

# Ghazali 2014 Cemetery C2

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## Introduction

Preliminary excavations at the C2 cemetery in the immediate vicinity of the medieval monastery in Ghazali (near Karima in northern Sudan) have been carried out in the beginning of 2014.

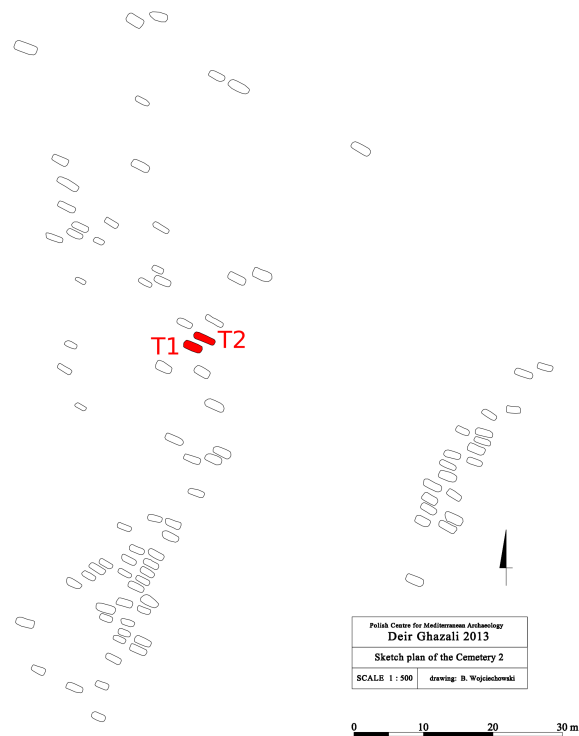


Figure 1: Initial plan of the C2 cemetery (drawing B. Wojciechowski)



Figure 2: Superstructures of graves T1 and T2. A view from the East (photo R. Mahler)

Aerial survey preceding those works allowed B. Wojciechowski to prepare initial version of the grave inventory [Fig. 1]. Selection criteria were very strict and many structures of uncertain purpose, clearly visible on the surface were not depicted. Two of several dozens of the structures recognized as graves have been selected for excavation. Layers of soil and rubble of decayed stone covering them have been removed. It exposed the structures to the level they were originally built on [Fig. 2]. The larger superstructure (T1, older of the two - most probably) have been thoroughly documented and disassembled [Fig. 3] and the underlying grave pit have been explored.

At the very bottom of the grave pit a skeleton of a male at the age of 50 or more have been discovered. Lying in supine position in the more or less East - West direction, with head to the West, facing East, it was following the widely recognized pattern of an ordinary Christian burial (Welsby, 2002, 48–49). Head of the interred was protected by a head shelter of three mud bricks forming a solid roof above. Burial was undisturbed, and the skeleton was found laying in anatomical order [Fig. 4]. The moisture, fungi, insects and plant roots have damaged bones considerably [Fig. 5], leaving them very fragile and fracture prone, making their proper recovery very difficult.

The inhumation was documented in detail and excavated. As expected, no grave goods have been found accompanying the body save some small fragments of a shroud or clothing, heavily decayed. Those have been sampled for further examinations to be carried out in the laboratory. The only sample that survived mishandling during the transportation was a very small about 1cm<sup>2</sup> big fragment of a textile found under the head, stuck to the occipital region of the skull of the deceased. It survived, but was reduced to a small pile of dust only. Unfortunately there were no other textile fragments recovered from T1 that could be sampled instead. Poor state of the preservation of it rendered any macroscopic analyses useless. Interestingly, the C<sub>14</sub> analysis have yielded

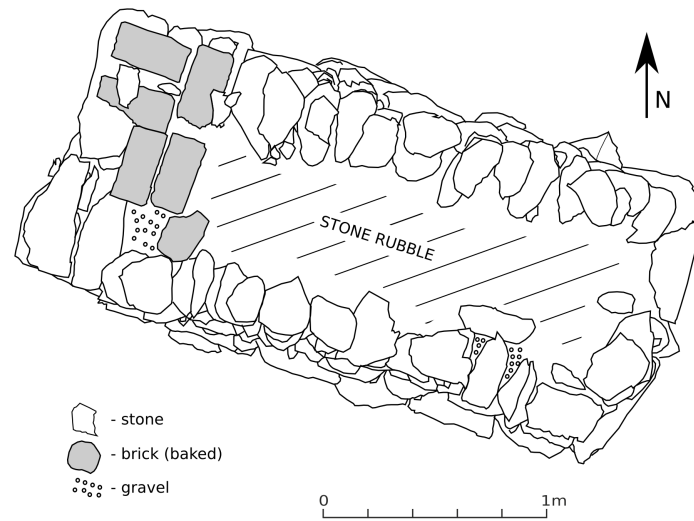


Figure 3: Superstructure of T1, a view from above (drawing R. Mahler)

a very early date (between II<sup>nd</sup> and IV<sup>th</sup> century AD)<sup>1</sup>. However, carbon to nitrogen ratio revealed in the chemical composition of the sample indicate it was contaminated with bone tissue. Regrettably, it was not possible to extract pure fabrics form the dust that remained, not even by the textile specialist under the microscope.

The thorough anthropological examination of bones and teeth recovered from the grave have been carried out in the field laboratory. Apart from sex and age determination, given above, it allowed the intravital height of the deceased to be assessed. According to the K. Pearson's (1899) regression formulae he was 168cm tall<sup>2</sup>. Owing to the advanced age he lost nearly all his teeth and his alveolus was almost fully obliterated. All his bones were very brittle and relatively light, indicating considerable loss of compact substance. Margins of his lumbar vertebrae bodies were considerably overgrown and their surfaces were pitted suggesting intervertebral disc disease - a condition common for his age (Waldron, 2009, p. 43).

Bioarchaeological description of the only individual examined in 2014 does not give even a vague idea about the people that lived there. Hopefully, further excavations at the cemetery will render paleodemographic analyses of the medieval population of Ghazali feasible.

<sup>1</sup> C<sub>14</sub> AMS dating by Poznań Radiocarbon Laboratory, Prof. T. Goslar

<sup>2</sup> Although more contemporaneous attempts at refining the height reconstruction technique of deceased from the lengths of their long bones were numerous (Ruff et al., 2012; Raxter et al., 2008; Trotter & Gleser, 1977; Trotter & Gleser, 1958; Trotter & Gleser, 1952), this method, although based on a relatively small sample, may still yield the most consistent results when applied in studies of pre-modern skeletal populations (Giannecchini & Moggi-Cecchi, 2008). It is likely that further bioarchaeological studies of the C2 cemetery will allow more conscious choice of the stature reconstruction method.

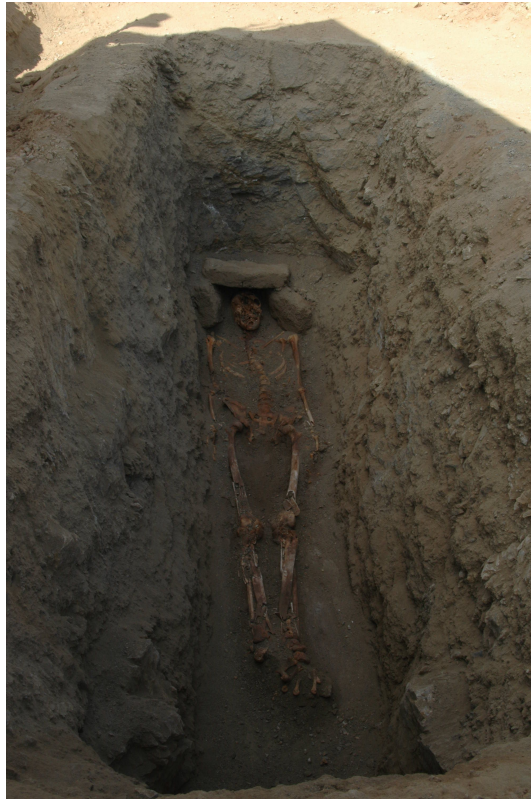


Figure 4: T1 grave pit with skeleton exposed (photo R. Mahler)



Figure 5: Left humerus with traces of termite(?) activity and *post mortem* fractures (photo R. Mahler)

## References

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