

IRI:

http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025

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Other visualisation :

[Ontology source - WebVowl](#)

Abstract

This ontology was developed by Fabrizio Ducati within the framework of the EU-funded FIRS project. It serves as the reference solution for the introductory practical workshop delivered as part of the 5th Una Quantum Conference, held at the University of Bologna from 18 to 19 December. For any questions or clarifications, please contact fabrizio.ducati@univ-amu.fr My thanks go to Giuseppe Guarino and Una Quantum for their kind invitation, to Michael De Bellis for his support and valuable advice during the ontology modelling process, and to the European Commission for the generous funding provided through the FIRS project.

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Classes

archaeological classification	artefact identifier	ceramic class	ceramic shape	ceramic type
discovery area	discovery layer	discovery place	discovery site	discovery space
location				
production place	technology			

[archaeological classification](#)^C

[back to [ToC](#) or [Class ToC](#)]

IRI:

http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#ArchaeologicalClassification

has sub-classes

[ceramic class](#)^C, [ceramic shape](#)^C, [ceramic type](#)^C

is disjoint with

[artefact identifier](#)^C, [location](#)^C, [technology](#)^C

[artefact identifier](#)^C

[back to [ToC](#) or [Class ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#ArtefactIdentifier

The unique identifier assigned to each artefact within a given project. Different marking methods may be employed across projects.

has super-classes

[has ceramic class](#)^{op} **some** [ceramic class](#)^C
[has ceramic shape](#)^{op} **some** [ceramic shape](#)^C
[has ceramic type](#)^{op} **some** [ceramic type](#)^C

[has discovery area^{op}](#) **some** [discovery area^c](#)
[has discovery layer^{op}](#) **some** [discovery layer^c](#)
[has discovery site^{op}](#) **some** [discovery site^c](#)
[has discovery space^{op}](#) **some** [discovery space^c](#)
[has production place^{op}](#) **some** [production place^c](#)
[has preserved part^{dp}](#) **some** string
[has specific workshop^{dp}](#) **some** string

is in domain of

[has discovery area^{op}](#), [has discovery layer^{op}](#), [has discovery site^{op}](#), [has discovery space^{op}](#), [has preserved part^{dp}](#), [has specific workshop^{dp}](#)

is disjoint with

[archaeological classification^c](#), [location^c](#), [technology^c](#)

ceramic class^c

[back to [ToC](#) or [Class ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#CeramicClass

A group of objects belonging to the same functional category that share the same fabric or fabric group, as well as comparable shaping and coating techniques. A ceramic class is typically produced within a specific region and within a broadly similar chronological range.

has super-classes

[archaeological classification^c](#)
[has ceramic shape^{op}](#) **some** [ceramic shape^c](#)
[has ceramic type^{op}](#) **some** [ceramic type^c](#)
[has production place^{op}](#) **some** [production place^c](#)

is in range of

[has ceramic class^{op}](#)

is disjoint with

[ceramic shape^c](#), [ceramic type^c](#)

ceramic shape^c

[back to [ToC](#) or [Class ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#CeramicShape

The specific shape or form of an object, such as a bowl, plate, or flat-bottomed amphora.

has super-classes

[archaeological classification^c](#)
[has technology^{op}](#) **some** [technology^c](#)

is in domain of

[has technology^{op}](#)

is in range of

[has ceramic shape^{op}](#)

is disjoint with

[ceramic class^c](#), [ceramic type^c](#)

ceramic type^c

[back to [ToC](#) or [Class ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#CeramicType

A set of objects sharing similar morphological traits, often assigned to the same class and chronological range. When the morphology is indeterminate, this is explicitly noted.

has super-classes

[archaeological classification^c](#)

[has ceramic class](#)^{op} **some** [ceramic class](#)^c
[has ceramic shape](#)^{op} **some** [ceramic shape](#)^c
[has production place](#)^{op} **some** [production place](#)^c

is in range of
[has ceramic type](#)^{op}

is disjoint with
[ceramic class](#)^c, [ceramic shape](#)^c

discovery area^c

[back to [ToC](#) or [Class ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#DiscoveryArea

When available, the area or trench in which the space and layer were excavated (e.g., Area A, Trial Trench).

has super-classes
[discovery palce](#)^c

is in range of
[has discovery area](#)^{op}

is disjoint with
[discovery layer](#)^c, [discovery site](#)^c, [discovery space](#)^c

discovery layer^c

[back to [ToC](#) or [Class ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#DiscoveryLayer

The archaeological layer in which an artefact was found.

has super-classes
[discovery palce](#)^c
[has excavation year](#)^{dp} **some** [integer](#)

is in domain of
[has excavation year](#)^{dp}

is in range of
[has discovery layer](#)^{op}

is disjoint with
[discovery area](#)^c, [discovery site](#)^c, [discovery space](#)^c

discovery palce^c

[back to [ToC](#) or [Class ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#DiscoveryPalce

has super-classes
[location](#)^c
[locates](#)^{op} **some** [discovery palce](#)^c

has sub-classes
[discovery area](#)^c, [discovery layer](#)^c, [discovery site](#)^c, [discovery space](#)^c

is in domain of
[is part of](#)^{op}

is in range of
[is part of](#)^{op}

is disjoint with
[production place](#)^c

discovery site^c

[back to [ToC](#) or [Class ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#DiscoverySite

The site associated with the excavation.

has super-classes

[discovery_palce](#)^c

is in range of

[has discovery site](#)^{op}

is disjoint with

[discovery_area](#)^c, [discovery_layer](#)^c, [discovery_space](#)^c

discovery space^c

[back to [ToC](#) or [Class ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#DiscoverySpace

When available, the type of space in which the layer was excavated, such as a room, cesspit, or courtyard.

has super-classes

[discovery_palce](#)^c

is in range of

[has discovery space](#)^{op}

is disjoint with

[discovery_area](#)^c, [discovery_layer](#)^c, [discovery_site](#)^c

location^c

[back to [ToC](#) or [Class ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#Location

has sub-classes

[discovery_palce](#)^c, [production_place](#)^c

is disjoint with

[archaeological_classification](#)^c, [artefact_identifier](#)^c, [technology](#)^c

production place^c

[back to [ToC](#) or [Class ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#ProductionPlace

The broad production region or place associated with the origin of an artefact, such as Africa, the Eastern Mediterranean, or Italy. In some cases, this origin is reflected directly in the class name.

has super-classes

[location](#)^c

is in range of

[has production place](#)^{op}

is disjoint with

[discovery_palce](#)^c

technology^c

[back to [ToC](#) or [Class ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#Technology

The production method or technological process employed to manufacture a specific object or class.

is in range of

[has technology](#)^{op}

is disjoint with

[archaeological classification](#)^c, [artefact identifier](#)^c, [location](#)^c

Object Properties

[has ceramic class](#) [has ceramic shape](#) [has ceramic type](#) [has discovery area](#)
[has discovery layer](#) [has discovery site](#) [has discovery space](#) [has production place](#)
[has technology](#) [is ceramic class of](#) [is ceramic shape of](#) [is ceramic type of](#)
[is discovery area of](#) [is discovery layer of](#) [is discovery site of](#) [is discovery space of](#) [is part of](#)
[is production place of](#) [is technology of](#) [locates](#)

has ceramic class^{op}

[back to ToC or Object Property ToC](#)

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#hasCeramicClass

has super-properties

[top object property](#)

has domain

[artefact identifier](#)^c **or** [ceramic type](#)^c

has range

[ceramic class](#)^c

is inverse of

[is ceramic class of](#)^{op}

has ceramic shape^{op}

[back to ToC or Object Property ToC](#)

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#hasCeramicShape

has super-properties

[top object property](#)

has domain

[artefact identifier](#)^c **or** [ceramic class](#)^c **or** [ceramic type](#)^c

has range

[ceramic shape](#)^c

is inverse of

[is ceramic shape of](#)^{op}

has ceramic type^{op}

[back to ToC or Object Property ToC](#)

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#hasCeramicType

has super-properties

[top object property](#)

has domain

[artefact identifier](#)^c **or** [ceramic class](#)^c

has range

[ceramic type](#)^c

is inverse of

[is ceramic type of](#)^{op}

has discovery area^{op}

[back to ToC or Object Property ToC](#)

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#hasDiscoveryArea

has super-properties
top object property

has domain
[artefact identifier](#)^c

has range
[discovery area](#)^c

is inverse of
[is discovery area of](#)^{op}

[back to ToC or Object Property ToC](#)

has discovery layer^{op}

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#hasDiscoveryLayer

has super-properties
top object property

has domain
[artefact identifier](#)^c

has range
[discovery layer](#)^c

is inverse of
[is discovery layer of](#)^{op}

[back to ToC or Object Property ToC](#)

has discovery site^{op}

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#hasDiscoverySite

has super-properties
top object property

has domain
[artefact identifier](#)^c

has range
[discovery site](#)^c

is inverse of
[is discovery site of](#)^{op}

[back to ToC or Object Property ToC](#)

has discovery space^{op}

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#hasDiscoverySpace

has super-properties
top object property

has domain
[artefact identifier](#)^c

has range
[discovery space](#)^c

is inverse of
[is discovery space of](#)^{op}

[back to ToC or Object Property ToC](#)

has production place^{op}

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#hasProductionPlace

has domain

[artefact identifier^c](#) or [ceramic class^c](#) or [ceramic type^c](#)

has range

[production place^c](#)

is inverse of

[is production place of^{op}](#)

[has technology^{op}](#)

[back to [ToC](#) or [Object Property ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#hasTechnology

has super-properties

[top object property](#)

has domain

[ceramic shape^c](#)

has range

[technology^c](#)

is inverse of

[is technology of^{op}](#)

[is ceramic class of^{op}](#)

[back to [ToC](#) or [Object Property ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#isCeramicClassOf

has super-properties

[top object property](#)

is inverse of

[has ceramic class^{op}](#)

[is ceramic shape of^{op}](#)

[back to [ToC](#) or [Object Property ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#isCeramicShapeOf

has super-properties

[top object property](#)

is inverse of

[has ceramic shape^{op}](#)

[is ceramic type of^{op}](#)

[back to [ToC](#) or [Object Property ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#isCeramicTypeOf

has super-properties

[top object property](#)

is inverse of

[has ceramic type^{op}](#)

[is discovery area of^{op}](#)

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IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#isDiscoveryAreaOf

has super-properties

[top object property](#)

is inverse of

[has discovery area^{op}](#)

is discovery layer of^{op}

[back to ToC or Object Property ToC](#)

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#isDiscoveryLayerOf

has super-properties

top object property

is inverse of

[has discovery layer^{op}](#)

is discovery site of^{op}

[back to ToC or Object Property ToC](#)

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#isDiscoverySiteOf

has super-properties

top object property

is inverse of

[has discovery site^{op}](#)

is discovery space of^{op}

[back to ToC or Object Property ToC](#)

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#isDiscoverySpaceOf

has super-properties

top object property

is inverse of

[has discovery space^{op}](#)

is part of^{op}

[back to ToC or Object Property ToC](#)

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#isPartOf

has super-properties

top object property

has domain

[discovery palce^c](#)

has range

[discovery palce^c](#)

is inverse of

[locates^{op}](#)

is production place of^{op}

[back to ToC or Object Property ToC](#)

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#isProductionPlaceOf

is inverse of

[has production place^{op}](#)

is technology of^{op}

[back to ToC or Object Property ToC](#)

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#isTechnologyOf

has super-properties
top object property

is inverse of

[has technology](#)^{op}

[locates](#)^{op}

[back to [ToC](#) or [Object Property ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#Locates

has super-properties
top object property

is inverse of

[is part of](#)^{op}

Data Properties

[has excavation year](#) [has preserved part](#) [has specific workshop](#)

[has excavation year](#)^{dp}

[back to [ToC](#) or [Data Property ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#hasExcavationYear

has super-properties
top data property

has domain

[discovery layer](#)^c

has range

integer

[has preserved part](#)^{dp}

[back to [ToC](#) or [Data Property ToC](#)]

IRI: http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#hasPreservedPart

has super-properties
top data property

has domain

[artefact identifier](#)^c

has range

string

[has specific workshop](#)^{dp}

[back to [ToC](#) or [Data Property ToC](#)]

IRI:

http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#hasSpecificWorkshop

has super-properties
top data property

has domain

[artefact identifier](#)^c

has range

string

Annotation Properties

[bibliographic citation](#) [created](#) [creator](#) [license](#)

bibliographic citation^{ap}

[back to [ToC](#) or [Annotation Property ToC](#)]

IRI: <http://purl.org/dc/terms/bibliographicCitation>

created^{ap}

[back to [ToC](#) or [Annotation Property ToC](#)]

IRI: <http://purl.org/dc/terms/created>

creator^{ap}

[back to [ToC](#) or [Annotation Property ToC](#)]

IRI: <http://purl.org/dc/terms/creator>

license^{ap}

[back to [ToC](#) or [Annotation Property ToC](#)]

IRI: <http://purl.org/dc/terms/license>

General Axioms

All Disjoint Classes

[back to [ToC](#)]

[archaeological classification](#)^c, [artefact identifier](#)^c, [location](#)^c, [technology](#)^c

All Disjoint Classes

[back to [ToC](#)]

[ceramic class](#)^c, [ceramic shape](#)^c, [ceramic type](#)^c

All Disjoint Classes

[back to [ToC](#)]

[discovery area](#)^c, [discovery layer](#)^c, [discovery site](#)^c, [discovery space](#)^c

Namespace Declarations

[back to [ToC](#)]

default namespace

http://www.semanticweb.org/fabrizio/ontologies/2025/11/uq_workshop_2025#

06

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11

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rdf http://www.w3.org/1999/02/22-rdf-syntax-ns#
rdfs http://www.w3.org/2000/01/rdf-schema#
terms http://purl.org/dc/terms/
xsd http://www.w3.org/2001/XMLSchema#

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