**BACKGROUND**

At the International Advisory Committee meeting of the UNESCO-CARTHAGE project held in Carthage, Tunisia, between 5-6 September 1975, Mme Ch. Desroches-Noblecourt, expert of UNESCO and Chief Conservator of the Musée du Louvre, Paris, France, proposed creation of a Documentation Center for the archaeological campaign of the ancient city of Carthage. Georges Filliat, Professor at the "Conservatoire Nationale des Arts et Métiers" in Paris, suggested to carry out an aerial and hydrogeological survey. I strongly supported the proposition to establish a central registration and to initiate the above mentioned surveys. However, I believe that, in order to control and make more effective the results of the aerial photographs, an earth resistivity survey should also be made. After the advisory committee meeting I contacted Prof. G. Brown, Chairman of the Nuclear Physics Department of the University of Bradford, Yorkshire, England to make the necessary preparations to perform the above mentioned resistivity research.

**PURPOSE OF THE PAPER**

The purpose of this paper is to call for international collaboration for data research and establish a computer system which could store useful information not only for the documentation center, but also for field archaeologists and for research scholars as well. The system could be called: **Computerized Topo-Bibliography for Archaeology**. Actually this system is a combination of a topography and bibliography re-enforced by museological and other technical data such as aerial, hydrogeological and earth resistivity survey.

A large part of the Carthage's Corpus could be related to topographical data points. However, the non-related information should also be collected and used as data-pool.
During the past two summers, with the help of my students, a collection and registration of notes, memoirs and articles about Carthage were made. Some of the material in the "Bulletin Archeologique du Comite des travaux Historiques et Scientifiques," and the "Comptes Rendus" of the "Academie des Inscriptions et Belles-Lettres" dated late 19th and early 20th Century need to be located or if the location can not be identified just registered in the suggested data pool. I strongly believe that a computerized "Index" type of classification of the Corpus would be a valuable aid to accomplish the aims of UNESCO-CARTHAGE PROJECT.

Dr. Daszewszki, former chief archaeologist of the UNESCO-CARTHAGE PROJECT, who is now President of the Polish Archaeological Mission in Egypt established an archaeological topographical map of Greater Carthage in a scale of 1:5000, could be extremely useful to begin with. All grids for earth resistivity or hydrogeological survey should be related to the established grid of the DASZEWSZKI map. The presently 500 x 500 meter grids for better working purposes should be subdivided into 10 x 10 meter grids. In order to use the method of locating exact points or areas of findings as described in Lengyel's Manual for Fieldwork in Classical Archaeology, the Daszewszki map should be divided also by EW and NS Coordinators. The suggested dividing line for NS could be the horizontal grid of 96,500 and for E-W the vertical grid of 40,000.

The collected and constantly growing data which will be achieved by further researches, excavations and scholarly analysis should be divided into two groups. (I) Data which may be and (II) which may not be related to any topographical area or data points. Like the 1st data group the 2nd data group should also be subdivided. All grids should be furnished with the data of earth resistivity and hydrogeological survey. If it is possible, all registered data listed below A to L should be supplemented with bibliographical and museological
references. The bibliographical references should be subdivided as follows:
a) preliminary report, b) final report, c) article (analysis), d) book,
e) review, f) exhibition or museum catalog, g) photo, h) diagram, i) drawings,
j) other illustration. The museological references are indicating the actual
locations. The data should be subdivided. a) museums, b) private collections,
c) conserved In Situ., d) other locations.

The I and II groups are subdivided by subjects. The aim of the subdivision
is not to computerize a specific style, physico-chemical data, etc., but
arrange only under one heading all homogenous main subjects. For example,
all Roman temples discovered in greater Carthage will be marked under one
heading, no matter which architectural order or style they belong to.

Recommended subdivisions are the following:

A.100. Architecture.
   110 Sanctuary
      110-1 Punic
      110-2 Roman
   111 Temple
   113 Tophet
   etc.

B.100 Cemetery (Necropolis)
   110 Punic
   111 Roman
   112 Byzantine,
   etc...

C.100 Tombs (Grave)
   110 Hypogeum
   111 Sepulture
   112 Pits tombs,
   Etc....
D.100 Objects

110 Mosaics
   110-1 Punic
   110-2 Roman
   etc.

111 Painting
   111-1 Wall painting
   111-2 Paintings on Sarcophagi
   etc...

112 Statues, Reliefs, Amulettes, Statuettes
   112-1 Stone
   112-2 Terra Cotta
   112-3 Metall
   etc...

113 Potteries, Lamps
   113-1 Punic
   113-2 Roman
   113-3 Greek
   113-4 Etruscan
   etc...

114 Jewelry, Mirrors

115 Crystal, glass

116 Coins

117 Weapons and other military equipment

118 Furniture

119 Clothing

120 Medical Equipment

121 Household utensils, weights
   etc...
F.100  Seal, Inscriptions and Marks.

110  Inscriptions
111  Seal, Marks
112  Ceramic Marks (Stamps)
113  Brick Marks (Stamps)

etc.

For Historical, Economic, Religious, Technical data recurring subject matter will receive collective headings.

F.100  Historical Data

110  Carthaginian History
   110-1 Etruscan - Carthaginian Relations
   110-2 Voyage of Hanno
   etc...

120  Roman History
   120-1 Colonia Iulia
   120-2 Marius and Carthage
   Etc...

F.200  Economic Data

210-1 The price of corn
210-2 Exploration of Soil
210-3 Fiscal Law of Valentinian I

etc...

F.300  Religious Data

310-1 Phoenician Pantheon
310-2 Greco-Phoenician Pantheon

etc...
F.1000 Technical Data

410-1 Weights of ancient bronzes
410-2 Utilization of slag
410-3 Auriferous sand in Carthage
410-4 Building of Roman roads
etc...

G.100 Ethnographical and Anthropological Data

110-1 Minority groups
110-2 Slaves
110-3 Skeletal remains
etc...

H.100 Archival Data

I.100 Illustrations

110-1 Map
110-2 Graphicons
etc...

J.100 Research Data

110-1 Field archaeology or research
110-2 Underwater archaeology or research
110-3 Other scholarly activities
etc...
RECOMMENDATIONS:

The work should be divided among four groups under the directorship of a classical archaeologist. The first group should subdivide the material. The total existing publication should be microfilmed and sent to scholars who are volunteering to be members of the group, and evaluate it for computerization according to the above proposed scheme.

The second group will evaluate the earth resistivity, the hydro-geological and aerial survey and prepare for computerization.

The third group will search for more published material, keep track with the developing scholarship and make recommendation for future microfilming.

The fourth group will computerize the already existing and selected data and receive for computerization the continuously released data.

The work should be started immediately by microfilming and preparing the material for computerization.

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