ÖAW ÖSTERREICHISCHE AKADEMIE DER WISSENSCHAFTEN

austrian centre for digital humanities & cultural heritage

OpenAtlas

A Database System for the Humanities and Beyond

14. July 2025 - Meet the Researchers

Alexander Watzinger (Alex)

- Lead developer of OpenAtlas
- Works at the ACDH / ÖAW
- Loves open source and scientific projects

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Olivia Reichl

- Frontend developer in the OpenAtlas team
- Works at ACDH / ÖAW
- Studies at the Danube University Krems
- Loves everything about good design, gamification and lifelong learning

OpenAtlas Discovery

OpenAtlas

- Project site: https://openatlas.eu
- Open Source, browser based database software
- Acquire, edit and manage research data
- Based on the model of CIDOC CRM
- Initiated over 10 ago by Stefan Eichert
- Mainly developed at the ACDH / ÖAW

OpenAtlas Cooperations

- Projects from all fields of the humanities
- Mostly historical and archaeological projects
- A lot of synergy between the cooperations

MAMEMS
indigo
THANADOS
APPROACHING BYZANTIUM
FemCare Vienna
MEDICON
DPP Digitising Patterns of Power
connec
bITEM

Mission Statement

- https://openatlas.eu/mission
- Open source – Open data access
- Transparent workflow and communication
- High data integrity and coding standards
- Usability
- Interoperability through
  - CIDOC CRM
  - API
  - FAIR principles
  - Links to external reference systems

Structured data

Aim

- Search
- Compare
- Merge
- Research questions

Workflow

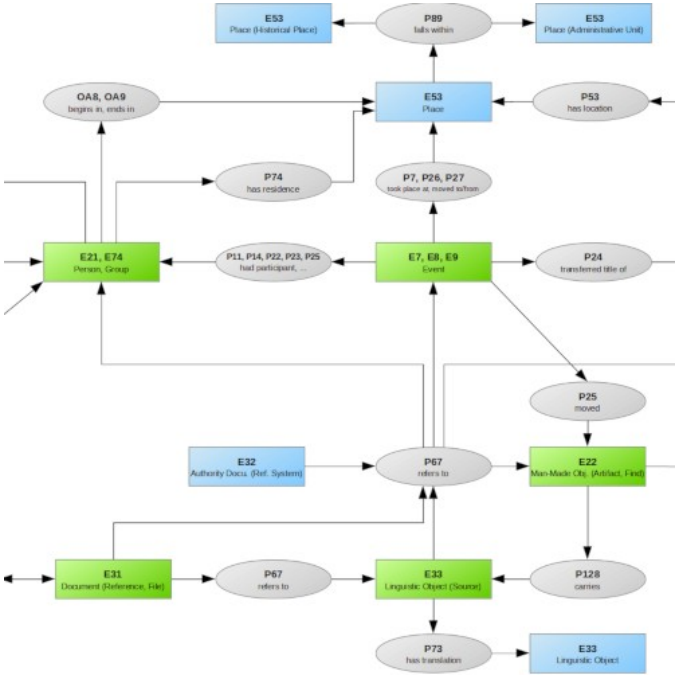
- Identify classes for entities
- Add attributes
- Link entities -> network

Challenge

- Balance between easy data entry and acquiring detailed information

Model - CIDOC Conceptual Reference Model

- International standard (ISO)
- Developed by the CIDOC CRM Special Interest Group
- Specifies classes for entities like actor, source, event, place and rules how to link them



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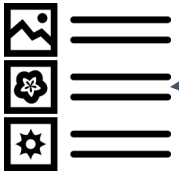
CIDOC CRM Example

E18 Mes Aynak

E18 Mes Aynak

P53 current or former location

E53 Location



P2 has type

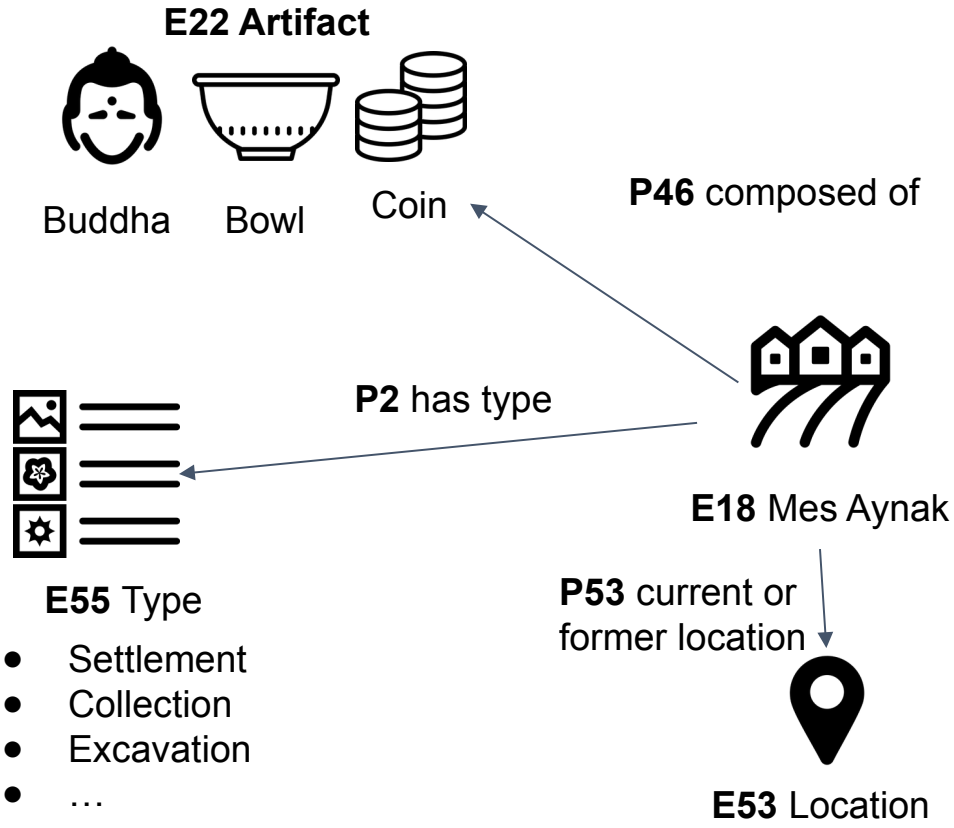
E18 Mes Aynak

P53 current or former location

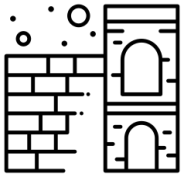
E53 Location

E55 Type

- Settlement
- Collection
- Kingdom
- …


E22 Artifact
Buddha
Bowl
Coin
P46 composed of
P2 has type
E18 Mes Aynak
E55 Type
Settlement
Collection
Excavation
…
P53 current or former location
E53 Location

E18 Feature



Monastery

Walls

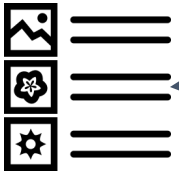
E22 Artifact

Buddha Bowl Coin

P46 composed of

E18 Mes Aynak

P2 has type



E55 Type

- Settlement
- Collection
- Excavation
- …

P53 current or former location

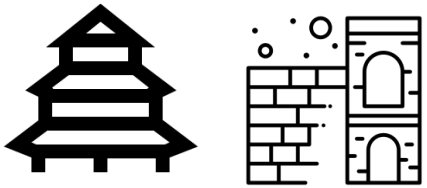
E53 Location

E22 Artifact

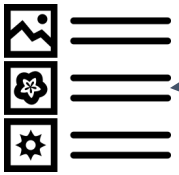
Buddha Bowl Coin

P46 composed of

E18 Feature



Monastery Walls



P2 has type

E55 Type

- Settlement
- Collection
- Excavation
- …

E18 Mes Aynak

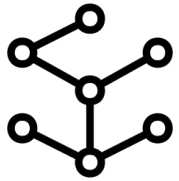
P67 refers to

E31 References

P53 current or former location

E53 Location

E31 Image files



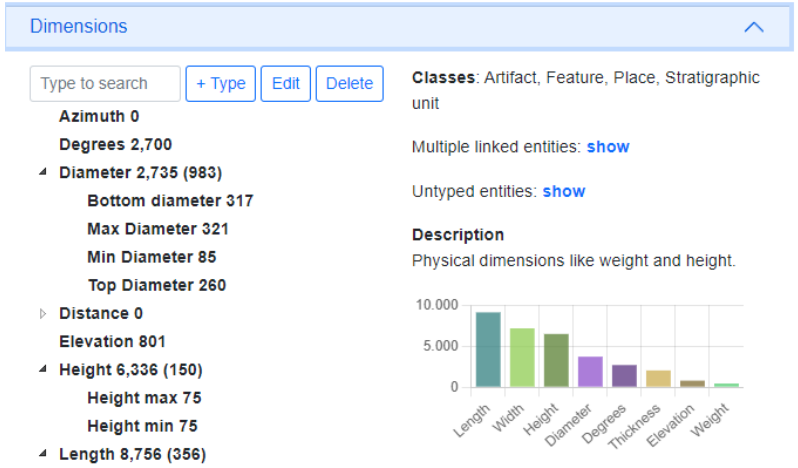
E32 Authority Document

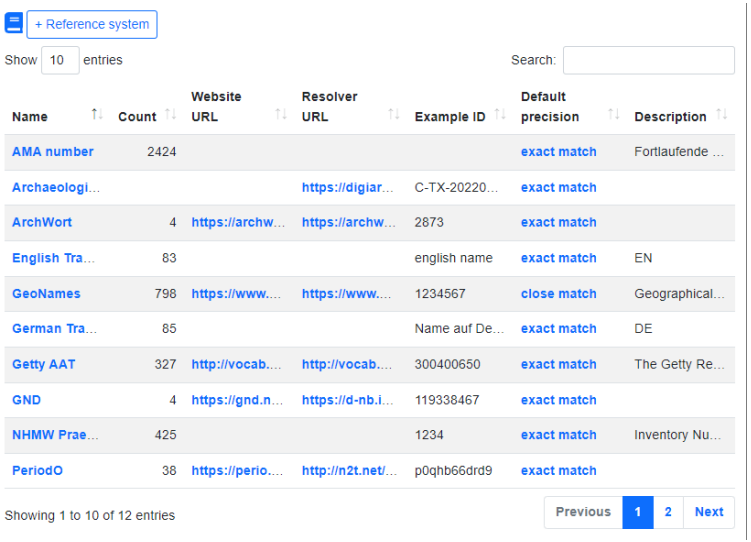
Features

- Detailed description of Features in the manual
- Spatial, object, actor and event information
  - Detailed descriptions of objects
  - Person networks
    - Members of groups and their functions
    - Personal relations, kinship and more
  - Events
    - Hierarchical structure
    - Sequences of events
- Geographical and temporal information about every entity

Features

– Very adaptable types and reference systems





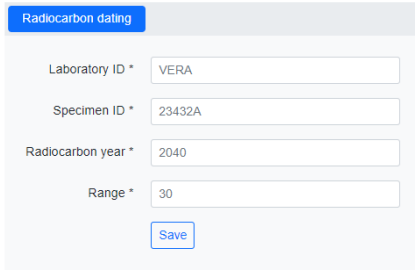
Features

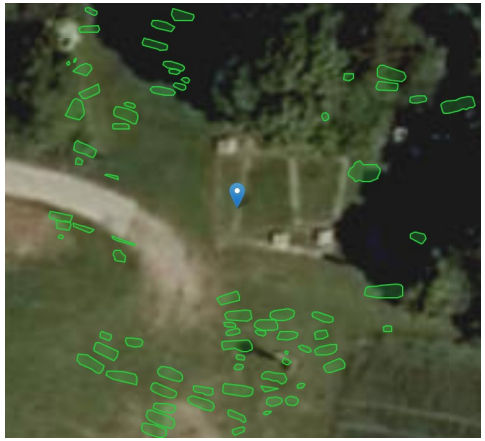
– Solutions for uncertainty in space and time

Begin	1011	01	01	comment
	1020	12	31	
End	1425	08	01	destruction
	1425	10	31	

Features

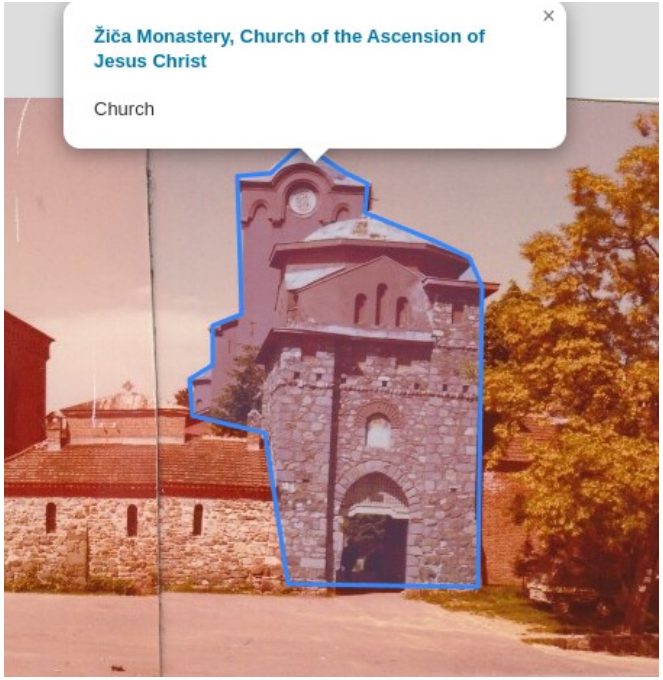
- Archaeological/anthropological features
  - Subunits
  - Radio carbon dating
  - Sex estimation





Features

- IIIF technology
- Image annotation
- Text annotation



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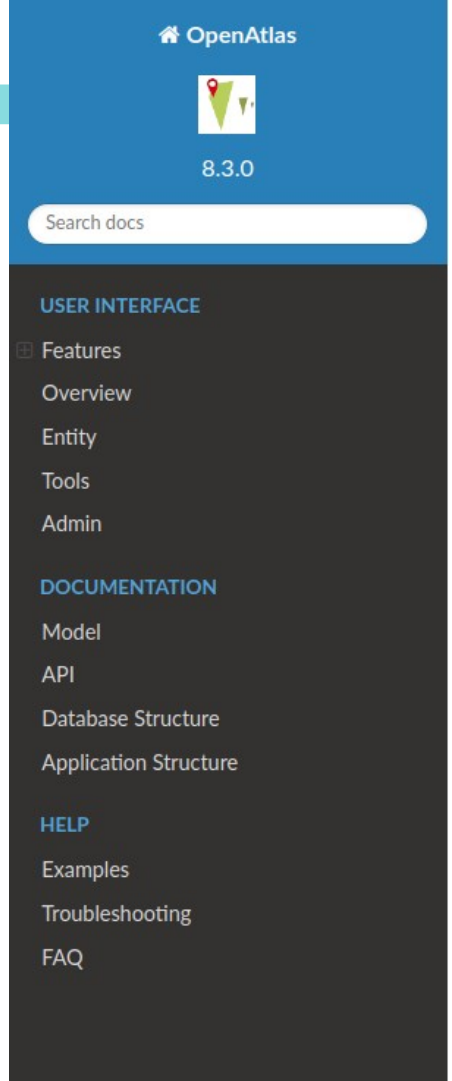
Features

- Documentation
  - Project website: openatlas.eu
  - Code on GitHub
  - Detailed (up-to-date) User Manual
  - Technical Wiki, installation notes
  - Issue tracker, roadmap for planning
  - Public meeting protocols



Features

- User management
- Password functions
- Newsletter

	Admin	Manager	Editor	Contributor	Readonly	Guest
Browse data	yes	yes	yes	yes	yes	
Edit data	yes	yes	yes	yes*		
Edit types	yes	yes	yes			
Add custom types	yes	yes				
Add reference systems	yes	yes				
Import/Export	yes	yes				
User management	yes	yes				
System settings	yes					

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Live Demonstration

https://demo-dev.openatlas.eu/

User: Demolina, Password: Demolina

Exercise

- https://demo-dev.openatlas.eu/
- Create an artifact (painting / sculpture / ...) and add an image
- Create a person and add it as the artifact owner
- Create a place where it has been created
- Create a place where it is at this date
- Create a move event to showcase it's movement

Results are visible at the presentation site:
https://openatlas-discovery-demo.acdh-ch-dev.oeaw.ac.at/

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Thank you!

OpenAtlas