Report of Attendance

atRium Brno Training School

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I am a current PhD researcher at the University of Glasgow with focus on interoperability in archaeology. I am interested in Linked Open Data, semantic modelling and ontologies and their application to soil science and geoarchaeology.

Between 16-20th of September, I attended the training school titled "Computational Archaeology" at the Institute of Archaeology of the Czech Academy of Sciences. The "Summer School" was organised by the atRium project's Transnational Access (TNA) scheme, enabling researchers to access knowledge and resources abroad.

The course took place across 1 working week. The days were split in two; in the morning, we received the theoretical basis for the practical exercises in the afternoon, with networking opportunities in between. On Monday evening, there was an informal welcome dinner. A key-note lecture was given by Margaux Depaermentier and Michael Kempf on Wednesday evening about their work on isotopes and environmental modelling in the Carpathian Basin.

Day 1 consisted of an introduction of r and rStudio, followed by an introduction on how to plot data in r using the dplyr and ggplot 2.

As it has been some time since I utilised r for research, the morning was a nice refresher. I quickly got back into the workflow and managed to finish all the exercises without issue. I enjoyed being able to follow along the script which was provided and add comments or modify them in a small way to do a different thing (like change the colour of the points on the graph).

Day 2 started with an introduction to the Resource Description Framework (rdf), ontologies and linked data concepts. We learned about wikidata and DBpedia. The Ariadne Research Infrastructure and Portal was also introduced. In the afternoon, we wrote SPARQL queries in r using the glitter package.

This day was the reason why I wanted to attend this course. I have created rdf files before and wrote some code in SQL, so it was a fantastic opportunity to learn more and practice the Turtle serialization (which I haven't used before). The discussion about Linked Open Data reinforced my agreement with the concept and I will aim to comply with the principles described.

Day 3 was an introduction to working and visualising spatial data in r. Similarly to other days, we were talking about the theoretical background in the morning, with exercises following in the afternoon.

Previously, I have mainly used ArcGIS and QGIS for disseminating and visualising spatial data, so it was great to explore further options. I am excited to delve further into the terra package and tmap with the data provided.

Day 4 was spent building on what we learned on Day 3. We performed Point Pattern Analysis (PPA). Participants were encouraged to follow along using their own data.

The material of this day was completely new to me. I am looking forward to putting what I learned in the previous days together and perform this analysis on data I got from Ariadne.

Day 5 was a half day of practical exercises. Participants were split according to their interests. Group 1 was people who wanted to apply what they learned on the course so far to their own data and people who wanted to go through the week's scripts for extra practice. Group 2 was for individuals looking to do more SPARQL queries and delve deeper into the AO-Cat Ontology.

I was in the second group, since I didn't have spatial data and was more interested in discussing and getting more practice with SPARQL (and glitter). We built a query to look for Roman coins, which I adapted and used to look for rings (finger jewellery). The morning has been a great success as we engaged in good discussions regarding the importance of good metadata, data management practices and clear guidelines for submitting data. I also have a working script with a lot of useful comments!

I am grateful for the opportunity to attend this summer school. The funding has allowed me to travel from the United Kingdom and stay for the whole duration of the course. I had the chance to network with professionals across Europe, develop new skills and gain knowledge about r, spatial analysis and linked data. I am happy to discuss the course further and be contacted about other training if available.