

OpenAtlas



A Database System for the Humanities and Beyond

5. February 2025 - Meet the Researchers

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

Olivia Reichl

- Frontend developer in the OpenAtlas team
- Works at [ACDH-CH](#) / [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-CH](#) / [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

MEDCON

DPP
Digitising
Patterns of
Power

Indigo

FemCare
Vienna

THANADOS

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

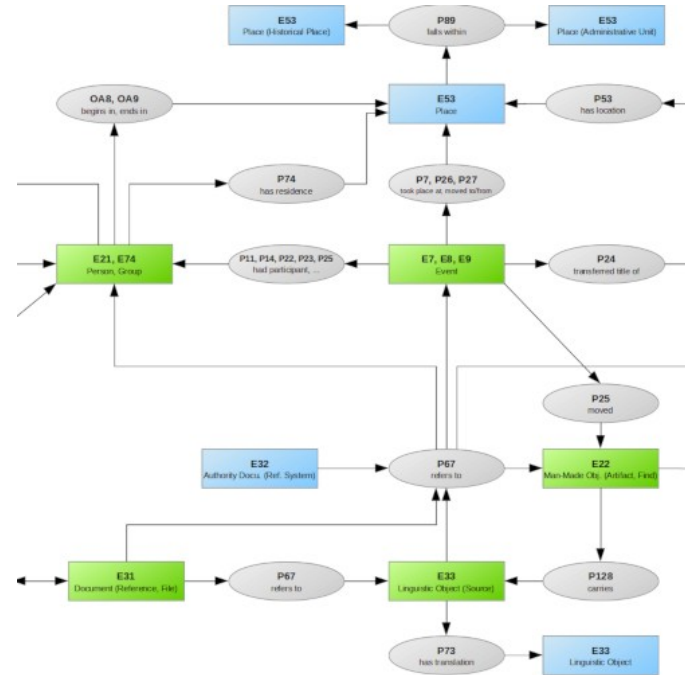
Challenge

- 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

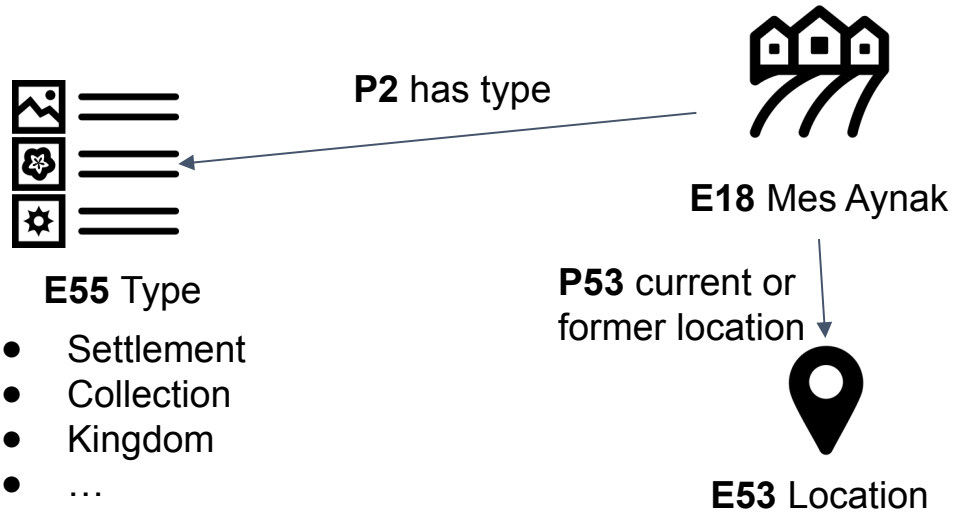


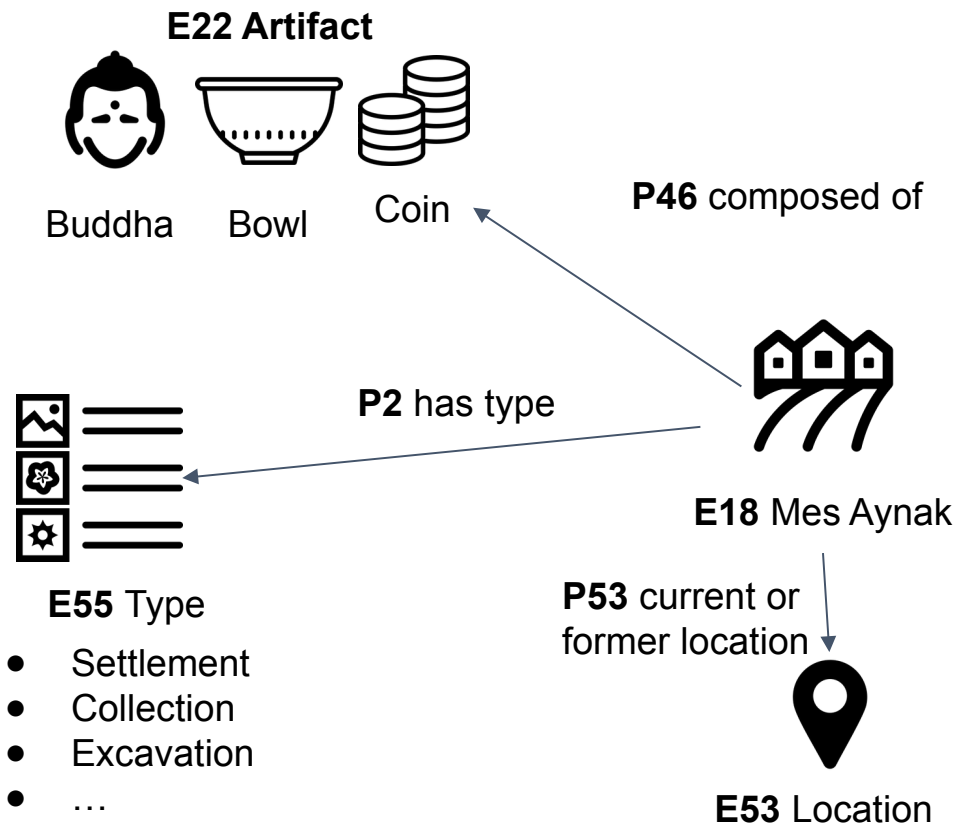
E18 Mes Aynak

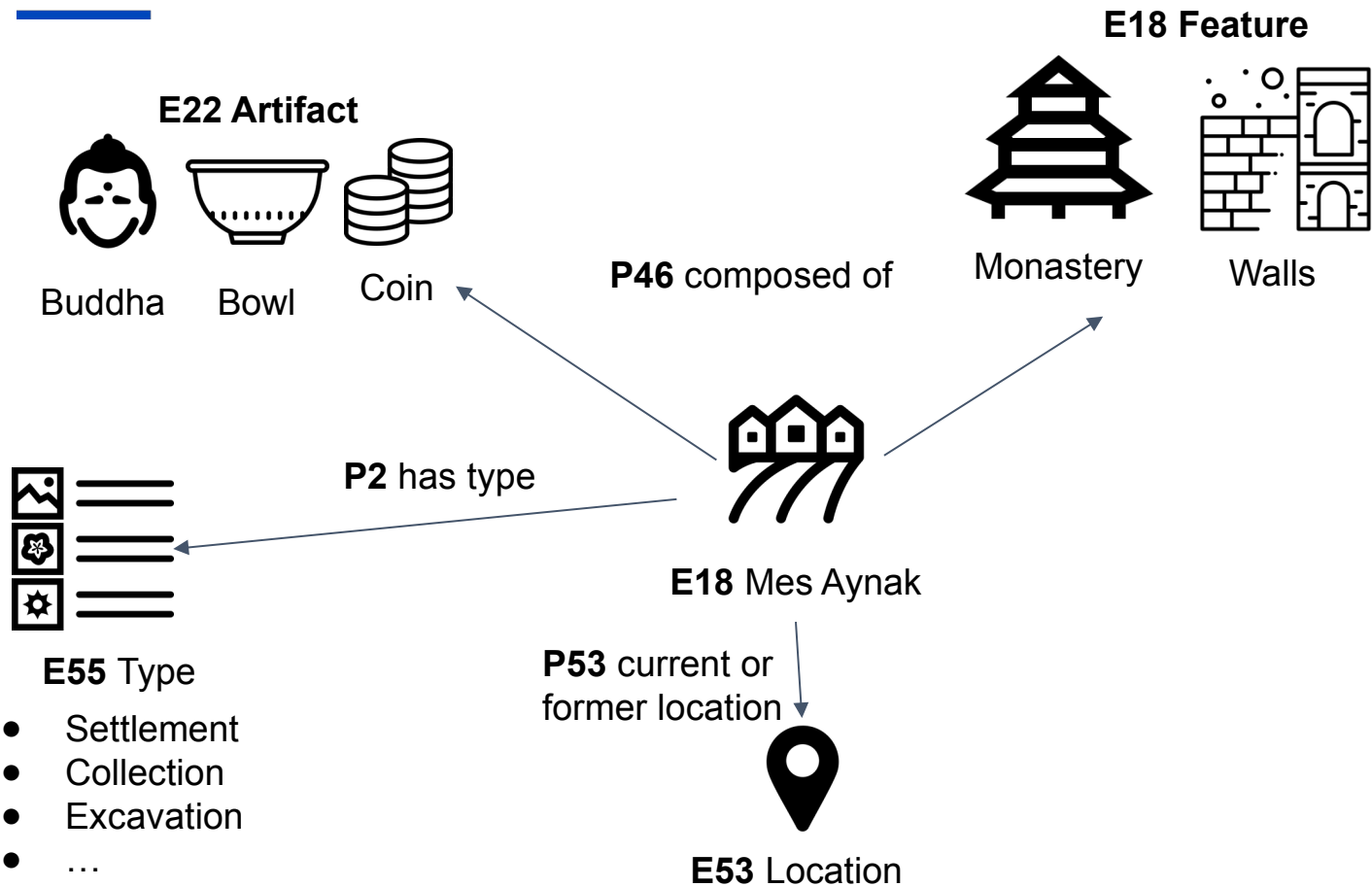
P53 current or
former location

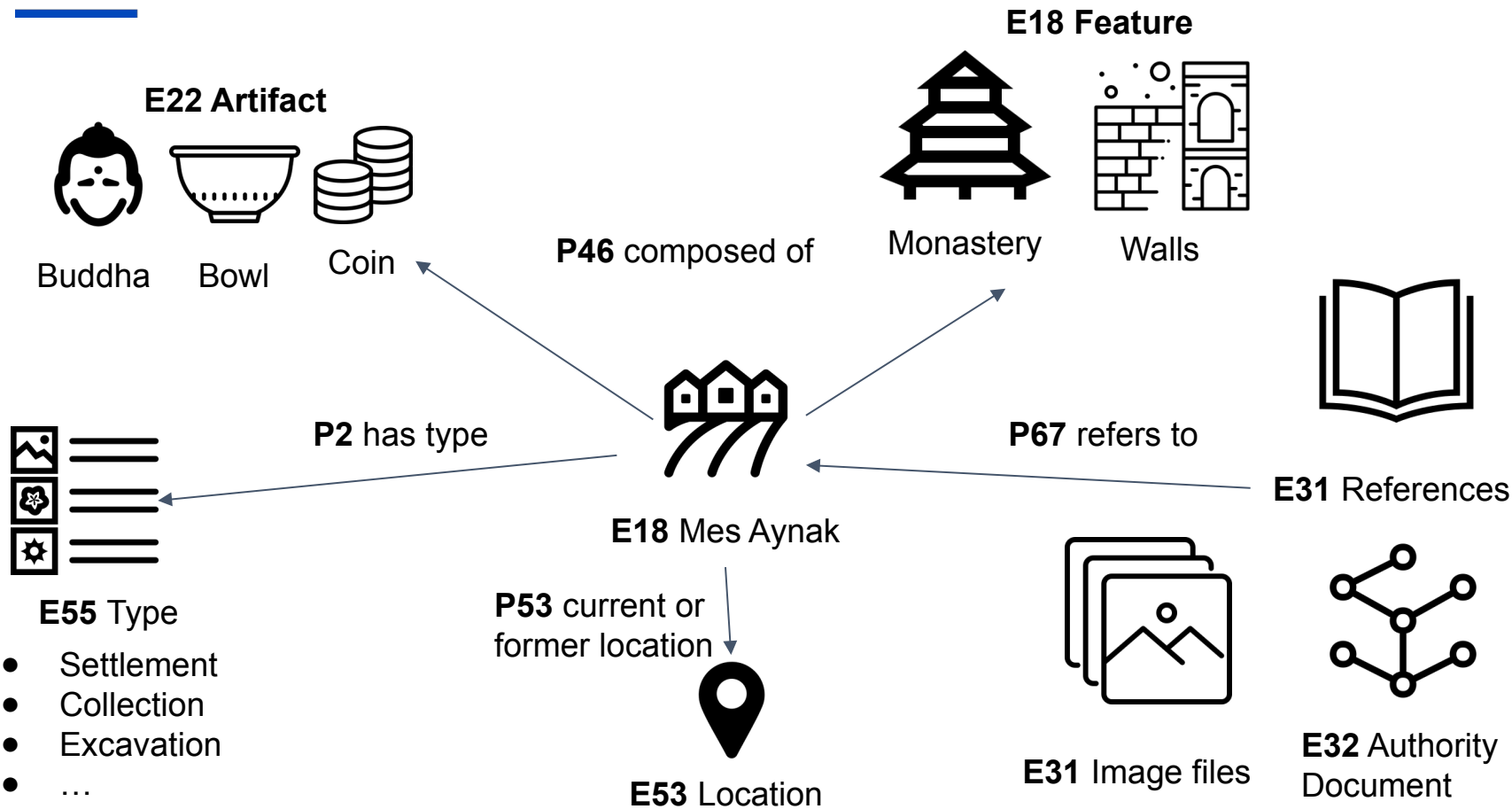


E53 Location









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

Type to search [+ Type](#) [Edit](#) [Delete](#)

- 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.

Dimension	Count
Length	983
Width	150
Height	801
Diameter	317
Degrees	2700
Thickness	75
Elevation	801
Weight	356

+ Reference system

Show entries Search:

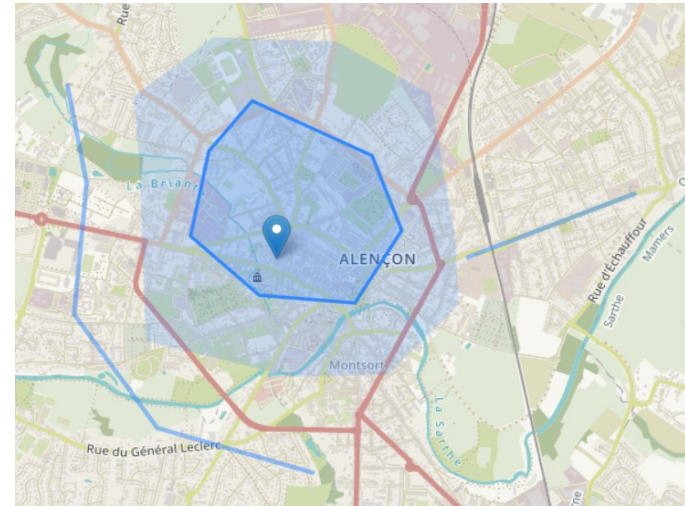
Name	Count	Website URL	Resolver URL	Example ID	Default precision	Description
AMA number	2424				exact match	Fortlaufende ...
Archaeologi...			https://digiar...	C-TX-20220...	exact match	
ArchWort	4	https://archw...	https://archw...	2873	exact match	
English Tra...	83			english name	exact match	EN
GeoNames	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/...	p0qhb66drd9	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

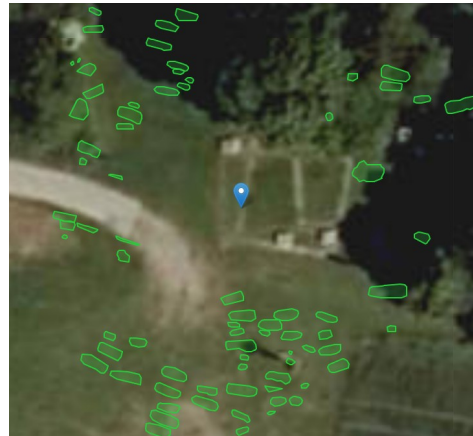
Radiocarbon dating

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

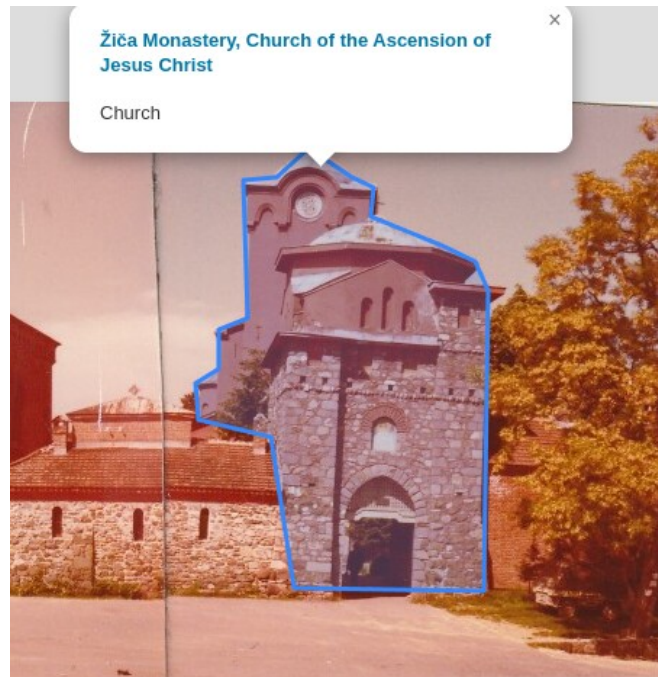
Mandible

Overall appearance	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](#)
 - 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 a place
- Create an artifact of the place (statue)
- Upload an image
- Annotate the image
- Add an owner



Results are visible at the presentation site:

<https://openatlas-discovery-demo.acdh-ch-dev.oeaw.ac.at/>

Thank you!

OpenAtlas



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