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## **First carpological data of the 9<sup>th</sup> century BC from the Phoenician city of Utica (Tunisia)**

### **Abstract**

*This paper presents the first carpological data from the Phoenician city of Utica (Tunisia). Identified remains have provided <sup>14</sup>C chronology of the last quarter of the 9<sup>th</sup> century BC, which is contemporary with the earliest Phoenician settlements in the Iberian Peninsula. At the same time the information achieved confirms the oldest Phoenician presence in north-western Mediterranean.*

**Key words:** *Early Phoenician colonization, carpology, food plants, North Africa*

### **Introduction**

The ancient city of Utica is located in North Africa, in north-eastern modern Tunisia. According to classical sources, Utica is one of the oldest Tyrian foundation cities of the western Mediterranean (Alvar & Wagner, 1985). The sources said Utica was founded 285 years before Carthage but until now this had not been verified through archaeology. The latest excavations carried out by a Tunisian-Spanish team in Area II of the archaeological site (Lopez Castro *et al.*, 2010; 2014) demonstrated these chronological data by dating seeds. At the same time, the information provided by the carpological analysis showed the corpus of economic species the inhabitants of Utica interacted with.

### **Materials and Methods**

The samples were taken during the excavation, still in progress, of a building complex which housed a well inside.

The dates of <sup>14</sup>C obtained from *Hordeum vulgare* seeds from the interior of the well, offer a chronology of the last quarter of the 9<sup>th</sup> century BC which is the oldest phase documented in Utica up to the present.

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## Results and Discussion

Most of the species identified correspond to crop plants. Among cereals, hulled barley (*Hordeum vulgare*) is the main crop, followed by naked wheat (*Triticum aestivum/durum*). On the other hand, other cereals, such as emmer (*Triticum dicoccum*), show a low percentage. Pulses are represented by lentil (*Lens culinaris*).

## Conclusions

These early data, although limited, provide us with a starting point for reconstructing agriculture in the city of Utica since its foundation. Hulled barley and naked wheat are the most common species. In addition, other cereals such as emmer, although limited to a few specimens, appear recurrently. It should be noted that lentil is the only species of legume we found, contrary to other Mediterranean sites dated to the 1<sup>st</sup> millennium BC, where peas and broad beans are the main pulse

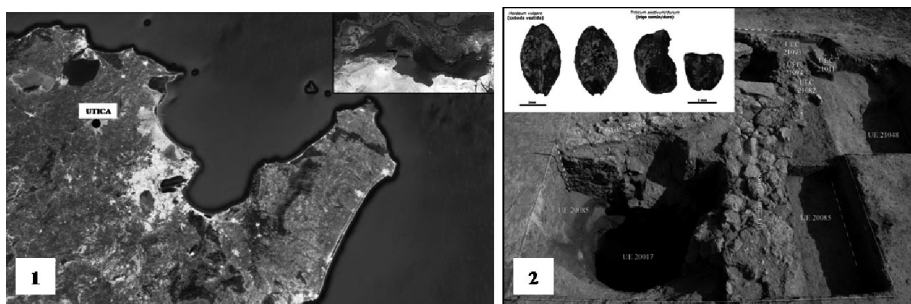


Fig. 1 – Location map of the Phoenician city of Utica

Fig 2 – Main crops found in the well

In the excavation of this building complex, there are levels from the initial Phoenician city of Utica that are important because they offer the first data on the ancient agriculture practiced in this city. The later phases are documented in other sites of the city, and reveal significant changes in the evolution and distribution of certain crops. For example, the olive tree (*Olea europaea*), which was not found in any of the previous phases, entered the record from the Roman period onward.

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