



EDITED BY THE CENTER'S DIRECTOR

## The length of human “history” expands... by the day!

And this will bear heavy consequences on our understanding of the history of Egypt and in particular for the formative processes of its civilization. It will also in the mid- to long term bear equal implications on the destiny of mankind and in particular where interactions between human beings are concerned.

Twenty five years ago, if I caricaturize, civilizations started with the birth of writing and by some pleasant coincidence more or less around 3000 B.C. across the planet. Of course cities like Catal Hüyük (7500-5700 B.C.) in Anatolia or Mehrgarh (7000-2500 B.C.) in Pakistan disturbed the picture, but these were regarded as exceptions and “early” and particularly script less cultures.

Since then and where Egypt is concerned, research in the “early” periods of Egypt soon compelled the addition of new pharaohs’ name and ultimately of a Dynasty 0 to read just “pharaonic” history. Hence it did not start with the well known founding pharaohs of the first dynasty such as Menes anymore but way before.

This backward expansion of history and of our understanding of its components has not since ceased and remains exponentially so - in Egypt, and everywhere else. Of course since ten years the black historical holes of the 5th and 6th Egyptian millennia B.C. have been pointed out, save a few sites. Of course the occupation of the Nile Valley by its first settlers goes way back, but remote archaeological sites such as 17.000-15.000 B.C. Wadi Kubbania are considered lonely and far distant archaeological planets. Moreover their relation to the birth of the ancient Egyptian civilization are considered equally remote and in need of demonstration.

The fact is there is more and more evidence demonstrating that the “history” of humanity did not start “3000” years ago, but in the very least 35.000 years ago. If writing did not exist then, human populations had most probably an evolved language, as well as sophisticated cultural and spiritual practices.

Dubitative? Well look at the photograph of the flute on the right. It was discovered in the grotto of Holhe Fels in South-West Germany in 2008. It was factually capable of producing at least five notes, since five holes, and thus probably many more sonic combinations. Whoever carved it in its vulture bone was very much evolved and evidently possessed

some culture whatever it was, and more than probably a sophisticated language.

The problem is that this flute is dated over 35.000 years ago and it is one of the eight flutes found in the same region these last years<sup>1</sup>.

Then breakthroughs discoveries are succeeding each other. Let us set aside the 2009 discovery of ceramics dated around 16.000 B.C. in China, hence one thousand years before the earliest Japanese ceramics<sup>2</sup>. Bread wheat (*T. durum*) has now appeared in Lybia at an incredibly remote date: 5500 B.C. (C<sup>14</sup>)<sup>3</sup>. and please recall that I had first established its presence in Predynastic Adaima<sup>4</sup>, where it was not supposed to exist before late periods. But this remote Libyan date is nothing compared to the recently announced (2009) discovery in Israel of barley silos dated 11200 years B.P., hence during Natufian times<sup>5</sup>. Large scale storage at such a remote date? The implications for the birth of agriculture, thought to occur several thousand years later, are considerable. Not least where the birth of civilization is concerned...and neighboring Egyptian civilization. As Natufians are known to have had contacts with Egypt at such early date after all.

And if contacts were made, this was undoubtedly made through language and hence linguistic exchanges are near certain at such an extremely early date. Which is to say thousands of years before the first pharaoh rose to its throne. Unless...an endless series of unknown rulers preceded them during these remote periods, something very likely.

And what about the “Nostratic” theory which points out that from precisely the time of the Natufians<sup>6</sup> (12.500 to 9.500 BC) to up to 25.000 B.C. and probably much more before a unique language was shared by the populations of at least the Western World? Well this theory is still in its infancy but I would not be surprised if one day it was established that this remote language had, by Natufian times, heavily ramified in view of the needed split of Palaeolithic and Neolithic hunter-gatherers as to maximally exploit rare or seasonal resources; although common vocabulary remained in the ramified languages of the Nostratic family.

A conclusion I have for the time being, and like others, reached and a question to which we shall return.

C. T. de V.



Flute found in the cave of Hohle Fels, Germany and dated over 35.000 B.P. Photo Hilde Jenson.

<sup>1</sup> 2009: Nature 460, 737-740 (6 August). This period coincides with the time of disappearance of the Neanderthals (between 50.000 to 30.000 B.P.). <sup>2</sup> 2009: Boaretto et al. *PNAS* 106, 9595. <sup>3</sup> 2009: Morales J. *Libyan Studies* (vol. 40: 83-88 2009. <sup>4</sup> 2002: Vartavan, C. (de) Adaima. 1. *Economie et habitat. I. Fossiles de l'IFAO* 45 : 485-519. <sup>5</sup> 2009: Kuijt & Finlayson *PNAS* doi:10.1073/pnas.0812764106.

*Students' art experiments* 2

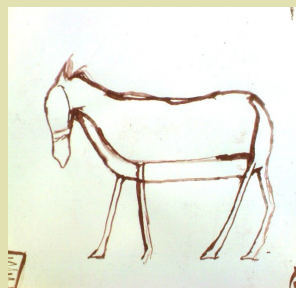
*Egyptian blue from nature?* 3

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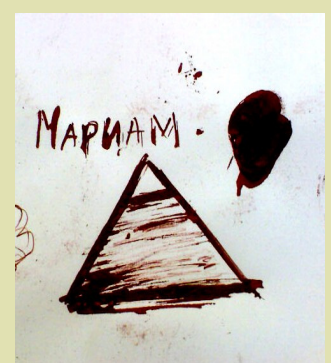
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*Students' first experiments in ancient Egyptian gesso and draughtsmanship!*



Students used their "My first tentative steps in Egyptology" skills to make themselves acquainted with gypsum (one of the natural sources for making the white pigment) as well as gesso and charcoal making. They also experimented in malachite crushing for making the legendary Egyptian blue. Still, an almost incredible experience was in store for them: examining an authentic piece of a New Kingdom sarcophagus (kindly sent to us from Holland) under the microscope. They could see all the layers with their own eyes: wood, linen, gesso, pigments and varnish. This broadened their understanding of ancient Egyptian sarcophagus making. Culmination of these first experiments (others will follow) were attempts of Egyptian line drawing with reed pens as well as with red ochre or black charcoal pigments. The latter not only gave them an unprecedented sensation of very remotely being in an "Egyptian artist's shoes" but demonstrated the long journey they have to take to become such artist only too well. **A. A.**



## *Could the ancients have been inspired by nature to produce “ancient Egyptian blue”?*

The malachite block shown on the above right was found by the undersigned a few days ago in a well know market of Yerevan. Its striking electric blue layers, reminiscent of glazed Egyptian blue triggered its acquisition. According to the stones’ dealer, the piece comes from “Zaire”, i.e. the present Democratic Republic of Congo, which is well possible as a well known source of malachite particularly since the recent increase of mining activities in this country. Malachite does sometimes comes with azurite since their formula is near identical ( $\text{Cu}_2(\text{CO}_3)(\text{OH})_2$  for malachite and  $\text{Cu}_3(\text{CO}_3)_2(\text{OH})_2$  for azurite), malachite being a later stage oxidization.

However malachite can also be found associated with other minerals such as chrysocolla, a hydrated copper silicate ( $\text{Cu}_x\text{Al}_y\text{H}_2\text{Si}_2\text{O}_5(\text{OH})_4 \cdot n\text{H}_2\text{O}$ ) which can form in the hydrated zones of copper ores. Although the stone has not yet been shown to the geological department of the university, it would seem that the blue layers belong to this mineral rather than azurite; something which we will verify. Particularly since such combinations of malachite/chrysocolla are found in Congo (see the small bottom right for a specimen from this country and next page for a photo of a malachite with deeper blue azurite from China).

In the meantime it seems an interesting question to wonder if such “ores” of malachite with such beautiful bluish layers did not reach the ancients and if these did not lead them to experiment with malachite until such time when the process of “ancient Egyptian blue”/cuprorivaite was discovered. This is just an idea but since the history of the invention of this process is still a matter of debate\* and since I have never read this suggestion, perhaps one to bear in mind. In fact when students handled the stone some of them returned with bright blue glitters, visible from two meters away, on their clothes. Pointing to the easy transformation of the blue layer in a natural “ancient Egyptian” looking “blue” pigment and not only “green” for which chrysocolla is a known pigment source.

C. T. de V.



## *Additional scientific articles in our research areas just received!*

We have just received the following recently published articles analysing resins, gums and dyestuffs:

- **DIETEMANN, P. HIGGITT, C. KALIN, M. EDELMANN, M. J. KNOCHENMUSS, R. ZENOBI, R.** Aging and Yellowing of Triterpenoid Resin Varnishes – Influence of Aging Conditions and Resin Composition. *Journal of Cultural Heritage* 10: 30-40; 2009
- **NEVIN, A. COMELLI, D. OSTICOLI, I. TONIOLO, L. VALENTINI, G. CUBEDDU, R.** Assessment of the ageing of Triterpenoid Paint Varnishes using Fluorescence, Raman and FTIR Spectroscopy. *Anal. Bional. Chem.* 395: 2139-2149; 2009
- **VALIANOU, L. KARAPANAGIOTIS, I. CHRYSOULAKIS, Y.** Comparison of Extraction Methods for the Analysis of Natural Dyes in Historical Textiles by High-Performance Liquid Chromatography. *Anal. Bional. Chem.* 395:2175-2189; 2009
- **RIEDO, CH. SCALARONE, D. CHIANTORE, O.** Advances in Identification of Plant Gums in Cultural Heritage by Thermally assisted Hydrolysis and Methylation. *Anal. Bional. Chem.* 396: 1559-1569; 2010

No doubt, the further we advance, the more we look back and many advances are revealed in these articles in terms of resin and paint varnishes being aged and yellowed in all conditions, plant gums identification, chemical determination of natural dyestuffs as well as comparison of extraction methods for the analysis of natural dyes with the help of modern high-performance technologies. It is amazing and pleasant at the same time to see so many scientists from different Institutes combining their knowledge and efforts to study the same questions which are so relevant to our centre’s researches. The only difference being the general methodology since these studies examine natural and manufactured materials whereas we use natural materials to manufacture a 21st dynasty sarcophagus. This welcome flow of scientific studies and their attached results help us to shorten the distance between past and present, the intersection of which becomes our future.

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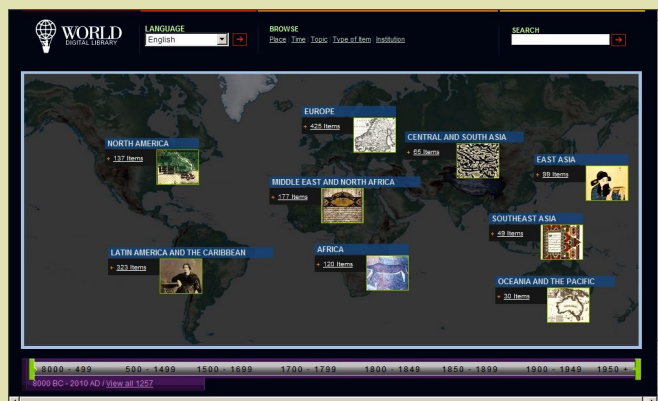
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Mail and contributions to the newsletter are welcome (pages can be added). Note that you have a right to contest if you find any information within this newsletter inaccurate or incomplete.

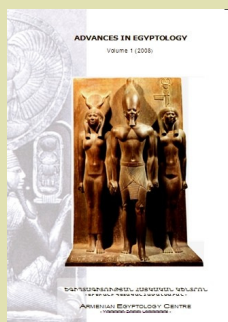


### *The World Digital Library and...Egyptology*

Welcome to the WDL! Very good news for those who YET don't know. The world gets smaller again, remote countries come nearer, vast amount of literature spread across hundreds of libraries open with a click! And all these on one site: World Digital Library. Mission?: The World Digital Library (WDL) makes available on the Internet, free of charge and in multilingual (7 languages) format, significant primary materials from countries and cultures around the world. The principal objectives of the WDL are to: 1. Promote international and intercultural understanding; 2. Expand the volume and variety of cultural content on the Internet; 3. Provide resources for educators, scholars, and general audiences; 4. Build capacity in partner institutions to narrow the digital divide within and between countries. The WDL represents a shift in digital library projects from a focus on quantity for its own sake to quality; quantity remains a priority, but not at the expense of quality standards. The WDL breaks new ground in the following areas, each representing significant investments of time and effort: consistent metadata, description, multilingualism and digital library technical development. WDL is designed to spark the curiosity of scholars, students and the general public to learn more about the cultural heritage of all countries and bring the world closer to the goal of being truly universal. In relation to Ancient Egypt and Egyptology, first and foremost the collection of observations and research conducted in Egypt by the French army i.e. the *Description de l'Égypte*, the "Royal edition" (1821-29) from the collections of the Bibliotheca Alexandrina is presented here. Rare manuscripts in Arabic on geography, mathematics, optics, medicine, etc. (e.g. Egypt. Dar Al-Kutub Manuscripts: Medicine) are also available. Thus, as any other country, culture and discipline in WDL Egypt and Egyptology become more open, closer and accessible. **A.A.**



Type of azurite/malachite combination, from China.



### *Advances in Egyptology:*

**Call for issue No. 2! (2011)!**

**Please submit manuscripts by December 2011!**

### *AEC Egyptology Newsletter's previous Edito referred by British Association!*

Ethical standards are now being widely discussed in relation to such disciplines as archaeology, anthropology or museology. In this respect it is most noteworthy that the Edito entitled "*Mummies are not Museum Objects*" written by our AEC director Christian de Vartavan (AEC Newsletter 4, 1 June 2008) is now referred to with a link on the site of the highly authoritative *British Association of Biological Anthropology and Osteoarchaeology* (BABAO; University of Cambridge (UK)) amidst other articles drawn from such publications as "*The Times*", "*The Guardian*", "*The Telegraph*", etc.. BABAO promotes the study of human bioarchaeology and osteoarchaeology for the purpose of understanding humanity from the past to the present, endorses the value of scientific research on human remains and is fully committed to promulgating the highest ethical standards in the treatment and care of human skeletal remains. The above mentioned is one more pleasant demonstration of the AEC Egyptology Newsletter being widely read, apart from the fact that the number of scholars and specialists wishing to receive all of the previous newsletters increases with each new issue. **A. A.**

[www.babao.org.uk/index/reburialissues](http://www.babao.org.uk/index/reburialissues); or direct online access to the Edito: <http://a-egyptology.atSPACE.com/AEC%204/index.htm>, or direct PDF download from Paris University (France): [http://kubaba.univ-paris1.fr/actualites/actu\\_2008/tutundjian.pdf](http://kubaba.univ-paris1.fr/actualites/actu_2008/tutundjian.pdf)