

DEUTSCHE GESELLSCHAFT FÜR TECHNISCHE ZUSAMMENARBEIT (GTZ) GmbH
PROJECT FOR THE DEVELOPMENT OF HISTORIC CITIES OF YEMEN (PDHCY)

HISTORIC TOWN OF ZABID

World Heritage Site in Danger

Mission Report
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INTRODUCTION

Terms of Reference

The Terms of Reference attached to the contract No. 80107433, project processing No. 05 2184 9-001.00, section/division 3130, define the Scope of Work as follows:

- “Consultancy to assist the PDHCY in finalizing the building regulations and guidelines for Zabid and in reviewing issues in relation with the housing rehabilitation and the urban regeneration process”. In particular, the assignment concerns the “categorisation of the built and non-built heritage of Zabid, preparing an outline of the required steps needed to finalize the regulations/guidelines and solutions to the various issues in relation with the urban rehabilitation (public spaces, skyline, encroachments, etc.)”.

The tasks to be carried out by the consultant are defined as follows:

Review the architectural survey, maps, documents and materials developed by the PDHCY, and assess their usefulness in view of the assignment.

Undertake an onsite thorough evaluation of the historic buildings and their state of conservation, based on the results of the 2008 architectural survey and other available documentation.

Propose solutions and methods in view of refining and redefining the buildings categories (previously proposed in the preliminary Urban Conservation Plan - 2003) and their corresponding levels of protection.

Prepare instructions for reviewing the regulations proposed by UNESCO in 2003 and finalising the regulations.

Based on previous own and other international experiences, propose well adapted corrective measures including ideas, programmes or projects in view of resolving issues in relation with the urban rehabilitation and regeneration (rehabilitation of public space, uncontrolled buildings expansion, skyline, encroachments, city wall, etc.).

Prepare a detailed set of instructions on ways and modalities for implementing the above mentioned measures.

Prepare an outline for the prospective building regulations and guidelines.

Submit a final report.

The expected output was defined as follows:

- *An outline of instructions for finalising the Regulations & Guidelines.*
- *Overview of urgent Corrective measure and draft of possible interventions at the urban level in order to reverse the trends.*
- *Submit detailed instructions for the implementation of the above recommendations.*
- *Final report with all the above requirements and final recommendations.*

During the mission some changes occurred in the task assignment. Besides the tasks required by the ToR, the responsible of the Project Mr. Allaji namely asked the consultant to concentrate on the following urgencies:

- Advise on the implementation of the street paving project, particularly with reference to the management of the “violations”, which may have affected the public spaces;
- Outline a strategy for removing “violations”, in order to respond to the UNESCO requirements.
- Establish a more general building regulation, concerning architectural recommendations for the existing buildings, possible additions and new constructions, in order to respond to the needs and requests of the population.

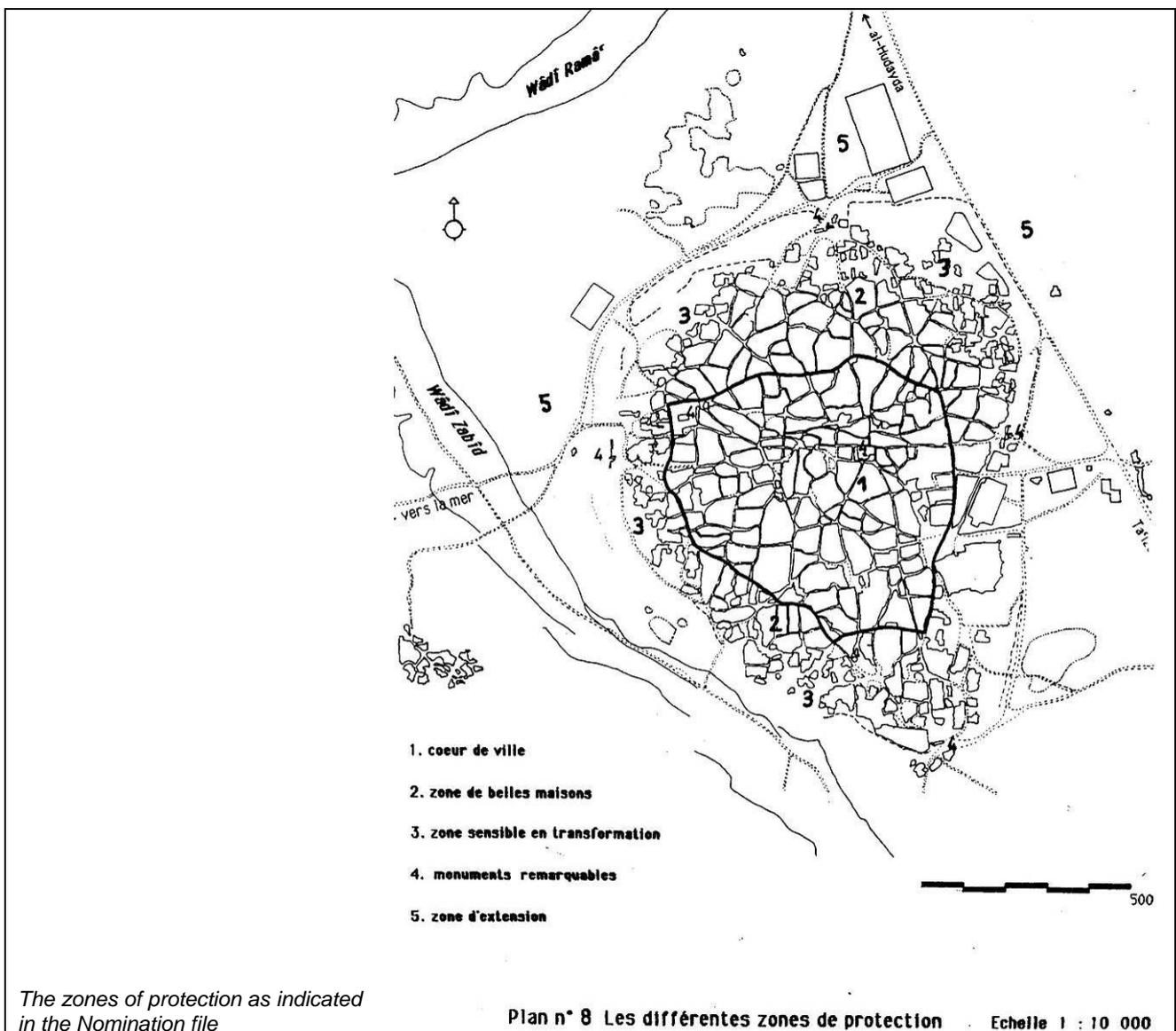
These aspects were addressed in the framework of the above cited ToR, but have implied a different approach and emphasis in dealing with the required tasks.

Background

The Committee inscribed the site on the World Heritage List in December 1993 under the following criteria

- (ii) *“It was of great importance in the Arab and Moslem world for many centuries because of its Islamic university ... In the 13th-15th centuries it was also the capital of Yemen during the Rasulid period. Its architecture profoundly influenced that of the Yemeni coastal plain”;*
- (iv), *“The domestic architecture of Zabîd is the most characteristic example of the Tihama style of courtyard house”;*
- (vi), *“Domestic vernacular architecture in Yemen, ..., is threatened by two opposing tendencies – economic decline and prosperity ...”*

No detailed perimeter of the WH site and its buffer zone were indicated in the Nomination files, but the sketch of the proposed “protection zones” below:



The zones of protection as indicated in the Nomination file

The inscription was accompanied by the recommendation to strengthen the conservation and management of the site. In October 1993, ICOMOS stated indeed that “the lack of proper conservation and management programmes for Zabid is a cause of alarm, since the town is clearly menaced severely at the present time”.

For those same reasons, Zabid has been transferred to the List of World Heritage in Danger in 2000 under the following:

- Criteria of Ascertained danger: (b) Serious deterioration of structure and/or ornamental features; (c) Serious deterioration of architectural or town-planning coherence; (d) Serious deterioration of rural or urban space, or the natural environment
- Criteria of Potential danger: (b) Lack of conservation policy; (c) Threatening effects of regional planning projects.

Between 2001 and 2004, several missions of international experts' missions were organised by the UNESCO World Heritage Centre, in order to develop conservation studies. The following were notably carried out:

- Elaboration of an Emergency Action Plan (2001);
- Preparation of a Preliminary Urban Conservation Plan, including urban regulations, a graphic document and guidelines (2002);
- Preparation of preliminary projects for the revitalization of the Suq and the restoration of the al-Asha'ir Mosque (2003).

In December 2006, a Prime Minister decree "Concerning some providences and actions to remove the Historic Town of Zabid from the list of World Heritage in danger" was issued, but despite of the efforts made, the decline of Zabid and the deterioration of its heritage values were not stopped.

A joint ICOMOS/WHC mission, following the observations of a field visit in January 2007, and on the basis of a survey carried out the next February, noted that "less than 50% of the built fabric is 'old' and there is a progressive replacement by concrete blocks buildings. It also proposed a "Program of Urgent Action Plan" with benchmarks.

The World Heritage Committee during its 31st session of July 2007 decided to retain the Historic Town of Zabid (Yemen) on the List of World Heritage in Danger for a further two-year period. Meanwhile the Committee noted with great concern "the continuing decline of the city, the lack of a conservation framework, the loss of possibly up to 50% of the traditional urban fabric within the city walls, the lack of active maintenance and the poor quality and uncontrolled nature of modern construction". Therefore the Yemeni Government was urged to:

a) Provide an adequate legal and institutional framework set up including:

- *Re-issuance of Cabinet Decree No.425 – 2006;*
- *Government provision to GOPHCY in Sana'a and Zabid of adequate budget to stabilise the degradation of the World Heritage property;*
- *Completion of heritage protection laws;*
- *Completion of the draft Conservation Plan, with translation into Arabic. Provision of short version for wide dissemination.*

b) Stop immediately the physical degradation and reversed the process within two years:

- *Stopping of poor new construction and further degradation of protected heritage assets,*
- *Approval of contractors and individual specialists for carrying out emergency conservation works,*
- *Appropriate house improvement design – bathrooms and kitchens, infrastructure and air conditioning,*
- *Good designs for new houses within Zabid,*
- *Starting demolition of the concrete walls on the streets and other public spaces and replacing with brick walls,*
- *Planned, costed and programmed schedule of medium and long-term actions,*

- *Prescription rules and regulations to be followed by inhabitants and owners,*
- *Adoption of Zabid Urban Development Plan.*

As a response to the Committee requirements, the following Actions were mainly undertaken, citing a report of the GOPHCY to the WHC in February 2008¹:

- *A Project Agreement was reached in June 2007, between the Federal Republic of Germany and the Republic of Yemen in order to provide Zabid with 9 years (07/2007 to 06/2015) of assistance, building on the experience gained in Shibam. The Social Fund for Development of Yemen also agreed to be partner and co-finance the project on behalf of the Yemeni Government.*
- *A Higher Ministerial Coordination Committee for Zabid (HMCCZ) has been formed by the Prime Minister, with the mandate to prepare a work plan to save Zabid.*
- *A Local Stakeholder Coordination Committee has been formed in March of 2007, and meets regularly. It is successfully stopping violations since September 2007 for the purpose of preservation.*

In particular, with reference to the “Urgent Action Plan” set out by an ICOMOS/WHC joint mission (January 2007), the following actions were mentioned:

- *a new decree n° 437 – 2007 has been issued beginning November 2007, in which, the Prime Minister is putting Zabid on the List of the most urgent National priorities and where the role and actions of various governmental and local departments and authorities are broadly described and coordinated, under the aegis of a Higher Ministerial Coordination Committee for Zabid (HMCCZ).*
- *Concerning the completion of heritage protection laws, the **Historic Cities Law** is close to enactment, after a three year gestation period.*
- *The process of finalising the Urban Conservation plan is now on its way: a new architectural survey is due to be completed by 15 March 2008. Thematic plans and the missing conservation plan will be finalised by end of June 2008². The regulations and Architectural recommendations submitted by UNESCO/WHC in 2003 have been reviewed and translated in Arabic, while a manual for conservation (urban and architectural) is also under preparation.*

The report also mentions several management measures and actions undertaken “to stop poor new construction and further degradation of protected heritage assets”.

¹ See. “Report concerning the implementation of the decisions adopted at the 31st session of the World heritage Committee (Christchurch, 2007), concerning the historic town of Zabid, Yemen”, GOPHCY – February 2008

² At the moment of the mission the Architectural Survey was completed on the field, but the related thematic maps and the conservation plan were not yet produced (see below)

1. EVALUATION OF THE PRESENT SITUATION

Preliminary remarks

According to the Nomination file, the heritage of Zabid consists of three main aspects:

- the urban heritage of the medina: the city walls, the street pattern and the urban fabric, the main functional poles;
- the Islamic heritage (mosques and madrasas) and the military architecture (the Gates and the Citadel)
- The domestic architecture, characterised by a courtyard typology featuring an “*outstanding use of bricks and lime*”, which represents a “*vernacular architecture, particularly homogeneous, original and aesthetic*”.

These can not be simply considered as a collection of “architectural objects”, to be preserved through the conventional conservation approach which applies to “monuments”. If these methods are still consistent with the need of preserving the heritage of religious and military architecture and few other distinguished buildings, they can hardly be effective in protecting the bulk of the urban fabric, particularly the “domestic” architecture from the pressure of the ongoing processes of change.

The state of disrepair of the historic city of Zabid that was already noted at the moment of the inscription in the WH list has been eventually observed and described by several mission reports, which stressed the continuing loss of heritage values and put in evidence the following factors:

- socio-economic decline, with residents migration and loss of economic activities;
- lack of modern infrastructures,
- low level of investments from private households, businesses and the public authorities,
- loss of traditional building skills and practices
- lack of support for conservation from the population
- lack of an urban conservation and development policy framework

It is evident that the heritage values of the urban fabric and the domestic architecture can only be preserved if these factors are addressed, and conservation of “*historical assets and cultural heritage become a basis for development and economic gain for the local population*”, according to the aim of the new SFD/GTZ project. To this regard, it is worth to remind that Zabid can already benefit, directly or indirectly, from its status of World Heritage site in terms of infrastructure investments. Hopefully, if this status would be maintained, it could benefit more in terms of investments, i.e. to develop cultural tourism and related activities.

A policy to address the conservation of the urban fabric and domestic architecture heritage requires an approach based on “rehabilitation” and “adaptive reuse”. It must consider priority to enhance an urban environment that would be enriched by the restoration of the monuments and landmark buildings, but it has also to favour investments in compatible activities, and most of all respond effectively to the residents needs in housing improvement. It should allow for a process of change and modernisation, respecting and enhancing the heritage values, which are intrinsic to the traditional Zabid urban culture, i.e. the spatial layouts, architectural models, materials and construction techniques.

The planning and regulatory framework is only one of the tools of such a conservation policy, which should help to make effective the opportunities and enhance the potential for new and better uses, whilst defining the degrees of protection and the possibilities of changes of all the built and un-built components of the urban fabric. It has to provide an effective control of all types of

interventions and, to this purpose, it has to be based on the available information concerning the present state and the ongoing processes of change in the urban fabric.

The type and the quality of the available information are extremely relevant to establish consequent prescriptions, guidelines and procedures, which would be enforced by the administration. In order to be really effective, regulations should only address the aspects and issues that can be assessed and understood through the existing documentation, under the concrete capacity of control, which may be exerted by the concerned administrations.

The purpose of the present chapter is to review the existing documentation in order to outline a possible regulatory framework for the control of the transformations in the urban fabric, that make the best of the information, already available and/or to be achieved in the short term. To this purpose, emphasis is given to the data which may be particularly relevant to determine:

- The perimeters of the zones, which may submitted to different degrees of protection, on the basis of the recent and ongoing urban transformations;
- The heritage values of the buildings and the plot utilization, in order to establish prescriptions and guidelines for the possible types of interventions.

1.1. Findings from available studies and documentation

The Nomination of Zabid in the World heritage list was preceded and followed by several researches and studies on its architectural heritage. The emphasis was brought on the monuments, on the structure of the house and its decoration³, which are extensively documented in all the relevant details. In particular, these studies represent a seminal and definitive contribution to the understanding of the domestic architecture, its traditional layout and architectural components, as well as the “traditional” process of constitution of the different “housing units”.

The same information and understanding is not available as for the urban structure and fabric, particularly to highlight the process of transformation occurred recent times, when the decay of the city was combined to “modernisation” and physical growth. The evaluations of the previous missions were mainly based on the visual observation of the state of disrepair and of the poor quality of the uncontrolled interventions in the urban fabric, but the transformations were not were not assessed on the base of reliable documents and comprehensive surveys, that are now available.

To this purpose an initial analysis has been undertaken the making reference to the following:

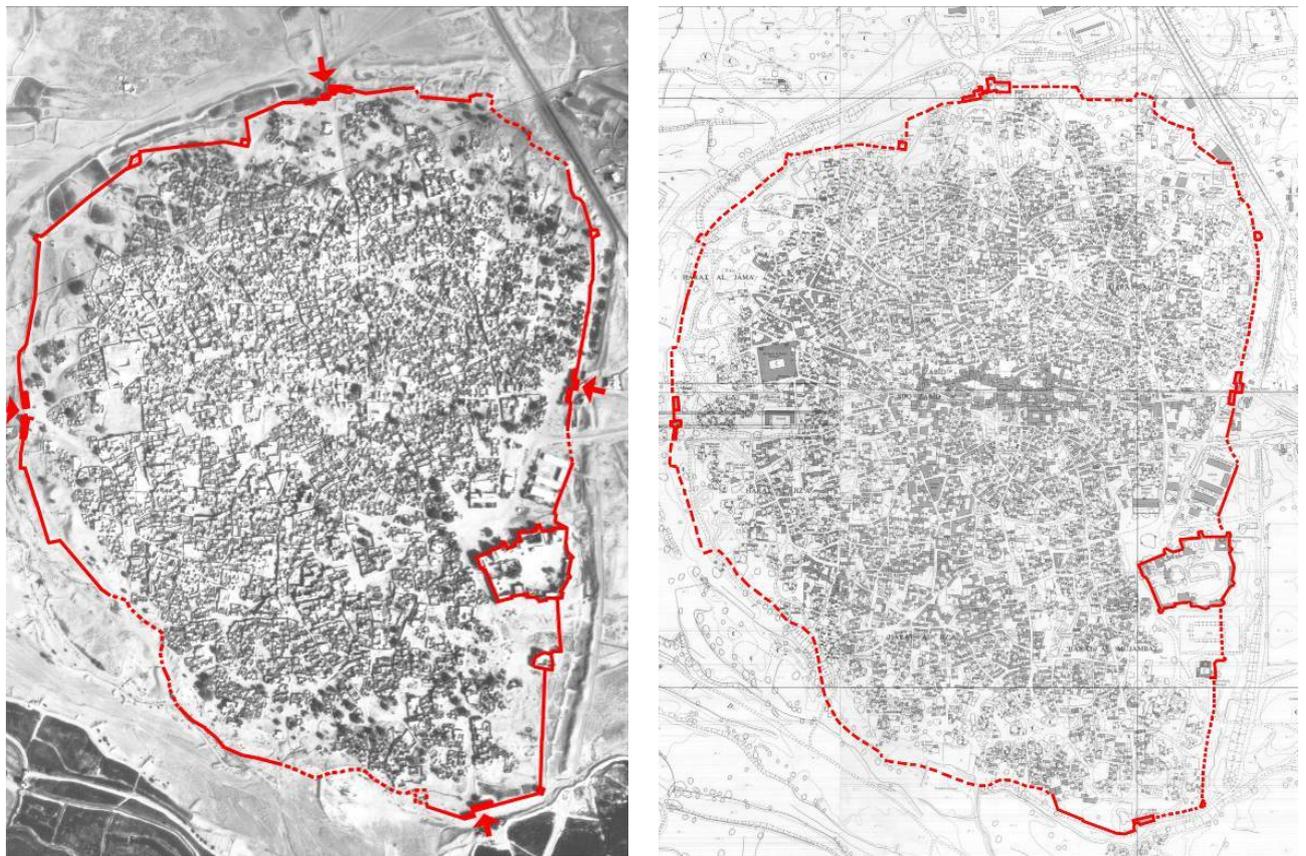
- Aerial photos of 1971, the topographical map of 1980, which provide reliable and detailed information on the urban morphology the texture of the urban fabric prior to the nomination in 1993. These reflect the state of the city at the moment when the process of modernisation and urban growth has just started, and the traditional heritage values were not yet affected;
- the survey on a residential block in the quarter of al Mujanbat, presented by P. Bonnenfant and J.M. Gentilleau in the Nomination file in 1993;
- The cartography and the information data sheet established through the Architectural Survey, in April 2008.

³ See the Nomination file with the studies of Jeanne Marie Gentilleau : “Le Patrimoine Urbain”, Edward J. Keall : “Le Patrimoine Islamique et l’Architecture Militaire”, Paul Bonnenfant et Jeanne Marie Gentilleau : “L’architecture domestique à Zabid”. See also the recent volumes of Paul Bonnenfant: “Zabid au Yémen. Archéologie du vivant”, Aix-en-Provence, Edisud, 2004 ; “Les maisons de Zabîd: éclat et douceur de la décoration”, Paris, Maisonneuve et Larose; 2008.

The transformations in the urban fabric

At the moment of the Nomination, an intense process of change was occurring in the urban fabric that had already started in the previous decades. The aerial photos and maps of 1971 and 1980 bring to evidence the following:

- In 1971, the city was completely encompassed by the city walls threads, which was still clearly visible, but in few points. The urban fabric was discontinuous, with many vacant areas along the main street pattern and the same city wall thread;
- In 1980, the city walls were already completely demolished (or collapsed); only the gates and few other elements were still standing. The city has already begun its growth beyond the city wall thread, along the main highway to Hodeida and a new road opened to the north, but many vacant lands are occupied within the existing fabric. There is no continuity between the fabric within the walls thread and the new scattered settlements outside.



Left: Aerial photo of 1971, showing the thread of the then existing city walls; in dotted line, the threads of the already demolished walls. Right: the topographical map of 1980 showing the threads of the city walls (dotted line), almost completely demolished.

The photographic documentation and the description of the city offered by studies carried out in the 1970⁴ show the homogeneity of the housing typologies in the fabric, which is punctuated by the mosques and other landmark buildings, as well as isolated groups of trees. On the other hand, it shows the presence of large vacant areas, and an undefined street pattern. If the housing units are well defined by fencing walls, apparently no definite borders exist between the public and the private lands, and the un-built spaces are shapeless.

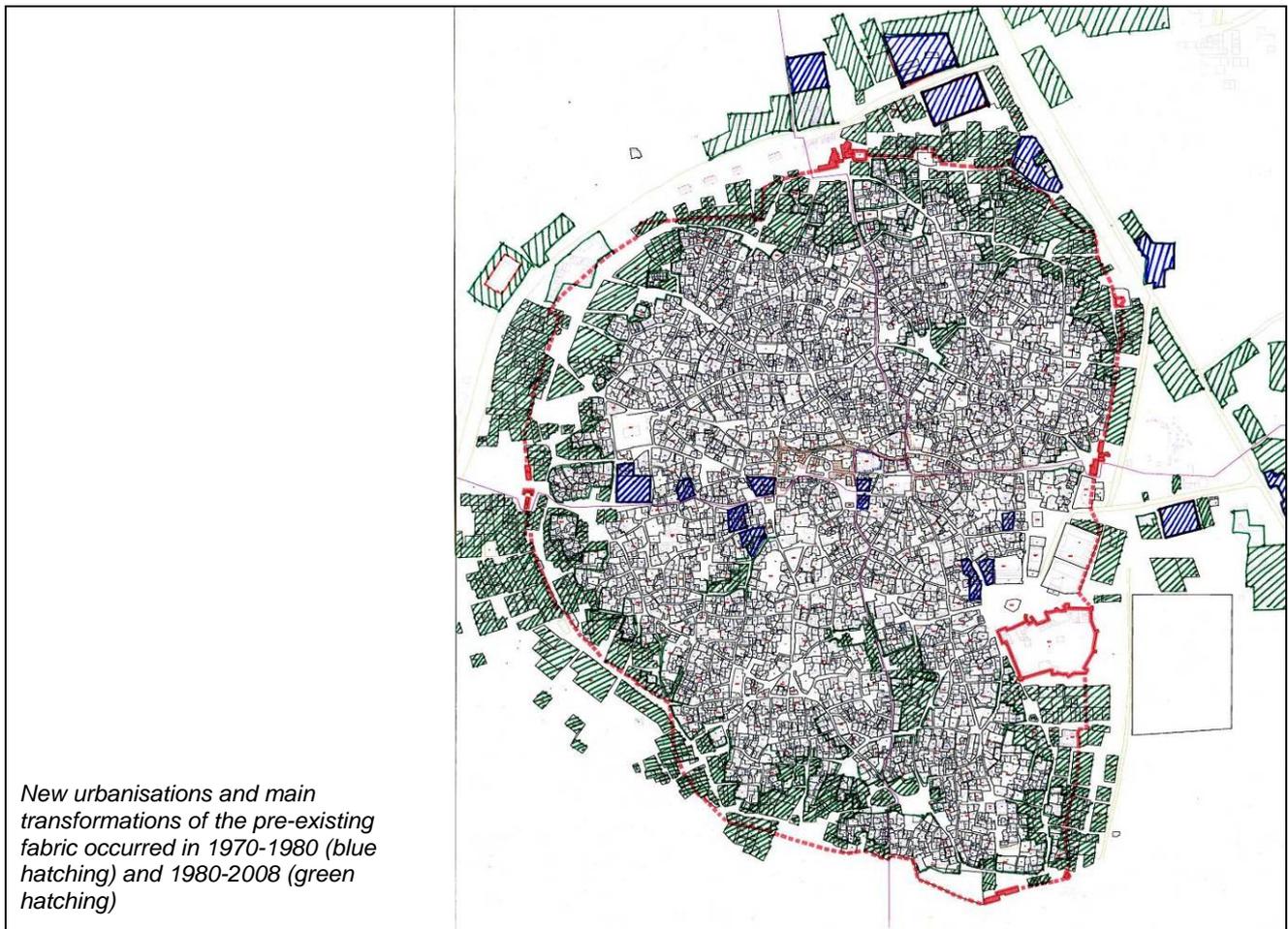
⁴ See P.Costa, E.Vicario: "Yemen paese di costruttori", Electa Milano 1977



Aerial views in the 1970'

The comparison between 1980 and the present situation shows the combination of three processes (see the map below):

- The continuing expansion and consolidation of the new “modern city” to the east,, with blocks of commercial buildings, markets and other services along the highway to Hodeida, and to the north, namely with the new market along the by-pass road, in front of Bab Saham. This expansion attracts commercial activities from the suq and concentrates most of the modern activities and services of the new growing city. This process affects mainly the “buffer zones” proposed by the former plans;
- The expansion of the “traditional fabric” within and outside the ancient city walls thread, continuing the tracks of the old street pattern. This expansion occurs in all directions, but it is particularly evident in the former vacant areas to the north and to the west, as well as south of the Citadel, on both sides of the walls thread. In these areas a new fabric is formed, where the “traditional typologies” of the courtyard houses, generally built with modern materials of poor quality, are mixed with “modern” multi-storey buildings. This process partially occur within the WH site and partially within the proposed “buffer zones”, and affects the heritage values of the city, particularly its historic relationship to the oued and the surrounding landscape;
- The continuation of a process of transformation within the traditional fabric, with the occupation of the vacant lands particularly along the main spines and the main “nodes” of the “street pattern”, around the central core. This process is particularly relevant for the purpose of the Conservation Plan and requires a more detailed analysis of the available documents. At the larger scale, it seems to have occurred through a progressive occupation of both the vacant lands (private or public) along the tracks of the pathways, and the construction of vacant plots (probably private) within or in-between the blocks. As a result, this process brought to the definition of new borders between the built up fabric and the public spaces, and to the insertion of new out-of-scale and inconsistent buildings with a substantial deterioration of the historic urban landscape.



According to this analysis three types of fabric form nowadays the structure of the city, which are characterised by different heritage values and mechanisms of change - consequently by different degrees of threads to be addressed by the Conservation Plan. The areas concerned by these types of fabric are clearly visible at the larger scale, but need to be accurately identified on the basis of a more detailed comparison of the above documents, and the following criteria:

- An historic “**traditional**” fabric, in the central core and the surrounding areas, with more or less visible transformations affecting the residential typologies and the urban landscape, but no substantial alterations of the historic morphology and street pattern



- A “**transitional**” or “**mixed**” new fabric, which merges with the “**traditional**” fabric on both sides of the now disappeared city wall thread, and is mostly built with modern materials. Its morphology, housing typologies and street pattern are reminiscent of the traditional models, but the fabric but still largely undefined and unaccomplished



- The new “**modern**” fabric, which is clearly separated from the other two, but begins to merge with the traditional to the east, and the “**transitional**” to the north. It still looks as a simple aggregation of heterogeneous “**modern**” types along the thoroughfares, without any urban coherence



In order to achieve a better understanding of the mechanism of change affecting the morphology and the urban landscape of the historic city, a more detailed analysis concerning the plots utilisation can be carried out comparing the map of 1980 and the map resulting from the Architectural Survey 2008.

To this purpose, two sample areas have been chosen:

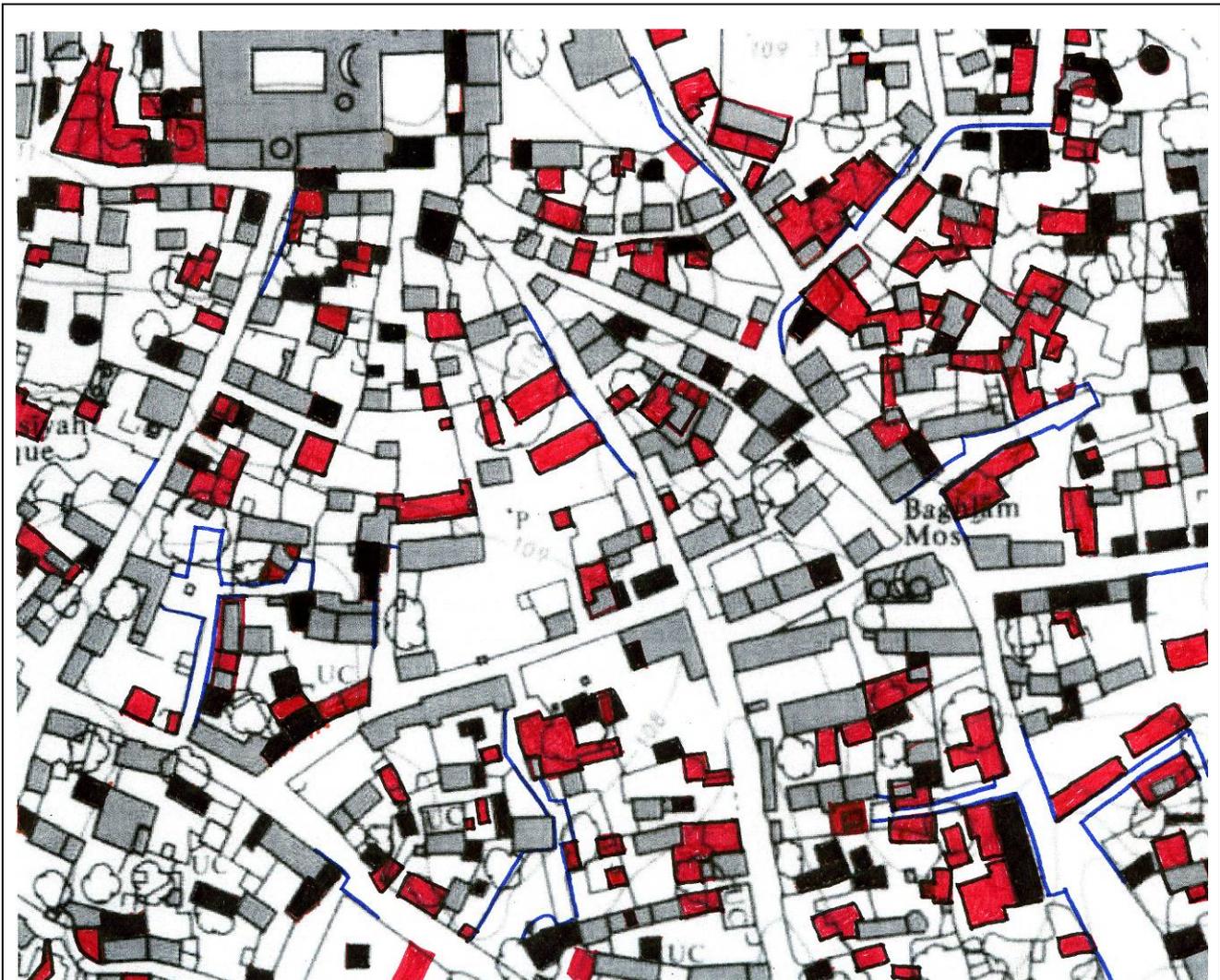
- The first, in the “**traditional**” fabric of al Mujanbat, where no major transformations have occurred that may be visible at the larger scale;
- The second in the “**transitional fabric**” of the area surrounding Bab Saham, between the quarters of al Iliy and al Jamaa, and on both sides of the walls thread.

In the “**traditional fabric**”, the transformations seem to reflect a very complex pattern of spatial change, as a result of new constructions, demolition (or collapse) and reconstruction on a different footprint, or else extension of existing buildings. If an densification of the fabric may appear in certain blocks, the new constructions are often combined with demolitions and seem to reflect a need of adapting the housing unit to new functional requirements, or probably also to the changes occurred in the ownership pattern, due to the subdivision or merging of the plots.

Moreover some evident, though limited changes are evident in the blocks perimeters, as a result of the extensions (or the reduction) of the plots on vacant lands, with consequent changes in the street alignments.

This type of analysis should be extended to the whole “**traditional**” fabric, in order to:

- achieve a better identification of the heritage buildings within the plots;
- Identify the possible changes in the plots perimeters, which may have affected the street alignments and particularly the public land.



Transformations in the urban fabric of Al Mujanbat, 1980-2008. The new building footprints (in red) and the demolitions (in black), have been indicated on a sample detail of the topographical map 1980. The blue lines indicate the new street alignments.

In the “transitional fabric”, the transformations are apparently simpler. The few scattered housing plots that existed in 1980 have been merged into larger blocks forming a new almost continuous fabric. This extends on the former vacant lands, and is basically structured by a new road network that reflects the ancient pattern of pathways heading to the gate.

The street pattern, however, becomes obviously much more complex, in order to provide access to the different residential blocks. The new alignments are generally dictated by the perimeters of the pre-existing plots and residential clusters; even if in many cases these are extended or modified in order to provide room for building additions along the new street.

Within the older plots, the same types of transformations have occurred that may be observed in the “traditional fabric”, even if the number of demolitions is comparatively less important. The new plots instead show the presence of new building typologies, besides the “traditional” ones. Larger commercial or industrial buildings and housing blocks, particularly along the main spines and outside the ancient walls threads create at some places a new “modern” morphology.

It would be necessary to develop more in depth this type of analysis in other similar areas of the “transitional fabric” in order to identify:

- The new housing blocks, reflecting both the “modern” and the “traditional” morphology;

- The pre-existing plots merged within the new housing blocks, that may include traditional heritage buildings;
- The transformations occurred in the previous vacant lands, with the shaping of the new road network, and the creation of the actual street alignments.



Transformations in the “transitional fabric” near Bab Saham, 1980-2008. The pre-existing buildings (brown), the demolitions (dark grey) and the new building (in light brown) and the demolitions (in black), have been indicated on a sample detail of the Architectural Survey 2008 map. The extent of the pre-existing plots is show in light blue. The black lines represent the present plots and blocks perimeters as identified by the Survey.

The transformations in the traditional housing blocks

The survey carried out in 1993 by Bonenfant and Gentileau⁵ allows for a more detailed analysis of the transformations occurred within a “traditional” residential block, in the central core of the city, near the al-Asha’ir Mosque. The block includes 9 housing units and features some fine examples of domestic architecture. These were considered as prototypes of the Zabid housing typology in its process of growth - the murabba’a (the main room) and the qabal (the courtyard) that form together the core of the house, and other additional rooms and spaces, such as the saffa and the lîwân, the mabraz and others, in separate or adjoining constructions within the same plot.

The comparison of the plan laid out in 1993 with the maps 1980 and 2008, though limited to the building footprints and some visual observations, puts in evidence the following:

In 1980 – 1993, the changes mainly reflect the need to supply the housing units with services:

⁵ See the study of J.M. Gentileau in the Nomination file, and Paul Bonenfant: “Les maisons de Zabîd: éclat et douceur de la décoration”, cited.

- new small constructions are built in most of the plots to provide rooms for services (toilets and kitchen) and increase the residential space (two sofa are built);
- two building, presumably dedicated to service rooms, are renovated or rebuilt with a slightly different footprint;
- probably, two larger rooms have been demolished⁶;
- a new pathway has been created, and one has been closed within the block, as a result of possible changes in the plots ownership

In 1993 – 2008, the changes reflect the same needs as in the previous period, but also the attempt to “modernise” and, in one case, to expand the house:

- Two rooms for services are added, but several constructions are abandoned (i.e. storage rooms, stables, and also one saffa);
- One murabba’a has been reconstructed on a different footprint;
- One two-storeys building was under construction during the mission – an evident “violation”;
- A new “entrance” to the inner block has been created, whilst an other one has been closed.



The transformation occurred in the block of al-Ahmar in 1980-1993 (left) and 1993-2008 (right), based on the survey of Bonnenfant and Gentilleau.

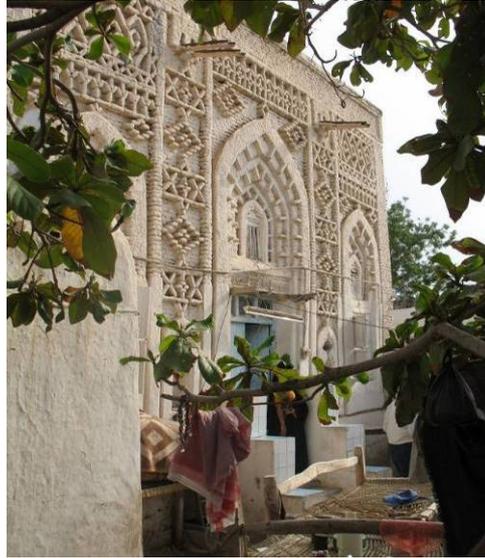
Legend

- Red: new construction footprints
- Orange: renovation or reconstruction of existing buildings
- Yellow: demolitions
- Gray: paths closed within the block;
- Light blue: paths opened within the block

⁶ In one of houses studied in detail by Bonnenfant and Gentilleau, a building was clearly indicated in the map 1980 adjoining the facade of the murabba’a. If the indication of the 1980 map is correct that means that the murabba’a surveyed in 1993 was new, tough built with “traditional” techniques and decorations.

These observations concern one only block, and for sure can not be applied to the rest of the “traditional” fabric, and are mainly based on the transformations of the shape of the buildings on the plan, not of their volumes. Moreover the motivations and the extent of these changes could not have been assessed through systematic interviews and surveys. However, despite of these limits, the strong “resistance” is evident of the typological “traditional” model, which allows for “additions” and “subtractions” and shows a great capacity of adaptation:

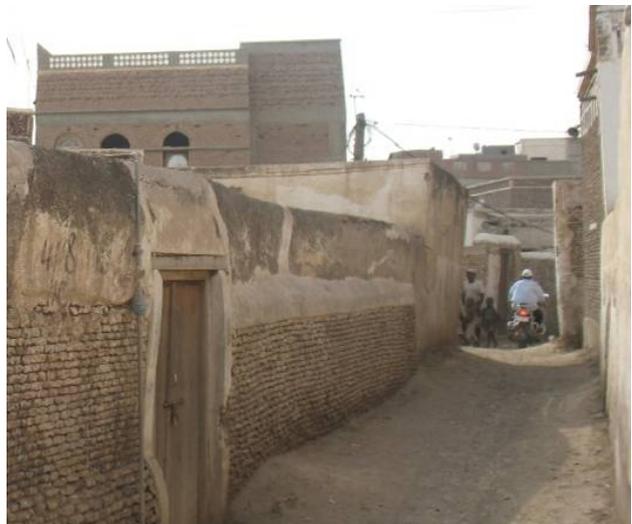
- In all of the plots, the layout has remained substantially unchanged, with the murabba’a and the qabal forming the core of the housing unit.



- The most of changes seem to concern the services (toilets and kitchen) and the other additional rooms.



- the only large-scale observed “violation”, is being constructed on the footprint of pre-existing buildings, reducing the qabal, but without destroying the traditional murabba’a



1.2. Findings from the Architectural Survey 2008

An Architectural Survey was carried out in early 2008, that allowed to record and identify on the map a total of 4813 “buildings”⁷ in the four quarters of Al ‘Iliy (1182), Al Mujanbat (978), Al Jiz (1275) and Al Jami (1378)⁸. These include the plots belonging to the “transitional” and “modern” fabric, built after the '70, and many of them outside the historic walls thread, hence outside the WH site⁹.

The information was collected in the field through a form consisting of 10 “fields”, i.e. function, ownership, occupancy, built form, house composition, house typology, building condition, house materials, modern elements, traditional elements¹⁰, which refer indeed to the whole plot, not to the single “buildings” that may be present in it. The survey also include an almost complete photographic documentation of all the plots, which not only provides an excellent information on the existing architectural features, but could also represent in the future a sort of baseline to ascertain eventual transformations.

The survey gives an overall and detailed picture of the present situation in the whole urban area WH site. Unfortunately, the simplified way the data have been elaborated¹¹ made not possible, at the time of the mission, to fully benefit from the collected information, and easily use that potentially invaluable documentation. Moreover, a report was not available to explain the method and the criteria used for the data collection, as well as the evaluation and judgment grades, which would need to be clarified in many “fields” by specific definitions¹².

However, some initial findings can be presented, which may increase the understanding of the present situation and clarify some aspects of the physical and spatial decay of urban fabric.

It is worth to mention that most of the plots (84,4%) are “houses”, or at least have residential functions, whilst 11,2% are shops¹³ and 1,6% are mosques. The presence of services, facilities and other functions is almost negligible, thus reflecting the evident functional decay of the historic city, since most of the economic activities have moved to the new expansion areas outside the ancient city walls thread.

Considering the residential plots, which form the largest part of the urban fabric, the following information from the available data can be particularly relevant for the conservation strategy.

⁷ In reality, the number of records refers to the “properties” (or “plots”), that may include several buildings and constructions.

⁸ In September 2008, only the data of 4133 (86%) properties were completely available. It has to be noted that 6,5% of the properties were found “closed”, whilst for the rest the data elaboration was not yet completed.

⁹ It is not possible, at the moment, to calculate the amount of these, but it would be important, in the next phases to make such a distinction, not only for statistical purposes.

¹⁰ See Annex 1 - “Survey form of buildings and monuments”.

¹¹ At the time of the mission, only some of the data from the survey forms were entered, as an aggregated information referring to some of the “fields”, into a simple “data sheet”. This doesn't allow for specific and detailed “queries” on several essential aspects (i.e. on ownership, occupancy, house composition, house typology, materials, etc.). Moreover, the lack of an electronic “link” to the map makes impossible the production of “thematic maps” that would be extremely useful for the understanding of the present situation and represent a fundamental tool for the elaboration of the Conservation Plan. On the other hand, whilst the perimeters of the plots are clearly outlined on the base map, the identification of the buildings and other constructions is made difficult by the chosen method of graphic display.

¹² A clear definition would be needed of the term “building”, which seems to refer indeed to the whole property. Also the terms used in the field “House Typology” need to be explained through definitions and examples, as well as the grades describing the “Building Condition”.

¹³ Unfortunately, on the basis of the available data sheet it is not possible to know how many of the “shops” are closed, and what kind of activities are ran.

Authenticity and Integrity of the “House” typology

The information from the matrix of the field “F-House Typology” of the Survey put in evidence the presence of “traditional”, “modern” and “mixed” structures in the plots, considering elements such as “layout”, “style” and “materials”. The same criteria apply to all the plots, even when they include only non residential buildings (that can not be considered as “houses”) and are occupied by a single construction (so that the “layout” criterion can not be assessed).

If these terms are somehow vague, and apply to the whole plot, not to the single buildings, nonetheless a simple statistical exploitation of the available data¹⁴ helps to ascertain the persistence of some traditional characteristics, and to assess the extent of the transformation occurred in the recent decades.

It may be observed, from the scratch, that the larger part of the plots (72,6%) has a “traditional layout”; that means, presumably, the presence of a house with a murabba’a (traditional or modern) and other additional rooms grouped around a qabal. On the other hand, the properties with “modern” layout (i.e. the multi-storey buildings, apartment blocks and other types of similar constructions) count for 9,7%.

Considering that these data include all the plots surveyed within and outside the historic city wall thread (i.e. in the transitional and modern fabric), it may be argued that in the WH site, the ratio of plots with “traditional layout” is even higher. This can be regarded as an indicator of the permanence of a fundamental heritage feature in the historic urban fabric, in spite of the many recent new building intrusions and harmful reconstructions.

However, if the presence of “traditional” elements is to be considered as an indicator of the degree of “authenticity” and “integrity” of the structures in the properties¹⁵, the picture becomes much more complex. On the basis of the above cited matrix, the following classification can be proposed:

Degree of “authenticity” and integrity” of the structures in the property	“House typology”	%
<u>High</u> (Layout, Style and Materials are “traditional”: the property fully witnesses its heritage values)	1AX, AX	25,7
<u>Fair</u> (Layout “traditional” + Style “traditional” or “mixed” + Materials “traditional” or “mixed”: heritage values are preserved, though affected by recent interventions)	1AZ, 1CX, 1CZ, AZ, CX	14,4
<u>Low</u> (Layout “traditional” or “mixed” + Style “mixed” or “modern” + Materials “mixed” or “modern”: heritage values partially deleted or heavily affected by recent interventions)	1CY, 1BZ, 1BX, 1BY, 3AZ, 3CY, 3CZ, CY, CZ	42,5
<u>None</u> (Layout “modern” or “mixed” + Style “modern” or “mixed” + Materials “modern” or “mixed”: no evidence of heritage values in the property)	2BX, 2BY, 2BZ, 3BY + 3BZ+ BX, BY, BZ	17,4

¹⁴ See table 1 in annexe (a), with reference to the matrix in the field F of the Survey form.

¹⁵ Vice versa, in this case, the presence of “modern” elements would be considered as an indicator of loss of heritage values in the historic fabric.

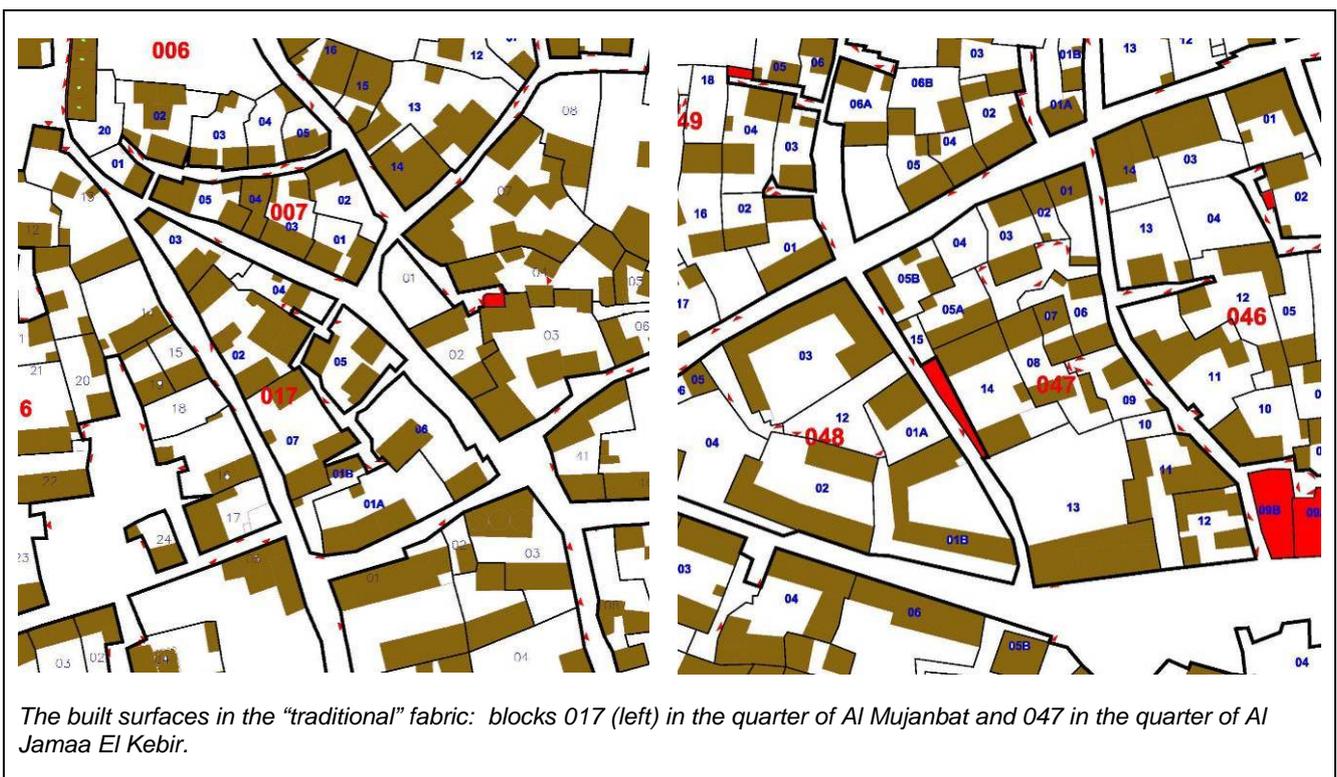
It has to be stressed that the supposed degree of “authenticity” and “integrity” do not refer necessarily to the architectural quality and significance of the structures: obviously, an architecturally modest construction can be “authentic” and have an important heritage interest, or on the contrary, an architecturally rich and imposing building can be largely “unauthentic” and have little heritage value.

It must be stressed also that the survey does not include an evaluation of the architectural merit of the different buildings and constructions within the property that would be essential for the purposes of the Conservation Plan. It only proposes a classification that apparently takes only into account the number and the type of traditional and modern architectural and decorative elements¹⁶.

It is considered, however, that a combination of these classifications concerning the “typology” and the “traditional/modern elements” of the plot could provide a useful base for a definite classification of the plots to be used as a reference in the Conservation Plan. This requires however a preliminary clarification of the criteria used for the assessment of the plots, and a consequent revision of the data to be entered in the database.

Plot size and utilisation

On the basis of the Architectural Survey map, an initial analysis has been carried in order to ascertain the plot size and utilisation in the “**traditional**” fabric. To this purpose, two sample blocks¹⁷ have been chosen, showing different morphological characteristics, but an “average” density and a relevant number of plots with a “high” degree of “authenticity” and “integrity” (see map below).



¹⁶ Due to the lack of a report, it is not possible to understand completely the meaning neither of the “Basic classification” in the Survey Form, nor of the “Detailed classification” and the “categories” provided by the data sheet. These latter seem to be calculated through the “weight” given to the different components of the “house” and can be regarded as indicator of its architectural and spatial complexity.

¹⁷ The analysis has been carried out on the blocks 017 in the quarter of Al Mujanbat, and 047 in the quarter of Jamaa al Kebir. This analysis should be extended to other blocks with different degrees of transformation.

The table below summarises the findings from this initial analysis. These are not statistically relevant but help to ascertain some interesting recurrences that deserve to be checked through a comprehensive exploitation of the Survey data.

<i>Block</i>	<i>n.plot</i>	<i>integrity</i>	<i>plot size</i>	<i>built area</i>	<i>plot utilisation</i>
Mujanbat 17	1A	high	227,6	77,9	34%
Mujanbat 17	1B	none	65,9	17,6	27%
Mujanbat 17	2	fair	247,2	120,9	49%
Mujanbat 17	3	high	113,2	41,2	36%
Mujanbat 17	4	high	77,9	35	45%
Mujanbat 17	5	high	158,9	68,4	43%
Mujanbat 17	6	low	228,8	67,9	30%
Mujanbat 17	7A	high	127	56,1	44%
Mujanbat 17	7B	none	91,7	33,6	37%
Total			148,7	57,6	39%
Al Jama'a 47	1	low	87,9	38,9	44%
Al Jama'a 47	2	low	37,9	20,7	55%
Al Jama'a 47	3	high	109,1	59,9	55%
Al Jama'a 47	5A	high	98,2	44,8	46%
Al Jama'a 47	5B	high	106,7	48,5	45%
Al Jama'a 47	6	high	95,8	43	45%
Al Jama'a 47	7	high	52	42,4	82%
Al Jama'a 47	8		145,2	67,8	47%
Al Jama'a 47	9	low	94,9	25,8	27%
Al Jama'a 47	10	low	29,7		0%
Al Jama'a 47	11	low	191,4	105,4	55%
Al Jama'a 47	12	high	133,5	71,9	54%
Al Jama'a 47	13		490,9	156,8	32%
Al Jama'a 47	14	high	226,7	114	50%
Al Jama'a 47	15		24,2	3	12%
Total			128,3	56,2	44%

As for the plot size, it can be observed that, with few exceptions¹⁸, the residential plots varies from 52 to 228 sq, whilst the built-up surface (i.e. the building footprint) spans from 18-20 to 120 sqm. On a statistical base, in the two sample blocks, the average plot size is about 136 sqm. whilst the average building footprint is about 57 sqm, that makes a plot utilisation ratio of 42%.

Therefore, with reference to the classification proposed by the survey, the following thresholds can be identified:

- small plot: less than 90 sqm.
- average plot: 90 – 150 sqm.
- large plot: more than 150 sqm.

As for the size of the housing units, based on the footprint¹⁹, the sample suggests a similar classification:

¹⁸ These concern some smaller empty or with an only storage building plots or larger plots with special buildings, i.e. the old Cinema near the Jamaa Al Kebir mosque in block 047.

¹⁹ The analysis has been carried out on the map finalized after the Survey, which shows some discrepancies with the maps which accompany the data sheets, particularly regarding the identification of the buildings. Moreover the reading of the building footprints is made difficult and uncertain by the adopted type of graphic display. For this reason, the data elaborated in this section should be verified on a (thematic) map which should clearly identify the buildings as distinct from ruins or single standing walls.

- small unit essentially a murabba'a and basic service rooms: less than 40 sqm.
- average unit: murabba'a, saffa and other service rooms: 40– 60 sqm.
- large unit: murabba'a, lîwân, sofa and other additional rooms: more than 60 sqm.

These surfaces don't consider the presence of two storeys constructions, which however are not frequent in the traditional fabric.

As for the plot utilisation, for the sake of the Conservation Plan, it should be useful to identify, on the basis of the Survey data, some relevant thresholds, which would be considered as an indicator of the saturation of the plot. To this purpose, the samples suggest the following definitions, to be checked through a more comprehensive exploitation of the available information:

Plot size / utilisation	low	average	high
Small	Less than 40%	40 – 50 %	More than 50%
Average	Less than 35%	35 – 45 %	More than 45%
Large	Less than 30%	30 – 40%	More than 40%

On the basis of the direct observation, it can be assumed that when the utilisation is higher than the average, some fundamental characteristics of the traditional house are lost in the small plots, particularly the spatial relationship between the qabal, the murabba'a and the other additional constructions in the plot.

Other relevant information

The survey provides other useful information for the development of the regulatory and management framework of the Conservation Plan.

A relevant indicator of the heritage values in the historic city may be the "state of conservation". In this case too, the criteria of evaluation are unclear, particularly in the case of the "average" conditions (the large majority: 64,3%) and the "poor structure" (11,3%), and apply to the whole plot. Moreover, there is the statistical evidence that these same criteria have not been used in the same way by the different teams of surveyors. Nonetheless it is worth to note that only the 17,7% is in "good condition" and that more than 6% is "ruined" or "partially ruined". These data confirm the visual evidence of disrepair of the urban fabric.

Other data, which are not entered in the data sheet, would have a statistical interest in order to establish planning strategies, i.e. the ownership, the state of occupancy and the built form.

Many other data, which do not have a statistical interest, would be extremely useful if entered in a data base and presented in thematic maps, i.e. the house materials, the modern and traditional elements. In particular, these could represent a sort of baseline to monitor the future transformations, and documentation for the evaluation of the building permit applications.

1.3. Findings from field observation

There is little to add to the observations of the experts missions since 2001 on the physical decay of the fabric and the different conservation and technical issues to be addressed. These have been recently outlined in detail in the joint ICOMOS and WHC mission of February 2007.

On the other hand, the transformations analysed through the documents and the picture provided by the Architectural Survey is reflected in a generally dilapidated historic urban landscape, and in a very poor environment, which affects the whole urban fabric.

However, for the sake of the Conservation Plan, the following deserves to be noted:

- In both the “traditional” and the “transitional” fabric, there is a different degree of saturation of the housing blocks, that probably reflect different housing conditions and economic capacities of the inhabitants. Even within the same block, the situation is far from being homogeneous, and over utilised plots can be found next to abandoned plots;
- The architectural quality of the new buildings and of the rehabilitation or renovation interventions is always very poor. The use of concrete block and other inconsistent materials is very spread, as well as the lack of whitewashing walls and appropriate finish both in buildings and fencing walls. The streetscape is heavily affected not only by the “intrusion” of some offensive out-of-scale and tall buildings but also by the diffusion of small smaller interventions that look “unfinished”;
- The lack of maintenance of open spaces reflects this situation, and is one of the causes of the poor and often derelict urban environment. Uncontrolled waste disposals, dilapidated urban furniture, indefinite borders and inconsistent fences between the public and the private land, “tells” resulting from demolitions on private plots, add to the generally bad hygienic conditions, which are due to the lack of infrastructure and to insufficient municipal services.

Urban environment and landscape are very derelict and dilapidated in some areas, particularly:

- The Central Suq, which is largely abandoned, and seems to have largely lost not only its economic functions but also its crucial role of central place for social interactions in the city;
- The areas surrounding the four gates, particularly Bab as Sabari and Bab Saham, which connect the historic fabric to the new commercial zones to the east and to the north, where evident “violations” affect the “traditional” fabric within and outside the walls threads, and inconsistent uses of the public space reduce the visibility of the monuments;
- The main spines leading from the gates to the Central Suq, which are punctuated by other evident “violations”, often consisting of taller commercial building.

1.4. The violations

Undoubtedly the presence of tall and out-of-scale buildings appears as the most offensive damage to the historic urban landscape, and one of the reasons of the loss of its heritage values. This is particularly evident in some areas of the central core, along the main spines connecting the gates to the suq, and around the main mosques, particularly Asha’ir and the Jamaa El Kebir. Besides, minor transformation have occurred and are still occurring everywhere in the WH site, which disfigure the traditional fabric with inappropriate refurbishments, elevations, additions, fencings, and so on.





Some of the most frequent types of ongoing “violations”

All of these recent interventions are usually considered as “violations”, and indeed they look as totally inconsistent with the historic context of Zabid. However, it is not clear if at all if all of these interventions represent an infraction of the law and are really illegal, since the draft Conservation Plan of 2003 has never been approved, and an adequate legal framework has only been established with the decree 425-2006.

Moreover, on the basis of the available documentation, it would be difficult to determine the date of construction (before or after the decree?), and hence to establish the legal legitimacy of any intrusive or offensive construction.

In this situation, and before the establishment and approval of a Conservation Plan, three types of actions can be envisaged in order to invert the state of physical decay of the urban fabric:

- To stop and mitigate/eliminate the very recent and ongoing interventions, which are surely illegal;
- To mitigate the impact of other intrusive buildings and constructions, which may be legal or illegal, particularly in the “traditional” fabric;
- To provide a regulation framework to avoid inconsistent and offensive interventions, and strengthen the capacity of preventing new violations

1.5. Ongoing projects

The historic city of Zabid is actually concerned by some important programs and projects carried out within the framework of the GTZ/SFD Project. These are to be considered indeed as relevant components of a consistent and far-seeing conservation and development policy:

- An incentive based housing program, which would rehabilitate 250 to 300 houses during the first three years of the GTZ/SFD Project. It addresses some issues concerning documentation, training, financing and awareness that are extremely relevant for the establishment and the eventual implementation of Conservation Plan. In particular, this experience should be used as an opportunity to test, evaluate and improve the conservation methods to be adopted, and hence the regulations to be established and enforced through the future Plan.
- The Suq Revitalisation Project, which has been undertaken with the involvement of merchants and craftsmen from both the old suq and the northern Commercial Center, in order to identify the suq potential. This project is extremely important in order to stop the economic and functional decay of the central core, which is actually largely deserted;
- Urban infrastructure improvement, through the “Zabid Storm Water Drainage & Street Paving Project”, developed by the GOPCHY, with a total budget of about 10 millions

dollars. This project will not only have a positive impact on the urban landscape, but is also due to improve dramatically the overall environmental conditions, making the city centre more liveable for residents and more attractive for economic activities.

These programs and projects have a different implementation schedule, but will have a long term effectiveness and impact, which makes necessary their integration in the Conservation Plan to be established. To this purpose, the consultant has been required to assess the Storm Water Drainage & Street Paving, which is due to start in the next months.

The Storm Water Drainage and Street Paving Project

The Project Studies have been completed, and a pilot segment was under tender at the time of the mission, whilst four lots will be soon tendered for an amount of 2,5 USD millions.

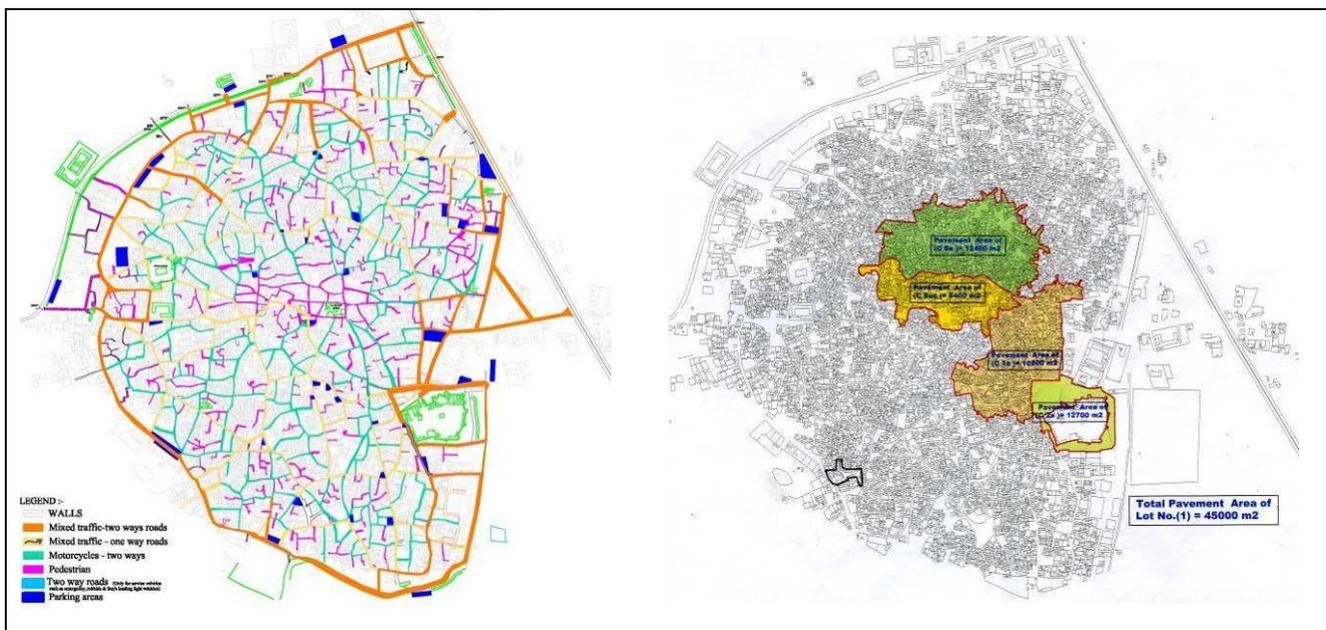
The Project is based on a Traffic Study, which propose a more rational and well organised circulation pattern. The basic concept wisely seems to reduce progressively the vehicular traffic pressure on the existing road network, from the edges of the urban area to the core of the historic fabric and the suq. To this purpose, the roads along the walls thread and in the “buffer zone” would form a sort of two-ways “ring” for mixed traffic (vehicles and motorcycles), from where the penetration to the central core would be possible with one way roads for mixed traffic or two ways road for motorcycles. In this context some two ways roads have been identified, only for service vehicles (such as emergency, rubbish and Suq’s loading light vehicles), and some parking areas have been identified, corresponding to the larger public open spaces. The suq would be completely for pedestrian, as well as the most of the inner residential blocks.

The Project design of the street paving for the first lots to be tendered, encompasses the northern and the south western parts of the central core, and would represent a substantial improvement of the urban landscape and the environmental condition in the traditional fabric of the suq and the surrounding residential blocks.

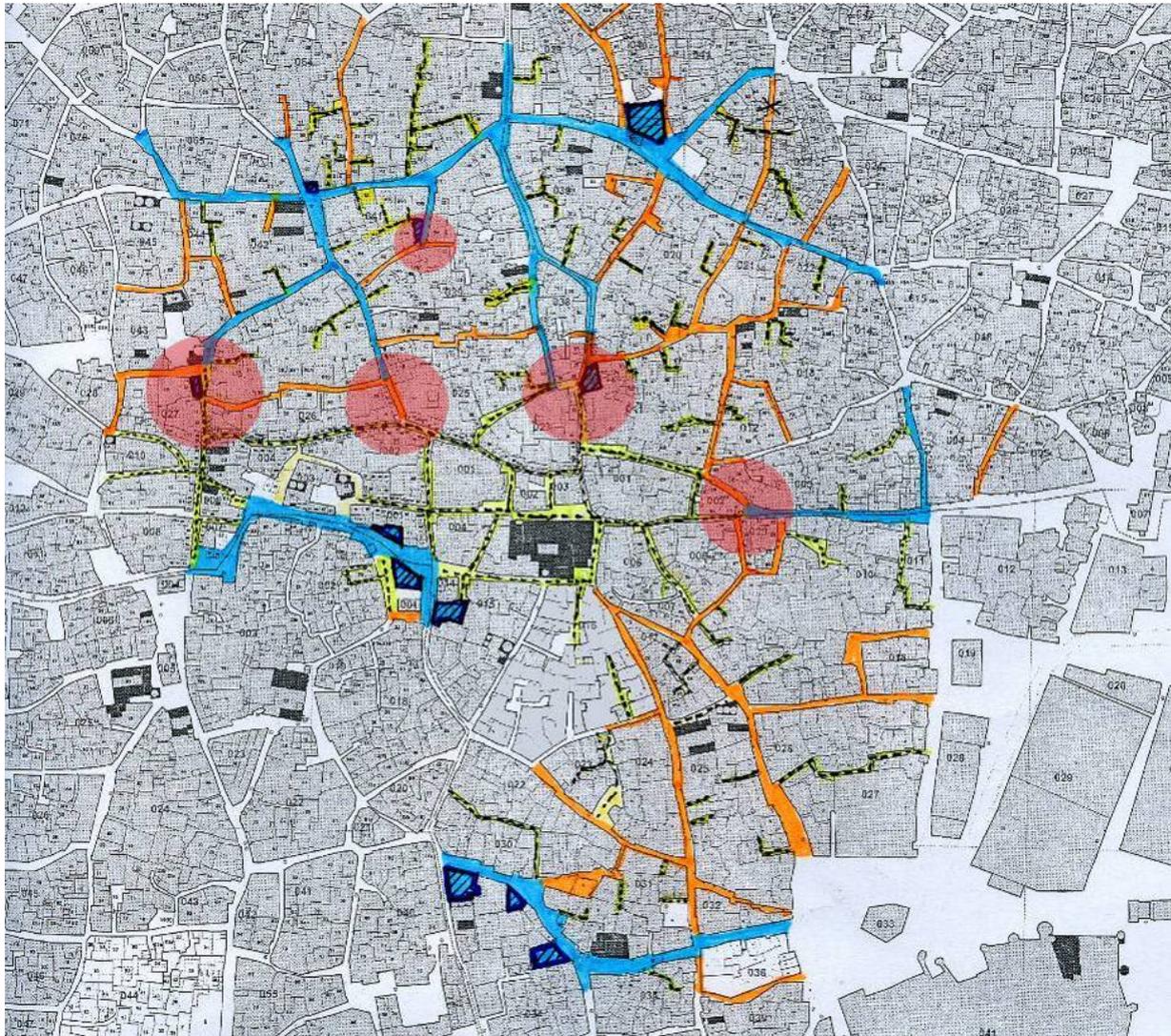
The synthesis of the interventions foreseen shows that, differently from the traffic Study, the initial phase of the Project considers only three types of roads for the sake of the paving:

- Type 1: two ways roads open to the vehicular traffic;
- Type 2: streets for motorcycles;
- Type 3: streets for pedestrians only.

Moreover it provides specific design for some relevant open spaces to be used as parking or public squares without any distinction.



Left: the traffic study; Above Right: the interventions foreseen in the first phase



A synthesis of the interventions to be tendered in the first phase. Light blue: type 1 (vehicles 2 ways); orange: type 2 (motorcycles); yellow: type 3 (pedestrian). Red circles: critical points

On the basis of the available material, the first phase Project shows some inconsistencies with the traffic study. In particular, the vehicular roads are all intended to be two ways; they are very numerous, and penetrate in the historic core next to the suq, without any distinction about the type of traffic.

It has to be noted that many of the streets of type 1 were indicated as “mixed traffic - one way road” in the Traffic Study, and this will require the establishment of an appropriate traffic regulation, to be enforced also with bollards and other physical constraints. Also, the proposed penetrations of the vehicular traffic into the central core create some critical points that need to be eliminated, concerning the following:

- Most of the penetration two ways roads have no return;
- Many possible conflicts between vehicles/motorcycles and pedestrians at the intersections of the different types of streets.

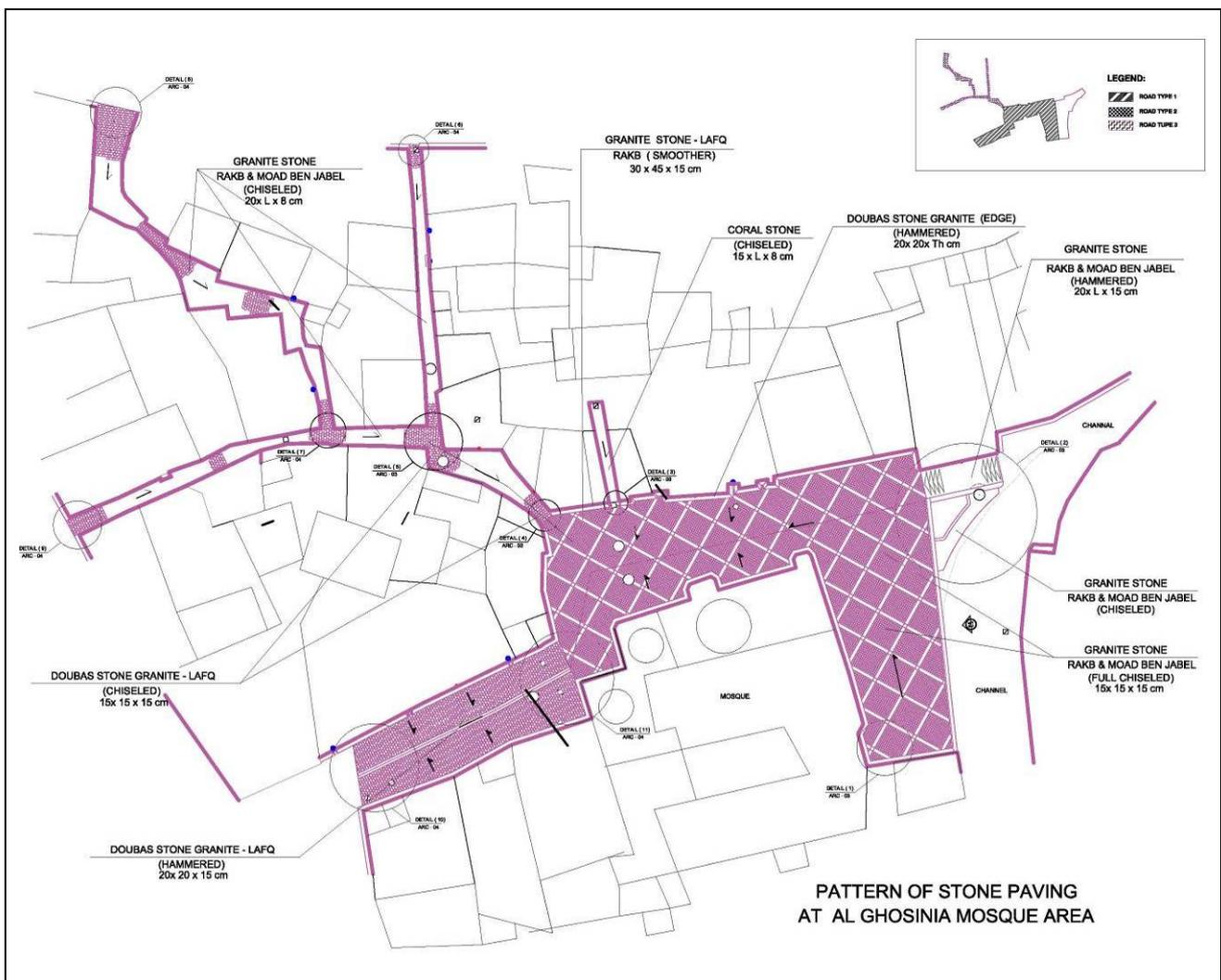
In general, the type of stone paving adopted for vehicular road and pedestrian streets seems to be appropriate, with careful detailing of the steps. However, some improvement can be suggested:

- A distinction should be made in the paving (and furniture) of the parking areas and the other public areas dedicated to squares and other similar spaces;

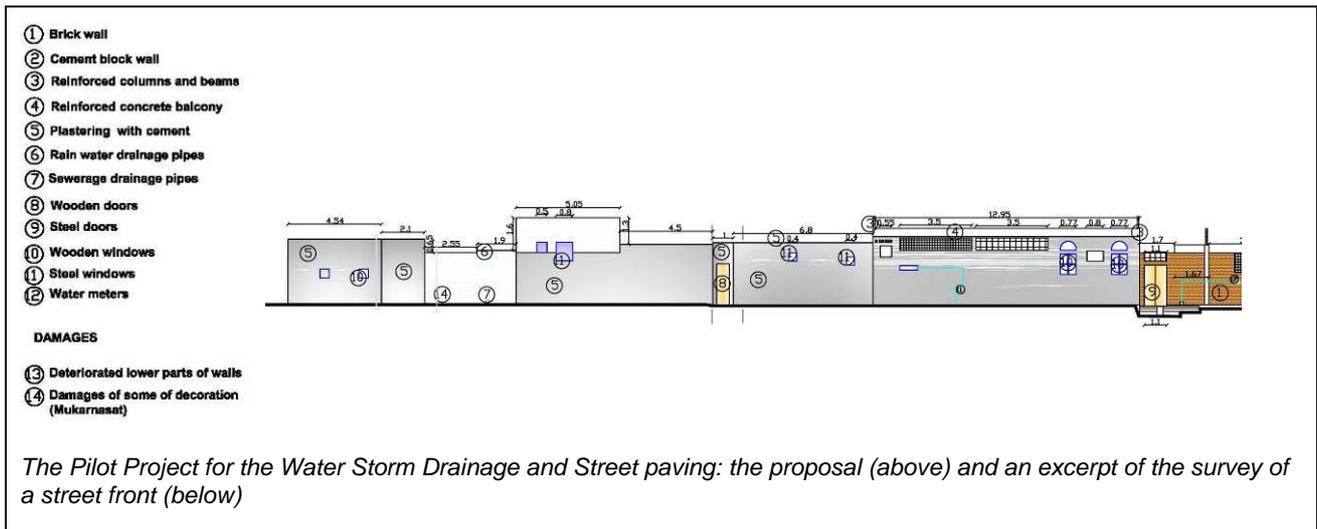
- In the public spaces to be paved, the existing trees should be kept and protected with iron grids. In any case, if no trees exist in the intervention areas, these should be foreseen in order to improve the quality of the environment;
- Moreover, it is recommended to pay special attention to the connections of the new street profile with the existing thresholds of the houses and the shops and especially to the plastering at the foot of the buildings and the fencing walls that should be made with lime.

In the implementation of the Project, however, the more general issue of the streetscape preservation and enhancement should be addressed. Paving represent a fundamental aspect of the urban landscape and its complete and overall renewal should represent a first step toward the restoration and rehabilitation of the building and the fencing walls, which form the street fronts.

The available documentation on the Pilot Project for the Al Ghosinia Mosque Area²⁰, besides the accurate and detailed proposals for the water drainage and paving, which seem appropriate and sensitive to the context, also includes the architectural surveys of the facades forming the fronts of the streets and urban spaces to be repaved.



²⁰ The Pilot Project was developed by the Hodeida Water and Sanitation Local Corporation in April 2008 and is currently being implemented.



These surveys show the presence of several inconsistent elements, which heavily affect the heritage values of the traditional fabric and the urban landscape: i.e. the prevalence of cement block walls for fencing; the use of reinforced concrete columns and beams; the presence of balconies, plastering with cement, steel doors and windows, as well as damages to the traditional structures and decorations. Whilst the latter should be recovered through appropriate restoration interventions, all of the inconsistent interventions call for an extensive action of elimination or at least mitigation, which would include, amongst others:

- The replacement of standing-alone cement block walls and reinforced concrete structures with brick walls structures;
- The recovering and upgrading of all the other reinforced concrete and cement structures with a brick layer and lime plastering;
- The replacement of all the cement plastering with lime plastering
- The elimination of reinforced concrete balconies and other cantilevered structures;
- The replacement of all the doors and windows metal frames with timber frames.

These and other similar interventions are necessary to recover the traditional streetscape and, where required, should be associated with more substantial interventions aiming at the elimination or mitigation of the most offensive building intrusions, particularly the taller and out-of-scale buildings.

This represent a very compelling and heavy task, that probably can not be fully covered with the financial resources of the Project, and other resources should be made available to undertake and overall streetscape rehabilitation. In many cases indeed, due to the uncertain legislative and planning framework of the recent past decades, these inconsistent and offensive interventions can not be considered as “illegal”, and consequently no demolition or rehabilitation work can be imposed to the owners. But the opportunity exists to negotiate some of the desirable improvements, as a compensation for the advantages created by the Project implementation.

1.6. Land management issues and implementation criteria

Besides the technical and architectural aspects mentioned above, the implementation of the Project must address a main issue of land management, regarding the definition of the surfaces to be paved. This is a more general issue that may concern the implementation of other urban rehabilitation projects and programmes, as well as the actions to undertake to remove or mitigate the numerous “violations” in the urban fabric.

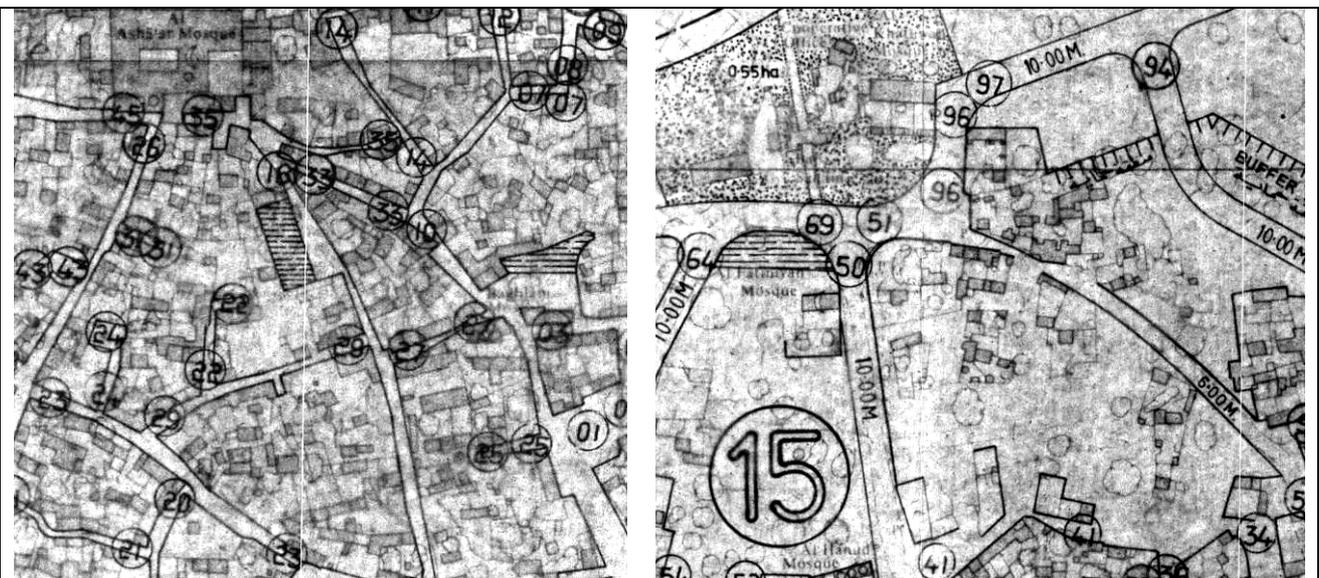
It is clear indeed, from direct observation and anecdotic reports that private building interventions have occurred at different extent on public land. As for the Storm Water Drainage and Street

Paving Project implementation, the problem exists to document these infractions²¹, in order to establish the real width of the street to be paved. In these cases, if no documents exist, only pragmatic solutions can be sought through direct negotiations with the concerned land owners, in the aim to achieve the better functional and aesthetic results (i.e. the continuity of the street according to the prevailing front elevations).

On the other hand, the Project foresees the paving of many pedestrian streets and passages within the residential blocks. Here, the public intervention may occur on private land. In this case also, a negotiation is recommended, in order to obtain from the concerned land owner the possible improvements to the urban landscape and environment (i.e. the removal of intrusive elements, the reshaping/refurbishment of the building facades and fencing walls with traditional materials).

In both cases, the Project implementation would probably deal with recent or ongoing “violations”, thus offering the opportunity to remove illegal buildings and constructions or at least to mitigate their impact.

It is evident, however, that efficient and non disputable negotiations can only be implemented if clear technical criteria and legal tools are established to enforce demolition or mitigation interventions, with or without compensation. To this purpose, reference could be made to the Urban Plan 1984, which, according to the available information, has been legally enforced for a period, and hence suspended in the wait of the Conservation Plan.



The excerpts of the Urban Plan 1984 regarding the two samples analysed in section 1.1. In the traditional fabric (left), the proposed street alignments largely reflect the existing ones, and that the borders of the residential blocks are presumably “regularised” following the property lines. In the “transitional” fabric (right), the proposed street pattern reflects and continues the existing main paths, but new street alignments are proposed in connection with the new expansions outside the walls; in both cases the proposed street widths are indicated but it is unclear how much the new alignments reflect the property lines. In both cases, the Urban Plan proposals have been only partially implemented.

The Plan has been drafted on the basis of the topographical map 1980 and seem very accurate in the definition of the perimeters of the blocks and of the public spaces²², reflecting to a different extent the property lines in the “traditional” and the “transitional” fabrics. It is evident, however, that the Plan has not been implemented. Particularly in the “transitional” fabric the existing street alignments and the block perimeters only partially reflect the Plan indications.

²¹ To this purpose, the 1980 map and the later aerial photographs would only provide a reference, but could not be used to prove the infractions.

²² Unfortunately the legend of the plan and the related regulations are not available, but the map seems quite accurate and detailed. In particular, it clearly shows the street borders and indicates the proposed width of the streets to be opened or continued in the “transitional” fabric on both sides of the City Wall.

It would be important to analyse more in depth the implementation of this Plan, in order to achieve a clear understanding of the process of constitution of the existing street network, which seems to be much more diversified and complex, and block perimeters.

In addition, the customary “laws”, which have traditionally regulated any building activity in the city, should be also taken into consideration. These have been recently collected, and need to be carefully analysed by specialists.

The interpretation of these documents could help to identify the constructions that presumably have been built on public spaces or at least outside the perimeters of the blocks where buildings were allowed for different functions. Further to this initial identification, the legitimacy of these supposed illegal buildings could be checked through other documents to be taken in the due consideration – i.e. referring to the property rights of the concerned owners.

On this basis the decision could be taken to remove or modify the shape of the buildings in order to implement the Street Paving Project in the most appropriate manner. To this purpose, the following criteria should be applied:

- To ensure the functional continuity and articulation of the public spaces, providing the squares, the parking places, and the street width with the corresponding number of lanes, according to the Traffic Study;
- To preserve and enhance the urban landscape, both in the traditional and the transitional fabric eliminating or mitigating the most offensive visual intrusions and reconstituting the architectural coherence of the street fronts.

These criteria imply different types of actions to be decided case by case. In general, however, the following is essential:

- To eliminate all the inconsistent encroachments and “street furniture” (such as sheds, benches, stalls) which occupy without any doubt the public space;
- To forecast the reshaping and reconstruction of all the fences, which may appear inconsistent with the traditional character of the streetscape. These should be rebuilt according to the “conservation requirements” to be established within the framework of the Urgent Regulation Measures (see section 3.3 below);

2. A STRATEGY FOR CONSERVATION AND REHABILITATION

2.1. The issues to be addressed and the objectives of the Conservation Plan

The Conservation Plan has to be considered as a tool to implement a long term and sustainable strategy of urban rehabilitation and development.

The lack of awareness and vision about the heritage values of Zabid is probably the most important issue to be addressed in order to set up a consistent and successful policy. Still the concept is widespread that its heritage is merely a matter of richly decorated monuments and houses, to be preserved for their “aesthetic” characteristics, regardless to their broader cultural meaning and the socio economic context. Therefore heritage protection is considered to be a “subjective” requirement of “cultural” circles, which has to withdraw in front of the “objective” needs of the “modernisation” and technical development.

There seems to be little concern about the impact that functional, social and economic changes can have on the heritage, and the role that its conservation and rehabilitation can play to ensure a more sustainable urban development. Moreover, evidence on the ground makes clear that no shared concepts and clear definitions exist of what should be considered as “traditional” architectural style, or “traditional” buildings materials and techniques.

The Conservation Plan should provide a clear definition of these concepts and terms, in order to establish general criteria and rules for the interventions, and avoid a merely “aesthetic” conservation approach. This is a priority, in order to address the most relevant urban policy issues, that have been pointed out by many previous experts reports and confirmed by recent analysis, i.e.:

- The overall functional and physical decay of the historic city, which has lost its traditional activities and is unable to attract new ones;
- The poor housing condition in all the urban fabric, where over-densification and abandon sometimes co-exist within the same residential blocks;
- The loss of the historic architectural heritage, threatened by diffused and offensive interventions.
- The degradation of the urban environment and the separation of the historic city from its landscape context

To this purpose, the following has to be considered as a priority:

1) In order to promote the **economic revitalization of the historic city**, it is essential to attract investments in new commercial, cultural and service activities, for both residents and tourist, trough the following actions:

- The Suq’s rehabilitation, to re-establish its role of central place in the city also for social interaction
- The adaptive reuse of deserted or underused heritage buildings, for compatible uses;
- The appropriate development of empty plots and “ruins”, to regenerate a usually dilapidated urban context.

2) The **improvement of housing conditions** has to be closely linked to the protection of the historic “traditional” fabric and the preservation of its heritage values. This has to be carried out together with:

- The stop and removal of all the ongoing violations within the existing housing blocks;
- The mitigation of the impact of inconsistent and offensive interventions, that may not be removed;

- The upgrading of the existing housing units, in terms of infrastructure, services and spaces, through appropriate interventions respecting their heritage features.
- Outline the future development of the “modern” fabric, providing areas for housing and related services to reduce overcrowding or higher building densities in the historic city.

3) The **improvement of the overall environmental conditions** is a fundamental goal to pursue, as a precondition for urban conservation and rehabilitation. It implies namely:

- the continuation of the efforts made in infrastructural upgrading;
- the upgrading and maintenance of public open spaces, with the removal of any illegal and/or inconsistent occupation;
- the overall rehabilitation of the historic street pattern;
- the improvement of the architectural quality in all types of interventions;
- the protection and enhancement of the view on the main monuments and urban sites, and the remaining visual linkages between the historic fabric and the natural landscape.

These goals and objectives require the definition of a **spatial strategy**. As pointed out by the Report of GOPHCY in February 2008²³, this would likely include the identification of:

- a “*core area*” of the city, where most of the fabric has “traditional” characters – as opposed to the outer ring area, where the fabric is mostly “transitional” or definitely “modern” city;
- “*preservation corridors*”, where the urban fabric remains largely “traditional” or where the threats to heritage values requires priority conservation interventions;
- “*neighbourhood action areas*”, where improvements can be concentrated in terms of infrastructure upgrading, awareness raising, incentives, and restoration/rehabilitation of significant buildings.

These spatial components can be identified on the basis of the analysis presented in Chapter 1, to be extended to the whole urban fabric. They could form the framework to establish appropriated planning measures and regulations, which would take into account the different specific values and conditions of each area.

2.2. The content of the Conservation Plan

The Conservation Plan is a specific urban planning tool, which should apply to the WH site and its “buffer zones”. It should be established, approved and enforced according to the acting legislation, and it would replace all of the existing planning documents and building regulations. It identifies the plots where different degrees of protection or transformation of the actual state can be imposed or permitted for building interventions, and the plots where demolitions can be imposed in order to implement projects of public interest.

After its approval, all interventions modifying the state of the plots must be compatible with the Conservation Plan. These are submitted to the authorisation by the concerned administrations according to the procedure of the building permit, or other special procedures in case the building permit is not required.

The Conservation Plan should consist in a combination of different documents, particularly the following:

- Maps and other types of graphic documents, indicating the zones, the blocks and the plots where the regulations (prescriptions and recommendations) and the guidelines will be

²³ See. “Report concerning the implementation of the decisions adopted at the 31st session of the World heritage Committee (Christchurch, 2007), concerning the historic town of Zabid, Yemen”, cited

applied concerning urban conservation and development programmes and the various types of building and landscaping interventions;

- Regulations concerning the functional, spatial and building conditions which ensure the conservation and enhancement of the urban environment and its different built and un-built components. These will be presented in terms of prescriptions and recommendations to be respected in all the private and public interventions, and be enforced by the concerned administrations according to well established procedures;
- Guidelines for the architectural treatment of all types of relevant intervention, which may concern the conservation/transformation of the various components of the plots - i.e. the single buildings and constructions, the possible additions, the fencing walls – as well as the use of the traditional building techniques, decoration patterns and materials. These can be integrated in the Regulations or presented in separated “manuals”, which should be intended to serve as a reference for the population and the professionals.

All of these documents should refer to clear definitions of the most relevant terms used, particularly those which are a matter of mandatory enforcement by the concerned administrations – i.e. the “zones”, the “categories of interventions”, the building techniques and materials. These are essential in order to facilitate the interpretation of the documents, and to reduce the possible conflicts, which may occur in the planning implementation²⁴.

The fundamental elements, referring to zoning principle and regulation criteria are outlined below.

Zoning

According to the draft of 2003, the perimeter of the WH site follows the threads of the ancient city walls, whilst outside this perimeter, besides the “buffer zone”, an “articulation zone” was established, to include the recent “modern” urban development. These perimeters need probably to be revised taking into consideration the development occurred in both zones, and it is worth to be noted that they most, if not all, of the whole urban area of Zabid.

Hence the need is evident to consider the Conservation Plan as the Urban Plan of the City, with a detailed zoning and a comprehensive regulation for both the conservation and development areas. To this regards the following Zones can be suggested:

- A. Central Suq, corresponding to the commercial centre of the City, covered by the GTZ/SFD Project;
- B. Traditional urban fabric of the Historic central core, as outlined on the basis of the topographical map 1980;
- C. Transitional urban fabric, encompassing the blocks completed or urbanised after 1980, within the walls thread;
- D. “Buffer” and “Articulation” zones, encompassing all the areas urbanised after 1980 outside the walls threads;
- E. Non aedificandi areas, including all the public open spaces within the walls, and the vacant or un-built areas within or outside the walls threads, which have a relevant environmental or landscape interest.

These zones can be eventually subdivided in “sub-zones” on the basis of more detailed analysis, and the further definition of the “spatial strategy” above mentioned.

In this framework, the WH site area would be divided in three types of “conservation zones”, corresponding to the Central Suq Area, the “traditional” and the “transitional” fabric. The rest of the urban area, which doesn’t present any specific heritage value, would be included in the “buffer

²⁴ Some tentative definitions are proposed in the Annex b).

zone” and the “articulation zone”, which probably need to be revised according to the recent and ongoing development.

General Regulation Criteria

In order to be effective, regulations for building interventions should be as simple as possible, and most of all have to refer to those elements, which may be actually controlled and enforced by the concerned administrations on the basis of the available documentation, particularly the existing cartography and Architectural Survey 2008.

In the “conservation zones” zones, in the aim of preserving and enhancing the heritage values of the urban fabric, regulations should include prescriptions and recommendations, which mainly take in consideration the following elements:

- The characters of the urban fabric;
- The compatibility of uses and activities;
- The architectural typology and the heritage values of each plot;
- The categories of building interventions to be applied in each plot;
- The building materials and techniques.

In the “buffer” and “articulation” zones, the regulations and guidelines should respond to different criteria, aiming at:

- Consolidating the ongoing urban expansion, providing spaces for new facilities and housing typologies, which would have specific functional and spatial requirements and could not be consistent with the historic fabric;
- Protecting the WH site from further interventions which may affect the remaining traditional skyline of the city.

Regulations integrate the Zoning and graphic documents, and make their proposals enforceable through:

- **Prescriptions**, whose respect is mandatory for the approval of any building intervention and can not be negotiated: these may concern the application of numeric parameters (i.e. building height, plot utilisation, distance from the property lines or set-back from the street); the traditional materials and building techniques to be used in conservation interventions; the types of compatible uses and activities.
- **Recommendations**, whose respect is equally mandatory but implies a negotiation with the concerned administration, in order to define the most appropriate technical solution. These may concern the application of the categories of interventions in plots with numerous buildings of different architectural values; the use of new materials where allowed; the architectural treatment of the facades, and other elements which require specific evaluations case by case.

The **Guidelines**, to be developed as a complement or integration of the regulations, are mainly intended to offer models and examples of architectural treatment and technical solutions for all the matters, which may be subject to recommendations.

In this framework, no detailed prescriptions, but only recommendations and guidelines, can be given for the maintenance and the restoration of the interior architecture and decoration which can be found in many traditional houses in Zabid, and form large part of its heritage. These are not fully documented yet, and detailed prescriptions could not be effectively enforced by the concerned administrations.

2.3. Specific criteria for the “conservation zones”

Zones A, B and C could be defined as “conservation zones”, since the prevailing objective is to protect the WH site. Here, regulations and guidelines should respond to the following criteria:

Urban Fabric

As for the Urban Fabric, the Conservation Plan has to protect and enhance each and every component of the historic urban landscape. Therefore it has to establish and show in the graphic documents all the urban design prescriptions and recommendations to be enforced in order to preserve or improve the following:

- The street alignments, both at the ground and the roof levels;
- 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 facades and the fencing walls;
- The presence of courtyards and private open spaces;
- The presence of trees and other vegetated areas.

Uses and Activities

As for the possible Uses and Activities, interventions should be consistent with the functional character of the urban fabric, as defined by the “zoning”, the architectural typology of the plot layout, and the architectural elements to be preserved. In particular, regulations have to define the criteria of compatibility of possible new uses and activities in the different conservation zones, i.e. with reference to issues of accessibility, housing tenure and privacy, environmental impact.

Uses and activities have to be avoided that directly or indirectly may cause ruptures and disruptions in the prevailing functional character of the neighbourhoods, and affect the heritage features and values. In general, functional conversion can be accepted only according to the principles of “adaptive reuse”.

Architectural Typology and Values

As for the Architectural Typology and Values, the Plan aims to define the different degree of protection and/or the admitted transformation of each unit forming the urban fabric. Regulations and Guidelines will be established for building interventions on the basis of the documentation offered by the Architectural Survey 2008, which is generally referred to the “plot”, and not to the single buildings or constructions. To this purpose, the plots will be classified according to the following or a similar range (see the sample definitions in Annex B):

- Monumental;
- Good;
- Ordinary;
- Inconsistent.

The classification should mainly consider the different degree of integrity and the overall quality of the buildings, according to the features surveyed and documented, i.e.:

- The presence and the type of traditional, mixed or modern architectural elements;
- The spatial layout composition, including the size and the functional characteristics of each building and its spatial relation to the courtyard;
- The presence of vertical and horizontal additions, as well as the other transformations that occurred in the recent years.

Categories of Intervention

As for the Categories of Intervention, the Plan should define the types of interventions to be prescribed for each plot, according to the classification by Architectural Typology and Values, taking also into consideration the possible uses to be admitted, with reference to the needed degree of protection of the heritage values. According to established international standards, the categories would be the following or similar (see the sample definitions in Annex B, which take in consideration the specific context of Zabid):

- Restoration
- Rehabilitation
- Upgrading
- Reconstruction
- Demolition
- New Building

Specific prescriptions, recommendations and guidelines referring to the different categories could be given for each zone, i.e. concerning the plot utilisation, the possibility of vertical or horizontal addition, the building materials and other relevant matters, including the architectural treatment of single buildings or constructions within the plot.

Building Materials and Techniques

As for Building Materials and Techniques, a clear definition is needed of “traditional” materials and building techniques. “Tradition” indeed not only refers to “old” but also to “local”: there are “old” materials and building techniques that could be inconsistent with the local “traditions”, and on the other hand, due to the complexity and the different degree of heritage values of the urban fabric, “modern” is not necessarily synonymous of “inconsistent”: in many cases, it is the way “modern” materials are used that makes them inconsistent with the conservation objectives.

A list of material that refers to local Zabid architectural tradition should be given. These have to be necessarily used in all interventions of conservation, and in the “traditional fabric”. However, the general principle has to be affirmed that all the existing “traditional” architectural elements, as identified by the survey, should be kept and enhanced.

3. URGENT REGULATION MEASURES

The ultimate elaboration and establishment of the Conservation Plan will probably require a long term effort, and its protection measures would not be likely fully applied before the terms fixed by the WH Committee for the maintaining of Zabid in the WH list. It is therefore necessary to establish a temporary and partial regulatory framework, which would at least stop the ongoing decay of the urban fabric and consolidate the actual conservation policy.

To this purpose some urgent measures are proposed, which are to be considered as a first step towards the establishment of the Conservation Plan, and would be definitely integrated in its final elaboration. This would concern:

- The outline of the Conservation Zones concerning the WH site, in order to establish basic land use measures (types of activities, plot utilization, building height, distances)
- Classification of the plot on the basis of their heritage values, in order to apply the categories of interventions;
- Definition of the categories of interventions, to be prescribed or admitted for each plot in the different conservation zones;
- Prescriptions on building materials and techniques for the different zones and categories of interventions;
- Procedures for the delivery of building permits;
- Guidelines and prescriptions for the “violations” and public land management.

3.1. Conservation Zones

It is urgent to outline a temporary “**zoning map**”, which should identify the following Conservation Zones for the WH site within the walls thread, according to the method used in chapter 1:

- A) Central Suq Area
- B) Traditional urban fabric;
- C) Transitional or mixed urban fabric

In this context, the Public Open Spaces should be also identified, based on the Architectural Survey Map²⁵.

In the Conservation Zones specific planning measures should be adopted in order to keep the integrity of the morphology and the spatial pattern, and detailed building regulations have to be established in order to define the types of interventions admitted for each building. In general, all interventions should be essentially oriented to the conservation of the existing architectural heritage features and to the enhancement of their integration in the surrounding context. Therefore no infrastructural or redevelopment intervention could be admitted, which may alter the texture of the urban fabric.

- The regulation framework has the following objectives:
- The conservation and upgrading of the existing street and open spaces pattern;
- The preservation of all the buildings of architectural significance;

²⁵ In the wait of further and more detailed analysis of the actual land use, the “buffer zones” and the “articulation zone” of the draft Conservation Plan should be confirmed.

- The rehabilitation of all the buildings with no particular architectural significance that are however well integrated in the historic context;
- the elimination or at least the mitigation of the negative impacts of recent intrusive buildings and inconsistent or degraded open spaces.

For each of these zones, some basic criteria, guidelines and prescriptions for the interventions should be established by decree or other legal tools. These should define measures for the land use control (types of activities, plot utilization) and the application of the categories of interventions, as well as any other special measures, which may appear relevant on the basis of the ongoing management experience, as well as the programs and projects concerning Housing Rehabilitation, the Central Suq Area and the Street Paving Project.

More in detail, on the basis of the available documentation and the previous observation, the following regulation framework can be outlined for the three “Conservation Zones”.

Zone A – Central Suq Area

The central suq area is identified as the commercial core of the City, as structured until the beginnings of the ‘80.

Before the establishment of the ongoing special project, in these areas only interventions of maintenance and rehabilitation of the existing buildings would be allowed. Adaptive reuse of existing buildings to other activities, which are compatible with the commercial character of the district, can be admitted, according to criteria to be eventually defined.

Besides, in the central suq,

- No new buildings and vertical additions of any kind are allowed;
- Reconstruction and redevelopment interventions are admitted for buildings of “ordinary” and “inconsistent” quality, without exceeding the previous building volume and height, and under specific prescriptions to be elaborated concerning openings, materials and building techniques, etc.;
- In any type of intervention, it is possible to merge two or more existing shop units, in order to make one larger. It is prescribed however to maintain the pre-existing façade composition (shape, number and type of openings).
- Measures should be envisaged to prevent any further danger and visual intrusion from disordered electric wires, inconsistent street cover with tents, and other features that may affect the streetscape.

The ongoing special project will define the regulations concerning the possible new buildings on empty plots, or the demolition of existing inconsistent and/or illegal buildings. The concerned plots will be clearly indicated on the zoning maps and the related prescriptions (height, volume, possible set back, and others) will be integrated in the Conservation Plan.

Zone B – Traditional urban fabric

The historic residential fabric is identified as that part of the *intra muros* residential, whose morphological, functional and spatial structure has not been definitely affected by the major changes brought in by the process of “modernization” since the Seventies. It still shows a certain degree of integrity and no further alterations can be envisaged to its physical structure and urban landscape. In general, this zone should include the “traditional fabric”, i.e. the built-up areas as shown in the topographical map 1980. However the residential block can be excluded, where heavy morphological transformations have occurred, that may have implied the loss of any traditional character or heritage values.

This zones have a merely residential function, but small scale activities compatible with the residential character of the neighbourhoods can be permitted, such as services, commerce and handicraft, small size tourist facilities (i.e. guest houses), through the adaptive re-use of the existing buildings.

Depending on the “typological and architectural values” of the plot defined by the Survey, all the interventions have to be carried out respecting the criteria, the guidelines and the prescriptions of the “categories of interventions” (see Annex B).

Before the establishment of a Conservation and Rehabilitation Plan, in these areas only interventions of maintenance, rehabilitation, upgrading and reconstruction of ruined or partially ruined buildings would be allowed. No new buildings are allowed in empty plots identified on the basis of the *Architectural Survey 2008* (to be checked ...).

In the built plots, new constructions, horizontal or vertical additions to existing buildings can be admitted only when allowed by the categories of interventions, and under the following conditions:

- For smaller and average size plots, new constructions or horizontal additions can be allowed until a maximum land utilisation of 50%.
- For larger size plots, new constructions or horizontal additions can be allowed until a maximum land utilisation of 40%.
- In any case, the existing qabal has to be preserved so to ensure an open space in front of the Murabba'a or Lîwân and other significant constructions, as wide as their height at least.

Vertical additions to the existing buildings can be allowed only if the height of the building should not exceed in any case 6,5 meters (to be checked), and under the following conditions:

- For plots of “ordinary” and “inconsistent” quality, vertical addition of one floor totalling no more than 20 sqm. is admitted, according to specific guidelines to be established concerning the plot layout and building materials;
- For plots of “good” quality, a vertical addition of one floor can be admitted over the half built surface, with a setback from the main street front, without destroying any heritage architectural construction, and according to principle layout to be negotiated with GOPHCY.
- For “monuments” no horizontal and vertical addition is admitted.

Reconstruction of existing buildings may be admitted for plots of “ordinary” and “inconsistent” quality, according to the Architectural Survey 2008, only when the present plots utilisation exceeds the above limits. The reconstruction shouldn't exceed the 20% of the previous building floor surface and two-storey height (or 6,5 meters), and should be constructed with traditional materials and techniques.

In any case, the vertical additions and the reconstruction interventions, when visible from the street or other public spaces, have to respect the characters and the texture of the surrounding urban fabric and landscape.

All types of interventions have to respect the existing plots subdivision; no further subdivision is admitted of the existing plots unless their surface exceeds 300 sqm. In this case the plots resulting from subdivision can not be lower than 150 sq. Two or more plots can be merged; in this case the intervention has to respect and confirm the architectural and typological diversity of the existing buildings.

Zone C – Transitional fabric

The “transitional fabric” is identified as that part of the *intra muros* urban fabric, which has been urbanised after the '80, but it may include some earlier “traditional” residential plots and mosques, that have been merged in the new residential blocks. In general, it should be considered as an “urban regeneration area”, where planning measures have to be adopted in order to preserve the remaining architectural heritage. At the same time, these measures should address the negative effects of the densification and redevelopment interventions or else the demolitions that occurred in the recent urbanization process, whilst preventing further transformations that could eventually disfigure the remaining historic pattern.

Besides the conservation and rehabilitation of all the buildings of architectural significance, upgrading and reconstruction interventions should be encouraged, which may consolidate and

enhance the continuity and the diversity of the urban fabric, including the reshaping of the open spaces, respecting the spatial articulation of the historic fabric.

This zones have a prevalent residential function, but activities not contrasting with the residential character of the neighbourhoods can be permitted, such as services, commerce and handicraft, tourist facilities (i.e. small hotels), through the adaptive re-use of the existing buildings and new buildings on empty plots.

In the built plots, interventions of maintenance, rehabilitation, upgrading and reconstruction of ruined or partially ruined buildings are allowed according to the “categories of intervention” (see Annex B). In particular, new constructions and horizontal or vertical additions to existing buildings can be admitted only when allowed by the categories of interventions, and under the following conditions:

- For smaller and average size plots, new constructions or horizontal additions can be allowed until a maximum land utilisation of 60%.
- For larger size plots, new constructions or horizontal additions can be allowed until a maximum land utilisation of 50%.
- In any case, the existing qabal has to be preserved so to ensure an open space in front of the Murabba’a or Lîwân and other significant constructions, as wide as their height at least.

Vertical additions to the existing buildings can be allowed only if the height of the building should not exceed in any case 6,5 meters (to be checked), and under the following conditions:

- For plots of “ordinary” and “inconsistent” quality, the vertical addition of one floor is admitted;
- For plots of “good” quality, a vertical addition of one floor can be admitted over the half built surface, with a setback from the main street front, without destroying any heritage architectural construction, and according to principle layout to be negotiated with GOPHCY.
- For “monuments” no horizontal and vertical addition is admitted.

Reconstruction of existing buildings may be admitted for plots of “ordinary” and “inconsistent” quality, according to the Architectural Survey 2008, only when the existing plots utilisation exceeds the above limits. The reconstruction shouldn’t exceed the 30% of the previous building floor surface and two-storey height (or 6,5 meters), and would be constructed with traditional materials and techniques.

In any case, the vertical additions and the reconstruction interventions, when visible from the street or other public spaces, have to respect and enhance the characters and the texture of the surrounding urban fabric and landscape.

All types of interventions have to respect the existing plots subdivision; no further subdivision is admitted of the existing plots unless their surface exceeds 300 sqm. In this case the plots resulting from subdivision can not be lower than 150 sq. Two or more plots can be merged; in this case the intervention has to respect and confirm the architectural and typological diversity of the existing buildings.

New buildings are allowed in empty plots identified on the basis of the *Architectural Survey 2008* (to be checked ...) under specific restrictions to be established, and depending on:

- The morphological and functional characteristics of the fabric;
- The ongoing rehabilitation and infrastructural programs.

Regulation for new buildings should concern the plot utilisation, the building height and the setback from the street.

Open spaces and “non aedificandi areas”

Before the approval of the Conservation and Rehabilitation “non aedificandi” measures should be taken for all the vacant and non built areas inside and outside the protection perimeter, in order to:

- rehabilitate the system of open spaces within the historic fabric and the buffer zones
- protect the views of the Citadel, the gates and the remaining walls, and all the other monumental or landmark buildings.

The following types of open space have to be identified on the “zoning map” and be strictly considered as “non aedificandi” areas:

- Streets, roads and squares of any type;
- Open spaces of environmental or landscape interest;
- Other open spaces, which may be relevant for the implementation of urban rehabilitation and infrastructural upgrading programs.

All of these spaces have to be strictly considered as “non aedificandi” areas, where the following prescriptions should be respected:

- No new buildings of any type are allowed;
- Existing street alignments have to be preserved;
- Fencing walls built with traditional materials and techniques have to be preserved;
- Existing buildings can only be subject to maintenance and conservation interventions, according to the classifications of the Architectural Survey 2008;
- No new roads can be opened;
- Only landscape improvements interventions are admitted

It would be useful to identify separately the public and the private open spaces, on the basis of the actual property rights. This would allow for the definite identification of illegal constructions on the public land, to be eventually removed with no compensation or else confiscated and rehabilitated for public uses...

3.2. Categories of Interventions

The Categories of Interventions define criteria, guidelines and prescriptions for the possible building interventions which may be permitted on each building unit forming the urban fabric. These are necessarily based on a “classification” of the building units according to the typological and architectural values assessed and documented by the Architectural Survey 2008.

Since no detailed information is available on each single construction within the plots²⁶, the “categories of intervention” should be necessarily referred to the “plot” (or “property”), i.e. the basic “unit” identified by the Architectural Survey 2008, for whom the information are available that have been analysed in section 1.2. Therefore the criteria, guidelines and prescriptions are applied to a “unit”, which usually includes different constructions and buildings so that, for the sake of the control of the buildings activity, the following components should be taken in consideration:

- The Housing Units (HU), which may be formed by two or more single standing or adjoining buildings or constructions, and by their related open spaces (qabal or courtyards);
- Other Special Architectural Units (SAU), i.e. mosques, markets, etc., which may be formed by two or more single standing or adjoining buildings or constructions.
- The single building or construction, which is identified by an autonomous physical structure, as part of the HU or the SAU.

The Categories of Interventions define the different degrees of protection and the possible admitted transformations for each HU and SAU, as identified by the Architectural Survey 2008,

²⁶ It is important to remind that, due to the typological characters of the Zabid house, the different constructions forming the “house” can have different functions, architectural interest and heritage value.

reflecting the heritage values which are present in the plot and its layout. The following categories can be proposed with reference to the international standards and to the specific situation in Zabid (see the definition in Annex):

- Restoration: only for « monuments » and listed building, such as the Citadel, the gates, the mosques, and few landmark buildings (i.e. palaces), which have been mentioned in the Nomination files;
- Rehabilitation: for plots of « good » or « ordinary » quality (only when traditional architectural elements have been identified)
- Upgrading: for plot of « ordinary » quality, without any relevant traditional architectural element
- Reconstruction or redevelopment: for plots with “inconsistent” quality, intrusive buildings and/or “violations” whose impact can be mitigated:
- New Buildings: for empty plots, when admitted by zoning.
- Demolition: for illegal buildings and other inconsistent constructions on public opens spaces.

Besides the interventions of Restoration, the intervention of Rehabilitation, when the plots have a “traditional” or “mixed” layout, and a fair to high degree of integrity (see section 1.2...), the heritage interest and architectural value of each building or construction in the plot has to be assessed by the GOPHCY before the submission of the building permit application. In this case a higher or lower degree of protection can be applied to the single concerned construction accordingly.

3.3. Other Conservation requirements

Specific conservation requirements should be defined for some special features, which are typical of the Zabid domestic architecture and definitely characterise the historic urban landscape. This should mainly concern:

- Prescriptions and recommendations for the refurbishment of the existing - and the construction of new fencing walls along the streets and the public spaces. To this purpose reference could be made to the Draft Conservation Regulation 2003. In addition, simple criteria should be established in order to determine the required height of the wall: this should be defined on the basis of the prevailing (average) height of similar visible traditional walls on the same side of the street, in order to enhance the continuity of the urban space;
- Guidelines for other special architectural and decorative or furniture elements: in this case also reference can be made to the Draft 2003. This matter however should not be subject to prescriptions and interdictions, which couldn't be enforced by the administration. Measures such as awareness raising campaigns, training and assistance would be necessary. In the framework of the planning regulation, however, only suggestions could be proposed.
- Prescriptions, recommendations and guidelines should be established, concerning the appropriate use of building materials and construction techniques, particularly in rehabilitation and upgrading interventions in the “conservation zones”. A list of “approved” and “prohibited” materials and techniques should be established for the different categories of interventions, making reference to the experience carried out in recent restoration works and in the housing rehabilitation program.

3.4. Procedures for building permissions

In order to ensure an effective control of the building activities, it is necessary to create some basic conditions or prerequisites:

- To make clear the different competences of the Local Council and the GOPCHY in the building permissions delivery, and the building activity control;
- To define the kind of documentation required for all the different types of interventions within the protection perimeters and the procedures for building permits delivery;
- To revise, update and enter the data of the Architectural Survey 2008 into a GIS, which would serve as a fundamental tool for the implementation of the protection measures, particularly the evaluation and the monitoring of all the interventions.

With the only exception of the maintenance works, all interventions, both public and private, require a building permission delivered by the concerned authorities. In order to provide an efficient control and a high quality of the conservation interventions, the procedure for the delivery of the building permission could be structured in two steps:

- A preliminary advisory and “negotiation” phase (encompassing the “planning permission”), with the delivery of a preliminary, provisional permit, with recommendations, by the GOPCHY);
- The second phase, for the final delivery of the permit by the Municipality, and the other concerned administrations.

Preliminary permit

All interventions of conservation (i.e. restoration, rehabilitation and upgrading) in zone A and B would require a “preliminary permit” from GOPCHY and other concerned administrations, in order to apply for the building permission. This step is required in order to verify the application of the “categories of intervention” in the plot, with reference to the single buildings which may have heritage interest and to the special requirements to be respected in the project.

The application file for the preliminary permit would consist in the following:

- The documentation of the property rights;
- A detailed plan of the existing situation in the plot, with the identification and a photographic documentation of all the buildings and constructions, showing the surrounding urban context as well;
- The architectural survey with measurements (plans of all levels, sections, elevations) and detailed photographic documentation of the buildings and constructions concerned by the interventions, including the interiors (only for plots submitted to restoration and rehabilitation);
- A sketch design of the proposed interventions;
- The identification on the survey plans, sections and elevations of all the existing architectural elements to be kept, transformed or removed (only for plots submitted to restoration and rehabilitation).

On this basis, the GOPCHY, considering also the observations of other concerned administrations, will deliver its advice on the proposed interventions, with or without additional prescriptions and recommendations to be respected in the elaboration of the execution project. In case of particularly sensitive or difficult interventions, GOPCHY could also negotiate with the technical assistance in the project elaboration and its implementation.

In “conservation zones” C (transitional fabric), the preliminary permit is required only for interventions of “restoration” and “rehabilitation”.

In all the other cases, the preliminary permit is not obligatory, but could be recommended.

Building permit

It is required for any intervention in all types of zones and all categories of interventions, according to the present legislation and to the draft Conservation Plan. However, the following has to be noted:

a) Applications files have to include:

- the documentation of the ownership rights,
- a plan of the whole property with the detailed identification of all the buildings and constructions, showing the envisaged interventions;
- a photographic documentation of the existing state of the property and its surroundings.

b) All projects have to be established on the basis of a detailed architectural survey with measurement, and have to provide a complete and detailed graphic representation of all the envisaged transformation of the existing situation, including the description of the constructive techniques and materials;

c) When a "preliminary permit" is required, the building permit can be delivered only if the project respects the recommendations and prescriptions from GOPHCY and other concerned administrations.

4. FINAL RECOMMENDATIONS

As a conclusion of the analysis carried out in previous sections, the following steps are recommended in order to establish the regulatory framework of the Conservation Plan, whilst ensuring the implementation of the ongoing projects and programmes

- Finalise the Architectural Survey, in order to make it a tool to establish the Conservation Plan (particularly the categories of interventions) and to control the building activity;
- Undertake the preparation of the Conservation Plan, through the definition of the conservation and buffer zones, and the outline of the planning regulations, including the prescriptions and recommendations for the building interventions, and guidelines for all those matters that can not be submitted to prescriptions;
- Ensure an appropriate Implementation of the street paving project and undertake actions to remove or mitigate “violations”

4.1. The Architectural Survey

The Architectural Survey offers a bulk of relevant information, which is necessary to establish the Conservation Plan and ensure its effective implementation. To this purpose the information collected should be made as much as possible reliable, easily accessible and usable. Based on observations of sections 1.1 and 1.2, it is recommended to:

- Complete the information collection, particularly concerning the plots that have not been covered. Moreover the presence of very recent and ongoing “violations” should be indicated as a “remark” in the survey form, referring to established criteria to be discussed: to this purpose a supplement of survey has to be planned (see below) urgently;
- At the same time, it is necessary to improve the readability of the base map making clearly visible the buildings and the constructions in the plots. In the available version of the survey map (dated 20.09.2008), these are only readable on the screen (when selected with the mouse), and their perimeter is often confused with the perimeters of the plots and the blocks: this makes their identification sometimes difficult and disputable;
- Enter the information of the Survey into a GIS-database to make it easily accessible and usable. Actually only some of the data from the survey form have been entered into a simple excel sheet, block by blocks but without a clear order, and this make the reference to the survey map and to the photos extremely difficult: in its present state the survey information is indeed unusable for the purposes of the Conservation Plan and its implementation. It is necessary to enter all the data from the survey (including the photos) into a database (i.e. Access) and create the linkage to the revised base map, in order to form a GIS²⁷;
- Prepare some fundamental “thematic” maps, using the GIS, making accessible the information of the different “fields” from the survey sheet: i.e. concerning functions, ownership, occupancy, house typology, building conditions, house materials, and the presence of modern and traditional element. A map showing the Heritage value of each plot should also be prepared combining the information on house typology and the presence of traditional and modern elements;

²⁷ The use of a simple GIS software, i.e. Geomedia or similar, is recommended. The experience carried out by GOPHCY for the Old City of Sana’a should be taken also into account, including the staff training and the working procedures for GIS structuring and data entering.

- In order to fulfil correctly the above task, it would be extremely useful to provide a clear definition of the terms used in the survey forms, in order to achieve a better understanding of the evaluations and grades assigned to the plots in each “field”. To this purpose a report on the criteria and the methods used by the surveyors is necessary.

It has to be stressed that the GIS would become an invaluable support for the elaboration of the Conservation Plan and its further implementation. The “thematic maps” would represent indeed a fundamental tool to analyse the urban fabric in order to develop appropriate and consistent planning proposals, whilst the easy accessibility to information would represent an essential tool for the monitoring and the control of the building activity. Without the GIS database, the Architectural Survey would have been almost useless: most of the information collected would remain unexploited and the Conservation Plan would miss an essential base of understanding of the urban fabric and its values.

4.2. Conservation Plan

As reminded in section 2.2, the conservation plan is formed by different graphic and written documents which are strictly connected, but require specific preparation. It is important to stress on the one hand, that an accurate graphic documentation, draft on a reliable and updated base map, is definitely essential to achieve a correct enforcement of the regulations, and that, on the other hand, this latter can be effective only if the reference to the map allows for an unambiguous identification of the prescriptions and recommendations to be applied. To this purpose, the maps should show as clearly as possible the following:

- The perimeters of the different zones to be defined according to the criteria mentioned in section 2.2. In this framework some “sensitive areas” can be identified, that should be submitted to “special projects” of urban conservation and regeneration²⁸;
- The categories of interventions for each plot;
- Other relevant urban design regulations and guidelines, particularly with regard of the public open spaces and the street pattern, existing to be preserved or new to be created.

In this framework it is urgent to establish temporary protection measures for Zones A, B, C in the streamline of the proposals in chapter 3, to be revised, refined and finalised as a first part of the future Conservation Plan.

Graphic documents

The following steps are suggested in order to establish the zoning, develop the planning and urban design proposals, and prepare the graphic documents, which form the Conservation Plan.

In order to define the Zoning, according to the criteria proposed in sections 2.2 and 3.1, it is suggested to

- Identify the “traditional”, “transitional” and “modern” fabric, on the basis of the comparison of the maps 1980 and 2008, as indicated in chapter 1, and outline the perimeters of the “conservation zones” A, B and C accordingly²⁹;

²⁸ As an example, the areas surrounding the Citadel and the four gates would definitely require the development of special projects addressing the monuments restoration as well as the reshaping of the open spaces and the regeneration of the urban fabric inside and outside the ancient City Walls thread. These were identified as “major public spaces” by the Draft Regulation 2003.

²⁹ This procedure will lead to a definition of the “zones”, fundamentally based on the period of the urbanization – before and after 1980 – hence on the different presence of “traditional” buildings and patterns. This subdivision seems less arbitrary than the one proposed by the Draft regulation 2003 – “denser” or “de-structured” areas – which refer to an assessment of the urban fabric conditions, difficult to carry out on the basis of the available information.

- Outline the other “protection” and “development” zones, i.e. the “buffer zones” and the “articulation zone” taking into consideration the draft Conservation Plan and the recent developments in the concerned areas;
- Identify the public open spaces of any kind (streets, squares, vacant land of public ownership, and so on).

Moreover, in addition to the thematic maps from the Architectural Survey, the following is needed in order to establish the maps showing the required categories of interventions, and the other elements which may be subject to specific prescriptions and recommendations and guidelines (i.e. private and public open spaces, street alignments, buildings setbacks, visual channels, and so on):

- Develop the analysis on plots transformations and utilisation undertaken in chapter 1.1, in order to achieve a more accurate definition of the conservation zones and identify possible sub-zones or plots, which would need specific regulations and guidelines;
- Identify on the map the major landmark buildings and monuments; commanding visual channels to be preserved and enhanced;
- Identify the major visual intrusions affecting the urban landscape;
- Delimit all the vacant areas (public and private), empty plots (fenced or not fenced), and plots with only ruins or “tells”;
- Identify the main vegetation groups or landmark elements to be preserved and enhanced.

The urgent measures proposed in section 3.1 require the initial identification of the “conservation zones”, based on the analysis of the available cartography, and the attribution of the “categories of intervention” to each plot, based on the Architectural Survey. The preparation of these graphic documents will represent the first necessary step toward the establishment of the Conservation Plan, to be completed in the next phases.

Regulations

The regulations should be as simple and clear as possible, and most of all should be referred to those elements which are identified on the Plan’s graphic documents without ambiguity. As pointed out in section 2.2 and 2.3, the Regulations include prescriptions and recommendations intended to fix the following conditions:

- The conditions to be respected by the owners to undertake any relevant intervention of transformation³⁰ of the present state in the property;
- The conditions to deliver building permits and control the transformations of the present state in the properties, by the concerned administrations.

It is evident that, in order to be really enforceable, regulations can only concern the matters and the transformations that can be effectively ascertained and controlled by the concerned administrations³¹.

Furthermore, it has to be stressed that some basic regulations should be established urgently in the wait of the Conservation Plan, concerning the interventions in the conservation zones, as

³⁰ The types of transformations, which are relevant for the purpose of the Conservation Plan and require the building permit (i.e. new buildings and constructions, conservation interventions of existing buildings and constructions, remodelling of the façade, and so on), should be clearly listed on the basis of the current legislation. To this purpose, reference can be made to the Draft Regulations 2003, Title 1, article 1.3.

³¹ To this regard, a serious reflection should be made about the opportunity to impose regulations that can not be currently applied, such as prescriptions on interior decorations: in this case, other tools should be used in order to protect the heritage values, such as a combination of guidelines, recommendations, technical assistance and incentives.

proposed in section 3. These have to be intended as a first step toward the establishment of a definitive and more detailed regulatory framework.

Considering the information provided by the Architectural Survey 2008, and on the bases of the criteria proposed in sections 2.2 and 2.3, the following outline is proposed (also making reference to the draft regulations issued in 2003):

1) General matters

This section would include:

- Update and revision of the “instructions” and the Title 1, articles 1 and 2 of the draft regulations 2003. In particular article 1.4 should be revised according to the “procedures for building permission” proposed in section 3.4;
- Definitions of “Architectural Value”, “Categories of intervention”³² and other relevant terms used in the regulations, to complete and integrate the definitions of Title 1, article 5 of the draft regulations 2003;
- Definition of the parameters eventually used in the Regulations: i.e. building height, plot utilisation, set-back and others.

2) Zoning and planning regulations

It is necessary to provide a clear identification and description of the various types of zones (and sub-zones, if necessary) outlined on the maps, according to the criteria defined for the “conservation zones” in sections 2.2 and 3.1. Similar criteria have to be defined for the “buffer” and “articulation” zones³³.

For each zone, prescriptions and recommendations will be provided concerning the:

- The plots land use (activities and functions). To this purpose, reference can be made to Title 2, Section 1 of the Draft Regulation 2003. In addition, a list of compatible activities should be provided, with regard to “adaptive” reuse and “new building” interventions.
- The application of the “categories of intervention” to all the plots identified on the maps, with reference to their state of occupancy (built or empty) and “architectural value” of the plots. Besides the built plots to be submitted to different degree of protection or transformation, the empty plots will be also taken into consideration;
- The plot utilisation, building heights and other relevant parameters, which may be relevant according to the different categories of intervention. To this purpose, reference can be made to Title 2, articles

3) Categories of interventions and building regulations

This section includes prescriptions and recommendations concerning the application of the categories of intervention to the single buildings and constructions, existing or to be built within the plots, in all of the zones.

- Prescriptions and recommendations concerning the conservation interventions (restoration, rehabilitation, upgrading, see Annex b) have to be clearly defined, in order to avoid ambiguous interpretations. To this purpose, large part of article 3 in title 1 of the Draft Regulations 2003 can be utilised and adapted to the proposed categories of intervention,

³² See the tentative and synthetic definitions proposed in Annex (b)

³³ To this purpose, reference can be made to the Titles III and IV of the Draft Regulations 2003.

particularly Title 1, sub-articles 3.2 and 3.3, as pointed out in the definitions proposed in Annex b), and Title 2, article 11.

- Equally, for interventions of reconstruction, new buildings and demolition (see Annex b), prescriptions and recommendations can be provided making reference to Title 1, art.3.3 and Title 2, articles 3-6 and 11.3 of the Draft Regulations 2003.
- In addition, a list with related description should be provided for all the building materials and techniques that can be required, admitted or prohibited for the different categories of interventions.

4) Other Urban Conservation requirements

This section would include prescriptions and recommendations concerning:

- The public and private open spaces, with reference to Title 1, article 3.4 of the Draft Regulation 2003;
- The fencing walls along the streets and other public spaces, with reference to Title 1, article 3.2.B3 of the Draft Regulation 2003;
- Urban Infrastructures, Street Paving, Urban Furniture, based on the Project analysed in section 1.5 and observations proposed in section 1.6.

5) Provisional urgent measures and final requirements

Depending on the phases and the time framework required for the completion of the procedure of approval and the real enforcement of the Conservation Plan, it may be useful to forecast a section of the Regulation dedicated to the measures to be enforced immediately, through other legal tools, before the final approval.

In this case reference could be made to the measures proposed in section 3.

6) Annexes

- List of possible compatible activities, with regard to “adaptive” reuse and “new building” interventions;
- List and description of building materials and techniques to be prescribed, admitted or prohibited.
- Other lists of elements to prescribe recommend or prohibit, if necessary.

Guidelines

The regulations should be completed and integrated by Guidelines, concerning the application of the prescriptions and recommendations, as well as other matters that can not be controlled through these tools, and require instead different forms of guidance and assistance by the concerned administrations, such as:

- The architectural treatment of interventions, for existing buildings of different heritage value and for new buildings: to this purpose the existing “architectural recommendations” could be developed. Furthermore, reference can be made to the title II, article 11 of the Draft Regulations 2003;
- The restoration and refurbishment of the traditional decoration and furniture;
- The improvement of urban furniture and streetscape.

These Guidelines should address the professional as well as the wider public, and include mainly numerous examples of good practices, diagrams and sketches of possible solutions to make evident the expected and recommended results.

4.3. Urgent Implementation and management matters

As pointed out in sections 1.4, 1.5 and 1.6 a long term and sustainable conservation and development process requires:

- on the one hand, the effective and coherent implementation of the ongoing programmes and,
- on the other hand, the undertaking of immediate actions to stop the proliferation of “violations” and mitigate the negative impacts of the numerous offensive buildings affecting the urban landscape.

As for the Water Storm and Street Paving Project, an evaluation is necessary of the difficulties and results achieved in the initial phase of implementation of the pilot projects, in order to develop the suggestions and the criteria proposed in sections 1.5 and 1.6.

As for the actions against illegal and “offensive” buildings, it has to be observed that it is not possible to address all the “violations” at once. Priority “areas” and “types” should be chosen to start a process of “regeneration”, which should be intended not only to stop illegal interventions but also to improve the environmental conditions and enhance the heritage values of the city.

On the basis of the analysis and direct observation the priority areas should be the following:

- The surroundings of the four gates and the Citadel, about 100 meters inside and outside the walls threads;
- The streets surroundings the al Asha’ir mosque and the Grand mosque;
- The main spines in the “traditional fabric” connecting the gates to the Citadel and the Suq.

In these areas the ongoing violations should be immediately stopped and removed without any negotiations.

These and the other ongoing and supposed or documented recent “violations” in the WH site, should be immediately identified through a dedicated “survey campaign”³⁴, which should be used to raise awareness in the population and the local administration. This would allow for the establishment of a program which may require different interventions (from complete removal to partial demolition or simple “harmonisation”), depending on the available resources and management capacities.

More in general, actions should be undertaken to mitigate the impact of the most offensive and inconsistent buildings (illegal or legal). These should also be identified in the same “survey campaign”. On this basis, these measures could be envisaged and negotiated providing compensations of different type (financial, fiscal, supply of infrastructural works and so on, depending on the different case):

- Reducing the building height (no more than two floors, elimination of any visual intrusion in the priority areas),
- Remodelling and harmonisation of the facades (no balconies, reshaping of openings ...)
- Ensuring appropriate finish to the facades and fencing walls with traditional materials.

³⁴ This should complement the Architectural Survey 2008 and the information collected be integrated into its database. A thematic map on “violations” should be produced, also to open a public discussion on this crucial issue.

ANNEXES

- a) Data from the Architectural Survey 2008-12-28
- b) Definitions

a) Data from the Architectural Survey 2008

The Survey Form

Historic City of Zabid		Survey form of buildings and monuments										
Quarter	Block no	Building no	Name of Owner									
Date of survey		Name of surveyor	Photos:									
A) FUNCTION	House <input type="checkbox"/>	Mosque <input type="checkbox"/>	Rabat <input type="checkbox"/>	Commercial (n°) :								
	Religious school <input type="checkbox"/>	Administration <input type="checkbox"/>	School <input type="checkbox"/>	Type :								
	Office <input type="checkbox"/>	Hotel <input type="checkbox"/>	Library <input type="checkbox"/>									
	Other:			Run by tenant (n°):								
B) OWNERSHIP	Type of property	Private <input type="checkbox"/>	Public <input type="checkbox"/>	Awqaf <input type="checkbox"/>								
	Type of tenure	Owner <input type="checkbox"/>	Multi Owner <input type="checkbox"/>	Tenant <input type="checkbox"/>								
C) OCCUPANCY (for houses and rabats)	Number of families:		Number of dwellers:									
	Business ran by dwellers :	Construction <input type="checkbox"/>	Food preparation <input type="checkbox"/>	Hair dressing <input type="checkbox"/>	Sewing <input type="checkbox"/>							
	Medical <input type="checkbox"/>	Administration <input type="checkbox"/>	Other:									
D) BUILT FORM	Building Size:	Small <input type="checkbox"/>	Average <input type="checkbox"/>	Big <input type="checkbox"/>								
	Number of floors:		Number of access points :									
E) HOUSE COMPOSITION	Number of rooms:		Number of kitchens:									
			Number of bathrooms:									
F) HOUSE TYPOLOGY	<u>Code:</u>	Layout	Style	Material								
	Traditional	1	A	X								
	Modern	2	B	Y								
	Mixed	3	C	Z								
If mixed:	Separate <input type="checkbox"/> (S)		Addition on traditional <input type="checkbox"/> (A)									
	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>									
G) BUILDING CONDITION												
Ruined <input type="checkbox"/> (R)	Partially ruined <input type="checkbox"/> (PR)	Poor structure <input type="checkbox"/> (PS)	Average <input type="checkbox"/> (A)	Good <input type="checkbox"/> (G)								
H) HOUSE MATERIALS												
Modern	Concrete blocks <input type="checkbox"/> (CB)	Concrete plastering <input type="checkbox"/> (CP)	Concrete structure <input type="checkbox"/> (CS)	Industrial paint <input type="checkbox"/> (P)								
	Red clay bricks <input type="checkbox"/> (RB)	Metal <input type="checkbox"/> (M)	Tiling <input type="checkbox"/> (T)	Industrial Wood <input type="checkbox"/> (W)								
Traditional	Yagur bricks <input type="checkbox"/>	Noura <input type="checkbox"/>	Wood <input type="checkbox"/>	Other:								
I) MODERN ELEMENTS												
San'a' style openings <input type="checkbox"/> (S)	Has balconies <input type="checkbox"/> (B)	Metallic cover <input type="checkbox"/> (MC)	Metallic doors <input type="checkbox"/> (MD)									
J) TRADITIONAL ELEMENTS												
	Qabal	Dara	Ground floor	Moraba1	Moraba2	Mabraz	Liwan	Soffa	Room	Other		
Check if			Check if									
Fence deco			Ext. deco									
Well			Int. deco									
Jamlul			Ceiling									
Tree			Wood deco									
Stairs			Doors									
Entrance deco			Other									
Other			Other									
Second floor	Saffa	Khalwa	Khalwa	Riwak	Qabi	Tijwab	Third floor	Saffa	Khalwa	Riwak	Qabi	Tijwab
Check if							Check if					
Ext. deco							Ext. deco					
Int. deco							Int. deco					
Ceiling							Ceiling					
Wood deco							Wood deco					
Doors							Doors					
Other							Other					
Other							Other					
BASIC CLASSIFICATION:			Remarks :									

General data

	Al Jiz	Al Jama	Al Iliy	Al Mujanbat	Total	Total %
Properties identified	1275	1378	1182	978	4813	100%
<i>closed</i>	23	34	178	80	315	6,5%
<i>not entered</i>	68	120	12	42	242	5,0%
<i>in progress</i>	62	19	13	29	123	2,6%
Properties recorded	1122	1205	979	827	4133	100%
<i>Houses</i>	1074	880	845	690	3489	84,4%
<i>House + shop</i>	0	30	0	7	37	0,9%
<i>shops</i>	20	256	89	98	463	11,2%
<i>Mosques</i>	19	26	10	11	66	1,6%
<i>other</i>	6	4	8	9	27	0,7%
<i>empty plots</i>	3	9	27	12	51	1,2%

Data on Houses Typology

	Al Jiz	Al Jama	Al Iliy	Al Mujanbat	Total	Total %
Typology	1208	1227	984	877	4296	100%
1AX	301	262	141	165	869	20,2%
1AZ	19	14	63	0	96	2,2%
1BX	35	44	21	7	107	2,5%
1BY	429	284	321	268	1302	30,3%
1BZ	101	49	52	25	227	5,3%
1CX	29	23	37	13	102	2,4%
1CY	0	0	0	10	10	0,2%
1CZ	130	46	133	97	406	9,5%
Traditional Layout	1044	722	768	585	3119	72,6%
2BX	1	5	1	0	7	0,2%
2BY	58	105	90	86	339	7,9%
2BZ	13	29	14	14	70	1,6%
2CX	0	0	0	1	1	0,0%
2CZ	1	0	0	0	1	0,0%
Modern Layout	73	139	105	101	418	9,7%
3AX	0	0	0	2	2	0,0%
3AY	0	0	0	1	1	0,0%
3AZ	0	0	0	4	4	0,1%
3BY	17	2	5	21	45	1,0%
3BZ	10	4	2	11	27	0,6%
3CX	0	3	0	0	3	0,1%
3CY	0	0	0	8	8	0,2%
3CZ	18	74	5	33	130	3,0%
Mixed Layout	45	83	12	80	220	5,1%
AX	29	159	16	32	236	5,5%
AZ	3	0	0	11	14	0,3%
BX	0	0	9	3	12	0,3%
BY	13	124	70	28	235	5,5%
BZ	0	0	4	8	12	0,3%
CX	0	0	0	1	1	0,0%
CY	0	0	0	11	11	0,3%
CZ	1	0	0	27	28	0,7%
No Layout	46	283	99	121	549	12,8%

b) Definitions

Architectural value

To the purpose of the building regulation, the following classification of the “architectural values” should be established on the basis of the Architectural Survey 2008, making reference to the classification by typology and the presence of traditional/modern elements:

Monumental

Building or construction with peculiar cultural meanings (historic, symbolic, religious, etc.), which displays outstanding typological and architectural features (volume and façades composition, ornamentation, materials and building techniques), and a very high degree of integrity. It could represent a landmark and/or a visual point of reference within the surrounding urban fabric. These would generally be the buildings listed in the Nomination file.

Good

Plots with building or construction whose typological and architectural features (volume and façades composition, ornamentation, materials and building techniques) still reflect at a high degree the traditions of the historic Zabid architecture. It conforms to the pattern (street alignment, adjacent building heights, etc.) and entirely fits to the historic characteristics of the urban fabric.

Ordinary

Plots with building or construction whose typological and architectural features (volume and façades composition, ornamentation, materials and building techniques) reflect only partially the traditions of the historic architecture. It conforms to the surrounding urban pattern (street alignment, adjacent building heights, etc.), and it doesn't represent a major disruption into the historic urban fabric.

Inconsistent

Building or construction whose typological and architectural features (volume and façades composition, ornamentation, materials and building techniques) contrast with the traditions of the historic Zabid architecture. It doesn't conform to the surrounding urban pattern (street alignment, adjacent building heights, etc.), and/or represent a visual intrusion into the historic urban fabric.

Categories of interventions

Restoration

According to the ICOMOS definition, it refers to the activity of returning the existing fabric of a site or building to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material. Furthermore, it means that the contribution of all periods to the site or building 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.

The requirements defined by the Draft Conservation Plan can be maintained.

Rehabilitation

This category is applied to buildings of excellent or good architectural quality, which still keep their historic typological, constructive and decorative features, with no reference to the state of repair. These buildings can be made available to the previous or to new uses, when these are compatible with the preservation of their spatial characteristics and architectural features. The building structures can be adapted to the new functional needs (inner distribution, equipment, etc.), without major changes to the volume and the building height, the articulation of spaces, the façade composition and layout, and using the same building materials and techniques.

The following criteria and prescriptions from the Draft Conservation Plan should be maintained:

La réhabilitation implique le maintien et/ou la reconstitution des caractéristiques typologiques et des éléments architecturaux et décoratifs du bâtiment, tout en améliorant ses conditions d'utilisation avec l'introduction de nouvelles installations techniques et des services, la réorganisation de la distribution des espaces intérieurs et tout autre transformation compatible, permettant une réutilisation appropriée du bâtiment.

L'intervention doit réintégrer ces transformations dans un organisme architectural cohérent, sans modifier le volume, la hauteur et le gabarit existant ; reconstituer la composition et les éléments architecturaux et décoratifs des façades sur les rues, en utilisant en principe de matériaux et de techniques constructives cohérentes avec le caractère du bâtiment historique.

Aucune intervention n'est à admettre qui implique la modification des éléments authentiques suivants :

- 1. Composition et partis architecturaux des façades, y compris type et forme des ouvertures ;*
- 2. Éléments décoratifs et finitions des façades.*

Les modifications suivantes sont admises sur la base de motivations bien fondées, sans compromettre la hauteur et l'intégrité architecturale de la façade:

- 1. Translation verticale des planchers pour permettre la création de mezzanines et augmenter la surface utilisable, sans affecter aucunement la composition des façades ;*
- 2. Modification et déplacement des escaliers ;*
- 3. Réaménagement et regroupement des structures précaires et temporaires sur les toitures, exclusivement pour le positionnement des installations techniques, à condition qu'elles ne soient pas visibles de la rue, et à une distance minimum de 3 mètres du fil de la façade.*

Upgrading

According to the ICOMOS definition, this category 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”.

This category implies the possibility to make available a building to previous or to new uses without its complete demolition, but with major changes to the previous inconsistent or damaged typological and architectural features, using new but appropriate materials and building techniques, when needed. It is applied to traditional layout buildings, which have been heavily transformed but still keep some interesting architectural feature, to any type of ordinary buildings, and also to the high-rise buildings, whose size makes unpredictable the simple demolition.

The criteria and prescriptions from the Draft Conservation Plan should be maintained.

Reconstruction

This category implies the possibility to demolished and rebuilt an existing building, respecting the land use and the typological and architectural features imposed by the Conservation and Rehabilitation plan, in order to re-establish the continuity of the historic urban fabric (volume and building height, façade composition and layout), with new appropriate materials and building techniques.

When existing buildings occupy public spaces reconstruction requires the respect of the property boundary, and any further occupation of the public land is prohibited.

Demolition

This category applies to existing building (or a part of it) to be demolished, without reconstruction or redevelopment of the land, which can be made available only for new landscape arrangements or urban infrastructure improvements.

New Building

It refers to new constructions on empty plots, according to the zoning regulations.