State of Conservation Report

for

Birthplace of Jesus
Church of the Nativity and the Pilgrimage Route

Bethlehem, January 2014
State of Palestine
The State of Conservation Report (SoC) was prepared by the Ministry of Tourism and Antiquities in close cooperation with the Presidential Committee for the Restoration of the Church of the Nativity for the Church of the Nativity, and with the Centre for Cultural Heritage Preservation (CCHP) and Bethlehem Municipality for the Pilgrimage Route and the Buffer Zone. It is worth noting that the historic town of Bethlehem is designated as the buffer zone for the World Heritage Site.

The State of Conservation for the Church of the Nativity was prepared based on the study that was conducted for the preparation of a conservation plan for the restoration of the Church of the Nativity, conducted by the consortium led by CFR (Administrative project managing - Ferrara – Italy) and managed locally by Community Development Group (CDG).

The State of Conservation for the Pilgrimage Route and the buffer zone was prepared by the Centre for Cultural Heritage Preservation through the work conducted on the "Heritage for Development: investing in people for the rehabilitation and management of historic city centres (Her4Dev)" project under the technical supervision of RehabiMed Association in Spain. Her4Dev project is a project funded by the European Commission, and is implemented in Bethlehem in association with Bethlehem Municipality.
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\(^1\) Prepared by the Ferrara University, coordinator of the Consortium
Brief Report on the State of Conservation of the Church of the Nativity

“Section I”

Prepared by:

Palestinian Presidential Committee for the Restoration of the Church of the Nativity

In cooperation with:

Centre for Cultural Heritage Preservation
I.1 - Introduction:

Since its establishment through a presidential mandate in 2008, the Presidential Committee for the Restoration of the Church of the Nativity has been responsible of providing an umbrella for the restoration works of the Church of the Nativity in Bethlehem. The Presidential Committee is responsible for:

- The follow up, management and monitoring and evaluation of the restoration works of the Church; including the surveys, assessment, design, tendering, selection of consultants and contractors, and any other task that is directly or indirectly related to the restoration works.
- Coordination between the stakeholders of the property; i.e. the Greek Orthodox Patriarchate of Jerusalem, the Armenian Patriarchate in Jerusalem and the Custody of the Holy Land.
- Coordination between all parties involved in the restoration works including the consultant and the selected contractor(s) for the implementation of the work.
- Management of the financial resources and funds including the relations with the donors, budgeting of proposed interventions and payments for the consultants and contractor(s).

In addition, the Presidential Committee for the Restoration of the Church of the Nativity is currently involved in the preparation of the Management Plan for the World Heritage Site in Bethlehem\(^2\) and shall be the representing party of all stakeholders involved in the management of the Church of the Nativity.

The design was conducted by a consortium team led by the University of Ferrara and managed locally by Community Development Group (CDG)\(^3\). The design was divided to three phases; and it included:

Phase I: Executive Summary (November 2010)
Site surveys and description and analyses of the works carried out on site, taking into consideration the methodologies and procedures adopted and the technical equipment used.

\(^2\) Refer to the section III of the report Management Plan for the World Heritage Site “Birthplace of Jesus: Church of the Nativity and the Pilgrimage Route”.

\(^3\) For detailed information about the consortium refer to Consortium Research Units.
Phase II: Study and Assessment Report (February 2011)
Processing of the data collected during the survey in laboratories for interpretation in order to identify pathologies of the main physical and structural damages and their most probable causes.

Phase III: Interventions for Conservation and Restoration (June 2013)
The results of the second stage provided the basis for all the interventions of conservation and restoration proposed in the third stage, along with a number of recommendations and technical guidelines and in agreement with the main International declarations on Restoration.

I.2 - Brief Report on the Restoration Works

December 2008: Formation of the Presidential Committee for the Restoration of the Church of the Nativity through decision number 329/2008 concerning the restoration of the roof of the Church of the Nativity in Bethlehem, and its amendment number 341/2014.4

July 2009: Advertising for the selection of a consultant for the assessment of the current situation and design and preparation of the tender documents for the proposed intervention(s).

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4 The amendment includes expanding the tasks of the committee to include the whole Church.
September 2010: Selection of the consultant for the implementation of the works, a consortium led by the University of Ferrara was selected to implement the works.

October 2011: Completion of the three design phases; the design package included: a final report, tender documents, design drawings and bill of quantities. The design phase covered the whole church.

June 2012: Finalizing the evaluation of the design and tender documents prepared by the Consortium in cooperation with Consolidated Contractors Company (CCC) and ARUP⁵.

The Presidential Committee for the Restoration of the Church of the Nativity has requested the technical assistance of ICCROM during the selection of the consultant that shall work on the design package, and during the revision of the final report that was prepared by the consultant.

January 2013: Tendering for the selection of a contractor to implement the first phase of the restoration works that include the roof and the windows.

August 2013: The tendering process were completed and a contract was signed with the winning bidder; Piacenti, to implement the works (26 August 2013).

The presidential Committee for the Restoration of the Church of the Nativity has provided the World Heritage Centre through the Permanent Delegation of Palestine to UNESCO with the selection of the contractor and the willingness of the Committee to commence with the restoration of the roofs and the windows.

September 2013: Commencement of the restoration works of the roof and windows of the Church of the Nativity; the works are expected to last for thirteen months (September 2013 – September 2014).

⁵ A British firm specialized in engineering consultancies hired by CCC to conduct the evaluation of the bids.
The first phase of the restoration works which include the roof and the windows of the Church of the Nativity is considered a major component of the corrective measures that targets the threats affecting the integrity and authenticity of the Church.

Upon the completion of these works a thorough evaluation of results of the works shall be conducted in order to consider the request to remove the property from the List of World Heritage in Danger.

I.3 - Roles and Responsibilities of the Involved Parties:

The following parties are involved in the restoration works of the roof of the Church of the Nativity in Bethlehem:

**The Presidential Committee for the Restoration of the Church of the Nativity**
The Presidential Committee is the coordinator of the project and is responsible for the management of the works.

**The Consortium Research Unit**
The Consortium Research Unit is a consortium composed of various expert groups that work together under the technical and scientific guidance of its leader, the University of Ferrara in Italy and the support of Community Development Group (CDG) the representative of the Consortium in front of the Presidential Committee the local supporting body of the Consortium.

**Piacenti – The Contractor**
Piacenti is the contractor selected for the implementation of the first phase of the restoration works which includes the restoration of the roofs and the windows. The contractor is supported by a local contracting company that facilitates its work on the ground.

The Restoration of the Roof and Windows aims at the stability of these two items and to prevent further damage to the wall mosaics and plaster due the infiltration of rainwater.

I.4 - Brief Report on the Investigation carried on 2010 and progress to the current restoration works for roof and windows

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6 Refer to the introduction for a detailed description of the role and responsibilities of the Presidential Committee.

7 For details about the consortium refer to page 4 of the “Brief Report on the Investigation Carried on 2010 and Progress to Current Restoration Works for the Roof and Windows” annexed to this report.
The Palestinian Presidential National Committee for the Restoration of the Church of Nativity

RESTORATION OF THE CHURCH OF NATIVITY

BREIF REPORT ON

THE INVESTIGATIONS CARRIED ON 2010

AND

PROGRESS TO CURRENT RESTORATION WORKS

FOR ROOF AND WINDOWS

January 14
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INTRODUCTION:

The proposal of the restoration study for the Roof of the Nativity Church was submitted in December 2009 after the Call for Tender by the Presidential National Committee in August 2009, actually the study was extended to cover the whole Church components and not only the roof. It gathers several research Units in a Consortium led by CFR (Administrative project managing - Ferrara – Italy) and composed of SCDS Pro Inc. (Laser scanning survey – Canada), LAP&T – LAAUM (Historical and Archaeological Analysis – University of Siena – Italy), Benecon (Analysis of masonry structures – II University of Naples – Italy), CNR Ivalsa (Analysis of the roof structures - Italy), SadLab – UNIFE (Structural Analysis – University of Ferrara - Italy), SSBAP (Analyses of decorated surfaces, mosaics and paintings – University of Rome “La Sapienza”), CDG (On site assistance – Bethlehem – Palestine).

After a deep and accurate evaluation process by the Committee and a subsequent negotiation the project was awarded in June 2010. The agreement between the PNA and the CFR was signed in Sept. 2nd 2010 in the presence of the Palestinian Prime Minister, the Representatives of the Armenian, Catholic and Orthodox Churches, the Minister Ziad Bandak, President of the Committee and the CFR President.

The activities were commenced in Sept. 23rd 2010 with the Laser scanning survey by the SCDS and were divided into three stages: stage I (surveys and documentations – on site investigations), stage II (studies and assessment – data processing), stage III (recommendations – conservation and restoration proposals and technical guidelines).

The first stage was completed within the first half of November and the first report was immediately submitted with the description of the analyses carried out on site, the methodologies and procedures adopted and the technical equipment used.

During the second stage all the data surveyed were processed in the Lab and interpreted in order to identify the main pathologies of the main physical and structural damages and their most probable causes. The second report was presented in Bethlehem in February 2011.

The results of the second stage provided the basis for all the interventions of conservation and restoration proposed in the third stage, along with a number of recommendations and technical guidelines and in agreement with the main International declarations on Restoration.

CONSORTIUM RESEARCH UNITS:

In the following a synthesis of each contribution is reported:
BENECON – II UNIVERSITY OF NAPLES

Benecon has provided non-destructive tests for obtaining the following required and expected information in masonry structures: location and extent of cracks, voids and defects, masonry bearing capacity, presence and source of water, moisture measurement. Surface penetrating radar and ultrasonic and sonic tomography have been applied systematically as complementary methods for locating, quantifying and characterizing deteriorated areas in masonry structures. In order to increase the efficiency of testing, pre-processing data were obtained by infrared thermography which provides water content, voids and alteration in the masonry structure. In particular, the infrared thermography produced digital photographs and thermal images to accurately identify areas of damp in the walls and floors and the sources of water ingress, whereas the surface penetrating radar and the sonic pulse velocity testing indicated the internal layout of walls and floors and identified the location of voids and cracks. Furthermore, identified anomalies or defects, as well as important internal wall components were observed by means of endoscopy inspection. The outcome of the testing is the assessment of the structural integrity with a complete mapping of damage, material heterogeneities, dampness, voids, overheated areas, deteriorated surfaces, structural decay, technological plants, crack patterns, mapping of underground structures, soil stratigraphy, material strength in compression, areas of rainwater seepage and moisture, building failures and timber structure decay.

CDG – BETHLEHEM

CDG represented the consortium in front of the Nativity Church committee conducting all coordination work with the committee and answering the committee requests, scaffolding design support, procurement of scaffolding construction contract and supervision over the implementation works. The CDG support to the teams continue after the conclusion of the onsite works by means of continuous and detailed updates of the local situation and the most urgent necessities. They looked after the execution of some onsite tests under the supervision of the coordinator, the complete shipment of the technical equipments from Palestine to Canada and Italy and the relationships among CFR and Employer, Providers and local religious Communities.

CFR – FERRARA.

The CFR staff has continuously supported the team in the formal relationships with the Employer and the Service Providers. They looked after the most urgent payments to Providers, particularly the ones
necessary to the regular progressing of the scheduled works, and the procedure for requesting the payment related to the first stage of the work.

**CNR IVALSA – FLORENCE.**

The work carried out by this Unit aimed at the evaluation of the state of conservation of the wooden windows and doors, of the wooden trusses of the central nave, aisles, the transept and the cross area, in addition to the wooden beams above the colonnades. In particular, the geometrical aspects of the trusses are checked with strict reference to the geometrical survey provided by the SCDS; the typologies, the connections of the components and the construction techniques are generally reported. The state of physical and structural decay was investigated in depth for some significant and more representative trusses and illustrated in the Tables (Truss Technical Forms) presented in the second and final report. The dendrochronological analyses carried out have shown that the woods tested date back to the second half of the XIV century and come from the North-Eastern Alps; that confirms what stated in the historical documentation about the date of the roof renovation. The general methodology for the dendrochronological analyses is described in detail (Dendrochronology) in the reports issued during 2011.

**LAP&T-LAAUM - UNIVERSITY OF SIENA.**

The unit being responsible for historical and archaeological analysis has been focused on the historical aspects and the gathering of written sources (Historical Analysis) and on the building techniques of the masonry structures and the constructive development of the whole church (Archaeological and Stratigraphic Analysis). The research work, coordinated by Prof. Michele Bacci and Prof. Giovanna Bianchi, was developed on three different, yet strictly intertwined, grounds: 1) it aimed at providing the other units with historical information being useful for the current works of investigation of the roofs and other material parts of the buildings; 2) it provided some grounds for a thorough reassessment of the historical problems underlying the site and its architectural-artistic peculiarities, starting from an analysis of the different methodological approaches applied by past scholars to the interpretation of the Nativity church; 3) it clarified some still obscure aspects concerning the construction of the whole building and its transformations in the centuries on the basis of observed constructive details and changes in materials.

**SADLAB – UNIFE**

Once defined the design seismic actions in relation to the seismic hazard of the area, the structural analyses were carried on the basis of the Structural Mechanics Principles and with the aim of the Finite Element Method (F.E.M.) wherever some numerical simulations were needed. In particular, the static
analysis concerned the following structural elements: the half-dome located in the apses of the central nave and the transept, the truss type of the lateral naves, the one of the central nave, the complex system of trusses in the cross area between transept and central nave, a portion of the external wall of the central nave and the columns underneath. With reference to this wall and to the tympanum of the façade a collapse mechanism of the so called “first kind” was defined by assuming appropriate collapse multipliers. In all the cases analyzed an accurate control of the strength of the material and of the structural reliability was performed. It is worth noting that there are not a significant crack patterns such as to be source of worries. Only small cracks were surveyed in some restricted areas, as usually occurs in masonry structures and with no significant relevance. In the end, an accurate analysis was carried out on the present paths covered by the rain water from the roof surface to the outside of the Church and the related problems were tackled. Moreover the SadLab commissioned a local Geotechnical Lab to carry out some soil investigations by drilling a borehole on the back courtyard of the Church, some Lab tests on rock specimens taken from the soil under the Church basement and some sclerometric tests on three different mortar samples. The results are reported in the related Annex.

**SCDS PROIINNOVTEC – CANADA.**

The Unit processed all the data collected during the laser scanning survey and a 3D model was obtained by assembling the clouds of points surveyed from different station points. Such a 3D model is a complete data base of measurements as each point is identified by its three space coordinates. Horizontal and vertical sections were drawn by cutting the model with horizontal and vertical planes in a number of different positions and levels. In particular, several sections of the grottoes were carried by sectioning the clouds of points with parallel planes. That allowed giving an exact and exhaustive representation of their complex geometry in relation also to the upper surface of the Church floor. The slopes of this floor are shown in detail by means of a series of vertical sections carried out with planes parallel to the main façade and at a constant distance from one another. Out-of-plane deformations of the walls of the central nave are represented in 2D by sectioning the internal surfaces with vertical planes parallel to such walls and at a very small distance from one another. A series of differently colored areas in the wall plane represents the wall sectioned portions and the out of-plane deformations. All the external 2D views are provided as well as the roof plan with the slope values of the roof surfaces.
SSIAP – UNIVERSITY “LA SAPIENZA” ROME.

The technical evaluation of the state of conservation and decay of plasters and decorated surfaces of the Church was performed in situ and in the Lab on the basis of the collected data and the samples taken. In particular, the investigations consisted of visual analyses and macroscopic descriptions of the whole area and some sample areas in detail, visual analyses and macroscopic descriptions of the previous restorations, partial physical, chemical and morphological characterizations of the sample areas by means of onsite tests, partial morphological characterization of the wall mosaics by visual analyses and photos, microscopic description of samples by digital microscope, spectrophotometric analyses of the colors of mosaics, paintings and surface treatments due to previous restorations, characterization of the constituent materials and the causes of alteration. All these investigations led to the recognition of materials, to the evaluation of the status of conservation, and degradation of the decorated surfaces and plasters. The results obtained allow qualitative and quantitative interpretations. The analyses are supported by photographs, graphics and spectrophotometric data.

The following charts represent the consortium units and the project phases:
INVESTIGATION’s 2011 CONCLUSION

Structures of architectural heritage, by their very nature and history (material and assembly), present a number of challenges in diagnosis and restoration that limit the application of modern legal codes and building standards. Recommendations however are desirable and necessary to both ensure rational methods of analysis and repair methods appropriate to the cultural context. These Recommendations are intended to be useful to all those involved in conservation and restoration problems, but cannot in anyway replace specific knowledge acquired from scientific and technical texts.

Principles for the preservation of the historic timber structures are particularly highlighted both in the final report dated July 2011; general introduction and in the section dedicated to the timber structures just to stress the importance of such structures in the project and the need for a prompt intervention.

State of Conservation and present conditions of decay at time of investigations for plasters, mosaics, timber elements and other investigated church components are clearly described in details in final report.

The specific guidelines for conservation, restoration and maintenance, containing the rules and methodology that a designer should follow in each field of intervention, are provided by each Unit of the team, according to its own scientific and technical competence, i.e. roof wooden structures and other wooden elements (architraves, windows, doors), masonry structures, structural stability, mosaics, plasters, paintings, rainwater drainage system. Such guidelines are referred to Italian, European and International Codes in general.

Such guidelines are made more explicit and understandable by means of a number of significant interventions chosen among the ones representing the whole set of damage pathologies and technical problems encountered. Of course the proposed solutions have to be meant just as technical suggestions to the Technicians and Professionals who will deal with the actual conservation and restoration process and, in this way, they want to indicate possible methodologies and procedures to follow in agreement with the standard technical Codes and the universally accepted regulations on conservation and restoration. There is the hope that these technical proposals may be the basis for a fruitful debate within the whole community interested to the restoration of the Church. There is also the hope that they will enable local stakeholders and providers to evaluate the possibilities to use local resources in terms of materials, technical equipments and workmen. That would be extremely important to the improving of the technical knowledge and the growing of the awareness of the importance of the local cultural heritage.

In the report the importance of a monitoring and maintenance policy, during the restoration works and after they have been completed, is also underlined. Structural observation over a period of time may be necessary, not only to acquire useful information when progressive is phenomena suspected, but also during a step by-step procedure of structural renovation. During the latter, the behaviour has to be monitored at each stage (observational approach) and the acquired data have to be used in order to provide the basis for any further action.

Without preventive maintenance, small problems with monuments can quickly grow into critical issues. Monitoring is crucial for preventive conservation but it is often overlooked due to the lack of a simple, straightforward process.

With the exception of calamities (such as fire, earthquakes, war, etc.) buildings generally decay gradually over time. Major problems and damage are often the result of minor issues or failures that were not discovered or taken care of in due course. It is common knowledge that regular attention and maintenance can slow down the process of decay (or even partially prevent it). But regular maintenance requires
accurate records and up-to-date knowledge of the condition of the building (monitoring) and its “needs”. This is in itself a considerable task for the owners or administrators of the building.

As recommended in the final report, an inspection database or maintenance guidebook has to be set up to contain all the inspection data collected and to define a maintenance program. This programme, or maintenance guide, which will be consulted before any action upon the building, will both keep a record of the risks and construction defects, and plan preventive or corrective maintenance works in order to limit damages and great spending in heavy restoration or maintenance operations.

As stressed in report, the project can be a good opportunity for an active exchange of ideas and opinions on new approaches to education and training among national Institutions and at international levels. Collaborative network of individuals and institutions is essential to the success of this exchange. These institutions can have an important role in raising visual and cultural awareness - improving ability to read and understand the elements of the local cultural heritage - and giving the cultural preparation needed by candidates for specialist education and training. Short and long-term courses for continuing professional development may be organized before and during the restoration works of the Church in order to enlarge attitudes, help introduce concepts and techniques of conservation in the management of the historical site. Such courses should be multidisciplinary with core subjects for all participants and optional subjects to extend capacities and/or to fill the gaps in previous education and training. To complete the education and training of the attendants an internship is recommended to give practical experience.

In the end, it is important to underline that adherence to the international charters and conventions developed for conservation of mankind cultural heritage implies an assumption of responsibility from everybody, regardless of nationality, culture and political belonging. The responsibility for cultural heritage and the management of it belongs, in the first place, to the cultural community that has generated it, and subsequently to all those who care of it.

All recommendations, principles, and guidelines will be followed to ensure the inclusion of the Nativity Church, and the city of Bethlehem as historical locations on the World Heritage List.

**PHASE I: ROOF AND WINDOWS RESTORATION – PROGRESS REPORT**

Currently, the roof and its wooden structures are in precarious conditions and need strong interventions of conservation and restoration such as to guarantee there stability and to prevent further damages to wall mosaics and plasters in consequence of rainwater infiltration; the wall mosaics are mostly detached from
their support as well as large parts of plasters; despite the general good conditions of the masonry structures. Moreover, all the drainage system has to be deeply renovated as well as all the set of the upper level windows.

As an emergency action, the committee has awarded “Piacenti spa” the contract of Phase I: Roof and windows restoration on July 25, 2013 since their submitted tender proposal on June 14, 2013 got the higher scores in both technical and financial offers throughout a competitive international bidding process of a total price of 1,925,707.57 Euro.

On August 26, 2013 an agreement has been signed between The Palestinian Presidential National Committee for the Restoration of the Church of Nativity – Bethlehem, as “Employer” and Piacenti S.p.a. – Italy as the “Contractor” in the presence of his Excellency Prime Minister Dr. Rami Al-Hamadallah and representatives of the three churches. Time for completion of the Works is 12 Months and start date is September 15, 2013.
EXTERNAL STORAGE AREAS

As it was planned and after coordination with the churches, two areas in the external square in front of the church were furnished as temporary storage areas for the materials and equipments to be used for the restoration works. Upon arrival of the scaffolding shipment from Italy, storing of the scaffolding elements was started and then been transferred inside the church in areas prepared for that purpose and then starting the assembling works to reach the required level. (Refer to Figure. 1 the green and orange areas)

The storage area was closed by using wooden fence covered with label taking the same shape as the external stone wall also the stone floor tiles were covered with Non-Woven fabric and wooden panels to preserve the tiles to be protected from any damage.
Figure 1
PROTECTION OF COLUMNS AND ARCHITRAVES:
Before starting the assembly work for the scaffolding inside the church the contractor protected the columns of the church using a special layer of geotextile with vertical wooden rods to achieve the maximum protection level (Refer to Fig. #2).

Prior protection works, dilapidation survey was performed to capture all existing conditions of the church elements including columns, floor, walls, mosaics, paints ... etc by high quality still photos and video so that existing site condition can be easily and accurately defined and determined.

![Figure 2](image-url)
ASSEMBLING THE INTERNAL SCAFFOLDING:

After the completion of the protection works for the columns and the architrave beam, assembling of the scaffolding started at the central nave area keeping proper spaces for the safe movements of pilgrims and visitors. Actually; this type of scaffolding is the first time used in the region which allows a high flexibility in assembling. The proposed scaffolding includes two platforms, the lower level form a protection platform and the upper platform forms a floor for the restorers to work at the level of the wooden structures of the church. (Refer to Fig.#3)
PROTECTION OF THE WALL MOSAICS:
By the completion of the scaffolding platform at the windows level, the contractor becomes able to start installing temporary protection system for the wall mosaics using special materials and wooden cover to avoid any damage during the restoration works (Refer to Fig. #4).

Figure. 4

TEMPORARY ROOF STRUCTURE:
After dismantling the existing wooden windows which are intended to be replaced by new ones, the contractor starts working on the assembly of the roof structure at the central naves and aisles which is
supported by the internal scaffolding through the windows. A layer of special PVC will be installed on the roof structure as a protection from the rainwater during the restoration works as part of the church roof materials will be removed to allow for the evaluation of the roof condition and start the intervention according to the tender documents.

![Scaffolding](image1)

![Scaffolding](image2)

![Scaffolding](image3)

![Scaffolding](image4)

Figure. 5

**DETAILED WOOD EVALUATION:**
Starting from December 2, 2013 until December 11, 2013 wood experts have evaluated the current condition of the existing wooden structure supporting the roof and performed several nondestructive tests to provide information regarding geometry, dimensions, characteristics of connections, wood species, humidity and class of mechanical quality of the wood to prepare the design and shop drawings with respect to the tender documents.
ROOF RESTORATION WORKS:

Currently the contractor is working on the preparation works for the first prosthesis and providing the required supporting system needed for the wood intervention.

The wooden pieces that will be used in the interventions of the roof structure are already gathered, tested and shipped from Italy. The shipment is already arrived to Bethlehem.

Additionally, the proposed different locations of the tower crane are under evaluation. The crane will be used for lifting and loading/unloading of the materials related to the restoration works.
Brief Report on the State of Conservation of the Pilgrimage Route

“Section II”

Prepared by:

Ministry of Tourism and Antiquities

in cooperation with

Bethlehem Municipality and Centre for Cultural Heritage Preservation
II.1 - Introduction:

The assessment of the buildings along the Pilgrimage Route and the Buffer Zone was conducted between September 2012 and March 2013; each building was assessed individually, in order to prepare the "Bylaws for the Conservation of the Architectural Heritage in Bethlehem and for the Categorisation of Cultural Heritage Zones and Individual Buildings".

The assessment of the state of conservation included (1) the external structure - the walls, windows and doors; (2) the internal structure - floors, ceilings and internal finishing; (3) the structural condition; (4) the general status of the building; and (5) the hygienic condition of the building. The assessment also indicated the use of the buildings including the unused buildings, and the newly added additions to the building.

An assessment of the values of the buildings was also included in the study. The assessment took into consideration five important elements that contribute to the value of the buildings; it included (1) the historical value; (2) the social value; (3) the aesthetic value; (4) the authenticity; and (5) the location and surroundings. The Pilgrimage Route is 734 metre in length, and an approximate surface area of 3740 square metre. The total area of the elevations that compose the edges of the street is approximately 9640 square metre.

The Majority of the buildings along the Pilgrimage Route (68%) date back to the late Ottoman Period - early nineteenth to early twentieth century, while only few of them (7%) date back to the British Mandate Period (1917-1948); the remaining were constructed during the Jordanian Jurisdiction Period or after it. More than half of the buildings (52%) are residential, and almost all of them contain of shop-cells at the street level. 14% of the buildings are not in use, and the majority of the shops are not open.

II.2 - State of Conservation of the Pilgrimage Route:

Based on the surveys conducted between September 2012 and March 2013 on the physical status of the buildings along the Pilgrimage Route, the following was registered:
II.3 - Proposed Projects along the Property:

A. Rehabilitation Projects

A rehabilitation project of the Pilgrimage Route was implemented in 1999 during the "Bethlehem 2000 Project"; the rehabilitation project has contributed to lifting the physical conditions of the Route. In order to contribute to the revitalization of the Route, Bethlehem Municipality is currently working with the various stakeholders, namely the Centre for Cultural Heritage Preservation and the Ministry of tourism and Antiquities on several project. These project aim at the rehabilitation of the route, enhancement of tourism, and promotion of the property; they include:

- Improvement of the street-lighting network along the Pilgrimage Route.
  
  Expected date of completion: April, 2014

- The rehabilitation of *Hosh Abu-Jarour*, an abundant building along the route, and adapting it for the reuse of Bethlehem Icon School. The Icon School aims at re-introducing the production of Melkite Icons in Bethlehem. The Building shall also house an exhibition of icons and a visitors’ information centre.

  Expected date of completion: July, 2014

- Rehabilitation of stairways that connect the Pilgrimage Route with the Manger Street; the main street in Bethlehem, and other parts of the historic centre of

<table>
<thead>
<tr>
<th>Status</th>
<th>Very good</th>
<th>Good</th>
<th>Moderate</th>
<th>Poor</th>
<th>Very Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>External structure</td>
<td>20%</td>
<td>31%</td>
<td>48%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Internal structure</td>
<td>10%</td>
<td>55%</td>
<td>34%</td>
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<td>Structural condition</td>
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<tr>
<td>Overall condition</td>
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<td>Natural ventilation</td>
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<td>Natural Lighting</td>
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<tr>
<td>Surrounding Environment</td>
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</tbody>
</table>
Bethlehem; the project aims at creating accesses to the route and thus contributes to its revitalization.

Expected date of completion: July, 2014

- Rehabilitation of the Catholic Action Road: this project shall enable the visitors of Bethlehem to arrive at the entrance of route and experience the walk through it to the Church of the Nativity and thus enhance their pilgrimage to the birthplace of Jesus.

Expected date of completion: October, 2014

- Rehabilitation of Bseileh stairway and parking for the use of the inhabitants of the Pilgrimage Route near the Manger Street and thus providing them with a secure parking which shall contribute to removing the parking spaces from the route.

Expected date of completion: November, 2014

- Installation of signage and information panels throughout the property.

Expected date of completion: August, 2014

- Promotional activities: a list of promotional activities shall be designed and implemented in order to improve the experience of the visitors to the site; providing free internet access throughout the property, constructing a website, conducting training courses and workshops for local tour guides about the property and establishing/organizing a calendar of the annual events.

Expected date of completion: September, 2014

An awareness campaign shall accompany the implementation of the proposed activities in order to involve the local community in the rehabilitation process, and to raise their awareness about their responsibilities towards the site.

B. Conservation and Management Plans

In addition, the stakeholders are proceeding with the preparation of a conservation and management plan for the site. The works are being implemented by the Centre for Cultural Heritage Preservation in association with Bethlehem Municipality and the Ministry of Tourism and Antiquities, under the technical guidance of RehabiMed Association through Heritage for development Project (a project funded by EU). Upon the completion of the project, the following shall be achieved and adopted:
1. **Bylaws for the Protection of the Architectural Heritage in Bethlehem: Bethlehem Historic Centre and Individual Traditional Buildings throughout the Town**

   The final draft of the bylaws has been approved by the municipal council and shall be advertised in the Official Gazette during the first week of February in order to proceed with their adoption. The Bylaws aim at setting proper intervention strategies in order to preserve the architectural value of the historic centre taking into consideration its authenticity and integrity.

2. **Manual for the Rehabilitation of the Historic Centre of Bethlehem**

   The Manual aims at setting guidelines for Bethlehem Municipality and professional working in the field of rehabilitation with a tool for the rehabilitation. The manual is considered as an essential part of the bylaws and shall be also adopted by the Municipality.

3. **Management Plan for the World Heritage Site “Birthplace of Jesus: Church of the Nativity and the Pilgrimage Route”**

   The management plan is being currently prepared by the Centre for Cultural Heritage Preservation in close cooperation with the various stakeholders, namely Bethlehem Municipality, the Ministry of Tourism and Antiquities and the Presidential Committee for the Restoration of the Church of the Nativity in Bethlehem. The ‘Management Plan’ is expected to be finalized by March 2014.

   The ‘Management Plan’ shall cover the following aspects:

   - Presentation of the site and its values;
   - State of the property: including the social, urban, environmental and economic context;
   - Strategic objectives of the plan;
   - Management principles and their implementation: including the legal and institutional frameworks;
   - Participation, public awareness and communication;
   - Proposed action plans: including the protection and enhancement of the built heritage, urban management, tourism development and control, signage, housing improvement, traffic control and any other actions that shall contribute to achieving the objectives of the plan; and
   - Evaluation, monitoring and agenda for updating the plan.
Note:


Hosh Abu-Jarour

External elevations

Internal courtyard

Rehabilitation of Public Stairways

Kattan Stairway

Bus Station Stairway
Rehabilitation of Bseileh Stairway and Parking

Access from the Manger Street to the Pilgrimage Route through Bseileh stairway

Rehabilitation of the Catholic Action Road

Kattan Stairway

Bus Station Stairway
Map of the proposed rehabilitation projects along the Pilgrimage Route.
Map of the site