OpenAtlas

A Database System for the Humanities and Beyond

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Alexander Watzinger, Andreas Olschnögger
ACDH-CH Student Session, 13. December 2022
OpenAtlas – Alexander Watzinger (Alex)

- Lead developer of OpenAtlas
- Since 2017 at the ACDH-CH
- Loves open source and scientific projects
About OpenAtlas

● Project website: https://openatlas.eu
● Initiated about 10 years ago by Stefan Eichert
● Mainly developed at the ACDH-CH
● Open source, browser based database software
● Acquire, edit and manage research data
OpenAtlas Collaborations

- With projects from all fields of the humanities
- Mostly historical, archaeological and prosopographic projects
- A lot of synergies between the projects
OpenAtlas Team

Stefan Eichert
Idea, Concept and Data Modeling
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Stefan is the the initiator and master mind behind the OpenAtlas project. His main research fields are Early Medieval archaeology and history as well as computer applications in archaeology and digital humanities.

Bernhard Koschicke-Krombholz
Software Development, API
bernhard.koschicke-krombholz@oeaw.ac.at
Bernhard is currently developing our API and studies Computer Sciences as well as History. His research interests include computer security, Python, digital preservation, historical geography, GIS, medieval and military history.

Andreas Oleschnigger
Frontend Development
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Andi is a frontend developer and studies computer science at the Technical University of Vienna. He mainly develops with Vue.js and is also interested in UX design to make technology more accessible.

Veronika Grundhammer
Project Administration
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Veronika provides essential support for cooperations in her role as project officer at the ACDH-CH.

Alexander Watzinger
Lead Developer and Concept
alexander.watzinger@oeaw.ac.at
Alex is the lead developer of OpenAtlas and has a special interest in data modeling and scientific web applications. His favorite tools are Python, PostgreSQL, Linux and open source software in general.

Nina Richards
Bioarchaeological Expertise
nina.richards@oeaw.ac.at
Nina is an archaeologist and anthropologist, with a focus on Early Medieval burial grounds. With her expertise she provides essential support planning and implementing archaeological, anthropological and scientific modules in OpenAtlas.

Moritz "Mocca" Gröflnurfer
Frontend Development
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Mocca is a frontend developer for OpenAtlas. He's currently studying computer science at the TU Vienna and interested in design that is useful and fun to use, be that software or real life objects.

Jan Belik
Logo Design and Design Consulting
bureau@janbelik.com
Jan is a freelance graphic designer, illustrator and art director at janbelik.com in Vienna, Austria. He has plenty of experience working with local as well as international brands and has created a range of OpenAtlas project logos.

Contributors
These people supported us in many different ways. Our thanks goes to all of them.

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Asil Çelikin
Britta Breuers
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Petra Heinricke
Roland Fitzwieser
Sandra Lethecka
Saranya Balassubramanian
Sebastian Majstorovic
Semra Kılıç-Dinler
Sela Štuhec
Silvia Gómez-Senovilla
Stefan Probst
- International standard (ISO)
- Developed by CIDOC CRM Special Interest Group
- Specifies classes for entities like actor, source, event, place and rules how to link them
- Stored in an object oriented network
Data enrichment with types and linked open data

- Standard types
- Custom types
- Value types
- Linked open data
  - Wikidata
  - GeoNames
  - Custom, e.g. Viaf, GND
OpenAtlas Development

- Solely open source technology
- One release about every month
- Close cooperation with users
- High quality
  - Coding standards
  - Tests and coverage
  - Bugs have the highest priority
  - Tools to test data integrity

Python
- An interpreted, high-level, general-purpose programming language.
- Website: https://www.python.org
- Licence: Python Software Foundation License

Flask
- A micro web framework, written in Python, with the ability to scale up to complex applications.
- Website: https://flask.palletsprojects.com/
- Licence: BSD

PostgreSQL
- A free and open source relational database management system.
- Website: https://www.postgresql.org/
- Licence: PostgreSQL License

PostGIS
- A spatial database extender for PostgreSQL and adds support for geographic objects.
- Website: https://postgis.net
- Licence: GPL 2 or later

Bootstrap
- A free and open source CSS framework.
- Website: https://getbootstrap.com/
- Licence: MIT

Leaflet
- An open source JavaScript library used to build web mapping applications.
- Website: https://leafletjs.com/
- Licence: BSD-2-Clause

Jinja
- A full-featured template engine for Python with full unicode support.
- Website: https://palletsprojects.com/p/jinja
- Licence: BSD
Front End

- Andreas Olschnögger
  - Studies
    Bachelorstudium Software & Information Engineering
    Masterstudium Software Engineering & Internet Computing
  - since January 2022 Developer for OpenAtlas

- Moritz Großfurtner
  - Studies
    Bachelorstudium Medieninformatik und Visual Computing
  - since October 2022 Developer for OpenAtlas
Front End – User Interface for data entry
Front End – Presentation Website

OpenAtlas

API

Presentation Site
Front End – Presentation Website

```json
{
  "@context": "https://...-v1.1.jsonld",
  "type": "FeatureCollection",
  "features": [
    {
      "@id": "htt...entity/1521",
      "type": "Feature",
      "crmClass": "crm:E74 Group",
      "systemClass": "group",
      "properties": {
        "title": "'Pagans' on Sardinia"
      },
      "descriptions": [
        ...
      ]
    }
  ]
}
```
The CONNEC database features four letter collections (388-603 CE), including Augustine, Paulinus, Avitus, and Gregory. The database foregrounds their spatial worlds and social connections. It contains ??? letters, ??? actors and groups, and ??? locations.
Front End – Connec
Front End – Shahi Kingdoms Database
Front End – Shahi Kingdoms Database
Front End – OpenAtlas Discovery

OpenAtlas Discovery

Das ist ein Prototyp für OpenAtlas Projekte. Demo Daten freundlicherweise zur Verfügung gestellt von: The Ethnocyem of the Vlachs in the Written Sources and the Toponymy in the Historical Region of Macedonia (11th-16th Cent.) Weitere Informationen.

Karte  | Daten
Front End – OpenAtlas Discovery

Nanov Dol, Mountain

From the time of the issue of the Hërëtovo Charter, the Mountain (pasture) Nanov Dol was prohibited to Vlachs, Albanians and the travnikar (the state pasture tax collector) (i.e., the king’s pasture officer) in the Kleština region of Montenegro. In the vicinity of the Nanov Dol, a number of megalithic stone circles, and in the area of the Nanov Dol, there are stone circles, which are remnants of the ancient Vlach culture. The location of the Nanov Dol is unknown, but it is assumed somewhere in the Region of Podgorica, Montenegro.

More details

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More details
Thank you for your kind attention!

OpenAtlas:
Web: https://openatlas.eu
GitHub: https://github.com/craws/OpenAtlas