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## Preliminary report on human remains from Qasr Shemamok (Erbil, Federal region of Iraqi Kurdystan). Season 2012

Key words: Erbil, human remains, osteology

## **SUMMARY**

Qasr Shemamok, a large tell situated about 30 km South West of Erbil, close to the village of Tarjan, is a well-known site of Iraqi Kurdistan. It has been identified as the remains of the ancient city of Kakzu (or Kilizu) since the 19<sup>th</sup> century. In 2012, a French Archaeological Mission, guided by O. Rouault with a European team, and funded by the French Ministry of Foreign Affairs, came to work in Erbil, answering an invitation from the Kurdish authorities, and from the Erbil Salaheddin University, thanks to the strong support of the local French Consulate. The text presents the first results of the anthropological work at Qasr Shemamok, conducted in 2012 season.

For two years the French archaeological expedition, guided by Prof. Olivier Rouault (University Lyon 2 – Lumière) and Prof. Marii Grazi Masetti-Rouault (Ecole Pratique des Hautes Etudes, Paris), has been conducting research at Qasr Shememomk. The excavation site, citadel and lower town, covering an area of around 70 hectares, is situated about 25 km from Erbil (capital of Kurdystan). Since 2012, the projects

have also involved research on human remains. The biological project (Qasr Shememomk site) is conducted by the Department of Anthropology of Cardinal Stefan Wyszynski University in Warsaw (Poland). The aim of our research is to try to give biological characterization of the population of Qasr Shememok in different chronological periods, and compare the obtained data with other sites from the Near East (e.g. Terqa, Tell Masaikh) (e.g. Tomczyk 2013a, 2013b; Tomczyk, Sołtysiak 2007).

The biological research will be conducted comprehensively, which means that it will include anthropological, zoological, botanical, genetic, and chemical analyses. In this season we have just started gathering animal remains and botanical samples. Their analysis will provide important information not only about the environment but also about the adaptation strategy of local population. We have also started to research human remains. In the museum laboratory (in Erbil) the human bones and teeth are conserved and cleaned. Next, each skeleton is described using a standard form based on "the Standards for Data Collection from Human Skeletal Remains" (Buikstra, Ubelaker 1994). The following parameters are to be estimated: the state of bone preservation, diagnosis of sex and age; 34 basic metric measurements of skull and 52 metric measurements of the postcranial skeleton are to be made; 15 additional measurements from children's skeletons are to be taken; 38 basic non-metric features of the skeleton are to be assessed; observation of injuries and changes of pathological character is to be made. For that purpose radiological, histological and genetic tests will be performed; taphonomic description of the skeleton and its context is to be made. Some samples will be prepared for further analyses in specialist laboratories. Our histological analyses will be conducted in two independent research centres (Department of Pathomorphology, Specialist Hospital in Siedlce, Poland and Department of Descriptive and Clinical Anatomy, Medical University of Warsaw, Poland) in order to obtain two independent sets of results. Radiological examinations will be performed at the Institute of Nuclear Medicine and Magnetic Resonance, Brudnowski Hospital, Warsaw (Poland). Genetic analyses will be conducted in the Molecular Biology Dept., Medical University of Lodz (Poland) by the team of Prof. Henryk Witas.

In sum, remains of 7 individuals have been found at Qasr Shememok (Table 1). They were dated to the Middle Assyrian, Neo-Assyrian, Hellenic, and Islamic periods. However, there are no doubts that Qasr Shememok has got older history, beginning as early as the Chalcolithic Period. Some samples (e.g. mussel shells) were prepared for further analyses in specialist laboratories.

No	Sex	Age	Chronology	Comments
QS2 C07	3	Adult	?	Talus only
QS2 C20	3	Adult	Middle Assyrian	Tooth only
QS2A24	3	Adult	Middle Assyrian	
QS2A36	3	Adult	Hellenic	Tooth only
QS2A44	3	Adult	Middle Assyrian	
QS2B67	3	Adult	Islamic	
QS2B89	M?	30/40	Islamic	Comment below

Table 1. Human remains from Qasr Shemamok (season 2012)

A very interesting case from Qasr Shemamok was labeled QS2B89. The remains were found on top of a tell. The state of preservation was not very good (many bones were destroyed as a result of deposition in the grave). The body was lying on the back with the head pointing upwards. Around the remains we found more than 10 nails, and small wood fragments. The skeleton was recognized as adult (30/40), probably male. The diagnosis of sex was based on the skull (e.g. expression of nuchal crest, supraorbital margins and glabella, mastiod process) and the measurement of some bones (e.g. vertical diameter of humeral head). The thyroid cartilage was ossified, which additionally confirmed the sex of the individual. However, to validate the diagnosis of sex molecular tests will be conducted.

One of the most common areas which indicate the individual's physical activity is the articular surface on acromion. This area was flat and enlarged, suggesting a long-term and heavy use of the *deltoid muscle*. Large exostosis, located on the ulnar olecranion processes, reflects heavy use of the lower insertion of the tendon for *triceps brachii* – the main elbow extender. *Crista musculi supinatoris* was well developed, which proves that the supinator muscle was also unusually pronounced.

The top of the iliac crest (and iliac tuberosity) was extremely advanced and flat. This area is connected with *musculus gluteus medius*. It is the main abductor of the thigh. The development of this surface is thus connected with well-developed muscles (Fig. 1).



Fig.1 Advanced iliac crest (individual No. QS2B89)

The patellar surfaces were well-developed, with elevated margins, and pores on the posterior side. There was a small enthesophyte on the anterior surface on the left patella (Fig. 2). Changes in this area may indicate increased activity of the lower limbs.



Fig. 2 Enthesophyte on the anterior surface on the left patella (individual No. QS2B89)

We observed many osteophytes on the vertebral extremity of ribs. The head of ribs and tubercles were very well developed. The sternal ends were deep, perforated with sharp edges. Moreover, we observed remodeling in this area (Fig. 3). At this stage of study it is difficult to assess the causes of these changes.



Fig. 3 Remodeling of the sternal end (individual No. QS2B89)

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