

Microcephaly in ancient Greece—The Minoan Microcephalus of Zakros

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Microcephaly is a neurodevelopmental disorder in which the circumference of the head is more than two standard deviations smaller than average for the person's age and sex. Microcephaly may be congenital or it may develop in the first few years of life. The disorder may stem from a wide variety of conditions that cause abnormal growth of the brain or from syndromes associated with chromosomal abnormalities. The heterogeneity of the condition poses problems for clinical evaluation as well as biological, genetic and anthropological analyses [1–8].

These are the figures (Figs. 1 and 2) of a microcephalic skull that was found on Zakros, one of the major Minoan (Knossos, Faistos, Zakros and Malia) archaeological sites of Minoan Crete (Figs. 3 and 4) [1–8].

The Minoan civilization, a Bronze Age civilization, arose on the island of Crete and flourished from approximately the twenty-seventh century BC to the fifteenth century BC. It was rediscovered at the beginning of the twentieth century through the work of the British archaeologist Sir Arthur Evans. Will Durant referred to it as “the first link in the European chain” [3–6].

The cranium was excavated from a Minoan Period grave dated about 4,000 years ago and was preserved and studied

first by Dr. A. Poulianos in 1975 and later by Dr. G. A. Lyras in 2009 [1–6].

The skull is of a person about 20 years old. It was buried in a very small chest-shaped coffin, which suggests a short stature for the individual. The width of the skull is narrow in comparison with the length, the frontal bone retreats, and there is alveolar prognathism and a well-developed mental prominence ago [1–6].

According to experts, this skull belongs to a *Homo floresiensis*. *H. floresiensis* has been attributed to a species of its own, a descendant of *Homo erectus* or another early hominid, a pathological form of *Homo sapiens*, or a dwarfed *H. sapiens* [1–8].

This fact reflects probably a genetic diversion connected to long-term isolation and endogamy of Minoans. Thus neither Cretans, nor members of the Minoan dynasty were immigrants from elsewhere, but a result of local evolution [1–6].



Fig. 1 The cover illustration shows “The Minoan Microcephalus of Zakros”. Reproduced with kind permission from N. A. Poulianos (frontal and lateral view)

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Fig. 2 The Minoan Microcephalus of Zakros. Reproduced with kind permission from G. A. Lyras (dorsal and lateral view)

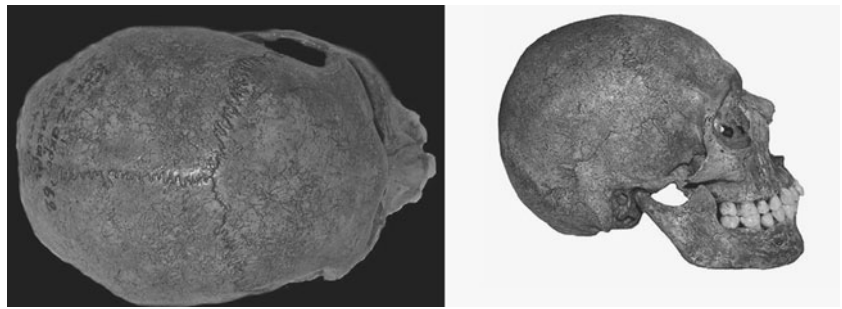


Fig. 3 Zakros, Crete



Fig. 4 Map of Minoan Crete



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