

# **ASSESSMENT ON CULTURAL AND ARTISTIC HERITAGE IN BETHLEHM**

## **May 14<sup>th</sup> 2002**

### **Introduction**

Recent events in West Bank, including the long siege to the Church of the Nativity complex, aroused to serious damages to the cultural heritage already exhausted by long negligence. Ancient town centers, and many special sites as the Nativity, already fragile due to lack of conservation and ordinary and extraordinary maintenance, proved to be seriously at risk during the last Israeli military action.

Military attacks, concentrated around the Church of the Nativity complex, highlighted the vulnerability of the site and how much the risk for the future of cultural and historical heritage in Palestine is underestimated. Until now no measures have been undertaken to protect and safeguard this site, important at global level for its religious, historical and artistic symbolism, as for other priceless sites.

Systematic precautions had been taken in Europe since long time, during the last world conflicts, to prevent important property to be damaged by possible battles or incursions. Cultural property had been documented, consolidated and even removed from the dangerous areas. In Palestine, besides the fact that the area is under military pressure since months, and besides the huge cultural and religious value of the existing heritage, at risk even if not directly involved in military actions, nothing has been done until now.

### **Historical background**

The Church of the Nativity is a colossal stone edifice, looking as a Crusader fortress, dominating the eastern side of Manger Square. It is one of Christianity's oldest and most sacred buildings. The huge ecclesiastical complex contains two churches, a series of underground chapels and three monasteries, the Franciscan (northeast), the Greek (southeast) and the Armenian (southwest). Over 12.000 m<sup>2</sup> of Christian constructions, all encased behind a 14m-tall wall.

The building of the church, celebrating the Grotto of the Nativity, the traditional site of Jesus' birth, was built on request of Helena, mother of Emperor Constantine, over the cave venerated by local Christians. Since then the church has been destroyed only once (during the Samaritan revolt of 528 CE). The present church is still the one restored by Byzantine emperor Justinian (527-565). Both the Persian and the Muslim invaders in the VII century left the building unscathed. The Crusaders carried out the first major restoration of the church.

The present Basilica is a rectangle, 53,9 m. long, the nave is 26,2 m. wide, and the transept 35,82 m. It is divided into five aisles by four rows of monolith pillars of local red stone. Above each colonnade is a wooden architrave, which supports in the side aisles the joists of the roof, and in the central nave two walls upon which rest the beams of the roof. The present ceiling, of the 14<sup>th</sup> century, was restored in 1842. In it are the bare beams. The roof is covered with lead. The original nave's decorations lie mainly underneath the trapdoors in the 19<sup>th</sup>-century floor, where there are remnants of the original Byzantine floor. Also very interesting, though in a terrible state of repair

even before the military attack, are the mosaics, which decorated the Basilica in the 12<sup>th</sup> century in the main central aisle. The fragments still visible on the south side wall show several busts of the forebears of Jesus in the lower part, and in the upper part, two long inscriptions summarizing the Decrees of the Ecumenical Councils of Constantinople. On the north side wall there are represented the churches of Antioch and Sardica. Up to the windows, the 7 Generals Councils on the south wall and the provincial Councils in the north side. Between the windows, angels turned towards the grotto of the Nativity. A few remnants can be seen in the transepts, among which the Triumphal Entry of Jesus.

The texts of the councils were drawn up at the same time in Latin and Greek. This testifies an essential unity in regard to dogma in 1169, when the decoration of the church was brought to an end by Ephraim, as it is shown by the inscription in Greek and Latin still legible in the periphery of the apse of the Choir. Upon the columns a number of Saints are executed by “encaustic method”, with burnt-in wax colors.

Following the statu quo of 1852, the present basilica belongs mainly to the Greek orthodox and parts are reserved to Catholics and Armenians.

Two doors lead out of the transepts. One in the north apse leads to the Church of St. Catherine, under Franciscan rule, the other in the south apse opens on the courtyard of the Greek convent, on the east side of which can be seen the lower part of the 12<sup>th</sup> century bell tower.

### **Recent surveys and interventions of conservation**

There is no overall diagnosis of the present condition of the complex, where to recognize in particular the conditions of bearing structures and roof, that already at a glance, shows severe problems of deformation and water infiltration and leaking along the basilica walls.

The last serious survey goes back to 1934 when, under British Mandate, Mr. William Harvey was appointed to recognize the state of affairs of the Basilica and to determine the nature of the structural repairs that were needed. Mr. Harvey wrote a Report that was published by Oxford University Press in 1935 as “Structural Survey of the Church of the Nativity”. In the survey Mr. Harvey urged measures of repairs in the rock grottoes, in the narthex, in the walling and internal colonnades, in the roof, in the floor, in the windows.

But the only intervention conducted after the Survey was the cleaning of the wall mosaics, done by Mr. Kuhnel at the beginning of 1980'. From documentation does not result that consolidation works have been carried out in that occasion.

*“During the centuries a process of progressive deterioration has obliterated the gay and lively character given to the Church in the twelfth century by coloured mosaics on a gold ground, by marble slabs on walls and floor, by painted columns, by coloured windows, and by other decorations. This process of deterioration has so affected the structure itself as to have, on more than one occasion, brought important parts of it to the verge of collapse. ... The dangers and the inconveniences can no longer be met by patchwork.”* wrote Mr. Richmond, director of the Department of Antiquities in Palestine, in the Introduction of the Structural Survey of Mr. Harvey. But no serious repairs have been carried out during the last century and conditions could only get worst.

## Damages occurred during recent military events

On May 14<sup>th</sup>, 2002, an assessment of damages in the Church of Nativity complex has been carried out. From the assessment following damages emerged, divided by areas:

### 1. Franciscan convent:

#### 1.1 Upper hall at the entrance of Franciscan convent:

The hall is in the northwest area of the complex. The bearing structure of the hall is in reinforced concrete. There is also a kitchen. Total surface is 150 m2. Damages have been caused by a fire and by bullets. Pavement, plaster, frames, doors, electric system, lighting system and painting have suffered damages.

External stone façade is blackened by smoke.

Type of work	Unity	Cost per unity in US\$	Q.ty	Total cost in US\$
<b>1. Franciscan Convent:</b>				
<b>1.1 Upper hall</b>				
Cleaning dump from fire	job			1000
External wall cleaning	m2	4	80	320
Damaged plaster removal	m2	3	340	1020
Cement mortar plastering	m2	6	340	2040
Pavement	m2	37	150	5550
Kitchen and bath tiles removal (including taking away the dump)	m2	4	32	128
Kitchen and bath tiles covering	m2	26	32	832
Wooden door for bath and kitchen	unit	240	2	480
Glass for metal windows	m2	15	28	420
Kitchen cabinet and furniture	m2	150	5	750
Aluminum double glass windows	m2	140	13	1820
Electrical installation (maintenance for the main line, lighting points, power points, telephone points)	job	Lump sum		3800
Lamps supply	unit	100	8	800
Mechanical installation for kitchen and bath	job	Lump sum		1100
Sanitary furniture for bath	unit		1	350
Marble works for windows	m2	34	10	340
Hall and staircase painting	m2	4	245	980
Metal windows and handrails varnishing	job	Lump sum		1500
<b>Sub Total</b>				<b>23230</b>
Contingencies 25 %				5807.5
<b>Total</b>				<b>29037.5</b>



**Hall façade of Franciscan Convent**

## **1.2 Church of St Catherine and cloister of St. Jerome**

The courtyard forms the centerpiece of the Franciscan monastery, the oldest in the complex, dating back at least at Crusaders time. Over a basement on the façade of the church, the statue of the Madonna has been shot by several bullets in various spots. The marble statue goes back to 1908. The bullets damaged the statue in five spots on the upper part, creating a black patina around the shots. Part of the marble came off.

<b>Type of work</b>	<b>Unity</b>	<b>Cost per unity in US\$</b>	<b>Q.ty</b>	<b>Total cost in US\$</b>
<b>1.2 Church of St Catherine</b>				
Cleaning and restoring statue	job	lump sum		2000
<b>Sub Total</b>				<b>2000</b>
Contingencies 25 %				500
<b>Total</b>				<b>2500</b>



**Statue on St. Catherina Church façade**

## 2. Greek convent:

In southeast area of the complex, the Greek convent has been damaged in various levels:

### 2.1 Medium floor

In medium floor the damage is light, just some problems at the electric system and broken glasses in northern and southern windows and glass door.

A double cross-vaulted room suffered a missile shot that damaged window frames. The missile hit the starting of the arch in the cross vault and caused a 20-cm hole. Splinters damaged also the plaster and painting.



**Greek convent: room in medium floor**

Type of work	Unity	Cost per unity in US\$	Q.ty	Total cost in US\$
<b>2. Greek Convent:</b>				
<b>2.1 Medium floor</b>				
Glass for windows and glass door	m2	20	6	120
Maintenance for electrical system	job	lump sum		500
Metal double glass window	m2	160	1.2	192

Cross vault conservation	job	lump sum		800
Damaged plaster repairing by lime mortar and conserving the original parts	job	lump sum		1500
<b>Sub Total</b>				<b>3112</b>
Contingencies 25%				778
<b>Total</b>				<b>3890</b>

## 2.2 Upper floor

Three rooms and one staircase in the upper level caught fire. Two are in severe conditions, one medium. Damages by fire did not hit the structure and concerned wooden doors, handrails, plaster, pavement, windows, paint and varnish. In one of the room an ancient painting and furniture have been damaged.





**Greek convent: room in upper floor**

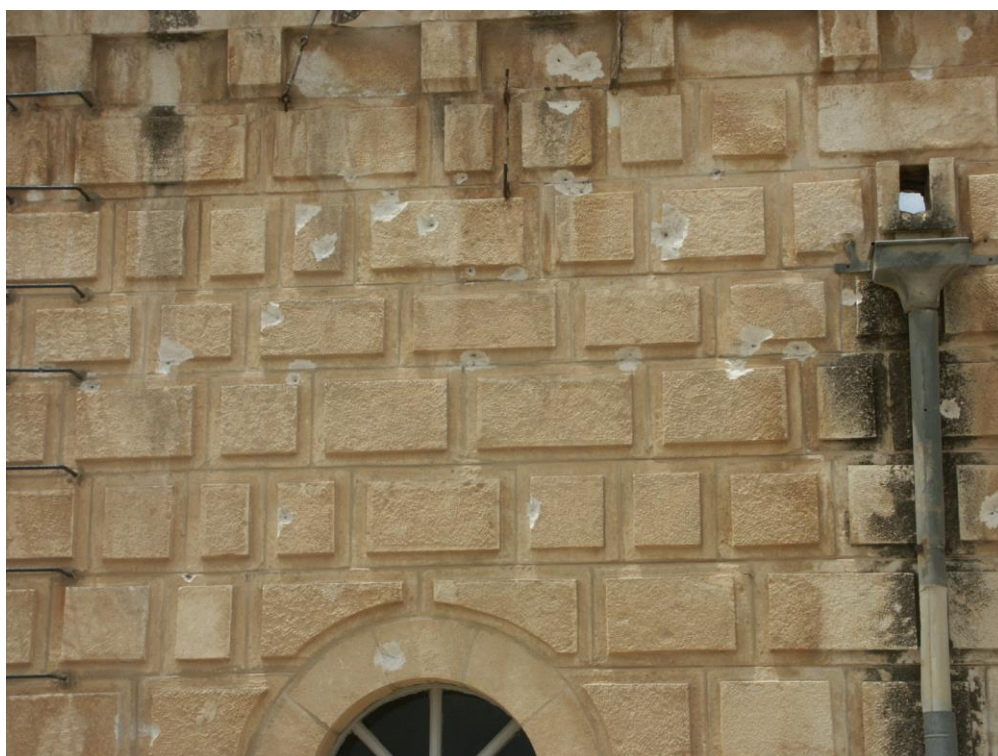
Type of work	Unity	Cost per unity in US\$	Q.ty	Total cost in US\$
<b>2.2 Upper floor</b>				
Cleaning dump from fire	job	lump sum		1200
Damaged plaster removal	m2	3	200	600
Lime mortar plastering	m2	10	200	2000
Pavement	m2	37	130	4810
Wooden door	unit	520	4	2080
Metal double glass windows	m2	160	8.5	1360
Electrical installation (maintenance for the main line, lighting points, power points, telephone points)	job	lump sum		4100
Lamps supply	unit	100	10	1000
Rooms and staircase painting	m2	4	200	800
Metal windows and handrails varnishing	job	lump sum		1300
<b>Sub Total</b>				<b>19250</b>
Contingencies 25%				4812.5
<b>Total</b>				<b>24062.5</b>

### **2.3 Third level façade**



External southern and eastern façades of the tower suffered shots creating 3 to 5 cm deep holes with 3 to 10 cm diameters. The shots are scattered all over the façades. In the northern-eastern angle of the tower, one of the stones shaping a porthole is damaged.

Type of work	Unity	Cost per unity in US\$	Q.ty	Total cost in US\$
<b>2.3 Third level façade</b>				
Estimated repairing of the shots where necessary	job	lump sum		2200
Restoration of Porthole window stone	job	lump sum		250
<b>Sub Total</b>				<b>2450</b>
Contingencies 25%				612.5
<b>Total</b>				<b>3062.5</b>



Greek convent external façade

## 2.4 Forth level façade

Bullets have also shot the external façade at forth level creating 3 to 5 cm deep holes with 3 to 10 cm diameters.

Type of work	Unity	Cost per	Q.ty	Total cost
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		unity in US\$		in US\$
<b>2.4 Forth level façade</b>				
Estimated repairing of the shots where necessary	job	lump sum		1500
<b>Sub Total</b>				<b>1500</b>
Contingencies 25%				375
<b>Total</b>				<b>1875</b>

### 3. The church of the Nativity

#### 3.1 Intervention on suffered damages

It is very difficult to assess damages suffered by Crusaders mosaics without drawing nearer. The church guardians showed us two points that have been hit. The first one is in the central nave, in the north wall, where one of the angels looking towards the grotto has been shot by a bullet, which took off part of the mosaic surface. The other damaged mosaic is the “Triumphal Entry of Jesus” in south transept. Bullets shot the mosaic between the head of Christ and the head of an apostle.

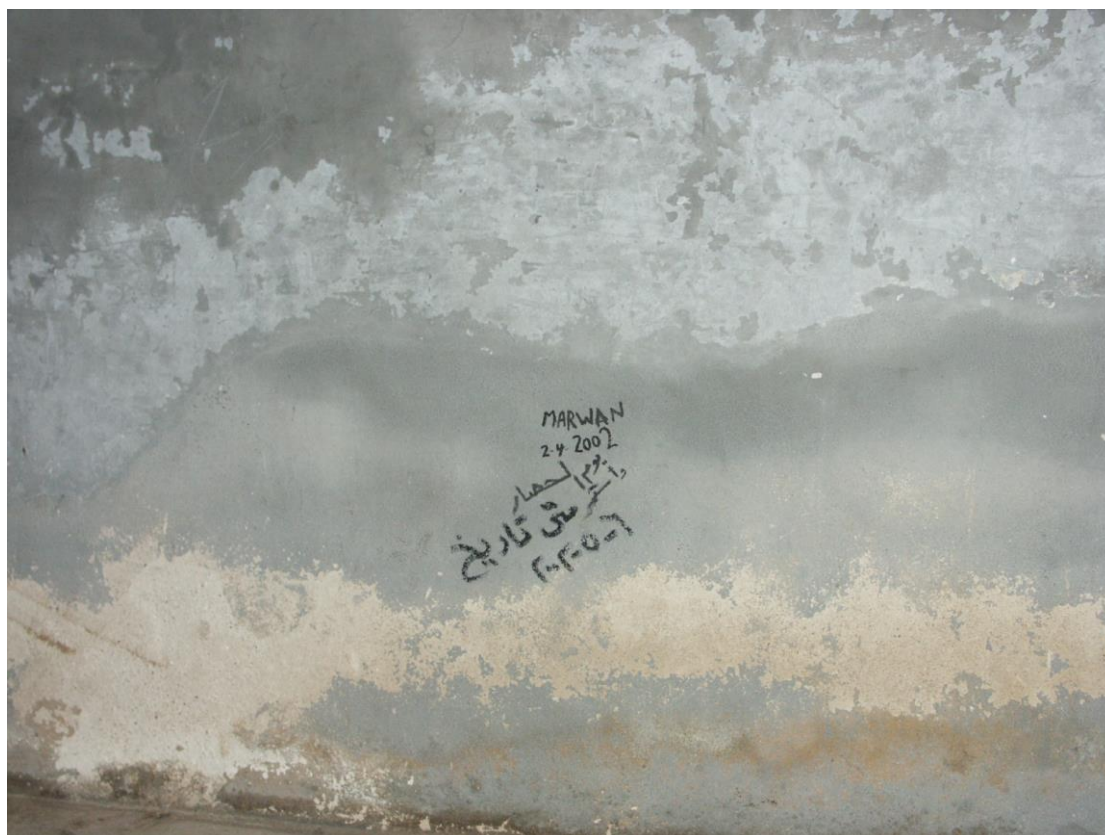


**Church of the Nativity transept mosaic**

Several bullets shot the lead roof. The roof, due to its severe condition, has been covered by sheets of liquid tar.

The long staying of so many people inside the church caused dirt and various damages to the walls.

The external upper façade of central nave, in the northern part, has been shot by bullets. Shots create 3 to 5 cm deep holes with 3 to 10 cm diameters and broke two windows glasses.



Recent graffiti on the wall of the Church of the Nativity

Type of work	Unity	Cost per unity in US\$	Q.ty	Total cost in US\$
<b>3.1 Intervention on suffered damages</b>				
Mosaic restoration	job	lump sum		6500
Temporary repair of roof	job	lump sum		700
Cleaning and painting walls	job	lump sum		1200
Restoration of external façade	job	lump sum		2500
<b>Sub Total</b>				<b>10900</b>
Contingencies 25%				2725
<b>Total</b>				<b>13625</b>

### 3.2 Monitoring, control and documentation



As already state it has not been possible, during the present assessment, to draw up near some of the areas in the Church of the Nativity to check their conditions in a satisfactory way. This concerns especially the roof and the wall mosaics.

Moreover some of the decoration of the Church (such as the mosaics over the walls and the encaustic paintings over the columns) need a careful check done by professionals in the specific field to verify if some damages are not visible at a glance. We urge the importance to conduct an activity of monitoring and control, also with the help of simple tools, in these areas.

Type of work	Unity	Cost per unity in US\$	Q.ty	Total cost in US\$
<b>3.2 Monitoring, control and documentation</b>				
Monitoring and control	Lump sum			25000
<b>Total</b>				<b>25000</b>



**Roof in the Church of the Nativity**

### 3.3 Emergency interventions for the state of conservation

The assessment witnesses the severe vulnerability of the site. The Church of the Nativity has a priceless value both historically than religiously. It is now at risk of damages caused by geophysical and geo chemical activities, weather phenomena, human activities such as military actions, fires, site use.

It is necessary to safeguard the Church of the Nativity and to prevent further damages by emergency interventions.



**Detail of damages on the roof of the Church of the Nativity**

Type of work	Unity	Cost per unity in US\$	Est. Q.ty	Total cost in US\$
<b>3.3 Emergency interventions</b>				
Conservation and consolidation of bearing structure of wooden roof and covering remaking	m2	650	3067	1993550
Conservation, consolidation and cleaning of wall mosaics	m2	1500	50	75000
Conservation, consolidation and cleaning of encaustic paintings	job	lump sum		60000
Consolidation and protection works over bearing structure and façades	job	lump sum		100000
Alarm and fire proof systems	job	lump sum		50000
Windows restoration	job	lump sum		20000
<b>Total</b>				<b>2298550</b>

### 4. Beit Jala

#### 4.1. Mashrabije (Balcony)

It is situated in a building in the old city of Beit Jala, in front of the Gilo settlement. It is very particular in its kind. It is composed by three arches in the front façade and one arch in each side façade. Its state of conservation is very bad. It supported damages in various parts by bullet shots.

Type of work	Unity	Cost per unity in US\$	Q.ty	Total cost in US\$
<b>4.1 Mashrabije</b>				
Consolidation, reconstruction, cleaning works	job	lump sum		2500
<b>Sub Total</b>				<b>2500</b>
Contingencies 25%				625
<b>Total</b>				<b>3125</b>



Mashrabije in Beit Jala

#### 4.2 Dar Shawan



The house is located in the higher area of Beit Jala, in front of the Gilo settlement. It is very particular. It has been built in 1917. It is rich in decoration and stone works. It suffered damages from shots in various parts of the façade. Shots created holes that reach 10-15 cm of diameter and are 7-15 cm deep. Old colored glasses of the windows have been broken. One of the statues of the main façade, the door architrave and the columns have been hit. Plaster and original painting inside two rooms have been damaged.

Type of work	Unity	Cost per unity in US\$	Q.ty	Total cost in US\$
<b>4.2 Dar Shawan</b>				
Statue head restoration	job	lump sum		1200
Door architrave restoration and consolidation	job	lump sum		600
Columns restoration and consolidation	job	lump sum		700
Shots restoration in external façade	job	lump sum		1500
Colored glass	job	lump sum		2000
Restoration and consolidation of plaster and original painting	job	lump sum		1300
<b>Sub Total</b>				<b>7300</b>
Contingencies 25%				1825
<b>Total</b>				<b>9125</b>



**Dar Shawan in Beit Jala**

<b>Area of intervention</b>	<b>Estimated cost in US\$</b>
<b>1. Franciscan convent:</b>	
1.1 Upper hall at the entrance	29,037.5
1.2 Church of St Catherine and cloister	2,500
<b>2. Greek convent:</b>	
2.1 Medium floor	3,890
2.2 Upper floor	24,062.5
2.3 Third level façade	3,062.5
2.4 Forth level façade	1,875
<b>3. The Church of the Nativity</b>	
3.1 Intervention on suffered damages	13,625
3.2 Monitoring, control and documentation	25,000
3.3 Emergency interventions	2,298,550
<b>4. Beit Jala:</b>	
4.1 Mashrabije	3,125
4.2 Dar Shawan	9,125
<b>Total</b>	<b>2,413,852.5</b>

**Note:**

Estimated costs concern repairs of building structure and materials. Furniture is not included. It is obvious that costs concern the estimated of repairs but it should be considered that cultural heritage is priceless.