

OpenAtlas



A Database System for the Humanities and Beyond

14. July 2025 - Meet the Researchers

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

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- 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

- 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

APPROACH
BYZANT
NG
UM

Indigo

THANADOS

MEDCON

FemCare
Vienna

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

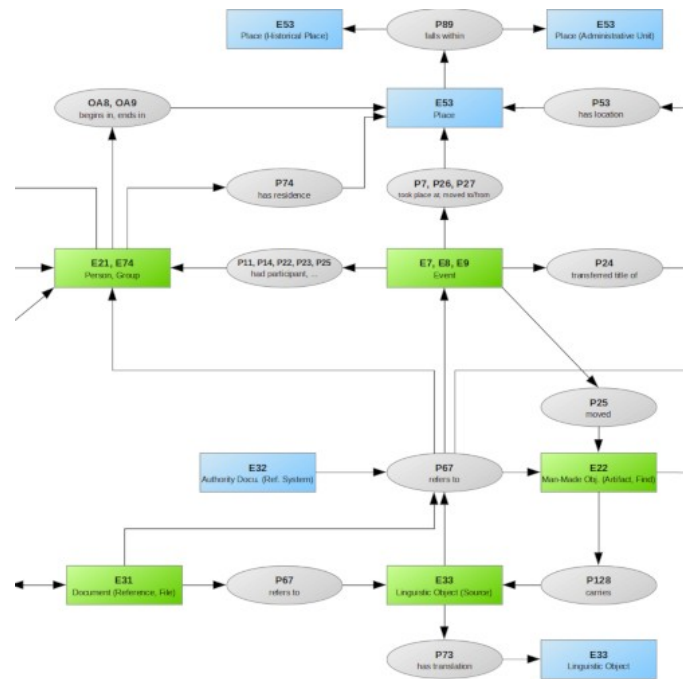
Challenge

- 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



CIDOC CRM Example



E18 Mes Aynak

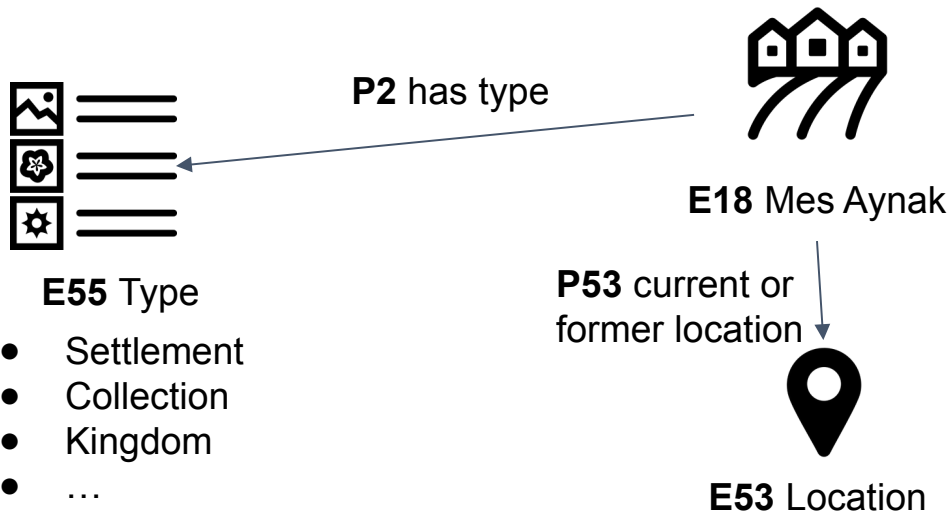


E18 Mes Aynak

P53 current or
former location



E53 Location



E22 Artifact



Buddha



Bowl



Coin

P46 composed of



E18 Mes Aynak

P2 has type



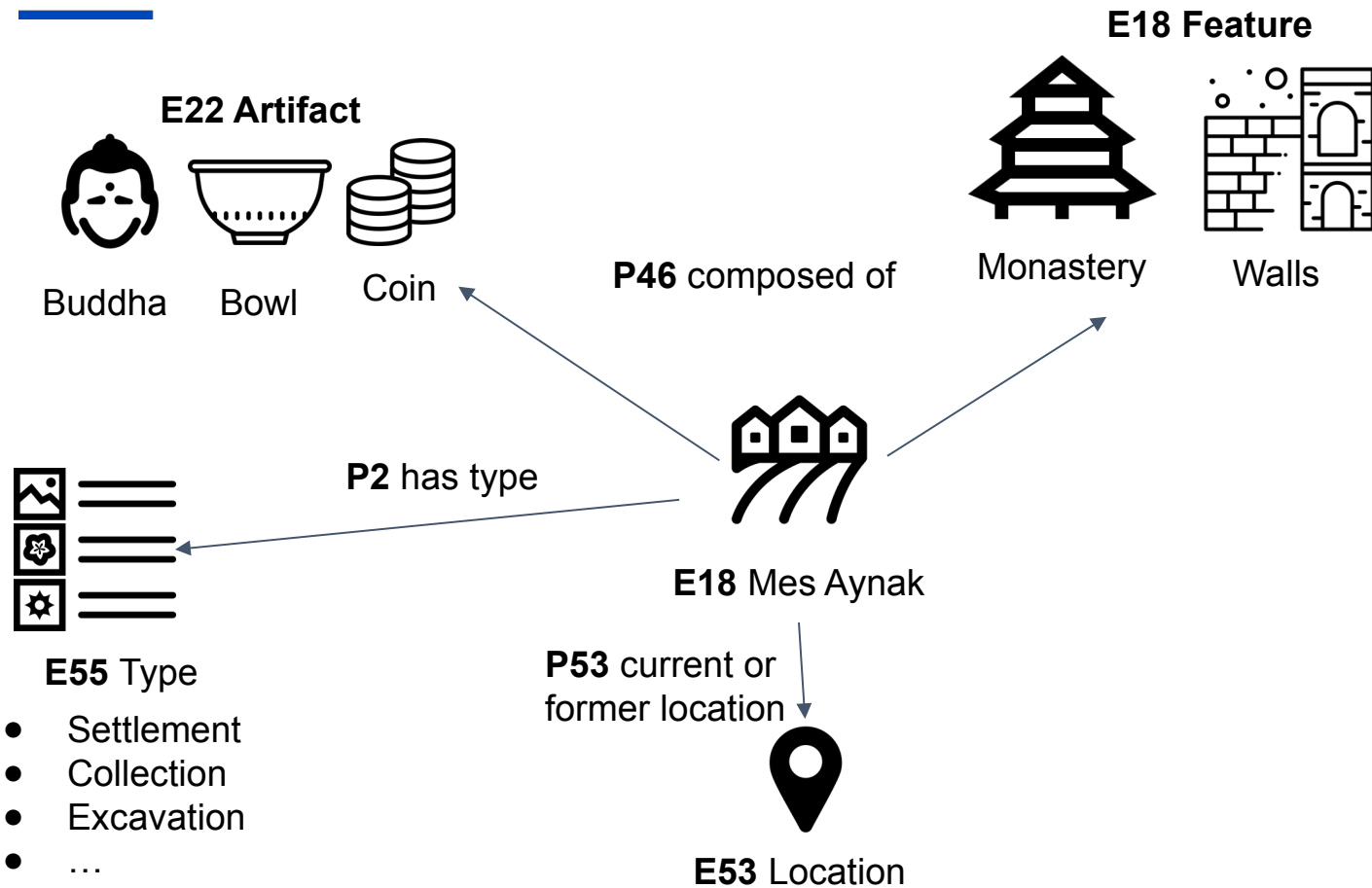
E55 Type

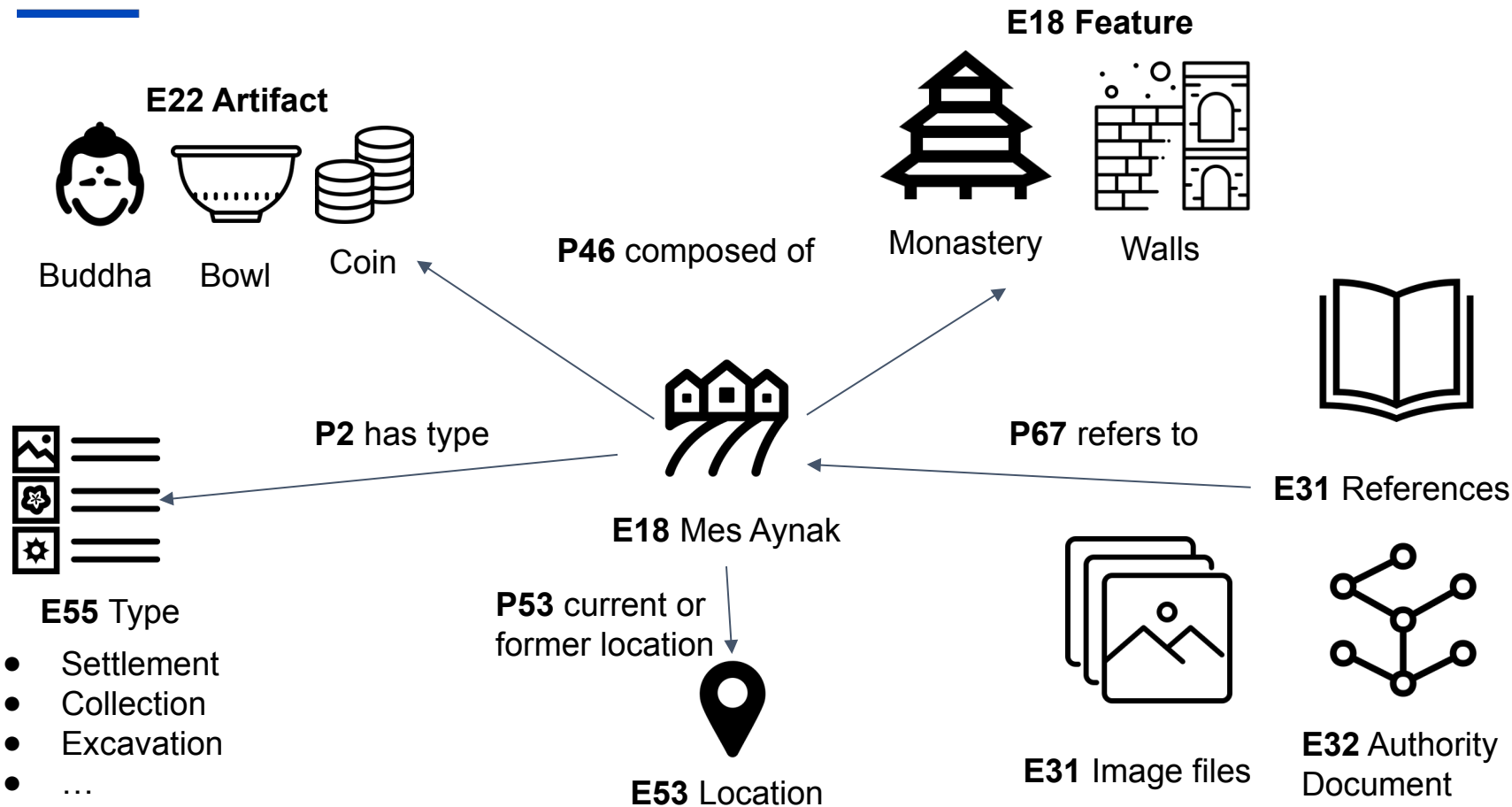
- Settlement
- Collection
- Excavation
- ...

P53 current or
former location



E53 Location





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

Dimensions

Azimuth 0

Degrees 2,700

▸ **Diameter** 2,735 (983)

 Bottom diameter 317

 Max Diameter 321

 Min Diameter 85

 Top Diameter 260

▸ **Distance** 0

Elevation 801

▸ **Height** 6,336 (150)

 Height max 75

 Height min 75

▸ **Length** 8,756 (356)

Classes: Artifact, Feature, Place, Stratigraphic unit

Multiple linked entities: [show](#)

Untyped entities: [show](#)

Description

Physical dimensions like weight and height.

+ Reference system

Show 10 entries

Search:

| Name | Count | Website URL | Resolver URL | Example ID | Default precision | Description |
|----------------|-------|---|---|----------------|-------------------|------------------|
| AMA number | 2424 | | | | exact match | Fortlaufende ... |
| Archaeologi... | | | https://digiar... | C-TX-20220... | exact match | |
| ArchWort | 4 | https://archw... | https://archw... | 2873 | exact match | |
| English Tra... | 83 | | | english name | exact match | EN |
| GeoNames | 798 | https://www... | https://www... | 1234567 | close match | Geographical... |
| German Tra... | 85 | | | Name auf De... | exact match | DE |
| Getty AAT | 327 | http://vocab... | http://vocab... | 300400650 | exact match | The Getty Re... |
| GND | 4 | https://gnd.n... | https://d-nb.i... | 119338467 | exact match | |
| NHMW Prae... | 425 | | | 1234 | exact match | Inventory Nu... |
| PeriodO | 38 | https://perio... | http://n2t.net/... | p0qnb66drd9 | exact match | |

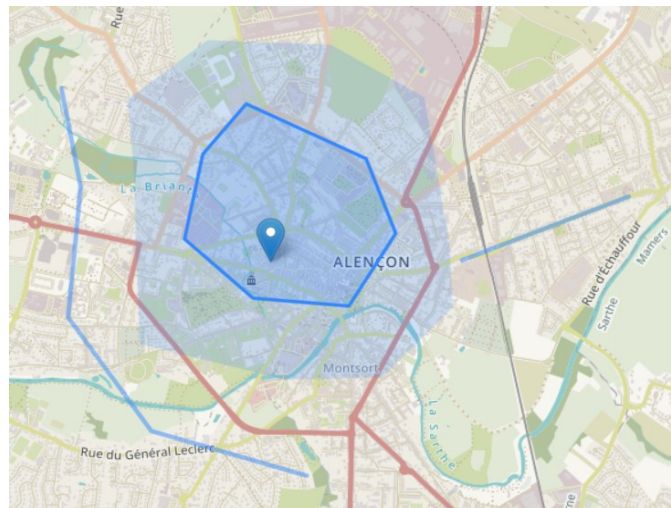
Showing 1 to 10 of 12 entries

Previous
1
2
Next

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

Radiocarbon dating

Laboratory ID *

Specimen ID *

Radiocarbon year *

Range *



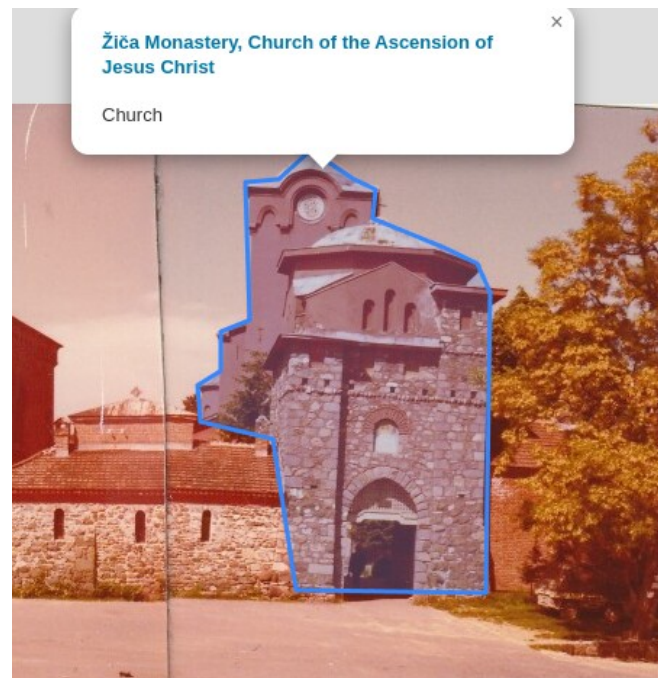
Sex estimation

Skull

| | |
|-----------------------------------|-----------------|
| Glabella | 3 Not preserved |
| Arcus superciliaris | 2 Not preserved |
| Tuber frontalis and parietalis | 2 Not preserved |
| Inclinatio frontalis | 1 Not preserved |
| Processus mastoideus | 3 Not preserved |
| Relief of planum nuchale | 3 Not preserved |
| Protuberantia occipitalis externa | 2 Not preserved |
| Processus zygomaticus | 3 Not preserved |
| Os zygomaticum | 2 Not preserved |
| Crista supramastoideum | 2 Not preserved |
| Margo supraorbitalis | 1 Not preserved |
| Shape of orbita | 1 Not preserved |
| Mandible | |
| Overall apperence | 3 Not preserved |
| Mentum | 2 Not preserved |
| Angulus | 1 Not preserved |

Features

- IIF technology
- Image annotation
- Text annotation



Features

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



USER INTERFACE

Features

Overview

Entity

Tools

Admin

DOCUMENTATION

Model

API

Database Structure

Application Structure

HELP

Examples

Troubleshooting

FAQ

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 | | | | | |



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/>

Thank you!

OpenAtlas



Logos originate from the respective project pages.

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