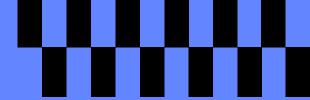
# CBP

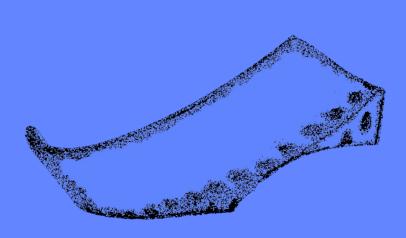


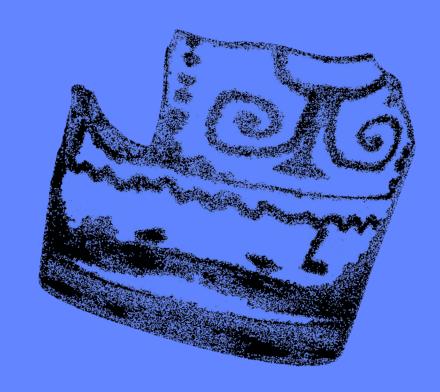












# University of West Bohemia — Alma mater to thousands of students

Statistical evidence proves that the University of West Bohemia is one of the most successful universities in the Czech Republic. We do, however, have a more visible criterion: the admirable successes of our students in many technical fields, humanities, arts, and the field of health care. We do our best to nurture our students' talents and abilities.

We do not close ourselves off to the surrounding world. Every student has a chance to build his/her own study programme according to their interests, to get excellent language training, study abroad, get involved in research programmes, and put their knowledge to the test.

And we will be equally happy if our students remember the students' festivals, victories in sports, open-air concerts, or just moments spent with friends drinking draught beer. We prepare our students for life in all its fullness.

# The Department of Archeology

The Department of Archeology provides education especially in prehistoric, medieval and modern archeology. Many of its teachers are prominent scientists. Our graduates gain a deep understanding of the artefact heritage of the past and its significance for modern humanity and at the same time acquire a wide range of knowledge and skills not provided by other social sciences. One of our main goals is to educate specialists for work in archeology and related disciplines and the preparation of students for further education in archeology.

The Department of Archeology is a research center similar to those of Western European universities. It develops research in theoretical and practical archeology, deals with problems of archaeological methodology, spatial and non-destructive archeology, the creation of complex archaeological databases and the processing of spatial archaeological data using geographic information systems.

# Uniwersytet Przyrodniczy we Wrocławiu

Zakład Antropologii Uniwersytetu Przyrodniczego we Wrocławiu powstała 1 października 2009 roku. Funkcjonuje jako jednostka Instytutu Biologii Środowiskowej na Wydziale Biologii i Hodowli Zwierząt. Zaklad zajmuje okazały budynek z wieloma pomieszczeniami dydaktycznymi i pracowniami. Działalność dydaktyczna rozpoczęła się wraz z powstaniem jednostki w roku akademickim 2009/2010 i utworzeniem na kierunku Biologia studiów stacjonarnych drugiego stopnia o specjalności Biologia człowieka. Od października 2014 r. uruchomione zostały pierwsze w Polsce 3-letnie studia licencjackie na kierunku Biologia człowieka, a od roku akademickiego 2017/18 2-letnie studia magisterskie z trzema ścieżkami dydaktycznymi: Środowisko pracy i BHP, Antropologia kryminalistyczna oraz Antropologia biomedyczna.

Główne zagadnienia oraz tematy badawcze, którymi zajmują się pracownicy Zakładu Antropologii to:

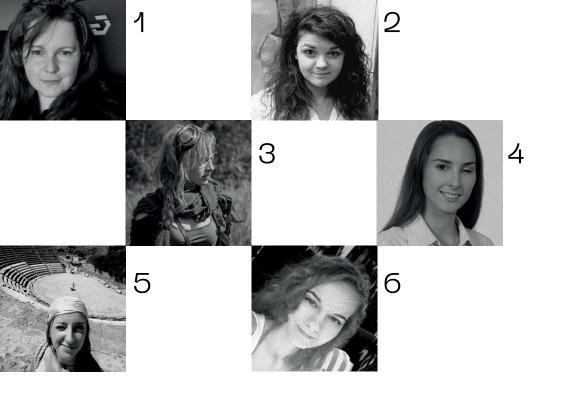
- Przebieg ontogenezy w zależności od czynników środowiskowych
- Badania ludzkich populacji pradziejowych oraz historycznych
- Biologia współczesnych populacji ludzkich
- Ergonomia korekcyjna oraz ergonomia koncepcyjna
- Biologiczne aspekty kryminalistyki
- Paleontologia
- Archeologia

# The Department of Anthropology

The Department of Anthropology of the University of Life Sciences in Wrocław was established on October 1, 2009. It functions as a unit of the Institute of Environmental Biology at the Faculty of Biology and Animal Science. The Department occupies an impressive building with many teaching rooms and studios. The didactic activity began with the establishment of the unit in the academic year 2009/2010 and the creation of full-time second-cycle studies in the field of Biology, specializing in Human Biology. From October 2014, the first 3-year bachelor's studies in the field of Human Biology were launched in Poland, and from the 2017/18 academic year, 2-year master's studies with three educational paths: Work environment and OHS, Forensic Anthropology and Biomedical Anthropology.

The main issues and research topics that the employees of the Department of Anthropology deal with include:

- The course of ontogenesis depending on environmental factors
- Studies of prehistoric and historical human populations
- Biology of modern human populations
- Corrective ergonomics and conceptual ergonomics
- Biological aspects of forensics
- Palaeontology
- Archeology





- 1. Mgr. Jana Caisová
- 2. Dr. Katarzyna Graja
- 3. Mgr. Lada Heřmanová
- 4. Dr. Katarzyna Król
- 5. Mgr. Klementyna Mackiewicz
- 6. Mgr. Markéta Pešková

- 7. Mgr. Atilla Vatansever
- 8. Dr hab. Barbara Kwiatkowska, Prof. Uczelni
- 9. Dr Jacek Szczurowski, Prof. Uczelni
- 10. Mgr. Aneta Gołębiowska-Tobiasz Ph.D.
- 11. dr hab. Paweł Konczewski, prof. Uczelni



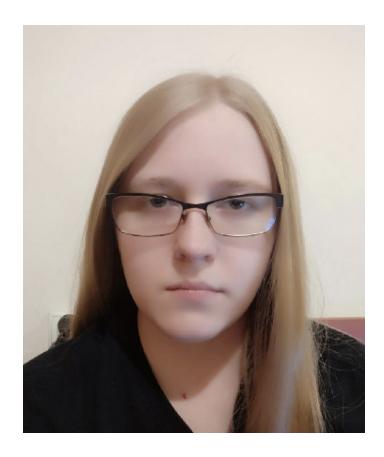
# Aleksandra Muszyńska

I am a 1st year master's student in human biology in the Department of Anthropology at the Faculty of Biology and Animal Science at Wrocław University of Environmental and Life Sciences. My main research interest lies in paleopathology.

# Syphilitic lesions on two skeletons from the collegiate church of St. Michael the Archangel in Płock

### Abstract text:

The study aimed to characterize and compare the number, distribution, and severity of changes in bone tissue resulting from inflammatory processes indicative of late-stage acquired syphilis. The study material consisted of two skeletons discovered in the former collegiate church of St. Michael the Archangel in Plock, dated to the 17th—19th centuries.

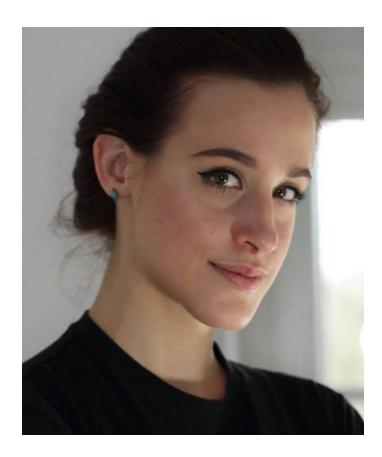


### Alicja Tomaszewska

Alicja Tomaszewska is a student at Wroclaw University of Life Sciences. She studies Human Biology and Safety Engineering. Her main interests are workplace ergonomics, OSH and the use of VR technology in education. She has participated in several conferences related to workplace safety and in excavations in the defunct village in Libkovice. She is a president of Student Scientific Society of Anthropologists "Juvenis".

# Ergonomics and OSH on excavations

The purpose of our work is to introduce and explain the basic principles of health and safety at archaeological excavations. The presentation is in an overview form based on selected standards, legal documents, and scientific articles. Health and safety principles, together with ergonomics, allow for optimizing working conditions, maintaining high productivity, minimizing the risk of accidents and injuries, and ensuring the health and well-being of workers. Excavation research is classified as outdoor work, which is mainly associated with three categories of risks: physical injuries, biological hazards, and environmental factors. The excavations are usually performed in the summer, at high temperatures, with exposure to dust. Due to the nature of the work, harmful factors cannot be eliminated. However, educating and raising awareness among students, current excavation workers, and future employees, can reduce or delay the occurrence of work-related diseases.



# Joanna Witan University of Environmental Sciences in Wroclaw, Graduate of anthropology

Since 2019 she has been affiliated with the Institute for the Preservation of Archaeological Heritage of Northwest Bohemia and a doctoral student at the Department of Archaeology of the University of West Bohemia in Pilsen. In her dissertation, she analyzes the early medieval cemetery of Poláky–Dolany and examines the biological condition of the population buried there. During her doctoral studies, she participated in research and excavations in areas including Cyprus, Israel and Kyrgyzstan. Her research interests are mainly in the field of prehistoric population studies, palaeopathology, isotopic studies: diet reconstruction and tracking human mobility

# The bioarchaeological study of Migration Period elite graves from Droužkovice (Czech Republic) – preliminary report

Authors: Joanna Witan – Jana Doležalová – Krzysztof Szostek – Aleksandra Lisowska-Gaczorek – Martyna Molak – Jan Blažek

The occurrence of complex constructions of burial chambers during the Migration Period is usually associated with male elites. An individual buried in grave No. 52 with a wooden structure, along with two graves at the Doužkovice site, may offer a different perspective. As the graves had been robbed of artifacts, bioarchaeological methods were used to provide information about the possible origins of those buried and their social status. Genetic and stable oxygen isotope analyses were used to establish the origin of the studied individuals and to determine their biological sex. Moreover, reconstruction of their diet based on carbon and nitrogen isotope analysis was attempted. For this purpose, enamel and bone samples were taken to trace potential migrations and changes in diet over the lifespan of the women buried at Doužkovice site. Genetic analysis revealed that the women buried at the site were not related to each other and had X2c1, T1a1, H2a mitochondrial haplogroups. Oxygen isotope analysis of the enamel indicated that they were not local, but the last years of their lives were probably spent in the region close to the burial site. Dietary reconstruction showed that the studied females had a tupical C3 diet with a relatively high proportion of animal protein. The percentage of dietary protein intake in childhood was between 10% and 20% higher than in adulthood. Moreover, they probably did not consume millet or products with a high carbon isotopic value, or the value was marginal. The potential geographical origin of the buried females and their migration path have not yet been determined. The goal for future research is to extend the analysis to other sites in the region and to conduct a more comprehensive study of social and migration processes during the Migration Period in northwestern Bohemia.



# Justyna Smolnicka

I graduated with a master's degree in archaeology from the University of Wroclaw. Currently, I am a first-year master's student in Human Biology at the University of Environmental and Life Sciences in Wroclaw. I have participated in several archaeological excavations. My research interests focus on medieval and early modern archaeology, as well as the study of historical populations.

# Prayers Enchanted in Metal. Devotional Items from the Cemetery at St. Nicholas Church in Libkovice (Czech Republic, 13th—19th century)

During archaeological research at the cemetery at the Church of St. Nicholas in Libkovice, a rich collection of relics was found, the most numerous of which were devotional objects, such as medallions, crosses, rosary beads and other religious objects. These objects are traces of old religious practices and evidence of the spirituality of the local community.

In addition, they constitute valuable material for research on the role of devotional objects in funeral rites and everyday life, as well as on religious and cultural influences. Their analysis allows for a deeper understanding of funeral practices and spiritual life in the north-western Czech Republic from the Middle Ages to the modern period.

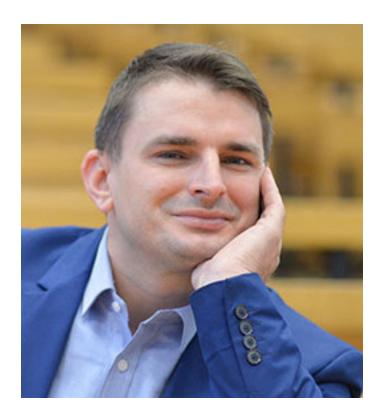


# Lucie Kursová

PhDr. Lucie Kursová graduated from the Faculty of Arts of Charles University in the field of cultural anthropology (2006) and then archaeology at the Faculty of Arts of the West Bohemian University (2017). She focuses on medieval sacral architecture. In her dissertation at the Faculty of Arts of the West Bohemian University, she deals with sacral architecture on sandstone bedrock.

# Chapel at Drábské světničky in northeastern Bohemia (Mlada Boleslav district)

The work deals with the issue of relics of the Drábské světniček discovery complex, which are interpreted as a medieval castle. Recently, this interpretation has been questioned. This is also related to the problem of classifying the discovery complex, which has been associated with a chapel, into a functional structure and its possible affiliation with sacral architecture with a Christian orientation. The answer to this question is related to the function and dating of the settlement area



# Łukasz Kuta

Doktor Łukasz Kuta as researcher works at Wrocław University of Environmental and Life Sciences. He graduated PhD from agricultural engineering institute. His interests include ergonomics, occupational health and safety, occupational risk and workplace design. He conducts research in this area.

Assessment of the level of risk of musculoskeletal disorders of an anthropologist performing field work using the sEMG method as well as REBA methods ABSTRACT

Author: mgr Alicja Tomaszewska & dr Łukasz Kuta

The aim of this study was to present the functioning of the surface biometry method (sEMG) on the example of our own research, which is an analysis of an anthropologist's fieldwork. Anthropologists performing fieldwork such as digging with a spade assume a forced, usually unnatural body position. Prolonged work of this kind can lead to pain as well as injury or degeneration. Many risk assessment methods are currently used in the field of ergonomics. In comparison, the REBA and OWAS methods use the aforementioned EMG method, which uses a myoelectric signal determined by the working muscle. In contrast to OWAS and REBA, sEMG also provides higher precision and reliability of results, which allows for optimisation of body position. For the anthropologist, this method helps identify the position that minimises muscle tension and reduces the risk of physical strain. It will also help to identify the best time for an employee to take a break and recover.



### Martyna Sobolewska

I have a Master's degree in Human Biology from the University of Life Sciences in Wrocław. My academic interests include the female body structure and its consequences, as well as female attractiveness. I have participated in excavations in the defunct village in Libkovice and in archeological excavations as part of the project "The Totalitarian heritage"

# Technique analysis for female gait dynamics using the Kinect™ sensor

Author: Zofia Dobrowolska & Martyna Sobolewska

The analysis of human gait entails large amounts of funds towards a high quality measuring equipment, e.g. high definition cameras, treadmill, and appropriate analytic programs. In the presented study we proposed the usage of Kinect™ sensor as an affordable option for researchers to conduct new or expand already existing studies on human gait. In our research we focused on the gait of only one sex (women) to obtain a larger homogeneous participants group. The project was composed of two parts, the technical aspects and use of Kinect ™ ability to acquire gait characteristics in terms of joints movement, and possible analytic potential of collected data.



# Martyna Wróbel

I am a second-year student of MA studies on the Institute of Archaeology. So far, I took part in in archaeological works in Poland, Spain, Turkey and Peru. I also had the opportunity to participate in underwater research near the Turkish coastline. My interests focus on issues of the development of pre-Columbian communities and the material heritage preserved under water.

Sepulchral space in southern Peru — analysis of funeral customs based on collective burial from Puyenca.

Ancient Peru is one of the most interesting areas of South America. In the 2023/2024 season, excavations were carried out in the area of southern Peru, at the Puyenca site as part of the archaeological mission of the University of Wroclaw. Those excavations provided diagnostic materials for several cultures — materials are propably dated to a time interval from the formative period to colonial times. The aim of the presentation is to discuss and outline the cultural customs of formative communities and presumed cultural influences based on the example of a collective grave found during exploration in one of the sectors of the site.



### Michał Stasik

I am a second-years Master's student of archaeology at the University of Wrocław. I work and educate myself in the specialization of the Bronze Age Archaeology and traseological research. I took part in excavations at sites in Dzielica (dating the Neolithic/Bronze Age excavation site), Łozina (Poland, Middle Ages), and in Research in Istanbul, Batonea (Turkey, Middle Ages).

# Technological analysis of the ornament on the Antlers from Bronze Age

In order to answer the question of how carved antler rings were made in the Late Bronze Age and Hallstatt period, an experiment will be conducted to determine and identify the tool that was most likely used to make this ornament. The most likely way to use it will also be presented. The experiment is still in progress so I would like to present the results so far and share the concept and idea for the future.

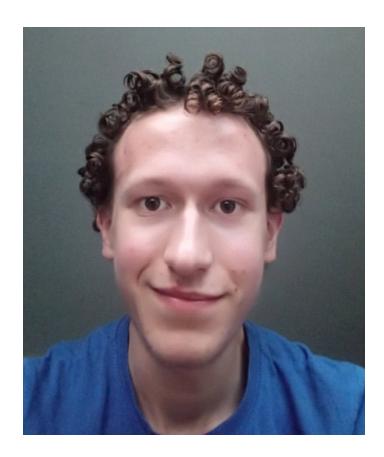


### Oliwia Witowska

My name is Oliwia Witowska, I am a graduate of the Master's degree in Biology at the University of Agriculture in Krakow and postgraduate studies in Forensic Biology and Forensic Anthropology at the Jagiellonian University in Kraków. Currently, I am on my second degree course in Human Biology at the University of Life Sciences in Wrocław.

# Archaeological and exhumation research on Góra Manyłowa and Chryszczata mounts

The presentation shows the archaeological research that took place on the peaks of Góra Manyłowa and Chryszczata in 2021–2024. The area was the scene of intense fighting between the multinational armies of Austria–Hungary and Russia in 1915, during which, according to historical sources, up to tens of thousands of soldiers died. The main aim of this work was to restore the memory of the fallen through their identification and to commemorate the local history of the Bieszczady Mountains, as well as to promote it among the local population.

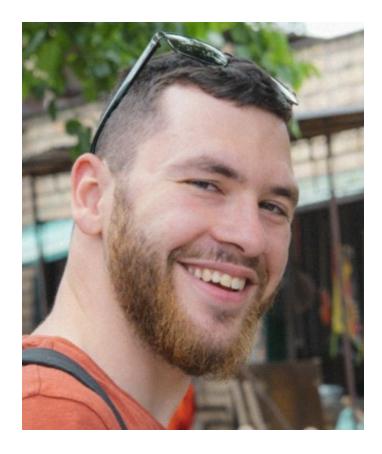


### Antonik Sławomir

Human anatomy, skeletal biology, human physiology, physical anthropology, dietetics, nutrition, first aid, forensic anthropology, anatomical illustrations

# The morphological asymmetry of orbital parts of skeleton series from the church of St. Matthias in Wrocław (17th–18th century)

Research on non-pathological morphological asymmetry of the human skeletal system distinguishes three types: fluctuating asymmetry, directional asymmetry, and antisymmetry. Depending on the specific type, it is possible to estimate whether there were any tendencies in the studied population that are genetic (directional asymmetry) or to assess the impact of stress factors and the mechanisms countering them on ontogenetic development (fluctuating asymmetry). The extremely rare antisymmetry indicates the common presence of traits with dimensions predominant on both the left and right sides of the body in individuals of a given population or the lack of differences in their frequency. The complexity of orbit development due to its close connection with the development of the human leading sensory organ - vision, and the scarcity of studies on asymmetry within these craniofacial structures prompted this study. The aim of the study was to assess the type and the intensity of morphological asymmetry of the orbits in selected skulls that met the selection criteria and to evaluate the variation in the intensity of fluctuating asymmetry depending on the sex of the examined individuals. The studied material consisted of 64 adult skulls (37 male, 27 female) from the skeletal series from the church of st. Matthias in Wrocław (17th-18th century) from the collections of the Department of Anthropology, University of Life Sciences in Wrocław. Five symmetrical craniometric measurements were taken in norma frontalis: n-mf, n-zo, n-fmo, spa-sbk, mf-ek using an electronic sliding caliper. The data were statistically analyzed using the Statistica 13 software package. Based on the distribution of differences between the sides of the studied traits, fluctuating asymmetry was found in all traits in male skulls, and in traits n-zo, n-fmo, spa-sbk, mfek in female skulls. Only differences in the n-mf measurements in female skulls were classified as directional asymmetry. The highest average of the asymmetry indicator was observed in the n-mf measurement, and the lowest in spa-sbk for both sexes. Regardless of sex, the calculated asymmetry values of the studied traits were slight, which may indicate a minor impact of stress factors during prenatal development and/or a good capacity to mitigate their effects by the organisms of the studied individuals. No significant differences in the level of fluctuating asymmetry between the sexes were found.



# Tomáš Kroupa

The author is a PhD candidate of Archaeology at the University fo West Bohemia in Pilsen. He mainly focuses on the archaeological research of northwestern Brdy region with emphasis on ironworking archaeology. Other than that, he focuses on the application of GIS and non-destructive methods in the archaeological landscape research.

# Landscape Archaeology Research of Ironworking Landscapes: The Case Study of Brdy region

The presentation deals with the evaluation of the use of most common land-scape archaeology methods — such as aerial laser scanning data analysis, satellite and aerial orthophotos analysis, etc. — for the study of landscapes heavily influenced by a large-span exploitation and transformation due to the ironworking industry. It will adress the advantages and disadvantages of presented methods on the study area of Central Brdy region in Western Bohemia, where ironworking tradition can be traced to the 14th century.



# Wiktor Jaworski

I graduated from at the University of Wrocław with a Master's degree in Archaeology. I am currently in my first year of Master's studies in History at the University of Wrocław and I work at APB THOR as an archaeologist. During my studies, I participated in regular excavations in Poland and Turkey, where I gained experience in fieldwork – especially in documentation, exploration and electronic/optical instruments.

# Hidden Knowledge in the Peat Bog

The aim of this presentation is to describe the bodies discovered in peat bogs. The remains of hundreds of men, women and children have been discovered in peat bogs throughout north-western Europe. They have been dated from 8,000 BC to the modern period. The study of bog bodies provides a wealth of information that complements that which was already available from other sources. The study of bog bodies suggests that there are no simple answers to the mystery of why peat bogs have been used throughout history. The methods and research allow us today to know almost exactly the last moments of life before the macabre end. We can also, to some extent, know the last years, or even the whole lives of these people. Bog bodies will tell their story anew.



# Gabriela Jungová Vrtalová National Museum, Prague; Universität Wien

She graduated from the University of West Bohemia with an MA in the Anthropology of Past Populations. She works for the National Museum, Prague, since 2015. She is a member of the Archaeological Expedition to Wad Ben Naga, Sudan, and participates in a long-term interdisciplinary research project focused on ancient Egyptian mummies. Currently she is a PhD candidate at the University of Vienna.

# Together in Life, Separated by Death: Postmortal Foetal Expulsion in the Archaeological Context

The so-called coffin birth is a rare taphonomic process in which foetal remains are expulsed from the dead mother's body by gases that accumulate as a result of putrefaction. The uncommon occurrence and a relatively complicated interpretation of this phenomenon hinders our knowledge about its exact mechanisms and the required conditions. Some researchers even disagree on the most basic question: Does "coffin birth" actually exist? Based on the data and measurements from actual cases, the answer will be explored through the perspectives of anatomy, palaeopathology, taphonomy, archaeothanatology, and last but not least culturalhistorical background.



Kateřina Bučková University of West Bohemia, Faculty of Arts

# Bone Deep: Life's Imprint Through Forensic Anthropology

The concept of embodiment in forensic anthropology represents a novel approach that investigates the manner in which life experiences are inscribed into the hard tissues. In conjunction with the Structural Vulnerability Profile (SVP), it allows for the examination of the impact of social and environmental factors on bodily tissues. The presentation will employ case studies to illustrate the process through which structural vulnerability leaves an imprint on the skeleton. This approach has been shown to facilitate a profound understanding of the complexities of the human condition and enhance the methodology used in forensic anthropology.



Dr. Katarzyna Graja
Contact: katarzyna.graja@upwr.edu.pl

She has been working at the Department of Anthropology at the Wrocław University of Environmental and Life Sciences since 2016. Currently, he is finishing his doctoral dissertation entitled "Variation in the proportions of the faces of boys and girls aged 9–19." Her research focuses on the analysis of facial proportions and facial dimorphism in adolescence based on the analysis of biometric face photographies. Her other science interests concern human motor skills and human sexuality. In addition, he deals with the study of prehistoric populations in terms of morphological analyzes and the assessment of the biological state of the population. He is the tutor of the Student Scientific Society of Anthropologists "Juvenis".



Mgr. Atilla Vatansever

Contact: atillav@kar.zcu.cz

He graduated with a master's degree in Archeologu from the Department of Archeologu at the University of West Bohemia in Pilsen. He is currently continuing his studies at a doctoral study program in Pilsen, specializing in the Neolithic period in the Middle East and the process of Neolithization into secondary and tertiary areas. He currently works as an Academic Staff at the Department of Archeology, Faculty of Philosophy, University of West Bohemia in Pilsen. He has participated in professional archaeological internships: Kaymakçı Archaeological Project, Koça University Research Center in Istanbul Anatolian Civilizations (ANAMED) and the Ministru of Culture and Tourism of the Republic of Turkey (Turkey) and Museo del Mare e della Navigazione Antica (Santa Severa), research of the defunct city of Castrum Novum (Central Lazio, Italy). Significant projects include: Spatial arrangement and typology of Kordun castles in the context of Central European castelologu, Urban culture of Persia and Buzantium vs. the world of nomads of the North Caucasus region in the light of non-destructive archaeological research and Archeology of the coast between Purqi and Castrum Novum (Lazio, Italu). Foreign expeditions include research at the Treblinka Extermination Camp (Poland), research into the sacred mountain Sulaiman-Too (Kurguzstan), the defunct Roman citu of Castrum Novum (Italu), research into the castles of Otmič, Krstina, Furian, Plaški and Klokoč (Croatia), residential tepe Ak-jar (Kurguzstan). Research in the Czech Republic includes the internment camp in Letu u Písku, and research into the uranium ore mining camps Elijah II. and Nikolaj, research of partisan camps Žákova hora, Tisůvka and Kamenný vrch.

# KAR 2024

The Department of Archeology University of West Bohemia

