

Wolf-Rüdiger Teegen, Michael Schultz (Eds.): **Starigrad / Oldenburg – Hauptburg der Slawen in Wagrien VII. Die menschlichen Skeletreste**. Offa-Bücher 86. Wacholtz Verlag GmbH. 2017. Pp. 608. ISSN: 0581-9741 ISBN: 978-3-529-01186-3

The book deals with human skeletal remains dating from the 8<sup>th</sup>–11<sup>th</sup> century from the centre of West Slavs in Starigrad/ Oldenburg in Wagria. The remains were the subject of anthropological analysis where the sex and age were estimated, the bones were measured and palaeopathologically examined.

At least 100 individuals come from regular burials, 16 from settlement burials and 59 from stray finds. There were 34 adults (28 males, 6 females) and 66 subadults among individuals buried in the main cemetery and a small group of four graves (eastern cemetery). Although the estimation of sex in subadults is considered to be difficult due to undeveloped secondary sex characteristics the authors identified the sex of 12 boys and 17 girls. Palaeodemographic analysis is very detailed, the individuals are divided in to standard categories according to sex and age. The authors paid attention to finds of the isolated bones from the graves and settlement, which is important and is often neglected in anthropological evaluation of past populations. Mortality tables and age pyramids were constructed for the population, the predominance of males in cemetery is presumed to be the result of selective burial rite in this "special burial place" in the cemetery inside of the rampart.

The males of the Starigrad/Oldenburg were on average 173.6 cm tall, the females 163 cm tall. The average stature is about 2–3 cm above the average value of comparative Slavic populations, indicating high social status. The results of skull metrics were compared with contemporary series from Scandinavia and West Slavic World. Similarities in epigenetic traits of the skull were used to draw two groups of relatives within the cemetery. The numerous cut marks on the bones from the Grave 7 are of interest, indicating the defleshing of the corpse. Bones of other twelve subadults and three adults showed possible cut marks.

The main focus was on the detailed palaeopathological evaluation of the skeletons using macroscopic, microscopic, radiological and endoscopic techniques. Analysis is accompanied with exhaustive statistics and photographic documentation. The skull was often affected by intracranial changes (82.4 % of individuals) such as haemorrhages and meningeal reactions. There is suspicion of meningeal tuberculosis in two individuals (Gr. 24 and 32a). The impressions of venous sinuses are often pathologically changed as well as paranasal sinuses.

Dental caries was found in 16 individuals (8 subadults) and apical processes in 12 adults. The incidence of dental calculus, periodontal diseases, porous deposits on the limbus alveolaris and hypervascularisation of the hard palate were also noted. Wedge-shaped lesions as the result of "toothpicking" were found in 3 individuals.

Unspecific stress markers, such as enamel defects or Harris lines were noticed in the material, as well as evidence of deficiency diseases such as rickets (27.1 % of children), scurvy (18.2 % of children) and anemia (6.2 % of individuals). Hip and shoulder joints were often affected with degenerative diseases, suggesting physical activity among the population. Similarly, degenerative changes in the spine were often observed, along with Schmorl's nodes. DISH was present in 4 old males.

Overall 16 out of 38 adolescents and adults had traumata, with 9 skull and 8 postcranial trauma. Benign tumors are present on 9 adult calvarias and 2 long bones. Malignant carcinoma was found in one old male (Gr. 75).

The population from Starigrad/Oldenburg shows higher morbidity with lower mortality, suggesting higher social status of people buried within the locality. They were exposed to great physical demands and violent events.

The largest part of the book is the catalogue of skeletons, with the grave number its inventory number, coordinates, archaeological finds and documentation, preservation of the bones and teeth, estimation of sex and age including methods, stature and palaeopathological finds, anatomical variants and muscle topography. Preservation of each skeleton is documented by schematic drawing.

Photographs of numerous pathological finds and pictures from microscopic examination are at the end of the book.

The book is well written and with its superb documentation comprises a great contribution to the anthropology and palaeopathology of West Slavs. Unfortunately there was a twenty-year gap between the submission of the manuscript and publishing of the book. The authors at least tried to take into account of the current state of research in the epilogue where they dealt with the recent literature concerning general anthropology and palaeopathology, publications on Starigrad/Oldenburg and anthropology of the West Slavs.

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