

AtRium training school in BRNO

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From September 16th to 20th 2024, I had the opportunity to participate in the ATRIUM Training School in Computational Archaeology in Brno, Czech Republic. This training school was organized as part of the ATRIUM Project and hosted by the Archaeological Information System of the Czech Republic (AIS CR) and the Institute of Archaeology, Czech Academy of Sciences. The intensive five-day program aimed to equip participants with essential skills in R programming, querying archaeological data within the ARIADNE infrastructure, and spatial data analysis techniques.

The first day introduced R programming and workflows, covering basic concepts, data analysis, and visualization. Practical sessions allowed me to apply various functions and packages, enhancing my ability to navigate, analyse, and prepare data plots. The second day focused on the ARIADNE infrastructure, explaining Linked Open Data (LOD) and ontologies, particularly the AO-Cat Ontology. This framework is crucial for understanding data representation in the ARIADNE infrastructure. We were then introduced to SPARQL, a query language for semantic data, and shown practical examples of using R packages to retrieve SPARQL queries. On the third day, we delved into spatial data handling within the R environment, covering both vector and raster data. I learned a foundation for spatial data analysis that was useful to understand advanced spatial analytical methods introduced in the fourth day. This included point pattern analysis and other statistical modelling techniques. Practical exercises enabled me to apply these methods to spatial datasets, enhancing my ability to interpret complex spatial patterns and relationships within archaeological data.

Overall, the ATRIUM Brno Training School was highly beneficial for my career, significantly enhancing my skills in R programming and spatial analysis. The hands-on workshops were particularly valuable, allowing me to practically apply theoretical knowledge. This experience will hopefully significantly impact my ongoing research at the MPI-GEA, where I use georeferenced 'Big Isotopic Data' to study temporal and geographic changes in diet, farming economies, and mobility in Europe. In terms of improvements of the program, while I acknowledge it was impressive, I would have appreciated a stronger theoretical background on the potentials and limitations of spatial analysis in archaeology. Additionally, more guidance on data collection and management practices would have been beneficial. However, given the limited time available, the organizers did an excellent job balancing theory and practice within the program. I also recognize that these views are subjective and training needs may vary among participants.

In conclusion, the ATRIUM Brno Training School provided a rich and rewarding learning experience, significantly advancing my expertise in computational archaeology. The knowledge and skills I gained will certainly contribute to my research, enhancing a deeper understanding of past human behaviours through advanced data analysis techniques.

