

^{14}C dating of the Early to Late Bronze Age stratigraphic sequence of Aegina Kolonna, Greece

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ARTICLE INFO

Article history:

Available online 13 October 2009

Keywords:

Radiocarbon dating
Aegina
Aegean Bronze Age
Bayesian sequencing

ABSTRACT

Aegina Kolonna, located in the center of the Saronic Gulf in the Aegean Mediterranean (Greece), is one of the major archaeological sites of the Aegean Bronze Age with a continuous stratigraphic settlement sequence from the Late Neolithic to the Late Bronze Age. Due to its position next to the maritime cross roads between central mainland Greece, the northeast Peloponnese, the Cyclades and Crete, the island played an important role in the trade between these regions. In the course of new excavations, which focused on the exploration of the Early, Middle and Late Bronze Age at Kolonna, several short lived samples from different settlement phases have been ^{14}C -dated with the AMS method at the VERA laboratory. Bayesian sequencing of the ^{14}C data according to the stratigraphic position of the samples in the profile was performed to enable estimates of the transition time between the cultural phases. The Aegina Kolonna ^{14}C sequence is one of the longest existing so far for the Aegean Bronze Age, and therefore of major importance for the absolute Bronze Age chronology in this region. Preliminary results indicate that the Middle Helladic period seems to have started earlier and lasted longer than traditionally assumed. Further, at the present stage of our investigation we can give also a very tentative time frame for the Santorini volcanic eruption which seems to be in agreement with the science derived VDL date.

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1. Introduction

The archaeological site at Aegina Kolonna is located on the island of Aegina in the center of the Saronic Gulf (Fig. 1) in the Aegean Mediterranean (Greece). Archaeological excavation work at Kolonna has been performed since the late 19th century by Greek, German and Austrian excavators. Aegina Kolonna is one of the major centres of the Aegean Bronze Age and one of the few archaeological sites in Greece with a continuous stratigraphic settlement sequence from the Late Neolithic to the Late Bronze Age. The importance of the Kolonna site and the entire island may be explained in part because of its location in the centre of the Saronic Gulf, on what seems to have been, at that time, the crossroads between central mainland Greece, the northeast Peloponnese, the Cyclades, and Crete. Impressive fortifications, the earliest known

shaft grave in the Aegean, the famous “treasure of Aegina,” and a number of additional “prestige” items mainly of Cretan and Cycladic origin mirror the wealth and the key role of ancient Kolonna.

The importance of Kolonna is also shown by the abundant ceramic finds originating from distant cultural regions and by the fact that Kolonna produced high quality pottery, which was exported to the entire Aegean Mediterranean. Thus, Aegina Kolonna is truly significant for the synchronization of cultural phases of the Aegean Bronze Age [1–3].

2. New excavation

Recent excavations since 2002 focused on the exploration of the Early, Middle and Late Bronze Age at Kolonna. Regarding our stratigraphic research a 3.5 m high earth profile (see e.g. Fig. 2) forms the backbone of our stratigraphic work. The oldest layers excavated so far date to the beginning of Early Bronze III, the youngest ones reach Late Bronze II. The excavations unearthed major parts

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Fig. 1. Map of the Saronic Gulf and the Island of Aegina in its centre [18].

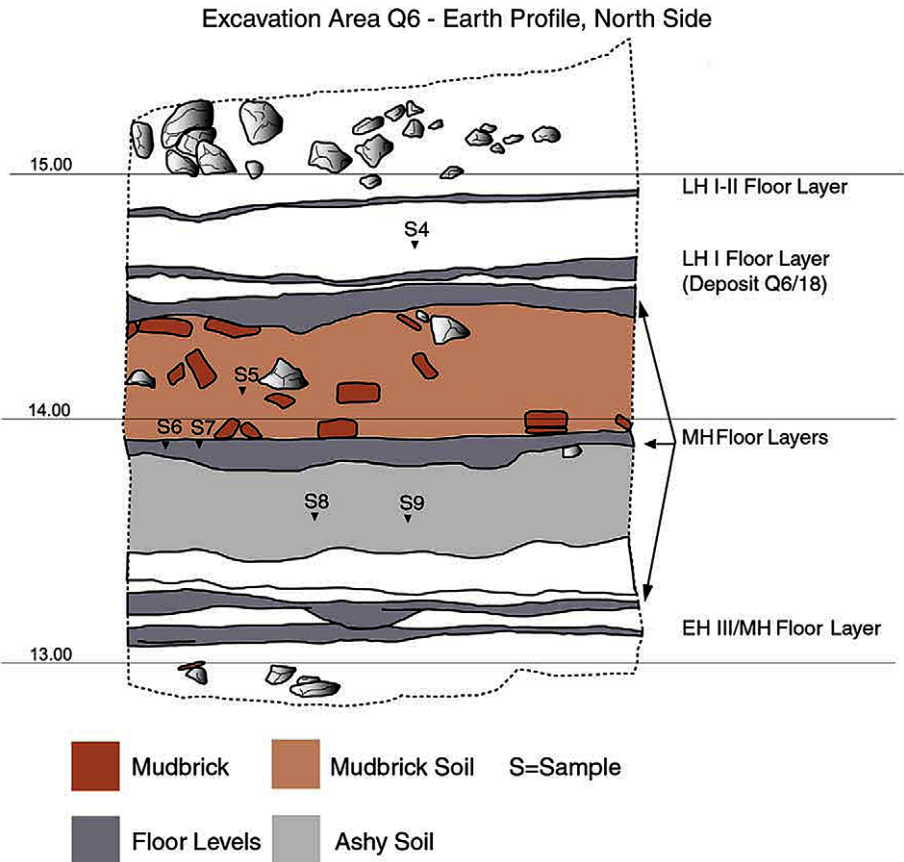


Fig. 2. Vertical stratigraphic sequence at the new excavation area.

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