INTRODUCTION
Over the last 25 years archaeobotanical sampling in western Macedonia and particularly in the region of Kozani has been inspired by systematic and the archaeological material from the excavations published (Kremasti Koiladas, Karathanou and Valamoti 2011, Karathanou et al. 2011). This paper presents the final results of analysis of charred plant remains from the Late Neolithic and Bronze Age riverine settlement of Longas Elatis, adding significantly to the already known archaeological material from the area of Trikala in western Macedonia.

THE SITE UNDER STUDY
The site is located in the low right bank of Aliakmon, the longest river entirely within Greek borders, covering an area of 3000 m² (fig. 1, 2). Additionally, it constituted a pole of attraction for people for permanent establishment from the Neolithic period and its use was not abandoned over time while ensured fertile and easily cultivable ground (Karantonis-Mentewai 2009, 2011). In the valleys and plains of the Aliakmon a number of important settlements, such as Longas, grew up as long as prehistoric times and went on to develop into important cities of the historical era (Karantonis-Mentewai and Theodorou 2005, Karantonis-Mentewai 2010). Rescue excavations by the 5th Ephorate of Prehistoric and Classical Antiquities carried out from 2006 until 2012 have discovered deposits dating between the Late Neolithic and the Hellenistic period (fig. 3).

THE ARCHAEOBOTANICAL ANALYSIS
The samples originate from trenches Z13 (samples: LE14, LE16, LE17, LE22, LE28, LE31, LE34, LE46, LE51) dated to Late Neolithic, Z14 (samples: LE49, LE73, LE108), Z10 (samples: LE127, LE144, Z11 (sample: LE102) and Z12) (fig. 4). The site LE14 (Sector A) is dated to Early Bronze Age, including houses, floor fills (LE34, LE73, LE108), stone-made structures (LE54, LE64, LE71), lenses (pottery) (LE16, LE17), ditches (LE22, LE23), construction areas (LE14, LE61, LE127) and burnt (LE46) or grey layers (LE102) (fig. 4). The Late Neolithic and Bronze Age plant assemblage represents a remarkable diversity of several crop, fruit/nut and wild species. Especially, the species that were identified in samples consisted of:

- Cereals: einkorn (Triticum monococcum), emmer (Triticum dicoccum), spelt (Triticum spelta), bread/einkorn wheat (Triticum aestivum/durum), barley (Hordeum vulgare) (fig. 5), oat (Avena sativa) and millet (Pennisetum glaucum).
- Pulses: peas (Pisum sativum) (fig. 7), bitter vetch (Vicia ervilia) (fig. 5), lentil (Lens culinaris) (fig. 8, 9), common pea (Pisum sativum) (fig. 7), blackeye (Vigna sinensis).
- Fruit/nuts: grape (Vitis vinifera) (fig. 10), blackberry (Rubus fruticosus), common cherry (Cerasus comosa) (fig. 6), Ficus carica), lentil/nut (Pistacia lentiscus) and wild olive (Sambucus sp.).
- Wild species: Chenopodium sp., Galium sp., Lotus pilosus, Bogocloaceae arvensis, gramineae and polystachyae.

According to the analyzed samples (fig. 11), cereals (mainly emmer, spelt and emmer) and legumes (bitter vetch, peas, beans and lentil) are mainly prefered, as well as fruits in which emphasis is put on grapes. Generally, cereals are predominating over legumes, in particular emmer which seemed to have a significant role in the inhabitant’s diet. Along pulses, grape pea dominated in the samples and immediately bitter vetch follows in lower quantities. The number of finds of wild plants is rather low.

FOOD HABITS AND PREFERENCES
The presence of seeds almost in all the samples shows that they constituted cultivated crops that were used as foods. The main crops represented at the samples are the grain wheats, with einkorn by far the most common. Its increased presence inside or near clay- or stone-made structures and on the floor fills and combustion areas implies its storage and consumption from the inhabitants, particularly at the Early Bronze Age. This predominance of einkorn at the site strengthens the cultural choice of the inhabitants of the settlement (Valamoti 2009).

The analysis allowed to assess differences in indoor and outdoor activities, with the number of finds of wild plants is rather low.

The residents of wild plants are rather low. Only a few seeds were found. Their absence reflects a pattern in which is not difficult to rebuild the ancient agricultural practices in the settlement. Only the presence of seeds Bogocloaceae arvensis and Lotus pilosus, which are winter annuals could provide some information and refer to autumn sowing.

REFERENCES

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Final report on the analysis of charred plant remains from the Late Neolithic and Bronze Age river side site of Longas Elatis in western Macedonia, northern Greece.

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Fig. 1 Map of Greece showing the site of Longas Elatis

Fig. 2 Geobotanical map of Longas Elatis

Fig. 3 The site of Longas Elatis, the excavation area

Fig. 4 Chart analyzing the proportions of cereals, pulses, grape pips, fruits/nuts and wild species in the samples analyzed

Fig. 5 Emmer

Fig. 6 Barley

Fig. 7 Grape pips

Fig. 8 Bitter vetch

Fig. 9 Lentil

Fig. 10 Grape pips

Fig. 11 Chart showing the proportions of cereals, pulses, grape pips, fruits/nuts and wild species in the samples analyzed

CONCLUSION
The charred plant remains from Longas Elatis provide information focusing not only on diet and subsistence as mentioned above, but also the patterning of several activities. Particularly, they mostly derived from fragmentary floor fills, structures and combustion areas associated with food preparation and storage activities and generally to activities associated with the consumption of food.

The analysis allowed to assess differences in indoor and outdoor activities, with the potential of identifying patterns of spatial organization in the processing and storage of crops and the preparation of food. Probably the crop cleaning practices were carried out in the open, instead of the in the house or near the house, in order to avoid the contamination of the environment.

Additionally, these archaeobotanical data contribute to the enrichment of data regarding the environmental and cultural background of the Late Neolithic and Bronze Age western Macedonia.

FOOTNOTES
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1. Introduction to edible plants and the specific information about the species of the area of Macedon/2. The archaeobotanical sampling method and the criteria used to select the samples/3. The analysis of the archaeological material and the archaeological context in which the samples were found/4. The observation of the plant material and the criteria used to identify it/5. The identification of the plant material and the diagnostic features used. Starch and phytolith analysis used to support the identification of the grain. All samples were analyzed as part of the wider project of the Ephorate of Antiquities of Kozani, Greece.