Past landscapes to shape future societies: research in the Horn of Africa

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ADULIS ERITREAN-ITALIAN JOINT PROJECT

National Museum of Eritrea, Asmara
Directed by Yosieph Libsekal

Museum of Northern Red Sea Region, Massaua
Directed by Yohannes Gebreyesus

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FINANCED BY PUBLIC AND PRIVATE SOURCES:

Eritrean Government

Italian Ministry of Foreign Affairs

Universities’ scientific personnel and facilities

Piccini Group

Ce.R.D.O.
OBJECTIVES OF THE PROJECT

Overall objective: planning of sustainable territorial development creating better life conditions and opportunities of economic growth starting from the valorisation of the cultural and natural heritage.

Specific objectives:
- knowledge, protection and management of cultural and natural heritage;
- study and valorisation of the traditional technological heritage;
- definition of sustainable management of water and soil; strengthening of cultural identities, intercultural and interfaith dialogue;
- field and formation activities, with the involvement of young archaeologists and of the local communities, and the creation of an archaeological park, will contribute to the economic development of the country, encouraging young people to remain and diminishing the migratory movements towards West.
- linking local concerns to global challenges and international debates.
Landscape archaeology and public archaeology should have something to contribute not only to understanding how people lived in past landscapes, but also to managing landscapes today and planning them for the future. Understanding the development of the cultural landscape is a crucial issue for academics and policymakers alike. Its importance goes far beyond this, however. Cultural landscapes form the backdrop to all our lives and provide a key element in our sense of place and identity. It is essential that we understand them so that we can manage them effectively and develop them sustainably. By revealing the value in regional landscapes and the real nature of the similarities and differences between regions, this type of research can have important implications for ordinary people, planners, and policymakers from the local to the international level.

Adulis, Eritrea, independent state since 1993, in Antiquity part of the ‘Land of Ethiopians’
The importance of the Red Sea in Antiquity is comparable to that of the ‘Silk Route’.
1868 first archaeological investigation by the British Museum

**Sketch of the temple at Adulis, by R.R. Holmes**

1906 Richard Sundström

**Plan of Adulis, by R. Sundström**

1906 Roberto Paribeni

**Topographic map of Adulis, Paribeni 1907**
The new research project
Adulis 2014, sector 3 excavation, terracotta figurine from the Indian empire of Gupta, 4th-6th century AD
The most important monument of the site so far, a building with basilical plan divided into three naves, east-west oriented, standing on a high base of truncated pyramidal shape, expression of an original architectural style, in which the Mediterranean model of the Christian basilica meets the local Aksumite tradition. 4th century AD: first evidence of the early Christianization of Sub-Saharan Africa, a territory outside of the boundaries of the Roman Empire, almost simultaneously with the Edict of Constantine
Beside the basilical plan, the style and carved decoration of the liturgical furniture show the typical motifs of the Byzantine repertoire of the late fifth or early seventh century, imported by the marble quarries of Byzantium. The important, new information coming from the stratigraphic excavations is the chronology of the monument, dating to the second half of the fourth century: this new excavation data at Adulis provide the first chronological reference for the early Christianization of Sub-Saharan Africa.

Drawings by A. Mazzeri, G. Sottocornola, A. Todeschini, Politecnico di Milano
DISSEMINATION OF THE PROJECT

Adulis camp,
January 2017
The study of semi-arid eco-systems, like the Eritrean Lowlands, or totally arid like the Dahlak Archipelago, where ancient societies were able to produce agriculture and water, can offer solutions to actual problems and be more sustainable than modern ones, and ensure the preservation not only of Cultural Heritage but also of biodiversity.
Protection, maintenance and restoration are essential alongside the archaeological excavations.
The excavation site as a training yard for preservation activities
The excavation site as a training yard for preservation activities
The programmed maintenance: selection of sustainable materials and techniques.

Example 1
Before

CREATION
OF TOP
FRAMES FOR PRECARIOUS
PORTIONS OF
WALLS

To prevent some stones from collapsing, especially the ones constituting the elevations of the paleo-christian church, the creation of frames made of new bricks is expected, in order to hold the stones themselves. To respect the aspect of the artefact, the bricks will be covered by a layer of clay mortar.

Clay mortar is made of:
- Clay
- Soil collected in situ
- Water

PROGRAMMED
MAINTENANCE
HANDBOOK
2015

Every year Adulis Archaeological site is affected by adverse climatic events causing damages that modify its characteristics. This handbook is intended to provide general guidelines for local operators in order to preserve the site of Ara del Sole in good conditions for forthcoming visits and access. In the following pages all the steps of activities concerning the programmed maintenance are described, in order to be carried out every year.

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and
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Luca Minniti
Moreno Valle

D.A.St.U. - POLITECNICO DI MILANO
The programmed maintenance: selection of sustainable materials and techniques.

Example 1

10 - CREATION OF TOP FRAMES FOR PRECARIOUS PORTIONS OF WALLS

To prevent some stones from collapsing, especially the ones constituting the elevations of the paleo-christian church, the creation of frames made of new bricks is expected, in order to hold the stones themselves. To respect the aspect of the artefact, the bricks will be covered by a layer of clay mortar.

Clay mortar is made of:
- Clay and soil collected in situ
- Water
The programmed maintenance:
selection of sustainable materials and techniques.

Example 2
Every year Adulis Archaeological site is affected by adverse climatic events causing damages that modify its characteristics. This handbook is intended to provide general guidelines for local operators in order to preserve the site of Ara del Sole in good conditions for forthcoming visits and access. In the following pages all the steps of activities concerning the programmed maintenance are described, in order to be carried out every year.

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3 - MAINTENANCE OF THE FENCE

In case the fence around the excavation site has been damaged by natural events or other causes, it is expected to be restored by the use of branches and bushes according to local traditional techniques.
Risk from heavy rains and floods

Photo by Alfredo Guillet from «L’Universo» n°6, 2015
Hydrographic net

Carta IGM 1887 Scala 1:300.000
Built in 1958-1960 had a capacity of 23 millions cubic metres, in 1988 it was already almost silted up.
The eastern Lowlands landscape
Cultivated fields in the eastern lowlands
Community organization

**SEHAM** | campo | *embanked field*

**BAJUR** | canale | *canal*

**AGIM** | deviatore | *diversion*

**Contadini** | *Farmers*

- Raccolti in gruppi di vicinato
- Grouped same as field or neighbourhood clusters

**TASHKILS**
- (15-45 farmers)

**PARTA** (Irrigation Committee)
- (6 – 31 tashkils)
1. Inizio della cammelliera e casa della missione.
3. Elementi murari relativi alle strutture scavate da F. Anfray negli anni '60. Portò alla luce un esteso quartiere residenziale.
5. Settore 2. Scavo in corso dove sono visibili i resti dei muri di una chiesa paleocristiana a pianta rettangolare, con absidi fiancheggiate da due camere, impostata su un basamento gradonato, che Paribeni chiamò 'ara del sole'.
11. Scavi del British Museum, 1868
12. Settore 5: Nuovo settore di scavo che ha rivelato che il limite della città è superiore alla posizione odierna dell'haddas. Le diverse sale rinvenute probabilmente erano utilizzate per la fabbricazione di oggetti domestici e cibi.
Thank you!