HANDBOOK FOR THE PRESERVATION AND DEVELOPMENT OF CULTURAL AND NATURAL HERITAGE SITES.

State Of Palestine
Ministry Of Local Government

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The historic centre, from the territory to buildings

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The Historic Centre, From the Territory to the Building

Draft Version

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State Of Palestine
Ministry Of Local Government

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State Of Palestine
Ministry Of Local Government

صندوق تطوير واقراض البلديات
Municipal Development & Lending Fund

BTC PALESTINIAN TERRITORY

THE BELGIAN DEVELOPMENT COOPERATION .be

HYDEA

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List of Abbreviations

BTC	Belgian Development Agency
CBO	Community Based Organisation
CMP	Cultural Landscape Conservation and Management Plan
CH	Cultural Heritage
CHP	Cultural Heritage Preservation
DUPs	Detailed Urban Plans
EC	European Commission
GALSUP	Ministry of Urban Planning of Yemen
GIS	Geographic Information System
GOPHCY	General Organisation for the Preservation of Historic Cities of Yemen
GIZ	German International Cooperation Agency
HB	Historic Building
HC	Historic Centre
HRM	Human Resources Management
KMA	Knowledge Mapping Analysis
LED	Local Economic Development
LG	Local Government
LGRDP	Local Government Reform and Development Programme
LGUs	Local Government Units
MANUAL	Urban Planning Manual published by MoLG in 2013
M&E	Monitoring and Evaluation
MDLF	Municipal Development and Lending Fund
MoLG	Ministry of Local Governments
MoTA	Ministry of Tourism and Antiquity
MTO	Municipal Technical Officers
NSP	National Protection Plan for Natural Resources and Archeological Sites
OPT	Occupied Palestinian Territory
PNA	Palestinian National Authority
RHC	Regeneration of Historic Centre
SDF	Spatial Development Framework
SDIP	Strategic Development Investment Plan
SIDA	Swedish International Development Cooperation Agency
SS	Summer School
SWOT	Analysis Strenghts, Weaknesses, Opportunities and Threats
TA	Technical Assistance
TNA	Training Needs Assessment
ToC	Table of Contents
TOR	Terms of Reference
TT	Thematic Trainer
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UPM	Urban Planning Manual
WB	World Bank
WHC	World Heritage Centre

Terminology

Relevant Terminology from the MoLG Spatial Planning Manual (August 2010)

Planning

Planning may deal with different economic, social, or physical issues on different scales. It is a scientific method that aims to study all the resources and capabilities available to a state, region, territory, city, village or organisation. It is a way of deciding how to best use these resources and capabilities to achieve specific objectives and improve living conditions, ensuring that their use pursues the public interests of welfare and development.

Development

A systematic type of planning designed to bring about radical changes in society by applying further requirements for human subsistence and recreation, aiming to empower people and enhance their potential to address problems and difficulties rather than perpetuate them. Thus, the development process aims to enhance the capacities of the individual, increasing economic production and improving living conditions in a systematic way that ensures human rights and provides opportunities for creativity and production in a sound natural environment.

Sustainable Development

Development that meets contemporary needs without compromising the ability of future generations to meet theirs, which focuses on the conservation of natural assets for growth and development in the future. It is a way of harnessing economic and social development in a balanced and harmonious way to improve quality of life while protecting essential systems. It is a form of development based mainly on incentives for reducing pollution, decreasing volumes of waste, and reducing current energy consumption, applying taxes to reduce the wasteful consumption of water and biological resources.

Urban or Physical Planning

A tool and means of pursuing public interests, across all sectors and segments of society, through the development of perceptions and visions of desired and preferred future conditions, distributing community activities and uses in appropriate places in a timely manner. It is also a way of achieving a balance between development needs now and in the near future, on the one hand, and between the development needs of future generations, on the other (sustainable development), and a balance between strategic visions, aspirations and desires, on the one hand, and the determinants of resources and realistic possibilities, on the other. All this while ensuring coordination and integration to meet the needs and requirements of comprehensive development sectors (political, economic, social, environmental, etc.), through the provision of services and public facilities, and infrastructure networks of various kinds.

National Planning

This represents the highest level of planning by supreme or central authorities, and aims to achieve sustainable development society-wide, laying down a plan at state level which includes all physical, natural, economic and social systems, is based on studies and research, and measures the real needs of society within the limits of its material and human resources.

Regional Planning

This represents the second highest level of planning. It is carried out within a specific regional context, to achieve optimal spatial similarity and coordination. It relies on the successful integration of different systems for a better quality of life for the inhabitants, whilst attaining the best urban, economic, and social use of natural and human potential without separating the region from other regions or overstepping its territorial unity with other regions.

Local Planning:

This represents the third highest level of planning. It is implemented in populated centres, including cities and villages, and aims at the comprehensive and appropriate development of all urban and rural settings, including the expansion and growth of cities according to appropriate trends in which this type of planning is dominated by the physical, which is a function of economic, social and environmental variables.

Structure Planning:

This reflects social, economic, physical, environmental and other systems, which are taken into account when preparing a planning programme, such as one on the distribution of a population and its activities, and regulating the relations among them. Structural planning represents a link between regional and local planning.

The Master Plan

This is a regulatory document, which is essential to guide development in communities (cities/towns/villages), including public and private land use. It also defines the locations and scope of public projects within a set period of time (15-20 years), and is based on comprehensive studies on land use, activities and development processes currently taking place. It also maps future trends in population growth, business, and other activities.

Strategic Development and Investment Planning

This is a form of planning that aims to achieve sustainable development in the target area (region, province, city, village) by setting developmental goals in the community through programmes and development projects, and according to a budget and timeframes.

Detailed Plan

A plan which is prepared for a part of the city or locality and includes detailed projects of areas making up the Master Plan, such as housing, centres and hubs of commerce and industry, green areas, land use, occupancy of buildings, and others.

Joint Planning Area:

The target area of the planning process, which includes a number of local bodies or neighbouring communities.

Spatial Development Framework Plan

The plan that defines spatial development strategies and guides all forms and levels of planning at local level within the "Joint Planning Area".

Relevant Terminology: definitions from the draft "Palestine Charter on Heritage" (2012)

Conservation

An action that aims to preserve the cultural significance of a property without sacrificing any one aspect in favour of another; conservation should also consider sustainable approaches to the conservation of cultural properties and their fabric and settings. Conservation involves practices that aim to prolong the life of the existing fabric, ensuring its adaptive or appropriate use, and communicating its social and cultural associations and meanings to users and/or other audiences. Conservation measures must apply both technical and scientific principles without altering the characteristics of the property; any physical intervention or change to the fabric must be minimal. Conservation should also consider the cultural significance of a cultural property and its settings and fabric, and focus on its future use.

Cultural significance

This encompasses the historical[1], aesthetic, spiritual[2] and cultural[3] value of a *cultural property* to present and future generations.

Fabric (or historic fabric)

This refers to the physical material of a cultural property including its components, fixtures, contents and objects.

1 Archaeological cultural properties are identified as places of historical value.

2 Spiritual value is value related to religious, ideological and symbolic or associative significance.

3 Cultural value may refer to scientific, historic, artistic, social, educational, and economic, or use values.

Cultural property

It includes Urban Fabric and Archaeological Cultural properties[4], Monuments[5], Cultural, Urban and Natural Landscapes. Reference is made of the definition of Cultural Property in UNESCO conventions, whereby the term shall cover:

(a) movable or immovable property of great importance to the cultural heritage of Palestine, such as monuments of architecture, art or history, whether religious or secular; archaeological sites; groups of buildings which, as a whole, are of historical or artistic interest; works of art; manuscripts, books and other objects of artistic, historical or archaeological interest; as well as scientific collections and important collections of the property defined above;

(b) buildings whose main and effective purpose is to preserve or exhibit the movable cultural property defined in sub-paragraph (a) such as museums, large libraries and depositories of archives, and refuges intended to shelter the movable cultural property defined in sub-paragraph (a);

(c) centers containing a large amount of cultural property as defined in sub-paragraphs (a) and (b), to be known as `centers containing monuments or group of buildings of cultural significance'.

Setting

Means the area around a *cultural property* and may include visual catchments.

4 Examples of Urban Fabric and Archaeological Cultural properties are archaeological remains, historic towns, ruins of human settlements (*Khirab*), etc…

5 Monuments include individual cultural properties such as caves, tombs, individual buildings etc…

Maintenance

Maintenance encompasses activities carried out regularly according to a pre-determined schedule; maintenance aims to protect the physical *fabric* and *setting* of a *cultural property*.

Maintenance is carried out where indicators show that the *cultural property* is generally in good condition and only minor or minimal interventions are required.

Maintenance is carried out using traditional materials, techniques and tools similar to and/or compatible with the original. Maintenance should be carried out by qualified and trained technicians.

Preservation

Preservation is defined as measures carried out to maintain a *cultural property* in its existing situation and stop its deterioration, without any direct impact on its *setting* or *fabric*. *Preservation* may also include measures carried out on a *cultural property* to ensure its safety until a proper conservation and management plan is prepared. *Preservation* is carried out where indicators show that the general conditions of a *cultural property* are in danger and immediate intervention is required to control the threat. *Preservation* is only permitted following a comprehensive evaluation of the physical and structural condition of the *settings* and *fabric* of the *cultural property*. *Preservation* implies introducing temporary elements to stabilise and protect the *settings* and *fabric* of the *cultural property*. Temporary interventions should be reversible, and should not affect the *cultural significance* of the *cultural property* or its original setting and fabric.

Restoration

Restoration, as a process, aims to maintain the original *setting* and *fabric* of a *cultural property* and stop its deterioration. *Restoration* can be divided into two categories: partial restoration and comprehensive restoration.

Partial restoration covers measures that aim to restore the *setting* and *fabric* of a *cultural property* to a previously state using materials, techniques and tools similar to and/or compatible with the existing situation and overall design. *Partial restoration* is carried out where indicators show that a *cultural property* is in relatively good condition, but some parts are deteriorating and require minor interventions. *Partial restoration* implies minimal interventions that aim to restore a *cultural property* to an earlier state using traditional and/or original materials, techniques and tools that are similar to and/or compatible with the existing situation and overall design.

Comprehensive restoration aims to return an existing *setting* and *fabric* to an earlier-known state by removing additions and/or re-assembling existing components without adding any new materials. *Comprehensive restoration* is carried out where indicators show that the settings and fabric of a cultural property are physically deteriorating[6] and require development; comprehensive restoration is carried out when the resources and opportunities are available. *Comprehensive restoration* implies interventions using traditional and/or original materials, techniques and tools that are similar to and/or compatible with the existing situation and overall design; minor additions and/or changes are acceptable as long as they do not affect the cultural significance of a cultural property or its setting and fabric.

6 Deterioration is referred to various factors; namely, human and environmental factors and causes.

Adaptation

Adaptation aims to adjust a cultural property to suit the current use or a proposed use. *Adaptation* implies using traditional and/or original materials, techniques and tools that are similar to and/or compatible with the existing situation and overall design; minor additions and/or changes are acceptable as long as they do not affect the values of cultural significance of a cultural property and settings and fabric.

Author's definitions

(Urban) Conservation Plan

A detailed plan that specifically addresses the conservation of the cultural significance and heritage values of the historic urban fabric, while promoting its liveability and socio-economic vitality. In accordance to international best practice, it is a regulatory document that supplements and completes the urban Master Plan. The essential and basic regulatory elements of a Conservation Plan include:

- The identification of urban Conservation Areas and their buffer zones, based on a detailed analysis of urban transfromations;
- The definition of zones within the Conservation Area subject to different degrees of protection, according to their historic value and the land use of the urban fabric;
- The classification of buildings according to their heritage value (i.e. architectural quality);
- The definition of categories of intervention for the conservation and transformation of each plot and building;
- The identification of public open spaces and utilities;

- The identification of "sensitive areas" for unitary projects and specific regeneration or rehabilitation interventions;

- The specific regulations that define the modes of application of all the above provisions and prescriptions of the Conservation Plan.

A Conservation Plan may also include:

- Architectural guidelines for building interventions;

- Urban landscape and streetscape guidelines;

- Guidelines for other types of interventions.

Street pattern

Indicates the characteristics of the street network. There are different types of street pattern:

- Organic: the street network is characterised by irregular curvilinear streets developed to adapt to the topography or as a result of incremental development. Characteristic of rural towns and medieval fabric.

- Linear: the street network is characterised by a main straight road.

- Grid: the street network is characterised by a regular or irregular orthogonal continuous network.

Urban layout

Indicates the shape of the urban fabric and the system of relations between its different components (quarters, neighbourhoods, poles of attraction), as defined by the topography and street pattern.

1. INTRODUCTION

1.1 The regeneration of historic centres as a driver for local development: the vision of the RHC project and the Palestinian context

Palestinian cultural and natural heritage as part of the Palestinian national identity is being systematically affected by the Israeli occupation and therefore all evidences of the existence of Palestinian people on this land are daily endangered. Historic centres and buildings in some localities are suffering a constant deterioration process due to abandonment, lack of awareness and interest by local inhabitants, lack of financial resources and ineffectiveness or lack of laws/bylaws. Moreover, the isolation of some villages and the fact that are not easy to reach due to the Palestinian geopolitical context add their share to the deterioration of cultural heritage in Palestine.

In October 2011 Palestine was admitted as UNESCO's member and a few months later the Church of the Nativity in Bethlehem along with the Pilgrimage Route, was inscribed on the UNESCO's World Heritage list. In 2014 Battir ancient terraces were declared as World Heritage site.

In the National Development Plan 2011-2013, the Palestinian Authority set out to empower local government and bring public services closer to citizens. This led to the development of key sector policies, guidelines and planning manuals, including the LGU Urban Planning Manual (UPM) and the policy on development and investment planning at local level (SDIP). Since the beginning of the last decade, the international community has provided support and assistance in:

A. preserving and restoring historic sites (SIDA, UNESCO, UNDP, EC, BTC and the Italian Cooperation);
B. local governance and building facilities (WB and the BTC).

Cultural and natural heritage are national treasures that can be used by a nation to achieve local sustainable development. This requires efficient management and practices empowered by laws and bylaws both at national and local level.

Over the past few years, cultural heritage preservation and rehabilitation has become a powerful catalyst for socio-economic development. Joint efforts between the public and private sectors have resulted in successful projects that have proven themselves crucial to socio-economic development. This has paved the way to a strategy for the conservation and regeneration of historic centres and individual buildings at national, regional and local level.

1.2 The structure of the handbook and suggestions for use

The handbook aims to provide a set of guidelines for all those involved in the preservation of cultural heritage and regeneration of historic centres at regional, territorial and local level.
It is articulated into six sections, which set out the basic rules for the RHC, as follows:

1. The PRESENT section introduces the RHC as a driver for local development, analysing its vision with regard to the Palestinian context along with the structure of the Handbook and suggestions for use.

2. The SECOND section features a diagram showing the institutional framework and the involvement of different stakeholders, and concentrates on territorial and spatial planning by presenting examples of different patterns of historic settlement and landscapes. It also discusses the challenge of urban regeneration combined with heritage conservation and socio-economic development. In addition, presents territorial and spatial analyses for the sectorial regeneration of historic centres and cultural landscapes using the SWOT analysis method. The section also explains regeneration strategies, planning tools and procedures, showing different scenarios on different scales and sites, identifying tasks (functions), follow-up models (management & monitoring), and measuring qualitative and quantitative indicators (evaluation).

3. The THIRD section – Urban Planning and Design for Historic Centres – addresses urban planning issues related to the conservation and regeneration of the urban fabric. It deals with the challenge of urban regeneration by combining the protection of heritage and the revitalisation of the historic urban fabric through urban analysis, of the socio-economic profile, functions, accessibility, etc. Examples are offered to explain the evolution of the urban fabric, typological and morphological characteristics, the 'Inventory' of buildings and open spaces, and the identification of heritage value through evaluation and assessment (SWOT analysis). The regeneration strategy for historic centres is explained through the development of a vision, the drawing up of planning strategy priorities for intervention, and the establishment of stakeholder and community involvement.

Tools for urban planning and design in historic centres are discussed, such as tools and procedures for the rehabilitation/regeneration of historic settlements (i.e. master plans, detailed plans, programmes of intervention, catalyst strategic interventions).
Also methods of intervention are presented such as: conservation, adaptive reuse, localised 'infill' and redevelopment, new developments in the historic urban fabric, guidelines for upgrading public open spaces and bylaws and regulations for heritage conservation and rehabilitation/ regeneration through studies carried out on Palestinian cities.

4. The FOURTH section deals with the scale of a single building and/or hosh ensembles. It presents an overview of traditional architecture, explaining different architectural types, abandonment and transformation, and methods of intervention. The analysis method comprises a preliminary diagnosis, multidisciplinary studies, conclusions and recommendations to prepare for the design phase. Different strategies and tools are presented to help establish a design approach, along with intervention criteria and the expected output of the design phase.

5. Section FIVE elaborates interventions on building elements through an overview of traditional techniques and elements, such as: stone walls, stone vaults and domes, flat roofs, renderings, flooring, openings, installations, and touches on moisture, environmental sustainability and comfort by documenting architectural features and common damage, and proposing suggestions for intervention. Finally the section provides suggestions for building maintenance, outlining the need for a structured maintenance plan and conclusions and recommendations.

6. Section SIX presents tools for documentary sources and the GIS system as an integrated tool for managing urban territorial phenomena through base maps, documentary sources and geodatabases. It also touches on stakeholder and community involvement. It describes a method that can be applied at all three levels of intervention: the analysis stage, the planning stage and the design stage, which involves collecting a place's memories (through individual interviews, meetings with the community, collections of historical photos, etc.), analysing local perceptions of the area (through mental mapping exercises), participative SWOT and/or agreement on SWOT points proposed by the working group, assessing and envisaging the community's needs (through focus groups), collecting feedback on the proposals developed by the technical group (through meetings), and the participatory design of public spaces (referring to approaches such as placemaking).

The Handbook is aimed at a wide range of users: mayors, municipal technical officers, architects, engineers, urban planners, academic staff. It provides a methodology and guidance to all partners involved in the preservation of cultural heritage and the regeneration of historical centres at regional, territorial and local level.

2. TERRITORIAL SPATIAL PLANNING

2.1 The urban regeneration of historic centres from a territorial perspective

The concept of urban regeneration may be interpreted in several ways, depending on how developed a country is and the territorial and urban context, but it is always linked to territorial and urban policies for stopping and reversing the process of decline and abandon.

Over time, mostly in urban areas in western countries, regeneration has evolved from a simple form of renovation or rehabilitation of obsolete industrial areas and infrastructure or decayed and dilapidated districts into a more complex and integrated strategy of urban redevelopment. The aim is usually to renew the urban economy, restructure the urban fabric, or improve a city's image, whilst seeking greater social interaction and equality, the involvement of the local population, and socially and professionally engaging the latter in a multifunctional context. The term 'urban regeneration' can also be applied to the conservation of urban heritage, following the destruction in the name of modernisation that took place in the 1960s-1970s, and often expands the scope of conservation to address the preservation and promotion of 'industrial archaeology' or 'modern heritage'.

With the same aim, in rural regions regeneration has helped to preserve natural heritage, protect the soil and rehabilitate agricultural land and infrastructure, since the decline and abandon of traditional forms of land use. It aims to ensure the productivity of traditional or new sustainable farming methods and breeding activities, developing industries related to these (i.e. agro-industries), and promote cultural landscapes and intangible heritage, so as to promote regional identities and develop 'slow' and compatible forms of eco-tourism. Overall, the goal is to revitalise decayed urban areas, city centres and rural areas, restore or boost economic activity in competitive contexts, and to implement initiatives that improve the quality of the environment and liveability. This involves and requires a more active and specific functional role for cities and settlement patterns, to make them more attractive and reverse the process of decline and abandon. Thus, to be effective, regeneration policies must be grounded in a wider territorial context, be that a nation or a region, to identify the potential (and constraints) for possible development, ensuring the best use of local resources.

According to the UNEP's *Guidelines for Urban Regeneration in the Mediterranean Region*, urban and territorial regeneration:

- Is location-specific, as it deals with difficulties specific to urban and territorial components, but it also aims to reduce disparity, with the global vision of a more homogeneous social environment;
- Covers different timeframes, as it responds to contemporary social needs, and long-term sustainability needs anticipating future changes;
- Is multidimensional, as it is applied by many different public and private stakeholders. Urban regeneration strategies are implemented in one sector and have positive effects elsewhere.

Territorial and urban regeneration must serve to overcome the contradictions of and constraints to sustainable development, including conventional and outdated concepts of 'modernisation', through negotiation and the prioritisation of objectives.

In Palestine, the social and economic transformations that have occurred since the late 19th century, and more recently during the British Mandate on Palestine followed by the Israeli occupancy, have greatly affected Palestinian cities and rural areas, causing widespread decline and marginalisation and the impoverishment of historic environments. The decline in traditional agriculture and crafts, the weakness of the modern industrial economy, the expropriation of and constraints on movement imposed by the Israeli occupation, and migration flows towards larger cities have generated abandon and physical decay in historic cities and landscapes. At the same time, the large urban sprawl has heavily affected rural landscapes and marginalised historic settlements.

Burqa: dilapidation in the historic centre and urban sprawl affecting the cultural landscape

Masudiya: the remains of the Hijaz railway station and the cultural landscape: two assets that could be used to develop the community

The combination of these processes is leading to the neglect and loss of a rich heritage, both natural and cultural, which should be preserved as part of Palestinian identity and could become a driver for the local community's development.

The priority objectives of territorial and urban regeneration are multiple and interrelated:

- Economic: enhance and renew economies, including agricultural ones, to attract investors and create employment and new income opportunities;
- Social: enlarge and improve the supply of housing, develop local infrastructure, services and social facilities, retain the local population and attract new residents;
- Environmental: protect agricultural areas and improve living conditions, eliminate or at least mitigate any form of pollution (Agenda 21), reduce vulnerability to natural or human risks;
- Cultural: protect architectural and landscape heritage not only to develop

The separation wall in Abu Dis

tourism, but to strengthen local identity and social cohesion too, and develop cultural activities that may attract research or academic institutions. When applied to historic centres, urban regeneration must be implemented through appropriate and proactive conservation and rehabilitation policies.

Perhaps most importantly, in light of the present political climate, territorial and urban regeneration should aim to mitigate the impact of the barriers and constraints imposed by the Israeli occupation as much as possible as we wait for these to be lifted.

2.1.1 Historic settlements pattern and landscape: a spatial planning issue

Historical centres belong to a wider settlement pattern, which determines their role and functions with regard to socio-economic structure, infrastructural and environmental systems, and any processes of change that may occur. The vitality of any historic centre depends on its capacity to play an active role in this wider pattern and in the process of territorial evolution inherent to any changes.

Historical centres are part of a wider landscape shaped by the interaction between nature and human activity. They are the outcome of this interaction and are not only an essential component of a landscape's cultural heritage, but an important heritage feature in their own right.

The UNESCO Recommendation on the preservation of Historic Urban Landscapes (November 2011) lays down an integrated approach for historic centres, whilst proposing a methodological framework for their regeneration from a territorial perspective. It emphasises:

- The importance of understanding the layering of historical, cultural and natural values in an urban area, moving beyond the notions of 'historic centre' and 'ensemble' to include the surroundings and broader geographical setting;

- The importance of the context, including topographical, geomorphological and natural features, infrastructure, open spaces, land use patterns and

spatial organisation, visual relationships, and any other elements of the territorial and urban structure;

- The need to address the 'intangible' dimensions of heritage as indicators of diversity and identity;

- The need to combine urban and landscape heritage conservation goals with social and economic development goals as part of any spatial planning policy.

On the other hand, the Bethlehem Charter (2008) bases the safeguarding of cultural and natural heritage on principles and rules that are "*aimed at ensuring the protection of the cultural and natural resources and their rational use as well as enhancing the environmental, cultural, architectural and social assets of the historic town and the urban landscape*" (article 1), and points out that *"the chaotic growth of Palestinian urban areas in recent years entails a thorough reconsideration of their expansion processes and, at the same time, highlights significant themes and problems related to the conservation of the historic town and the necessity of preserving and rehabilitating its different parts, taking into consideration the historical and cultural value of its built heritage and open spaces"* (article 3).

The urban regeneration of historic centres, together with the rehabilitation of cultural landscapes, must be placed at the very heart of urban planning at all levels – national, regional and local – in preparing both Strategic Development Plans and Physical Plans.

Urban Planning Manual published by the Ministry of Local Government (MoLG) in August 2010, hereinafter 'The Manual' establishes a methodology and clarifies planning concepts at local level, whilst defining procedures, tools and steps for preparing master plans within a coherent spatial development framework. To this end, it addresses some key issues and challenges that are crucial not only to ensure sustainable urban planning and development but also to create the necessary conditions for the conservation and regeneration of historic centres and the preservation of cultural landscapes. The following deserve to be mentioned:

- *A more realistic evaluation of the need for urban extension areas* to avoid '*over-zoning*', thus controlling and possibly reducing 'urban sprawls', which have a harsh impact on the cultural landscape and make historic centres more and more marginal within the urban fabric;

- *Securing appropriate provision, quality and coverage of technical infrastructure* (access roads, water supply, sewers, electricity, solid waste treatment plants) by taking into consideration not only the local 'carrying capacity' for infrastructure, but the spatial/landscape characteristics of the sites in question too;

- Ensuring that sufficiently large and appropriate areas of land are chosen for public functions and services and education and health facilities, not only in new development areas but, when possible, within or at the edge of historic centres, to reinforce or recover a functional role for these in the larger urban area;

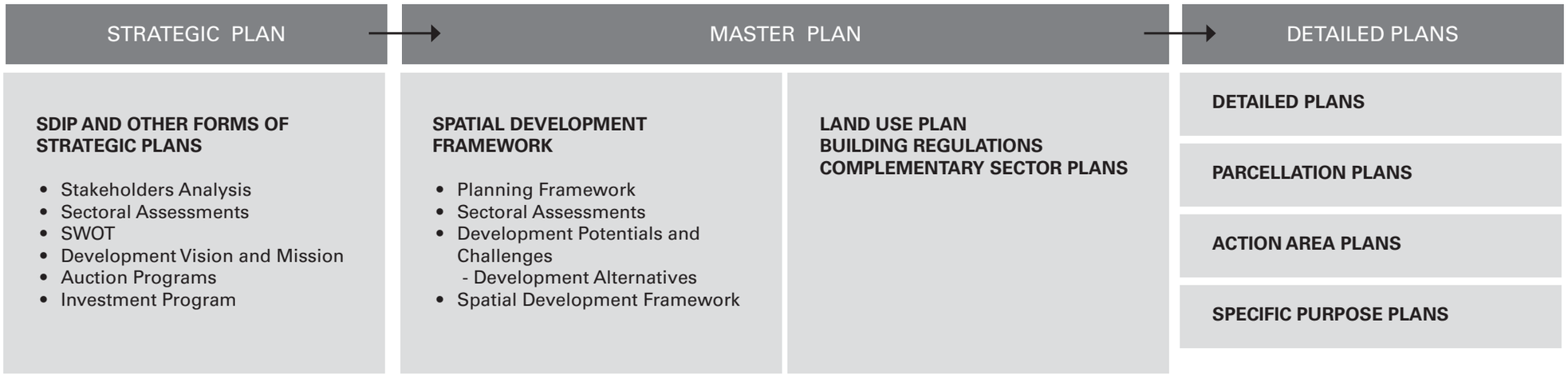
- Better consideration of regional and micro regional links, and of the hierarchy of settlement and service centres, paying attention to the role of historic centres and cultural landscapes in defining local identities through the survival of traditional activities and ways of life;

- Protecting and promoting the environment, natural resources and landscape as well as cultural heritage, which includes not only isolated listed monuments and buildings, but historic urban fabric and infrastructure as well.

The Manual mainly addresses the issues of urban development, and doesn't analyse heritage components in much depth. However, it is important to recognise that today, in the planning process, the issues of historic centres and cultural landscape regeneration cannot be addressed as a sectoral issue, limited to the protection of heritage values. These issues indeed, affect all other components /sectors of urban planning, making heritage conservation and enhancement a multi-sectoral field of study which requires a multidisciplinary approach.

It is important to recognise that during the planning process, historic centres and cultural landscape regeneration issues cannot be addressed as a sectoral issue, limited to the protection of heritage. Indeed, they affect all other components / sectors of urban planning, making them a **multi-sectoral field of study** which requires a **multidisciplinary approach**.

Assuming the urban planning methodology proposed by the Manual, this chapter focuses on the specific tasks and requirements for **integrating the regeneration of historic settlements and cultural landscapes into spatial planning tools** at territorial and urban level. This was the aim of the exercise carried out by the An-Najah National University, during the North West Bank



The planning process (source: MoLG, Manual of Physical Planning)

Summer School of the RHC Project in July 2016, dedicated to Spatial Planning for the Conservation and Revitalization of Historic Centres: Rehabilitating the Cultural Landscapes As Connecting Spaces and Economic Assets (Sabastiya, Burqa-Mesudiye, Beit Imrin, Nisf Jubeil, Ijnisinya, An Naqura).

The materials from this exercise show how heritage issues can be implemented in the planning process on different territorial and urban levels, through the following steps proposed by the Manual:

1. Setting up and launching the planning process, which namely involves establishing the area of joint planning and collecting basic information;

2. Preparing the Spatial Development Framework (SDF), which involves carrying out an integrated assessment for various sectors (population, infrastructure, environment, facilities and services, cultural heritage, etc.), identifying the possibilities and challenges of spatial development, evaluating planning alternatives, and drawing up a development strategy;

3. Preparing a Land Use Plan and zoning measures, building regulations, and complementary sectoral or detailed planning. The latter should specifically address the protection, rehabilitation and revitalisation of all relevant historic centres and cultural landscapes.

2.1.2 The identification of planning areas and the initial planning stages

In international practice, Planning Areas vary considerably, depending on the institutional framework, planning objectives, and the required levels of governance. In any case, the Planning Area is defined before the planning process is launched, based on national or regional legislation, and usually (but not necessarily) covers several municipalities along the borders of regional, sub-regional and municipal entities. There are also different types of territorial plans, which may be comprehensive or sectoral, but are never directly operational (i.e. prescriptive), and are always intended to serve as a reference for local plans with legal effect. Territorial plans are therefore policy documents, which usually fix the strategic framework and technical requirements to be assumed at all the subsequent stages in the planning process (i.e. in municipal and detailed plans).

In Palestine, territorial Planning Areas don't seem to be clearly regulated by national legislation, but stem from MoLG and Local Government Unit (LGU) initiatives, reflecting the principle of 'joint planning' as a way of overcoming the practice of individual municipalities using 'isolated' plans. The aim is to better consider the links and interfaces between different centres and their rural hinterlands.

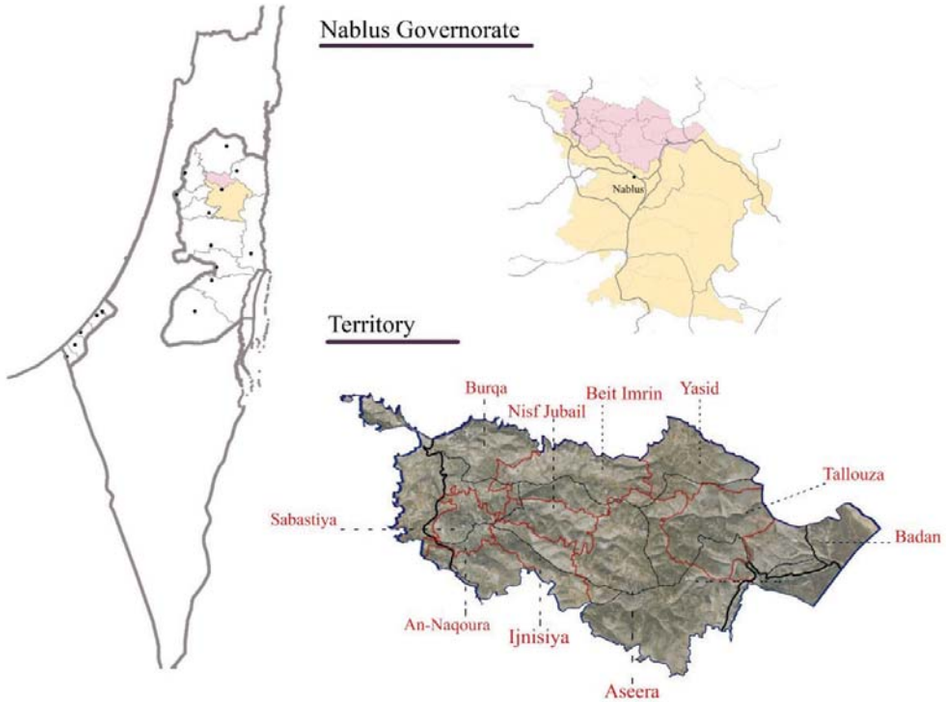
To this end, besides the conditions suggested by the Manual, the boundaries of Planning Areas should include administrative boundaries, and comprise all territorial components and systems that require a unitary and consistent planning strategy, such as:

- Functional linkages between neighbouring localities;
- Access to regional roads, i.e. groups of localities which share access to main regional roads through passing through a larger LGU/municipality;
- Access and linkage to regional and local service centres, i.e. groups of LGUs that are guided by and serviced by the same regional and/or local service centres;
- The existence of at least one municipality with minimum administrative capacity and professional staff.

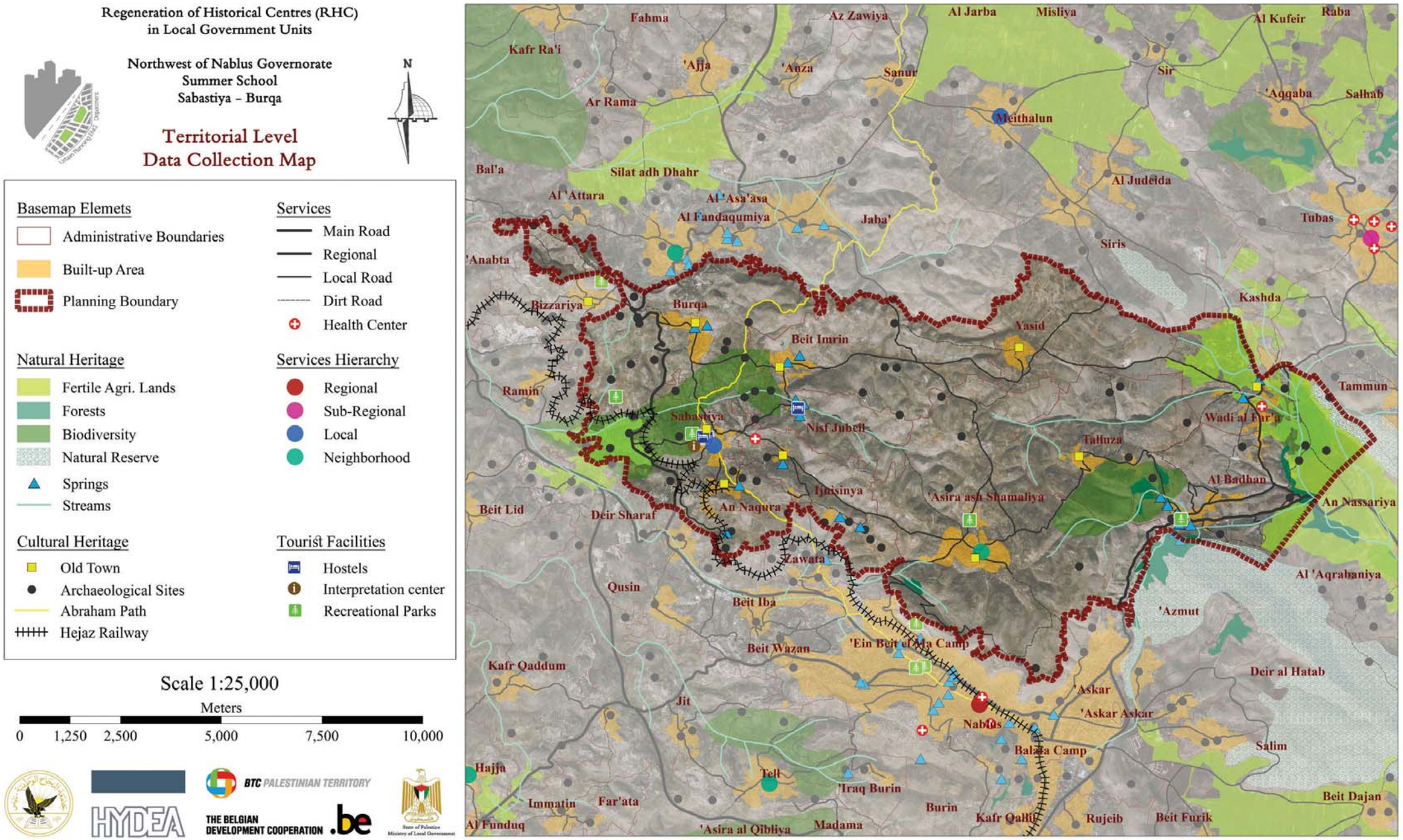
However, to effectively integrate heritage issues into the planning process, the following aspects should also be taken in consideration:

- The presence of continuous built-up areas merging with historic centres or affecting cultural landscapes
- The presence of consistent historic settlement patterns,
- The presence of consistent cultural landscape units as delineated by clear topographic and geomorphological features.

Establishing the Planning Area and approving the Joint Planning Area is the first and crucial preparatory step in preparing the Spatial Development Framework according to the procedure described in the table below, mobilising local government to set up a local technical team, gather together previous studies and existing information, and launch the community participation process.



The study area for the joint planning of Sebastiya and Burqa proposed by An-Najah National University Summer School (RHC, 2016) in the Nablus Governorate. The territory is well defined by topography, micro-regional relationships and heritage features, both natural and cultural.



Planning Area of Sebastiya and Burqa (An-Najah Summer School): territorial data collected from previous studies and plans collected from GeoMoLG.

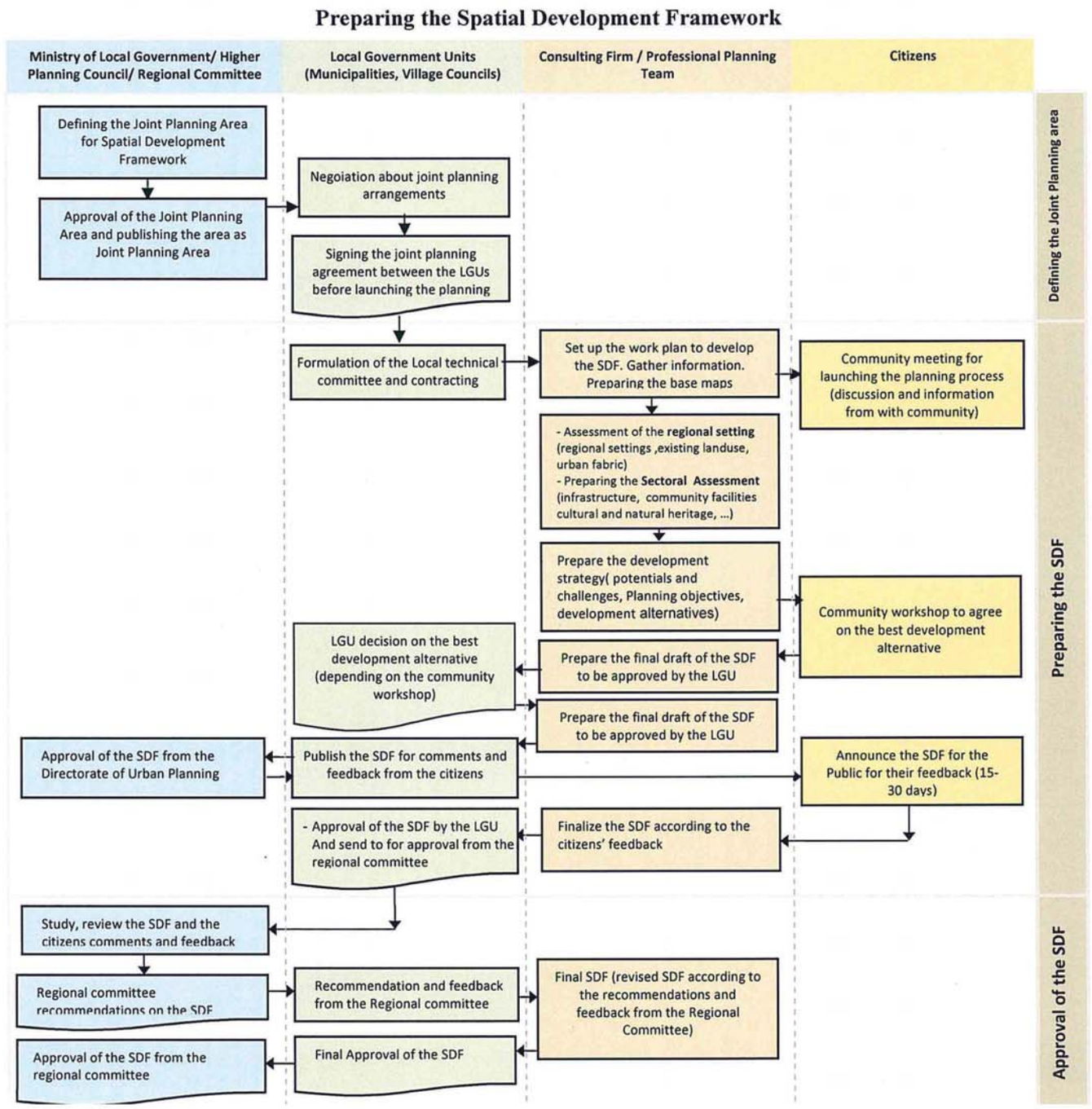


Table 2 – MoLG: Preparing the Spatial Development Framework (source MoLG)

2.2 The Spatial Development Framework (SDF)

Following the definition of the planning areas and the initial planning stages, the Manual envisions a first Master Planning Phase consisting in the preparation of the Spatial Development Framework (SDF). This should set out the territorial planning strategy for the Joint Planning Area and guide all forms and levels of planning at territorial (i.e. regional, sub-regional) and local level. The structure and technical content of the SDF is clearly prescribed by the Manual, which identifies the following steps for its preparation:

1. Planning framework;
2. Sectoral assessment;
3. Development Potentials and Challenges
4. Development strategy.

This section intends to provide some suggestions about the heritage issues in historical centres and cultural landscapes to be addressed so as to better adapt the analyses and planning proposals to the requirements of a regeneration perspective.

2.2.1 The planning framework: basic analyses

The planning framework aims to provide an initial overview of the whole Planning Area with basic background information and essential references to the regional setting, the socio-economic context, the settlement pattern and existing land use. To this end, it takes the following into consideration:

- The conditions and factors of regional and national development;
- National and regional spatial plans and any other regional plans, particularly concerning the hierarchy of services for LGUs;
- Any input the physical plans may provide to regional and national planning (bottom-up planning);
- The link with the Strategic Development Framework and Strategic Development Investment Plans (vision, objectives and projects with spatial locations).

The planning framework is mostly based on previous studies, regional and local master plans, statistical data and any other kind of information that could be acquired through field visits and interviews with the relevant stakeholders. As far as regeneration policies are concerned, it should list any heritage features at territorial level, along with their characteristics and relevance to the Joint Planning Area as a whole. Therefore, besides the aspects mentioned by the Manual it is important to consider:

- The *regional setting and determinants*: any heritage features (natural and cultural, tangible and intangible) that play or are supposed to play an important role in the local economy and the spatial/functional system as a

special feature of the Joint Planning Area, due to their level of interest and 'catchment area' (regional, national, international), must be identified.

• The *settlement pattern and structure*, any historic settlements, archaeological areas and cultural landscapes should be clearly identified though an analysis of the historic evolution of the Planning Area, as specific physical features may require more specific and in-depth analyses in subsequent planning steps. Their relation to the topography and the regional system of infrastructure and service centres should be highlighted.

• Besides the elements mentioned by the Manual, an analysis of *Existing Land Use* should be carried out, together with one of historic built-up areas (historic centres, individual constructions and complexes), the most relevant cultural 'man-made' landscapes (i.e. terraced slopes, irrigated land) and natural heritage areas (i.e. wadis, oases), to highlight any spatial links.

The archaeological sites and the monuments of Sebastiya are pieces of cultural heritage of national and international interest and a primary pole of attraction in the region.

Regeneration of Historic Centres (RHC)
in Local Government Units

Northwest of Nablus Governorate
Summer School
Sabastiya – Burqa

Territorial Level
Road Network Map

Road Network Classification

- External Road
- Internal Road

Geopolitical Classification

- Area A
- Area B

Basemap Elements

- Study Area
- Administrative Boundaries
- Built-up Area
- Main Road
- Regional
- Local Road
- Dirt Road
- Contour_50m

Scale 1:25,000

Meters

0 1,250 2,500 5,000 7,500 10,000

HYDEA

BTC PALESTINIAN TERRITORY

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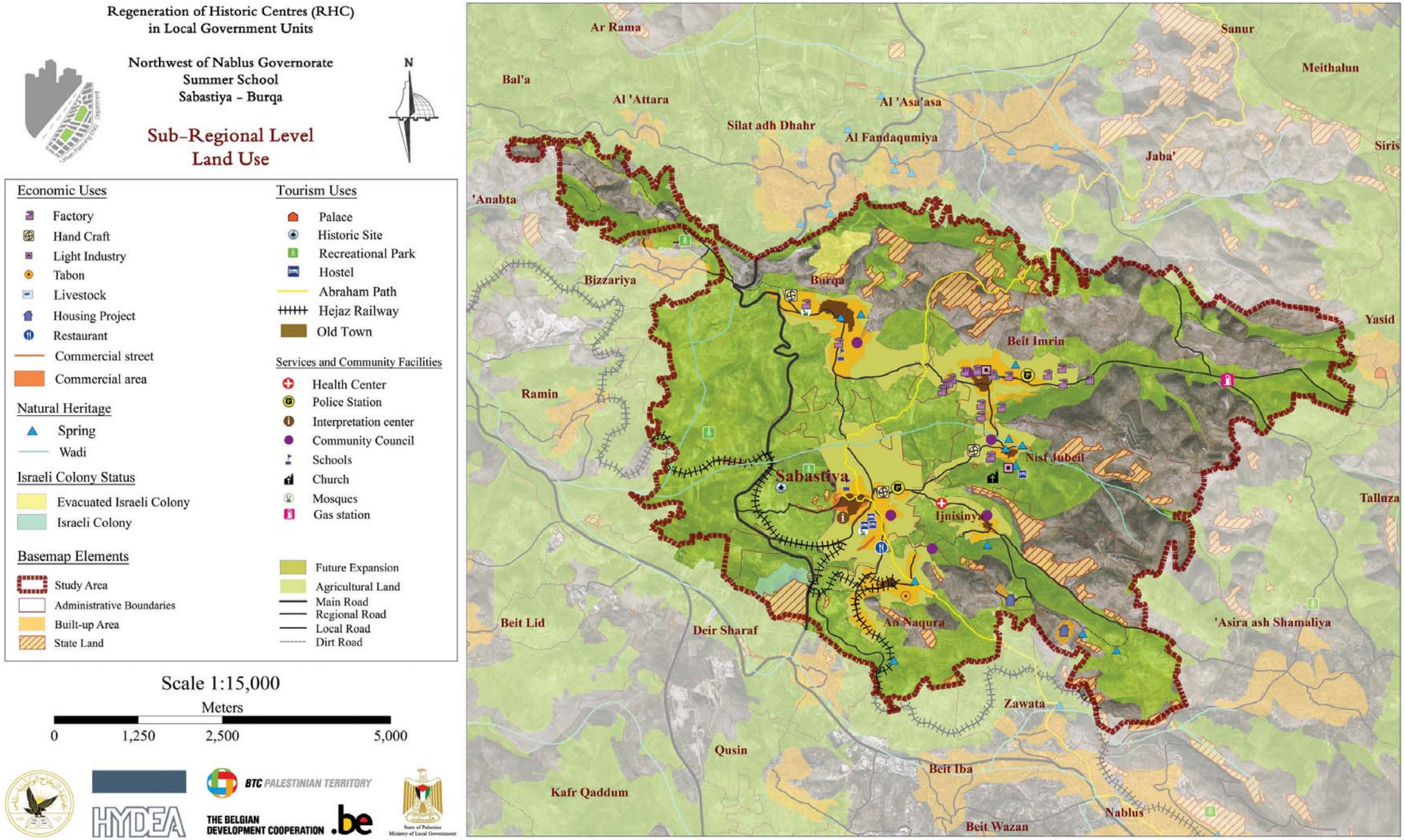
Planning Area of Sebastiya and Burqa (An-Najah Summer School): Identification of the road network and settlement pattern



Planning Area of Sebastiya and Burqa (An-Najah Summer School): Land Use. This analysis is a fundamental step in understanding the planning framework.

2.2.2 Sectoral assessments: territorial and spatial analysis for the regeneration of historic centres and cultural landscapes

Sectoral assessments are not to be carried out to simply fulfil legislative requirements. They are never 'neutral', but are a fundamental part of planning strategies and provisions, and should be made in line with the general goals and specific objectives of the plans/projects to be developed. They should highlight the critical issues and strategic sectors or areas to be addressed, and are crucial for studying the possibilities and challenges of spatial regeneration and development. Sectoral assessments are mostly based on existing documents and studies, and comprise the interpretation of maps and satellite photographs, as well as field visits, interviews with stakeholders followed by thorough analyses by experts for each sector. They aim to analyse::

- Environmental features (geomorphology, climatology, slopes and sun exposure, species and biotopes, water resources, urban and agricultural land use, etc.) and issues (i.e. forms of pollution);
- Settlement patterns (functions and hierarchies, urban growth trends, etc.);
- The socio-economic profile and trends (demography, economic activities, employment, etc.);
- Housing stock: types of residential areas, physical condition, density, tenure, etc;
- The system of services and social facilities, both public and private (health, education, administration, etc.);
- Infrastructural networks (roads and transportation, water and power supply, sanitation and solid waste management, telecommunications and IT);
- Cultural heritage: identification and characterisation of historic centres, cultural landscapes and intangible heritage;
- Vulnerability to natural risks (i.e. landslides, floods, fires, earthquakes);
- Political constraints and restrictions (check points, zones A, B, C);
- Existing urban planning provisions and implementation.

For each of these, with a special focus on spatial implications, the sectoral assessment should highlight the existing conditions, critical issues (hazards and shortcomings), needs to be met, and possible planning objectives.

It is important to this effect to carry out an estimate of the land provisions that must be ensured by the Plan, in the whole Joint Planning Area and in each LGU, to satisfy housing and public facilities needs, based on past trends and a credible forecast of population growth. This estimate is normally based on 'standards' and 'parameters' that link the number of inhabitants and families in the predicted population to the surface area required to satisfy future needs for dwellings, educational, social and civic facilities, green areas and so on. These kind of 'standards' are intended to avoid 'over-zoning' and the estimate should be based also on an accurate analysis of past trends in the implementation of master plans.

Considering the planning phases recently proposed by the MoLG, the estimates for land use provisions for housing and public facilities should cover a period of 16 years, broken down into 8-year phases.

2.2.2.1 Natural and cultural heritage identification, characterisation and assessment

When regeneration policies are being planned, a special focus should be placed on identifying and characterising any relevant heritage features. This sectoral assessment should not simply result in an 'Inventory' of registered buildings or protected sites. It should aim at the integrated management of both the natural and cultural resources that form the identity of the area: the landscape and agricultural land with its infrastructure, and the built heritage of historic cores of cities, towns and villages, as well as the archaeological remains of various kinds.

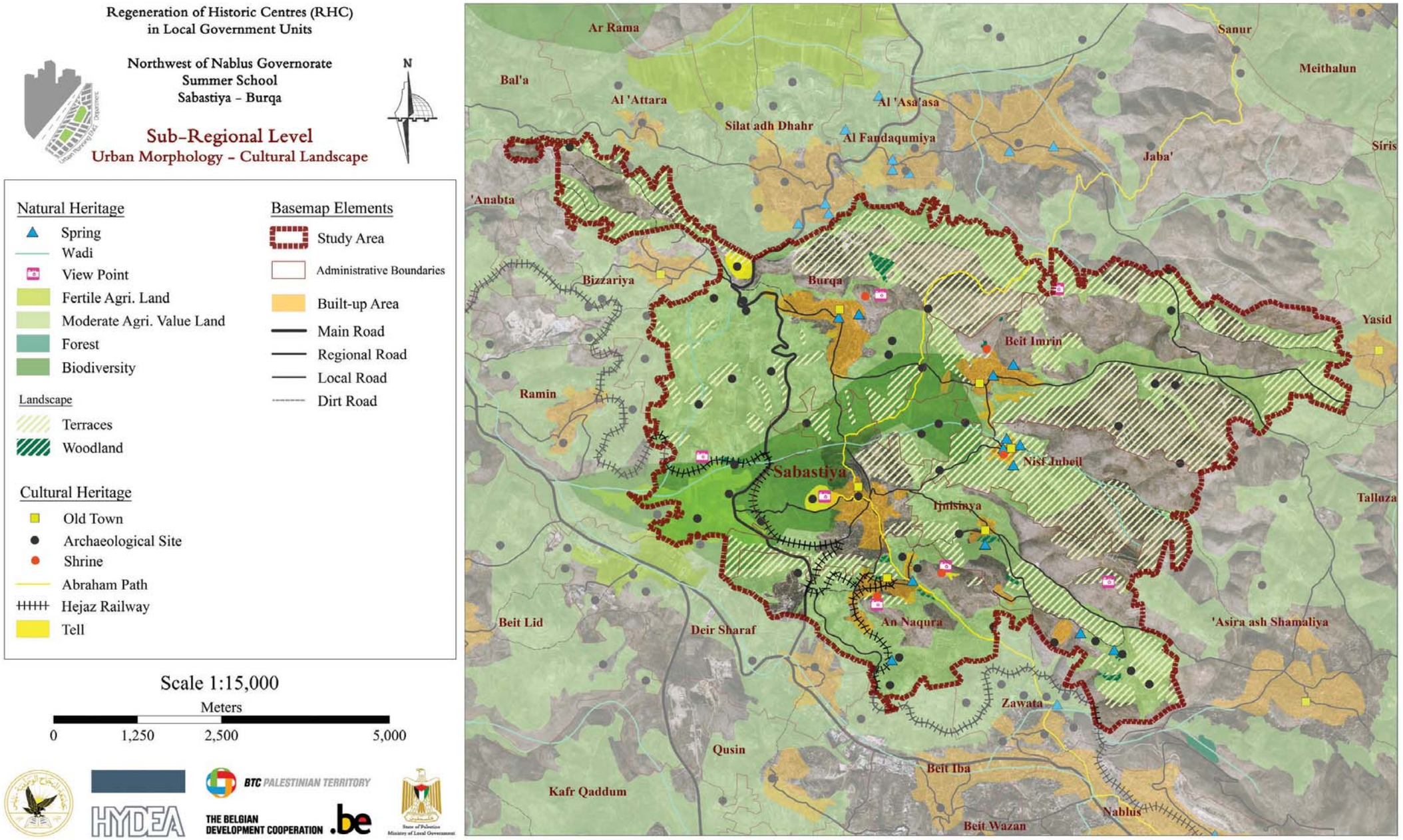
A broader more far-sighted approach is needed to take into consideration the protection and promotion of all these above elements. Their destruction or disfiguration would represent an irreversible loss for the community, since they are not reproducible. On the contrary, their conservation, rehabilitation and promotion would serve as a driver for the regeneration of decayed and dilapidated areas, and an asset for socio-economic development. To this end, the following should be considered as part of the sectoral assessment:

A detailed identification of relevant natural and heritage assets (terraced slopes, biotopes and farmed land, water systems, etc.), to classify the different types of landscape and identify the different landscape units that require specific attention in the planning process.

In the same way, any historic settlements (villages, towns) and isolated constructions, buildings or complexes (bridges, watchtowers, shrines, etc.) in the Planning Area should be identified and classified according to:

- Size and function (i.e. regional capital cities, local urban centres, villages, farms and isolated rural settlements, historic infrastructures, fortifications, etc. …)
- Cultural relevance (i.e. historic, religious, material culture and intangible heritage, etc.)
- Morphological and spatial structure (i.e. compact or dispersed urban fabric, linear or radiocentric pattern, scattered settlement).

In the case of heritage areas of outstanding value and national/regional interest, this identification and assessment requires a more detailed and in-depth analysis (see best practices in section 2.4).



Planning Area of Sebastiya and Burqa (An-Najah Summer School): urban morphology and cultural landscapes. This initial analysis highlights natural/vegetal and man-made/built components of the territory that may have heritage value in the Joint Planning Area. It is fundamental for understanding the Planning Framework.

2.2.2.2 Visibility and perception of heritage features

It is important to analyse the visual appearance of the territory at different scales to assess the components of its image: natural and built landmarks, specific landscape arrangements (i.e. terraces) or land covers (i.e. olive groves), continuous or scattered built-up areas, etc. These help to identify relational networks at micro-regional level and to assess the aesthetic value of panoramic views, which could be an asset for tourism and leisure.

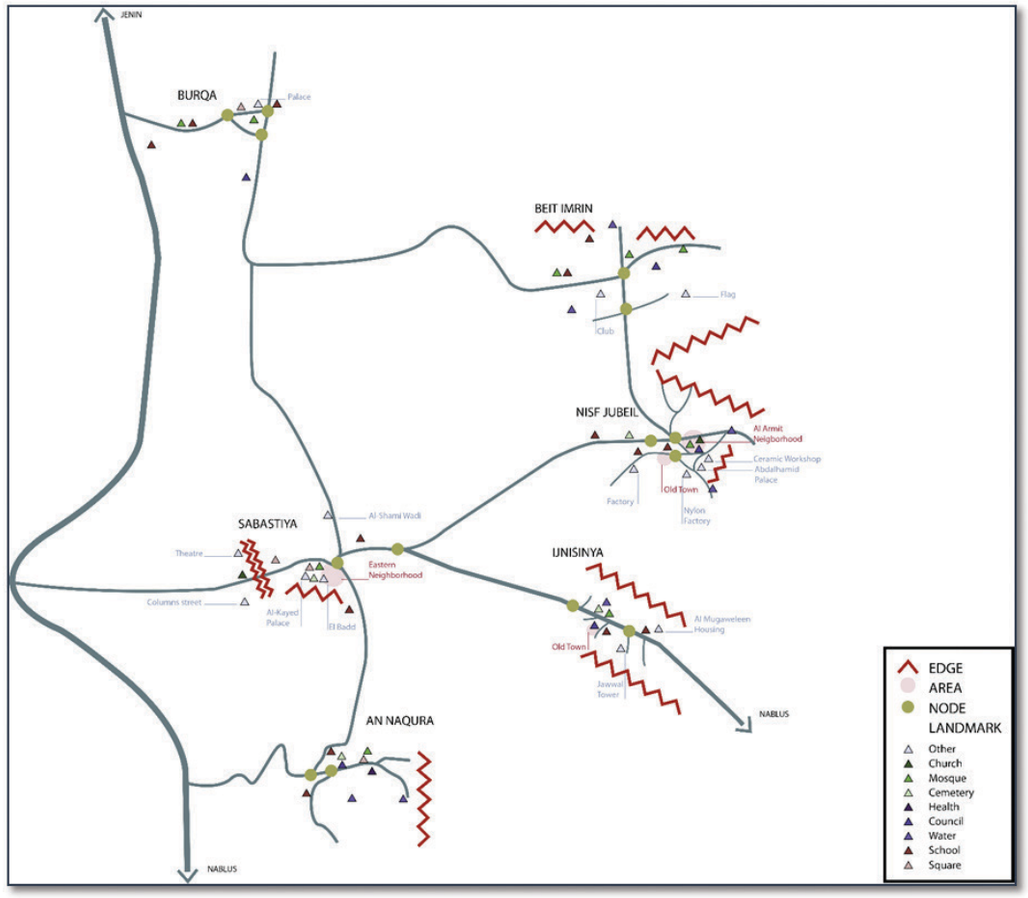
The visual analysis should be carried out from selected sightseeing points (i.e. from ridges or the top of hills) and from relevant sites in or at the edge of historic centres and heritage features, to highlight the relationship with the topography, main landscape features and landmarks, and the most harmful 'intrusive' elements.

The Sebasteya-Burqa area visual analysis should be supplemented by 'mental maps' that convey residents' perception of the territory and the urban fabric. These are prepared based on interviews, workshops and focus groups that may also help to raise the awareness of local communities on values to be promoted and issues to be addressed.

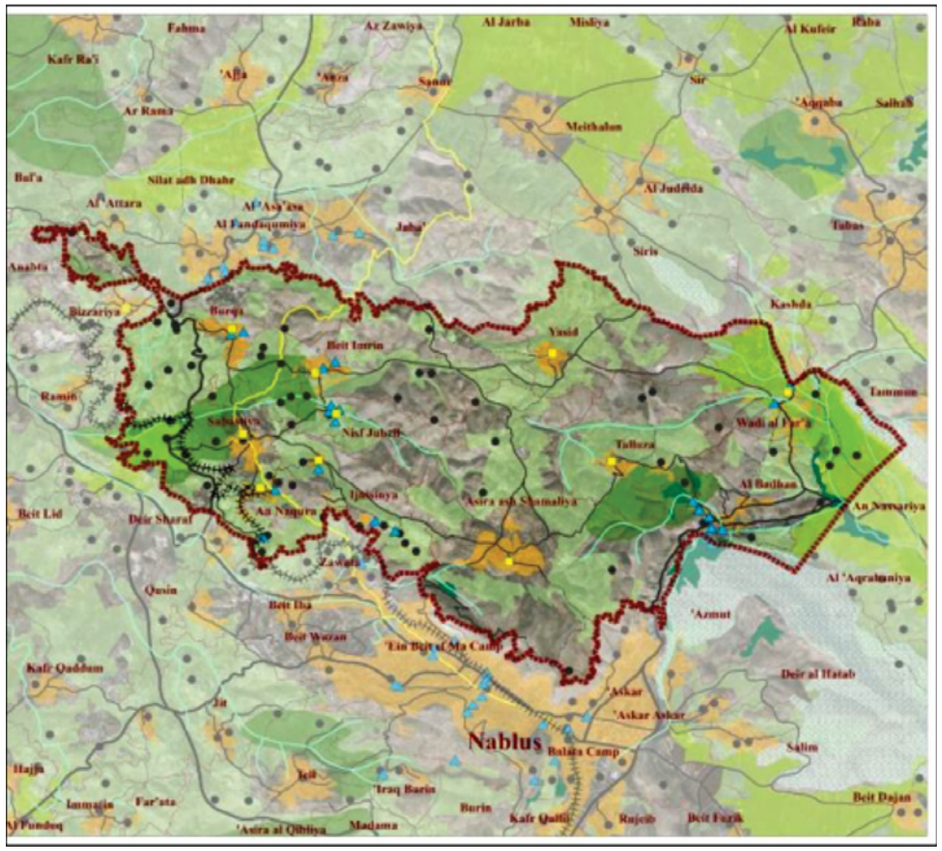
As for heritage issues, visual analyses and mental maps at different scales may help to complete and supplement the sectoral assessment when it comes to identifying:

- Deteriorated cultural landscapes affected by uncontrolled urban sprawls;
- Deteriorated parts of historic settlements or individual monuments and historic buildings;
- Insufficient or difficult access to cultural heritage features;
- Cultural landscapes and heritage features with tourism potential;
- Constructions and other elements that detract from the value, visibility and accessibility of heritage.

Planning Area of Sebastiya and Burqa (An-Najah Summer School): Visual analysis: Visual Analysis in Al Mesudyie



Planning Area of Sebastiya and Burqa (An-Najah Summer School): public mental map of all the settlements in the Planning Area.



Planning Area of Sebastiya and Burqa (An-Najah Summer School): Natural and Cultural Heritage.

2.2.3 Development potential and challenges

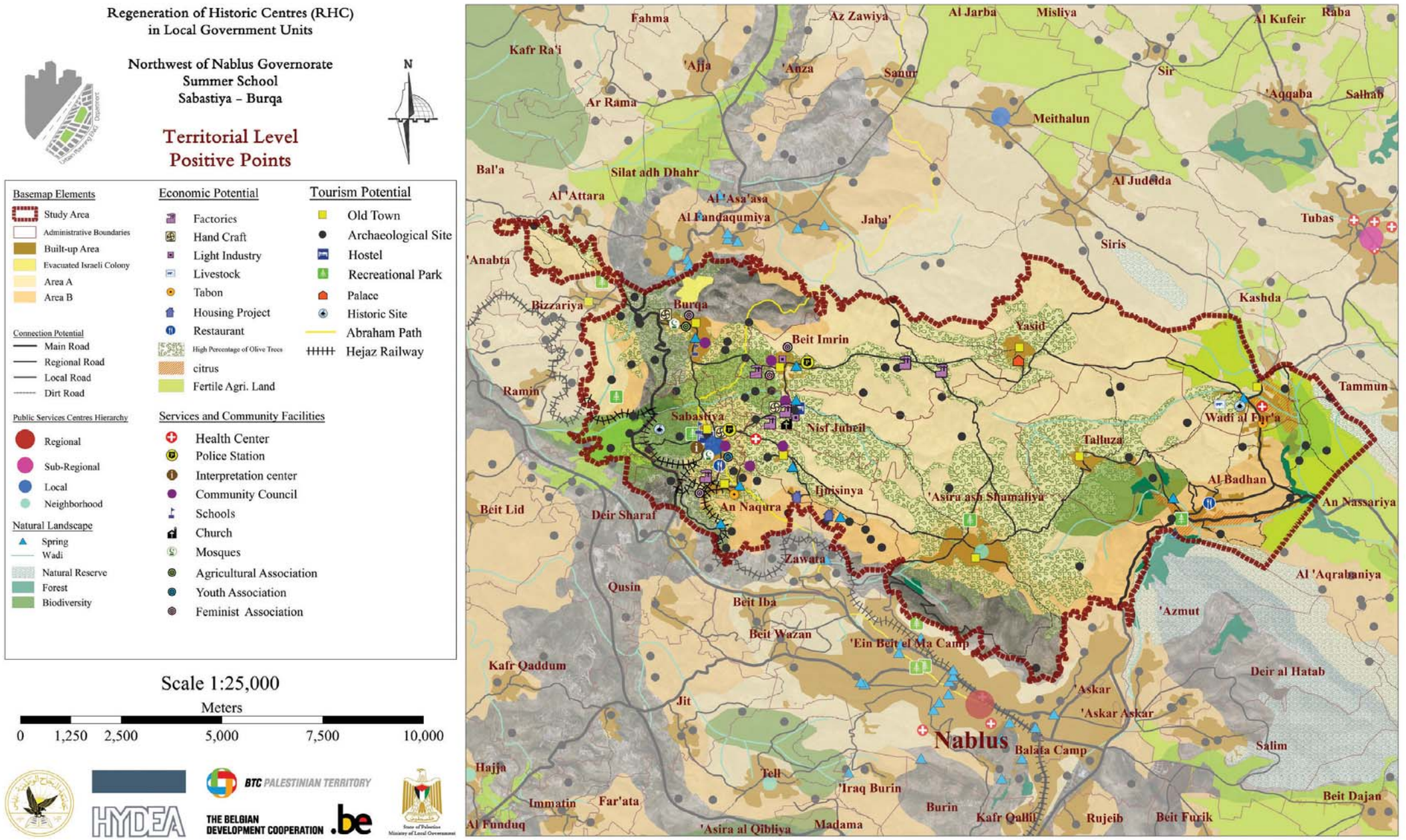
Sectoral assessments must be supplemented with information on development needs and potential and the challenges to be addressed in preparing the Spatial Development Framework. The following should be established in a clear and credible way:

- Constraints and restrictions, i.e. from natural risks, the political situation, etc;
- Problems and shortcomings, i.e. concerning the housing and services supply;
- Potential and opportunities, i.e. for new development and regeneration programmes.

To this end, the SWOT analysis can be a useful tool for gathering together the findings of all the different sectoral assessments and outlining a planning strategy. **SWOT** stands for **S**trengths, **W**eaknesses, **O**pportunities and **T**hreats. Strengths and Weaknesses relate to the internal characteristics and trends of the Planning Area, while Opportunities and Threats relate to external factors, trends and events that can have an impact on the area, as follows:

- Strengths: assessment of positive factors and resources of the historic urban area that can be used as elements to promote it. Examples: key urban and architectural pieces of heritage, well-preserved historic urban fabric, areas to be rehabilitated, of high civic engagement, etc.
- Weaknesses: assessment of internal shortcomings of the historic urban area that compromise the safeguarding of its heritage. Examples: weak socio-economic fabric, the replacement of heritage buildings with new buildings, the lack of effective building regulations, low political will, etc.
- Opportunities: assessment of external factors and trends that can have a positive impact on the historic urban area and are not being developed or taken advantage of. Examples: increased tourism in the area, the potential involvement of national institutions and international organisations in the rehabilitation process, being located next to key pieces of infrastructure, etc.
- Threats: assessment of external factors, trends, events or outcomes that could have a negative impact on the historic urban area and threaten its heritage values. Examples: a lack of national or international support, economic crises, environmental risks, poor perception of the area, etc.

At local level, when urban regeneration issues must be addressed, a specific and more detailed SWOT analysis should be carried out for relevant historic areas and cultural landscapes. The outcomes of the analysis can be summarised in a SWOT Matrix, but would be better represented in maps showing the 'positive' (S+O) and 'negative' (W+R) aspects.



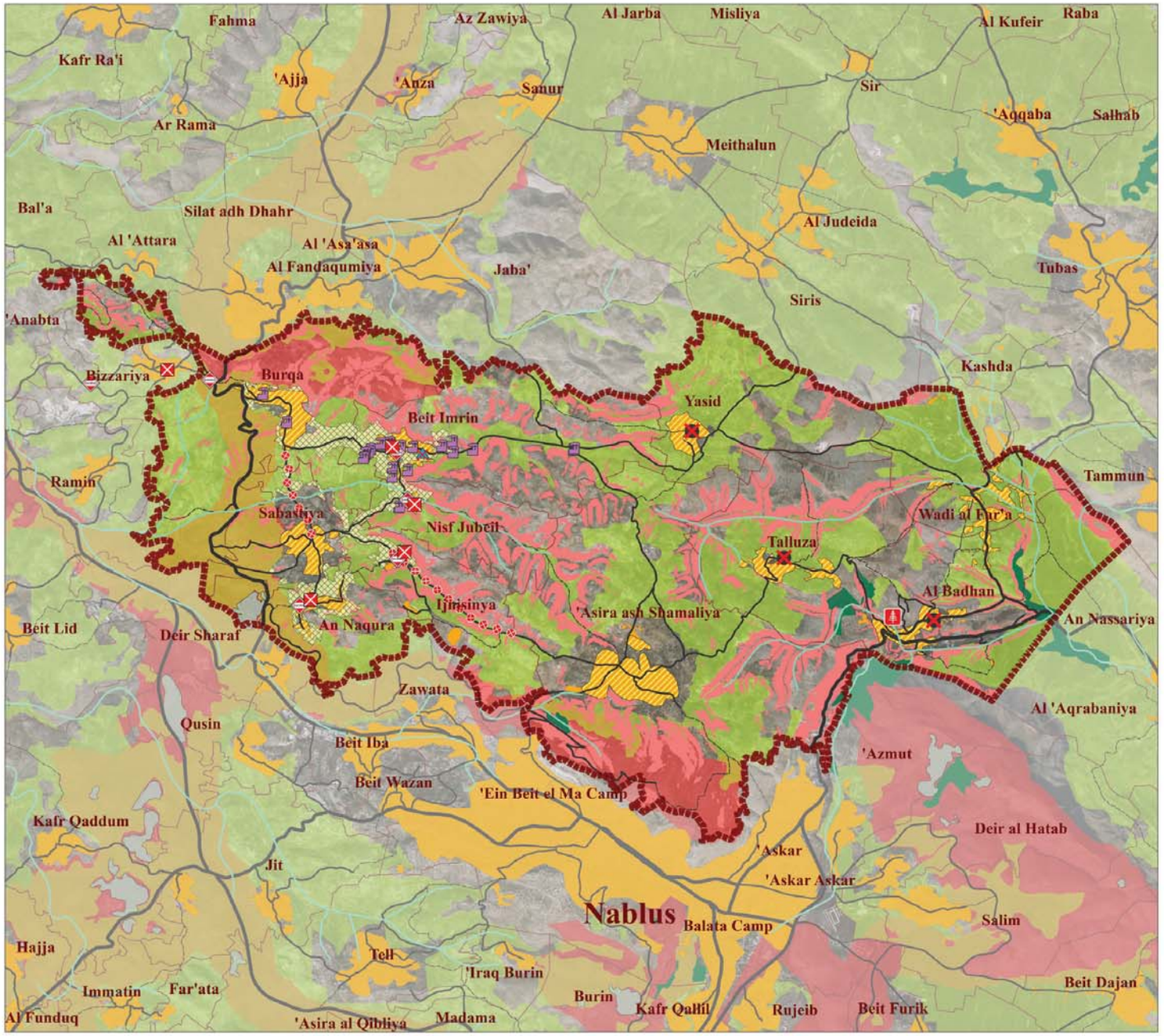
Planning Area of Sebastiya and Burqa (An-Najah Summer School): a summary of the SWOT analysis showing the positive elements (Strengths + Opportunities) to build into the Spatial Development Framework

Regeneration of Historic Centres (RHC)
in Local Government Units

Northwest of Nablus Governorate
Summer School
Sabastiya – Burqa

Territorial Level
SWOT – Negative Points

N



Environmental Pollution

- Factory
- Polluted Water
- No Garbage Gathering Site
- Unserved Sewage

Natural Constraints

- Low Quality Parks
- Wadi
- Forest
- Agricultural Land
- Steep Slope

Development Problems

- Dangerous Node
- High Accident Ratio Road
- Urban Sprawl

Political Constraints

- Israeli Colony
- Area C

Cultural Heritage Constraints

- Neglicted Archaeological Site

Basemap Elements

- Study Area
- Administrative Boundaries
- Built-up Area
- Main Road
- Regional
- Local Road
- Dirt Road

Scale 1:25,000

Meters

0 1,250 2,500 5,000 7,500 10,000

BTC PALESTINIAN TERRITORY

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Planning Area of Sebastiya and Burqa (An-Najah Summer School): a summary of the SWOT analysis showing the negative elements (Weaknesses + Threats) to be mitigated or eliminated in the Spatial Development Framework

On this basis, it is possible to identify the development potential and opportunities and the challenges that must be addressed to overcome shortcomings and constraints. To this end, the following basic principles, which are largely accepted in current planning practice worldwide, should be borne in mind:

- Development cannot be considered and planned only in terms of expansion of the built-up area, but above all must be understood in broader terms as the improvement of the living conditions of the local population, creation of new activities, increase of the housing stock, reinforcement of the services and utilities system, etc. It is important to keep in mind that these objectives can be achieved also, at least to a certain extent, through the rehabilitation and regeneration of existing territorial and urban structures;
- Development potential and opportunities should not only be considered in reference to future expansions of the built-up area, but also in light of the possibilities and opportunities for regenerating the existing urban fabric;
- Cultural landscapes and built heritage are not 'constraints', and their preservation should not be considered a 'restriction' or a 'limitation' to development. On the contrary, they should be considered an asset to be used to promote new activities and improve the quality of the living environment.

2.2.4 Defining a development strategy

Once development needs, potentials and challenges have been identified, the goals of an integrated strategy can be established, in accordance with:

- The national development and/or spatial plans and policies;
- The regional development and/or spatial plans, local economic development strategies, SDIPs, regeneration programs, etc.

On these bases, different spatial development alternatives can be drafted and proposed to the community to come up with physical planning solutions.

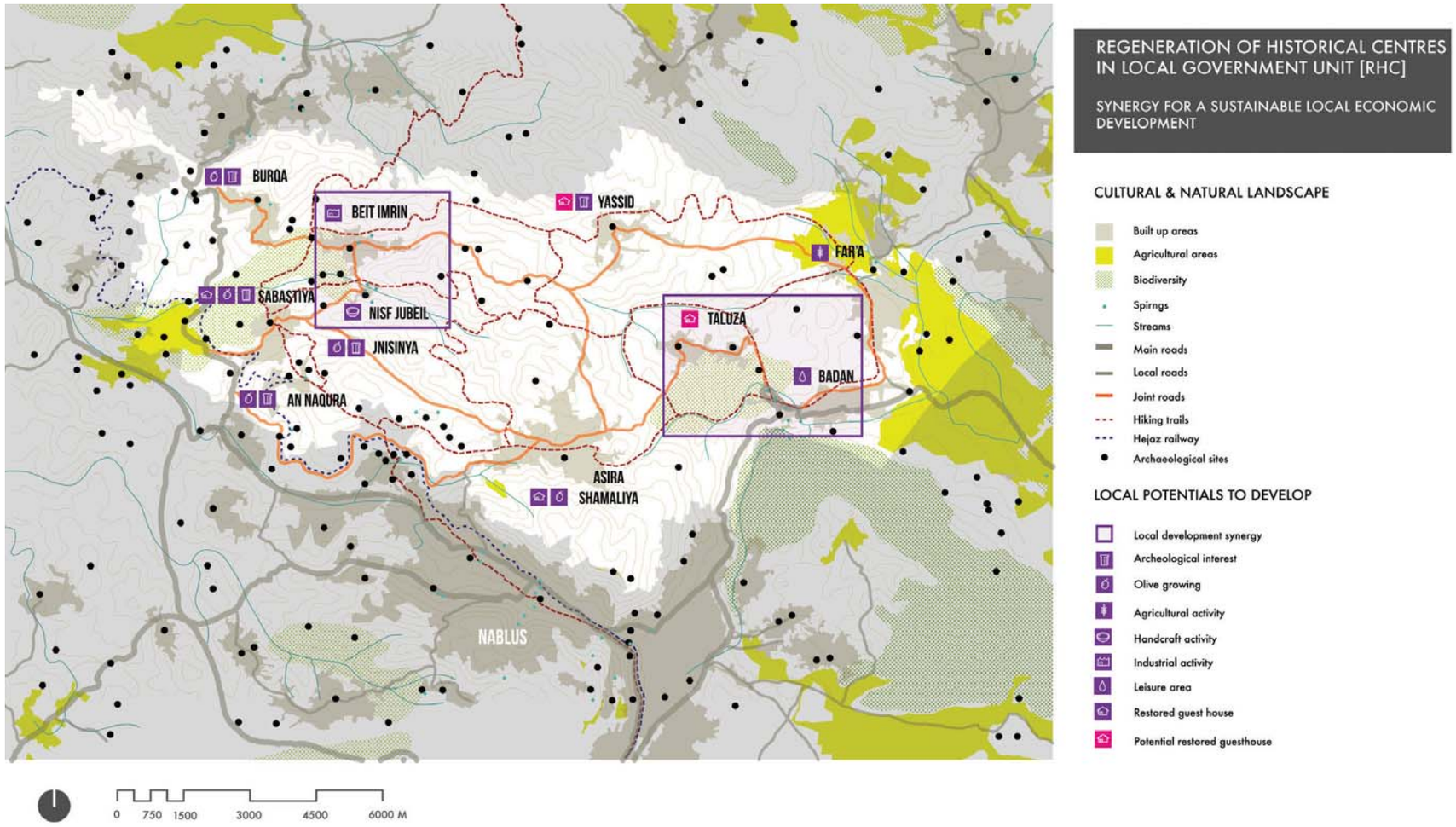
During this phase, a strong link is also required between physical planning and the Strategic Development and Investment Plans prepared by the LGUs. These generally precede physical plans and lay down a development vision and investment programmes, with the objective of introducing participatory governance and decision-making processes at local level and thus responding to emerging community needs whilst ensuring priority-setting with the capacities and resources available. Furthermore, SDIPs promote local economic and social development and improved service delivery at local level whilst ensuring a coordinated management approach.

It is important to note that MoLG is working on a planning reform that will take in consideration the following:

- *Integrate spatial and development planning: SSDF for clusters/sub-regions (issues, priorities, vision, goals-indicators reflecting joint interests*

and local action plans for LGUs (municipalities, VCs). This requires: territorial and sectoral integration (vertical and horizontal), improved responsiveness to social, economical, and environmental needs, improved governance and accountability, improved capacity;

• *Move from a 'projects' to 'strategies' based approach: keep link to NDP sectors (economy, social, governance, infrastructure); local strategies, 'LED' strategy, social strategies, etc. CD and infrastructure are cross-cutting to serve each strategy; highlight environment, gender and youth.*



When heritage features are relevant and urban regeneration opportunities are sufficiently outlined, a heritage driven development strategy should be drawn up, at territorial and local level, with the following guiding principles:

• Based on a detailed and comprehensive inventory of heritage features, protect and preserve, with appropriate planning measures, all irreproducible elements (natural and cultural) of value that define the identity of a place, prioritizing those at risk of disappearing;

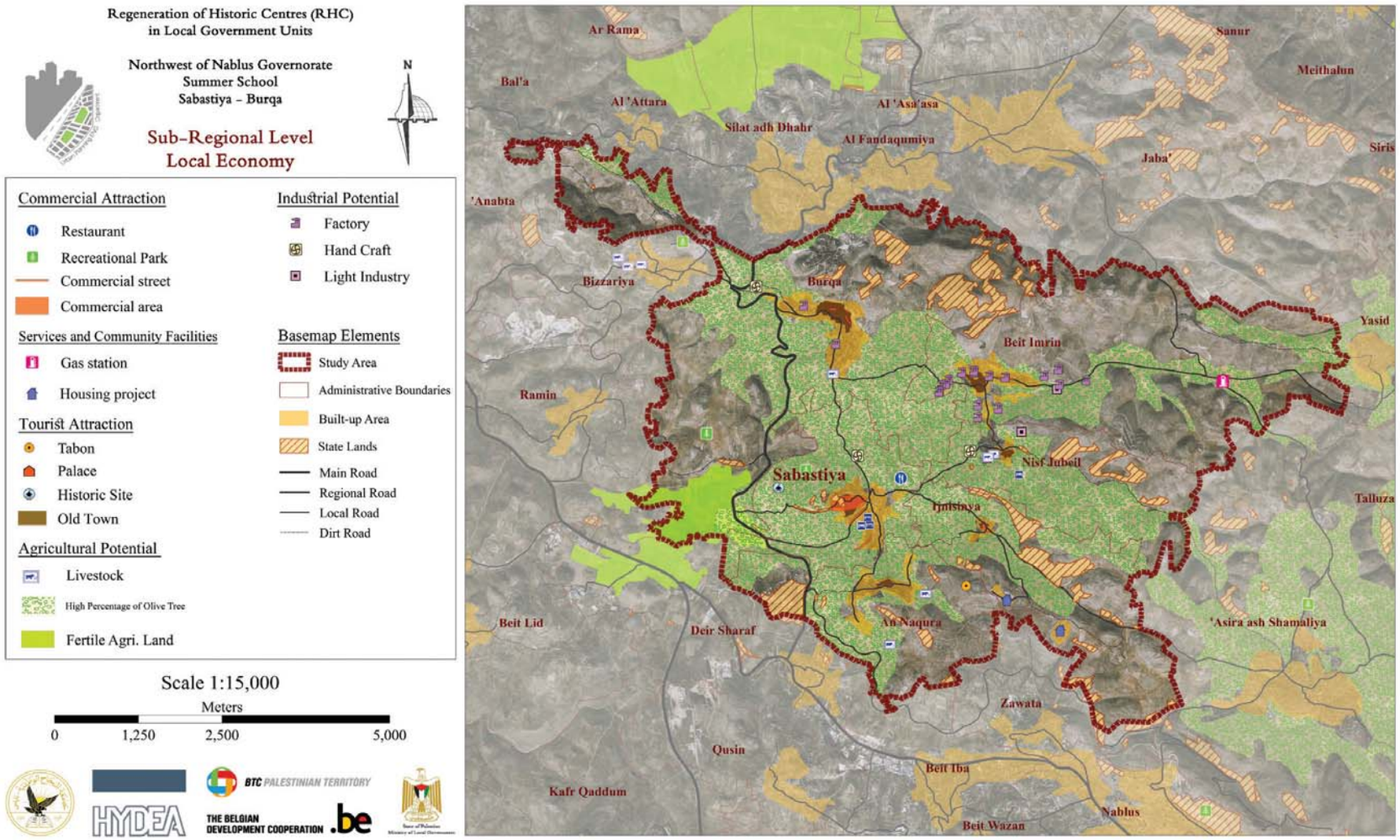
• Recognise and promote the socio-economic dimension of cultural landscapes heritage, through appropriate and far-sighted conservation and development policies. For instance, the promotion and upgrading of agricultural activities and small scale agro-industries linked to organic and specialised cultivations, compatible grazing and similar, can strongly contribute to the protection and conservation

Planning Area of Sebastiya and Burqa (An-Najah Summer School): possible identification of areas where synergies between different sectors can be found to suggest intersectoral heritage-oriented development policies.

of cultural landscape. etc.), especially when paired with the rehabilitation and adaptation of historic infrastructures (pathways, terraces, traditional irrigation systems) and constructions (i.e. bridges, isolated farms, shrines, etc.) that may be used to organise trails for tourism and leisure purposes.

• Incorporate historic centre conservation plans into urban development strategies: improve services and facilities available, rehabilitate old housing, create or improve cultural, craft and retail activities (which also ties in with agricultural production), develop tourism at the appropriate scale, promote intangible heritage (festivals, gastronomy, etc.), prioritising the adaptive reuse of existing buildings and upgrading and regenerating the historic fabric, while limiting urban growth with credible new expansion areas.

As part of the sectoral assessment, synergies and interactions between heritage and all the other sectors, i.e. including local economy, community facilities, services, etc.) should be sought to promote sustainable local development. In this context, historic landscapes, historic centres and other relevant heritage features can act as benchmarks in the Spatial Development Framework, which should inspire the planning structure and provisions, suggesting various planning alternatives and possible action plans and detailed plans to be developed in subsequent steps.



Planning Area of Sebastiya and Burqa (An-Najah Summer School): local economic development resources that should be incorporated into physical plans at regional and local level.

2.2.5 Physical planning alternatives and drawing up the SDFP

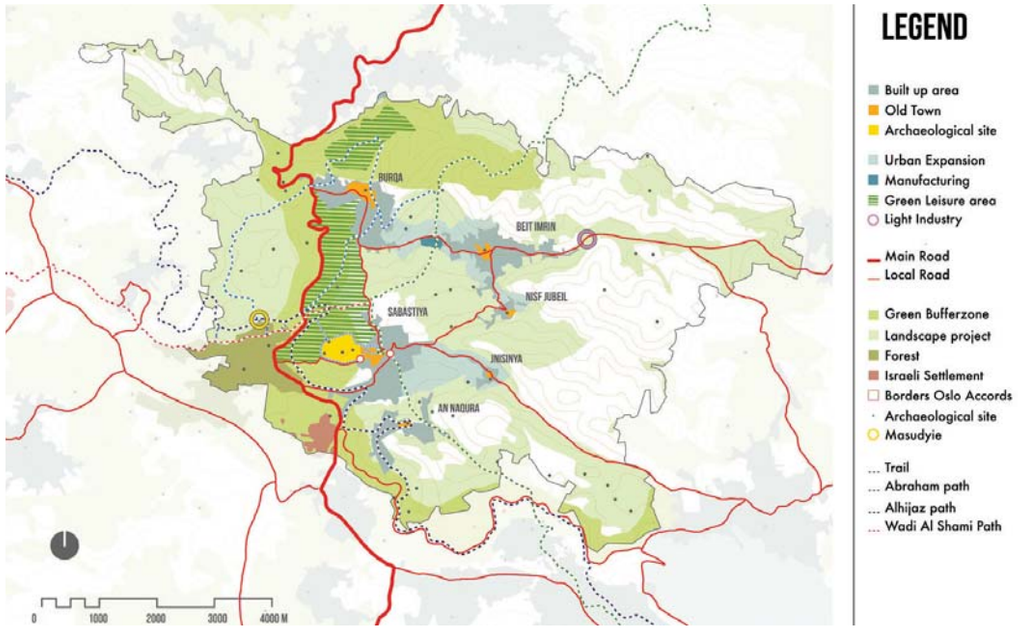
Once the planning strategy has been finalised, the Manual and current planning practice recommend preparing up to three spatial development alternatives. These alternatives are usually prepared in consideration of current trends, their mitigation or correction, and their abandon or reversal. According to the Manual, alternatives are mostly based on the provision of new land for development and reflect different possible patterns of spatial expansion of the built-up area, i.e:

- Developing new extension areas based on past trends;
- Strengthening existing built-up cores by making them more dense and filling them up;
- Continuously developing and merging localities along main roads.

For instance, in the example below, taking into consideration the national protection plan for natural resources and archaeological sites, two different alternatives have been developed that differ in terms of areas, while confirming the role of Sebastiya as a main centre for tourism and showcasing regional products. They present different opportunities for promoting agricultural land and showcasing new urban developments.

It is clear that in the case of a heritage-driven territorial strategy, the preservation of cultural landscape and the regeneration of existing historic fabric should be also considered, and could lead to different spatial patterns, mostly aimed at:

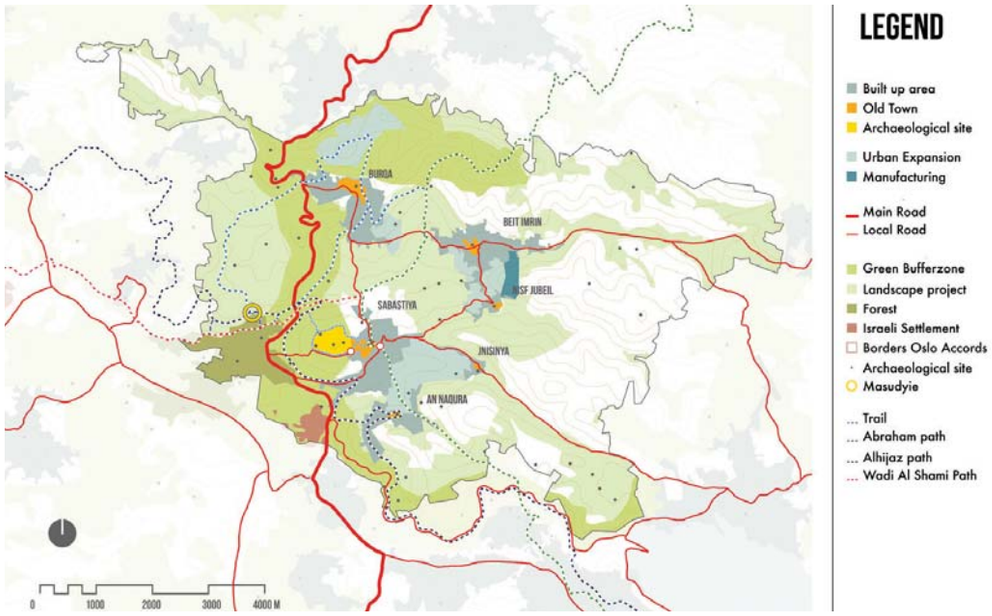
- Mitigating the negative impact of the inconsistent and disproportionate urbanisation of natural and cultural heritage;



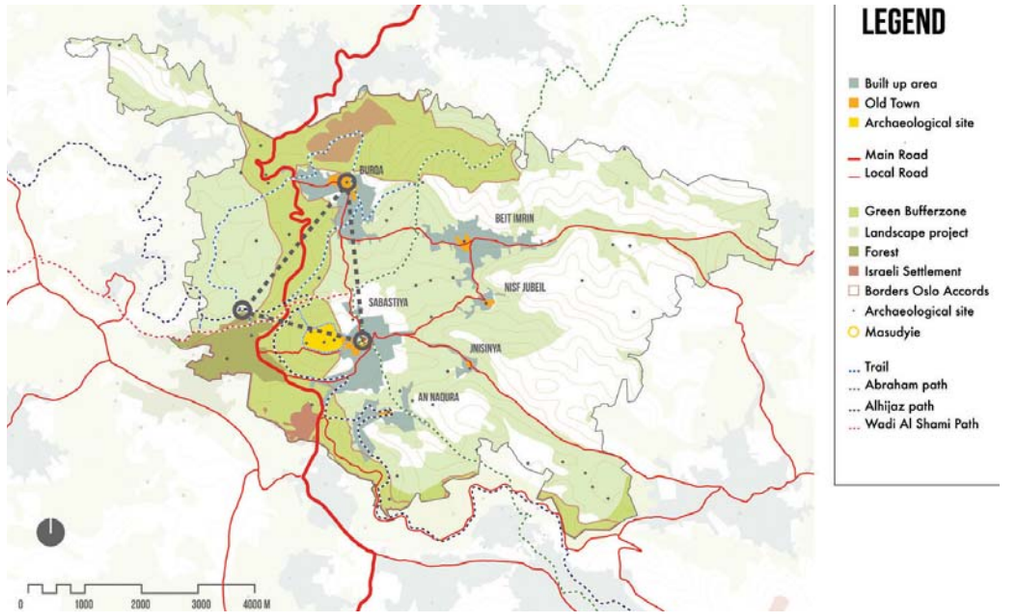
Planning Area of Sebastiya and Burqa (An-Najah Summer School). Development Scenario 1, including Area C: In the northern area, the expansions of Burqa and Beit Imrin will merge along the road, where small manufacturing plants are envisioned. In the southern area, An-Naqura will expand differently to current trends, up to the western gate of Sabastiya. Moreover, in order to stop the Nablus sprawl, which may affect villages' identities, a green buffer zone is suggested, creating an agricultural park to preserve the landscape.

- Preventing new expansions affecting cultural landscapes or damaging the visibility and accessibility of heritage features;
- Promoting urban regeneration and densification of existing urban areas to satisfy future needs for housing and public facilities;
- Promoting the urban regeneration of historic centres for the above reasons but also as a way of developing new cultural and other compatible activities.

So especially at local level, planning alternatives should not be limited to identifying different spatial patterns of urban expansion, but should also possibly include the urban regeneration of dilapidated areas, the adaptive reuse of historic buildings, and the protection and improvement of heritage features. In any case, for all alternatives, the following aspects should be carefully addressed:



Planning Area of Sebastiya and Burqa (An-Najah Summer School). Development Scenario 2, excluding Area C: Beit Imrin and Nisf Jubail will merge and host a small industrial area. The other centre will not expand and emphasis is given to an increase in agricultural productivity in that area, in addition to the surrounding landscape area being made into the agricultural park. New limited developments may occur between Ijnisinya and An-Naqura and Sabastiya, from Burqa towards the East, between Beit Imrin and Nisf Jubeil.



Planning Area of Sebastiya and Burqa (An-Najah Summer School). The planning concept developed after two community workshops, integrating solutions from both alternatives and including the idea of a strong link between Sabastiya, Burqa and Al Mesudyie .

- Technical and economic constraints to implementation;

land ownership and regulatory implications;

- Identification of priority areas and the necessary detailed urban plans.

According to the procedure described in the diagram of table 2, these alternatives should be discussed at a community workshop with all relevant stakeholders, in particular local stakeholders from the various LGUs in the Planning Area, before preparing the final draft of the SDF for approval by the Directorate of Urban Planning. This is therefore a crucial step in the process, and the following are ways of making the procedure effective and beneficial:

- The alternatives should be real and feasible;
- The pros and cons of each alternative should be clearly presented by the technical team;
- The final draft should be a mix of the best solutions proposed by the various alternatives, avoiding the most controversial and dangerous ones. It could also be one of alternatives with some changes to integrate the feedback from the community
- The community, and not only institutional stakeholders, should be involved in the debate.

The final draft of the SDF should define the development strategy, with future perspectives and guidelines for the different elements of the area. It is important to recall that the SDF must include a phasing concept for the implementation, over a total period of 16 years broken down into two 8-year stages, as indicated by the Manual.

2.3 The Land Use Plan, zoning measures and building regulations, supplementary planning studies

Following the approval of the SDF by the regional committee, the SFD must be channelled into technical tools to guide the territorial and urban transformation. According to the Manual, the final phase of the planning process involves preparing:

- The Land Use Plan;
- Zoning plans and building regulations;
- Complementary sector plans.

These tools are aimed at controlling the building activities of private and public operators to achieve the strategic goals and objectives established by the SDF. To this effect, two fundamental general principles should be borne in mind:

- It must be made clear that spatial planning is based on the fundamental principle that ownership of land does not mean the land can be used by the landlord without any limits or controls. The rights of any individual landowner must match the general interests of the community. The future of a town and its potential for development cannot be hampered by individual short-term choices: urban planning only makes sense if it targets the public interest.
- Sustainability is nowadays the principle on which all planning actions must be based. This means that the scarcity of natural resources like water or fertile agricultural lands cannot be ignored, that the existence of an adequate amount of green open spaces and areas for public facilities are necessary for the community and individuals, and that the countryside is not a vacuum for potential construction.

This stage of planning can either be performed as a continued joint planning initiative of all the LGUs that participated in drawing up the SDF, or through the planning initiatives of individual LGUs in drawing up the Spatial Development Framework. It is important, however, to ensure that planning remains consistent with local economic development strategies.

2.3.1 The Land Use Plan

The Land Use Plan establishes the distribution of space according to use (residential, commercial, industrial) within the boundaries of future expansion area, the location of administrative centres, public facilities and services, parks and leisure areas, etc., in line with the vision and strategies set out in the Spatial Development Framework. Moreover, it establishes an infrastructure network to serve all areas, whatever their use.

As opposed to the SDF, it must be based on very accurate spatial information, referring to plot lines to show:

- The boundaries of built-up areas outlined by the SDF as limits for growth in a more general way;
- The borders of the various expansion areas and development plans drawn up during the various planning phases.

The Manual provides precise and useful technical recommendations for drafting first a land use concept and then the final draft of the Land Use Plan, using the results of consultations with local council(s), mostly on new expansion areas and new structures. If these represent the majority of the land use provisions, the Plan could nevertheless outline areas of environmental and heritage protection, which may include relevant cultural landscapes, historic centres, and other structures of historic interest.

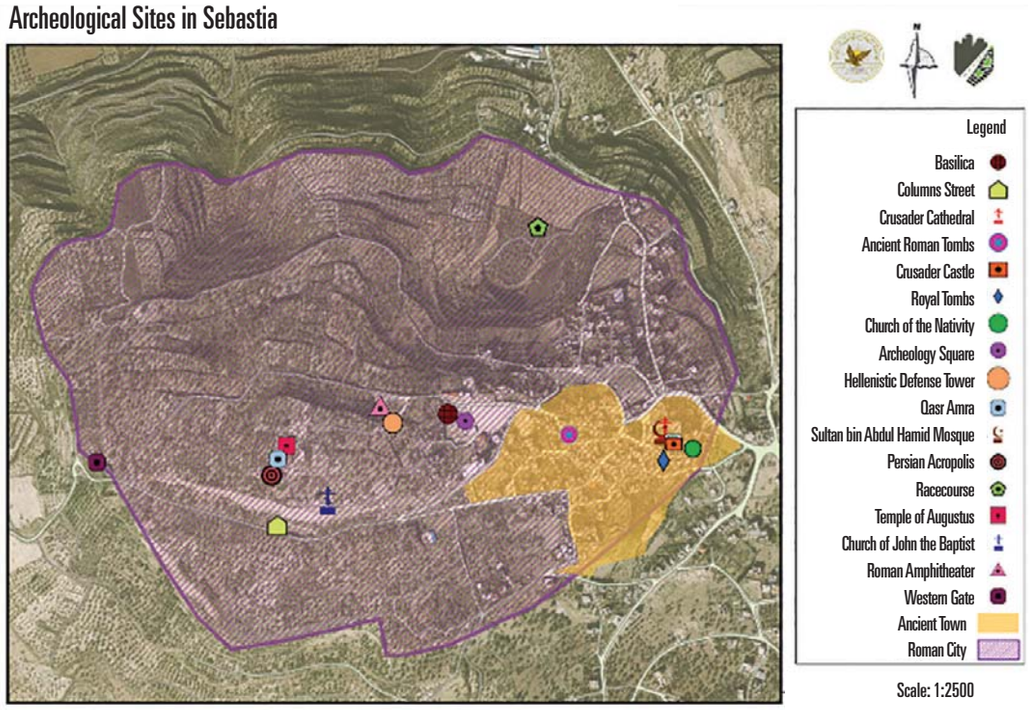
Outlining a protection perimeter is not sufficient to ensure the rehabilitation and revitalisation of a generation of neglected landscapes and urban fabric, but together with the appropriate zoning measures and building regulations, it can be an important way of at least preventing further destruction and loss. It is suggested that:

- Environmental protection areas are outlined on the basis of landscape units (see 2.2.2.1 and CMP of Battir);
- Historic centres be outlined on the basis of field visits and analysis by MoTA, which refer to their state before recent urbanisation interventions. The boundaries should include not only the most relevant historic buildings and monuments, but also the urban fabric where the street pattern has been more or less preserved, as well as any open areas/land at its edges;
- A spatial and visual link be ensured, where possible, between the historic centre and cultural landscapes (i.e. viewpoints, 'green corridors', historic pathways).
- High density residential areas and tall buildings merging with the historic fabric be avoided.

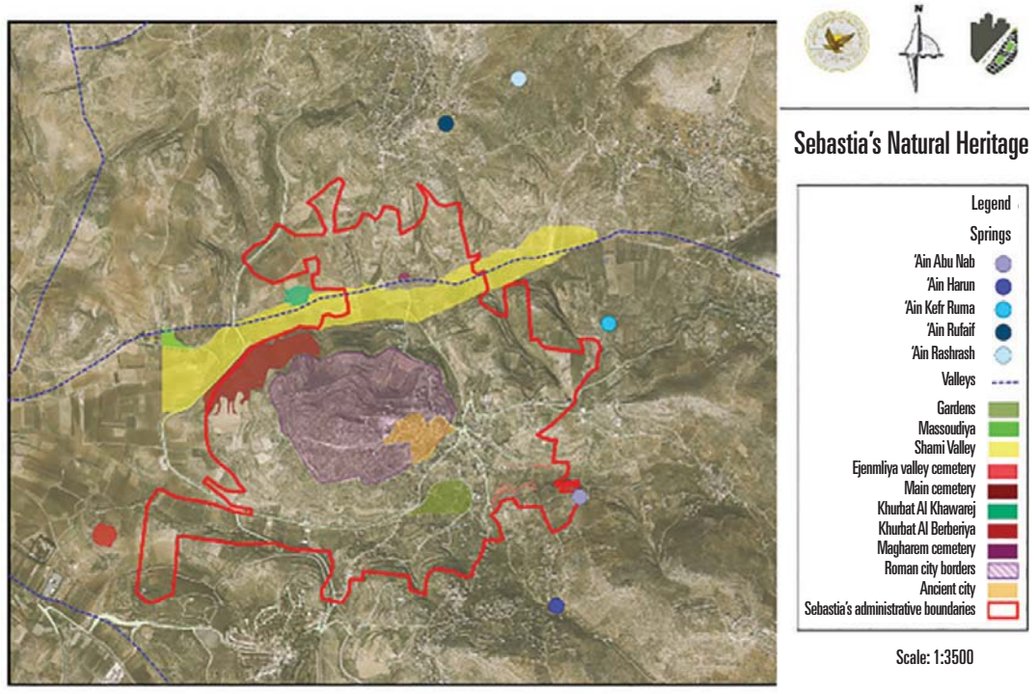
Land Use Plans should incorporate cultural landscapes, archaeological areas and other pieces of heritage into a development vision, not as passive remnants of the past or mere limitations to the built-up area extension. Pending more detailed conservation plans, the Land Use Plan should take advantage of protection measures to develop new and appropriate spatial patterns for building an urban environment of the same quality (see best practice of Jericho Master Plan in section 2.4).

2.3.2 Zoning and building regulations

Zoning measures and building regulations supplement the Land Use Plan. According to the Manual, "*their main purpose is to establish development standards and building bylaws that ensure that land uses and buildings do not conflict with the common good and public interests, and to protect neighbouring properties and owners from potentially adverse impacts of uses and buildings*".



Planning Area of Sebastiya and Burqa (An-Najah Summer School), studies at local level: the archaeological sites and heritage features of Sebastiya

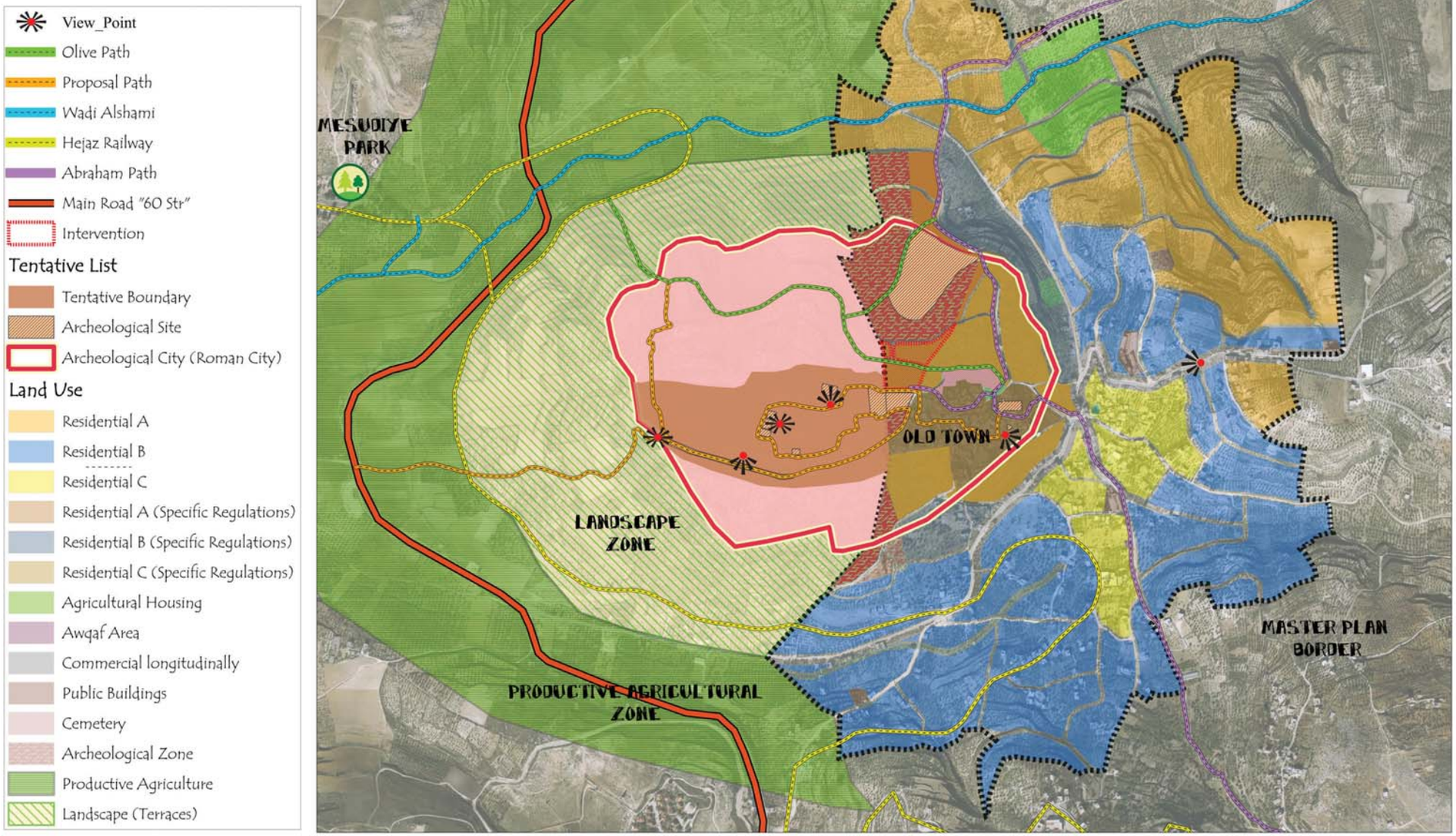


cultural landscapes of Sebastiya

In light of this, zoning measures and building regulations should be established to ensure the protection of cultural and natural landscapes and historic centres and allow the necessary interventions for their rehabilitation and revitalisation. In general, the priority is to prevent any future interventions that may compromise environmental integrity (in the case of cultural landscapes) or lead to further damage to or dilapidation of historic centres. At the same time, a proactive attitude to conservation must be adopted to identify interventions that allow new compatible uses of pieces of heritage and landscapes, based on detailed and accurate analyses.

Pending a detailed plan for the conservation and rehabilitation of historic urban areas, measures must be drawn up aimed at limiting new constructions and additions, and making new interventions blend in with the surrounding historic urban context. They might include:

- Restrictions to building heights. In general, in rural areas, the maximum should be G+1); in larger urban areas, it should be established based on the characters of the urban fabric;
- Respecting previous building footprints and street alignments (in the case of reconstruction);
- Prescribed building techniques and materials in keeping with the characteristics of local architecture;
- Prescribed appropriate materials for covering/paving over soil;
- Measures for water tanks, installations for collecting rainwater, etc.



Planning Area of Sebastiya and Burqa (An-Najah Summer School), studies at local level: the proposed Master Plan, including conservation and promotion measures

Suggested bylaws from the Summer School of Annajah University for Sebastiya include the following:

1 Terraces

- Terraces should be rehabilitated and maintained;
- Dry stone walls that enclose terraces should be rehabilitated.

No new concrete blocks are to be used in the reconstruction process.

2 Agriculture

- Traditional agricultural practices must be employed in both ploughing and harvesting. Big machines must not be used so as not to damage any covered ruins
- It is prohibited to build on landscape features and in areas of high agricultural value.
- Raise villagers' awareness about the importance of farming in financial, aesthetic and identity terms.
- It's allowed to build Very light structures may be built on agricultural land for very convincing reasons.

3 Valleys

- There must be a sufficient buffer zone along the edges of valleys.

4, 5 & 6 Within the Roman city limits (Historical Centre)

All the components of the old town are connected by a system of private and open spaces made of courts, Ahwash, alleys and streets that should be rehabilitated to function in a proper and sustainable way.

4 Old Town

a. New structures

- New buildings must not be built unless they are for public use and comply with restrictions ensuring that they blend in with their surroundings.
- It is prohibited to build with unsuitable materials.
- It is important to maintain the soul of the place by preserving its architectural identity.
- It is prohibited to build in vacant spaces, whether these are located inside or outside the old town.
- It is important to plan new buildings' height in line with the village skyline, maintaining the visibility of the old town.

b. Additions

- Allowed only for essential needs, such as for kitchens and toilets in residential buildings..
- Should blend in with the context.
- Should prevent heavy traffic in the old town to make the paths and alleys there more pedestrian-friendly

5 & 6 Roman city limits

Archaeological Sites:

- No changes may be made to archaeological sites without the consent of the parties concerned.
- A buffer zone should be established to protect the site and create the possibility for services around it.
- There should be limited development in the buffer zone depending

on the type of archaeological ruin.

- Wild plants should be removed and cleared away.
- No rubbish must be dumped on the site.

7 Eco-tourism paths

- Services may be provided along eco-tourism paths, from light structures and kiosks for example.
- The paths must be marked on the ground, cleaned and be appropriate for the soil type.
- Stairs and other modes of access to the site must not harm the natural environment.

2.4 Best practice

2.4.1 Battir Cultural Landscape Conservation and Management Plan. Criteria and Guidelines for the Safeguarding and Rehabilitation of Systems, Areas and Sites (2010)

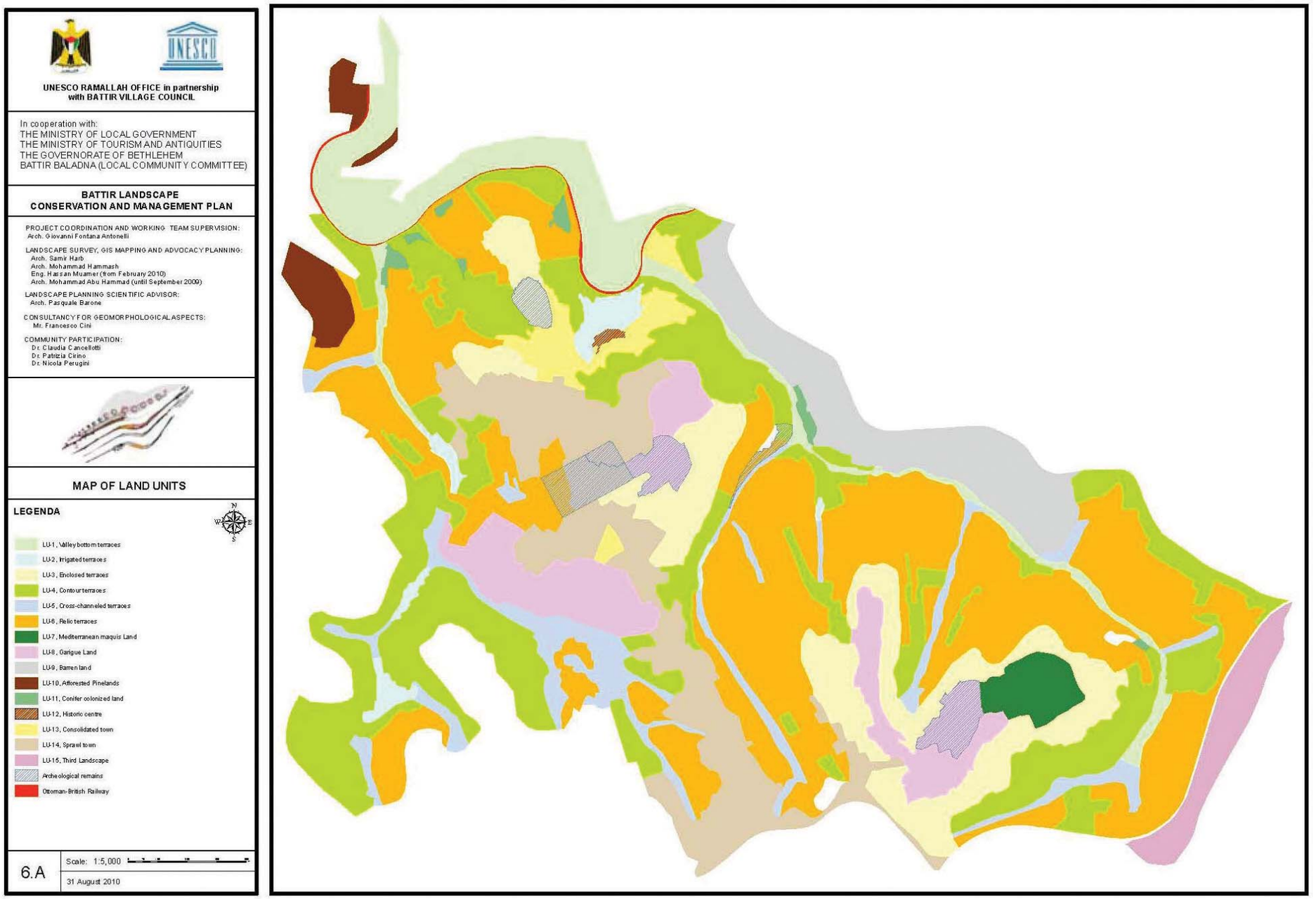
Although it is not a proper territorial plan reflecting the methodology of The Manual, the Conservation and Management Plan for the Cultural Landscape of Battir is an excellent example of territorial analysis and a heritage-driven development strategy. The criteria and guidelines for protection were drawn up in the nomination for UNESCO World Heritage status, and apply to an area that has been declared of "outstanding universal value".

It outlines a conservation and management strategy based on:

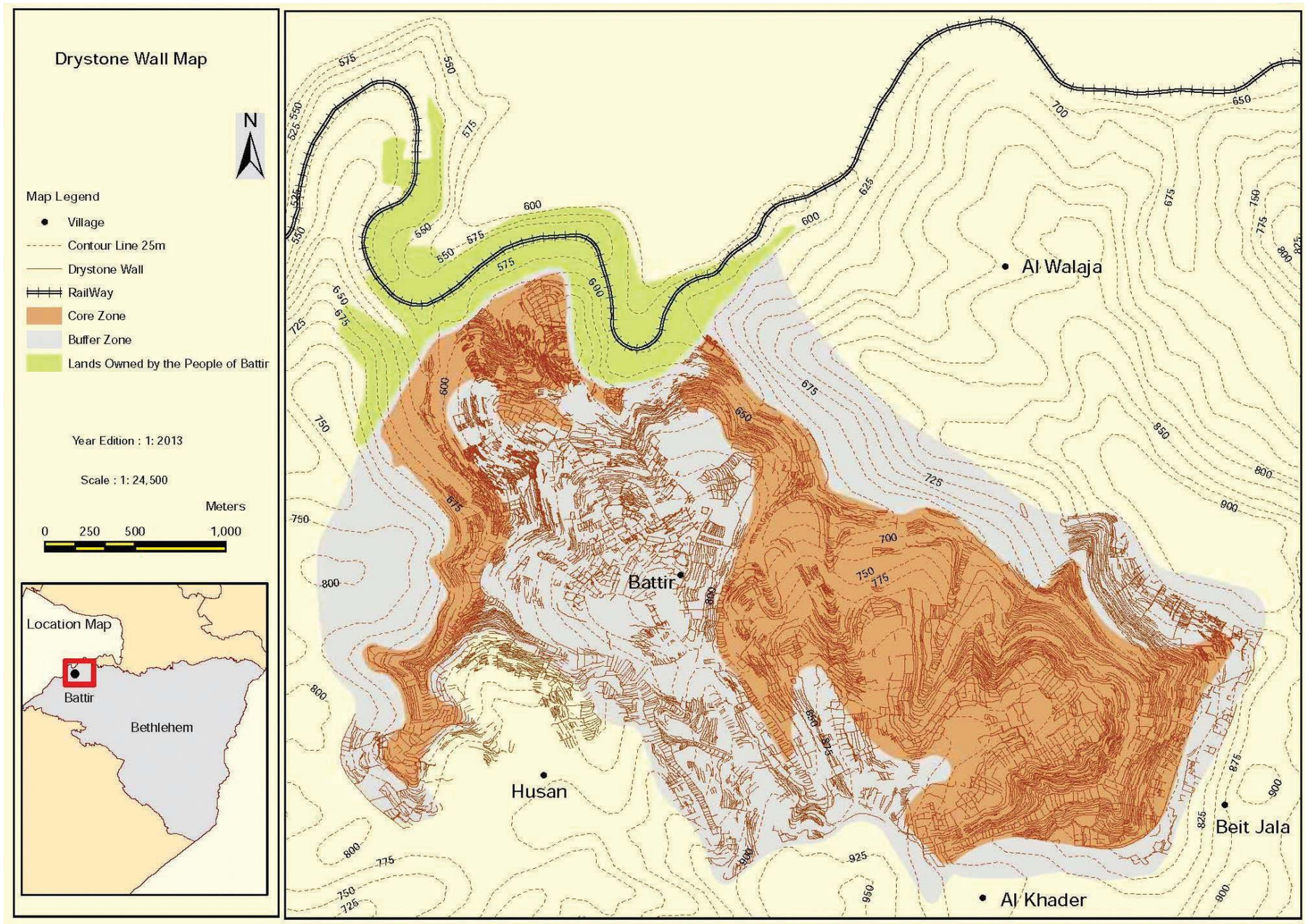
- The identification of the various landscape units and settlement pattern;
- An accurate and detailed analysis of all morphological and infrastructural components (i.e. dry stone terraces, the irrigation system);
- An assessment of ongoing transformations and related risks for the integrity of the site;
- An identification of internal and external vulnerabilities to be addressed.

The study reflects the most up-to-date and advanced approaches to cultural landscapes in the international scene, using analytical techniques and conservation policies that can be replicated in any other areas where the cultural landscape is seen as a resource and an asset for sustainable local development.

Battir, Land of Olives and Vines, inscribed in the UNESCO World Heritage list

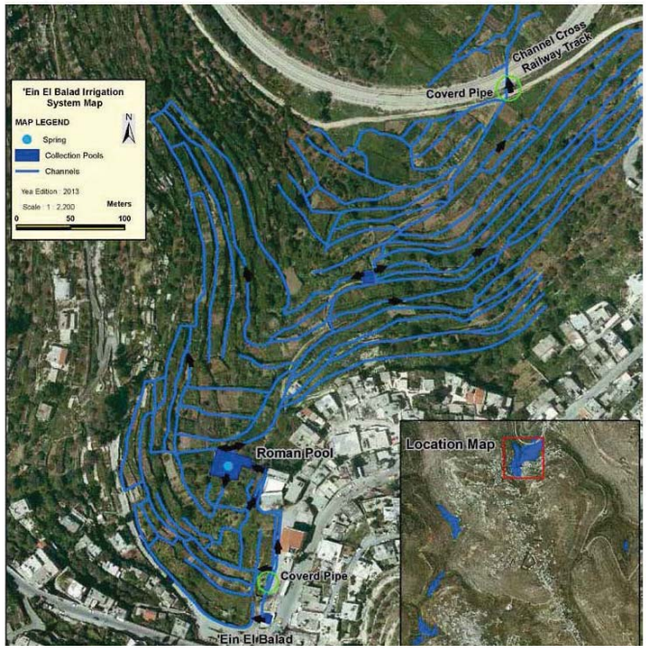


Identification of landscape units



Identification of different types of dry stone wall terraces

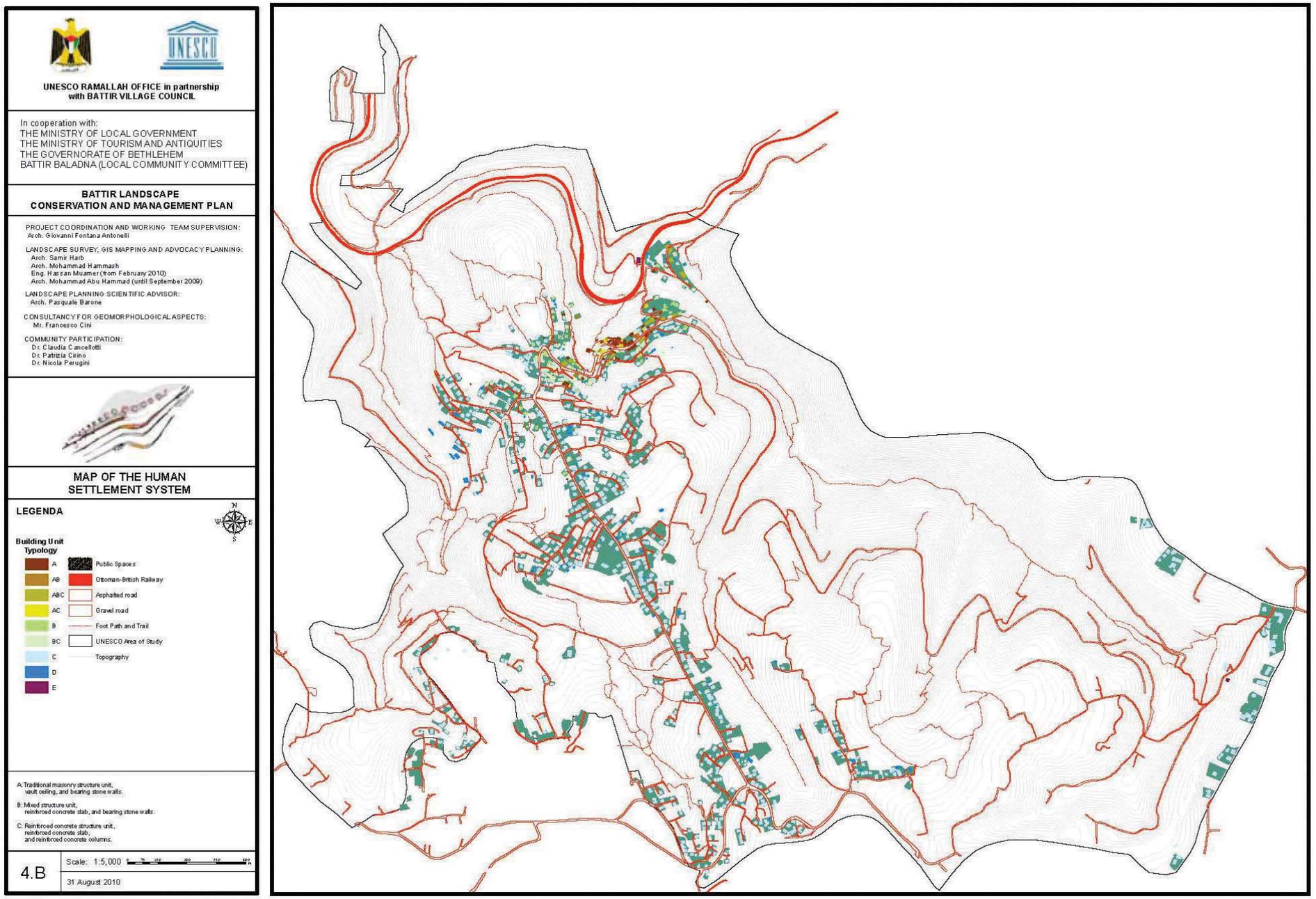
Dry stone terraced slopes



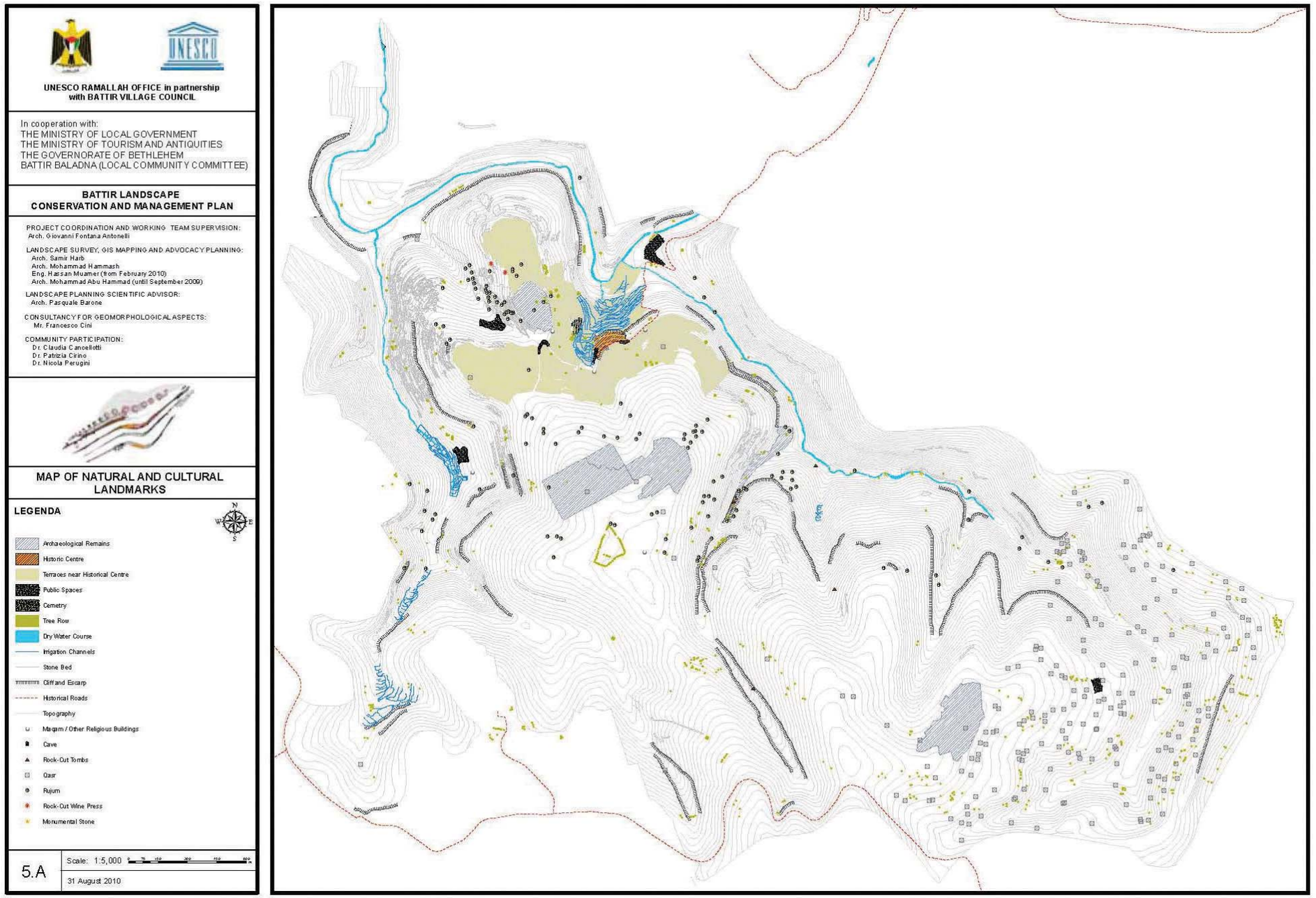
Analysis of the irrigation system

The irrigation system: a pond in the terraces

Battir village nestled among the terraced slopes



The settlement pattern structure reflects the morphology of the terraced slopes



Natural and cultural landmarks

UNESCO RAMALLAH OFFICE in partnership
with BATTIR VILLAGE COUNCIL

In cooperation with:
THE MINISTRY OF LOCAL GOVERNMENT
THE MINISTRY OF TOURISM AND ANTIQUITIES
THE GOVERNORATE OF BETHLEHEM
BATTIR BALADNA (LOCAL COMMUNITY COMMITTEE)

BATTIR LANDSCAPE
CONSERVATION AND MANAGEMENT PLAN

PROJECT COORDINATION AND WORKING TEAM SUPERVISION:
Arch. Giovanni Fontana Antonelli

LANDSCAPE SURVEY, GIS MAPPING AND ADVOCACY PLANNING:
Arch. Samir Harb
Arch. Mohammad Hammash
Eng. Hassan Muamer (from February 2010)
Arch. Mohammad Abu Hammad (until September 2009)

LANDSCAPE PLANNING SCIENTIFIC ADVISOR:
Arch. Pasquale Barone

CONSULTANCY FOR GEOMORPHOLOGICAL ASPECTS:
Mr. Francesco Cini

COMMUNITY PARTICIPATION:
Dr. Claudia Cancellotti
Dr. Patrizia Cirino
Dr. Nicola Perugini

MAP OF PACE OF TRANSFORMATIONS AND RELATED RISK

LEGENDA

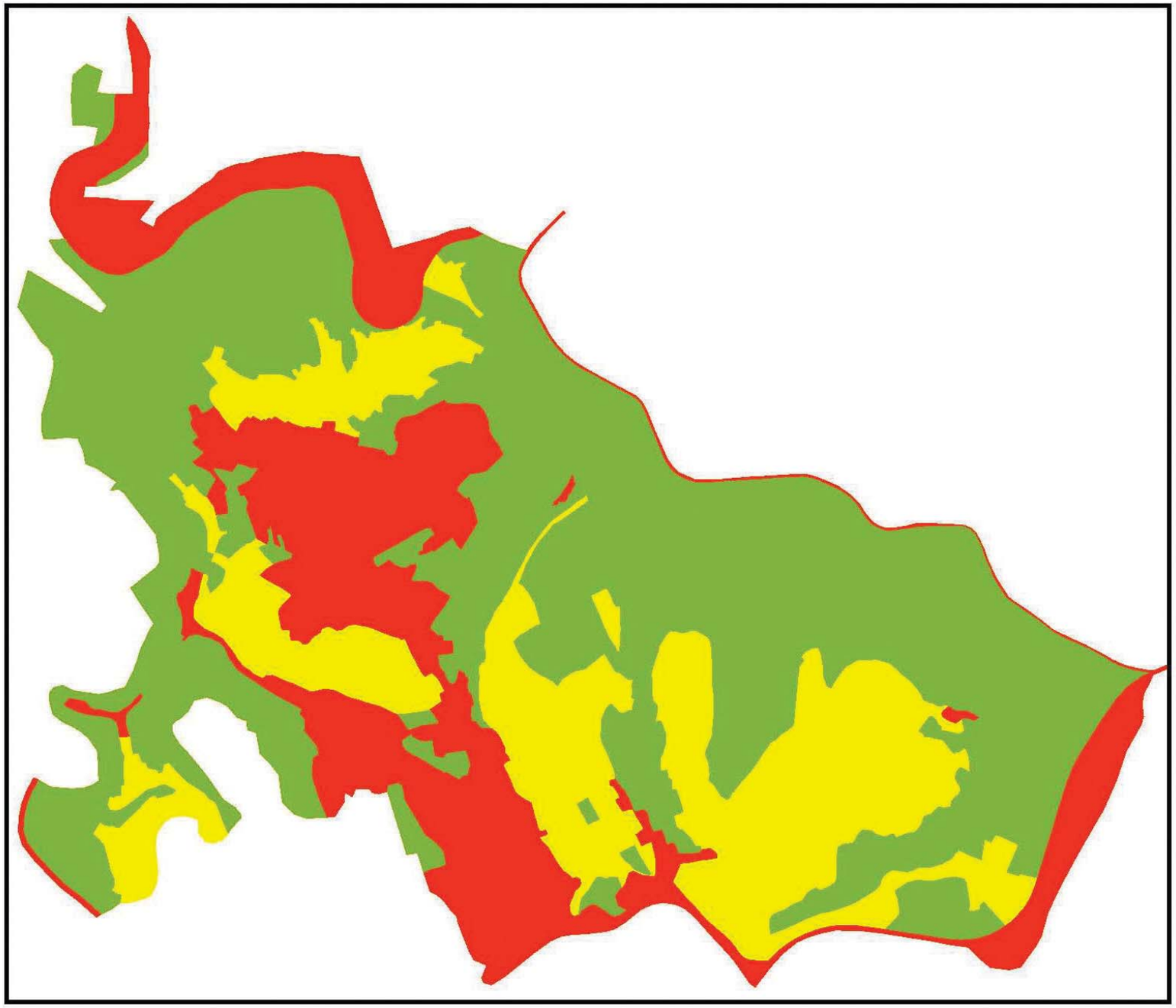
N W E S

Fast Transformation Factor
Medium Transformation Factor
Slow Transformation Factor

6.C

Scale: 1:5,000

31 August 2010



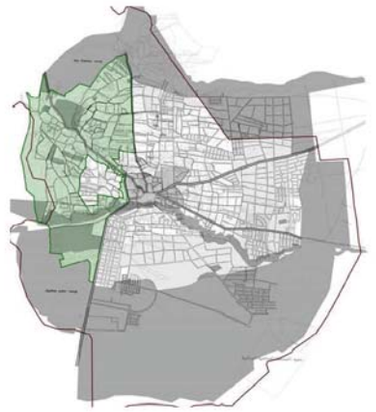
Transformations and risks

2.4.2 Jericho Master Plan (2014)

The Jericho Master Plan was drawn up in the framework of international cooperation between the Italian Cooperation Development Unit and the Municipality of Jericho, in partnership with the MoLG, the Municipality and Governorate of Jericho, and the University of Ferrara.

The Plan largely reflects the methodology of the Manual and proposes a model for sustainable development that preserves and promotes extraordinary cultural and natural heritage as an asset with which to regenerate the urban area whilst promoting its social and economic development.

After the establishment of the 'Emergency Conservation Plan' (March 2013) which would give full protection to Jericho's heritage whilst drawing up the Master Plan, the SDF and the Land Use Plan were used to develop a planning strategy based on the protection and promotion of the following main heritage and landscape features that make Jericho unique.


the ancient oasis


the heritage sites


the agricultural land


the wadis

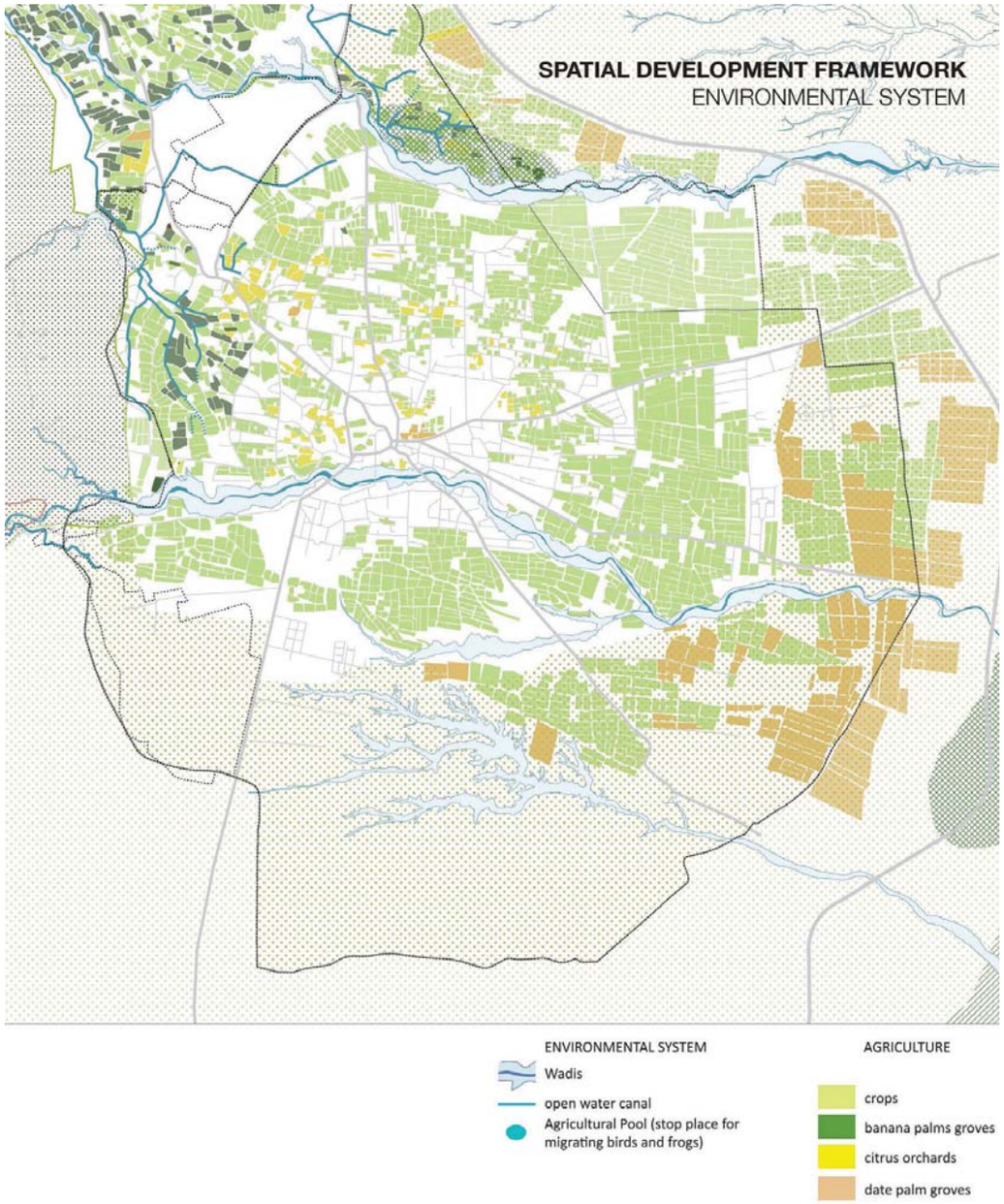

the main roads


the city centre.

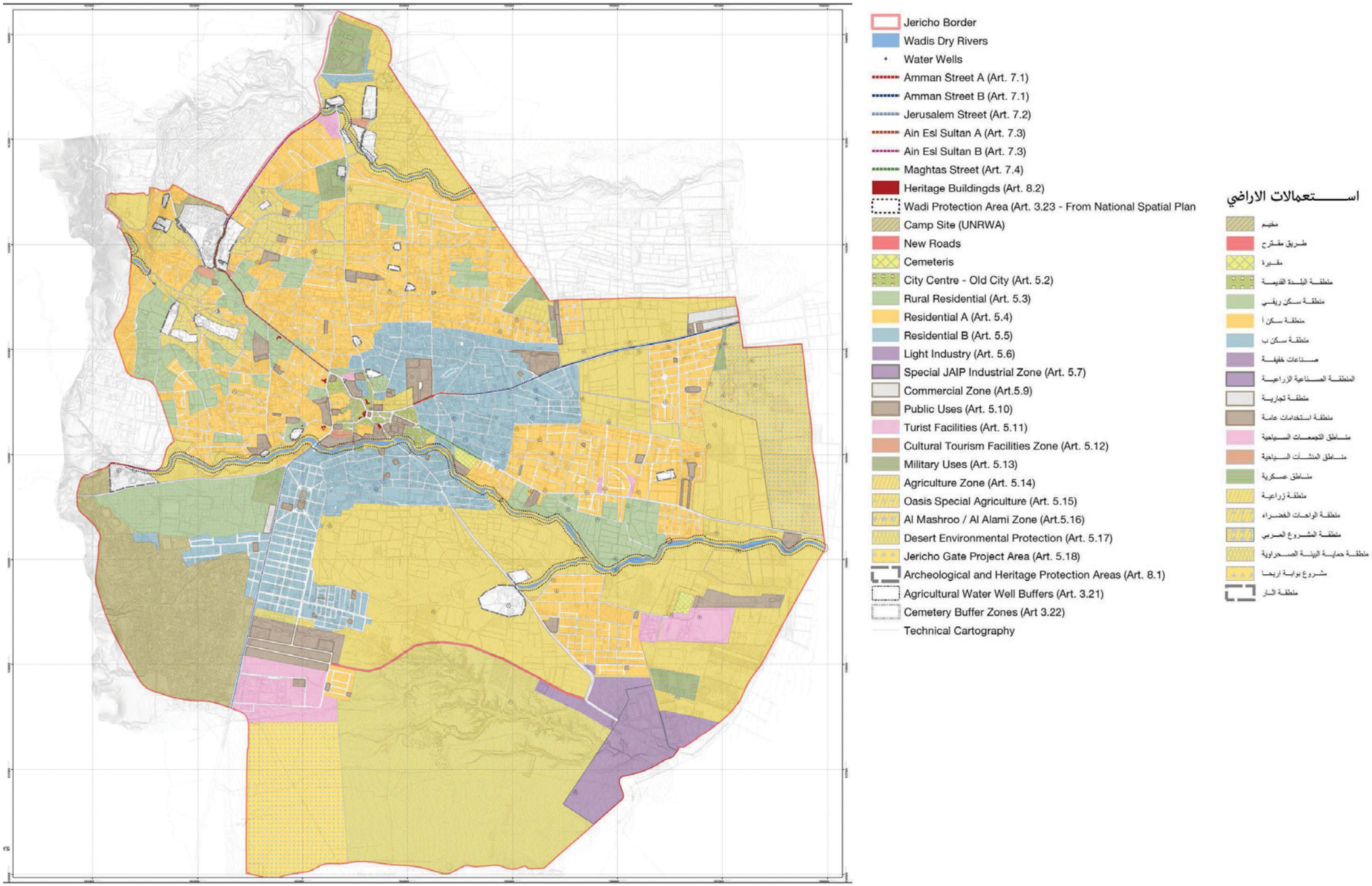
Heritage features and urban structure
The planning approach assumes that "conservation does not prevent development, on the contrary it can stimulate and support it …. Future real chances for Jericho are not its transformation in a suburb of Jerusalem or into a physically congested but dead place of second homes for winter vacations. Jericho can become the Palestinian gate to the world thanks to its direct connection with Jordan, and this implies functions and investments that are not limited to housing. It can also become a showcase of urban sustainability, a laboratory for new experiences in this crucial area; this in turn can attract innovative activities and well-educated and skilled population". It targets "a concerned use of the heritage, a correct balance with nature and the enhancement of local agricultural products", as these are resources that can generate wealth, promoting a responsible and sustainable form of tourism.

Jericho's two main features: the archaeological site of Tell es-Sultan and the oasis

The planning approach assumes that "conservation does not prevent development, on the contrary it can stimulate and support it …. Future real chances for Jericho are not its transformation in a suburb of Jerusalem or into a physically congested but dead place of second homes for winter vacations. Jericho can become the Palestinian gate to the world thanks to its direct connection with Jordan, and this implies functions and investments that are not limited to housing. It can also become a showcase of urban sustainability, a laboratory for new experiences in this crucial area; this in turn can attract innovative activities and well-educated and skilled population". It targets "a concerned use of the heritage, a correct balance with nature and the enhancement of local agricultural products", as these are resources that can generate wealth, promoting a responsible and sustainable form of tourism.
The SDF identifies the elements of the Environmental System and the different agricultural areas as elements to be protected because they represent an asset for sustainable development.
The proposed land use zoning reflects a main concern for sustainability as a principle on which all planning actions must be based: the scarcity of natural resources like water cannot be overlooked, the existence of an adequate amount of green open spaces is necessary, the desert is not a potentially buildable vacuum. A positive interaction is sought between the "oldest city in the world" and very modern activities, whilst limiting urban growth which may affect the oasis, the wadi and the productive agricultural land as well as the desert not to lose future opportunities. Therefore, the proposal comes to terms with contingent requests and interests only centred on urbanization.



The environmental system and agricultural landscape



The Land Use Plan: zoning

The city centre Land Use Plan

3. URBAN PLANNING AND DESIGN FOR HISTORIC CENTRES

3.1 Urban Conservation and the regeneration of historic centres: an urban planning perspective

3.1.1 Urban Conservation: objectives and tools

As stated in chapter 2, in the case of historic heritage cities and settlements, Urban Regeneration can be defined as a combination of the preservation of heritage values and socio-economic revitalisation.

Internationally speaking, the discipline of Urban Planning and Design for Historic Centres falls within the field of Urban Conservation, which is defined by several Charters (i.e. the Charter of Washington 1987) and international organisations (i.e. UNESCO, the World Bank, the EU, etc.), and developed above all in well-established national and local policies and practices. Annex 2 of UNESCO's recent recommendation on Historic Urban Landscape (November 2011) contains the following concise definition:

"*Urban Conservation is not limited to the preservation of single buildings. It views architecture as but one element of the overall urban setting, making it a complex and multifaceted discipline. By definition, then, Urban Conservation is at the very heart of urban planning*"

This definition, which is fully explained in the recommendation, emphasises the need for a global holistic approach that considers architecture as but one aspect of the urban setting, when considering historic cities and settlements in the urban planning process.

In Palestine, legislation does not establish specific approaches and tools for urban conservation to link heritage protection to urban development, but important charters and documents provide guiding principles that reflect international standards and best practice, i.e. the Charter on the Safeguarding of Palestinian Historic Towns and Urban Landscapes (the Bethlehem Charter - 2008), and the Charter on the Conservation of Cultural Heritage in Palestine (*The Palestine Charter - 2012*).

Urban Conservation issues are currently addressed at a local planning level, with the two kinds of plans described in Chapter 2 – Strategic Development and Investment Plans, SDIPs, and spatial/physical plans including the Spatial Development Framework (SDF), the Land Use Plan, and detailed plans. The Urban Conservation Plan can be considered as a kind of 'detailed urban plan', which requires more specific and in-depth surveys, analyses and regulations, but must also be consistent with the development strategy and planning provisions established for local, regional and national development.

It should entail revising/supplementing existing planning procedures, with:

- More attention given to heritage issues in drawing up the SDF and Land Use Plan: i.e. accurate identification and delineation of historic centres and settlements, appropriate land use measures, etc. (see chapter 2);

• Community involvement in preparing and finalising the conservation plan (DUP), maybe separately from the Land Use Plan, but in any case, before it is announced with no objections, following the endorsement of the Regional Planning Committtee.

3.1.2 The Urban Conservation process

According to international and national best practice, Urban Conservation is a long-term process, based on a comprehensive approach and interdisciplinary studies, which requires:

• The identification of the urban heritage to be protected, an understanding of its role in the wider urban setting, and all the related social implications, economic constraints and opportunities;
• An assessment of its cultural significance, which must be carried out on a case-by-case basis, and must be made the subject of awareness-raising initiatives among stakeholders and the community;
• The establishment of a shared vision and the drawing up of an urban planning strategy which promotes policies that integrate social, economic and cultural dimensions. According to international best practice, strategies should be multi-scale (looking at the wider urban and landscape setting, the whole historic fabric, individual buildings), flexible, and incremental (i.e. able to adapt its objectives and methodology to new conditions and opportunities that may arise during its implementation);
• The establishment of implementation and management tools to carry out a set of actions, i.e. plans, regulations, programmes, projects and financial tools to be enforced through institutional stakeholders' involvement and community participation. These should include:

• Conservation zoning measures, to be incorporated into urban land use zoning measures, taking into consideration the different degrees of integrity of the urban fabric and the different levels of heritage value of the built-up environment;
• Specific building regulations, also to be incorporated into urban planning documents, defining the possible types of intervention for each building and open space, according to their heritage interest, typological and architectural components, state of conservation and potential for reuse for compatible activities.

Conservation planning therefore has to be based on accurate knowledge and deep understanding of the role and significance of a historic city's heritage in its urban setting. As for the urban fabric, this requires the following as pre-conditions for appropriate and consistent implementation:

• Accurate and in-depth knowledge of the historic development of the city, particularly of the spatial patterns and typologies that have characterised the evolution of the urban fabric up until recently;
• The identification of all individual urban and architectural heritage items to be preserved, through a comprehensive survey of all the buildings and open spaces that form the remaining historic urban fabric, regardless of their state of conservation;
• An accurate analysis of the urban morphology of the Historic Centre,

taking into consideration the road network, the built-up fabric and the system of open spaces in relation to the geographical context, the site's topography, the sun exposure and the other characteristics of the natural and man-made environment;

• The classification of these items according to their cultural heritage value, typological characteristics and architectural value, also taking into consideration their state of conservation and potential for adaptive reuse.

3.2 The historic centre and its environmental and urban setting

3.2.1 Identifying the protected core zone and buffer zone

The first step in the conservation planning process is to identify the historic centre to be protected, or rather the 'core zone' and 'buffer zone', when these have not been previously identified by the stakeholders concerned (i.e. the MoTA in Palestine), on the basis of legislation on cultural heritage. In any case, this is necessary for urban planning purposes, since even if it is not protected by national legislation, a historic centre has cultural value and significance, as well as a unique spatial structure, which requires specific attention.

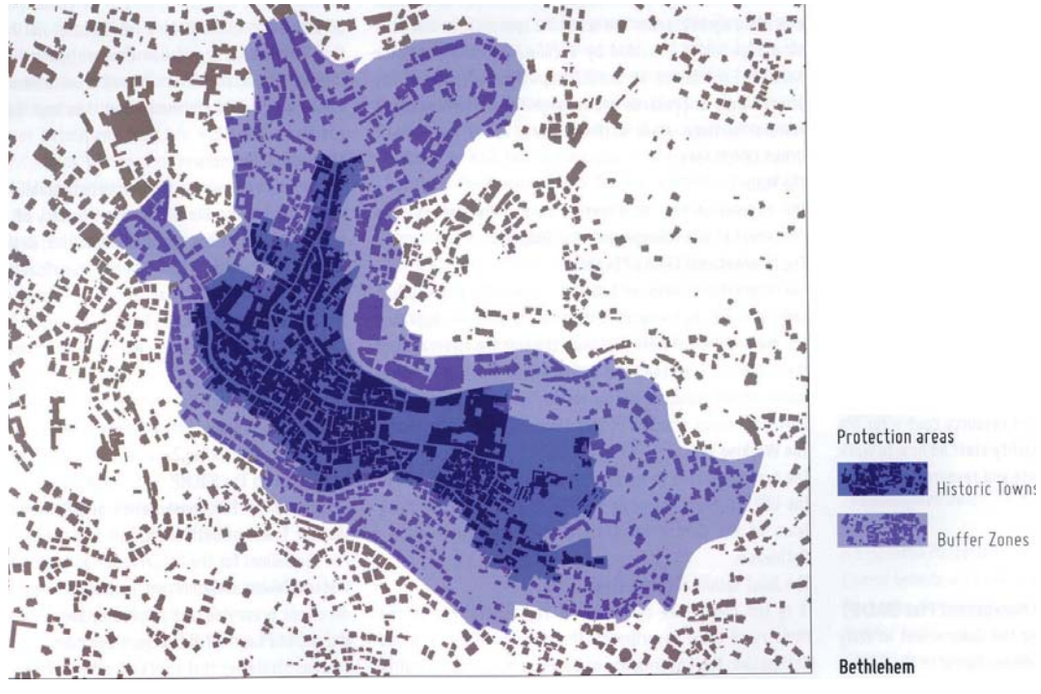
International practice identifies the historic centre as those parts of the urban area that bear testimony, through the urban fabric and architecture, to the different phases of development prior to modernisation processes. Historic centres are usually identified using well-established methods, on the basis of accurate analyses of all cartographic, iconographic and literary documents that can help to outline the city's historic evolution. Possibly using a cadastral map or detailed ordnance survey map, the following elements are usually taken into consideration:

- The extension of the urban fabric at a relevant point in time, i.e. corresponding to the beginning of modernisation and ongoing processes of urbanisation;
- Whether the historic street pattern has remained intact;
- The concentration of monuments and listed buildings;
- Land subdivision patterns, where available.

Based on these elements, the broad boundaries of the historic fabric can be outlined, which are then subjected to specific and detailed studies for identifying areas with a higher degree of integrity that require a higher degree of protection, and areas that have been damaged and transformed and require less protection or no protection at all with the exception of individual buildings.

Usually the 'protection zone' (or 'core zone' depending on the terminology used in the country) are supplemented by 'buffer zones' that require land use controls and other limits (i.e. on building height and density) to preserve the visibility of historic architectural landmarks, visual links between the historic centre and the surrounding landscape, and more generally, to avoid out-of-scale new developments at the edge of the protected area. In buffer zones, vacant areas are usually regulated as 'non aedificandi areas', and are often planned as parks or agricultural areas to compensate for the lack of green spaces in the central core zone.

Bethlehem in 1937: from Survey of Palestine, 1937



Bethlehem Area Conservation and Management Plan: Core and buffer Zones of Bethlehem and Beit Sahour. It may be observed that the core zones of Bethlehem largely corresponds to the extension of the continuous urbanisation of 1937 (see the map above).

Bethlehem:,general view of the historic town, showing the compactness and continuity of the urban fabric, adapting to the topography

3.2.2 The territorial and urban setting

Assessing the role of historic centres in the wider territorial and urban setting is essential for understanding the planning issues to be addressed in the conservation strategy, i.e. the reasons for decay and the potential for revitalisation. To this end, the following analyses are necessary:

3.2.2.1 The socio-economic profile

A socio-economic profile of the historic centre is essential for characterising it in relation to the wider urban area. This should highlight its unique features, possible shortcomings or, vice versa, points of excellence. A profile should namely concern:

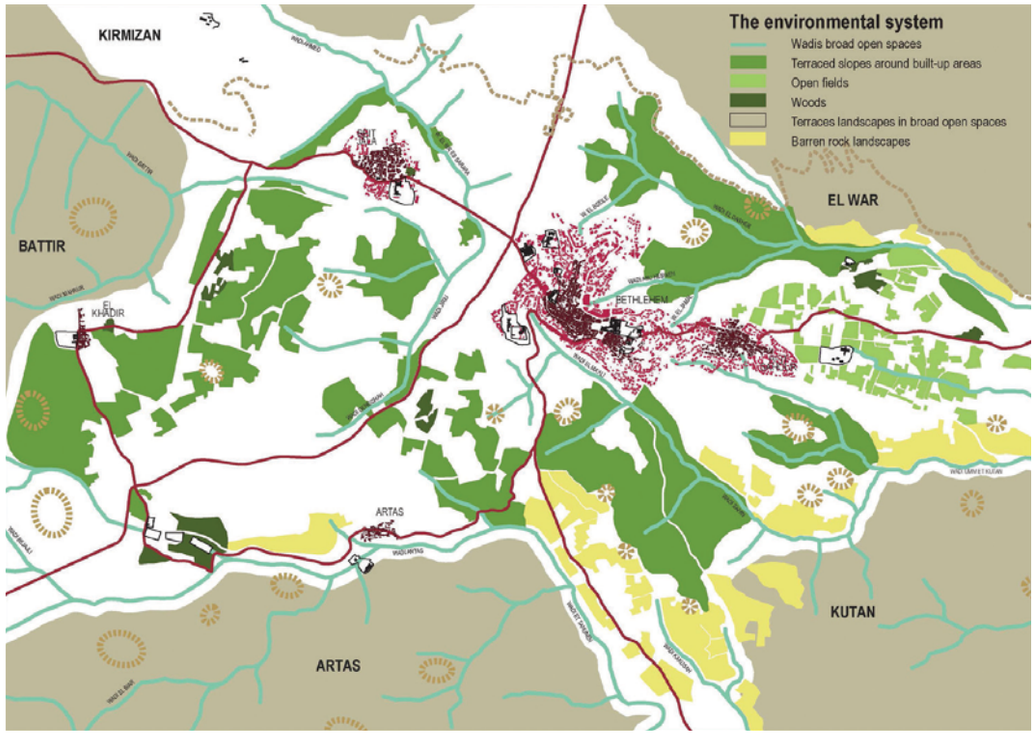
- The demographic structure and trends (e.g. size, age and gender structure, household structure and composition, density of population), levels of literacy and employment, gender issues, etc.
- The presence/absence of economic activities, both formal and informal, by sector and type;
- The presence/absence of social facilities and services, both public and private (e.g. health, education, cultural facilities, community services, financial services, etc.).

If no accurate statistical data exists, the profile can focus on specific surveys to be carried out in connection with the survey on buildings and open spaces (see below).

3.2.2.2. Analysis of the environmental profile

The historic centre must be understood in its environmental and topographic context. Especially in the case of hilly and mountain regions, which determine the morphology of the urban fabric, the location of main buildings and architectural landmarks, and urbanisation patterns, explaining the direction of development through the centuries. Moreover, visual connections between the historic city and the broader landscape have aesthetic value that adds to the interest of both.

All the elements that characterise the environmental system, including its geology, relief, soil, aspect and drainage features, can be crucial to conservation and in shaping or constraining the socio-economic development of a historic urban area.

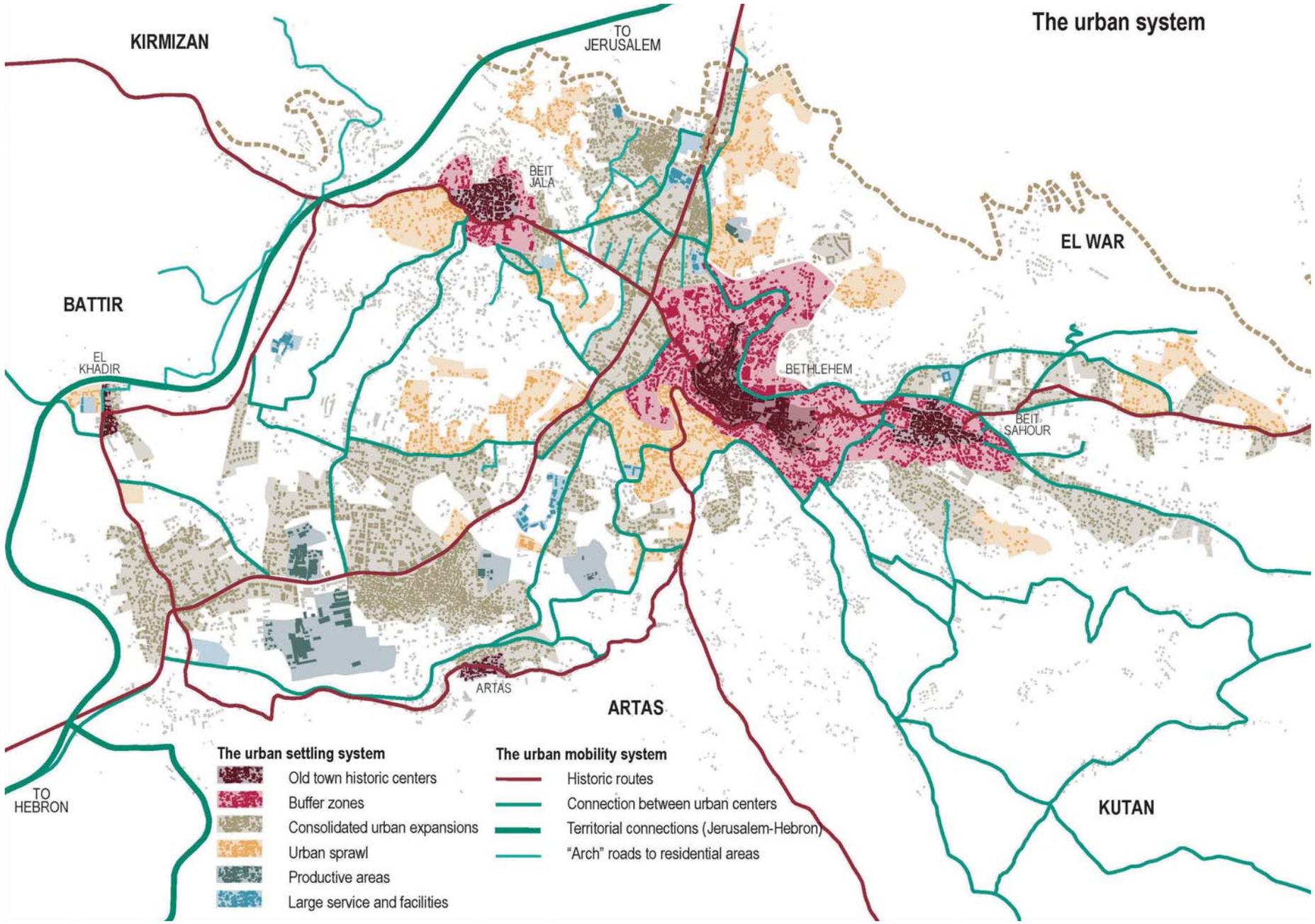


Bethlehem Area Conservation and Management Plan: the environmental system

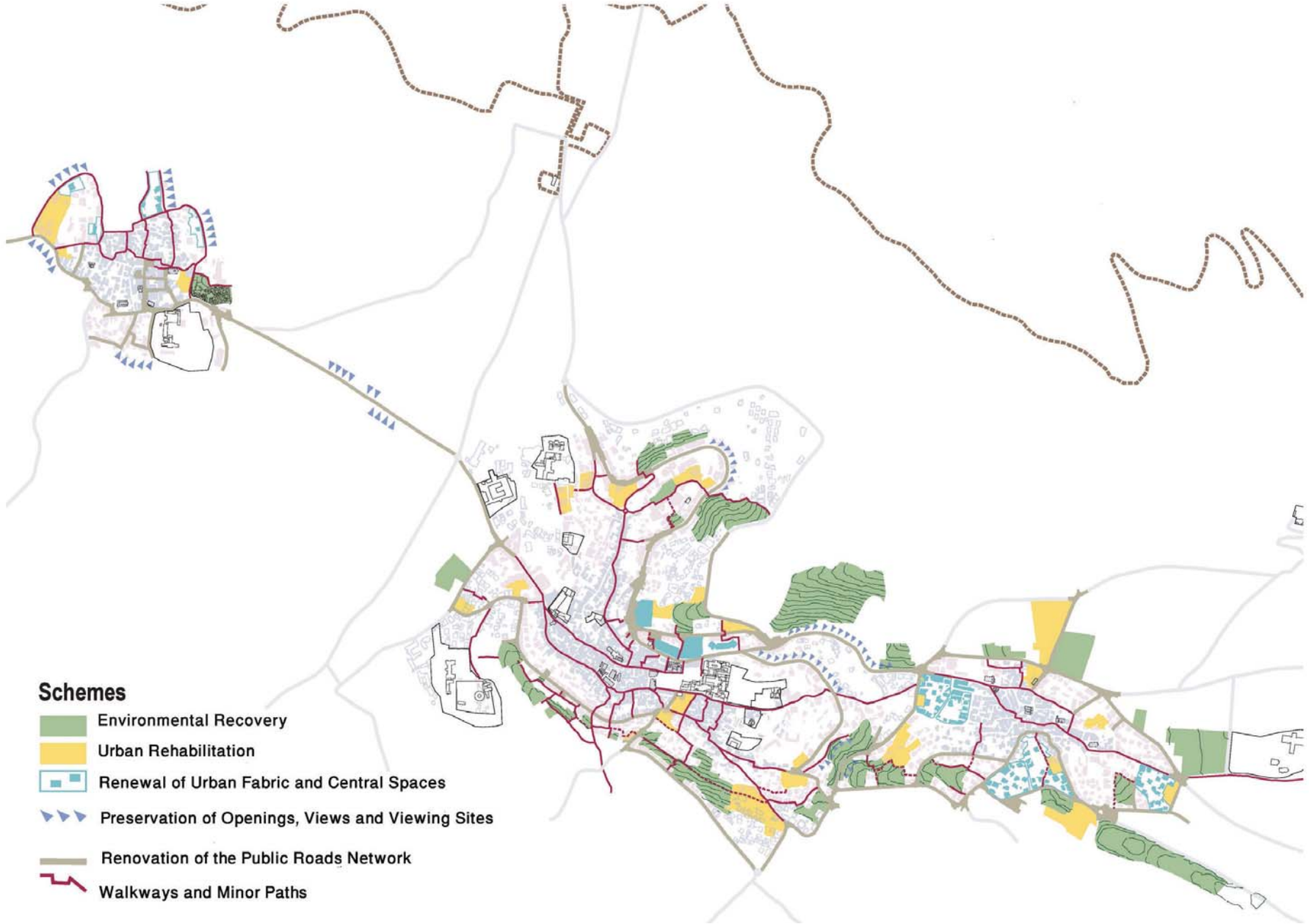
3.2.2.3 Analysis of the functional and morphological relationships of the historic centre with the wider territorial and urban area

This analysis should highlight the spatial and functional links of the historic centre with the wider urban area, particularly in relation to the topography and the road network. This is essential for understanding the limits and potential of its location, accessibility, and the possible reasons for its marginality or centrality. The relationship of the historic urban area with its wider urban setting and the effects of that setting on the area include key aspects such as the continuity or rupture of built fabric, the spatial pattern of uses and activities, as well as the views from and onto the historic area, key landmarks, etc. It is crucial for understanding what makes the historic area part of the city or not, with a specific morphological and functional identity that deserves to be protected and enhanced.

In this regard, it is also essential to take into consideration the spatial planning provisions from existing tools, particularly the SDF and SDIP or Land Use Plan if there is one. The preservation and revitalisation of historic centres should be incorporated into the urban development strategy of the municipalities of the Joint Planning area to make it a fully integrated component.



Bethlehem Area Conservation and Management Plan: the urban system



Bethlehem Area Conservation and Management Plan: the urban planning 'guiding scheme'

3.2.3 Analysis of the historic urban fabric

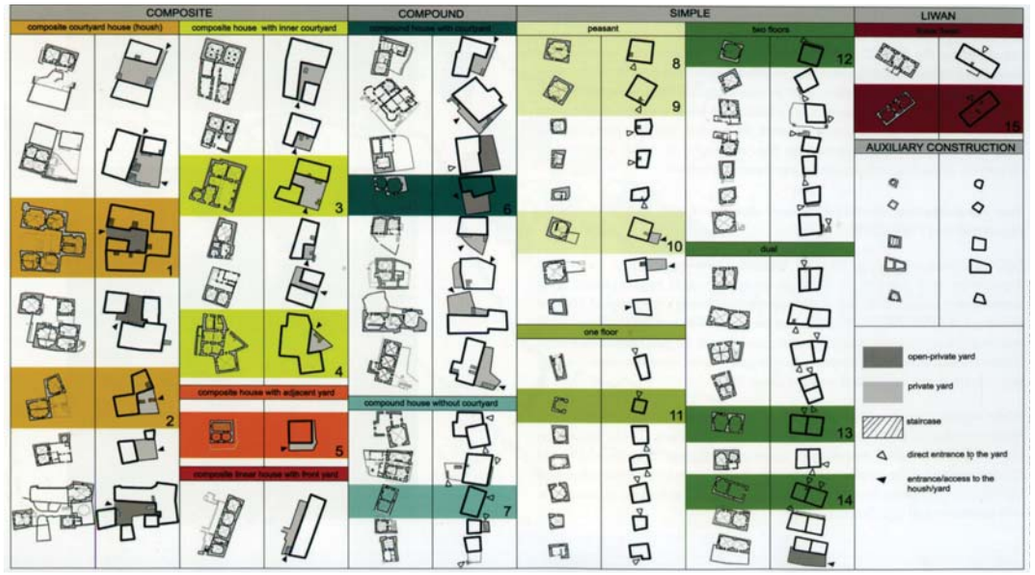
An initial analysis is useful for characterising the historic urban fabric and detecting the main features that define its significance and heritage values. Key elements must be identified case by case, based on an analysis of the cartography and aerial photos supplemented by field observations. In general, these are likely to be:

- A historic street pattern that has remained largely intact throughout recent processes of urbanisation and change: street alignments and the spatial characteristics of the historic street pattern are qualities to be preserved in a historic urban area;
- Building mass and typology: comprises the architectural typologies and reference models reflected in most buildings. It may embrace buildings of high heritage value as well as vernacular and traditional architecture that contribute to keeping the built fabric consistent. Characteristics to be preserved might include the positioning of buildings in relation to the plot, street lines, building scales and density, etc;
- The land subdivision pattern resulting from a plot's typology, size and shape. The persistence of historic patterns often defines the 'texture' of the urban fabric, and is a feature to be preserved or taken as a reference point for 'infill' and regeneration interventions;
- Characteristics of public areas, including streets, squares, parks, and any open spaces (public or private) the public may have access to. The nature of these spaces and their relation with the built form are qualities to be preserved and enhanced.
- Architectural elements, building materials and techniques: architectural styles, features and motifs, materials and building techniques for buildings, walls and ground surfaces, which characterise the historic built fabric and its appearance**.** It is important to highlight elements that may be considered as specific to a given city or region.
- Current and past uses and activities that characterise/d the urban area and shape/d its urban layout and townscape.
- Archaeological remains, whether these are above ground or buried below ground, often contribute directly to the sense of a place. They also represent a potentially rich resource for future research, interpretation and education.

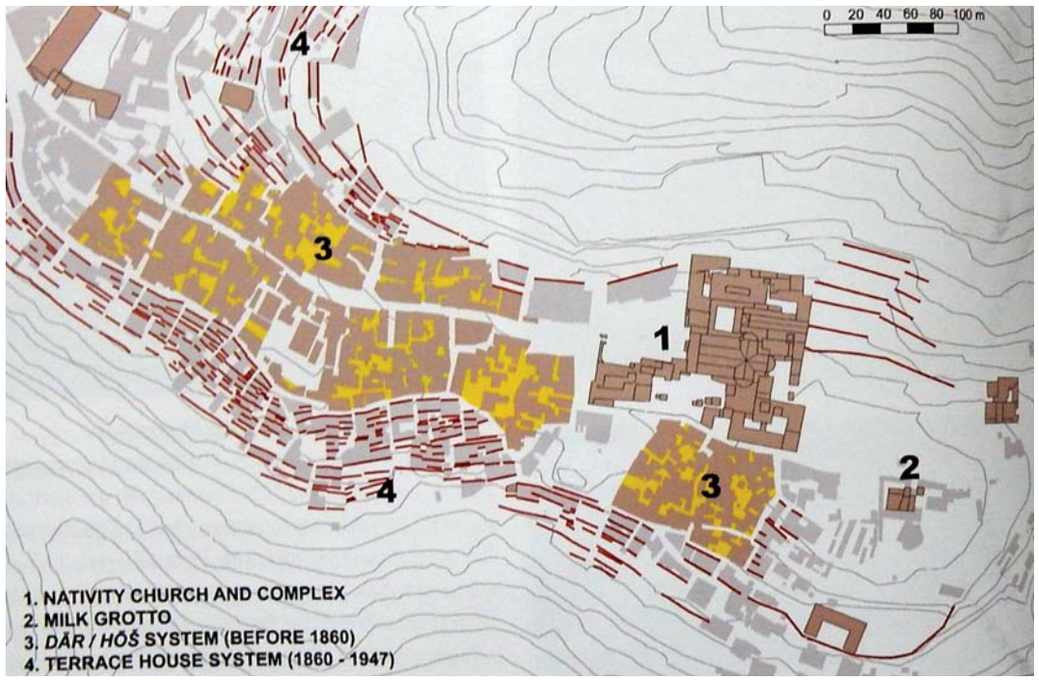
This initial analysis should be supplemented by more in-depth and systematic studies on the morphology of the urban fabric and the prevailing building typologies. In this regard, it may be important to:

- Identify prevailing historic or traditional building typologies. A catalogue of these typologies can show different expressions as well as 'unchanging' elements in each type. This can then be used as a point of reference or source of inspiration for building regulations on interventions for the adaptive reuse or regeneration of the historic fabric;

- Analyse the typo-morphological process of constitution and transformation of large and typical sections of the urban fabric, in relation to the topography, building typologies, and the evolution of uses and activities. This can provide references for planning provisions and urban design solutions in the completion or redevelopment of dilapidated or vacant areas to complete and reinstate the continuity of the historic fabric.



Bir Zeit Historic Centre Rehabilitation and Regeneration Project (Riwaq): typological studies of historic buildings



Bethlehem Area Conservation and Management Plan: the system of terraced houses

Bethlehem Area Conservation and Management Plan: the process of shaping the urban fabric on terraced slopes and along passageways and stairways

3.2.4 Inventory of buildings and open spaces

After the historic fabric or core zone to be protected has been identified and characterised, the next step in putting together a conservation plan is compiling consistent and exhaustive information and documentation of all the components, built and non-built, in an 'Inventory'. For conservation planning purposes, this inventory should include all constructions and spaces, not only those that are listed or registered, as zoning and building regulations must cover the whole urban fabric, not only monuments or the most distinguished buildings and sites.

The content and level of detail of the Inventory may vary depending on overarching planning objectives and key elements that define the significance of an area. In general, for small and medium-sized historic centres like Palestinian cities and villages, the level of information required is limited to the building or plot, or the individual open space.

For buildings, the Inventory usually includes:

- General information: location, listing status, ownership, typology, prevailing building functions, construction periods, state of use;
- The position of the building in the urban fabric (i.e. corner building, free standing, etc.);
- Building layout: number of floors, position of the building in the plot and in relation to street lines;
- Recent and ongoing transformations (i.e. vertical and horizontal additions) and consistency with the rest of the building;
- Building functions on the ground floor and upper floors;
- Materials and condition of the main structural elements (bearing walls, floors, roof, finishing of the façades), and overall state of conservation;
- Architectural value and integrity; presence of remarkable architectural elements (arches, portal, unique cladding, external staircases, covered passages, balconies, visible masonry patterns, stonework, minarets, domes, etc.), overall architectural value;
- Relationship with the urban context (i.e. does it contrast with the urban context or landmark reference).

For open spaces, the information required concerns both public and private spaces, and includes:

- General information: location, typology, relationship of the open space (if private) with the street, layout, walkability, permeability, type of furniture used;
- Uses (temporary and permanent): types of mobility (pedestrian, vehicular, mixed);
- Type of cover and materials;
- Overall state of conservation.

This information should be collected through a field survey that is carefully planned and organised to provide reliable data and documentation on different relevant aspects of the current situation that may be affected by the Conservation Plan's regulations.

Survey forms should be structured to comply with the database of a specific GIS set up to manage the planning process, and can be standardised to a certain extent in terms of content and the kind of information to be collected. In any case, however, it must first be tested in the field with a team of surveyors. Indeed, although the survey form can be standardised to a certain extent, it must be adjusted for elements that may be specific to a certain city or region (i.e. architectural elements, materials and construction techniques).

The initial preparation phase and adjustments to the survey form are an opportunity to train the team of surveyors to ensure a common understanding

of terminology and establish a common method of observation and shared evaluation criteria, which are basic pre-requisites for obtaining reliable information. To this end, it may be useful to prepare a handbook for interpreting the survey form and implementing the field survey.

When implemented with IT, the Inventory is an efficient tool for identifying all existing heritage features and value, and hence for adopting suitable urban conservation policies. Its main goal is twofold:

- It provides an up-to-date and comprehensive information baseline, with thematic maps that document and analyse the current state of all built and non-built components of the urban fabric in detail (see next page), and makes data available with which to establish degrees of protection or the possible transformation of buildings and open spaces;
- It provides the authorities concerned with a tool for controlling and monitoring building activities, and in general the physical and functional transformation of the historic centre.

Moreover, it can be a useful tool for disseminating information about the current situation and the issues to be addressed among professional bodies and the general public.

Finally, it should be noted that inventories based on GIS techniques can only be useful in urban management if an effective operational structure is set up, to ensure the information is kept up-to-date, the transformations of the urban fabric are monitored, and data remains accessible, in partnership with all the authorities and stakeholders concerned.

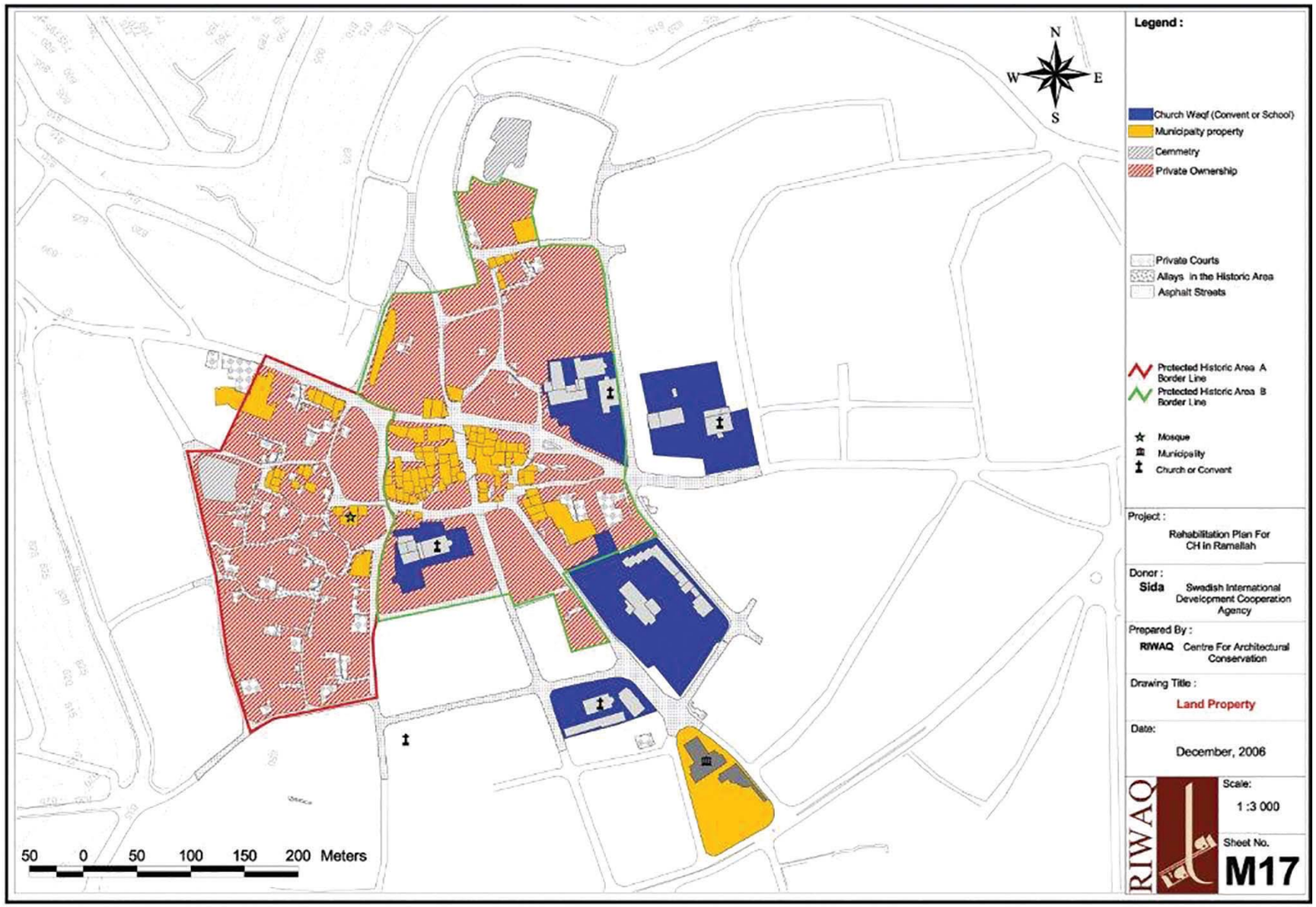
3.2.5 The management and use of information

Information in the Inventory is used to highlight the issues to be addressed by the Conservation Plan through detailed provisions for the urban fabric as a whole and individual buildings and open spaces (see case study in section 3.5). To this end, a set of thematic maps should be prepared through appropriate queries in the GIS, also using different types of data, if needed.

Below are some examples of thematic maps from different planning experiences in Palestine, which highlight the most relevant aspects of the current situation and trends to be addressed by a comprehensive Conservation Plan. They are mainly used to:

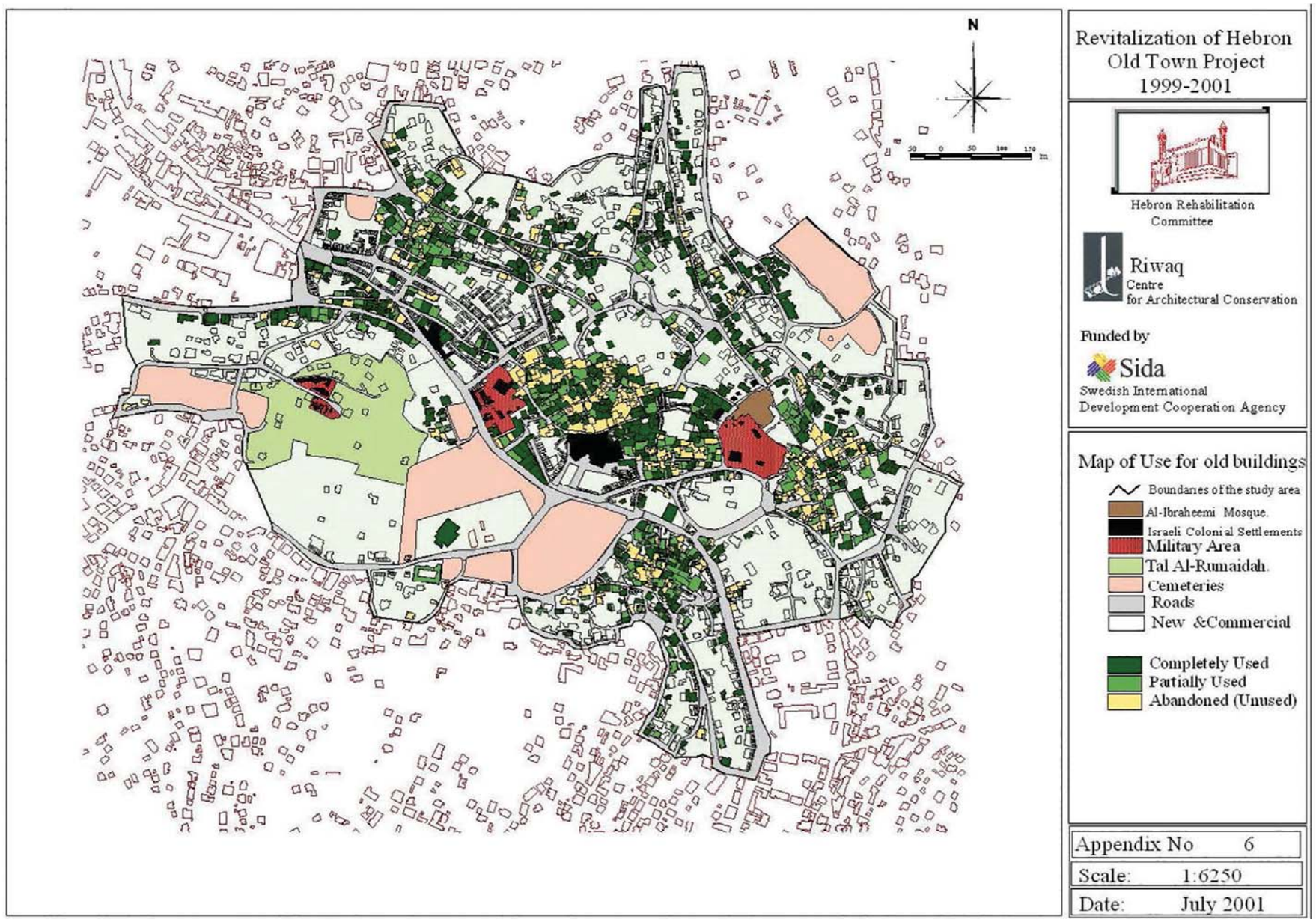
- Identify the zones and subzones to be subjected to different degrees of protection,
- Establish prescriptions and recommendations on the types of interventions required or admitted for each building.

3.2.5.1 Ownership



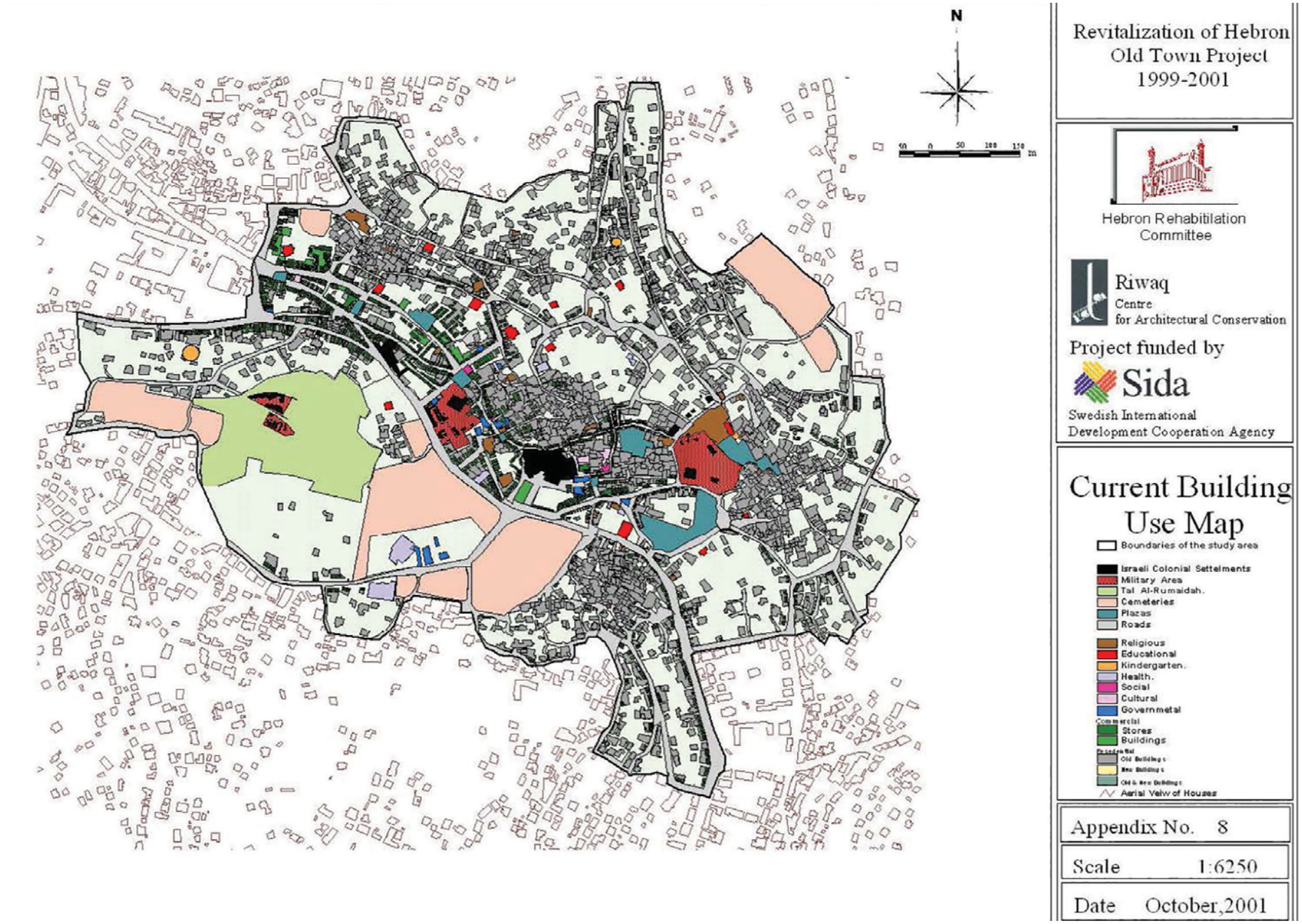
Rehabilitation plan for CH in Ramallah: land ownership

3.2.5.2 State of use

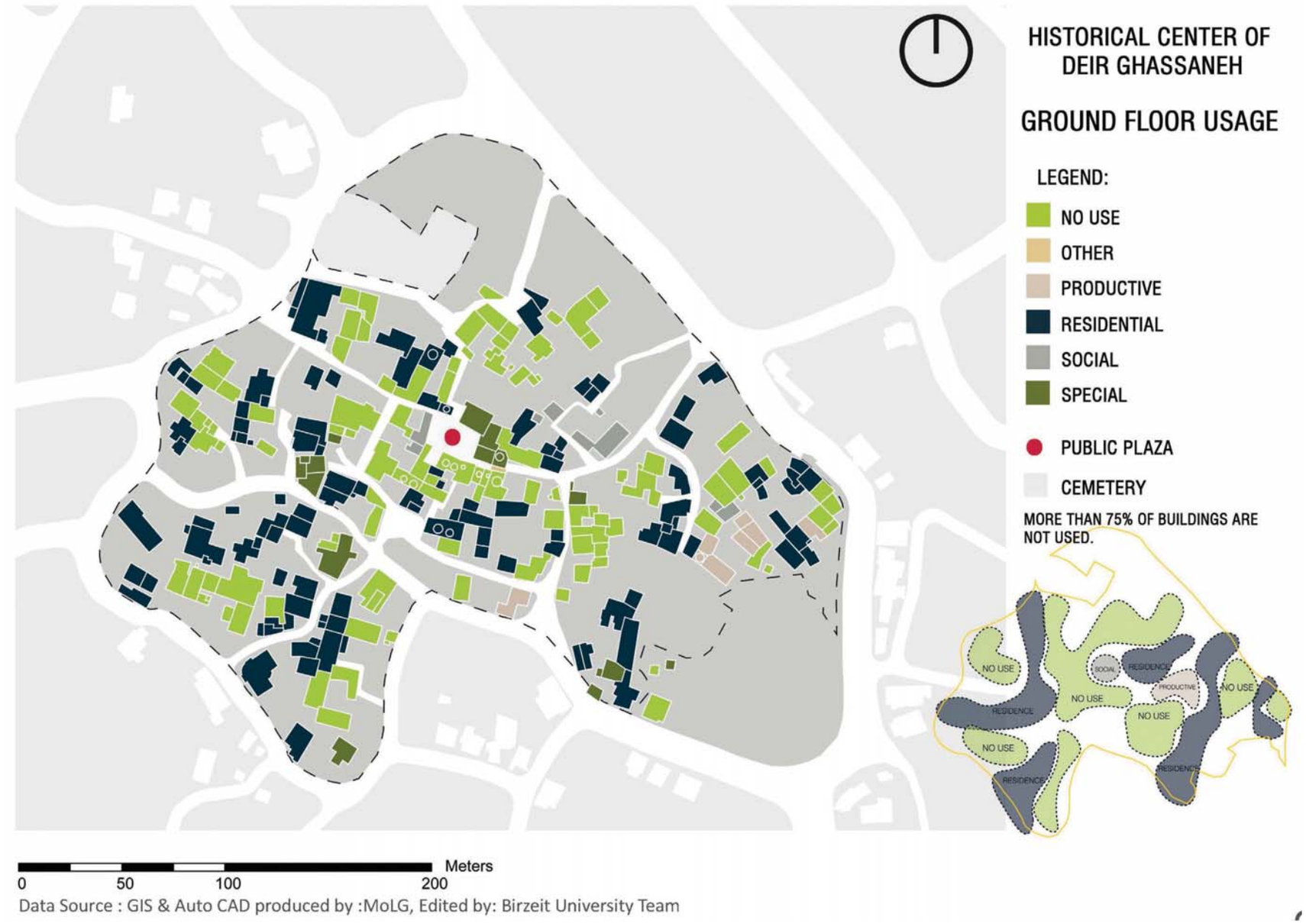


Revitalisation of Hebron Old Town Project: state of use of buildings

3.2.5.3 Building uses

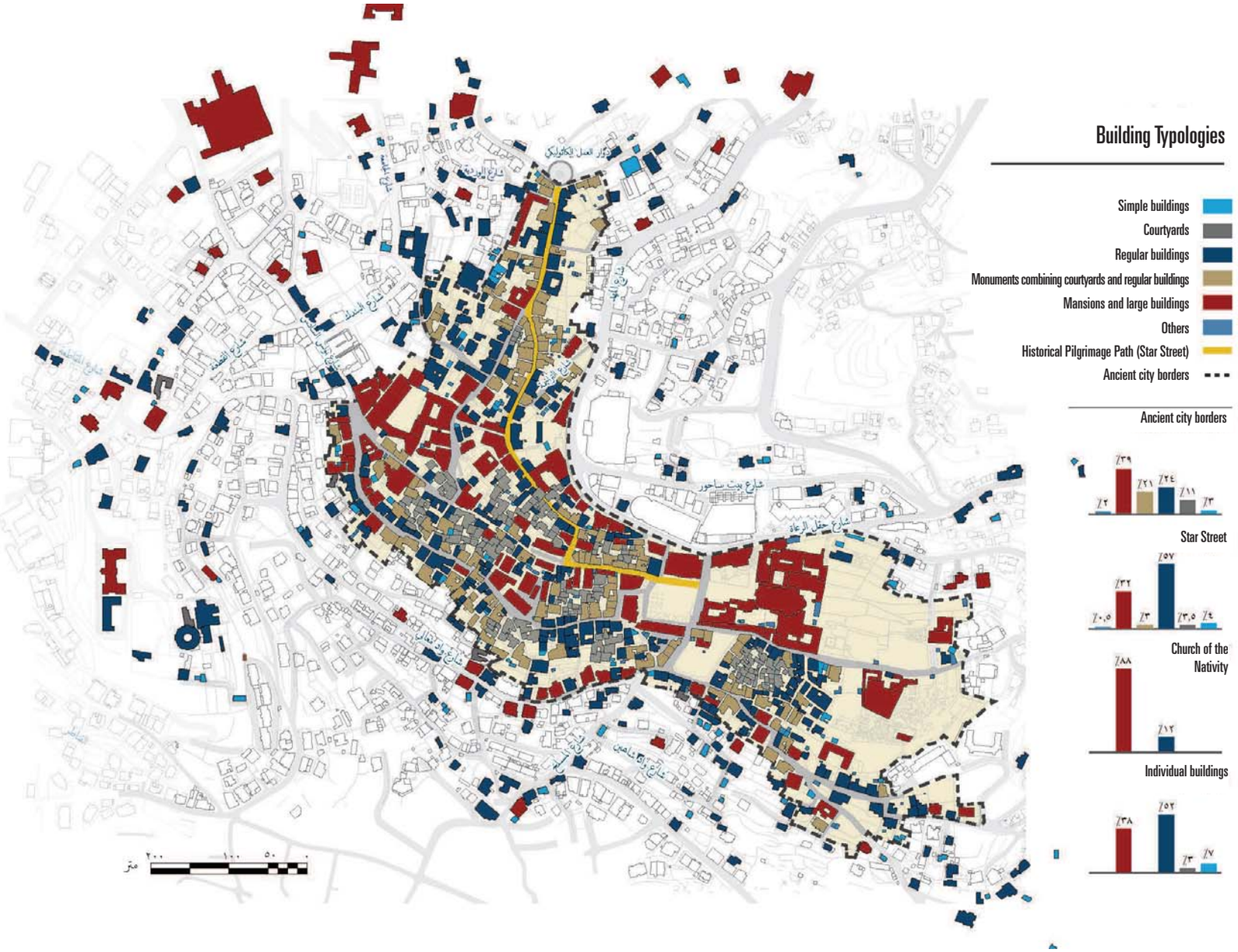


Revitalisation of Hebron Old Town Project: building uses



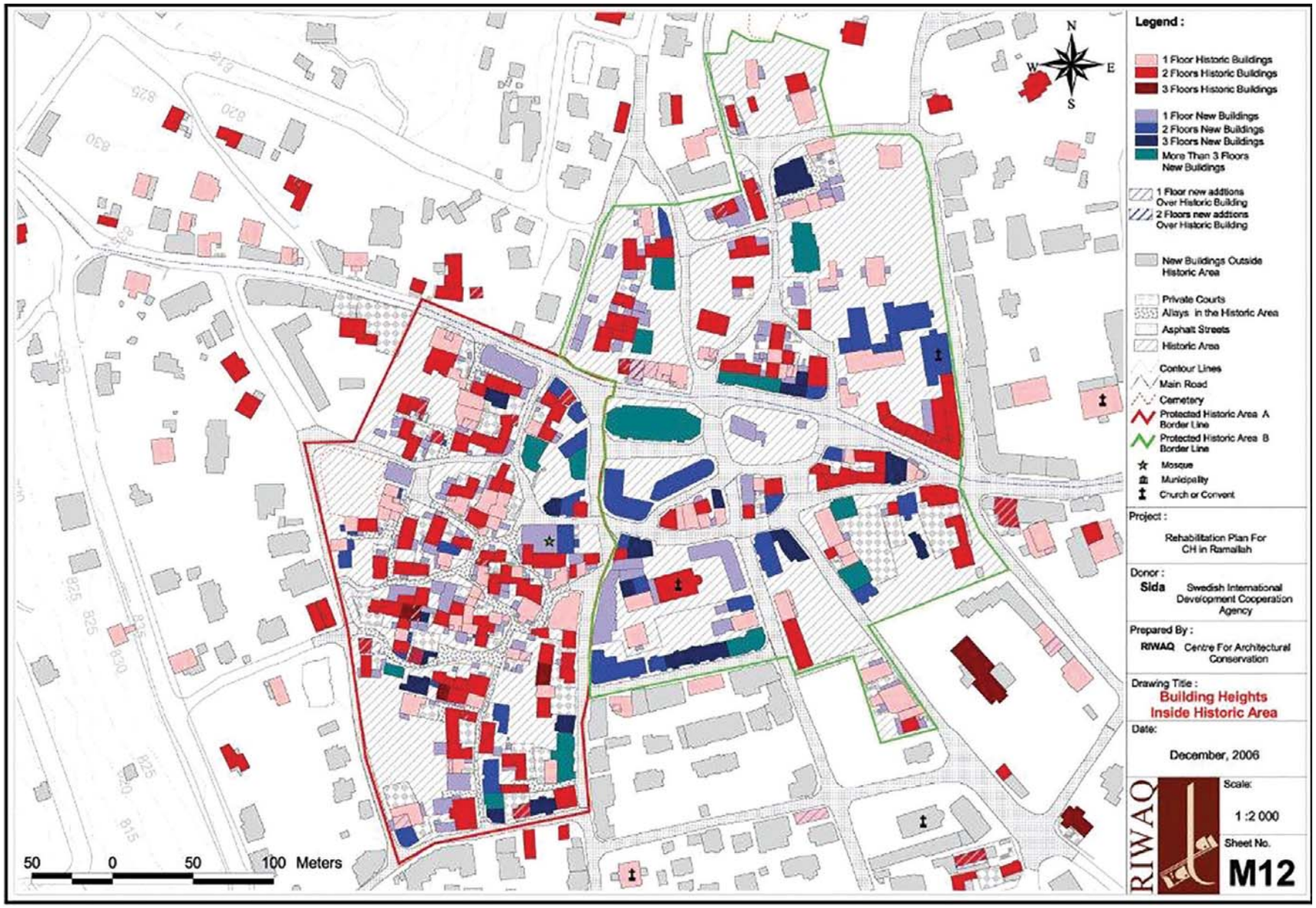
Regeneration of Deir Ghassaneh historic centre, RHC Bir Zeit Summer School 2016: ground floor use

3.2.5.4 Building typologies



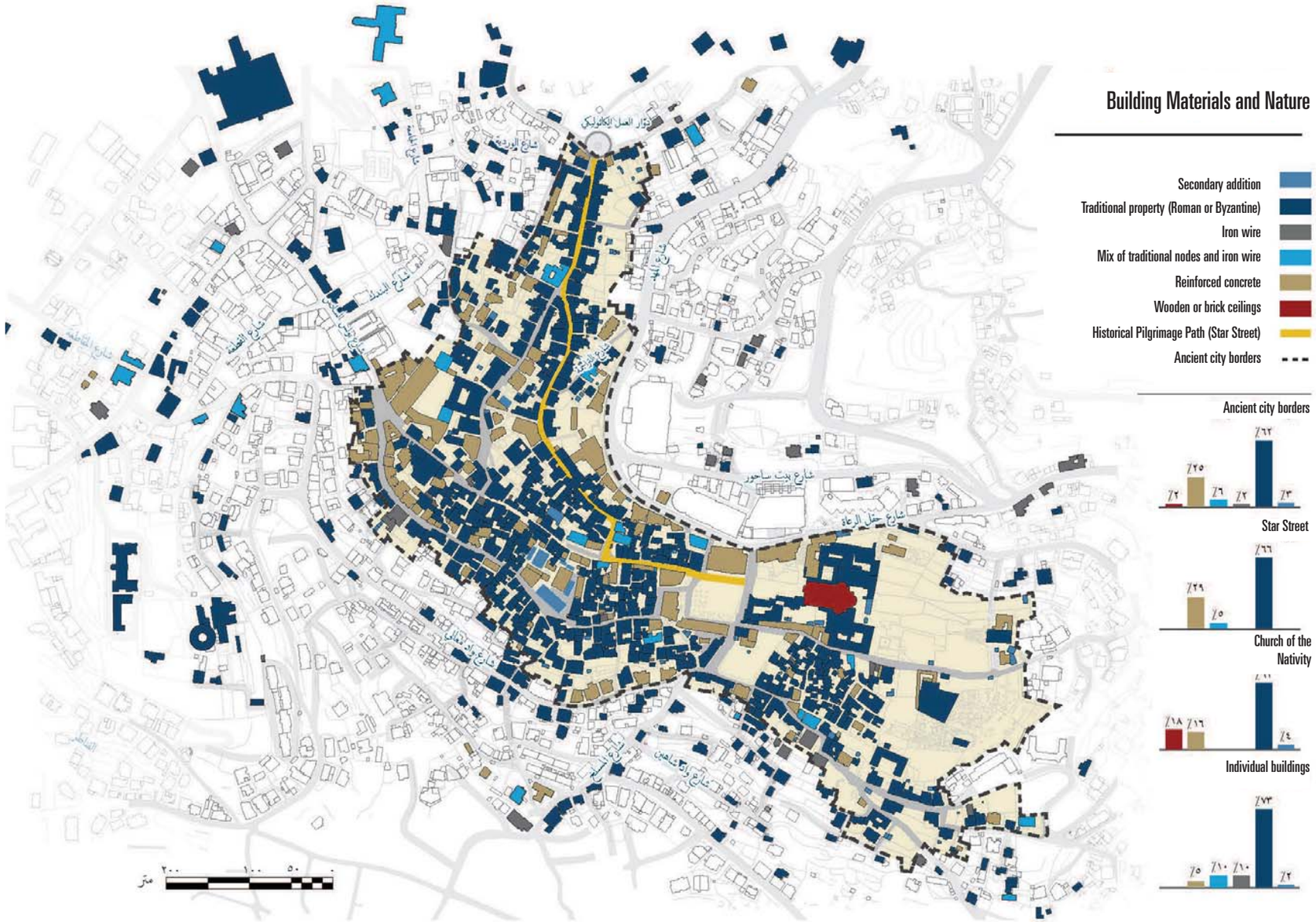
Bethlehem Conservation Handbook: housing typologies

3.2.5.5 Building height



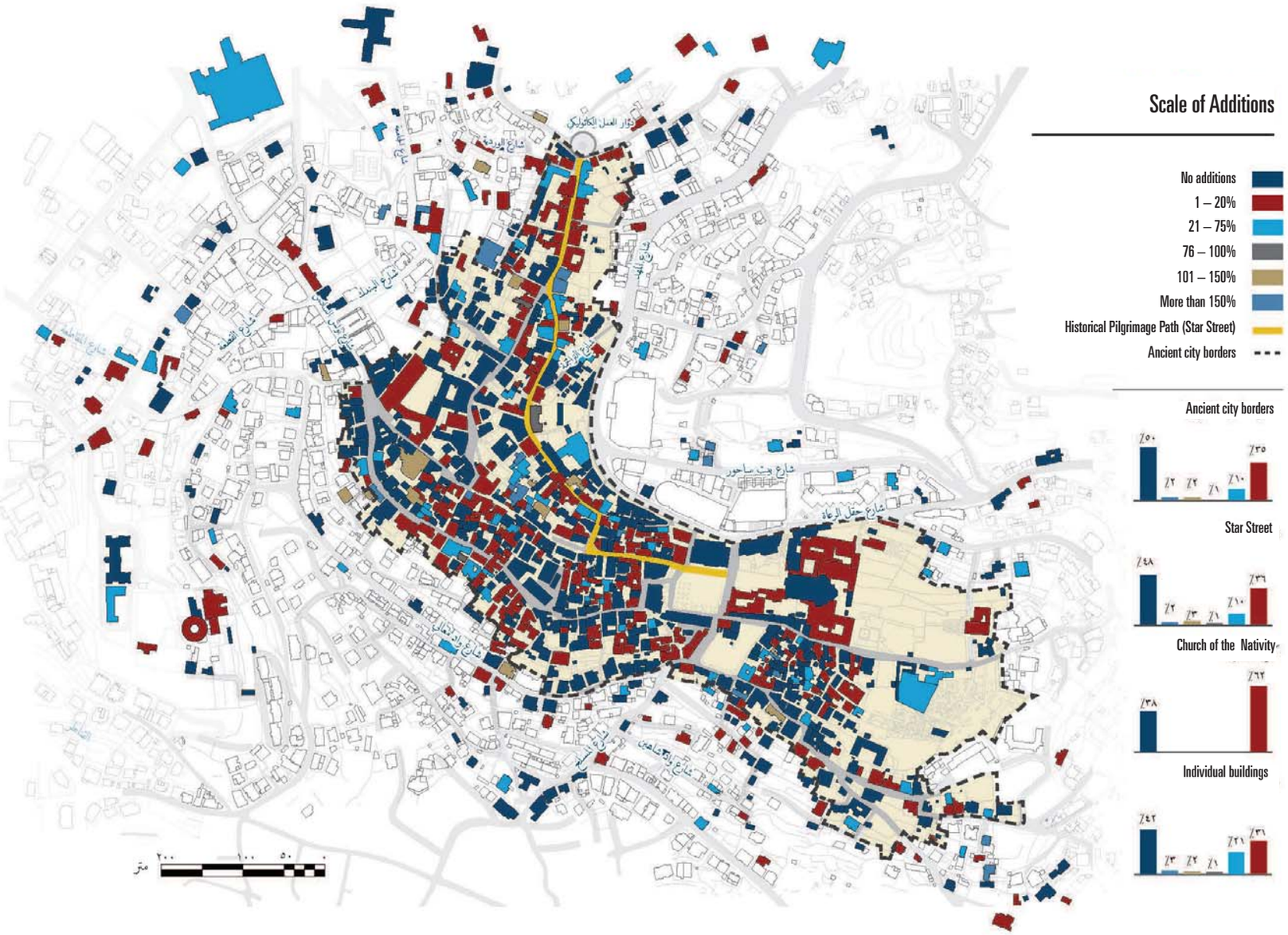
Rehabilitation plan for CH in Ramallah: building height

3.2.5.6 Building materials



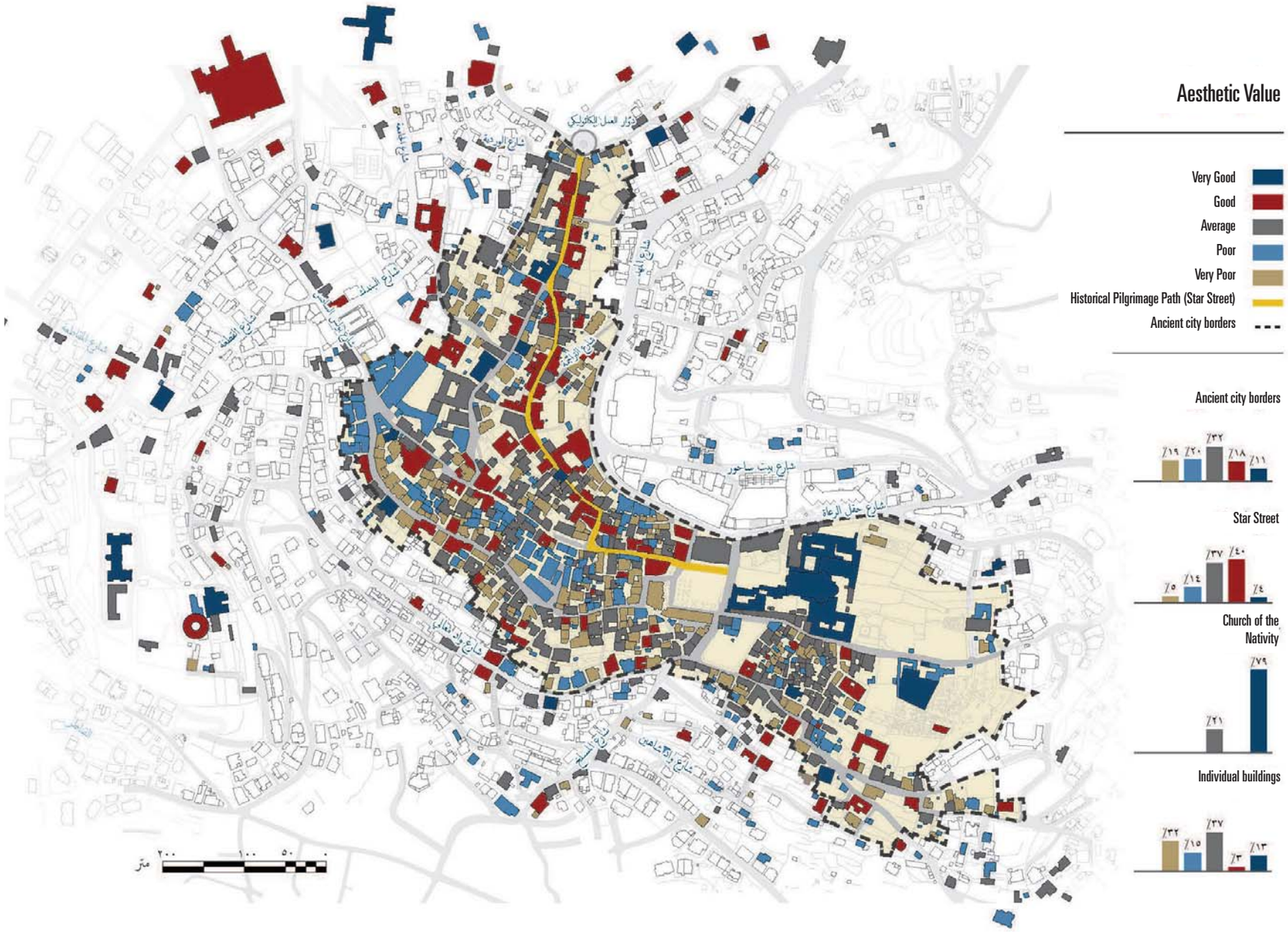
Bethlehem Conservation Handbook: building materials

3.2.5.7 Transformations



Bethlehem Conservation Handbook: percentage volume added to the original construction

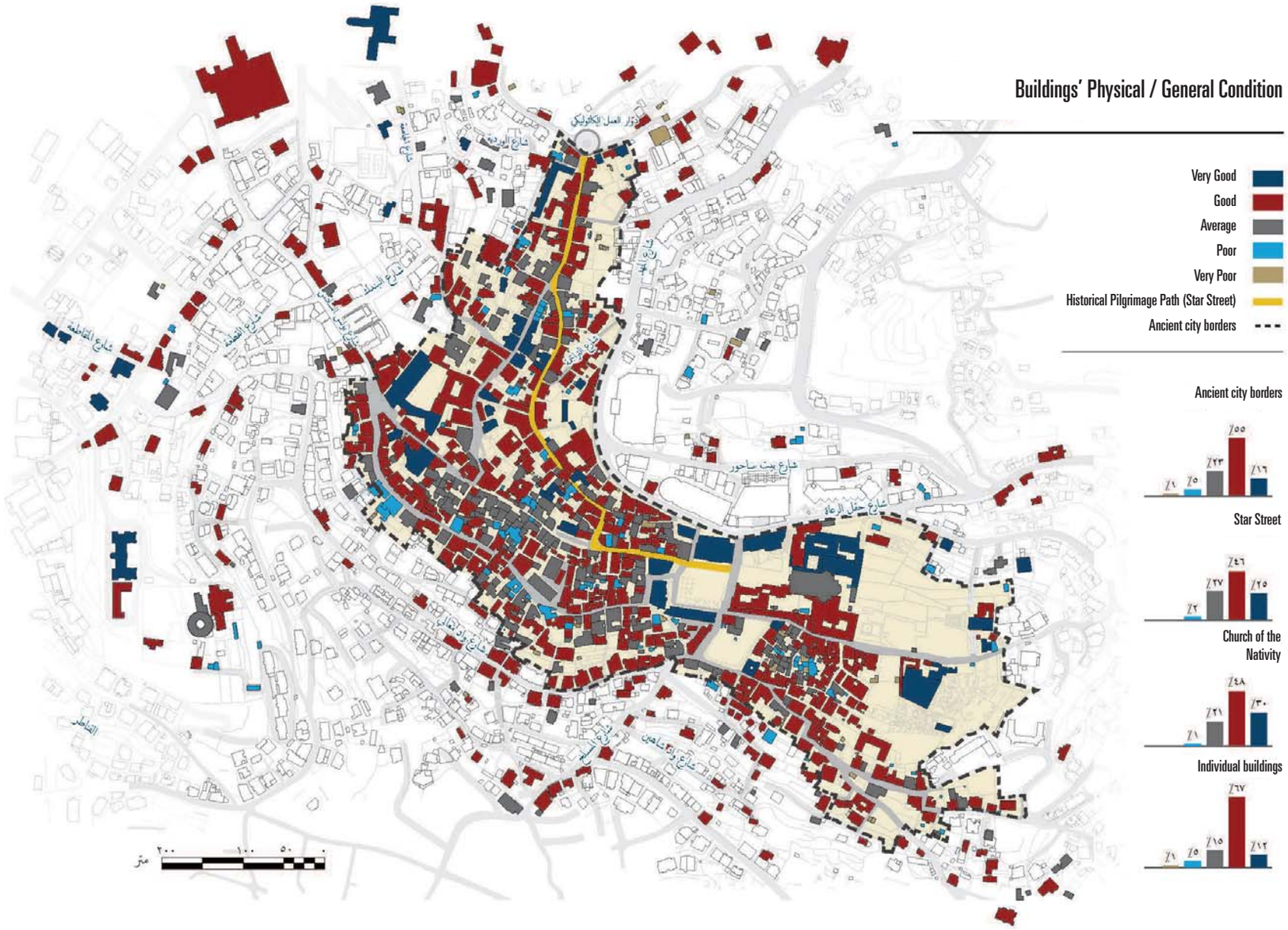
3.2.5.8 Architectural value



Bethlehem Conservation Handbook: aesthetic value of buildings

Rehabilitation plan for CH in Ramallah: registered and other historic buildings

3.2.5.9 State of conservation



Bethlehem Conservation Handbook: overall physical condition of buildings

3.2.5.10 Typology of public open spaces

Rehabilitation plan for CH in Ramallah: identification of alleys, streets, courts and squares

3.2.6 Classification of buildings according to heritage value

An important outcome of the Inventory is the classification of buildings, which acts as a basis for building regulations. For urban conservation, two sets of values can be used to classify buildings: their intrinsic *heritage value* (focusing on the building) and *contextual value* (relationship with the environment).
With regard to heritage value, the following are taken into account:

- The *architectural class*, which is the overall assessment given by the survey form for buildings. This is a cross-cutting appraisal of several factors leading to a univocal label for the building. In attributing a class, the following factors are considered: typology (quality and diffusion), construction techniques, and representativeness of an historic era or cultural group (being significant or adding character to the neighbourhood or immediate surroundings);
- The *listing status*, which is an important factor because it has management and preservation implications as defined by law.

With regard to contextual value, the following are taken into account:

- The *alignment* of the building front *with the street line*, which is symptomatic of the building's integrity, and respect of original urban morphology;
- The building's integrity, which can be judged by *modifications to the overall building*, considering that the integrity of individual buildings affects the integrity of the urban fabric as a whole;
- Additional factors pertaining to the relationship of a building with its context: *being a cultural or visual landmark, contrasting or fitting in with the urban setting*. The value of a building lies in its relationship with its context and its homogeneity or discord with the historic urban fabric.

The classification is based on the outcomes of the field survey, and takes the above values into consideration. Each class comprises buildings that can be subject to similar types of interventions, and could be defined as follows:

1. Outstanding, very high value, monument;
2. Excellent, high value;
3. Good, fair value;
4. Ordinary, no value;
5. Inconsistent, in contrast;

3.2.7 Classification of open spaces according to heritage value

The overall heritage value of open spaces in core zones can be established using the following criteria and parameters:

- Overall general quality: assessed based on shape and spatial quality, horizontal permeability, surface materials;

• Any recent widening*:* this appears when street alignments are disrupted by recent interventions, set back and/or increased in volume and height. Related to the analysis of building façades and particularly symptomatic of the integrity and authenticity of the urban fabric;

• The dominance of users i.e. the predominant use of the street, whether by pedestrians or vehicles. Indicates the presence of side factors such as pollution or noise, and the level of horizontal permeability; this parameter should be evaluated in cross-referencing the width of the street.

• Threats appearing in the form of informal or illegal appropriation of the open space; in particular, the presence of informal parking, the informal accumulation of solid waste, etc.

Similarly to buildings, open spaces can be classified in 4 groups (good, fair, ordinary, bad) spaces that require the same kind of management measures (i.e. solid waste management, parking regulations) and/or physical intervention for rehabilitation and upgrading, to be implemented through urban design guidelines.

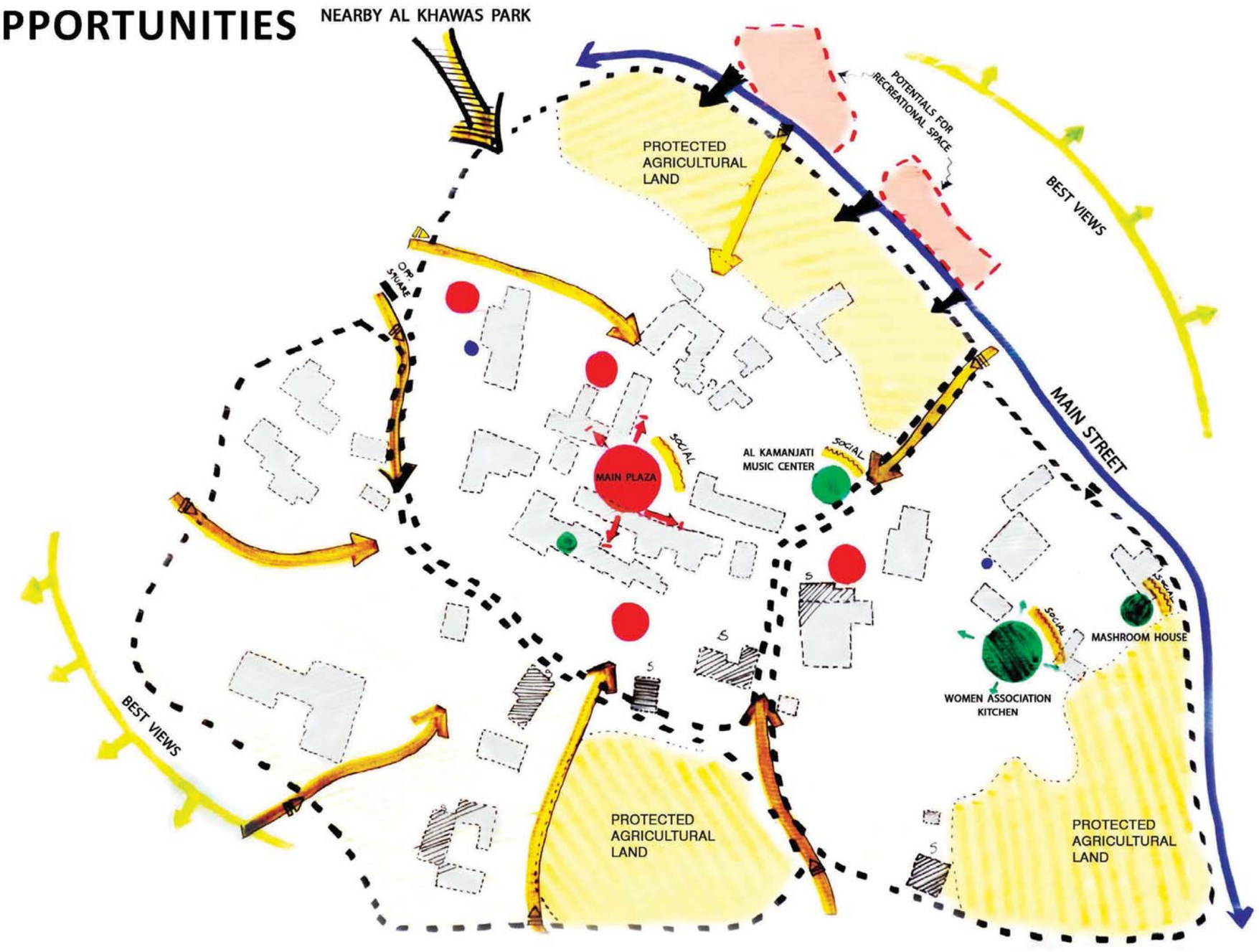
3.2.8 Evaluation and assessment (SWOT analysis)

A specific SWOT analysis, carried out with the same methodology described in chapter 2, is necessary to identify critical issues and challenges for conservation, as well as constraints and the potential for regeneration and new development. To this end, data from analyses and the Inventory (thematic maps) would be better grouped to highlight:

- The relationship with the wider territorial and urban context;
- Functional and socio-economic characteristics;
- Physical and environmental characteristics;
- Cultural heritage value
- The infrastructural and service system.

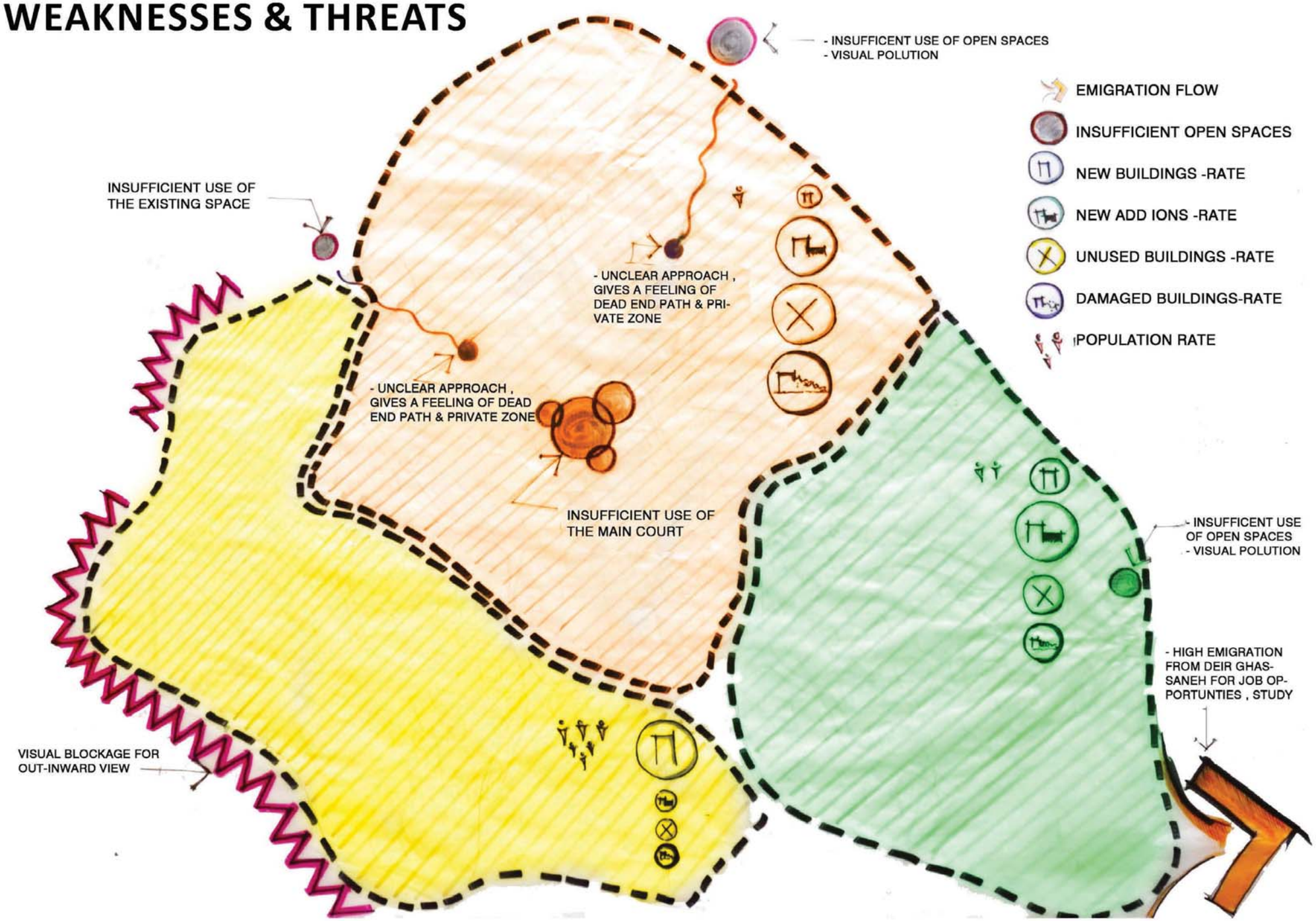
The outcomes of this analysis should be community participation initiatives involving institutional stakeholders to raise awareness and receive suggestions about the objectives and the content of the Conservation Plan.

STRENGTHS & OPPORTUNITIES



Regeneration of Deir Ghassaneh historic Center, RHC Bir Zeit Summer School 2016: S.W.O.T. Analysis

WEAKNESSES & THREATS



Regeneration of Deir Ghassaneh historic Center, RHC Bir Zeit Summer School 2016: S.W.O.T. Analysis

SWOT

S

- The high value of the historical center of Deir Ghassaneh.
- Women's urban kitchen and traditional crafts.
- The good conditions of structure for the most buildings.
- The good conditions of infrastructure of the historical center.
- Al-khawas park as attractive point for Deir Ghassaneh and surrounding.
- Open public spaces.
- Al-Kamanjati community center.
- The number of the entrances to the historical center.
- Location of the historical center with the context around.
- People acceptance for change and development.

W

- New human interventions on the old buildings.
- The immigration of youth out of the village.
- The distortion of entrances image.
- Riwaq strategy of rehabilitation is missing the future needs.
- The lacks of public services as health and entertainment.
- Unused agricultural lands.
- Private ownership impedes the usage of buildings.
- Insufficient investments.
- Weak environmental conditions indoor and outdoor (humidity, cleanliness, streets)
- Few greenery / No shading.
- Low population density.
- No job opportunities.
- No Social or institutional aware

O

- Available open spaces and squares.
- Agricultural potential (mostly in olive trees).
- Active cultural and women centers.
- Annual events that can promote local products.
- Viable recreational and entertainment centers.
- Tourist attraction for historical centersand natural landscape.
- Attention by institutional funding (Riwaq).
- Viable oil pressing.
- Local breeding, beekeeping, and poultry farms.
- Buffer zones around the historical center.
- Historical center is accessible by many available entrances.

T

- Future illegal human intervention: Random planning and extensions for the historical buildings.
- Unused renovated buildings: Migrants owners for historical buildings refused to rent it.
- Illegal building intervention: Break the rules of construction that have been developed by the government.
- Affordability of living: Unsuitable living condition inside traditional or historical buildings.
- Bad environmental conditions: Existence of living problems such as: humidity, ventilation and small
- Awareness (Visual): Lack of community awareness towards the preservation of the historical center

3.3 Regeneration strategy for historic settlements: conservation and revitalisation

3.3.1 The need for an integrated strategy

An integrated strategy for the preservation, rehabilitation and regeneration of historic centres is needed to respond to the challenges of urban development, which require simultaneous actions addressing different but interrelated issues, i.e.:

- Functional changes due to the decline or transformation of traditional activities and/or, in some cases, the development of new functions linked to specific historic circumstances (i.e. cultural and/or recreational activities, tourism);
- Changes in social structures and demographic trends as well as residential patterns that have led to an overall decline in housing stock;
- A lack of basic facilities and services for the resident population and the inadequacy of infrastructural networks, that have led to the increasing deterioration of environmental conditions;
- Changes in demand for mobility and in accessibility;
- Last but not least, the changing meaning and significance of cultural values and the sense of belonging of the resident population.

The charters, recommendations and guidelines issued by international organisations like UNESCO and ICOMOS lay down widely accepted approaches to and criteria for urban conservation. However, the variety of conditions presented by historic centres show that it is difficult, if not impossible, to provide one-size-fits-all action plans. It is only possible to identify general strategic objectives, which necessarily require long-term policies, appropriate tools and specific resources. International best practice shows that it is essential to consider the link between policies for enhancing cultural heritage and policies aimed at sustainable urban development, considering:

- The preservation and enhancement of cultural heritage as a source of social cohesion, generating consensus over the objectives of sustainable development;
- The challenge of combining the preservation of tangible and intangible cultural heritage with the demands of modernisation to improve the living conditions of the resident population;
- The potential for activities related to the conservation and promotion of cultural heritage to act as a driver for economic development; that is, as a means of creating jobs and generating income through cultural tourism, training and research, the craft industry and trade.

Therefore, the objectives of an 'integrated strategy' should focus on urban planning, economic and social development, governance and awareness-raising, considering that the pre-conditions for such integration are as follows:

- Overcoming the separate nature of conventional sectoral policies of intervention and funding for housing, infrastructure, tourism, heritage and so forth that usually applies to historic cities;
- Overcoming policies of intervention addressing the issues of historic city rehabilitation separately from the management of urban development as a whole;
- Establishing a governance and management system that guarantees real coordination between the different institutions concerned at local, regional and national levels.

An integrated strategy should also consider the historic centre as a vital component of the larger urban area, and its conservation an essential aspect of urban development policies. To this end, it must be implemented through multi-sectoral programmes and multi-purpose projects, involving multiple institutional and non-institutional stakeholders and promoting the proactive participation of the resident population in the decision-making process. In this regard, adopting the holistic approach laid out by the UNESCO recommendation on the 'Conservation of the Historic Urban Landscapes (HUL)' for all the historic cities and not only World Heritage sites is strongly recommended. In particular, the following aspects are to be taken into consideration:

- Heritage and culture must be considered as an asset for socio-economic development, not as a constraint, since they can become the drivers for new activities whilst affirming the national identity;
- Heritage conservation must be incorporated into the improvement of liveability and housing conditions through a strategy of "adaptive reuse" of buildings and spaces;
- The issues of conservation and regeneration of the historic centre must be addressed in the wider context of the larger urban area;
- Conservation measures for historic centres must incorporated in urban plans, not as a "sectoral" issue but as a fully strategic component.

Establishing conservation zones should not lead in any way to the freezing of the urban fabric; nor should it be used to transform the historic city into a theme park. On the contrary, it should be used to improve the living conditions of the population, and ensure the functional revitalisation of the historic city and its neighbourhoods. A virtuous cycle of rehabilitation and enhancement of the historic urban fabric should be created through combined actions of preservation and revitalisation, giving new meaning and significance to architectural and spatial features not only as real estate assets, but above all as cultural heritage shared by the urban community. This should be the aim of a consistent conservation policy within the larger context of sustainable development planning.

3.3.2 Urban planning and design strategies: priorities for intervention

An integrated urban planning and design strategy cannot be effective without considering both built and non-built components of the urban fabric in their cultural, social and economic dimensions with an emphasis on:

- The pivotal role of public spaces, the rehabilitation and upgrading of which is a major factor in improving the urban environment and making the image of the historic centre more attractive. Whenever appropriate, land uses and traffic regulations should be enforced that subvert vehicular circulation within and around the historic city, to the advantage of pedestrians;
- Respect for and the promotion of all components of the urban landscape that contribute to the city's identity, such as landmark buildings, historic or traditional streetscapes, and views over the surrounding landscape, which are often disfigured by harmful intrusions but should be promoted to strengthen the sense of belonging;
- The incorporation of the most important and attractive heritage sites located within (or in the surroundings of) the urban space. Particularly in the case of large archaeological areas, emphasis should be placed on the physical upgrading and functional rehabilitation of the interface between these areas and the surrounding urban districts, by improving access to the former and promoting the public use of the historic space and enclosed heritage assets, as long as this does not compromise their protection and safety;
- The adaptive reuse of portions of the historic building stock not only for housing purposes (this has seldom been the case) but rather for public use, including for services, cultural centres, small-scale businesses, etc. with interventions inspired by the principle of respecting historic architectural features, steering away from insensitive renovations or façadism.
- The densification of dilapidated urban fabrics with large vacant or ruined areas to reinstate their continuity and compactness, providing limitations to building height and plot coverage to ensure that renovation and reconstruction is compatible with the scale and spatial pattern;
- Preserve land subdivision patterns kept intact through the ages as far as possible.

This approach is particularly needed in the Palestinian case where the urban fabric of the historic centres is often dilapidated and amputated, with poor living conditions, lack of activities and services. Their rehabilitation and regeneration is a priority but it cannot consist in further irreversible losses of heritage values. In this regard, it is evident that the protection and restoration of individual buildings is not enough: the conservation and rehabilitation of the morphological and spatial characters of the remaining historic urban fabric is a necessary step toward the regeneration of the historic centre.

To this end, investment in the restoration and adaptive reuse of individual heritage buildings of high architectural interest and the preservation and management of archaeological sites can be seen as catalysts in a wider urban conservation and regeneration process. Urban conservation is often understood as a pre-requisite for developing cultural tourism in historic

centres, representing an investment which in turn creates the resources to ensure sustainable rehabilitation. However, there is a risk in some cases that the combination of conservation and tourism development transforms the historic centre into a kind of theme park, thus affecting its social and cultural identity. In many cases, the potentially positive economic impact of other activities cannot be underestimated,for instance the "traditional" handicraft and building sector that could be revived and developed by heritage buildings restoration and housing stock rehabilitation programmes. In Palestine, a tourism development strategy has been successful in main cities, where heritage has been preserved and makes the destination attractive, as opposed to rural areas where the heritage and cultural potential is largely neglected.

In general, an approach should be developed and implemented that considers heritage as a resource to be protected and utilised through imaginative but appropriate solutions, not as a constraint to be minimised or eliminated for the sake of conventional and standardised modernisation. An approach should be developed that targets the resident population and aims to transform historic buildings and traditional public spaces into community-related poles that can once again play a significant role in the life of the historic centre and the public re-appropriation of its space.

In this framework, specific attention should be paid to accessibility and mobility issues. One big issue is traffic pressure in larger historic centres, which hold important central functions of urban relevance. In such a case the road system must be reorganised to make traffic compatible with the spatial and functional characteristics of the urban fabric, whilst mere infrastructural interventions (i.e. street widening and opening) should be rejected. If the overall objective is eliminating heavier through traffic, more appropriate solutions for reorganising traffic must be found through a careful spatial and functional analysis of each specific urban fabric. Attention should be paid to parking arrangements and locations, as these are usually an important point of attraction for vehicles, and to reducing the interruption of pedestrian flows, particularly in denser commercial areas. To this end, the Conservation Plan should identify appropriate and sufficient parking areas at the edges of core zoness, preferably in the buffer zones, and make proposals for possible pedestrian areas.

3.4 The Conservation Plan

3.4.1 Criteria for zoning measures and building regulations

In international practice and from a technical point of view, the Conservation Plan sets out detailed zoning measures and building regulations, the rules and technical specifications to be respected in undergoing any public or private intervention. As shown by the example in section 3.6.1, it should:

- Identify the "core Zone" and Buffer Zone and sets the conditions for granting building permits and controlling the transformation of properties, including the parcellation, in both zones by the concerned administrations.;
- Identify and classify the buildings and open spaces in different categories, to be subject to different degrees and types of protection;
- Set the conditions for the conservation, rehabilitation and revitalisation of the historic and traditional built fabric and landscape, together with their monuments, buildings and open spaces, in accordance with the values assessed and documented by the Inventory and the other analyses described in section 3.2;
- Provide the conditions for the most appropriate use of the historic monuments and heritage buildings, in accordance with all the provisions of the urban plan (land-use, accessibility to the site. etc.) and obviously taking into consideration existing services, environmental conditions, related open spaces, property issues, users and entrepreneurs, but most of all, the spatial and architectural characteristics of buildings. To this end, establishing a list of compatible uses for each typology is recommended (see section 3.2.3);
- Identify sensitive and strategic heritage areas within the protection area in need of priority rehabilitation and revitalisation interventions, providing guidance for drawing up detailed plans and intervention projects.

The Conservation Plan also aims to increase the transparency and accountability of the public sector in the control of building activities, which are often managed with subjective and unclear criteria. For this reason, community participation and stakeholders' involvement initiatives, based on shared understanding and awareness, are important.

3.4.1.1 Principles and planning criteria for the core zones

The core zones is identified as the area with the highest cultural significance and the highest spatial concentration of heritage value. Its protection is a mandatory pre-condition for its improvement and revitalisation. The core zones can be divided into zones according to its historic development, heritage value, functional and spatial characteristics, and objectives, i.e.:

Conservation zones: these comprise the areas with the highest heritage value in their fabric, architecture, uses and settings. Regulations set detailed prescriptions and recommendations that must be respected in all public and private interventions. Conservation zones can include built fabric with different heritage value; i.e. zones of well-preserved and consolidated historic or traditional built fabric where the urban spatial pattern has been entirely preserved, or transitional or mixed built fabric, in which modern elements coexist with historic or traditional ones, such as an intact street pattern or dispersed heritage buildings that need preservation;

Regeneration zones: these comprise the areas within the core zones in need of rehabilitation, upgrading or limited change to reinstate the consistency and continuity of the urban layout and fabric, whilst preserving historic elements and heritage value. A regeneration zone could be identified with criteria such as the following:

- Contains areas with a deteriorated urban environment and/or land uses that conflict with its surrounding context;
- Contains areas that require priority urban landscape interventions and streetscape upgrading;
- Contains areas of specific heritage value and strategic interest with high potential for being attractive and for revitalisation.

Open spaces and non aedificandi areas: these include areas where no development is allowed, such as:

- Streets, roads, squares, parks, playgrounds and other open spaces for public use;
- Open spaces of environmental or landscape interest;
- Spaces that may be relevant for the implementation of urban infrastructure plans;
- Spaces to protect key views of the historic urban area and specific sites.

For each zone, the Conservation Plan should set out provisions on the following:

- Permitted and prohibited uses;
- Land subdivision parameters;
- Categories of intervention for the inventoried properties;
- Land use and building form parameters for the categories of intervention;
- Specific building regulations.

Zoning measures and building regulations should establish the possible functions and uses of the buildings and plots in the various areas of the conservation zone. Permitted functions must be compatible with the spatial characteristics and architectural features of historic and traditional buildings, enhancing their heritage value, volume, spatial organisation, façade composition and layout as much as possible. Moreover, regulations

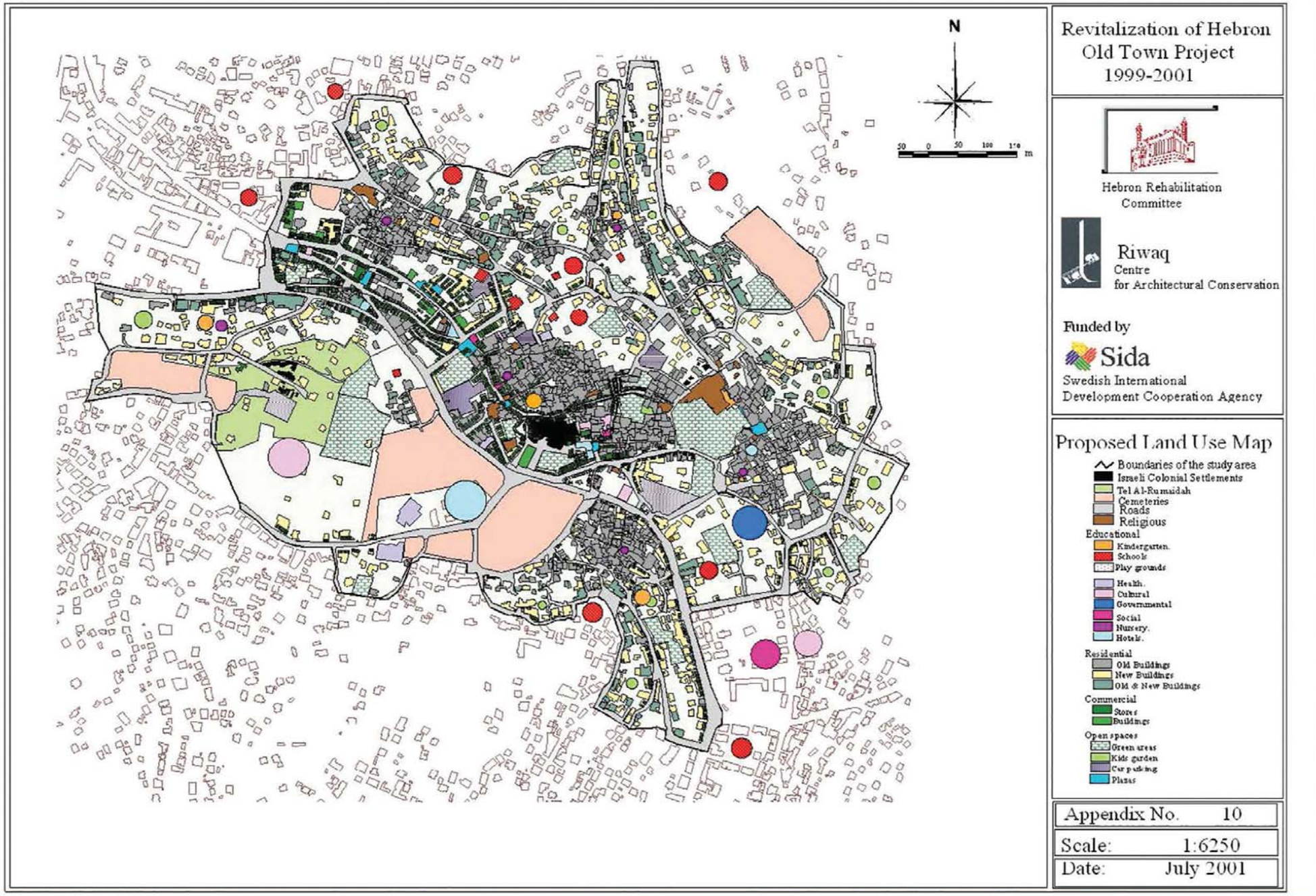
should set out provisions that condition the size and shape of the plot layout, to control the land subdivision pattern.

Moreover, it is crucial that the Conservation Plan establishes the conservation or transformation interventions permitted for each building, based on data on the architectural value and integrity, the state of conservation and other relevant information from the Inventory (see section 3.6.1). These should include prescriptions and recommendations on materials and building techniques, the treatment of the façades and roofs (types of roofs, projecting elements, solid to void ratios), the location of technical equipment, and other relevant elements that may affect the building typology and appearance.

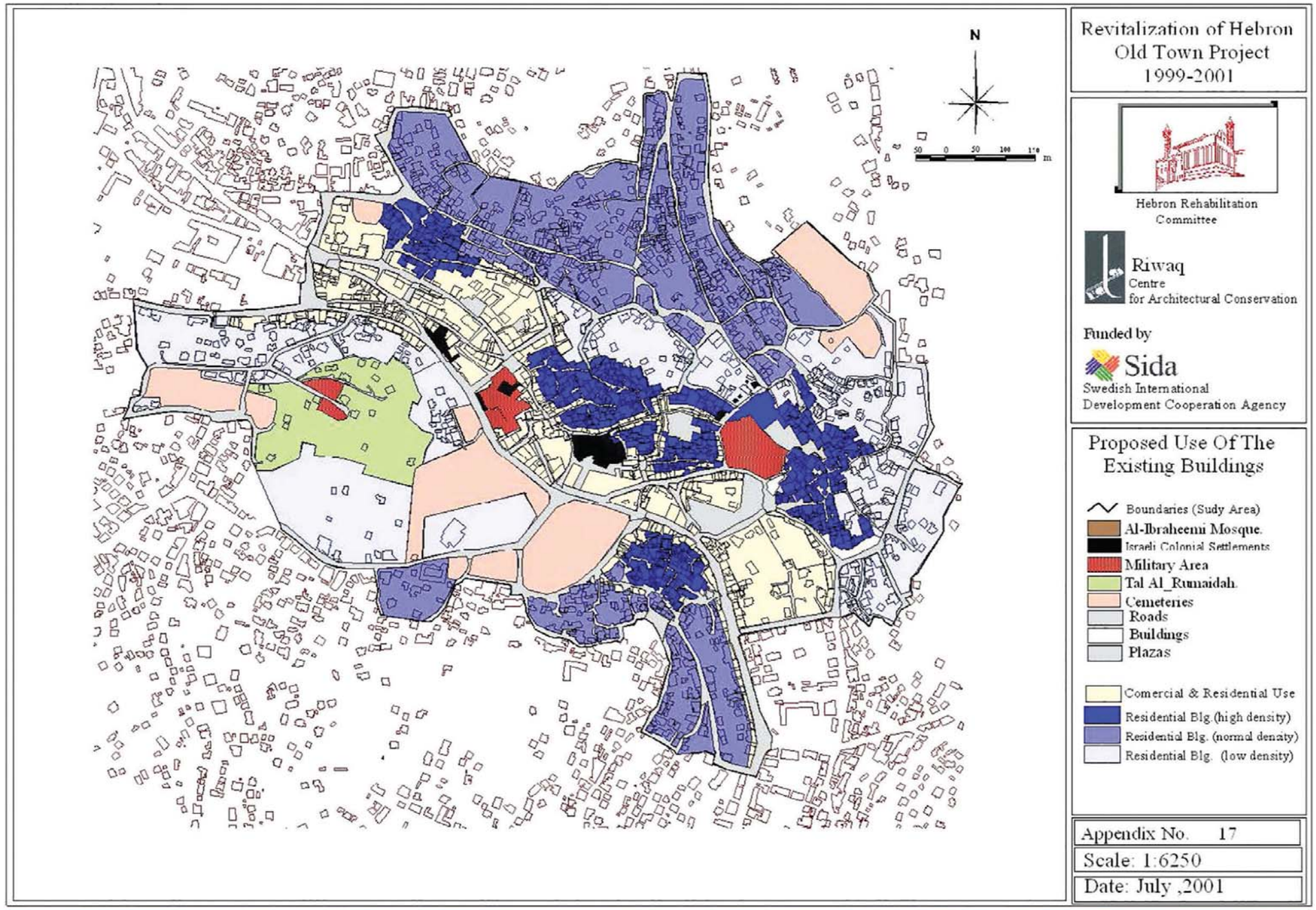
With regard to regeneration zones, these should be clearly identified by the Conservation Plan, and subject to specific regulations and urban design guidelines, based on an analysis of the urban fabric and data from the Inventory. All interventions should be permitted only after approval by the authorities concerned of a detailed plan establishing land use and urban layout, building topologies with related massing and building heights, street lines, plot occupation and all the other relevant parameters to ensure the highest environmental quality and coherence with the historic fabric.

Finally, in the core zones, the Conservation Plan should include zoning measures and urban design guidelines to preserve, upgrade or create new open spaces and landscape features for public use. It should protect and improve each component of the historic urban landscape, including:

- Street alignments, both at ground and roof level;
- The spatial articulation of the urban fabric, particularly the relationship between the built-up structures and the open spaces, within and outside the blocks perimeters;
- The characteristics of the street, places and squares, and other open public spaces, including any relevant aspects of buildings façades and fencing walls;
- The presence of courtyards and private open spaces;
- The presence of trees and other vegetated areas.



Revitalisation of Hebron Old Town Project: zoning measures.



Revitalisation of Hebron Old Town Project: proposed uses of existing buildings.

3.4.1.2 Principles and planning criteria for the buffer zone

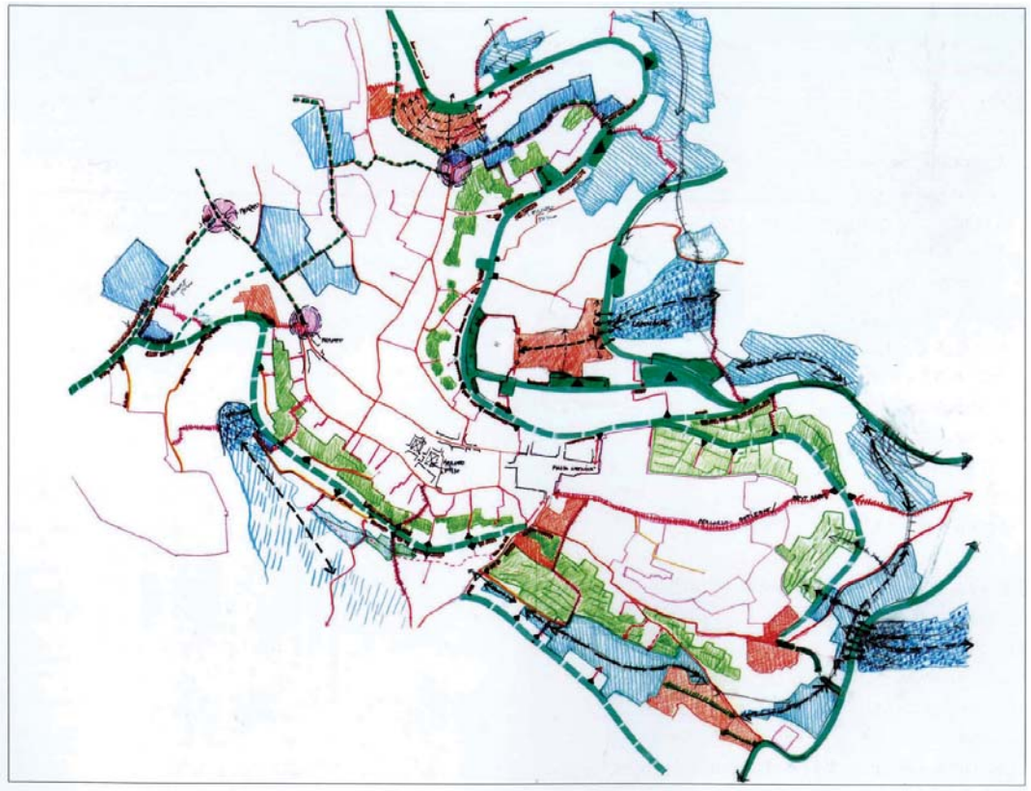
The buffer zone is an area surrounding the core zone where development and landscape transformations should be controlled so as not to harm conservation efforts in the protection area. The area should be subject to specific regulations to preserve the historic, functional and visual links between the historic urban area and its surroundings.

The buffer zone can also be subdivided into smaller zones based on their functional and spatial characteristics, and development objectives for the area. It can comprise zones with diverse characters such as built fabrics that do not have any specific heritage value, landscape features, areas of agricultural land, among others. For each of these zones the establishment of specific land uses and planning measures is recommended to ensure the protection of the visual perception of the historic urban area and integration with its surrounding spatial context.

The measures to be established for each zone depend on the latter's intrinsic functional and morphological characteristics, and on its visual and physical relation with the core zone. Key objectives for the buffer zones could aim to:

- Consolidate ongoing urban expansion;
- Provide spaces for new facilities and housing typologies that may be inconsistent with the core zones;
- Ensure the physical link of the core zones with the surrounding natural and urban context;
- Preserve key views towards and over the historic built fabric, landmark features and the town skyline.

The buffer zones may correspond to or include the zones established by the Land Use Plan when the related measures are consistent with the above objectives. If the Conservation Plan is developed as a separate planning tool, it is important to ensure that its provisions are integrated with those set out in the Land Use Plan.



Bethlehem Area Conservation and Management Plan: planning scheme for the buffer zone

3.4.2 Categories and types of interventions for buildings

According to internationally accepted standards, the following intervention categories are usually used for the built components of urban fabrics:

3.4.2.1 A - Conservation interventions

These interventions aim at protecting heritage buildings and result in the preservation of their architectural features, with no or few changes to their volume and height, whilst functions may be changed in accordance with the principle of adaptive reuse. The category includes the following types of conservation interventions, with increasing levels of modifications to a building's current state:

- A0. Maintenance: This type of intervention applies to recently restored new buildings which are well integrated in the historic urban fabric. The building should be kept in the present state, with minor adaptations for hygienic or service purposes, without modification to the façade, layout, volume and materials
- A1. Restoration: This type of intervention applies to listed buildings of monumental character and outstanding architectural value. The building should be returned to a known earlier state by removing accretions or reassembling existing components without the introduction of new material. The contribution of all relevant periods to the layout of the property and the architectural structure and appearance of the buildings must be respected. If a building includes the fabric of different historical periods, the choice to reveal the fabric of one period at the expense of another can only be justified when what is removed is of less cultural significance than the fabric which is to be revealed. Anastylosys is allowed within the limits of the Venice Charter (ICOMOS 1964). No modification could be allowed of the existing height, volume and footprint. No changes of the present uses are allowed, but for public and cultural uses.
- A2.Rehabilitation: This type of conservation intervention applies to buildings with a high architectural quality, which still keep their historic or traditional typological, constructive and decorative features with no reference to the state of repair. This type of intervention aims at making properties and buildings available for previous or new uses, when these are compatible with the preservation of spatial characteristics. The intervention implies the adaptive reuse of the existing volumes and structures with no mayor transformations. This type of intervention implies the preservation and the re-constitution of the typological layout, the architectural structure and the decorative elements of the buildings. No transformation is allowed to modify the layout of the volumes, including building heights and alignments, façade composition and architectural elements including the type and the shape and the roof and the openings, façade decoration and finish, traditional materials and constructive characters. Existing inconsistent structures and additions have to be removed and replaced with structures, which are consistent with the traditional characters of the layout and buildings. Minor additions and alterations are admitted, in order to make the new uses possible, providing the necessary services and facilities. These transformations have to be integrated in the volume and the layout

of the building, forming a consistent ensemble and using compatible building materials and techniques.

- A3. Upgrading: This type of intervention applies to building and structures with a lesser heritage interest and architectural quality, which don't conflict with the surrounding historic urban context. According to the ICOMOS Burra Charter, this type of conservation intervention refers to "upgrading and modifying a place to suit the existing use or a proposed use. It is considered acceptable where it will support the conservation of the place and where the renovation/ adaptation does not substantially detract from its cultural significance". The upgrading intervention implies the possibility to improve previous uses, and/or to make the building available to new uses without its complete demolition. Major changes to the building layout, the volume and the height are admitted, with the removal and replacement of inconsistent structures and the construction of vertical and horizontal additions within the limits of the Conservation Plan regulations. All the transformations have to be consistent with the building layout and form a unique and integrated ensemble, using compatible materials and techniques.

These interventions would apply to any buildings of heritage interest (not only buildings that are listed or to be listed), depending on their architectural value, level of transformation, uses and state of conservation.

3.4.2.2 B - Transformation interventions

These types of interventions apply to buildings with no heritage value that represent a rupture in the continuity and the spatial pattern of the urban fabric because of their alignment, height, typology and structure. The interventions could imply a change of volume and height, based on the regulations of the Conservation Plan. These interventions are aimed at transforming existing buildings and structures to integrate them into the historic context, or at least to mitigate their negative impact:

- B1. Remodelling and renovation: this type of intervention is specifically indicated and regulated by the Conservation Plan and it applies to all recent buildings which are in conflict with the historic character of the urban fabric and represent a rupture in its spatial pattern. It implies the transformation of an existing building to make it compatible with the historic urban context as for the height and the façades. It may consist in the demolition of inconsistent addition, lowering of the height according to the restrictions of the Conservation Plan, the transformation of the roof shape, the reshaping or replacement of the openings and other contrasting architectural elements, as well as the harmonisation of the façade composition, materials and colours.

- B2. Reconstruction or redevelopment: Both types of intervention are specifically indicated by the Conservation Plan and apply to recent buildings of all types, with no heritage values and inconsistent volume or architectural features. They imply the possibility to demolish and rebuilt an existing building in the same or a different position, respecting

the land use and the building prescriptions of the Conservation Plan, with the aim of re-establishing the continuity of the historic urban fabric, with the use of compatible and appropriate materials and building techniques. Reconstruction requires the respect of the street alignment, the footprint, the volume articulation; the height cannot exceed the maximum established by the Conservation Master Plan, despite the height of the previous building. Redevelopment implies the possibility to demolish and rebuild an existing building, but in a different position, as identified and regulated by the Conservation Plan.

- B3. Demolition: This type of transformation intervention applies to existing buildings (or parts of them) to be demolished, without reconstruction or redevelopment of the land, which can only be cleared and made available for public or private purposes, including New landscape arrangements and urban infrastructure improvements, such as parking, gardens, playgrounds, temporary shelters or removable constructions such as kiosks, shades, canopies, and service facilities.

These interventions apply to buildings with no heritage value that represent a break in the continuity and spatial pattern of the urban fabric due to their alignment, height, typology and structure. Interventions could result in a change in volume and height, based on the regulations of the Conservation Plan.

3.4.2.3 C - New buildings

This type of intervention applies to vacant plots that have never been developed.

New buildings are admitted only when allowed by the land use regulations of the Conservation Plan, and should follow prescriptions and recommendations on alignment, height, massing and volume articulation, materials and other relevant aspects that ensure the building's integration into the historic urban fabric.

3.4.3 Categories and types of intervention for open spaces

With regard to open spaces, intervention categories can be set as follows:

3.4.3.1 Conservation

These interventions aim to protect heritage features and result in the preservation of a space's features with no or few changes in its morphology. Types of conservation interventions include:

- Maintenance, Enhancement: this type of intervention refers to the preservation of the integrity and improvement of existing assets' open spaces. It includes both preventive and routine maintenance aimed at preserving the structural integrity of pavements and street furniture, the lighting units and signage, and street plantings; and providing an effictive solid waste management system. It may entail closing the street to vehicular access; by reducing the speed of vehicular traffic with speed reducers; providing shaded areas by planting trees; installing a clear signage system, etc. It allows for alterations and/or additions that are reversible. The selection of items has to be consistent with the spatial layout and must form a unique and integrated ensemble, using compatible materials and shapes.

- Rehabilitation, Upgrading: this type of intervention aims to make open spaces available for their previous uses or for new uses, when the latter are compatible with the preservation of their spatial characteristics. The intervention implies no major transformations: it preserves or partially recreates the typological layout by preserving street alignment, finishings or softscapes. Traditional materials and spatial subdivisions are preserved. Existing inconsistent structures and additions have to be removed and potentially replaced with structures consistent with the traditional character of the historic urban fabric. Minor additions and alterations are allowed to make new uses possible, and to provide necessary services and facilities. Inconsistent structures and visually intrusive elements shuld be removed. All transformations have to be consistent with the spatial layout and must form a unique and integrated ensemble, using compatible building materials and techniques.

3.4.3.2 Transformation

These interventions aimed to transform existing open spaces to integrate them into the historic context, or at least to mitigate their negative impact. Types of transformation interventions include:

- Remodelling/reshaping: it refers to any technical work that alters the structure or form of the urban open space in order to improve its spatial quality. It involves substantial modifications to the surface area and perimeter, and can be applied extensively along the streets or in specific areas and squares. Radical changes to the spatial layout, including volumes, surface materials, plantings and softscape elements are allowed, as are the removal and replacement of inconsistent structures, reestablishing the continuity of street alignment and/or former spatial patterns, and the construction of infrastructures which

may require new street alignments and spatial arrangements.

• New openings refer to the creation of open spaces on the plot of a former building. The intervention aims to change the plot's land use. Therefore, major changes to the spatial layout, including volumes, surface materials, plantings and elements of the softscape are allowed, as are the removal and replacement of inconsistent structures and the construction of infrastructures within the limits of Conservation Plan regulations. All transformations must be consistent with the spatial layout and must form a unique and integrated ensemble, using compatible building materials and techniques.

3.4.4 Guidelines for upgrading public open spaces

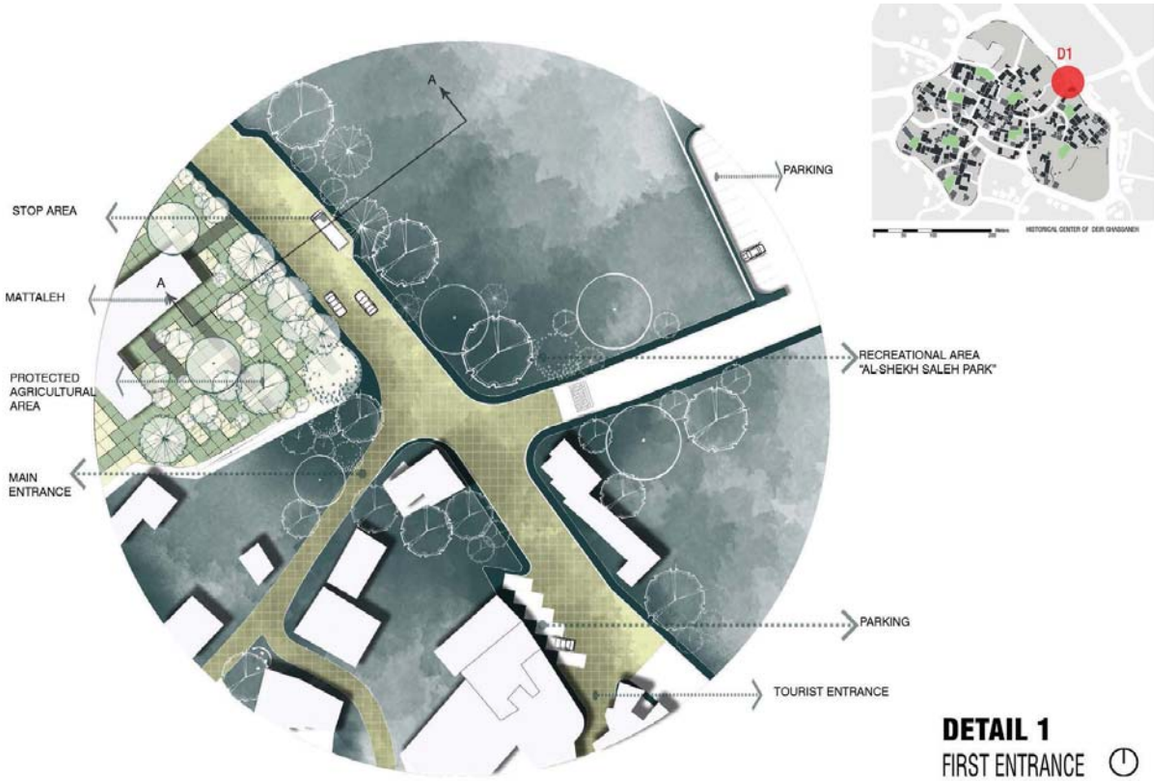
It is recommended that Planning and Building Regulations are supplemented by Guidelines for the application of provisions as well as any other points that are subject to interpretation and require forms of guidance. The guidelines do not have legal effect, but they are essential for the correct implementation and understanding of regulations. They are intended as sort of handbooks for raising cultural awareness and increasing professional capacity. They should target professionals as well as the general public, and include examples of good practice, as well as diagrams and sketches of possible solutions for achieving planned and recommended results.

Guidelines are recommended for:

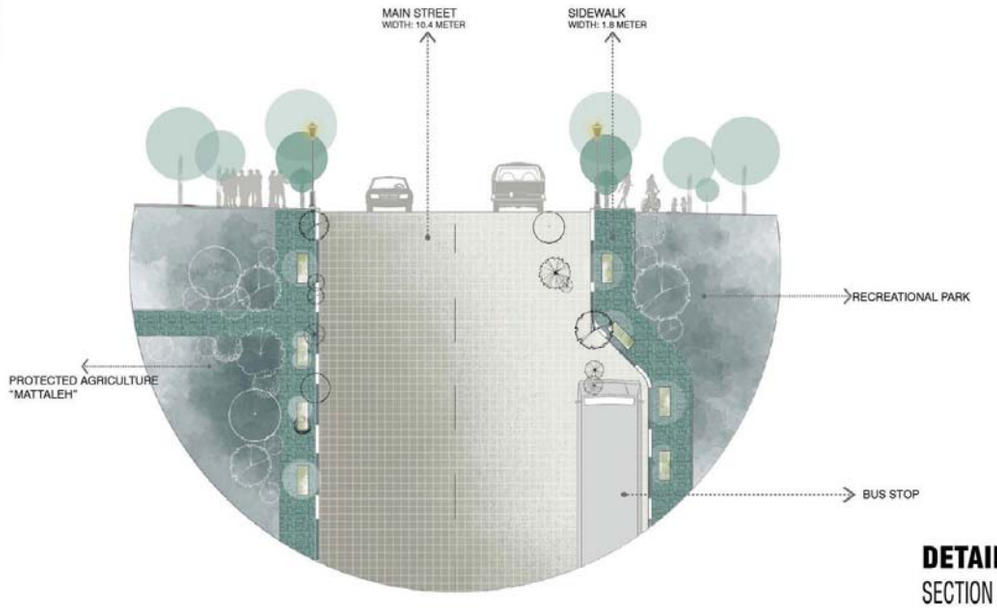
• Improving the streetscape, in terms of the design layout of different types of streets and open spaces; the design of paving and hard landscapes, materials and street furniture (lighting, signage, advertising, etc.) The streetscapes should promote heritage buildings and enhance the continuity of the urban space. Standard solutions should be avoided to make use instead of the diversity of spaces, architectural typologies and materials;
• The design of public open spaces for leisure and recreational use (such as playgrounds, gardens and parks), and especially 'pocket spaces' that reuse small vacant areas that could otherwise become a sort of no man's land;

In general, the implementation of these guidelines requires the revision, and sometimes radical change, of the road system, to improve mobility in and the accessibility of the historic urban area, whilst also limiting vehicle traffic. This could be achieved by setting specific provisions excluding motor traffic from certain areas (pedestrianisation), or enforcing limitations to make the area pedestrian-friendly and increase walkability.

To this end, it is fundamental that each open space be considered part of a continuous and articulated system that connects different neighbourhoods and poles of activities within the core zones, through sequences of spaces that make heritage value visible. The quality of these sequences is a heritage value in itself, which adds to the liveability and attraction of the historic centre.

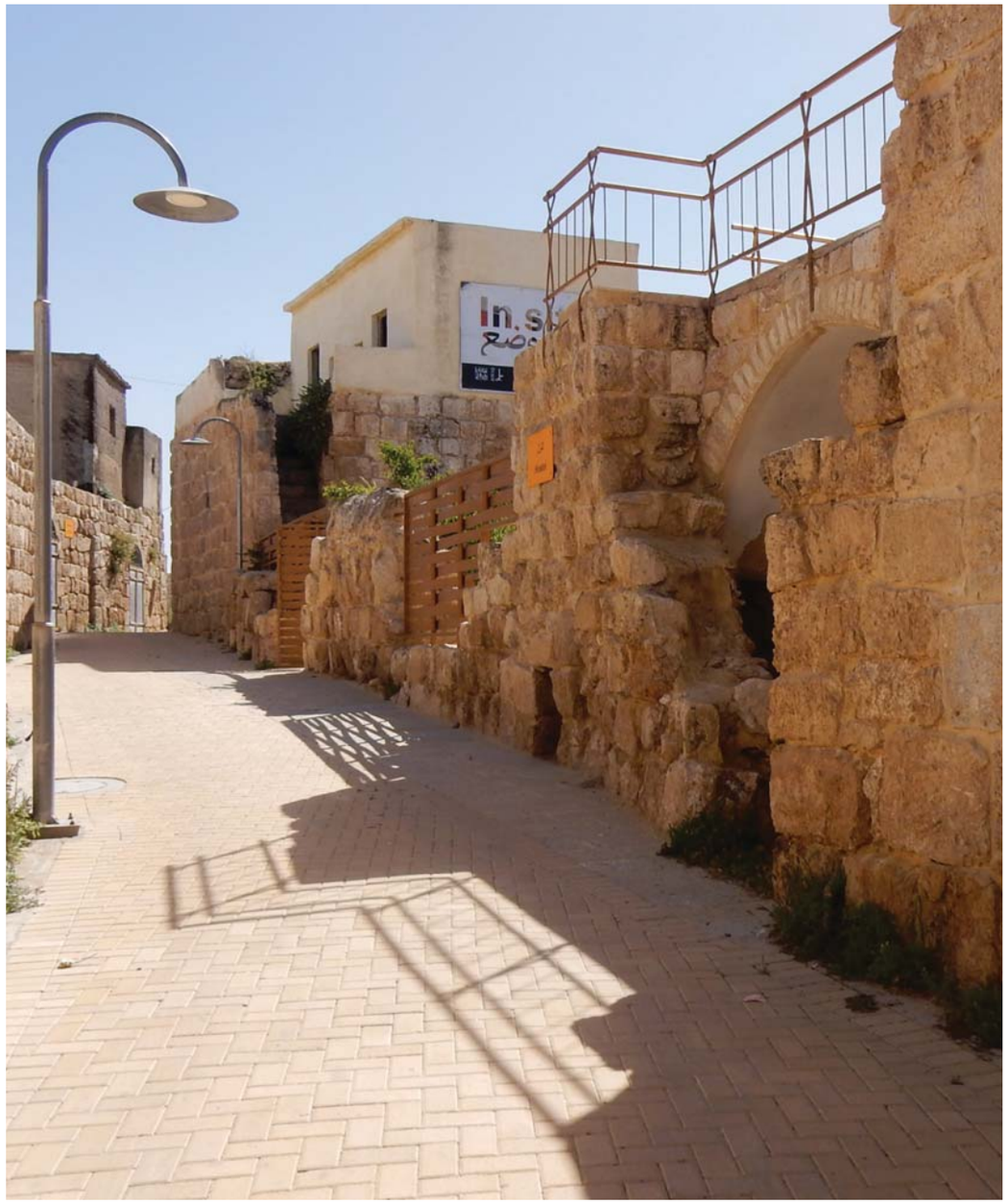


DETAIL 1
FIRST ENTRANCE



DETAIL 1
SECTION A-A

Regeneration of Deir Ghassaneh historic centre, RHC Bir Zeit Summer School 2016: proposals for the creation of new public spaces & pocket gardens.



Adh Dahiriya, Riwaq's interventions for the adaptive reuse of historic buildings and rehabilitation of public spaces

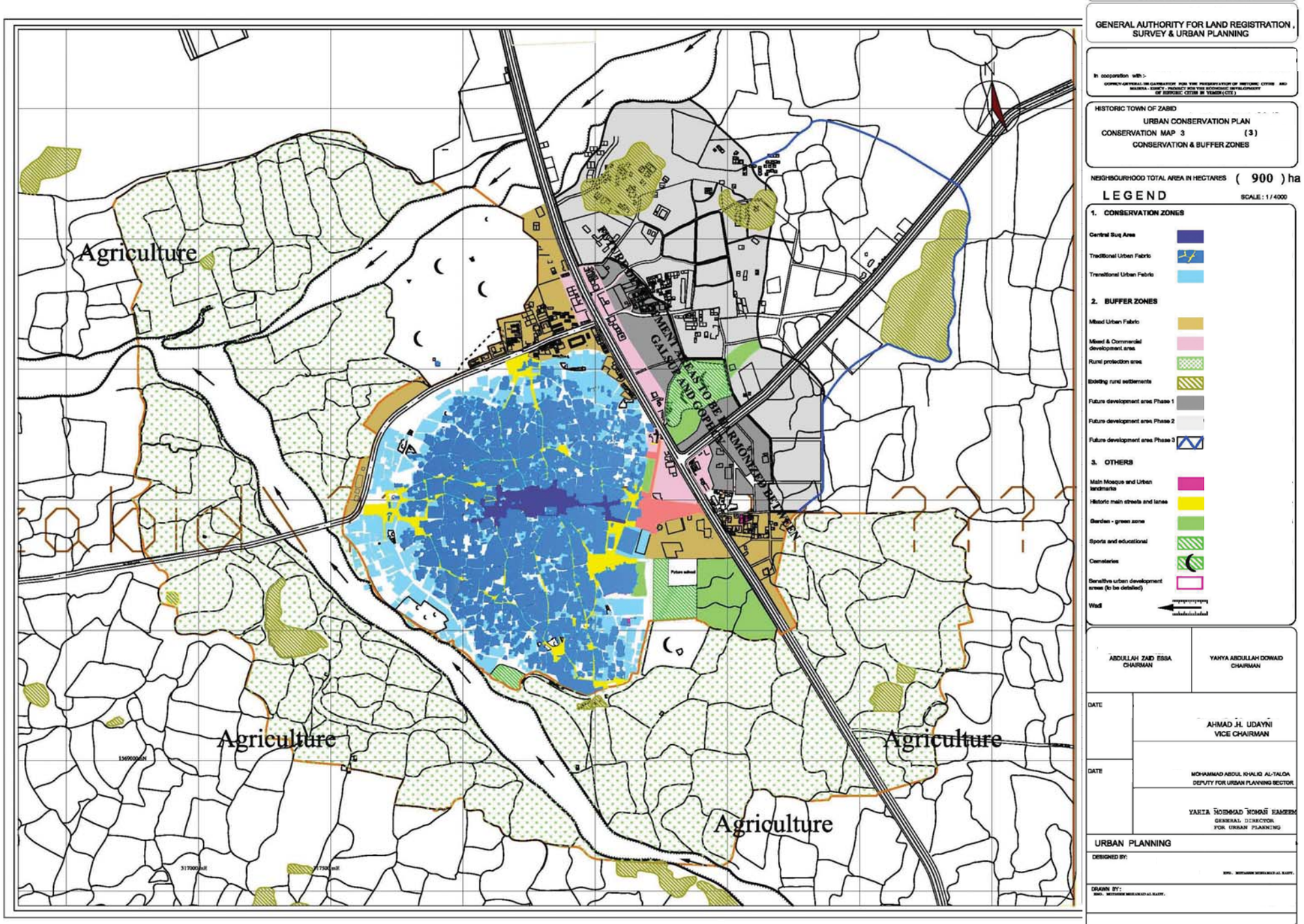
3.5 Examples and best practice

3.5.1 A case study in Conservation Planning: Zabid (Yemen)

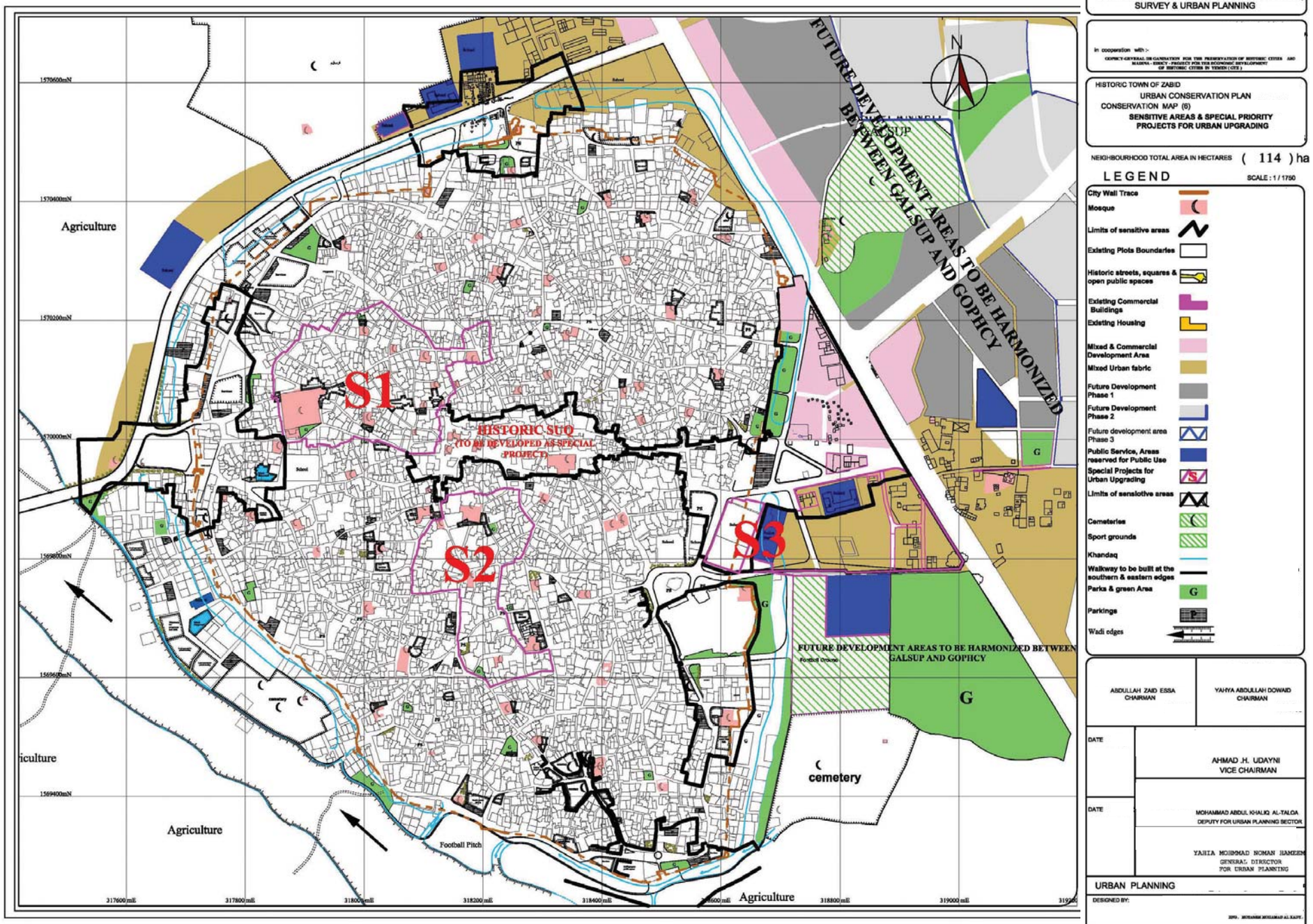
The Conservation and Development Plan for the Historic City of Zabid, drawn up in 2011 by Yemeni governmental institutions (Ministry of Urban Planning – GALSUP – and General Organisation for the Preservation of Historic Cities of Yemen – GOPHCY) with technical assistance from the Medina Project (GIZ) and in partnership with UNESCO, can be considered an example of a comprehensive and detailed plan reflecting the most up-to-date approaches and international technical standards. The plan was prepared following the inscription of Zabid in the list of World Heritage in Danger, due to uncontrolled and harmful transformations of the historic fabric.

The plan was intended as a tool for controlling urban expansion whilst supporting a series of rehabilitation and regeneration programmes to preserve and promote architectural heritage and rehabilitate the traditional housing stock. The plan was based on in-depth studies on the evolution of the historic fabric, and a detailed Inventory of the buildings. Among other things, it defines the categories of intervention for each building, and gives prescriptions and recommendations for public spaces and services, as well as identifying sensitive areas and priority projects.

A traditional streetscape disfigured by out-of-scale illegal buildings (above); traditional house rehabilitation (Medina Project)



Conservation and Development Plan for the Historic City of Zabid: conservation area and buffer zone



COUNCIL OF MINISTERS

GENERAL AUTHORITY FOR LAND REGISTRATION, SURVEY & URBAN PLANNING

in cooperation with :-
GOPHCY-GEVERNAL OR GANISATION FOR THE PRESERVATION OF HISTORIC CITIES AND MADINA - EERICY - PROJECT FOR TEH ECONOMIC DEVELOPMENT OF HISTORIC CITIES IN YEMEN (CITE)

HISTORIC TOWN OF ZABID
URBAN CONSERVATION PLAN
CONSERVATION MAP (6)
SENSITIVE AREAS & SPECIAL PRIORITY PROJECTS FOR URBAN UPGRADING

NEIGHBOURHOOD TOTAL AREA IN HECTARES (114) ha

LEGEND SCALE : 1 / 1750

- City Wall Trace
- Mosque
- Limits of sensitive areas
- Existing Plots Boundaries
- Historic streets, squares & open public spaces
- Existing Commercial Buildings
- Existing Housing
- Mixed & Commercial Development Area
- Mixed Urban fabric
- Future Development Phase 1
- Future Development Phase 2
- Future development area Phase 3
- Public Service, Areas reserved for Public Use
- Special Projects for Urban Upgrading
- Limits of sensiotive areas
- Cemeteries
- Sport grounds
- Khandaq
- Walkway to be built at the southern & eastern edges
- Parks & green Area
- Parkinge
- Wadi edges

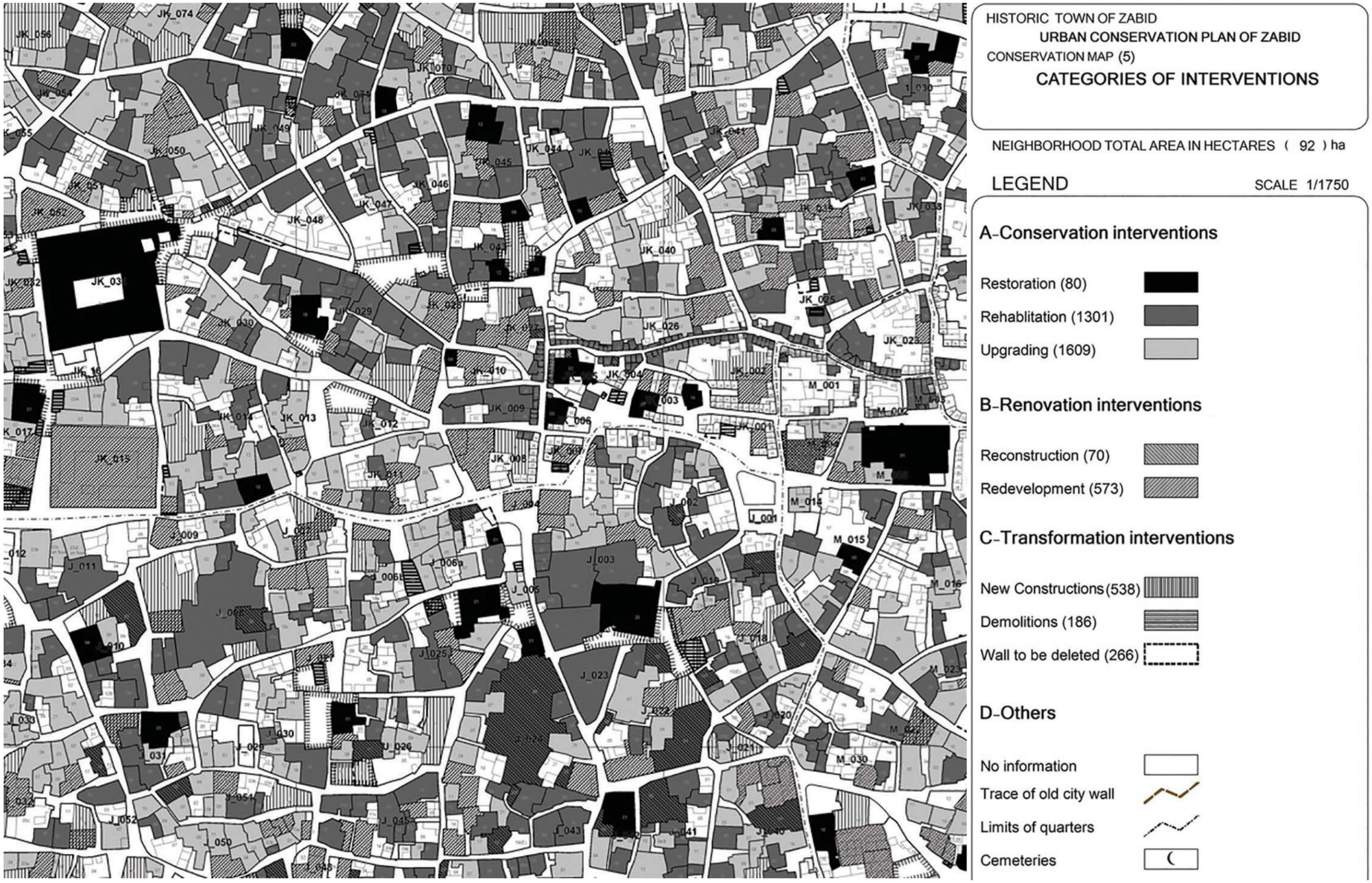
ABDULLAH ZAID ESSIA, CHAIRMAN
YAHYA ABDULLAH DOWAID, CHAIRMAN

DATE
AHMAD .H. UDAYNI, VICE CHAIRMAN

DATE
MOHAMMAD ABDUL KHALIQ AL-TALOA, DEPUTY FOR URBAN PLANNING SECTOR
YAHIA MOHMMAD NOMAN HAMEEN, GENERAL DIRECTOR FOR URBAN PLANNING

URBAN PLANNING
DESIGNED BY:
DRAWN BY :

Conservation and Development Plan for the Historic City of Zabid: sensitive areas and special projects



Conservation and Development Plan for the Historic City of Zabid: intervention categories

4. BUILDING DESIGN

4.1 Traditional architecture

4.1.1 Overview of traditional architecture

We consider traditional architecture to be any building erected in a traditional way, using local materials and techniques. It should be noted that although it is relatively small, Palestine enjoys a diverse topography, climate and soil structure, giving rise to lots of different kinds of affordable local materials. Nevertheless, with the exception of the Jordan Valley area, where mud or adobe is traditionally used in construction, most traditional Palestinian buildings are built from local stone: mainly limestone in the central mountain areas (which varies in density, strength and colour depending on the quarry source and sedimentation processes), sandstone on the coastal plain, and mudstone in the Jordan Valley and on the coastal plain.

Besides building materials, other factors affect construction types, styles and techniques. The first is the context of a building: both its architectural features and its relationship with public space may differ depending on whether it is part of a high density urban fabric, is located in a village, or is isolated in a rural area. That said, there is a certain amount of continuity in architectural types between rural and urban contexts due to the repeated use over the centuries of construction systems that have proved to be effective and well-suited to local materials.

In dense historic cores of towns such as Jerusalem, Hebron, Nablus or Bethlehem, traditional houses evolved by vertical expansion

In rural contexts, traditional complexes evolved and grew outwards

A second factor is the period in which a building was constructed: the evolution of architectural types and techniques is tied to the history of the region, which experienced contamination and hybridization with other cultures (Roman, Byzantine, Crusaders, Ottomans and many others). Whilst in vernacular architecture, the same building types and techniques have been in use since at least Roman-Byzantine times, several innovations have affected building methods over time. Starting in the 16th century with the expansion of the Ottoman Empire, elements common to the architecture of different countries in the Middle East, such as the liwan (hall) and the riwaq (portico), introduced changes to traditional types of buildings; residential buildings, which were traditionally introverted, became more open to public spaces. Technically speaking, one of the most important innovations was the introduction of iron I-beams in the 1920s - 1950s. During the British Mandate and Post-Mandate periods, new materials and techniques became available and started changing the traditional way of building: thick load-bearing walls were replaced by skeleton structures; cement blocks and reinforced concrete replaced double facing stone walls.

A third factor is the buildings' function, given that the difference between public and private is often expressed in architectural terms. Both in rural and urban contexts in Palestine, districts in historic centres were originally mostly residential; nonetheless, whilst in villages public buildings were built with the same techniques used for houses (with the exception of religious buildings), in cities they differed in design and architectural features according to their function, for example Turkish baths, soap factories, schools, etc.

Traditional house with riwaq

Starting from 1970, innovations in stone processing techniques led to the proliferation of stone slabs applied to concrete walls, a technique which is still in use

4.1.2 Architectural types

Most traditional architectural types in Palestine are built on the juxtaposition and combination of simple basic units, the features of which remained practically unchanged until relatively recent times. They can be traced back to the simple house, a residential unit structured over one or two floors, each consisting of a square room with each side measuring approximately 6-9 m in length, built with stone walls and covered by a cross vault and domed roof. In rural contexts, the simple peasant house had two levels: the lower level (*rawieh*) was used as a night shelter for livestock and to store work tools; the upper level (*mastabeh*) was where the family lived.

Different combinations of the base unit gave rise to the different architectural types that can be found in historic centres, such as: the longitudinal house (formed by the linear juxtaposition of two or more single-room houses); the two-sided longitudinal house (the combination of two longitudinal houses separated by a narrow yard); the L-shaped house (formed by several single-room houses arranged around a rectangular courtyard); the Iwan house, in which one or more semi-closed spaces, connected to the house, serve as living spaces and are entered from the courtyard - see also: Hadid M. (2002), "Architectural Styles Survey in Palestinian Territories, pp. 13-17". Nonetheless, beyond those types resulting from the regular combination of simple units, residential compounds generally developed organically over time, both in urban and rural contexts, to meet the needs of growing family units. The reiteration of horizontal and vertical juxtapositions of simple houses generated clusters named composite houses, which include one of the most common types of residential architecture in Palestine: the complex courtyard house (al-hosh, plural

Simple peasant house

Composite hosh

ahwash). Complex clustered structures displaying a mix of different typologies are named compound houses.

Over the centuries, contamination from foreign architectural styles led to changes in architectural types, New types were introduced, mostly in urban centres, for example the Liwan house with its three-arched layout, evoking the simpler Iwan house, or the courtyard house, composed of several rooms around a rectangular courtyard. Finally, it's worth mentioning that during the 20th century, Palestinian architecture was influenced by the Modern Movement, although examples of architecture with rationalist features can mainly be found outside historic centres.

Building with rationalist features

4.1.3 Abandonment and change

The social and economic changes that have taken place since the late 19th century, together with the creation of the State of Israel, have greatly affected the historic fabric, both in rural and urban contexts.

In the central highlands of the West Bank, the marginalisation of agriculture in favour of wage labour led to people abandoning rural areas to go and live in towns, resulting in the fragmentation of traditional family units. These cultural, social and economic changes had a negative impact on the vitality of historic living environments and on the conservation of historic buildings through regular use and maintenance.

In the late 20th century, historic urban centres suffered at the hands of various phenomena: the buildings began to be abandoned by their owners, in particular by the richest families, which in some cases left the country, but more often moved to modern buildings which were thought to better respond to individual needs. The vacant old buildings were then occupied by poorer inhabitants, resulting in overcrowding, a lack of maintenance, and the gradual adaptation of the buildings to meet minimum living requirements. These transformations were usually made with modern materials and techniques that were not compatible with the existing building, neither from a typological point of view nor from a technological one.

The division of ahwash *into smaller units led to the subdivision of the semi-private courtyards into private spaces*

In this example, the compartmentalisation of space with the introduction of housing facilities did not alter perceptions of the original size of the space

4.1.4 Method of intervention

The rehabilitation of historic buildings presents some challenging issues. How do you identify new functions for adaptive reuse that can make them a driver for local development? How do you meet contemporary users' needs without compromising the readability of architectural types and their evolution over time?

Any interventions, involving anything from simple changes to major construction works, must be organised in stages, to ensure consistency through solid knowledge and a multi-disciplinary approach, making it possible to find solutions that are sustainable from a cultural, environmental and economic point of view.

I. Knowledge: any interventions must be carried out on the basis of full knowledge of the building and the needs of its occupants (paragraph 4.2).

II. The project: this must propose solutions that are relevant to users' needs and compatible with the historic and architectural features of the building (paragraph 4.3).

III. The work: to guarantee the quality of rehabilitation works, choosing techniques and materials that are suitable for historic buildings and are economically viable is vital (paragraph 4.4).

IV. Maintenance: once the rehabilitation is complete, the building must be regularly maintained through minor works and periodic inspections to detect problems or unusual deterioration early (paragraph 4.5).

4.2 Analysis of the building: the diagnosis

4.2.1 Preliminary diagnosis

The process of analysis must start with a preliminary diagnosis aimed at collecting key information through a global approach to the building. Part of this diagnosis can be taken from the inventory analysis, if already existing (an inventory form aimed collecting relevant data has been developed by MoLG through the Regeneration of Historic Centres Project).

1. Preliminary visual inspection of the building aimed at identifying architectural and historic values, structural issues and major problems (paying particular attention to load distribution and drainage), and at assessing the level of liveability. The inspection can be supported with the use of quick evaluation forms for collecting relevant information about the overall state of conservation of the building. These measures also make it possible to identify the need for further analysis or urgent intervention.
2. Analysis of the legal status of the building, taking all planning tools and bylaws applicable to the area of intervention into consideration to get an initial idea of feasibility, including:
    - Any regeneration strategies for historic centres;
    - Any preservation plans for historic centres (detailed urban plans);
    - Any bylaws indicating the interventions allowed for each building.
3. Early involvement of users of the building and/or groups of people living in the immediate vicinity, to supplement the data with their accounts.

Quick evaluation form

Analysis of the state of conservation of the building

Address:			
Year od construction:		Number of floors:	
Evaluator:	Date of evaluation:		

	State of conservation	Bearing walls	Vaults	Flat roof	Stairs	Lintels and arches		TOTAL
Good	0							0
Small cracks	1							0
Medium cracks	2							0
Significant cracks	3							0
Partial destruction	4							0
Collapsed	5							0
								0

WATERPROOFING, INSULATION AND FINISHING

	State of conservation	Rendering	Roof	Finishing	Flooring	Joinery and ironmongery	Raising damp and seepage	TOTAL
Good	0							0
Small damages	1							0
Medium damages	2							0
Significant damages	3							0
								0

INSTALLATIONS

	State of conservation	Electricity	Gas	Water	Sewerage	Elevator		TOTAL
Good	0							0
Poor	1							0
Obsolescent	2							0
								0

STATE OF CONSERVATION 0

Good | Regular | Poor

0 10 20 30 40 53

Conclusions, comments and recommendations

xxx

4.2.2 Multidisciplinary studies

The second stage consists of the systematic collection of all the information needed to obtain full knowledge of the building and its context. The complexity of historic environments calls for a multidisciplinary approach, in which different sets of studies, tests and analyses are carried out to reduce levels of uncertainty and guide the proposed rehabilitation works.

Multidisciplinary studies include the analysis of historical documents, to trace the evolution of a building as a whole in order to better understand its current state, and social studies, which can provide information on the way of life of the current or future users of the building. Other studies look at architectural and construction-based aspects of the building. Among them is the geometric survey, which plays a fundamental role: it consists in collecting all the measures needed for representing the building in accurate scaled drawings, which then serve as a base for the project design. Finally, a study on the state of conservation of the building must be carried out. While most information can be gained through visual inspections, additional instrumental analysis, both on site and in the laboratory, may be required to investigate the physical and mechanical properties of materials further, along with structural movements and environmental parameters. The analysis should also include a study of the relationship between the building and the urban fabric (link with the road system, relationship with open spaces, etc.)

PRELIMINARY DIAGNOSIS

- VISUAL INSPECTIONS
- LEGAL AND REGULATORY STATUS
- FIRST INVOLVEMENT OF THE LOCAL COMMUNITY

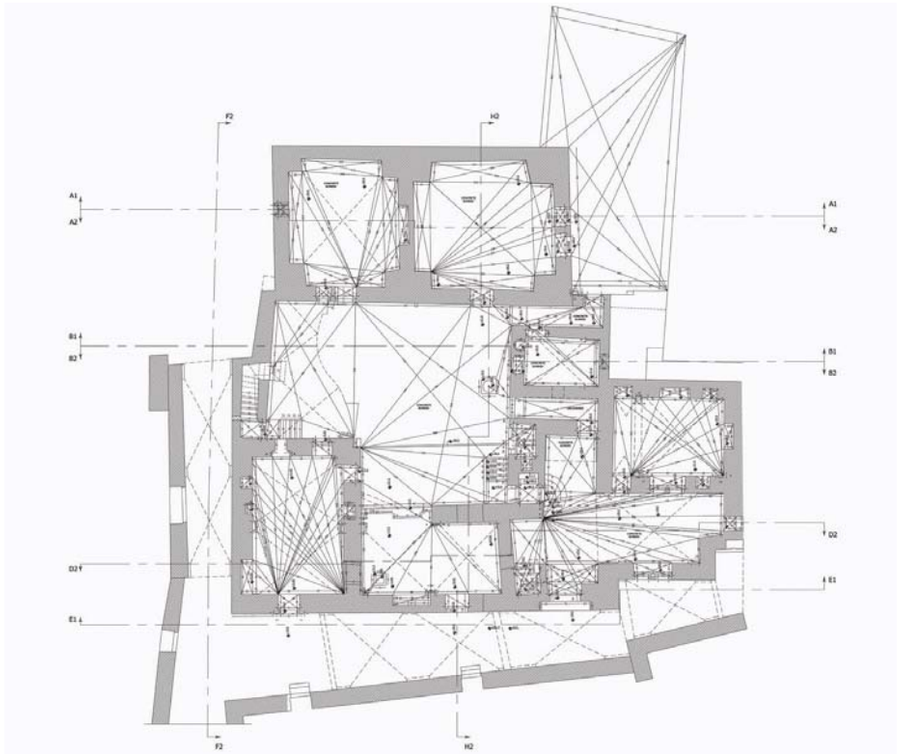
PROGRAMME OF MULTIDISCIPLINARY STUDIES

HISTORICAL ASPECTS	SOCIAL ASPECTS
Study of documentary sources (texts, photos, drawings, etc)	Socioeconomical approcach
Archeological method: phases of construction	Anthropological approach
Oral history	Habitability
ARCHITECTURAL ASPECTS	**CONSTRUCTION ASPECTS**
Geometric survey (plans, sections, elevations, details)	Construction system and materials
Integration in the urban fabric	Anaysis of degradation phenomena
Typological analysis	Analysis of crack and structural security
Annexation and parassite constructions	Fire security
Spatial analisys	Environmental and comfort parameters

DIAGNOSIS (SYNTHESIS)

- CRITICAL EVALUATION OF STUDIES
  - Map of values (historical, artistic...)
  - Map of deficits (social, features, lesions...)
  - Map of former and/or existing uses
- HYPOTHESES CONFIRMATION
- WRITING A REPORT
  - Building's composition
  - Carried out Studies description
  - Building's values
  - Description on defitics
  - Conclusions
  - Recommendations

Historical studies: analysing old engravings can reveal important information about the historic features of built-up areas



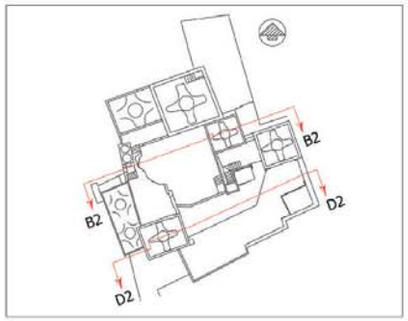
Geometric surveys allow accurate drawings to be produced - Habash Consulting

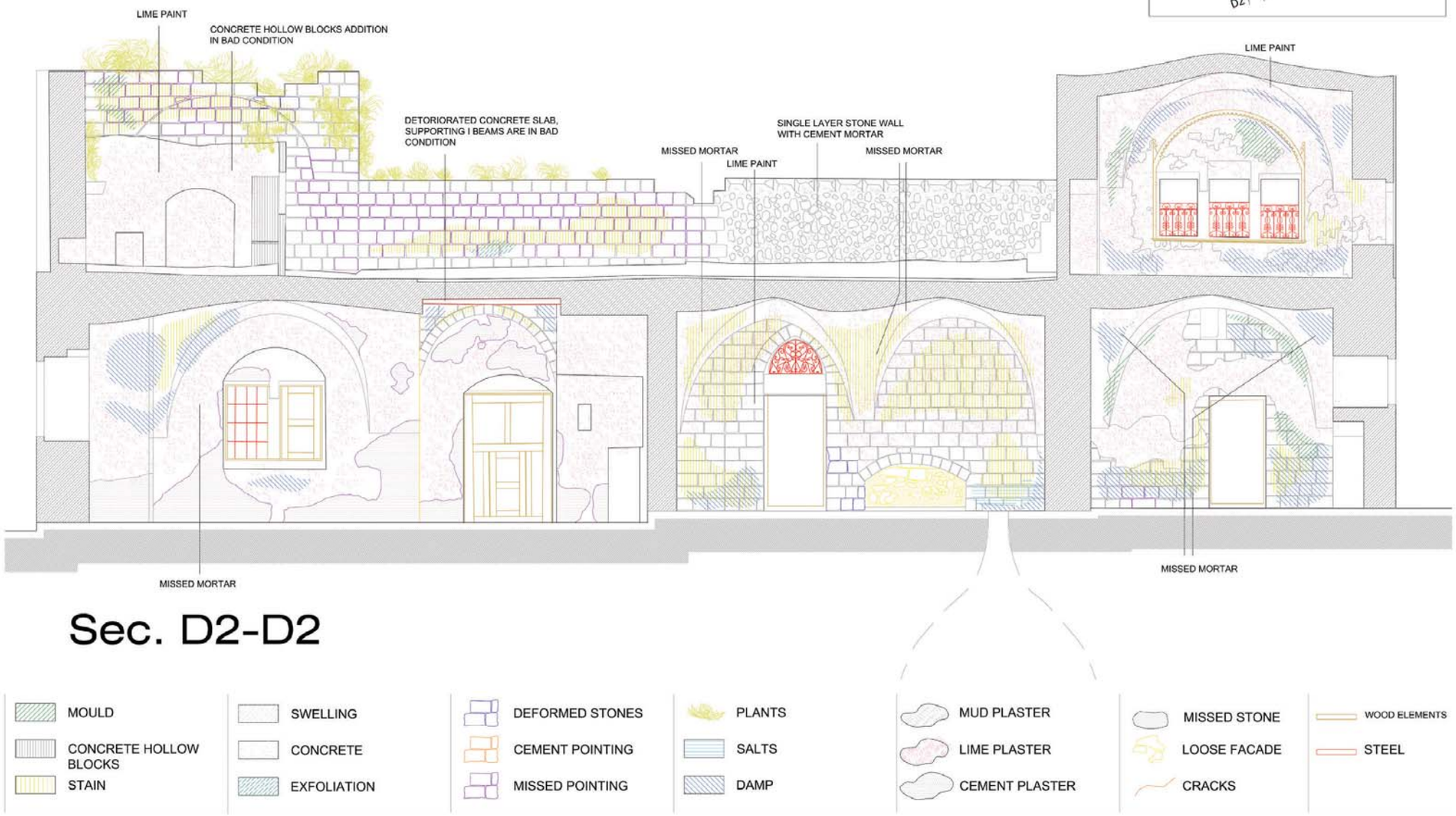
Social studies: meetings with the local community provide information on peoples' way of life and priority needs

Geometric survey may require the use of sophisticated technologies

Detailed survey of a front door - Habash Consulting

Abdul-Qader Abdul-Hadi Palace





Graphic representation of the state of conservation of a building, with precise indications of where alterations have been made and damage has occurred - Habash Consulting

Visual analysis provides information on materials, the arrangement and height of stone courses, the thickness of the joints, possible cracks, etc.

Instrumental analysis on site: gauges for monitoring cracks

Instrumental analysis on site: moisture detection in mortars

4.2.3 Conclusions and recommendations

The data collected through the above analyses must be summarised in a final document providing experts with all the information they need to establish the feasibility of the project and move on to the design stage.

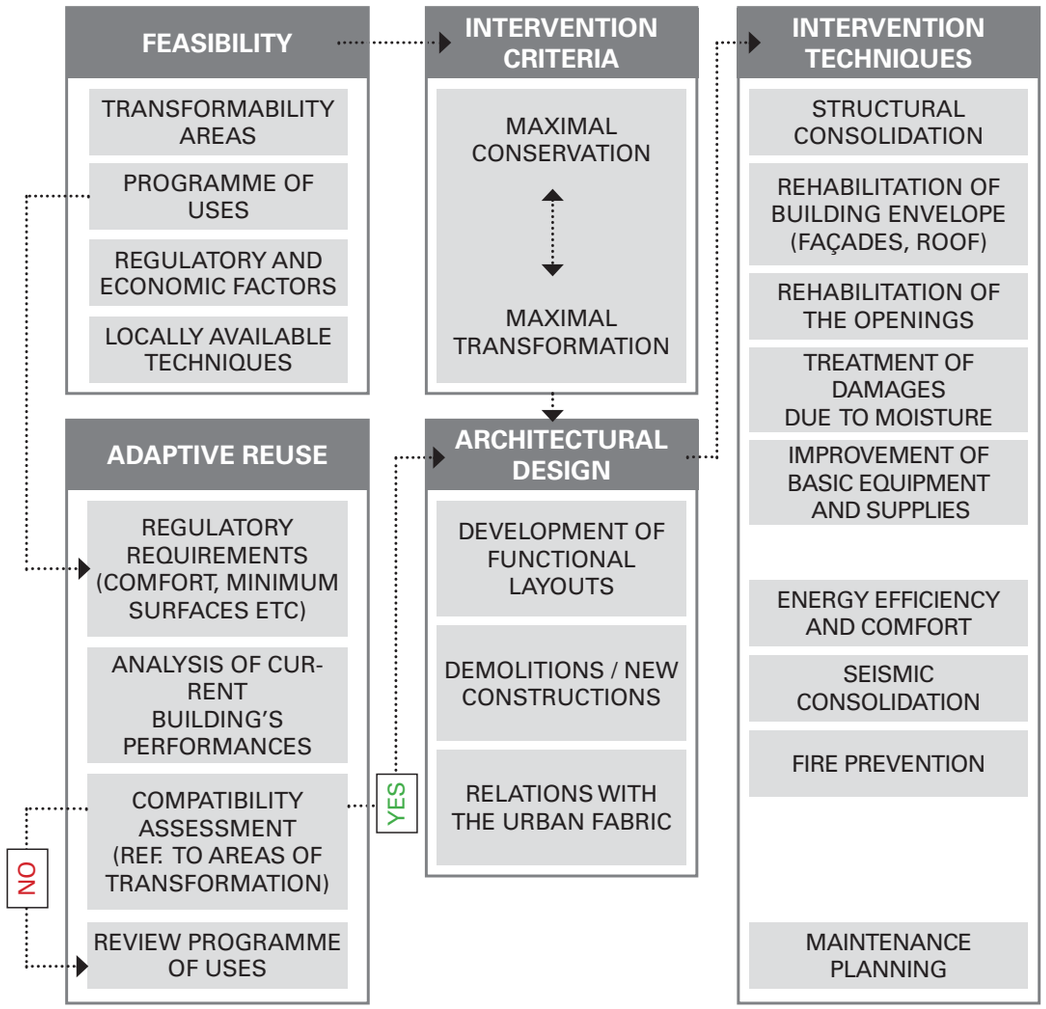
4.3 Design phase: strategies and tools

4.3.1 Design method

Before work can begin on the architectural design, the feasibility of the project must be established, by:

- Indicating the 'areas of transformation' in the building, identifying which elements must be preserved and which can be removed or modified. The bylaws and regulations set in the conservation plan, if existing, must be taken into consideration.
- Identifying the needs and requirements of the proposed programme of uses;
- Identifying regulatory and economic constraints;
- Carrying out a survey on which rehabilitation techniques are available locally.

The design stage starts with the evaluation of the proposed programme of uses in order to assess its compatibility with the building and work out the best functional layout. The aim is to meet users' needs whilst ensuring minimal intervention to preserve historic features as far as possible.



ADAPTIVE REUSE OF VERNACULAR ARCHITECTURE
SA'ADEH SCIENCE AND TECHNOLOGY HOUSE (BIRZEIT)

The old Sa'adeh family home, built in 1875, has been given to the Al Nayzak Organisation to be used as a Science and Technogical Centre for 15 years.

The building was renovated between 2011 and 2013 in partnership with the Municipality of Birzeit and the Riwaq Centre for Architectural Conservation. The Centre is open for visits and explains various scientific and technological phenomena in an engaging manner.

The main entrance has been fitted with a glass entryway, meaning the door can be left open, luring visitors in

The courtyard has been closed by a glass roof, providing additional space without compromising the readability of the architectural type

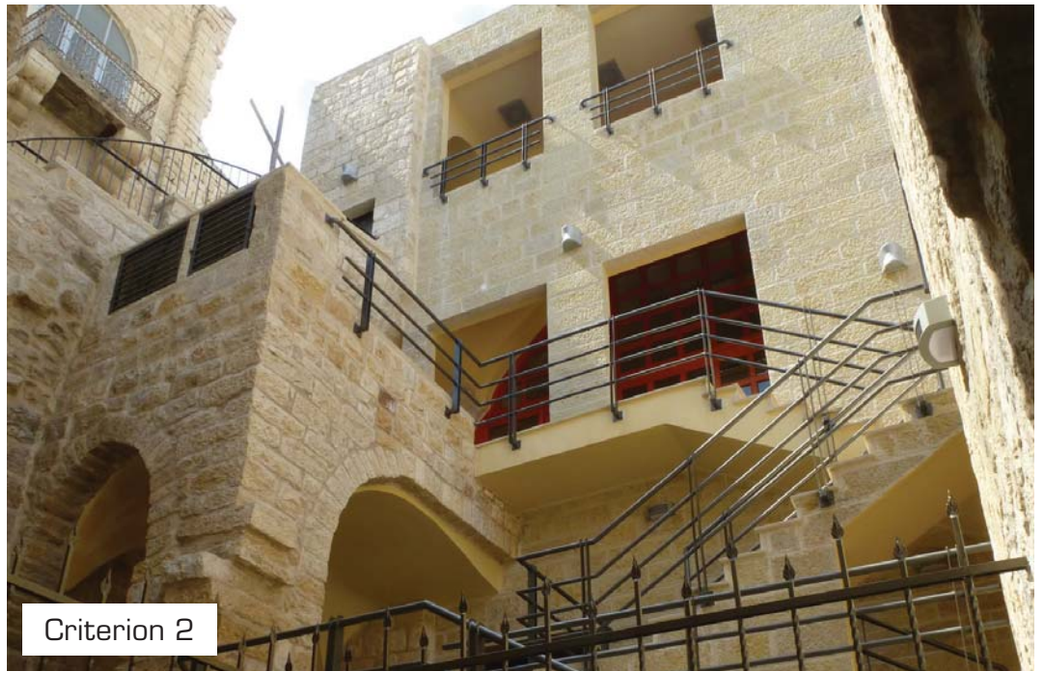
The internal layout of the building turned out to be well-suited to its new function: each room hosts a thematic exhibition or learning area, such as the chemistry lab (left) and the media lab (right), with the courtyard serving as a linking space

The design phase results in a comprehensive representation of the proposed intervention, involving everything from general plans, sections and elevations to details of individual and possibly customisable building elements. The project must try to build on the relationship between the building and its context, in order to ensure maximum accessibility, proper links with service networks and that it is sufficiently integrated into the urban fabric.

4.3.2 Intervention criteria

The choice of which renovation strategies to use obviously depends on a number of factors that make each historic building unique: the state of conservation, needs relating to the programme of uses, regulatory constraints, and the availability of economic resources. However, there are some basic criteria which apply to any intervention, which are listed and depicted in the following images.

Any changes made must be recognisable, so that the historical evolution of the building may be traced



Extensions and additions must be compatible with the existing building, pursuing harmonious integration without mimicry

Design solutions should give priority to improving habitability (accessibility, comfort, facilities, etc.)

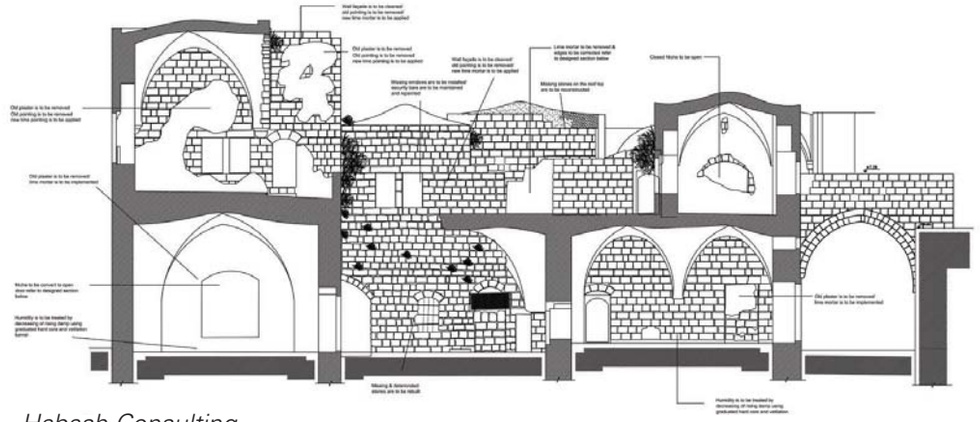
Rehabilitation interventions must incorporate technical solutions to ensure structural safety

If new vertical connection systems are introduced, fire safety issues must be taken into consideration

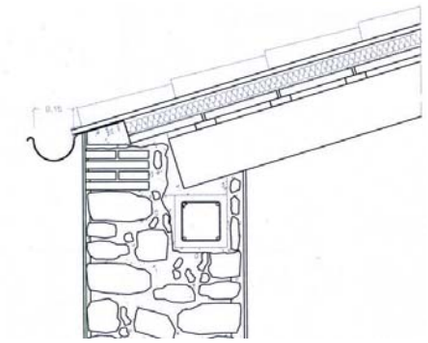
4.3.3 Expected output of the design stage

The design stage concludes with:

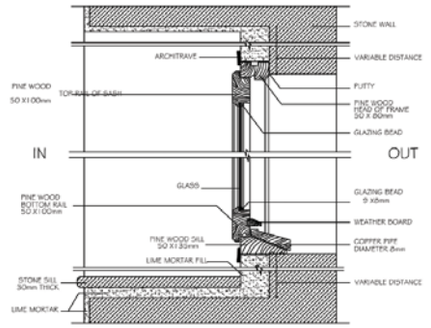
- Functional layouts;
- Architectural drawings: representations of the building before and after the intervention;
- Detailed explanations of the effects of the intervention on existing structures and designs for new structures;
- The timeframe for completion of the works;
- Detailed cost estimates.



- Habash Consulting



- T. Romero Cárceles, S. Peláez Díaz, E. Silva García

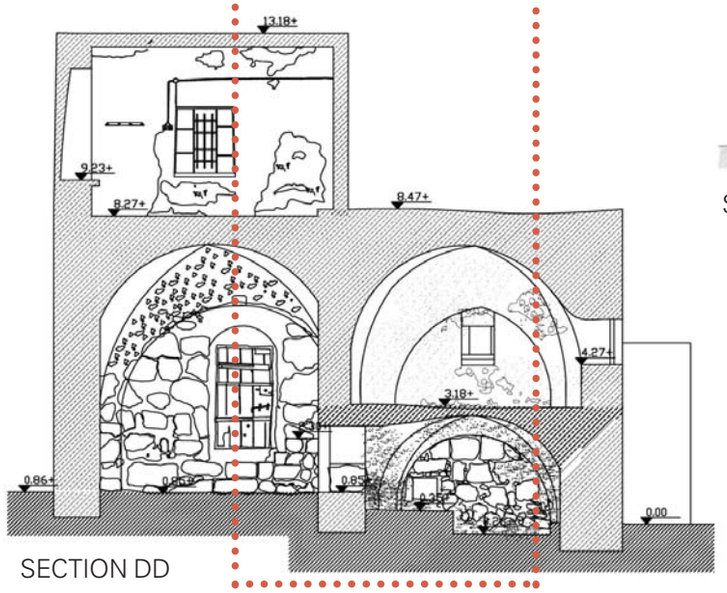


SECTION A-A
- Habash Consulting

4.4 Intervention on building elements

Traditional building techniques are very different from contemporary ones in every aspect. Any intervention in a historic building requires a good understanding of these techniques and their behaviour.

4.4.1 Overview of traditional techniques



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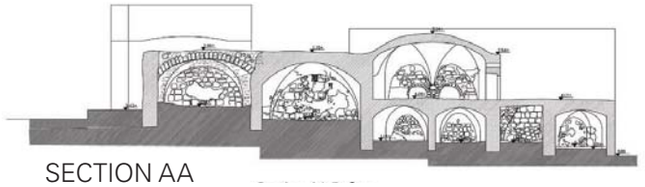
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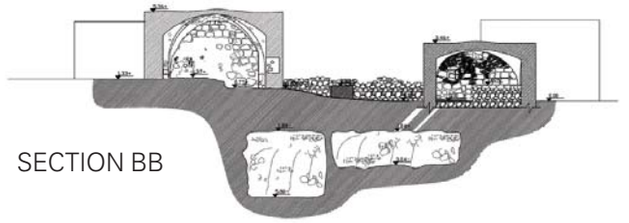
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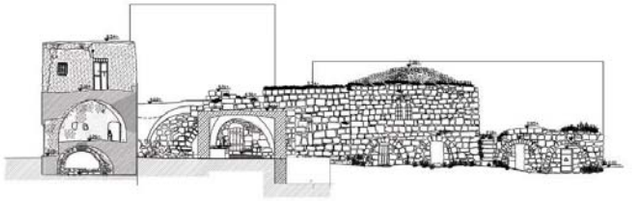
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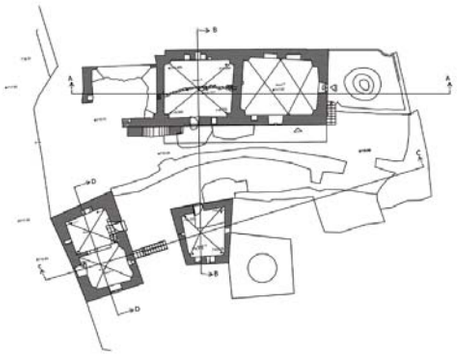
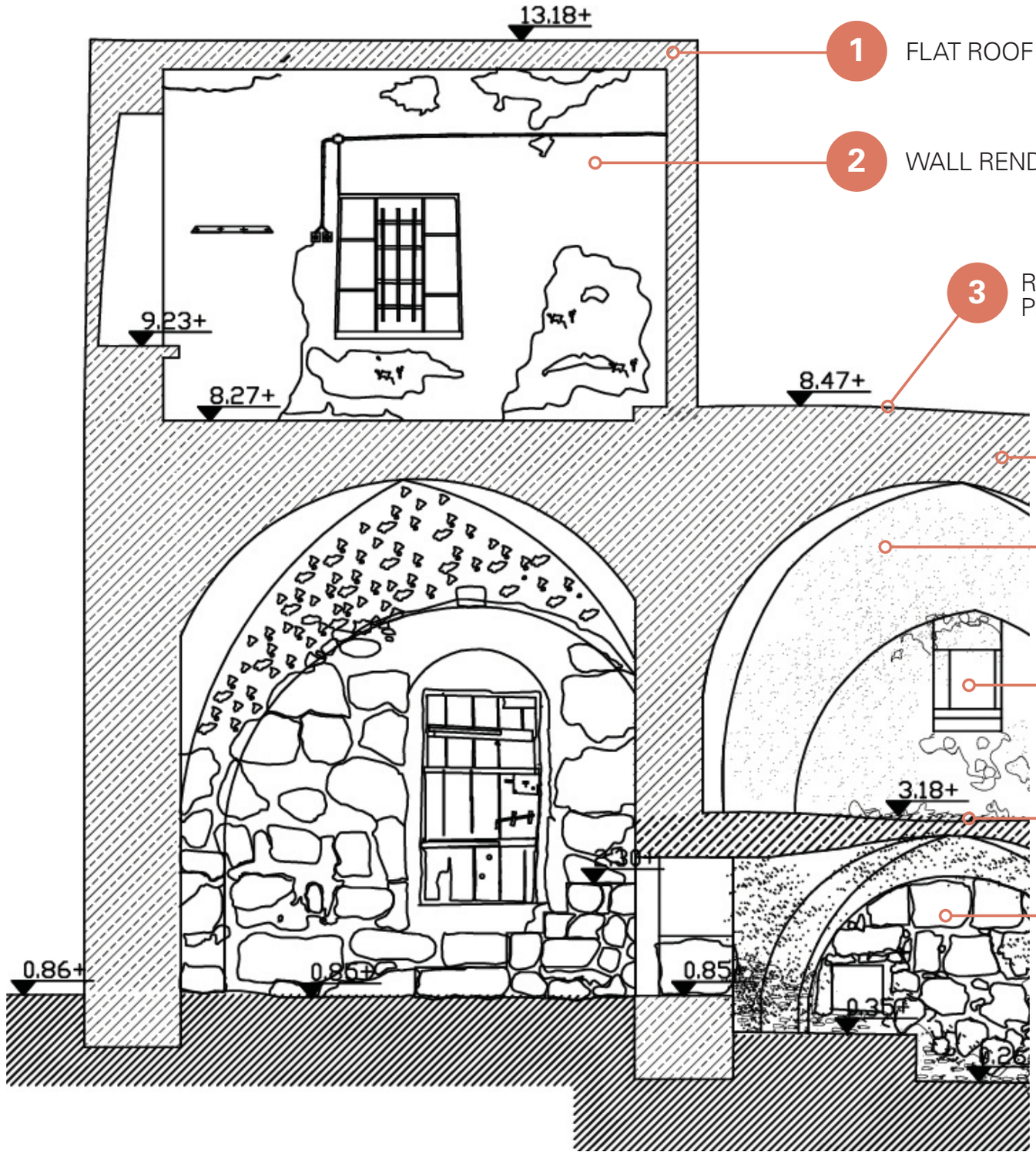


Example of traditional building techniques (As Samou', hosh Al-Daghamin and hosh Al-Ratroot). The drawings have been re-worked from material put together by students of the Palestinian Polytechnich University of Hebron during a summer school held in As Samou' (July-August 2016) as part of the Rehabilitation of Historic Centres Project.



1 FLAT ROOF (REINFORCED CONCRETE SLAB)

2 WALL RENDERING IN CEMENT PLASTER

3 ROOF RENDERING IN LIME-BASED PLASTER

4 STONE VAULT

5 VAULT RENDERING IN LIME-BASED PLASTER

6 WINDOW WITH IRON FRAME

7 TILED FLOOR (STONE TILES)

8 STONE WALL

Example of traditional building techniques (As Samou', hosh Al-Daghamin and hosh Al-Ratroot). The drawings have been re-worked from material put together by students of the Palestinian Polytechnich University of Hebron during a summer school held in As Samou' (July-August 2016) as part of the Rehabilitation of Historic Centres Project.

4.4.2 Building elements: architectural features, frequently occurring damages, intervention suggestions

Below are some traditional building elements and their descriptions, with the most frequently occurring damages and possible rehabilitation solutions

4.4.2.1 Stone walls

DESCRIPTION

Load-bearing stone walls in traditional buildings are very thick, usually between 80 and 120 cm, to support the weight and thrust of heavy stone vaults. They are generally built in facing pairs, with the space between each wall filled with rubble and mortar. The outer wall is usually more regular and better pointed than the inner wall, which is often plastered. The joints of each stone course, pointed with lime mortar, do not usually fall in line with those above or below, making the structure stronger. In rural areas or poorly built structures, we find pairs of facing stone walls where the inner wall is made of gravel and mortar.

DAMAGE

The deterioration of stone walls is due to various problems caused by modifications made to the building that compromise the structure, poor or no maintenance, abandonment, or the structure of the wall and the type of materials used to build it. Point loads, the wall's own weight, and poor connections between the walls (where there are two facing stone walls) may cause the wall to bulge over time, which can cause it to collapse. This phenomenon is exacerbated by the infiltration of rain water. The location of the cracks in the masonry depends on the type of movement of the foundations or between the various elements of the building.

INTERVENTIONS

The choice of repair technique must be made according to the type and extent of the damage. In some cases, it may be necessary to rebuild the damaged part of the masonry in order to ensure structural continuity; the new construction must use materials similar to the originals in terms of strength and shape. Other possible ways of fixing structural damage are: reinforcement of the corners; consolidation of the wall structure through injections of hydraulic lime mortar; repointing of damaged joints; insertion of rods and chains to improve cohesion between walls and the treatment of cracks with metal staples.

4.4.2.2 Stone vaults and domes

DESCRIPTION

Horizontal structures in historic buildings usually have stone vaults of different shapes and forms; in houses belonging to the wealthy or important public and religious buildings we often find stone domes. The traditional method of building vaults required a provisional wooden frame, which was covered with disposable materials –earth and mortar– which the stones were laid on. The gaps between unevenly cut pieces were filled with smaller stones and mortar, as were the pyramidal spaces between the vault and the walls. The thickness of the walls and the vault itself made it possible to increase the span of the structure. By looking at their geometric properties, we can distinguish between barrel vaults, cross vaults, and folded cross vaults with domes.

DAMAGE

The structural behaviour of vaults can cause major damage: they work through compression, producing both vertical tensions and lateral forces, which are transferred to the walls. The latter can generate cracks both in the vaults and the vertical walls, in line with the vaults' imposts, given that traditional masonry presents low resistance to horizontal forces. Cracks can also appear as the result of excessive loads in the form of additional layers of rubble and earth, upper rooms, or as a result of seismic action. Furthermore, vegetation may cause deep cracks as roots grow, and water infiltration, which increases the weight of the structure, may lead to collapse.

INTERVENTIONS

The treatment of cracks requires the causes and stage of deterioration to be identified, so that the issue may be addressed with the right intervention before the vault collapses. Consolidation techniques include inserting steel tie rods, which work in traction and against the forces pushing the vault outwards, and injecting consolidating mortar. Anchor plates connected to tie rods are often visible on the walls of historic buildings. If the cracks are the result of excessive loads which can be removed, tie rods must be temporarily inserted and the excess load removed from the top of the vault, which must then be repaired through stone replacement and repointing.

4.4.2.3 Flat slabs

DESCRIPTION

We can distinguish between two types of flat slabs.

1) Unidirectional slabs, in use since the end of the 19th century and the introduction of iron I-beams. Originally, the space between the beams was filled with barred vaults, then, from the beginning of the 20th century, concrete slabs started being placed on the upper wing of the beams. The lower section of the roof was often plastered with mortar.

2) Reinforced slabs, the resistant section of which is made up of a concrete slab, which works through compression, and a steel net, which works through traction. These were introduced in Palestinian architecture in the second half of the 20th century.

DAMAGE

Damage to flat slabs is usually caused by the iron structure oxidising. With unidirectional slabs, the corrosion of the iron I-beams reduces their structural performance. With reinforced slabs, the oxidisation of the steel net causes this section of the slab to shrink: as the steel net rusts, the concrete covering it falls away, exposing the structure to environmental action. We may sometimes also find horizontal cracks between reinforced concrete slabs and stone walls due to the different way they react to changes in temperature.

INTERVENTIONS

Interventions must be chosen according to how bad the damage is. With unidirectional slabs, if oxidation has not compromised the slab's structural performance, the rust must be removed and a passivating solution applied to the metal elements. If the slab is no longer performing sufficiently, however, it should be replaced. Additional supports may also be inserted to reinforce or support the existing slab. Damage to reinforced concrete slabs can be treated by passivating the metal elements and replacing the concrete covering them.

4.4.2.4 Renderings

DESCRIPTION

Plaster was traditionally used as a protective layer for buildings both on the exterior and interior surfaces of walls. The materials used for plastering have changed over time: in ancient times and in rural areas, they were made from earth, animal droppings and aggregates such as ashes, vegetable fibres and animal hair. However, most traditional plasters were made from lime-based mortars and mineral aggregates with different grains, from deeper grainy layers to smooth surface layers. The latter was usually finished with a lime wash, which was re-applied every one or two years to protect the layers underneath. By the end of the 20th century, cement-based plasters were being used.

DAMAGE

Plaster can suffer damage as a result of external factors or poor application. Structural movements may cause the plaster to crack by creating weak points for water penetration, which accelerates deterioration. Rising damp may lead to salt crystallization between the wall and the plaster, which may cause cracks and detachment. When plaster has been applied poorly, two things can happen: 1) cracks may appear due to shrinkage; 2) deterioration of the plaster through powdering and sanding, due to an incorrect composition of the lime base. In Palestine, this type of deterioration is clear to see in restoration works carried out in recent times especially.

INTERVENTIONS

Which intervention to use depends on the extent of the damage. Deep cracks resulting from structural movements, extensive detachment and partial loss of material must be repaired through the application of a lime mortar similar to the original one. The crack, or the area where plaster is missing, must be cleaned, wetted and then filled with new plaster. Where there is detachment without loss of material, the plaster should be left in place and consolidated with the injection of fluid lime mortars. In the event of minor or superficial cracks, repairs can be made with a lime wash, after cleaning the surface. Particular attention must be paid to the composition of the lime base.

4.4.2.5 Flooring

DESCRIPTION

Historically, outdoor floors on terraces (or roofs used as terraces) were either rendered with lime-base plasters or tiled with stone or marble tiles, depending on the wealth of the building's owner. Stone tiles could be regularly or irregularly cut, but the stone was always chosen for being durable.

Similarly, indoor floors were made from different materials: in houses of modest income, the ground could just be flattened with compacted earth or lime plaster. In richer households, the floors were paved with well-cut tiles, laid with lime mortar and pointed. The early 20th century saw the introduction of coloured and decorated cement tiles, which first appeared in rich urban households.

DAMAGE

Outdoor floors usually deteriorate as a result of being exposed to environmental action. The type and rate of progression of the damage depends on the materials, how well they were laid, and atmospheric conditions. As for indoor floors, in historic buildings we often find several layers of flooring: indeed, it was common practice to add another layer instead of replacing the floor when it became damaged or out-dated. Causes of damage include: movements in the underlying filling materials; building movements; wear and tear from ageing and prolonged use; deformations caused by weaknesses; humidity from the ground, which can lead to the appearance of stains, moss and salts.

INTERVENTIONS

Interventions on outdoor flooring may require the floor to be partially or entirely replaced; the techniques for doing so differ depending on whether it is a rendered or tiled floor. With rendered floors, it is important to use lime-based plasters, which allow evaporation. Turning to indoor floors, these must be cleaned to remove any loose material. If a complete replacement is needed, it is worth excavating below the floor to make a crawl space filled with gravel before laying the new floor. This prevents humidity rising from the ground. If the state of conservation of the tiles allows for reuse, each tile must be given a number before being removed manually and stored for future replacement.

4.4.2.6 Openings

DESCRIPTION

The openings in traditional stone buildings vary in size and shape. Lintel types range from one-piece, straight stone lintels to curved ones; from band mouldings (straight arches) to semi-circular or pointed arches. Main entrances used to have a raised threshold, making one's passage from the outside to the inside symbolic. Window openings were usually smaller on the external façade and larger on the inner one: this allowed a wider angle of vision without being seen from the outside and prevented direct rays of sun from entering. The oldest buildings, which have fewer openings, have small ventilation windows. Materials traditionally used for doors and window frames were wood and, later on, iron.

DAMAGE

Openings are critical points in a wall, and cracks tend to proliferate around them. The top parts of openings, in particular, are very delicate because they bear vertical loads and transfer these to the jambs. Straight stone lintels tend to break with excessive loads or as a consequence of uneven movements of the jambs caused by seismic action, instable foundations or dynamic loads. In the case of the former, cracks usually appear in the lower middle part of the lintel, while in the case of the latter, they tend to appear at 45° angles. Damage to doors and windows is caused by the deterioration of joinery work, external woodwork and iron.

INTERVENTIONS

The first step is to identify what caused the cracks: before working on openings, it is important to solve the structural problems affecting the masonry. Vertical loads weighing on lintels can be reduced by creating discharge arches, which transfer weight to the jambs. This requires the partial dismantling and reconstruction of the wall. Consolidating or replacing a broken lintel requires the installation of a temporary structure to bear the vertical loads, making it possible to dismantle the lintel. Interventions on door and window frames must be chosen according to their state of conservation and the needs of the users in terms of comfort.

4.4.2.7 Installations

CONTEMPORARY NEEDS

Current needs related to building use require the availability of different installations, from essential ones such as those managing water, sewage and electricity, to more recent ones such as phone and internet lines, satellite dishes and solar panels. In urban centres, the increasing need for these things has resulted in the proliferation of external fittings on roof tops and cables on the façades of old buildings. New installations are usually fitted by housing units individually, with little or no consideration of the sensitivities and value of old buildings. Architecturally speaking, the installation of new systems is risky, as it may affect both the structures and the perception of traditional architectural types.

OUTDOOR INSTALLATIONS

Providing old houses with technical infrastructure involves paying special attention to their location, in order to avoid compromising the image and value of the historic fabric. Whilst the ideal solution would be to place such installations underground, this can be difficult to achieve without large-scale works. Suitable interventions for limiting the impact of existing installations include rearranging cables running up façades, gathering them together in bundles in areas that are less visible but still easily accessible for maintenance. External fittings on roof tops should be placed in such a way that they are not visible from the street. For new installations, centralised systems are preferable.

INDOOR INSTALLATIONS

Fitting installations and new facilities (kitchens and bathrooms, sanitary systems, electricity and gas networks) in old buildings requires particular attention. First of all, adding these things should not obstruct the readability of the architectural type, or result in a loss of historic materials. Moreover, the insertion of pipes into stone walls and vaults should be avoided, as it could affect structural performance and lead to damage in the event of any leaks. One suitable solution is to fit new installations on the ground floor, creating technical ducts along the profiles of the walls. It is important to ensure easy access to the installations for future maintenance.

4.4.2.8 Moisture

DAMAGE CAUSED BY MOISTURE

Water is the main agent of deterioration, particularly in traditional buildings made of porous materials such as stone, brick and lime-based plaster. Moisture can cause deterioration in different ways: the masonry of the building absorbs groundwater through capillary rise; seepage and leaks; and condensation. Absolute priorities for making a building last longer are reducing the humidity reaching the structure from the ground, and making the roof more waterproof. Moisture from condensation can be reduced by ensuring good ventilation to the inside of the building; this also increases comfort and is healthier for the inhabitants.

HALTING THE RISING DAMP

Water is absorbed by the porous stone and bedding mortar of the walls through capillary rise. This produces dark stains that spread horizontally in characteristic waves. Rising damp can lead to the detachment of plaster, efflorescence, and the growth of moss and mould. Moreover, salt crystallization inside the structure exerts pressure on the stone and can lead to deterioration. It is important to first identify the origin of the water. Possible interventions to counteract the process include draining water away from the walls. Another technique consists in inserting a physical or chemical barrier into the lower part of the walls to block the capillary rise.

MAKING THE ROOF MORE WATERPROOF

The deterioration of roof renderings may cause water to infiltrate the vaults, massive and porous structures which can retain huge amounts of water. The application of cement mortar or layers of asphalt to wet structures must be avoided because it prevents water from escaping through exterior surfaces, resulting in stains and plaster detachment on interior surfaces. The wet filling material of the vaults should be replaced with dry material before working on the roof rendering. If this is not possible, work on the internal and external rendering cannot be carried out until the structure is completely dry (this may take a long time).

4.4.2.9 Environmental sustainability and comfort

REDUCING THE AMOUNT OF ENERGY REQUIRED

The best way of improving energy efficiency is to reduce the amount of energy required by improving the energy performance of the building. Possible interventions include the internal or external insulation of external walls, insulation of the roof or the top floor, and the replacement or upgrading of windows with double or triple glazed glass. In heritage and traditional buildings, however, the insulation of external walls is not always permitted, for conservation reasons, nor is it always advisable: traditional thick walls made of brick or stone have good thermal inertia properties that would be compromised. Users' behaviour also plays a key role in reducing energy consumption.

RENEWABLE ENERGY SYSTEMS

Another key strategy consists in renovating old inefficient facilities and introducing Renewable Energy Systems (RES) for local energy production, which also have great potential to reduce urban pollution.

However, fitting these systems to historic buildings may be not feasible or may compromise the overall image of the historic fabric. Installing small plants in suitable areas and distributing energy through district-wide networks is an efficient solution for meeting energy needs whilst preserving the historic value of buildings. Examples of suitable district-wide solutions include small cogeneration plants fuelled by renewable sources, such as solar, wind, biomass, and geothermal energy.

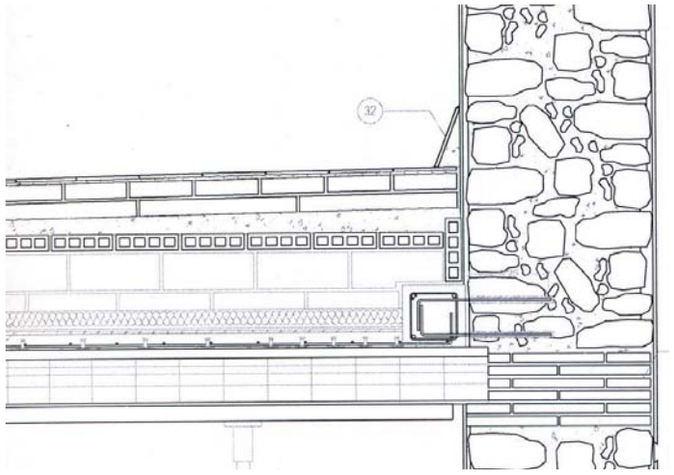
IMPROVING BUILDING COMFORT

Increasing the comfort of traditional buildings involves improving light and ventilation. Natural light can be accessed for example by opening blocked windows or installing glass-covered openings to the upper parts of front doors. The colour of interior finishings can also help to improve lighting. Vice versa, the amount of natural light entering the building can be controlled with shade from vegetation and curtains. Ventilation can be improved by creating new direct openings to the outside and fresh air to ensure cross ventilation. This also reduces the effects of moisture on the walls, thus reducing the repercussions on human health.

4.4.3 Conclusions and recommendations

The decision of which rehabilitation interventions to carry out on historic buildings must be based on a thorough knowledge of the materials and construction techniques involved, and must be preceded by an accurate diagnosis.

The choice of materials is crucial to the quality of the rehabilitation intervention. Both traditional materials and modern materials can be used, as long as that they are compatible with the existing building.



Intervention techniques must always be described in detail and illustrated in appropriately scaled drawings, to facilitate their execution on site - T. Romero Cárceles, S. Peláez Díaz, E. Silva García

Rehabilitation interventions carried out on historic buildings must be performed by skilled and experienced workers; this applies whether the interventions are carried out with traditional or modern techniques.

The implementation phase must be guided and followed up on site by an expert: when working on historic buildings, contingencies may arise that require further analysis or changes to the project design.

4.5 Suggestions for building maintenance

4.5.1 The need for a maintenance plan

As soon as construction is complete, the building materials start a natural process of deterioration due to the exposure to environmental action, and to wear and tear through the use of the building: a regular maintenance is therefore necessary in order to face degradation. The term maintenance encompasses periodic inspections, small repairs and conservation actions aimed at upholding the proper functioning of the building and its components according to a solid framework of requirements. Conversely, if interventions are carried out to adapt the building to new requirements or new functions, this is classed as redevelopment.

Regular maintenance can take different forms:

1. The proper use of the building and simple actions such as regular ventilation, the use of appropriate cleaning products, etc;
2. Periodic inspections for detecting any problems or structural deterioration to enable early intervention;
3. The implementation of protective measures for materials prone to deterioration such as iron, wood, and stone;
4. Small repairs or the replacement of individual elements to prevent deterioration (e.g. repairs on roof renderings).

Although building inspections and repairs may require the assistance of an expert, the owner of the building is responsible for daily upkeep and detecting anomalies. Adopting a preventive approach, through regular maintenance

activities, prolongs the life of historic buildings and preserves their values; moreover, it prevents the need for major (and more expensive) interventions.

4.5.2 The structure of a maintenance plan

For maintenance activities to be fully effective, the following are required:

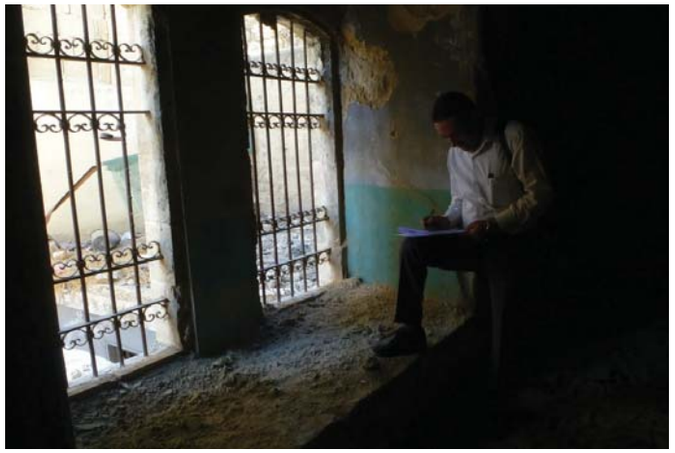
1. A technical document containing information on the building and its components and instructions for carrying out maintenance works;
2. A schedule for maintenance actions, usually covering a period of 10 years, including indications of costs to enable better financial planning;
3. A user manual, reporting the correct use and routine maintenance of the building (cleaning, periodic maintenance of installations, etc.) to limit deterioration as much as possible.

In addition to these documents, it is desirable to have a building plan and cards for the rapid detection of the state of conservation of building components, which can be used during periodic inspections to detect and report signs of deterioration.

4.5.3 Conclusions and recommendations

Maintenance is essential to the preservation of historic buildings. It ensures them a larger lifespan and offers better living conditions to the users.
In order to develop correct maintenance activities it is important to focus on some tips:

1. The correct use and care of the house by the users, proper cleaning, natural ventilation and other similar actions are the best maintenance



2. Periodic inspections of the buildings are key to identify possible risk factors and address them in order to prevent serious damages in the future.

3. Observing any cracks and their progression over time can provide useful information on structural damages and suggest the need for emergency intervention.

4. Periodic cleaning of gutters and drainpipes may prevent the risk of infiltration and stains on interior surfaces due to water stagnation.

5. Periodic maintenance of the roof rendering may prevent infiltration through the roof structure, which can result in serious damage.

6. Quickly and duly fixing of any deteriorate building component is essential to preserve the building as a whole and ensure good life quality to the users.

5. TOOLS

5.1 The GIS approach

In this chapter of the handbook we are going to look at issues relating to the characterisation of urban and territorial contexts as a way of supporting the integrated management of heritage. In particular, we will focus on the use of the Geographical Information System (GIS). This system is used to supplement the information (data description, pictures, documents, quantitative evaluations) on a urban fabric map or geographical map. This makes it possible to manage information within a representation of reality in order to identify solutions.

First of all it should be pointed out that the main challenges lie not in the use of a specific application or software, but in the development of a model or approach. The following approach consists of seven steps: identifying the problem to be solved, developing a data structure, improving on existing information, collecting information, involving local stakeholders, developing analyses, and finally coming up with a strategic vision for managing the problem.

If we look beyond technical issues (software to be used) and think about building an approach for solving specific issues and supporting a global vision, we can build a strong relationship between the urban fabric (buildings, open spaces, streets, etc.), territories and the GIS tool, which we can use as a point of reference for managing the phenomena that characterise a place. To facilitate comprehension of this approach, we will now look more closely at the seven step approach, indicated in the following list, on which the GIS system rests.

1. Identifying the problem to be solved. During this phase, the specific problem to be managed with the GIS system is identified. At this point we suggest 'breaking up' the urban or territorial context to better identify the components. For example, if the problem is related to the development of a system for urban management, we must first identify the basic components of the urban fabric.

2. Developing a data structure. Once the components have been identified, we suggest developing a structure for organising the data: what information needs to stand out? Architectural features? Functional features? Features highlighting the state of conservation of the building? Features demonstrating the social composition of the families that live there? During this stage, geometric primitives are chosen to represent the components on the base map.

3. Improving on existing information. During this stage, the existing data are assessed: the information in a database, archived images, archived historical information, etc. This stage is fundamental for evaluating the quality of existing data (turning it into geographical information): can we use this data (date of construction, function, social information, etc.) to characterise the buildings in question? Can we link this information to the geometrical shapes of the buildings or any component of the urban fabric?

4. Collecting information. This stage is dedicated to collecting additional information or generating new information. Depending on the quality of the data evaluated in the previous stage, this stage may involve compiling survey forms to use on site or reorganise data from other types of archives.

5. Involving local stakeholders. When we carry out surveys on site, the support of the local community is sometimes necessary. This is especially true when trying to map social problems or unusual uses of open spaces and buildings. Local stakeholders are important means of support in mapping non-technical data.

6. Developing analyses. This stage focuses on developing analyses useful for solving the problem. Bearing in mind that as visual representations (analyses or thematic maps) are generated based on the information held in the database of the GIS, if we do not have the right information (for managing the problem), we cannot create visual means of analysis (maps, diagrams, etc.) that can help us to come up with a strategic vision.

7. Coming up with a strategic vision for managing the problem. The GIS system is a tool for managing geographical information, and it would wrong to use it outside of the integrated approach for managing and evaluating urban and territorial contexts. The GIS and tools like it allow us to build a dynamic representation of the context and use this to develop a strategic vision.

5.2 The base map

This section focuses on constructing the 'geographical space' to use in the GIS system. At first glance this is an easy task: find a map and use it to build the base map. In reality it is a task that relates to the scale of the problem we are trying to manage, and centres around which 'urban or territorial components' to use to transcribe reality to the GIS system (in a dynamic representation).

By 'urban or territorial components', we mean the tangible elements relating to the problem we are trying to solve. Urban elements, for example, could be buildings, open spaces, tree lines, and the road network, whereas territorial elements could be groups of trees, rivers, arable land, etc. What's important at this stage is to better understand what the relationship between the problem to be solved and the components to use for representing and visualising the data in the GIS system is. On this basis, we should consider the base map in two ways:

1. A temporary repository for data. To become a geographical space (for managing information), the base map must first be turned into a tool for facilitating the collection of different types of information that can potentially help to manage the problem. At this point we should consider the base map as an evolving document, a space for comparing the different types of documentary sources present in the project area, and a useful way of facilitating a relationship between stakeholders interested in the GIS project and of managing the problem to be solved.

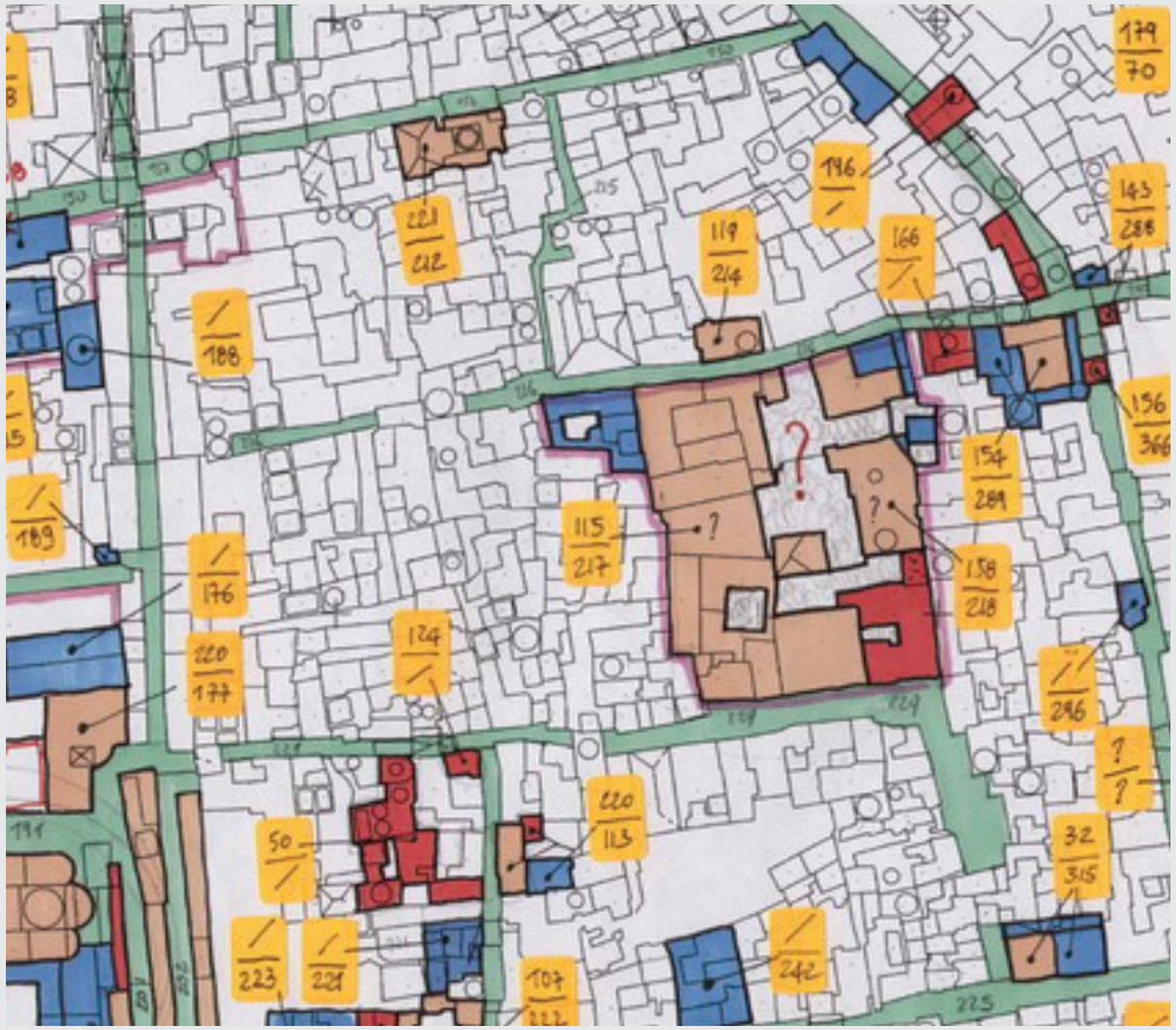
2. A space for the representation of information. Once the base map has been consolidated (during the previous stage, when documentary sources and stakeholders are identified), the urban or territorial components to use to represent the information can be identified directly in the field. At this point we must identify a clear relationship between: existing documentary sources, geometrical primitives (points, lines and surfaces) we can use to represent them, and the stakeholders in charge of managing the information.

GIS FOR THE OLD CITY OF JERUSALEM. DEVELOPING THE BASE MAP.

This example is part of the 'Action Plan for the safeguarding of the Old City of Jerusalem' developed by the UNESCO WHC in 2006. The outcomes of this part of the project were: an updated list of monuments and sites in the Old City of Jerusalem, and the design of a GIS system for managing the new cultural heritage inventory list. These two outcomes were obviously closely related. The first step in this stage of the project was to identify existing documentary sources to use as a point of reference for developing the base map, in particular:

The map and the list of 'Important Historic buildings, Sites and Monuments in the Old City of Jerusalem' published by the Welfare Association in 2004. The map was generated using the main components of the urban fabric of the Old City (buildings, open spaces, road network), with numbers linking pieces of heritage to short descriptions of them.

The map of the Old City from the Tübinger Atlas des Vorderen Orients (1992). The map was generated using the main components of the urban fabric of the Old City (buildings, open spaces, road network), with numbers linking pieces of heritage to short descriptions of them.



All these documentary sources were combined in a temporary repository (base map) for two purposes: use the information for the development of the GIS with the project partners (assessment of existing data and use of new data), and facilitate the assessment of the heritage on the field (boundaries, position in the urban fabric, etc.). Once these two activities were complete, the temporary base map was transformed into the base map for the GIS system, to be used as a geographical space for storing information.

The Jerusalem Wilson's Ordnance Survey map (1874). The map was generated using the main components of the urban fabric of the Old City (buildings, open spaces, road network), with information on archaeological sites below street level.

The accuracy of the base map.

When we work with a GIS system, we operate in a geographical space, and usually use a large scale for representing information: territorial level (1:10000 - 1:20000); masterplan/ landuse plan (1:2500 - 1:5000); detailed plans (1:500 - 1:1250). It is therefore important to understand that the base map does not have to be entirely accurate. When identifying buildings, open spaces and road networks to include, we're not carrying out a metric survey, we are merely verifying the presence of these important components of the urban fabric on site (updating the base map) and identifying what the relationship between them is. On site we are not looking to achieve metric perfection, but to collect 'spatial information' that we can use to build a model that will represent reality, accepting the inclusion of errors or approximations.

Generating the base map is the first step in visualising the problem to be solved, making the following crucial:

Identifying the scale of the problem to be solved. Is the problem an urban or territorial problem? Which is the best scale of representation for sharing the problem with other stakeholders? In this step we set the 'geographical dimension' (size of the project area) to use to visualise the problem.

Identifying documentary resources. This involves identifying which resources (maps, aerial images, historical maps, etc.) could be useful for generating the base map. This step is dedicated to the collection of information for building the 'preliminary base map' to use on site to assess urban components.

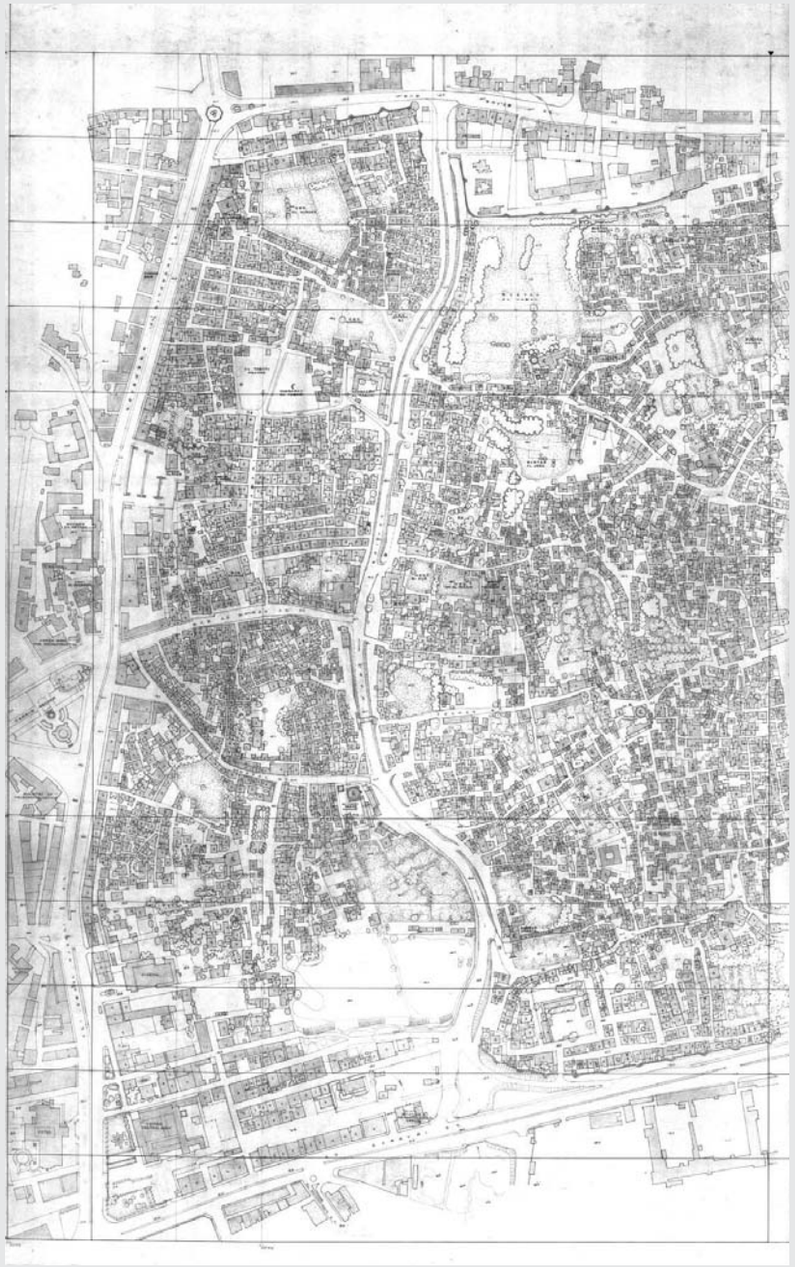
Identifying the components of the base map. Starting with the problem to be solved and the scale of the representation, by identifying which elements to use to construct the GIS model, e.g. where the problem is the management of building permits, established as an urban problem, the element to use to represent the information is the building (footprint of the building).

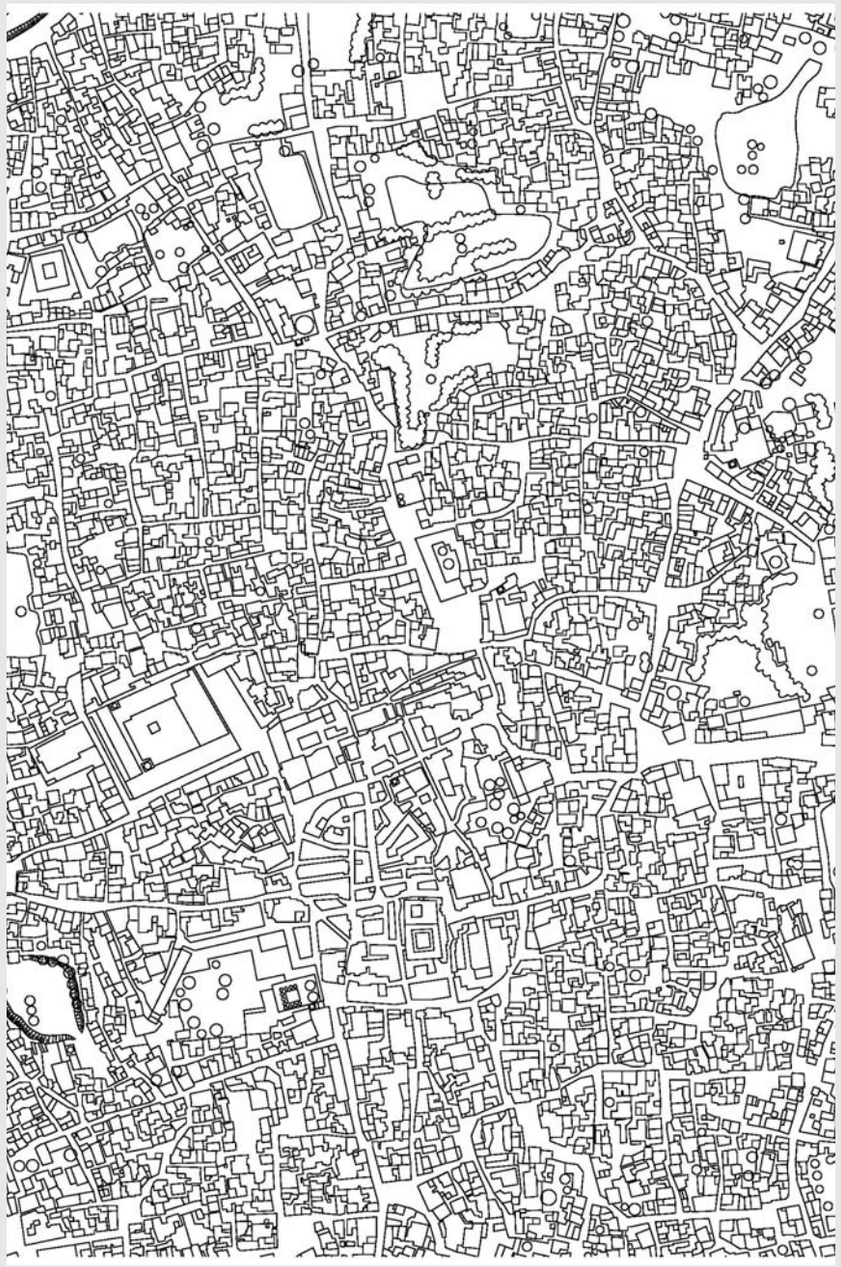
GIS FOR THE OLD CITY OF SANA'A. UPDATING THE BASE MAP.

The first documentary resources identified for redeveloping the GIS were two maps from 1994 (drawn by hand) showing the urban fabric through representations of:

- The footprint of the building (shape of the typology, not the limits of the property);
- Big open spaces (Bustan, Megshamat, Sarah);
- Private courtyards;
- The road network.

The hard copy of the map was digitised and, with the use of a CAD application, turned into a vectorial map with four layers of information on buildings, private open spaces, public open spaces and roads.





This map was the starting point for updates carried out on site, in particular for:

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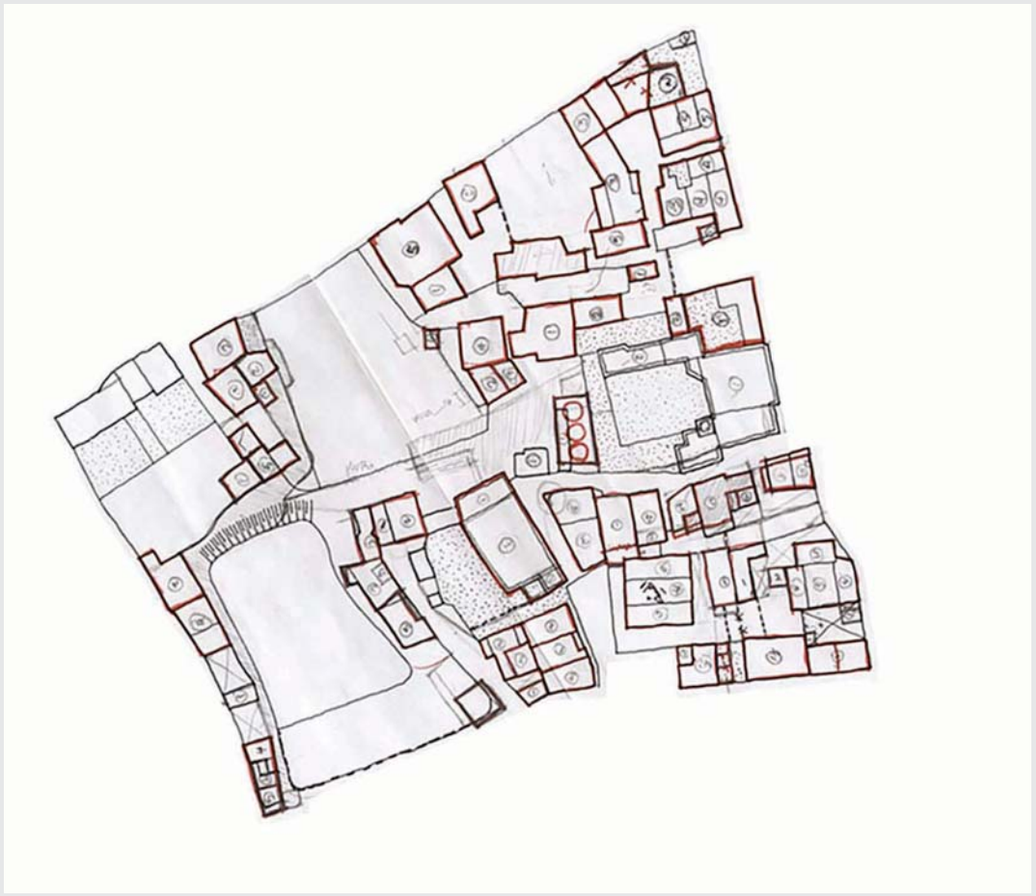
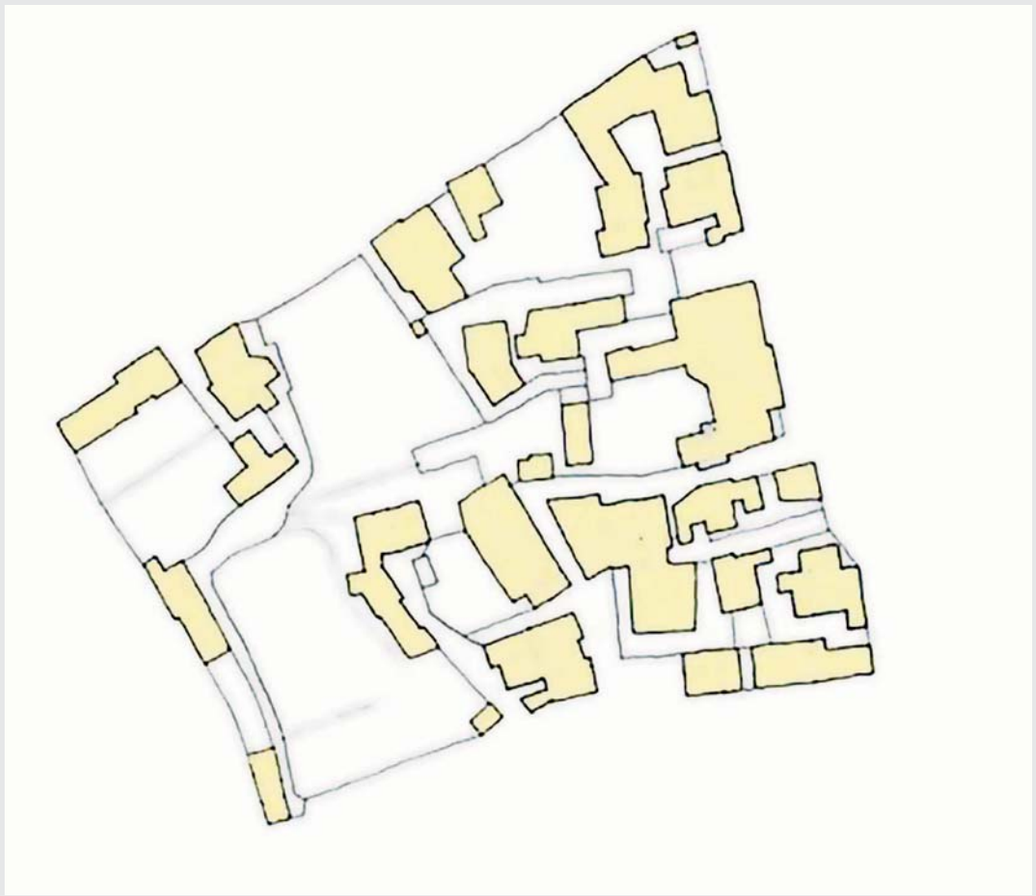
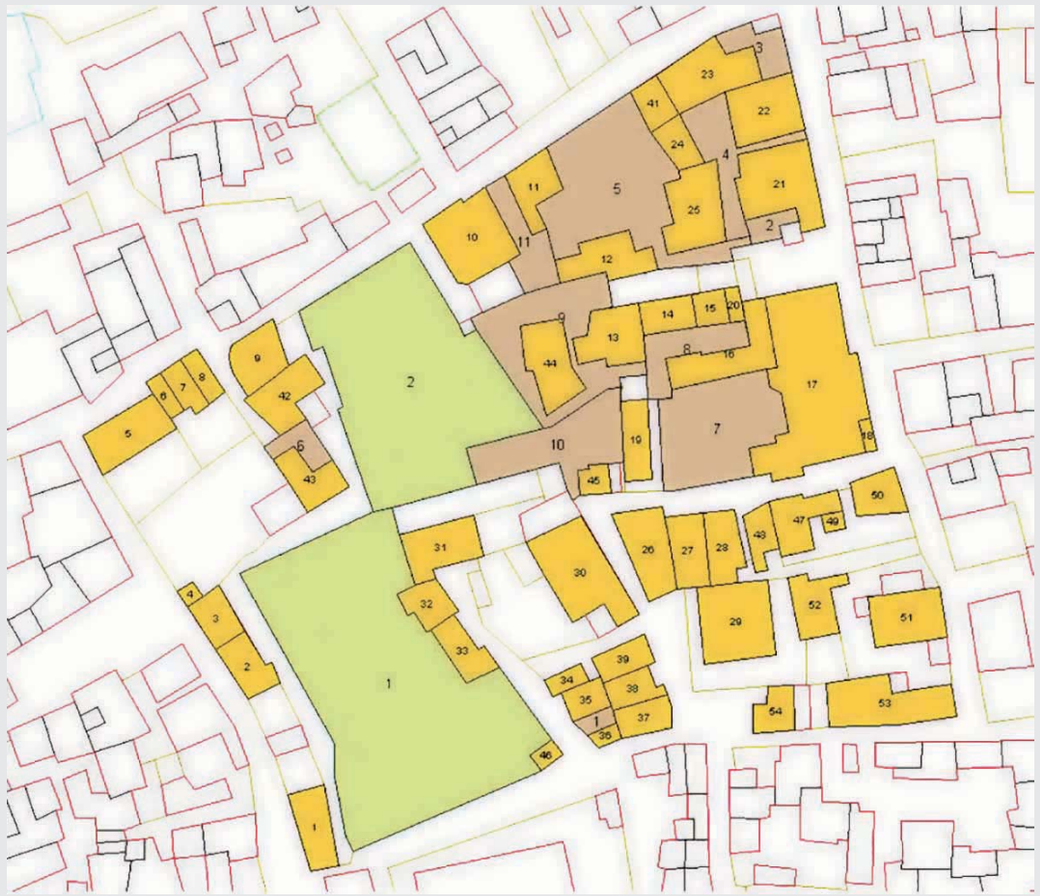
Identifying the urban sector affected by the update.



Activities carried out on site to identify buildings, public and private open spaces and the road network.



Re-designing the original base map, using geometrical information collected on site.



Transforming geometrical information (points, lines, surfaces) into GIS information (geometrical elements with ID numbers and features).

5.3 Documentary sources

This section of the chapter will focus on describing the mechanisms used to collect information for characterising 'urban components'. In the section on the base map we introduced the notion of documentary resources, but only in relation to generating the map. Now we will try to explore the methods used to compile the information used to populate the Geodatabase.

In identifying resources to use to generate the base map, we usually also identify existing databases, characterised and organised by 'descriptive data' (descriptions of features). If we are lucky we can establish a connection between the geometric primitives used to identify urban components, and the data in these databases. To do this we need to establish a link between the ID number in the database and the ID of the geometric shapes. If we have no such luck and don't find the ID number, we must develop a new database using information gathered on site.

To organise activities on site, we need a survey form. The first important point to make about the survey form is that it should not be a copy and paste of a generalised form for any urban context. The survey form must relate to the local context, and be developed on the basis of local needs and issues. Inspiration may be drawn from other survey forms, but the survey must be designed on the specific basis of the problem to be solved and the characteristics of the urban components to be used to solve the problem.

THE SURVEY AND ASSESSMENT CARD USED TO SUPPORT THE REGENERATION OF HISTORICAL CENTRES IN LOCAL GOVERNMENT UNITS (RHC) PROJECT

In this framework we will present the work carried out by MoLG to put together a survey form for characterising the buildings (heritage and normal buildings) in historical centres. The project proposed the use of a survey form requesting two sets of information:

1st set / Basic description of the buildings. This section of the survey form focused on collecting data on the morphology of the buildings (typology of the buildings, number of floors, etc.), the cultural values expressed by the buildings, the number of inhabitants, and the quality of the buildings in general.

2nd set / Detailed assessment of the buildings. This section focused on collecting information on the 'consistency' of the buildings, in terms of the urban landscape, their physical condition, damage and vulnerability analysis, construction stability and the socio-economic situation of their inhabitants.

Obviously all the indicators were described in detail, and the survey form contained all the parameters to be used to characterise the buildings. What is important to highlight in this case is that the survey requested two sets of information to produce different types of final analyses, with different types of data.

3rd set, summary table that show the results of the previous steps.
This section of the survey form is dedicated to the general evaluation of the buildings in terms of: identification of the building, location, general information, values and related interventions, cost of interventions.

SURVEY FORM PRELIMINARY DATA / DATA STRUCTURE

This table represents the first table to use for the assessment of the buildings (historic or new).

General Information. The first session of this survey form is dedicated to the collection of all that information useful for the description of the buildings in terms of urban identity.

Location. Information useful for the geographical identification of the buildings.

Building main features. Information about the building typology, current functions (for each floor) and number of people that live in the residential unit.
Treatment chronology. Information about the evolution of the building: date of construction and steps of modification (reconstruction or restoration).

Physical features. Description of the main physical characteristics of the buildings.

Value attributes. Set of information regarding the description of the main fields of interest (cultural, social, economical) for the evaluation of the values represented by the building. The building are important for what?

Existing documentation. Description of the existing documentation related to a single building.

The following table represent the data structure (name of field and description) for the preliminary survey form. For more information please refer the document "Building construction assessment for inventorying purpose / Data entry instruction and explanations" made by Corrado Minervini in the framework of the project "BTC – Historic Centre Regeneration in the West Bank".

SURVEY FORM PRELIMINARY DATA / DATA STRUCTURE

GENERAL INFORMATION

Building code	Univocal number (or alphanumerical code) for the identification of the building: A0001. This field contain also the information for the identification of the building in terms of: annex, service buildings, etc.
Class of importance	Code for the historic building regarding their importance: local level, national level.
Filled in by	Name of the person in charge for the survey
Date (dd / mm / yyyy)	Date of the survey

LOCATION

Municipality	Name of the Municipality
Town / Village	Name of the Town or Village
Parcel number	Information from the cadastral map
Address	Information about the address of the building (streets name, numbers, etc.)

BUILDING MAIN FEATURES

Building construction type	Description of the typology of the building: Simple Vernacular Architecture, Composite Vernacular Architecture, Compound, Liwan, Special Building, New Building Construction
People living in	Number of the people that live in the building
Property	Type of the property: Public Property, Private Property, Waqf Property, Uncertain Property
Present Use (function)	Identification of the current function for each floors of the building: Not in Use, Residential, Productive / commercial, Social, Special, Other

TREATMENT CHRONOLOGY

Construction period	Identification of the period of construction of the building.
Reconstruction / Restoration	Identification of the periods for the main modifications for the building

PHYSICAL FEATURES	
Parcel area	Identification of the size (sqm.) of the building parcel.
Additional buildings on the parcel	Identification of the existence of additional buildings within the parcel of the main buildings
Number of floors	Identification of the number of floors existing in the buildings
Average floors height	Identification of the average height for the floors
Average covered area	
Area of resistant elements (Ax)	
Area of resistant elements (Ay)	

VALUE ATTRIBUTES	
Identity	The identity value is expressed by the symbolic attributes to the overall architecture.
Artistic	The artistic value is expressed by its decorations, details and the irreproducible workmanship.
Technical	The technical value consists of the appropriate technological solutions.
Rarity	The rarity value consists of the uniqueness of the historic building.
Community	The community value is rendered by the social activities performed within the historic building.
Educational	The educational value consists of the potential educative information the historic building might bring out.
Political	The political value resides in the attributed political significance. It is variable and very subjective.
Functional	The functional value consists of peculiar functions to be preserved.
Economic	The economic value is to be found within the potential economic effectiveness of the building.

SUMMARY TABLE / DATA STRUCTURE

This table represents the combination of information from different tables, within the survey and assessment card designed by the MoLg. Some of the fields has been already explained in the previous table, and for this reason we can focus on the following fields:

Building Main Records. This section of the table represent the summary of the information regarding the values of the buildings, the type of damage and vulnerability, and finally the suggestions for the required interventions.

Cost of Intervention. Information about the recommended projects and the evaluation of the costs.

The following table represent the data structure (name of field and description) for the summary table. For more information please refer the document "Building construction assessment for inventorying purpose / Data entry instruction and explanations" made by Corrado Minervini in the framework of the project "BTC – Historic Centre Regeneration in the West Bank".

SUMMARY TABLE / DATA STRUCTURE	
BUILDING MAIN RECORDS	
Historic Values	
Recommended project relating to consistency with the historic context	The information stored in this field are related to the historic or new buildings within the historical contexts. In particular: Replace, Integrate, Adjust and No intervention
Damage	The damage assessment defines the degree of lost of constructive features. It is based on the percentage of damaged roof, and the percentage of structural damage to load bearing walls and floors. The degree of damage are: high, medium, low.
Vulnerability	The vulnerability assessment defines the degree of stability of a building. Three levels of vulnerability have been taken into account: high, low and medium.
COST OF INTERVENTION	
Recommended project	The information stored in this field are related to the historic or new buildings within the historical contexts. In particular: Replace, Integrate, Adjust and No intervention
Initial rough cost estimate	Replacement 500 USD/sqm, Integration 400 USD/sqm, Adjust 200 USD/sqm

GIS FOR THE OLD CITY OF SANA'A (2004). THE LAYOUT OF THE BUILDINGS SURVEY FORM

The survey form for the Old City of Sana'a was designed to highlight features of the buildings in two ways: the first in terms of general information relating to the buildings, and the second in terms of specific information on the biggest front elevations of the buildings. With this approach, we can use the GIS system to decide the level of accuracy of the information (from the buildings to the façades), deciding how to use the data in the final analysis.

Buildings / General typological layout information. Information regarding the ongoing transformation of the building layout, the number of floors, any new additions, the function of the ground floor, any dangerous activities, the state of occupancy, the general condition of the building.

Buildings / Architectural quality and intervention. Information regarding the overall architectural quality, required intervention, and the kind of intervention.

Buildings / Façade information. The general composition of the façade (degree of complexity of the layout), its relationship with its surroundings, and generally all information regarding building materials, the typology of the windows and the doors, decorative elements, etc.

Obviously all the indicators were described in detail, and the survey form contained all the parameters (lists of values) to be used to characterise the buildings. What is important to highlight in this case is that the survey requested two sets of information to produce different types of final analyses, with different types of data.

The survey handbook. To guarantee the quality of information recorded on site, we need a survey handbook. More specifically, the handbook is a tool to be used on site by surveyors to record and assess all the features and architectural elements found in the buildings, open spaces and streets to be inventoried.

It provides a sort of basic architectural vocabulary strengthened by the know-how of professionals and experts. The handbook is crucial for two reasons: it guarantees an acceptable level of quality of information, and enables the data structure (metadata) of the GIS to be sent to other stakeholders.

GIS FOR THE OLD CITY OF SANA'A (2004). THE SURVEY HANDBOOK

The handbook was developed with the cooperation of all the stakeholders involved in developing the GIS system for managing buildings in the Old City. In this framework it is important to highlight that the features (qualities of the buildings, open spaces and streets) in the handbook were recorded directly on site and discussed with local technicians, researchers, and historians. The handbook was structured as follows:

Updating the base map. Section dedicated to the rules to follow in generating the base map. How to identify the footprints of buildings and update the base map; how to identify open spaces and update the base map; how to identify new urban components in the urban fabric.

Organisation of the working day. Section dedicated to suggestions for supporting activities on site and during data entry. How to organise the team on site; how much time is dedicated to surveying the buildings? How to organise work in the office (data entry and updating the base map).

Identifying features of urban components. Suggestions of supporting material (pictures, schemes, diagrams, etc) to help surveyors on site. What do we mean by number of floors? How do you identify the function of the ground floor of a building? What do we mean by contemporary elements on the roof?

Bulding - Architectural Information
Vertical Additions
Identify the presence of vertical additions; specify the date of their construction and the number of floors that have been added; point out if the additions are consistent with the original buildings.
Date:
Number of floors
Consisten: Yes - No

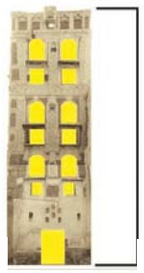
Bulding - Architectural Information
Traditional structures on the roof
Identify the presence of traditional architectural structures consistent with the building.
Mafraj - Diwan
Staircase
Chimney

Bulding - Architectural Information
Contemporary structures on the roof
Identify the presence of contemporary architectural structures and specify if they are consistent or not with the original building.
Mafraj - Diwan
Staircase
Chimney
Other
Consistent: Yes - No

Bulding - Architectural Information
Ground floor function
Residence -Service
Neiborough's shop
Town commerce
Dangerous commerce
Handicraft without environmental impact
Administration
Healt - Religion - Store

Bulding - Architectural Information
Main function of upper storeys

Residence - Service
Culture - Administration
Health - Religion
Store
Neiborough's shop
Town commerce

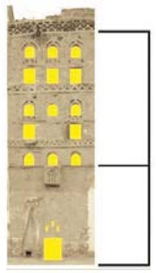


Bulding - Front elevation
General composition

Identification of the composition rules used for the layout facade. This front elevation consist in one layout.

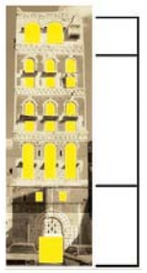
Bulding - Front elevation
General composition

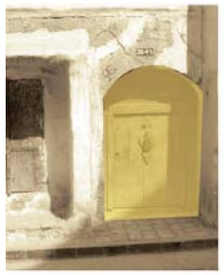
Identification of the composition rules used for the layout facade. This front elevation consist in two layouts.



Bulding - Front elevation
General composition

Identification of the composition rules used for the layout facade. This front elevation consist in three layouts.





Bulding - Front elevation
Ground floor - Principal and secondary entrance

Point out if the entrance of the building faces directly the street.

From the courtyard
From the street

Bulding - Front elevation
Ground floor - Principal and secondary entrance

Point out if the entrance of the building faces the courtyard.

From the courtyard
From the street

Bulding - Front elevation
Ground floor - Use of second entrance

Identify the use of the secondary entrance

Closed
Shop door
In use

Bulding - Front elevation
Ground floor - Material of principal entrance

Identify the material of the entrance

Original timber
Modern timber
Metal
Plywood

Metadata, the genetic information of the GIS. To guarantee the quality of the information and its transmission we need a handbook for the metadata. By the term metadata we mean information describing the content, quality, condition, origin, and other characteristics of the data or other pieces of information in the GIS system. Normally the document assumes the following structure. This example is from the GIS for the Old City of Jerusalem, more specifically metadata for characterising buildings:

Field	Description	Type of data	Example of data	Source of data
Floors_number	Indication (number of floors) of the height of the building. Indication of the height from the ground to the roof terrace.	Number	3	From the field
Type_of_roof	Description (from the street) of the roof type of the building	Text	Flat roof Dome Gabled roof Hipped roof Mix	From the field
Building_position	Indication of the position of the building within the urban fabric	Text	Corner building Free standing Other types of buildings	From the field

5.4 Geodatabase

After generating the base map and collecting data on site or from existing databases, we come to the final stage in the development of the GIS system: the stage dedicated to analysis. In this stage we work with the problem to be solved and the data we have gathered on site (with the survey forms) or from existing databases. In this phase we work with data tables, fields and records, as defined below.

TABLES, FIELDS AND RECORDS.

Table. A set of data elements arranged in rows and columns. Each row represents a single record. Each column represents a field of the record. Rows and columns intersect to form cells, each containing a specific value for one field in a record.

Field. A column in a table that stores the values for a single attribute. For example in a table for a building, the attribute for the description of 'Type of roof'.

Record. A set of related data fields, often a row in a database, containing all the attribute values for a single unit. For example, in an address database, the set of fields that together provide the address for a specific individual comprise one record.

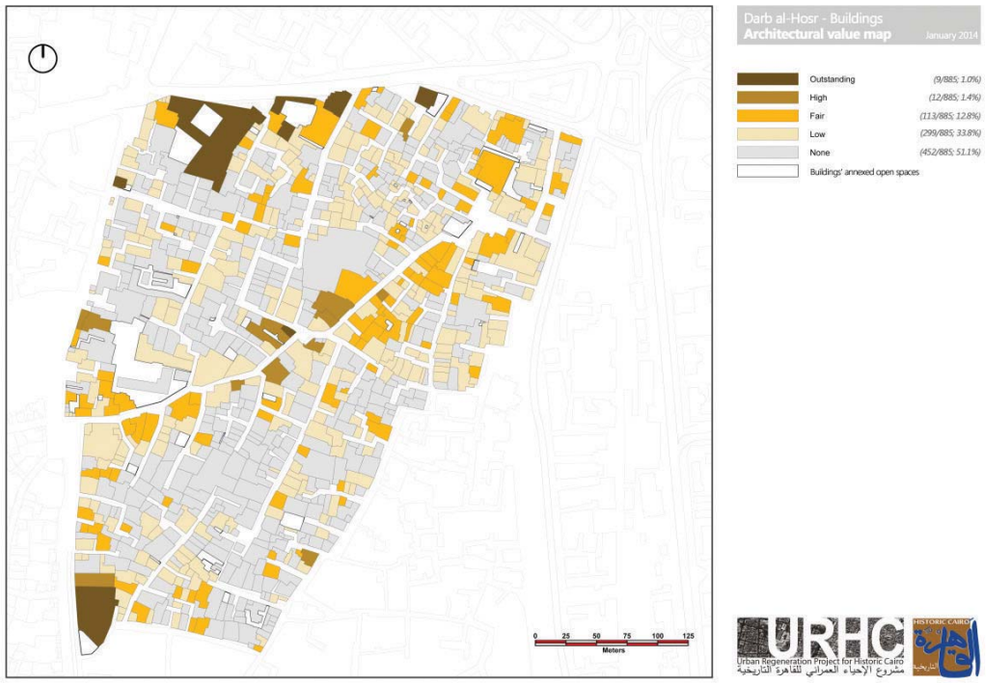
In the GIS we usually have two types of analysis:

Thematic maps. This analysis is useful for displaying all the information stored in one field of a data table, to categorise the data. It is one of the easiest analyses to carry out: we select the field of the data table and, using the GIS system tools, we create a thematic map. This analysis displays the information without requiring any organisation criteria.

Query analysis. This analysis is more complex than the one above: it examines features, stored in different attribute tables of the GIS system, based on user-selected criteria, displaying only those features or table records that satisfy the selected criteria. The output of the Query analysis is a map displaying a combination of different information.

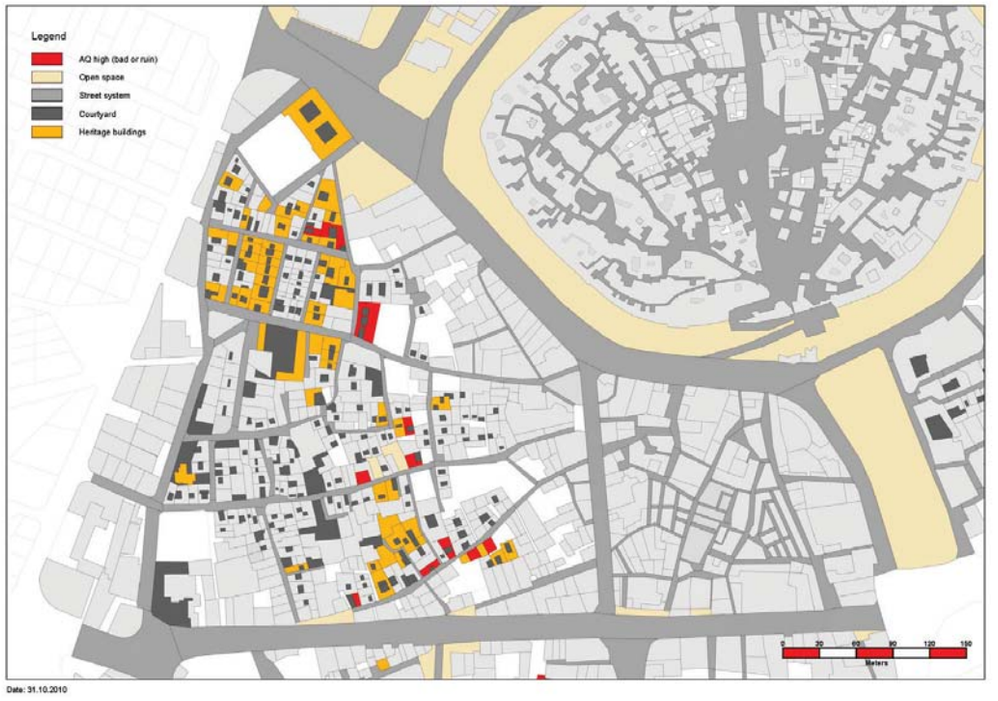
THEMATIC MAPS / URBAN REGENERATION PROJECT FOR HISTORIC CAIRO / ARCHITECTURE VALUE MAP FOR DARB AL-HOSR

This map was created with the information in the 'Architectural_values' field in the 'Buildings' data table. The data displayed was: outstanding, high, fair, low, none.



QUERY ANALYSIS / MASTER PLAN FORTHE BUFFER ZONE OF THE CITADEL OF ERBIL (IRAQI KURDISTAN) / ARCHITECTURE QUALITY BUILDINGS MAP FOR THE ARAB DISTRICT

This map was created with the information in the "Architectural_quality" field in the "Buildings" data table and information from the "State_conservation" field. The buildings displayed in red are of high architectural quality, but in a poor state of conservation or ruins.



6. STAKEHOLDERS AND COMMUNITY INVOLVEMENT

6.1 Stakeholders

The redevelopment or regeneration of a location has to be carefully managed in a way that enhances the history and culture of the area and fully acknowledges the different concerns and expectations of local inhabitants and other groups that the project is expected to have an impact on.

This requires an understanding of the different (and sometimes conflicting) attitudes, opinions, and expectations of the different groups and parties in a community. One way of trying to address and deal with these as effectively as possible is through a stakeholder analysis.

Who are the stakeholders in a redevelopment or regeneration programme for a local community? Do we know their issues, questions, concerns, attitudes, willingness to be involved, difficulties, expectations, and so forth? In short, do we know anything about them?

In development terminology, a STAKEHOLDER is:
"An individual, group, or organisation which may affect, be affected by, or perceive itself to be affected by a decision, activity, or the outcome of a course of action".

Regeneration and economic development stakeholders are entities with some kind of interest in a programme that the Municipality wishes to design and implement, which may impact them, their business, their community, or their family, for example.

These stakeholders may be part of or independent of any organisation which:

- Sponsors a programme
- Has an interest in or stands to gain from the successful completion of a programme
- May have a positive or negative influence on the completion of the work
- Will have something to offer upon the successful completion of a programme
- Is from an identified group (e.g. the main beneficiary of a programme)
- Has particular expectations for the successful completion of a programme

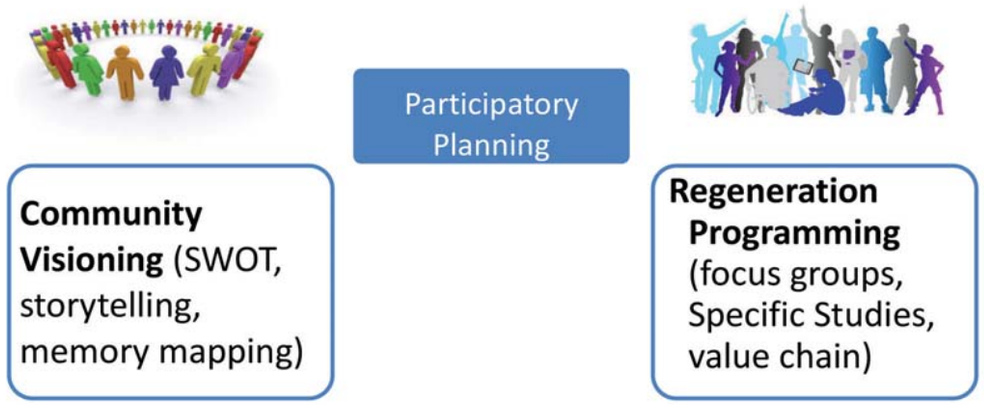
The following are examples of possible stakeholders.

This list is NOT exhaustive, and specific stakeholders must be identified for different projects:

- Representatives of citizens of the Historic Centre (HC)
- Representatives of merchants and small businesses
- Representatives of craftsmen and small traditional industries
- Municipal programme leader
- Programme team members
- Senior management of the municipality
- Resource managers
- Any group affected by the programme as it progresses
- Any group affected by the programme once it is complete
- Sub-contractors

• Consultants

Rather than focusing too closely on one subset of stakeholders, it is important to look at the big picture, meaning that all stakeholders are important, although at different times in the development and implementation of a local programme, some may play a more prominent role than others.
Of course, in the overall framework of a project, some stakeholders will have roles of greater importance, but other stakeholders should not be ignored.



6.1.1 Stakeholder analysis

In order to understand the range of stakeholders and their particular interests, a stakeholder analysis should be carried out. The output of this analysis should be a table identifying ALL the different stakeholders in a regeneration and development programme, and the resulting information should be used to develop strategies for involving the stakeholders. The two most commonly used analyses are the 'Stakeholder Analysis Matrix' and 'SWOT Analysis'

The quality of the results obtained using these tools is significantly influenced by the information collected. In this regard, the effective use of participatory planning methods and group facilitation tools can help to ensure that the views and perspectives of different stakeholder groups are suitably represented and understood.
To begin the analysis, a large group of different stakeholders should be identified. At this stage it is not necessary to limit the numbers, as the next two steps will identify where groups can be amalgamated (or indeed split into other groups of stakeholders).

This list should identify each potential type or category of stakeholder that is relevant to the project. It is possible that other projects in the same community will have similar stakeholder groups, but each project is also likely to include its own unique categories due to the specific outcomes and objectives of that project. It is important not to assume that there is one single 'correct' stakeholder matrix for all situations.
For example, local communities include many different groups of stakeholders, the members of which may well overlap. It is important to identify the issues that stakeholders share in common, thus differentiating the groups sufficiently.

When finalising this list, do not omit 'third party' stakeholders that are part of the community but also have vested interests. They might include regional or national governments, consultants and experts, or international organisations and bodies.

6.1.2 Stakeholder Analysis Matrix

This approach requires clarity on which potential groups share a 'common' set of expectations and issues. Too broad a definition of a stakeholder can lead to misconceptions about the group's interests in and expectations for a particular initiative.

Are all citizens the same? Do they share the exact same issues and concerns? Will they react to proposals in the same way? This is unlikely, but it is also important not to create huge numbers of groups with only marginal differences between them.

A 'typical' local community in a (HC) is likely to include average and poor citizens, merchants with small businesses, craftsmen & craftswomen, young people, women's groups, civil society organisations, municipal workers, unemployed people, minors, NGOs, small businesses, traditional small industries, and so forth. Each of these groups may have a different attitude towards the proposed regeneration programme. Their hopes and fears will be influenced by how they see the changes affecting them personally.

The stakeholders identified in the previous stage are added to the table and two types of analysis are carried out. First of all, the specific expectations that each group might have for the project are analysed. In other words, what does a group stand to gain personally rather than the general broad project outcomes.

Identifying the expectations or needs of different groups may highlight gaps in the project design that can be corrected before it is implemented. If all the gaps are filled and the project outcomes address the expectations of all the stakeholders, the project is more likely to be sustainable.

Secondly, contributions that the stakeholders could make to the project are considered. These may take the form of direct involvement, for example as a local partner or implementer of an activity, or simply as a provider of information or support. Or they may have no way of contributing.

Identifying Stakeholders

Once the table is complete, review the findings to identify any common expectations. If this is the case, consider whether there are any factors that make the categories of stakeholders different from one other. If so, leave them as they are. If no differentiating factors can be found, consider amalgamating the stakeholders into one composite group.

The final table is then used for further communication with the stakeholders (see next section).

Stakeholder Group	Expectation FROM the Programme	Possible CONTRIBUTION to the Programme
List all the individual groups relevant to the specific objectives of the Project or Regeneration Strategy	What does each group expect the Programme to deliver FOR THEM. What are their perceptions of and expectations for the Project	Do they have a contribution to make to the Programme (or to another group). If so, be clear about EXACTLY what this is.
Categorised by type	Groups or even individuals may be considered as different stakeholders	
They should be distinct from one other	If expectations and contributions are the same, the stakeholders do not belong to distinct groups	
May be institutions	These can be public or private bodies.	
May be organisations	Including NGOs or civic organisations	
May be groups of people	Break down the community – groups may include businesses, specific demographics (e.g. young people)	
Etc.	Continue with as many different groups as is appropriate.	

6.1.3 SWOT Analysis

Another approach to identify the possible impact of a stakeholder is through a SWOT analysis. SWOT stands for Strengths, Weaknesses, Opportunities, and Threats.
It usually takes the form of a 2x2 box, as shown below.

Stakeholders should be identified as in the previous example through brain-storming, identifying as many different groups of stakeholders as possible.

For each group identified, consider their respective SWOT

- Strengths: who can support the Programme effectively and HOW?
- Weaknesses: who might have an adverse impact on the Programme and WHY?
- Opportunities: who is expected to benefit from the Programme and HOW?
- Threats: who might pose a threat to the Programme – HOW and WHY?

STRENGTHS	WEAKNESSES
What strengths do they have? How can they contribute? What kind of support can they lend? What are their interests?	How do they oppose the Programme? Would they try to prevent it from taking place? Why; what are their concerns?
OPPORTUNITIES	**THREATS**
Who might benefit from the Programme? What are their expectations? What will change / be delivered after the Programme?	Who might slow down or disrupt the Programme? What might they do? Why might they do it?

The final SWOT tables present the project team with the complete range of views, opinions, and perceptions of the project.

BUT how convinced are we that we know the feelings of groups of stakeholders well enough at this stage? Consider what objective information we already have that can confirm the analysis. Do we have any previous experiences to refer back to, or reports, papers or submissions from concerned individuals, feedback from meetings etc.? Where confirmation is limited, the next step should be to clarify and confirm our impressions.

Consider how to contact each group. The method or approach used should reflect the relative importance of the information needed and the time required to compete the analysis.

6.2 Situational Analysis

Before designing the project, there is a need for a situational analysis of the site and surroundings, including any conurbations, geological features, historical, and local distinctive features. The stakeholder analysis carried out in the previous stage should indicate the most likely group(s) to contact to assist or confirm the initial assessment.

What information is required or can supplement the situational analysis? It may include memories of a place or a 'mental map' of the location or the expected NEW location upon completion of the project.

Similarly, during the planning/design stage of the project, looking at the bigger picture is important, as is ensuring that the expectations of the beneficiaries are met. Clarifications and feedback from the local community on the final plan might expose weaknesses or other aspects of the plan that have not been fully considered. And the use of techniques such as placemaking can assist in the design of public spaces (see below for information on this approach).

Finally, during the implementation stage, regular contact with the various stakeholder groups previously identified should ensure the continued cooperation and collaboration of all those with an interest in the effective and timely execution of the project.

Each of these stages may require a different approach towards involving and communicating with communities and stakeholders. The final sections offer a range of possible approaches that could be considered and employed.

There is no one perfect way of communicating with communities. Each stage will probably require a different approach, just as each stakeholder may require a different approach. Two other factors influence which option to use: time and money.

Time is a factor, particularly when decisions must be made in a short space of time. So approaches that require lengthy preparation or an analytical stage may not be appropriate.

Money is always a restricting factor, and a lack of funds will make some approaches impossible.

6.3 Communication approaches

Once the stakeholders have been identified, the next step is deciding which of the various options, shown below, are most suitable:

- Public consultations / open meetings
- Questionnaires
- Face-2-Face interviews
- Workshops with individual groups or multiple groups

6.3.1 Public meetings

Organising a public meeting in a local community is not complicated, but a lot of thought and care goes into organising the logistics. Before planning the event itself, it is critical to understand the aim of the event. How will the outputs of the meeting improve the project, provide information, or generate interest in the project and encourage those involved to take ownership of it?

Get some help to run the meeting - a small team of three or four, with one person in charge, will share the workload and bring new ideas. Any public meeting needs a good chairperson. This individual will need to manage the meeting and keep the meeting running on time and on topic.

Planning a Public Meeting or Event	
Step 1:	Set a suitable date and time: planning and forward-thinking are crucial.
Step 2:	Decide on and book a good venue: consider numbers, location and accessibility.
Step 3:	Choose the theme, chair and speakers, and brief them.
Step 4:	Publicise the event: select the most suitable media.
Step 5:	Organise all the materials you will need: presentations, leaflets, posters, etc.
Step 6:	Preparation on the day/night: check and double-check everything.
Step 7:	Introduce the meeting: have a clear structure and process.
Step 8:	Agree follow-up actions: record the outcomes and communicate them.

The quality of the outcomes will often depend on how well the chairperson performed their task.

6.3.1.1 Set a suitable date and time

Plan the meeting well in advance, and allow sufficient time to publicise the event using local community networks. Check deadlines for advertising in local newspapers, and other publicity options such as a local group's newsletter. Use existing networks, formal and informal, for publicising the event. Ensure that any publicity is clear about the objectives of the meeting and states that anyone from the community may attend.

- If you opt for an evening meeting, aim for Tuesday, Wednesday or Thursday (check for holidays or local events it might coincide with).
- Check for clashes with other local meetings or key dates in public or sporting calendars.
- Draw up a brief plan of action with dates and times.

6.3.1.2 Decide on and book a good venue

The venue should be accessible by public transport with access for the disabled, easy to find, with parking areas, and open late if necessary.

Use local knowledge and check with other groups for recommended venues. Always visit the venue before the event to clarify any issues and check the space. It is especially important to do this if the meeting will involve presentations or displays. Check whether items such as pictures, plans etc. may be posted to the walls.

6.3.1.3 Choose the theme, chair and speakers

The title should be short, catchy and understandable by a wide audience. Brief speakers on the format of the meeting and timings, prepare them for questions and check whether they need audiovisual aids. As this will be a consultative meeting, it is important that two things happen. The first is that the participants are given clear information on the regeneration plans. The second is that their inputs, comments, concerns etc. are properly noted and recorded.

- Remember to confirm arrangements in writing and phone shortly beforehand to finalise details.

6.3.1.4 Publicise the event

Leaflets publicising the event should include details of the date, time, place, subject and format of the meeting. Important words should stand out.

There are a range of publicity options, which should be adapted to suit the specific location and area:

- A5 flyers to post or leave in community venues or on notice boards;
- A poster using the same design as the flyer in either A3 or, as is more popular, A4, for shop windows and the like;
- Advertisements in local newspapers and magazines;
- Mail shots or magazines sent to groups such as parish councils;
- Advertisements on local media, both well in advance and immediately before the meeting.

6.3.1.5 Organise the materials you will need

Think about any questions that may arise during the meeting beforehand and identify any display materials, maps, plans etc. that could be used to answer these questions.

- Handouts, leaflets and other basic materials should be made available to participants.
- Order any materials you will need at least a month in advance.

- Prepare signs for finding and getting around the venue.
- Take LCD equipment if a PowerPoint Presentation is to be made. If the venue will supply this, always ensure you arrive in good time to test the equipment and see the quality of the presentation on site.
- Organise a public address system if you are using a large hall.
- Confirm any catering arrangements.
- Draw up an attendance list and provide pens for people to sign it, leaving plenty of space for participants to write down their addresses.
- Prepare display boards/tables.

6.3.1.6 Preparation on the day/night

Arrive at least an hour before the meeting is due to start.

Post signs at key locations. Brief volunteers on their roles. Check audiovisual equipment is working.

6.3.1.7 Introduce the meeting

Opening

- Open the meeting by welcoming everyone and introducing yourself.
- Outline the programme for the meeting, including the proposed finish time.
- Remind people to sign the attendance list.
- State the aim/purpose of the meeting.
- Introduce the speaker(s) or panel as appropriate.

Main issue

Move on to the content of the meeting. Make presentations, show models, etc.

Question and answer session

Open the floor for questions, comments and discussion. Others may try to hijack your meeting, so have a strong chairperson to stick to the agenda and deal with troublemakers. Prime your own supporters to ask questions and ensure the chairperson of the meeting knows who to call on.

Closing

- Thank the speakers and the audience.
- Clarify what the next steps are and how you are going to follow up the meeting.
- Give dates of any future events.
- Remind people to sign the attendance list and appeal for members.
- Pack up - remove notices in and outside the venue and leave the room tidy.

If possible, have a refreshments break before or after the meeting, or both if the meeting is a long one. This gives the opportunity for informal discussion, networking, and for people to register their support.

6.3.1.8 Agree follow-up actions

Do a follow-up media release on the content of the meeting immediately. Keep those who attended informed on the programme's progress.

6.3.2 Questionnaires

The stakeholder questionnaire is designed to gather general, mainly quantitative information about the opinion of stakeholders and their expectations for the regeneration programme, and to provide an opportunity for suggestions on possible actions. For it to be of value to the programme developers, it must be supplemented by detailed, qualitative information.

6.3.2.1 Format and language

Such a questionnaire usually has a number of sections, delivering information that can be collated by programme coordinators/management to give a numerical overview, as well as more open sections where comments can be made by respondents.

The questionnaire should be made available in the appropriate language to all those who are participating in or affected by the project, in order to provide inputs for the internal evaluation. This evaluation will be used to determine necessary actions during the design stage. Similar questionnaires can of course also be used during the implementation of the regeneration programme to identify how the anticipated outputs are perceived by the various beneficiaries.)

Respondents for the questionnaire will be chosen based on the stakeholder analysis, and any issues identified at that stage should be highlighted in the questionnaire to determine whether or not these represent potential threats to the effective implementation of regeneration plans.

Collation of data:

A named individual in the regeneration development team is responsible for collating the data from the questionnaires. The report summarising this data should indicate the categories used and the number of people in each category, who was sent a questionnaire and who actually responded.

One possible format/template for the questionnaire is shown below.

[NB: there are now online services (e.g. Survey Monkey) which can provide web-based questionnaires. These cost money, but have standard templates that enable non-IT professionals to put together a questionnaire.

The questionnaires are completed online, but this obviously requires access to the Internet by respondents.]

6.3.2.2 Example of a Stakeholder Questionnaire

	Programme Partner	Programme Sub-Contractor	Civic Society Organisation	Municipal Office	Local Community Group	Small/Medium-Sized Enterprise	Government Development Agency	*Add other category as necessary*
1. To which category of stakeholder in the Municipality or Regeneration Area do you belong?	o	o	o	o	o	o	o	o
2. What is your role or job title?								
3. What role do you expect to play in the programme, if any? **If you do not expect to play any role, how would you like to be involved?**								
4. Please mention the most important services the programme should deliver to you or your group. *(continue on last page, if necessary)*	1.							
	2.							
	3.							
	4.							
	5.							
	6.							

5. How would these services help? *(continue on last page, if necessary)*		
6. How involved are you expecting to be in the implementation of the regeneration programme in your area? [List areas of involvement] *(continue on last page, if necessary)*	1.	
	2.	
	3.	
	4.	
	5.	
	6.	
7. In addition to the services provided(question 6), what other aspects of the project satisfy you?		
8. What practical steps would you like to see the programme make in the next six months?		
9. Are there any other comments you wish to make about the proposed programme?		

6.3.3 Face-2-Face Interviews with Key Individuals

The approach to F2F interviews is similar to the questionnaire approach, insofar as the types of questions are similar.

You should prepare a sheet of the same key questions. The main difference in practice is that that the interviewee is given more time to ask you questions and elaborate on their position than in a written questionnaire.

It is a far more time-consuming approach and should be restricted to a small number of key individuals who would be expected to have particularly important inputs to the regeneration programme at various stages of its development or implementation.

The key aspects of a personal meeting with an individual

1 Fix a precise time and place for the meeting

2 Have a clear agenda

3 Arrive on time and be prepared to start immediately and finish on time

4 Stick to the agenda (unless the interviewee allows more time)

5 Summarise opinions offered regularly

6 Close with 'next steps'

6.3.3.1 'Virtual' meetings

Technology now enables us to conduct face-2-face meetings at a distance using applications such as Skype. There are advantages and disadvantages to this approach.

Advantages

- No travelling involved for either party (saves time and cuts costs).
- Almost instant communication (there may be some slight delays in transmission at times).
- Can be conducted at any time.
- Possible to include others in the conversation with relative ease.
- Additional benefit of being able to share files, pictures, reports etc.

as required.
- Ease of access to other files and materials if required.

Disadvantages

- Relies on secure and consistent internet connection.
- All parties require suitable software/a specific programme.
- Transmission/connection can be of varying quality.
- Can be difficult to coordinate conversations when more than two people are involved.

6.3.4 Workshops with group(s)-focus meetings

A workshop or focus group meeting centres around a carefully focused questionnaire (verbal, not written), and is moderated by someone with the necessary skills to keep the group on topic, drawing out the views and opinions of the representatives of stakeholder groups through facilitation.

A workshop usually involves up to 10 members, and takes place in comfortable surroundings such as a hotel room or lounge. It is NOT a form of training, and the participants are expected to be given light refreshments while they discuss. It is almost like having a conversation with friends over a coffee.

Such meetings require the services of a moderator (or facilitator) with the appropriate skills to conduct such a group discussion. The meeting should last between 45 – 90 minutes, but no more.

The number of questions or issues raised is usually between eight and twelve, but the fewer the better. The questions should draw on the issues identified for the questionnaire or interview situation, and should be drawn up on the basis of the initial stakeholder analysis.

It takes more than one focus group to produce valid results – usually three or four. You'll know you've conducted enough group sessions (with the same set of questions) when you stop hearing anything new, i.e. when you've reached a point of saturation.

Some points to consider when putting together a focus group:

- Gender – will both men and women feel comfortable discussing the topic in a mixed gender group?
- Age – how intimidating would it be for a young person to be included in a group of older adults? Or vice versa?
- Power – would a civic leader be likely to make candid remarks in a group where his/her municipal councillor is also a participant?
- Cliques – how influential might some people be in a group?

Arrange for a comfortable room in a convenient location with ample parking space. Depending on your group, you may also what to consider proximity to a bus route. The room should have a door for privacy and a table and chairs to seat a circle of up to 12 people (10 participants plus the moderator and assistant moderator).

Arrange for food to be provided. At the very minimum, offer a beverage and light snack (cookies, cheese and crackers, veggie tray, etc.). It is OK to offer a full meal, but be sure to factor in an additional 30 to 45 minutes so that everyone can finish eating before the group session begins.

The actual running of the focus group will require an experienced moderator and an assistant.

Moderator requirements:

- Can listen attentively with sensitivity and empathy.
- Is able to listen and think at the same time.
- Believes that all group participants have something to offer no matter what their level of education, experience, or background.
- Has adequate knowledge of the topic.
- Can keep personal views and ego out of the facilitation.
- Is someone the group can relate to but also has authority (e.g. a male moderator is most appropriate for a group of all men discussing sexual harassment in the workplace).
- Can appropriately manage challenging group dynamics.
- The focus group moderator has a responsibility to adequately cover all questions provided within the time allotted.
- S/he also has a responsibility to get all participants to talk and fully explain their answers.

The assistant moderator must be able to do the following:

- Run a tape recorder during the session.
- Take notes in case the recorder fails or the tape is inaudible.
- Note/record body language or other subtle but relevant clues.
- Allow the moderator to do all the talking.

Additionally, materials you might need for the session include:

Notepads and pencils;
A computer for presentations;
Flip chart or easel paper;
Focus group agenda;
List of participants;
Markers;
Masking tape;
Name tags;
Refreshments;
A watch or clock.

It is important to note that a focus group is not:

- A debate;
- A conflict resolution session;
- A problem-solving session;
- An opportunity to collaborate;
- A promotional opportunity;
- An educational session.

Analysis of the data from such a meeting requires the information to be separated into explicitly different responses which are collated using software such as Excel, and processed according to the frequency and specificity of the answers to the key questions.

6.4 What is the right method?

There is no definitive answer. However, consider the stakeholder analysis and if you can identify the issues and preconceptions each group of stakeholders might have, this will probably lead you to an approach.

In addition, consider the following criteria:

- What are the time constraints (how quickly do you need answers)?
- What are the cost constraints (what is the available budget)?
- What are the quality constraints (is quantity or quality the driver)?
- What are the logistical constraints (are some approaches not possible)?
- What are the resource constraints (how many people are available to carry out the work)?
- What are the expertise constraints (are people available that can do the job)?

This is not an exhaustive list, but provides food for thought. If necessary, brainstorm other criteria and assess the capacity of each approach for doing the job required. Sometimes the 'perfect' solution will have to be waived for another option because of one or more practical constraints.

In the end, all that matters is that the community and other stakeholders are seen to be involved in engaging with a development programme that will have a direct impact on their lives, and secondly that the process of engagement is clear and open.

6.5 Key Principles of Placemaking

Source: www.placecollective.com.au

The Placemaking approach can be a springboard for community revitalisation. There are eleven key points to this approach, which can be adopted by any community in any situation.

These points are as follows:

The community is the expert

An important starting point in developing a concept for any public space is to identify talent and assets within the community. In any community there are people who can provide a historical perspective, valuable insights into how the area functions, and an understanding of critical issues and what is important to people. Tapping into this information at the beginning of the process will help to create a sense of community ownership of the project, which can be of great benefit to both the project sponsor and the community.

Create a place, not a design

If your goal is to create a place (which we think it should be), a design is not enough. To make an under-performing space into a vital 'place', physical elements must be introduced that would make people feel welcome and comfortable, such as seating and new landscaping, as well as changes to the pedestrian circulation pattern and the development of more effective relationships between the surroundings and the activities going on in

public spaces. The goal is to create a place that has both a strong sense of community and a wholesome image, as well as a setting and activities and uses that collectively add up to something worth more than the sum of its often simple parts. This is easier said than done.

Look for partners

Partners are critical to the future success and image of a public space improvement project. Whether you want partners involved at the beginning in planning the project or you want to brainstorm and develop scenarios with a dozen partners who might participate in the future, they are invaluable in providing support and getting a project off the ground. They can be local institutions, museums, schools etc.

You can see a lot just by observing

We can all learn a great deal from the successes and failures of others. By looking at how people are using (or not using) public spaces and finding out what they like and don't like about them, we can assess what makes them work or not work. Such observations highlight what kinds of activities are missing and what might be incorporated. And once the spaces have been built, continuing to observe them teaches us even more about how to develop and manage them over time.

Have a vision

The vision needs to come from each individual community. However, essential to a vision for any public space is an idea of what kinds of activities might take place in the space, a view that the space should be comfortable and have a wholesome image, and that it should be an important place where people want to be. It should instil a sense of pride in the people who live and work in the surrounding area.

Start with the petunias: lighter, quicker, cheaper

The complexity of public spaces is such that you cannot expect to do everything straight away. The best spaces experiment with short-term improvements that can be tested and refined over several years! Elements such as seating, outdoor cafes, public art, zebra crossings and pedestrian areas, community gardens and murals are examples of improvements that can be made in a short space of time.

Triangulate

"Triangulation is the process by which some external stimulus provides a linkage between people and prompts strangers to talk to other strangers as if they knew each other" (Holly Whyte). In public spaces, the choice and arrangement of different elements in relation to each other can set the triangulation process in motion (or not). For example, if a bench, a rubbish bin and a telephone box are placed with no connection to each other, each may receive very limited use, but when they are arranged together along with other amenities such as a coffee cart, they will naturally bring people together. On a larger scale, if a child's reading room in a new library is placed next to a children's playground in a park and a food kiosk is added, they will generate more activity than if they were placed separately.

They always say "it can't be done"

One of Yogi Berra's great sayings is "If they say it can't be done, it doesn't always work out that way," and we have found this to apply in our line of work

as well. Creating effective public spaces is inevitably about encountering obstacles, because no one in either the public or private sectors has the job or responsibility of "creating places". For example, professionals such as traffic engineers, traffic operators, urban planners and architects all have narrow job definitions– facilitating traffic, making trains run on time or creating long-term schemes for building cities or designing buildings. Their jobs, the fruits of which are clear to see in most cities, are not to create 'places'. Starting with small-scale community-nurturing improvements can demonstrate the importance of 'places', and help to overcome obstacles.

Form supports function

Input from the community and potential partners, an understanding of how other spaces function, experimentation, the overcoming of obstacles and naysayers provides the concept for the space. Although design is important, these other elements tell you what form you need to execute the vision for the space.

Money is not the issue

This statement can apply in a number of ways. For example, once you've put in the basic infrastructure of public spaces, the elements that are added to make it work (e.g. vendors, cafes, flowers and seating) will not be expensive. In addition, if the community and other partners are involved in programming and other activities, this can reduce costs. More importantly, by following these steps, people will have so much enthusiasm for the project that the cost will be viewed much more broadly and as relatively small compared to the benefits.

You are never finished

By nature, effective public spaces that respond to the needs, opinions of and ongoing changes in the community require upkeep. Amenities wear out, needs change, and other things happen in an urban environment. Being open to the need for change and having the flexibility to enact that change is what builds great public spaces and ultimately, great cities and towns.

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