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# JOURNAL

OF THE GENERAL UNION OF ARAB ARCHAEOLOGISTS  
ANNUAL PEER-REVIEWED INTERNATIONAL ACADEMIC  
JOURNAL - DEDICATED TO THE PUBLICATION OF  
RESEARCHES AND SPECIALIZED STUDIES IN THE FIELDS OF  
ARCHAEOLOGY AND MUSEUMS, RESTORATION AND ARAB  
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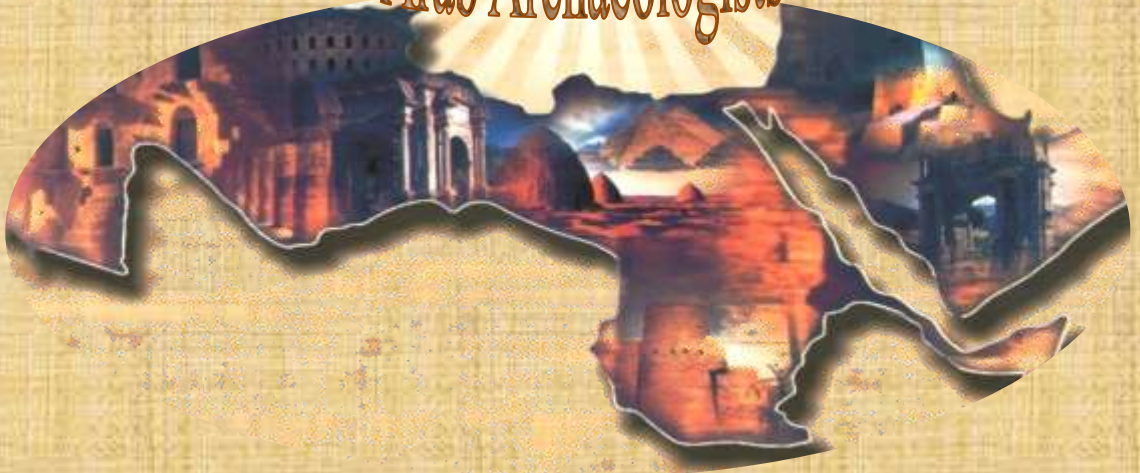
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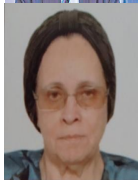
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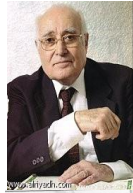
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1.	<b>Dr. Abeer Gharib Abd Allh Dr. Manal Ahmed Maher</b>	<b>A Case Study of Copper-Arsenic Ewer from the Egyptian Museum in Cairo, Egypt</b>	28-1-2018	30-4-2018	2-5-2018	1/6/2018 :31/8/2018	1/9/2018 :1/11/2018
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## **A Case Study of Copper-Arsenic Ewer from the Egyptian Museum in Cairo, Egypt**

**Dr. Abeer Gharib Abd Allh\***

**Dr. Manal Ahmed Maher\*\***

### **Abstract:**

This paper presents an analytical study and treatment of an Arsenical Copper ewer from old kingdom stored in the Egyptian Museum in Cairo. Examination and analysis were carried out by using optical microscopy (OM), metallographic microscopy and scanning electron microscopy (SEM), with energy-dispersive spectroscopy (EDX) and X-ray diffraction (XRD).

Results indicated that ewer was made of copper-arsenic alloy; it had intended black layer which referred to the fertile soil. The ewer was made by cold-working and the spout was joined mechanically; it has three layers of alteration products with various compositions and morphology covering the substrate of the alloy. XRD results indicated that the ewer was subjected to many corrosive ions such as chloride and sulfur. This study provides useful information that helped in preserving this unique ewer.

### **Keywords:**

Copper-Arsenic Alloys, Mechanically Joined, OM, SEM-EDX, Metallographic microscopy, XRD, Treatment.

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## Introduction

The study of ancient metals has produced an important aspect of archaeological interpretation; it was unexpected to early archaeological scientists to find that tin bronze was not the first prehistoric alloy believed to be, but that many early objects were rather made of arsenical copper <sup>(1)</sup>.

Archaeologists consider the Chalcolithic period as the name that immediately preceded the Bronze Age in which metals were first being mastered, and they date this period between approximately 5000 and 3000 B.C. Ancient man first used native or naturally occurring and relatively pure metals such as copper <sup>(2)</sup>.

Copper objects have a small percentage of impurities; the major impurities are arsenic, antimony, lead, iron, zinc, tin, etc. The presence of these impurities with their different percentage depends upon the ore which is derived from and the metallurgical processes which are performed to produce them <sup>(3)</sup>. Copper alloying is considered as a mixture of copper with other elements to improve some of its properties. Alloy might have happened by the knowledge of the ancient smiths, and by mixing certain minerals with copper ore, the quality of the product was improved <sup>(4)</sup>.

Both arsenic and tin present a deoxidizing agent into copper, which greatly influences the mechanical properties and the ability to cast the copper. It is recognized that the first step in alloying

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<sup>(1)</sup>Loïc C. Boscher, "Reconstructing the Arsenical Copper Production Process in Early Bronze Age Southwest Asia", PhD, University College London, UCL Qatar, 2016, P.26

<sup>(2)</sup>Reardon, A.C., "*Metallurgy for the Non-Metallurgist*", ASM International, 2011, P.73

<sup>(3)</sup>Lutfia. H. Khalil, "*The Composition and Technology of Copper Artifacts from Jericho and Some Related Sites*", PhD, Department of Archaeological Conservation and Materials Science, Faculty of Arts of the University of London, 1980, P.7.

<sup>(4)</sup>Von der Fakultät für Werkstoffwissenschaft und Werkstofftechnologie', "Material properties of copper alloys containing arsenic, antimony, and bismuth The material of Early Bronze Age ingot torques", PhD, Technischen Universität Bergakademie Freiberg, 2003, p. 4.

started with arsenic, and that by the third millennium B. C. the copper-arsenic alloy was dominant <sup>(5)</sup>.

Arsenic is found as traces in most ancient Egyptian objects made of copper from the Naqada culture until the second Intermediate period; since the Middle kingdom <sup>(6)</sup>. Arsenic did not exist in native copper in any quantities, and its alloy with copper appeared in the 5<sup>th</sup> and 4<sup>th</sup> millennia BC and tends to contain over 1 wt. % of Arsenic is the easily volatilized and highly toxic nature which has been explained as the main reason behind arsenical copper's demise and ultimate replacement by tin bronzes <sup>(7)</sup> <sup>(8)</sup>; arsenic has low boiling point of 613°C, which means that it could easily escape during melting <sup>(9)</sup>. It is also strongly reactive to oxygen, and readily forms the highly toxic compound arsenic trioxide (As<sub>2</sub>O<sub>3</sub>) under oxidizing conditions. This compound is even more volatile, and with a boiling point of just 465°C it will easily sublime from a smelt <sup>(10)</sup>. It should be mentioned that release of this arsenic trioxide can be easily observed as a white vapor with garlic odor, although addition of arsenic in copper improved mechanical properties of the resulting alloy specially in cold hammering operation <sup>(11)</sup>.

It is believed that the earliest occurrence of these alloys is the result of the melting of ores containing both copper and arsenic. The simplest and most likely origin for the earliest alloys is the reduction of copper arsenates; these arsenates are identical to

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<sup>(5)</sup>Lutfia. H. Khalil, Op. Cit., P.7.

<sup>(6)</sup>Martin Odler, " *Old Kingdom Copper Tools and Model Tools*", ARCHAEOPRESS Publishing Ltd, Oxford, 2016, P.238

<sup>(7)</sup> Srinivasan, S., and Ranganathan, S., "Nonferrous Materials Heritage of Mankind", *Trans. Indian Ins. Met.*, Vol.59, No.6, December, 2006, p. 840

<sup>(8)</sup>Meliksetian K., Schwab R., Kraus S., Pernicka E.and Brauns M., "Chemical, lead isotope and metallographic analysis of extraordinary arsenic-rich alloys used for jewellery in Bronze Age Armenia", *Metalla (Bochum) Sonderheft*, 4, 2011, p. 211.

<sup>(9)</sup>Subramanian, P.R., and Laughlin, D.E., " The As-Cu (Arsenic-Copper) system", *Bulletin of alloy phase Diagram*, Vol.9, No. 5, 1988, p. 606

<sup>(10)</sup>Loic C. Boscher, Op. Cit., pp. 45-48.

<sup>(11)</sup>Martin Odler, Op. Cit., p. 238.

those of purer copper oxide and hydroxides such as malachite and azurite and would not have needed any additional skills or knowledge to extract. The facility of extracting arsenical copper from these types of ores has been established through a series of smelting experiments which shows that a lightly reducing atmosphere led to the formation of fully molten copper metal <sup>(12)</sup>. Egyptian expeditions record the most copper ores from Sinai and the Eastern Desert of Egypt <sup>(13)(14)(15)</sup>.

This paper presents a study of the chemical composition of the selected ewer, and the elements and their distribution on the surface and on the cross section of the ewer to explain the nature of the alloy. By using optical microscope OM; metallographic microscope; SEM-EDX, and having analyzed the surface structures and the interference area with the metallic core of the basic alloy, intending to elucidate the technology used during the manufacture of the ewer in old kingdom period in Egypt.

## Materials and Methods

### Description and condition

The selected black ewer (Fig. 1, 2) had the temporary No. Cg 3476 and is stored at the Egyptian Museum in Cairo and dated back to the Old Kingdom (2613-2181 B.C.) <sup>(16) (17)</sup>; it is 10.5cm high and 7.9 diameter. This type of ewer was public in the Early Dynastic and Old Kingdom periods; such ewers made of arsenical copper or bronze alloy. The ewer with a wide open

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<sup>(12)</sup>Loïc C. Boscher, Op. Cit., p.53.

<sup>(13)</sup>George Brinton Philips, "The Composition of some Ancient Bronze in the Dawn of the Art of Metallurgy", *American Anthropologist, New Series*, Vol.24, 1922, p.130

<sup>(14)</sup>Abd El-Rahman, Y., Surour, A.A., El Manawi, A.H.W., Rifai, M, Abd El Motelib, A., and El Dougdoug, A.M., "Ancient mining and smelting activities in the Wadi Abu Gerida area, central eastern desert, Egypt, preliminary results", *Archaeometry*, 55, 2013, p.1075.

<sup>(15)</sup> - Stephen Michael Vinson, *Boats of Egypt before the Old Kingdom*, M.A, College of Texas A&M University, 1987, p. 30.

<sup>(16)</sup><http://www.reshafim.org.il/ad/egypt/trades/metals.htm> 5-1-2018.

<sup>(17)</sup>[https://www.ancient.eu/Old\\_Kingdom\\_of\\_Egypt/21-3-2018](https://www.ancient.eu/Old_Kingdom_of_Egypt/21-3-2018).

mouth and short spout is dated to the middle of the Second Dynasty. Other early ewers have similar open mouths, but also longer and more slender spouts. In the Early Dynastic and Old Kingdom periods, the ewer developed proportionately taller and its bottom and opening became relatively smaller, and the spouts turned noticeably longer (Fig.3) <sup>(18)</sup>. The ewers and basins are used in everyday life for washing hands. Then, they were supposed to function in ritual use during the Old Kingdom <sup>(19)</sup>. The ewer was covered with an extremely disfiguring black crust and some parts from the body were missing. The inside surface of ewer was covered with a colored incrustation of a variety of corrosion compounds.

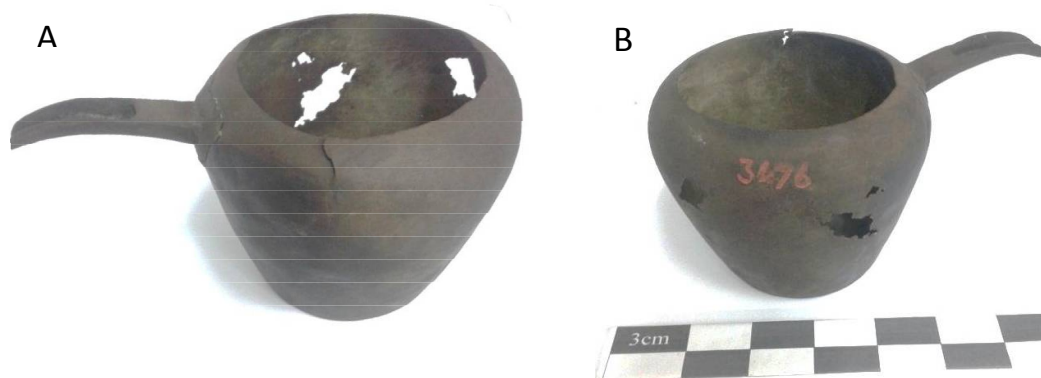


Fig.1 the copper-arsenic ewer A) from the right side and B) from the left side showing missing parts and corrosion layer

<sup>(18)</sup><https://www.google.com.eg/search?q=old+kingdom+longer+Ewer+figure&tbm=21-3-2018>

<sup>(19)</sup>Schorsch, D., "Copper Ewers of Early Dynastic and Old Kingdom Egypt in Antiquity", Philipp Von Zabern, Mainz am Rhein, 1992, pp. 145-146.

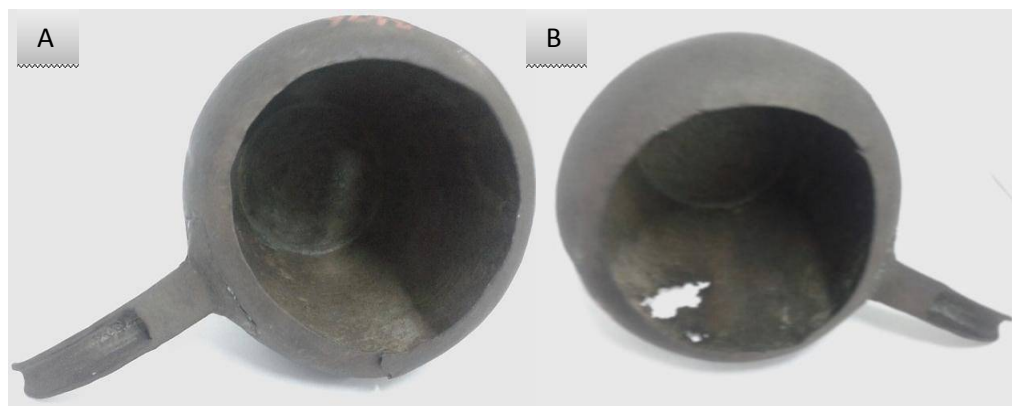


Fig.2 (A, B) shows corrosion layer inside the copper-arsenic ewer



Fig.3 shows different type of Ewers with basin A) Ewer with a wide open mouth and short spout from the middle of the Second Dynasty B) Ewer developed proportionately taller and its bottom and opening relatively smaller

## Examination and Analysis

### Optical Microscopy

The microscopic examinations were carried out using a Smart-Eye USB Digital Microscope at various magnification degrees, up to maximum 200X, for the investigation of the corrosion products characteristics and the morphology of the corrosion layer and the core of the ewer.



## **Metallographic microscope**

The cross-section of the alloy was investigated by metallographic microscope. Macroscopic observations allowed us to identify the corrosion deposits and layers that completely cover the surface of the ewer, their color, nature, and shape. The sample designated for optical microscopy observation was fixed in the Epoxide 20-8130 with hardener 20-8132.<sup>(20)</sup> The fixed cross section was grounded with Si C abrasive paper and then polished and detergent at a rotary polishing wheel. Metallic cross-section was etched by 3% solution of ammonia in hydrogen peroxide which gives a good result in approximately 0.5% arsenic (in copper arsenic alloy) by mixing of 10ml NH<sub>4</sub>OH with 2ml H<sub>2</sub>O<sub>2</sub>.<sup>(21)</sup> The observation was performed using the optical metallographic microscope Olympus BX41M provided with digital video camera and connected to PC computer.

## **SEM - EDX**

Scanning electron microscopy (SEM) coupled with energy dispersive spectrometry (EDX), was used to examine the surface and the metallic core and to detect the distribution of the chemical elements on the corrosion layer and in the cross section. SEM micrographs and EDX spectra of the selected ewer were obtained by using SEM-EDX apparatus from El Tebeen Institute in Cairo model FEL INSPECT S50, EDX QUANTAX Burker. The examination conditions were low vacuum mode at 0.8 tors. Backscatter electron images of the samples were scraped at acceleration voltage 25.0 kv with back scattered detector (BSE) at 5 mm working distance and spot size 6.

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<sup>(20)</sup>Scott, D.A., "*Metallography and microstructure of ancient and historic metals*", The Getty Conservation Institute, The J. Paul Getty trust, 1991.

<sup>(21)</sup>Dmitri, K., "*The Metallographic Examination of Archaeological Artifacts*", Summer Institute in Materials Science And Material Culture, 2003.

## **X-ray Diffraction Analysis (XRD)**

XRD analysis was used to identify the corrosion products covering the surface, and to recognize the corrosive conditions that led to the corrosion of the ewer. Sample was taken mechanically by scraping the corroded surface gently with a very fine tungsten needle, ground to a fine powder in an agate mortar then mounted in using a PAN analytical X'pert PRO Diffractometer. In fixed analysis condition; secondary monochromator with Cu-K $\alpha$ 1 target of  $\lambda$  0.1542 nm, operated at generator power 45 KV and 40 mA. The scanning step rate and range were 0.02°, 0.05°/s and 70°, respectively. The 2 $\theta$  values and relative intensities (I / I<sub>o</sub>) were determined from the chart.

## **Results**

Visual examination of the studied ewer revealed that it generally has a uniform and compact black patina in the outer surface, with little difference in the appearance and some green patina in the inner surface.

The characterization of the surfaces by Optical microscope, Scanning Electron Microscopy (SEM) and metallographic microscope examinations was primarily carried out. The effects of the processes of chemical alteration on the surface of the alloy are obvious in the alteration crust formed on the mineralized surface. The surface pattern seems heterogeneous at first sight optical and SEM examinations. The corrosive features such as rough; powder or compact corrosive surface, thin corrosive layer and cracks or fissures were noticed. Micro photos of the surface corrosion layer revealed different colors of the deposited layer; green to dark green, and white (figs. 4, 5). SEM- EDX analysis (fig.6) Table 1 identified the arsenic copper alloy as copper the base mineral with percentage 78.6% and arsenic 0.87% in addition of some corrosion anions such as Cl (21.9%), S (1.84%) and O (25.25%).

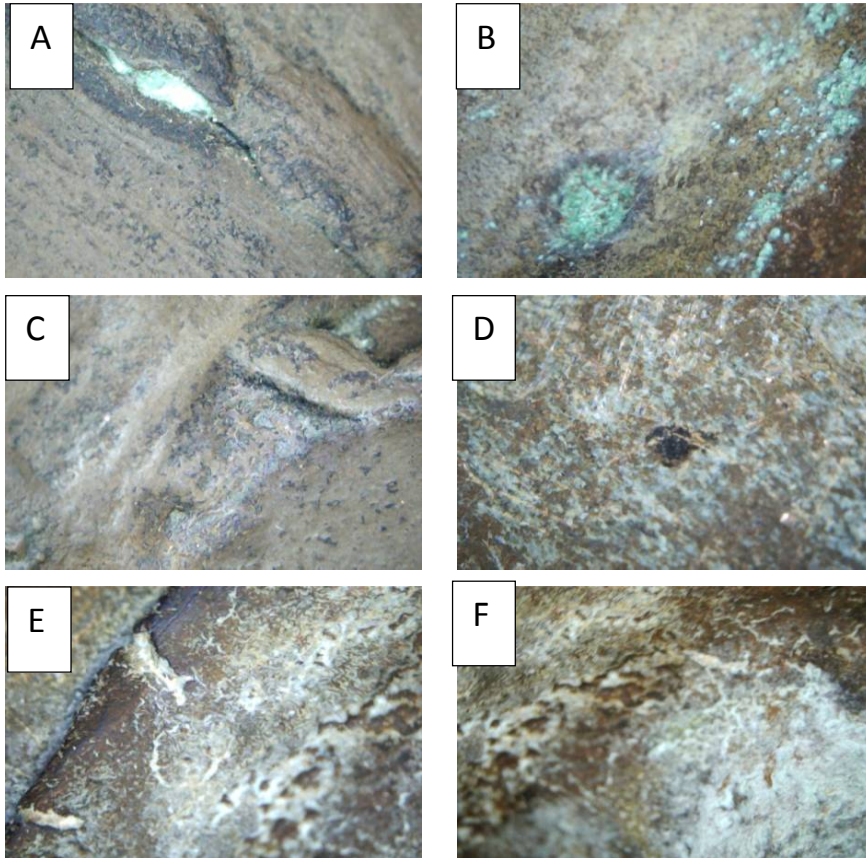


Fig.4 Optical observation (200X) of the copper-arsenic ewer shows A, B) light green corrosion inside fissure and crevice, C, D) heterogeneous corrosion and appearance of cavitation erosion E, F) thin white corrosive layer and cracks

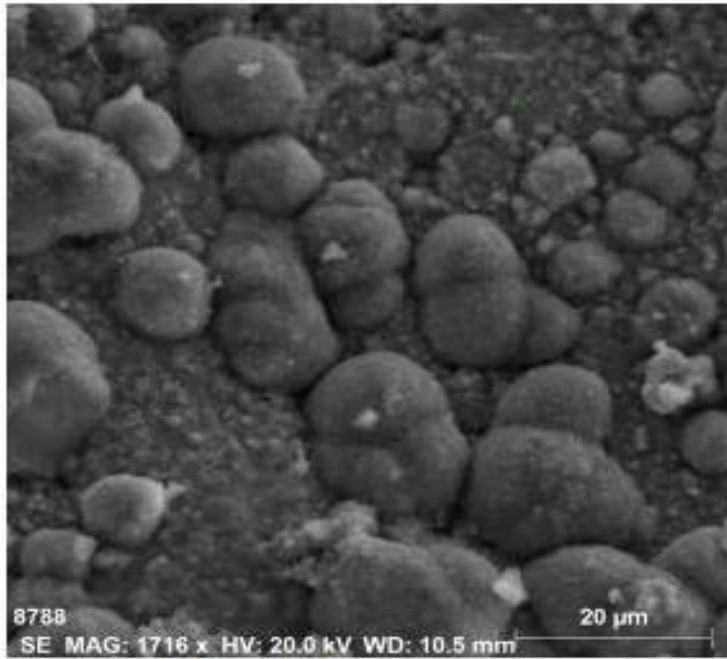


Fig.5 photo of the surface corrosion layer revealed the corrosive features rough and powder with different colors of the deposited layer

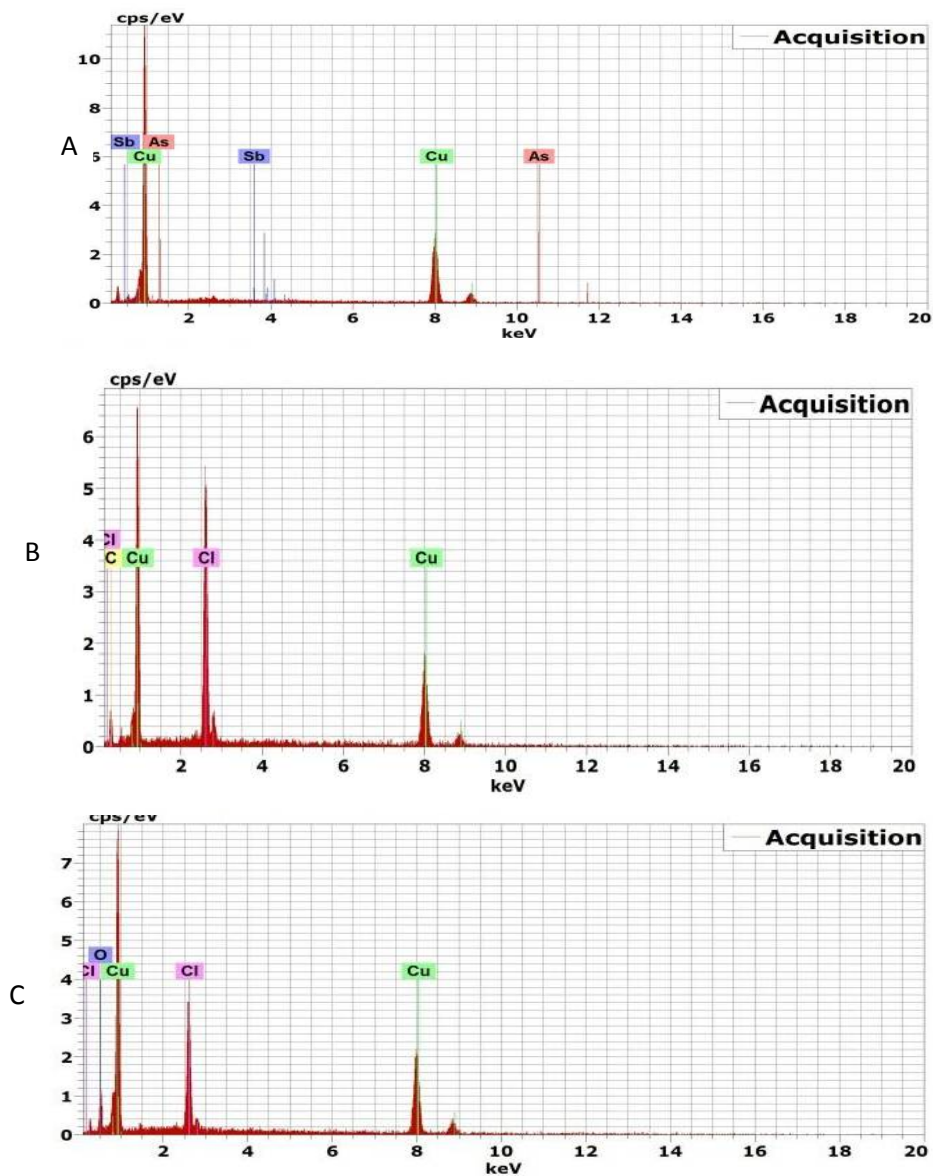


Fig.6 showed SEM-EDX A) identified the arsenic copper alloy as copper the base mineral with percentage 78.6% and arsenic 0.87% B) showed Cl anions (21.9%), and C) some corrosion anions as S (1.84%) and O

Table 1: chemical composition determined by SEM- EDX analysis A) identified the arsenic copper alloy as copper the base mineral with percentage 78.6% and arsenic 0.87% B) showed Cl anions (21.9%), and C) some corrosion anions as S (1.84%) and O (25.25%).

A

El	AN	Series	unn. C [wt.%]	norm. C [wt.%]	Atom. C [at.%]	Error [wt.%]
Cu	29	K-series	78.69	98.75	98.99	2.4
As	33	K-series	0.87	1.10	0.93	0.2
Sb	51	L-series	0.12	0.15	0.08	0.1
Total:			79.68	100.00	100.00	

B

Spectrum: Acquisition

El	AN	Series	unn. C [wt.%]	norm. C [wt.%]	Atom. C [at.%]	Error [wt.%]
Cu	29	K-series	60.80	68.39	42.86	2.1
O	8	K-series	14.08	15.84	39.42	3.7
Cl	17	K-series	14.02	15.78	17.72	0.6
Total:			88.90	100.00	100.00	

C

El	AN	Series	unn. C [wt.%]	norm. C [wt.%]	Atom. C [at.%]	Error [wt.%]
Cu	29	K-series	39.02	46.97	17.25	1.4
O	8	K-series	25.25	30.39	44.33	5.4
C	6	K-series	15.11	18.19	35.34	5.0
Cl	17	K-series	1.86	2.24	1.47	0.2
S	16	K-series	1.84	2.21	1.61	0.2
Total:			83.07	100.00	100.00	

The optical micrograph image (fig.7) of the metallic cross-section after etching determined the patina has a sandwich structure, in which the layers of the primary patina are overlapped or partially interjected with the ones of the secondary patina. Strata-graphical morphology characterized the most archaeological patinas of ancient metallic objects<sup>(22)</sup>.

<sup>(22)</sup>Mohamed Ghoniem, "The Characterization of a Corroded Egyptian Bronze Statue and A Study of the Degradation Phenomena", *International Journal of Conservation Science*, Volume 2, Issue 2, April-June, 2011, p. 97.

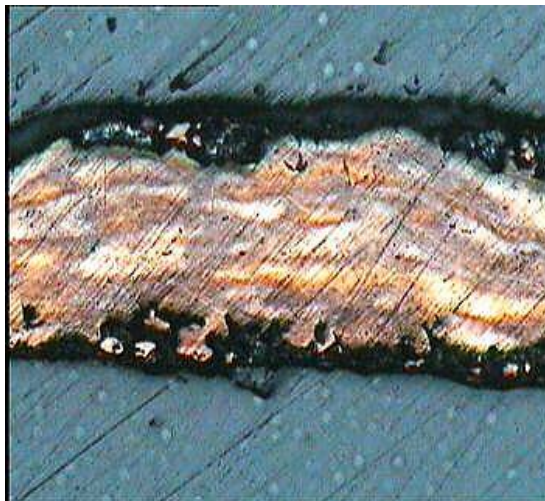


Fig.7 shows metallographic cross-section that appear corrosion layers in sandwich structure

The observation microphotographs (Fig. 8) show the colors, the thickness, and the layer morphology of the patina. The secondary electron images of a cross section of the corrosion product sample appeared a multiphase structure of different minerals, which were analyzed by SEM-EDS. The matrix of the sample is formed by copper with the presence of arsenic and chlorine.

The corrosion products of the copper arsenic alloy were identified by XRD (fig.9) and table 2 showed a mixture of minerals as copper (Cu), copper oxide Tenorite (CuO) accompanied by copper sulfide Lautite (CuAsS), Whitneyite (Cu<sub>9</sub>As) and copper chloride mineral as (Cu<sub>2</sub>Cl(OH)<sub>3</sub> Paratacamite.

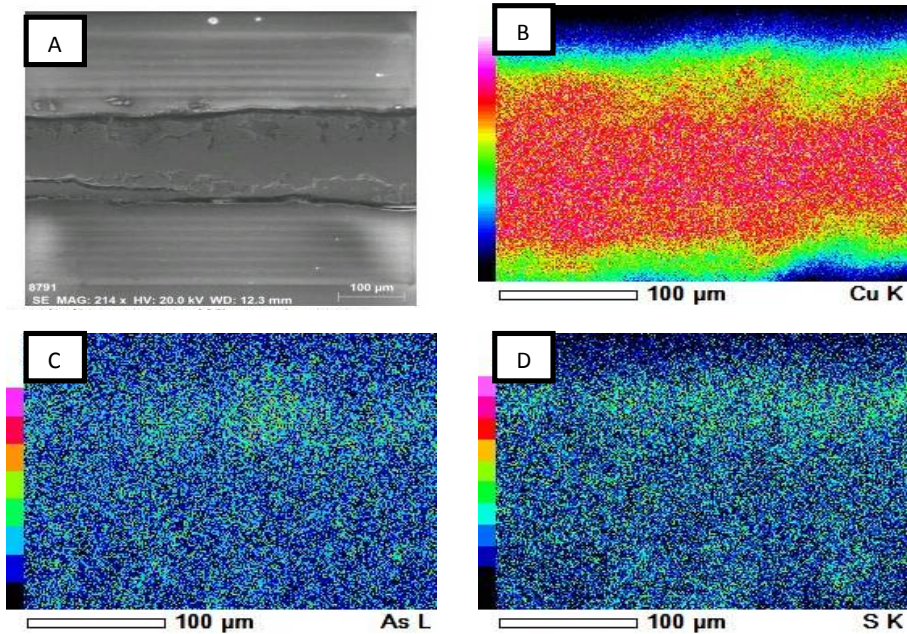


Fig.8 Identification of inclusions by SEM cross-section A, B) showed copper in the middle as a core

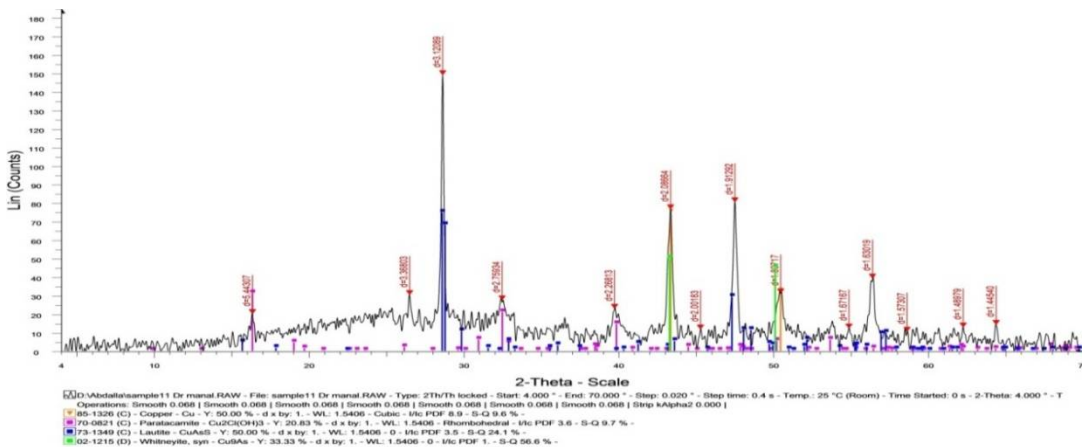


Fig.9 showed XRD pattern of the ewer with copper as the base mineral, paratacamite as the main corrosion product and copper sulfide presents as



(CuAsS) lautite and (Cu<sub>9</sub>As) whitneyite; in addition of traces of tenorite copper oxide (CuO).

Table2. Mineralogical composition of corrosion products sample obtained by XRD

Minerals	Formula	Content
<b>Copper</b>	Cu	Major
<b>lautite</b>	CuAsS	Major
<b>Paratacamite</b>	Cu <sub>2</sub> (OH) <sub>3</sub> Cl	Minor
<b>whitneyite</b>	Cu <sub>9</sub> As	Traces
<b>Tenorite</b>	CuO	Traces

### Treatment procedures

The copper-arsenic ewer has high archaeological value, so treatment of this object had to be approached with well-established methods; to be stable during and after treatment. The mechanical cleaning process for interior metallic surfaces carried out by different brushes which were selected to remove the bulk of the corrosion deposits, the ewer sometimes required to be wetted very regularly with methylated spirits to help through the mechanical cleaning process. The chloride components of copper arsenic alloy removed with a 5% Rochelle salt solution (150 gm. Sodium Potassium Tartrate with 50 gm. Sodium hydroxide) followed by a 5% Citric acid solution, the hydroxyl ions of the alkaline solution react chemically with the insoluble chlorides to form cuprous oxide and soluble sodium chlorides <sup>(23)</sup> <sup>(24)</sup> ; then the ewer was carefully washed by distilled water and dried with methyl alcohol; after complete dryness we consolidated the inner surface with glass fiber sheets with 15% polaroid B.72 in acetone as a supported layer, then we used Nano- copper oxide

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<sup>(23)</sup>Hamilton, D.L., "*Methods of conserving archaeological material from underwater sites*", Texas University, Texas, 1999, P.83

<sup>(24)</sup>Selwyn,L., and Binnie, N., "Metal corrosion rates in aqueous treatments for water logged wood- metal composites", *Journal of studies in conservation*, 38, 1993, pp. 197-180..

filler with 50% polaroid B.72 in outer surface; this reversible material is suitable for completing missing parts of ewer according to its composition, and finally the ewer was isolated with 4% polaroid B.72 in acetone (Fig. 10).



Fig.10 shows the copper-arsenic ewer before and after treatment processes

### Discussion

Visual examination revealed that the ewer has compact black patina, reflecting the color of the fertile soil of (the Black Land), one of Egypt's names; indicating fertility and regeneration; and the color of the underworld.<sup>(25) (26)</sup>

The mechanical characteristics of alloy related to the structure; the determination of physical, mechanical properties and chemical composition of the alloy helped in identifying the technology applied to the ewer<sup>(27)</sup>

<sup>(25)</sup>Maickel Van Bellegem, Philip Fletcher, Paul Craddock, Susan La Niece and Richard Blurton, "The black bronzes of Burma, *The black bronzes of Burma*", The British Museum, Vol.1, 2007, p. 55.

<sup>(26)</sup>Mohamed, W., and Darweesh, S., "Ancient Egyptian Black-Patinated Copper Alloys", *Archaeometry*, 54, 2012, p. 175.

<sup>(27)</sup>Lutfia. H. Khalil, Op. Cit.,, p. 36.

The ewer was made separately of its spout; by hammering and mechanically joining spouts. The spout seems cast and is U shaped in cross- section; it flanges for attachment to the ewer (Fig.11) <sup>(28)</sup>. The inner flanges are usually larger than the corresponding outer one; (Fig.12); therefore it can be observed as thinning and cracking around the edges (Fig.4A) which is characteristic of this hammering process and the stresses it generates in metal.

The ewer was made by different ways leading to deformation in the grains; the initial grain structure of a homogeneous alloy can be characteristic as hexagonal grains. When these grains are deformed by hammering they flattened (their shape is distorted by slip, dislocation movement, and the generation of dislocations as a result of working) until they are too brittle to work any further. At this point, the grains are said to be fully work-hardened <sup>(29)</sup>. The dislocations act together and with grain boundaries and inclusions. At a certain degree of distortion the motion of the dislocations is impeded. If the material is further deformed its structure will be damaged by cracks until the material fails <sup>(30)</sup>.

Optical image obtained from surface revealed the presence of gray dark tenorite, in addition to light green corrosion products and white compounds which present remaining soil particles <sup>(31)</sup>.

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<sup>(28)</sup>Schorsch, D., Op. Cit., p 154.

<sup>(29)</sup> Scott, D.A., Op. Cit., p. 6.

<sup>(30)</sup>Frame, L.D., Freestone, I.C., Shu Yan Zhang, and Nicholas, M., "The effects of corrosion and conservation treatments on non-destructive neutron diffraction analysis of archaeological copper alloys: preliminary results", *Archaeometry*, 55, 2013, pp. 69-70

<sup>(31)</sup> Ivan De Ryck, Emmanuel Pantos and Annemie Adriaens, "Near Eastern ancient bronze objects from Tell Beydar (NE-Syria): into their Corrosion", *Euro-physics News*, Vol.38, No.5, 2007, p. 31.

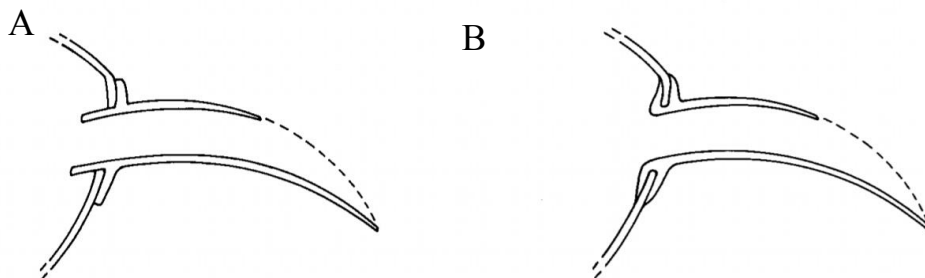


Fig.11 A) diagram of cast spout before mechanical attachment, B) diagram of cast spout after mechanical attachment, after Schorsch, D., Op. Cit., p 154.

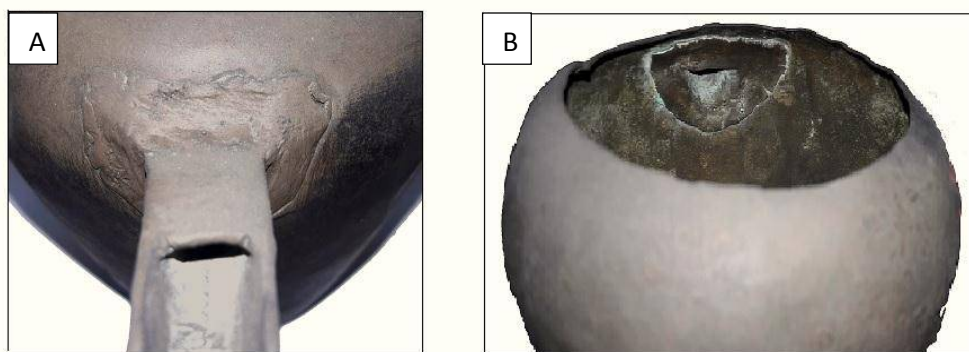


Fig.12 shows mechanical joined of spout with the ewer a) from the outer surface and b) from the inner

Optical micrographs revealed the corrosive features rough and powder with different colors of the deposited layer; the cross-section showed it had a sandwich structure. Metallography investigation confirmed these results through a cross-section of a sample as seen through a reflecting optical microscope.

Scanning electron microscopy (SEM) examination identified inclusions; inclusions are foreign particles appeared distributed throughout the structure of a metal. They can be created during melting and related to ores, fluxes, incompletely dissolved

metallic alloy or impurities. Identification of inclusions by examination of their color under SEM microscope carried out (Fig.8 c, d) showed light blue inclusions represented arsenic and sulfide<sup>(32)</sup>; while copper appeared as orange surrounded by light green layer of paratacamite (Fig.8b). The SEM cross-section (Fig. 8a) showed copper in the middle as a core metal then layers of paratacamite and in the top layers there were arsenic and sulfide.

XRD and SEM-EDX analysis identified the alloy which consists of copper-arsenic alloy and copper as the base material (copper 78.6% and arsenic 0.87%), paratacamite as the main corrosion product and copper sulfide presents as (CuAsS) lautite; in addition of traces of (Cu<sub>9</sub>As) whitneyite and tenorite copper oxide.

The copper oxide mineral tenorite of grey-black color is the principal corrosion product of copper; it usually occurs directly connected with the metallic surface<sup>(33)</sup>. Atacamite, and paratacamite, minerals of pale green color are often associated with specific corrosion deterioration of archaeological metals called 'bronze disease'. These unstable compounds are produced by a reaction of mineral nantokite (CuCl) with moisture and oxygen. This reaction takes place after the removal of the object from the soil environment due to chlorides combined with the corrosion layers. This type of corrosion can lead to very serious chemical and mechanical deterioration of archaeological ewer resulting in cracking or fragmentation. Chloride ions necessary for the course of the reaction created mainly from the degradation process of organic materials that occur in the immediate vicinity of the object<sup>(34)</sup>. Copper sulfides presented in the metallic

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<sup>(32)</sup>Lutfia. H. Khalil, Op. Cit., p. 44.

<sup>(33)</sup>Scott, D. "A Copper and Bronze in Art: Corrosion, Colorants", Conservation. Los Angeles, J. P. Getty Museum, 2002, P.82

<sup>(34)</sup>Selwyn, L., "Metals and Corrosion: A Handbook for the Conservation Professional. Canada", Canadian Conservation Institute, 2004, P. 66

structures could be interpreted as an impurity originating through the object production <sup>(35)</sup>. Corrosion layers enriched with arsenic acts an important role in the evaluation of the elemental composition of alloys and can lead to distorted results. A presence of this layer is rather the result of the corrosion process in the soil, where migration of arsenic ions to the metal surface took place, resulting in the formation of corrosion products with a higher concentration of this element <sup>(36)</sup>.

## Conclusion

The unique copper–arsenic ewer had highly archaeological value attributed to mechanical technology, alloy type and the ewer concerned from ancient period. The ewer was made by cold-working and the spout was joined mechanically. The studied ewer was investigated with a variety of analytical methods. The results show that the structure and the composition of the corrosion are influenced by original composition of copper-arsenic alloy. In general the ewer had very thin metallic thickness, missing parts and corrosion products. The examination under optical, metallographic and SEM conditions allowed us to identify the nature of the alloy, characterized by the presence of cracks or fissures and cavities. EDX analysis indicated that the ewer was made of copper-arsenic alloy. The examination of the cross-sectioned patina revealed its complex structure and allowed the identification of three different and irregular layers. These layers are characterized by different chemical composition with variable content of the alloy elements (Cu and AS) and elements coming from the soil such as Cl, and S.

The XRD results revealed an interaction between soil constituents and the copper-arsenic alloy. The dangers of corrosion products are attributed to the presence of chlorides

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<sup>(35)</sup>Tylecote, R. F., "*Metallurgy in archaeology prehistory metallurgy in the British Isles*". London, Edward Arnold Publishers, 1990

<sup>(36)</sup>Martin Odler, Op. Cit., p. 245.

contact with metal as showed in cross-section. This type of corrosion is known to be very active especially in presence of humidity.

The corrosion of copper with low arsenic contact is observed in outer corrosion layer which is composed of sulfides corrosion products. The migration of arsenic ions to the metal surface resulted in the formation of corrosion products with a higher concentration causes a failed of ewer alloy. To keep this unique copper-arsenic ewer the treatment processes were carried out by mechanical, chemical cleaning and complete the missing parts to support the thin metallic surface in the ewer body; finally the ewer was isolated to protect

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## دراسة حالة ابريق من سبيكة النحاس والزرنيخ بالمتحف المصري بالقاهرة

أ.م.د. عبير غريب عبدالله\*

د. منال أحمد ماهر\*\*

### الملخص:

تناول هذا البحث دراسة تحليلية وعلاج إبريق معدني يرجع إلى عصر الدولة القديمة (٢١٨١-٢٦١٣ ق.م)، سجل بالمتحف المصري بالقاهرة تحت رقم ٣٤٧٦ CG، ارتفاعه حوالي ١٠.٥ سم. ولقد انتشر هذا النوع من الإبريق في العصور القديمة، كما كان يوجد مع هذه الإبريق حوض مائي معدني لاستخدامهما لغسل الأيدي في الحياة اليومية ووجد في عديد من مقابر الدولة القديمة لاستخدامهما في الطقوس الدينية، ويعلو هذا الإبريق طبقة سوداء تمثل خصوبة التربة المصرية، كما تميز الإبريق بمصب (بزبوز) مثبت ميكانيكياً بطريقة التقليل من خلال شفه داخلية و أخرى خارجية.

واستخدمت العديد من الطرق لدراسة وفحص وتحليل سبيكة الإبريق ومركبات الصدأ، ولقد تبين من خلال الفحص البصري أن سمك جدار الإبريق رقيق وهش مما ساعد على فقد أجزاء متفرقة من بدن الإبريق، كما أوضح الفحص الميكروسكوبي باستخدام OM & SEM وجود العديد من الكسور والشقوق خاصة بالسطح الداخلي للإبريق، كما تبين من خلال الفحص للقطاع العرضي لطبقة الباتينا باستخدام الميكروسكوب الإلكتروني الماسح والميكروسكوب المينالوجرافي وجود ثلاث طبقات غير متجانسة حيث يوجد النحاس في الوسط يعلوه طبقة خضراء من مركبات الصدا تبين من خلال التحليل بحيود الأشعة السينية و SEM-EDX أنها من الباراتاكاميت أما الطبقة العليا زرقاء اللون تبين من خلال التحليل أنها من الزرنيخ ومركبات الصدأ التي تحتوي على الكبريتات والطبقة العليا السوداء من التنوريت (أكسيد النحاس). وتكمن خطورة مركبات الصدأ في التصاق مركبات الكلوريدات من الباراتاكاميت بالسطح المعدني والتي يزداد نشاطها في وجود الرطوبة كما يؤدي التلف إلى هجرة عنصر الزرنيخ في صورة مركبات صدأ مما يؤدي إلى تلف وانهيار كامل للسبيكة المعدنية بمرور الوقت.

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ومن خلال هذه الدراسة تم اختيار أفضل طريقة علاج مع مراعاة الحفاظ على الأثر ثابت خلال مراحل العلاج وبعدها حيث تم العلاج ميكانيكيا باستخدام الفرر والفرش المختلفة ثم إزالة بقع الصدأ الخضراء باستخدام ٥% ملح روشيل اتبعه ٥% حمض ستريك ذائب في الماء المقطر والشطف الجيد بالماء المقطر ثم التجفيف بالكحول وبعد اتمام التجفيف تم تدعيم السطح من الداخل في الاماكن المفقودة باستخدام ألياف زجاجية والبارالويد ب ٧٢ الذائب في الاسيتون بنسبة ١٥% ، ثم استكمال السطح الخارجي باستخدام مالى نانو أكسيد النحاس الذائب في ٥٠% البارالويد ب ٧٢ الذائب في الاسيتون وأخيرا تم عزل الإبريق باستخدام ٤% البارالويد ب ٧٢ الذائب في الاسيتون.

#### الكلمات الدالة:

سبائك النحاس والزرنيخ- الإرتباط الميكانيكي - الفحص الميكروسكوبي (الضوئي - الالكتروني الماسح- الميتالوجرافي) - التحليل بحيود الاشعة السينية - العلاج.

## **Freedom of Worship as warranted in Islam - in light of Manuscripts and Documents (Historical and Archaeological Study)**

**Dr. Boussy M. Zidan\***

### **Abstract:**

Recently, extremists entitled "ISIS" have been committing unusual behaviors, including persecution, severe punishment, killing, slanting, and burning people alive in the name of Islam. These aggressions are committed against non-Muslims, e.g. Christians and Yazidis, for no reason but believing in other creeds. Furthermore, they act as the exponent of *Sunnah*, persecuting Muslims of different sects as well. Thus, an inquiry emerges as follows: is the term "Human Rights" in general, and freedom of worship in particular, as principles, confined to mankind of Western origin, or is it rooted in Islam as a first handler? Proceeding on this paper; it is become clear that "Human Rights" is not an outcome of western civilization, but it is deeply rooted from the Holy faiths and particularly among the fundamentals of the Islamic Faith about twelve centuries earlier than the West addressed the issue. Returning to true Islamic faith; Holy Qur'ān and the Prophetic *Sunnah* are full of several evidences which reject any illegal persecution to Muslims/non-Muslims alike. On the contrary, there are clear evidences ensuring Islamic faith's tolerance and forgiveness with dissidents and the disbelievers. Typically, freedom of worship is a fundamental right for mankind in Islam.

### **This research aims at:**

- Ensuring that Islam reflects the origin of "Human Rights", especially the freedom of worship.
- Highlighting Islam's innocence of aggressive behaviors of the extremists

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- Spreading the concepts of orthodox "true" Islamic faith.
- Facilitating the erection of truth bridges between Islam and the West.

**keywords:** Extremists, Human rights, Freedom of worship, ISIS, ISIL, Islamic Faith, Prophetic traditions.

## **Research's plan**

I. Introduction

II. Evidences from Qur'ān and Prophetic Sunnah on Freedom of worship

III. Recent behaviors against "Human Rights" in the name of Islam

IV. Manuscripts and archaeological documents referring to freedom of worship in Islam

V. Conclusion

VI. References

VII. Plates

### **I. Introduction**

1.1. The term of "Human Rights", and its introduction.

1.2. Is the term of western origin or is it rooted in Islam?

A right is an order, a privilege, power, or immunity which persons own in face of the state. So became limitations on. Thus, the one has to claim them leaning on ethical, and cultural basis accepted by the society.<sup>(1)</sup> While freedom means the ability to act or choose with free will, and away from any slavery or blaming.<sup>(2)</sup> In *shari'ah*; freedom is what distinguishes a human to act, and talk freely with no force, but according to defined rules.<sup>(3)</sup> Here is an inquiry; is there a difference between right and freedom? Right is accompanied by privacy whereas freedoms are general.<sup>(4)</sup> Another point of view considers right as basis

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<sup>(1)</sup>Yūsūf 'Awād and Others, *Ḥuqūq al-Insān fī al-Ḥayāh at-Tarbāwīyya*, p. 144

<sup>(2)</sup>Jūbrān Massoūd, *Ar-Rā'id Mū'jam Laghawī*, p.563

<sup>(3)</sup>Ūmar Farhāty, *Āliyāt al-Ḥimāya al-Dawlīyya lī-Ḥuqūq Al-Insān*, p. 32

<sup>(4)</sup>Ūmar Al-Ḥadīthī, *Tajrīm al-Ta'āsūf fī Ist'māl al-Ḥaq*, p. 29, 30

before freedom which is defined to be one's ability to manage one's affairs by oneself on one's own without others' interference regardless whether it has been done according to individual or public standard.<sup>(5)</sup>

### **Terms of "Human Rights"**

Numerous terms are used to refer to "Human Rights". Of these, humanity rights, natural rights, ...etc. are used. Since the 19<sup>th</sup> century A.D onwards, the term "Human Rights" has predominated.<sup>(6)</sup> Meaning of "Human Rights" differ from one society to another, and both the meaning and nature of these rights are mainly linked to the concept of humankind.<sup>(7)</sup> After the world war II (1939-45), actual practice to "Human Rights" had been inaugurated even before the term itself predominated. These practices were connected with the old democratic regimes in line with the Holy faiths and all positive laws.<sup>(8)</sup>

According to personal visions and field of specification, researchers have defined "Human Rights" in several ways. Thus, "Human Rights" is explained as a bundle of rights considerably connected with human personality. These rights are stipulated in the international charters that humans have the benefit of them, regardless of their faith, language, color, origin, descent, sex, etc.<sup>(9)</sup> Furthermore, "Human Rights" is defined as "all the rights which individuals and groups actually have, passing over regimes' official observance to the international treaties concerned with "Human Rights".<sup>(10)</sup> Due to multiple definitions of "Human Rights"; it is difficult to set a distinctive one. It is continuously in progress according to international, regional, and local circumstances on political and law standard. There is an unanimous agreement that "Human Rights" are all the rights that

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<sup>(5)</sup>Muhammad Muhammad, al-Ḥuqūq al-Siyāsīyah li al-Aqalīyyāt, p. 341

<sup>(6)</sup>Claudio Zanghi, al-Ḥīmāyyah al-Dawlīyya lī Ḥuqūq al-Insān, p.3

<sup>(7)</sup>Markaz derāsāt al-Wiḥda al-‘Arabiyya, Ḥuqūq al-Insān al-‘Arabi, p.95

<sup>(8)</sup>Qadrī ‘Abd al-Majīd, Al-I’lām wā Ḥuqūq al-Insān, p. 23

<sup>(9)</sup>Ad-Dalil al-‘Arabi ḥawl Ḥuqūq al-Insān wa al-Tanmiyyah, p.43

<sup>(10)</sup>Todd Landman, "Measuring Human Rights: principle, Practice and policy", p. 916

ensure a good life in civilian, political, economic, cultural, and social aspects.<sup>(11)</sup>

Hence, as follows, there appear to be a gradual progress in the “Human Rights” issue based on international/regional, local, and religious sources.<sup>(12)</sup>

### **International sources**

International sources include the worldwide ones for “Human Rights”, all the regional charters, treaties that concerned with the issue including;

#### **Worldwide sources**

These charters are originated and applied universally.<sup>(13)</sup> Of these, there is

#### **- The United Nations charter:**

This is the cornerstone in the law concerned with “Human Rights” in contemporary international community.<sup>(14)</sup> It is the first international charter of a worldwide or semi worldwide features encompassing “Human Rights”.<sup>(15)</sup> It was issued in Francisco in the U.S in June 1945,<sup>(16)</sup> and brought into effect in the 14<sup>th</sup> of Oct. 1945.<sup>(17)</sup> Although this charter did not include a definition to “Human Rights”; it greatly cared about it. This appeared clearly from charter’s opening statement, as follows: ”We are the people of the United Nations, we vowed ourselves to save the coming generations from wars afflictions, which had caused extreme sorrow and sadness for two times through one generation, and to emphasis our belief in the main rights of mankind, his dignity, and honor with no distinction according to sex, and all nations have the same rights”.<sup>(18)</sup> However, this charter did not include the basis for “Human Rights” as a result

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<sup>(11)</sup>Nesrīn Muhammad ‘Abdū Hassūna, *Ḥuqūq al-Insān*, p. 10

<sup>(12)</sup>Aḥmad ar-Rashīdī, ‘Adnān Hūsseīn, *Ḥuqūq al-Insān*, p. 36

<sup>(13)</sup>Al-Shafī’i Muhammad Bashīr, *Qānūn Ḥuqūq al-Insān*, p. 49

<sup>(14)</sup>Ibrāhīm Ma’amr, *Dūr al-Mūnazamāt ad-Dawlīyyah al-Ghīr ḥūkūmīyyah*, p.9

<sup>(15)</sup>Hassānīn Bawādi, *Ḥuqūq al-Insān*, p. 15

<sup>(16)</sup>Hanī Ta’īmāt, *Ḥuqūq al-Insān wa Ḥūriyyātūh*, p. 67

<sup>(17)</sup>Mahmūd Qandil, *al-Ūmam al-Mūtaḥīdah wa ḥimāyt Ḥuqūq al-Insān*, p. 10

<sup>(18)</sup>Jābir ar-Rāwī, *Ḥuqūq al-Insān wa Ḥūriyyātūh*, p. 54, 55.

of coming after the World War II. Hence, the main purpose was to avoid any other wars.<sup>(19)</sup>

### - The international charter for “Human Rights”

On the 17<sup>th</sup> of December 1947, the committee of “Human Rights” on its 12<sup>th</sup> convention in Geneva generalized this term on a group of deeds. Among these deeds were included in the international charter for “Human Rights”, the international treaty for economic, social, and cultural rights, and the international treaty for civilian and political rights.<sup>(20)</sup> These together are identified as the international charter for “Human Rights”. This considered the base from which various international law documents of the UN had originated. In addition; it enclosed principles and general rules mainly linked to “Human Rights”,<sup>(21)</sup> which were considered obligatory for the countries to be committed to.<sup>(22)</sup>

Documents of the international charter

- The first document is the worldwide treaty for “Human Rights”.

On the 10<sup>th</sup> of December, 1948A.D, the general assembly of the United States defined the principles of the worldwide charter for “Human Rights”.<sup>(23)</sup> It is considered the first and main international report dealing with the rights of all mankind.<sup>(24)</sup> This charter is a standard put into action by all nations to evaluate their success in honoring “Human Rights”.<sup>(25)</sup> However; it is not obligatory to the member countries in the United Nations; but it is a moral value with no guarantees to prevent its infraction.<sup>(26)</sup> This charter is one of the United Nations’ most famous and effective documents within the international

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<sup>(19)</sup>Sūhail al-Fatlawī, Ḥuqūq al-Insān, p. 55

<sup>(20)</sup>Muhammad ‘Elwān, Muhammad al-Mūsā, al-Qānūn Al-Dawli lī Ḥuqūq al-Insān, p. 88

<sup>(21)</sup>Aḥmad Abū Al-Wafā, al-Ḥimāyah ad-Dawliyyah lī Ḥuqūq al-Insān, p. 27

<sup>(22)</sup>Cecilia M. Bailliet, “Reinterpreting Human Rights through global Media”, p. 38

<sup>(23)</sup>‘Urūpa al-Khazrajī, al-Qānūn al-Dawli lī Ḥuqūq al-Insān, p.60

<sup>(24)</sup>Radwān Zīyāda, Masīrat Ḥuqūq al-Insān, p. 38- 44

<sup>(25)</sup>Sa’ dī Al-Khaṭīb, Ḥuqūq al-Insān wā Ḍamānataha al-Dīstūrīyya, p. 16

<sup>(26)</sup>Qadrī al-Atrash, Madkhl ela Qaḍaya Ḥuqūq al-Insān, p.66



community. In addition, most of the rights mentioned are listed in the national constitutions and the local legislations in most countries.<sup>(27)</sup> This charter included economic, social, and cultural rights as well as civilian and political ones.<sup>(28)</sup>

-The second document is the international treaty which was concerned with economic, social, and cultural rights. This international treaty was presented for signature, certification, and association according to the decree no. 2200 of the General Assembly of the United Nations on the 16<sup>th</sup> of December 1966. The treaty coped with the treaty's item no. 27 on the 3<sup>rd</sup> of January 1976 A.D.<sup>(29)</sup> This treaty listed the rights concluded in the charter of the United Nations and seen as more inclusive than the rights listed in the worldwide charter for "Human Rights".<sup>(30)</sup>

-The third document is the international Charter of political and civilian rights.

This charter was accredited and presented to be signed and certified in association to the decree no. 2200 of the General Assembly of the United Nations on the 16<sup>th</sup> of December 1966 and began to be carried out according to item no. 49 on the 23<sup>rd</sup> of March 1976.<sup>(31)</sup> This charter searched for international means to protect "Human Rights" which had already been decreed. Thus, it made the treaty more distinguished than the first document (i.e. the Worldwide Charter for "Human Rights"). Furthermore, a special committee for "Human Rights" was constituted under the United Nations control, in order to ensure and supervise the application of these rights.<sup>(32)</sup>

- The international Charter confirmed the following rights: in life, liberty, saving personality reservation, freedom of thoughts,

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<sup>(27)</sup> Karima al-Tāī, Hūsseīn al-Darderī, Ḥuqūq al-Insān wa Ḥūriyyātūh, p. 47

<sup>(28)</sup> Taïeb Baccouche, "Athr Ḥuqūq al-Insān fī Taṭwīr al-mafāhīm al-Thaqāfiyyah", p. 104

<sup>(29)</sup> David Wesburdn and others, mū khtārāt mn Adāwāt Ḥuqūq al-Insān al-Dawliyya, p. 51

<sup>(30)</sup> 'Essam Zanātī, Ḥīmayat Ḥuqūq al-Insān, p. 83- 92

<sup>(31)</sup> Nasir al-Sayed, al-Ḥīmāyah al-Dawliyya lī-hūrayat l'ṭīnāq, p. 130

<sup>(32)</sup> Hanī Ta'imāt, Ḥuqūq al-Insān wa Ḥūriyyātūh al-Assāssiyyah, p. 71

freedom of worship, and equality before law.<sup>(33)</sup> There are the decrees of the United Nations concerning “Human Rights” as well. Of these the decree no 52/122 of the General Assembly stated the destruction of all shapes of intolerance that had somehow been decreed in 1997.<sup>(34)</sup>

### **B- Regional sources**

Several regional charters and treaties had been concluded to protect “Human Rights” in Europe, United States, Africa, Arab countries, and Muslim organizations. These charters formed critical sources for “Human Rights” besides the previously mentioned worldwide sources. These charters are follows:

1. The European treaty for “Human Rights” signed in November 1950 brought into effect on the 3<sup>rd</sup> of September 1953 as approved by the 21 countries members in the European council at that time.<sup>(35)</sup>

2. The American treaty for “Human Rights” which the American Countries Organization had issued for “Human Rights” in San Jose on the 22<sup>nd</sup> of November 1969. It was brought into effect on the 18<sup>th</sup> of July 1978.<sup>(36)</sup>

3. The African Charter for “Human Rights” approved by the United African Organization in 1981 and brought into effect on the 21<sup>st</sup> of October 1986. The existence of the African Committee for “Human Rights” was to ensure its application.<sup>(37)</sup> However, it is of a weak phrasing in light of commitments of the African States involved. Thus, it is of a lower grade of protection if compared with the European and American systems.<sup>(38)</sup>

4. The Arabian Charter for “Human Rights” which has been issued and accredited in its premier copy based on decree no 5427 of the League of the Arab States on the 10<sup>th</sup> of September

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<sup>(33)</sup> Sa’ dī Al-Khaṭīb, *Huqūq al-Insān wā Ḍamānaṭahah al-Dīstūrīyya*, p. 33

<sup>(34)</sup> Aḥmad Abū Al-Wafā, *al-Ḥīmāyah ad-Dawlīyyah lī hū qū q al-Insān*, p. 36

<sup>(35)</sup> Nasir al-Sayed, *al-Ḥīmāyah al-Dawliyya lī-hūrayat I’tīnāq*, p. 138

<sup>(36)</sup> Karima al-Tāī, *Hūsseīn al-Darderī, Huqūq al-Insān wa Hūriyyātūh al-Assāsiyyah*, p. 78

<sup>(37)</sup> Ali Al-Na’ūq, *Huqūq al-Insān*, p. 3

<sup>(38)</sup> Tārīq Rakhā, *Qānūn Huqūq al-Insān*, p. 19

1997 A.D. Its second copy was issued and accredited on the 16<sup>th</sup> Arabs League in Tunisia on the 23<sup>rd</sup> of May 2004 A.D.<sup>(39)</sup> This charter deals with the civilian, political, economic, social, and cultural rights in light of international charter.<sup>(40)</sup> It is worth mentioning that The Arabian was charter dictated to establish an expert committee of “Human Rights” but it was mostly not specialized in the issue.<sup>(41)</sup>

### **Local Sources**

These sources include constitutions and local legislations that include items concerned with “Human Rights”.<sup>(42)</sup>

### **Religious Sources**

These sources had drawn up thoughts and practical bases for human right. There is no doubt that respecting equal rights of all mankind without putting in mind any racial discrimination is among the supreme values and ruling principles laid down and included in the three holy faiths (Judaism, Christianity, and Islam).<sup>(43)</sup>

Despite all the previously mentioned international and regional charters; however, “Human Rights” is not the outcome of the Western civilization, but its roots are believed to be among the main contents of the Holy faiths and Islam in particular.<sup>(44)</sup>

Islam is the premiere or the first to state the principles of “Human Rights” in its complete form.<sup>(45)</sup> It settled the basis of the international law for “Human Rights” and preceded the West in protecting these rights.<sup>(46)</sup> Islam bestowed right in life and considered honoring this right to be obligatory.<sup>(47)</sup> Islam had manipulated humankind conditions and put into effect principals

<sup>(39)</sup>Hana’ Ibrāhīm, ‘Ali al-Ḥadībī, Ta’līm Ḥuqūq al-Insān, p. 37

<sup>(40)</sup>Al-Shafī’i Muhammad Bashīr, Qānūn Ḥuqūq al-Insān, p. 82

<sup>(41)</sup>Tārīq Rakhā, Qānūn Ḥuqūq al-Insān, p. 20, 21

<sup>(42)</sup>Al-Shafī’i Muhammad Bashīr, Qānūn Ḥuqūq al-Insān, p.44

<sup>(43)</sup>Qaḍrī ‘Abd al-Majīd, Al-I’lām wā Ḥuqūq al-Insān, p. 62

<sup>(44)</sup>Hassānīn Bawādi, Ḥuqūq al-Insān wa Ḍamānāt al-Mūtaham, p. 105

<sup>(45)</sup>‘Attīyya khalīl ‘Attīyya, Asāssiyyāt fī Ḥuqūq al-Insān, p. 29

<sup>(46)</sup>‘Abd el-Kareem Khalifa, al- Qānūn ad-Dawlī lī-Ḥuqūq al-Insān, p. 29

<sup>(47)</sup>‘Ali Muhammad Ad-Dabās, ‘Ali ‘Eliān Abū Zaiied, Ḥuqūq al-Insān wa Ḥū riyātūh, p. 37

of the political, social, and civilian rights. Such interests in rights and benefits for humans were neither reflected or reached in other holy faith nor was fully expressed in any positive legislation all over the world.<sup>(48)</sup> Islamic faith drew up a complete charter dealing with “Human Rights” and liberties,<sup>(49)</sup> and established a precise system with warranties sufficient to protect them. This occurred about twelve centuries earlier than the declaration of the rights decreed from the American and French revolutions towards the end of the 18<sup>th</sup> century, and fourteen centuries earlier than issuing the Worldwide charter of “Human Rights” in 1948 A.D. These rights basically are found in the holy Qur’ān and the prophetic traditions to be,<sup>(50)</sup> however, later represented as “human being discovery” as an achievement just obtained at the time of the French revolution. The principal rights for mankind are equality and freedom. Modern democratic nations have pretended that the world owes them for issuing those two rights. Gratitude for Britain was expressed as they were assumed to be the deep-rooted people who handled “Human Rights”. Furthermore, the French pretended that recognizing and accrediting these rights came as a result of their revolution. Other nations pretended their share in accrediting these rights as well.

However, Islamic faith was the first to issuing the principals of “Human Rights” in its complete image. During Prophet Muhammad’s (PBUH) life and the orthodox caliphs’ eras, Muslims were the preceding community in following them. The charter of the United Nations about “Human Rights” is just a re-appeal for noble commandment that Muslims received from the last of the prophets Muhammad ibn Abdullah (PBUH).

As the last of the holy faiths, Islam, encloses all instructions that preserve a stable life for all human beings. Thus, it encompasses all the rights needed for mankind, and it detailed

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<sup>(48)</sup> Jābir ar-Rāwī, Ḥuqūq al-Insān wa Ḥūriyyātūh al-Assāssīyyah, p.252

<sup>(49)</sup> ‘Ali Al-Shūkrī, Ḥuqūq al-Insān fi Dhīl al-‘Awlamah, p. 61

<sup>(50)</sup> Nesrīn Muhammad ‘Abdū Hassūna, Hūqūq al-Insān al-Mafhūm wa al-Khaṣāṣ, p. 23

these rights so as not to leave no way for doubt or argument. God had granted life for humans and considered saving it among the main objectives of faith.<sup>(51)</sup> Such meaning is clearly found in the following verse of Qur'ān:

مِنْ أَجْلِ ذَلِكَ كَتَبْنَا عَلَىٰ بَنِي إِسْرَائِيلَ أَنَّهُ مَنْ قَتَلَ نَفْسًا بِغَيْرِ نَفْسٍ أَوْ فَسَادٍ فِي الْأَرْضِ فَكَأَنَّمَا قَتَلَ النَّاسَ جَمِيعًا وَمَنْ أَحْيَاهَا فَكَأَنَّمَا أَحْيَا النَّاسَ جَمِيعًا ۗ وَلَقَدْ جَاءَتْهُمْ رُسُلُنَا بِالْبَيِّنَاتِ ثُمَّ إِنَّ كَثِيرًا مِنْهُمْ بَعَدَ ذَلِكَ فِي الْأَرْضِ لَمُسْرِفُونَ<sup>(52)</sup> (٣٢)

This verse is interpreted as follows: Because of that, we ordained for children of Israel that if anyone killed a person not in retaliation of murder, or to spread mischief in the land-it would be as if he killed all mankind, and if anyone saved a life, it would be as if he saved the life of all mankind. and indeed, there came to them our messengers with clear proofs, evidences, and signs; even then after that, many of them continued to exceed the limits (e.g. by doing unjust oppression and exceeding the limits set by Allāh by committing the major sins) in the land<sup>(53)</sup>

Full life is protected, and killing is a crime. Even just any transgressing; causing any deterioration is a crime as well, and an aggression deserves revenge, which is decreed for maintaining complete security among people.<sup>(54)</sup> Such meaning exists in the following verse of Qura'n:

وَلَكُمْ فِي الْقِصَاصِ حَيَاةٌ يَا أُولِي الْأَلْبَابِ لَعَلَّكُمْ تَتَّقُونَ<sup>(55)</sup> (١٧٩)

And there is (a saving of) life for you in Al-Qisas (the law of Equality in punishment), O men of understanding, that you may become Al-Muttaqun (the pious)<sup>(56)</sup>

<sup>(51)</sup> Muhammad al-Ghazālī, *Huqūq al-Insān bayn Ta'ālīm al-Islām*, p. 6-11,46

<sup>(52)</sup> The holy Qur'ān, surat Al-Mā'idah, verse no. 32

<sup>(53)</sup> Muhammad Taqī-ud-Dīn al-Hilālī& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur'ān, p. 130, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(54)</sup> Muhammad al-Ghazālī, *Huqūq al-Insān*, p. 47

<sup>(55)</sup> The holy Qur'ān, surat al-Baqara, verse no. 179

<sup>(56)</sup> Muhammad Taqī-ud-Dīn al-Hilālī& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur'ān, p. 33, <http://www.publications-img.qurancomplex.gov.sa>

## II-Evidences from Qur’ān and Prophetic *Sunnah* on Freedom of worship

Right faith come from the wise man’s recognition for truth, and then his belief in it according to his satisfaction. The Holy Qur’ān mentioned the dissidents and unbelievers in several shapes. But never mentioned forcing anybody to believe in Islam. Islam is never, and will never be, afraid if thousands of other faiths’ believers insisting to keep on maintaining their faiths.<sup>(57)</sup>

This meaning exists in the following verses of Qur’ān:

لَكُمْ دِينُكُمْ وَلِيَ دِينِ (٦) <sup>(٥٨)</sup>

To you be your religion, and to me my religion (Islamic monotheism)(6)<sup>(59)</sup>

وَإِنْ كَذَّبُوكَ فَقُلْ لِي عَمَلِي وَلَكُمْ عَمَلُكُمْ أَنْتُمْ بَرِيءُونَ مِمَّا أَعْمَلُ وَأَنَا بَرِيءٌ مِمَّا تَعْمَلُونَ (٤١) <sup>(٦٠)</sup>

And if they deny you, say: ‘For me are my deeds and for you are your deeds! You are innocent of what I do, and I am Innocent of what you do!’<sup>(41)</sup><sup>(61)</sup>

Islam did not oblige a Christian or a Jewish to change their beliefs, but asked them to stay on their old faith. It Just did not confront any Muslim believers with any attacks or bad argument, this is stated in the following verse of holy Qur’ān:

فَإِنْ حَاجُّوكَ فَقُلْ أَسْلَمْتُ وَجْهِيَ لِلَّهِ وَمَنِ اتَّبَعَنِ ۗ وَقُلْ لِلَّذِينَ أُوتُوا الْكِتَابَ وَالْأُمِّيِّينَ أَأَسْلَمْتُمْ ۗ فَإِنْ أَسْلَمُوا فَقَدِ اهْتَدَوْا ۗ وَإِنْ تَوَلَّوْا فَإِنَّمَا عَلَيْكَ الْبَلَاءُ ۗ وَاللَّهُ بِاصْتِرَائِكُمْ بِالْعِبَادِ <sup>(٦٢)</sup> (٢٠)

So, if they dispute with you (Muhammad PBUH) say: “I have submitted myself to Allāh (in Islam), and (so have) those who follow me.” And say to those who were given the scripture (Jews and Christians) and to those who are illiterates (Arab pagans):

<sup>(57)</sup> Muhammad al-Ghazālī, *Huqūq al-Insān*, p. 72,73

The holy Qur’ān, surat al-kafirūn, verse no. 6<sup>(58)</sup>

<sup>(59)</sup> Muhammad Taqī-ud-Dīn al-Hilālī& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur’ān, p. 691, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(60)</sup> The holy Qur’ān, surat Yunus, verse no. 41

<sup>(61)</sup> Muhammad Taqī-ud-Dīn al-Hilālī& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur’ān, p. 238, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(62)</sup> The holy Qur’ān, surat Al-‘Imran, verse no. 20

“Do you (also) submit yourselves (to Allāh in Islam)?” if they do, they are rightly guided; but if they turn away, your duty is only to convey the message; and Allāh is All-Seer of (His) slaves.(41)<sup>(63)</sup>

Freedom of worship that Islam ensured to people is unique in all the world. Although Islam used autocracy in several countries, but still bestowing all means of prosperity and survival for all the un believers.<sup>(64)</sup> Islam is a call for one god, and the believe in Allāh the lord, and respect all the faiths that brought to people with all the prophets and messengers of God. Muslims should believe in prophets Moses and Essa as their believe in prophet Muhammad (PBUH). If any Muslim did not believe in the antecedent prophets or talked badly about; so he is detached. This meaning is precisely reported in the holy Qur’ān, as follows;

قُولُوا آمَنَّا بِاللَّهِ وَمَا أُنزِلَ إِلَيْنَا وَمَا أُنزِلَ إِلَىٰ إِبْرَاهِيمَ وَإِسْمَاعِيلَ وَإِسْحَاقَ وَيَعْقُوبَ وَالْأَسْبَاطِ وَمَا أُوتِيَ مُوسَىٰ وَعِيسَىٰ وَمَا أُوتِيَ النَّبِيُّونَ مِنْ رَبِّهِمْ لَا نُفَرِّقُ بَيْنَ أَحَدٍ مِنْهُمْ وَنَحْنُ لَهُ مُسْلِمُونَ (١٣٦)<sup>(٦٥)</sup>

Say (O Muslims), “ we believe in Allāh and that which has been sent down to us and that which has been sent down to Ibrāhîm, Ismā’îl, Ishāq, Ya’qūb, and to Al-Asbāt [the offspring of the twelve sons of Ya’qūb], and that which has been given to Mūsā (Moses) and Îsā (Jesus), and that which has been given to the prophets from their Lord. We make no distinction between any of them, and to Him we have submitted ourselves (in Islam).(136)<sup>(66)</sup>

This means that a Muslim should believe in Torah and Bible as supplements for his belief in the final faith; Islam.<sup>(67)</sup>

- The worldwide Report of “Human Rights” in Islam

<sup>(63)</sup> Muhammad Taqî-ud-Dîn al-Hilālî& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur’ān, p. 63, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(64)</sup> Muhammad al-Ghazālî, Ḥuqūq al-Insān, p. 74, 75

<sup>(65)</sup> The holy Qur’ān, surat al-Baqara, verse no. 136

<sup>(66)</sup> Muhammad Taqî-ud-Dîn al-Hilālî& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur’ān, p. 25, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(67)</sup> . Muhammad al-Ghazālî, Ḥuqūq al-Insān, p. 76

This report had been proclaimed by the Islamic council in December 1981.<sup>(68)</sup> This report drew attention to Islam and Human rights. It contains a preamble and twenty articles based on Qur'an and prophetic traditions as the main source of Islamic law "*Shari'ah*". The preamble actually refers to main principals; all human beings are equal and free, there is no discrimination between people according to their race, color, sex, origin, religion, or language. Moreover, it referred several times to the word law, which means that the provisions of this declaration are always subject to rules of Islamic *Shari'ah*.<sup>(69)</sup>

Formerly, this council had issued the first document "worldwide report", in London in April 1980, including the general review for Muslim system. In Islam, "Human Rights" is not a bonus of a ruler, or a decree of local authority or International Organization. Being from Allah; "Human Rights" are obligatory to be honored. This report was succeeded by a deed on "Human Rights" in Islam; to approve "Human Rights" as base stone for establishing a real Muslim community. "Human Rights" in Islam are varied; right in life, freedom of thoughts, freedom of worship, These are detailed as follows:

#### - **The right in life**

Human life is venerated and no one is allowed to attempt others' lives.<sup>(70)</sup> This meaning is reported in the following verse of Qur'an:

مِنْ أَجْلِ ذَلِكَ كَتَبْنَا عَلَىٰ بَنِي إِسْرَائِيلَ أَنَّهُ مَنْ قَتَلَ نَفْسًا بِغَيْرِ نَفْسٍ أَوْ فَسَادٍ فِي الْأَرْضِ فَكَأَنَّمَا قَتَلَ النَّاسَ جَمِيعًا وَمَنْ أَحْيَاهَا فَكَأَنَّمَا أَحْيَا النَّاسَ جَمِيعًا ۗ وَلَقَدْ جَاءَتْهُمْ رُسُلُنَا بِالْبَيِّنَاتِ ثُمَّ إِنَّ كَثِيرًا مِنْهُمْ بَعَدَ ذَلِكَ فِي الْأَرْضِ لَمُسْرِفُونَ<sup>(٧١)</sup>(٣٢)

( 68 ) Muhammad Amin Al-Midani, Les Droits de l'Homme et l'Islam, p.103, [https://aci.hl.org/publications.htm?article\\_id=25](https://aci.hl.org/publications.htm?article_id=25)

(69) Lucie Pruvost, "Déclaration universelle des droits de l'homme dans l'Islam et Charte internationale des droits de l'homme", p. 145, [https://www.aci.hl.org/articles.htm?article\\_id=5](https://www.aci.hl.org/articles.htm?article_id=5)

(70) Muhammad al-Ghazālī, Ḥuqūq al-Insān, p. 210, 212

(71) The holy Qur'an, surat Al- Mā'idah, verse no. 32



Because of that, we ordained for children of Israel that if anyone killed a person not in retaliation of murder, or to spread mischief in the land-it would be as if he killed all mankind, and if anyone saved a life, it would be as if he saved the life of all mankind. And indeed, there came to them our messengers with clear proofs, evidences, and signs, even then after that many of them continued to exceed the limits (e.g. by doing unjust oppression and exceeding the limits set by Allāh by committing the major sins) in the land (32)<sup>(72)</sup>

### - The freedom of Thoughts

Everyone is free to think, and to express his thoughts so long as he maintains the general limits set in accordance to law. Respecting feelings of believers of other faiths is of the Muslims' morals, and no one is allowed to mock at others' beliefs, or to appeal for the support of community against them. The following verse of the Holy Qur'ān declared this.

وَلَا تَسُبُّوا الَّذِينَ يَدْعُونَ مِنْ دُونِ اللَّهِ فَيَسُبُّوا اللَّهَ فَمِيسُوبًا اللَّهُ عَدُوًّا بِغَيْرِ عِلْمٍ كَذَلِكَ زَيَّنَّا لِكُلِّ أُمَّةٍ عَمَلَهُمْ ثُمَّ إِلَىٰ رَبِّهِمْ مَرْجِعُهُمْ فَيُنَبِّئُهُمْ بِمَا كَانُوا يَعْمَلُونَ<sup>(٧٣)</sup> (١٠٨)

And insult not those whom they (disbelievers) worship besides Allāh, lest they insult Allāh wrongfully without knowledge. Thus we have made fair-seeming to each people its own doings; then to their lord is their return and He shall then inform them of all that they used to do(108)<sup>(74)</sup>

### - The freedom of worship

Many censures had been directed to freedom of worship in Islam from many aspects, these are;

1. Islam did not allow freedom of worship and Muslims used to unsheathe their swords in face of dissentients to believe in Islam.

<sup>(72)</sup> Muhammad Taqî-ud-Dîn al-Hilālî& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur'ān, p. 130, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(73)</sup> The holy Qur'ān, surat Al- An'ām, verse no. 108

<sup>(74)</sup> Muhammad Taqî-ud-Dîn al-Hilālî& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur'ān, p. 162, 163 <http://www.publications-img.qurancomplex.gov.sa>

2. Islam prevent discussing other religious beliefs, so prohibit people from choosing their own faith.

3. A Muslim is not allowed to change his faith, and if he did, he should be severely punished, to be killed.

Actually, all these aspects are fault, and did not last in front of clear proofs recurred from experts and scholars concerning this. Religious beliefs connect mankind with his lord, so it is based on complete persuasion, and never done forcibly.

There are statements of several orientalist prove the untruly allegation that Islam had spread by force. Of those; Islam prohibit aggression in several direct verses of Qur'an and some prophetic traditions as well. Besides, Islam condemned all inhumanity and belligerent works. Furthermore, several Muslim countries were reigned by non-Muslim regimes, which allowed missionary organizations to spread Christianity in Muslim countries. Though they could not displace Islam for one step away from these communities' life.<sup>(75)</sup> On the other hand, in old communities the core of social and political bloc was the unity of religion. Thus, the title foreigner was referring to the one whose religious beliefs differ from the community. As a result, he was considered an enemy and was legal to be killed and his money to be plundered.

On the other hand, a person is attributed to the community if he has the same beliefs, even if he lives in a place remote from that community. Through the medieval times; Europe had forbidden non- Christians from all their rights, except in rare issues. However, Islamic law "*Shari'ah*" surpassed old positive laws and earlier Holy faiths in protecting equal rights to both Muslims and non-Muslims evenly, with a simple phrase "they had both rights and duties of us as well".<sup>(76)</sup>

However, according to Islamic law "*Shari'ah*" non-Muslims who refuse to believe in Islam are freely allowed to live with

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<sup>(75)</sup>Laura Veccia Vaglieri, Defa' 'An Al-Islam, p. 12

<sup>(76)</sup>Şūfi Ḥassan Abū Ṭāleb, Tāriḫ an-Nuzum al-Qanūniyyah, p. 71,72.

Muslims in their community and become members if they wish. They just had to decree Loyalty to this society and respect its regulations. Actually, the treatment of non-Muslims in Islamic societies and their rights in light of Islamic law indicates the possibility of coexistence of non-Muslims and Muslims. This is ensured under what is known as “*Aqd al-Dhimah*” non-Muslims contract. Therefore, this confute the views of whom advocate that Islamic societies basically founded on persecuting non-Muslims and forcing them to change their faith.<sup>(77)</sup> Due to justice by which Arabians were characterized, several Christians believed in Islam; and adopted Arabic as their own language.<sup>(78)</sup> Therefore, Other orientalist advocated that Islam had widely spread basing on the internal force of Islamic faith and its strong connection with man’s intellectual and sensation.<sup>(79)</sup> Definitely, there were no conquers more merciful and tolerant than the Arabs.<sup>(80)</sup>

As a conclusion, the rights of non-Muslim minorities in the Muslim communities are basically what human rights advocates aspire to for religious minorities and foreigners in modern countries. And that their duties were based on justice. The main source of these rights and duties is Islamic law ”*Shari’ah*”, so they are stable and respected.<sup>(81)</sup> These meanings are definitely reported in Qur’ān; as follows:

لَكُمْ دِينُكُمْ وَلِيَ دِينِ (٦) (٨٢)

<sup>(77)</sup> Abd el-Kareem Zidan, “Mū’āmalat al-Aqaliyyāt ghīr al-Muslima wa al-Ajānib fī al-Shari’ah al-Islāmīyya”, p. 307, <http://www.drzedan.com/content.php?id=30>

<sup>(78)</sup> Gustave Le Bon, *Ḥadārat al-‘Arab*, p. 151

<sup>(79)</sup> Ja’far ‘Abd el-Salām, “Ḥuqūq al-Insan fī al-Islam” a research presented in a colloquium entitled “al-Islam fī Sharq Asia, Ḥadārah wa Mū’āsrah”, Taipei, Taiwan, 1425 A.H/ 2003 A.D, p. 33

<sup>(80)</sup> Gustave Le Bon, *Ḥadārat al-‘Arab*, p. 151

<sup>(81)</sup> Abd el-Kareem Zidan, “Mū’āmalat al-Aqaliyyāt ghīr al-Muslima wa al-Ajānib fī al-Shari’ah al-Islāmīyya”, p. 307, <http://www.drzedan.com/content.php?id=30>

<sup>(82)</sup> The holy Qur’ān, surat Al- Kafirun, verse no.6

To you be your religion, and to me my religion (Islamic monotheism)(6)<sup>(83)</sup>

-Evidences from the Holy Qur'ān and Prophetic traditions (*hadiths*):

### 1. Holy Qur'ān

Several verses of the Holy Qur'ān are assuring each one's freedom of worship. These verses, as part of the Holy Qur'ān; are the speech of Allāh. Thus; whenever any human does not comply, he is a disobedient. Such extremist attitudes are not to be the defect of Islam. Examples of these verses as follow:

لَا إِكْرَاهَ فِي الدِّينِ ۗ قَدْ تَبَيَّنَ الرُّشْدُ مِنَ الْغَيِّ ۗ فَمَنْ يَكْفُرْ بِالطَّاغُوتِ وَيُؤْمِنْ بِاللَّهِ فَقَدِ اسْتَمْسَكَ بِالْعُرْوَةِ  
الْوُثْقَىٰ لَا انْفِصَامَ لَهَا ۗ وَاللَّهُ سَمِيعٌ عَلِيمٌ<sup>(٨٤)</sup>(٢٥٦)

There is no compulsion in religion; Verily, the right path has become distinct from the wrong path. Whoever disbelieves in Tāghūt (evil) and believes in Allāh, then he has grasped the most trustworthy handhold that will never break. And Allāh is All-Hearing, All-Knower(256)<sup>(85)</sup>

وَقُلِ الْحَقُّ مِنْ رَبِّكُمْ ۗ فَمَنْ شَاءَ فَلْيُؤْمِنْ وَمَنْ شَاءَ فَلْيُكْفُرْ ۗ إِنَّا أَعْتَدْنَا لِلظَّالِمِينَ نَارًا أَحَاطَ بِهَا ۗ  
وَأَنْ يَسْتَعِينُوا يُعَاثُوا بِمَاءٍ كَالْمُهْلِ يَشْوِي الْوُجُوهَ ۗ بِئْسَ الشَّرَابُ وَسَاءَتْ مُرْتَفَعًا<sup>(٨٦)</sup>(٢٩)

And say, "The truth is from your Lord. Then Whoever wills-let him believe. And whoever wills-let him disbelieve". Verily, we have prepared for the *Zālimūn* (polytheists and wrong-doers) a Fire, whose walls will be surrounding them (disbelievers in the oneness of Allāh). And if they ask for help (relief, water), they

<sup>(83)</sup> Muhammad Taqī-ud-Dīn al-Hilālī& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur'ān, p. 691, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(84)</sup> The holy Qur'ān, surat Al- Baqarah, verse no.256

<sup>(85)</sup> Muhammad Taqī-ud-Dīn al-Hilālī& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur'ān, p. 52, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(86)</sup> The holy Qur'ān, surat Al- Kahaf, verse no.29

will be granted water like boiling oil, that will scalds their faces. Terrible is the drink, and evil *Murtaqaf* (resting place)(29)<sup>(87)</sup>

إِنَّ هَذِهِ تَذِكْرَةٌ فَمَنْ شَاءَ اتَّخَذَ إِلَىٰ رَبِّهِ سَبِيلًا (٢٩)<sup>(٨٨)</sup>

Verily, this (verse of the Qur'ān) is an admonition, so whosoever wills, let him take a path to his Lord (Allāh)(29)<sup>(89)</sup>

قُلِ اللَّهُ أَعْبُدُ مُخْلِصًا لَهُ دِينِي (١٤) فَأَعْبُدُوا مَا شِئْتُمْ مِنْ دُونِهِ ۗ قُلِ إِنَّ الْخَاسِرِينَ الَّذِينَ خَسِرُوا أَنْفُسَهُمْ وَأَهْلِيهِمْ يَوْمَ الْقِيَامَةِ ۗ أَلَا ذَلِكَ هُوَ الْخُسْرَانُ الْمُبِينُ (١٥)<sup>(٩٠)</sup>

Say (O Muhammad): Allāh alone I worship by doing religious deeds sincerely for his sake only(14) So worship what you like besides Him. Say (O Muhammad): The losers are those who will lose themselves and their families on the Day of Resurrection. Verily, that will be a manifest loss(15)<sup>(91)</sup>

وَلَوْ شَاءَ رَبُّكَ لَأَمَنَّ مَنْ فِي الْأَرْضِ كُلَّهُمْ جَمِيعًا ۚ أَفَأَنْتَ تُكْرِهُ النَّاسَ حَتَّىٰ يَكُونُوا مُؤْمِنِينَ (٩٩)<sup>(٩٢)</sup>

And had your Lord willed, those on earth would have believed, all of them together. So, will you (O Muhammad): then compel mankind, until they become believers (99)<sup>(93)</sup>

قُلْ يَا أَيُّهَا النَّاسُ قَدْ جَاءَكُمْ الْحَقُّ مِنْ رَبِّكُمْ ۗ فَمَنْ اهْتَدَىٰ فَإِنَّمَا يَهْتَدِي لِنَفْسِهِ ۗ وَمَنْ ضَلَّ فَإِنَّمَا يَضِلُّ عَلَيْهَا ۗ وَمَا أَنَا عَلَيْكُمْ بِوَكِيلٍ (١٠٨)<sup>(٩٤)</sup>

Say: "O you mankind! Now Truth (i.e the Qur'ān and prophet Muhammad) has come to you from your Lord. So whosoever

<sup>(87)</sup> Muhammad Taqî-ud-Dîn al-Hilālî& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur'ān, p. 331, 332, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(88)</sup> The holy Qur'ān, surat Al- Insān, verse no.29

<sup>(89)</sup> Muhammad Taqî-ud-Dîn al-Hilālî& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur'ān, p. 652, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(90)</sup> The holy Qur'ān, surat Az-Zumar, verses no.14, 15

<sup>(91)</sup> Muhammad Taqî-ud-Dîn al-Hilālî& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur'ān, p. 511, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(92)</sup> The holy Qur'ān, surat Yūnus, verse no.99

<sup>(93)</sup> Muhammad Taqî-ud-Dîn al-Hilālî& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur'ān, p. 244, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(94)</sup> The holy Qur'ān, surat Yūnus, verse no.108

receives guidance does do so for the good of his own self; and whosoever goes astray, he does so his own loss; and I am not (set) over you as a Wail (disposer of affairs to oblige you for guidance)(108)<sup>(95)</sup>

فَذَكِّرْهُ إِنَّمَا أَنْتَ مُذَكِّرٌ (٢١) لَسْتَ عَلَيْهِمْ بِمُصَيِّرٍ (٢٢) <sup>(٩٦)</sup>

So, remind them (O Muhammad)- you are only one who reminds(21)You are not a dictator over them(22)<sup>(97)</sup>

إِنَّ الَّذِينَ آمَنُوا وَالَّذِينَ هَادُوا وَالصَّابِغِينَ وَالنَّصَارَى وَالْمَجُوسَ وَالَّذِينَ أَشْرَكُوا إِنَّ اللَّهَ يَفْصِلُ بَيْنَهُمْ يَوْمَ الْقِيَامَةِ إِنَّ اللَّهَ عَلَىٰ كُلِّ شَيْءٍ شَهِيدٌ (١٧) <sup>(٩٨)</sup>

Verily, those who believe (in Allāh and his messenger Muhammad), and those who are Jews, and the Sabians, and the Christians, and the Majūs (Magians), and those who worship others besides Allāh, truly, Allāh will judge between them on the Day of Resurrection. Verily, Allāh is over all things a witness(17)<sup>(99)</sup>

### -Prophetic Traditions

Although there are several prophetic traditions "*hadith-s*" in the course of freedom of worship, they are barely known. On the contrary; other traditions "*hadith-s*" in forcing of worship are widely known. The latter are only two; one is weak and invalid text, and the other, is interpreted in means of fighting.

The 1<sup>st</sup> *hadith* is that of 'Ekrema on behalf of *ibn 'Abas* stated: "who changes his religion should be killed" literally (*mn badal dinūh fa iqtūllūh*). Only 'Ekrema, the slave of *ibn 'Abas* who was of the dissidents, narrated this tradition. He narrated it in course

<sup>(95)</sup> Muhammad Taqî-ud-Dîn al-Hilālî& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur'ān, p. 245, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(96)</sup> The holy Qur'ān, surat Al-Ghāshiyah, verses no.21, 22

<sup>(97)</sup> Muhammad Taqî-ud-Dîn al-Hilālî& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur'ān, p. 675, <http://www.publications-img.qurancomplex.gov.sa>

<sup>(98)</sup> The holy Qur'ān, surat Al- Hajj verse no. 17

<sup>(99)</sup> Muhammad Taqî-ud-Dîn al-Hilālî& Muhammad Mohsin khān, Translation of the Meanings of the Noble Qur'ān, p. 375, <http://www.publications-img.qurancomplex.gov.sa>

of the story of burning the apostates by Imam 'Ali ibn Abi Talib (may god blesses him). This incident was not proven to have happened. Only 'Ekrema recited it. Because 'Ekrema was of the dissidents, who agreed with killing Muslims if they quitted their faith, such *hadith*, if true, would be an argument for them to declare killing Muslims.

The other *Hadith* is of *ibn Mas'ud*, who stated that: "killing a Muslim is not allowed except in three cases. Among them is the one who deserted his faith and detached his community". This may correspond with the Holy Qur'ān interpretation for the one who deserted his faith and detached his community resulting in spoiling of his community.<sup>(100)</sup> However, prophetic traditions in freedom of worship are numerous and correspond to verses of Qur'ān in the same course. The following reflect the most important evidence proving this notion:

- Al- Madina document in which prophet Muhammad (PBUH) considered the people residing in Al- Madina all as one nation "*ūmah*" against others although they were a mixture of Muslims, Jewish, and pagans as well.

Jihad was based on fighting enemies, not those of different faith. Besides, the document conforms with *Sunni* signification. The document is the most famous deed. It has several names: Al-Madina document (deed of Al-Madina), Al-Madina paper (leaf). It was concerned with people of Al-Madina and all those who were associated with the Muslims and non-Muslims as well. This deed refers to combining non-Muslims with the Muslims' community to form a nationalism unity and contributing defense. This document includes fifty clauses. It is a distinct juristic deed.<sup>(101)</sup> Of these, the 12<sup>th</sup> clause which stipulates: "whoever follows us from the Jews, he has the same rights in sponsorship and pattern, and will not maltreated. He will be given priority like others". Furthermore, the 23<sup>rd</sup> clause which stipulates: "the Jews

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<sup>(100)</sup>Hassan ibn Farhan al-Malki, *Hūrayyāt al-I'tiqād*, p. 86, 87

<sup>(101)</sup>Hassan ibn Farhan al-Malki, *Hūrayyāt al-I'tiqād*, p. 113, 114

are allowed to spend money together with Muslims once they are at war". The 24<sup>th</sup> clause stipulates: "the Jews of *Beni 'Ouef* are one nation with the Muslims; the Jews with their faith and Muslims with theirs as well". In addition, they are both free in regard to their slaves and themselves, except who maltreats others or commits a sin. This causes damage to himself and his household".

In conclusion, this deed refers to advocating justice not defending a faith at the expense of others, or a nation over others. It arouses the interest in Islam and, inclusively, calling for it, but it is neither a compulsion nor a condition set forward to be a contributor to the deed. Such human right deeds related to Islam are more firm and secure than those propagated in wide spread *hadith-s* and claiming the prevention of diversity of faiths in Muslim's community. This deed is associated with the Jews who were and still aggressive to the believers in Islam. Although the Jews were the minority, and it was easy to expelling them from the decree, prophet Muhammad (PBUH) was not to behave in this manner.

- Prophet Muhammad's (PBUH) decree (*firman*) to the Christians of *Nijran* towards the end of prophetic era, it refers to the prophet's promise to protect their churches, fortunes, and their freedom of worship.<sup>(102)</sup>

- Prophetic traditions where prophet Muhammad produced himself to tribals with proofs on their freedom of worship.<sup>(103)</sup>

### **III. Recent behaviors against "Human Rights" in the name of Islam**

What happens today against "Human Rights" is under laying the insignia of standing up for the patronage of Islam. The last few decades showed the rise of numerous extremist troops with bad behaviors against non-Muslims. Therefore, they have a great

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<sup>(102)</sup>Hassan ibn Farhan al-Malki, *Hūrayyāt al-I'tiqād*, p. 88, 117, 123

<sup>(103)</sup>Abū Na'im Al- Asbāhāni, *Dalāil an-Nūbuah*, p. 251



effect in defaming Islam. Of these nowadays are the extremists in Iraq and Levant (Syria), who are widely known as Islamic State in Iraq and Levant (Syria), briefly entitled ISIL or ISIS. These troop had expanded rapidly and had control over numerous areas. They apparently hold the standard of patronage of Islam and *Sunni* rites in particular.<sup>(104)</sup>

These troops' main purpose was to overcome the ruling regimes and to replace with an Islamic state (a theocratic regime), formerly known as caliphate "khilāfah". Their thoughts are mainly originated from writings of Ibn Taymīyah,<sup>(105)</sup> and the believers in the *Wahhābiyyah*<sup>(106)</sup> movement. These troops believe in the thoughts of the ancestral "Salafi" jihadism but with more violence.

All the writings and spokesmen of these troops' members refer to racialism. They persecuted all believers of other faiths; such as Christians, and Yazidis. Furthermore, they persecuted Muslims of other sects such as *kurdish*, and *Shi'ites* as well. According to ISIS, those considered apostates and deserved to be killed.<sup>(107)</sup>

This troop (ISIS) had committed horrible actions, which had major effect all over the world. They used to record live videos for slanting, burning, and cutting heads of living people in an inhumane unprecedented way. Unfortunately, their simulated affiliation to Islam, and their fictitious arrogation for applying its

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<sup>(104)</sup>Māzin Shandab, DāʾTsh, Māhīyatūh, Nashātūh, p.11-16.

<sup>(105)</sup>He is Taqī al-Dīn Abū al-ʿAbbās Aḥmad ibn ʿAbd al-Salām ibn ʿAbd Allāh ibn Muḥammad ibn Taymiyyah (born 1263, Harran, Mesopotamia—died September 26, 1328, Damascus, Syria). He is one of Islam's most forceful theologians, as a member of the Pietist school founded by Ibn Ḥanbal, sought the return of the Islamic religion to its sources: the Qur'ān and the *sunnah*, revealed writing and the prophetic tradition. He is also the source of the *Wahhābiyyah*, a mid-18th-century traditionalist movement of Islam. <http://academic.eb.com/levels/collegiate/article/Ibn-Taymiyyah/41931>

<sup>(106)</sup>*Wahhābiyyah* is a generic name for orthopraxy in Islam rather than a term denoting the specific group. This group emerged in al-Hejaz, now Saudi Arabia in the 18<sup>th</sup> century.

<http://academic.eb.com/levels/collegiate/article/monasticism/109510#38692.toc>

<sup>(107)</sup>Cole Bunzel, from paper state to caliphate:(the ideology of the Islamic state), p. 9,10

percepts, resulted in making Islam one of the most controversial faiths associated with terrorism. <sup>(108)</sup>

#### **IV. Manuscripts and archaeological documents referring to freedom of worship in Islam**

Evidences on freedom of worship are multiple; these are varied in prophetic covenants and document, khedives' decrees (*Firmans*), monumental artifacts, etc. The following lines discuss samples evidences briefly.

##### **- Documents**

Prophet Muhammad's Covenant held among the immigrants "Mūhājerīn", proponents "Anṣār", and the Jewish "yahūd", which is known as the country constitution "Dūstūr". This document was disposed to arrange the relation between the Islamic State inhabitants, actually the Madina residents at that time. With the advent of Prophet Muhammad (PBUH) to Al-Madina, the inhabitants were of both; Arabs and Jewish. <sup>(109)</sup>

Late historians such as Sheikh *Muhammad Al-Ghazali* named this document as a constitution "Dūstūr". He dealt with this document from a constitutional view. Hence, it was a law for the recent Islamic State. It consists of several items aim to arrange the relation between community variant classes, and declare their rights and duties as well. <sup>(110)</sup> Moreover, others are agree with naming this document as "constitution", as it more proper to with the modern era. <sup>(111)</sup> Several dates are specified to refer to this document's time. It was dated before *Badr Expedition* "*Ghazwat Badr*", others stated to be written after *Badr Expedition*. <sup>(112)</sup>

Ibn Ishāq stated that "Prophet Muhammad (PBUH) set up a treaty between the immigrants "Mūhājerīn" and the proponents "Anṣār". Prophet Muhammad reconciled with the Jewish and promised them to keep on their believe in Judaism, and save their

<sup>(108)</sup> Sāmīr Abū Rūmān, Dā'ish: Tanzīm al-Dawla fī 'Uoon al-Shū'ūb, p. 5

<sup>(109)</sup> Jāsīm Muhammad Rashid al-'Esawy, al-Wāthīqa an-Nabawīyyah, p. 19

<sup>(110)</sup> Jāsīm Muhammad Rashid al-'Esawy, al-Wāthīqa an-Nabawīyyah, p. 29

<sup>(111)</sup> Muhammad Sa'īd Ramadan Al-Būty, *Fiqh as-Sirah*, p. 160

<sup>(112)</sup> Jāsīm Muhammad Rashid al-'Esawy, al-Wāthīqa an-Nabawīyyah, p. 41

money as well.<sup>(113)</sup> Some of the later authors divided the document into 47 items and numbered them continuously based on the text mentioned by Ibn Ishāq.<sup>(114)</sup>

- Prophet Muhammad's message to selcareH, the mighty of the Romans, as follows:

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ مِنْ مُحَمَّدٍ رَسُولِ اللَّهِ إِلَى هِرَقْلَ عَظِيمِ الرُّومِ: سَلَامٌ عَلَى مَنْ اتَّبَعَ الْهُدَى، أَمَا بَعْدُ: فَإِنِّي أَدْعُوكَ بِدَعْوَةِ الْإِسْلَامِ، أَسْلَمَ تَسْلَمُ، وَأَسْلَمَ يُوْتِكُ اللَّهُ أَجْرَكَ مَرَّتَيْنِ وَإِنْ تَوَلَّيْتَ فَإِنَّ عَلَيْكَ إِثْمَ الْأَرْيَسِيِّينَ. قُلْ يَا أَهْلَ الْكِتَابِ تَعَالَوْا إِلَى كَلِمَةٍ سَوَاءٍ بَيْنَنَا وَبَيْنَكُمْ أَلَّا نَعْبُدَ إِلَّا اللَّهَ وَلَا نُشْرِكَ بِهِ شَيْئًا وَلَا يَتَّخِذَ بَعْضُنَا بَعْضًا أَرْبَابًا مِّنْ دُونِ اللَّهِ فَإِن تَوَلَّوْا فُقُولُوا اشْهَدُوا بِأَنَّا مُسْلِمُونَ“ (٦٤) (p. ١).

- Prophet Muhammad's message to people of Maqnā

This is one of the famous letters of prophet Muhammad (PBUH) to *Hanina* and people of *Kheibar* and *Maqnā* and their progeny found within Cairo *Genizah* documents (Pl. 2).<sup>(115)</sup> It is dated to the 3<sup>rd</sup> of Ramadan in the fifth year of Hegira. The main content of this letter is to promise the non-Muslims, the Jews in particular, to secure and bestow the protection of Allāh and his messenger with regard to their communities, beliefs and properties (pl. 3).<sup>(116)</sup>

- Several Arabic and Turkish covenants are kept in the library of Saint Catherine Monastery in Sinai. Of these:

1. A Turkish copy of Prophet Muhammad's covenant to Christians (pl. 4).<sup>(117)</sup>

2. An Arabic decree (*Firman*) signed by Divan *Misr al-Mahrusa* with Muhammad Ali Pasha seal (pl.5).<sup>(118)</sup>

<sup>(113)</sup>Ibn Hīshām, as-Sirrah an-Nabawīyyah, 1/571

<sup>(114)</sup>Muhammad Hamīd Allāh, Majmū'at al-wathā'iq al-Siyāsīyah, p. 57-64

<sup>(115)</sup>The word Genizah literally means store house or burial place, and describes a special place was designated to store documents of all sorts not simply those containing God's name which were not supposed to be destroyed. It comprised a huge number of texts estimated at about 250.000 manuscript are invalid books and valuable manuscript leaves.

-Tasha Voederstrasse & Tanya Treptow, A cosmopolitan City Muslims, Christians, and Jews in Old Cairo, p. 27

<sup>(116)</sup>Hartwig Hirschfeld, "The Arabic Portion of the Cairo Genizah at Cambridge", p. 167-181, <http://www.jstor.org/stable/1450432>

<sup>(117)</sup>Turkish Covenant, Roll no. 4

## - Monumental Artifacts

1. One of the main evidences of religious tolerance and peaceful coexistence between Muslims and adherents of other faiths is reflected in those adherents seeking their help as reflected in several artistic works such as architectural and decorative arts. A template of these is a wooden door riveted with silver. This door was transported from the mosque of *Sayyidah Zainab* to the Museum of Islamic Art (Record no. 3737). This artifact dates back to the 13<sup>th</sup> century A.H/19<sup>th</sup> century A.D. This masterpiece (pl. 6) is signed by a Jewish craftsman who is “*Yahūda Aslān*”. This is a vivid testimony of Muslims’ tolerance towards adherents of other faiths.<sup>(119)</sup>

2. Another image of peaceful coexistence stumbles upon two copper chandeliers with Arabic calligraphy within the Jewish *Ben ‘Ezra* Synagogue (Pl. 7),<sup>(120)</sup> in the region of religious complex “*Mujama’ al-Adiān*” in Old Cairo (*Fustat*).<sup>(121)</sup> One of these chandeliers is hung down to the right of the Alter bearing names of the four orthodox Caliphs written in Arabic letters (pl.8). Other chandelier is a conical shape of copper, hung down from the building’s ceiling and bearing the name of Sultan *Al-Manṣoūr Qalawoūn* written in Arabic letters as well (Pl.9).<sup>(122)</sup>

3. Monochrome lustre-painted bowl fragment inv. No. 5397/1, preserved in Cairo, museum of Islamic art (pl.10), excavated at Fustat. It is attributed to Fatimid epoch (5<sup>th</sup> - 6<sup>th</sup> century A.H/ 11<sup>th</sup>

<sup>(118)</sup>Arabic firman, Roll no. 175

<sup>(119)</sup>Bernard O’kane, and others, The illustrated Guide to the Museum of Islamic Art, p. 260, 261

<sup>(120)</sup>The word synagogue is known in Greco Hellenistic as “synagoge” which means the group. It equals the hebrew term “Keneseth”. Later it was used as a title for places of jews assembly called “beth Hakeneseth” meaning house of prayer.

The universal Jewish Encyclopedia, p. 120

<sup>(121)</sup>Ben Ezra Synagogue was originally a church called “kanisat al-Shamiyyin” the synagogue of Syro-Palastinians. it stands in line of Qasr al-Shama’ in old Cairo. It was built in 336 A.D as carved in hebrew letters on its wooden door. Moreover, it was stated that this place housed a copy of Torah written by Prophet Ezra, who is known in Arabic as al-‘Uzayr.

Al-Maqrīzī, *Al-khitāṭ*, Vol. III, p. 498

<sup>(122)</sup>‘Aīsha Al-Tūhāmī, *Jawālāt Siyahīyyā baīn Āthār al-Qāhira*, p. 31

- 12<sup>th</sup> century A. D). This fragment is decorated with a man's head surrounded by a three-rimmed halo, displaying part of a cross. This human face mostly resembles Jesus Christ. He is displayed bearded and has long curled hair tresses around his shoulders. Fingers of his right hand are just visible at the bottom, forming an Alpha and Omega.<sup>(123)</sup> Such artifact is also an evidence of Muslim's tolerance towards Christianity.<sup>(124)</sup>

4. Ceramic under-glazed painted fragment, no. 13174 preserved in Cairo, museum of Islamic art (pl.11), Egypt or Syria, dated back to 7<sup>th</sup> century A.H/ 13<sup>th</sup> century A.D. This fragment is a part of a plate of which two other fragments are preserved in the Benakhi Museum in Athens and depicts the apostles of Jesus Christ. The existing fragment is decorated with the scene of descending Jesus while leaning on Virgin Mary. This piece is of unique historical value as an undeniable physical evidence of Muslim's tolerance to other faiths. Although some earlier studies dated this artifact to the Ayyubid epoch; the most recent analyses have suggested that it may be attributed to a later –Mamluk-date.<sup>(125)</sup>

5. Another sign for Muslim's tolerance to other faiths during the Ayyubid epoch is the applying of Christian scenes and topics from the holy Bible on Ayyubid Metalwork. Of these are the scenes the Baptizing of Jesus Christ, his accession (entry) to Jerusalem, his birth and circumcision, beside other scenes.<sup>(126)</sup> A distinctive sample of this is a canteen of brass inlaid in silver no. F1941.10 preserved in Freer Gallery of Arts, Washington (pl.12). This artifact was attributed to Syria, mid of the 7<sup>th</sup> century A.H/

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<sup>(123)</sup>Alpha (α or Α) & Omega (ω or Ω) are the first and last letters of the Greek alphabet. The letters together represent the eternal nature of the Christ. This has been derived from the statement said by Jesus (or God) himself "I am Alpha and Omega, the First and the Last, the Beginning and the End".

The king James Version of The Holy Bible, p. 721, chapter 22 revelation, statement {22:13} <http://www.bookbindery.ca/KJBIBLE.pdf>

<sup>(124)</sup>Bernard O'kane and others, The Illustrated Guide to the Museum of Islamic Art, p. 59

<sup>(125)</sup>Bernard O'kane and others, The Illustrated Guide to the Museum of Islamic Art, p. 112

<sup>(126)</sup>Abd el-Aziz Ṣalāh Ṣālem, Al-Funūn al-Islamiyya, p. 280

13<sup>th</sup> century A.D. It is adorned with several scenes, among them is the Baptism. This scene is divided into two parts; the upper part depicts the virgin Mary wearing long garment, and a halo surrounding her head, Jesus Christ is depicted as a child sleeping within a closed box. Mary is shown while going to lift the box's lid. Three animals are apparent in the scenes background; those mostly donkeys. On the opposite side is a drawing of a winged angel approaching towards him. The lower part depicts Jesus Christ as a child, seated within a big bowl, two persons flanking him; one is pouring water over his body, while the other one is washing him. A group of persons, animals, and birds are included as well.<sup>(127)</sup> The same object includes scene of Jesus Christ's accession to Jerusalem. He occupies the central part while riding on the back of a donkey, three children (two of them holding palm fronds and the third is catching a cross) are coming towards him. Near the procession, there are two persons standing before a domed structure. Two angels in shape of winged human shapes are occupying the scene's upper part.<sup>(128)</sup>

6. A brass basin inlaid with silver, no. F1955.10 preserved in Freer Gallery of Arts, Washington (pl. 13). Probably attributed to Syria, dated back to 659-669 A.H/1239-49 A.D. This basin is designed for the Ayyubid Sultan al-Malik al-Salih Ayyub.<sup>(129)</sup> It displays Jesus Christ while resurrecting dead. This scene is applied within a lobed shape, where Jesus Christ is depicted accompanied by one of his students, while wearing religious sackcloth and consecration halo around their heads. They are coming towards a tomb. Jesus is stretching his right arm towards the dead, while catching a stick on his left arm.<sup>(130)</sup> This basin also includes the scene of Jesus Christ's entry to Jerusalem. The

<sup>(127)</sup>Ranee A. Katzenstein & Glenn D. Lowry, "Christian Themes in Thirteenth-Century Islamic Metalwork", p. 55,56

<sup>(128)</sup>Ranee A. Katzenstein & Glenn D. Lowry, "Christian Themes in Thirteenth-Century Islamic Metalwork", p. 61

<sup>(129)</sup>Esin Atil, Art of the Arab world, p. 65-68

<sup>(130)</sup>Eva Baer, Metalwork in Medieval Islamic Art, fig. 67

scene is applied within a lobed shape, where Jesus Christ is depicted riding on the back of a donkey and catching a palm frond stick. Jesus is flanked by two persons; One stands before the donkey shaking hands with Jesus, while the other person stands towards the donkey's back opening his arms welcoming the arrival of Jesus. All are wearing the religious sackcloth with consecration halos around their heads.<sup>(131)</sup> Annunciation scene is occupying part of this basin. One of its lobed shapes depicts the Virgin Mary seated and looking to the left to hearing Gabriel who is depicted in the form of a winged human shape. consecration halos are surrounding their heads.<sup>(132)</sup>

7. Distinct evidence of Muslim's peaceful coexistence with adherents of other faiths is the mixture of artistic elements of these faiths together. This is attested in a plaque of ivory, inv. No. 5620, preserved in Cairo, museum of Islamic art (pl.14). it is attributed to the Mamluk epoch 8<sup>th</sup> century A.H/14<sup>th</sup> century A.D. This object's wooden frame has a groove and tenon, indicating that it was a part of a larger composition, such as a door. The unique form is the decorative elements of a central large cross sign on a delicate intersecting arabesque background. The cross in this plaque's center makes it likely that it had adorned a Christian building, while the carving of the intersecting arabesques can be paralleled in mosque furnishings such as minibars or Qur'an stands.<sup>(133)</sup>

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<sup>(131)</sup>. Eva Baer, *Metalwork in Medieval Islamic Art*, fig. 66

<sup>(132)</sup>. Howard C. Hollis, "An Arabic censer", p. 137, 138

<sup>(133)</sup> Bernard O'kane and others, *The Illustrated guide to the museum of Islamic Art*, p. 332

## Conclusion

- There are several interpretations of the term “Human Rights” which differs according to societies and cultures.
- After World War II, some old democratic regimes began to apply “Human Rights” before the rise of the term itself. However, it evidently exists among the supreme values and principles of the holy faiths; Judaism, Christianity, and Islam. Thus, they were the first who had called for these rights.
- This research discussed the term “Human Rights” from several sources; international, local, and religious ones.
- Although there are several sources of “Human Rights”; it is become clear that it is not an outcome of western civilization, but it is deeply rooted from the Holy faiths and particularly among the fundamentals of the Islamic Faith about twelve centuries earlier than the West addressed the issue.
- Islamic faith was the first to consider freedom of worship a fundamental right for mankind.
- Several verses of the Holy Qur’ān besides prophetic traditions presented diverse demonstrations on Islamic faith’s tolerance with dissidents and the disbelievers.
- Unfortunately, some extremist troops, such as *Jabhat an-Nusra*, ISIS, etc. had come into sight since the last decade in the 20<sup>th</sup> century A.D.
- Those extremists believe in the thoughts of *Salafi jihadism* doctrine but with more violence. They considered themselves representative of *Sūnnah*, and freely proscribed and seized Jews, Christians, Kurds, Yazidis, and Shi’ites. Thus, Islam became the most controversial faith, and is wrongly associated with terrorism.
- However, the Islamic faith is seen innocent of all aggressive behaviors of killing, slanting, burning, etc. committed by those extremists in the name of Islam.
- Once the main aim of this paper is to emphasize Islamic faith’s assurance of freedom of worship, several verses of the Holy



Qur'ān and prophetic traditions are utilized to confirm that the Islamic faith never attempted forcing anybody to believe in Islam. In addition, it emphasizes that while Islam is a call for belief in the unique God, it respects all faiths brought to people by all the prophets and messengers of *Allāh*. Thus, Muslims should believe in *Torah* and *Bible* as a supplement for their belief in Islam.

-Another type of evidence on Islamic faith's innocence of terrorism was represented in a Turkish copy of Prophet Muhammad's (PBUH) covenant to Christians, beside security decrees (*Firmans*) given from several khedives to the Monks of Saint Cathrine Monastery in Sinai.

-Furthermore, the presented masterpieces are giving an image of Islam's peaceful coexistence with adherents of other faiths. Of these, the wooden door (of the mosque of *Sayyidah Zainab*) signed by its Jewish craftsman "Yahūda Aslān". In addition, there are two copper chandeliers of Sultan *Al-Manṣūr Qalawoūn* within *Ben 'Ezra* synagogue in old Cairo.

-Another sign for Muslim's tolerance to other faiths during the Ayyubid epoch is the applying of Christian scenes and topics from the holy Bible on Ayyubid Metalwork. Of these are the scenes the Baptizing of Jesus Christ, his accession (entry) to Jerusalem, his birth and circumcision, beside other scenes.

-Reviewing all these evidences, and tracing the rise of "Human Rights" term and application are sufficient to prove the Islamic faith's innocence of all aggressive behaviors of extremists, such as ISIS and others.

-While the core stone of the Islamic law "*Shari'ah*" depends on the equality between people, several non-Muslim countries did not make justice. In addition, modern political ethics are utilitarian. Therefore, in many cases countries make themselves deaf to the suffering of vulnerable minorities as long as they have good relations with the unjust countries. In conclusion, the whole world is responsible for these minorities as it is a moral issue.

- Moderate Religious institutions all over the Islamic World such as the Holy Institute of *Al-Azhar* should make more effort to widely spread out the concepts of orthodox “true” Islamic Faith.

- Focusing on the idea that either a Muslim believer or a group of Muslims when committing any extreme aggressive behaviors are not - God forbid-a defect in Islam. It is needed to remember that there are extremists who believe in Judaism, Christianity, or atheists all over the world whose actions are not as heightened as those of Muslims.

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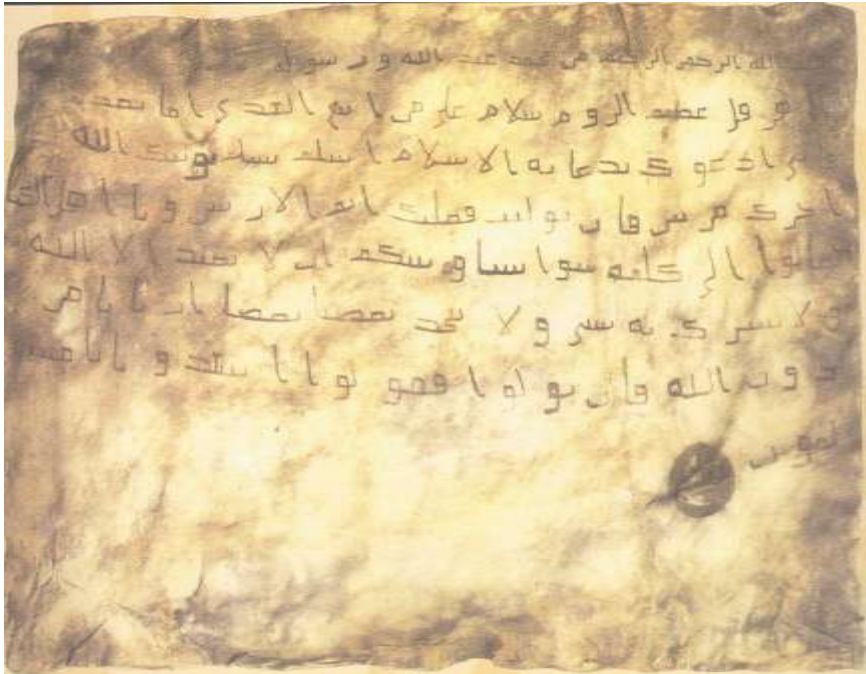
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Plates



(pl. 1)

Prophet Muhammad's message to Heracles (the mighty of the Romans)

<http://www.al2la.com/vb/t56164.html> accessed in 15/9/ 2017 at 19:02 UTC

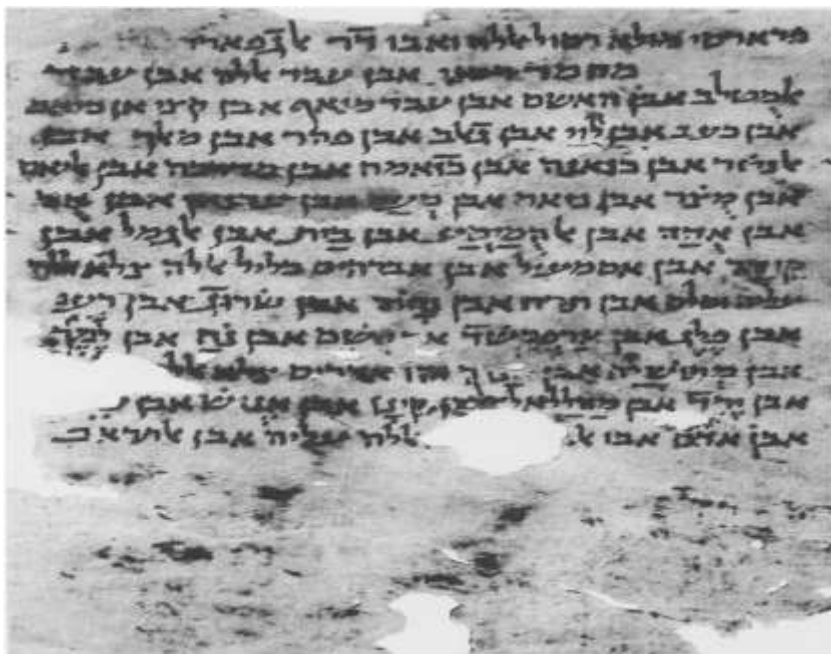
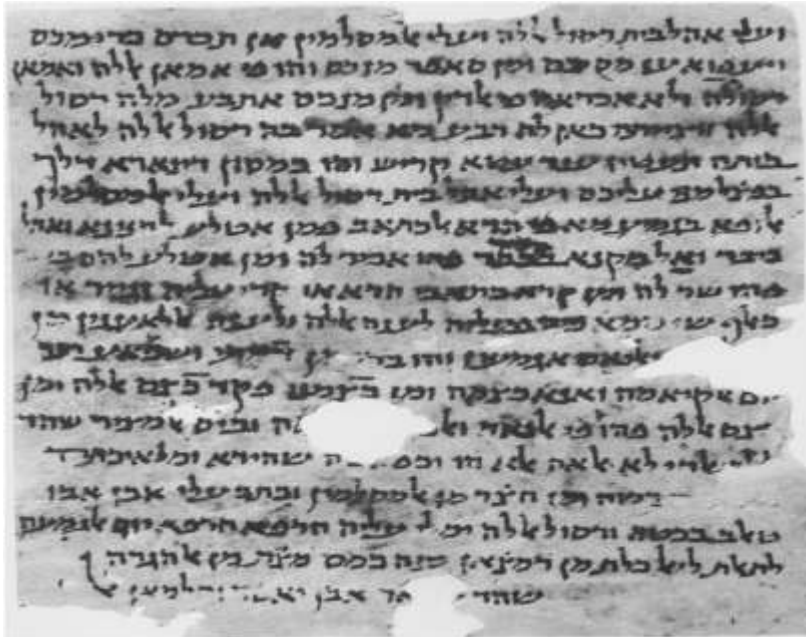


(pl. 2)

Cairo Genizah,

Tasha Voederstrasse , Tanya Treptow, A cosmopolitan City, Fig. 2.1, p. 27





(pl.3)

Prophet Muhammad's message to people of Maqna in Arabic written in Hebrew letters

Hartwig Hirschfeld, the Jewish Quarterly Review, vol. 15, no. 2, fol. 2recto& verso, p. 178, 179

([http:// www.jstor.org/stable/14500432](http://www.jstor.org/stable/14500432), accessed 09-08-2016 00:42)

(pl.4)  
A Turkish copy  
of Prophet  
Muhammad's  
covenant to  
Christians  
Library of  
supreme council  
of culture,  
Cairo, Roll no.  
4, dimensions  
40x70 C.M  
<http://www.kwiknews.my/news/letter-to-all-christians-from-prophet-muhammad-saw>





(pl. 5)

An arabic firman signatures by Divan Misr al-Mahrusa with  
Muhammad Ali Pasha seal

Library of supreme council of culture, Cairo, Roll no. 175, dimensions  
32.5x21 C.M,

**(Pl. 6)** A wooden door riveted with silver signed by the craftsman “Yahū da Aslān” The museum of Islamic Art in Cairo, 13<sup>th</sup> century A.H/19<sup>th</sup> century A.D. Record no. 3737 captured by Abo El-‘Ela Khalil



**(pl. 7)** Ben Ezra Synagogue from interior  
<https://www.google.com.eg/search>, accessed in 21/8/2017 at 12:54 UTC

**(Pl. 8)** A copper chandeliers hanging down to the right of the Alter bearing names of the four orthodox Caliphs Ben ‘Ezra synagogue, Mugama’ al-adian” in Old Cairo captured by the Archaeological Abo El-‘Ela Khalil



(Pl. 9) A conical shaped copper chandelier, bearing the name of Sultan Al-Manṣūr Qalawoūn Ben ‘Ezra synagogue, Mū jama’ al-Adiān” in Old Cairo captured by the Archaeological Abo El-‘Ela Khalil



(Pl. 10) Monochrome lustre-painted bowl fragment inv. No. 5397/1, Cairo, museum of Islamic art, Fustat. Fatimid epoch (5<sup>th</sup> - 6<sup>th</sup> century A.H/ 11<sup>th</sup> - 12<sup>th</sup> century A. D). Bernard O’kane, Mohamed Abbas & Iman Abdul Fattah, The Illustrated Guide to the Museum of Islamic Art in Cairo, p. 59

(Pl. 11) Ceramic under-glazed painted fragment, No. 13174, Cairo, museum of Islamic art, Egypt or Syria, 7<sup>th</sup> century A.H/ 13<sup>th</sup> century A.D. Bernard O’kane, The Illustrated Guide to the Museum of Islamic Art in Cairo, p. 112



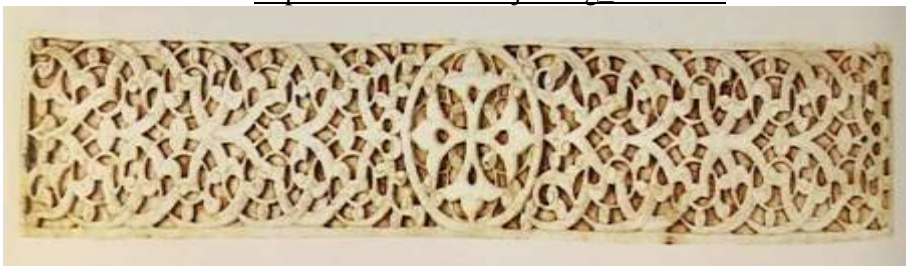


**(Pl. 12)** A canteen of brass inlaid in silver no. F1941.10 , Freer Gallery of Arts, Washington Syria, mid of the 7<sup>th</sup> century A.H/ 13<sup>th</sup> century A.D.  
<https://www.si.edu/exhibitions/engaging-the-senses-arts-of-the-islamic-world-6231>



**(Pl. 13)**

A brass basin inlaid with silver, no. F1955.10, Freer Gallery of Arts, Washington Syria, dated back to 659-669 A.H/1239-49 A.D.  
[https://www.si.edu/object/fsg\\_F1955.10](https://www.si.edu/object/fsg_F1955.10)



**(Pl. 14)**

A plaque of ivory, inv. No. 5620, Cairo, museum of Islamic art, Mamluk epoch 8<sup>th</sup> century A.H/14<sup>th</sup> century A.D.  
Bernard O'kane, The Illustrated guide to the museum of Islamic Art in Cairo, p. 332

## حرية العقيدة كما يكفلها الإسلام- في ضوء المخطوطات والوثائق الأثرية (دراسة تاريخية أثرية)

د.بوسي محمد حسين زيدان\*

### الملخص:

في الآونة الأخيرة، ارتكب المتطرفين الذين يسمون أنفسهم "داعش" اعمال متطرفة ما بين تعذيب، قتل، ذبح وحرق الناس أحياء تحت شعار نصرته الإسلام. هذه الاعمال والاعتداءات ترتكب ضد الغير مسلمين كالمسيحيين والايدييون، وذلك لأنهم لا يدينون بالإسلام. بالإضافة إلى ذلك؛ تلك الجماعات المتطرفة يعتبرون أنفسهم ممثلي السنة، فهم أيضا يضطهدون المسلمين من غير المذهب السني. وهنا يتبادر إلى الذهن سؤال: هل مفهوم حقوق الإنسان بمفهومه العام، والحق في حرية الاعتقاد بصفة خاصة غربي المنشأ؟ أم انه من جذور إسلامية بحتة؟ من خلال تتبع هذا البحث، سيتضح جلياً أن "حقوق الإنسان" لم تكن وليدة الحضارة الغربية، لكنها عميقة الجذور في الديانات السماوية المقدسة، بل هي من ضمن الموضوعات الأساسية التي دعا إليها الدين الإسلامي الحنيف منذ أكثر من اثنا عشر قرن قبل ان يتطرق الغرب لمثل هذه الامور. وبالرجوع إلى الدين الإسلامي الحنيف؛ نجد ان القرآن الكريم والسنة النبوية الشريفة – وهما المصدرين الأساسيين للدين الإسلامي- يحتويان على العديد من الأدلة التي ترفض أي اضطهاد او تعذيب ضد المسلمين وغير المسلمين على حد سواء. بل على العكس من ذلك، هناك العديد من الأدلة التي تؤكد على التسامح مع معتنقي الديانات الاخر. اجمالاً، يمكن القول ان حرية العقيدة هي حق أساسي يكفله الإسلام لجميع البشر.

يهدف البحث إلى:

- التأكيد على أن الإسلام يعكس أصل حقوق الإنسان، وبالأخص حرية الاعتقاد.
- إلقاء الضوء على براءة الإسلام من الاعمال العدائية التي ترتكبها الجماعات الدينية المتطرفة.

- محاولة نشر مفاهيم الإسلام الصحيح.

- العمل على بناء جسور من الثقة بين الإسلام والغرب

**الكلمات الدالة:**

متطرفين، حقوق الانسان، حرية الاعتقاد، داعش، الدين الإسلامي، الأحاديث النبوية.

## **Aulos and Crotals in Graeco-roman Egypt**

**Dr.Marwa Abd el-Maguid el-Kady\***

### **Abstract:**

Aulos and crotals are two totally different musical instruments. Aulos is a wind instrument, while the crotals are of percussion type. They were preferably played in Egypt during the Graeco-roman period.

Aulos αὐλός was widely used in Graeco-roman Egypt and connected with cults of Egyptian deities like Bes, Hathor, Bastet and Harpocrates; and Greek and Roman divinities like Dionysus (Bacchus), Athena (Minerva), and Apollo. This can be attested by historians, scenes, terra-cotta figurines and daily writings. However, the oboe (the double pipe musical instrument) had already been known in Pharonic Egypt and represented in many musical scenes in the tombs from at least the New Kingdom. During the Ptolemaic period, the aulos replaced the Egyptian oboe and played a great role in everyday life.

As for crotals Κκρόταλα, they were percussion musical instruments already known in Greek and Roman worlds. They had been also known in Egypt since early times and well attested during the Graeco-roman period and played a great role in the Egyptian society then.

The research studies the importance of each instrument in Graeco-roman Egypt at the religious and secular levels, through investigating their role in history, mythologies, and art. Moreover, the research also studies the connection between the two instruments and when they were played together in Graeco-roman Egypt. The research also results in important roles concerning the two musical instruments; aulos and crotals in Graeco-roman Egypt. These roles can be divided in religious ones connected with the cult of different divinities; Egyptian, Greek and Roman; religious festivals, and other roles related to daily life activities.

### **Key Words:**

Aulos, crotals, Graeco-roman, figurines, lamps, religious, secular, representations, and papyri.

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## Introduction

Music played a major role in religious and secular lives in ancient Egypt throughout Pharaonic and Graeco-roman periods. Different types of musical instruments were originated in Egypt and introduced into other civilizations and vice versa. Music was particularly associated with aspects of joy and pleasure<sup>(1)</sup>.

Aulos and crotals are among the most common musical instruments played in Graeco-roman period in daily occasions. Simultaneously, they are connected with cults of Greek and Egyptian deities, and thus had a role in religious concepts and events in Egypt. Aulos is a wind instrument and crotals are percussion. Each had its own importance in Graeco-roman Egyptian society. Sometimes both were played together in certain occasions.

### Aulos in Greek and Roman Worlds:

Aulos is a double-oboe pipe known in ancient Greek as αὐλός and "*tibia*" in Latin, meaning "tube" or "pipe"<sup>(2)</sup>. It refers to the wind instrument which consists of two pipes provided with finger holes and a mouthpiece. This instrument was made of reed, wood, bone, ivory, metal or wood encased in metal (bronze or silver)<sup>(3)</sup>; and each one had two or more sections, and a bulbous to hold the reed known as (ὄλμος)<sup>(4)</sup> (fig.1). The latter is the end part of the mouthpiece. Its length can reach 9 cm. It usually has a socket at one end and a spigot at the other. The real function of the bulb is not recognized, as some auloi are represented with no

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<sup>(1)</sup>Emerit, S., "Les musiciens de l'ancien Empire", p.3; Teeter, E., "female Musicians in Pharaonic Egypt", p.68.

<sup>(2)</sup>Olsen, P. R., "An Aulos in the Danish National Museum", p.3; Landels, H. G., Music in Ancient Greece and Rome, p.24; Curt, S., The History of Musical instruments, p.138.

<sup>(3)</sup>West, M. L., Ancient Greek Music, p. 86; A Lexicon Abridged from Liddell and Scott's, p.115.

<sup>(4)</sup>Wilson, P., "The aulos in Athens", p.69.

bulbs at all; their function may be related to the balancing of the instrument in the hands of the player or decorating purposes<sup>(5)</sup>.

Both of the two pips of the aulos were played together at the same time; one at each hand<sup>(6)</sup>. The finger holes of the instrument varied between four and five (three finger holes and a thumb hole), and its bore ranged between 8-10 mm<sup>(7)</sup>. However, in some cases aulos had more holes, and the player could choose the required ones according to the scale he played. The length of the aulos ranged usually from 20 to 30 cm; in very few cases it could reach 50 cm<sup>(8)</sup>. The aulos was kept in a double pouch case known as *Sybene* made of dappled animal skin like leopard, and the reed mouthpiece was kept in an oblong box attached to the pouch<sup>(9)</sup> (fig.1).

The player who played this instrument was known as *αὐλητής Auletes*<sup>(10)</sup>. He sometimes wore a special kind of leather strap or girdle called *φορβείας phorbais*, or Latin "*capistrum*" meaning "halter" which went across the mouth, provided with two holes for the two pipes of the aulos, and then went round the back of the head. The strap's function was to restrain the lips and cheeks of the player<sup>(11)</sup>. By the fourth century B.C., aulos players wore costumes and were used as members of the Greek drama<sup>(12)</sup>. In

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<sup>(5)</sup>Andreopoulou, A., Modeling the Greek Aulos, p.16; Landels, H. G., Music in Ancient Greece and Rome, p.27, p.33; West, M. L., Ancient Greek Music, p.85. The double pipes used today in Middle East, has the two pipes fixed together with one mouthpiece, Landels, H. G., Music in Ancient Greece and Rome, p.43.

<sup>(6)</sup>Some writers think it is more appropriate to be called Auloi αὐλοί in the plural form rather than the singular aulos, West, M. L., Ancient Greek Music, p.81.

<sup>(7)</sup>For more concerning finger holes, cf. Hagel, S., "Aulos and Harp", pp.151-171.

<sup>(8)</sup>West, M. L., Ancient Greek Music, pp.87-89.

<sup>(9)</sup>Landels, H. G., Music in Ancient Greece and Rome, p.27; Wilson, P., "The aulos in Athens", p.72.

<sup>(10)</sup>Perpillou-Thomas, F., "Artistes et athletes", p.226.

<sup>(11)</sup>West, M. L., Ancient Greek Music, p.89; Curt, S., The History of Musical Instruments, p.138.

<sup>(12)</sup>Whitwell, D., Essays of the Origins of Western Music, p.4.

Athenian society, aulos players were foreigners and mostly slaves<sup>(13)</sup>. In Egypt, Ptolemy XII was known as Auletes or Aulos-player due to his fondness of playing this instrument, and he was blamed to be out of royal dignity due to his passion of this instrument<sup>(14)</sup>.

Playing pipes in pairs had already been known in ancient civilizations. It is not known when exactly it was introduced into Greece, but the earliest evidence is dated to the eighth century B.C. Thus, it was a foreign instrument introduced into Greece<sup>(15)</sup> from the eastern civilizations of Mesopotamia, Syria or Egypt<sup>(16)</sup>. It was played in various occasions; weddings, banquets, funerals, sport contexts like wrestling and boxing, battle fields, and temples<sup>(17)</sup>. The aulos was also played during the festivals held for the gods, musical contests, and in background for dramatic works accompanied by other musical instruments, poetry and dancing<sup>(18)</sup>.

In Rome, the aulos was common; as it was introduced into it from Lydia by the Etruscans, especially that the latter adopted the Greek music with all its aspects. It was used in the Roman world more than any other musical instrument, especially in religious occasions and sacrifices, in comedies and theatre, streets, and in private occasions as well<sup>(19)</sup>. In addition, like in

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<sup>(13)</sup>Wilson, P., "The aulos in Athens", p.58.

<sup>(14)</sup>Landels, H. G., Music in Ancient Greece and Rome, p.164.

<sup>(15)</sup>West, M. L., Ancient Greek Music, p.82; Olsen, P. R., "An Aulos in the Danish National Museum", p.3.

<sup>(16)</sup>Wardle, M. A., Musical Instrument in the Roman World, p.24.

<sup>(17)</sup>Jean, R. J., "l'aulos érusque", pp.135-136; Manniche, L., "The Erotic Oboe", p.190; Wilson, P., "The aulos in Athens", p.80.

<sup>(18)</sup>Wardle, M. A., Musical Instrument in the Roman World, pp.24-25; Wilson, P., "The aulos in Athens", pp.76-79.

<sup>(19)</sup>Wardle, M. A., Musical Instrument in the Roman World, pp.26-27, p.31, p.33.

Greece, aulos was also widely employed in the Roman theatre from at least the fourth century B.C.<sup>(20)</sup>.

There were two different traditions concerning the invention of the aulos. The first is connected with the Asian Minor origins of the instrument, from Phrygia<sup>(21)</sup>. According to this tradition, the aulos was introduced into Greece from Asia Minor along with the cults of Cybele and Dionysus; the Phrygian Marsyas is the inventor of the aulos and composer of the oldest known piece for the instrument known as *Metreon aulema* "Great Mother's aulos tune". The other tradition is a very popular myth in the fifth century B.C. connected with the goddess Athena (Roman Minerva), which tells that the aulos was created by this goddess and that she threw it away, perhaps when she looked in a river and saw her reflection and noticed the distortion of her face due to the exertion resulted from the blowing of the instrument, and then Marsyas picked it up and developed his skill in playing it<sup>(22)</sup>.

In this way the Greeks could justify their use of a foreign instrument that became very popular in the Greek tradition. In the myth of Athena they gave the priority to the Greek goddess justifying how the aulos reached Asia Minor and being re-introduced into Greece accompanied by a Phrygian tradition. The introduction of the aulos into Greece therefore coincided with the introduction of the cult of Dionysus from Asia Minor; and the aulos therefore was specially played during the great festival of *Dionysia*<sup>(23)</sup>. The earliest known employment of using aulos was

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<sup>(20)</sup>Whitwell, D., *Essays of the Origins of Western Music*, pp.11-13.

<sup>(21)</sup>Wilson, P., "The aulos in Athens", p.61.

<sup>(22)</sup>Rose, H. J., *A Handbook of Greek Mythology*, p.91; Hickmann, H., "Dieux et desces de la musique", p.31; Landels, H. G., *Music in Ancient Greece and Rome*, p.153.

<sup>(23)</sup>Mathiesen, T. J., *Apollo's Lyre*, p.177; Wilson, P., "The aulos in Athens", p.75. *Dionysia* was one of the greatest festival and specially connected with Dionysus the god of wine. Therefore, drama and theatrical performances were held during this festival in the honor of Dionysus, Winkler, J. J. and Zeitlin, F. I., *Nothing to Do with Dionysos?*, pp.98-99.

to accompany lyric poets of the seventh century B.C., and appeared on the vases of the sixth century B.C. as well<sup>(24)</sup>.

Apollo was also connected with aulos. There was a contest between Apollo and Marsyas. The latter claimed that he could play music better than Apollo, who played the Cithara while Marsyas played the aulos. The Muses were the judges of this contest which took place in Phrygia. Apollo won and Marsyas was flayed, and his skin was hung in a temple in Celaenae (a city in Phrygia)<sup>(25)</sup>. Euterpe, the muse of music and lyric poetry is also connected with the aulos being represented playing it as one of her attributes<sup>(26)</sup>.

One of the famous themes on Greek vases was the depiction of aulos playing<sup>(27)</sup>. The aulos is represented being played in different manners, held by players at different angles; either the two pipes of the aulos are played separately, or brought together<sup>(28)</sup>.

In Rome, aulos (*Tibia*) used to be played in religious cult celebrations with singers and dancers performing rites in honor of Mars the god of war during the seventh and eighth centuries B.C.<sup>(29)</sup>.

### **Forms and Types of the Aulos**

The forms and types of aulos widely developed throughout the Greek and Roman ancient history. Therefore, there are

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<sup>(24)</sup>Landels, H. G., Music in Ancient Greece and Rome, p.153, 155; Wilson, P., "The aulos in Athens", p.75.

<sup>(25)</sup>Mathiesen, T. J., Apollo's Lyre, p.179; Landels, H. G., Music in Ancient Greece and Rome, pp.156-157

<sup>(26)</sup>Dixon-Kennedy, M., Encyclopedia of Greco-roman Mythology, p.199; Borofka, D. E., Memory, p.88; Hickmann, H., "Dieux et deses de la musique", p.31.

<sup>(27)</sup>Manniche, L., "The Erotic Oboe", p.190.

<sup>(28)</sup>Landels, H. G., Music in Ancient Greece and Rome, p.30, 42.

<sup>(29)</sup>Whitwell, D., Essays of the Origins of Western Music, p.11.

different classifications of the types of the aulos, or the Roman *Tibia* recorded in Greek and Roman writings. These classifications are made according to the type of the musical instrument they accompany, ethnicity, pitch, or the material<sup>(30)</sup>. The most famous classification is that of Ἀθήναιος *Athenaeus*<sup>(31)</sup> from 200 A.D. (*Athenaeus, Deipnosophistae, XIV, 634*<sup>(32)</sup>). According to him, there were five main types of aulos: first, the virginal παρθίνιοι *Parthenioi* or "girl-type" or "maiden" aulos, as it was accompanied by a maiden choral performance. The Second is the child-pipes παιδικοί *Paidikoi* or "boy-type". The third is the Cithara-pipes κιθαριστήριοι *Kitharistērioi* or "lyre-playing-type", which was played with Cithara and can be easily recognized in paintings of Greek vases with a length of about 35 cm. The fourth is the complete πέλειοι *Teleioi* or "grown-up" or "perfect", and the fifth is the super-complete ὑπερτέλειοι *Hyperteleioi* or "super-grown-up" or "super perfect" used to accompany a man's voice and must have been the longest with a length of about 90 cm<sup>(33)</sup>.

The Greeks were accustomed to classify musical instruments in general and auloi in particular into two very distinct categories: first, instruments considered to be properly Greek,

<sup>30</sup>Scott, J. E., "Roman Music", p.407.

<sup>(31)</sup>Athenaeus of Naucratis, a Greek-Egyptian author who wrote the *Deipnosophistae* Δειπνοσοφισταί "the dinner sophists" in the beginning of the third century A.D. and considered as a literary and historian work set in Rome at banquets as an assembly of grammarians, lexicographers and musicians, Dalby, A., *Siren Feasts*, pp.168-180.

<sup>(32)</sup>Athenaeus, *Deipnosophists*, C.36, p.1013.

<sup>(33)</sup>Wilson, P., "The aulos in Athens", p.70; West, M. L., *Ancient Greek Music*, p.89; Whitwell, D., *Essays of the Origins of Western Music*, pp.1-2; Curt, S., *The History of Musical Instruments*, p.139; Wardle, M. A., *Musical Instrument in the Roman World*, p.92, 94. Although Athenaeus writing were contemporary to the imperial period, most of his information about the types of instruments comes from earlier writings, and thus some of the mentioned instruments and their names may have been obsolete by then. Besides, there is no Roman equivalents to those names, as Greek at that time was the language of music, Wardle, M. A., *Musical Instrument in the Roman World*, pp.93-94.

and the other instruments of foreign origins; thus, Phrygian aulos, Libyan aulos and Egyptian aulos. The latter is the flute played in transversal attitude, known in Latin as *obliqua tibia* or "transverse aulos" or "cross flute" and called in Greek as πλαγίαυλος *Plagiaulos*<sup>(34)</sup>. According to Athenaeus (IV,175e,f) the flute in general θωτιγξ came from Egypt and was an invention of Osiris<sup>(35)</sup> as he says "the Egyptians call the 'single-pipe' an invention of Osiris"<sup>(36)</sup>.

In addition to those classifications there are others; classified according to the pitch of the instrument like *milvina tibia* and the *gingrinae*. The latter is originally Phoenician, connected with the cult of Adonis, of a small size and high pitched. There is another classification made according to the material of the instrument<sup>(37)</sup>. For instance, the auloi that are made of λωτός *lotos* reed scientifically known as *celtis australis*, which is native of North Africa, were referred to as "Libyan"<sup>(38)</sup>, the Lydian aulos also known by the Roman as *tibiae serranae* or "Phoenician pipes" made of ivory and had two pipes of equal length and number of finger holes<sup>(39)</sup>.

There was a special type of double reed pipes known as "Phrygian" notable in depiction of the Roman Imperial period as they usually appear in Roman art (fig.2), in which one pipe is rectilinear, while the other, which is the left pipe terminates in a curved portion in the shape of a cone curving upwards. It is

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<sup>(34)</sup>Bélis, A., "L'aulos Phrygien", p.25; Hickmann, H., Terminologie Musicale, pp.21-22.

<sup>(35)</sup>Hickmann, H., "The Antique Cross Flute", p.108, p.112; Landels, H. G., Music in Ancient Greece and Rome, p.24; Wardle, M. A., Musical Instrument in the Roman World, p.126.

<sup>(36)</sup>Athenaeus, Deipnosophists, Book IV,175 e,f.





<sup>(37)</sup>Wardle, M. A., Musical Instrument in the Roman World, p.92, p.94-95.

<sup>(38)</sup>Landels, H. G., "Fragments of Auloi", p.392; Landels, H. G., Music in Ancient Greece and Rome, p.33.

<sup>(39)</sup>Mathiesen, T. J., Apollo's Lyre, P.183; Hickmann, H., Terminologie musicale, p.603.

usually connected with the cult of the Great Mother Goddess in Rome<sup>(40)</sup>. The Phrygian aulos accompanied the ceremonies of the goddess Cybele and funeral rituals<sup>(41)</sup>. The Phrygian aulos in Greek is known as αὐλός ἔλυμος and in Roman as *tibia Bercyntha* as an indication to the Mountain Bercynthus near the River Sangarius in Phrygia"<sup>(42)</sup>.

### Aulos in Graeco-roman Egypt

The ancient Egyptians played wind instruments from a very early period dated at least from the pre-historical times. Among the earliest instruments played were the flute and the oboe<sup>(43)</sup>. The most played wind instruments during the Old Kingdom are the long flute or *nay* with two to six finger holes<sup>(44)</sup> especially the type known as "End-blown flute", known in ancient Egyptian as *m3t*  or <sup>(45)</sup>. The performer usually appears in the scenes with one leg bent and foot rests on ground, and rarely playing it while standing (fig.3)<sup>(46)</sup>. In some cases two reeds of the clarinet type can be joined together forming a double-clarinet<sup>(47)</sup>, which was known in ancient Egyptian as *mmt*  or <sup>(48)</sup> consisting of two reed tubes of equal length closely tied to each other along their entire length of 4-5

<sup>(40)</sup>West, M. L., *Ancient Greek Music*, p.22.

<sup>(41)</sup>Bélis, A., "L'aulos Phrygien", p.603; Curt, S., *The History of Musical Instruments*, p.139.

<sup>(42)</sup>Wardle, M. A., *Musical Instrument in the Roman World*, p.97.

<sup>(43)</sup>Landels, H. G., *Music in Ancient Greece and Rome*, p.24, 42;

– Khaled Shawqy, *Manzār al-ḥaflat al Mosiqīya*, pp.44-72.

<sup>(44)</sup>Hickmann, H., "Classement et classification", p.18; Curt, S., *The History of Musical Instruments*, p.90.

<sup>(45)</sup>Wb II, p.6, no.8.

<sup>(46)</sup>Arroyo, R. P., *Egypt*, pp.2378-2379; Hickman, H., *Terminologie musicale*, p.399;

– Maḥmūd Aḥmad alḥfny, *Mosiqat al-qūdama` al-miṣrīn*, p.26

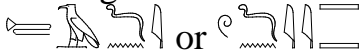

<sup>(47)</sup>Anderson, R. D., *Catalogue of Egyptian Antiquities*, p.64;

– Khaled Shawqy, *Manzār al-ḥaflat al Mosiqīya*, p.51.

<sup>(48)</sup>Wb II, p.59, no.1.



cm, by being joined at the mouthpiece and distal ends by a resinous material which is modern *Zummara* or *Mashûrah* <sup>(49)</sup> (fig.4). The flute was a predominant instrument during the Old and the Middle Kingdoms <sup>(50)</sup>.

Another famous wind instrument known in ancient Egypt was the oboe, which consists of two pipes of equal length but placed in divergent positions making an angle in the form of  $\wedge$ . The two pipes had the same length, or one is longer than the other <sup>(51)</sup>. It was known in ancient Egyptian as  or  *wḏny* or *wḏnyt* <sup>(52)</sup>. It is possible that the double oboe was originally a foreign instrument introduced into Egypt from Mesopotamia, specifically Ur, where typical instruments dated from 2000 B.C. were found, while it was only known in Egypt during the New Kingdom. Playing this instrument is restricted to female musicians along with other instruments like lute and harp (fig.5) <sup>(53)</sup>. The double oboe is also shown among the amusing scenes. A good example is an ostarcon from Deir el-Medina depicted with a monkey playing the double oboe (fig.6). Another one also from Deir el-Medina is a vase decorated with a representation of Bes playing the same instrument. A third is a depiction of animals doing human activities on a papyrus in the

<sup>(49)</sup> Arroyo, R. P., Egypt, p.379; Hickmann, H., Terminologie musicale, p.599, 617; Manniche, L., Music and Musicians, p.173; Anderson, R. D., Catalogue of Egyptian Antiquities, p. 64; Emerit, S., "Les musiciens de l'ancien Empire", p.7. *Zummarah* is used for high notes and held horizontally, while the *Mashurahis* held at a downwards sloping angle to produce lower notes, Gadalla, M., Egyptian Rhythm, p.135. This instrument still used in Egyptian country side and named according to the number of holes for instance *Zummara Setuweya* "sixal clarinet" when the instrument has six holes, or *Zummarah rabaweya* "foural clarinet", if it has four holes... etc.,

- Maḥmūd Aḥmad alḥfny, *Mosiqat al-qūdamā' al-miṣrīn*, p.29

<sup>(50)</sup> Anderson, R. D., Catalogue of Egyptian Antiquities, p.64.

<sup>(51)</sup> Gadalla, M., Egyptian Rhythm, pp.133-34. This instrument is still known today in Egypt as *Argḥul*; Maḥmūd Aḥmad alḥfny, *Mosiqat al-qūdamā' al-miṣrīn*, p.89

<sup>(52)</sup> Wb I, p.409, no.9; Hickmann, H., Terminologie musicale, p.601.

<sup>(53)</sup> Khaled Shawqy, *Manẓār al-ḥaflat al Mosiqīya*, p.62.

British Museum dated from the New Kingdom. It shows a fox as a shepherd playing the oboe behind the flock<sup>(54)</sup> (fig.7).

In the Ptolemaic period, the oboe was developed into the form of the Greek aulos and its use remained in use till the Roman period<sup>(55)</sup>. Thus, the ancient Egyptians had known the double pipe instrument long before the Greeks<sup>(56)</sup>. However, the aulos with its traditional form did not appear in Egypt before the Graeco-roman period<sup>(57)</sup>; it only appeared in Egypt under the Ptolemaic rule<sup>(58)</sup>.

The aulos was part of the daily life in Graeco-roman Egypt. It was played in royal occasions; as Plutarch (*The Parallel Lives: The Life of Anthony*, IX 26) describes the journey of Cleopatra VII when she sailed to meet and impress Mark Anthony "sailed up the river Cydnus in a barge with gilded poop, its sails spread purple, its rowers urging it on with silver oars to the sound of the double pipe [aulos] blended with [Pan]-pipes [syrinx] and lutes"<sup>(59)</sup>.

There is a plenty of terra-cotta figurines from the Graeco-roman period represented with musicians playing the aulos. A terracotta figurine dates to the Graeco-roman period in the Hungarian National Museum (fig.8) shows a seated priest who plays aulos with two lotus buds on his head with a floral wreath and ribbons fall on the shoulders. Next to his advanced right foot is an amphora on a stand<sup>(60)</sup>. There is another terracotta figurine

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<sup>(54)</sup>Manniche, L., "The erotic Oboe", pp.194-195; Hickmann, H., "Classement et classification", p.23; Manniche, L., Music and Musicians in Ancient Egypt, p.48; Teeter, E., "female Musicians in Pharaonic Egypt", p.79.

<sup>(55)</sup>Emerit, S., "Music and Musicians", p.4.

<sup>(56)</sup>Olsen, P. R., "An Aulos in the Danish National Museum", p.3.

<sup>(57)</sup>Hickmann, H., "Classement et classification", p.21

<sup>(58)</sup>Hickmann, H., Terminologie musicale, p.602.

<sup>(59)</sup>Plutarch, Plutarch's Lives, Anthony, vol.IX, XXVI, p.193; Manniche, L., Music and Musicians in Ancient Egypt, p.21.

<sup>(60)</sup>Török, L., Hellenistic and Roman Terracottas, pp.112-113.

of the same type dated from the Roman period in the Louvre Museum (fig.9). The priest dresses in a similar way with the Lotus buds on his head and the same attitude in the way he plays the aulos and the way he is seated with the amphora placed on a stand next to his advanced right foot<sup>(61)</sup>. Another terra cotta vase shows that aulos can be played along with other musical instruments (fig.10); as an aulos player is represented seated and playing it in the same attitude, while to his left sits a female lyre player. Again, an amphora is represented here, this time between the two musicians<sup>(62)</sup>.

Other examples of terra-cotta figurines show different attitudes of aulos players; some of these figurines can be represented with standing naked ladies accompanied by a young aulos player, either a child or slave, next to their right leg. An important example of this type is now in the British Museum (fig.11), which shows a naked lady accompanied by an aulos player standing next to her right leg<sup>(63)</sup>.

Another attitude of aulos player is shown by a headless terracotta figurine in the British Museum (fig.12) dated from the Ptolemaic period which shows a squatted naked male ithyphallic figure playing aulos<sup>(64)</sup>. Another terra cotta figurine also in the British Museum (fig.13) dated from the Ptolemaic period shows a bald dancing male wearing a loincloth, or a piece of cloth wrapped round his thighs, and a festive wreath playing the aulos while performing a dancing move<sup>(65)</sup>.

Playing the aulos was also one of the common themes figured in terracotta lamps during the Graeco-roman period found in

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<sup>(61)</sup>Dunand, F., *Catalogue des terres cuites*, p.193, no.541.

<sup>(62)</sup>Hickmann, H., "Miscellanea Musicologica", p.539.

<sup>(63)</sup>Vendries, C., "Questions d' iconographie musicale", p.204.

<sup>(64)</sup>Villing, A. and others, *Naukratis*, DC.190 (Phase 1).

<sup>(65)</sup>Villing, A. and others, *Naukratis*, IC.002 (Phase 3).

Alexandria, from Koum Elshoqafa Cemetery. An evidence of this is a terracotta lamp of the collection of Lawrence in Alexandria (fig.14) represented with four figures: on the left is the god Bes, next to him are three musicians seated on a couch wearing the Chiton; the first plays a syrinx, the central one plays an aulos, and the third plays a cithara<sup>(66)</sup>. Another terracotta lamp dated to the Roman period in the British Museum (fig.15) shows a figure of Eros riding on a dolphin and playing an aulos<sup>(67)</sup>. Another Roman terracotta lamp in the same museum (fig.16) shows a dancing male figure wearing animal skin and playing a Phrygian aulos with one pipe curved at the end and longer than the other<sup>(68)</sup>.

Aulos may also had a funeral function according to Bodley<sup>(69)</sup> concerning the discovery of four Egyptian auloi found at Meroe in 1921 in the Museum of Fine Arts in Boston, dated to about 15 B.C., or the beginning of the Roman period. He mentions that they were deliberately broken as a funerary ritual to release the spirit of the instruments into the other world<sup>(70)</sup>. Moreover, the aulos is also depicted in funeral scenes. A good example of this is the coffin floorboard dated from the Roman period in the Royal Ontario Museum (fig.17) represented with a female deceased leaning on the funeral bed with a winged right arm. Under the funeral bed is a three-legged table with a pointed amphora. On the right of the scene is a pedestal in the form of a pylon gate centered by a goddess who holds two serpents in her two hands. The gate is surmounted by a dancing musician who plays with an

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<sup>(66)</sup>Vendries, C., "Questions d' iconographie musicale", p.226; Schreiber, T., Expedition von Siegling, fig.167.

<sup>(67)</sup>Bailey, D. M., Catalogue of the Lamps, Lamp Q1888.

<sup>(68)</sup>Bailey, D. M., Catalogue of the Lamps, Lamp Q3345.

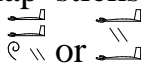
<sup>(69)</sup>Bodley, N. B., "The Auloi of Meroë", p. 217.

<sup>(70)</sup>Bodley, N. B., "The Auloi of Meroë", p. 217.

aulos. On the left side of the scene stands a figure of Horus as a falcon on a pillar<sup>(71)</sup>.

### Crotals in Graeco-roman Egypt

Crotals are one of the percussion metal musical instruments<sup>(72)</sup> used to reinforce the rhythm of the melody. It is formed of two handles made of wood or metal well attached at the bottom, as they are formed of one elastic metal rod (fig.21). Each handle is ended at the top by a metal plaque, or a cymbal in a way that the two plaques face each other. The two handles in some cases can be attached together by a stick of different forms<sup>(73)</sup>. During the performance, the two arms of the instrument were held between the thumb and the middle finger in both players' hands. When the two metal cymbals banged, the sound was made<sup>(74)</sup>.

Crotals are well distinguished from clappers, or clap sticks known in antiquity<sup>(75)</sup>, and called in ancient Egyptian as  or "the two forearms" referring to the interlocked platelets of the clap sticks<sup>(76)</sup> (fig.18). They were made of wood, bone, ivory or metal; they can have a straight or curved handles terminated by ornaments such as animal or human head or lotus flowers<sup>(77)</sup>.

The crotals are known in ancient Greek as *Κκρόταλα* meaning "clackers". It is a plural word as the instrument was played in pairs<sup>(78)</sup>. Clement of Alexandria mentions *κροταλα* separately from cymbals. Cymbals on the other hand, consist of two

<sup>(71)</sup>Parlasca, K., "Ein spätrömischer bemalter Sarg", p.165.

<sup>(72)</sup>Wardle, M. A., *Musical Instrument in the Roman World*, p.330.

<sup>(73)</sup>Hickmann, H., "Cymbals et crotales", p.524.



<sup>(74)</sup>Landels, H. G., *Music in Ancient Greece and Rome*, pp.82-83.

<sup>(75)</sup>Teeter, E., "female Musicians in Pharaonic Egypt", p.69

<sup>(76)</sup>Hickmann, H., *Catalogue générale*, p.4; Hickmann, H., *Terminologie musicale*, p.590.

<sup>(77)</sup>Gadalla, M., *Egyptian Rhythm*, p.146.

<sup>(78)</sup>Landels, H. G., *Music in Ancient Greece and Rome*, pp.82-83; Hickmann, H., *Terminologie musicale*, p.616.

identical metal plates and vary in form. Each cymbal is pierced with a hole to hold a handle or a chain or a cord which linked the two cymbals together. The two cymbals make sounds by being struck against one another<sup>(79)</sup> (fig.19). It was known in ancient Egyptian as  or  *dndn* or "the two bronzes" and known in Greek as κύμβαλον and in Latin as *cymbalum kymbala* "tinkling cymbal"<sup>(80)</sup>. It is an instrument still used today in Egypt and known in Arabic as *as-ṣāḡāt* الساجات or الصاجات, a plural word of الساج or الصاج which means tinplate, the material of which the instrument is made of<sup>(81)</sup>. Many cymbals of different sizes and diameters have been found in Egypt and dated from the Graeco-roman period. They can be large of a plate type or medium of a cup type<sup>(82)</sup>.

The crotals appear on Greek vases from at least the seventh and sixth century B.C. played by male and female musicians. The most common theme in this case shows the performer dancing and playing with crotalas in his two hands<sup>(83)</sup> (fig.20).

Like aulos, the crotals were one of the well-recognized musical instruments in the Egyptian society during the Graeco-roman period. In an Egyptian papyrus dated from Ptolemaic period 245 B.C., there is a request for performers to play drum, cymbals and crotales<sup>(84)</sup>. There are two other papyri from the Roman period that indicate the same; one from 206 A.D. (Cornell Papyrus Inv. No.26) and the other from 237 A.D. (P. Grenfell 11, 67). They are contracts of crotals' players

<sup>(79)</sup>Wardle, M. A., *Musical Instrument in the Roman World*, p.330, 339; Gadalla, M., *Egyptian Rhythm*, p.148.

<sup>(80)</sup>Landels, H. G., *Music in Ancient Greece and Rome*, p.83; Hickmann, H., *Terminologie musicale*, p.392, 615; Wardle, M. A., *Musical Instrument in the Roman World*, p.331.

<sup>(81)</sup>Hickmann, H., "Cymbals et crotales", p.522; Hickmann, H., *Catalogue générale*, p.1.

<sup>(82)</sup>Anderson, R. D., *Catalogue of Egyptian Antiquities*, p.23.

<sup>(83)</sup>Redmond, L., "Percussion Instruments", p.70.

<sup>(84)</sup>Wardle, M. A., *Musical Instrument in the Roman World*, p.339.

*κροταλιστρις* who are requested to perform in festivals. The former papyrus is for the entertainer Isidora to perform in Philadelphia dated from the Roman period (206 A.D) (Cornell Papyrus Inv. No.26. Second series).

It says:

Ισιδώρα κροταλι [στ]ρία

παρὰ Ἄρτ[ε]μι[σί]ης ἀπὸ κώμης

Φιλαδελφείας. βούλομαι

Παρ[α]λαβεῖν σε σὺν ἑτέραι

κροταλ[ισ]τρίαι, (γίνονται) (δύο), λιτουργήσασαι

παρ' ἡμῖν ἐπὶ ἡμ[ἐ]πι ἡμ[έ]ρας ἑξάπο

"To Isidora, castanet dancer, from Artemisia of the village of Philadelphia. I request that you, assisted by another castanet dancer- total two-undertake to perform at the festival at my house"<sup>(85)</sup>. The other papyrus is from Arsinoe at el-Fayum, for ten day festival in the village of Bacchias (P. Grenf., II, 67) dated to 237 A.D of two crotals' players<sup>(86)</sup>.

A good example of the musical instrument of crotals is found in the British Museum (fig.21). The two handles are made of wood terminated by a grip of leather and the cymbals have the shape of saucer depression with a decoration of two circles. There is another fine example dated from the Roman period in the British Museum as well (fig.22). It is made of bronze with a grip in the form of an altar supported by four pillars surmounted by a decorated shape with a hole. One handle arm is decorated on

<sup>(85)</sup>Westermann, W. L., "The Castanet Dancers", pp.134-135

<sup>(86)</sup>Wardle, M. A., Musical Instrument in the Roman World, p.339. These performances are usually connected with religious festivals either held by private individuals and families, or by entraining and pleasure clubs, Westermann, W. L., "Entertainment of the Villages", pp.16-27.

the outside part with diamond patterns and circles, while the other arm is decorated along its outside part with only three lines. The two crotals have bronze cymbals attached to the end of the handles by bronze split pins. The two pairs of cymbals have saucer-shaped depression and decorated with concentric circles<sup>(87)</sup>.

Figurines depicted with crotals are also found, like the case of a bronze statuette in the British Museum (fig.23), which is dated from Ptolemaic period and represented with a dancing female dwarf, with physical deformities wearing a tunic and a wreath with papyrus buds on her head playing with a pair of crotals in her two hands<sup>(88)</sup>.

### **Playing Aulos and crotals Together in Graeco-roman Egypt**

In Egypt both instruments; the aulos and the crotals were connected with religious purposes and were played together in rituals of certain deities. In Zenon Papyrus (P. Hibeh, 54' of 245 B.C.)<sup>(89)</sup>, there is a request from a wealthy Greek who writes to a friend asking for a player of a Phrygian aulos (*Tibia Phrygia*) named Petius, and Zenobius the effeminate, the crotals' player and to bring a drum, cymbals and crotals along for dance music in the festival of Isis<sup>(90)</sup>.

Herodotus in the fifth century B.C. describes the festival of Bastet on the fifteenth of the second month of the inundation (Herodotus II. 60), he mentions:

ἐς μὲν νῦν Βούβαστιν πόλιν ἐπεὰν κομίζωνται, ποιεῦσι τοιάδε. π

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<sup>(87)</sup>Hickmann, H., "Cymbals et crotales", p.525; Anderson, R. D., Catalogue of Egyptian Antiquities, pp.26-28.

<sup>(88)</sup>[http://www.britishmuseum.org/collectionimages/AN00967/AN00967211\\_001\\_1.jpg](http://www.britishmuseum.org/collectionimages/AN00967/AN00967211_001_1.jpg)

<sup>(89)</sup>Zenon Papyrus. P. Hibeh, p.200-201, 245BC.

<sup>(90)</sup>Manniche, L., Music and Musicians in Ancient Egypt, p.67; Wardle, M. A., Musical Instrument in the Roman World, p.333; Westermann, W. L., "The Castanet Dancers, p.140.



λέουσί τε γὰρ δῆ᾽ αἶμα ἄνδρες γυναῖξι καὶ πολλόν τι πλῆθος ἑκατέρων ἐν ἑκάστη βάρῃ: αἶ μὲν τινέστων γυναικῶν κρόταλα ἔχουσαι κροταλίζουσι, οἱ δὲ ἀλέουσι κατὰ πάντα τὸν πλόον, αἱ δὲ λοιπαὶ γυναῖκες καὶ ἄνδρες αἰείδουσι καὶ τὰς χεῖρας κροτέουσι<sup>(91)</sup>.

"When people are on their way to Bubastis they go by river, men and women together, a great number of each in every boat. Some of the women make a noise with *krotala*, others play *auloi* all the way, while the rest of the women, and the men, sing and clap their hands"<sup>(92)</sup>. This was part of the celebration of the annual feast of the cat goddess Bastet, who was also identified with the two Greek goddesses Artemis and Aphrodite<sup>(93)</sup>.

## Conclusion

It is clear through the above mentioned evidences that aulos and crotals played essential roles in the Egyptian society during the Graeco-roman period at both religious and secular levels. The major part of the credit of these roles turns to the Pharaonic roots, and the other part is owed to their importance in the Greek and Roman worlds.

The aulos played an important role in the Graeco-roman mythology. This wind instrument was connected with Athena, Apollo, Dionysus the muse Euterpe, and the Roman Mars. For Athena and Apollo, they are connected with innovation of this wind instrument. For Dionysus, the son of Zeus and Semele<sup>(94)</sup>, the wine god, his cult was specially connected with the aulos, particularly his great dramatic festival of Διονύσια "*Dionysia*"<sup>(95)</sup>.

<sup>(91)</sup> ΗΡΟΔΟΤΟΥ, ἈΛΙΚΑΡΝΗΣΣΗΣ: ἹΣΤΟΡΙΩΝ ΛΟΓΟΙ Θ, pp.232-233

<sup>(92)</sup> Herodotus, the Histories, Book 2, chapter 60, with an English translation by A. D. Godley, Harvard University Press, 1920; Manniche, L., "The erotic Oboe", p.189; Perpillou-Thomas, F., "Artistes at athletes ", p.226.

<sup>(93)</sup> Manniche, L., Music and Musicians in Ancient Egypt, p.116.

<sup>(94)</sup> Otto, W. F., Dionysus, p.65.

<sup>(95)</sup> Henrichs, A., "Between Country and City", pp.257-258.

The tragedies and comedies of this festival were accompanied by chanting, tragic poets and aulos playing<sup>(96)</sup>. The aulos was also connected with Euterpe the muse of music due to its sound that stirs up emotions and sensuality<sup>(97)</sup>. As for Mars (the Greek Ares), the Roman god of war and the most important after Jupiter, the son of Juno<sup>(98)</sup>, the aulos or *Tibia* was played in his honor during cult celebrations and sacrificial rites. In addition, special types of aulos were connected with certain deities like the Phrygian aulos, which was specially connected with the Roman mother goddess Cybele *Magna Mater* (Great Mother) and her rites which were similar to those of Dionysus, as she was originally worshipped in the Phrygian mountains that embodied the fertile lands<sup>(99)</sup>.

In Pharaonic Egypt, among the most popular divinities that were closely connected with music, is the god Bes who is sometimes represented playing a lute or beating a tambourine<sup>(100)</sup>. Hathor was also connected with music; as she was the "mistress of dance", and "mistress of music", whose priestesses from the Old Kingdom are shown playing with *sistrum* and *menat*<sup>(101)</sup>. The ancient Egyptians had already known the wind instruments and particularly the double pipes or the oboe from an early Pharaonic periods (figs.5, 6, 7) and played it in royal, religious, and special occasions. This means that they were already accustomed to such instrument and could accept the introduction of the Greek double

<sup>(96)</sup>Wilson, P., *The Athenian Institution of the Khorgia*, p.68. This festival is held originally in Athens and other Greek cities connected with the Dionysian cult, Adrados, F. R., *Festival, Comedy*, p.334; Johnston, S. I., *Religions of the Ancient World*, 2004, p.285.

<sup>(97)</sup>Borofka, D. E., *Memory*, p.88.

<sup>(98)</sup>Howaston, M. C., *The Oxford Companion*, p.365.

<sup>(99)</sup>Kim, H-A., *The Renaissance Ethics of Music*, p.71.

<sup>(100)</sup>Diab, A. M., "Beating Tambourine", p.165; Dasen, V., *Dwarfs in Ancient Egypt*, p.73; Manniche, L., *Music and Musicians*, p.118

<sup>(101)</sup>Teeter, E., "female Musicians in Pharaonic Egypt", p.68, 76.

pipe instrument of the aulos during the Ptolemaic period smoothly.

At a religious level, the oboe had been connected with the cult of Bes in Pharaonic Egypt, as he is represented playing the oboe in vase paintings (fig.24), statuettes<sup>(102)</sup>, and in some cases a female player draws a tattoo of Bes on her thigh; like the example found on a wall of a house at Deir el-Medina. It shows a lady wearing a garment and surrounded by a plant that usually depicted in birth scenes. She has a tattoo of Bes figured on her two thighs and plays a double oboe<sup>(103)</sup> (fig.25). The oboe was also connected with the cult of Hathor and used in the ritual ceremonies, especially at making offerings to a deceased by a priest who is usually followed by a musician of Hathor playing the oboe. This function is similar to the use of the Greek the aulos which is played in the temples during presenting the offerings. Another evidence of the association between the cult of Hathor and the oboe is attested in the forecourt of her temple at Philae Island in which it is played by women along with representations of music playing performed by the god Bes and monkeys. Bastet, the cat goddess, identified with the Greek goddesses Artemis and Aphrodite<sup>(104)</sup>; is also represented rarely playing the double oboe and in some animal concerts it was the cat that plays the double oboe<sup>(105)</sup>.

Replacing the old Egyptian oboe, the aulos also had the same usages in royal, religious, funerary, and public lives. For royalty, it has been already mentioned how it was used during Cleopatra's procession in her journey to Mark Anthony. In addition, it was a

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<sup>(102)</sup>Cairo Museum JÉ no.44045.

<sup>(103)</sup>Hickmann, H., "Dieux et desesses de la musique", p.34.

<sup>(104)</sup>Manniche, L., Music and Musicians, p.62, pp.116-117.

<sup>(105)</sup>Hickmann, H., "Dieux et desesses de la musique", p.33. Example, Museum of Berlin, no.12686.

favorite instrument of her father Ptolemy XII Neos Dionysus who was entitled *Auletes* or "Aulos player" due to his passion to play the aulos. This indicates that it was then a prime royal instrument.

For religion, as oboe was connected with Bes, Hathor and Bastet in Pharaonic Egypt, the aulos in the Graeco-roman Egypt was connected with the same divinities along with others. The aulos was connected with Harpocrates. The seated aulos player next to an amphora is very popular in the first century B.C. (figs.8 and 9), usually crowned with buds of lotus, with his two cheeks are blown while insufflating the aulos<sup>(106)</sup>. The existence of the lotus buds connects this priest with the cult of Harpocrates in addition to the amphora which refers to a certain cult act of the same divinity<sup>(107)</sup>.

For funerary usages, there is no recorded evidence from the Pharaonic period that the Egyptian oboe had funeral functions except being used in funeral processions. However, in the Graeco-roman period, it had a strong connection with the funerary rites, as Bodley mentions auloi were broken in a special funeral ritual in order to use their spirits into the other world to give joy and pleasure to the deceased<sup>(108)</sup>. This function is firmly proved by the funeral scene (fig.17) which shows a musician playing the aulos to the female deceased. In fact this particular theme is well known in Roman funerary art, as there is a traditional representation of a boy playing the aulos, usually with short pipes near an altar at a sacrifice ceremony. It is believed that the boy plays the aulos to cover up any sound that may be heard by accident and spoil the rituals rather than playing it for

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<sup>(106)</sup>Vendries, C., "Questions d' iconographie musicale", p.204, p.207.

<sup>(107)</sup>Török, L., Hellenistic and Roman Terracottas, pp.112-113.

<sup>(108)</sup>Bodley, N. B., "The Auloi of Meroë", p. 217.

the sake of music itself<sup>(109)</sup>. However, in the Egyptian scene from the Roman period (fig.17) it is well noticed that the boy plays the aulos to amuse the deceased in the other life.

For public purposes, the aulos is one of the most commonly entertaining themes represented in terra-cotta figurines (figs.10, 11, 12, 13) and lamps (fig.14, 15, 16) in Graeco-roman Egypt.

Crotals on the other hand was also connected with religious and secular purposes in Graeco-roman Egypt. As for the religious, the Muses are often depicted in the Graeco-roman art playing with frame drums, flutes, crotals, lyres, and citharas<sup>(110)</sup>. In Egypt, the crotals were already known in the Pharaonic times and seems to have had a religious significance then, as shown in Luxor temple from the time of Tutankhamun (New Kingdom) where four musicians are playing with crotals during the procession of Apet festival<sup>(111)</sup>. This religious importance of the crotals remained during the Graeco-roman period as well. They were connected with the cult of female divinities like Isis, who was a "goddess of crotals" especially when she was assembled with Hathor whose priestesses played cymbals and crotals along with tambourines in her festivals<sup>(112)</sup>. Moreover, an inscription in the temple of Dendera mentions how the statue of Hathor was carried out of her temple after the harvest and presented to people to the sound of tambourine and crotals<sup>(113)</sup>.

For secular purposes, it is well indicated through papyri from the Graeco-roman period that it had an important role in public celebrations as they record different requests for crotals' players (Cornell Papyrus Inv. No.26, P. Grenfell 11, 67, and P. Grenf., II,

<sup>(109)</sup>Scott, J. E, "Roman Music", pp.410-411.

<sup>(110)</sup>Redmond, L., "Percussion Instruments ", p.69.

<sup>(111)</sup>Gadalla, M., Egyptian Rhythm, p.148.

<sup>109</sup> Hickmann, H., "Dieux et desesses de la musique", p.51.

<sup>(113)</sup>Manniche, L., Music and Musicians, p.67.

67). This is well indicated also by the bronze statuette (fig.22) of a dwarf lady who dances with the crotals in her hands.

For the decorations of both instruments; namely the aulos and the crotals, there are no special decorations recorded on the auloi found in Egypt, nor in its representations on terracotta figurines or lamps. On the other hand, some crotals were found decorated by geometric motives like circles and lines (figs. 20, and 21).

The usage of the two instruments together was however limited to religious celebrations connected with the cults of certain female divinities like in the case of Isis' festival recorded in Zenon Papyrus (P. Hibeh, 54<sup>v</sup> of 245 B.C.) and the other of Bastet recorded by Herodotus (Herodotus II. 60).

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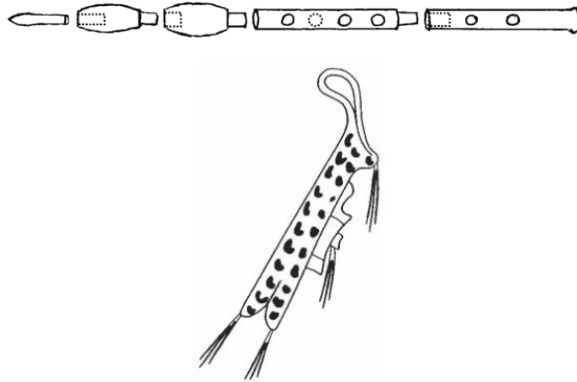
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**Fig.1 above is the five parts of the aulos. Below is the pouch and mouthpiece of the aulos**  
Landels, H. G., *Music in Ancient Greece and Rome*, p.27, fig.2a.3, 4a.



**Fig.2 Phrygian aulos on the right of the bas-relief of a priest of Cybele, mid-second century AD., Museo Capitolino, Rome, inv. n° 1207.**  
Bélis, A., "L'aulos Phrygien", p.23, fig.3.



**Fig.3 A musical scene showing musicians play harp, flute and clarinet, Tomb of Nikauhor, Saqqara S. 915.**  
Emerit, S., "Music and Musicians", p.3, fig.1.



**Fig.4 Two double clarinets. Cairo Museum, CG 69837 and 69838.**

Emerit, S., "Music and Musicians", p.4, Fig.8.



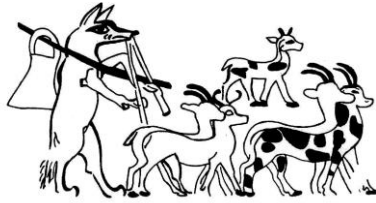
**Fig.5 Female musicians the one plays oboe and a Nubian, tomb of Djeser-karesoneb,**

Spencer, P., "Dance in Ancient Egypt", p.118.



**Fig.6 Monkey playing the double oboe, Ostrakon Deir el-Medina, Medelhavsmuseet, Stockholm, no.14050.**

Emerit, S., "Music and Musicians", p.2, Figure 3.



**Fig.7 A fox shepherd playing the oboe behind the flock, British Museum, papyrus (10016)**

Manniche, L., *Music and Musicians*, p.22, fig.10



**Fig.8 Ptolemaic terracotta figurine of a priest playing an aulos, Hungarian national Museum**

Török, L., *Hellenistic and Roman Terracottas*, Pl.XII.



**Fig.9 Roman terracotta figurine of a an aulos player, (Louvre Museum, E 29777)**

Dunand, F., *Catalogue des terres cuites*, p.193, no.541.



**Fig.10 A terracotta figurine shows two musicians: aulos and lyre players**

Hickmann, H., "Miscellanea Musicologica", p.539, fig.8.



**Fig.11 A terra cotta figurine of a lady accompanied by a child playing aulos, 2nd century B.C., (Londres, British Museum, inv. GR 1926.9-30.35).**

Vendries, C., "Questions d'iconographie musicale", p.204.



**Fig.12 A terra cotta headless squatting male figure playing with an aulos, British Museum, 1973, 0501.31**

[http://www.britishmuseum.org/research/collection\\_online/collection\\_object\\_details/collection\\_image\\_gallery.aspx?partid=1&assetid=1158297001&objectid=41894](http://www.britishmuseum.org/research/collection_online/collection_object_details/collection_image_gallery.aspx?partid=1&assetid=1158297001&objectid=41894)



**Fig.13 A terra cotta figurine of a dancing male playing with an aulos, British Museum (1886,0401.1581)**

[http://www.britishmuseum.org/research/collection\\_online/collection\\_object\\_details/collection\\_image\\_gallery.aspx?assetId=1570772001&objectId=352](http://www.britishmuseum.org/research/collection_online/collection_object_details/collection_image_gallery.aspx?assetId=1570772001&objectId=352)



**Fig.14 A terra-cotta lamp represented with musicians accompanied by Bes. The central one plays a double aulos.**

Vendries, C., "Questions d'iconographie musicale", 226, PL Ixc3.



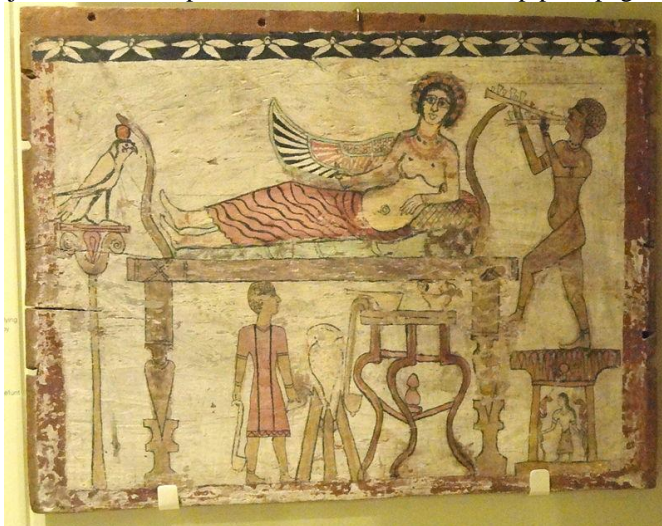
**Fig.15 A terracotta Roman lamp showing Eros playing the aulos, British Museum (1987, 0402.15)**

[http://www.britishmuseum.org/research/collection\\_online/collection\\_object\\_details.aspx?objectId=432019&partId=1&searchText=double+pipes&page=1](http://www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=432019&partId=1&searchText=double+pipes&page=1)



**Fig.16 A terra cotta Roman lamp represented with a dancing male figure playing with an aulos, British Museum (1971,0426.45)**

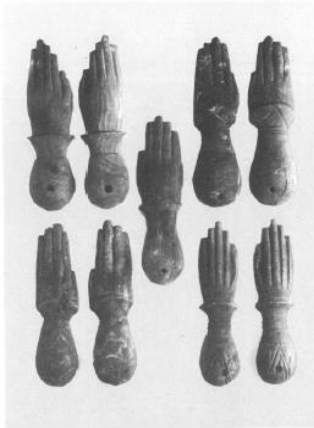
[http://www.britishmuseum.org/research/collection\\_online/collection\\_object\\_details.aspx?objectId=432205&partId=1&searchText=double+pipes&page=1](http://www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=432205&partId=1&searchText=double+pipes&page=1)



**Fig.17 Piece of a coffin floorboard dated from the Roman period in the Royal Ontario Museum**

[http://commons.wikimedia.org/wiki/File:Coffin\\_floorboard\\_depicting\\_Isis\\_being\\_served\\_wine\\_by\\_the\\_deceased,\\_Egypt,\\_Roman\\_Period,\\_30\\_BC\\_-\\_AD\\_324\\_-\\_Royal\\_Ontario\\_Museum\\_-\\_DSC09735.JPG](http://commons.wikimedia.org/wiki/File:Coffin_floorboard_depicting_Isis_being_served_wine_by_the_deceased,_Egypt,_Roman_Period,_30_BC_-_AD_324_-_Royal_Ontario_Museum_-_DSC09735.JPG)





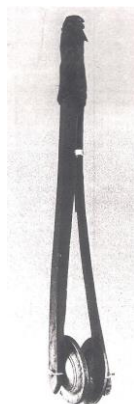
**Fig.18 Wooden clappers, from the Late Period, Egyptian Museum in Cairo, JE 39181, a, b and JE 39182, a, b**  
Hikmann, H., *Catalogue générale*, Pl.I, A.



**Fig.19 Pair of bronze cymbals linked by a bronze chain, Naples Archaeological Museum, no.76943, 1st century A. D.**  
Wardle, M. A., *Musical Instrument in the Roman World*, p.133, pl.88.



**Fig.20 Painting of a Greek vase from the fifth century B.C. shows a female performer playing with crotals in her two hands.**  
Redmond, L., "Percussion Instruments", p.69.



**Fig.21 A crotal from the Roman period with a wooden handle, British Museum (54014)**

Anderson, R. D., *Catalogue of Egyptian Antiquities*, p.28, fig.41.



**Fig.22 A crotal from the Roman period with a decorated handle, British Museum (EA26260)**

Anderson, R. D., *Catalogue of Egyptian Antiquities*, p.27, figs. 39 and 40.

[http://www.britishmuseum.org/research/collection\\_online/collection\\_object\\_details.aspx?objectId=171785&partId=1&searchText=Cymbals+&page=1](http://www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=171785&partId=1&searchText=Cymbals+&page=1)



**Fig.23. A bronze statuette of dancing female dwarf playing with crotals, British Museum (1926,0415.32)**

[http://www.britishmuseum.org/collectionimages/AN00967/AN00967211\\_001\\_1.jpg](http://www.britishmuseum.org/collectionimages/AN00967/AN00967211_001_1.jpg)



**Fig.24 Vase painting from Deir el-Medina shows Bes playing the double oboe**

Manniche, L., "The Erotic Oboe", p.196, fig.5.



**Fig.25 A scene from a house at Deir el-Medina, a lady plays the double oboe with a tattoo of Bes on her two thighs.**

Manniche, L., "The Erotic Oboe", p.197, fig.6.

## المزمار والصناج في مصر اليونانية الرومانية

د. مروة عبد المجيد القاضي\*

### الملخص:

المزمار والصناج هما آلتين موسيقتين مختلفتين تمام الاختلاف، فالمزمار هي آلة نفخ أما الصناج فهي آلة إيقاعية. كانت تلك الآلتين من أشهر الآلات الموسيقية المفضلة في مصر اليونانية الرومانية.

كان المزمار (أيولوس) αὐλός من ضمن الآلات الموسيقية اليونانية التي لعبت دوراً كبيراً في الديانة والأساطير، والفن والحياة اليومية. استخدمت تلك الآلة على نطاق واسع في مصر اليونانية الرومانية، كما ارتبطت بالعديد من الآلهة المصرية مثل أبيس، حتحور، باستيت وحربوقراط (حورس الطفل)، وكذلك ارتبطت بالآلهة اليونانية والرومانية مثل ديونيسوس (باخوس)، أثينا (منيرفا)، وأبولو. يستدل على ذلك من كتابات المؤرخين، والمناظر المصورة، والتمائيل الفخارية الصغيرة، والكتابات اليومية. وبالرغم من معرفة تلك الآلة في مصر في العصر البطلمي، إلا أن آلة الأنابيب المزوجة الموسيقية كانت معروفة بالفعل في مصر الفرعونية ومثلت في العديد من المشاهد الموسيقية في المقابر منذ عهد الدولة الحديثة على الأقل. وفي العصر اليوناني الروماني، حلت آلة المزمار (الأيولوس) محل تلك الآلة المصرية وأصبحت تلعب دوراً حيويًا في الحياة اليومية والحياة الدينية. أما بالنسبة لآلة الصناج Κκρόταλα، فهي أحد الآلات الإيقاعية التي عرفت في العالم اليوناني الروماني. عرفت تلك الآلة الإيقاعية كذلك في مصر منذ العصور الفرعونية، كما عرفت واشتهرت كذلك في مصر اليونانية الرومانية، حيث لعبت دوراً هاماً في المجتمع خلال تلك الفترة.

يدرس البحث أهمية كل آلة موسيقية منهما في مصر اليونانية الرومانية على المستويين الديني والديوي من خلال دراسة جذورهما وأدوارهما في التاريخ والأساطير والفن في مصر اليونانية الرومانية. كما يقوم البحث بالمقارنة بين استخدامات كلتا الآلتين و العلاقة بينهما ومتى كانتا تلعبان معاً وفي أي مناسبات. ويصل البحث إلى مجموعة من النتائج التي ترتبط بالأدوار المختلفة التي لعبها كل من المزمار والصناج في مصر اليونانية الرومانية. ويمكن تقسيم هذه الأدوار إلى أدوار دينية ارتبطت بعبادة مجموعة من الآلهة المصرية واليونانية والرومانية وتوضيح كيفية ارتباط تلك العبادات بالآلتين، والاحتفالات الدينية، وأدوار ارتبطت بأنشطة الحياة اليومية المختلفة.

### الكلمات الدالة:

المزمار، الصناج، اليوناني الروماني، التماثيل الصغيرة، مصابيح، ديني، ديوي، تصوير، برديات.

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## The cryptographic cartouche of "Nectanebo II" from the great temple of " *pr-B3stt* "

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### Abstract:

Rosenow refers to unusual cartouches discovered in the "Nectanebo II" temple at "Tell Basta" written in cryptographic form, and suggests that these cartouches may be for Nectanebo "*Nht-ḥr-ḥbt-mry-ʾIn-ḥr-s3-B3stt*".<sup>(1)</sup> However, the deities onto these cartouches are not the same. This notice attracted my attention to study these cartouches and other fragments that were found in the same area, comparing them with others belonging to the same king. Thus, the aim of this paper is to introduce the cryptography system<sup>(2)</sup> that was used in writing these unique cartouches. Through this writing system, the paper interprets the religious and political reasons that led to writing the king's name in such a way. Also, this research reveals how the first cryptographic cartouche of Nectanebo includes the Bubastis triad, and at the same time compiles symbols of the most important architectural achievements of the king: the Onuris temple in Samanud, the temple of Behbeit, and the Bastet temple in Tell-Basta, while the other cartouches mixed the Memphite triad with Bubastis triad.

**Keywords:** Nectanebo, cartouches, cryptographic, Tell Basta, triad, deities, Onuris.

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<sup>(1)</sup>Rosenow, D., "The great temple of Bastet",13. ; Spencer, A., "A Naos of Nekhthorheb", 45.

<sup>(2)</sup>Drioton refers to many articles about the cryptographic writing from the Old kingdom to Greco- Roman era, and Silverman added that the cryptographic writing with the beginning of New kingdom became well known, and it was used for aesthetic or religious reasons.

Drioton, É., "Recueil de cryptographie monumentale", 307,308 ; Silverman, D.P., "Cryptographic writing in the tomb of Tutankhamun", 233 ; Drioton, É., "La cryptographie de la chapelle de Toutânkhamon", 117,118.

## Introduction

In the temple of Nectanebo II at "Tell Basta" some large cartouches were discovered; each cartouche includes six deities, and perhaps these cartouches carry the name of the king Nectanebo II, written in a mysterious way (cryptography). Also, nearby these cartouches the King appears giving offerings and worshipping the deities of each cartouche.<sup>(3)</sup>

Among these cartouches there is one kept now in the Berlin Museum under No. "2099" (Fig.1), containing Bastet, Montu, Horus (who is holding a Hb - sign in his hand), Onuris, Meret, and a small child. Additionally, Naville discovered some of these rare cartouches, in which one of them represents Ptah, Sia, Thoth, Onuris, Bastet, and a missing figure perhaps of Mrt (fig.2).<sup>(4)</sup>

Also, two blocks were recently discovered showing fragments of these cryptographic cartouches, where the upper right corner of a cartouche depicts the head of a cat representing the goddess Bastet (fig.3). There are also traces of a cartouche showing the goddess Neith (fig.4).<sup>(5)</sup>

### - The first cartouche

Can be read as follows (fig.5):

- The **god Monthu** is related to the word *Nht* (mighty) in cryptographic writings. He, who had a falcon-head with two feathers and had a shrine in the temple of Bastet in "Tell Basta", was worshipped with the god Mihos<sup>(6)</sup> in Leontopolis, which is

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<sup>(3)</sup>Rosenow, D., "The great temple of Bastet", 13.

<sup>(4)</sup>Spencer, A., "A Naos of Nekhthorheb", 45 ; Naville, E., Bubastis, pls. XLV i, XLVI a.

<sup>(5)</sup>Spencer, A., "A Naos of Nekhthorheb", 45.

<sup>(6)</sup>Mihos god with lion head was regarded as a son to goddess Bastet.

Hart, G., A dictionary of Egyptian gods and goddesses, 55.

close to Bubastis. This could explain why they were both worshipped in Bubastis<sup>(7)</sup>.

- The **god Horus *ḥby*t** appears in his typical form in cryptographic writings as a falcon with a man head wearing the double crown and holding the *ḥnh*- sign. Occasionally, he holds the *ḥkz*-sign to his breast, and in this latter state his form is read as a logogram (*nb*) and symbolizes Horus as king and lord of Egypt. Alternatively, he could be depicted in falcon form. As for the *ḥb*-sign, it is read as its shape and sound suggests.<sup>(8)</sup>

It is worth mentioning that Nectanebo II rebuilt the temple of Samanoud, his native city. Between the temple's blocks there is a large, well preserved block which was engraved with his names (fig.6). Between these names the original name of the king, "*Nḥt-Hr-nb-mry-ḥnr*", who changed the word *nb* for *ḥb* can be found. When he built the temple of Isis in Behbeit el hagar, a project he found to be one of his highest accomplishments, he replaced the *nb* -sign with *ḥb* in his own cartouche.<sup>(9)</sup>

The form of Horus that was intended to be used here is Horus *ḥby*t, the god of Behbeit, from whose name the name of the city (*pr-ḥby*t) or the house of *ḥby*t (one of Horus's forms) was derived. He had been worshipped in the Isis temple which was partially constructed by Nectanebo II and completed by Ptolemy II and Ptolemy III.<sup>(10)</sup>

- The **goddess *Mrt***, whose name was engraved on a stone block now preserved in Berlin Museum under No. "2099", was used for the word *mry* , "beloved",<sup>(11)</sup> where her form replaced the word *mr*,

<sup>(7)</sup>Habachi, L., "Tell Basta", 121; De rouge, J., Géographie Ancienne de la basse- Égypte, 61-63; Drioton, É., "Recueil de cryptographie monumentale", 316.

<sup>(8)</sup>Drioton, É., "Recueil de cryptographie monumentale", 316, 322, 346, 357.

<sup>(9)</sup>Naville, E., The mound of Jew and the city of Omias, 25,26. ; Naville,E., Bubastis, 56.


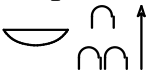
<sup>(10)</sup>Meeke, C.F., Behbeit el-Hagara,329.; Budge, E.A.W., From fetish to god,199.

<sup>(11)</sup>Guglielmi, W., Die Göttin *Mrt*, 7 note 27.

"lake".<sup>(12)</sup> Thus, this latter word was frequently used in cryptographical writings to refer to the beloved of a god as an adjective, where gods or goddesses were depicted standing upon the sign.

It seems that there is phonetic connection between the goddess's name "*Mrt*" that means "she is beloved" and the passive participle *mry*, "beloved one", that is derived from the verb *mri*"to love".<sup>(13)</sup> There is also another connection between her name and her role, she was keeping the cosmic harmony by her music gestures and singing, since the fourth dynasty, her priestesses appeared singing and playing music before the gods; they are also shown in the temple reliefs standing to greet the king and giving him salutations. They were closely connected with the House of Gold, where the statues of the king were produced to be used in the Sed-festival, so the goddess was usually depicted upon the gold sign, with her name encompassing rejoice, rebirth, eternity, and everything that is beloved of the king.<sup>(14)</sup>

- The **god Onuris**, also known as Anhur (Onuris) or Anhur-Shu, is read *s3* or *s3-R*<sup>(15)</sup> in cryptographic writings, but is read directly as Anhur in the first cartouche, where King Nectanebo II established a close connection between himself and the god of his home town and added the god's name Anhur to his cartouche as an epithet (beloved of Anhur).<sup>(16)</sup> He had also dedicated a temple in Samanoud

to the god  *Inhr*, who had the title  *nb m<sup>c</sup>b3*, "lord of the lance". In this temple, Anhur was worshipped alongside

<sup>(12)</sup>compare with *mry* mAat and *mry* Inn

Drioton, É., "Recueil de cryptographie monumentale", 316,319.


<sup>(13)</sup>Wb. II, 99,107.

<sup>(14)</sup>Luker, M., Dictionary of gods and goddesses, 124.; Blackman, A.M., "On the Position of women", 8 ; Wilkinson, R.H., The complete gods,152.

<sup>(15)</sup>Drioton, É., "Recueil de cryptographie monumentale", 317,323.

<sup>(16)</sup>Steindorff, G., "Reliefs from the temples of Sebennyos",43 note 15.



the goddess Hathor who was referred to as  *Hrt*, the daughter of Re in the shape of Tefnut. She received this connotation in another one of her names, *Mht*. Under this name, she was worshipped in the form of a lioness and had the epithet of “lady of Samanoud” in the nearby temple of Behbeit. She was also identified with Bastet in Tell Basta.<sup>(17)</sup>

Although the original cult centre of Onuris was Thinis, which was near Abydos; his main area of worship in later times, he was worshipped in the Delta town of Sebennytos (Samanud), where he was venerated alongside or as a form of the god Shu. Anhur was known in the Greek period under the name “Onuris” and was a god of war and hunting. His name literally means "he who leads back the distant one" and appears to be based on the mythical manner in which Onuris is said to have journeyed to Nubia in order to bring back the leonine eye of Re, who became his consort as the lioness-goddess Mehyt. In this legend, Onuris acts as a parallel to the god Shu who brought back the fearsome eye of Re, Tefnut, explaining why Onuris was often equated with Shu and was also linked to the sun god under the epithet "son of Re", who hunted and slew the enemies of his father.<sup>(18)</sup>

- **The child** is pronounced *sz* and means son in cryptographic writings.<sup>(19)</sup>

- Besides The high rank of **goddess Bastet** in the temple of Nectanebo II, she had at least one shrine erected for her. This king seems to have been highly devoted to the goddess Bastet, for he adopted the epithet “son of Bastet” in his cartouche, instead of “son of Isis” and even built a large temple in Bubastis for her. There is nothing similar to it, even in Samanud, which was his capital. It

<sup>(17)</sup>Kamal, A., "Sébennytos et son temple", 88.; Edgar, M.C., "Notes from the delta", 91. ; Steindorff, G., "Reliefs from the temples of Sebennytos",43.

<sup>(18)</sup>Wilkinson, R.H., The complete gods,118.

<sup>(19)</sup>Spencer, A., "A Naos of Nekhthorheb", 45.

seems that the correlation between the epithets 'son of Isis', and 'son of Bastet' was used to serve a deliberate policy – perhaps Nectanebo II, who was interested in Bastet and her temple, aimed at strengthening his position in Tell Basta and the Eastern Delta, an area that was threatened by Persians in his reign.<sup>(20)</sup>

As shown above, the cartouche of Nectanebo II, "*Nḥt Ḥr-ḥbt mry In-ḥr s3 B3stt*", is written in a mysterious manner different from the usual writing. This unique cartouche compiled symbols of his most important architectural achievements: the Onuris temple in Samanud, the temple of Behbeit, and the Bastet temple in Tell-Basta.<sup>(21)</sup>

This cartouche of the king also includes the most important gods of the Delta: the mighty *Ḥr-ḥbyt*, Anhur and Bastet, the goddess who sits down on the primitive mound. Several epithets are given to this goddess, such as "mistress of the two lands", perhaps referring to the Eastern and Western Delta, "mistress of all the gods", "the eye of Re", "protecting her father", "the eye of Horus", and "the eye of Atum"; she was also called "the mighty goddess, the one who is over the secrets of Atum". On one side of a red granite shrine discovered in Bubastis(fig.7), she is described as : "Bastet lady of the shrine, the eye of Horus, pre-eminent in the field of the god, lady of heaven, and mistress of all the gods"<sup>(22)</sup>.

#### - The second cartouche (fig.8)

It has been suggested that the second cartouche also contains the king's name "*Nḥt Ḥr-ḥbt mry In-ḥr s3 B3stt*";<sup>(23)</sup> it could be read as follows:

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<sup>(20)</sup>Naville, E., Bubastis, 56. ; Habachi, L., "Tell Basta", 88,91. ; Muhs, B., "Partisan Royal Epithets", 222,223.

<sup>(21)</sup>Steindorff, G., "Reliefs from the temples of Sebennytos",40,43.

<sup>(22)</sup>Habachi, L., "Tell Basta", 81,118,119; Budge, E.A.W., British museum, 248.

<sup>(23)</sup>Spencer, A., "A Naos of Nekthorheb", 45.

- The **god Ptah**, who according to Memphite theology, had the power over Thoth's tongue and Horus' heart. Both were brought into existence by Ptah to fulfill his desires, thus, Ptah is identified with Horus and with Thoth, "the wise, greater in his strength than the gods",<sup>(24)</sup> and Ptah took the place of Montu in the first cartouche to symbolize the word *Nht*.

- The **god Sia**, who was created from the blood dripping from the phallus of Re, was linked with the god Re for that very reason. In Memphite theology, Sia is equatable with the intellectual energies of Ptah's heart, making Sia equal to Horus, the heart of Ptah,<sup>(25)</sup> so he replaces Horus in the former cartouche. It seems that the form of Horus intended here is *Hr-hbyt*.

- The **goddess Mrt** could possibly have appeared in the lost part of the cartouche, while the remaining part shows a hand holding the *w3s* –sign. Since she appeared holding the *w3g* –sign instead of the *w3s* –sign in the first cartouche, this missing part could possibly be read as *mry*.

- The **god Thoth** was described in the late Egyptian period as “𐎃𐎃”, meaning "twice great"; perhaps this title refers to him as being the one who had control over great power and great magic. In demotic papyri named "Stories of the high priests of Memphis", Thoth held the title "the thrice great" and in Hermopolis, he was "eight times great"; this shows he was the greatest who created the eight deities in El-ashmunein.<sup>(26)</sup> Moreover, Thoth is read as *ns* "tongue" in cryptographic writings, where he served as the tongue of several gods, such as Atum, Re and Ptah.<sup>(27)</sup>

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<sup>(24)</sup>Breasted, J.H., "The philosophy of Memphite priest", 48,49; Lichtheim, M., Ancient Egyptian literature, 51.; Sethe, K., Dramatische Texte, 50; Adolf Erman, Al-dīyāna fi Miṣr al-Qadīma, Cairo, 106.

<sup>(25)</sup>Hart, G., The Routledge dictionary, 147,148; Budge, E.A.W., From fetish to god ,199.

<sup>(26)</sup>Budge, E.A.W., From fetish to god , 157.

<sup>(27)</sup>Drioton, É., "Recueil de cryptographie monumentale", 380.; Sethe,K., Dramatische Texte, 50.

The power intended to be conveyed here was the magical power of the tongue and the powerful words of the god, alongside his physical power. This physical power is explicitly referenced in Thoth's titles, such as "the strong of arm", "the strong of thigh" and "the strong one of the gods". That power made it possible for him to bring back the goddess Sekhmet, the eye of Re, who was far away. He thus received the title *in wrt irt hrt*, "who brings back the great one, the eye that was distant".<sup>(28)</sup> In this manner, Thoth took the place in this cartouche that Onuris held in the former one.

- The **god Onuris** appears in his usual, direct form, but is not read here as Anhur. Instead he is read *s3* "son",<sup>(29)</sup> according to other cryptographic writings.<sup>(30)</sup>

- The **goddess Bastet** was identified with many other deities in her lioness form, such as "Mehyt", wife of Onuris, Tefnut, Pakhet and Sekhmet<sup>(31)</sup>. It is likely that Bastet was united with Sekhmet in this cartouche because her husband Ptah also appears in the same cartouche.

As mentioned above, *s3-Rc*, the name of king Nectanebo was written in two different ways in cryptographic writings. It must be noted that the king was very interested in Memphis and its theology, as it is evident through the mentioning of Ptah and the heart and tongue. This interest in Memphis and its deities reappears on a reused inscribed red granite block, which was found in 1982 in the façade wall of the mosque of Ahmed Ibn-Hagar at Bab el-sha'ria in Cairo. It is now in a Giza storeroom under No.789.<sup>(32)</sup> It refers to Nectanebo II as beloved by the divinities of Memphis, namely Ptah and Sekhmet. The king was also interested in Thoth, as

<sup>(28)</sup>Boylan, M.A.P., Thoth the Hermes of Egypt,181,189.

<sup>(29)</sup>Daumas, F., Valeurs Phonétiques des signes hiéroglyphiques,14,95.

<sup>(30)</sup>Drioton, É., "Recueil de cryptographie monumentale",317,323.

<sup>(31)</sup>Spencer, N.A., "The epigraphic survey of Samanud", 67 note 32.; Edgar, M.C., "Notes from the delta",91. ; Steindorff, G., "Reliefs from the temples of Sebennytos", 43 note 15.

<sup>(32)</sup>Moussa, A., "A red granite door jamb", 37.

he dedicated a high granite naos to him, which was found at Tuna El-gebel, the necropolis of Hermopolis.<sup>(33)</sup>

The cartouche reflects that Nectanebo II paid very close attention to Bubastis, because it was one of Nectanebo II's coronation sites. Bubastis was also the gateway to Memphis and important defense area for Egypt,<sup>(34)</sup> so Memphis resembled more of a great fortress or garrison during Nectanebo II's era than the peaceful city of temples and palaces which had been in its long past period<sup>(35)</sup>.

It is clear that both of the two cartouches reflect some important events, as well as some features of Nectanebo's personality. Nectanebo was the nephew of Tachos (Teos), a king who had been defeated by a Persian army in Phoenicia, so Nectanebo returned back to Egypt and seized the throne in the stead of the legitimate king.<sup>(36)</sup>

Now, it is evident that Nectanebo was not a legitimate king but a usurper, so some army leaders opposed him and chose a prince that descended from the royal house in Mendes to become king, but Nectanebo put an end to this rebellion against his authority and defeated the prince of Mendes, thus becoming the sole ruler of Egypt.<sup>(37)</sup>

Although Nectanebo II defeated those rebels who were against him, he still felt that he had opponents inside and outside of Egypt, so he began his reign by satisfying the priests of all gods, through the construction and restoration of lots of temples and officialating the funeral of the Apis bull at Memphis. He was also responsible for the increasing popularity of another animal cult, namely the Buchis

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<sup>(33)</sup>Arnold, Die., Temples of the last Pharaohs, 131.; Roeder, G., Naos,CG.,no.70014.

<sup>(34)</sup>Ruzicka, S., Trouble in the west Egypt, 188.


<sup>(35)</sup>Dimick, M., The city of the white wall, 23.

<sup>(36)</sup>'Abd Al-Ḥalīm - Nūr Al-Dīn, *Tārīḥ wa Haḍārt Miṣr*,382-385.

<sup>(37)</sup>Nikola Gremal, *Tārīḥ Miṣr al-Qadīma*,486; 'Abd Al-Ḥalīm - Nūr Al-Dīn, *Tārīḥ wa Haḍārt Miṣr*,38; Petrie, W.M.F., Memphis, 13; Daressy, M.G., "Le roi Teos", 42.

bull, the sacred symbol of Montu. He established the burial place of Buchis on the edge of the desert at Armant and showed enthusiasm for every cult of every temple in Egypt,<sup>(38)</sup> perhaps to ensure the people's support for him.

This caused people to interpret that it is Montu who appears in the first cartouche and that Memphis' deities Sekhmet and Ptah, while the heart and tongue appear in the second. In both cartouches, Nectanebo II paid close attention to the god Onouris(Anhur) by

calling himself  *Hr-tm3*, "Horus the strong arm",<sup>(39)</sup>-

the name of Onouris the warrior god in Samanoud -, so this god became part of the king's name,<sup>(40)</sup> perhaps referring to his victory over the rebels, a victory that no doubt led to establishing peace and stability in Egypt, similar to the reason behind appeasing the goddess Sekhmet, who defeated the rebels who were against her father Re.

A granite block that was originally part of a naos for the goddess Bastet bears a relief showing the king in symmetrical scenes kneeling upon a low pedestal, offering a small figure of the goddess Maat, in front of a double cartouche containing the king's title of king of Upper and Lower Egypt: *sn̄dm ib R̄c stp n in-hr*, "who satisfied the heart of Re, who is chosen by Anhure" (fig.9). These symmetrical scenes are labeled as "giving Maat to his mother who created him and gives him life". Evidently, the mother is Bastet who receives the offering. All at once, he gives the offering and worships, while his name is written in normal form and appears offering and worshipping with his name written in a cryptographic way. Some suggest that Nectanebo is depicted in his ritual role here.<sup>(41)</sup>

<sup>(38)</sup> - Hart, G., The Routledge dictionary, 96.; Riggs, C., The Oxford handbook, 180. ;

<sup>(39)</sup>Wb., V, 367

<sup>(40)</sup>Naville, E., The shrine of Saft el henneh, 6.

<sup>(41)</sup>Arnold, Die., Temples of the last Pharaohs, 129.; Roeder, G., Naos,CG., no.70016,taf. 12; Spencer, A., "A Naos of Nekthorheb", 5, 45.

The appearance of Nectanebo II next to his cartouches not only makes him seem responsible for carrying out the rituals of all the deities that were depicted inside them, but also makes him seem to become part of the realm of the deities; he had the legitimacy of Horus, the power of Montu and Anhur, the protection of Bastet, and the eternal rebirth by the heart and tongue of Ptah. In order to keep his name safe from becoming erased or destroyed by his enemies, he made use of cryptography, as had been done by Hatshepsut and Ramses II before him.<sup>(42)</sup>

Nectanebo II also utilised cryptography on his cult statues that were found in Memphis and Heliopolis. These can now be found in the Metropolitan Museum of Art under No. 34.2.1. and in the Musée du Louvre under No. E III52(fig.10). These statues show the king as a small figure standing between the claws of the falcon god Horus. This corresponds to the fact that Nectanebo II had a royal cult that included priests who served his statues that bore the name of *Nḥt-Hr-ḥbyt-pꜣ-bik*, "Nectanebo the falcon".<sup>(43)</sup>

Nectanebo cult statues show that his name consists of three elements: The falcon has the phonetic value *Hr* and embodied the protection and legitimacy for the king at the same time, the sword that is in his left hand called *nḥt*, "power", and in his right hand *ḥb(t)* sign.<sup>(44)</sup>

The royal cult statues of Nectanebo "the falcon", or "*pꜣ-bik*", were spread in the main temples of Egypt and the king dedicated priesthoods for them.<sup>(45)</sup>

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<sup>(42)</sup>Nagwa Mūḥammad, *Al-Kīṭābāt al- m<sup>c</sup>māa*, 39,42.

<sup>(43)</sup>Beeson, N.B., *Guide to The Metropolitan*, 117, fig.46; Lesuer, R.B., *Between heaven and earth*, 37,40.

<sup>(44)</sup>Nagwa , Mūḥammad *Al-Kīṭābāt al- m<sup>c</sup>māa*, 53,52

Arnold,Dor., 1995: "An Egyptian bestiary", 45; Aldred, C., *Egyptian Art*, 237, fig.196.

<sup>(45)</sup>Beeson, N.B., *Guide to The Metropolitan*, 117, fig.46.; Lesuer, R.B., *Between heaven and earth*, 37,40. ; Arnold, Die., *Temples of the last Pharaohs*,124, fig.82.

So, it seems that Nectanebo had established another special cult for himself in Bubastis, which was the cult of his royal cartouche "*Nḥt-Ḥr-ḥbyṯ-mry-īn-ḥr-sꜣ-Bꜣstt*", and had a priesthood attend to this cartouche and carry out the rituals for his own sacred name. Therefore, Bubastis was a site with this unique sort of worshipping.

There are traces of a cartouche showing the goddess Neith; and the king in kneeling position making offerings.<sup>(46)</sup> It must be noted that the goddess Neith can be read as (n) in cryptographic writings, thus, this cartouche may refer to the name of Nectanebo "*snḏm īb Rꜥ stp n īn-ḥr*", as a substitute form to his normal cartouche that was part of a naos for the goddess Bastet(fig.9).

Nectanebo created for himself a special divine magical personality. Through it, Egypt enjoyed a few peaceful years, which helped him to carry out a lot of his construction projects. He finished six temples in Delta at least and in Middle and Upper Egypt he established more buildings whether new ones or renewed old ones, in addition to numerous chapels, obelisks and naoi, in an attempt to bring back the glory of the previous periods.<sup>(47)</sup>

The divine magical personality of the king clearly appears by giving a mysterious magical power to his names, forming every name in different ways, while at the same time conserving the original meaning, which is evident from the two different forms of his name "*Nḥt-Ḥr-ḥbyṯ-mry-īn-ḥr-sꜣ-Bꜣstt*". Nectanebo II had thus succeeded in making himself a god through the cult of his statues and cryptographic cartouches, therefore he gained for himself protection forever.

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<sup>(46)</sup>Spencer, A., "A Naos of Nekhthorheb", 45.

<sup>(47)</sup>Arnold, Die., Temples of the last Pharaohs, 124.



**- Analyses and results "All tables by the Researcher"**

**- The five names of Nectanebo<sup>(48)</sup>"Table I"**

<b>The name</b>	<b>Transliteration</b>	<b>Translation</b>
Hours	<i>Mry t3wy nk kmt</i>	Beloved of the two lands
Two ladies	<i>shr ib nꜣrw tkn ḥꜣswt</i>	Who has pleased the gods minds by attacking the foreign lands.
Golden Horus	<i>smn ḥpw ḥwi pꜣwt</i>	The establisher of laws who has struck down the nine bows
The king of upper and lower Egypt  <b>Throne name</b> is written inside cartouche	<i>-sndm ib Rꜥ stp n ꜣn-ḥr</i> ----- <i>-sndm ib Rꜥ stp n ḥt-ḥr</i>	-who contented Re chosen by Onouris ----- - who contented Re chosen by Hathor
Son of Re  <b>Birth name</b> is written inside cartouche	<i>-Nḥt Ḥr-ḥbyt mry ꜣn-ḥr</i> ----- <i>-Nḥt Ḥr-ḥbyt mry ꜣn-ḥr sꜣ Ḥt-Ḥr</i> ----- <i>- Nḥt Ḥr-ḥbyt mry Ḥt-Ḥr</i> ----- <i>-Nḥt Ḥr-ḥbyt mry ꜣn-ḥr sꜣ Bꜣstt</i>	the mighty Horus Hebit beloved of Onouris. ----- ..... beloved Onouris son of Hathor. ----- ..... beloved Onouris son of Hathor. ----- ..... beloved Onouris son of Bastet













<sup>(48)</sup>Leprohon,R.J., The great name, 172,173 ; Beckerath,J.V., Handbuch der Ägyptischen königsnamen, 1116,283 ; Gauthier,H., "Le livre des rois", 171-181 ; Kamal,A., Tables d'offrands,CG., 94,no.23115.

**Observations**

It is known that the birth name *s3-R<sup>c</sup>* and the throne name *n-sw<sup>t</sup>-bit* were only written in cartouches.<sup>(49)</sup> So the two cryptographic cartouches must be only belonging to the name of birth or throne.

The name of Bastet in both cryptographic cartouches removes the confusion and determines the intended cartouche, being the cartouche of birth name *s3-Re*.














**-Comparative reading between the first cryptographic cartouche and the usual name of Nectanebo *s3-R<sup>c</sup>*" Table II"**

<b>Crypto-graphic</b>	<i>Mntw</i> 	<i>Hr-hbyt</i> 	<i>Mrt</i> 	<i>In-hr</i> 	<i>s3</i> 	<i>B3stt</i> 
<b>Usual</b>	<i>Nht</i> 	<i>Hr-hbyt</i> 	<i>Mry</i> 	<i>In-hr</i> 	<i>s3</i> 	<i>B3stt</i> 

This comparison proved that the first cartouche is written in simple cryptography, and also shows the identical features between two cartouches carrying the same name *s3-R<sup>c</sup>*, one of them written in cryptography and the other in usual manner.

**-Another comparative reading between the second cryptographic cartouche and the usual name of Nectanebo *s3-R<sup>c</sup>*" Table III"**

<sup>(49)</sup>Strudwick,N.C., Texts from the pyramid age,14 ; Allen,J.P., Middle Egyptian an introduction language, 67.

<b>Crypto-graphic</b>	<i>Pth</i> 	<i>Si3</i> 	<i>Mrt</i> 	<i>Dḥwty</i> 	<i>'In-ḥr</i> 	<i>B3stt</i> 
<b>Usual</b>	<i>Nht</i> 	<i>Ḥr-ḥbyt</i> 	<i>Mry</i>  ----- 	<i>'In-ḥr</i> 	<i>s3</i> 	<i>B3stt</i> 

At first sight the second cartouche seems to be too complicated, the only participant factor is Bastet, that occupies the same place inside the first cartouche and in the usual cartouche, while the images of other deities were completely changed. Here the comparison between the second cartouche and the usual cartouche is not useful except in the point of Bastet, but the comparison between the first and the second cryptography cartouches gives us good reading of the second ambiguous cartouche. This reading firstly depended on the religious comparison among the equal deities in both cartouches, enabling us to interpret and relate between the second and the usual cartouche of *s3-Re* name.

**-The system that is used in reading each cartouche "Table IV"**

<b>Crypto-graphic first</b>	<i>Mntw</i>	<i>Hr-ḥbyt</i>	<i>Mrt</i>	<i>'In-ḥr</i>	<i>s3</i>	<i>B3stt</i>
<b>Crypto-graphic second</b>	<i>Pth</i>	<i>Si3</i>	<i>Mrt</i>	<i>Dḥwty</i>	<i>'In-ḥr</i>	<i>B3stt</i>
<b>Usual name</b> <i>s3-Re</i>	<i>Nḥt</i>	<i>Hr-ḥbyt</i>	<i>Mry</i>	<i>'In-ḥr</i>	<i>s3</i>	<i>B3stt</i>

As shown there are identical features between the first cryptography and the usual name in reading, except *Mntw* who relates to *Nḥt* "mighty", and *s3* the child who also relates to the egg *s3* or *swḥt*.


Several essential changes occurred in the second cartouche, where *Pth* came in the place of *Mntw*, *Si3* in place of *Hr-ḥbyt*, *Dḥwty* instead of *'In-ḥr*, and finally *'In-ḥr* turned to be the son of Bastet.

**- The direction of reading "Table V a-b"**

First cartouche	
3	<i>B3stt</i> ← <i>s3</i>
1	<i>Mntw</i> → <i>Hr-ḥbyt</i>
2	<i>'In-ḥr</i> ← <i>Mrt</i>

second cartouche			
<i>'In-ḥr</i>	3	→	<i>B3stt</i>
<i>Dḥwty</i>		↑	<i>Si3</i>
2	1	↑	<i>Pth</i>
↑	<i>Mrt</i>		

**- The first cryptographic cartouche of Nectanebo includes The Bubastis triad :**

Bastet in the first cartouche sits on mound  that embodies her title " *B3stt ḥrt sšt3 n tm nbt pt ḥnwt t3wy* " " Bastet who is over the secrets of Atum, lady of sky, mistress of the two lands".<sup>(50)</sup> clearly this figure unites between Bastet and her husband Atum. The third member in Bubastis triad is *M3i-ḥsy* (Mihos), Horhekenu, or Nefertum.<sup>(51)</sup> none of the previous gods appears in the first cartouche, but the child in this triad expressed as *s3*, referring to the king himself as the son for Bastet and Atum.

**- The second cryptographic cartouches mixed the Memphite triad with Bubastis triad and add Onouris as a new son**

The second cartouche's upper part determined the personality of the god's son, Onouris, where the king is interested in Samanoud his native town and makes the name of its warrior god Onouris part of his name, for this confines a relationship between them; the king united himself with Onouris, and putting him in high position facing Bastet. Also, he was found in Thoth<sup>(52)</sup> the alternative god who can stand in place of Onouris who became the son of Bastet.

Both the king and Onouris were described as sons of Re by an inscription recorded on Nectanebo's naos in Egyptian museum : "*s3-Rc Nḥt-Hr-ḥbyr-mry-In-ḥr-(s3)* <sup>(53)</sup> *-B3stt ḥnḥ mī Rc In-ḥr-Šw s3-Rc*

<sup>(50)</sup>This title inscribed in the small temple of Osorkon II, nearby the great temple at Bubastis.

Ritner, R.K., The Libyan anarchy inscriptions, 342 ; Naville, E., Bubastis, pl. XLI E.

<sup>(51)</sup>Habachi, L., "Tell Basta", 55, 119 ; Te Velde, H., "Some remarks on the structure of Egyptian divine triads", 83.

<sup>(52)</sup>The choice of Thoth as alternative to Onouris was very proper, because each of them have the similar role in bring back the distant goddess Tefnut-Skhmet.

Pinch, G., Handbook of Egyptian mythology, 177.

<sup>(53)</sup>Word son omitted from the king's cartouche, perhaps the text concentrates only on the king and Onouris as sons of Re.

"Ptah-tA-tnn" was the primeval mound that emerged from Nun the primeval ocean.

*nb Tb-ntr* " " the son of Re *Nht-Hr-hbyt-mry-'In-hr-(s3)-B3stt*, live as Re , *'In-hr-Šw*, the son of Re, lord of Samanoud".<sup>(54)</sup>

Bubastis triad in the second cartouche are little deferent from the first: *Ptah-t3-tnn*" Ptah the risen land"<sup>(55)</sup> replaced the mound-Atum, and Sekhmet identified with Bastet, also Onouris (the king) plays the role of son in this triad in place of Nerfertum the real son of Ptah and Sekhmet.

### - Nectanebo inside the realm of deities

Nectanebo did not appear beside these cartouches only, but he inserted himself inside them as one of these deities that were responsible for conserving the balance and harmony of the cosmic, creation, power, and magic, collecting all distinctive divinity power to himself.

The existence of Nectanebo among the deities as a potent and magician god, suggests he established a special royal cult for his statues and a new royal cult for his royal name. Probably, he devoted a priesthood for this latter cult practicing the cult rituals for his name whether in cryptographic form or in usual form.

This deliberate religious policy of Nectanebo was reflected on him, as he became a legitimate king and owned a holy position. All this created a proper atmosphere helping him to achieve his architectural projects at everywhere in Egypt.

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Frankfort,H., Kingship and the gods, 25,28.

<sup>(54)</sup>Roeder, G., Naos,CG., 43,no.70012.

<sup>(55)</sup>*Ptah-t3-tnn*" was the primeval mound that emerged from Nun the primeval ocean.  
Frankfort,H., Kingship and the gods, 25,28.

## Abbreviations

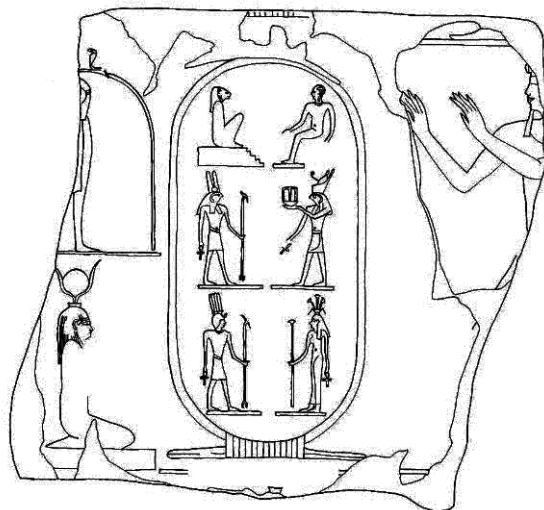
- ASAE : Annales du Service des Antiquités de l'Égypte, Le Caire.
- BMRP : British Museum Research Publications BMRP, London.
- CG : Catalogue General du Musee du Caire , Le caire.
- EA : Egyptian Archaeology, the Bulletin of the Egypt Exploration Society , London.
- JEA : The journal of Egyptian Archaeology, London.
- JWAG : The Journal of the Walters Art Gallery, Baltimore.
- MIFAO : Mémoires l'institut Français d'archéologie orientale du Caire, Le Caire.
- MMAB : The Metropolitan Museum of Art Bulletin , New York.
- SAK : Studien zur Altägyptischen kultur, Hamburg.
- SASAE : Supplément aux Annales du Service des Antiquités de l'Égypte, Le Caire.
- Wb : Erman, A., & Grapow, W., Wörterbuch der ägyptische Sprache , 7 vol., Leipzig.
- ZÄS : Zeitschrift für ägyptische Sprache und Altertumskunde, Berlin.

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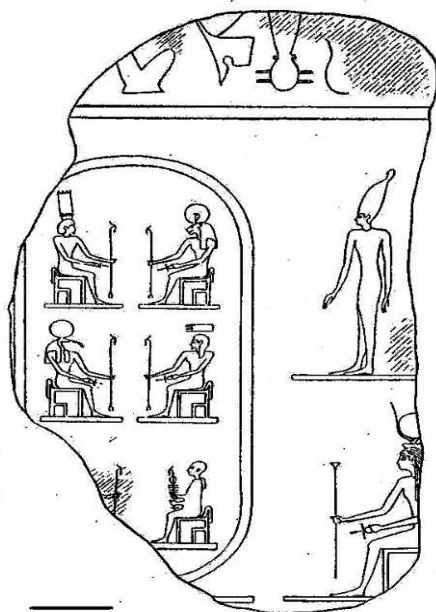


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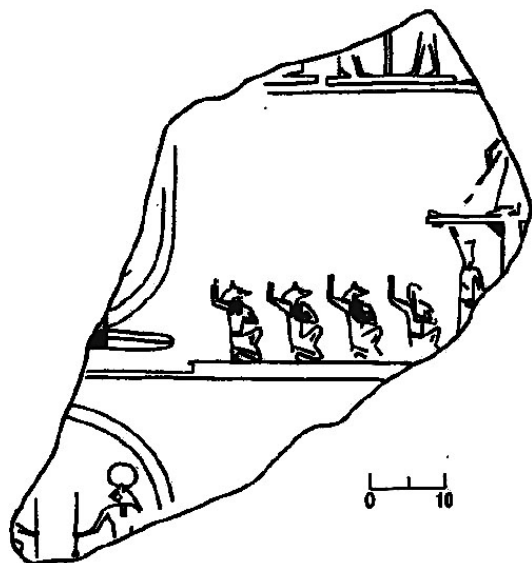
(fig.1)

Rosenow, D., "The great temple of Bastet", 12



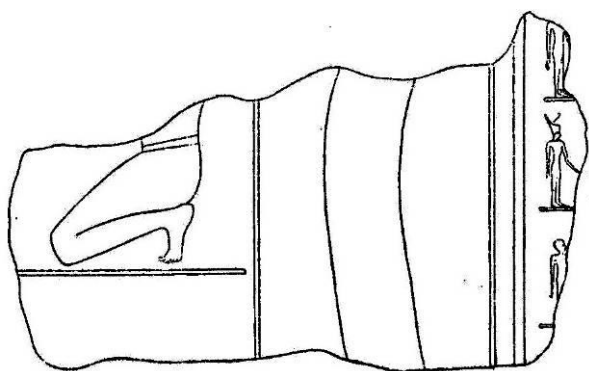
(Fig.2)

pl.XLVI Naville,E., Bubastis,



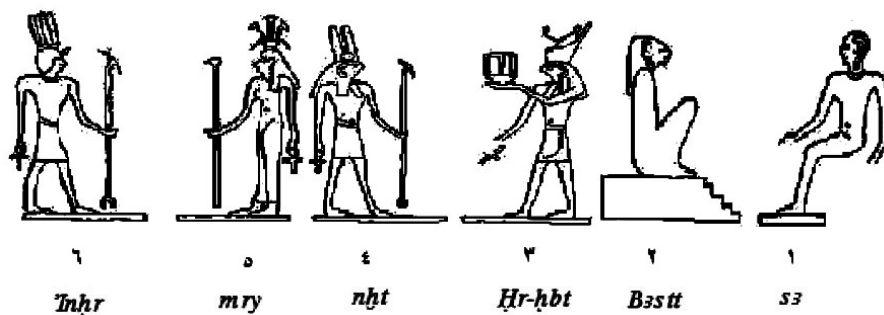
(fig.3)

Spencer, A., "A Naos of Nekhthorheb", fig.27.



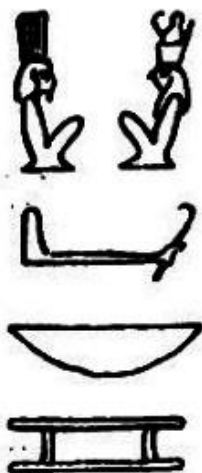
(fig.4)

Naville, E., Bubastis, pl. XLV



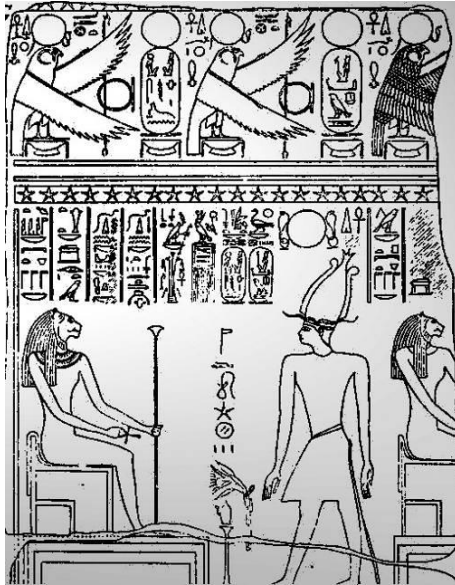
(fig.5)

The first cartouche by the Researcher



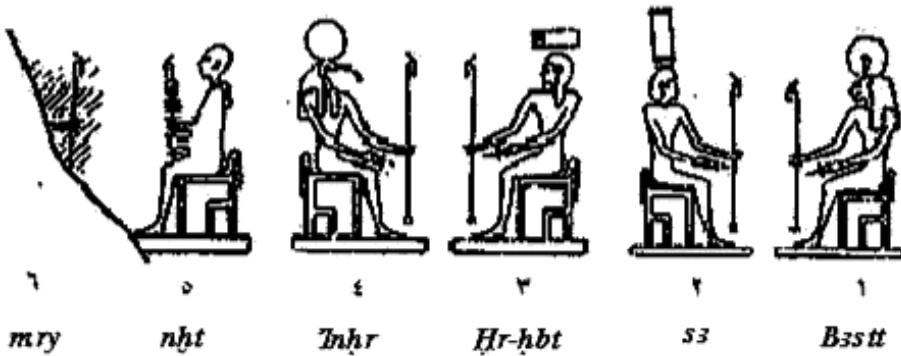
(fig.6)

Naville, E., The mound of Jew, pl. VI.



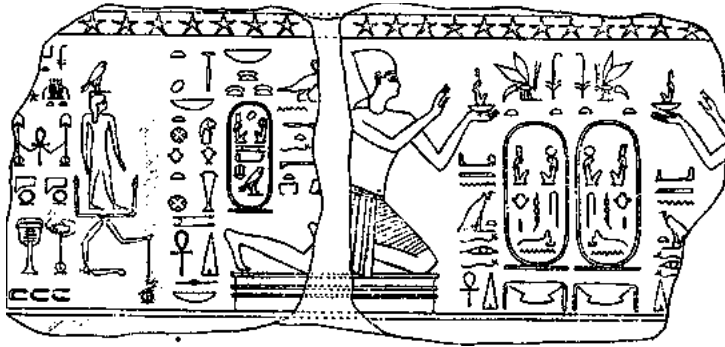
(fig.7)

Naville, E., Bubastis, pl.XLVII



(fig.8)

Second cartouche by the Researcher



(fig.9)

Naville, E., Bubastis, pl. XLVII H.



(fig.10)

Beeson, N.B., Guide to The Metropolitan, fig.46.

## الخرطوش الغامض لـ "نختانبو الثاني"

### من المعبد الكبير في بر-باستت

د. محمد البيومي محمد البيومي\*

#### المخلص :

أشارت Rosenow إلى خراطيش غير معتادة أكتشفت في معبد نختانبو الثاني في تل بسطة، وقد كتبت بطريقة الكتابة المعماة، ورجحت أن هذه الخراطيش ربما تشير إلى اسم الملك نختانبو الثاني "*Nht-hr-hbt-mry-In-hr-s3-B3stt*", لكن المعبودات المصورة داخل تلك الخراطيش غير متماثلة جذبت تلك الملحوظة اهتمامي لدراسة تلك الخراطيش والبقايا المشابهة لها التي عثر عليها بنفس المنطقة، ومقارنتها بخراطيش أخرى للملك نختانبو وبالتالي يهدف هذا البحث إلى تقديم نظام القراءة المعماة (الغامضة) المستخدم في كتابة هذه الخراطيش الفريدة المميزة، ومن خلاله يفسر البحث الأسباب الدينية والسياسية التي جعلت اسم الملك يكتب بهذه الطريقة، ويكشف البحث أيضاً عن ثلوث تل بسطة الذي حواه الخراطوش الأول، ذاك الخراطوش الذي يتضمن في نفس الوقت الانجازات المعمارية الأكثر أهمية للملك، مثل معبد أنوريس في سمنود، ومعبد حور في بهبيت الحجاره، ومعبد باستت في تل بسطة، بينما يمزج الخراطوش الثاني بين ثلوث منف وثلوث تل بسطة.

#### الكلمات الدالة :

نختانبو، خراطيش، الكتابة المعماة، تل بسطة، ثلوث، المعبودات، أنوريس.

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## **Three unpublished Roman and Byzantine Coins from Oxyrhynchus**

**Dr. Mona Gabr Abd el Naby \***

### **Abstract:**

This article tackles studying and publishing three coins for the first time; two Roman and a single Byzantine, from the 2015 excavation of the Spanish Expedition in El-Bahnasa (ex. Oxyrhynchus) in Minya Governorate, Middle Egypt.

These three pieces carry the numbers: N.1173, N.1174 and N.1175, and are preserved now in the Museum journal in El-Bahnasa, Hall 8. They could be respectively dated from approximately the 4<sup>th</sup> century A.D. for the first two coins, unearthed in the site of High Necropolis, and from amidst 7<sup>th</sup> century A.D., i.e. Late Byzantine till the dawn of the Arab Conquest in 642 AD, for the third piece found in the Osirion Site.

The main importance of these coins is not only in spotting light upon some types, and local coinage-industry in Roman and Byzantine Egypt, and their relations to the Alexandrian Mint during that era, but also in clarifying the economic role of Egypt as a Roman Province, and different faces of coinage industry, either produced in Alexandria or being struck in some local mints in other territories throughout Egypt.

### **Key-words:**

Spanish expedition, Mint, Nomes, coinage, Oxyrhynchus.

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## Introduction:

The Site of Oxyrhynchus<sup>(1)</sup>, mod. El-Bahnasa- Benimazar locality- Minia Governorate, was one of the main nomes, which played an important role in the social and economic activities during the Ptolemaic and Roman eras in Egypt<sup>(2)</sup>.

The several excavations in the site unearthed more evidence thereof, while the coinages' importance lies in the historical story of the region<sup>(3)</sup>. Thus, this article tackles studying and publishing two Roman coins and a single Byzantine one for the first time from the 2015 excavation of the Spanish Expedition, especially the coins found in the Sites of High Necropolis<sup>(4)</sup> and Osirion<sup>(5)</sup>.

These three pieces carry the numbers: N.1173, N.1174 and N.1175, and are preserved now in the Museum journal, Hall 8. They could be respectively dated from approximately the 4<sup>th</sup> century A.D. for the first two coins, unearthed in the site of High Necropolis, and from amidst the 7<sup>th</sup> century A.D., i.e. Late Byzantine onto the dawn of the Arab Conquest in 642 A.D., for the third piece found in Osirion Site. Here, the three coins will be displayed and presented as follows:

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<sup>(1)</sup>H. Mac Lennan, *Oxyrhynchus, An Economic and Social Study*, (Amsterdam, 1968), pp.47-48.; R. Bagnall & D. Rathbone, *Egypt from Alexander to the Copts, An Archaeological and, Historical Guide*, (London, 2004), p.145.

<sup>(2)</sup> E.G. Turner, "Roman Oxyrhynchus", *JEA* 38, (London, 1952), pp. 78-93.

<sup>(3)</sup>J. Padro, H. "Excavations in Oxyrhynchus", 120 years of Spanish Archaeology in Egypte,(Cairo, 2009) pp. 322-325.

<sup>(4)</sup> J. Padro, H. Amer & M. Erroux –Morfin, "Decouverte et premiers travaux a' l'osireion d' Oxyrhynchus", IX congres international des egyptologues Grenoble 6-12 de Septembre 2004, *OLA* 50, (leuven, 2007), pp. 1443-1454.

<sup>(5)</sup>H.I. Amer, "Les catacombes osiriennes d'Oxyrhynchos", *Le culte d'Osiris au Ier miullenaire av. J-C., decouvertes et travaux recents, Actes de la table ronde internationale tenue a Lyon, Maison de l'orient et de la mediterranee (Universite Lumiere – Lyon)les 8 et 9 Juillet 2005*, *Bibliothèque d' etude* 152, (Le Caire,2010), pp. 269-282.

**Data:**

First Piece (pl.1)	
Registration	Bahnasa Journal Serial Nr. 1173- Hall 8, Expedition Register. Nr. 408- Excavator Nr. OXY 15, 29064.
Source	Spanish Excavations at El-Bahnasa (ex. Oxyrhynchus), Season 2015, from Site of High Necropolis.
Date of Arrival into Magazine	12/ 4/ 2015.
Material	Lead Token Bronze coin.
Weight	Approx. 2.5– 2.7 Grams.
size &Thickness	2.5 cm. (diameter) , 5 ml.(thickness).
Dating	Roman Period, end of the 3 <sup>rd</sup> – beginning of the 4 <sup>th</sup> Centuries AD.
Bibliography	Unpublished.
Description	Regular round bronze coin, no obverse bust, its denominations have been struck in a shallow way. Upon obverse the Goddess Athena (?) was depicted inside a shrine, bearing something not clear and looking to the left. Upon the reverse the winged (Victoria) was shaped, while bearing some trophy-wreath (?), or victorious sign and looking to left.

Second Piece (pl.2)	
Registration	Bahnasa Journal Serial Nr. 1174- Hall 8, Expedition Register. Nr. 409- Excavator Nr. OXY 15, 29066.
Source	Spanish Excavations at El-Bahnasa (ex. Oxyrhynchus), Season 2015, from Site of High Necropolis.
Date of Arrival into Magazine	12/ 4/ 2015.
Material	Lead Token Bronze coin.
Weight	Approx. 2.3 – 2.5 Grams.
size &Thickness	2 cm.(diameter) , 3 ml.(thickness).
Dating	Roman Period, end of the 3 <sup>rd</sup> – beginning of the 4 <sup>th</sup> Centuries AD.
Bibliography	Unpublished.

Description	<p>Regular round bronze coin, no obverse bust, its denominations have been struck in a shallow way, but clearer than the previous one.</p> <p>Upon obverse an unknown Goddess was depicted, bearing some sign, she could be Athena, Nike (Victoria), or also Tyche (Fortuna). Upon reverse a winged Goddess, may be Nike or Tyche, was shaped, while holding a trophy-wreath (?), and looking to left.</p>
<b>Third Piece (pl.3)</b>	
Registration	Bahnasa Journal Serial Nr. 1175- Hall 8, Expedition Register. Nr. 410- Excavator Nr. OXY 15, 29002.
Source	Spanish Excavations at El-Bahnasa (ex. Oxyrhynchus), Season 2015, from Site of Osirion.
Date of Arrival into Magazine	12/ 4/ 2015.
Material	12 Nummi Bronze coin.
Weight	Approx. 2.5 – 2.7 Grams.
size & Thickness	2.5 cm. (diameter), 5 ml.(thickness).
Dating	Byzantine Period, Seventh Century AD., about 610- 641 AD.
Bibliography	Unpublished.
Description	<p>Oval bronze coin, Type "12 Nummi", which belongs to Alexandrian Mint during the 5<sup>th</sup> to the 7<sup>th</sup> Centuries AD.</p> <p>Upon obverse a bust-portrait of The Emperor Heraclios, or the Persian King Khesro II is depicted (?), where he put the Roman military coat (Paldumentum = Greek Chlamide), upon his head he has the military helmet adorned with the "Cross", an unclear denomination for an armor may be also depicted beside a star to the left.</p> <p>Upon the upper half of the reverse the Number 12 was inscribed in Greek Letters, relating to the value of the coin, i.e. 12 (Nummi), where the Letter (I) means (10), and the Letter (B) means (2). Both Letters are separated with the Shape of (Cross).</p> <p>A horizontal line divides the verso, where upon the lower part stands a Greek inscription of the four Letters: ΑΛΣΞ as an abbreviation to the name of Alexandria, also in Greek, and not Latin Letters, as evidence that our piece was struck in an Alexandrian Mint.</p>

## Study and Analysis:

Scholars know the difficulties of studying bronze-coinage, which show damaged or flat relieves in general and specifically those among the struck material that were produced in the eastern Mints of the Roman Empire.<sup>(6)</sup> As for the bronze-coinage of the main Alexandrian mints and other local ones much populated centers in Egypt at that time<sup>(7)</sup> were often influenced by remarkable Egypto-Greek denominations<sup>(8)</sup>, where beard varied features were practiced, either in depicting definite deities or in preferring Greek script to Latin<sup>(9)</sup>, along with some other different alterations in size, weight, and dating denominations<sup>(10)</sup>.

The Alexandrian coinages were first produced according to Ptolemaic Style<sup>(11)</sup> and standard weight, but moving forward towards the Roman Period, they showed decrease in size and weight<sup>(12)</sup>.

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<sup>(6)</sup> R. Carson & J. Kent, *Late Roman Bronze Coinage A D 324-498*, (London, 1960), pp. 31-33.

<sup>(7)</sup> K. Emmett, *Alexandrian Coins*, (Wisconsin, 2001), p. 13.

<sup>(8)</sup> D. Klose & B. Overbeck, *Ägypten Zur Römerzeit, Antikes Leben auf Grund der Numismatischen Quellen mit einem ägyptologischen Beitrag von Sylvia Schoske*, (München, 1989), p. 60.; E. Christiansen, "Roman Coins of Alexandria", *Proceedings of the 20<sup>th</sup> International Congress of Papyrologists, Copenhagen 23 – 29, August 1992*, (ed) A. B. Jacobson, (Copenhagen, 1994), pp. 478 – 483.

<sup>(9)</sup> A. Geissen, "La politique Monétaire des Antonins", *L'exception égyptienne?, production et échanges monétaires en Egypte Hellénétique et romaine, Actes du colloque d'Alexandrie, 13-15 Avril 2002, Études alexandrines 10*, (Le Caire, 2005), pp. 320-323.; R. Bland, "The roman Coinage of Alexandria, 30 B.C.", *Archaeological Research in Roman Egypt*, *The Proceedings of the Seventeenth Classical Colloquium of the Department of Greek and Roman Antiquities, British Museum, 1 – 4 December 1993*, (ed) D. Bailey, (Ann Arbor, 1996), pp. 113 – 127.

<sup>(10)</sup> Emmett, *Alexandrian Coins*, p. 14.

<sup>(11)</sup> D. Sear, *Greek Imperial Coins and their Values, The Local Coinages of the Roman Empire*, (London, 1982), pp. 23 – 29; D. Sear, *Greek Imperial Coins and their Values, Vol. II, Asia and North Africa*, (London, 1951), pp. 731 – 754.; Ch. Howgego, *Ancient History from Coins*, (London and New York, 2005), p. 10.

<sup>(12)</sup> Emmett, *Alexandrian Coins*, p. 14.

Despite the fact that many Egyptian coinages outside Alexandria expressed themselves as imitating copies<sup>(13)</sup>, some other local coins reflected extra geographical or divine features<sup>(14)</sup>, when giving concise scripts indicating to the polis where they were struck or the shape of a deity in their zone<sup>(15)</sup>.

The bronze coinages were struck in several nomes of Roman Egypt, Alexandria, for the main metropolis had some known mints. Moreover, many other local mints were present nearby, such as those in Memphis<sup>(16)</sup>, Sais<sup>(17)</sup>, Arsenoie (mod. Kiman-Faris in Fayyum), Heracleopolis<sup>(18)</sup> (mod. Ichnasia El-madineh, Antonopolis (mod. Sheikh Abada), Hermopolis<sup>(19)</sup> (mod. Al-Ashmunein), Coptos<sup>(20)</sup> (mod. Qeft), and Oxyrhynchus (mod. El-Bahnasa)<sup>(21)</sup>.

The so called: "Lead tokens had no obverse bust portraits bronze coins"<sup>(22)</sup> stand among the well-known groups of simultaneous coinage that is classified to considerable difficulties in studying, since they are mainly small and fragile, and they have no or scarce inscriptions or portraits, that could facilitate their exact identification or accurate dating, such as our two pieces presented here; N. 1173 & N. 1174 (pl. 1, 2).

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<sup>(13)</sup> Emmett, *Alexandrian Coins*, p. 15.

<sup>(14)</sup> R. S. Poole, *Catalogue of the Coins of Alexandria and the Nomes*, (Bologna, 1964), pp. 28-30.

<sup>(15)</sup> R. S. Poole, *Catalogue of the Coins*, pp. 28-30.

<sup>(16)</sup> Emmett, *Alexandrian Coins*, p. 15.

<sup>(17)</sup> R. S. Poole, *Catalogue of the Coins*, p. 359.

<sup>(18)</sup> R. S. Poole, *Catalogue of the Coins*, p. 356.

<sup>(19)</sup> Klose & Overbeck, *Agypten Zur Romerzeit*, pp. 50 – 51. N. 155 – 160.; Poole, *Catalogue of the Coins*, p. 360 – 361.

<sup>(20)</sup> M. Amandry & F. Planet, "Corpus des Monnaies de Coptos", *Topoi supplement 3*, (Lyon, 2002), pp. 166-171.

<sup>(21)</sup> R. S. Poole, *Catalogue of the Coins*, pp. 45- 46.; Emmett, *Alexandrian Coins*, p. 15.

<sup>(22)</sup> E. Christiansen, *Coinage in Roman Egypt, The hoard Evidence*, ( Aarhus, 2004), p. 52.

J. Milne<sup>(23)</sup> has published 44 pieces out of this abovementioned collection, which came also from previous excavations in Oxyrhynchus, in 1897- 1908, within the "Catalogue of Alexandrian Roman Coins". This collection of coinage was struck for restricted use within its home zone, i.e. Oxyrhynchus itself, dating them from 180- 260 AD<sup>(24)</sup>.

This doctrine is not accepted anymore, because the followed excavations and researches proved several other places, and also different dates for this type of coinage<sup>(25)</sup>.

Later on, K. Emmett<sup>(26)</sup> gave an exact typology to this collection of coins; dating them to the 1<sup>st</sup> until the 3<sup>rd</sup> centuries AD. The following table shows a comparison in regard to the views of J. Milne and K. Emmet:

No Obverse Bust Portrait Lead Tokens Bronze Coins		
Not Dated no Inscriptions		
Ser.	Obverse	Reverse
1	Athena Bust (R.)	Nike Flying (R.)
2	Athena Advancing (R.) with Nike + Serpent	Nike Flying (L.)
3	Athena Seated (L.)	Nike Flying (R.) Nike Flying (R.)
4	Athena Standing (L.)/ in A Temple with Nike	Nike Flying (L.)
5	Nike Standing (L.) holds Scepter/ eagle	Eagle Standing (L.)
6	Nike Standing (L.)	Figure Seated (L.)
7	Tyche Standing (L.)	Nike Flying (R.)
8	Athena Advancing (L.) with Serpent/ Double Axe	Nike Flying (L.)

<sup>(23)</sup> J. Milne, Catalogue of the Alexandrian Coins, (Oxford, 1933)Nos. 5216 – 5319.

<sup>(24)</sup> Milne, Catalogue of the Alexandrian Coins, p.15

<sup>(25)</sup> Christiansen, Coinage in Roman Egypt, p. 52.

<sup>(26)</sup> Emmett, Alexandrian Coins, pp. 223- 230, pp. 261 - 263.

## **Comparative Study:**

When we compare the types in the above table with our two pieces N. 1173 and N. 1174, we find close similarity between examples 1-8, with some minor differences such as the direction of the head of human shapes, whether the sovereigns or deities. I propose that our coin N. 1173 could well match with type 4 in the table, where- on the obverse- the Goddess Athena is depicted within a shrine, holding a symbol or shape of Nike (?), looking to the left, while upon the reverse the winged Nike shows herself looking to the left also, and raising the right arm holding some crown or trophy wreath<sup>(27)</sup>.

As for piece N. 1174, it may be a duplicate of type 8 in the table, where – on the obverse- Athena is holding the double axe and advancing towards the left, while her snake shows itself behind her. On the reverse, Nike is depicted looking to the left and raising the right arm holding some sort of crowns or trophy wreath<sup>(28)</sup>, as the previous piece N.1173.

## **Type of Coinages of Oxyrhynchus during the Roman Period:**

The local standard type of coinages of Oxyrhynchus<sup>(29)</sup> displays the Goddess Athena, on obverse, where she stands wearing the Chiton, the Peplos, and the military helmet, holding the double axe in her hand<sup>(30)</sup>. Athena there was assimilated with the local deity of the territory, i.e., Tweres (Egy. Taweret)

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<sup>(27)</sup> Emmett, *Alexandrian Coins*, N. 4417, p. 224.; J. M. Jones, *A Dictionary of Ancient Roman Coins*, (London, 1990), pp. 319 – 320.

<sup>(28)</sup> Emmett, *Alexandrian Coins*, p. 15.; Jones, *A Dictionary of Ancient Roman Coins*, p. 320.

<sup>(29)</sup> K. W. Harl, *Coinage in the Roman Economy, 300 B.C. -A.D. 700*, (London, 1996), p. 209, p. 233.; Poole, *Catalogue of the Coins*, pp. 360 – 361.

<sup>(30)</sup> R. Bagnall, *Currency and Inflation in Fourth Century Egypt*, (Colombia, 1985), p. 150, N. 132- 134, 147, p. 125 , N. 517.

goddess of motherhood, shaped normally as female hippopotamus. In spite of this close relation, Athena retained her standard form, as depicted normally by the Greek and Alexandrian way<sup>(31)</sup>.

The local coinages of Sais<sup>(32)</sup> (a famous metropolis in Delta) show also close similarity with that of Oxyrhynchus, where Athena was compacted with the main local deity there, namely: Neith<sup>(33)</sup>, goddess of war, where Athena also kept her standard form on the coins<sup>(34)</sup>.

The depiction of Athena and Nike upon the reverse of coins of Oxyrhynchus could also be compared with some dated simultaneous coinage from Alexandria and other nomes<sup>(35)</sup>, which have also portraits of these Goddesses upon the reverse.

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<sup>(31)</sup> J. Milne, *A History of Egypt under Roman Ruler*, (London, 1924), p. 187.

<sup>(32)</sup> Emmett, *Alexandrian Coins*, p. 15.

<sup>(33)</sup> Poole, *Catalogue of the Coins*, pp. 45 – 46.

<sup>(34)</sup> E. Christiansen, *Coins of Alexandria and the Nomes*, A supplement to the British museum catalogue, (London, 1991), p. 31, N. 53, pl. 12.

<sup>(35)</sup> Compare:

E. Christiansen, *Coins of Alexandria*, 2 Vols., (Aarhus, 1988), N. 18, 20, 21, pl. II.; *Highly Important Ancient Coins*, (London, 1984), pp. 49 – 56.; Christiansen, *Coinage in Roman Egypt*, (2004), p. 203, pl. I.; Christiansen, *Coins of Alexandria and the Nomes*, (1991), pl. I, 2, 4, 10, 12, N. 442, 7362, 7319, 1469, 1392, 53, 3531, 3534, 1392, 1469.; F. Feuarent, *Numismatique Egypte ancienne II, domination romaine*, (Paris, 1970), p. 260, N. 33300, 3255, 3359, pls. 34 – 35., pp. 291 – 292, pl. 35, N. 3492., Emmett, *Alexandrian Coins*, Nrs. E/540 (12), E/609 (8), e/ 3288, (4)., N. 34, 59, 224.; R. A. Hantvedt & E. Peterson, *Coins from Karanis*, The University of Michigan Excavations, 1924 – 1935, (Ann Arbor, 1964), pp. 155 – 156, pl. VIII, N. 381 – 387.; I. konig, *Alexandrinische Munzen*, (Trier, 1988), N. 233 – 240, N. 136.; H. Mattingly, *Coins of the Roman Empire in the British Museum*, vol. 5, (London, 1975), pl. 14 – 15.



## Dating:

As for dating of our pieces N. 1173, N. 1174, they both could be dated to the 4<sup>th</sup> century A.D. depending on the catalogues of J. Milne and K. Emmet, because they are duplicates of the coinages produced throughout Egypt during the 4<sup>th</sup> century A.D., definitely between years 320-360 AD<sup>(36)</sup>. These occurrences match together with the changes that Emperor Diocletianos (284-305 AD)<sup>(37)</sup> did, when the official mints were restricted to few ones, namely only four mints in Alexandria<sup>(38)</sup>. This action was accompanied by reducing the size and weight of coins to 2.5 Grams, so it was originated, namely the new and small "Folles-type"<sup>(39)</sup> in the 4<sup>th</sup> century AD, that was the "term" of the Roman bronze coinages, till it was replaced by the other term "Nummi"<sup>(40)</sup>.

The question lies in whether this category of coinages was used as private coins<sup>(41)</sup> or also monopolized within local<sup>(42)</sup> exchange; it could be also more possible that these coins were also officially accepted or released by the Roman Government<sup>(43)</sup>.

Our third coin N. 1175 (pl.3) could safely date to the Byzantine Period. It displays a famous type of bronze coinage, that was struck in Alexandria during the time of the 5<sup>th</sup> to the 7<sup>th</sup>

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<sup>(36)</sup> T. F. Brunner, "A small Hoard of Fourth Century Bronze Coins From Egypt", ZPE. 66, (Boon, 1986), p. 285.

<sup>(37)</sup> Klose & Overbeck, *Ägypten Zur Römerzeit* p. 66ph.; Harl, *Coinage in the Roman Economy*, pp. 116 – 124.

<sup>(38)</sup> Carson & Kent, *Late Roman Bronze Coinage*, pp. 42 – 44.

<sup>(39)</sup> Bagnall *Currency*, pp.12-13, pp. 19 – 25.

<sup>(40)</sup> Bagnall *Currency*, p. 37.

<sup>(41)</sup> Brunner, "A small Hoard", p. 287.

<sup>(42)</sup> Milne, *Catalogue of the Alexandrian Coins*, p.17.

<sup>(43)</sup> Christiansen, *Coinage in Roman Egypt*, (2004), p. 52.

AD<sup>(44)</sup>. It could also be counted among the "not easy to decipher" coinages, nevertheless its use was not restricted to Alexandria<sup>(45)</sup>, but many pieces thereof were found in many other nomes, with new weight and pronoun" Nummi"<sup>(46)</sup>, that came into market later after the "Folles"<sup>(47)</sup>, and is assumed to be active exclusively throughout Egypt and not within the whole Byzantine Empire<sup>(48)</sup>.

Therefore, our "12 Nummi" coin from Oxyrhynchus matches completely the hundreds of equal pieces, especially during the reigns of the Emperors Gustinian I, Gustinian II, Fucas, Heraclius, and his sons<sup>(49)</sup>, whether these exhibited in the Greco-Roman Museum of Alexandria<sup>(50)</sup>, or those explored by the Italian Expedition in the nearby site, from Oxyrhynchus, Antonopolis<sup>(51)</sup>, namely Sheikh Abada, in the North Necropolis, during several seasons since 1937-2007.

The denominations of this collection of coinages show frequently bust-portraits, one thereof is bigger than the other, of two personalities, i.e. the Emperor Heraclius with his son and successor Heraclius-New-Costantinos, but when there is only one bust-portrait, like our coin N. 1175, the personality depicted may rather exhibit the unbeard Khesru II<sup>(52)</sup>, the Persian king, wearing the helmet adorned with the "cross", and a star is also pictured to

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<sup>(44)</sup> S. A. Abbas, "Some Overstruck Coins from the Time of Heraclius", *L'exception égyptienne?*, *Études alexandrines* 10, (Le Caire, 2005), p. 339.

<sup>(45)</sup> Abbas, "Some Overstruck Coins", p. 339.

<sup>(46)</sup> Bagnall *Currency*, pp. 12 - 13.

<sup>(47)</sup> Carson & Kent, *Late Roman Bronze Coinage*, pp. 103 – 105.

<sup>(48)</sup> Abbas, "Some Overstruck Coins", p. 340, Note. 2..

<sup>(49)</sup> Klose & Overbeck, *Ägypten Zur Römerzeit*, pp. 86 – 87., N. 265 – 273.

<sup>(50)</sup> Abbas, "Some Overstruck Coins", p. 339 - 357.

<sup>(51)</sup> D. Castrizio, *Le monete della Necropoli Nord di Antinoupolis, (1937 – 2007)*, (Firenze, 2010), pp. 9 -10, p. 29 N. 1, 2, 3, pp. 75 – 125, N. 1 -309, pp. 138 – 151, N. 70 – 155, p. 162, N. 36 – 37, pp. 328- 333, N. 102 – 134, pp. 342 – 350, N. 74 – 124, pp. 353 – 354, N. 27 – 34.

<sup>(52)</sup> D. Sear, *Byzantine Coins and their Values*, (London, 1974), p. 163, N. 855.

the left; this means that these coinages were struck in Alexandria during the Persian invasion during the reign of Heracles, and imitated by some other local mints in some nomes, mainly in Upper and Middle Egypt. Thus, this collection of coinages could be almost dated either to the time of the exchange held between Heraclius and Khesru II, within 618-628 AD, according to the assertion of Sear<sup>(53)</sup>, or rather dated, as the author assumes, along the whole reign era of Heraclous and his sons, from 610-642 AD<sup>(54)</sup>, ending with the Arab Conquest.

### **Conclusion:**

According to some known scholars, Egypt was a mere Roman province, where the standard currency system of the whole empire was in action, with not only all its indications to Roman traditions, politics, divine events, but also to all its memorials, main visits of different Emperors, besides serving as a register of some of the great victories<sup>(55)</sup>.

Nevertheless, this accurate organized system sometimes accepted some few Egypto-Greek details<sup>(56)</sup> or features that were adopted as characteristic denominations for the coinage industry, whether struck within the Alexandrian mints or those produced in the other known mints all over Upper and Lower Egypt. Thus, it seems that a "closed currency System"<sup>(57)</sup> was used throughout Egypt. This system made it easy for some extra facilities to find

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<sup>(53)</sup> Sear, *Byzantine Coins*, pp. 162 – 164.

<sup>(54)</sup> Abbas, "Some Overstruck Coins", p. 339.

<sup>(55)</sup> A. Burnett, "The Imperial Coinage of Egypt in the First Century A D., L'exception égyptienne?", *Études alexandrines* 10, (Le Caire, 2005), p. 275.

<sup>(56)</sup> Christiansen, *Coinage in Roman Egypt*, (2004), p. 142.

<sup>(57)</sup> M. el-Amouri et O. Picard, "Études expérimentales et Métallurgiques du moulage de monnaies et bronze de la fin de l' empire romain, L'exception égyptienne?", *Études alexandrines* 10, (Le Caire, 2005), pp. 225 – 252.

their way to action in this Roman province more than others<sup>(58)</sup>. It is obvious also that despite the commitment of all the local mints, including of course Oxyrhynchus itself, to the imitation of the denominations belonging to the products of the Alexandrian ones, the majority of them kept some peculiarities in size, weight, row materials, and also some few special denominations.

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<sup>(58)</sup> Christiansen, *Coinage in Roman Egypt*, p. 142.

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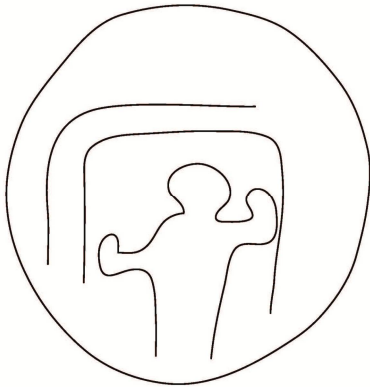


Plate 1

N. 1173 (Photo by Author)

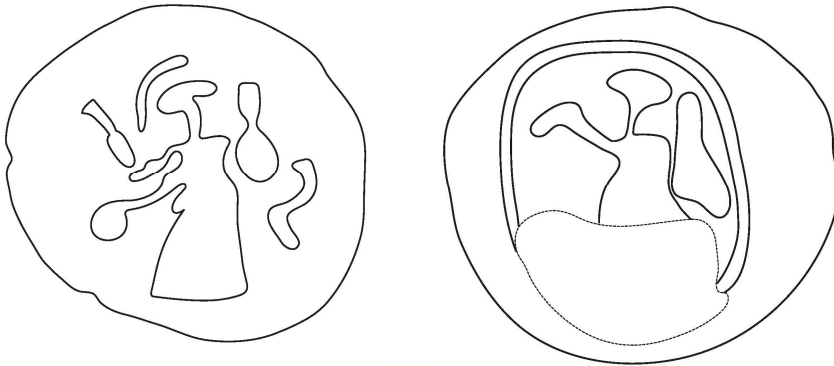


Plate 2

N.1174 (Photo by Author)



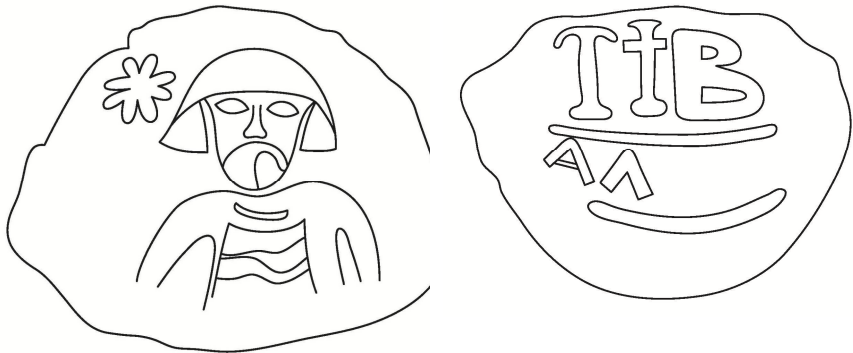


Plate 3

N.1175 (Photo by Author)

## ثلاث عملات رومانية وبيزنطية غير منشورة من أوكسيرينخوس

منى جبر عبد النبي\*

### ملخص:

تتناول هذه الورقة البحثية نشر ودراسة لثلاثة قطع من العملات الرومانية والبيزنطية، والتي تعد جزءاً من مكتشفات حفائر البعثة الأسبانية فى البهنسا، أوكسيرينخوس القديمة بمحافظة المنيا، وذلك خلال موسم حفائر ٢٠١٥م، وهي محفوظة حالياً بالفاعه رقم (٨) الخاصة بأعمال البعثة الاسبانية داخل المخزن المتحفى بمدينة البهنسا.

وهذه القطع هى ذات الأرقام: N.1173, N.1174 والتي تم اكتشافهما فى موقع الجبانة العليا، والتي يمكن أن تؤرخ من القرن الرابع الميلادى(؟)، بالإضافة إلى القطعة الثالثة رقم: N.1175 والتي تم اكتشافها فى موقع الأوزيريون، والتي يمكن تأريخها بحوالى القرن السابع الميلادى، أي أواخر العصر البيزنطى وقبيل الفتح العربى لمصر عام ٦٤٢م.

هذه العملات تلقى الضوء وتعطى قراءة تحليلية عن بعض طرز ودور سك العملات البرونزية فى المقاطعات، أو علاقتها بدار سك الأسكندرية، وكذلك توضح بعض جوانب وضع مصر ودورها الاقتصادى، لاسيما فيما يتعلق بنظام تداول العملات داخل الإمبراطورية الرومانية كإحدى الولايات الرومانية الهامة.

### الكلمات الدالة :

البعثة الأسبانية، أوكسيرينخوس، العملات البرونزية، دلالات العملة، دار سك الإسكندرية.

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## Utilization of Waterways in New kingdom's Warfare

Dr. Ola Elaboudy\*

### Abstract:

This paper tackles the question of waterways in ancient Egyptian military role during the New Kingdom. It aims to present a complete overview of the most important waterways: the Nile River and the Mediterranean Sea, in an attempt to consolidate its role by analyzing the text sources and track the forms in which it was portrayed in military scenes, since so far there has been no study tackling their usage in military aspects. Hence, this paper tries to fill this research gap.

The researcher attempts to provide answers for several questions on the effect of waterways on New kingdom military strategy, and whether all of the waterways had the same role in different stages of the New kingdom, and the extent of their association with the international changes and the surrounding political shifts that took place at this time.

As this paper covers the period from the 18<sup>th</sup> to 20<sup>th</sup> dynasty, it can be divided into two main sections: The Nile River and The Mediterranean Sea. This order is an account to the importance of waterways types that had been used in military aspects.

At the end of this paper the writer could conclude that the Nile River played the same importance during New kingdom; as a transportation route and for propaganda aims, while the Mediterranean Sea played an important role especially in the 18<sup>th</sup> dynasty. During the 19<sup>th</sup> and 20<sup>th</sup> dynasties, the Mediterranean shores and Delta involved directly in amphibious battles affected by political changes. One of the most important results was that the representation of waterway inside the military scenes cannot be found before the 19<sup>th</sup> dynasty.

### Keywords:

Waterways; military role; Nile River; Mediterranean Sea; Delta; Orontes River; military strategy ; political changes; New Kingdom; transportation; propaganda.

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## Introduction

"Waterways" of *Nile River* and the *Mediterranean* played an important role in Ancient Egypt, as they were used for various types of military aspects.<sup>(1)</sup> Given that waterways utilization had been studied heavily in transportation and trading aspects, little attention has focused on their usage in military aspects. Hence, this paper tries to fill this research gap by determining their effect on the military strategy of the New kingdom depending on the surrounding political shifts that took place.

The sources presented can be divided into two main groups: 1) Written sources; which will be more useful for the 18<sup>th</sup> dynasty because war scenes were restricted to show the king deterring his enemies,<sup>(2)</sup> or offering tribute to the gods before the beginning of the 19<sup>th</sup> dynasty. 2) Pictorial sources; which will be more beneficial from the dawn of the 19<sup>th</sup> and 20<sup>th</sup> dynasties, because war scenes attained their greatest development by portraying different events through a variety of episodes in this period.<sup>(3)</sup>

The relevant paper is divided into two main sections on account of the commonly used waterways for legitimate Egyptian military targets: 1) The *Nile River*, 2) The *Mediterranean Sea*.

As known, *Nile River* is the main waterway in Egypt; it was used back and forth by the army headquarters to reach their target whether this target was within the Egyptian borders (the liberation war against the Hyksos in late second intermediate Period) or to facilitate reaching outside the Egyptian borders (As will be cleared later). Thus, I placed it in the first position.

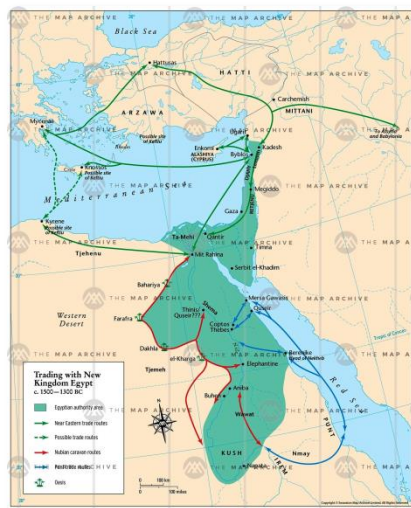
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<sup>(1)</sup> Montet, P., *La Vie Quotidienne*, p.68 (45); Newberry, P.E., *El Bersheh I*, Tehuti-Hetep, pl.14:7; Breasted, J., *Ancient Records II*, §750.

<sup>(2)</sup> Hall, E., *The Pharaoh Smites his Enemies*, p.16.

<sup>(3)</sup> Gaballa, G., *Narrative in Egyptian Art*, pp.99-100.

On the other hand, Egyptians were using the *Mediterranean* (*w3d-wr*) in military tasks to Asia, avoiding that by using land route through Ways of Horus (*w3w3t Hr*) across the northern part of Sinai Peninsula, beside the shore of the *Mediterranean*, so it comes in the second place of discussion (See Map.1).



**Map 1.** Showing the surrounding waterways of Egypt with the trading routes. After: <https://www.themaparchive.com/collections/ancient-world/ancient-egypt/trading-with-new-kingdom-egypt-1500-1300-bce.html>.4/7/2018.

Some old precursors of water ways' utilization in military targets could be found since the Early Dynastic Period,<sup>(4)</sup> as king Djer carried out a military activity on the banks of the *Nile* river against *Nubia*,<sup>(5)</sup> where his name was found on a stone in Jebel Sheikh Suleiman\* (Fig 1)<sup>(6)</sup> A reference to naval battle from the 6<sup>th</sup> Dynasty was found by the commander Weni who crossed the

<sup>(4)</sup> Du Buisson M., 'Le Décor Asiatique du Couteau de Gebel el-Arak', pl.33a.

<sup>(5)</sup> Emery, E., *Archaic Egypt*, p.60. fig.22; idem, *Egypt in Nubia*, p.125, fig.13.

\* Sheikh Suleiman, close to Buhen, about 15 km south of Wadi Halfa and the scene currently preserved in the garden of The Sudan National Museum in Khartoum.

<sup>(6)</sup> Alaa Aldin Shahen, *Al-mārk al-Nahrīya*, p.257.

sea with his huge army to eliminate the rebellion in Asia.<sup>(7)</sup> Likewise, the naval battle between Ankhthifi ruler of Assiut against Thebes was found.<sup>(8)</sup> In Liberation wars against the Hyksos, conceivably, Seqenenre used the *Nile* River to reach his enemies.<sup>(9)</sup> His successor Kamose also used the *Nile* to defeat them.<sup>(10)</sup>



Figure. 1. The Inscription of king Djer at Sheikh Suliman. After, Emery, E., *Archaic Egypt*, p.60. fig.22.

## I. The *Nile River*:

Military tasks along the *Nile* River served some objectives: It served as a transportation channel to two main points; *Nubia* and Near East (as shown later). It was used to transport the king, his retinue, high rank soldier<sup>(11)</sup> and military equipment. In this section I will discuss the military transportation to *Nubia* only because the *Nile* River as a means of transportation to Near East was linked directly with the *Mediterranean* (as it will be discussed later). Also, the *Nile* River was a place where the battle or part of it was located.

<sup>(7)</sup>Alaa Aldin Shahan, *Al-m<sup>c</sup>ark al-Nahrīya*, p.259.

<sup>(8)</sup> Morenz, L., 'Power and Status, Ankhthifi the Hero', pp.177-191; Alaa Aldin Shahan, *Al-m<sup>c</sup>ark al-Nahrīya*, p.260

<sup>(9)</sup>Sethe, K., *Urk. IV*, §2:1-4; Säve-Söderbergh, T., *Navy of the Eighteenth Egyptian Dynasty*, p.1.

<sup>(10)</sup> Smith, H. and Smith A., 'Reconsideration of Kamose Texts', pp.59-60; Habachi, L., *Stela of Kamose*, pp.33,41; Charles, C., *Stela of Kamose*, p.356.

<sup>(11)</sup> As shown by Ahmose (son of Ebana): Sethe, K., *Urk. IV*, §3:5.

a) Military Transportation.

As for *Nubia*, The *Nile* River was used to transport troops, their weapons back and forth *Nubia* together with the taxes (*b3kw*).

From the beginning of the 18<sup>th</sup> dynasty, when Ahmose took over subjected *Nubia*, and according to the autobiography of Ahmose (son of Ebana), he used the *Nile* as waterway to *Nubia*:

 (12)

*wn.in.f hr hntit r Hnt-hn-nfr r sksk iwntiw*

'(While) He was sailing southwards to *Hnt-hn-nfr* \*, to destroy the bowmen of *Nubia*'<sup>(13)</sup>

After the completion of the campaign, he used the same waterway back to Egypt:

 (14)

*n't m hd in hm.f ib.f 3w m knt nht*

'Sail downstream by his majesty, his heart was joyous with mighty victory'<sup>(15)</sup>

Amenhotep I also used the *Nile* River in his Nubian military expedition as Ahmose (son of Ebana) mentioned:

<sup>(12)</sup> Sethe, K., Urk. IV, §5:5-6.

• *hnt-hn-nfr*: it was also mentioned in texts of Ramses II (Mariette, A., Abydos II, p.12) it is a region south to the second cataract and extend to the third cataract: Salīm Ḥasan, *Miṣr al-Qadīma*, vol.10, 2000.78-77 .

<sup>(13)</sup> Breasted, J., Ancient Records II, 18 §13.

<sup>(14)</sup> Sethe, K., Urk. IV, §5:12-3.

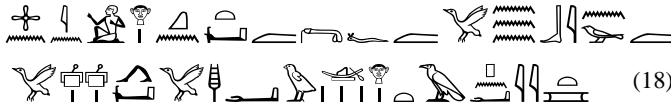
<sup>(15)</sup> Breasted J., Ancient Records II, 18 §13.



*iw.f m hntyt r K(w)š r swsh t3š Kmt*

*'(When) he was sailing south to Kush to extend the boundaries of Egypt<sup>(17)</sup>*

Thutmose I also used the same waterway:



*iw.f m hntyt r Hnt-hn-nfr r sswn h3'i ht h3swt r dr bs  
n-<sup>c</sup> h3st wn.in.i hr knt m-b3h.f m p3 mw bin m p3 s3s3 p3  
h<sup>c</sup>w hr t3 pn<sup>c</sup>yt*

*'(When) he (Thutmose I) was sailing upstream to Hnt-hn-nfr, in order to put down the strife throughout the foreign territory, and to expel from the desert region creeping, I showed bravery in front of him in hard (sailing) water in crossing the ships at the bend<sup>(19)</sup>*

By this textual evidence one could consider that the *Nile River* was the normal way to reach *Nubia* together with the land route. Thutmose II sent a campaign to conquer the rebellion in *Nubia*.<sup>(20)</sup> Its text was depicted on the *Nile* normal way between *Aswan* and *Nubia* which holds the property of using the *Nile River* as usual.

As the New kingdom political strategy continued with Hatshepsut and Thutmose III, they used the same waterway as well.

<sup>(16)</sup> Sethe, K., Urk. IV, §7:1-2.



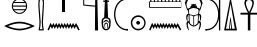



<sup>(17)</sup> Breasted J., Ancient Records II, 17 §39.

<sup>(18)</sup> Sethe, K., Urk. IV, §7:1-2.

<sup>(19)</sup> Breasted, J., Ancient Records II, 33-34 §80.

<sup>(20)</sup> Sethe, K., Urk. IV, §14:1-14; Breasted, J., Ancient Records II, §122.



- a) 
- b) 
- c) 
- d) 
- e) 
- f)  (21)

*ḥ3t-sp 12 3bd 3(-nw) prt hrw 12*  
*ḥr ḥm n nfr nṯr M3<sup>c</sup>t-K3-R<sup>c</sup> di ʿnh*  
*ḥr ḥm n nfr nṯr Mn-ḥpr-R<sup>c</sup> di ʿnh*  
*... ḥnt (n.f).....*  
*ḥnti ??.....*

*kwš ḥst .....shṛ....*

*(a) Year 12, third month of the second season, day 12,*

*(b) Under the majesty of the good God Hatshepsut who is given life*  
*.....,*

*(c) Under the majesty of the good God Thutmose III who is given life*  
*.....,*

*(d-f) He sails upstream..... sails upstream ..... that vile Nubian*  
*underwent.....*

By Thutmose III *Nubia* became annexed to Egypt and topographically part of it, and the southern border had been extended to the Fourth Cataract.<sup>(22)</sup>

<sup>(21)</sup> Reineke, W. and Wenig, S., 'Ägypten und Kusch', pp.370-371.

<sup>(22)</sup> Sethe, K., Urk. IV, §1248:16-7.

Once again Amenhotep III deterred the rebellion by his son in *Kush: Mermose*, who levied an army in *lower-Nubia* and marched into *Ibhet*, to quell the rebellion:

 (23)

*irw n itrw n skdwt 52*

'(Each man) making 52 iters of sailing'.<sup>(24)</sup>

And he celebrated the victories of the naval campaign:

 (25)

*hb.n.f wdyt.f tpt nt nht hr h3st tn K(w)š hsit*

'He celebrate his first (naval) victorious campaign upon this land of *Kush the wretched*'<sup>(26)</sup>

His son Akhenaton had a campaign (year 12?) to Nubia,<sup>(27)</sup> where it can be believed that the same usual waterway was used, while General Horemheb (under Tutankhamen possibly Akhenaton) had a military activity in the south.<sup>(28)</sup> Although the record for this campaign is incomplete, it seems that he used the same waterway.<sup>(29)</sup>

In the 19<sup>th</sup> dynasty *Nubia* was under the kings' control, while these campaigns were to confirm the Egyptian hegemony.<sup>(30)</sup> Seti

<sup>(23)</sup> Sethe, K., Urk. IV, §1659:18.

<sup>(24)</sup> Breasted J., Ancient Records II, 33-34 §80.

<sup>(25)</sup> Sethe, K., Urk. IV, §1662:7-10.

<sup>(26)</sup> Breasted J., Ancient Records II, 336 §845.

<sup>(27)</sup> Schulman, A., 'The Nubian War of Akhenaton', p.307.

<sup>(28)</sup> Sethe, K., Urk. IV, §2087.

<sup>(29)</sup> Werner E., 'Montu and the Falcon Ships', pp.120-121; Darnell J., Manassa C., Tutankhamun's Armies, p.125.

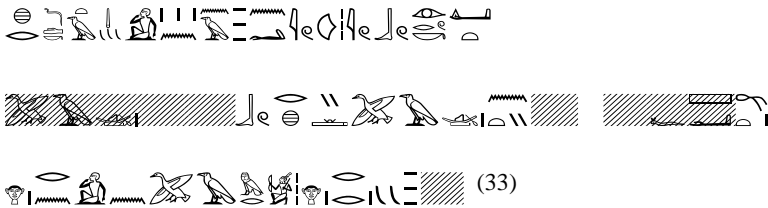
<sup>(30)</sup> Ahmad Qadry, *Ilaqāt al-nuba*, pp.21-26; Alaa Aldin Shahen, *al Ramzīya al Tārīhīya Ilaqwās alts 'a fī al-mašādir al-Miṣrīya ḥatā nihāyat al-Dawla al Ḥadīta*, p.35-64.

• Irem was lying either in the region south west of the third cataract south of Dongola but north of the great bend in the Nile, or further south, beyond the fifth cataract in the Berber-shendi stretch of the Nile and adjoining Bayuda Desert: Murnane, W., 'The Road to Kadesh', pp.101-102.

It's fifth campaign (year 8?) has been briefly described as being to calm a rebellion from the Irem People\*, in which Seti I sent his troops southwards until fortress named *Pacifier* of the two lands (?) to defeat the rebels.<sup>(31)</sup>

But it is not quite obvious which route he had operated through. Therefore, the author suggested that it was the *Nile* as usual. His son Ramses II's Nubian wars were depicted on different temples and conceivably the *Nile* was taken.<sup>(32)</sup>

In peace time weapons were transported by *Nile* to provide military districts:



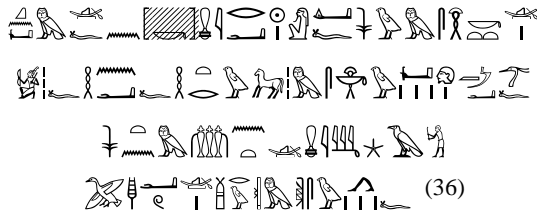
*hr dd.k t3 mdt n n3 niw iw bw ir.k dit p3 wi3.....bw rh<.i> p3 imw nty.....šct hr rn n p3 imy-r mšc Hrrw*

'you'll say your ward about (which relates to) the harpoons, (but) you didn't send the boat..... I didn't know the ship..... message concerning the name of army chief Hrrw....'.

**b) Part of Military Strategy.**

Thutmose IV confronted the Nubian rebellion. Therefore, he launched a campaign, where its forces divided into two sections. The king led part of them using the *Nile River* while the rest followed him by land (compare Weni 6<sup>th</sup> dynasty<sup>(34)</sup>, Kamose 17<sup>th</sup> dynasty). However, the main battle itself occurred upon land.<sup>(35)</sup>

<sup>(31)</sup> Murnane, W., 'The Road to Kadesh', pp.153-156; El-Saady, H., 'Egypt in Nubia during the Reign of Seti I', p.434.  
<sup>(32)</sup> Breasted, J., Ancient Records III, §453-7; §472-7; §478-9; §490.  
<sup>(33)</sup> Černy, J., Ramesside Letters, p.72:15-6  
<sup>(34)</sup> Alaa Aldin Shahan, *Al-m'ārk al-Nahrīya*, p.259  
<sup>(35)</sup> Sethe, K., Urk. IV, §1547:17-20.



*kn m dpt.f..... mi R<sup>c</sup> di.f sw <m> Msktt mš<sup>c</sup>w.f hn<sup>c</sup>.f  
<m> htrw m skw tp mš<sup>c</sup>.f nsw m hnti mi s3h p3 'h<sup>c</sup>  
'prw m šmsw.f*

*'(The King) Mighty in his barge like Ra (when) he put himself in the evening Braque, his troops is with him (while) horses with (lit.by) troops upon its shore, the king is sailing southward like Orion, (and) the ship is equipped with his followers'.<sup>(37)</sup>*

The Nile was used to explore enemies' sites as shown by Amenhotep III:



*w<sub>d</sub> hm.f sbit(w) s n mš<sup>c</sup> 124 m prt r hnmt  
ntt...W.....m hnt r m33 ts(t) n hw<sup>c</sup> r rdit-rh w3wt nt  
skd(y)t.....*

*'His majesty commanded, (that) 124 soldiers of the army be dispatched, going forth to the well which -----sailing southwards to see the hill of Hua, to list the ways of sailing'.<sup>(39)</sup> (compare Kamose 17th dynasty)*

<sup>(36)</sup> Sethe, K., Urk. IV, §1546:6-13.

<sup>(37)</sup> Breasted J., Ancient Records II, 328 §82.

<sup>(38)</sup> Sethe K., Urk. IV, §1735:11-3.

<sup>(39)</sup> Breasted J., Ancient Records II, 340 §850.

• The place 'Hill of Hua' (*ts(t) n hw<sup>c</sup>*) occurs in the lists of the regions of *Hnt-hn-nfr*, on the Karnak walls of Thutmose III (see Breasted J., Ancient Records II §645 ff); along with Punt, which indicate that it denote localities in the extreme south beyond Karoy on the Nile (above the Atbara?): Breasted J., Ancient Records II, §848.

**c) Royal Propaganda.**

The *Nile* was a place to show and announce the king's victories as occurred by Thutmose I who hanged his enemies on his bow to announce his victory:



*n<sup>c</sup>t m-ḥd in ḥm.f ḥ3swt nbt m 3mmt.f iwnty pf ḥsi m shd m ḥ3t bik n ḥm.f diw r t3 m ʿIpt - swt*

*'Sailing northward by his majesty; all foreign countries were in his grasp. That vile Nubian was hanging upside down in the front of the Falcon ship of his majesty. The ship landed at the Temple of Karnak'.<sup>(41)</sup>*

Likewise Amenhotep II hanged six of the Asiatic chiefs' captives in front of his bow, and the seventh one was taken across the *Nile* to *Nubia* and hanged on the *Napata's* wall.



*ii.n ḥm.f m 3wt-ib n it(.f) ʿI[mn] sm3.n.f p3 wrw 7 m ḥd.f ds.f wnw m iw n Ti-ḥsy diw m shd m-ḥ3t bik n ḥm.f nty rn.f m dd ʿ3-ḥprw-R<sup>c</sup> smn t3wy*

*'(When) his majesty returned with gladness of his father, Amun, he slew with his own mace the seven great ones who had been in the district of Ti-ḥsy (and) had been placed head down ward at the bow of his majesty which his name as follow: ʿ3-ḥprw-R<sup>c</sup> is the establisher of the two lands'.<sup>(43)</sup>*

<sup>(40)</sup> Sethe, K., Urk. IV, § 9:3-6.

<sup>(41)</sup> Breasted J., Ancient Records II, 33-34 §80.

<sup>(42)</sup> Kuentz, Ch., La Bataille de Qadech, 19.E20.

<sup>(43)</sup> Breasted J., Ancient Records II, 313 §798.

In the 19<sup>th</sup> dynasty, during Seti I Nubian war (year 8) he mentioned:

 (44)

*In.w r Mryt m škr-<sup>c</sup>nh*

*'The captives were brought to the river bank'*

#### d) Waterways' Exertions.

Kings assigned various tasks including; digging canals and building fortresses<sup>(45)</sup> in order to facilitate navigation and for border protection; King Thutmose I ordered to dig a canal in the waterway to *Nubia*:

 (46)

*wḏ ḥm.f š3d mr pn m-ḥt gmt.f sw [db3] m inrw n škd  
n dpt ḥr.f*

*'His majesty commanded to dig this canal, after he found it was filled with stones, (so that) no [ship could sail through it]'*.

In this respect, Thutmose III ordered to clean the same canal and he recorded this event beside his father's at *Sehel* Island.<sup>(47)</sup>

Bear in mind that about 17 fortress of (*Semna* and *Kemma* as example) controlled the southern frontier from the Middle Kingdom<sup>(48)</sup>. Furthermore, there was a great basin in *Memphis*, where navy boats were constructed,<sup>(49)</sup> and it was an important point for the army headquarters.

<sup>(44)</sup> Kitchen, K., *Ramesside Inscriptions: Historical and Biographical VII*, §10:13.

<sup>(45)</sup> Kitchen, K., *Ramesside Inscriptions: Translated and Annotated II*, §103:7-13; 822:9-10.

<sup>(46)</sup> Sethe, K., *Urk. IV*, § 90:1-4.

<sup>(47)</sup> Breasted, J., *Ancient Records III*, 260 §650.

<sup>(48)</sup> Gilbert, G., *Sea Power*, p.63.

<sup>(49)</sup> Jeffrey, D., 'Perunefer: at Memphis or Avaris?', pp.36-37.

Based on the previous evidence, one could assume how critical was the role the *Nile* as waterway played in the military events that took place in *Nubia*.

## II. *Mediterranean* Sea.

In considering the relations to the *Mediterranean* Sea, a distinction in approach may be made to the ancient and direct neighbors: Palestine, coastal Syria and Libya, who could be reached overland without the necessity to use the *Mediterranean* Sea. Based on this, the *Mediterranean* as a waterway played a substantive role in the New Kingdom political power. Moreover, the Egyptian maritime forces were incapable to be involved in heavy naval artillery, conceivably, due to the lack of mighty military ships with skilled sailors to confront sea waves which are much tougher than the *Nile River*, regarding that there was a link between the *Nile River as waterway* and the *Mediterranean* Sea in military targets from the Old Kingdom (King Pepi II– 6<sup>th</sup> dynasty).<sup>(50)</sup>

This section begins to discuss the eastern *Mediterranean* coast, which had direct relations with southern Palestine, coastal Syria and even Mesopotamia. Then, the less frequently relations with the Libyans and Sea People\* (Coast Residents) which the *Delta* and the *Mediterranean* shores were involved in will be discussed; depending on the reflections of the political significance on the military role of each of them.

### II.1. The Eastern *Mediterranean* coast.

Palestine, coastal Syria played a major role in the New Kingdom's kings strategy due to their expansion policy, in addition to the combinations of the topography, the socio-

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<sup>(50)</sup> Sethe K., Urk. I, §104:14; Miroschedji, P. De, "Egypt and Southern Canaan in the Third Millennium BCE," p.273.







*Memphis* where the ships moorage.<sup>(60)</sup> After Ramses II victories on *Kadesh* he transferred the tributes by the Mediterranean to Amun's residence.<sup>(61)</sup> The same was done by Ramses III who presented the tributes of Djahy to Amun also.<sup>(62)</sup>

It is possible to consider that the exodus happened in the third year of *Merneptah* at the same time of his defeating to *Israel*. The departing Israelis tended towards *Kadesh* to reach Palestine as soon as possible, and they would assumedly have taken the *Mediterranean* Coast road. But, Merneptah could have easily headed them off using the *Mediterranean*, and not after a period of many years, they attempted to enter Palestine from *Kadesh*.<sup>(63)</sup>

#### b) Royal Propaganda.

During Amenhotep II's first campaign (year 3), seven of his enemies had been put up side down on the king's bow. (As mentioned above)<sup>(64)</sup>

#### c) Waterways' Exertions.

*Horus Ways* was protected by a series of fortresses strung out from the eastern *Delta* city of *Sile* which was a suitable place for a maritime frontier post, to prevent ships from entering the Egyptian *Nile* through its *Pelusiatic* (or Eastern) branch. This military and trade route began at the fortress of *Tjaru* in the eastern *Delta*,<sup>(65)</sup> and traversed the northern Sinai with defense frontier<sup>(66)</sup> such as Dwelling of the lion<sup>(67)</sup>, Tell el-Borg<sup>(68)</sup> and

<sup>(60)</sup> Murnane, W., 'The Earlier Reign of Ramesses II and his Coregency with Seti I', pp.45-47.

<sup>(61)</sup> Kitchen, K., *Ramesside Inscriptions II*, §38,11.

<sup>(62)</sup> Pap. Harris, I, in Gardiner, A., *Egyptian Hieratic Texts*, pls.7-8.

<sup>(63)</sup> Mercer, S. 'Merenptah's Israel and the Exodux', p.104 ; Yurco, F., 'Merenptah's Canaanite Campaign', pp.189-215.

<sup>(64)</sup> Sethe, K., *Urk.IV*, §1297:3-13.

<sup>(65)</sup> Abd el-Maksoud, M., and Valbelle, D., 'Tell Héboua', p.19.

<sup>(66)</sup> Gardiner, A., 'The Ancient Military Road between Egypt and Palastine', pp.99-116, pls.11-3.

ended in the vicinity of *Tell el-Ajjul* and Gaza some 220 km farther.<sup>(69)</sup>

II.2. Water ways outside Egypt: *Orontes River* and *Euphrates River*.

a) **Military Transportation.**

During his sixth campaign (year 30), Thutmose III traveled from Egypt with his fleet and conducted campaign to deter *Kadesh*, which lies on the *Orontes River*. In this regard, the king crossed this shallow river by chariots (Compare Ramses II), then the troops moved into central *Syria*, while army corps went westward to the coast.<sup>(70)</sup>

 (71)

*ist hm.f hr h3st rṯnw m wdyt 6 (-nwt) nt nḥt nt hm.f*

'Behold, his majesty was in the land of Retenu on the sixth navel campaign of his majesty's victorious army'.

In his seventh campaign there were military tactics depending on capturing and subjection of the sea routes off the coastline of Lebanon, with *Byblos* and other supply depots. He started by *Ullaza*, then he obtained the submissions and tribute from each city and town. Then, he sailed back to Egypt.<sup>(72)</sup> This strategy was aimed to facilitate his upcoming eighth greatest campaign (year 33) which aimed to conquer *Mitanni* strongholds. But, to achieve this goal Thutmose III planned from the beginning to

<sup>(67)</sup> Oren, E., 'Migdol: A new Fortress on the Edge of the Eastern Nile Delta', p.35.

<sup>(68)</sup> Hoffmeier, J., 'The Ramesside Gate at Tell el-Borg', pp.207-217.

<sup>(69)</sup> Morris, E. 'The Architecture of Imperialism', p.29.

<sup>(70)</sup> Spalinger, A., War in Ancient Egypt, p.57.

<sup>(71)</sup> Sethe, K., Urk.IV, §689:4-5.

<sup>(72)</sup> Sethe, K., Urk.IV, §692-3.

cross The *Euphrates River* which protected *Mitanni* as a natural barrier by warships.<sup>(73)</sup>

One could notice how important the role waterways played in this campaign is as follows:

**a-** Using the *Mediterranean* from Egypt through the port of *Arvad* then moved to Asia.

(74)

*ist d3.n hm.i r hmw nw stt*

*'Behold, my majesty sailed toward the border of Asia'.*

**b-** The campaign marched north to *Aleppo*, (see map.2) then to *Naharin* to defeat Mitanni and the allied city-states.

**c-** Egyptian troops transported their warships as parts on boards pulled by oxen in order to reconstruct them to cross *Euphrates River*.

(75)

*iw rdi.n.i mdh.tw h'w s3w nw s hr dww nw t3-ntr m  
h3w t3 nbt kpny rdi(.w) hr wrryt k3w hr st3 skd.sn hr [h3t]  
hm.i r d3t itrw pf 3 irr imy-tw h3st tn r Nhrn*

*'I allowed to be built many ships of Cedar upon the mountains of God's land beside the lady of Byblos, (and) to be loaded on chariots, the bulls drag (them). They sailed before my majesty to cross that great river, which is located between this foreign territory of Nahrin'.*

<sup>(73)</sup> Reisner, M., 'Inscribed Monuments from Gebel Barkal II', pp.24-39.

<sup>(74)</sup> Sethe, K., Urk.IV, §1232:1.

<sup>(75)</sup> Sethe, K., Urk.IV, §1232:2-6.

**d-** After reaching *Euphrates River*, the warships were composed to cross this great river to chase *Mitanni*. (Compare Thutmose I<sup>(76)</sup>)



*d3.<f> phr-wr hr s3 ph sw m tpi n mšc.f*

'He crossed Euphrates River to reach it (Mitanni) leading his troops'.

**e-** After his victory, the king returned back to Egypt by using the *Mediterranean*:



*h̄si.n.i m h̄nt r t̄3-Mry*

'I returned (by) sailing southward to Egypt'



Map.2. Palestine, coastal Syria, *Ullaza*, *Kadesh* and *Aleppo*. After: Murnane, W., 'The Road to Kadesh', p.XVI.

It seems that the antecedent plan of transferring detached warships was complicated and required considerable effort. Accordingly, the crossing of shallow *Orontes River* was easier by

<sup>(76)</sup> Sethe, K., Urk.IV, §697:4-7; §85:13-5.

<sup>(77)</sup> Sethe, K., Urk.IV, §1232:8.

<sup>(78)</sup> Sethe, K., Urk.IV, §1232:20.

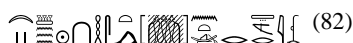
chariots, as matters stand with Amonhotep II in his second campaign (year 7)<sup>(79)</sup> (compare Ramses II<sup>(80)</sup>)



*d3.n hm.f irntw hr mw m hsk mi Ršf*

*'His majesty preceded Orontes River on water storming like Reshef'.*

Then he used a waterway back to Egypt.



*3bd 2 3ht sw 10 hst [hnt] r t3-Mry*

*'Second month of the inundating day 10, sailing southward to Egypt'.*

Likewise Ramses II on his campaign (year 5), in which the *Orontes River* played a critical role that can be clarified as follows:

- a) Four divisions of troops marched to Palestine and South Syria up along the *Phanician coast* road till they reached the fort across the *Orontes River* near *Sabtuna*. (see Map. 3)<sup>(83)</sup>
- b) *Orontes River* played a defensive role for the city, by digging a channel from the river, which turned *Kadesh* into a virtual island.<sup>(84)</sup>
- c) When Ramses II was informed that *Muwatallis* had retreated to north near *Aleppo*, he immediately crossed to the west side of the *Orontes* at *Shabtuna* with *Amun Corps*, with only a quarter of

<sup>(79)</sup> Spalinger, A., *War in Ancient Egypt*, p.140.

<sup>(80)</sup> Sethe, K., *Urk.IV*, §1310:17.

<sup>(81)</sup> Sethe, K., *Urk.IV*, §1302:7.

<sup>(82)</sup> Sethe, K., *Urk.IV*, §1312:1-2.

<sup>(83)</sup> Breasted, J., *Ancient Records III*, §308; Gardiner, A., *Kadesh Inscriptions*, p.8; Kitchen, K., 'Some New Light on the Asiatic Wars of Ramesses II', pp.48-51; idem., *Times of Ramesses II, King of Egypt*, p.53.

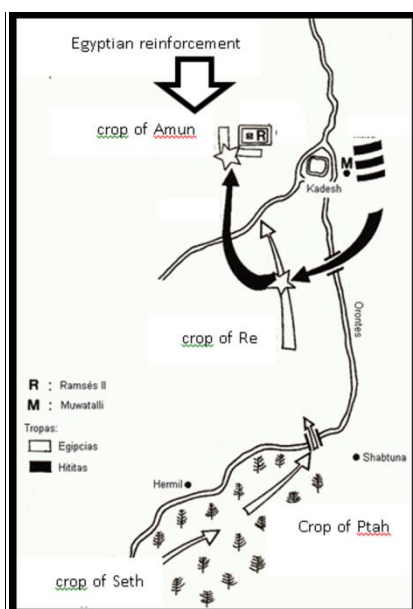
<sup>(84)</sup> Gardiner, A., *Kadesh Inscriptions*, p.29; Kitchen, K., *Times of Ramesses II*, pl.20b.

his army,<sup>(85)</sup> in order to capture the city before Muwatallish's forces could arrive to stop them.

d) *Re Corps* followed on the northern bank of the *Orontes*, while *Sutekh* and *Ptah Corps* remained on the southern bank of it.<sup>(86)</sup>

e) Next morning, *Muwatallish* sent a chariot force across the river on the eastern side of *Kadesh* and attacked *Re Corps* in its center.<sup>(87)</sup>

f) Finally, the *Hittite Forces* scurried back across the *Orontes River*, and many *Hittite* nobles dead in the battle field.<sup>(88)</sup> (Map.3, Fig.2-5).



Map. 3. Battle of *Kadesh*. After Nicolas G., *Histoire de l'Égypte Ancienne*, pl.119.

<sup>(85)</sup> Gardiner, A., *Kadesh Inscriptions*, p.8; Kitchen, K., *Times of Ramesses II*, p.54.

<sup>(86)</sup> Gardiner, A., *Kadesh Inscriptions*, p.8.

<sup>(87)</sup> Gardiner, A., *Kadesh Inscriptions*, p.9; Spalinger, A., *War in Ancient Egypt*, p.57.

<sup>(88)</sup> Kuentz, Ch., *Bataille de Qadech*, pls.18-31; Gardiner, A., *Kadesh Inscriptions*, p.14-30.



Figure 2. The Battle of *Kadesh* (*Luxor temple*). Chariots were crossed the *Orontes River*.<sup>(89)</sup> After Kuentz, Ch., *La Bataille de Qadech*, pl.35.



Figure 3. The *Battle of Kadesh* (west pylon of *Ramesseum temple*). *Hittite's* soldiers, chariots, horses, and nobles were fallen into the *Orontes River*. After Kuentz, Ch., *La Bataille de Qadech*, pl.41.

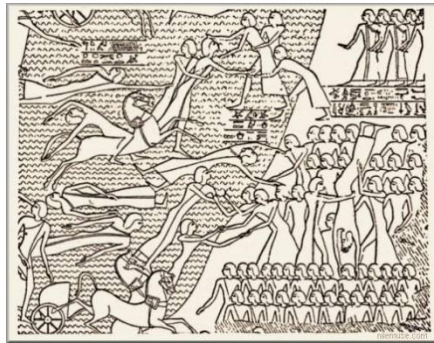


Figure 4. Details of the previous scene (*Ramesseum temple*). After Hosny, H., *Der Tod durch Ertrinken*, pp. 115-116, pl. 27.

<sup>(89)</sup> Smith A., 'Narrative Methodologies in Ancient Egyptian Art History', pp.269-286.





Figure 5. The *Battle of Kadesh (Abu-Simble temple)* Muwatallish chariot forces crossing the *Orontes River* on the eastern side of *Kadesh*.  
After Kuentz, Ch., *La Bataille de Qadech*, pl.42.

Based on the previous evidence one could assume that eastern *Mediterranean* coast played a limited role in army transport except in the reign of Thutmose III, who involved *Euphrates River* in the military events. Moreover, the *Orontes River* was associated with hostility defensive operation. Being shallow river, the troops crossed it by using chariots.

### *II.3. Delta and the Mediterranean shores.*

The sea people (Coast Residents) and Libyans started to be involved in the Egyptian agenda in form of invaders or immigrants during the 19<sup>th</sup> and 20<sup>th</sup> dynasties,<sup>(90)</sup> depending on the large population of their gender in Egypt, who provided a strong support to their warfare activities.<sup>(91)</sup> These new circumstances forced both the *Delta* and *Mediterranean* to be involved directly in the political and defensive strategy as well. It was noticed that Pharos island, facing the Delta, was taken as a marina for these invader's ships.<sup>(92)</sup> It was well known how powerful the coastline residents were as fighters in high-level weave sea. This was confronted by the Egyptians with defensive

<sup>(90)</sup> Aḥmad ‘Abd al- Ḥalīm Dirāz, *Miṣr wa Libya*, p.49; Alaa Aldin Shahan, “al-‘Ilaqāt al-Miṣriya al- Libīya, p.50.

<sup>(91)</sup> Neska, M., ‘The Sea Peoples as a new Factor in Near Eastern and Egyptian Warfare’, p.134.

<sup>(92)</sup> Aḥmad ‘Abd al- Ḥalīm Dirāz, *Miṣr wa Libya*, p.54.

strategy based on preparing mighty warships full with skilled archers, where they made a trap for the invader in the *Delta*.

a) Part of Military Strategy.

The *Karnak temple* scene of Seti I campaign against the *Shasu* (year 1) which possibly took place in the western *Delta*,<sup>(93)</sup> shows a combination between Naval forces, along with the infantry and chariots, while Seti I in his chariot dragging groups of captives and marching along a road marked at intervals by fortresses. They were shown as about to enter Egypt across the *Delta*, but its water was infested with crocodiles and its banks lined by reeds and swamps.<sup>(94)</sup> (See Fig.6) Coping to the base of another relief, we would find a representation of several fortresses on water with a barren shore, which may represent the salt water of the *Mediterranean*.<sup>(95)</sup> (or Bitter Lakes?) (See Fig.7-8).

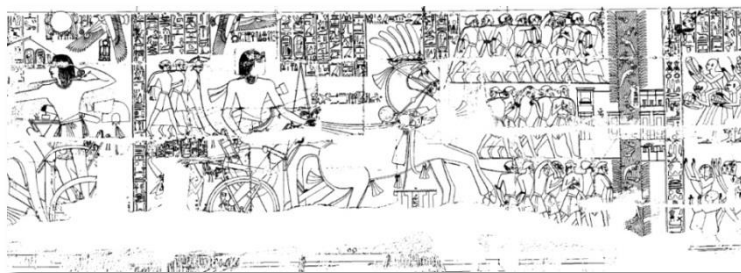


Figure 6. A drawing reliefs depicting fresh-water environment (*Karnak Temple*). After Epigraphic Survey, Reliefs and Inscriptions at Karnak, OIP 107/4, pls.6-7.

<sup>(93)</sup> Faulkner, R., 'The Wars of Sethos I', pp.34-39; Murnane, W., 'The Earlier Reign of Ramesses II and his Coregency with Seti I', p.40; idem., *The Road to Kadesh*, p.55.

<sup>(94)</sup> Epigraphic Survey, Reliefs and Inscriptions at Karnak, OIP 107/4, pls.6-7.

<sup>(95)</sup> Morkot, R., 'Historical Dictionary of Ancient Egyptian Warfare', p.252; Epigraphic Survey, Inscriptions at Karnak, pls.4-5.



Figure. 7. A drawing reliefs depicting several fortresses on water (Karnak Temple) After Epigraphic Survey, Reliefs and Inscriptions at Karnak, OIP 107/4, pls.6-7.

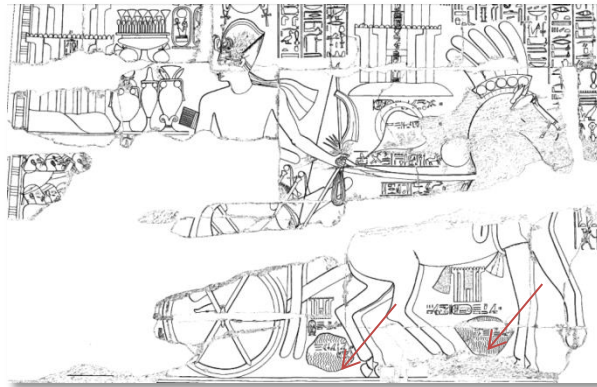


Figure. 8. Details of the previous scene.

His son Rameses II recorded a defensive action against the *Sherden* and the Libyans; where a sea battle took place with powerful military fleet:

  
 (96)

*iw iw.sn shm ib.sn skd.n.sn m ḥꜥw ḥꜥw m ḥr-ib p3 ym*  
*iw bw rh.tw ḥꜥ r-ḥ3t.sn*

(96) Yoyotte, J., 'Les Stèles de Ramsés II a Tanis', pl.6,14, fig.2.

*'They (Sherden) came back, they were brave- hearted, they sailed for fighting naval ships in the middle of the sea; nobody was able to confront them'.*

His successor *Merenptah* defeated Libyans and Sea People in his fifth year, who attacked the *Delta*, until they reached *Memphis* along the western *Delta* branch of the *Nile*<sup>(97)</sup>, and rescued the city.

Ramses III avoided facing the Sea People in high waves sea, by mastering an innovative strategy depending on a combination between ground and naval attack. It was a trap set to catch a raiding fleet of Sea People in narrow waters of the *Delta* by skilled archers who depicted *Medinet Habu Temple* and stood on the shore and triggered upon their enemies hundreds of thousands of arrows.<sup>(98)</sup> On the other side a naval battle took place, in which the enemies with their long ships were attacked and fallen into the *Nile* and pierced by the arrows that were being fired from the Egyptian ships. (See Fig.9-10) Furthermore, he empowered northern ports with military equipment.

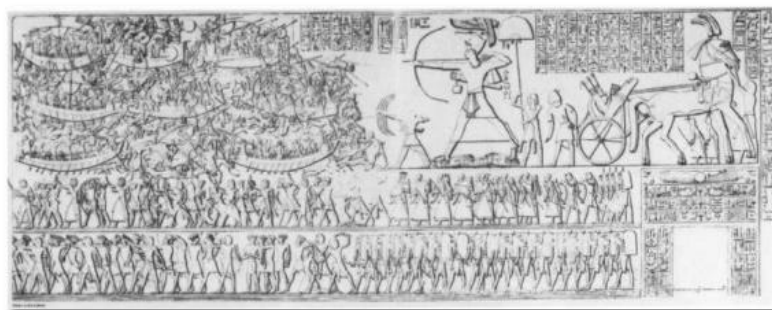


Figure 9. Naval war of Ramses III (*Medinet Habu temple*) after: Nelson, H., ‘Naval Battle Pictured at Medinet Habu’, pls.46,19.

<sup>(97)</sup> Kitchen, K., *Times of Ramesses II*, pp.12-9.

For more details about this war:

Alaa Aldin Shahen, “al-‘Ilaqāt al-Miṣrīya al- Libīya”, pp.55-57.

<sup>(98)</sup> Nelson, H., ‘Naval Battle Pictured at Medinet Habu’, p.45.

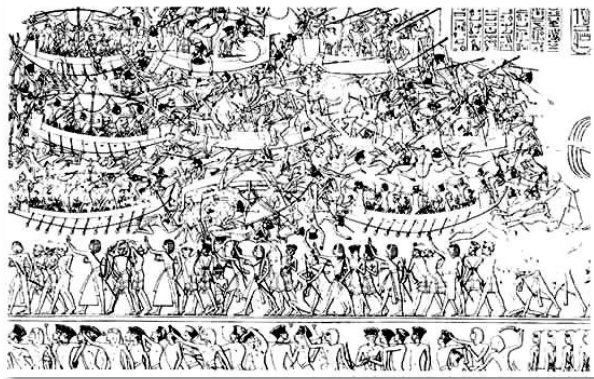


Figure 10. Details of the previous scene (*Medinet Habu temple*).

Showing the marine war details with different boats types and weapon was a new artistic method. There were five Sea People ships against four Egyptian ones.

**b) Royal Propaganda.**

After his victory, Ramses III collected the enemies on the shore:



.....*ith(.w) g3w(.w) ḥdb(.w) ḥr t3 spt sm3(.w) ir(.w)*  
*m iwnw m sd r d3d3 ḥw.sn*

*'They were pulled, dragged, hemmed, overthrown on the shore, killed and piled (lit. who made in piles) from the beginning to the end (from the tail to the head) of their ships'.*

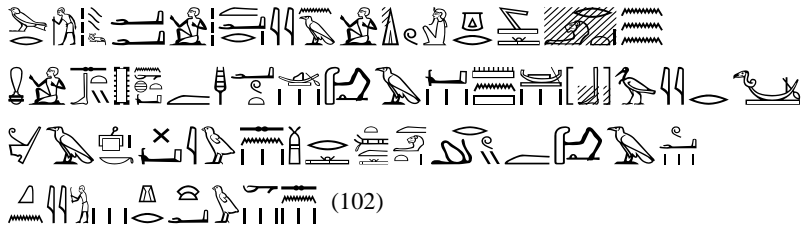
**c) Waterways' Exertions.**

The western approaches to the *Nile* along the *Rosetta* branch were conceivably protected by a frontier post, which was possibly situated in the vicinity of *Kafr Esh Sheikh*. Ramses II

<sup>(99)</sup> Nelson, H., 'Naval Battle Pictured at Medinet Habu', pp.30-1. pls.46,24; Kitchen, K., *Ramesside Inscriptions: Historical and Biographical V*, §41:1-2.

established an outpost and fortress along the North African coastline including *Kom el-Hisn*, *Kom Firin- Tell Abqa'in* along the western *Delta* edge and *Gharbaniyet*, *Alamen* and *Zawiyet Umm el Rakham*<sup>(100)</sup>, with approximately 20km west of *Marsa Matruh* stretching along the *Mediterranean Coast* towards the modern Libyan borders.<sup>(101)</sup>

This coast played an important defensive role against the Sea People:



*wrw imy-r iw ꜥw mryn3 diw.i grg(.w) r3-ḥ3wt mi sbty nḥt m ḥꜥwt ḥ3w Mnšw B3yr n3 iw.sk(w) ꜥpr(.w) tmm(.w) m-ḥ3t rphwy m ḥ3wty knyw ḥr ḥꜥw.sn*

*The great ones (and) garrison commander of the troops, whom I (Ramses III) let them prepare the harbor as mighty wall (fortress) with warship Mnš and B3yr array, they were full and completed from the front to the end by mighty warriors carrying their weapons'.*

Based on the previous evidence one could realize that during the 19<sup>th</sup> and 20<sup>th</sup> dynasties; the *Delta* and the *Mediterranean Sea* shores were involved directly in amphibious warfare, since the army was familiar in general with land based battle more than high sea one. It depended basically on attacking invaders by bowing to a far distance.

<sup>(100)</sup> Snape, S., 'The Excavation of the Liverpool University to Zawiyet Umm el-Rakham, pp.149-60.

<sup>(101)</sup> Thumas, S., 'Chariots, Cobras and Canaanites from Tell Abqa', p.519.

<sup>(102)</sup> Nelson, H., 'Naval Battle Pictured at Medinet Habu', pls.46,19; Kitchen, K., *Ramesside Inscriptions: Historical and Biographical V*, §40:7-10.

## **Conclusion:**

The most significant findings of this study are as follows:

The *Nile* River played a major and significant role during the New kingdom regarding military aspects; as transportation route and some military events have taken place beside it, as military parade and celebrations. There were two basic points related to the navy moves: Memphis and Thebes. The eastern *Mediterranean* coast played an important role especially in the 18<sup>th</sup> dynasty, while its Egyptian shores and the Delta were involved directly in amphibious battles affected by political changes during the 19<sup>th</sup> and 20<sup>th</sup> dynasties. One could notice that the representation of waterways within the military scenes cannot be found before the 19<sup>th</sup> dynasty, as the bitter lakes (*Mediterranean* Sea) and Delta marches appeared with Seti I, the *Orontes River* appeared with Ramses II, and the *Nile* estuary and the *Mediterranean* with Ramses III.

### List Abbreviations:

ASAE	Annales du Service des Antiquités de l’Egypte (Le Caire)
BASOR	Bulletin of the American Schools of Oriental Research.
BdÉ	Bibliothèque d’Étude.
BIFAO	Bulletin de l’Institut français d’archéologie orientale (Le Caire).
BSFE	Bulletin de la Société Française d’Égyptologie. (Paris).
DAIK	Deutschen Archäologischen Instituts Kairo.
EgArch	Egyptian archaeology, (London).
JARCE	Journal of American Research Center in Egypt, (Boston).
JNES	Journal of Near Eastern Studies, (Chicago).
KEMI	Revue de Philologie et d’Archéologie Égyptiennes et Coptes, (Paris).
MÄS	Münchner Ägyptologische Studien.
MIFAO	Mémoires Publiés par Les Members de L’Institut Français d’archéologie Orientale, (Le Caire).
OIP	Oriental Institute Publications, (Chicago/Illinois).
OLA	Orientalia Lovaniensia Analecta, (Leuven).
RdÉ	Revue d’Egyptologie, (Paris).
Urk I	K. Seth, Urkunden des Alten Reichs, Leipzig, 1932-1933.
Urk IV	Id., Urkunden der 18. Dynastie, Leipzig, 1906-58.
ZÄS	Zeitschrift für ägyptische Sprache und Altertumskunde, (Leipzig/ Berlin).



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## استخدام الطرق المائية في حروب الدولة الحديثة

د. علا العبودي\*

المخلص :

يتناول هذا البحث استخدام الطرق المائية في حروب الدولة الحديثة. ويهدف إلى اظهار الدور الكامل للطرق المائية سواءاً أكانت نهر النيل أو البحر المتوسط من خلال النصوص والمناظر الحربية في الدولة الحديثة، وذلك في محاولة لتتبع وتفسير دورها وتحديد استخداماتها في المعارك.

حيث أنه لا توجد دراسات توضح الأهمية الحربية للطرق المائية في الدولة الحديثة، رغم تغطيتها بشكل جيد في الاستخدامات الأخرى وخاصة التجارية. يحاول الباحث الإجابة عن عدة تساؤلات تتمثل في التعرف على مدى أهمية الطرق المائية والأدوار التي لعبتها في الأعداد والتكتيك لمعارك الدولة الحديثة، وهل كان لكل منهم نفس الدور في المراحل المختلفة للدولة الحديثة، ومدى ارتباطهم بالتغيرات الدولية التي طرأت على الساحة السياسية في ذلك الوقت.

في نهاية هذه الورقة البحثية، يمكن ان نستنتج أن نهر النيل كان له نفس الأهمية طوال فترة الدولة الحديثة. كطريق لنقل الجنود ومعداتهم، علاوة على انه لعب دوراً هاماً في الدعاية للانتصارات الملكية. لقد لعب البحر الأبيض المتوسط دوراً هاماً خاصة في الأسرة الثامنة عشر. وخلال الأسرة التاسعة عشر والعشرين، أصبحت شواطئ البحر الأبيض المتوسط ودلتا النيل يدخلوا بشكل مباشر في المعارك متأثراً بالتغيرات السياسية التي طرأت على الساحة. كانت من أهم النتائج التي توصل لها الكاتب انه لا يمكن العثور على منظر لمجرى مائي في المعارك قبل عصر الأسرة التاسعة عشرة.

الكلمات الدالة:

الممرات المائية؛ دور عسكري؛ نهر النيل؛ البحر الأبيض المتوسط؛ دلتا النيل؛ نهر العاصي؛ استراتيجية عسكرية؛ تغييرات سياسية؛ الدولة الحديثة؛ وسائل النقل؛ الدعاية.

**Agricultural legislation and its impact on  
Economic conditions in Africa during the Roman era  
146 BC- 284 AD  
"In light of archaeological resources"**

**Dr. Salma Mohammed Bakr Husawi\***

**Abstract:**

This paper presents a critical analytical study of agricultural legislation in the African state under Roman rule, with a review of the most important economic features of the state, and the role played by Romanian politics in the development of African economy.

The Roman conquest of Africa in 146 BC brought great changes in various economic conditions in Africa, whether in agriculture, industry or commerce, However, African agriculture was the most economic field that experienced changes, where the Roman made several changes, regarding agricultural land-use and the expansion of agriculture and development of management and division into several types according to quality and area, as well as the development of land survey and irrigation systems, through a set of agricultural legislations regulating agriculture and production relations. This agricultural policy resulted in other changes in the fields of industry and trade, which have been largely related to agricultural developments and have relied heavily on their products.

The importance of Africa in the Romanian economy: after the Romans opened Africa in 146 BC. The Roman followed the policy of imposing control over occupied African territory, as a public property of the Roman people Ager Publicus Popli

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romani from the perspective of the Roman law, the Roman administration has expropriated the ownership of African lands from indigenous peoples and redistribution to the Roman settlers.

Not only was that done by appropriating fertile lands but also pastoral lands and forests, and creating new administrative sections, until Roman Africa became a province completely different from the Punic Africa after the fall of Carthage, turning it into Romanian control. The Roman occupation of Africa has been associated with economic and social problems in Rome and Italy and the reform movement by the Gracos' brothers, where the People's Movement considered settlement and the distribution of land to the poor Latin and Italians a solution to the social problems that emerged in Rome as a result of the destruction on the Italian territory. The populist view led to a state of boiling and conflict between the aristocracy and the People's Movement. In order to control African territory In 123 BC, the aristocratic-popular struggle began on the land of Africa when Giacos Gracos 163-133 BC and succeeded in issuing the Rubros Law known as Lex Rubria. It came in favor of the proletariat where the law allocates a large area of land distributed to six thousand Romans by 50 hectares per person at the expense of land owners. The enactment of that law had brought about the Roman aristocracy unity against Jayos Gracos and his brother. After violent confrontations, the aristocracy regained control of the great monarchy and the conflict led to the deaths of the Gracos. Later, this conflict determined the fate of African territory, where the aristocrats of the Senato Council controlled the large monarchies. They preferred to hire people to bring Italians, and only a very little remained in the hands of the Romanian proletariat

**Keywords:**

Roman Era, Legislation, Economy, Africa, Agricultural, Rome, Impact

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The Roman conquest of Africa in 146 BC brought great changes in various economic conditions in Africa, whether in agriculture, industry or commerce. However, African agriculture was the most economic field that experienced changes, where the Roman made several changes, regarding agricultural land-use and the expansion of agriculture and development of management and division into several types according to quality and area, as well as the development of land survey and irrigation systems, through a set of agricultural legislation regulating agriculture and production relations. This agricultural policy resulted in other changes in the fields of industry and trade, which have been largely related to agricultural developments and have relied heavily on their products.

### **The problem of the research**

This research seeks to study legislation related to agriculture in the state of Roman Africa, and the extent of its impact on the economic situation in this state. This is done by reading the archaeological remains of the legal texts dominated by the legislation and the attempt to extrapolate and analyze the subject of the study to examine the effectiveness of this legislation and the extent of application in the African mandate.

### **The aim of the research**

This paper presents a critical analysis study of agricultural legislation in the African state under Roman rule, with a review of the most important economic features of the state, and the role played by Romanian politics in the development of the African economy.

By answering the following questions

1. What role did Africa play in the general Roman economy?



2. To what extent did the Romans succeed in improving the conditions of the African economy?
3. What are the most important agricultural laws issued to improve the conditions of agriculture?
4. What are the objectives of the Roman government of these laws?
5. Has the Roman government succeeded in applying these laws to the agricultural community?
6. To what extent has agricultural legislation left its impact on the African economy?

### **Research Methodology**

This research is based on descriptive analytical approach, which is based on reviewing, describing and analyzing the legal texts, a historical analysis to extrapolate their objectives, knowing their items, and analyzing and critiquing their contents and their role in influencing the general agricultural situation in the state of Africa.

The importance of Africa in the Roman economy:

After the Roman opened Africa 146 BC., the Roman followed the policy of imposing control over occupied African territory as a public property of the Roman people **Ager Publicus Populi romani** from the perspective of the Roman law. The Roman administration has expropriated the ownership of African lands from indigenous peoples and made redistribution to the Roman settlers. This was done not only by appropriating fertile lands but also pastoral lands and forests, creating new administrative sections, until the Roman Africa became a province completely different from the Punic Africa after the fall of Carthage and turn it into Roman control <sup>(1)</sup>.

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<sup>(1)</sup> Hugoniot, ch, rome en Afrique, de la chute de Carthage aux débuts de la conquite arabe, Coll. Champs Universite, Flammarion 2000, pp. 22, 23.

The Roman occupation of Africa has been associated with economic and social problems in Rome and Italy and the reform movement by the Gracos' brothers, where the People's Movement considered settlement and distribution of land to the poor Latin and Italians a solution to the social problems that emerged in Rome as a result of the destruction on the Italian territory. The populist view led to a state of boiling and conflict between the aristocracy and the People's Movement in order to control African territory<sup>(2)</sup>.

In 123 BC, the aristocratic-popular struggle began on the land of Africa when Giacos Gracos 163-133 BC succeeded in issuing the Rubros Law known as **Lex Rubria**. It came in favor of the proletariat where the law allocates a large area of land distributed to six thousand Romans by 50 hectares per person at the expense of land owners. The enactment of that law had brought about the Roman aristocracy unity against Jayos Gracos and his brother. After violent confrontations, the aristocracy regained control of the great monarchy, and the conflict led to the deaths of the Gracos. Later, this conflict determined the fate of African territory, where the aristocrats of the Senato Council controlled the large monarchies. They preferred to hire people to bring Italians, and only very little remained in the hands of the Romanian proletariat<sup>(3)</sup>.

The victory of the Roman aristocracy resulted in the determination of the fate of African territory throughout the republican era with respect to land ownership, where the aristocracy enjoyed great ownership. It was followed by the Numidian throne, which was given by the Roman administration to the best land to show good intentions towards it, then in third

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<sup>(2)</sup> Akoun, Mohamed El Arabi, *Economy and Society in Ancient North Africa*, University Press, Algeria, 2008, pp. 79, 80; Jamal Mokhtar, *The History of Africa, Volume II*, John A. Afrik Publishing House, UNESCO, 1985, p. 487.

<sup>(3)</sup> Carcopino, J., *L'aptitude d'assimilation de Berberes á la Civilisation d'après L'histoire ancienne de Afrique du Nord*, in VIII e congres Volte, 1938, pp. 11-13.

place the Free Cities got part of the territory rewarded for supporting Rome against Carthage. During the Roman era, the imperial house was replaced by the aristocracy and the emperors received one sixth of the African lands to benefit from their revenues. This was followed by the territory of the aristocracy, then the lands of the municipalities that were distributed to the Roman who have Roman citizenship, and finally the territory of the African tribes and these have been distributed to the people without recognition of ownership<sup>(4)</sup>.

Through that it has become clear the importance of African lands for the Roman who initiated the expropriation, control, division and exploitation of property as one of the most important sources of wealth and the guaranteed path of investment. Over time, these lands became the most important sources of securing Rome, because of their significance in filling Rome's needs of grain and various crops. The Roman administration worked on its comprehensive exploitation, increasing its productivity and developing it continuously<sup>(5)</sup>.

The Roman administration then began land surveying of Centuria in order to recognize the value of the land and its revenues by dividing the land into equal units in the area of 50 hectares. The survey began in 146 BC and continued throughout Roman rule of Africa, but it was built on fertile cultivable land. Rome was not interested in uncultivated land known as Subsiciva, which is not suitable for wheat; the most important crop that Rome was expecting from Africa<sup>(6)</sup>.

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<sup>(4)</sup> Shneiti, Mohamed Bashir, *Economic and Social Changes in Morocco during the Roman Occupation*, National Book Foundation, Algeria, 1984, p. 68; Aqoun, Muhammad al-Arabi, *op. Cit.*, P. 81.

<sup>(5)</sup> Picard, Ch, *La Civilisation de L'Afrique Romaine*, 2 edition, Paris, 1990, pp. 94, 95; See also: Worth, Charles, *The Roman Empire*, translated by Ramzi Abdo Girgis, Family Library, Cairo, 1999, p. 80.

<sup>(6)</sup> Chevalier, R., *la centuriation Romaine et la mise en valeur des sols dans la province d'Afrique*, *Geog 22 annee*, Sept. – Oct., 1958, pp. 150-152; Picard (Ch) et Rouge, J. *Textes et documents Relatives a la vie economique et sociale dans L'empire Romaine*, Paris, 1969, p. 217.

The Roman showed great interest in the cultivation of wheat in the state of Africa in order to compensate the shortage of wheat production in the Italian territories. Roman policy also relied heavily on granting free wheat to the public and mobs in Rome for the sake of maintaining control over them. The common in Rome was accustomed to these gifts of wheat, which was used in various types of Roman foods. The Roman recognition of the importance of African wheat resulted in increased interest in expansion of its cultivation, allocating administrative staff to harvest and store the wheat in the grain stores and then move it to Rome to supply Rome with the food it needs.

The words of Julius Caesar during his celebration of victory in Africa expressed Roman interest in African wheat when he said: 'I have added to the property of the Roman people a state that can supply Rome with the wheat it needs.' At this time, approximately one hundred and fifty thousand of the public in Rome got free wheat either from Egypt or from Africa<sup>(7)</sup>.

But why has Rome shown great interest in Africa's wheat and not only Egypt's wheat? In fact, the wheat of Egypt was not enough for the Roman citizens after the Italians were emigrating to Rome, as well as, the multiplicity of revolutions that posed a threat to the arrival of the wheat to Italy, so the Emperors have always sent armies to Africa to keep the wheat and prevent it from falling into the hands of the rebels, exposing Rome to definite famine<sup>(8)</sup>.

The number of beneficiaries in Rome of free wheat has increased thereafter to 200 thousand at the beginning of the Imperial age, at a time when Italian territory was helpless about

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<sup>(7)</sup> Decret, F & Fanter, M. *L'Afrique du Nord dans L'antiquite des Orgines au Vosicle*, Payot, Paris, 1981, p. 213; Picard (Ch), *La Civilisation*, op. cit., p. 70; Bloch, G., *La Republique romaine, les Confilits Politiques et Sociaux*, Paris, 1922, p. 151.

<sup>(8)</sup> Bloch, G., op. cit., p. 151; Decret, F & Fanter, M. op. cit., p. 214.

extending Rome enough to these mouths that are gradually increasing because of the socio-economic crisis that has pushed many Italian farmers to migrate from various localities of Italy to Rome to hang around in their streets<sup>(9)</sup>.

Thus, African wheat was important in the Roman economy and politics, prompting the Roman to expand cultivation until the African wheat supply for Rome rose to from 840 thousand kantars in the era of Julius Caesar to one million, two hundred thousand quintals during the era of Emperor Nero (54-68AD), which represents two thirds of the needs of Rome of wheat in the first century A.D.<sup>(10)</sup>.

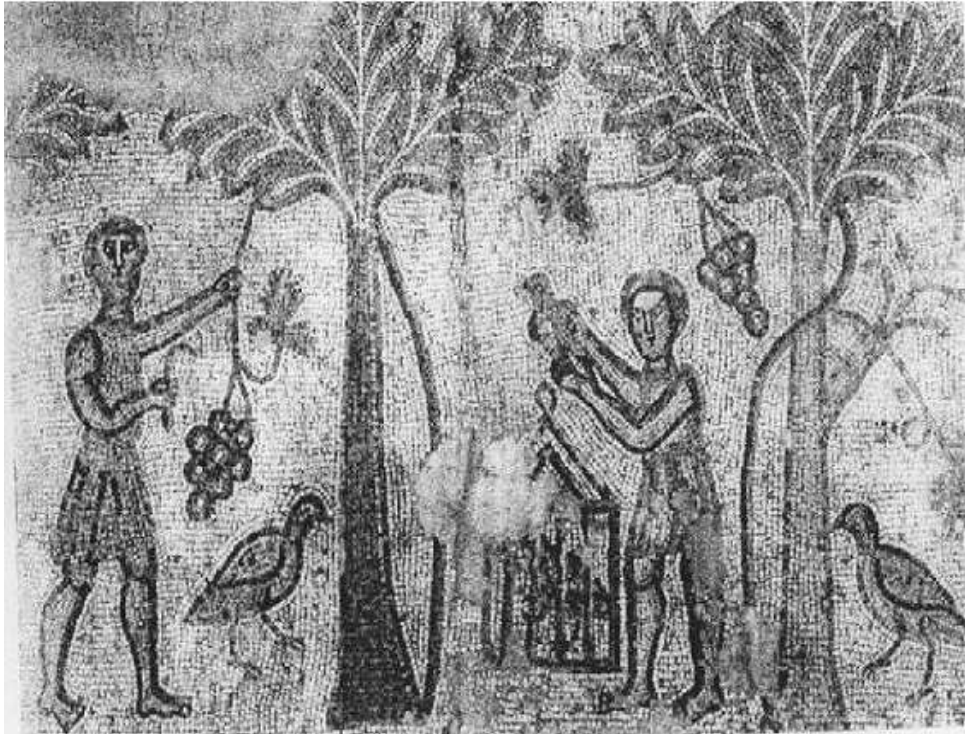
During the second century, the place of Africa in the Roman economy has evolved dramatically, as the Roman view of this state has changed, as the most important sources of wheat in the first century A.D. to include the possibility of an expansionary agricultural policy, where there was a need to increase production and land-use other than merely planting trees. Hence, due to the development of African agriculture and expansion of North and South Africa, agriculture has covered all the fertile and unfertile lands of Africa, and wheat has continued to grow in fertile land while uncultivated, marshes and pastoral lands have been exploited in the planting of trees, so that African land has become an essential pillar in the cultivation of olive trees and vineyards, which are the most important sources of oil and wine extraction<sup>(11)</sup>.

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<sup>(9)</sup>Picard (Ch), *La Civilisation*, op. cit., p. 70; Bloch, G., op. cit., p. 151.

<sup>(10)</sup> Picard, (Ch), *Neron et la ble. D'Afrique*, *Revue les cahiers de Tunisie*, T. IV, 1956, pp. 164-166.

<sup>(11)</sup> Bourgarel – Musso, A., *Recherche économique sur l'Afrique Romaine*, *Revue Africaine*, T. 75, 1934, p. 366; Maurice, S., et Tronoy, A., *la Méditerranée antique IV, Siècle av. J. C.*, III, pp. 68-69, Ca.



**Chrome on trees - Roman mosaic<sup>(12)(13)</sup>**

As the Romanian policy in Africa was essentially based on land- use as an indispensable economic base for Rome<sup>(14)</sup>, the Roman had to enact laws and put in place all legislation that would provide the legal framework for such exploitation on one hand and facilitate exploitation processes of the land and to recruit all its energy to serve Roman interests on the other hand. The first legal step was the expropriation of land and redistribution of Africa followed by a series of laws and legislation that paved the way for the widespread exploitation of African land to meet increased consumption and orientation of

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<sup>(12)</sup> Brun J.P., *Le vin et l'huile dans la méditerranée antique*, Viticulture, oléiculture et procédés de fabrication édit. Errance, Paris, 2003, p. 37.

<sup>(14)</sup> Picard, Ch, *le Civilisation*, op. cit., p. 94

agricultural policy according to the requirements of that consumption<sup>(15)</sup>.

### **Agricultural legislation and legalization of land use:**

In accordance with Roman legislation, African lands were divided into groups, headed by the **Fundi Populi Romani**, after the dispossession of land. These lands were distributed to the aristocratic centurion class, who leased the lands to small farmers to cultivate them. In the imperial era, most of these lands became part of the Emperor's property. Then the land was owned by the Roman Emperor **Patriomonium Principis**, which is a private property and tax-exempt. Finally, there are the lands of the **Loca Fiscalia**, which include the rest of the public land and were often the least fertile. They have not been allocated to the Emperor nor to aristocratic class and therefore distributed to the people to exploit them in exchange for paying taxes, for this land was not recognized in the ownership of Roman law and it was possibly confiscated and evict tenants at any time<sup>(16)</sup>.

During the republican era **Agrariae Leges** was issued to regulate the cultivation, exploitation and to print these lands solid economic stamp. The laws created large productive units, including **Latifundia** and **Salti**. These units were distributed to the centurion class, imperial family and aristocratic local society in the states, which included the Roman and non-Roman that granted the privileges of Roman citizenship. **Latifundia** was a **fundus** or a number of **Fundi**, **Villae** or rural houses, of the gentlemen and relied on the rental of the people of the country with low wages or through forced labor. While **Saltos** were rugged mountainous terrain and porous land, they were difficult

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<sup>(15)</sup>Hugoniot, Ch., op. cit., pp. 23-24.

<sup>(16)</sup> Picard, Ch. La Civilisation, op. cit., pp. 61-62.

to exploit, but in the end Latifondia and Saltos were public property of the state, and they formed the Doman system<sup>(17)</sup>.

On the other hand, the legal legislation considered the Latifodnia within the territory of the city in Territorio and it was within the property of the emperor and in this case exempt from taxes. Latifondia was also obliged to pay its taxes, while Saltos was outside the territory of the city, outside the real estate of the cities and away from the population of the rural and urban areas. Saltos, as Itifondia, was exempt from tax, other than real estate tax, from which he is obliged to pay the known taxes<sup>(18)</sup>.

**As for agricultural legislation during the imperial age,** these laws were necessitated by the continuous Roman need to increase production, meet the needs of consumers, regulate the relationship between landlords, peasants and tenants, and determine the amount of taxes and collection methods. The legislation of the imperial era concerned the exploitation of non-fertile and neglected lands in order to increase the production of African lands without prejudice to the wheat crop, which occupied most of the fertile land<sup>(19)</sup>.

Agricultural legislation was based on two basic laws, the **Mancianaa** Act and the **Hadrian** Act of the first and second centuries, and their laws were merely supplementary or interpretative laws for some of their provisions.

### [1] **The Law of Mancianaa:**

Is a law enacted to regulate the economic relations between landowners and their managers. The most important of these is

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<sup>(17)</sup> Carcopino, J., *Colonat Partiaire*, in *MEFR*. XXVI, 1906, pp. 364ff; Saglio, E. et Autres, *Dictionnaire des antiquités grecques et romaines*, DAGR, Hachette, Paris, 1873-1919, p. 958.

<sup>(18)</sup> Chastagnol, A., *La Legislation des biens des Villes au IVe Siecle á la Lumiere d'une Inscription d'Ephése*, Attidell, *Accad Romanistica Costantiniana* 6 convegno intern, Perouse 1986, pp. 79-85.

<sup>(19)</sup> Cheniti, Muhammad al-Bashir, *op. Cit.*, P. 83.



the granting of property rights to those who rehabilitate arid or desolate lands that have been neglected without cultivation and are intended to encourage farmers to reclaim land that is not fertile, whether these lands were general or private Imperial Doman<sup>(20)</sup>.

This law was attributed to an unknown person named Manciana who is likely to be a special emissary of one of the Flavian family emperors (69-96AD). He may have been a public official or a consular judge who takes upon oneself organizing economic relations in Africa; his work resulted in the promulgation of this law<sup>(21)</sup>. That sparked controversy among researchers on the date of its issuance and the personality of who issued it and we do not know the exact time in which this law was issued, but likely to be older than the law of Hadrian, and may date back to the first century AD, which came into force since the reign of Emperor Vespasian (69-79AD).<sup>(22)</sup>

However, what is important to us from this law is that it left great marks on agriculture and continued until the end of the Empire or at least until the fifth century AD, and although the provisions of this law are not fully discovered, the archaeological texts discovered in Africa have pointed to a number of Items<sup>(23)</sup>.

The law of Manciana provides for the right to cultivate the land of culture's right in accordance with the provisions of the law and thus grant the right to all those who wish to work in agriculture, provided that the landowners are given their obligations. Then beneficiaries of the land have to grant the

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<sup>(20)</sup> Peuras, J. La potestas occupandi dans l'Afrique Romaine in: DHA vol. 25, 1999, p. 133; Picard, Ch, Le Civilisation, op. cit., p. 63; Cuq, E., le colonat partiaire dans l'Afrique Romaine d'après l'Inscription de Henchir Mettiche in: CRAI, No. 11, 1901, p. 143.

<sup>(21)</sup> Rostovsz, Michael, The History of the Roman Social and Economic Empire, Vol. 1, Translated by Zaki Ali and Muhammad Salim Salem, The Egyptian Renaissance Library, Cairo, 1957, p. 434.

<sup>(22)</sup> Cuq, E., op. cit., pp. 143-144; Peuras, J. op. cit., p. 134; Hugoniot, Ch., op. cit., pp. 103-104.

<sup>(23)</sup> Picard, Ch., et Rouge, op. cit., p. 211.

owners all the crops as prizes. The amount obtained by owners is often one third of wheat production, one-third of barley production, one-third of the wine produced from the vineyards, and one-third of the olive oil extracted after harvest<sup>(24)</sup>.

The law of Manciana encouraged the cultivation of olives and vineyards in particular because of the increasing importance of oil and wine in Rome and Italy, so farmers were granted the right to use the reclaimed land and gave farmers the right to inherit the land as long as they continued to pay their obligations to landowners<sup>(25)</sup>.

### **The Law of Hadrian:**

When the Emperor Hadrian (117-138AD) visited an African state, he witnessed the neglect inflicted on African lands and the deteriorating conditions of the peasants. He enacted a law on agrarian reform and the organization of lands that did not plant and de-cultivate lands. The purpose of this law was to link the farmers to the land and achieve economic stability through granting land-owning farmers the right lay hands or possessors, which is a legal right conferring the right of agriculture and usufruct and the right to inherit the land on condition of continuing to work and pay their obligations to owners of these lands<sup>(26)</sup>.

Thus, Hadrian's plan was to revive and supplement the provisions of the old Manciana Act. Hadrian wanted to achieve the same objectives as Manciana, which codifies the expansion of non-fertile land reclamation, and in some of its articles, farmers are entitled to use the lands of the Emperor and are also entitled to bequeath to their children in case of their cultivation, attention and reclamation. The landlords will lease this land to the farmers for one-third of the production paid by the farmers to the owners

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<sup>(24)</sup> Ibid, pp. 212-213.

<sup>(25)</sup> Alberteni, T., Actes de l'epoque vandale, Paris, 1952, pp. 108-109.

<sup>(26)</sup> Ostoftzev, Michael, op. Cit., Pp. 434-435.

after harvesting the crops. The evil of the first years of fruiting and after payment is made, unlike olive farmers exempted for a period of seven years of repayment of production owners in the case of the cultivation fruit trees<sup>(27)</sup>.

One of the most important provisions of this law is to allow residents outside the Fondus to own the uncultivated lands that they worked on reclamation within the Vendors in return for paying the production premiums to the Fondus ' agents or owners one third of the production of wheat, beans or barley and five wines and oil. Its noteworthy, that this ratio of than one-third in the law of Manciana is lessened to the fifth in Hadrian's law and this is a victory for farmers.

Hadrian's law is distinguished by its ability to facilitate work in the Imperial Dumas and at the same time regulate agriculture and labor in all of Africa. Some believe that this law is related to the administration of the whole empire because it is flexible and suitable for various places and different types of property<sup>(28)</sup>.

### **Archaeological texts and the most important legislative items:**

Archaeologists revealed the discovery of a collection of archaeological texts during the excavation in several locations in Africa and these texts are legal decrees in the form of inscriptions written on a stone monument and each decree related to the organization of a unit of production, whether an Imperial or Doman and most of them were based on the legal decrees Manciana and Hadrian relating to the development of agriculture and determining the relationship between tenants and owners<sup>(29)</sup>.

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<sup>(27)</sup> Carton, Dr., *La Lex Hardiana et son commentaire par le procureur Partruchus*, revue archeologique Tom. 21, Mars-Avril 1892, pp. 21-26.

<sup>(28)</sup> Carton, Dr., *op. cit.*, p. 39; Saumagne, Ch., *Inscriptions de Jean ez Zaytouna*, in: CRAI 81, no. 4, 1937, p. 300.

<sup>(29)</sup> Le Bohec, *Histoire de l'Afrique Romaine 146 avat J.C. 439 Après J. C.*, Paris, 2005k, p. 138.

### **Text of Ain Jammela :**

This text is the most important legislative text due to the clarity of Latin inscriptions on it. This text dates back to 1906, which was discovered in Wadi Khallad near the Ain Jammela roundabout. This is a petition submitted by farmers at the Nironianos asking for official permission to cultivate uncultivated lands and marshes. The inscription on a signature stating that the petition submitted to them was accepted and allowed to be reclaimed according to Hadrian's law, which permitted this<sup>(30)</sup>.

### **Ain Jammela's Inscriptions<sup>(31)</sup>**



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<sup>(30)</sup> Carcopino. J., L'inscription de Ain Djemala, Melange d'archeologie et d'histoire, Pairs, 1906, pp. 540-541.

<sup>(31)</sup> Carcopino J., L'inscription de Ain-Djemala, Mélanges d'archéologie et d'histoire, Paris, 1906.

I.

1	. . . . . IV <sup>o</sup> } ANI, ROGAMUS, PROCURATO-	
	TU- }	
2	[RES, PER PRO]VIDENTIAM VESTRAM, QUAM	29
3	[NOMINE CA]ESARIS PRAESTATIS, VELITIS NOBIS	36
4	[ET MAIESTAT]I ILLIUS CONSULERE, DARE NO<S>-	33
5	LI[IS EOS AGROS], QUI SUNT IN PALUDIBUS ET	31
6	IN SILVESTREBUS, INSTITUENDOS OLIVETIS	34
7	ET VINETIS, LEGE MANCIANA, CONDICIONE	30
8	[S]ALTUS NERONIANI VICINI NOBIS. CU[M	29
9	LI]BELLUS HANC PE[TITI]ONEM NOST[RAM,	29
10	FUS]DUM SUPRASCRIPTUM N[ERONIANUM	29
11	ET I]NCREMENTUM HABIT[ATORUM . . . .]	

(... We ask you, agents, in the name of the Emperor Caesar, based on the wisdom we have to implement which benefits us. His Majesty has decided to give us the swamps to be planted with olive trees and vineyards according to the law of Manciana and according to the conditions of our neighboring Saltos Neronianos.

By submitting this petition we believe that we are thinking of the Neronian estate and an increase in the population ...)



II.

Traces de lettres.

1	IUBEAS. Sermo procurato[rum im]-	25
2	P(ERATORIS) [C]AES(ARIS) HADRIANI AUG(USTI): QUIA CAE[sar n(oster) pro]	29
3	infatigabili cura sua, per qu[am adsi]-	30
4	due humanis utili[ta]tibus exc[ubat, om]-	31
5	nes partes agrorum, quae tam oleis au[t]	30
6	VINEIS QUAM FRUMENTIS APTAE SUNT, [EX-	30
7	C]OLI IUBET, ITCIRCO PER MISSEM PROV[ID-	31
8	EN]TIAE EIUS, POTESTAS FIT OMNIBUS E[TIA]-	32
9	M EAS PARTES OCCUPANDI, quae in c[ent-	29
10	u]ris ELOCATIS saltus Blandiani c[et U-	30
11	de]nsis, [et] i[n illi]s partibus sunt q[uae ex]	31
12	" saltu Lamiano et Domitiano iuncta[e] "	30
13	" T[uzri]tano sunt, nec a conductoribus "	30
14	" ex[er]centur; i[is]que qui occupaverint "	31
15	" possidendi ac fru[en]di [h]eredique s[u]o "	31
16	" relinquendi id ius datur, quod e[is]t "	28
17	" lege Ha[dria]na comprhensum de rudi-	30
18	" bus agris et iis qui per X annos con-	28
19	" tinuos inculti sunt. Nec ex Blandia-	29
20	" no et U[d]ensi saltu maiores partes "	28
21	" fruc[tuum ex hac lege praestabunt-	28

**The second facade**

(Based on the command of our Caesar, who seeks to guarantee the eternal happiness of mankind, orders the exploitation of all parts of the private lands suitable for the cultivation of olives, vineyards and grain, and therefore, in the divine providence, the power granted the right to everyone to use the land in the division of land survey and lease of the lands of Blandianus and Judensis, which was annexed to the ownership of Tozarianos, which was not exploited by the farmers and the right of those who work to own, use and then bequeathed and this is the right determined by the law of Hadriana on the land of the

fallow and uncultivated land for successive ten years, and on the land of Blandianos and Judensis to deliver under this item part of the production is higher than the part they receive elsewhere.)



III.

1	ur q]UA[m aliunde] o]b lege]M M[ancianam; (?)	29
2	set si quis lo]CA NEGLECTA A CO]ndu-	27
3	ctoribus] occupaverit, qua[e da-	25
4	ri sole]nt, tertias partes fructu[m	29
5	dabit; de] EIS quoq(ue) REGIONIBUS QU-	26
6	[ae ex] Lamiano et Domitiano	22
7	[saltu] iunctae Tuzritano sunt	24
8	[tantumdem] DABIT. De oleis quas quis[q(ue)	30
9	e possessorib]s [po]suerit aut oleas[tr-	32
10	is inseruerit] c[aptor]um fruct[uum	28
11	" nulla pars] decem proximis annis exige-	32
12	" t[ur]; set nec de pomis septem annis pro-	30
13	" ximis; nec alia poma in divisionem unq-	31
14	" uam cadent, qu[a]m quae veniunt a posses-	32
15	" soribus. Quas partes aridas fructuum "	31
16	" quisq(ue) debet dare eas pr[o]ximo quinq-	31
17	" uennio ei dabit in cuius conductione "	31
18	" agr(os) occupaverit; post it tempus rationi "	33

### The third facade

(...According to the law of Mancianaaa, the workers in the neglected areas should be given the usual part which is a third of the production.

As for the cultivation of olives or the vaccination of wild olives, the owner is exempted from taxes for 10 years and seven years for other fruit trees, while fruit is not taxed except in the case of owners to sell them, but the grain pays taxes in the first five years to the owner of the land and five other years to the departement of the land...)





IV.

1	[C]ARINUS ET DOR[YPH]ORUS PRIMIGE[NIO	29
2	S]UO SALUTEM. EXEMPLUM EPISTULAE SCRIP-	32
3	TAE NOBIS A TUTILIO PUDENTE, EGREGIO VIRO,	34
4	UT NOTUM HABERES, ET IT QUOD SUBIECTUM EST	34
5	[*]ELEBERRIMIS LOCIS PROPONI: " VERRIDIUS	33
6	BASSUS ET IANUARIUS MARTIALI SUO SALUT[EM]:	35
7	SI QUI AGRI CESSANT ET RUDES SUNT; [SI QUI SIL-]	35
8	VESTRES AUT PALUSTRES IN EO SALT[UUM TRA-	33
9	CTU, V]OLENTIS LEGE MANCIA[NA..... "	

Traces de lettres.

### The fourth facade

(.... if there is neglected land which is the uncultivated land and if it is found in this area of the farm whether it was jungle or marshes it can be restored according to the law of Mancianaa

[2] **The text of Henchir Mettich**,: which was found in Wadi Medjerda in Tunis in 1896 by Lieutenant Boulane, belongs to a fendi known as **Mappalia Siga**, a decree inspired by the law of Mancianaa and includes Parts of its articles and chronicle some

of the era of Trajan (98-117 AD) while some return to the end of the second century and specifically in the era of Emperor Septemius Severus (193-211 AD)

Through this text, some of the provisions of the Mancianaa Act and the Hadrian Act recognized the right of farmers outside the Villa Magna Variana lodge to acquire the land they could cultivate and reclaim after they were barren, with the obligation to pay the quota to the owners of these lands. The text of Hansir Matish contains items related to exempt farmers who grow figs and vineyards from paying taxes only after five years of agriculture and ten years of olive cultivation<sup>(32)</sup>.

2. The text of Ain Wasel: This is known historically as the decree of **Sermo Procuratourm**, and was revealed by the military doctor Carton around 1891 near the spring of water named Ain Wasel in Tunisia, an inscription on three stone monuments, and it provides The right of ownership and the system of payment of tax premiums

In his study, it became clear that it was a decree of Saltus Burunitanus, which included a chapter of the Hadrian law. This text often dates back to the era of Emperor Septemius Severus (193-211AD), which was issued by the agents of Septemius Severus in 210 AD to reorganize agriculture according to Hadrian's law<sup>(33)</sup>.

Through the text of Ain Wasel, five imperial Salatos were identified in Wadi Medjerda in Tunisia<sup>(34)</sup>.

4. The text of Souk el Khamis: is dated to 174-223 AD during the Marcus Aurelius and Flacos Cornelianus, a decree regulating the Colon status of farmers who benefit from the land of others or

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<sup>(32)</sup> Cognat, R., Inscription d'Henchir Mettich, CRAI, 41, No. 2, 1897, pp. 151-152.

<sup>(33)</sup> Mespoulet, M., L'inscription d'Ain Ouassel, Nouv, Revue Hist. De Droit francais, Mars-Avril 1892, pp. 124ff; Carton, Dr., op. cit., p. 9.

<sup>(34)</sup> Aqud, Muhammad al-Arabi, op. Cit., P. 91.

those who have acquired the right to reclaim uncultivated lands<sup>(35)</sup>.

5. The text of Janan al-Zaytouna: is very similar to the text of Ain Jammela, as it is a petition submitted by farmers to approve the reclamation of Uncultivated lands in arid lands and marshes based on the law of Mancianaa<sup>(36)</sup>.

6. Other archaeological texts have been uncovered in North Africa, including the text of Henchir Snobeur, which dates back to 1861. It concerns the right of Possessores.

7. Text of Henchir Zaytouna, dated between 202-205 AD.

8. In addition, there are the contracts known as the **Tablets of Albertini**, which are pieces of wood, not stone, found in 1928 with several documents representing the sale and purchase of the lands of a major property in the city of Tebessa, Algeria. Since it dates back to the reign of King Vandale Gentamund (484-496), they were known as valentine contracts, which indicates the continuation of the work of the Roman agricultural legislation derived from the laws of Mancianaa and Hadrian until the end of the fifth century AD<sup>(37)</sup>.

It is clear, in this sense that the policy of agricultural legislation and subsequent legal decrees and laws were based on linking the farmers to the land and urging them to take care of them either by granting them the right of ownership and use or inheritance, and using two-thirds of production and temporary exemption from taxes until the completion of reclamation. All benefit from agricultural expansion in favor of bridging Rome's need for food, olives, wine and other consumer crops<sup>(38)</sup>.

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<sup>(35)</sup> Lacroix. F., L'Afrique Ancienne, Revue Afrique, vol. 14, 1870, p. 26.

<sup>(36)</sup> Saumagne. Ch., op. cit., pp. 295-296.

<sup>(37)</sup> Le Bohec, op. cit., p. 138; Albertini, E., Documents d'epoque Vandale de couverts en Algerie, CRAI, 72, No. 3, 1928, pp. 301-303.

<sup>(38)</sup> Carton. Dr., op. cit., p. 39.

The Roman administration was aware of the importance of encouraging farmers and pushing them to expand in the field of agriculture and production. However, after these privileges granted to farmers did not neglect the aspects of owners or the general interest of the Roman economy where the legal and legislative provisions obliged farmers after having these privileges to work for six days free of charge every year, two days during tillage and two days during the harvest season and two days to get rid of the harmful herbs by planting. This is in addition to obliging outsiders to register their names for periodic patrols to protect production from any dangers, especially theft, looting or arson<sup>(39)</sup>.

### **The Impact of agricultural legislation on the African general economy:**

#### **[1] Agrarian Reform:**

##### **(A) Agricultural expansion and land reclamation:**

Agricultural legislation has had an impact on the development of African agriculture in general. Archaeological texts indicate the orientation of Roman policy towards horizontal expansion in agriculture by maintaining the cultivation of wheat in fertile lands and turning to the cultivation of uncultivated lands suitable for the cultivation of olive trees and vineyards in order to produce oil and wine. The agricultural concessions provided by the legislation encourage farmers to apply for land reclamation according to the laws of the organization. Hence, the second century AD witnessed a great expansion in African agriculture<sup>(40)</sup>.

Through this expansion, farmers have made some gains, including improving living conditions, social conditions, land use and inheritance, and a sense of socio-economic stability within

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<sup>(39)</sup> Picard et rouge, op. cit., pp. 214-215; congat, R., op. cit., p. 153.

<sup>(40)</sup> Picard, Ch., l'civilisation, op. cit., p. 62.

the framework of organized laws guaranteeing stability for all. Over time these laws have become firmly established in the management of the African economy<sup>(41)</sup>.

The policy of reclamation of the uncultivated lands was based on the cultivation of trees, especially olive trees and vineyards. Due to the importance of these trees in the oil and wine industry, the second century AD was known as the olive and vine centuries. The Roman aims were to expand these crops through the importance of oil and wine in Roman economic life to the extent that oil is one of the main sources of wealth and was a testament to Roman politics in Africa<sup>(42)</sup>.

Archaeological evidence indicates the importance of the olive tree in old economy, especially in the Mediterranean countries, where it is one of the most important exports of these countries. The oil extracted from it is very important in the field of food, which is used in cooking and food preparation as well as its importance in the perfume, lighting and health care industry. It was also an important commercial commodity that comes after the grain trade to profit farmers<sup>(43)</sup>.

The olive tree was old in North Africa and was found by the Roman there because African land was suitable for cultivation. The Carthaginians benefited greatly from the oil industry, which gained widespread fame for lighting and public baths because of its strong aroma<sup>(44)</sup>.

But the Roman administration was the cause of succeeding in increasing the productivity of this tree from the second century AD at the expense of the useless land, Roman administration was

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<sup>(41)</sup> Aqoud, Muhammad al-Arabi, op. Cit., P. 83.

<sup>(42)</sup> Leveau, Ph., A propos de l'huile et de vin en Afrique Romaine ou pourquoi deromaniser l'archeologie des compagnes d'Afrique, Revue pallas tom. 68, 2005, p. 78.

<sup>(43)</sup> Precheur Canonge, La Vie Rurale en Afrique Romaine, d'apres les Mosaiques, Paris sans date, p. 48; Boissier, G., L'Afrique Romaine, Hachette, Paris, 1907, p. 147.

<sup>(44)</sup> Juvenale, Satires, V, 86, 91.

able to exploit these lands for the benefit of the African economy in general and for the benefit of the Roman economy in particular<sup>(45)</sup>.

The Roman interest in the expansion of olive cultivation was due to several factors, including the decline of olive cultivation in Italy, which was the most important source of oil in Rome. Africa has become a quick alternative to make up for the needs of olive and highlighted the importance of olive peak during the rule of the Severan family (193-235 AD). Although chaos occurred during the third century, however, olive cultivation continued to expand southward until the outskirts of the desert, leading to the transformation of desert and pastoral lands into productive lands. As a result, the Bedouins have transformed into stability and disbanded their movements, which were very influential in agriculture<sup>(46)</sup>.

The cultivation of the vineyards was also ancient in Africa, and at the beginning of the Roman presence in Africa, the Roman administration was not interested in protecting the Italian farmers from the competition of the African vineyards. The African coin shows the viability of viticulture in Africa before the Roman era. Africa comes after Crete in terms of quality<sup>(47)</sup>.

With the deterioration of Italian agriculture, the Roman took great interest in planting vineyards alongside olive trees due to the increasing importance of economic and commercial vineyards, so that African wine became one of the most important commodities exported to Italy and the Mediterranean countries<sup>(48)</sup>.

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<sup>(45)</sup> Camps, G., *Aux Origines de la Berberie, Massinissa ou les Debuts de l'Histoire*, Libya, 1962, pp. 86-87.

<sup>(46)</sup> Aqoun, Muhammad al-Arabi, previous reference, pp. 101-103.

<sup>(47)</sup> Pline, XVIII, 188.

<sup>(48)</sup> Billiard, R., *la Vigne dans l'antiquite*, Lyon, 1913, pp. 15-16.

In the third century AD, the increase in the population and the spread of Christianity led to an increase in the demand for wine, which was an indispensable holy drink. The Roman administration expanded vineyards to extract wine from it until wine became one of the main pillars of the Roman economy<sup>(49)</sup>.

**(B) Evolution of the irrigation system:**

While the African coasts benefited from the rainwater, the southern regions suffered from drought and lack of rain, which exposed the cultivation of grain and tree planting at risk. The Roman had to search for an alternative through the establishment of an integrated irrigation system. The evolution of the irrigation system went hand in hand with increased attention to agricultural expansion and reclamation so the Roman did not leave the water spring without watering the land from it.

Thus, the agricultural legislation for the expansion of the cultivation of the uncultivated lands with vineyards and olives prompted the Roman administration to provide the means of irrigation for the success of this policy. The Roman worked on the construction of dams, reservoirs and wells where the dams collect and store rainwater. The idea of the reservoirs is to provide a series of waterways to store rainwater and floods and to transfer them to the reservoirs for preservation, while archaeological studies have revealed a network of wells drilled at deep depths up to 59 meters<sup>(50)</sup>.

In addition, the Roman established numerous transport channels that transport water to agricultural land after supplying the cities with drinking water. the Roman also set up reservoirs that serve as reservoirs for the reception of water from water sources<sup>(51)</sup>.

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<sup>(49)</sup> Pline, V, 3-4, XII, 133; Gsell. S, op. cit., p. 9.

<sup>(50)</sup> Gaukler, p. Enquête sur les installations hydrauliques Romaines en Tunisie, Tunis, 1897-1912, pp. 205-206.

<sup>(51)</sup> Shinti, Muhammad al-Bashir, op. Cit., Pp. 109-110.

The archaeological texts indicate the attention of agricultural legislation to regulate and develop irrigation to promote agricultural expansion. The most important documents related to irrigation are the Lamasba document, which is a legislative text engraved on a stone slab bearing the names of the farmers benefiting from the land and the number of plots owned by each farmer and the number of irrigation hours For each beneficiary to benefit from, as well as to identify the days and months in which he is authorized to irrigate<sup>(52)</sup>.

## 2] **Industry growth:**

Despite the Roman view of Africa as a predominantly agricultural state, the agricultural legislation that accelerated the agricultural growth has also contributed to the growth of some industries related to agriculture. The oil industry, which is associated with the expansion of olive trees, Africa is evidence of the development of this industry during the Roman era for its use in food and health purposes as mentioned above<sup>(53)</sup>.

The oil industry has developed widely in Africa, which has led to an increase in the number of oil presses during the Roman era. Archaeologists have uncovered many major industrial works such as the Khirbat Yaqub quarry near Setif, as well as the presence of contemporary cities such as the mill of Madorush and Hammam Bou Hanifia. There was no house without a small home-use Juicer<sup>(54)</sup>.

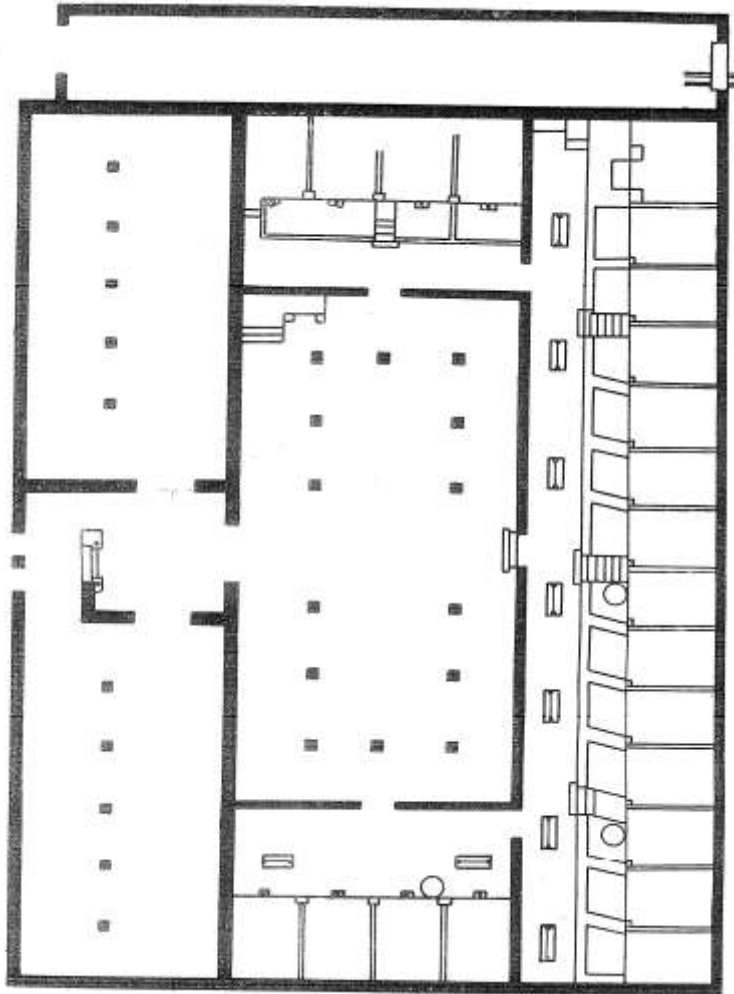
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<sup>(52)</sup> Decret. F., Et Fanter, op. cit., p. 218.

<sup>(53)</sup> Aqoun, Muhammad al-Arabi, op. Cit., Pp. 124-125.

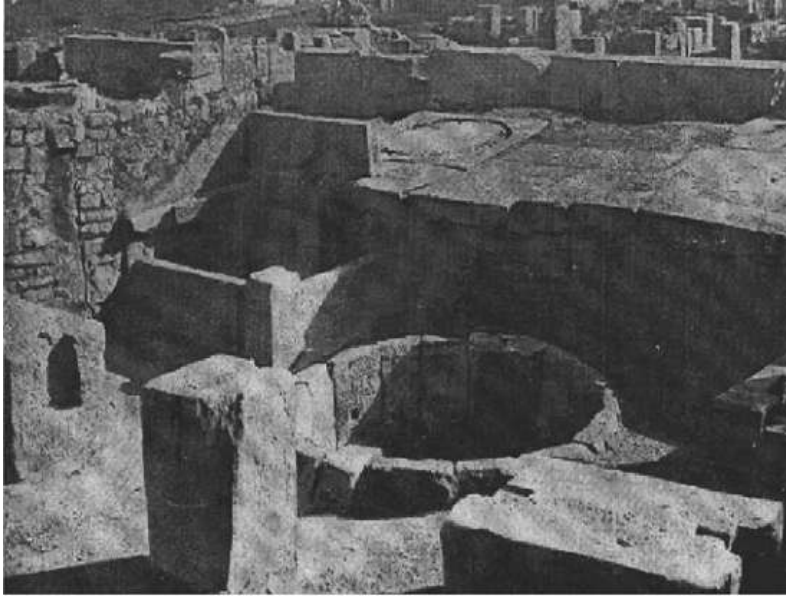
<sup>(54)</sup> Camps-Fabrer, H., op. cit., pp. 57-58.



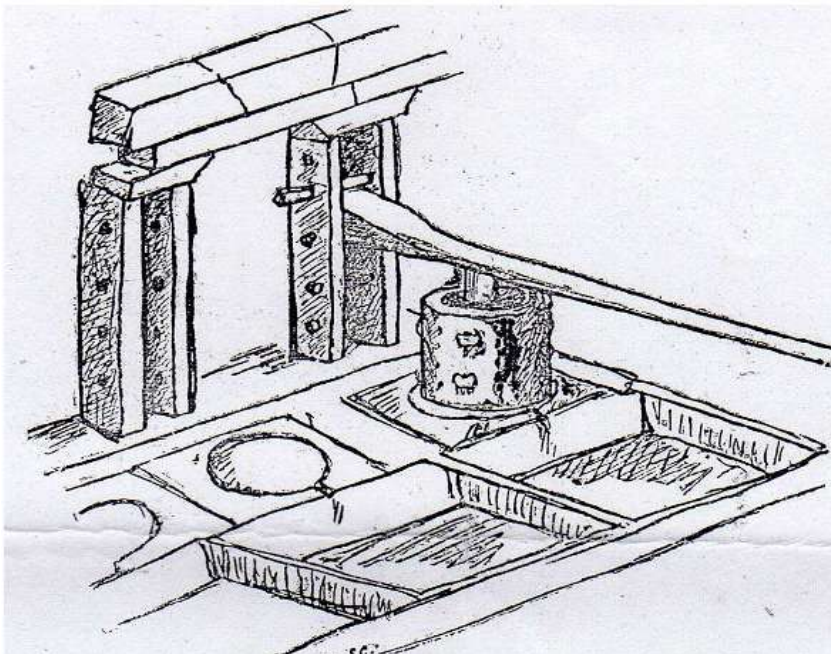


**Khirbet Yaqoub Oil Press<sup>(55)</sup> – Graphic**

<sup>(55)</sup> Menuier (J), L'huilerie romaine de Kherbet-Agoub (Périgotiville, Bulletin de la société Historique et géographique de la région de Sétif, tome. II, (1941), p. 145.



**Maduroch Oil Production mill<sup>(56)</sup>**



**The Roman Period<sup>(57)</sup> - A sketch**

<sup>(56)</sup> Marcel (Ch), *Essaie de restitution d'un moulin de l'époque Romaine à madaure (Constantine)*, Alger, 1930, p. 260.

<sup>(57)</sup> Marcel (Ch), *Essaie de restitution d'un moulin de l'époque Romaine à madaure (Constantine)*, Alger, 1930, p. 260.

The expansion of viticulture has also led to growth in the wine industry, especially after the deterioration of this industry in Italy. The wineries were very closely associated with the oils industry. It was believed that oil and wine were the most important African products in the Roman era. However, the discovery of wine making tools in Africa was less than finding contemporary oils because of the lightness and simplicity of these tools<sup>(58)</sup>.

The oil and liquor industry has been associated with parallel industries such as the storage Jars industry for use in storing these products and initially making African-style Jars. These Italian models of Jars industry in the second century reflected African culture. An African model of Jars manufacturing was found above the tectachcio height and was intended for oil storage and another wine storage model<sup>(59)</sup>.

### **3] Road construction:**

Land surveying, which was associated with agricultural expansion, led to the establishment of roads, which later proved to be important for the expansion of the south and the penetration and control the Numidian depth. The construction of the roads was initially for military purposes but soon achieved great economic objectives, resulting in the activity of trade movement<sup>(60)</sup>.

Since the era of the Flavius family, there has been increased interest in the expansion of a major road network in the State of Africa, some of which have been for oil and some for wheat or both<sup>(61)</sup>.

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<sup>(58)</sup> Adam. J. *La Construction Romaine* 3ed., grand manuels Picard. S.D., p. 341.

<sup>(59)</sup> Slim, L et Bonifay. M., *L'Usine de Salasion de Neapolis, Premiers resultats des Fouilles 1995-1998, Africa XVII*, 1999, pp. 153 ff.

<sup>(60)</sup> Carcopino, J. *Le Marco antique*, ed., Gallimard, Paris, 1948, p. 192.

<sup>(61)</sup> Vel, A., *Quelques inscriptions, RSAC*, vol. 43, 1909, p. 261.

Herein, the establishment of the road network, in addition to military purposes, was aimed at economic exploitation in facilitating and transporting African products such as oil, cereals and wine.

#### **[4] Trade movement:**

As agricultural legislation has been an engine for land reclamation, it has also contributed to the growth of commercial activity inside and outside, where grain, oil and wine markets emerged in the cities of Africa, Toka and Toporsk were the most important oil markets. In terms of foreign trade, wheat and oil were the most important African exports. The Roman relied on a number of ship owners, whether Roman or African, to take over permanent transfers, especially wheat, oil and wine to fulfill Rome's need for these commodities, as well as for the rest of the African goods, to satisfy the public<sup>(62)</sup>.



**A wine Jar <sup>(63)</sup>**

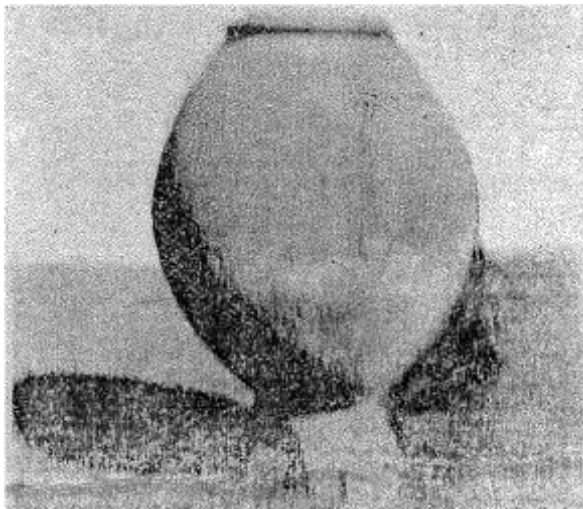
A large stack of African oil potter (jars) above the Monte Testaccio height near Rome was found and this heap was

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<sup>(62)</sup> Lecocq. A., *Le commerce de l'Afrique Romaine* BSGO, Tom. XII, 1932, pp. 340-342.

<sup>(63)</sup> Burn, J.P., *Le Vin et l'huile dans la méditerranée antique*, p. 88.

formed over time and successively African oil (yield) tax to Rome, which shows the boom in the African oil industry and trade, and until the end of the first century Africa was supplying Rome with the wheat it needed for eight months while Rome relied on Egypt in the other four months. African traders played a prominent role in supplying Rome with wheat since the age of Emperor Trajan so that the ports of Africa have been directly linked to the port of Ossetia in Italy and the export of wheat and oil has not stopped to Rome at any time.



**Jar to save oil from Tipasa <sup>(64)</sup> - Roman era**

### **Conclusion and research results:**

It is clear from what was presented in the research that the status of Africa for the Roman economy has only grown as of the second century A.D. until the end of the Roman rule of Africa. The land-use policy has evolved from simply cultivation of wheat in fertile land neglecting arid lands, to seeking exploiting these lands in olive and chromium cultivation according to the need of the Roman market and consumer.

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<sup>(64)</sup> Trabut (Dr.) l'Olivier en l'Algerie-Alger 1900, p.85.

Agricultural legislation has played a significant role in regulating African agriculture and has successfully directed the African economy into diverse areas, where the agricultural map has been developed through the exploitation of other lands, the expansion of the South and the non-sufficiency of the African coastline.

The archaeological texts found in Africa represent a valuable demonstration of the success of such agricultural legislation and the capacity of the Department to implement it, as many petitions for the reclamation of land restoration have been effectively discovered.

Agricultural legislation has had the greatest impact on the overall African economy, with agricultural expansion pushing the public production wheel towards irrigation development, the construction of roads to serve the Roman project, and the resulting growth in agro-based industries and the development of the trade movement.

While agricultural legislation was originally aimed only at Roman interests, it left its influence at a far-reaching level on the development and growth of economy and wealth of Africa, the emergence of major cities and industrial centers, agricultural legislation have contributed significantly to improving the situation of Africans and raising the social level and living for them.

The agricultural policy and associated legislation resulted in many public and private benefits, thus serving the Roman citizen in Rome and benefited immigrant Italian farmers to Rome and have given rise to the Africans themselves, and created to Roman and others living in Africa a life worthy of survival in this state, for Profit and investment However, it has not been able to dissolve the African character under the Roman model, and Africa has maintained itself and defended its character until the end of the Roman rule.

### Roman emperors during the study period

Year of Rule The	The Name of Emperor
23BC-14AD	<b>August</b>
14-37 AD	<b>Tiberius</b>
37-41 AD	<b>Caligula</b>
41-54 AD	<b>Claudius</b>
54-69 AD	<b>Nero</b>
69-79 AD	<b>Vespasian</b>
AD 79-81	<b>Titus</b>
AD 81-96	<b>Dumitianos</b>
AD 96-97	<b>Nerva</b>
AD 97-117	<b>Trajanus</b>
AD 117-138	<b>Hadrianos</b>
138-161 AD	<b>Antoninus Pius</b>
AD 161-180	<b>Marcos Orlius</b>
AD 176-180	<b>Commodus</b>
193-211 AD	<b>Septimius Severus</b>
AD 211-217	<b>Caracalla</b>
AD 217-218	<b>Macrinus</b>
AD 218-222	<b>Elagabalus</b>
AD 222-235	<b>Severus Alexander</b>
AD 235-238	<b>Maximianus</b>
AD 238	<b>Gordian II I Gordian</b>
AD 238-244	<b>Gordian III</b>
AD 244-249	<b>Philip I</b>
AD 249-251	<b>Decius</b>
AD 251-253	<b>Claudius</b>
AD 253-259	<b>Valerius</b>
AD 268-270	<b>Claudius II</b>
AD 270-275	<b>Aurelianus</b>
AD 282-284	<b>Carros</b>
AD 284-305	<b>Diocletian</b>

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## التشريعات الزراعية وأثرها على الأوضاع الاقتصادية في أفريقيا خلال العصر الروماني «في ضوء المصادر الأثرية»\*

د. سلمى محمد بكر هوساوي\*

### الملخص:

يقدم هذا البحث دراسة تحليلية نقدية للتشريعات الزراعية في الولاية الأفريقية تحت حكم الرومان، مع استعراض لأهم الملامح الاقتصادية العامة في الولاية، والدور الذي لعبته السياسة الرومانية في تطوير الاقتصاد الأفريقي.

أحدث الفتح الروماني لأفريقيا عام ٤٦ق.م تحولات كبيرة في مختلف الأوضاع الاقتصادية في أفريقيا سواء في مجال الزراعة أو الصناعة أو التجارة، غير أن الزراعة الأفريقية كانت أكثر المجالات الاقتصادية التي شهدت تغيرات أكثر من غيرها حيث أحدث الرومان عدة تغيرات فيما يتعلق باستغلال الأراضي الزراعية والتوسع في زراعتها وتطوير إدارتها وتقسيمها إلى عدة أنواع بحسب جودتها ومساحتها، فضلاً عن تطوير نظم مسح الأراضي وطرق ريها، وذلك من خلال مجموعة من التشريعات الزراعية المنظمة لشؤون الزراعة وعلاقات الإنتاج، وقد نتج عن تلك السياسة الزراعية تغيرات أخرى في مجالات الصناعة والتجارة التي ارتبطت إلى حد كبير بالتطورات الزراعية واعتمدت على منتجاتها بشكل كبير.

منذ سيطرة الرومان على أفريقيا - وكغيرها من الولايات الرومانية - اتبع الرومان سياسة فرض السيطرة على الأراضي الأفريقية المحتلة، واعتبارها ملكية عامة للشعب الروماني، وانطلاقاً من نظرة القانون الروماني نزعت الإدارة الرومانية ملكية الأراضي الأفريقية من الأهالي الأصليين وقامت بإعادة توزيعها على المستوطنين الرومان، ولم تكف بالاستيلاء على الأراضي الخصبة بل والأراضي الرعوية والغابات وأوجدت أقساماً إدارية جديدة بها حتى أصبحت أفريقيا الرومانية إقليمياً يختلف تماماً عن أفريقيا البونية بعد سقوط قرطاج وتحويلها إلى السيطرة الرومانية.

وقد ارتبط الاحتلال الروماني لأفريقيا بالمشكلات الاقتصادية والاجتماعية في روما وإيطاليا وقيام حركة الإصلاح على يد الأخوين جراكوس، حيث كانت الحركة

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الشعبية ترى في الاستيطان وتوزيع الأراضي على الفقراء اللاتين والإيطاليين حلاً للمشكلات الاجتماعية التي ظهرت في روما نتيجة ما حل من خراب على الأراضي الإيطالية، وقد أدت وجهة نظر الشعبين إلى حالة من الغليان ونشوء الصراع بين الطبقة الأرستقراطية والحركة الشعبية من أجل السيطرة على الأراضي الأفريقية.

#### **الكلمات الافتتاحية:**

أفريقيا، الزراعة، قرطاج، العصر الروماني، التشريعات، الاقتصاد، الزراعة، روما، التأثير.

## **The Collection of Ottoman Tobacco Pipes from Azov Museum-Reserve in Russia**

**Dr. Walid Ali Khalil \***

**Irina Rudolfovna Gusach \***

### **Abstract:**

The Azov museum-reserve (Azov city, the Russian Federation) holds more than 1000 examples (intact ones and fragments) of clay tobacco pipes. All of them are from the excavations carried out on the territory of the former Ottoman fortress Azak (Azov old district) and its surroundings. Until recently, this archeological material has been left unstudied and has not been put into scientific use. The great bulk of finds (over 80%) are Muslim (Turkish) tobacco pipes. These are pipes made by the ceramics craftsmen on the territory of the former Ottoman Empire (Asia Minor, the Crimea, Balkans). They were widely used by the military garrison of the Turkish fortress Azak in private daily life. All in all, Muslim tobacco pipes were discovered by the archeologists in Azov in the cultural layers of XVII – the beginning of XIX centuries. The pipes from four “closed” complexes (three pits and a burial) discovered in 1998-2004 are dated by the end of XVII – the beginning of XVIII centuries according to the coin material. The majority of the tobacco pipes are abundantly ornamented splendid examples of the Muslim ceramics art. Some of them have stamps of their makers and Ottoman inscriptions made in Arabic calligraphy. The variety of pipe “fashions” is highly considerable. A number of the pipes are flower-shaped: as a tulip, a lily, a narcissus,

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a chrysanthemum. The pipes' dimensions vary from the smallest (3.8x2.3 cm) to fairly big (6.0x4.2 cm) ones.

**Keywords:** The Ottoman Empire - The Azak fortress – Azov - tobacco pipes - XVII - the beginning of XIX centuries - archeology.

## 1. Introduction

During the 50-year period of the archeological research of the former Turkish fortress Azak territory and its surroundings in Azov city (Rostov region, Russia), there has been built up an impressive collection of clay tobacco pipes (over 1000 pieces). There are both intact examples and fragments. The main part of the pipe collection is from the excavations and gatherings in 1960-1970s when the Archeological Expedition attached to the museum started their work. Those years archeological excavations became much more intense on the territory of the former Ottoman fortress which is the oldest district of the modern city. In addition to the archeological finds, the collection has pipes accidentally discovered by the Azov citizens who these days live on the territory of the former fortress (The Ottoman fortress Azak was destroyed in XVIII century).



**Pic.1 Map of the Ottoman fortress Azak location (Azov, Russia)**

In succeeding years the excavations on the territory of the Azak fortress were carried out at irregular intervals because of

the dense population of this part of the city. However, Azov archeologists were fortunate – in 1998 and 2001 they succeeded in exploring three “closed” complexes (2 household pits and a burial) with Turkish tobacco pipes (excavations by A. Maslovsky). The data of the archeological complexes are valuable because they were the first locations where the Ottoman tobacco pipes were discovered which could be narrowly dated by the coin material (the end of XVII – the beginning of XVIII centuries). Until then pipes in Azak had been discovered only in the cultural layer which had been very much disarranged during the fortification works on the fortress territory at the end of XVII –XVIII centuries and had contained objects of various ages and nations (mainly, Turks and Russians). As a whole, this layer was dated by XVI – XVIII centuries<sup>(1-5)</sup>.

2004 turned out to be the most fortunate year for archeologists. Over 300 clay Turkish tobacco pipes (intact ones and fragments) were discovered during the exploration of a small ground area (84 sq.m) in 3 Genuezskaya Street on the territory of the former fortress Azak (excavations by I. Gusach). The greater part of them was taken from a landfill located near the ruins of a building which presumably had been an Ottoman guardhouse. 14 of the examples had the stamps of their makers.

One of the pipes in perfect condition was ornamented with an inscription in Old Ottoman language. The presence of the

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<sup>(1)</sup> Kazakova (L. M.), The report on the works of the Azov Museum-Reserve during the observations of the excavation works in Azov in 1961 (The AMR Archives), Azov, 1962, pp. 87-92.

<sup>(2)</sup> Maslovsky (A.N.), The report on the rescue excavations of the I Azov team in the area of a private dwelling house in 15 Engelsa street, Azov in 1998 (The AMR Archives), Azov, 1999, p. 43.

<sup>(3)</sup> Maslovsky (A.N.), The works of the I Azov team in 1998, HARALD in 1998. Issue 16. Azov, 2000, pp. 115-120.

<sup>(4)</sup> Maslovsky (A.N.), Excavations in Azov, HARALD in 2001. Issue 18. Azov, 2002, pp. 212-223.

<sup>(5)</sup> Gusach (I.R.), Close complexes with the “Turkish” tobacco pipes from Azov, HARALD in 2001. Issue 18. Azov, 2002, pp. 368-389.

coins ensured that the pipes from the excavation in 2004 were dated by the end of XVII – the beginning of XVIII centuries (the earliest coin was an akçe by Suleiman II (1690-1691), the latest one was a beşlik by Selâmet Giray II (1740-1743)). Such a big collection of the Muslim tobacco pipes in a small area explored by the archeologists testifies that they were widely used by the Turkish garrison of the fortress in their private daily life<sup>(6-7)</sup>.

However, it is well known that the Oriental tradition of smoking pipes (along with the tradition of drinking coffee) widely spread among the Cossacks of Podonye in XVII-XVIII. At first local Cossacks smoked Turkish pipes, later they learned how to make their own pipes as well as Zaporozhye Cossacks (present-day territory of Ukraine)<sup>(8-11)</sup>. Judging by the finds of the Don archeologists, in XVII-XVIII centuries both soldiers and officers of the Russian Army would also smoke self-made Ukrainian, Ottoman and even Dutch clay pipes<sup>(12-18)</sup>.

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<sup>(6)</sup> Gusach (I.R.), The archeological researches on the territory of the Turkish fortress Azak, *HERALD* in 2004. Issue 21, Azov, 2006, pp. 127-141.

<sup>(7)</sup> Gusach (I.R.), The Ottoman tobacco pipes from the excavations in the Azak fortress, The new researches of the Cossack period memorials in Ukraine. Issue 22. Kiev, 2013, pp. 379-383.

<sup>(8)</sup> Kovalenko (O.), Clay pipes of XVII-XVIII centuries (on the materials of the Poltava region). The academic series of the “Ukrainian ceramics studio”. Issue 1. Opishnya, 2008.

<sup>(9)</sup> Kravchenko (E.E.), Dukhin (A.I.), Ceramics pipes and fine plastic arts of the Kazachya Pristan’ settlement (Cossack Warf), Interethnic cultural connections in Donbass: history, ethnography, culture, Donetsk, 2000, pp. 147-157.

<sup>(10)</sup> Chekanovsky (A.A.), Ceramics tobacco pipes of XVII-XVIII centuries of the Middle Dnieper and the Crimea, Ukraine and Turkey, Kiev, 2003, pp. 86-88.

<sup>(11)</sup> Chekanovsky (A.A.), Chmil’ (L.V.), Pipes from the excavations of Gonchariv-Kozhummyak (in Kyiv-Podil), *The Eastern European archeological magazine*, Kiev, 2000, pp. 111-113.

<sup>(12)</sup> Kravchenko (S.A.), The report on the archeological explorations in Azov, Rostov region, in 29 Suvorova street and Moskovskaya street areas in 2009 (The AMR archives), Azov, 2010, pp. 221-223.

<sup>(13)</sup> Kravchenko (S.A.), Shyrochenko (E.B.), Goncharova (S.M.), Excavations in Azov in 2010, *HERALD* in 2010. Issue 26, Azov, 2012, pp. 178-214.

<sup>(14)</sup> Gusach (I.), New finds from the excavations of the Turkish fortress Azak, 4-th International Congress of Eurasian Archaeology, Agsu-Azerbaijan, Baku, 2015, pp. 140-152.



For a long time the Muslim tobacco pipes collected in the Azov Museum-Reserve within the period of half a century have remained a scantily investigated category of archeological finds. The complexity of their research was connected with the absence of Russian specialists in the Ottoman ceramics art of XVII-XVIII centuries, and first and foremost – in the fine clay plastic art. There was no scientific literature necessary on the subject; and there were no specialists capable of reading Arabographic inscriptions on the pipe stamps.

The aim of this research lies in studying of the Ottoman tobacco pipes collected from the excavations and gatherings in medieval Azak. And not only as daily life objects of the fortress residents but also as highly artistic examples of the Muslim ceramics art of XVII-XVIII centuries. Some of the pipes are genuine masterpieces of the art. The authors studied the history of origin of the Ottoman tobacco pipes, technology of their manufacturing; and for the first time in Russia they made an attempt to compose a classification of the data on archeological finds

## **2. History of origin of the Ottoman tobacco pipes**

The tradition of smoking pipes has gone through more than a hundred years. Tobacco pipes are considered to have been brought to the territory of the Ottoman Empire at the beginning

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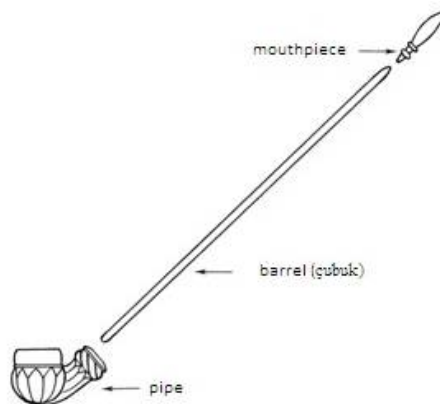
<sup>(15)</sup> Goncharova (S.M.), Goncharov (M.Yu.), Yermolayenko (M.V.), Maslovsky (A.N.), Minaev (A.P.), Archeological researches in Azov in 2012, HERALD in 2012. Issue 28, Azov, 2014, pp. 142-162. Rehab Shaban Gad, Adwat Al Tadkhen fe Masr fe Alkarn (13-19), Master thesis, Faculty of arts, Ain Shams University, Cairo, 2015, pp. 95-105.

<sup>(16)</sup> Maslovsky (A.N.), The report on the rescue archeological excavations in Azov in 2008 (The AMR archives). Vol. 1, Azov, 2010, pp. 46-64.

<sup>(17)</sup> Larenok (V.A.), Excavations on the territory of the fortress in Rostov-on-Don, HERALD in 2006. Issue 23, Azov, 2008, pp. 214-226.

<sup>(18)</sup> Larenok (V.A.), Larenok (P.A.), Household items of the end of XVIII – the beginning of XIX centuries from the refilling of a foundation ditch of the soldier's barracks in the Dmitry Rostovsky fortress, Archeological notes of the Don Archeological Association. Issue 7, Rostov-on-Don, 2011, pp. 315-332.

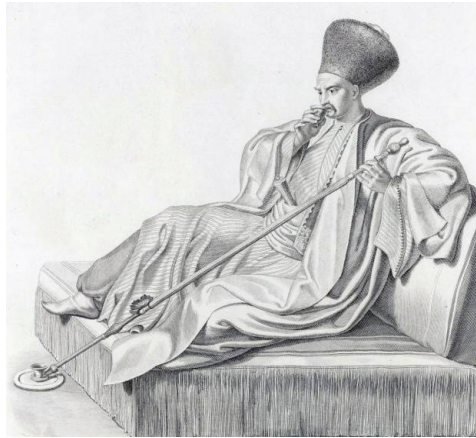
of XVII century from Western Africa, to be more specific – from Egypt. Western African pipes consisted of three parts. Actually they looked like a smoking set consisting of three parts: a small clay tube (a head); a long narrow wooden hollow barrel (“çubuk” in Turkish) and a mouthpiece. The mouthpiece frequently had a many-part structure and could be made of various materials: bone, amber, coral and others. In Egypt such tobacco pipes became everyday objects in 1601-1603. On the territory of Porta they appeared approximately in 1605. However, a number of scientists (American researcher Rebecca Robinson, for instance) referring to their sources believed it had happened much earlier – in 1599<sup>(19)</sup>. One way or another, three-sectional tobacco pipes became gradually widespread: at first in Asia Minor, then in Balkans and along the whole Black Sea coastline. In the course of time they reached the territories of Europe and Russia, where they would be called “Turkish” or “Ottoman”. And when in XIX century everything “Oriental” became fashionable, they started to be called “pipes of the Oriental type”. Muslim pipes can be seen on the canvases of many European and Russian artists of the period.



**Pic.2. The structure of a tobacco pipe of the “Oriental type”**

<sup>(19)</sup> Robinson (R.), Tobacco pipes of Corinth and of the Athenian Agora, *Hesperia*. Vol. 54, no. 2, 1985, p. 87.

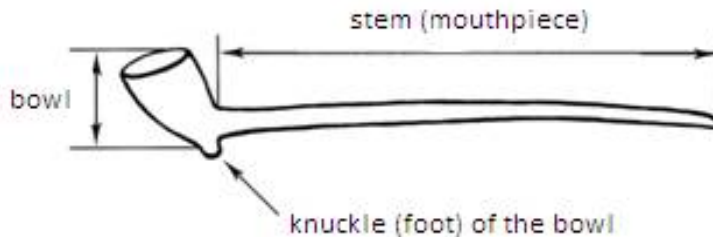
(Robinson R., Clay tobacco pipes from the Kerameikos, *Mittelungen des Deutschen Archaologischen Instituts Athenische Abteilung*, Bd. 98, Berlin, 1983)



**Pic.3. Arhonte Grec. Berlin, 1831 (BNF)**

In the European countries of XVII-XVIII centuries it was common to smoke clay pipes of Dutch or English manufacture which differed fundamentally in their morphology and manufacturing technique from those of Ottomans.

All of them were unit-cast and one-piece and were made of high-quality white clay <sup>(20)</sup>. Their images remained on the canvases of the Dutch painters of XVII-XVIII centuries.



**Pic.4. The structure of a Dutch pipe**

(Robinson R., Clay tobacco pipes from the Kerameikos, *Mittelungen des Deutschen Archaologischen Instituts Athenische Abteilung*, Bd. 98, Berlin, 1983)

<sup>(20)</sup> Rebrova (R.V.), White clay tobacco pipes in the collection of the State Hermitage, *Studies of the State Hermitage, Saint-Petersburg*, 2011, p. 117.

- Abd El Naser Yassen, *Magamer shobok moktashafa fe mantekat Al Gabal Al Gharby b Asute, Megalat al Ethad Alaam Llasaryen al Arab*, Cairo, 2015, p. 217.



**Pic.5. Dutch. Paris, 1797 (BNF)**

It is historically known that in 1633 the Turkish sultan Murad IV (reign years: 1623-1640) put a ban on smoking as a result of great fires that had happened because of careless handling of fire while smoking. But despite all strict prohibitions, pipe smoking proved to be unstoppable. So called “coffee houses” (cafes) where people would spend their time drinking coffee, talking and smoking pipes rapidly spread all over the Ottoman country. So, in 1646 under the reign of the sultan Ibrahim I (1640-1648) a decree was issued abolishing all prohibitions on tobacco smoking and coffee because they were bringing a large profit to the treasury of the country.

Soon this harmful habit of tobacco smoking covered all strata of the Turkish society. Both men and women would smoke pipes. But while men were allowed to smoke in public places, women could do it only at home or in a hamam. For example, pictures of women smoking pipes can be seen on highly glazed pottery dishes decorated with designs which were made in XVIII

century by the Armenian craftsmen at the famous Ottoman ceramics center Kütahya <sup>(21)</sup>.



**Pic.6. A dish with the picture of a woman with a pipe. Kütahya, XVIIIc.** (Akalin Ş., Yılmaz Bilgi H. Suna ve Inan Kıraç koleksiyonunda Kütahya seramilleri, Yadigâr-ı Kütahya, İstanbul, 1997)



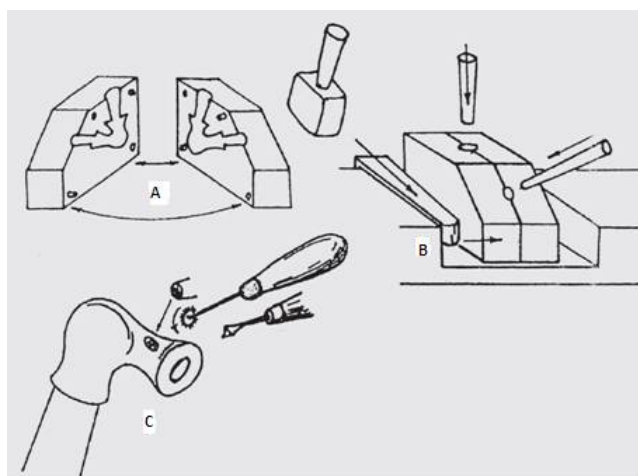
**Pic.7. Turk with a pipe (from the miniature of XVIII c.)**

### **3. Manufacturing technology of the Muslim tobacco pipes**

There exists an opinion that it was the Ottomans who worked out a new technology of manufacturing tobacco pipes in

<sup>(21)</sup> Akalin (Ş.), Yılmaz Bilgi (H.), Suna ve Inan Kıraç koleksiyonunda Kütahya seramilleri, Yadigâr-ı Kütahya, İstanbul, 1997, pp. 201-206.

which they combined the traditions of the European and Western African pipe-makers<sup>(22)</sup>. From the European craftsmen they borrowed the technique of stamping in two-sided forms of a clay pipe; from the African ones – the three-sectional structure of the whole smoking set. It means the Turks replaced a relatively long clay barrel of an European pipe with an even longer wooden barrel (“çubuk” in Turkish) which was inserted into the stem of a clay pipe. To organize the internal space of a clay pipe, they forced two “wedges” into the form (“kalıb” for Oriental people) with molding mass (well refined clay). An outlet channel for smoke connecting cavities which had formed in the pipe because of the “wedges” was in fact a little through hole of a round or a square shape (depending on the shape of a rod which had been used to pierce the clay).



**Pic.8. The technology of manufacturing pipes of the “Oriental” type**  
(Volkov I.V. The private collection of the “Turkish” tobacco pipes from  
Moscow, Material culture of the East, Moscow, 1999)

The Muslim tobacco pipes were made of high-quality clay (without any apparent mixture) of various colours: white, grey, brown, beige and even black. Like Dutch and English craftsmen,

<sup>(22)</sup> Volkov (I.V.), The private collection of the “Turkish” tobacco pipes from Moscow, Material culture of the East, Moscow, 1999, pp. 226-252.

Turkish makers of ceramics pipes would make their first pipes (XVII century) of white and grey clay <sup>(23)</sup>.

To pay tribute to the European fashion, the Ottomans tried to make stems long and narrow as they made them in the West. But the “European tradition” did not settle down in the Ottoman Empire. So the Turkish craftsmen had to choose the Western African variant of a tobacco pipe which they slightly restyled after the European fashion. As a result, they created a conglomerate of the “Oriental” and “Western” (European) pipes that these days is called the “Turkish”, or the Ottoman, pipe.

Later (the end of XVII – the beginning of XVIII centuries) the Ottoman craftsmen began using in the pipe manufacture so called “red” clay widespread in Asia Minor, the Crimea and Balkans. That is the reason why practically all “late” pipes were of brown or beige clay. Judging by the archeological finds.

At the turn of XVII–XVIII centuries (the period of transition from the white clay to the “red” one) white-clay and “red-clay” pipes coexisted for a little while. The external surface of the Ottoman pipes was usually splendidly ornamented. As a rule, a simple ornament used to be standard and “was placed” directly into a stamping mould (it was carved on the internal surface of a mould). More complicated ornamental motives were drawn on the surface of a pipe by hand with special tools – tooth-wheels and embossing stamps (so called “plunge-in” ornament) after a clay pipe had been extracted out of the mould. The décor motives were geometric or floral-vegetative.

In addition to the décor, the surfaces of pipes were often subjected to glazing and engobing (covered with engobe, a special composition made of slurry). Usually the engobe on the Turkish pipes is of red, brown or “cherry” colour. Sometimes the surfaces of pipes were covered with green, olive, yellow or brown enamel over the embossing décor. To make pipes durable, they were subjected to baking.

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<sup>(23)</sup> Robinson (R.), op. cit, p.118.

#### 4. The morphology of the Muslim tobacco pipes

A clay tobacco pipe of the “Oriental” type has its morphology, that has still not been unified, in other words researchers make up their own names for parts of the pipe every time, and they have not come to a settlement yet. For instance, researcher J. Hayes in his work used the following terms to describe Turkish pipes: “bowl”, “rim”, “bottom”, “stem”, “bulge”, “flange”<sup>(24)</sup>. Rebecca Robinson added new terms to his list: “keel”, “shank”, “stem-socket”, “wreath”, “shank end”, “termination”, “stepped-ring termination”<sup>(25)</sup>.

Taking into account our own experience in working with the “pipe” material and groundwork in this sphere of both foreign and Russian colleagues <sup>(26-28)</sup>, we kept to a simplified variant of a well-known scheme in description of the clay tobacco pipes from the Azak excavations. According to the scheme, each clay tobacco pipe of the “Oriental” type consists of two main parts: a bowl and a stem.

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<sup>(24)</sup> Hayes (J.W.), Turkish clay pipes: a provisional typology, The archaeology of the clay tobacco pipe, IV, Europe Oxford: BAR IS, Vol. 92, 1980, pp. 98-104.

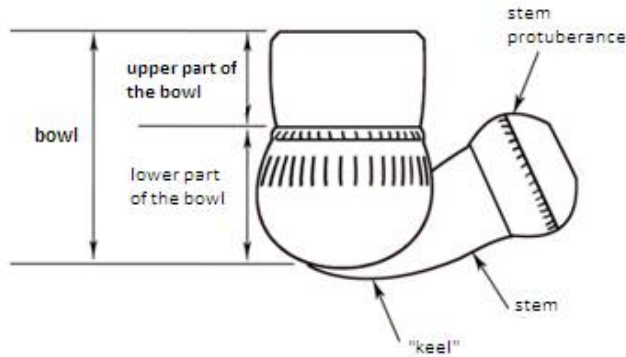
<sup>(25)</sup> Robinson (R.), op. cit, p. 118.

<sup>(26)</sup> Volkov (I.V.), The private collection of the “Turkish” tobacco pipes from Moscow, Material culture of the East, pp. 226-252.

<sup>(27)</sup> Volkov (I.V.), Turkish tobacco pipes from Anapa and from “The Treatise on the trade in the Black sea” (“Traite sur le Commerce de la Mer Noir”) by the French traveller Charles de Peyssonnel, The Antique civilization and the barbaric world, Novochoerkassk, 1994, pp. 40-42.

<sup>(28)</sup> Volkov (I.V.), Novikova (G.L.), Red clay “Turkish” tobacco pipes in the collection of Moscow Historical Museum, The archeological monuments of Moscow and the Moscow Area, Moscow, 1996, pp. 134-151.





**Pic.9. The morphology of a clay tobacco pipe of the “Oriental” type**

The bowl of a pipe has its upper and lower parts which differ in shapes. The upper part of the Muslim tobacco pipe has a shape of a cylinder, truncated cone, or a socket. The lower part can be of the hemispheric, elliptic, plane- spherical, or discal shape. At the end of XVII century there appeared a “keel” on the bottom of the bowl (a triangular bulge resembling the keel of a ship). In the course of time the shape and dimensions of the “keel” underwent considerable changes.

Thus, on the tobacco pipes of the late period (XVIII-XIX centuries) one can see a “keel” of the rectangular, trapezoidal or some other shape (for example, in the shape of a hemp leaf).

As a rule, the stem of a pipe is of the conic shape, sometimes of the cylindrical shape and extremely rarely of the octahedral shape. It can be decorated with one or several protuberances of various width, some of which have a plunge-in ornament. The stem’s end is usually ring-shaped or truncated conic, but sometimes can be sculptured (for instance, in the shape of a many-petalled floral rosette).

## **5. The classification of the Muslim tobacco pipes**

In Russia Igor Volkov was the first who in early 1990s made an attempt to describe the Muslim clay tobacco pipes of XVII – the beginning of XIX centuries. However, then the researcher was not yet ready to develop a classifier for this

ceramic ware<sup>(29-31)</sup>. Therefore, this published study is the first classification of the Russian archeological pipe material based on the finds of various years taken from the excavations on the territory of the former Turkish fortress Azak in Azov city. Similar Ottoman tobacco pipes can be seen in the museums of the Crimea and some southern Russian cities situated on the territory which once had been part of the Ottoman Empire. But none of the collections has been published yet.

The variety of “fashions” (types) of the Ottoman clay tobacco pipes is truly great. As a result, it is extremely difficult to classify them on the basis of only one classification principle (“fashions”), despite it being the determinative one. Therefore, in classification of the pipes from Azak first of all we took into consideration other important parameters: the colour of the clay, the morphology peculiarities, the types of décor and surface handling and the dating as well. The ornamental motives of the pipes in this case are not fundamental and distinctive features.

### **5.1. The white clay Muslim tobacco pipes**

As stated above, the white clay pipes (as well as grey clay ones) were the earliest pipes on the territory of the Ottoman Empire. As a rule, these pipes are dated by the end of XVII century. Although, according to J. Hayes, some pipes could be of an even earlier period. However, judging by the results of his excavations in 1980 in Saraç-Han in Istanbul, the first tobacco pipes were seen there at about the end of XVII – the beginning of XVIII centuries<sup>(32)</sup>. Nevertheless it can be easily assumed that

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<sup>(29)</sup> Volkov (I.V.), The private collection of the “Turkish” tobacco pipes from Moscow, *Material culture of the East*, pp. 226-252.

- Rehab Shaban Gad, *Adwat Al Tadkhen fe Masr fe Alkarn (13-19)*, Magester, Adab Ean Shams, Cairo, 2015, pp. 98-105.

<sup>(30)</sup> Volkov (I.V.), Turkish tobacco pipes from Anapa and from “The Treatise on the trade in the Black sea”, pp. 40-42.

<sup>(31)</sup> Volkov (I.V.), Novikova (G.L.), Red clay “Turkish” tobacco pipes in the collection of Moscow Historical Museum, pp. 134-151.

<sup>(32)</sup> Hayes (J.W.), *op. cit.*, p. 101.

some of those pipes could be referred to the beginning of XVII century when the tradition of tobacco smoking had only started spreading in the Ottoman Empire.

In the Turkish fortress Azak the white clay tobacco pipes are from the cultural layers of the end of XVII – the beginning of XVIII centuries. Finds of an earlier period have not been discovered yet<sup>(33-35)</sup>. All of them were made of the white clay of rather good quality, without any apparent mixture. The surfaces of the pipes are well smoothed, some of them are glazed. The majority of the pipes have no “keel”. Some of the pipes have a “keel” of the triangular shape.

The stems of the white clay pipes usually have protuberances on the end which are often decorated with a plunge-in ornament (the tooth-wheels’ imprints). Sometimes this décor imitated Ottoman head-dress (a turban or a head-hugger). One of the white clay pipes does not have a stamp of its maker. The white clay pipes’ bowls differ from each other in shapes. Reasoning from these differences, they can be divided into several groups:

**5.1.1.** The pipes with the bowls the upper part of which has a shape of a cylinder, and the lower part is of a hemispheric shape. As a rule, the seam joining the parts is decorated with 1 or 2 narrow, low and horizontal protuberances. The upper cylindrical part of the bowl can be ornamented with horizontal narrow riffling, and the lower part – with narrow, frequent vertical flutes imitating chrysanthemum petals, or with a sculptured diamond-shaped grid. Floral motives in the ornamentation of the Ottoman pipes are well-illustrated in

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<sup>(33)</sup> Maslovsky (A.N.), The report on the rescue excavations of the I Azov team in the area of a private dwelling house in 15 Engelsa street, Azov in 1998 (The AMR Archives), Azov, 1999, p. 43.

<sup>(34)</sup> Maslovsky (A.N.), The works of the I Azov team in 1998, pp. 115-120.

<sup>(35)</sup> Gusach (I.R.), The archeological researches on the territory of the Turkish fortress Azak, HARALD in 2004. Issue 21, Azov, 2006, pp. 127-141.

Bulgarian literature <sup>(36-38)</sup>. Usually there is no “keel”, but there still are pipes with triangular “keels” (AMR AB-3508/1, 13; 16204/2368; 18848/139, 120 and others).

This kind of pipes was very widespread. You can see them in the classification of J. Humphrey who studied the archeological finds on Lesbos. The scientist dated those pipes by the beginning of XVIII century<sup>(39)</sup>. Bulgarian researchers refer this kind of pipes to the end of XVII – the beginning of XVIII centuries <sup>(40)</sup>.

R. Robinson also dated a similar pipe from the excavations of Agora by the end of XVII – the beginning of XVIII centuries <sup>(41)</sup>.

**5.1.2.** The pipes the upper part of which is a cylinder, the lower one is a hemisphere. The seam joining the parts is decorated with a narrow oblique “collar” (AMR AB-18986/57, 58; 17284/272).

**5.1.3.** The pipes with triangular “keels” and bowls with the truncated-conic upper part and the hemispheric lower part. Bulgarian researchers name such shape of a bowl “tulip-like”. The upper part of the bowl is not ornamented, the lower one is decorated with a girdle of triangles, filled with a plunge-in diamond-shaped grid (AMR AB-18986/60).

**5.1.4.** The lower part of these pipes has a shape of a clam-shell i.e. it has wide vertical flutes radially diverging from the bottom. The bottoms of the bowls are decorated with plunge-in floral rosettes. No “keels” (AMR AB-478/2; 17284/470).

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<sup>(36)</sup> Volkov (I.V.), Turkish tobacco pipes from Anapa and from “The Treatise on the trade in the Black sea”, pp. 40-42.

<sup>(37)</sup> Volkov (I.V.), Novikova (G.L.), Red clay “Turkish” tobacco pipes in the collection of Moscow Historical Museum, pp. 134-151.

<sup>(38)</sup> Volkov (I.V.), The private collection of the “Turkish” tobacco pipes from Moscow, Material culture of the East, pp. 226-252.

<sup>(39)</sup> Volkov (I.V.), Turkish tobacco pipes from Anapa and from “The Treatise on the trade in the Black sea pp. 40-42.

<sup>(40)</sup> Volkov (I.V.), The private collection of the “Turkish” tobacco pipes from Moscow, Material culture of the East, pp. 226-252.

<sup>(41)</sup> Robinson (R.), op. cit, p. 129.

**5.1.5.** These pipes' bowls resemble narcissi; that is why many researchers usually refer them to the "fashion" with a floral name "narcissus". The upper part of the bowls has a cylindrical or a truncated-conic shape, the lower one has a discal, elliptical or biconical shape. There were found pipes with and without "keels" (AMR AB-17284/466, 469; 30667/3 and others).

**5.1.6.** The pipes with "almond-shaped" bowls smoothly changing into short conic stems with wide unornamented protuberances on the ends (AMR AB-30667/5, 114-117). Bulgarian researchers believe that such pipes were made in XVII-XVIII centuries in the city called Varna (modern Bulgaria, the former territory of the Ottoman Empire). Therefore, they are named "Balkan" <sup>(42-43)</sup>.

Apart from Azak, such pipes were discovered in the Crimea <sup>(44)</sup>, in the fortresses of Ukraine (Ochakov, Ackerman and others) <sup>(45-46)</sup>, in Romania <sup>(47)</sup> and Hungary <sup>(48)</sup>.



**Pic.10. White clay Muslim tobacco pipes**

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<sup>(42)</sup> Volkov (I.V.), The private collection of the "Turkish" tobacco pipes from Moscow, Material culture of the East, pp. 226-252.

<sup>(43)</sup> Volkov (I.V.), Novikova (G.L.), Red clay "Turkish" tobacco pipes in the collection of Moscow Historical Museum, pp. 134-151.

<sup>(44)</sup> Hayes (J.W.), op. cit, p. 167.

<sup>(45)</sup> Maslovsky (A.N.), The report on the rescue excavations of the I Azov team in the area of a private dwelling house in 15 Engelsa street, Azov in 1998 (The AMR Archives), Azov, 1999, p. 76.

<sup>(46)</sup> Maslovsky (A.N.), The works of the I Azov team in 1998, pp. 115-120.

<sup>(47)</sup> Gusach (I.R.), The archeological researches on the territory of the Turkish fortress Azak, HARALD in 2004. Issue 21, Azov, 2006, pp. 127-141.

<sup>(48)</sup> Volkov (I.V.), Turkish tobacco pipes from Anapa and from "The Treatise on the trade in the Black sea", pp. 40-42.

## **5.2. The grey clay Muslim tobacco pipes**

The tobacco pipes made of grey clay of rather high quality have various kinds of surface treatment. Some pipes were just well-smoothed over and sometimes glazed; others were additionally coated with engobe (brown, “cherry”), and after that glazed. We divided the pipes into the following groups depending on the kinds of their surface treatment:

### **5.2.1. Without glazing**

**5.2.1.1.** The grey clay pipes with the cylindrical or truncated-conic upper part and the hemispheric lower part. The upper part of the bowl usually has no décor, or has horizontal narrow riffling.

The lower part is as a rule decorated with narrow frequent vertical flutes imitating chrysanthemum petals (AMR AB-3508/30; 3516/34, 23; 17284/162). J. Humphrey and J. Hayes dated such pipes by the end of XVII – XVIII centuries. The pipes of this group were found in the layer of XVIII century during the excavations of the Ackerman fortress in Ukraine<sup>(49-51)</sup>.

**5.2.1.2.** The upper part of these pipes’ bowls is a cylinder, the lower one – a hemisphere. The seam joining the parts is decorated with a narrow oblique “collar” ornamented with a plunge-in geometric girdle (AMR AB-3516/15, 31; AB-27240/6).

**5.2.1.3.** The upper part of the pipes’ bowls is a cylinder; the lower one has a shape of a clam-shell (identical to the group 5.1.4. of the white clay pipes). Sometimes the bottom of the bowl is decorated with a floral rosette. The stems of the pipes are often ornamented with wide protuberances which have a plunge-in

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<sup>(49)</sup> Hayes (J.W.), *op. cit.*, p. 103.

<sup>(50)</sup> Volkov (I.V.), Turkish tobacco pipes from Anapa and from “The Treatise on the trade in the Black sea”, pp. 40-42.

<sup>(51)</sup> Maslovsky (A.N.), The works of the I Azov team in 1998, pp. 115-120.

turban-like ornament. There is no “keel” (AMR AB-30667/8, 9; 18986/27). R. Robinson dated these pipes by XVII century <sup>(52)</sup>.

**5.2.1.4.** The pipes with the cylindrical upper part and the elliptical lower part of the bowls. The upper part has no décor, the lower part is decorated with flutes imitating chrysanthemum petals and a geometric girdle (AMR AB-3508/24-26; 3516/16-22; 16204/2338 and others).

**5.2.1.5.** This kind of pipes is usually referred to the “narcissus” fashion”. There is no “keel” (AMR AB-18848/264; 30667/10).

**5.2.1.6.** The pipes with the cylindrical or truncated-conic upper part and the biconical lower part of the bowls. With or without a “keel”. The lower part of the bowl is usually decorated with a girdle of the geometric ornament or with wide flutes imitating lotus petals. The upper part of the pipes is quite often decorated with an Arabographic inscription in the Ottoman language (AMR AB-3508/17-19, 24-29; 16201/2378 and others). Apart from Azak, the pipes with inscriptions were discovered at the excavations in Hungary and Ukraine where they were dated by the end of XVII – the beginning of XVIII centuries. J. Hayes in his classification of the Istanbul pipes refers such examples to the beginning of XVII century, and J. Humphrey views the pipes from Lesbos as a separate group dated by XVII – the beginning of XVIII centuries <sup>(53-56)</sup>.

**5.2.1.7.** The pipes of the so called “balkan” type with the bowl that is “almond-like” in its cross-section (identical to the

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<sup>(52)</sup> Robinson (R.), op. cit, p. 90.

<sup>(53)</sup> Hayes (J.W.), op. cit, pp. 98-99.

<sup>(54)</sup> Volkov (I.V.), Turkish tobacco pipes from Anapa and from “The Treatise on the trade in the Black sea”, pp. 40-42.

<sup>(55)</sup> Maslovsky (A.N.), The works of the I Azov team in 1998, pp. 115-120.

<sup>(56)</sup> Gusach (I.R.), The archeological researches on the territory of the Turkish fortress Azak, HARALD in 2004. Issue 21, Azov, 2006, pp. 127-141.

group 5.1.6. of the white clay pipes) (AMR AB-30667/11; 17284/3 and others).

### **5.2.2. With brown engobe.**

In the Azov Museum-Reserve collection we found only one grey clay pipe with brown engobe and glazing of the external surface which can be referred to the “semi-narcissus” fashion”: with the cylindrical upper part and the discal lower part of the bowl. The pipe is decorated with geometric ornament. It has a triangular “keel” (AMR AB-30667/23).

### **5.2.3. With “cherry” engobe.**

This kind of pipes is quite often discovered during the excavations on the territory of the Azak fortress and its surroundings. Obviously, they were manufactured and sold at the market in large quantities.

The earliest of them had no “keel”. The name of the engobe’s colour is quite nominal. Sometimes the pipes with “cherry” engobe have stamps.

**5.2.3.1.** The pipes with the cylindrical or truncated-conic shape of the bowls’ upper part and the hemispheric shape of the lower one. Usually the top of the bowl is not ornamented. The bottom can be decorated with plunge-in geometric décor or vertical flutes imitating chrysanthemum or lotus petals. In the Ochakov fortress such pipes were dated by the early part of XVIII century<sup>(57)</sup> (AMR AB-18986/19, 61, 95; 3174; 17284/288, 308; 30520/26-28, 30 and others).

**5.2.3.2.** Only one pipe. The upper part of the bowl is a cylinder, the lower one is a hemisphere decorated with narrow vertical flutes imitating chrysanthemum petals. The seam joining the parts is decorated with a narrow oblique “collar”. The “keel” is triangular (AMR AB-30667/15).

**5.2.3.3.** Two pipes resembling tulips. Both of them have triangular “keels” (AMR AB-30520/29; 18986/4).

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<sup>(57)</sup> Maslovsky (A.N.), The works of the I Azov team in 1998, pp. 115-120.



**5.2.3.4.** A widespread “fashion” of the pipes called “tulip-like” by the researchers. These pipes have the cylindrical or truncated-conic upper part of the bowls, and the hemispheric lower part. The stem is short and conic, as a rule, without a protuberance on the end. There is no “keel”. The bowl is decorated with a plunge-in geometric ornament or sculptured floral rosettes (AMR AB-18986/53; 17284/435; 30668/3; 30669/1 and others).

**5.2.3.5.** The pipes with the cylindrical or truncated-conic upper part and the elliptic lower part. Almost all of them have a triangular “keel”. The upper part of the bowl of one pipe is a faceted truncated cone. The lower part of the bowls is usually decorated with a geometric ornament or a sculptured diamond-shaped grid (AMR AB-3516/6; 19690/34, 40, 42; 18986/42; 25159/10 and others).

**5.2.3.6.** The rarest group. The “tulip-like” pipes. The upper part of their bowls is cylindrical or truncated-conic, the lower one is biconical. All of them have a triangular “keel”. There are pipes with stamps (AMR AB-3516/4; 30667/21).

**5.2.3.7.** The pipes of the “semi-narcissus” fashion”: with the cylindrical upper part of the bowl, and the discal lower part. A triangular “keel”. The upper part of the bowl has no décor, the lower one is decorated with flutes imitating chrysanthemum or narcissus petals (AMR AB-25159/9; 30672/4 and others).

#### **5.2.4. The grey glazed ones.**

This kind of the pipes includes those made of dark grey (almost black) clay. After thorough glazing the surface colour of the pipes made of dark grey clay becomes practically indistinguishable from black. There are only three such pipes in the museum’s collection. One of them has a stamp in the form of a circle with a “grid” (AMR AB-18986/28). Another has a “keel” of the original form – in the shape of a clove pink (AMR AB-16204/2322).



**Pic.11. The grey clay Muslim tobacco pipes**

### **5.3. The black clay Muslim tobacco pipes**

#### **5.3.1. Without glazing.**

The Azov Museum-Reserve possesses only one black clay tobacco pipe with no traces of glazing. This pipe's bowl is flattened-conic in general view and almond-shaped in cross-section; it changes sharply (at the acute angle) into a short wide cylindrical stem with no protuberance on the end. Apparently, the fore-part of the pipe's bowl was decorated with a sculptured ornament in the "baroque" style (AMR AB-6573/2). Such pipes are considered to have been made in Balkans. A French researcher F. Gosse in his classification of the Ottoman pipes named this kind of pipes the "Balkan models" <sup>(58)</sup>.

#### **5.3.2. The black glazed ones.**

Five pipes only. Two of them have bowls in the shape of a tulip with raised petals (so called "black tulips") (AMR AB-27239/6, 27240/5). The lower part of the bowl of another one is biconical, and the upper part is cylindrical decorated with an Arabogaphic inscription which can be read if the pipe is turned a half-circle. The "keel" is high and semi-oval. The pipe's stem is relatively long and faceted, with an ornamented protuberance on the end (AMR AB-30667/24).

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<sup>(58)</sup> Volkov (I.V.), Novikova (G.L.), Red clay "Turkish" tobacco pipes in the collection of Moscow Historical Museum, pp. 134-151.



Pic.12. The black clay Muslim tobacco pipes

#### **5.4. Brown clay Muslim tobacco pipes**

The most common type of the tobacco pipes discovered at the archeological monuments of the Ottoman period. These pipes appeared in the Ottoman Empire at the end of XVII century. But they won popularity only in XVIII century. Such pipes are usually called by a general term “red clay pipes”. They existed up to the beginning of XX century, when cigars and cigarettes little by little took their place.

##### **5.4.1. With glazing and without glazing.**

Almost all Ottoman brown clay pipes had their surfaces glazed, so we united them into one group with the unglazed ones.

**5.4.1.1.** The most popular group of pipes. The upper part of the bowl is cylindrical, the lower one is hemispheric. The upper part of the bowl usually has no décor or is decorated with diagonal narrow riffling. The lower part is decorated with narrow vertical flutes imitating chrysanthemum and lotus petals, or has a geometric décor. The “keel” is triangular (AMR AB-3512/16; 17284/303; 29519/7; 30494/2 and others). Such pipes can be seen practically at all Ottoman archeological monuments of the end of XVII – XVIII centuries. J. Hayes referred such pipes found at the Istanbul excavations to XVIII – the beginning of XIX centuries <sup>(59-60)</sup>.

**5.4.1.2.** The pipes with the truncated-conic upper part of the bowl and the hemispheric lower one. It is also quite a widespread type of the Muslim tobacco pipes. The upper part of the bowl has

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<sup>(59)</sup> Hayes (J.W.), op. cit, p. 120.

<sup>(60)</sup> Maslovsky (A.N.), The works of the I Azov team in 1998, pp. 115-120.

no decor, the lower one is decorated with narrow and wide vertical flutes imitating chrysanthemum and tulip petals, or with a diamond-shaped “grid”. With a “keel” and without a “keel”. There are examples with stamps. These pipes were manufactured particularly often in XVIII century (AMR AB-18986/38, 43; 30667/28, 29, 37, 38, 41 and others).

**5.4.1.3.** The upper part of the bowl is cylindrical, the lower one is elliptic. Several pipes imitate the shape of a tulip and have the master’s stamp. The lower part of the bowl is decorated with a geometric ornament or with flutes in the shape of chrysanthemum petals. Among these pipes there are those having faceted stems with sculptured floral rosettes on the ends, and their “keels” are trapezoidal.

rectangular and figured (AMR AB-3516/1; 17284/417, 434, 468, 517 and others). J. Humphrey dated similar pipes from Lesbos by the second part of XVIII century. He considers them to be manufactured in the workshops of Varna <sup>(61)</sup>.

**5.4.1.4.** These pipes are referred by the researchers to the “narcissus” and “semi-narcissus” fashions”. They have the cylindrical and truncated-conic upper part of the bowl and the discal lower part. As a rule, the “keel” is triangular, rarely – trapezoidal and rectangular (AMR AB-18986/199-201; 3512/17; 17284/542 and others). J. Humphrey dates them by XVIII century, R. Robinson calls the lower part of these pipes “disc-based” <sup>(62-63)</sup>.

**5.4.1.5.** The pipes with the cylindrical and truncated-conic upper part of the bowl and biconical or truncated-conic (very rarely) lower part. All pipes have a triangular “keel”. The upper part has no décor, the lower part is decorated with vertical flutes imitating lotus and chrysanthemum petals, or with a geometric

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<sup>(61)</sup> Volkov (I.V.), Turkish tobacco pipes from Anapa and from “The Treatise on the trade in the Black sea”, pp. 40-42.

<sup>(62)</sup> Robinson (R.), op. cit, pp. 132-133.

<sup>(63)</sup> Volkov (I.V.), op. cit. pp. 40-42.

ornament (AMR AB-17284/22; 19690/44; 30667/59 and others). The pipes of the “fashion” “tahta-çubuk” attract particular interest (bulky, with the cylindrical faceted upper part and the elliptic lower one) (AMR AB-18986/185; 30665/3 and others). These pipes were manufactured in Istanbul in XVIII-XIX centuries. Their name became well-known due to “The Treatise on the trade in the Black sea” (“Traite sur le Commerce de la Mer Noir”) by the French traveller Charles de Peyssonnel <sup>(64)</sup>.

#### **5.4.2. With beige, brown and red engobe.**

**5.4.2.1.** Brown clay pipes “tahta-çubuk” were sometimes coated with engobe of beige colour. We found one such pipe in the collection of the Azov Museum-Reserve (AMR AB-16204/2325) with “nischan” stamp. The upper part of the bowl is made in the shape of a faceted cylinder, the lower one – of a faceted hemisphere.

**5.4.2.2.** The pipes of the “semi-narcissus” fashion”: with the cylindrical unornamented upper part of the bowl and the discal lower one decorated with a girdle of a geometric ornament, or with vertical flutes imitating narcissus petals. A triangular “keel” (AMR AB-17284/471; 16204/2324).

**5.4.2.3.** The pipe made in the shape of a tulip with raised petals. A triangular “keel” (AMR AB-30667/34). A similar pipe made of white clay was discovered during the excavations of the Edirne Palace (Edirne Sarayı ) in Turkey in 2012 <sup>(65)</sup>.

The upper part of the bowl is cylindrical and undecorated; the lower part is elliptic and decorated with vertical, wide, relatively frequent flutes imitating lotus petals.

**5.4.2.4.** The upper part of the bowl is cylindrical and undecorated; the lower part is elliptic and decorated with vertical,

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<sup>(64)</sup> Volkov (I.V.), The private collection of the “Turkish” tobacco pipes from Moscow, Material culture of the East, pp. 226-252.

<sup>(65)</sup> Volkov (I.V.), Turkish tobacco pipes from Anapa and from “The Treatise on the trade in the Black sea”, pp. 40-42.

wide, relatively frequent flutes imitating lotus petals (AMR AB-30667/62-65).

#### 5.4.3. With coating (enamel).

The surfaces of only two brown clay pipes are covered with enamel (of green or olive colour). The upper parts of the pipes' bowls are cylindrical, without a décor; the lower parts are hemispheric, and decorated with hemispheric protuberances and a plunge-in ornament in the form of a diamond-shaped "grid". There are no "keels" (AMR AB-3508/15; 18986/37).



**Pic.13. The brown clay Muslim tobacco pipes**

#### 5.5. The beige clay Muslim tobacco pipes

The quantity of the beige clay tobacco pipes in the collection of the Azov Museum-Reserve is quite large. As in the case of the brown clay pipes, they can be divided into several types according to the treatment of their surface: glazed and unglazed, coated with red, beige and brown engobe. No enameled pipes yet.

##### 5.5.1. With and without glazing.

The majority of these pipes have no glazing. They are made of well-sedimentary beige clay (sometimes with fine lime inclusions), which is close in its composition to the clays of the ceramics centers of Southeast Crimea.

**5.5.1.1.** The pipes with the cylindrical upper part of the bowl and the hemispheric lower one. The upper part of the bowl has no décor; the lower one is decorated with a girdle of a plunge-in geometric ornament, or with vertical wide flutes imitating lotus petals. With a triangular "keel" and without a "keel" (AMR AB-30672/14; 30665/7; 30667/85, 86 and others).

**5.5.1.2.** The pipes with a “tulip-like” bowl: the upper part of the bowl is truncated-conic, the lower one is hemispheric. The upper part has no décor; the lower part is decorated with a girdle of a plunge-in geometric ornament (AMR AB-3516/3; 30672/8).

**5.5.1.3.** The pipes with the cylindrical or truncated-conic upper part of the bowl and the elliptic lower part. The upper part has no décor; the lower one is decorated with a girdle of a plunge-in geometric ornament, or with vertical wide flutes imitating lotus petals. The “keel” is triangular (AMR AB-30674/4; 695).

**5.5.1.4.** The upper part of the bowl is cylindrical, the lower one is elliptic or biconical, decorated with the imprints of a tooth-wheel in the shape of dotted lines and “gorodki bars”. The stem is short and conic. With a wide protuberance on the end (sometimes without a protuberance), decorated with the imprints of the same tooth-wheel. The “keel” does not exist but it is “marked” by the imprints of the wheel and by the plunge-in lines (AMR KII-3516/10; 30667/81, 82 and others). The pipes of this “fashion”, which some researchers call “gireevsky”, can be seen mainly in Northern area of the Black sea and in the Crimea. There are such pipes in the Priazovye as well. They might have been made in the workshops of the Northern area of the Black sea, not in Anatolia or Balkans. They are usually dated by the second part of XVII – the beginning of XVIII centuries<sup>(66)</sup>.

**5.5.1.5.** The pipes of the “narcissus” or “semi-narcissus” fashions”: with the cylindrical upper part of the bowl and the discal lower part. The upper part of the bowl has no décor; the lower one is decorated with a girdle of a plunge-in geometric ornament, or with vertical flutes imitating narcissus petals. All pipes have a triangular “keel” (AMR AB-30667/94; 16204/2323 and others).

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<sup>(66)</sup> Volkov (I.V.), The private collection of the “Turkish” tobacco pipes from Moscow, Material culture of the East, pp. 226-252.

**5.5.1.6.** The only pipe referred to the type of “faceted” because its cylindrical bowl and its short cylindrical stem both have facets. The bottom of the bowl is flat, oval and with the imprints of a tooth-wheel. There is no “keel” (AMR KII-29718/111).

**5.5.2. With red or brown engobe.**

**5.5.2.1.** The pipes of the “Greek” type (according to Ph. Gosse) have the truncated-conic upper part of the bowl and the hemispheric lower part decorated with vertical narrow flutes imitating chrysanthemum petals <sup>(67)</sup>. The “keel” is triangular (AMR AB-29718/113; 30675/14-16).

**5.5.2.2.** The pipes of the “semi-narcissus” fashion”: the upper part of the bowl has a cylindrical or truncated-conic shape; the lower part is discal, and is decorated with a plunge-in geometric ornament. With a triangular “keel” or without a “keel” (AMR AB-29718/121; KII-30675/11). R. Robinson dated he similar ones from Corinth by XIX century; in the Azak fortress these pipes were discovered in the layers of XVIII century <sup>(68-71)</sup>.

**5.5.2.3.** The pipes of the “tahta-çubuk” fashion” were made in some unknown ceramics centers (most likely in Balkans, although it is well-known that replicas of these popular ottoman pipes were manufactured everywhere, including Russia). The upper part of the bowl is cylindrical and faceted, the lower one is hemispheric and faceted, too. The “keel” is triangular. The bowl has a geometric ornament and stamps. (AMR AB-30675/4, 26).

**5.5.2.4.** The “Balkans” faceted pipes. These pipes have a faceted cylindrical bowl that smoothly changes (constitutes a

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<sup>(67)</sup> Volkov (I.V.), Novikova (G.L.), Red clay “Turkish” tobacco pipes in the collection of Moscow Historical Museum, pp. 134-151.

<sup>(68)</sup> Gusach (I.R.), Close complexes with the “Turkish” tobacco pipes from Azov, pp. 368-389.

<sup>(69)</sup> Gusach (I.R.), The archeological researches on the territory of the Turkish fortress Azak, HARALD in 2004. Issue 21, Azov, 2006, pp. 127-141.

<sup>(70)</sup> Gusach (I.R.), The Ottoman tobacco pipes from the excavations in the Azak fortress, The new researches of the Cossack period memorials in Ukraine. Issue 22. Kiev, 2013, pp. 379-383.

<sup>(71)</sup> Robinson (R.), op. cit, p. 153.



single whole) into a long cylindrical faceted stem with a wide faceted protuberance on the end (AMR AB-27239/5; 30667/99; 17284/289 and others). Romanian researchers named such a protuberance “a star-like ring” <sup>(72)</sup>. This type of simple and obviously very cheap pipes was quite popular among the common people of the Ottoman Empire and among the soldiers of the Turkish army.

Our Bulgarian colleagues think that such pipes were manufactured in the second part of XVII – in the middle of XVIII centuries in Balkans, first of all, in Sophia. They can be seen in all collections of the Bulgarian museums, as well as in Hungary, Romania, Greece, Turkey and Russia <sup>(73-79)</sup>. The pipes have no “keel”; their surfaces are coated with a thin layer of red engobe. They were discovered in Azov at the archeological objects dated by the end of XVII – the beginning of XVIII centuries.

**5.5.2.5.** The “tulip-like” (“kambanovidny” in Bulgarian) pipes. They are rather bulky, with a triangular “keel”, a relatively long cylindrical stem with a wide, and bulky as well, ornamented protuberance on the end. All examples have stamps (AMR AB-30675/3, 6, 8, 17 and others). There are similar pipes in Varna, Sophia, Ruse, Corinth, Agora. R. Robinson dates them by XIX – XX centuries and considers such pipes to have been manufactured in Sophia and Varna workshops. In Azov they

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<sup>(72)</sup> Gusach (I.R.), The archeological researches on the territory of the Turkish fortress Azak, HARALD in 2004. Issue 21, Azov, 2006, pp. 127-141.

<sup>(73)</sup> Robinson (R.), op. cit, p.153.

<sup>(74)</sup> Hayes (J.W.), op. cit, p. 78.

<sup>(75)</sup> Volkov (I.V.), Turkish tobacco pipes from Anapa and from “The Treatise on the trade in the Black sea”, pp. 40-42.

<sup>(76)</sup> Volkov (I.V.), Novikova (G.L.), Red clay “Turkish” tobacco pipes in the collection of Moscow Historical Museum, pp. 134-151.

<sup>(77)</sup> Volkov (I.V.), The private collection of the “Turkish” tobacco pipes from Moscow, Material culture of the East, pp. 226-252.

<sup>(78)</sup> Volkov (I.V.), Novikova (G.L.), Red clay “Turkish” tobacco pipes in the collection of Moscow Historical Museum, pp. 134-151.

<sup>(79)</sup> Gusach (I.R.), The archeological researches on the territory of the Turkish fortress Azak, HARALD in 2004. Issue 21, Azov, 2006, pp. 127-141.

were taken from the excavations of the Russian abode of XVIII century<sup>(80-83)</sup>.

**5.5.2.6.** The only one pipe in the collection of the Azov Museum-Reserve dated by XVIII century.

Its bowl was of a cylindrical shape, decorated with a sculptured and plunge-in geometric ornament. The pipe's stem is long, wide and conic, with a girdle of raised tulip petals and the maker's stamp. The "keel" is triangular (AMR AB-30675/9). A similar pipe of XIX century was discovered in Ruse<sup>(84)</sup>.

**5.5.2.7.** Highly widespread later pipe "fashion" called by the researchers "lily-shaped" or "bell-shaped". The bowl of such pipes has a shape of a truncated cone smoothly changing into the hemispheric lower part. With and without décor. The stem is short, wide, conic, often without a protuberance on the end, sometimes with the maker's stamp. The "keel" is triangular and, as a rule, high (AMR AB-30675/7, 10; 3516/2; 29718/117 and others). The Bulgarians consider these pipes to have been manufactured by the local craftsmen and date them by the second part of XVIII – XIX centuries. They have also been discovered in Turkey, Greece, the Crimea, etc.<sup>(85-88)</sup>.

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<sup>(80)</sup> Robinson (R.), op. cit, p. 136.

<sup>(81)</sup> Volkov (I.V.), Novikova (G.L.), Red clay "Turkish" tobacco pipes in the collection of Moscow Historical Museum, pp. 134-151.

<sup>(82)</sup> Volkov (I.V.), The private collection of the "Turkish" tobacco pipes from Moscow, Material culture of the East, pp. 226-252.

<sup>(83)</sup> Robinson (R.), op. cit, p. 136.

<sup>(84)</sup> Volkov (I.V.), The private collection of the "Turkish" tobacco pipes from Moscow, Material culture of the East, pp. 226-252.

<sup>(85)</sup> Robinson (R.), op. cit, pp. 137-138.

<sup>(86)</sup> Hayes (J.W.), op. cit, p. 94.

<sup>(87)</sup> Volkov (I.V.), Novikova (G.L.), Red clay "Turkish" tobacco pipes in the collection of Moscow Historical Museum, pp. 134-151.

<sup>(88)</sup> Hayes (J.W.), op. cit, p. 94.



**Pic.14. The beige clay Muslim tobacco pipes**

## 6. The inscriptions and stamps on the Muslim Tobacco pipes

The Muslim tobacco pipes are not only daily routine objects of the Turkish fortress Azak inhabitants (and subsequently, of the Russian Azov fortress), but first of all they are historical sources and highly artistic examples of the Ottoman ceramics art in XVII-XVIII centuries. Among these pipes one can find examples with stamps and Arabographic inscriptions in Old Ottoman language. As a rule, the stamps that in fact represented short inscriptions enclosed in a circle or a rectangle, were their makers' "marks". Usually they contained these words: "Made by ..." (... صنعہ) and the maker's name, for example, "Mohammed" (محمد). Among the marks are the following: "فتى - فنى" (Fata - Fana), "صك" (Sak) and others. The pipes of the "tahta-çubuk" fashion" sometimes have stamps with the stylized Ottoman inscriptions which are called "nischan" in literature (AMR AB-16204/2325 and others).



**Pic.15. The stamps with inscriptions on the tobacco pipes**

More seldom they used as stamps floral many-petalled rosettes (AMR AB-16204/2301; 30667/26 and others), “stars” (AMR AB-3516/4), and images of a tulip highly respected by all Ottomans (AMR AB-3516/12; 30667/29-32). Sometimes an 8-shaped figure was used as a stamp, probably symbolizing the “infinity” sign (AMR AB-18986/43; 30667/28). The pipes with two different stamps are sporadic. For instance, “grids in circles” and clove pinks (AMR AB-18986/28). Usually the ceramics craftsmen would apply the stamps onto the bottom of the bowl or onto the pipe’s stem.



**Pic.16. The stamps on the Muslim tobacco pipes**

The pipes with the inscriptions on their bowls or stems are extremely rare. Usually it is very difficult to read and translate these inscriptions (wiped places, chippings, losses, etc.) (AMR AB-16204/2321; 19690/38; 16201/1378 and others). For the present moment we have succeeded in reading and translating only one inscription on the black clay pipe of XVII century from Azak: "لقاء المحبوب بالمحبوب", (Leka al Mahboub bel Mahboub)

“The date of the beloved) (AMR AB-30667/24). There is a part of the inscription on the fragment of the pipe: "محبوب", (Mahboub) “beloved”. According to our observations, the pipes with the inscriptions are usually dated by XVII century; the pipes with the stamps are dated by XVIII-XIX centuries. Stamped white clay (early) pipes have never been discovered.



**Pic.17. The inscriptions on the Muslim pipes**

## **6. Conclusions**

Having studied the collection of the Muslim clay pipes at the Azov Museum-Reserve (Azov city, the Russian Federation), we obtained the following results:

1. The total number of the Muslim clay tobacco pipes in the Museum amounts approximately 1000 examples (intact ones and fragments). All of them are from the excavations carried out in different years on the territory of the former Ottoman fortress Azak (Azov old district) and its surroundings. These pipes were manufactured by the ceramics craftsmen on the territory of the former Ottoman Empire (Asia Minor, the Crimea, Balkans). Till recently this archeological material has remained insufficiently studied and has not been put into scientific use.

The Muslim tobacco pipes studied by us refer to the “Oriental” type of the pipes. They looked like a smoking set consisting of three parts: a clay tube (a head); a wooden barrel (çubuk) and a mouthpiece.

The clay pipes were component parts of the set and had their own form (“fashion”) and morphology (a bowl, a “keel” and a stem). The pipes were made of high-quality clay of white, grey, brown, beige and almost black colours in specific moulds and

were decorated with plunge-in and stamped ornaments. To make pipes durable, they were subjected to baking. The surfaces of the pipes were subjected to an additional treatment: glazing, engobe and rarely enameling.

The majority of the Ottoman clay tobacco pipes are so called “red clay” pipes – the brown clay ones (40,5% of the total number of the Muslim pipes) and the beige clay ones (19%). Of those, about 10% have engobe coating of red colour and 2% have engobe coating of beige colour. The surfaces of two brown clay pipes are covered with enamel of green and olive colour. The grey clay tobacco pipes are 29%; almost half of them are coated with “cherry” engobe. One grey clay pipe has green enamel. There are only few white clay pipes (19%) and black clay pipes (1,5 %). Sometimes the surfaces of these pipes have glazing.

The décor of these tobacco pipes is also of various kinds and is to be additionally studied and classified. It is mainly geometric and floral-vegetative ornament which can often be interrelated with the pipe’s “fashion”. Some of the pipes resemble shapes of various flowers: tulips, narcissi, chrysanthemums, lotuses and lilies. There were identified the “Balkan” and the “Black sea” (“Crimean”) types of the Ottoman pipes, and the Istanbul “fashion” called “tahta-çubuk”.

2. Some of the tobacco pipes have stamps and Arabographic inscriptions in Ottoman language. The majority of the stamps are imprints of the circular or rectangular shape with an inscription inside: “Made by... (the maker’s name)” – “صنعه ... (اسم الصانع)”. Much more seldom we can find stamps stylized as floral rosettes, leaves, “birds”, “stars”, etc. 7 brown clay pipes have an image of a tulip used as their stamps.

There are brown clay and grey clay pipes with two stamps (for example, 8-shaped figure and a leaf). The inscriptions on the pipes are rare. We can see them only on the bowls and stems’ protuberances of the grey clay pipes dated by XVII century. Almost all inscriptions are illegible because of their poor state. The white clay pipes have neither stamps, nor inscriptions.

3. All in all, the clay tobacco pipes from the excavations of the Turkish fortress Azak and its surroundings are dated by XVII - the beginning of XIX centuries. However, the Ottoman pipes discovered in the “close” complexes on the territory of the Azak fortress are more accurately dated – the end of XVII – the beginning of XVIII centuries.

## LIST OF ABBREVIATIONS:

**AMR** – the Azov Museum-Reserve

**AMR AB** – The Acceptance Book of the Azov Museum-Reserve

**HARALD** – Historical and archeological researches in Azov and Lower Don (the Azov Museum-Reserve printed study)

**BNF** – Bibliothèque Nationale de France

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## مجموعة من مجامر الشبُّك العثمانية المحفوظة في متحف أزوف للأثار بروسيا

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الملخص:

الشبُّك: في التركية "جُبوق" و "جوبوق" بالجيم المشربة وفيها: الأنبوبة، والعصا، والماسورة، والقصبه، وشبُّك الدخان عبارة عن أنبوبة في أحد طرفيها مبسم، وفي الطرف الآخر مجمرة أو حجر يوضع بها التبغ والفحم، أى أن شبك الدخان يتكون من ثلاثة أجزاء، هي: الفم ويُطلق عليها التركيبية أو المبسم، والقصبه ويطلق عليها العود أو الأنبوبة، والحجر، الذي يُعرف أيضاً بالمجمره، كما عرف الشبك أيضاً باسم الغليون، والجمع: غلايين، وغلاويين.

ويذخر متحف مدينة أزوف للأثار بروسيا الاتحادية بالعديد من مجامر الشبُّك المصنوعة من الفخار ما بين قطع مكتملة وأخرى مهشمة تتعدى في عددها الألف قطعة، جميعها مستخرجة من الحفريات التي أجريت في قلعة أزك العثمانية والمنطقة المحيطة بها (منطقة أزوف القديمة)، والتي لم يتطرق لها أحد من الباحثين بالدراسة العلمية السليمة سواء بتأريخها أو بدراسة وصفية وتحليلية متأنية.

وأكثر من ٨٠ % من مجامر الشبُّك المكتشفة في هذه المنطقة يمكن نسبتها للمسلمين الأتراك، تلك التي تم تصنيعها على يد الصناع والحرفيين الأتراك على أراضي الإمبراطورية العثمانية المترامية الأطراف في ذلك الوقت (الأناضول، القرم، البلقان)، والتي كانت تستخدم على نطاق واسع في الحياة اليومية الخاصة من قبل الحامية العسكرية للقلعة التركية أزك.

وبصفة عامة فإن مجامر الشبُّك المكتشفة في منطقة أزوف على يد علماء الآثار الروس والتي تم استخراجها تؤرخ في الفترة من القرن ١١هـ-١٧م حتى بداية القرن ١٣هـ-١٩م، أما المجموعة موضوع الدراسة والتي عثر عليها في أربعة مواقع مختلفة (ثلاثة حفر ومقبرة) خلال الفترة من ١٩٩٨ وحتى ٢٠٠٤م، ويمكن تأريخها وفقاً للعمليات المعدنية التي عثر عليها بجوارها بنهاية القرن ١١هـ-١٧م، ونهاية القرن ١٢هـ-١٨م.

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وتُعد هذه المجموعة من أهم النماذج التي تعبر عن روعة الفن الإسلامي في هذه المناطق بما تحمله من كتابات عربية عبارة عن توقيعات لبعض الصناع أو عبارات ذات صلة بالشُبُك، وكذلك والنقوش والزخارف الإسلامية ورسوم الوريدات والزهور التي تنوعت بين زهرة التبوليب والنرجس والزنيق والأقحوان، كما اختلفت أحجامها وأبعادها فمنها الصغير الحجم بأبعاد (٣.٨ × ٢.٣ سم) ومنها الأكبر نسبياً بأبعاد (٦.٠ × ٤.٢ سم).

#### الكلمات الدالة:

الإمبراطورية العثمانية، قلعة أزاك، أزوف، مجامر الشُبُك، القرن السابع عشر، بداية القرن التاسع عشر، علم الآثار.