



Classifications and Representations for Networks.

From types and characteristics to linked open data for Celtic coinages

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Funded by



Bundesministerium
für Bildung
und Forschung

Feb. 2021 to Jan. 2024

Project goals

- Comparing traditional approaches to classification and feature extraction in numismatics and archaeology with IT-based classification methods, including deep learning
- Testing the possibilities and limits of new classification and representation methods
- Science & technology study (STS)

Three coin series

- Bushel series: Southern Germany, Switzerland, Austria, Czech Republic
- Monnaies à la croix: South-western France
- Staters of the Coriosolitae: Brittany



Foto: C. von Nicolai/Danneranlage, RGK



Foto: Jersey Heritage

1 cm

Staters of the Coriosolitae: the hoard of Le Câtillon II (Jersey)



Goals:

- Analysing the hoard with computer-based methods
- Supporting the work on the hoard (die study)

Studying the hoard which contains 69.357 coins

Focus on image data:

- Object Detection - identifying the coin and calculating its size (if possible)
- Unsupervised Learning (DeepCluster) - Grouping of images without using domain knowledge (labels, ground truth)
- Supervised Learning (CNN) - Train an algorithm based on ground truth (classification, typologies, ...)
- Image Matching - Detect similar images (die study)

Bushel series: focus on image data





A virtual union catalog

OCRE

BrowsenSuchenKartenSymbolsIdentify a CoinContributorsAnfragen visualisierenFeedbackAPIsAboutSprache

Suchen

Q

RIC I (second edition) Augustus 1A

Canonical URI: [http://numismatics.org/ocre/id/ric.1\(2\).aug.1A](http://numismatics.org/ocre/id/ric.1(2).aug.1A)

Examples of this type | Quantitative Analysis

Typological Description

Date Range: 25 BC - 23 BC
Object Type: Coin
Manufacture: Struck
Denomination: Quinarius
Material: Silver

Authority

Authority: Augustus
Issuer: P. Carisius

Geographic

Mint: Emerita
Region: Lusitania

Obverse

Legend: AVGVST
Type: Head of Augustus, bare, left
Portrait: Augustus

Reverse

Legend: P CARISI LEG
Type: Victory standing right, placing wreath on trophy with dagger and sword at base
Deity: Victory

Map



Legend Mint Hoard Findspot

View map in fullscreen.

Examples of this type

[Download CSV](#)

Silver Quinarius of Augustus, Emerita, 25 BC - 23 BC. 1969.222.1275

Collection	American Numismatic Society
Axis	2
Diameter (in mm)	14.0
Weight (in gr.)	1.66



Silver Quinarius of Augustus, Emerita, 25 BC - 23 BC 1944.100.39025

Collection	American Numismatic Society
Axis	2
Diameter (in mm)	14.5
Weight (in gr.)	1.75



Silver Quinarius of Augustus, Emerita, 25 BC - 23 BC. 1944.100.39027

Collection	American Numismatic Society
Axis	5
Diameter (in mm)	13.5
Weight (in gr.)	1.48



objects: 6; hoards: 3

The database

⊕	↔	🗑️	5	📄	BS C, [numisdatacatalog1_261]	Monedas
⊕	↔	🗑️	6	📄	Nick BS C [numisdatacatalog1_325]	▼
⊕	↔	🗑️	1	📄	Nick BS C 1, [numisdatacatalog1_326]	Monedas
⊕	↔	🗑️	2	📄	Nick BS C 4, [numisdatacatalog1_327]	Monedas
⊕	↔	🗑️	3	📄	Nick BS C 8, [numisdatacatalog1_328]	Monedas
⊕	↔	🗑️	4	📄	Nick BS C 9, [numisdatacatalog1_329]	Monedas
⊕	↔	🗑️	5	📄	Nick BS C 11, [numisdatacatalog1_330]	Monedas
⊕	↔	🗑️	6	📄	Nick BS C/F, [numisdatacatalog1_332]	Monedas
⊕	↔	🗑️	7	📄	Ziegaus BS C [numisdatacatalog1_333]	▼
⊕	↔	🗑️	1	📄	Ziegaus BS C 17, [numisdatacatalog1_334]	Monedas
⊕	↔	🗑️	2	📄	Ziegaus BS C 18, [numisdatacatalog1_335]	Monedas
⊕	↔	🗑️	3	📄	Ziegaus BS C 19, [numisdatacatalog1_336]	Monedas
⊕	↔	🗑️	4	📄	Ziegaus BS C 20, [numisdatacatalog1_337]	Monedas
⊕	↔	🗑️	5	📄	Ziegaus BS C 21, [numisdatacatalog1_338]	Monedas
⊕	↔	🗑️	6	📄	Ziegaus BS C 22, [numisdatacatalog1_339]	Monedas
⊕	↔	🗑️	7	📄	Ziegaus BS C 23, [numisdatacatalog1_340]	Monedas
⊕	↔	🗑️	8	📄	Ziegaus BS C 24, [numisdatacatalog1_341]	Monedas
⊕	↔	🗑️	9	📄	Ziegaus BS C 25, [numisdatacatalog1_342]	Monedas
⊕	↔	🗑️	10	📄	Ziegaus BS C 26, [numisdatacatalog1_343]	Monedas

Type	Status
☐ Nick, Altenburg Nick BS C 4 Southern Germany Silver unit ☐ ? ☐ Kellner, Manching Kellner BS C Southern Germany Silver unit ☐ ? ☐ Ziegaus, Eggfling Ziegaus BS C 24 Southern Germany Silver unit ☐ ? ☐ OCC BS C Southern Germany Silver unit ☐ ?	☐ Deaccessioning ☒ Pending ☐ Validated
Obverse	Reverse
☐ Nick, Altenburg Nick BS C 1 Southern Germany Silver unit ☐ ? ☐ Kellner, Manching Kellner BS C Southern Germany Silver unit ☐ ? ☒ Ziegaus, Eggfling Ziegaus BS C 19 Southern Germany Silver unit ☒ ? ☐ OCC BS C Southern Germany Silver unit ☐ ? ☒ Ziegaus, Eggfling Ziegaus BS C 20 Southern Germany Silver unit ☒ ?	☐ Deaccessioning ☒ Pending ☐ Validated
Obverse	Reverse

Bushel series

OCC BS Prototype, Silver Silver unit 1,7 g (23) 13,65 mm (26)

OCC Ziegaus BS Prototype, Silver Silver unit 1,69 g (30) 13,52 mm (32)

OCC Ziegaus BS Prototype 1, 1,7 g (23) 13,65 mm (26)
Naturalistic head to left. Horse to left, below a snake.



Archäologische Staatssammlung München

OCC Ziegaus BS Prototype 2, 1,65 g (7) 12,95 mm (6)
Naturalistic head to left. Horse to left, below a snake, above a cross.



Archäologische Staatssammlung München

OCC BS A, Silver Silver unit 1,68 g (475) 14,09 mm (173)
Stylized head to left. Horse to left, with various symbols.



Kellner, Manching Kellner BS A | Allen, Altenburg Allen BS A

Münzkabinett, Staatliche Museen zu Berlin

OCC BS B, Silver Silver unit 1,61 g (88) 14,82 mm (70)
Stylized head to left. Horse to left, with various symbols.



Kellner, Manching Kellner BS B | Allen, Altenburg Allen BS B

Münzkabinett, Staatliche Museen zu Berlin

SOUTH WEST FRANCE

Monnaies à la croix

1. Early series, various classes with lunula

Semi-circular face and similar classes (1/1 to 1/9)

OCC MaC 1/1, Monnaies à la croix Silver Silver unit 3,41

g (1) 16,1 mm (1)

Head to right, hair represented by oval strand of hair, separated from the forehead by a pearl diadem.

Central cross, in each section an elongated lunula.

Hiriart, Les monnaies à la croix 1.01



Bibliothèque nationale de France, département Monnaies, médailles et antiques

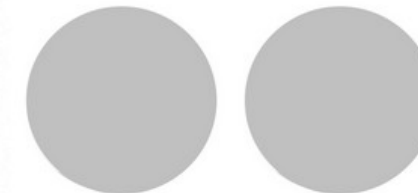
OCC MaC 1/2, Monnaies à la croix Silver Silver unit 3,41

g (1) 16,1 mm (1)

Head to right, face inscribed in a semicircle in the image of a mask, ears absent. The hair is represented by small oval strands.

Central cross, in the first, second and fourth section a lunula, in the third section a torc or ringlet and lunula.

Hiriart, Les monnaies à la croix 1.02



OCC MaC 1/3, Monnaies à la croix Silver Silver unit 3,43

g (2) 16,7 mm (2)

Head to right, with prominent nose, eye in triangle point, face inscribed in a semicircle, hair in the form of small lunula, strands of hair separated from the face by dots, border of dots.

Central cross, in the first and fourth section, a lunula, in the second a lunula and pearl arc, in the third section an outward facing torc and a lunula.

Hiriart, Les monnaies à la croix 1.03



Bibliothèque nationale de France, département Monnaies, médailles et antiques

Further information

- Visit our blog: <https://clarenet.hypotheses.org/>
- Videos in English: <https://clarenet.hypotheses.org/videos>

Online soon



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