Lifeways of the Early Medieval Slavs:  
A Bioarchaeological Examination of Diet and Health of the Human Remains from Three Cemeteries North and South of the Karawanken Mountains

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1 The term “bioarchaeology” in the framework of this project is used according to the definition of Buikstra (1977), which exclusively refers to the study of human skeletal remains from archaeological sites.

Background
The transitional period (7th-10th c. CE) after the fall of the Roman Noricum (6th c. CE) resulted in various cultural groups settling the Eastern Alpine region in southern Austria and northern Slovenia. All information in this region comes from cemeteries. Archaeological human remains can provide insight into health, diet, and lifeways of individuals and communities.

Aims and research goals
• Produce an intra- and inter-site comparison of three population groups from the Karawanken mountain region
• Reconstruct the lifeways of the communities
• Build biological profiles of individuals from these communities

Materials
Grabelsdorf/Grabalja vas
Jaunstein/Podjuna
Župna cerkev

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<td>12 individuals</td>
<td>130 individuals</td>
<td>150 individuals</td>
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Methods
Macroscopic analysis: sex, age-at-death estimation, stature, metric measurements, pathological stress indicators, trauma.
Molecular analysis:
• Stable isotope analysis (Carbon, δ13C, and Nitrogen, δ15N) = diet reconstruction
• Ancient DNA (aDNA) analysis using mitochondrial DNA for reconstruction genetic make-up and migration patterns

Conclusions/Future Steps
• Differences in diet visible overtime at Jaunstein/Podjuna and Grabelsdorf/Grabalja vas could suggest higher dependence on grains
• Metabolic diseases such as scurvy could be due to lack of nutrition obtained from a grain-based diet
• High mortality rate for non-adult individuals
• Completion of macroscopic data collection will provide an encompassing picture on health and diet of the communities
• Stable isotope analysis of Grabelsdorf/Grabalja vas and Župna cerkev will provide comparison for Jaunstein results
• aDNA analysis will help illustrate the genetic make-up of the communities

Initial results:
• 33% non-adult Jaunstein individuals have signs of probable scurvy
• Higher δ15N in earliest Jaunstein individuals show higher consumption of protein and dairy than individuals from the high Medieval period