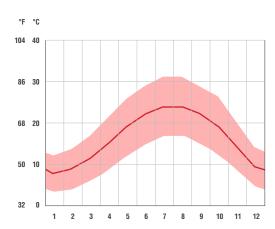


Figure 12: Temperature (min, max and average) in Battir⁷

Changes in the climate are greatly affecting local agricultural production due to changes in soil fertility, water quality and rainfall. This also affects the structure and growth of the surrounding forest.

The natural landscape plays a role in reducing the impact of climate change, especially the water springs that are located in and around Battir, the natural landscape, the valleys and mountains, and traditional agricultural practices.

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Avg. Temperature (°C)	7.8	8.9	11.5	15.2	19.1	22	23.9	24	22.1	19.3	14.2	9.4
Min. Temperature (°C)	3.4	4.1	6	9	12.2	14.9	16.9	17.2	15.3	12.5	8.6	4.7
Max. Temperature (°C)	12.2	13.8	17	21.5	26	29.2	30.9	30.9	28.9	26.2	19.9	14.1
Avg. Temperature (°F)	46.0	48.0	52.7	59.4	66.4	71.6	75.0	75.2	71.8	66.7	57.6	48.9
Min. Temperature (°F)	38.1	39.4	42.8	48.2	54.0	58.8	62.4	63.0	59.5	54.5	47.5	40.5
Max. Temperature (°F)	54.0	56.8	62.6	70.7	78.8	84.6	87.6	87.6	84.0	79.2	67.8	57.4
Precipitation / Rainfall (mm)	84	74	65	16	4	0	0	0	0	4	32	70

Table 1: Temperature and rain fall in Battir⁸

⁶ https://ar.climate-data.org/ location/481517/

⁷ https://ar.climate-data. org/location/481517/

⁸ https://ar.climate-data.org/ location/481517/

2.3 CULTURAL LANDSCAPE FEATURES⁹

Battir is home to many historical sites and structures that reflect the village's long and diverse history. Some of the most prominent sites include the Roman Pool; the Roman Bath; Battir's traditional irrigation system; ancient land terraces; olive trees dating back to the Roman period; old limekilns; al-khirab (ruins); remnants of the Ottoman railway; agricultural watch towers, maqam and the old village core itself.

ROMAN POOL

The Roman Pool is a prominent site in the old village core. It is a part of an ancient irrigation system, and collects water from 'Ein Al-Balad spring. To this day, water from the pool continues to be used to irrigate adjacent terraces also located in the village center. This system of pool and canals is of considerable historical value, and an important asset.



Figure 13: The Roman Pool



Figure 14: 'Ein Al-Balad Spring

ROMAN BATH ('EIN AL-BALAD SPRING)

The structure known as the "Roman Bath" is located within the old village core and is also fed by the 'Ein Al-Balad spring. Next to the bath there is a bathing room once used for ablution. Al-Omari Mosque used to exist in close proximity to the bath, though no traces of it are left.

⁹ see more in UNESCO Nomination file



Figure 15: Historic water canal still in use



Figure 16: Dry stone walls in Battir

TRADITIONAL IRRIGATION SYSTEM

Battir has an ancient Roman irrigation system that is still in use by local farmers today. Water from nearby springs is collected in two pools and then fed to the surrounding terraces via ancient canals. Water allocations are agreed between eight families in Battir and calculated utilizing an old system that relies on the use of a stick. Farmers share the duty of ensuring that sufficient water is collected in the pools over night for distribution the following day. The amount of water channelled to different terraces can be controlled. This system allows local farmers to adapt their fields to different crops. Proving its sustainability over the years, this system is rooted in Battir's local traditions of using and sharing water and therefore should be preserved as an authentic element.

DRY STONE VERNACULAR ARCHITECTURE

Traditional dry stone architecture is a common feature for the range of different old structures still standing in Battir. Different types of local stones were used to construct dry stone walls. Also, they were used to "reshape" the landscape for agricultural use. This has resulted in traditional knowledge of structuring dry stone architecture embedded in the landscape of Battir. The terraced landscape is associated with social values since the construction and maintenance of traditional drys tone architecture was a collective endeavour, and helped strengthen local social bonds. Battir's World Heritage Site (WHS) encompasses around 554,000 meters of dry stone walls.

TERRACES

Battir's landscape is characterized by walled terraces that run along the valley of Wadi Al-Makhrour towards Battir. Local agriculture had to adapt to the steep geomorphology of the area, resulting in the construction of terraces using dry stone walls (senasel) to create a flat earthen surface known as habaleh. Terraces were also central to preventing soil erosion and preserving soil moisture.

Several types of land terraces can be distinguished based on both the morphology as well as the functional and constructive characteristics of the dry stone walls involved. This includes: a) very simple structures (stone piles called rujum) resulting in a simple and minimum modification of the terrain; b) dry stone division walls (senasel) built in flat areas and on smooth slopes to demarcate individual plots of land and land ownership, as well as to protect the land and crops from local species; c) pocket terraces (midwath), that takes the shape of a short circular or semi-circular wall around a single tree. Also, more complex systems of dry and irrigated terraces and dry stone retaining walls (habale) were in use. Local farmers adapted the surrounding landscape for agricultural activities, preventing soil erosion, and optimizing rainwater drainage, including reducing rainwater runoff. ¹⁰ In constructing and maintaining terraces, collective work was essential. Terraces after each rainy season had to be reconstructed. In spring time, farmers from Battir still gather to work on maintaining their terraces and plough their lands. The most common type of terraces found is contoured retaining terraces, mostly used for olive tree cultivation. Another type is cross-channel terraces (khalle), built at the intersection of hill slopes and cultivated with different types of plantations and irrigated terraces.¹¹

AL-KHIRABS

Areas of built up human settlement are known as khirabs, and bear witness to the many different civilizations who settled Battir. There are seven khirabs in Battir, with most located near the current village: Khirbet Al-Rukba, Khirbet Al-Yahud, Khirbet Bardama, Khirbet Al-Harith, Khirbet Al-Qasr, Khirbet Um Al-Shukaif, and Khirbet Karzaleh. The most important khirbeh in Battir is Khirbet Al-Yahud whose origins date back to the Canaanite period. This khirbeh took advantage of a nearby water spring, while its location was attractive on the top of a hill and across the ancient road that connected Jerusalem with Gaza. 12



Figure 17: Types of terraces in the landscape of Battir | (https://www.slideshare.net/DESCLAUX_SALACHAS/the-battir-landscape-project-as-a-means-of-defence-of-territory-and-human-rights-by-giovanni-fontana-antonelli)



Figure 18: Khirbet Al-Yahud



Figure 19: Olive trees in Battir

- 10 Ministry of Tourism and Antiquities, Department of Antiquities and Cultural Heritage, Palestine Land of Olives and Vines, Cultural landscape of Southern Jerusalem, Battir, World Heritage Site Nomination Document, 2013. Pg. 52
- Ministry of Tourism and Antiquities, Department of Antiquities and Cultural Heritage, Palestine Land of Olives and Vines, Cultural landscape of Southern Jerusalem, Battir, World Heritage Site Nomination Document, 2013. Pg. 52
- 12 Ministry of Tourism and Antiquities, Department of Antiquities and Cultural Heritage, Palestine Land of Olives and Vines, Cultural landscape of Southern Jerusalem, Battir, World Heritage Site Nomination Document, 2013. Pg. 69

- 13 Ministry of Tourism and Antiquities, Department of Antiquities and Cultural Heritage, Jerusalem Southern Terraced Landscape, World Heritage Site Emergency Nomination, 2012, pg. 34
- 14 Ministry of Tourism and Antiquities, Department of Antiquities and Cultural Heritage, Jerusalem Southern Terraced Landscape, World Heritage Site Emergency Nomination, 2012, pg. 34

TRADITIONAL OLIVE TREE CULTIVATION AND AGRICULTURE

Along the route running from central Palestine towards the Mediterranean coast, much of the suitable landscape has been modified by terraces for agricultural activities largely due to the availability of water springs. According to available research, Olive was domesticated as far back as the Chalcolithic period, while the history of olive oil production can be traced back more than 5,000 years. Olive oil production is deeply intertwined with the social, economic and cultural traditions of the village. The olive tree has long been a symbol of knowledge, wisdom, abundance, peace, health, power, and beauty. It also has specific religious connotations. Some olive trees of this area are several centuries old and are locally known as Roman trees (shajar romani).

54% of the cultivated land is used for olive trees. During the olive harvest season, farmers would move to the agricultural watchtowers (manatir) in the hills from where they could watch over their lands. Other crops are planted on irrigated terraces below the water springs. They are connected to the spring pools by a complex system of hydraulic channels. According to their type, different terraces were used for different cultivation. Battir is especially famous for its locally grown eggplant "beitinjan Battiri".

Land terraces can be divided into three parts: the front part called al-rahma is planted with vines; the central part called ras al-mahna is planted with fig trees; and the third part usually adjacent to the upper dry stone retaining wall, called al-zarb, is planted with olive trees.¹³

Contour and cross channel irrigated terraces are used to plant different types of vegetables and fruit orchards.

Enclosure walls and terraces occur on plateaus, often in association with vineyards and fruit orchards, serving also as windbreaks to protect the plantations. Pocket terraces around single trees and stone piles are also used for olive cultivation.¹⁴

AGRICULTURAL WATCHTOWERS

Old agricultural watchtowers called "manatir" or "qusoro" were used by local farmers to watch over their lands during the harvest season so as to protect them from both natural and human threats. The watchtowers also provided workers with a shaded resting place during the hot summer months. These towers were built of stone and are located on the upper parts of a farmer's fields. They are also usually located near a water source or cistern. Around 230 watchtowers are registered in the area from Wadi Al-Makhrour towards Battir. Some are comprised of piles of solid stone exhibiting a simple technique of construction, which are small in proportion, circular or rectangular in shape, and have a wooden roof covered with shrubs that was frequently changed depending on season.

A second type is more complex and comprises a round watchtower with rubble core walls. From two sides, they were built of unworked fieldstone in an irregular pattern, and finished with a barrel vault or cross vault. Lastly, quadrilateral watchtowers were also built, whose walls were constructed of well-cut and sometimes nicely dressed ashlar stones constructed in a regular pattern. The space between was filled with earth, lime, ash and straw. They have a vaulted ceiling.¹⁵

HISTORICAL ROAD AND RAILWAY

Battir's local economy has long depended on agricultural trade that took advantage of its location along main trade routes and later as a stop on the old railway. The historical road to Beit Jala, still in use, runs along the middle slopes of Wadi Al-Makhrour.

Construction of the Ottoman railway began in 1892, connecting Jerusalem and Jaffa. During the British mandate period (1917-1948), Battir was the last station before Jerusalem, reinforcing the strong commercial links between the two locales. Battir's farmers would jostle to sell their produce to passengers passing through, with this trade helping the socio-economic status of local residents.

15 Ministry of Tourism and Antiquities, Department of Antiquities and Cultural Heritage, Palestine Land of Olives and Vines, Cultural landscape of Southern Jerusalem, Battir, World Heritage Site Nomination Document, 2013. Pg. 59

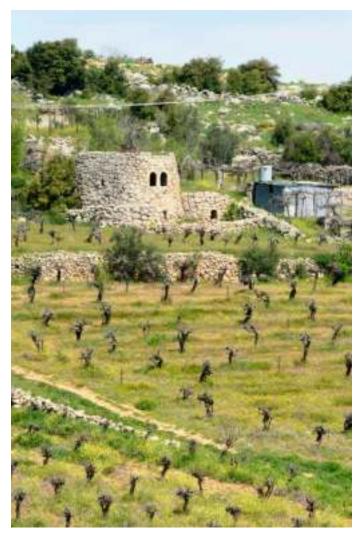


Figure 20: The "Manatir" in Battir

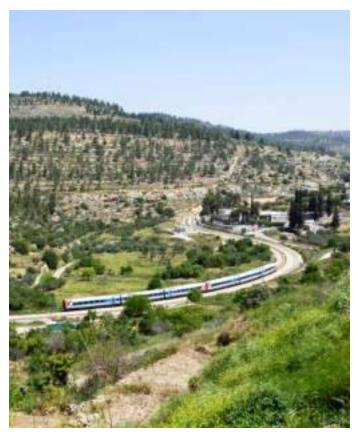


Figure 21: The railway train in Battir



Figure 22: The limekiln near Jaffa-Jerusalem railway



Figure 23: Maqam Abu Zeid



Figure 24: The old village core

LIMEKILNS

Limekilns first appeared during the Roman period. Known as kabbara or lattoun, they were built mostly as temporary structures, and were in use up until a few decades ago. They were used to produce lime mortar, locally called khallale, and after being used they were left abandoned. They were typically constructed close to the site where lime was required. These structures initially had an eggshaped burning chamber built of hard stone, with an air inlet at the base.

Permanent limekilns were built with bricks, stones and mortar and continued to be used in Battir until the 1940's.

MAQAMS

Maqams are Islamic shrines that were built in the Ayyubid period. There are two important maqams in Battir: Maqam Abu Zaid, built to commemorate Abu Zeid Al-Bustami and his wife Rabiea Al-Adawieh, which is located close to the Roman pool in the old village core. The second is Maqam Al-Sheikh Khattab, who was one of Battir's residents at the time. Battir's maqams are in need of restoration, particularly as a potential tourist attraction of considerable historical importance.

OLD VILLAGE CORE

The old village core has a number of structures that attest to its settlement during the Mamluk period when Battir's inhabitants first relocated there. However, most of the buildings originate from the Ottoman period. These buildings were constructed out of limestone, concrete, mortar and plaster while structurally they were composed of arches and vaults. Virtually all buildings use the cross-arch technique of construction that was first introduced during the Roman period and commonly found on Byzantium structures as well, resulting in buildings that have vaulted arched roofs. Modern buildings in Battir are constructed with steel I-beam and Portland cement.

Note: More about village core is given in section 4 of this document.



Analysis

3.1 DEMOGRAPHIC ANALYSIS

To understand the existing social economic conditions experienced by Battir's population, a demographic analysis was conducted, which identified essential facilities and services needed to improve the welfare of the village's local residents, while promoting sustainable development.

3.1.1 Battir

According to the field survey conducted by IPCC, Battir's population was 4489 in 2017, a slight increase from 4230 residents recorded in 2014. The population is expected to grow to 6645 inhabitants by 2035. According to a survey conducted in 2014, approximately 50.4% of Battir's residents are female and 49.6% are male. The survey also revealed a young population, with 32% of local residents less than 15 years old, 37% aged between 15 and 35 years, 12% aged between 35-45 years, 13% aged between 45-60 years and 6% above 60 years.



Figure 25: The gender structure of Battir

Groups	2017	2035
0-4	468	796
5-9	426	707
10-14	450	629
15-19	465	558
20-24	446	496
25-29	436	440
30-34	336	423
35-39	266	477
40-44	258	439
45-49	257	465
50-54	216	397
55-60	152	294
+60	314	519
Total	4489	6644

Table 2: Age distribution of Battir's inhabitants

In 2014, there were 908 households in Battir, while the average family size was 4.7 persons/family. 19% of residential units have 1-4 inhabitants, 51% have 5-8 inhabitants, 17% have 9-12 inhabitants, 9% have 13-16 inhabitants, 2% have 17-20 inhabitants and 2% have more than 20 inhabitants.

3.1.2. Old village core

In 2017, there were 636 residents living in the old village core of Battir. This is a slight increase from 620 residents registered during the IPCC's 2014 survey, while by 2035, the population is expected to rise to 867 residents. Presently, the old village is home to approximately 14% of Battir's residents.



Figure 26: The gender distribution for residents living in Battir's old village core in 2017

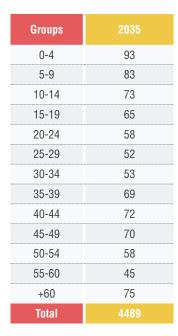


Table 3: The projection of the age distribution of residents in Battir's old village core

In 2017, the old village core contained 169 households. Of these, 25 % had children less than 16 years old (162 children), while most households typically housed 3-4 members.



Households inside old village

Households in the rest of the village

19%

81%

Figure 27: Household distribution in Battir's old village core in 2017



Map 4: Household distribution in Battir's old village center in 2017

3.2 SOCIAL STRUCTURES

The main families of Battir are the Butmeh, Oweineh, Qatosh, Mu'amar, Najar, Batha, Badir, Ayash and Qasqas families. Many of the village's residents can trace their origins back to Yemen and Iraq. In terms of educational achievement, 80% of Battir's youth continue their education through to university, the majority of whom attend Bethlehem University, Hebron Polytechnic, Al-Quds University in Abu Dis and Birzeit University. Continued constraints on development, particularly in Area C, have significantly hindered Battir's economic growth and caused both poverty and local migration out of the village.

3.3 SOCIAL RELATIONS AND ACTIVITIES

Local social relations and interaction between Battir's inhabitants are traditionally rooted in the agriculture, once the main source of economic wealth as well as social standing. Local traditions of mutual support have forged a tight knit community are directly related to agricultural activities. For example, it was common for the inhabitants to gather in the "Al Saha" plaza in the evenings where the men would discuss and solve problems related to work and village life. The plaza was also used for other social activities.

One of Battir's most important agricultural products is eggplant. Each year, Battir plays host to an eggplant festival that usually takes place in August or September. The festival is held in Midan plaza close to the Roman Bath and attracts many visitors from around the West Bank, as well as from Jerusalem, other parts of the country, and even overseas. A number of cultural activities such as Dabkeh (folklore) dancing and singing traditional songs are highlights of the festival. Aside from eggplants, a number of other products locally grown or made are exhibited and sold during the festival, such as pickles and local embroidery.

3.4 ECONOMIC ACTIVITIES OF VILLAGERS

Before 1967, Battir was highly dependent on agriculture for its economic well being. In particular, it served as a vegetable basket for Jerusalem. After 1967, Battir was effectively cut off from Jerusalem, forcing its residents to turn towards Bethlehem. Following its 2014 inclusion on the UN-ESCO World Heritage List (WHL), the village has begun to regain its importance, while tourism now offers the village an opportunity for economic growth and job creation. At present, 65% of the population work within Israel, 20% are self-employed, 10% work in agriculture and others work in commerce and manufacturing. 16

3.4.1 Agriculture

Battir has 6435 dunums of land suitable for agriculture. Agriculture has not only contributed to the local economy, but shaped much of the local culture and surrounding landscape. Agricultural traditions should continue to be preserved as interwoven into Battir's cultural landscape despite their no longer being the main source of income. Different types of agriculture were practiced in Battir. Rainfed agriculture accounts for 95% of all cultivated crops. 5% of the land is irrigated using water sourced from local springs and domestic cisterns, which is used to grow a range of vegetables.¹⁷

Olive oil production is deeply intertwined with Battir's identity and local customs. Olive trees account for 3640 dunums.

In large part, the low percentage of the workforce in agriculture is the result of Battir's separation from Jerusalem that long served as its main commercial and trading center. However, it also reflects higher levels of education attained by Battir's youth today, many of whom seek professional careers. The causes of the reduction in local agriculture are many and complicated. Huda Mustafa, a farmer in Battir commented:

¹⁶ Municipality of Battir

¹⁷ Municipality of Battir

¹⁸ Interview done by IPCC in 2017

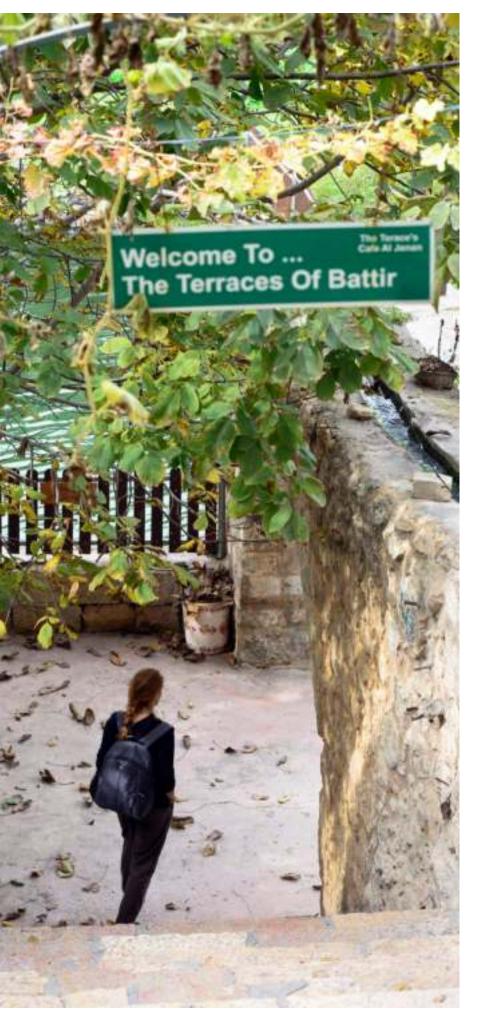
"Agriculture is of great importance for Battir as a source of economic income for the family and a way to preserve the lands and revive them. Climate affects agriculture in Battir as different seedlings are planted each season. For example, in the summer eggplant, squash and bell peppers are planted, while in October these seedlings are removed to plant bean and cauliflower. Higher temperatures require more water for the plants or else they will die, and the frost in the water leads to the freezing of the plants. Agriculture attracts more tourists to buy products from the local market that occurs from June to October, once a week on Friday or Saturday, with such products available as eggplant, mint, parsley, tomato, squash, and cucumber, in addition to local pastries. Farmers in Battir sometimes suffer from tourists entering their lands without permission and picking agricultural products. In terms of the effects of agriculture on the economics of Battir, small families can be supplied by agriculture but big families can not depend on agriculture alone. I live with my sister and we depend on agriculture. We collect what we grow and go to Bethlehem to sell them. Each year, farmers plant according to the quantity of water available. For example, last year 50 parcels were planted due to the abundance of water, while this year maybe we will not be able to plant more than 20 parcels due to the hot weather, which reduces the amount of available water. I plant mint, parsley, squash and sometimes bean, but only for home use. This year we planted 4 terraces but we didn't use any of them because the birds ate all of the produce. We plant eggplant, but only a small amount because it needs a large quantity of water." 18



Figure 28: Village school kids and women







3.4.2 Tourism and trade

Currently, 2% of local residents work in trade. Local commerce includes small markets, three restaurants, three guest houses, a bike rental company, an electric equipment store, a gas station, a car wash, handicraft shops, a resort, an aluminium shop, a building materials shop, a butcher, a bakery and a pharmacy.

Tourism has grown considerably since Battir's nomination to the UNESCO WHL, increasing awareness among local residents of its economic and development potential, as well as the value of Battir's most important sites and cultural traditions. Visitors to Battir can take advantage of several different sightseeing and nature tours that are currently offered. They include tours of the old village core and its main sites such as the Roman pool and bath, as well as trekking tours across many of Battir's famous landscape terraces. Most also involve lunch where participants are able to enjoy traditional Palestinian dishes that are locally made.

While tourism creates new economic opportunities for local residents, it does have some negative consequences. Visiting tourists often enter private lands and pick produce without permission. Tourists also take pictures of farmers without asking for their permission, which is often seen as an invasion of their privacy. Tourism has also put a strain on local infrastructure, particularly traffic congestion.

Several projects targeting tourism have been recently launched, including an eco-museum, while the number of tourists visiting



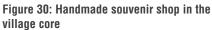




Figure 31: Woman selling souvenirs near Roman bath



Figure 32: Group of bike renters in Battir landscape | (https://www.facebook.com/bikebattir)

Battir from overseas grew to 230,000 visitors in 2016. Today more than 50% of local residents now depend on tourism for their economic wellbeing. Examples of new initiatives targeting Battir's growing tourism trade are:

- 1. Bike-aholic: started in 2017, this project provides rentable bikes to tourists and locals from an office located in the old village core.
- 2. Sultan Handmade Crafts: located in the old village core, this shop sells handicrafts made by women from the local community. Each shelf is dedicated to one woman and includes a short bio and contact details. The women receive a percentage of whatever is sold

from their handicrafts. The shop also sells handmade pictures produced in Sultans factory located in Battir. The owner estimates that he has sold some 2 million items since 2014.

3.4.3 Other attractions

Battir's intangible heritage contributes to the village's strong sense of local identity. In addition to traditional dances and songs (Palestinian Dabkeh), the embroidery found on traditional dresses (thobe) is unique to Battir and Bethlehem. Traditional local crafts include embroidery, wooden sculptures, and drawings made on stone. Traditional dishes include Maftoul, Maqloubeh, and Battir eggplant.

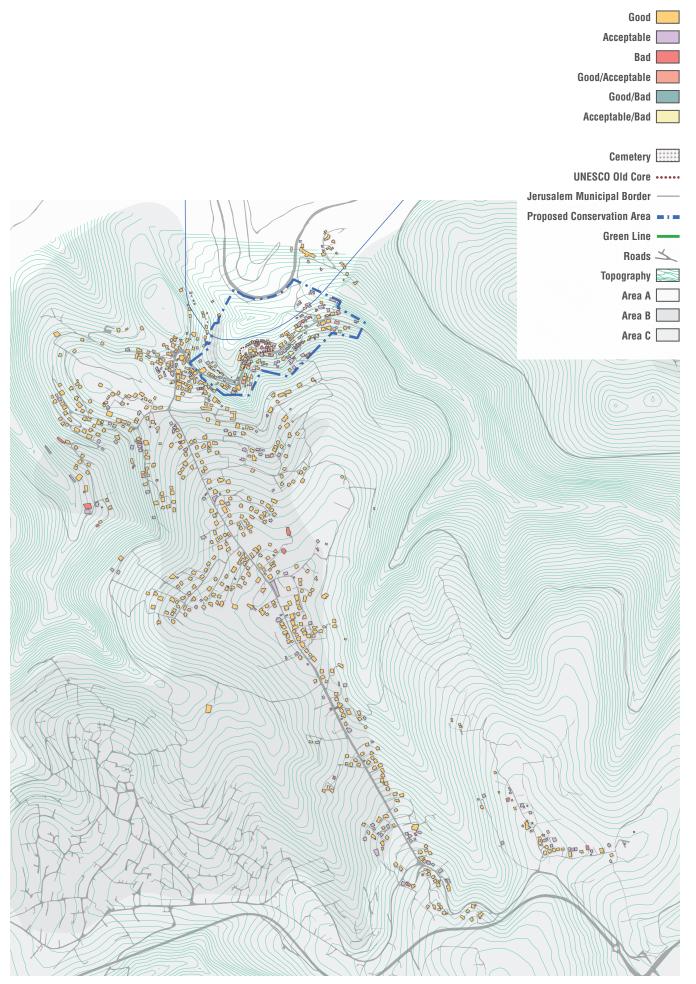
3.5 PHYSICAL ANALYSIS OF BATTIR 3.5.1 Level of structures

STRUCTURAL AND BUILDING CONDITION

The number of the buildings in Battir according to IPCC's 2014 survey is 953 units. A survey of local structures sought to classify them as either fully complete, or with partly completed parts or under construction, and to assess their structural condition as either good, acceptable, bad or unclear. The survey found that 88% of all buildings were fully completed, 6% were under construction and 6% were partially completed. 67% of all buildings were in good condition, 22% were deemed to be in a satisfactory condition (acceptable), while 7% were judged to be in a bad condition and 4% in an unclear condition (according to its parts).



Figure 33: Building's current condition



Map 5: The condition of buildings in Battir

FLOOR ELEVATIONS

In terms of floor elevation, most of the buildings have more than one floor and are as follows: 43.8% of all buildings in Battir have only one floor, while 36.8% have two floors, 14.1% have three floors and 5.3% have 4 or more floors.

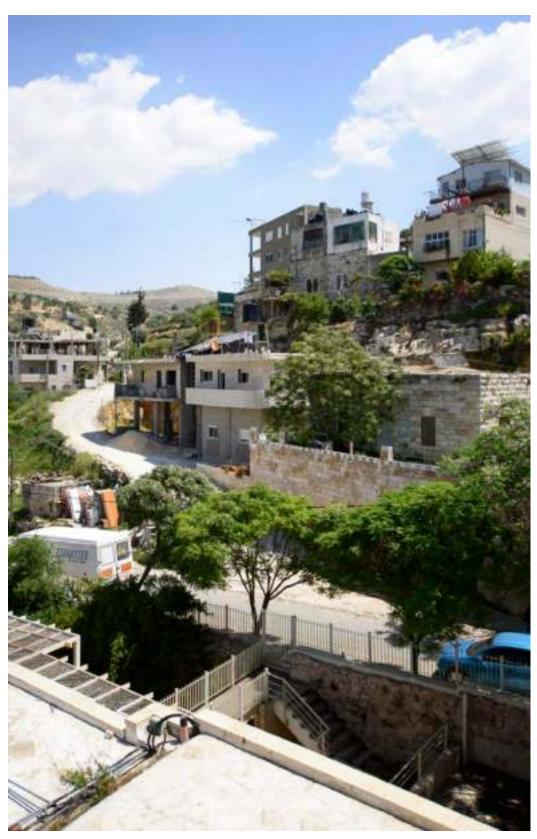
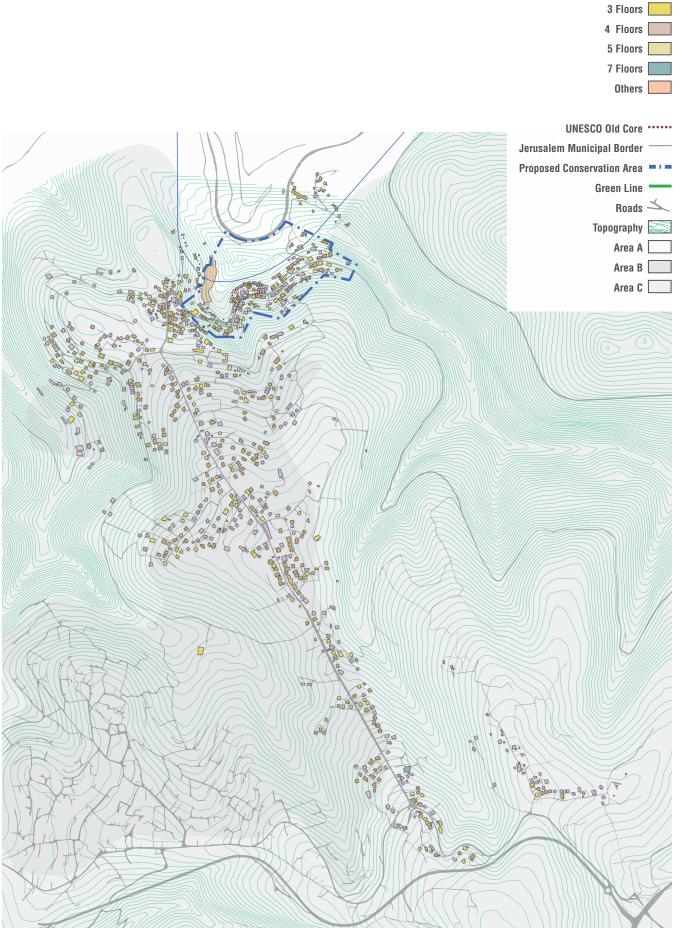


Figure 34: Floor elevations added to the old buildings inside the village core



1 Floor 2 Floors

Map 6: Floor elevations of buildings in Battir

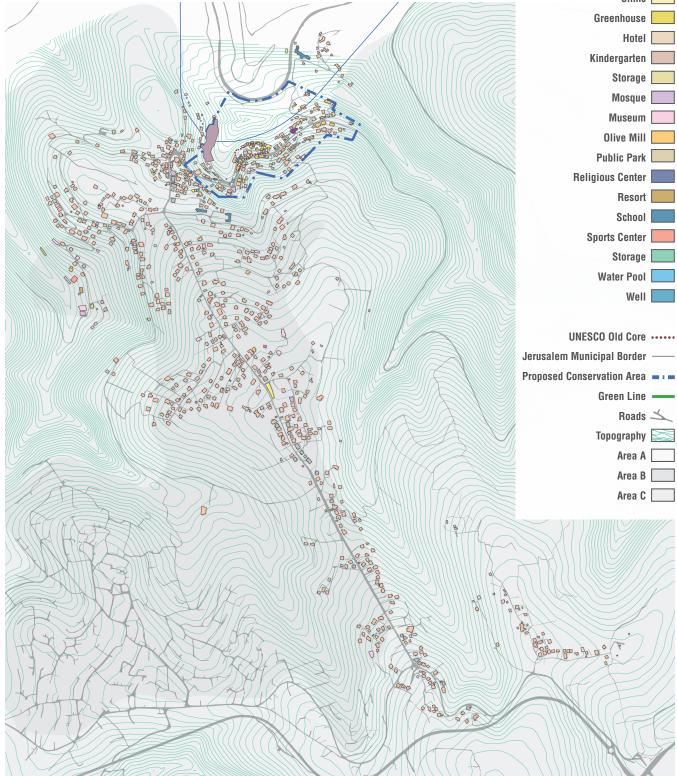
BUILDING USE

The survey also found that 74% of all buildings or 683 units are residential; 13% or 118 units are for livestock; 3% or 29 units are mixed residential-commercial use, 3% or 25 of buildings are designated for public use, 4% or 34 units are designated for commercial use, 2% or 21 of the buildings are used

as mixed residential and livestock use, and 11 buildings or 1% are for other use such as storages.

A further 3% or 29 buildings were abandoned, in many cases belonging to local residents forced to relocate to Jerusalem in order to retain their Jerusalem ID cards.





Map 7: Building usage in Battir



Figure 35: Hassan Mustafa elementary school

PUBLIC FACILITIES

A number of public facilities exist in Battir that are variously used for educational, social, entertainment, health and religious purposes.

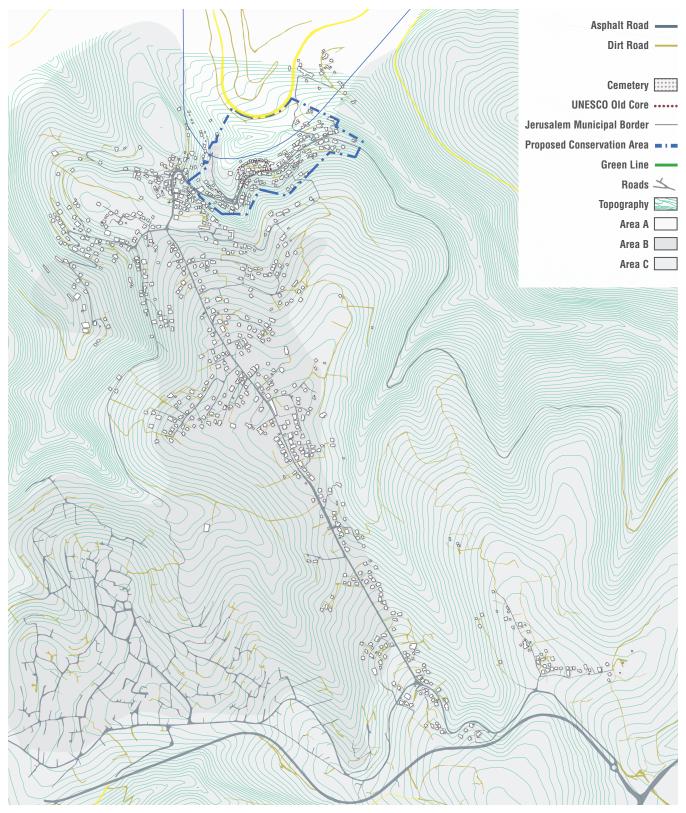
- 1. Educational facilities: There are two boy's schools in Battir (Hassan Mustafa School and Battir. Secondary Boys school) and two girl's schools (Battir Female Elementary School and Battir Female Secondary School). Battir also has three kindergartens, two of which are privately run, while the third is run by a charity.
- 2. Health facilities: Battir has two clinics, one of which offers specialised health-care for women and children, while the second is a government-administered clinic. Battir is also home to three dental clinics. The nearest hospitals are in Bethlehem and Beit Jala.
- 3. Entertainment facilities: Battir has a public park that provides a space for

- children to play in as well as a venue for local events.
- 4. Religious facilities: There are seven mosques in Battir.
- 5. Cemetery: Battir's existing cemetery covers 8 dunums.
- 6. Social facilities: Battir has several multiple purpose halls. The local charity association building is used as a kindergarten and also hosts local cultural activities; Battir's local womens center hosts educational and art courses for women; and Battir has a center belonging to the health work committees and Hassan Mustafa Cultural Center.
- 7. Battir Municipality
- 8. Battir Public Library: located in Battir's municipal building, the library also hosts periodic cultural events targeting Battir's youth. On Thursday's, local school children are released from school early to go to the library.

3.5.2 Battir Urban Analysis ROADS

Battir is located on regional road number 356, which is connected to route number 60. Road 356 is used by Israeli settlers living in Battir Elit settlement. It is the only access road connecting Battir with the south and south-west of the area. Battir's main two-way internal road runs through the village, including the old village core, while minor roads branch off it. Its width is between 5 and 11 m.

A pavement for pedestrians only exists in some sections, while there are no traffic islands, making the road unsafe in many sections. Most of Battir's roads are laid with asphalt, while in the old village core they are paved. Otherwise, Battir also has a number of dirt roads.

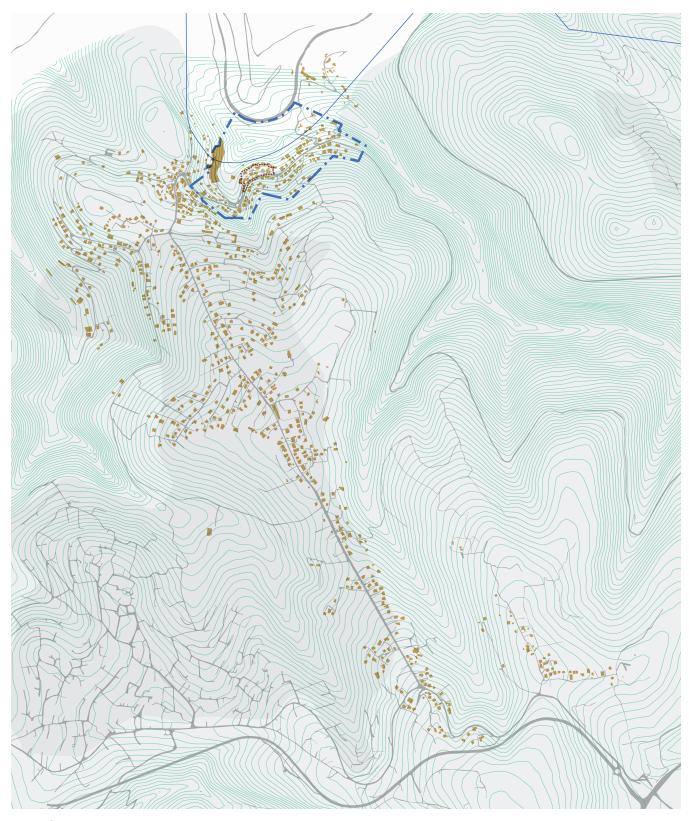


Map 8: Physical status of Battir's roads

SOLID AND VOID topography as well as the main Solid

Most of Battir's built up area is located in the northern part of the village around the old village core. The southern side of the village is less dense. The urban area is linearly distributed along the main road from the north-west to the south-east. This is due to several causes including the local

topography as well as the main internal road that effectively bisects Battir. Those parts of the village that are in close proximity to the internal road are located in Area B, while parts of the village in the east and west are located within Area C.

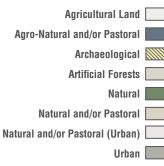


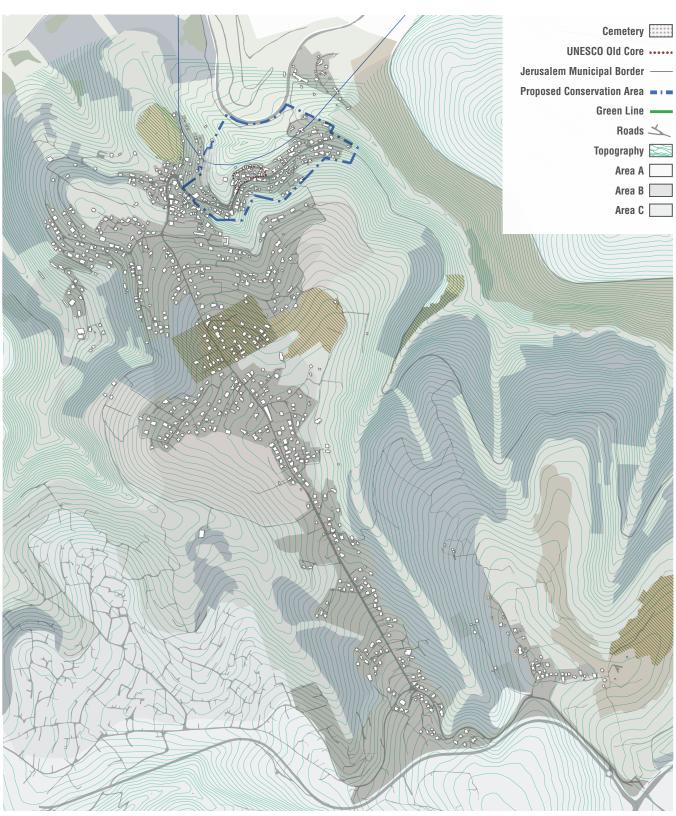
Map 9: Solid and void in Battir

LAND USE

Agricultural lands account for 41.2% of Battir's village lands, while 27.4% is classified as mixed use (agricultural and natural). 11.9% of the land is built up area; 2.4% is protected as archaeological sites; 13.4%

are natural lands; 1.5% are artificial forests; and 2.2% is used for other purposes. This reinforces Battir's strong association with agricultural production.





Map 10: Land use of Battir

VISTAS

The local morphology is characterized by landscape terraces that surround the built area of the village, creating a unique landscape. This landscape is visible from most areas of the village and adds to Battir's

attractiveness and its potential as a tourism hotspot. New developments should consciously seek to preserve this aspect of Battir.









Figure 36: Vistas from Battir's old village core

PARKING

Battir lacks sufficient parking for private cars and tourist buses. There are few planned parking spaces along the main internal road. Instead, most cars park randomly on the side of the road. Public transport to Bethlehem starts from the park close to the center in the Al-Haresh area, while those going to Hebron leave from the parking at the entrance to the village, in both cases causing significant congestion.

3.5.3 Infrastructure and Environmental Analysis WATER

All houses in Battir are connected to the local water network, which was partially rehabilitated in 2016 through funds. Battir's water is purchased from Israel's national water carrier Mecorot. Its distribution is regulated by the Palestinian Water Authority. The main water connection is located at the entrance of the village approximately 600 metres from the regional road. Inside the village, there are 10 water springs whose water is collected in 2 pools and used to irrigate the surrounding agricultural terraces.

Figure 37,38: Garbage and rubbish containers in Battir village core

WASTEWATER

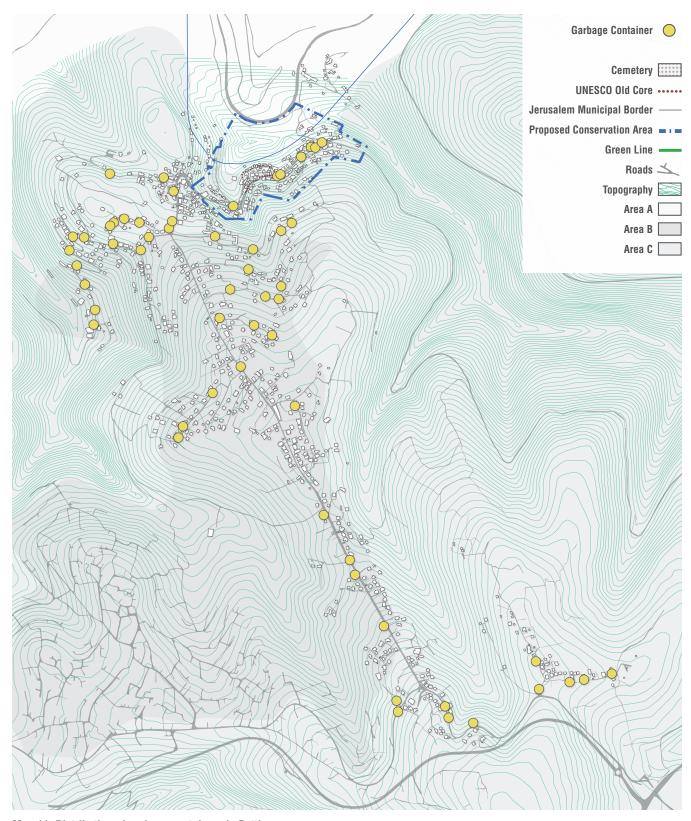
There is no waste water network in Battir. Instead, most houses are connected to cesspools which are periodically emptied by sewerage trucks that dump the sewerage in the surrounding valleys. A house treatment station for 10 houses began operation in 2008.

SOLID WASTE

Solid waste in Battir is managed by a Joint Service Council (JSC) which collects local waste on a weekly basis and transfers it to the Al-Menya landfill in Bethlehem. Battir Municipality is responsible for collecting service fees from local residents and transferring these fees to the JSC. Most of the solid waste produced in Battir is organic, in addition to paper and plastic. Each house produces approximately 0.7 kg of waste per day, while Battir collectively produces approximately 2.7 tons of solid waste each day.20 Public garbage containers are distributed across the village on public streets, while provision has been made to separate plastics from organic waste in some parts of the village.



²⁰ Municipality of Battir21 Central Bureau of



Map 11: Distribution of garbage containers in Battir

ELECTRICITY

98.1% of local properties in Battir are connected to the electricity network maintained by the Jerusalem Electricity Company. 0.3% of Battir's residential units do not have access to electricity. 1.6% depend

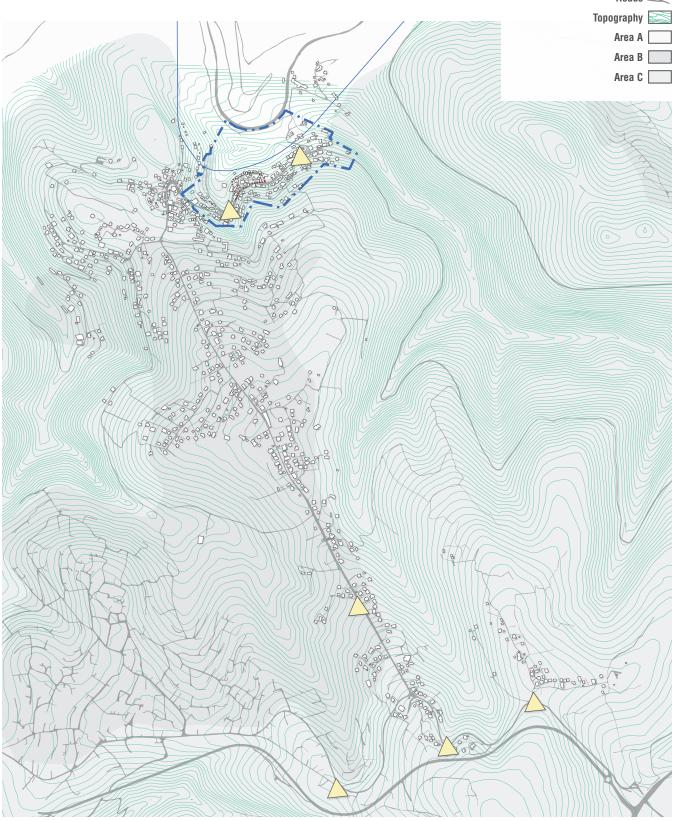
on private generation for electricity. 21 58.7% of Battir's houses are connected to the local telecommunications network.

TRANSPORTATION

Bus Stop 🛆

Public transport routes link Battir to Bethlehem and Hebron. Commuters can be picked up along the main internal road at several designated stops. Public transportation lines follow the main road of Battir reaching the end of the old village core, and come back to the Al-Haresh area as a starting point. There are approximately 20 service taxis and 2 buses operating along this route. Secondary roads are not serviced by public transport.

Cemetery
UNESCO Old Core
Jerusalem Municipal Border
Proposed Conservation Area
Green Line
Roads
Topography
Area A



Map 14: Distribution of bus stops in Battir

3.6 FACTORS AFFECTING THE VILLAGE

- 1. Limited availability of water in water network
- 2. Absence of a sewerage treatment plant or available sewerage network, leading to reliance on cesspools that often result in wastewater leakage threatening the health of underground aquifers, as well as sewerage being pumped into the surrounding valleys, threatening Battir's local water springs, especially the Ein Al-Balad spring.
- 3. Inadequate frequency of garbage collection due to the reliance on a single garbage truck operated by the Joint Service Council and shared with other villages. The collection of garbage on a weekly basis often leads to garbage accumulating on the streets.
- 4. Uncontrolled dumping of the waste in open areas by private individuals and companies alike, polluting the surrounding environment, causing erosion and creating a threat to human health.
- 5. Electricity network is weak.
- 6. Lack of house maintenance.
- 7. Inadequate fire and other emergency services
- 8. Lack of adequate tourist infrastructure, such as properly signposted paths, as well as seating and shade along tourist routes and adequate safety measures.
- 9. High density and crowding in the northern part of the village.
- 10. Inadequate availability of medical services in the village.
- 11. Lack of enough cultural, social, entertainment and sports facilities, especially for women.
- 12. Few options for social events and activities
- 13.Lack of interest among local residents to work in agri-
- 14. High proportion of residents migrating out of the village due to lack of economic opportunities, as well as conditions related to Jerusalem IDs.
- 15. Lack of coherent and informed strategy designed to promote tourism as a growth area for Battir.

3.7 AGRICULTURAL WATCH-TOWERS (MANATER)

Agricultural watchtowers are an important feature of Battir's surrounding landscape. Once used by local farmers to keep watch over their fields, approximately 22 watch-

towers were surveyed by IPCC. The following assesses their existing state and options for their preservation.

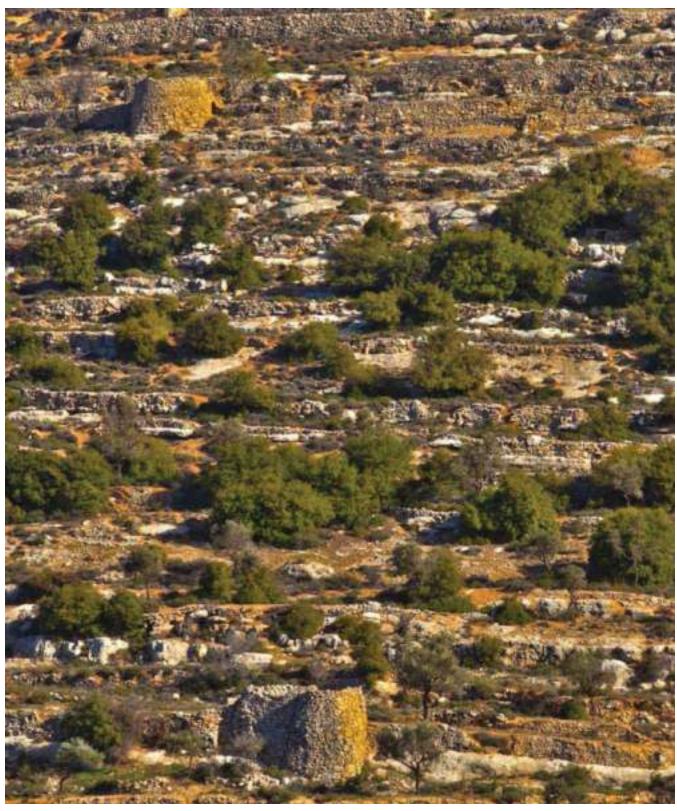


Figure 39: Watchtowers | (https://whc.unesco.org/en/list/1492), Palestine: Land of Olives and Vines – Cultural Landscape of Southern Jerusalem, Battir

MANATER TYPOLOGY

The watchtowers do not all have the same typology in Battir. Instead, 41% are Solid, 36% are Round, 23% are Quadrilateral.

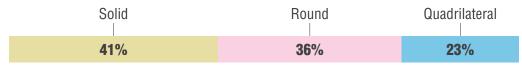
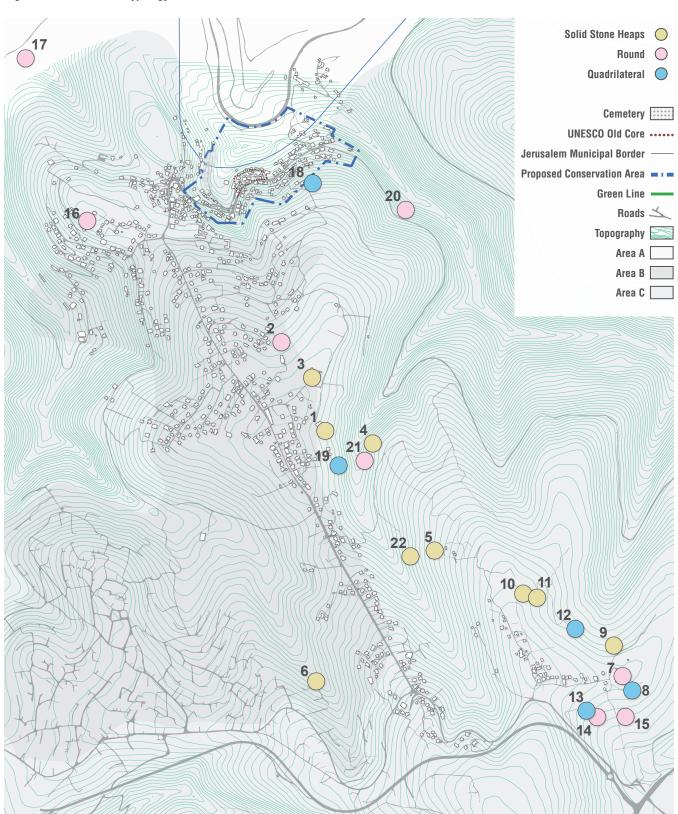


Figure 40: Watch towers typology



Map 13: Watchtowers typology

USAGE

Only one watchtower is still in use.

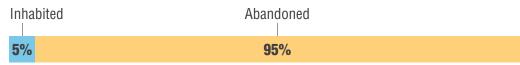
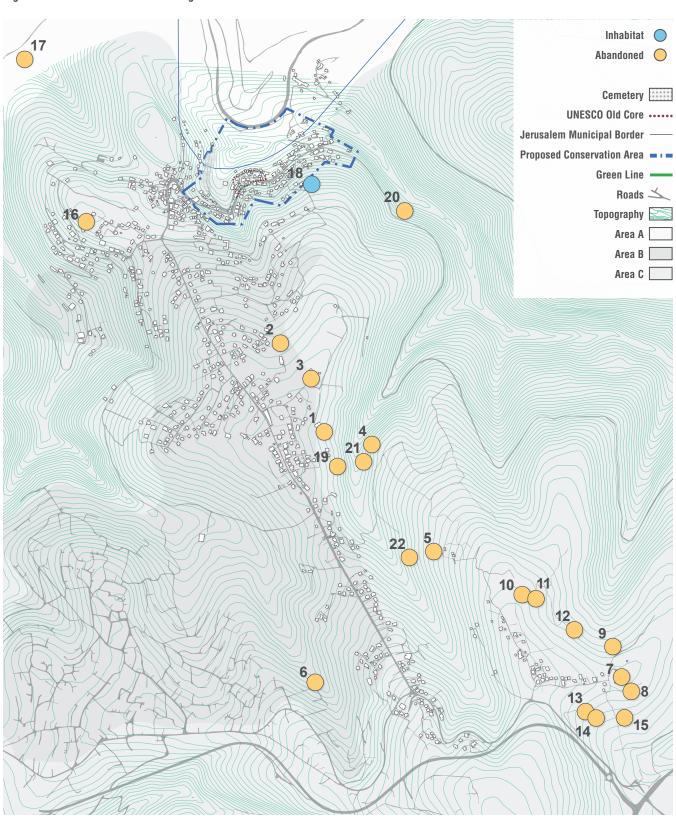


Figure 41: Watchtowers - State of usage



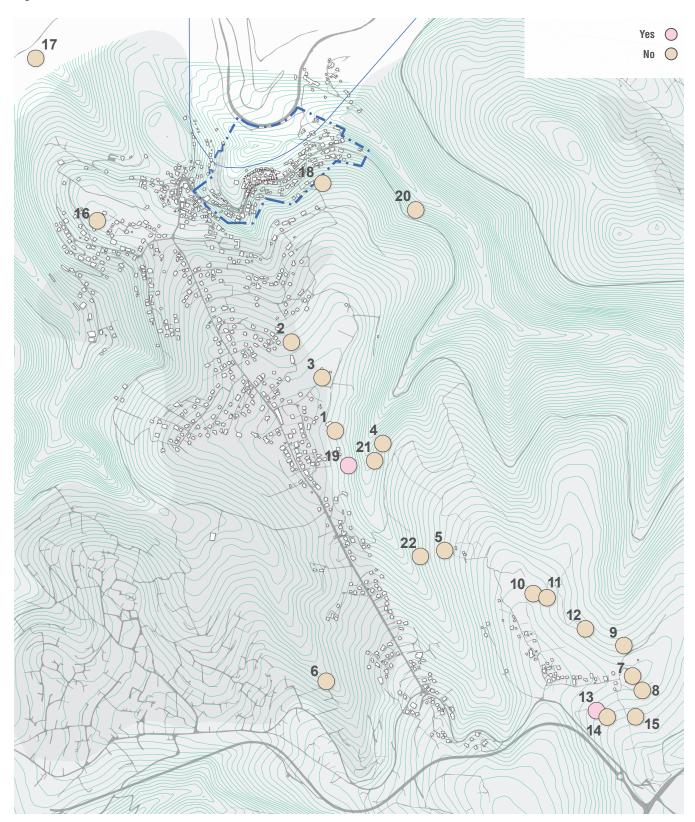
Map 14: Watchtowers - State of usage

REHABILITATION

Only two of the watchtowers have been rehabilitated.



Figure 42: Rehabilitated watchtowers



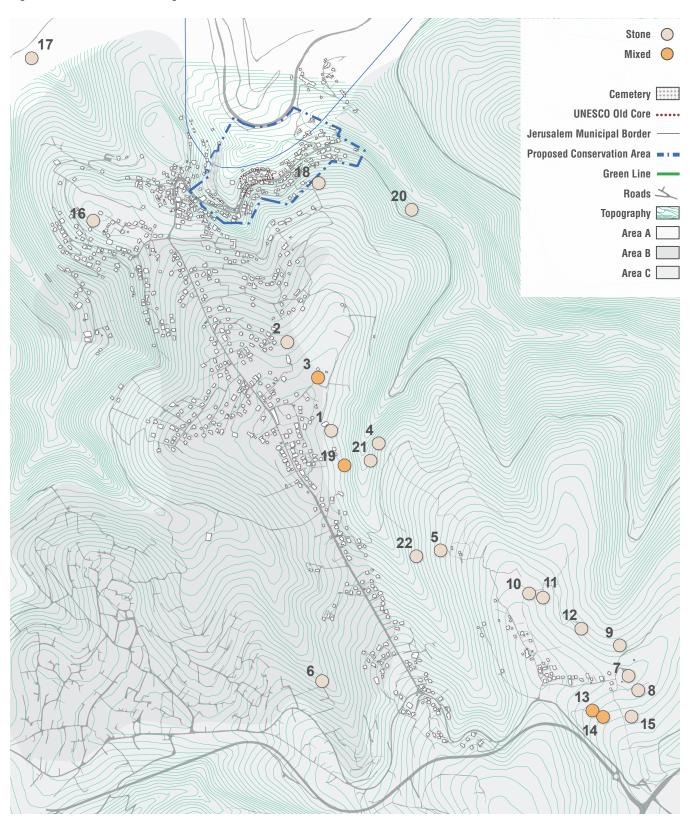
Map 15: Rehabilitated watchtowers

MATERIAL

82% of the watchtowers are built with stone, while 18% are built from a mixture of materials.



Figure 43: Watchtowers - Building material



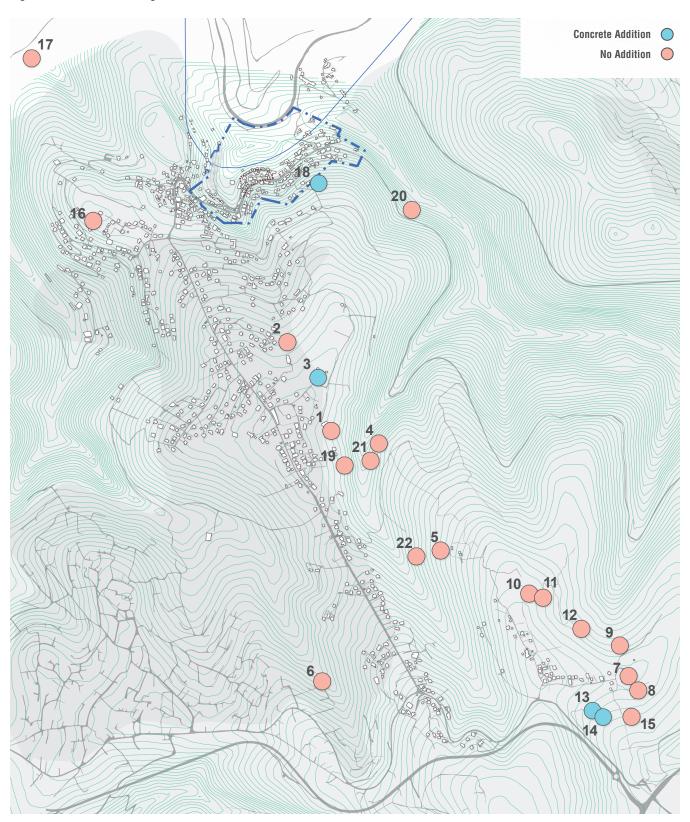
Map 16: Watchtowers - Building material

MINOR ADDITION

18% of the watchtowers have had concrete additions made, while 82% have not had any additions.



Figure 44: Watchtowers - Registered additions



Map 17: Watchtowers - Registered additions

PHYSICAL STATUS

10% of the watchtowers were judged to be in excellent condition, 14% in good (satisfactory) condition, 36% in poor condition, and 40% in bad (ruin) condition.

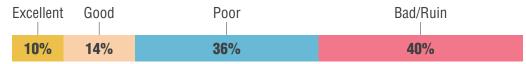
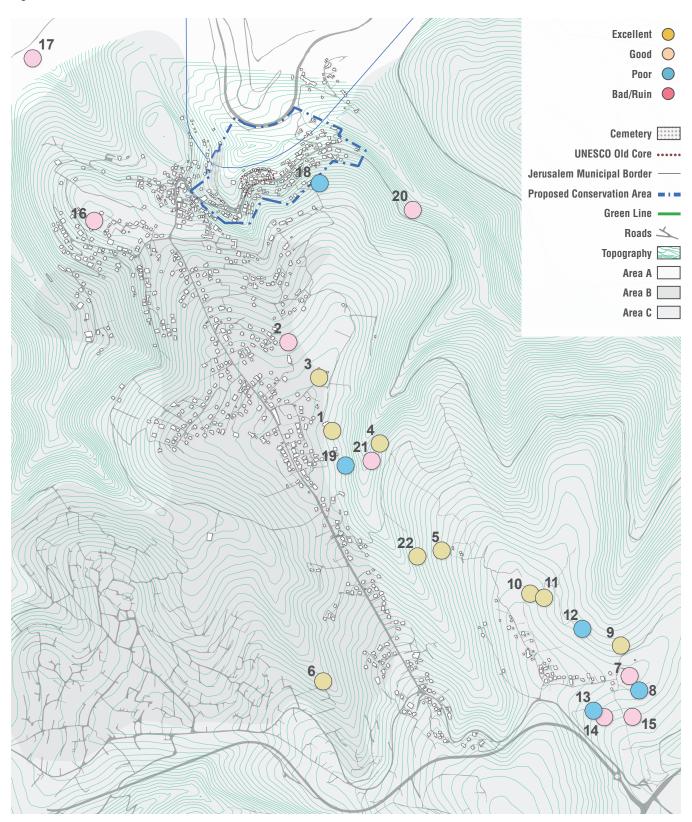


Figure 45: Watchtowers - Overall status



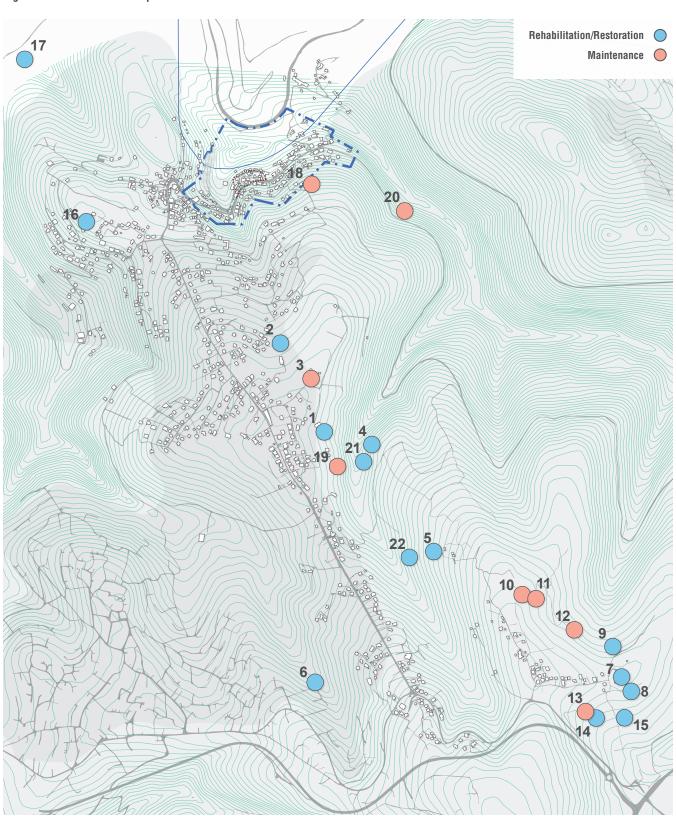
Map 18: Watchtowers - Overall status

INTERVENTION

64% of all watchtowers require rehabilitation/restoration, while the remaining 36% need maintenance.



Figure 46: Watchtowers - Proposed interventions



Map 19: Watchtowers - Proposed interventions



Old Village Core

4.0 OLD VILLAGE CORE

Among Battir's most valuable assets are its cultural, historical and natural heritage, in particular its landscape terraces and the old village core. Tangible and intangible elements are interwoven into the landscape terraces and add to Battir's historic fabric. Together, they account for recognition of Battir as a cultural landscape of outstanding universal values.

Yet the authenticity and integrity of the old village is under threat due to inadequate or insufficient conservation and rehabilitation measures, made worse by a lack of preservation strategies. To remedy this, priority should be given to developing a Conservation and Rehabilitation Plan. A sustainable plan will be used as an important component in this process.

The preservation strategy should include a clear strategy to safeguard, revitalise and upgrade the historic core of the village, including preservation and rehabilitation preferably using traditional building techniques, as well as implementing urban improvements and enhancing the landscape. No less important is to generate public awareness about the inherent value of the old village core, as well as the importance of preserving local traditions and customs that have long been a key feature of village life.

During the preparation of this Plan, sustainable and long-term planning was prioritised as was preserving the old village core's cultural, historical and architectural values. A first step was to document the current condition of the old village core, including its social²² and urban fabric. This was followed by proposals for its future development.

It was important to clarify the legal framework for any future development, as well as to clearly demarcate the area to be conserved and rehabilitated. Once demarcated, the following tasks were carried out:

 developing a detailed inventory of the distinctive elements, buildings and open spaces in the old village core, as well as distinguishing its importance and physical characteristics;

- undertaking an initial field survey and assessment of the state of conservation of the old village core;
- developing proposals for interventions capable of protecting the villages' historical, architectural and urban features (see chapter 5)
- identifying micro location rehabilitation zones and priority project "zoning holders" for the purpose of effective urban conservation and rehabilitation (see chapter 5)
- developing an "Action Plan" for conservation of the historic village core, including proposals to develop and/or consolidate hiking and biking trails (see chapter 5)
- transferring all information to GIS

4.1 IDENTIFICATION OF THE SITE

The old village core is located at the northern end of Battir. The approaching road gently slopes down from the entrance to the village towards the old village core. The latter's spatial layout has remained largely the same since its establishment during the Mamluk period. Most of the surviving structures date back to the Ottoman period, while a majority are residential. The Roman pool, Roman bath and maqams, as well as the surrounding irrigated terraces, all lay within the old village core.

For the purpose of this sustainability plan, the demarcated area for intensive heritage preservation in the old village core (conservation area) includes all of the above sites and structures, which are by its authenticity central to the character of the old village.

Proposed conservation area of the village core is larger than that identified under the WHL nomination file, which encompassed only the lower section of the village centre. Extension of the conservation area to include the upper section of the old village core relies on the fact that old and new buildings now intermingle, and even though the urban fabric has been affected by new architectural styles, both

²² Results are given under chapter 2 of this Plan.



Figure 47: Public space next to the school inside village core

the location of buildings and plot size remain similar to that in the past. This would foster overall urban conservation of the village core.

The old village core contains structures that have architectural, historical and social importance. In the lower part of the village, they include the Roman pool, Roman bath, a mosque, Eco-Museum, irrigated terraces, the Hassan Mustafa

Cultural Centre and the maqam.

Composition of the village core is formed of the hilly terrain accompanied with terraces and simple residential stone houses. There is no dominant structure inside the village core, which creates a harmonious pattern of structures that gradually descend toward the lower part of the village comprising a green area with terraces. Similarly, the surrounding

area with agricultural terraces follow the contours of the terrain, extends to the very centre of the village.

Movement inside the village core is regulated by a network of pedestrian paths and roads. Not all residential buildings have vehicle access. Buildings follow the morphology of the natural terrain, forming rows that progressively descend downwards, and are interconnected by stairs and narrow pathways. Most houses enjoy a clear view of the surrounding landscape. Differences exist between the upper and lower parts of the village based on the number of preserved old structures and extent of interventions. According to the IPCC survey, the number of units in the old village centre of Battir was 189 in 2017, with residential units accounting for 46% of this figure.

4.2 STRUCTURE OF SPECIAL IMPORTANCE Urban Matrix

The current urban arrangement of streets, pathways and inner courtyards dates back to the Ottoman period, interspersed by structures built during both the Roman and Mamluk periods. Essentially 'organic' and informal in character, the urban pattern is influenced by the natural topography.

Buildings in the central area tend to be smaller than buildings in the upper part of the conservation area. The roofscape comprises many simple flat and domed roof types.

Houses

The old village centre comprises a number of simple shaped stone houses of harmonious proportion and volumes, some with flat roofs and some with domed roofs. The architecture and construction of each building reflects the era it was built in, though the majority date back to the Ottoman period. Considered as remains of the past, the value of old houses has increased by the associated values of carrying on the living tradition to voluntarily join in constructing the houses in the village.





Figure 48: Examples of traditional stone houses inside Battir village core

Most houses share several similar characteristics. Most comprise two storeys, have a stone facade and have small openings that are rectangular or arched commonly framed in stone. Wooden openings are usually framed in stone. The older houses have structural frames made of stone. This was later replaced by prefabricated concrete slabs. Generally, traditional village houses were constructed as multipurpose spaces in which the lower floors were used to house animals and/or for storage, while the upper floor served as the living quarters. Most houses only have one room with a cross vault or domed roof. The cross arched technique dates back to both the Roman and Byzantine periods and was in use up until the beginning of the 20th century. Also, the Mamluk and Ottoman cultures had left footprints in the vernacular architecture. Traditional buildings were

²³ Establishing, Adoption, and Implementation of Energy codes for Buildings "Architectural styles survey in Palestinian Territories", Report by Mouhannad Hadid Architect, 2002.

constructed using limestone and mortar made of lime and aggregates (organic material, ashes, brick dust, etc.). Small stones and mortar were used to fill the space between the inner and outer stone walls, while the roof was covered with lime mortar layers, plastered or finished with stone tiles.²³

The floor plan of these traditional houses was usually simple – often rectangular (6-8 m x 10-12 m) in shape, with approximately 1 m wall thickness.

From the 1920s, concrete began to replace stone as the most commonly used material to construct buildings, while houses also became bigger in size. The introduction of new materials, prefabricated elements and construction methods ensured that newer houses did not correspond to traditional building techniques. However, stone was often used on building facades as a decorative element. Many of the newly applied elements became a trend that was not in accordance to the local traditional style. Some of the current residential buildings were built or modified after 1967. These are indicated on the following map, as well as the periods in which buildings were constructed. Many of the old stone houses, however, have been neglected and are now dilapidated. In addition, several older buildings have been rehabilitated, such as the "Seven Widows Quarter".

Figure 49: Seven Widows Quarter

such as the Seven Widows Quarter. Varying scale and complexity were later.

Roman Pool and Roman Bath

Note: more about those structure is given in section 2.3.

The Roman bath is a relatively simple structure, built over a local water spring and includes an adjacent room that was used for ablutions. The Roman pool sits above the surrounding terraces and continues to feed the water channels still used to irrigate them. These channels are made of stone. The front of the pool is supported with big stone arches.

4.3 INVENTORIES AND FIELD SURVEY

An inventory on all built structures and open spaces in the urban conservation area was undertaken. It not only surveyed buildings, but also included an analysis of the relationship between the built structures and their surrounding environment. The main purpose of the inventory was to provide a baseline to monitor and control future development, while preventing inappropriate interventions, including physical and functional transformations. Moreover, the inventory is a first step in the preparation of a policy for conservation and rehabilitation, as well as the Conservation and Rehabilitation Plan.

Based on the survey, interventions of varying scale and complexity were iden-

tified that will enhance the village core while preserving its distinct urban and architectural heritage. The field survey also doubled as a tool used to raise local awareness about the heritage value of the old village and the importance of its preservation and rehabilitation.

The field survey was conducted between February and June 2017 to assess the old village's urban fabric, as well as its structures and open spaces. It included a visual analysis of all relevant physical and functional features and an evaluation of their state of conservation. Cluster by cluster, the survey collected the following information:

- General information about individual buildings: including ownership, number of resident families, state of occupancy, uses and function
- Architectural characteristics: including number of floors, size, type of roof, materials used for construction
- Infrastructure related elements
- Authenticity: including approximate date or historical period of construction, originality of the structure
- Evaluation of the physical state of conservation and integrity

For all structures inside the urban conservation area, inventory charts have been translated onto a GIS map. Updated maps and a digital photo archive was produced for both buildings and existing public spaces inside the urban conservation area. More detailed information was also collected for priority zones, including front/street façades considered as important visual features of the village. Several priority structures were identified based on their potential to enhance the old village core. Considered of special importance, their location and current condition was recorded, as well as specific interventions aimed at restoring and rehabilitating each structure. This included identifying new activities and functions that could be facilitated (this proposal has been done on the level of conceptual design, see appendix no.11,12,13).

For public spaces and unbuilt areas, the data recorded included:

- Typology;
- General conditions in the area.
- Urban furniture (mobiliar, fences, lights etc.)
- Paths and paved areas

4.4 STATE OF CONSERVATION AND CONDUCTED ACTIONS

To some extent, renovations and extensions to existing houses has changed the traditional character of the old village core and its historic fabric. Newly constructed buildings that reflect more modern styles and techniques continue to change the image of the village, weakening its authenticity and integrity and threatening to cause permanent loss of its valuable traditional fabric. There is a clear need to rehabilitate and protect the traditional buildings that have survived, in order to be able to read their spatial qualities both now and into the future.

Some preservation attempts have been made by the Centre for Cultural Heritage Preservation in Bethlehem, during which traditional stone buildings were rehabilitated to be used for administrative or cultural activities. The "Seven Widows Quarter" whose buildings date back to the fourteenth century, was also rehabilitated in 2008. The quarter was initially known as the Butmeh Quarter after the family that had traditionally resided there. Later, it was renamed the "Seven Widows Quarter" by Mustafa Hassan with reference to seven widows who once lived in this quarter. Rehabilitated buildings are of great importance for both local residents and tourists alike.

These previous rehabilitation projects are all commendable and helped to increase local awareness of the value of heritage preservation. Future rehabilitation efforts should focus on protecting the integrity of the old village core in its entirety, instead of isolated pockets.

4.5 INTEGRITY AND AUTHENTICITY

In spite of unregulated changes to some of the buildings in the old village, the latter still retains its traditional fabric and charm. Analysis of the village core confirmed the authenticity of its historic fabric, including irrigated terraces and views over the surrounding landscape. Having a sufficient level of integrity is enough to justify the importance of preserving Battir's cultural landscape and village core in particular.





Map 20: Authenticity of buildings

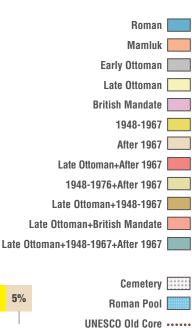
4.6 OLD VILLAGE CORE SURVEY RESULTS

4.6.1 Level of structures

YEARS OF ESTABLISHMENT

The majority of old buildings found in the old village core date back to the Ottoman period and are reflective of the building techniques and styles of that time. However, some buildings were built or modified after 1967 as indicated in the following map.

The survey indicated estimate years of buildings establishment as follows: Roman period 2%, Mamluk period 1%, Early Ottoman period 5%, Late Ottoman period 23%, British Mandate 13%, 1948-1967 17%, after 1976 34%, mixed 5%.



Jerusalem Muni. Border -

Prop. Conservation Area

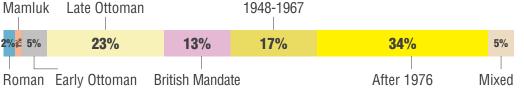


Figure 50: Historic period of the old village core buildings



Map 21: Historic period of the old village core buildings

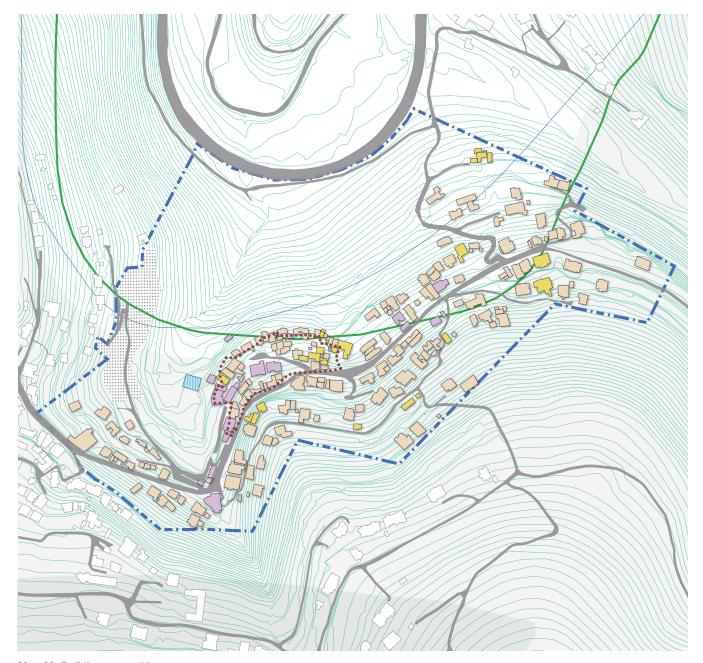
OWNERSHIP AND STATUS

As of 2017, 80% of the buildings were privately owned while 10% were publically owned. The 10% remaining buildings were undefined or mixed between privately and publically owned.

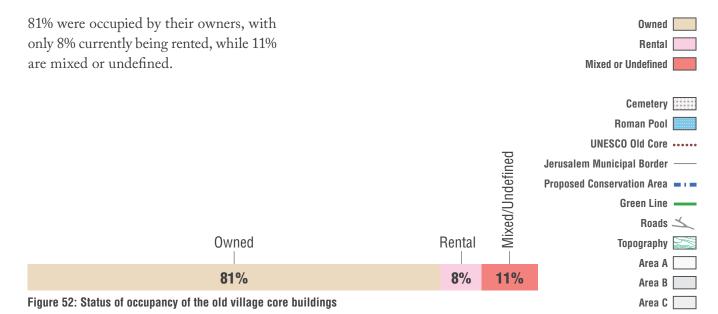




Figure 51: Building ownership



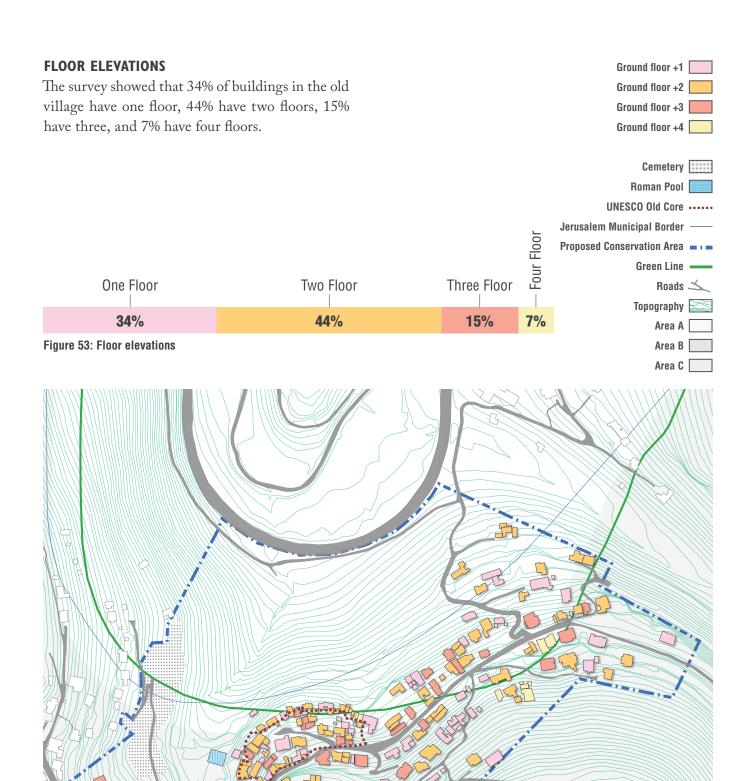
Map 22: Building ownership



Map 23: Status of occupancy of the old village core buildings



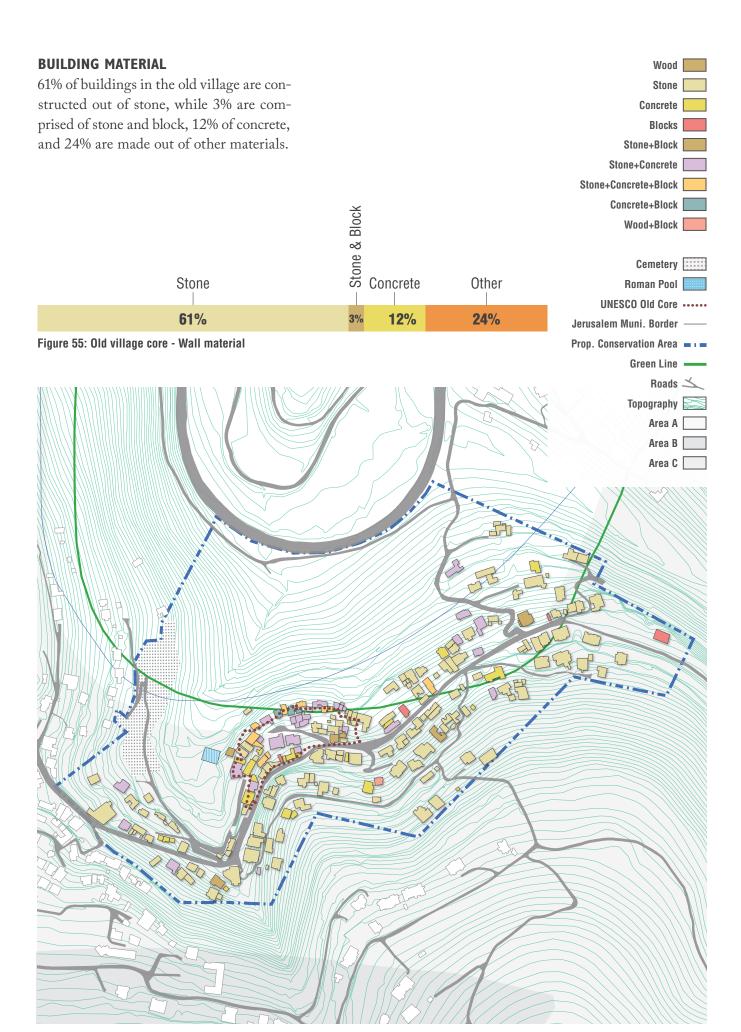
Map 24: Buildings suitable for rental



Map 25: Floor elevations

TYPE OF BUILDING USAGE Residential According to the 2017 IPCC survey, 55% of the buildings currently Clinic serve as residential homes, 24% are abandoned, 7% are reserved for Storage [public use and/or functions, 4% are for mixed residential/commer-School cial use and 2% are for commercial use only. The remaining 8% of **Cultural Center** buildings are used for other purposes. A closer inspection showed Restaurant that 13% of the buildings had the potential to be used for public Residential+Commercial purposes, while a further 10% could be used for commercial pur-Residential+Storage poses. The rest of the buildings should keep their original functions. Abandoned Commercial Architectural Office Community Center [**Public** Residential Abandoned Community Hall Mosque 55% 24% 7% 4%2% 8% Guest House Figure 54: Old village core - Building functions **Roman Bathroom** Mixed Residential/Commercial Roman Pool Maqam Abu Zeid Residential+Abandoned Bathroom for Mosque

Map 26: Old village core - Building functions



Map 27: Old village core - Wall material

Materials used for openings in the walls (such as doors and windows) are as follows: 29% utilize aluminium, 27% are made of steel and 44% utilize other materials.

The survey also showed that 77% of buildings had roofs that were made from concrete, while 6% were made from stone and concrete, and 17% from other materials.

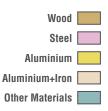
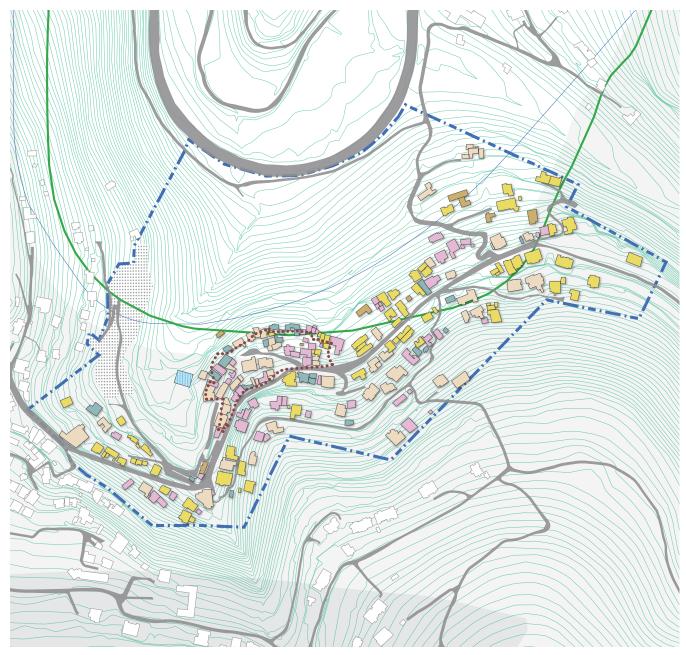
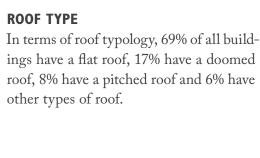




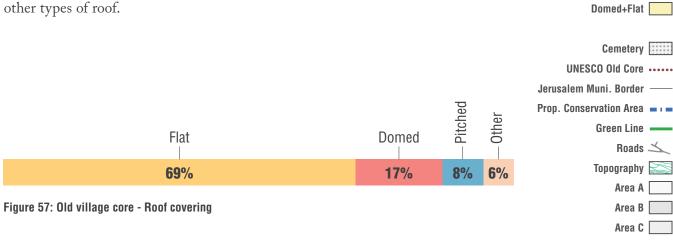
Figure 56: Material used for openings

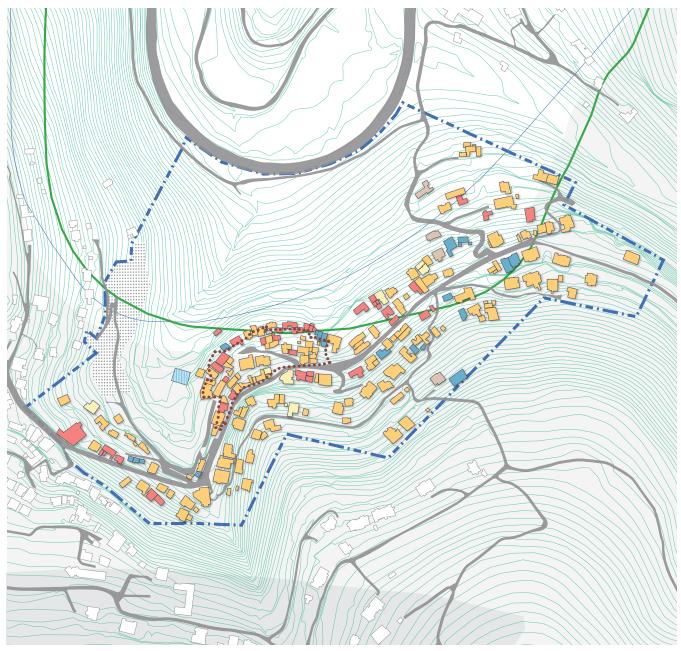


Map 28: Material used for openings









Map 29: Old village core - Roof covering

Flat

Domed

Pitched

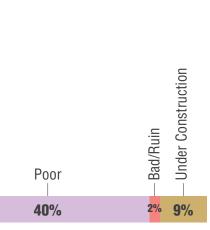
Flat+Pitched

STRUCTURAL CONDITION AND STATE OF CONSERVATION

A visual inspection of all buildings concluded that 16% are in excellent condition, 33% were judged to be in good condition, 40% in a poor condition, and 2% in a bad (ruin) structural condition. Additionally, 9% of the structures are still under construction.

Excellent

16%



Excellent

Bad/Ruin

Under Construction

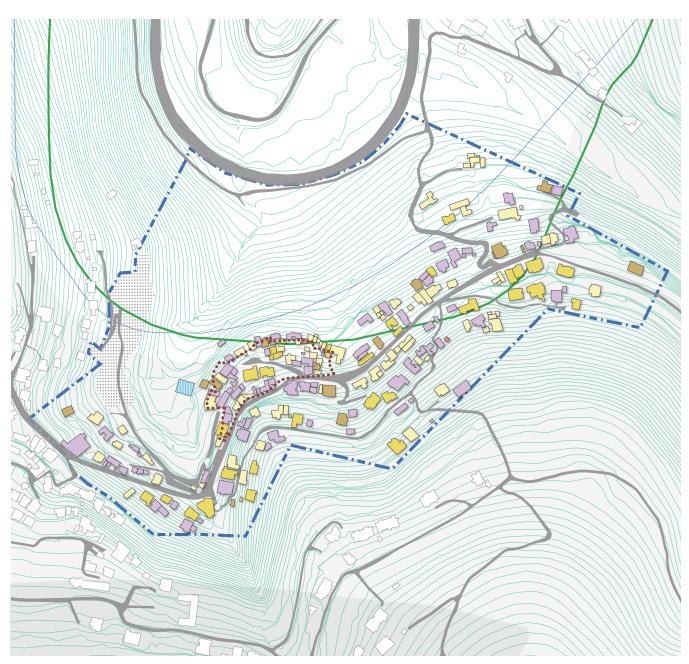
Good

Poor

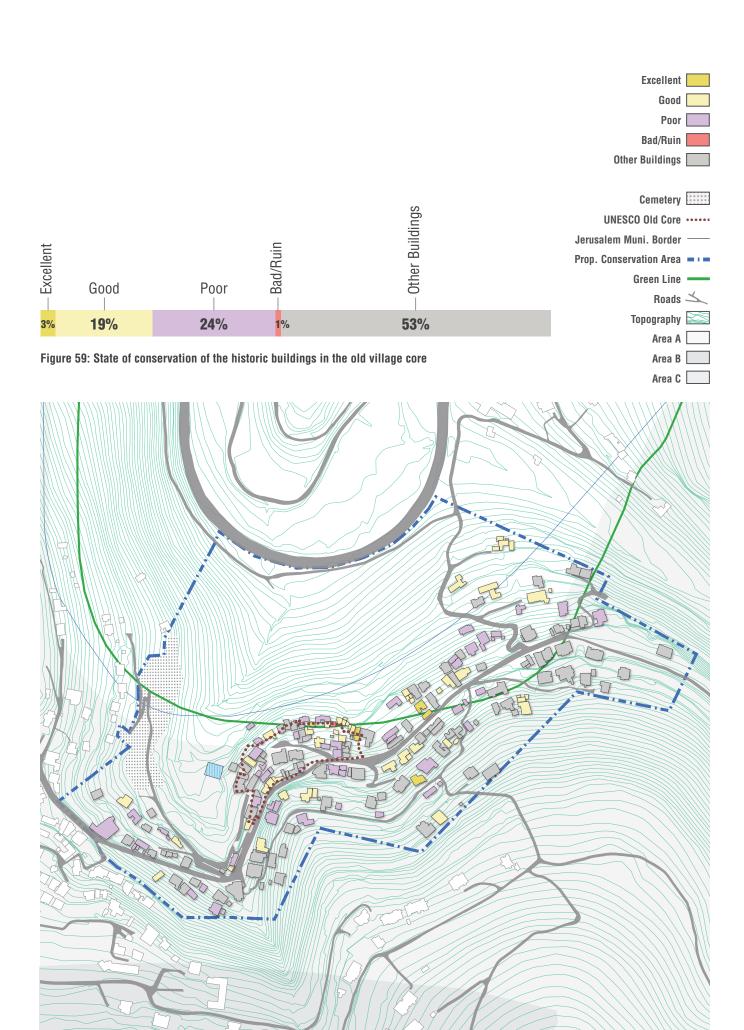
Figure 58: Structural condition of the old village core buildings

Good

33%



Map 30: Structural condition of the old village core buildings



Map 31: State of conservation of the historic buildings in the old village core

4.6.2 Open space level

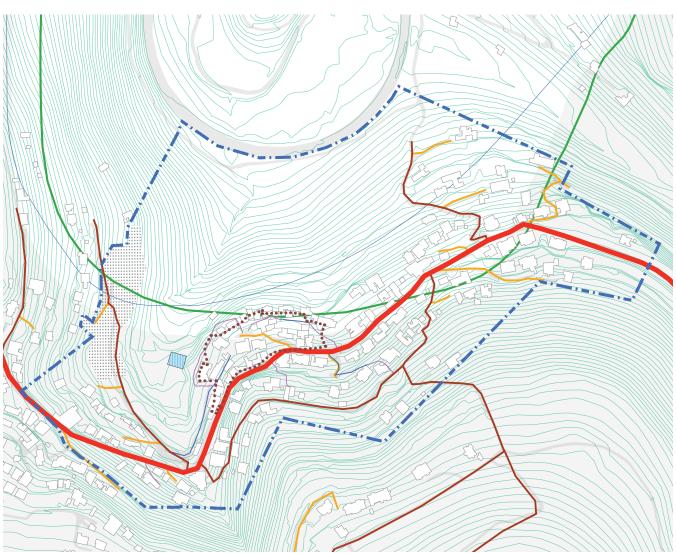
a) ROADS AND PATHS IN THE OLD VILLAGE CORE

The main road running through the old village core is an extension of the main north-south road of Battir. Its width varies between 5 to 8 metres and can narrow significantly in some sections, making vehicular movement difficult. A number of smaller roads and pathways branch off the main road, which has long served as an axis for urban development. Some pathways in the old village have stairs. These stairs are not accessible to the handicapped, to the very old, or to parents pushing prams.



Figure 60: Pathways in the old village core





Map 32: Roads and pathways in the old village core

b) PARKING

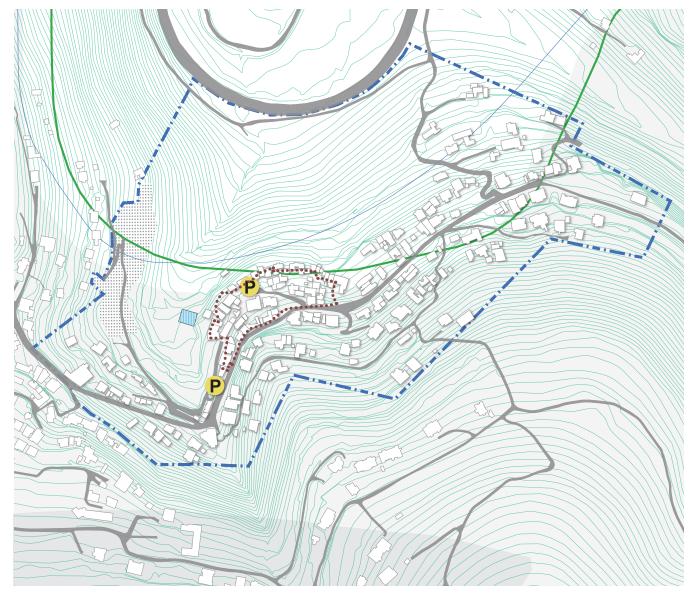
There are no planned or specially designated parking areas inside the old village. Both the pavement at the entrance of the old village, as well as the plaza, are

currently used for parking. Drivers also park their cars along the side of the road. There is no specially designated parking for tourist buses.





Figure 61: Street use as a car park area



Map 33: Parking in the old village core

c) OPEN SPACES

Public or open spaces in the old village are used for different activities or events. They can be divided into private, semi-private, public and semi-public spaces. Private spaces include courtyards attached to old houses which are used exclusively by the residents of those houses. They are mostly used for farming or by children to play, or for other house activities. Some are also empty plots that are rarely used.

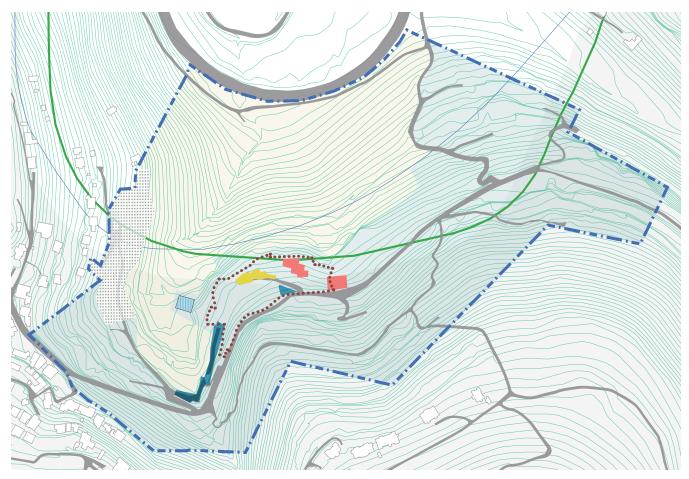
- **Semi-private spaces** are areas that are privately owned, but which are publically accessible, such as irrigated terraces.
- **Semi-public spaces** are areas located between adjacent buildings. One example is the plaza located in front of the local clinic. It is used for a range of activities, including weddings, public meetings, festivals, parties, funeral orations and as a children's play area.
- **Public spaces** are designated as such, including the plaza located in front of the Roman bath and near to the Hassan Mustafa School. This is where Battir's famous eggplant festival takes place. Other public spaces include the archaeological site "Khirbet Al-Yahud", as well as a number of empty areas that can be found throughout the old village.



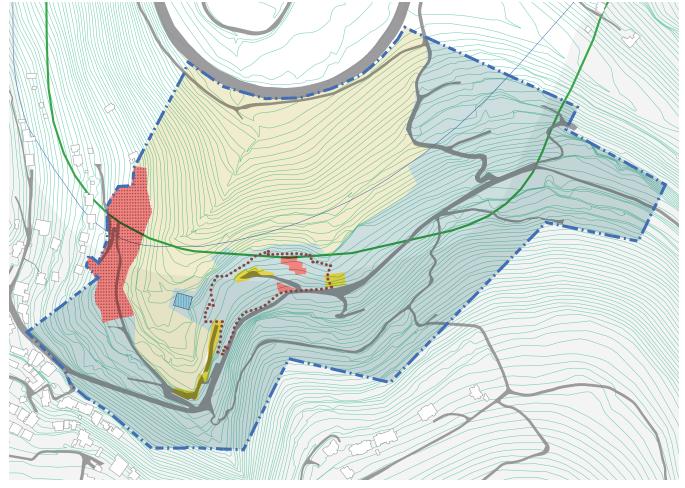
Figure 62: Open space in the old village core



Figure 63: The Plaza in 1952 used for social festivals
Source: Ministry of Tourism
and Antiquities, Department of
Antiquities and Cultural Heritage, Palestine Land of Olives
and Vines, Cultural landscape
of Southern Jerusalem, Battir,
World Heritage Site Nomination
Document, 2013.



Map 34: Types of open spaces in old village core



Map 35: Condition of open spaces in old village core

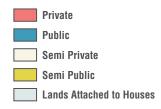


Figure 64: Urban furniture inside village core







d) URBAN FURNITURE

Urban facilities and furniture have an important role to play in making the old village more liveable and attractive for local residents. In the old village, this includes:

- 1. Public benches: some public benches are located close to the pool, above the Roman Bath and close to the souvenir shop.
- 2. Garbage containers: a number of both large and small garbage bins can be found along the main and other smaller roads in the old village.
- 3. Lighting, electrical and telephone columns
- 4. Bus stops designed with a tent (canopy)
- 5. Pavements: Including concrete flooring that covers the main plaza in the court, while areas above the Roman bath are paved with concrete tiles and used for unplanned parking.
- 6. Fences: Different types of fences are used to protect pedestrians throughout the old village.
- 7. Different plants used for decoration of courtyards, walls, fences etc.
- 8. Promotional features: Advertising boards have been erected for commercial use.

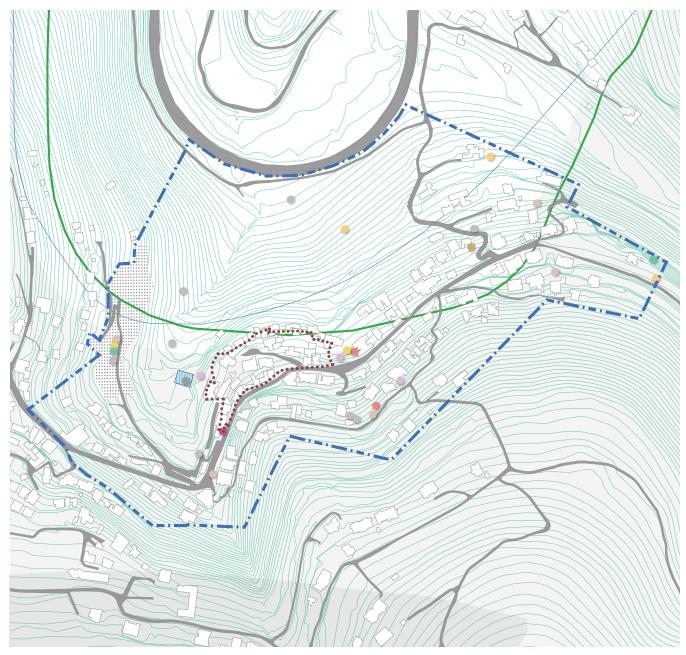
e) TREES

Old trees can be found in the village, including pine and olive trees. These add to the village's aesthetic value and should be protected. The older and more important trees, 29 of these, are indicated on the map below.





Figure 65: Olive tree in Battir



Map 36: Old trees in the old village core

f) LANDMARK

There are a number of buildings currently perceived as landmarks within the old village core, including the landscape terraces, Roman Pool, Roman Bath, Cemetery, the Eco-Museum, the Cultural Centre, the Mosque, and Abu Zeid Maqam.









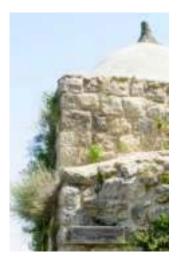
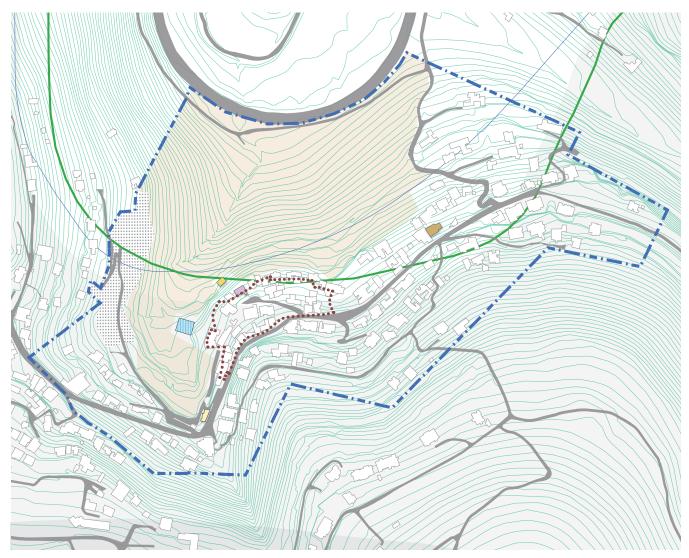


Figure 66: Landscape terraces

Figure 67: Roman Pool

Figure 68: Roman Bath

Figure 69: Abu Zeid Maqam



Map 37: Important landmarks in old village core

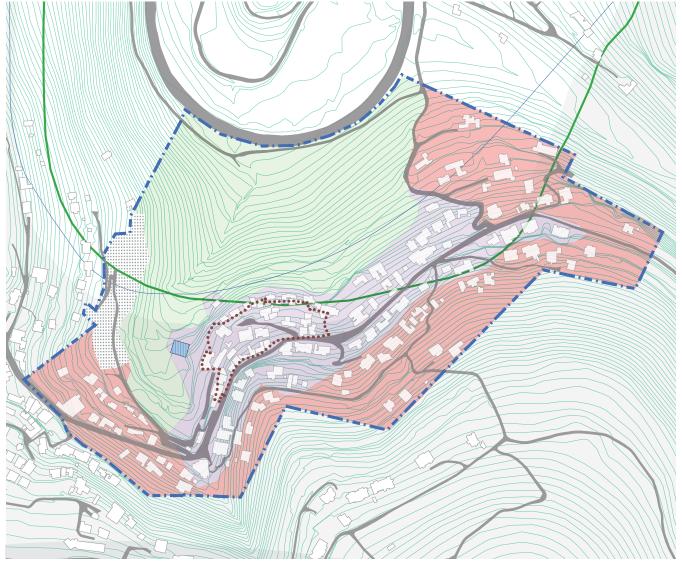
g) LAND USE

Mixed land use exists in the old village core which accommodates both public and residential buildings, a cemetery and agricultural terraces.



Figure 70: Cemetery and terraces





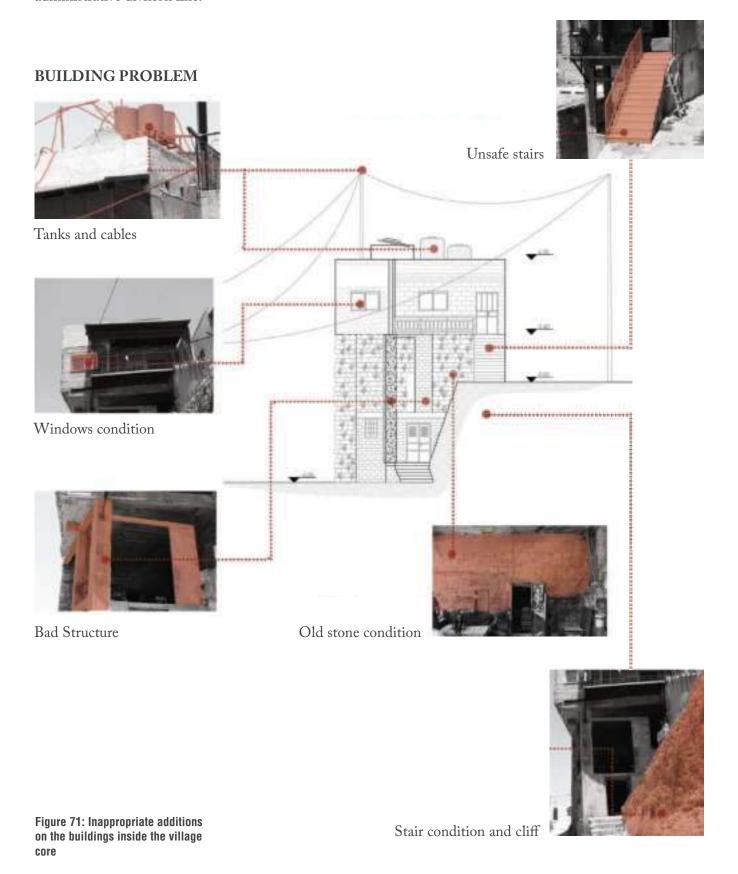
Map 38: Land use in the old village

Mixed Use Area

Residential Area

4.7 FACTORS IMPACTING THE OLD VILLAGE CORE

Analysis of the old village core showed that the site was affected by several factors including economic development; agriculture; land terraces; infrastructure; modification of historical buildings; distance from larger urban areas; tourism development; social changes; local migration to other locations; construction of the separation wall; and the administrative division line.



The value of Battir's old buildings is affected by a number of factors, the most prevalent of which include:

1. Some of the older buildings are abandoned and have become dilapidated. In most cases, they are filled with rubbish, insects and vegetation, while their structural integrity has also often been compromised. Among other things, this has a negative aesthetic impact, adversely affecting the development of Battir's tourist sector.





2. Both the construction of new buildings and modifications made to older buildings are unregulated in terms of both architectural style and planning, leading to ad hoc and dissonant additions to the village.



3. Building construction is often left incomplete, posing a negative visual impact.



4. Unregulated and poorly planned and designed elements such as stairs, balconies and advertisement panels negatively affect the visual appeal of old buildings.





5. Lack of opportunity and/or access to services has resulted in some local residents relocating to other areas of the West Bank.

The old village and its built environment are further impacted by the following:

The value of Battir's old buildings is affected by a number of factors, the most prevalent of which include:

- 1. Failure to regulate public transport and poor road signage has resulted in both traffic congestion and increased levels of pollution that not only affects air quality, but also stains building facades.
- 2. Lack of adequate infrastructure for pedestrians, including pavements and pedestrian crossings.
- 3. Some of the roads in the old village are unpaved and require rehabilitation.
- 4. Lack of planned parking areas, including designated parking for tourist buses, resulting in traffic congestion and delays.
- 5. No provisions are made for people with a disability to facilitate improved accessibility around the village, nor are there any designated bike tracks or trails as a potential way to tour the city.
- 6. Lack of road and public space maintenance.
- 7. A tourist map of Battir highlighting its main sites is located in a relatively unexposed area.
- 8. Expansion of the local cemetery threatens to encroach on the surrounding agricultural terraces, threatening part of Battir's cultural historical value.











- 9. Signage for local trails through the old village is poorly organized and inadequate.
- 10. There are no public facilities available for visitors, nor any specially designed public spaces.
- 11. Urban mobiliar (furniture) is insufficient.
- 12. Public lighting is inadequate in the village core, especially along tourist trails.

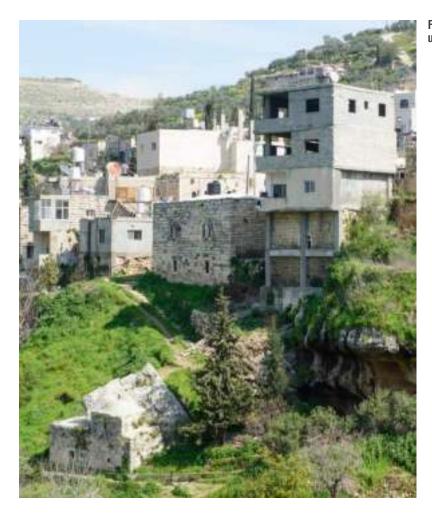


Figure 72: Unregulated and unfinished building



Figure 73: Bad infrastructure on the sidewalk



Lack of open spaces and playgrounds.



Exposed trash in public spaces.



Many streets and pathways are inaccessible for people with a disability and parents pushing prams.



Example of improvised urban mobiliar (furniture).



Street and vistas are affected with structures and cars parked along it.



Lack of designated parking means that cars are often parked ad hoc and in public places.

Figure 74: Different problems affecting open spaces in the old village core





5.0 SUSTAINABLE PLAN

General

The sustainability plan for Battir was produced based on findings of the survey and subsequent analysis undertaken by IPCC. Particular focus was given to the old village centre. The plan seeks to strike the right balance between preservation of Battir's cultural heritage and unique landscape, and the creation of new opportunities for future development.

Towards this end, several strategies were pursued:

- Protection of the village's landscape terraces, including preserving their aesthetic appeal
- Improving the built urban environment

 including public spaces and infrastructure and improving accessibility and mobility.
- Revitalisation of Battir's historic buildings through restoration and rehabilitation
- Identifying and planning of new functions for both open spaces and buildings alike
- Sustainable design
- Integration and inclusion of local residents
- Environmental awareness and protection measures
- Local organic farming
- Development of ecotourism
- Raise public awareness

Along with landscape terraces, the old village core is Battir's main built heritage asset. Its potential was considered when preparing the sustainable plan. Several principles of sustainability were adhered to, namely energy; nature and the ecosystem; economy; culture and social interaction; health and well-being. These were interwoven into the different strategic lines followed under the plan.

5.1 A ROAD MAP FOR SUSTAIN-ABILITY OF BATTIR VILLAGE

Environmental Sustainability (Nature and Ecosystem)

Goal: Reduced pollution, protected landscape and ecosystem

Commitment: Environmental matters are to be reconsidered as crucial toward establishing a healthier and more sustainable habitat. Protecting and conserving the local ecosystem, bio diversity and fauna all play a major role, as does preserving the surrounding landscape, both cultural and natural, against natural and man-made disasters. These efforts should be matched with a focus on renewable energy sources coupled with the smart consumption of natural resources to strengthen sustainability.

Energy

Goal: smart energy consumption

Commitment: Effective measures to improve energy efficiency need to be applied in line with global standards to reduce energy consumption. New innovative solutions on energy reduction should be applied to both new and existing buildings.

Sustainable Economic Growth

Goal: viable income for local inhabitants Commitment: Battir's world heritage listing opens up new opportunities for economic development and job creation. Improving access to economic opportunities for local residents would reduce social poverty in Battir. Over the long term, the local municipality has a particularly important role to play in establishing a more attractive environment for local economic development, assuring the right balance between market and policy, as well as encouraging new public/private ventures and partnerships. Significant opportunities exist for Battir to capitalise on growing interest in sustainable tourism, with a heavy emphasis on local knowledge and participation. Inclusivity is another important factor in achieving economic stability. Both agriculture and tourism hold out the

promise of a brighter economic future for Battir, particularly agriculture developed in Battir's irrigated terraces, and tourism based on its unique culture and heritage (both tangible and intangible).

Culture, Education & Social Inclusion

Goal: Building an inclusive society and preserving local culture

Commitment: Greater inclusivity requires greater public participation in both local decision making and local activities of different types. Particular attention should be given to women, youth and marginalised sectors of the community. It is important to develop capacity building programs for the local community, as well as activities aimed at strengthening Battir's local identity and preserving local culture. Equally important is to maintain existing activities related to local culture and customs.

Health and Well-Being

Goal: enhanced health and personal wellbeing

Commitment: Enhancement of Battir's built environment and natural surroundings is vital to improving the local population's wellbeing and health and in assuring existence of domestic fauna and preservation of flora. A healthy environment is also crucial to taking advantage of the enormous potential that exists for Battir to be a local leader in organic food production based on traditional agricultural methods. In particular, permaculture promises benefits to both the environment and for the well-being of visitors and inhabitants alike.

Governing

Stakeholders Role and Responsibilities:

Various stakeholders were consulted during the preparation of the sustainable plan. It is envisaged that implementation of the plan will similarly rely on local stakeholders. As part of its preparation, a strong working relationship was established with the Palestinian Authority's Ministry of Local Government, especially regarding planning in Battir. Similarly, the Palestinian Au-

thority's Ministry of Tourism was closely consulted, especially regarding preparation of a conservation and management plan for Battir, which is obligatory for all included properties on the UNESCO WHL (World Heritage List). The present sustainability plan makes a valuable contribution in this regard.

At the local level, the Municipality of Battir has a central role to play in implementing the sustainable plan and all the activities identified here. For their part, the local community are the guardians of Battir's unique heritage, especially intangible (crafts, traditions and customs).

Close consultations with local citizens was crucial to identify local needs and future activities flagged under this plan. In addition to continuing their current activities, a greater role in educational and promotional programs is envisaged for local NGOs and associations.

IPCC has prepared an outline plan for Battir that was submitted to the Israeli Civil Administration (ICA) for approval. The plan is intended to provide a legal basis for any future development. For the purpose of this plan, the IPCC team evaluated the social-economic and physical condition of the village. All needed inventories, surveys and analyses were prepared, and can be used to follow up on all future changes within the village. By following the guidelines developed here, it should be possible to prevent inappropriate and unsustainable interventions.

Recognition of Battir's heritage values by UNESCO has opened up the possibility of new collaborations with international partners. Additionally, it drew much needed attention to and a much greater appreciation of Battir's cultural landscape values. UNESCO's report referring to the old village core should be followed when implementing this plan.

Recommendation: Battir's local municipality should establish a system with defined responsibilities to properly govern and manage the site (site committee).



Figure 75: Open space in front of Hassan Mustafa cultural center

Accordingly, a multi-disciplinary technical team should be in charge to oversee project implementation, maintenance and monitoring of the site. The committee should be responsible for coordinating all funding, sourcing new funding, and ensuring proper community consultation and coordination with all relevant stakeholders. Funds could be allocated from the local municipal budget, funding from the central government, local community contributions, bank loans, private sector donations, as well as project support from international donors. Many international organisations already play an important role in financing development and this cooperation should be sustained. Local owners and tenants should be responsible for financing the maintenance of local public spaces, attached to their properties. In addition to this, the local municipality and cultural centre should focus on supporting programs that encourage local agricultural production and the production of local crafts, as well as raise public awareness.

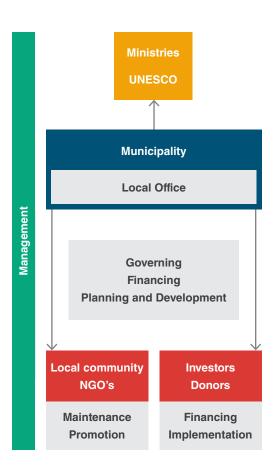


Figure 76: Battir management scheme

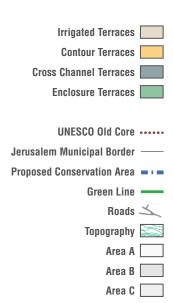
5.2 DEVELOPMENT STRATEGIES: (SUSTAINABLE PLAN)

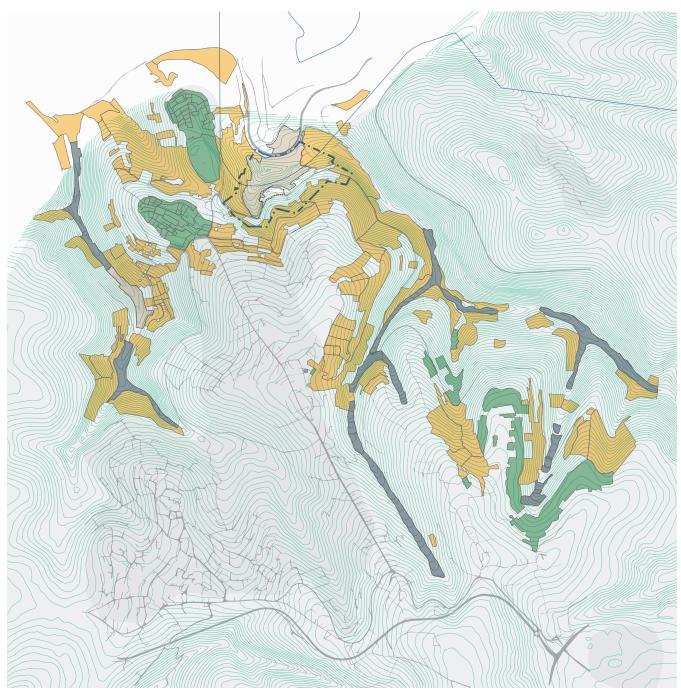
Protection of landscape terraces

Central to Battir's WHS listing, landscape terraces and their surrounding features should be protected and properly maintained. Under the sustainability plan, Battir's famous landscaped terraces are designated as a highly protected area, meaning that any actions that have the potential to harm their authenticity and integrity are strictly prohibited. This plan proposes that the terraces continue to be used as per their original function as a way to ensure they are preserved. The

whole area encompasses approximately 2.257.112 m² of landscape terraces supported with dry stone walls. To protect their visual appeal, multi-story buildings should not be allowed in the surrounding area, nor any other type of building that threatens the uniqueness of the old village core.

The land terraces are also highly exposed to the risk of floods and damages. Adequate rain water drainage would help to prevent floods and any resultant damage to agricultural lands.



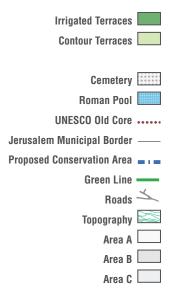


Map 39: Landscape terraces in Battir



Map 40: Landscape terraces inside the village core

Recommendation: Constant enhancement and maintenance of the landscape terraces and conservation of dry stone walls; to protect trees and conserve soil quality; safeguard overall appearance from unregulated development and vistas; to provide adequate rain water drainage.



Urban improvement (open spaces and infrastructure, accessibility and mobility)

Interventions in the village core should be implemented to improve local services, to improve the local environment and habitat, and to enhance the village as an attractive destination for both local and international tourists.

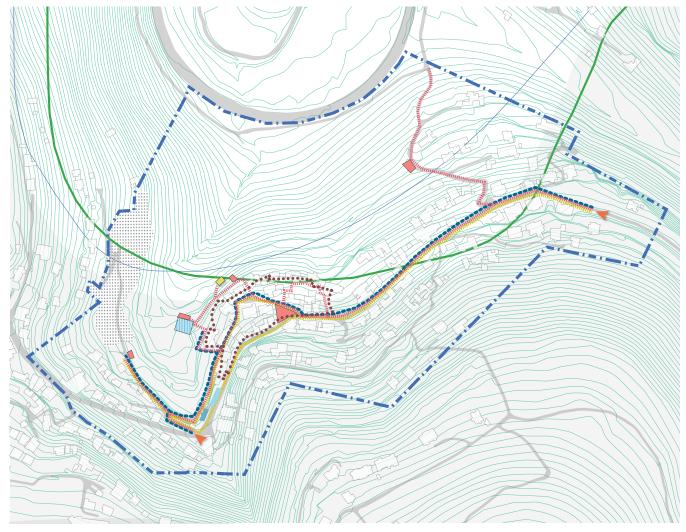
Urban improvements should increase accessibility and mobility within the village core, with special provisions made to improve accessibility for people with a disability, the elderly and children. Equally important is the need for more public spaces that facilitate social interaction. These spaces are important for preserving and protecting Battir's intangible culture. One of the proposals listed under this plan is to maintain the usage of the existing plaza for festivals, and to design an environmentally sustainable

park out of the village core for residents where local entertainment can be provided.

To improve accessibility as well as the tourist infrastructure inside the village core, efforts should focus on upgrading local walking and biking trails, including equipping them with benches, lights, signs and so forth (see appendixes). This plan also identifies several rehabilitation zones for urban renewal and redesign, details of which are given in the following pages.

Recommendation: Create safe pedestrian corridors that can accommodate the elderly and people with disabilities; design and develop sustainable public spaces and urban mobiliar; and increase the number of urban mobiliars.





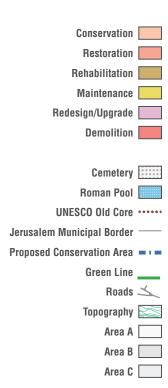
Map 41: Proposed trails inside the village core

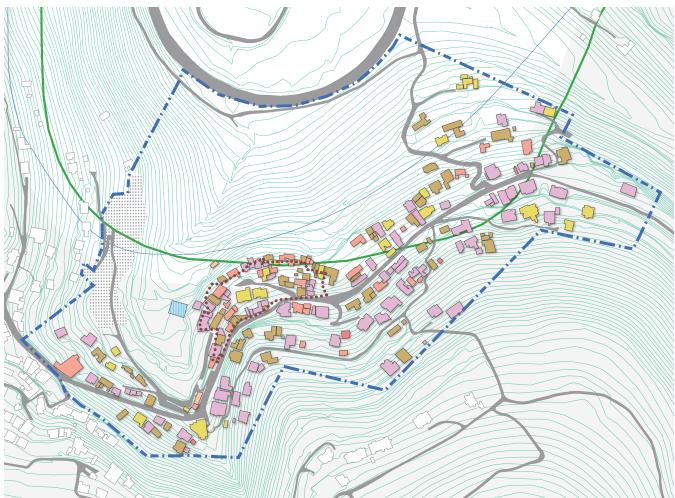
Revitalisation of the village core's historic tissue and old buildings, including conservation and restoration

Battir's terraced landscapes contain a number of old watchtowers. These structures provide an important historical and cultural referent for the life of Battir's past generations and some of its surviving local traditions today (MAPS no 13-19). To be able to fully understand the cultural landscape of Battir, conservation is proposed as the most suitable intervention. Some of the watchtowers could be converted into stations that tourists can stop at while walking through Battir. Conservation in situ is a priority for these watchtowers.

The old village core also has a number of old stone houses, many of which have been abandoned and are dilapidated, while others have been altered and changed. Revitalisation of the old village core's urban fabric and open spaces is key to improving sustainability.

Liveability in the old village core will be enhanced by preserving its residential fabric while making improvements that better meet the requirements of contemporary life.





Map 41: Proposed interventions for buildings in the village core

Clusters of houses should be revitalized to reactivate life in the old village core, while many of the old stone houses, especially those that have been abandoned, could be rehabilitated to improve the needed services and experiences available to tourists.

It is important to introduce efforts aimed at encouraging residents to remain in the old village core, actively countering rising levels of migration. Local residents are key to preserving Battir's living traditions. For most old houses, the primary goal should be basic interventions that rehabilitate and adapt them to the requirements of contemporary life. Towards this end, criteria for physical interventions aimed at re-establishing the architectural and urban integrity of the site have been created.

A survey of the old village core found that 26 houses are in need of restoration, 56 require rehabilitation, 2 can be conserved in their current state and 5 can be maintained in its current condition. Based on an average property size of 160 m² per housing unit, this equates to restoration works covering 4160 m², and the rehabilitation of approximately 8960 m². Consideration should also be given to redesigning and upgrading recent changes that are deemed inappropriate (note: more details are given in section 5.3).

Recommendation: restore and rehabilitate old houses including renovations to suit new functions; permanently maintain old buildings; and develop an urban conservation plan.

Integration of residents

Battir's local residents are a key link in the chain of sustainability. Ensuring greater interaction and inclusion of citizens in different activities, and improving local economic stability are both key to providing greater security for Battir's local residents. This would assure their permanent settling inside the old village core, and also encourage the preservation of local traditions and knowledge. As carriers of intangible heritage, the local community is able to pass on local knowledge of agriculture, planting suitable crops and preserving local permaculture.

Recommendation: Encourage inhabitants to remain and prosper in the old village core; actively include local residents in preservation and capacity building activities; strengthen local tradition through different cultural activities with inhabitants.

Sustainable design for new facilities

Efforts to revitalize the old village core require new facilities and services be offered to local residents. Ensuring that the design of new facilities is sustainable should be a priority, including the use of environmentally friendly building materials and the construction of low energy structures. When dealing with old historical buildings, a number of alternatives exist to improve energy consumption.

Recommendation: Apply green building standards to all structural interventions in the old village core; improve design quality in and around the old village core.

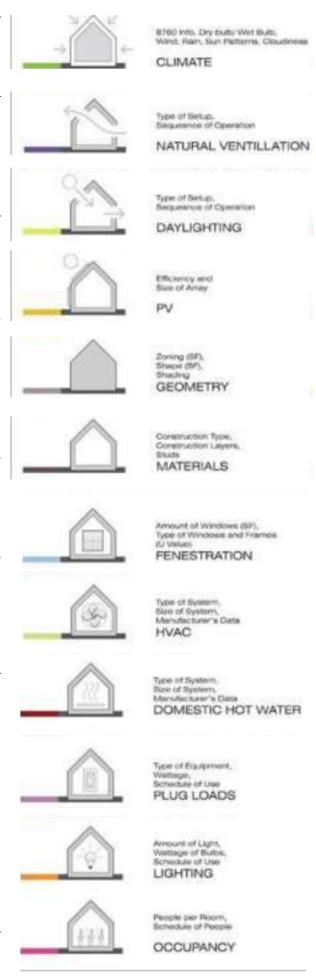


Figure 77: Sustainable design

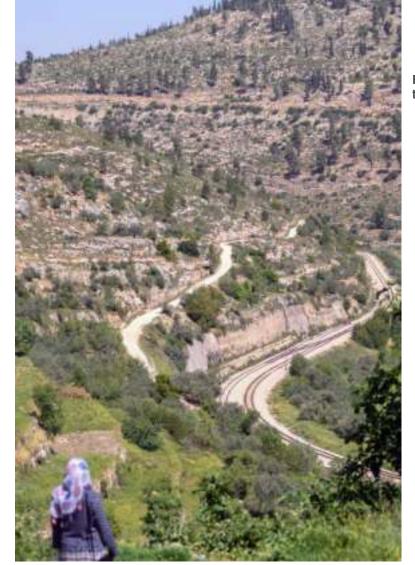


Figure 78: Part of landscape terraces around railway

Environmental protection

The proposed actions identified in this plan focus on preserving and reducing consumption of natural resources as well as mitigating pollution. This is especially important when it comes to water use and conservation. Protecting Battir's local water springs and seasonable water streams is vital to ensuring a healthy environment.

More attention should be given to controlled energy consumption. This includes prioritizing the use of renewable solar energy. Construction activities, especially those taking place outside of the village core, should abide by the principles of energy efficiency and the use of environmentally friendly materials.

Pollution can be limited through different actions, including the introduction of regulations limiting levels of transport in the old village core.

Improving the natural environment will also benefit the different animal species found in and around Battir. Both the surrounding landscape and waterways are vulnerable to natural disasters. Preventive measures are therefore required particularly when it comes to protecting Battir's remaining water springs. There is also a need for a clear plan in place to mitigate possible man-made disasters and safeguard Battir's cultural and historical heritage, as well as protect its local population and visitors to the village.

Recommendation: Increase water recycling and reuse; identify and protect vulnerable species in and around Battir; prepare disaster preventative measures for both natural and man-made disasters; protect seasonable water streams. Introduce alternative transport arrangements that are more environmentally friendly.

Environmental protection measures:

- 1. Rehabilitation of local water springs, including measures to reduce pollution.
- 2. Preserve seasonal water streams in the Wadi.
- 3. Build a wastewater treatment plant to reuse waste water.
- 4. Build a wastewater network that does not threaten agricultural lands and other sensitive locations.
- 5. Increase the number of local rubbish bins, especially bins made from recycled materials.



Figure 79: Rubbish Baskets made of recycled material

https://www.mmcite.com/uploads/news_thumb_fe/918317b57931b-6b7a7d29490fe5ec9f9/popup/03eclipe_8f0c77da2b3140fca227869e-d4a853dd.jpg

6. Adding drinking fountains along tourist trails for visitors to use.



Figure 80: Concrete outdoor drinking fountain

http://img.archiexpo.com/images_ae/photo-g/104657-10127184.jpg

7. Post signs to improve cleanliness.



Figure 81: Signs for cleanliness

https://images.mydoorsign.com/img/md/S/housekeeping-place-clean-sign-s-2348.png

- 8. Introduce measures to prevent garbage being thrown in public/open areas.
- 9. Increase public lighting and introduce LED lights equipped with movement sensors.
- 10. Increase reliance on solar energy sources through solar cells and panels.



Figure 82: Examples where solar cells are used https://www.electricbike.com/ebike-battery-longevity

11. Introduce new recycling measures, including separate bins for sorting out recyclables.



Figure 83: Separate bins

https://i.pinimg.com/originals/b5/26/d2/b526d27aab40d1926cfab-55c4e4a26b7.jpg

- 12. Encourage local residents and shops to convert to fabric bags instead of nylon bags.
- 13. Promote biking and hiking.
- 14. Restrict vehicular access inside the village core, with exceptions made for emergency services and delivery.
- 15. Make provisions for the use of electric cars (similar to golf buggies) for older people and the disabled.
- 16. Encourage land cultivation that also protects the soil.
- 17. Prevent the collapse of trees and other forms of damage to the land terraces.

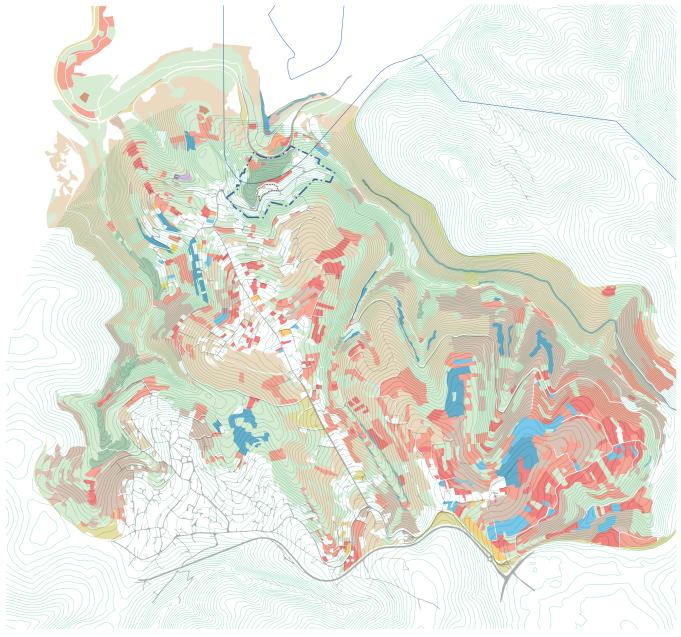
Organic farming and food production

Relying on Battir's long tradition of agricultural production, measures should be introduced that incentivise niche agricultural production and especially organic farming. This includes establishing new facilities that can enhance the value chain when it comes to food production. Food storage and commercial facilities are encouraged to serve and sell food made with local products. This will improve profitability and help increase and maintain local agricultural produce. Seasonal festivals are also important for local farmers to promote their produce as well as exchange knowledge and best practices. It also includes promoting

traditional agricultural methods in organic farming. This sustainability plan recommends the introduction of a new food store, and an additional five new restaurants. To increase production levels, techniques that are non-invasive, but that improve soil quality are permitted.

Recommendation: preventive action to reduce erosion; improvement of soil quality; educate the local population about organic farming methods as well as their benefits and profitability; promote organic farming and organic produce in seasonal festivals.





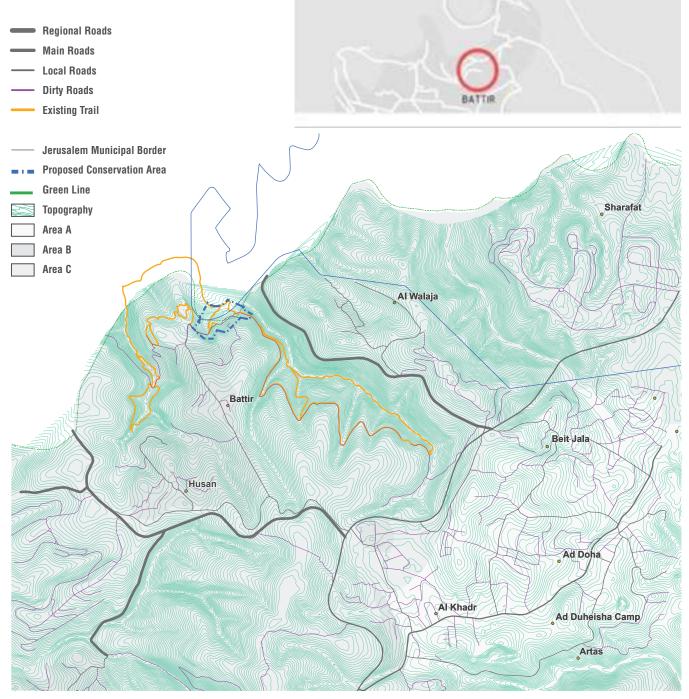
Map 42: Agricultural field type according to crops

Eco-tourism development

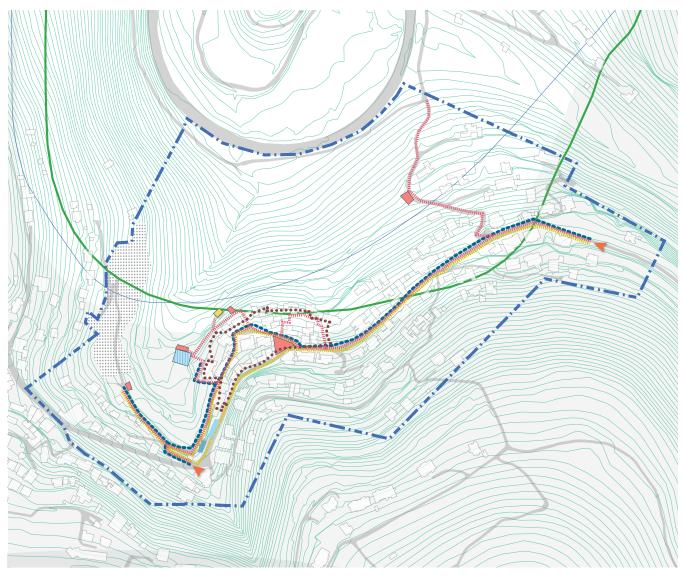
Development of tourism in Battir is important for its economic viability, with the goal being to increase the number of tourists visiting the village and thus increase tourism revenues. In order to strengthen Battir's attractiveness and competitiveness, the needs of visitors and local population should be taken into account.

nd BATTIN bethlehen

Figure 84: Distance between Battir and Jerusalem and Bethlehem respectively



Map 43: Battir and Beit Jala - trail relation



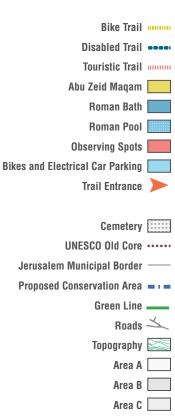
Map 44: Proposed trails in Battir village core

Notwithstanding, efforts should be taken wherever possible to improve the connectedness of Battir to major localities in the surrounding area.

Battir is within relatively close proximity to other UNESCO world heritage sites. As a world heritage site itself, Battir may serve as a destination that would support extended visits to Palestine which include visits to famous places as Jerusalem, Bethlehem and Hebron. This will enrich the tourist experience.

The potential exists to also strengthen tourist routes linking Battir with Beit Jala and its surrounding landscape called Al-Makhrour. Given the relatively short distances involved, this sustainability plan proposes developing a purpose designed walking and biking trail of approximately 7 km in length. This trail should focus on local heritage as a key drawcard, as well as give tourists an opportunity to enjoy some of the beautiful landscape vistas. Approximately 4.5 km of existing historic trails can be rehabilitated for this purpose, with proper signage and mobiliars added where needed.

Within the village core, both biking and walking tourist trails are proposed that encompass all of Battir's most significant



historical sites, as well as possibilities to experience other cultural attractions (such as local cuisine, demonstrations of local customs, crafts, habits and so forth). This will require new facilities to be developed along the trail, while approximately 1 km of the existing trail inside the village core should be rehabilitated.

In creating attractive tour programs, various local activities depending on the time of the year should be taken into account, as well as different areas of interest such as history, architecture and living culture. These tour programs should be tailored to different age groups or groups of visitors. Improved services, better infrastructure, the preservation and rehabilitation of historic buildings, the enhancement of the natural and built environment; social interaction and new opportunities are all priorities when it comes to encouraging greater tourism to the village.

In addition to capitalising on the economic opportunities that tourism offers, equal attention should also be paid to raising awareness about and mitigating potential negative impacts of increased levels of tourism. Tourism will have an impact in reshaping Battir's built environment as a result of actions identified in this plan. This could have negative implications for heritage sites, both physically and in the broader socio-economic context. Greater numbers of tourists will put pressure on historic sites and create certain challenges for local residents. Among some of the possible negative consequences include the degradation of historic sites, as well as creating a less personal feeling to the old village itself. Harmful effects may occur on the environment and built structures, while wear from overuse could lead to degradation and loss of value. The spirit of Battir is a sensitive category, and it will be necessary to moderate the number of visitors. In this regard, proper management of the site is important.

Recommendation: improve tourist facilities and local infrastructure; strengthen linkages

between Battir and other world heritage sites, as well as neighbouring villages; develop a purpose designed tourist bike and walking path within the village core that encompasses Battir's main historical sites, attractions and landscape terraces; develop a new strand of tourism around agricultural production and cuisine, local customs and traditions and cultural landscapes.

Planning of new functions

Existing tourist facilities and services for local population in Battir are insufficient. This plan puts a premium on improving existing facilities and developing new ones that are important for local residents and to attract more tourists. Restored and rehabilitated houses should keep their original function, or can be rented for residential, commercial, public, touristic or administrative activities. A select few can house local museums that showcase the richness of the regions history and customs.

Among the steps needed to strengthen tourism is to increase the number of available rooms so that a greater number of tourists can be accommodated. In addition, efforts should be made to differentiate the types of accommodation available, including offering accommodation that caters to more exclusive tastes.

Towards this end, it is proposed to renovate some of the old stone buildings located in the village core into boutique hotels, as a cluster inside the village core. A total of 78 old houses have been identified for restoration and rehabilitation, with 22 rehabilitated to accommodate new functions (including five new Bed & Breakfast establishments, one hotel and one boutique hotel type), while the remaining 56 old houses will remain as residential properties. Also, 4 buildings belonging to the recent period are proposed to gain new functions. This should increase the accommodation capacity of the old village core by 75%, enabling it to accommodate up to 80 visitors a night.

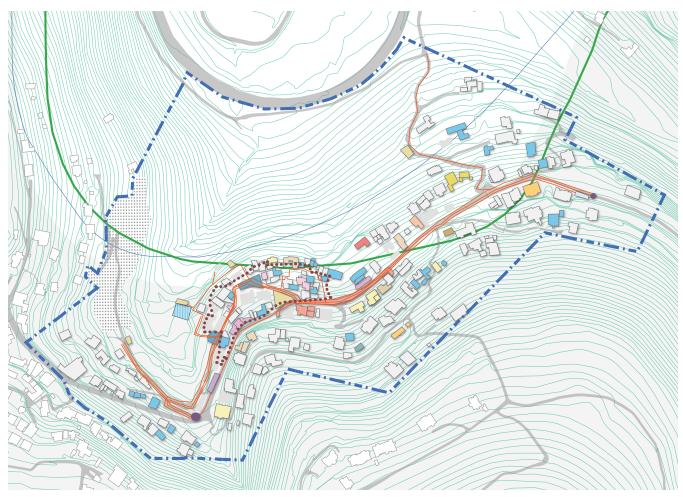
With regard to sustainable development, the establishment of the eco museum was a positive step forward. This plan proposes a second museum to be housed in one of the village core's old buildings that showcases Battir's local history and culture. An additional old house is proposed to include a library and a café, and also provide information on Palestine and Battir, screening documentaries, as well as staging presentations on the cultural heritage values and traditions in the village.

In order to improve living conditions for local residents, attention should be given to rehabilitating public facilities and improving access to basic local services. This should include adequate schooling and accompanying infrastructure, building a sports centre and improving access to medical healthcare. Establishment of a clinical centre in the locality would contribute to the safety of the local population and for visitors as well.

Recommendation: improve available public facilities and local services.

Function	Existing	New	Total:				
Commercial							
Souvenir shops	1	1	2				
Food shop	0	4	4				
Minimarket	4	0	4				
Bazaar	0	1	1				
Cultural							
Library	1	1	2				
Art gallery	0	1	1				
Museums	1	2	3				
Cultural centre	1	0	0				
Music centre	0	1	1				
Accommodation							
Guest house	1	5	6				
Hotel	0	1	1				
Boutique Hotel	0	1	1				
Catering facilities							
Restaurants	1	5	6				
Street food	0	1	1				
Cafe	1	1	2				
Others							
Bike rental service	1	0	1				
Total	12	25	37				

Table (4): Battir Sustainable Plan



Map 45: Proposed building functions in the old village core

Food Shop Restaurant Shops **Boutique Hotel Guest House** Hotel **Observing Spots** Museums **Music Center** Souvenir Shop Plaza Rehabilitated Restored Buildings Rehab. Residential-Commercial Area **New House Tourism Administration** Bazaar Gallery **Touristic Trails Trail Entrance Bikes and Electrical Car Parking Parking for Emergency Existing Buildings and Features** Cemetery ····· UNESCO Old Core Jerusalem Municipal Border Proposed Conservation Area Green Line Roads Topography Area A Area B Area C

Cafe

Promotion and Education

One of the main avenues for achieving greater social and cultural sustainability is to educate Battir's youth on the importance of their heritage, local traditions and preservation more broadly.

The local community have an important role to play in actively strengthening local sustainability, especially in collaboration with Battir's municipality and partner NGOs.

Handicrafts and local products would benefit from such activities as festivals, exhibitions and workshops, while local programs could encourage Battir's residents to be more productive. While local inhabitants are strongly attached to their village and traditions, there are still many benefits to be had from staging workshops and educational programs that encourage the younger population to actively participate in the preservation of Battir's unique heritage and culture. The importance of awareness raising should not be underestimated here.

Encouraging new investment in Battir is yet another priority. Towards this end, new initiatives promoting the village as an attractive location for private investment should be developed.

Seasonal festivals provide an important platform for promoting Battir, especially as a centre for organic farming and the production of healthy foods. These festivals also help to distinguish Battir as a home to the production of eggplants.

Recommendation: prepare educational programs and workshops targeting different age groups; encourage a greater number of cultural and educational activities; promote Battir as a desirable tourist attraction; encourage more investment in Battir.

Actions related to promotion, education and raising awareness

- Promote seasonal festivals using different promotional materials (posters, billboards and flyers)
- Organise workshops for local crafts targeting different age groups throughout the year
- Introduce on-site learning via educational programs for both local residents and tourists related to Battir's cultural heritage and agriculture
- Organize educational programs for children on such topics as permaculture as well as the heritage of Palestine, with a focus on "learning by doing".
- Engage students in different activities aimed at strengthening their relation to local heritage. Programs facilitating students to participate in designing places, cleaning tourist locations, and educating them about recycling should also be considered.
- Establish a community centre for children, youth and women which can serve as a meeting place, as well as a venue for different activities and workshops.

5.3 PROPOSALS FOR PRESERVATION AND FUTURE DEVELOPMENT - PHYSICAL INTERVENTIONS

To achieve the goals and objectives of the sustainable plan, proposals aimed at revitalizing, sustaining and preserving the cultural and historical values of the old village core have been developed in the form of guidelines and recommendations. Improvements to the aesthetic look of the village core are elaborated in map no 46. (Map of sustainable plan summary), which provides a summary of proposed actions.

Additionally, this plan includes a map of all needed interventions for each structure inside the village core, ranging from rehabilitation, restoration, maintenance, and redesign, through to demolition (Map no 41). Taking into consideration local needs while also prioritizing improved sustainability, various functions or purposes were proposed for each building based on the stated





Map 46: Sustainable plan summary

EXISTING FUNCTIONS Irrigation Channels Train Railway Trails Accommodation Cemetery **Cultural Centers** Monuments Mosque Public Buildings Residential & Commercial Buildings Rehabilitated Residential Commercial Area Residential Restaurant, Cafe Roman Pool Terraces PROPOSED FUNCTIONS **Touristic Trails** Accommodation **Bazaar** Observing Spots Bikes & Electrical Car Parking Commercial Area Gallery _____Infill Museums **Music Center** Parking for Emergency Rehabilitated/Restored Buildings Restaurants, Cafe, Food Shop Souvenir Shop (new) Tourism Administration Trail Entrance Rehabilitation zone 1 Rehabilitation zone 2 Rehabilitation zone 3 Rehabilitation zone 4

strategic guidelines and objectives. Priority projects are highlighted to guide efficiency in implementation Map no 48. All proposed interventions should form a key part of any future urban conservation activities.

Two levels for physical interventions have been identified:

5.3.1 Interventions

5.3.1.1 Physical interventions

- Battir village in its entirety (according to the outline plan)
- The old village core
- -Selected priority buildings inside the old village core

When it comes to Battir in its entirety, the outline plan should be followed. A plan for Battir was prepared by IPCC in 2014. During the preparation of this plan, a number of existing limitations and restrictions were taken into account, while the plan also took into consideration such important elements as archaeological sites and the borders of the WHS core and its buffer zones. This was important to preserve the authenticity and integrity of the UNESCO WHS.

The old village core

For better efficiency in implementation of this plan, Battir's village core is divided into 6 rehabilitation zones where different levels of urban and architectural integrity exist. The following explains in more detail what actions are permitted.

Overview of priority rehabilitation zones and structures

The demarcation of priority rehabilitation zones is intended to preserve and improve Battir's urban and architectural integrity, as well as protect its vistas and the overall image of the village. Actions that change the local character are prohibited.

The surrounding land terraces and accompanying irrigation network are designated as a separate zone or open space area. These areas should be conserved and

Rehabilitation zone 5

Rehabilitation zone 6

Rehabilitation zone 7



Map 47: Rehabilitation zones in the old village core

maintained in their current (authentic) form.

The first and second rehabilitation zones cover central parts of the old village core and are included in the area identified within the Battir World Heritage Site. They include a number of old stone houses that reflect the local character and tradition of masonry skills, as well as the main historic structures such as the Roman pool, the Roman bath and the Maqam. Most of these structures require rehabilitation and restoration, though interventions should be strictly controlled. In particular, any additional floor elevation is prohibited. The only allowed floor elevation should be the ground floor plus one (Gr+1).

The third and fourth rehabilitation zones focus on the overall revitalization of the old village core. Proposed here are interventions to establish new or re-establish old functions for buildings. The third zone also includes a proposal for one of the main streets to be rehabilitated by encouraging the reactivation of old and establishment of new businesses and by supporting local commerce.

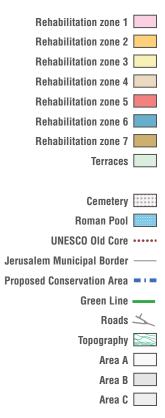




Figure 85: View toward the upper part of the village core

In addition, new buildings that are not compatible with the architectural appeal of the old village core should be redesigned and upgraded. No new infills are allowed in the third zone, while in the fourth zone, two existing empty plots might be used for new infills that conform to given guidelines (appendix no.9).

The fifth, sixth and seventh rehabilitation zones cover plots along the boundary of the old village core. This part of the village core is a mixture of old and new structures, endangered by buildings with new character and added floor elevation.

It is necessary to abide by proposed land use and height of built structures.

Moving forward, any new developments must adhere to specific guidelines and avoid undermining the visual charm of the old village core and its surroundings. Interventions being proposed for old buildings should be assessed on a case by case basis based on detailed inspections, while a control process is needed for all construction to prevent randomly constructed new buildings. Priority should also be given to the use of traditional materials and building techniques.



Figure 86: Proposal for rehabilitation of the main street in the old village core

Current condition

5.3.1.2 Proposed interventions

The following criteria were used to determine interventions for every structure inside all of the rehabilitation zones:

CRITERIA

Values

Each of the structure contains specific value as part of the old historic tissue.



Historical & ambient values apply to old building structures whose appearance, form and volume represent an important contribution of the specific historical period to the character of the village. Most of the old stone houses dating back to Ottoman period and late Ottoman period fall within this category.



Historical & cultural values apply to old structures that clearly reflect the period in which they were built, and they represent unique or rare examples among others (Roman bath and Maqam).



Neutral values/new buildings apply to newer buildings that by the form or their façade appearances fit to the historic tissue.



No values (for new buildings) apply to buildings that have no architectural character, do not fit within the overall historical fabric of Battir, and undermine the uniqueness of the old village core.

JUSTIFICATION FOR INTERVENTIONS

For structures categorised as having ambient value, restoration and rebe redesigned according to the principles elaborated within this plan. In habilitation are more appropriate. For structures categorised as having some cases, demolition is proposed if by its other characteristic structures historical value, conservation and restoration are more appropriate. Build edesign, upgrades and maintenance. Buildings with no values should ings with neutral values might have their appearance enhanced througl are detected to be harmful for historic tissue.

EXAMPLE

DESCRIPTION

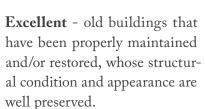
EXAMPLE

DESCRIPTION

State of conservation

This criterion defines current physical state of buildings that may vary from excellent to bad (ruin).







Good - structures with minor damages largely confined to external surfaces, without risk for stability.



Poor - buildings with damages that impact their structural integrity, and whose overall appearance reflects their lack of maintenance.



Bad (ruin) - dilapidated and severely damaged buildings, with collapsed structural system.

JUSTIFICATION FOR INTERVENTIONS

Buildings judged to be excellent and fully preserved could benefit from conservation and maintenance. Restoration is appropriate for historic structures judged to be in a good, satisfactory or excellent state, and should be decided in accordance with other criteria.

Rehabilitation would be more appropriate for buildings judged to be either in good or satisfactory condition, though this would also depend on their values, integrity and authenticity. Buildings considered to be in ruins may be subject to restoration, rehabilitation or even demolished and used as sites for new infills (this may be related to the structures with no values).

Subcategories Buildings condition



JUSTIFICATION FOR INTERVENTIONS

New buildings are subject to maintenance or redesign and upgrade, depending on buildings' condition.

Completed - new buildings that have been completed structurally and by its appearance, as a whole and by its all part, its building condition can be judged according to the above mentioned (excellent, good, poor, bad/ruin)

JUSTIFICATION FOR INTERVENTIONS

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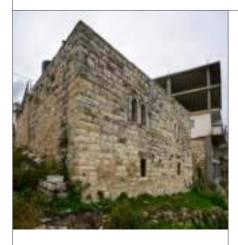
Under construction - new buildings incomplete, partially or fully under construction.

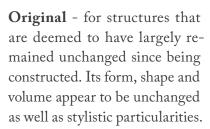
Proposed interventions

The following criteria were used to determine interventions for every structure inside all of the rehabilitation zones:

Level of Integrity and Authenticity

According to the different levels of integrity structures may demonstrate authenticity differently. For this purpose, structures are marked as:







Partly changed - includes buildings that have retained much of their initial integrity and authenticity despite some modifications or additions.



Changed buildings - refers to structures that have been modified or changed to the point that they have little or no resemblance to their original form and appearance.

All buildings judged to have a high level of integrity and that are authentic in appearance should be conserved or restored.

Buildings judged to be partly changed and depending on the state of their conservation and values, could be restored, rehabilitated or redesigned.

Changed buildings should be rehabilitated or redesigned or even demolished in those cases where the level of integrity is deemed insufficient to regain its original shape. Many of the old stone houses in the village core are judged to have historical value, but have been abandoned and are in a deteriorated condition. Accordingly, basic interventions to preserve these historic buildings are considered a priority. In the case of newer buildings judged to have inappropriate additions, redesign and upgrades are proposed.

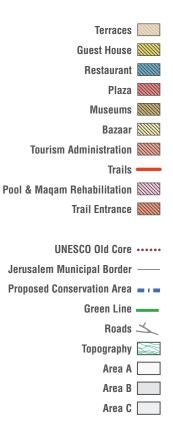
Recommended actions

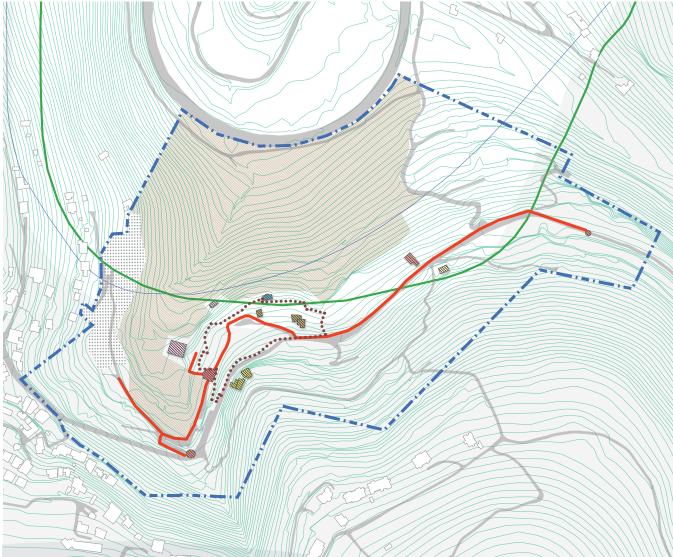
- Remove vegetation growing within the walls of buildings
- 2. Follow regulations to unify the usage of advertisement panels, shop windows, tents etc. in a way that does not harm existing building facades. This includes regulations stipulating material, shape, colours and so forth as per the templates provided in appendices no.: 1, 2, 3, 4, and 6.
- 3. Improve traffic safety by better regulating speed limits, as well as adding new traffic signals.
- 4. Allocate parking for tourist buses outside the village core.
- 5. Rehabilitate historic paths and hiking trails by restoring pavements, building fences, as well as introducing garbage bins and periodic explanation boards.
- 6. Open agricultural roads.
- 7. Ensure appropriate arrangements to facilitate access for people with a disability, prams and for those riding a bike.
- 8. Clearly mark the entrance and the exits of all hiking and biking trails.
- 9. Provide benches in the old village core and along hiking trails to allow people to relax and enjoy the landscape views.
- 10.Improve public lighting to light old buildings and hiking trails.
- 11. Abandon expansion of the existing cemetery. The municipality has already identified a new location, and efforts should be made to prevent disturbance of vistas and terraces (Map 46).

- 12. Public spaces design.
- 13. Rehabilitation of private courtyards.
- 14. Ongoing maintenance of the old village core, including cleaning and repairements both in old buildings and in public spaces.
- 15.Improve hiking trails adjacent to land terraces to make them safer. This can be done by introducing gates to be closed during specific hours, or by increasing surveillance and hiring security guards.
- 16. Developing a management and conservation plan that abides by best practice international standards and recommendations for heritage preservation. This plan (Sustainable plan) is prepared as a first step in this process, providing guidelines to enhance the current conditions while preventing further deterioration.

5.3.1.3 Selected priority buildings inside the old village core

For the purpose of this plan, several buildings and open spaces have been identified as being priority pilot projects to reactivate the old village core. The proposal is to undertake restoration of several old stone houses to serve as best practice examples. All restoration efforts should be supported by appropriate technical oversight and guidelines. The following were identified as priority projects:





Map 48: Priority projects



I. PLAZA
Approximate cost: 200,000 €



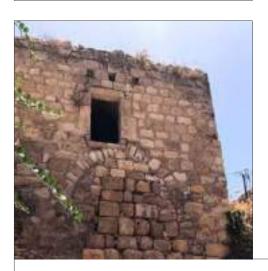
2. HIKING AND BIKE TRAIL Approximate cost: 400,000 €



3. COMMERCIAL STREET Approximate cost: 500,000 €



4. BAZAAR Approximate cost: 120,000 €



5. MUSEUM (showcasing local culture & traditions) APPENDIX NO: I I, I 2. Approximate cost: 100,000 \in



Figure 87: Current state of Roman Bath

5.3.2 Architectural level interventions and regulations

I. For existing structures inside the village core, and prioritizing preservation of their authenticity and structural integrity, proposed interventions include rehabilitation, restoration and conservation. Proposed interventions are general. For some buildings multiple interventions may be needed. This will be evaluated upon a detailed survey of the building. Interventions should meet preservation standards and follow best practices (see appendix.no.8).



Figure 88: Stone arch brining water to the Roman Pool inside the village core

Figure 89: Maqam Abu Zeid



Figure 90: Old house along main car road inside the village core

CONSERVATION applies to structures deemed to be of high historical importance and with a high level of integrity and authenticity, or this may refer to the remaining parts of historical structure that due to its high level of authenticity and values should be conserved. In the case of the old village core, three structures were judged to fall into this category, namely the Roman Pool, Roman Bath and maqam. The old irrigation network can also be considered to exist within this category.

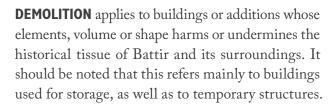
It would need to preserve its existing condition, accompanied with possible replacements or improvement of dilapidated elements, with appropriate traditional materials and techniques used to preserve the overall authenticity of the structure. If needed, recent additions done without technical knowledge should be replaced.

RESTORATION used to revive the original concept of a structure. This mostly applies to old stone houses inside the village core and one of the maqams. These structures have been identified as being of cultural and historical importance, but may have undergone inappropriate changes over time. In order to preserve their original typological and architectural features, restoration should include restitution of the structure and application of traditional techniques as much as possible. In some cases this will include reconstruction or replacement of inappropriate or dilapidated elements.

REHABILITATION is considered an appropriate intervention for buildings that do not bear values of extraordinary importance, but rather are part of the traditional urban fabric. Rehabilitation efforts should focus on adapting a building to contemporary needs, while remaining consistent with its historical, typological and architectural characteristics and without any changes being made to such basic elements as form, height, articulation of spaces or composition of facade. Due to limits on space inside older houses, rehabilitation may include changes to the interior of a building or additions that are in line with the overall character of the village.

REDESIGN AND UPGRADE

This intervention refers to newer buildings and aims to preserve the structural and functional integrity of the building, while making changes to its typological and architectural characteristics that are more consistent with the historical tissue of Battir. In the case where floor elevations are not exceeding normal floor numbers for Battir's historical tissue, major interventions should be done toward creating appropriate form and appropriate material on the facade.



MAINTENANCE This applies to

This applies to structures that are in a good state of conservation or have been restored in keeping with international standards and principles. These buildings need proper and constant maintenance. 21 buildings have been identified as falling within this category. This intervention also refers to newer structures that have been built in accordance with the historic tissue of the village core.



Figure 91: Building proposed to be redesigned and upgraded



Figure 92: Building proposed to be demolished



Figure 93: Building proposed to be maintained

Guidelines for preparation of restoration work:

Prior to any restoration work taking place, a detailed appraisal and viable restoration plan should be developed for each individual building. In doing so several steps are needed:

- 1. Documentation (this phase includes collecting available data related to a building's historical background, style, old photos...)
- 2. Survey (including survey in situ, measurement, historical analyses, the current condition of all architectural elements with all measurements, crack pattern and deformation of structure)
- 3. Description/report (explaining level of decay, damages, materials, cracks, techniques and so forth).
- 4. Restitution (proposing possible original shape of the building)
- Restoration (preparation of documentation for restoration in accordance with best practice rules and international standards for treatment of historical structures and regulations) with a proposal for new function

Basic principles for structure, materials, technology:

Prior to any restoration work taking place, a detailed appraisal and viable restoration plan should be developed for each individual building. In doing so several steps are needed:

- Use of original or traditional materials (stone, lime plaster)
- Reuse of stone wherever possible;
- Use of lime plaster instead of cement;
- Reversible interventions;
- Decisions concerning type and extent of intervention must be based on prior detailed inspection of the interior and exterior of a building
- Wherever possible, local crafts should be used in reviving traditional elements and to invent new ones.
- Implementation of any approved action should be supported by on-site supervision to ensure quality of the interventions and their consistency with technical documentation.

According to extent and types of damages, several interventions will be considered during restoration:

Prior to any restoration work taking place, a detailed appraisal and viable restoration plan should be developed for each individual building. In doing so several steps are needed:

- Partial dismantling and rebuilding of dilapidated walls to restore their original height using where possible same stone and traditional materials in local style and building technique
- Reinforce structural stability to ensure strength
- Clean joint to provide repointing and reinforcement (where needed)
- Ensure waterproofing
- Clean stone from decolourisation and vegetation
- Cleaning of yards
- Grouting rubble
- Rebuild collapsed masonry
- Enhance urban settings of houses
- Ensure buildings are insulated from humidity
- Evaluate the status of the walls to ascertain if the fill is still solid or needs to be grouted etc.

2. Regulations for construction of new buildings and for new additions to existing old buildings in the old village core:

New designs and extensions capable of better adapting old buildings to modern requirements and lifestyles can add value to the old village core. Any alterations must be based on first having adequate information about the quality of the design, its potential impact on the values of the place, opportunities for possible enhancement, and ensuring that long term consequences are benign. Building new structures in the old village core should only be allowed after it has been proved via a detailed survey that an existing building warrants demolition, or its architectural quality undermines the historical tissue of the old village core without any possibility of improvement through redesign. Any newly designed structure should be consistent with the overall character of the village core, should use traditional building materials, as well as designs for openings and roofs that suit the old buildings. Both the capacity and height of buildings should be identified. New contemporary designs may be permitted only if they respect the old village core's historical tissue, while proposed volumes, shape, materials, openings and any other element should be designed without dominating other surrounding structures. Volumes of new structures should reflect the existing urban fabric, while new infills that have plans bigger then 8 m x 10 m should be designed as broken units consisting of several connected units smaller in size (see appendix no 5 and 7).

Regulations for new constructions

Floor elevation:	For 2 story elevation maximum building height from the ground is 6,5 m For 3 floor elevation maximum building height from the ground is 10 m			
Roof type:	Flat; domed.			
Roof covering:	Traditionally used layers of lime mortar or stone tiles			
Main construction material:	Preferably stone, concrete and block			
Façade finishing:	Stone and plaster (white and sand colour/beige) preferably local stone			
Type of openings:	Squared and arched			

- While designing shop fronts, to rely on guidelines given in appendix no. 1.
- While designing tents, to rely on guidelines given in appendix no. 2.
- While designing a bus stop, to rely on guidelines given in appendix no. 3.
- While designing signs and advertisement, to rely on guidelines given in appendix no. 4.
- While designing paths and stairs, to rely on guidelines given in appendix no. 6.

Recommended disaster prevention actions:

- 1. Design and install additional water pipes for fire protection to cover the whole area.
- 2. Prepare a manual for land-scape maintenance.
- Provide water drainage and ensure it is routinely maintained.
- 4. Ensure that water channels and drainage are routinely cleaned.
- 5. Control soil quality and regulate the types of plants cultivated to prevent biological disasters.
- 6. Install warning signs to minimize the risk of fire as well as hazards to the ecosystem.

Appendix I

Design Guidelines for Shops



Design Guidelines for Tends



- Tends should have the same color as shop doors, or be in the color range of white to beige/sand. Bright or loud colors should be avoided.
- Arched openings should have tends that are semi-circular in shape, and adhere to the same color guidelines as above.
- On the main street, tends should not extend beyond 1.2m from the shop's façade; on smaller streets, they should not be more than 1/3 the width of the adjacent path.

example







Design Guidelines for Bus Stops



- Suitable construction materials are wood, metal and glass for both the walls and roof. Glass should not be

or semi-transparent open box.

- The design of bus stops should form a transparent

Design Guidelines for Bus Stops







Bus stops should provide shading in the form of a flat or slightly pitched roof. They should also provide

Roof: wood (and metal sheet for covering)

Wall: wood, glass, metal sheet

used for the roof.

Structure: wood and metal

seating in the form of benches, while walls can be used for advertisements. Local motifs can also be

used to decorate the walls.







Design Guidelines for Urban Mobiliar and Benches



 benches should be made out of wood, stone and/or 1 concrete

- benches should be strategically located along tourist

paths and main thoroughfares.

 a uniform design should be adopted for the old village core; other areas of Battir can utilize alternative designs according to the site.

-benches may have shading similar Lto that suggested for bus stops.



example

Design Guidelines for Signs and Advertisements

Design Guidelines for information boards with



example

info plate for monuments and historic buildings and other type





Warning signs should be made of metal, be uniform

in design, and clearly visible. Red, yellow or orange

are preferred colors.

wood and provide both the name of the site, and

distance until reached.

Signs giving directions should be made out of

Exceptions can be made depending on the vista. If

the board is fixed horizontally, it should not be

positioned higher then 70 cm.

Metal frames should be used to fix information

boards.

Design Guidelines for Buildings

example







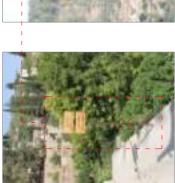
Tall plates should be visible from a distance, and should be fixed at a height of between 1.8m to 2.5m.

Normal plate dimensions are 45x30cm, with a

white background and letters colored brown



info plate for monuments and historic buildings



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Design Guidelines for New Buildings Inside The Village Core

Use of traditional building materials is recommended for new structures.

Both the morphology of the surrounding terrain and the traditional building setting should be respected. Undisturbed vistas should also be protected.

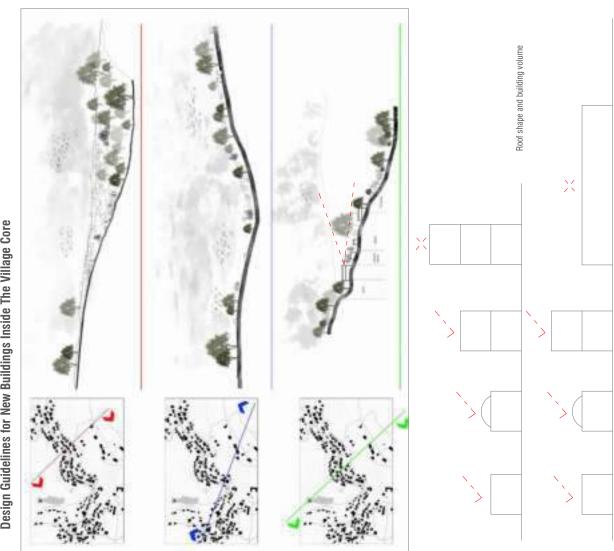
additional floor in rehabilitation zones 1,2,3; ground plus up Permitted floor elevations are as follows: ground plus one to two floors in the upper sections of the village.

Roof types can be flat to slightly pitched or domed (preferably). Appropriate materials for construction other than the façade include locally manufactured materials that do not use harsh chemicals and that are easy to maintain, enjoy a long life construction materials should complement the traditional span and are recyclable or repurposed. The choice of building materials.

Roofs should be proportional to building size and shape, fit with adjacent styles and colors in the old village core, and use similar materials. Special consideration should be given to front-facing facades

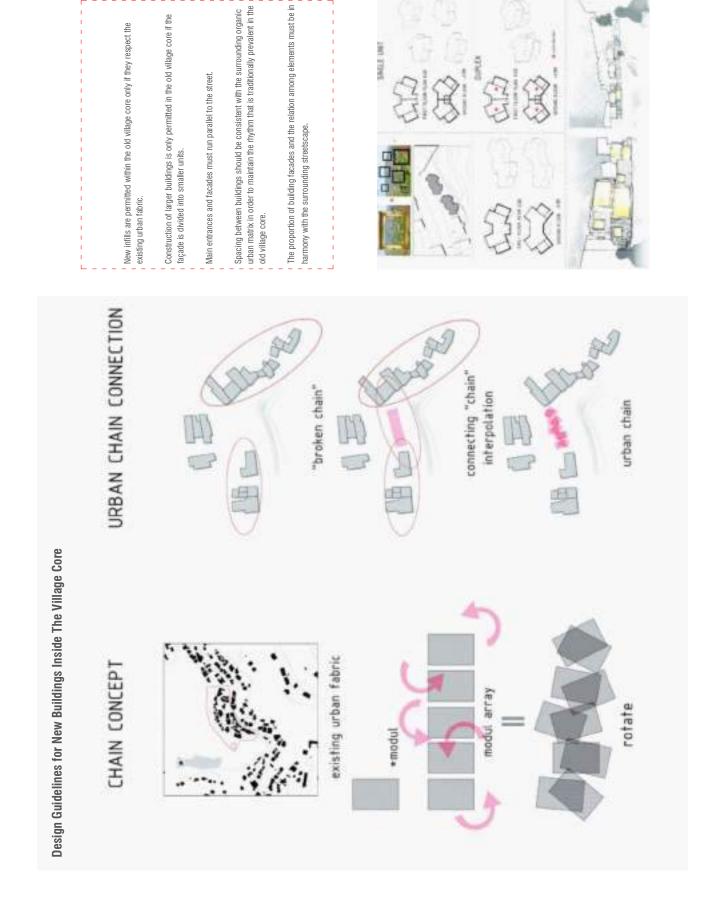
The visual impact of rooftop devices should be minimized.





Where possible, use ramps rather than stairs to allow access for people with a disability. should be upgraded with new paving and a more contemporary design. Paving should be done Pavement tiles and stones should Warning signs and fences should be located along those parts of the walking trail considered using different tiles and stones. Sections of the existing trails Stairs should include adequate lighting, as well as railings for support (preferably one bar in brown color). Railings should not detract from the surrounding Paths should be cleared of vegetation and other Damaged and/or dilapidated stairs should be be anti-slip. dangerous. rehabilitated using traditional materials. ambience. example example

Design Guidelines for Pathways and Stairs Inside Village Core



SAGLE URL

Design Guidelines for Openings

In historical buildings, traditional doorways and building

Design Guidelines for The Rehabilitation/Restoration of Old Buildings



inappropriate should be removed or modified, and the New additions to old buildings that are judged

- original structure should be restored or rehabilitated. All modifications and additions should contribute to the existing integrity and character of an old building,
- including materials used, type of roof, as well as building
- New additions should be distinguished from the original

materials should be preserved. In the case of new openings. typical traditional opening











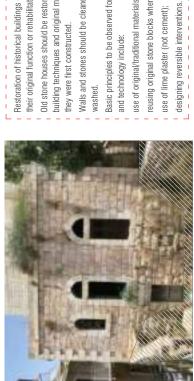
In the case of traditional buildings with several additions, efforts to modify these additions should include (where relevant) redesigning their front facade to respect traditional appearance; using local materials and techniques; and redesigning fences.

harm the defining attributes and overall character of the New buildings or additions to old buildings should not old village core, but instead follow the fundamental design elements of the village core.

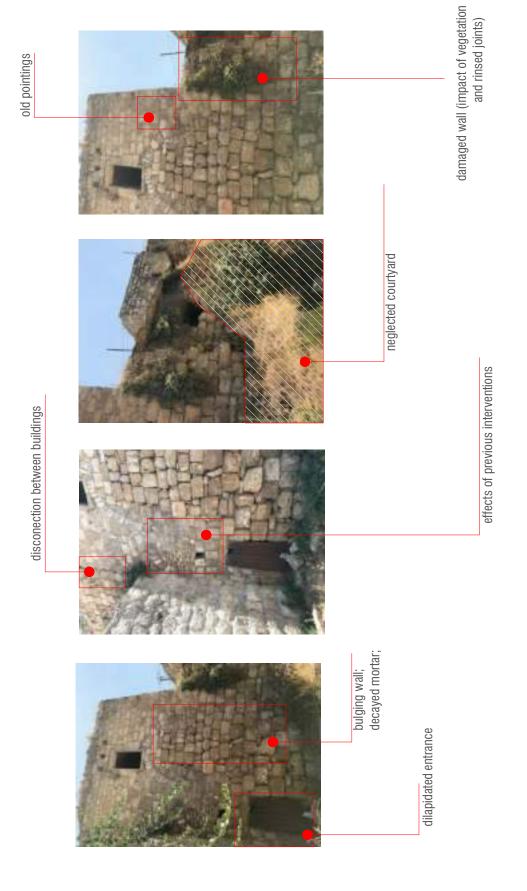


- Walls and stones should be cleaned of all vegetation and washed.
 - use of original/traditional materials (stone, lime plaster); Basic principles to be observed for structure, materials and technology include:

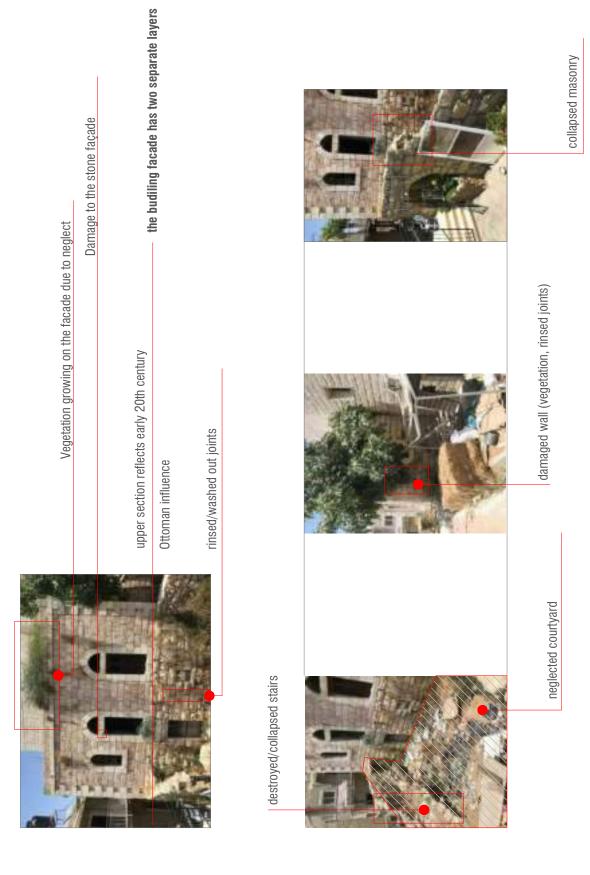




Restoration is the preferred intervention for historical structure as a product of their own time; mass and scale.

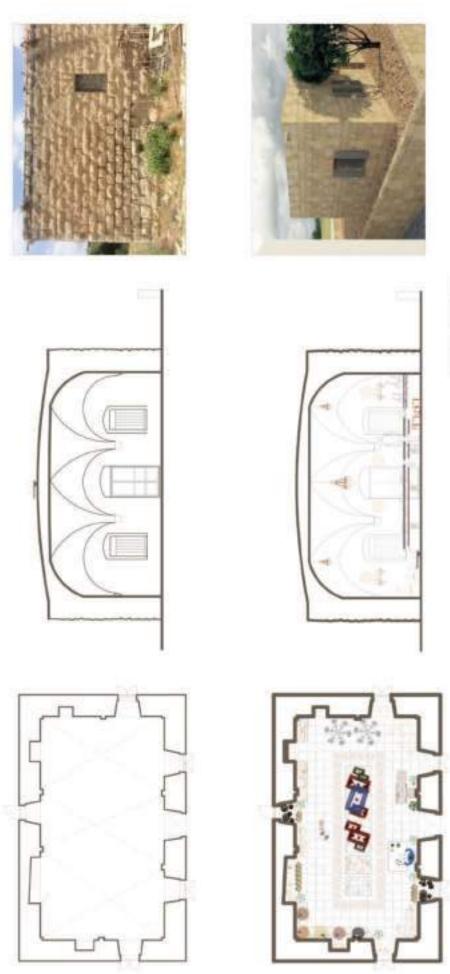


current conditon house no.1

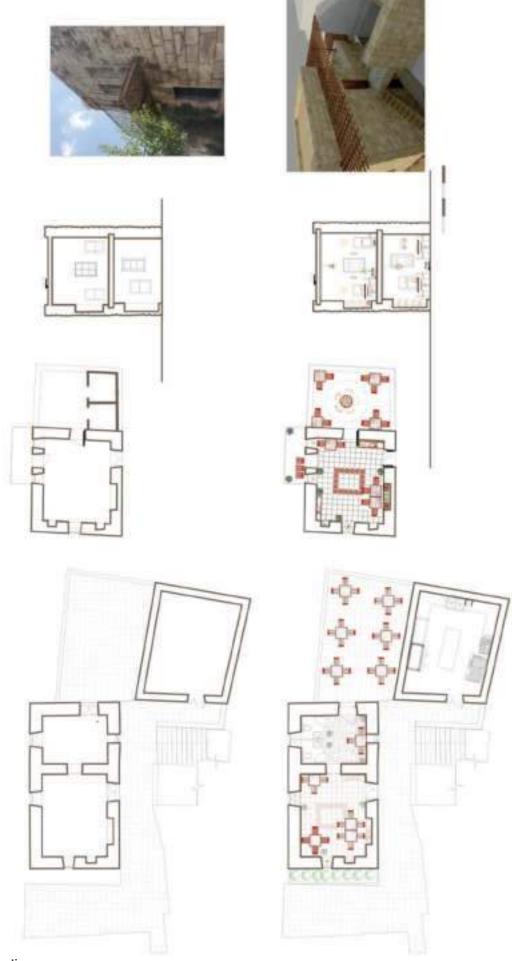


current conditon house no.2

Appendix II

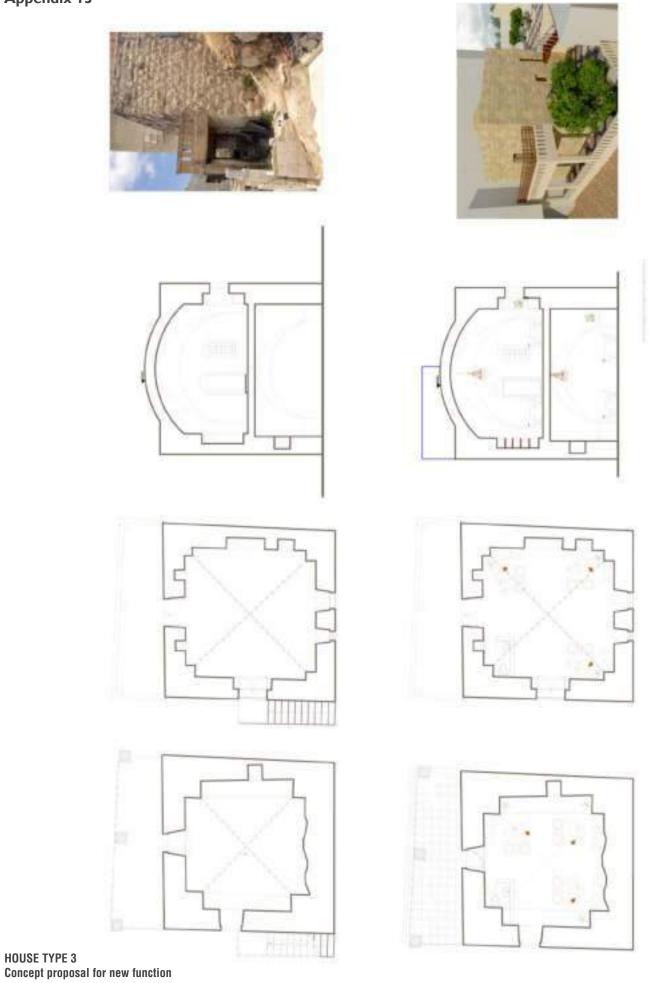


HOUSE TYPE 1 Concept proposal for new function



HOUSE TYPE 2 Concept proposal for new function

Appendix 13



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