Archaeological charcoal: natural or human impact on the vegetation

Preliminary anthracological study of the Taza site (Western Algeria)

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Summary: Preliminary anthracological and wood study of the Taza site concerns a period stretching from antiquity to the 19th century. This study outlines the characteristics of the palaeoenvironment and the ethnobotany (interaction of man with the vegetable world) at different periods of time around this site and tries to differentiate the occupation of layers.

Key words: Taza, antiquity, medieval, anthracology, timber, environment, ethnobotany.

INTRODUCTION/BACKGROUND

Taza site is situated at the south-east of Miliana (Fig. 1), on the mountain of Matmata. The Lambert coordinates of localization are X: 434-434.5, Y: 3968.5-3969. The settlement is one of the establishments (Bourouiba, 1983) founded by the Emir Abd-el-Kader\textsuperscript{1}.

The site was discovered in 1974 and after several visits by researchers (Bouyahiaoui et al., 1998), Professor Bouyahiaoui carried out a prospection in 2001 and in 2002 he launched systematic excavations (Bouyahiaoui, several years) which continued until 2010 (Fig. 2).

The archaeological vestiges discovered in Taza attest to the presence of several deposits (from the older to the most recent): Roman, Almohades and the Emir Abd-el-Kader level. The rich and exceptional materials discovered are under detailed study.

\textsuperscript{1}Abd-el-Kader: Algerian philosopher and politician (1808-1883), founder of a first Algerian State.

MATERIALS AND METHODS

The charcoals and wood (natural and timbers) from Taza were collected during the excavations, precisely during the 2003, 2004, 2006 and 2008 field seasons (Table 1). The majority of samples were retrieved from the Emir level and only one sample comes from the Roman level occupation.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
Site discovered & Sector & Area & Nature \\
\hline
Taza & 04 & 03 & Wood (Fig. 3 A, B) \\
Taza 14/07/2003 & 01 & 02 & Charcoal fragments \\
Taza 19 07 2004 & A & 1 & Charcoal fragments + Wood (Fig. 3 D) \\
& B & / & \\
Taza 21/7/2004 & / & A & Charcoal fragments \\
Taza 18/07/2006 & 1 & 6 & Charcoals of the Roman level (Fig. 3 C) \\
& / & / & Timber/ Tool? L-19cm, L. 2 (Fig. 3 E) \\
Taza 2008 & 4 & 3 & Charcoals, Timber (Fig. 3 F) \\
Taza 2008 & 03 & / & Barks, Needles, Ashes with Charcoal \\
Taza & / & / & Tool? L : 10,5 ; 1 : 2,5 (Fig. 3 G, H) \\
\hline
\end{tabular}
\caption{Samples from Taza site}
\end{table}
The identification (three anatomical section views) was accomplished by photonic reflex microscope and the use of Schweingruber’s atlas (1990).

RESULTS AND DISCUSSIONS

The charcoal analysis is under development. On one hand, the preliminary results of species listing allow making a positive analytic study; from an ecological point of view we will certainly reach conclusions concerning the image(s) of the local environment in several levels. On the other hand, some information obtained by the analysis (wood and charcoals from the Emir occupation) could be interpreted in two perspectives: palaeoethnological and palaeoecological.

CONCLUSION

A conclusion from the identification of the charcoal, the wood and timbers has not been reached yet. The variability of the samples’ nature will allow obtaining information concerning the vegetation, the environment, the climate and especially the activities practised during different occupation periods. Consequently, we will be able to raise conclusions concerning the environmental evolution in the surroundings of the site and the activities practiced in the different architectural structures during the occupation of the site.

REFERENCES