

Portfolio

Archaeology | Scientific Illustration | Web Development

Jona Schlegel

archaeolNK





Hello! I'm *Jona*.

Archaeologist, Illustrator, Web Developer
based in Vienna, Austria

I am a landscape archaeologist and scientific illustrator, combining my skills in fieldwork, geophysical prospection, and web development.

My focus is on creating accessible archaeological content through technical illustrations, digital reconstructions, and interactive web platforms. Thereby ensuring good science and scientific communication.

About me

Recent experience and education



website portfolio
available at
jonaschlegel.com



Landscape Archaeology at University of
Applied Science, Berlin

Master of Science · 2016–2018



Field Archaeology/Conservation and
Restoration at University of Applied
Science Berlin

Bachelor of Arts · 2012–2016



Freelancer at archaeolNK

Combining archaeological data with digital tools for public engagement. Projects include illustrations, web platforms, and interactive databases aimed at making complex archaeological data accessible to a broad audience.

Since 2023



Researcher at Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology

Focus: Geophysical surveys (GPR, geomagnetic), database creation (OpenAtlas, CIDOC CRM), and publication of research findings. Notable projects include INDIGO (modern graffiti documentation), Tieschen (Bronze Age settlement), and Müstair (geophysical prospection around the Abbey of Müstair).

2018–2023

About me

Skills

Programming & Web Development – These skills help create and maintain websites, databases, and interactive platforms that enhance archaeological research, communication, and public engagement.

Languages & Frameworks



HTML



CSS



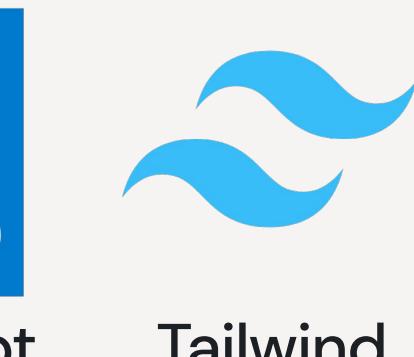
JavaScript



Next.js

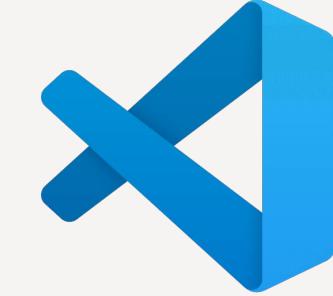


TypeScript

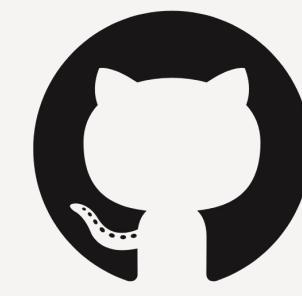


Tailwind

Tools



VS Code



GitHub



markdown

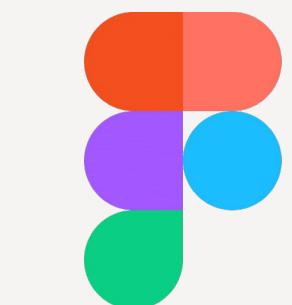
Scientific Communication & Visualisation (Design & Illustration) – These tools are essential for visualising archaeological research, communicating findings effectively, and illustrating both technical and interpretative work.



Inkscape



Procreate



figma



miro

Spatial Analysis & Mapping (Geospatial Skills) – These skills support archaeological research through mapping, spatial analysis, and visualising complex site data.



ArcGIS



QGIS

SERVICE

ARCHAEOLOGY

Reliable data interpretation, structured documentation, and
accessible mapping for archaeological sites and data



The challenge

Accessing and interpreting meaningful archaeological data can be complex. Delivering accurate and comprehensive results requires synthesising multiple data sources and presenting them in an accessible format.

Specific goals

Provide detailed and accurate interpretations of archaeological sites by integrating data from geophysical surveys, historical maps, and excavation reports. These results are then structured in a consistent and reliable manner.

Key services

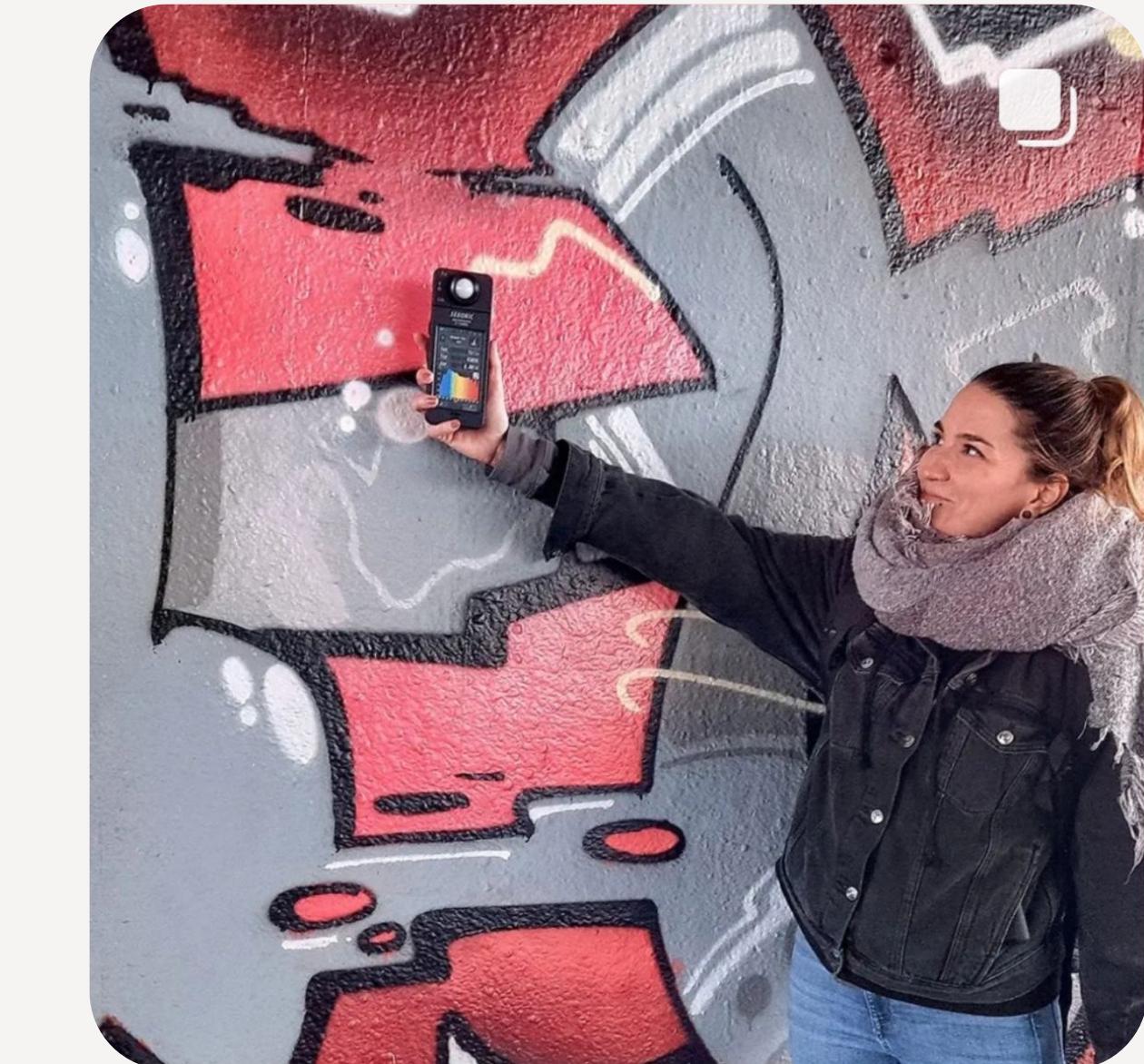
- **Accurate Mapping and Visualisation:** Synthesising data from multiple sources into printer-friendly, accessible maps.
- **Thesaurus Creation:** Developing controlled vocabularies to ensure consistency in categorising and interpreting data.
- **Database Modelling (CIDOC CRM):** Organising all findings into structured, research-ready databases using the CIDOC CRM standard.



INDIGO (Austria)

The INDIGO project aimed to document, analyse, and disseminate graffiti along Vienna's Danube Canal. Spanning 13 km, this project collected detailed imagery and spatial data, creating a systematic record of graffiti as short-lived cultural heritage.

Institute	Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology (Geert Verhoeven)
Role	Thesaurus development, data management, image-based modelling, symposium co-organisation, co-editor, web development
Length	24 months
Tools	ArcGIS Pro and Field Map, SKOS/Skosmos, CIDOC CRM, figma, JavaScript, React, Next.js, Leaflet.js, CesiumJS
Year	2021-2023



INDIGO (Austria)

Excerpts of the results I participated in

Screenshot of the INDIGO Graffiti Thesaurus – available on Vocab

The screenshot shows the Vocab website interface with the title "INDIGO Graffiti Thesaurus". The navigation bar includes links for "Vocabularies", "About", "Editor", and "API". On the left, there's a sidebar with a search bar and filters for "Alphabetical", "Hierarchy", and "Groups". A list of terms is provided, such as "abstract" pointing to "abstract style (graffiti)". The main area contains a form for "Vocabulary information" with fields for "TITLE", "SUBJECT", and "DESCRIPTION". Below the form, there's a list of terms like "abstract", "anarchy sign", and "anti style".

Talk at the goINDIGO 2022 symposium



cover of the goINDIGO 2022 proceedings – co-editor



Convent Saint John in Müstair (Switzerland)

The project aimed to document the surrounding landscape of the UNESCO World Heritage Site at the Benedictine Convent Saint John. This project employed non-invasive techniques, including ground-penetrating radar (GPR) and magnetometry, to map archaeological structures. The project contributed to the ongoing study of Müstair's continuous settlement history.

Institute	Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology (Wolfgang Neubauer)
Role	Fieldwork assistance, geophysical data processing and interpretation (GPR, magnetometry), report writing, scientific paper writing
Length	2019 (2 Days), 2020 (2 month)
Tools	MIRA GPR system, Foerster FEREX magnetometer, ArcGIS, ApSoft
Year	2019–2020



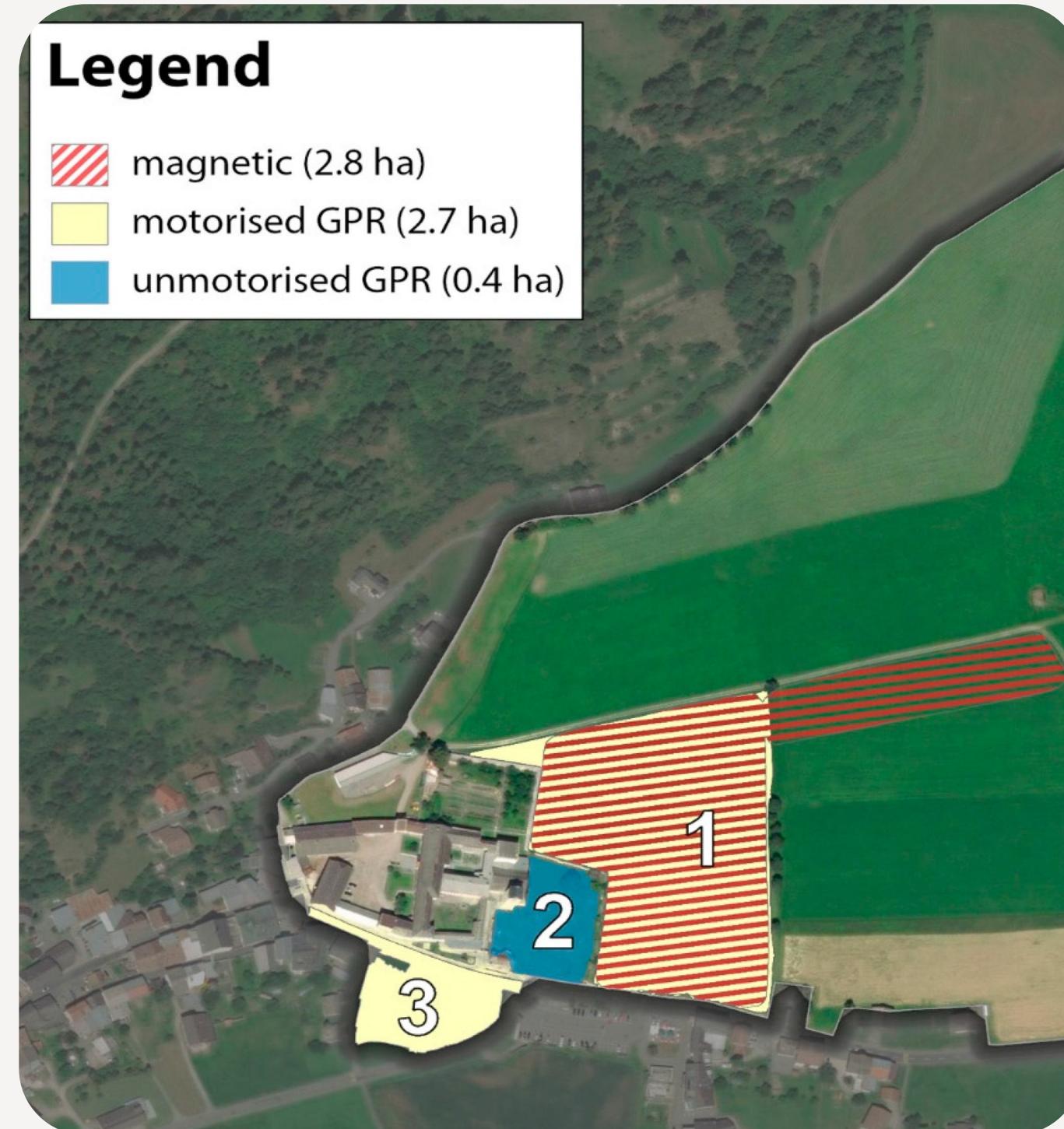
Convent Saint John in Müstair (Switzerland)

Excerpts of the results I participated in

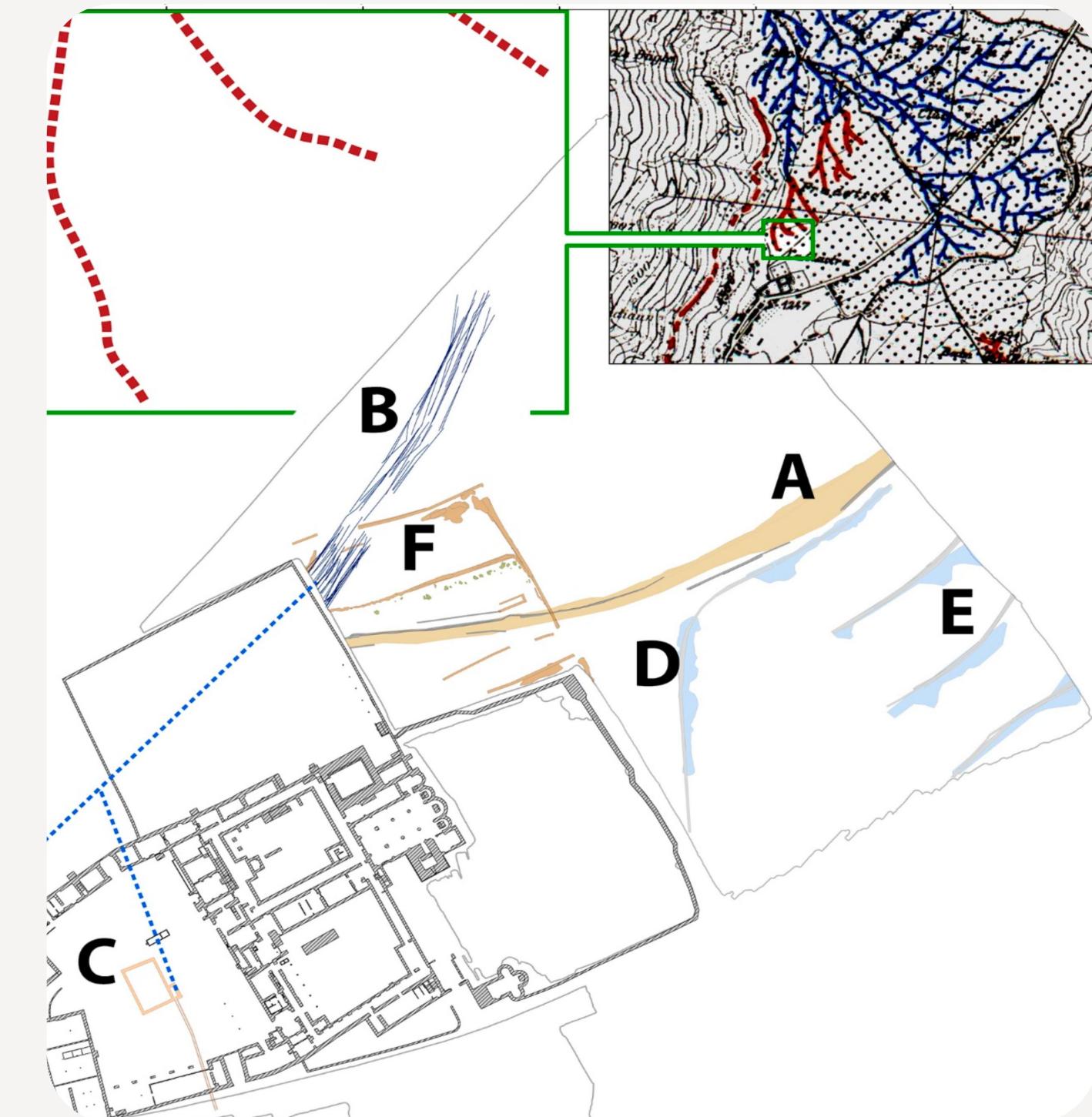
Surveying with the man-powered GPR system



Map showing the geophysical surveyed areas



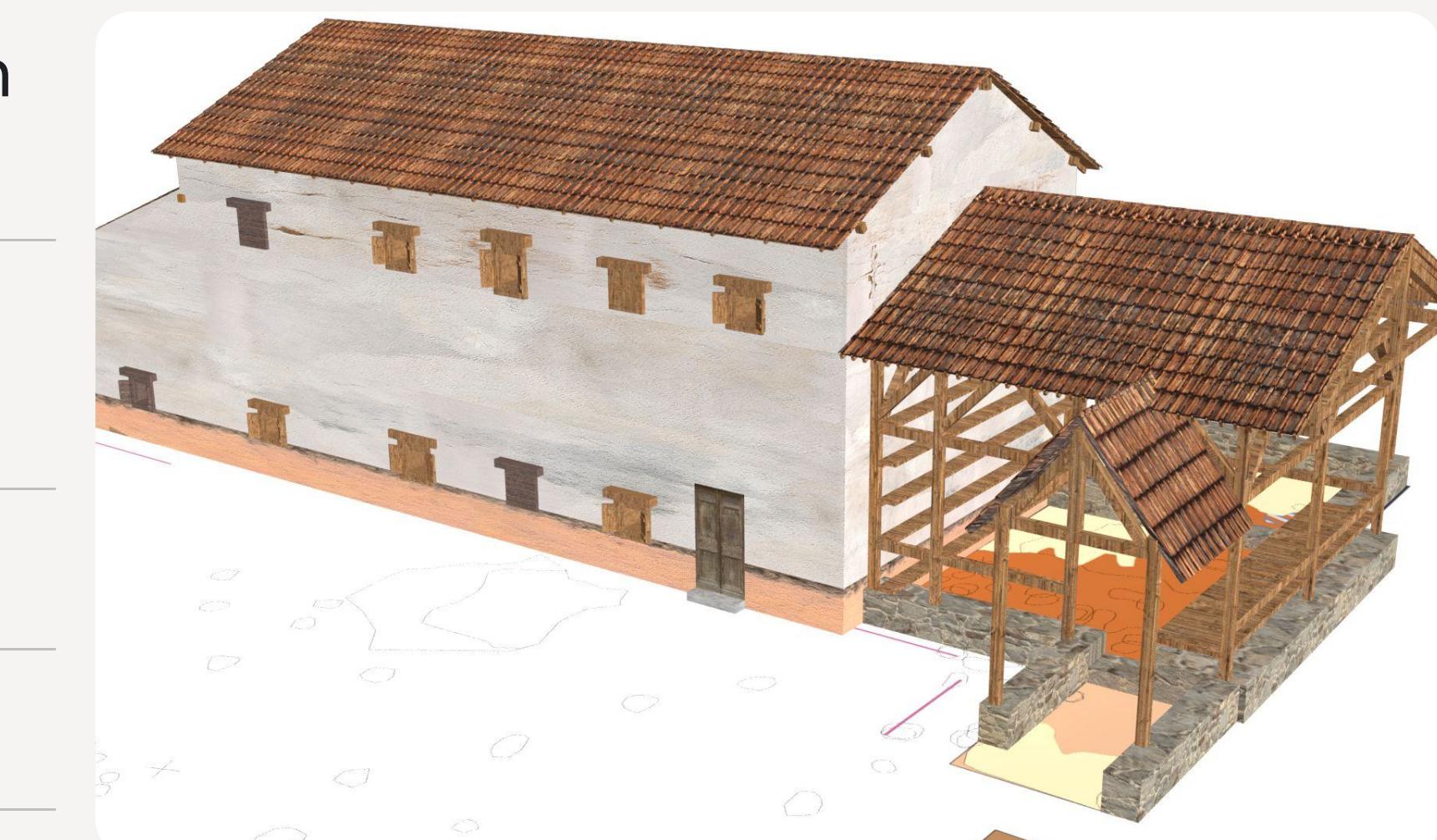
Map showing old water streams and irrigation systems



Herforst Roman pottery centre (Germany)

The Herforst project focused on the geophysical survey of a Roman pottery production centre near Trier, Germany. By employing magnetic prospection and ground-penetrating radar (GPR), subsurface evidence of multiple kilns and workshops were located. The digital reconstruction of one of the pottery workshops helped enhance the understanding of its structure and operation.

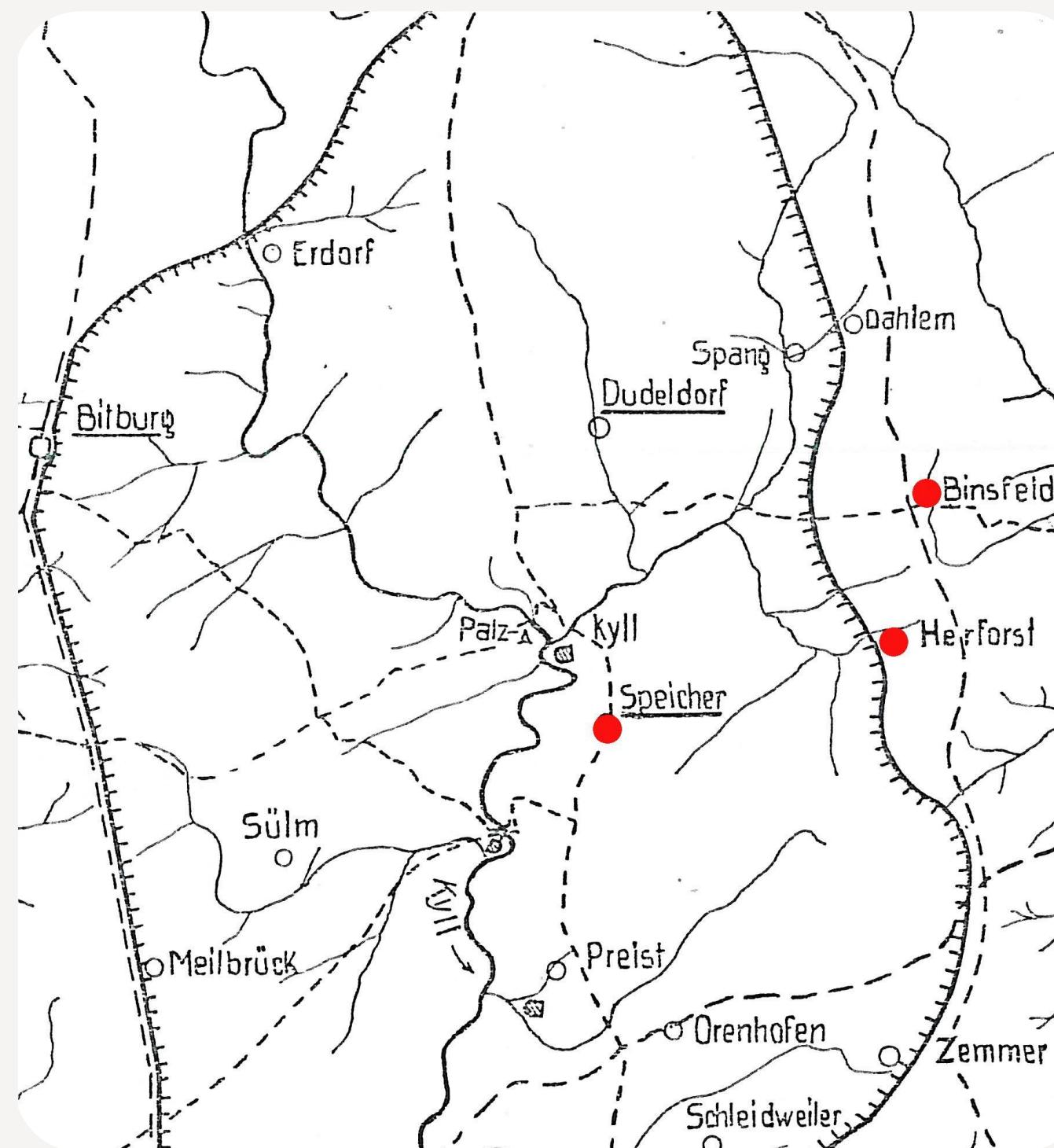
Institute	Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology (Wolfgang Neubauer)
Role	Geophysical interpretation (magnetometry, GPR), 3D reconstruction of a Roman pottery workshop
Length	2017 (6 weeks)
Tools	ApSoft, ArcMap, QGIS, Maya 3D
Year	2017



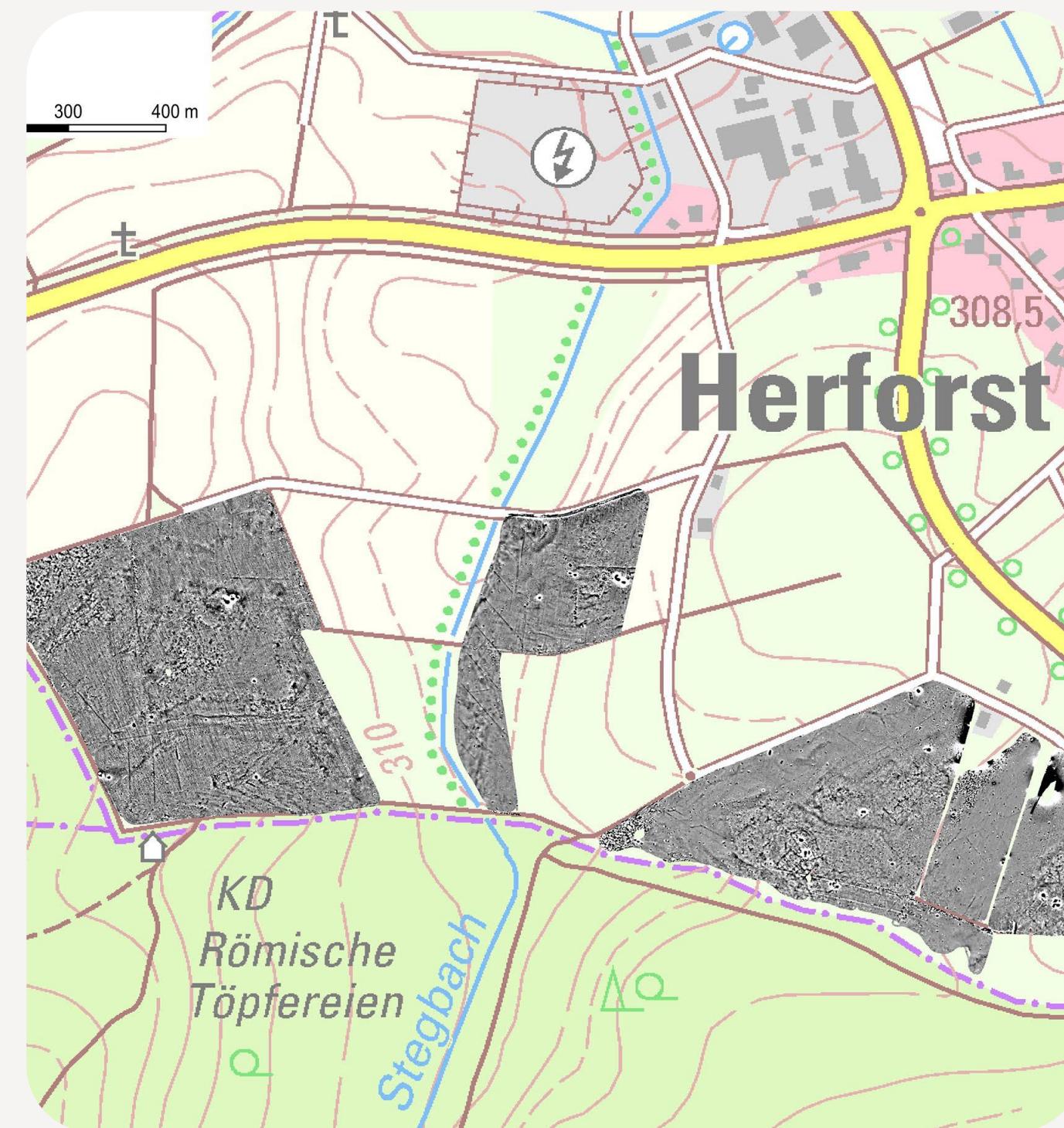
Herforst Roman pottery centre (Germany)

Excerpts of the results I participated in

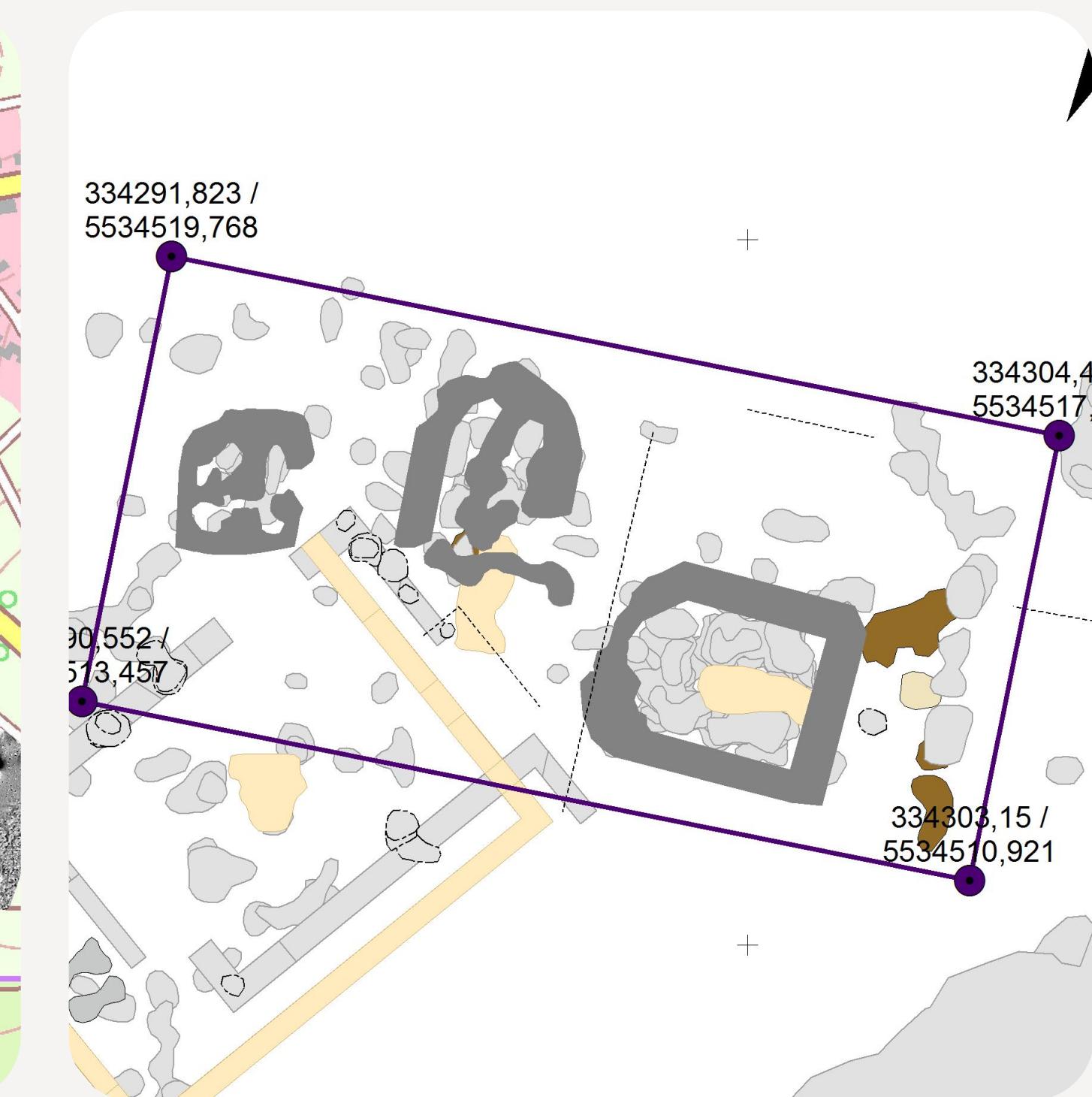
Map showing the villages Herforst and Speicher in Germany



Map showing the magnetic surveyed data



Map showing three ovens interpreted based on GPR



Seleukia Sidera (Turkey)

The Seleukia Sidera project aimed to map and analyse the ancient city's urban layout using non-invasive geophysical methods, including magnetic prospection and ground-penetrating radar (GPR). The project uncovered several urban structures, such as streets, fortifications, and public buildings, allowing for a deeper understanding of the city's development from the Hellenistic through to the Byzantine periods.

Institute University of Isparta (Bilge Hörmüzlü), HTW Berlin (Thomas Schenk)

Role Geophysical data collection and interpretation (magnetic survey, GPR),
 3D scanning, geophysical prospection lead (2017)

Length 2016 (4 weeks), 2017 (4 weeks)

Tools Leica SmartScanstation 2 (3D scanning), magnetometer, GPR,
 MAGNETO, QGIS

Year 2016–2017



Seleukia Sidera (Turkey)

Excerpts of the results I participated in

Magnetic hand-held survey



Map showing position of the archaeological site



Interpretation of the magnetic and GPR data



My focus is on enabling archaeologists to communicate their research more effectively, using visual tools to support better science and broader public engagement.

I enjoy exploring the diverse methods and technologies we use in archaeology and sharing that knowledge in a clear and accessible way.

I am always looking to collaborate on scientific projects, either as an illustrator or a web designer/developer, with a particular interest in research related to science communication. I'm also keen to explore 3D web development, integrating maps and 3D artefacts to make archaeology more interactive and explorable. Adding a storytelling aspect to these tools is important to me, ensuring that they serve both the public and other researchers.

— Jona Schlegel —



Thank you
Get in touch:

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