



Italic metalwork Techniques during the Early Iron Age. Rethinking cultural Interactions.

The ITINERIS Program

<https://itineris.huma-num.fr/>

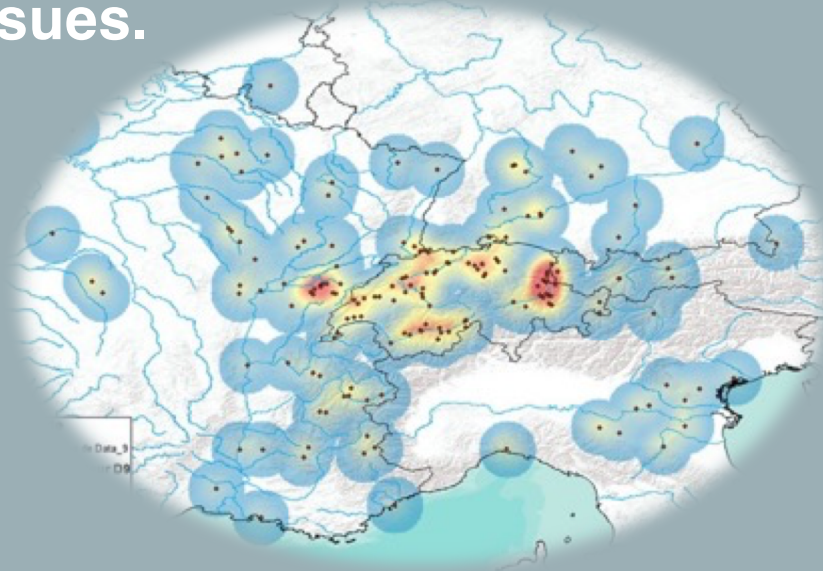
ANR JCJC 2022-2025  
PI Veronica Cicolani  
AOROC UMR8546 CNRS-PSL

## Goal & Topics

Progressively assessing the role of all the social partners operating in the production, dissemination and acquisition of various goods, products and raw materials,

&

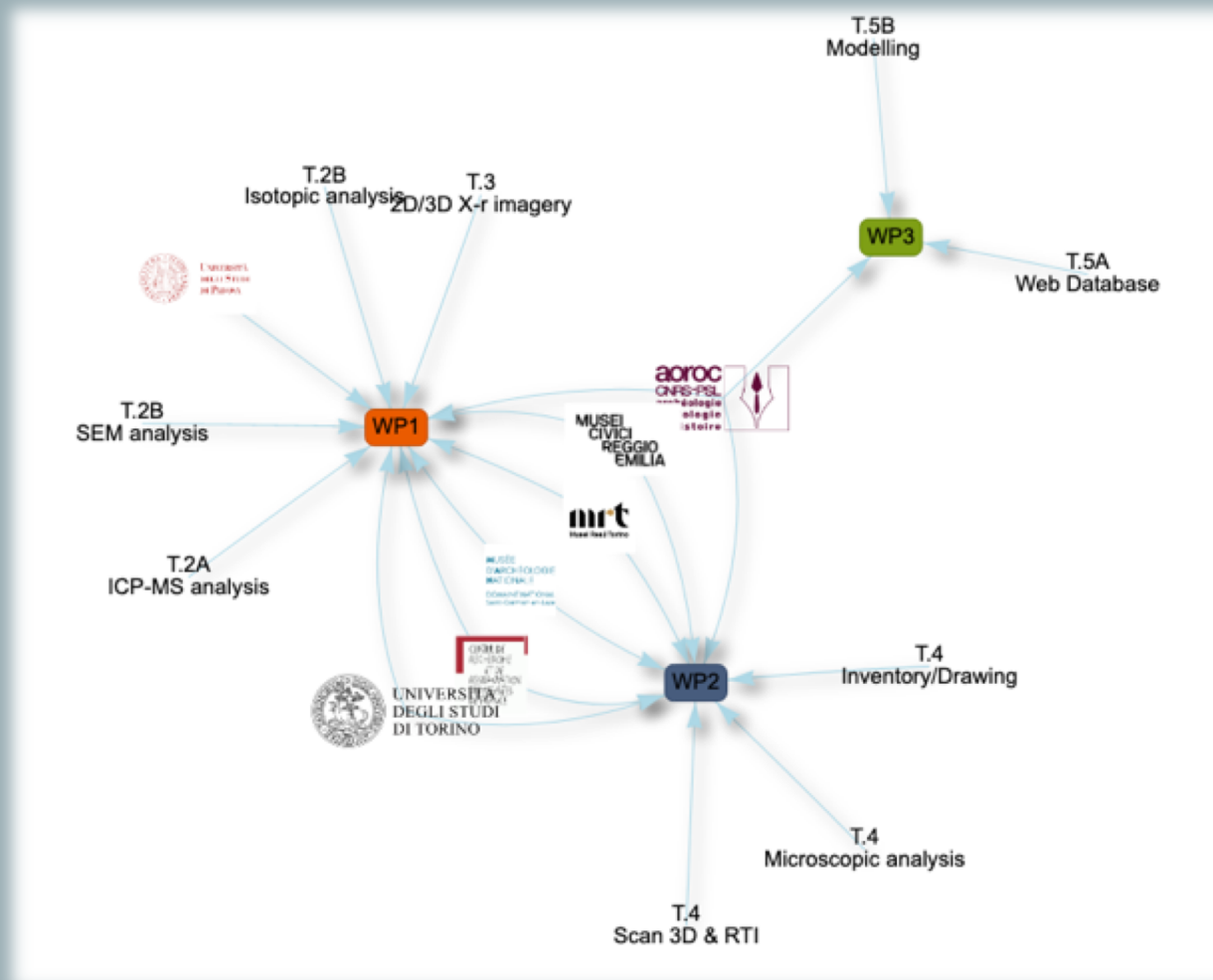
Participating in the current debates on human and cultural mobility, integration or rejection and gender issues.



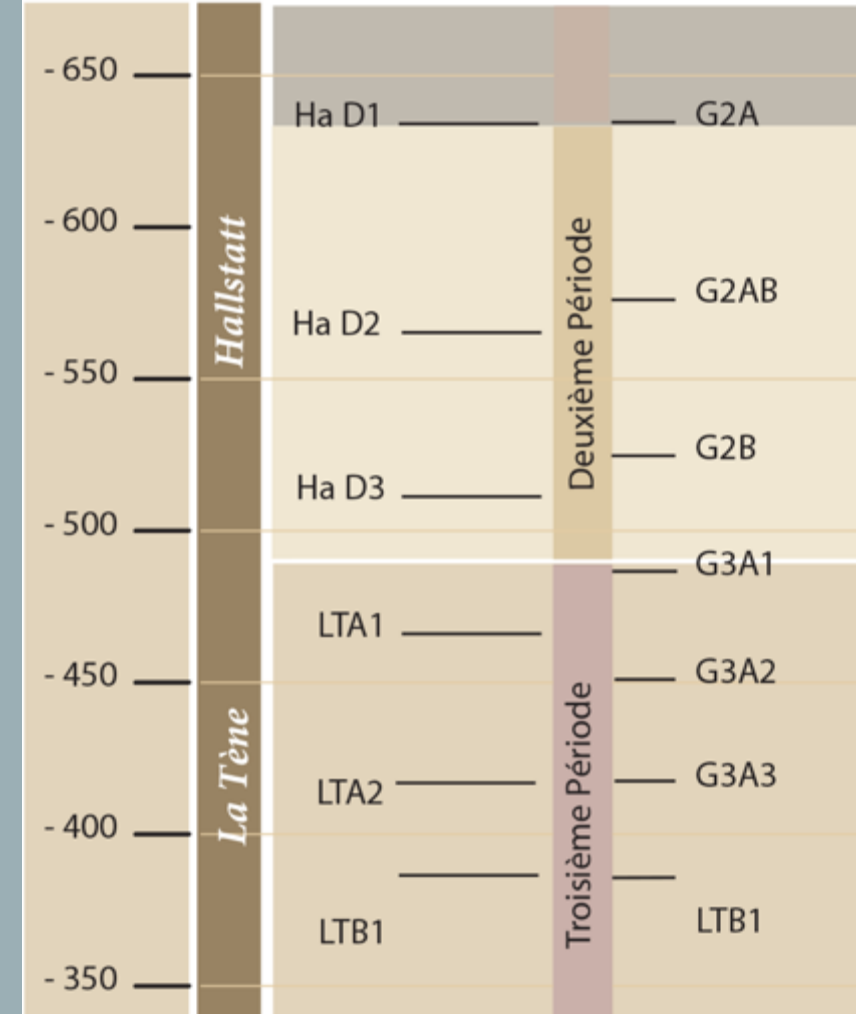
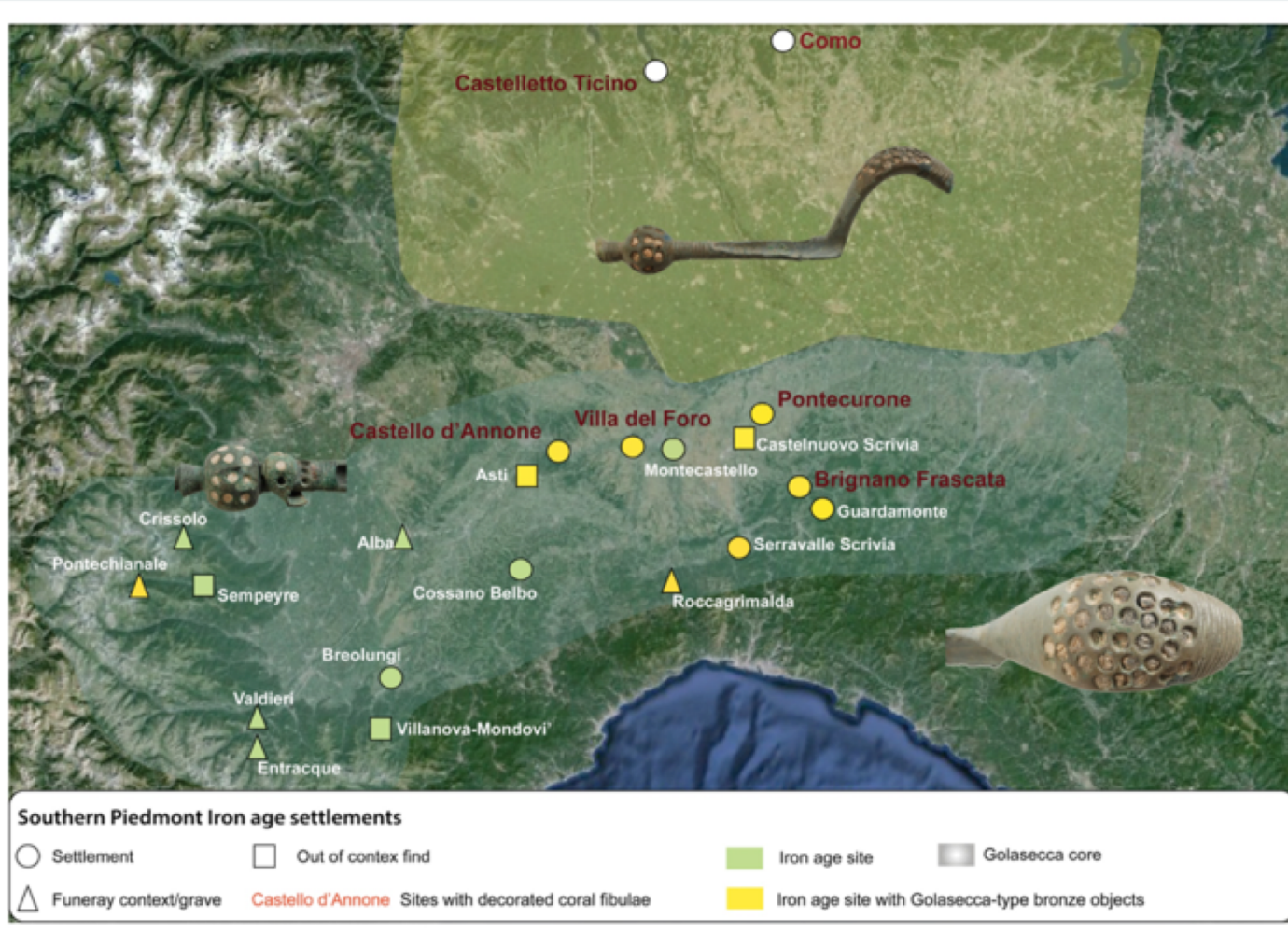


# NEW RESEARCH TEAM between Italy and France

- 3 WPs
- 6 Tasks
- 16 Permanent Members
- 3 Museums
- 5 Laboratories
- 3 Universities
- 4 Students
- 2 post-doc ANR fellowship




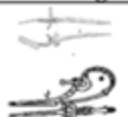



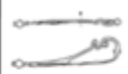
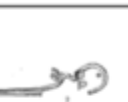









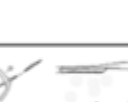
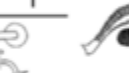
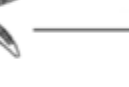
















# Archaeological context Settlements & chronology



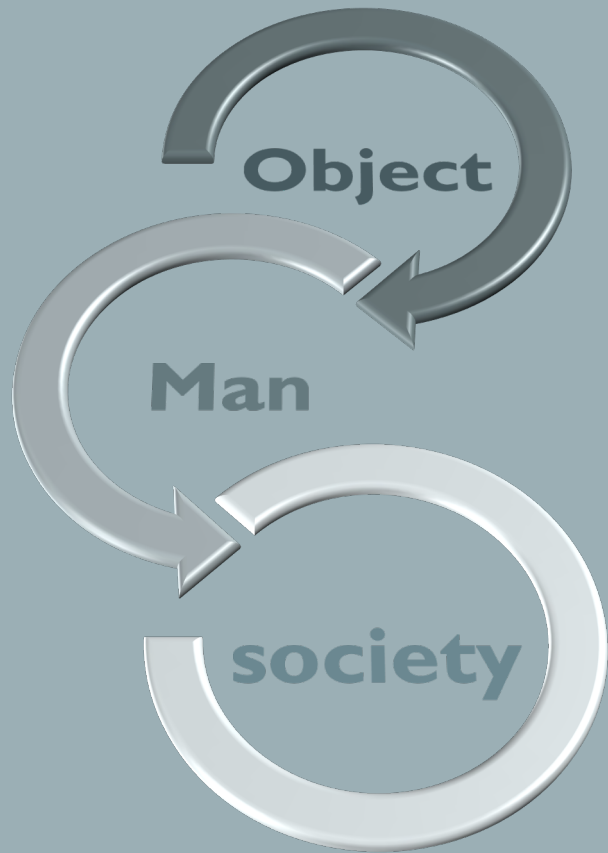


# Archaeological context Data set : bronze items

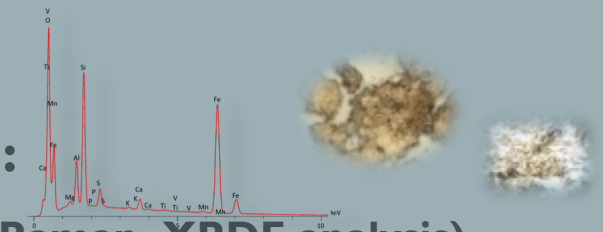


	Fibules multicurvilignes	Fibules à arc centré	Certosa	Pendeloques et	Autres accessoires
G IC					
G IIA					
G IIA-B					
G IIB					
G IIIA1					
G IIIA2					
G IIIA3					

How providing a different overview of the past human connections and abilities?



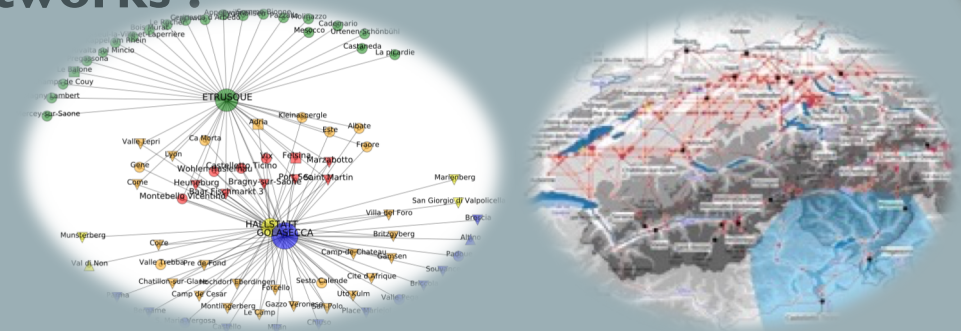
**WPI - Craft practices & chaîne opératoire :**  
**Archaeometric approach (ICP-MS, Lead isotope, Raman, XRDF analysis)**



**WP2- Human abilities/identities :**  
**Technological/archaeological/experimental approaches**



**WP3 - Iron Age social networks :**  
**Geo-statistic approach**







# METADATA, DATA & PROJECT MANAGEMENT

FAIR, LOD & OSS

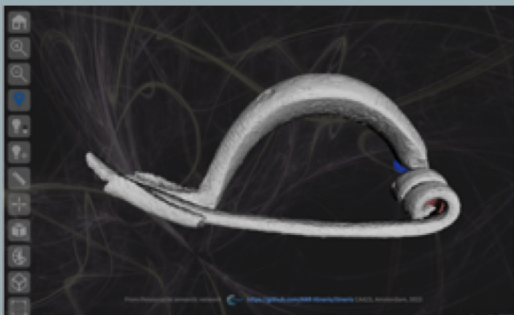
thanks to

GitLab in HUMA-NUM server

Reveal 3D analysis

R scripts for Data, Metadata, Packages:  
modeling and sharing: **itineRis package**

**Nakala**



<https://tinyurl.com/caa23-itineris>

Overview Repositories 5 Projects Packages Stars

ITINERIS  
ANR-Itineris  
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UMR8546 CNRS-PSL  
Paris  
Block or Report

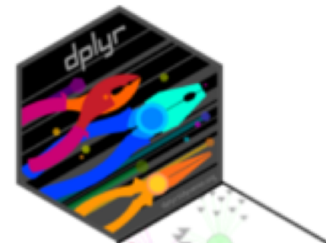
Popular repositories

- Modeling (Public) - JavaScript
- reveal.js (Public)
- itineRis (Public) - main repository - HTML
- itineRis-1 (Public) - Forked from zoometh/itineRis - R package of the ANR-Itineris - HTML
- 3DHOP (Public)

47 contributions in the last year

Package

GitHub	GitLab
<a href="https://github.com/ANR-Itineris">https://github.com/ANR-Itineris</a>	<a href="https://gitlab.huma-num.fr/thuet/itineris">https://gitlab.huma-num.fr/thuet/itineris</a>



Package 'RODBC'

December 6, 2022

Version 1.3-20  
Revision SRev: 3611 5  
Date 2022-12-05  
Title ODBC Database Access  
Description An ODBC database interface

881 Total (Non triés)
Rechercher

Modèle : Objets description
Format affichage :
Prévisualisation
Modifier modèle

ITINERIS | OBJETS
VOCAB SITES OBJETS IMAGES BIBLIO
FR

ITI\_0907
Territoire > Site
TOUT ITALIE

IDENTIFICATION

DESCRIPTION

[CHRONOLOGIE](#)

[BIBLIOGRAPHIE](#)

[TECHNOLOGIE](#)

[ARCHÉOMÉTRIE](#)


### DESCRIPTION GÉNÉRALE DE L'OBJET


Catégorie	<input type="text" value="Parure"/>	N. Inv.	<input type="text" value="20475.01"/>	NMI	<input type="text" value="1"/>
Dénomination	<input type="text" value="Fibule"/>			NR	<input type="text" value="1"/>
Type	<input type="text" value="À sanguisuga"/>				
Variante	<input type="text" value="décor incisé et noyau argile"/>				
État conservation	<input type="text" value="bon"/>				
Matériaux	<input type="text" value="Alliage cuivreux, Argile, Corail"/>				
Décor x	<input type="text" value="Linéaire et incrustations,"/>				

**Mesures max. (mm / g)**

Haut.	<input type="text"/>	Ép.	<input type="text"/>
Long.	<input type="text" value="41"/>	Diam.	<input type="text"/>
Larg.	<input type="text" value="21"/>	Poids	<input type="text" value="5,7"/>

### IMAGE(S) (2)





### PRÉCISIONS

Description libre de l'objet

Fibule à sanguisuga à arc cintré renflé. L'ardillon et le porte-ardillon sont cassés et le ressort comporte deux spires. La partie centrale de l'arc est décorée de motifs d'ocelles creux et remplis de corail dénaturalisé cantonnés de deux zones de lignes incisées à la tête et au pied. Ces fibules qui allient l'alliage cuivreux au corail sont emblématiques des sépultures féminines de la culture de Golasecca.

Commentaires

Mobiliier associé





# DATA MANAGEMENT

Vocabulary in 3  
languages (IT/EN/FR)  
for  
managing and sharing  
data & metadata

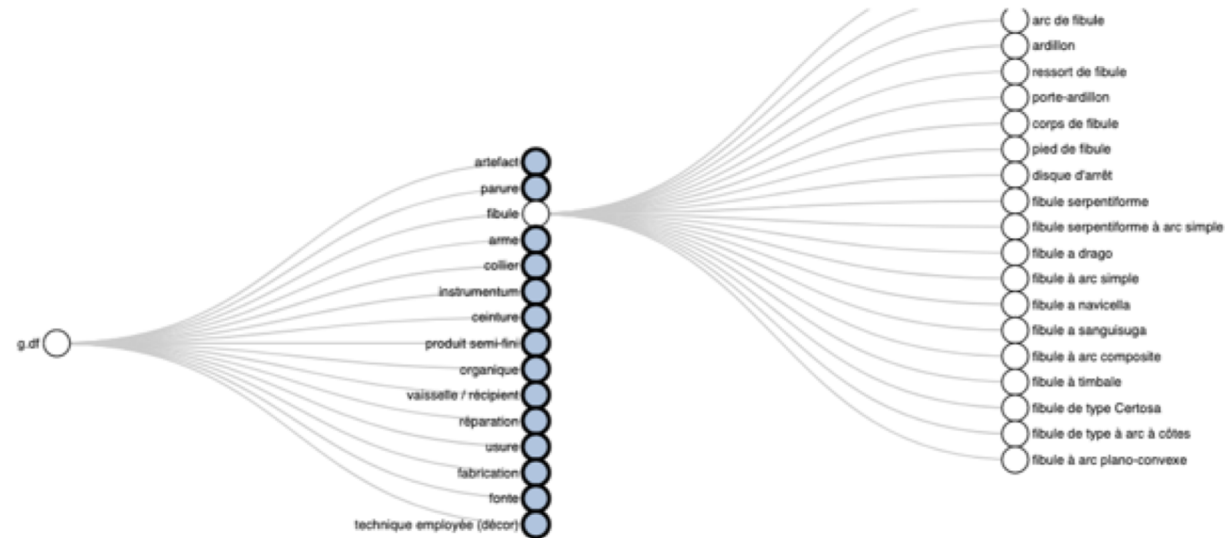
The screenshot shows the ITINERIS VOCABULAIRES interface. At the top, there is a navigation bar with the title "ITINERIS | VOCABULAIRES" and a language selector set to "FR". Below the navigation bar, there is a section titled "Choix du vocabulaire à afficher" with a search input field containing "objet:dénomination". The main content is a table with the following columns: Français, Italiano, English, Thésaurus 1, ...ID., Thésaurus 2, and ...ID. The table contains 15 rows of vocabulary items.

Français	Italiano	English	Thésaurus 1	...ID.	Thésaurus 2	...ID.
Démi-produit	Semi prodotto	Semi-finished				
Disque de fibule	Disco di fibula	Fibula disk				
Epée	Spada	Sword				
Épingle	Spillone	Pin				
Fibule	Fibula	Fibula	PACTOLS	26678/pcrt		
Fond vase métallique	Fondo di vaso metallico	Metallic vessel foot				
Fourreau	Fodero	Scabbard				
Fragment de vase	Frammento di vaso	Metallic fragment				
Fuseau	Fuso	Spindle				
Gobelet	Bicchiere	Beaker				
Goutte de bronze	Goccia di bronzo	Small alloy lump				
Hache	Ascia	Axe				
Hameçon	Amo	Hook				
Herminette	Accetta	Adze				

## Subgraph of 'artefact'

```
1 itineRis::thesaurus(root = "artefact", outPlot = "collapsibleTree")
```

'''



DATA  
semantic graph

From vocabulary  
to items  
Thesaurus

From thesaurus to semantic network  <https://github.com/ANR-Itineris/itineris> CAA23, Amsterdam, 2023



Itineris thesaurus available on Opentheso hub to create and share polyhierarchical thesauri

Cicolani V., Huet Th., Reich G., 2023, CAA23, Amsterdam, <https://tinyurl.com/caa23-itineris>



# CASE STUDY : LIA analysis Golasecca / Hochdorf/ Chiusa Pesio

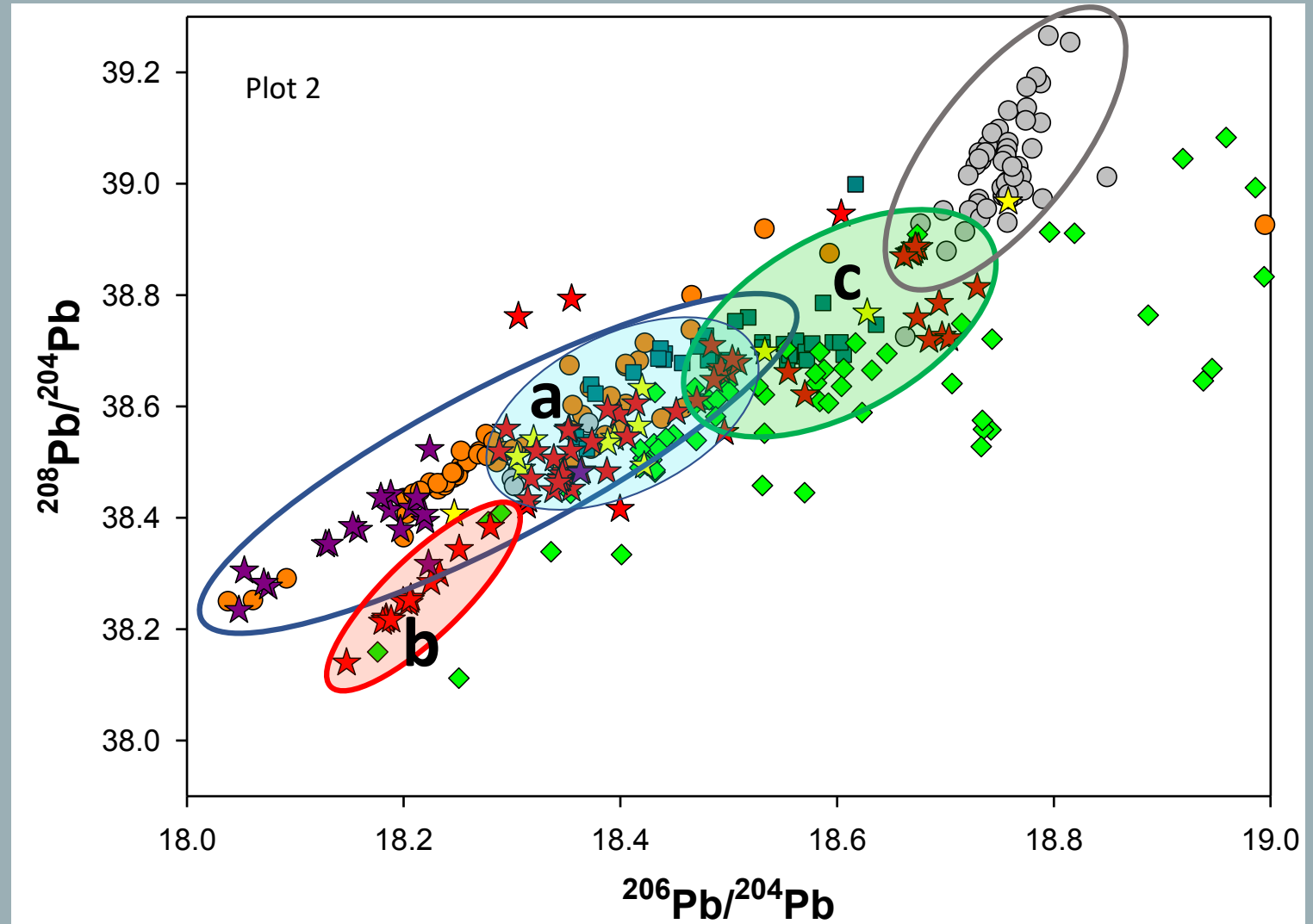
Veronica Cicolani, Gilberto Artioli, Chiara Lucarelli, Diana Modaresi Therani

## Mining areas selected

- a) : Alpine area;
- b) : Iberia IPB;
- c) : France-Swiss area;
- d) : Tuscany.

## Artefacts (stars)

- **Yellow:** Golasecca
- **Red:** Hochdorf
- **Purple :** Chiusa Pesio



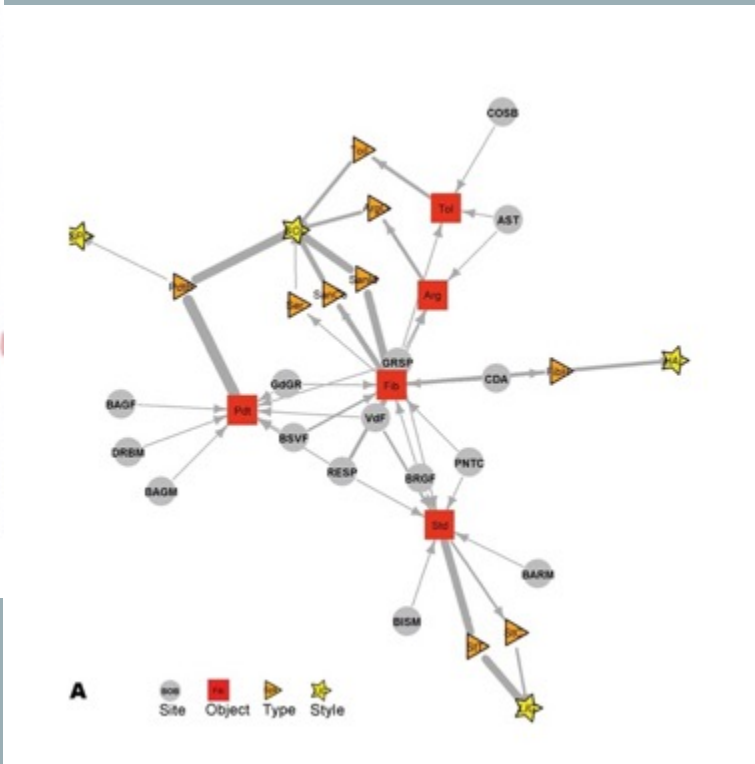
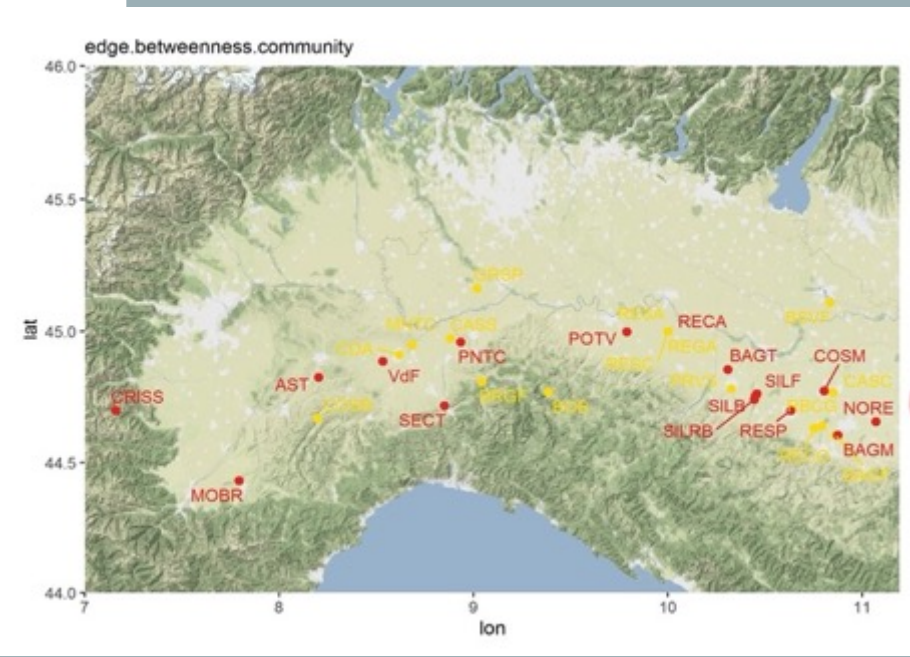
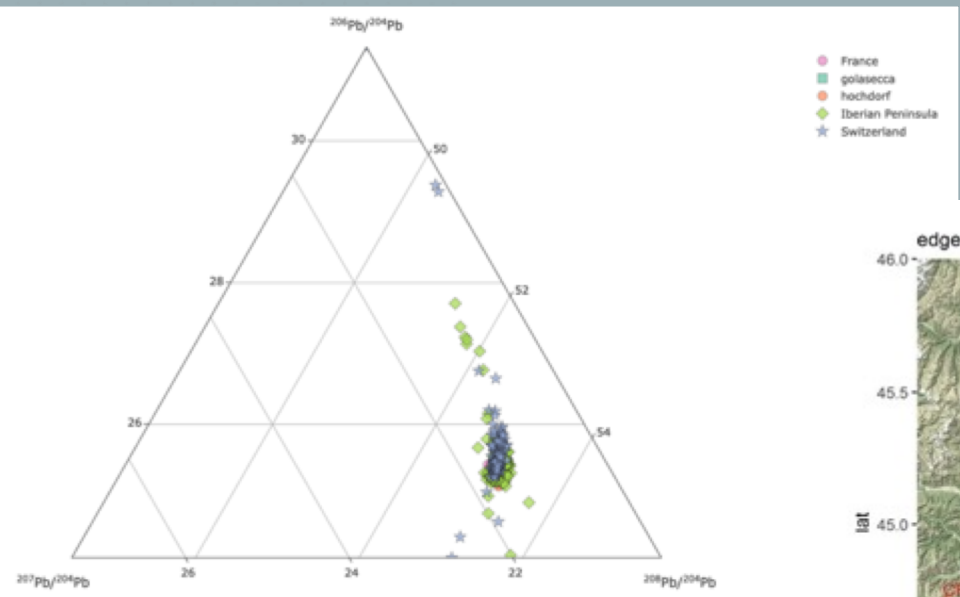


ITINERIS

# RAW MATERIAL & ITEMS NETWORK MODELING:

## What's next?

## From ore to community and back



R Package itineRIS for 3D modeling LIA & ICP data



data georeferencing

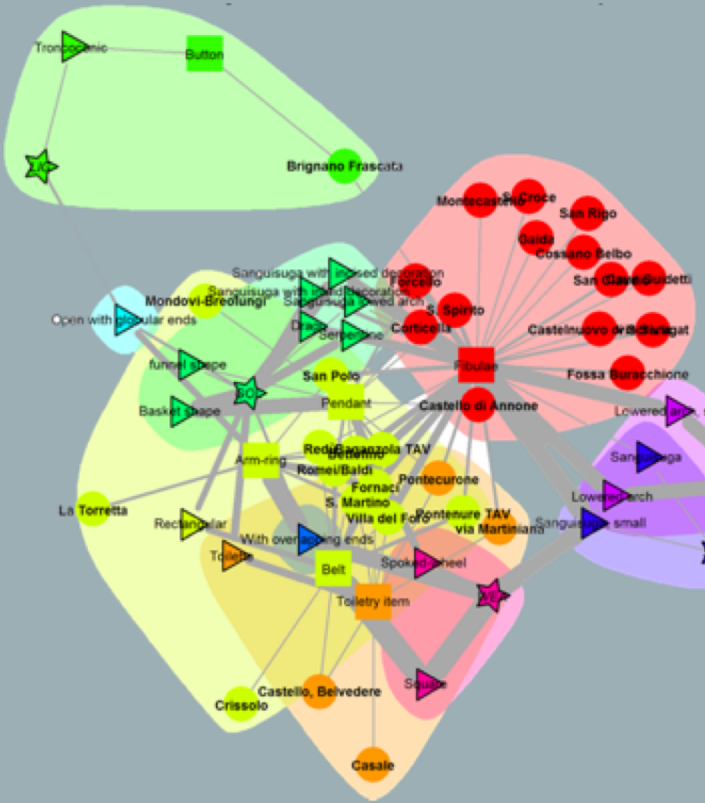


Graph analysis of data

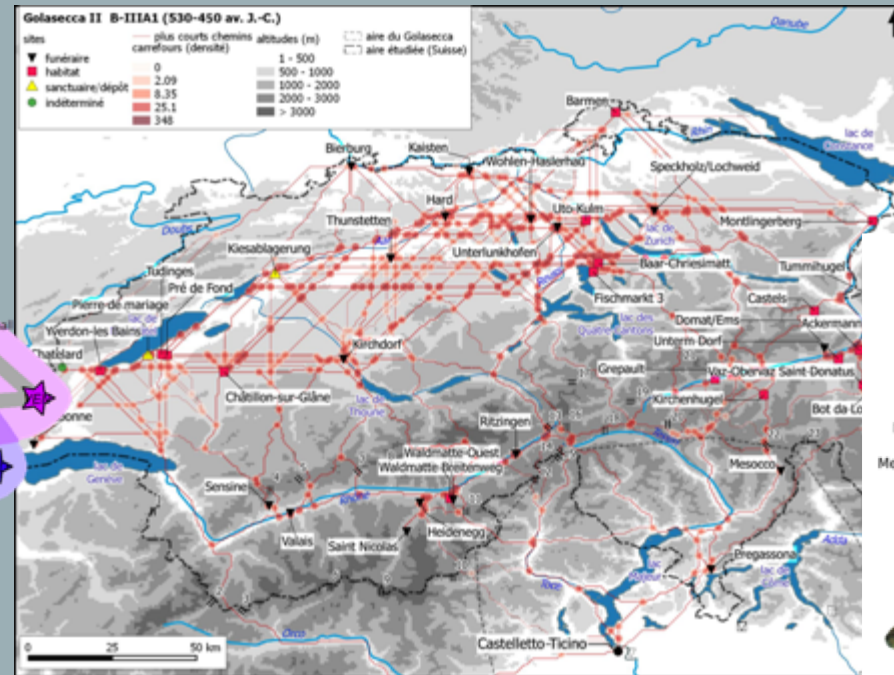
# ONGOING NETWORK ANALYSIS

## Modeling cultural & technological transfers

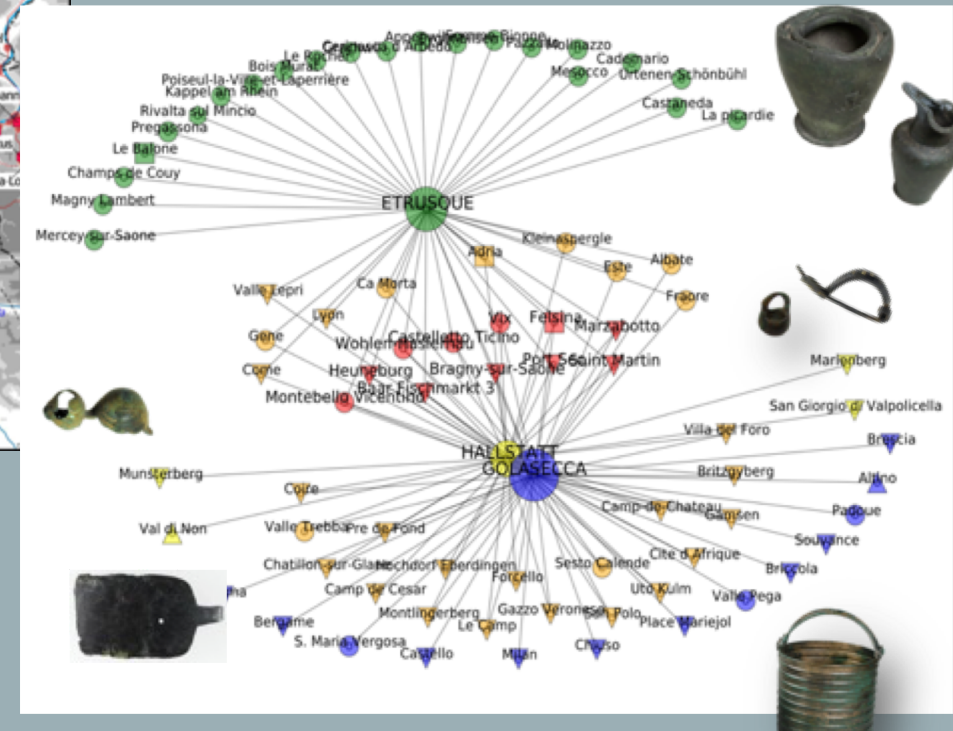
### From objects to ancient social networks and back



Cicolani, Huet 2023



Cicolani, Huet 2019







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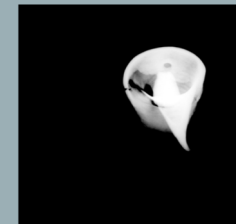


<https://github.com/ANR-Itineris>



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science ouverte

<https://tinyurl.com/caa23-itineris>



SCAN ME







## Italic metalwork Techniques during the Early Iron Age. Rethinking cultural Interactions.

Cicolani V., Huet Th. **2017** <https://zoometh.github.io/golasecca/>

Cicolani, V. **2017**, *Passeurs des Alpes*. <https://www.cairn.info/passeurs-des-alpes--9782705694166.htm>

Cicolani V., Huet Th. **2019**, *142 Colloque CTHS, Pau*, <https://doi.org/10.4000/books.cths.7827>

Cicolani, Huet, Zamboni, CTHS **2022** Aubervillier, <http://cths.fr/co/congres.php?id=174>

Cicolani V., Huet Th., Reich G., **2023**, *CAA23, Amsterdam*, <https://tinyurl.com/caa23-itineris>

Cicolani V., Huet Th, Artioli G. **2023**, *GMPCA Nice*, <https://hal.science/hal-04084724/document>

Cicolani V., Huet Th., Zamboni L. **in press** SPF, *Centre et marges, modélisation des interactions entre entités culturelles en Italie du Nord à l'âge du Fer*

### REFERENCES :