



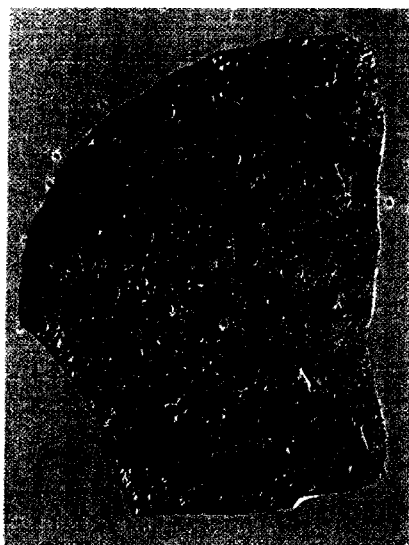
*Publications de la Mission archéologique de  
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# TELL AMARNA (SYRIE) I LA PÉRIODE DE HALAF

édité par

Önhan TUNCA & Miquel MOLIST

avec la collaboration de  
Walter CRUELLS



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## 6. CHARACTERIZATION STUDY OF HALAF CERAMIC PRODUCTION AT TELL AMARNA (EUPHRATES VALLEY, SYRIA)

X. CLOP GARCIA \*, A. ALVAREZ PEREZ \*\* and Fr. HATERT \*\*\*

### 6.1. Objectives and analytical methods

One of the most singular elements of the Halaf cultural horizon is the ceramic production with its highly individual forms and decoration. The excellent quality of the Halaf period ceramics and their widespread geographical presence has given rise to a series of questions related as much to its possible distribution from specific production centres as in relation to specific aspects of the manufacturing process.

Within the general study of the ceramics from Tell Amarna, it was decided that an appropriate characterization study was necessary, particularly in order to consider some of these questions. A collection of 32 ceramic samples was analysed by petrographic and mineralogical techniques. This allows certain aspects in relation to the management of raw materials employed in making them to be considered, as well as their likely source and some questions referring to certain aspects of the development of the manufacturing process.

Because of their specificity, petrographic and mineralogical methods are considered to be suitable for a proper identification of non-plastic elements mostly when the clay employed in ceramics is less pure (ÉCHALLIER, 1984; MAGGETTI, 1995; PICON, 1984). Moreover, these methods basically give qualitative informations, and make easier valid comparisons between samples of clay deposits from specific geological contexts. The study was carried out by performing thin sections from the ceramic samples and investigating them under a polarized light microscope. Moreover, the X-ray diffraction powder method was also employed. These two complementary analytical techniques lead to the determination and, subsequently, to the fundamental knowledge of the mineral compounds found in ceramic products of non-plastic material.

The thin sections and the petrographic study were carried out at the *Departamento de Cristalografía de la Universidad Autónoma de Barcelona*, using a LEITZ polarization microscope, model "Ortholux 2 Pol/BK" supplied with a planar lens, a 100 W halogen lamp, and an automatic photography equipment. The

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