

***AN INTERDISCIPLINARY FOCUS ON PLANT WORKING TOOLS***

*Dates et lieu : 23-24-25 octobre 2012 à Antibes (06160), France*

People have always used mineral, animal, or plant resources from their environment in a variety of ways. The perishable nature of the organic material makes it difficult to apprehend these uses in many cases. The animal world often yields more direct and abundant traces such as bone remains, whereas plant remains are more rarely preserved or represented.

However, the development of archaeobotany (analysis of wood, pollen, grains and other macro remains, and phytoliths, for example), have increased our knowledge of plants used in the past, and this was the subject of the APDCA meeting in 2009 entitled « *Des hommes et des plantes* ». ("Man and Plants"). However another, complementary approach consists in focusing on analysis of production systems related to plants. Analyzing these systems means diversifying approaches to include particularly tools used in production systems linked to agriculture, basketry, weaving, rope making, adornment, certain elements of architecture, objects used in warfare, etc. Each of these areas is a part of a distinct operating sequence consisting of a series of technical operations that it is necessary to analyze in order to better understand what is produced, but also, of particular interest here, the tools used.

The objective of this meeting is to encourage communication and contrast approaches between different disciplines that treat the role and functioning of tools in operation sequences of production and transformation of plants. Disciplines from the human, biological, engineering and material sciences have been used to help understand the gestures and techniques in these operating sequences, by means of approaches such as microwear analysis, tribology (surface analysis), chemistry, ethnology, imagery or study of ancient texts.

Analyses of objects whose function is little known or difficult to interpret will be particularly welcome in this meeting, as well as examples of tools made from diverse materials, which should enrich the exchange of information and the diversity of methodologies used.

In 2002 the theme of this APDCA meeting, « *Le Traitement des récoltes* » (The Treatment of the Harvest) focused on mostly agricultural, post-harvest processing, and resulted in an often cited publication.

The originality of the subject of the meeting proposed here is to include the analysis of production systems linked to plants in general, including crafts. Some of this analysis is the result of the work of an interdisciplinary research group "*Regards interdisciplinaires sur les activités et techniques agricoles anciennes et préindustrielles*", (An interdisciplinary look at ancient and preindustrial agricultural techniques and activities) (2002-2014), and a European program sponsored by the European science foundation "*EARTH (Early Agricultural Remnants and Technical Heritage)*", 2004-2009.

Interdisciplinary research into the subject of technological choices that populations have made for gathering and harvesting, or transforming plant material, or the manufacture of objects from plants, will be presented in the form of approximately 40 papers, and posters. These presentations should address where possible the complex nature of these choices, their possible evolution, and the relationship between technology and other aspects of the human world, in particular social (organization of work, time, gender, economy etc.) and environmental aspects.

During an evening session on 23 October, short films illustrating the theme of the meeting will be presented.

**We are asking for presentations on the following themes:**

The first three subjects concern the question of adapting tools and techniques according to type of acquisition (1), transformation (2) and production (3); tools may be more or less specialized, related to site function and social organization.

**1. Tools in various raw materials, related to collecting plants or plant parts (i.e. harvesting of stems and grains, rhizomes.)**

Harvesting plants is an important stage in the operating sequence. Techniques used for harvest depend on multiple factors linked to the plants themselves and to the environment, as well as to the subsequent use of different parts of the plant and to cultural tradition.

**2. Tools in various raw materials, related to the transformation of raw plant materials into different products (i.e. tools for retting, threshing, splitting, sawing, milling, grinding)**

Although some types of transformation such as threshing using a threshing sledge are fairly commonly recognized due to identification of blades of the tool, others can be difficult to recognize archaeologically. Their identification can enter into consideration of site function.

**3. Tools in various raw materials, used to make finished objects from plant materials (i.e. helmets, needles, baskets, mats, cloth)**

Objects made from plant material are preserved only in rare circumstances, but their importance in the life of society is shown by ethnological studies. Tools used in the last phases of production are often the only archaeological trace left.<sup>4</sup>

**4. Operating sequences involving several tools or stages, and methodological presentations**