ARCHAEOLOGICAL AND DATING EVIDENCE FOR THE 8.2 KA BP CLIMATE EVENT ON THE ISLAND OF GÖKÇEADA, NORTHEAST AEGEAN

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Keywords: *8.2 ka BP climate event; Island of Gökçeada, Northeast Aegean, Anatolia*
Abstract: *The 8.2 ka BP event is one of the most proeminent and abrupt climatic events of the Holocene, showing generally drier and colder conditions for ca. 160 years, but there are also variations in climatic impacts by region. Dating and archaeological evidence indicates that the impact of the climate event varies by region, from large-scale site abandonment to continued occupation and local adaptation. The dating evidence from Uğurlu on the Island of Gökçeada, Northeast Aegean, shows that there is a clear hiatus in ^{14}C dates between ca. 8220 and 8000 cal BP, corresponding to the 8.2 ka BP climate event. This paper presents dating and archaeological evidence from Uğurlu and discusses the consequences of evidence in terms of the 8.2 ka BP climate event.*

Cuvinte-cheie: *evenimentul climatic de la 8,2 ka BC, insula Gökçeada, zona egeeană de nord-est, Anatolia*
Rezumat: *Evenimentul climatic de la 8,2 ka BP este unul dintre cele mai importante și mai dramatice evenimente climatice ale Holocenului, caracterizat în general de condiții mai aride și climat mai rece, dar cu variații regionale climatice notabile. Atât cronologia, cât și cercetările arheologice indică un impact variabil al acestui eveniment climatic de la o regiune la alta, caracterizat prin părăsirea siturilor în unele cazuri sau prin continuarea locuirii și diverse adaptări locale în altele. La Uğurlu, pe insula Gökçeada din nord-estul Mării Egee, se observă un hiatus clar în seria datelor ^{14}C, între cca 8220 și 8000 cal BP, interval care corespunde evenimentului climatic de la 8.2 ka BP. Articolul de față prezintă rezultatele datărilor ^{14}C și ale cercetării arheologice, discutând impactul evenimentului climatic de la 8.2 ka BP asupra locuirii de la Uğurlu.*

INTRODUCTION

The effects of the 8.2 ka BP climate event on societies in the Near East and South East Europe have been discussed by many researchers (Weninger *et alii* 2006 and 2014; Clare, Weninger 2010; van der Plicht *et alii* 2011; Biehl, Nieuwenhuyse 2016; Flohr *et alii* 2016; Berger *et alii* 2016; Chapman 2018). The early Holocene cooling event of the 8.2 ka BP was caused by a flood of fresh water and glacial ice into the North Atlantic Ocean and is recorded in multiple climatic archives across the globe (Alley *et alii* 1997). The first evidence for the 8.2 ka BP cooling period of ca. 3 to 6 ±2 °C was found in ice cores of Greenland, starting at ca. 8250 cal BP and lasted around 160 years (Kobashi *et alii* 2007; Thomas *et alii* 2007; van der Plicht *et alii* 2011). It is emphasized that the impact of the 8.2 ka BP climate event varies by region, from large-scale site abandonment to continued occupation and local adaptation (Flohr *et alii* 2016). Many researchers agree that dating and archaeological evidence should be considered together, as neither alone provides a complete answer.

Dating and archaeological evidence from different Neolithic settlements of Anatolia indicate that the impact of the 8.2 ka BP climate event also varies by region. In addition, geochemical, isotopic, and pollen records from several lakes in Anatolia registered this change in climate, for example Nar Lake and Sofular Cave (Göktürk *et alii* 2011; Dean *et alii* 2015). Çatalhöyük in Central Anatolia is the best dated site with a series of radiocarbon dates. Although archaeological evidence shows that East Çatalhöyük was abandoned around 6200/6300 cal BC and settlement shifted to West Çatalhöyük around 6000 cal BC, new excavations show that occupation on the south summit (TP Area) continued until ca. 5950 cal BC (7925–7815 cal BP) (Marciniak *et alii* 2015; Orton *et alii* 2018; Roffet-Salque *et alii* 2018). Both Çatalhöyük East and West settlements coexisted for a short period of time before the East Mound was abandoned. Changes in architecture and food supply strategies have been observed in this period (Roffet-Salque *et alii* 2018). Although some researchers disagree (see Roffet-Salque *et alii* 2018), the settlement abandonment and shifts in the material culture at Çatalhöyük may be linked to the 8.2 ka BP climate event (Clare, Weninger 2010; Willett *et alii* 2016). At Yumuktepe, Southern Anatolia, around 6200 cal BC (between 8266 and 8170 cal BP) a gap is also seen, which overlaps the transition from the Early to the Middle Neolithic phase at the site (Weninger *et alii* 2006).

Evidence suggests that at Ulucak and Barcın in Western Anatolia, no changes contemporaneous with the 8.2 ka BP climate event appear to be present (Flohr *et alii* 2016). Weninger and Clare (2011) explain the lack of archaeological break at Ulucak by the milder coastal climate. Ulucak Va–b is dated by 12 AMS dates, with the