Conservation plan for Umm El 'Amad Basilica at,

The Archaeological Site of Gweilbeh (Abila)

خطة لترميم كنيسة أم العمد في موقع قوبلة الأثري (أبيلا)

By:

Woroud Gassem Mohammad Samarah

Bachelor Degree in Modern Languages

Yarmouk University 1993

Thesis submitted in partial fulfillment of the requirements of the degree of

Master of Archaeology Department in the Faculty of Archaeology and Anthropology /

Yarmouk University.

Irbid/ Jordan.

Thesis defense committee:

Prof. Dr. Ziad Al-Sa'ad. Supervisor
Yarmouk University

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Prof. Dr. Safwan Al- Tall. Member
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Abstract

This research deals with one of the most important issues regarding the cultural heritage, which is the deterioration and reconstruction of Umm El- 'Amad Basilica as an important structure in Gweilbeh one of our important sites in Jordan.

Many conservation works have been done in the Basilica but unfortunately, there was no master plan for these works or any guidelines for proper presentation of the site. The conservation principles and concept were neglected and did not follow any of the international charters.

This research centers on the factors of deterioration of the historical buildings, the natural and the human factors, with special focus on those factors, which participate in the destruction of Umm El- 'Amad.

A group of laboratory methods were applied in order to:

- Define the main factors of deterioration and find the suitable solution.
- Analyze the activity of some consolidants on the Basilica stones.
- Verify the kind of mortar and plaster used
- Determine the physical and chemical properties of the stone by many laboratory tests applied according to German Standard of laboratory tests (DIN), these analyses was carried out by:

  - X-Ray diffraction analyses.
  - Polarizing microscope analyses on thin sections.
  - Consolident uptake value.
  - Water absorption measurement and porosity measurement.
  - Salt Crystallization test.

Causes of decay were identified by making use of the results from the previous examinations.