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## Les matières colorantes : une économie de la Préhistoire

C. Chanteraud, Hélène Salomon

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C. Chanteraud, Hélène Salomon. Les matières colorantes : une économie de la Préhistoire. Master. Séminaire, Aix-Marseille Université, France. 2024, pp.35. halshs-04828611

**HAL Id: halshs-04828611**

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Submitted on 10 Dec 2024

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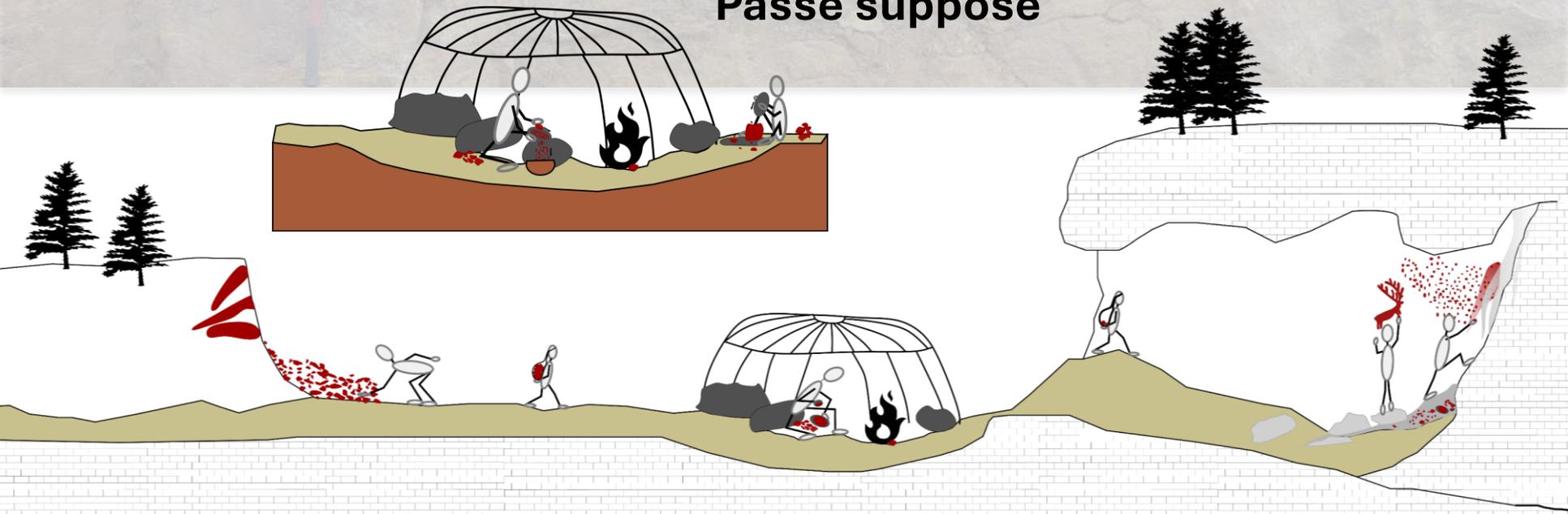


# Les matières colorantes : une économie de la Préhistoire

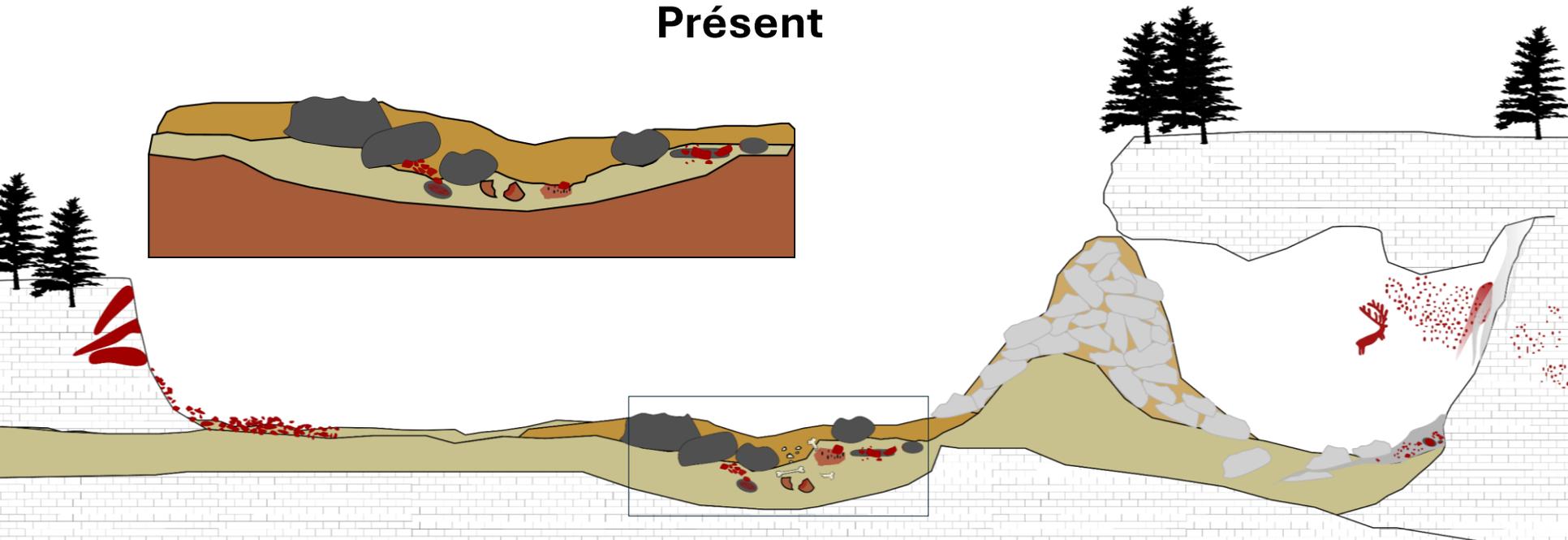
*Claire Chanteraud, Hélène Salomon*



# Passé supposé



# Présent



# Matières colorante et pratiques symboliques ?



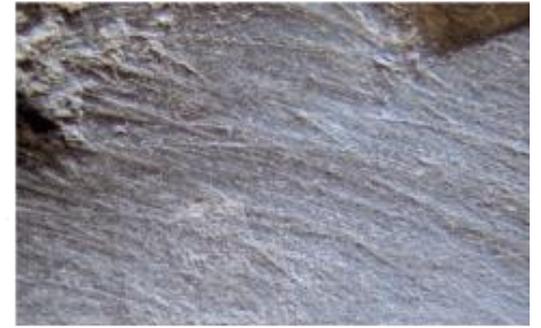
## Matières colorante et pratiques symboliques ?



*« il faut se peindre pour être de vrais hommes. Celui qui conserve sa propre peau ne se distingue pas du reste du monde vivant et du visible. Il n'appartient pas au groupe : il ne s'appartient pas »* (Lévi-Strauss 1955, p. 162). Et une opération de *« chirurgie picturale greffe l'art sur le corps humain »*.



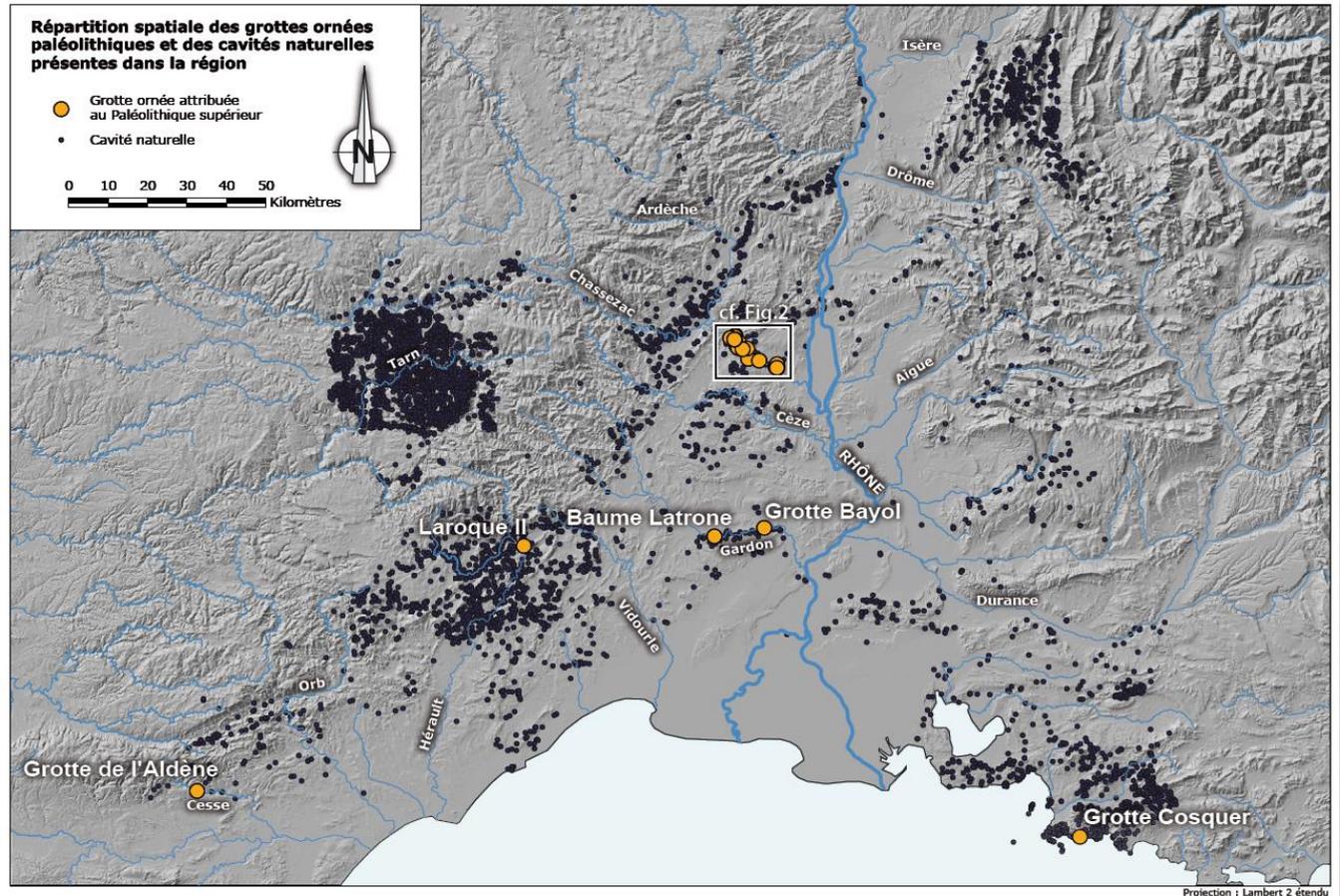
# Identifier les pratiques



# Le cas de l'Ardèche



## Le Sud-Est de la France

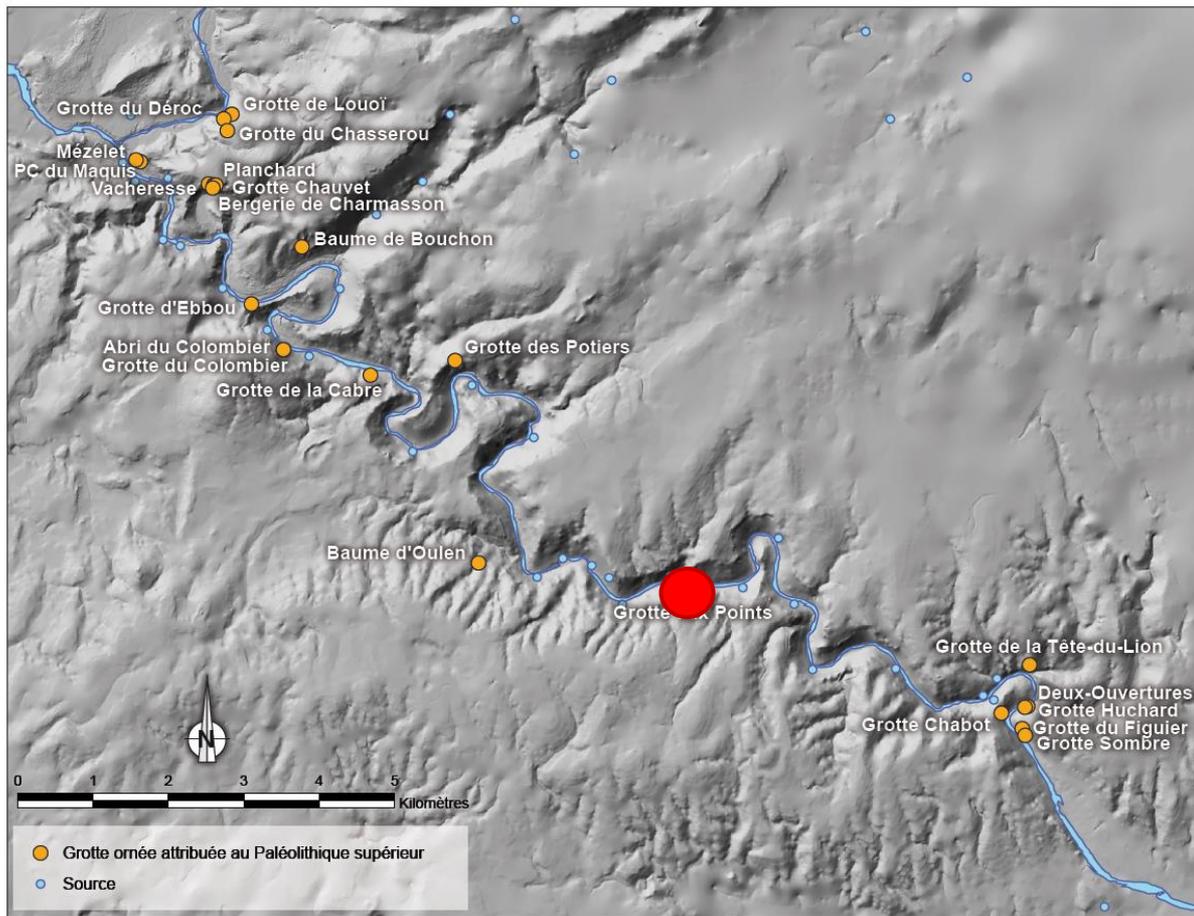


Une concentration de sites ornés paléolithiques :

- Grottes
- Peintures
- Gravures



# Les gorges de l'Ardèche, concentration de sites ornés



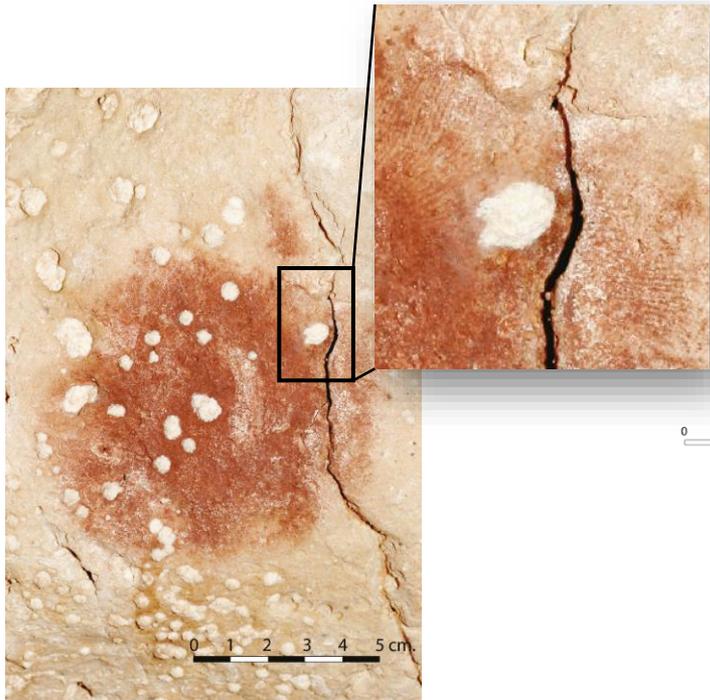
*Point-paumes grotte Chauvet (Atlas, Chauvet)*



*Signes Bilobés grotte Chauvet (Atlas, Chauvet)*

Des grottes ornées : peintures et dessins réalisés à partir de matières rouges minérales (hématite)

# La grotte aux Points

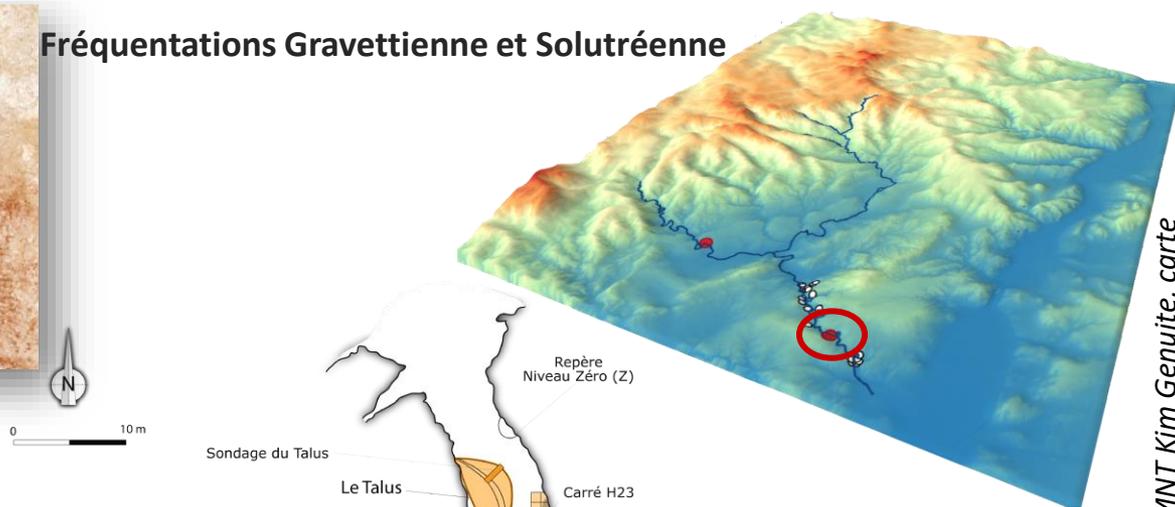


Red point on Urgonian Limestone of grotte aux Points (J. Monney)

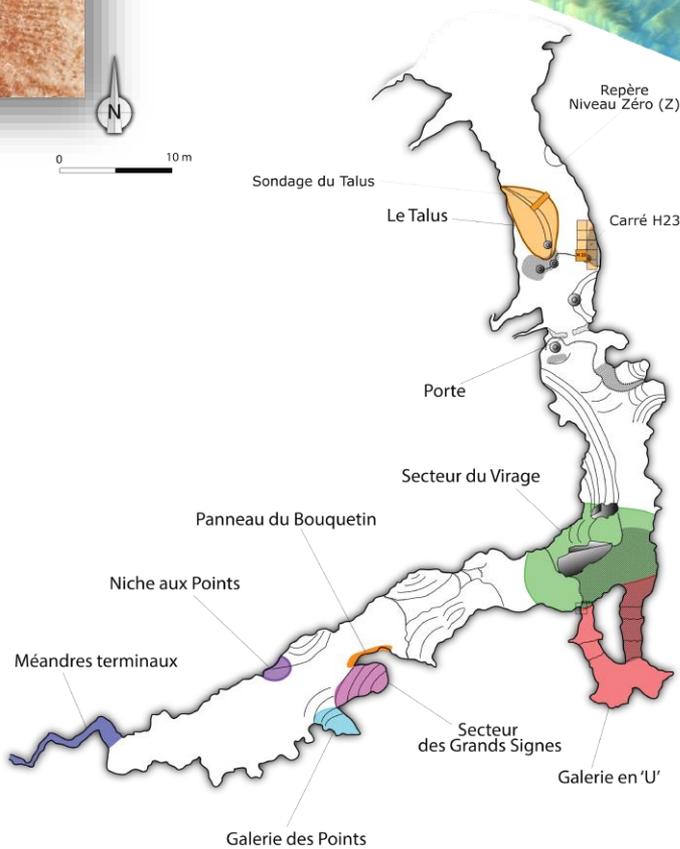
Niche aux Points – median area médian (J. Monney)



## Fréquentations Gravettienne et Solutrénienne



MNT Kim Genuite, carte C. Chanteraud



Carte topographique de la Grotte aux Points avec la localisation des sondage et panneaux ornés (DAO : J. Monney)

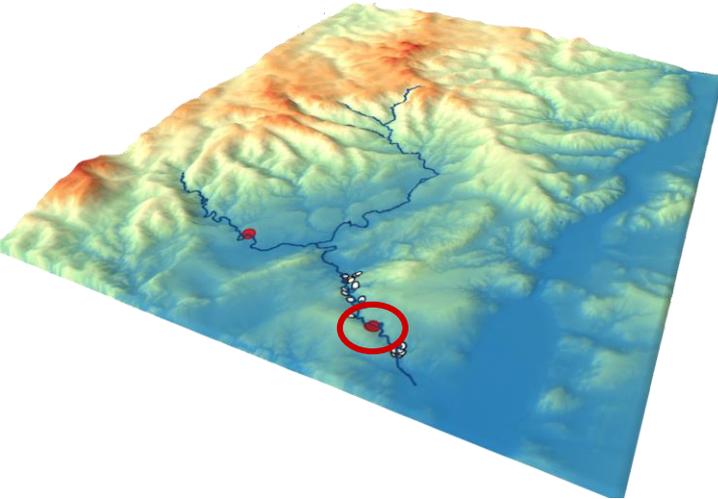
## Ecaille de paroi colorées



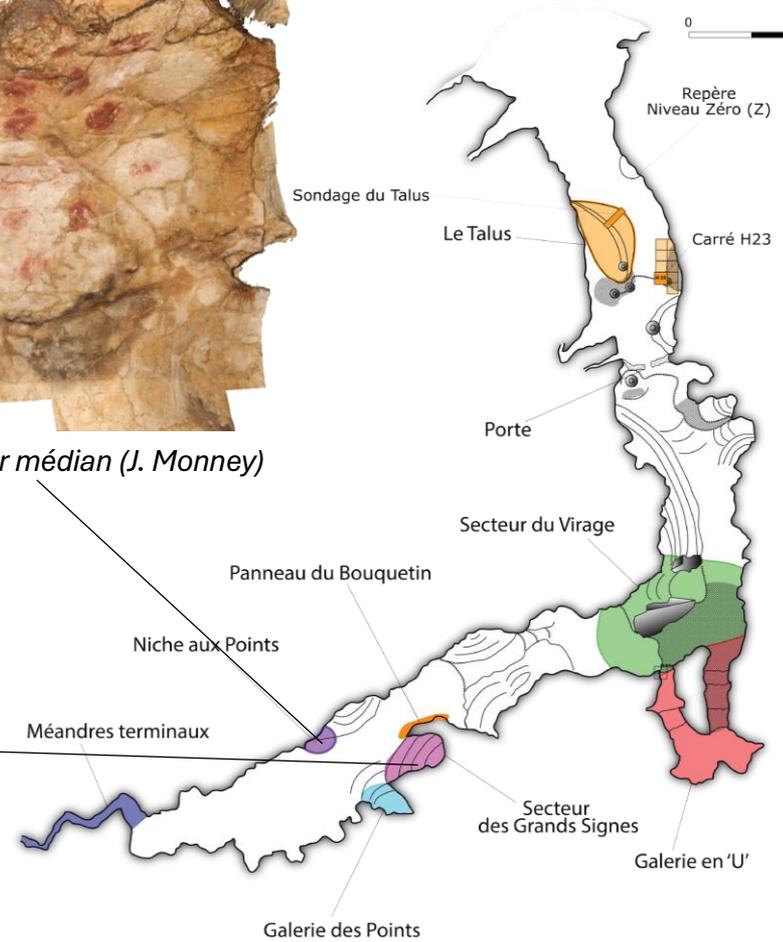
Coloured flakes from the Great Signes panel (C. Chanteraud, M. Quiers)



0 10 m



Niche aux Points – secteur médian (J. Monney)



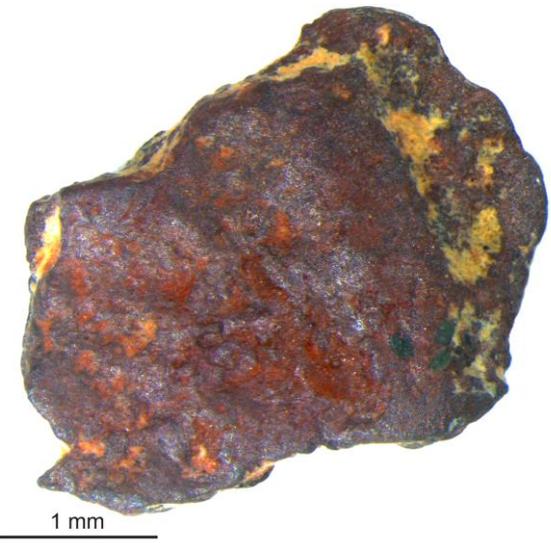
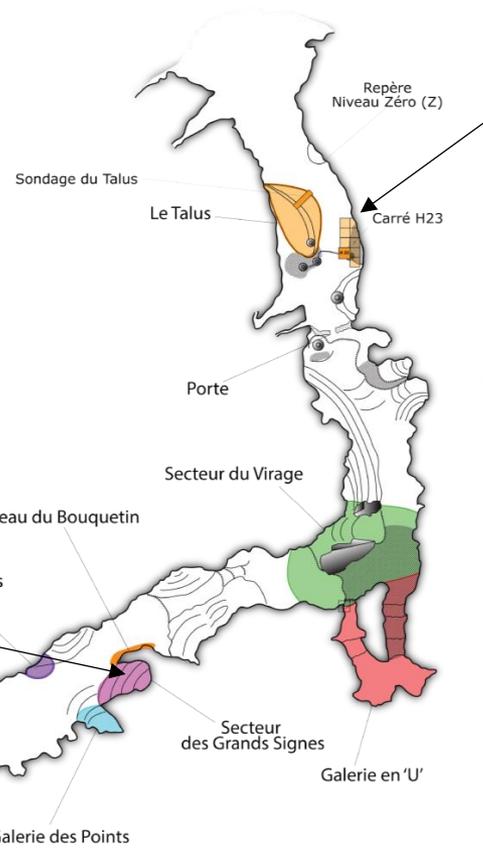
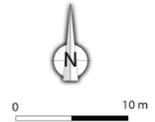
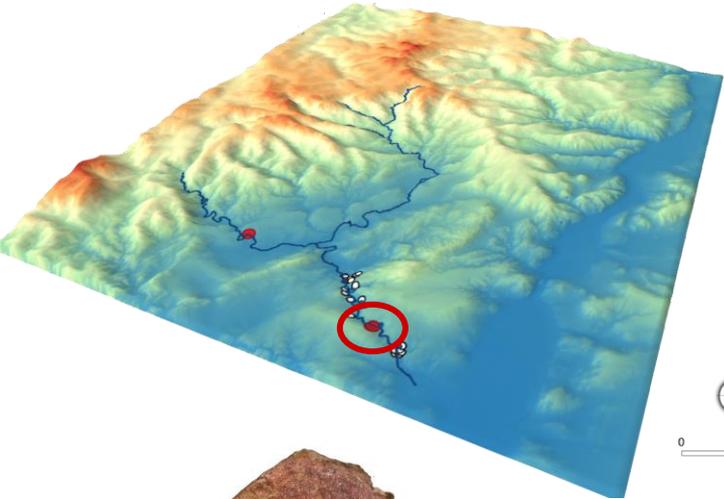
Carte topographique de la Grotte aux Points avec la localisation des sondage et panneaux ornés (DAO : J. Monney)



Signes Bilobés – secteur médian (J. Monney)



# La grotte aux Points



1 mm

>50 Blocs de matière colorante



1 cm

5 Ecailles de paroi ornée

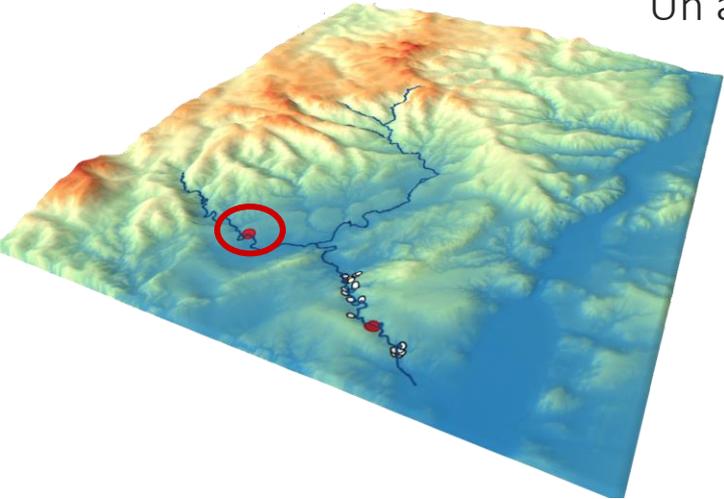
Carte topographique de la Grotte aux Points avec la localisation des sondage et panneaux ornés (DAO : J. Monney)



# L'Abri des Pêcheurs



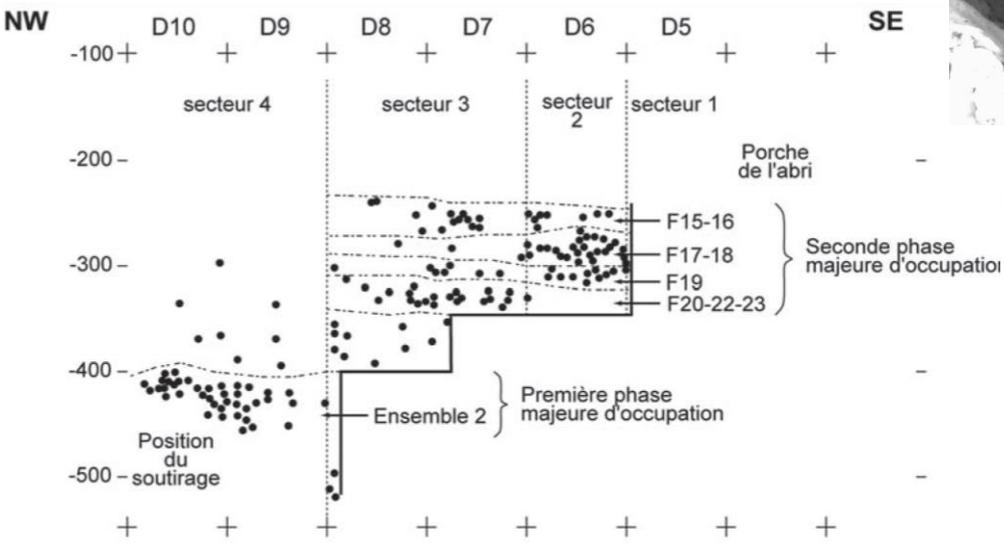
Un autre contexte souterrain :  
l'abri des Pêcheurs



Abri des Pêcheurs  
une cavité type "fossé"

- secteur 4 : premiers niveaux du Paléolithique moyen
- soutirage ayant démantelé les niveaux de brèche stériles
- niveaux du Paléolithique moyen de la partie supérieure de la séquence

Entrée de l'abri des Pêcheurs (G. Lhomme)



Proposition de stratigraphie de l'abri des Pêcheurs (E. Debard 1997)



>150 Blocs de matière colorante

2 mm

# Les matières picturales et la paroi

## L'analyse en grotte

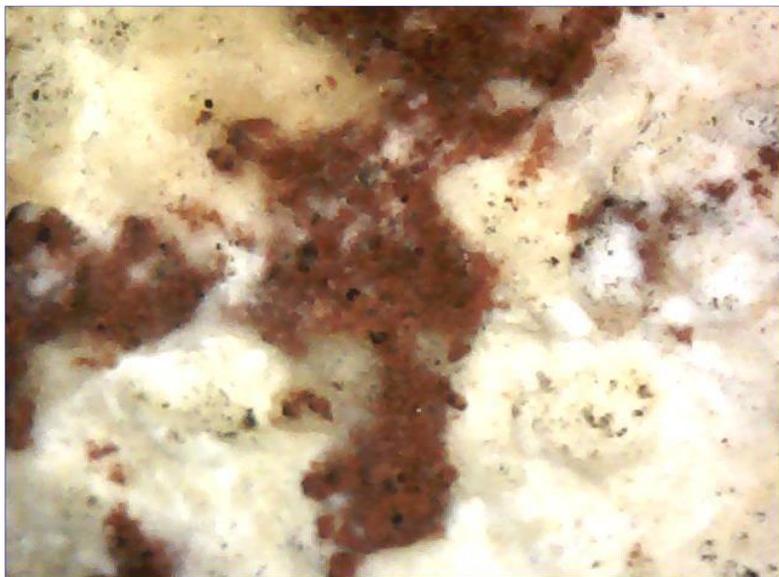
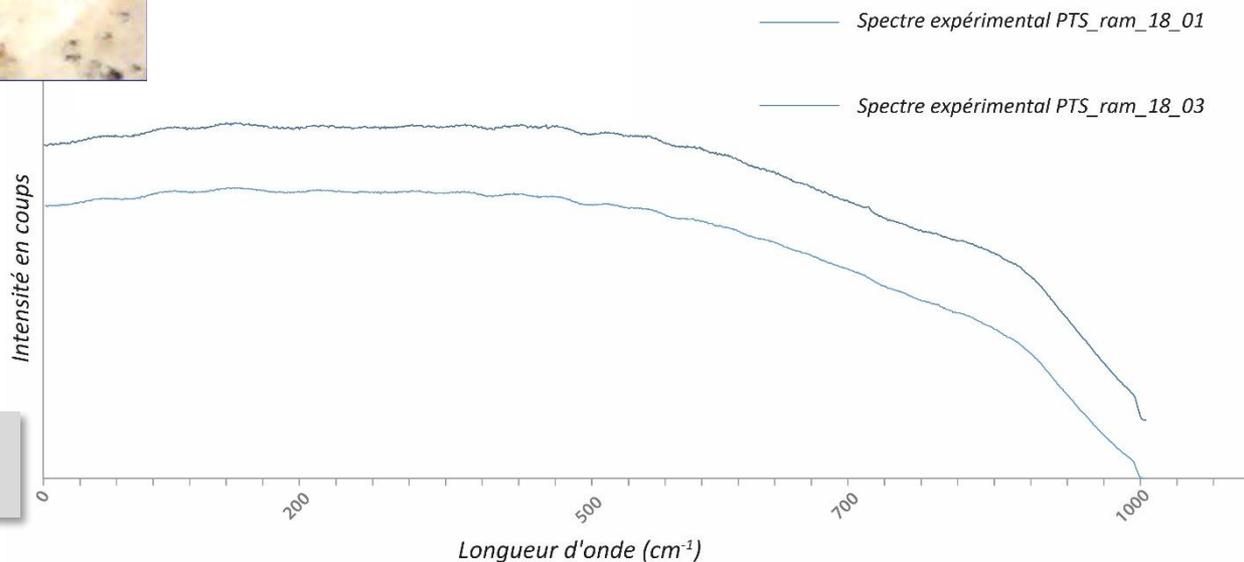


Image de surface de la paroi calcaire

> Superposition de couches minérales :  
support – altération – matière picturale



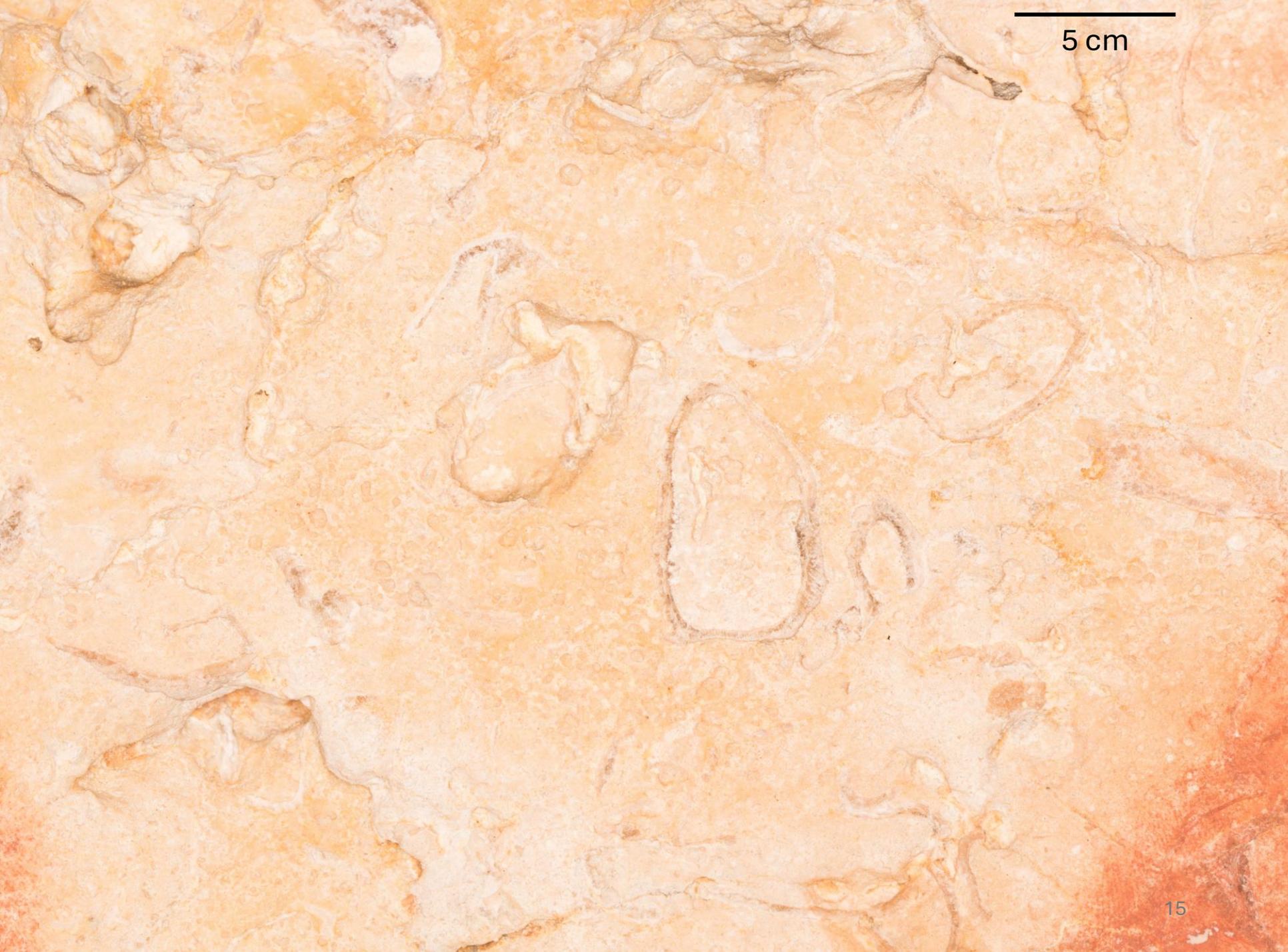
Pas de signal Raman significatif  
**Forte fluorescence**

Spectre Raman (785 nm) sur la paroi du  
panneau des Grands Signe.

# Taphonomie et fluorescence







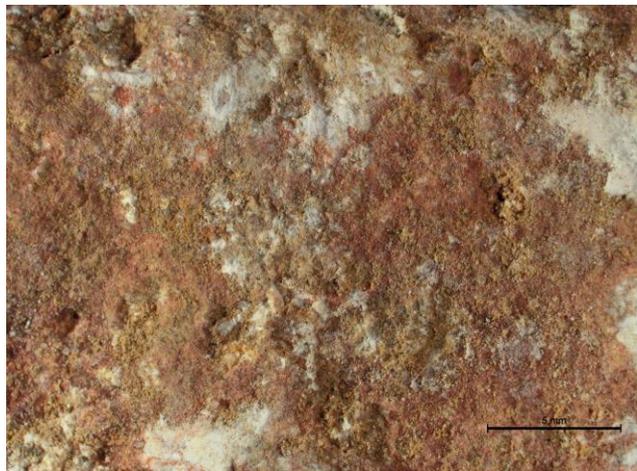
5 cm

5 cm

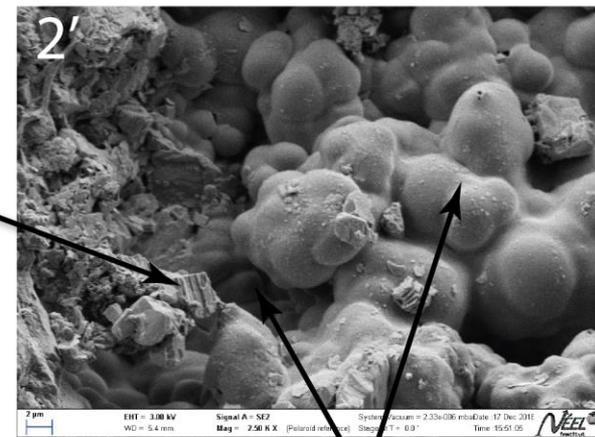
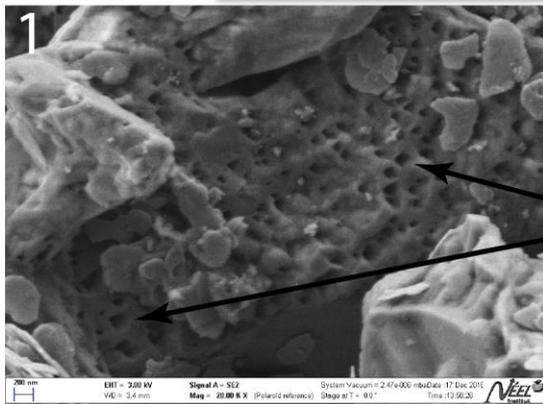
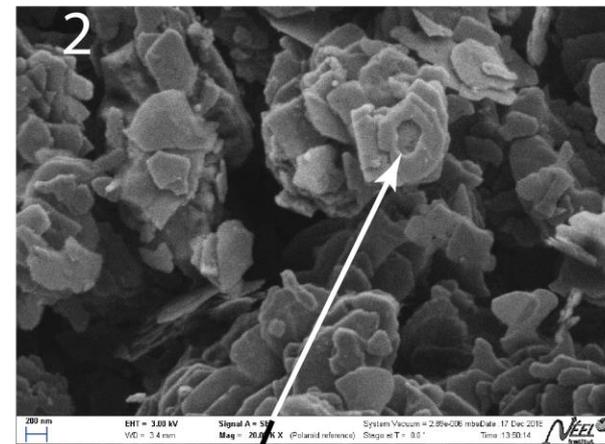
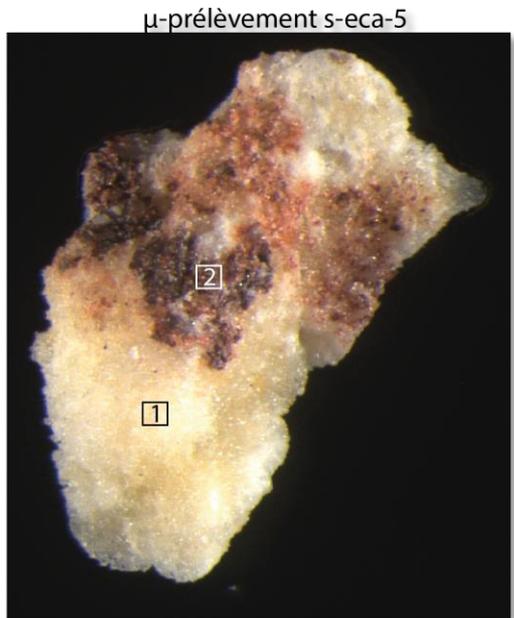


# Les matières picturales et la paroi

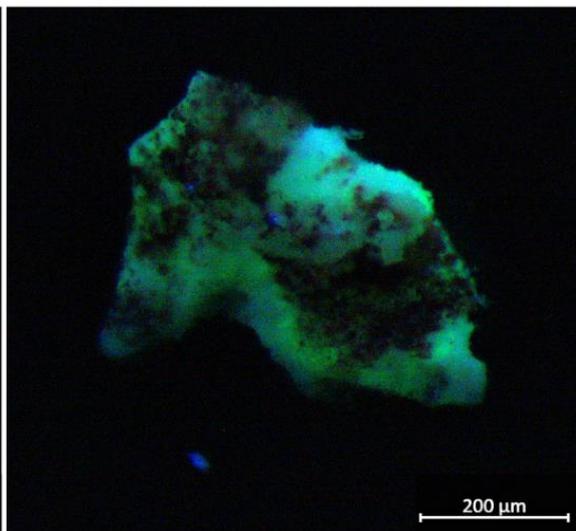
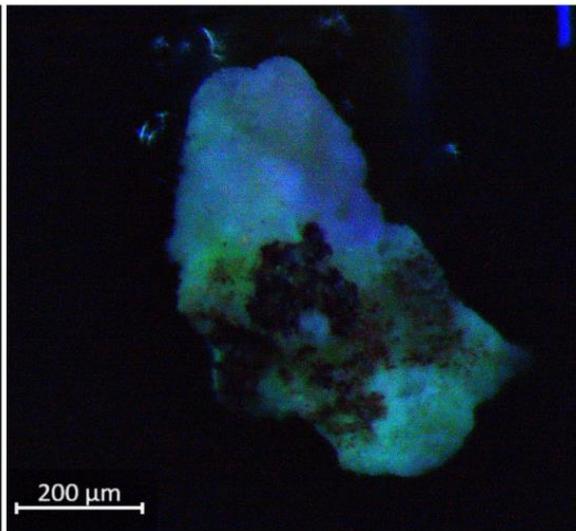
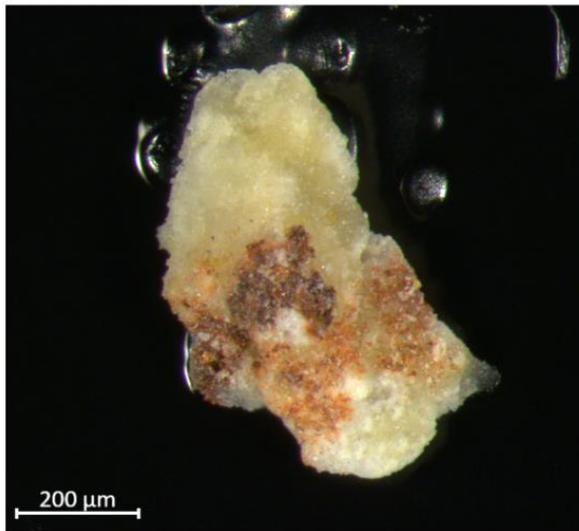
## Les écailles de parois : la grotte dans le laboratoire



> Observation et identification d'un film de silicium amorphe

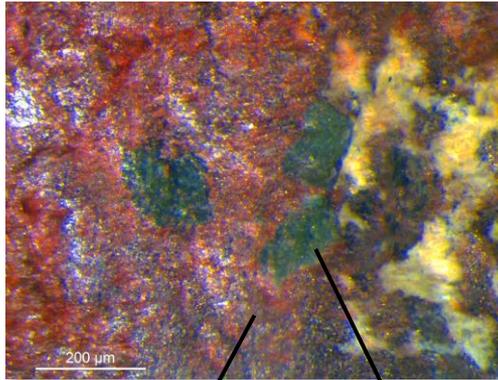


Observation et analyse MEB-EDS



# L'approche en laboratoire

*Inclusions vertes dans OCR-15-04  
observées sous loupe binoculaire*

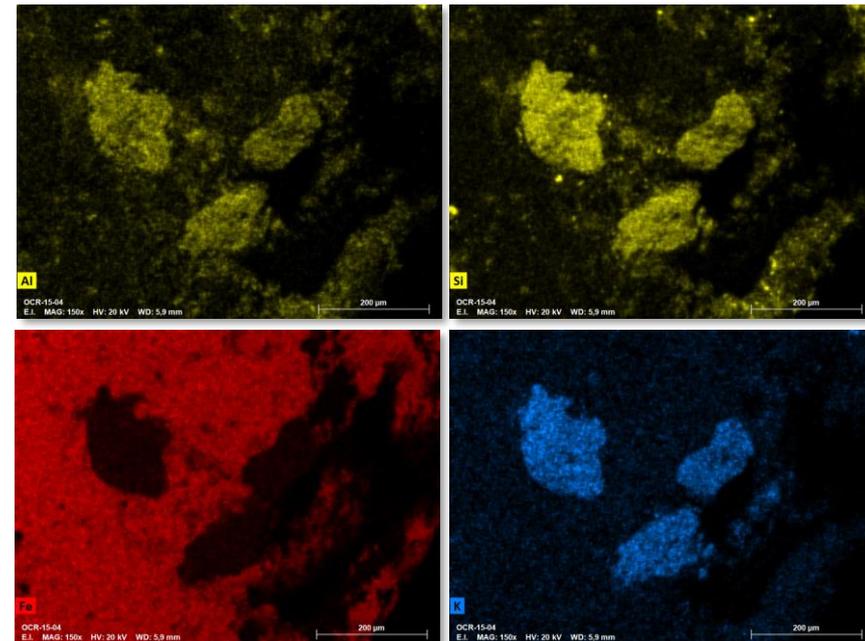


*Micromorphologie  
des oxydes de fer*

*Micromorphologie  
des inclusions vertes*



*Cartographie des éléments chimiques dans les  
inclusions vertes : association Al, Si, K et Fe*

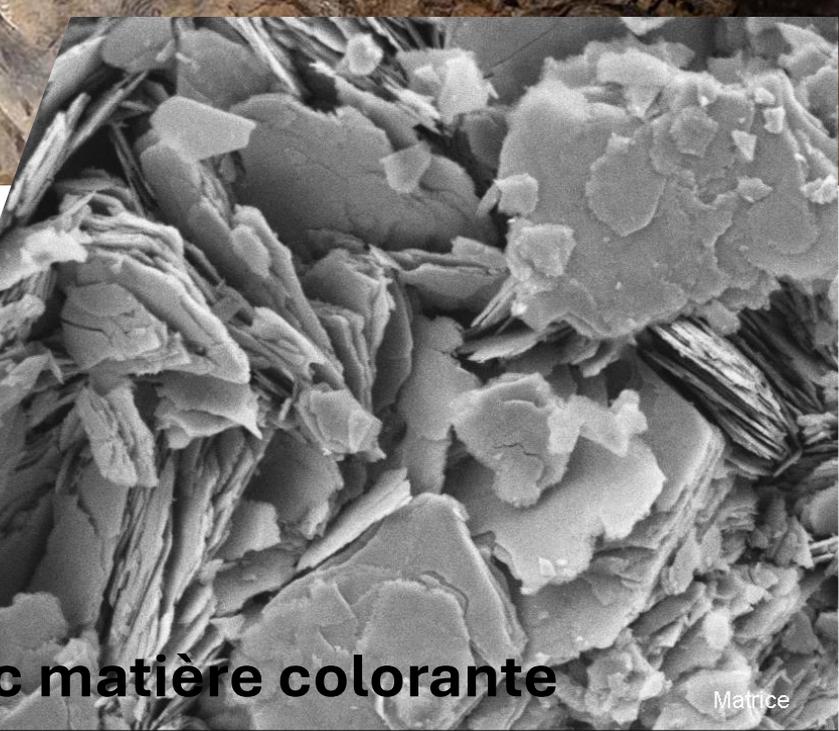
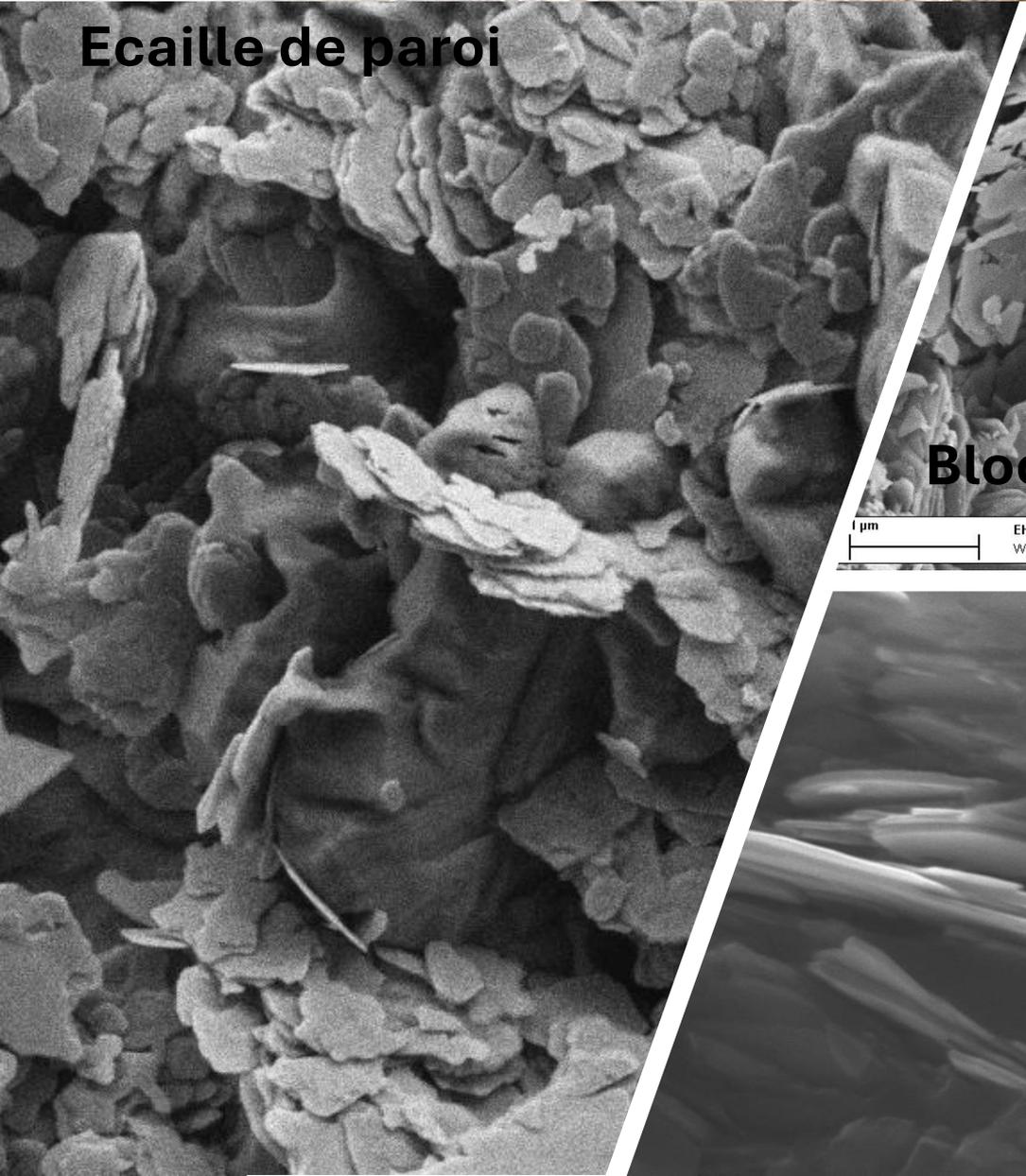


*Un phyllosilicate Potassium – fer*

Contraintes analytiques :  
pas de distinction possible  
céladonite vs glauconite



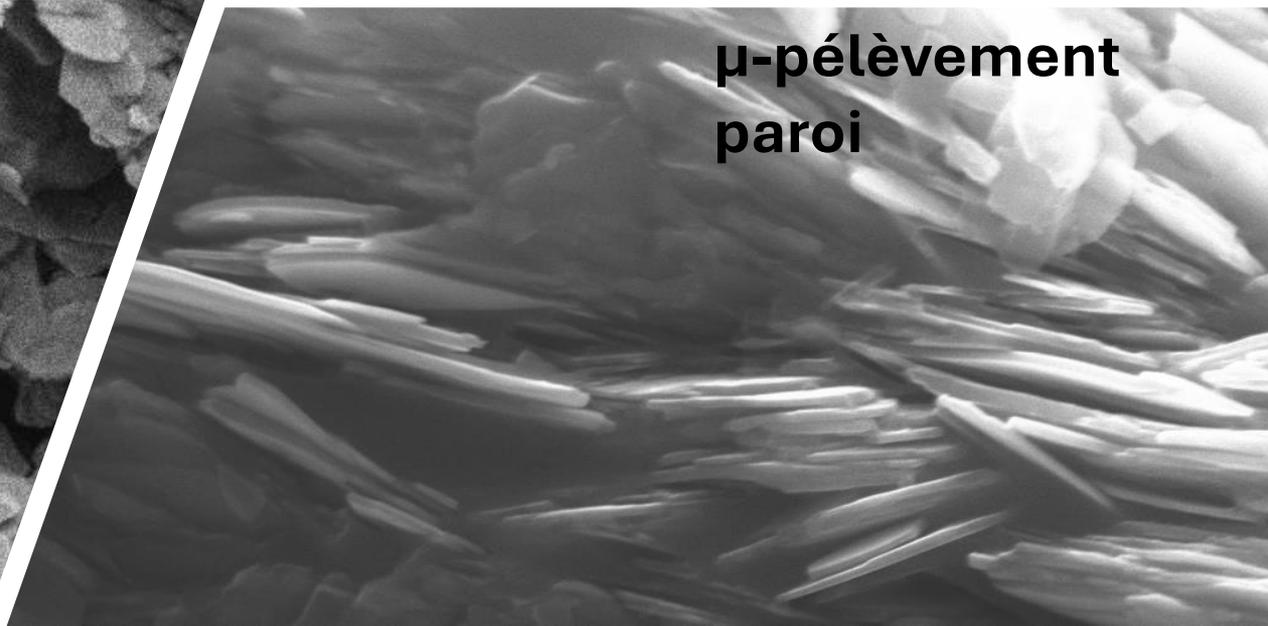
**Ecaille de paroi**



**Bloc matière colorante**

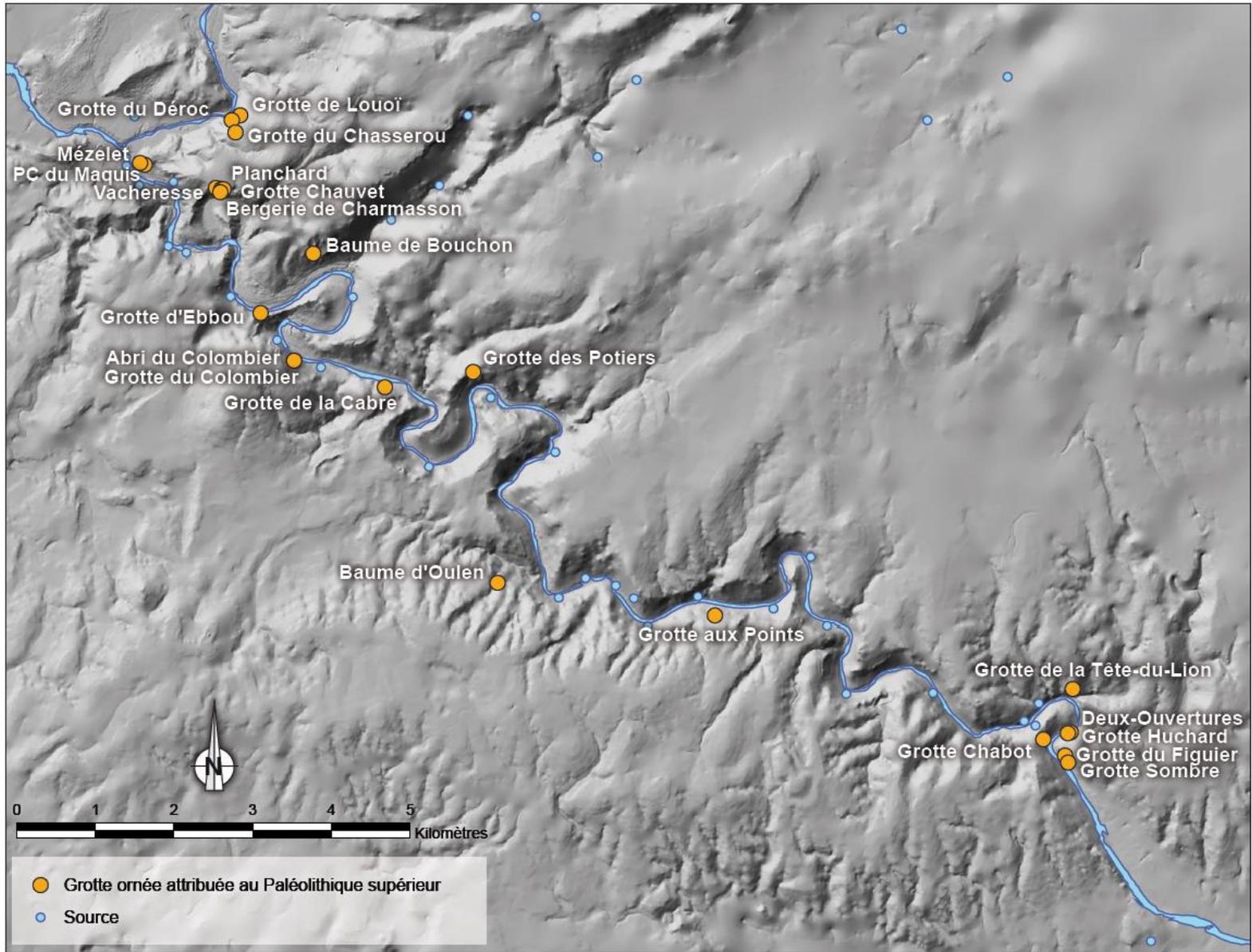
Matrice

1  $\mu$ m EHT = 3.00 kV Signal A = SE2 System Vacuum = 2.40e-004 Pa Date : 27 Apr 2011  
WD = 5.7 mm Mag = 15.00 K X (Polaroid reference) Stage et T = 0.0° Time : 16:55:15



**$\mu$ -pélèvement  
paroi**

# Une sélection de matière commune



# Une diversité de matière

*Diversité géologique :  
types de formation riche en oxy(hydroxy)de de fer  
vue en coupe*

Lambeau de cuirasse  
latéritique

Fragments  
roulés de cuirasse

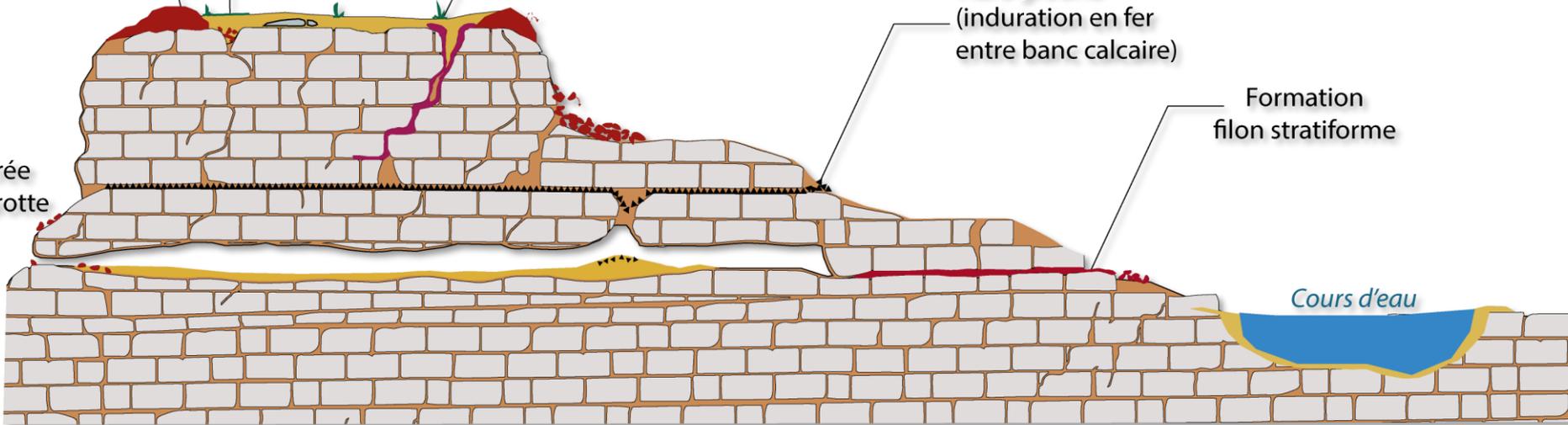
Formation  
filonienne

Hard ground  
(induration en fer  
entre banc calcaire)

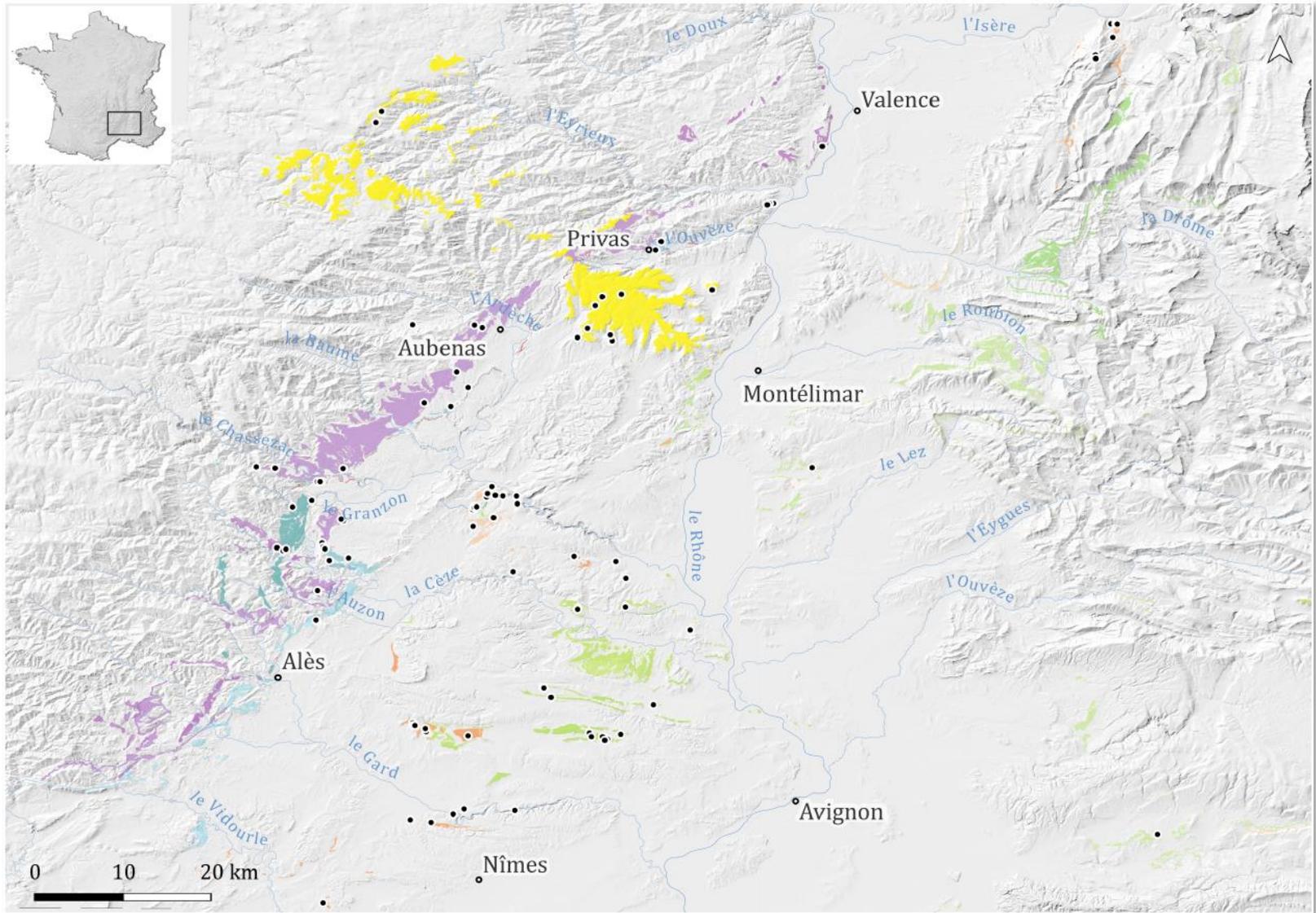
Formation  
filon stratiforme

Entrée  
de grotte

Cours d'eau

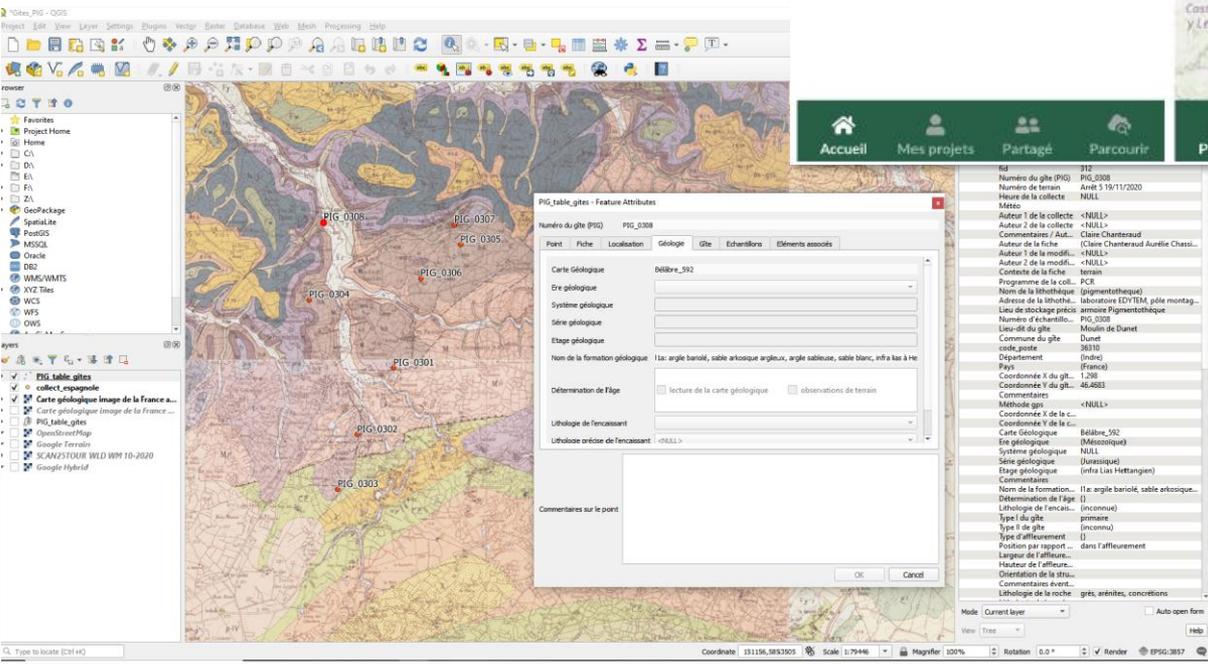
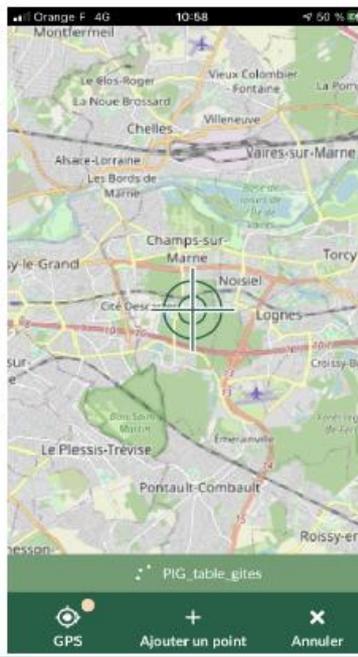
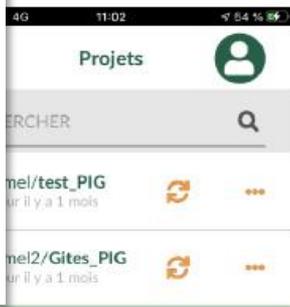
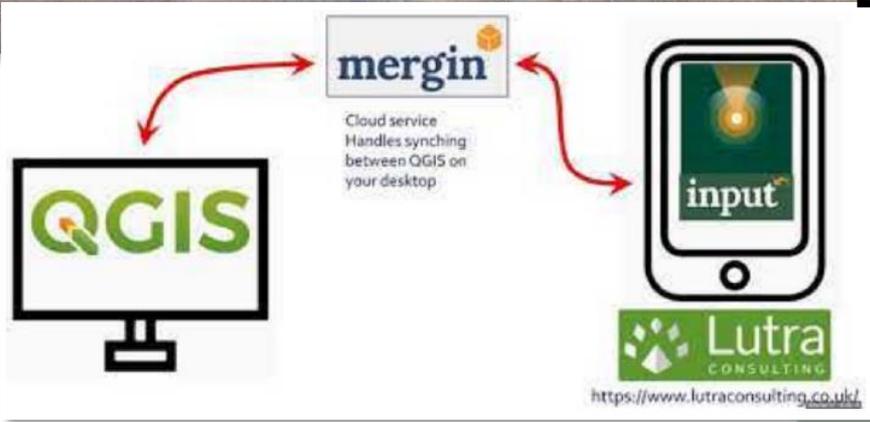


# Dans un espace proche

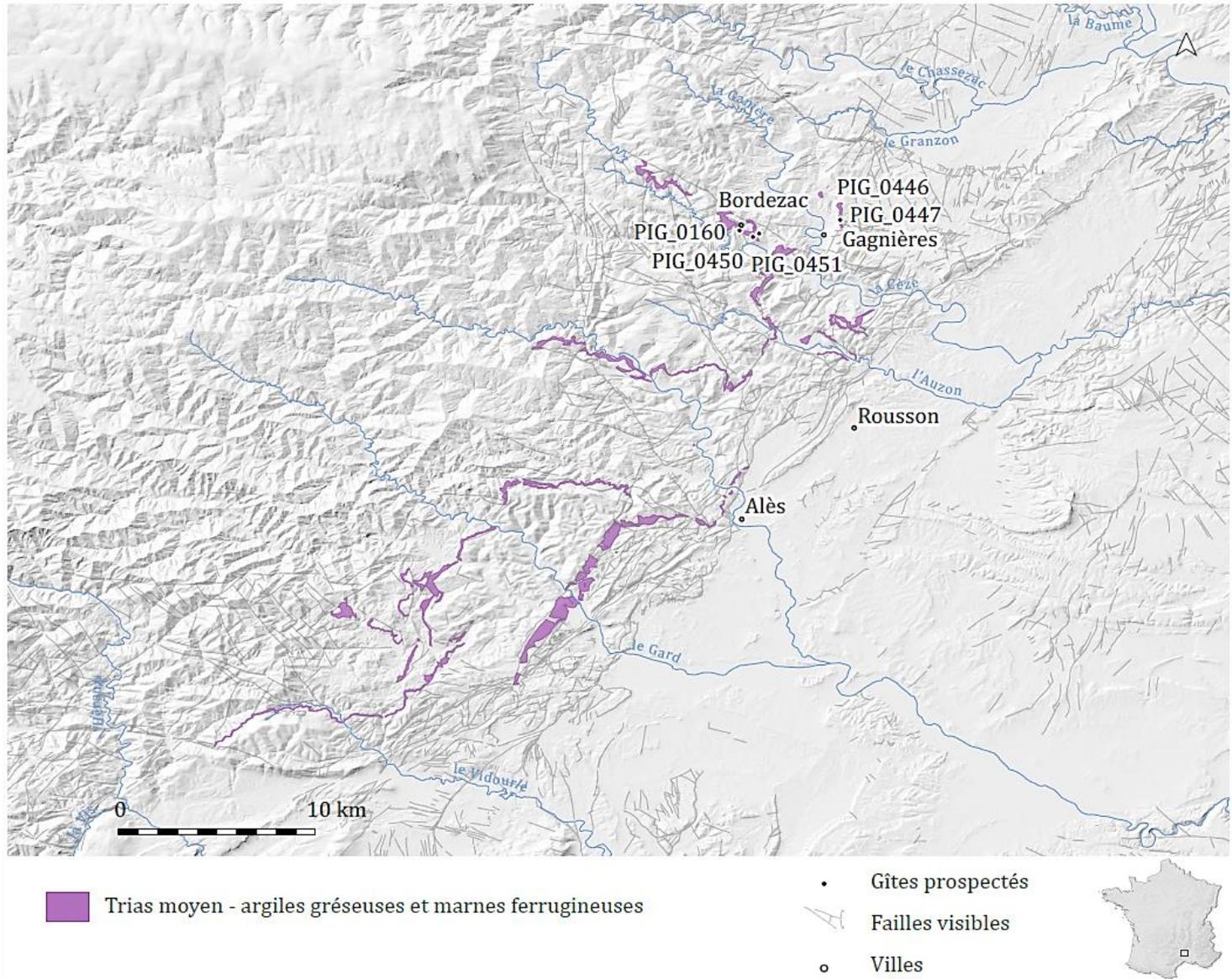




# L'inventaire des ressources disponibles



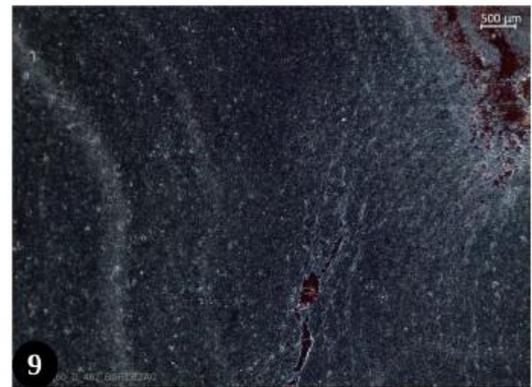
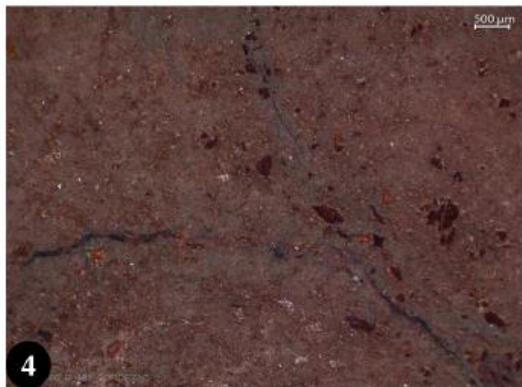
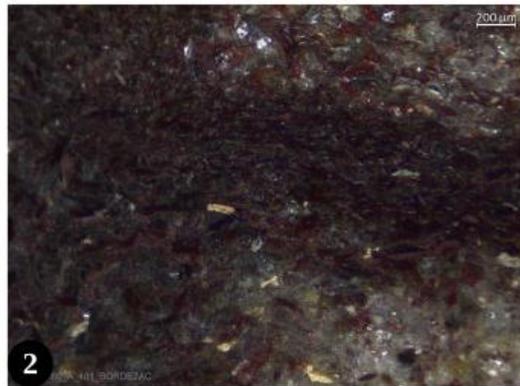
# Des matières disponibles à plusieurs endroits

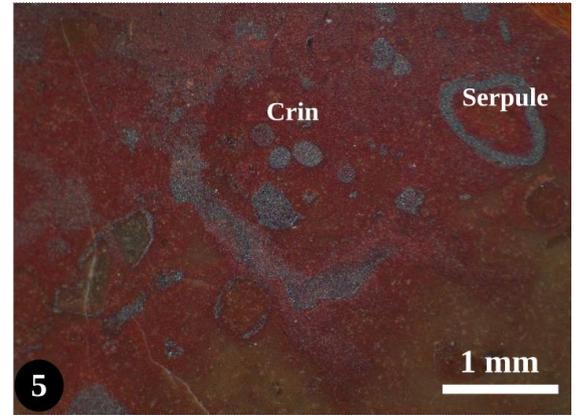
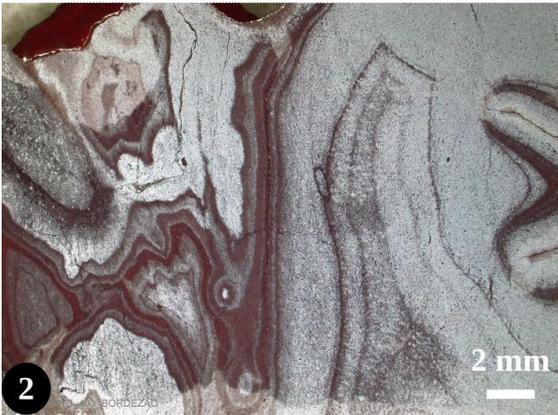


# Bordezac



# Bordezac





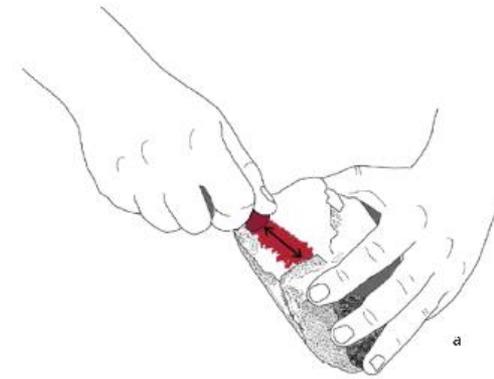
# Les traces de la pratique

A sec

A l'eau

Au gras

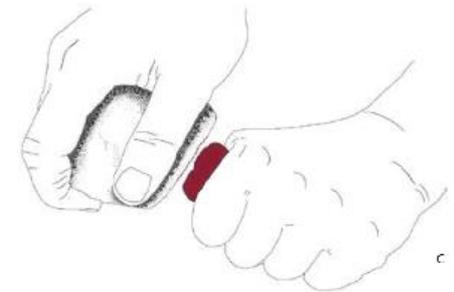
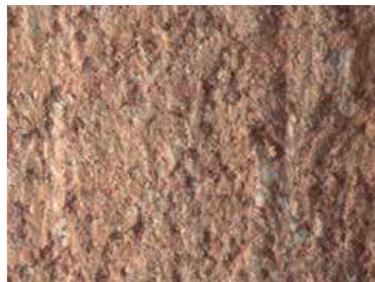
Bordezac



Huy



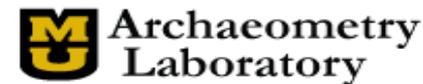
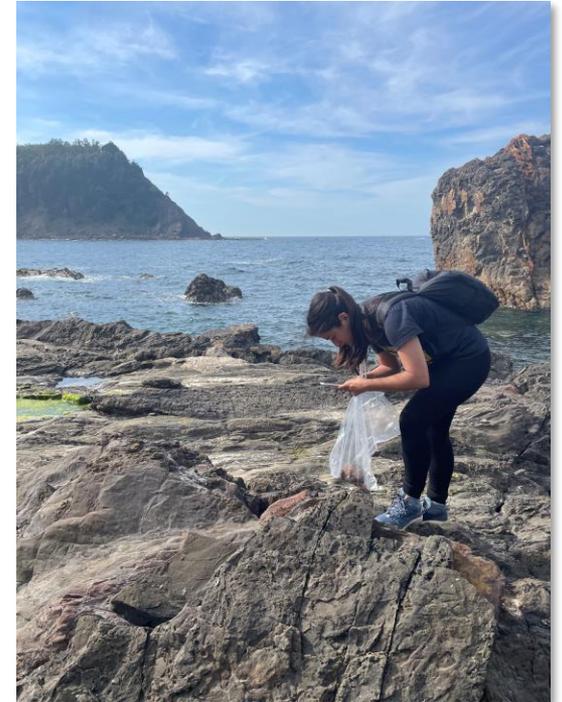
Cazol-  
Lès-Bézier



# Conclusion



# Partenaires



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### Light in the Cave: Opal coating detection by UV-light illumination and fluorescence in a rock art context. Methodological development and application in Points Cave (Gard, France)

Marine Quiers<sup>1</sup>, Claire Chanteraud<sup>2, 1</sup>, Andréa Maris-Froelich<sup>1</sup>, Emilie Chalmin<sup>1</sup>, Stéphane Jaillet<sup>1</sup>, Camille Noûs<sup>3</sup>, Sébastien Pairis<sup>4</sup>, Yves Perrette<sup>1</sup>, Hélène Salomon<sup>1</sup>, Julien Monney<sup>1</sup> [Details](#)

- 1 EDYTEM - Environnements, Dynamiques et Territoires de la Montagne
- 2 MURR - University of Missouri Research Reactor [Columbia]
- 3 Laboratoire Cogitamus
- 4 POM - Optique et microscopies  
NEEL - Institut Néel

Document type : Preprints, Working Papers, ...

Domain : Environmental Sciences / Environmental and Society  
Humanities and Social Sciences / Archaeology and Prehistory  
Chemical Sciences / Inorganic chemistry

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Submitted on : Tuesday, October 26, 2021 - 9:48:43 PM  
Last modification on : Friday, November 5, 2021 - 2:41:39 PM

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#### CITATION

Marine Quiers, Claire Chanteraud, Andréa Maris-Froelich, Emilie Chalmin, Stéphane Jaillet, et al.. Light in the Cave: Opal coating detection by UV-light illumination and fluorescence in a rock art context. Methodological development and application in Points Cave (Gard, France). 2021. (hal-03383193v2)

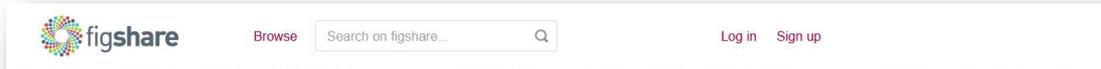
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[BibTeX](#) [TEI](#) [DC](#) [DCterms](#) [EndNote](#)

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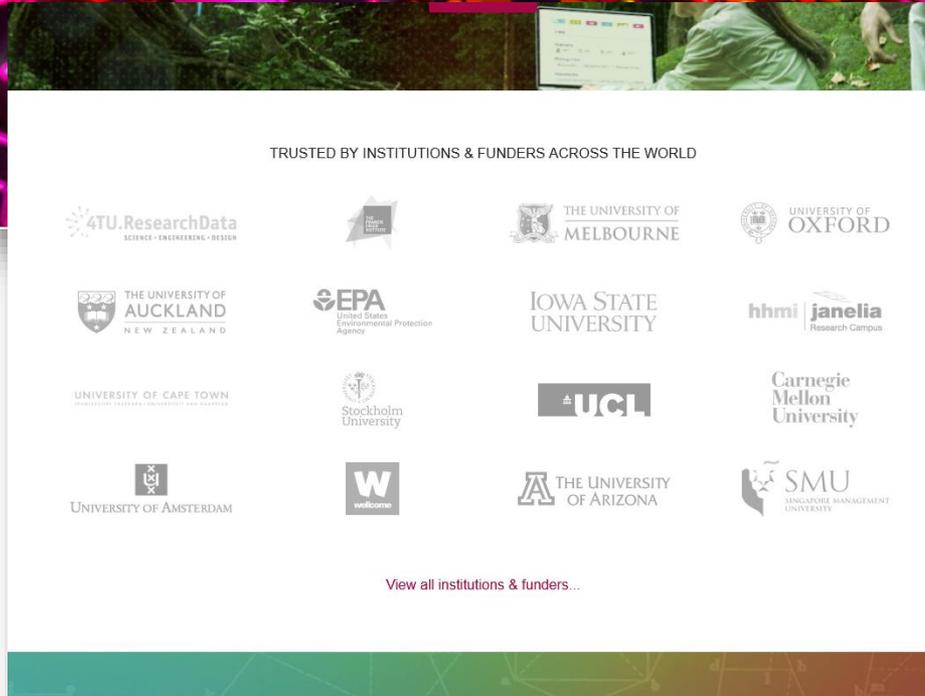
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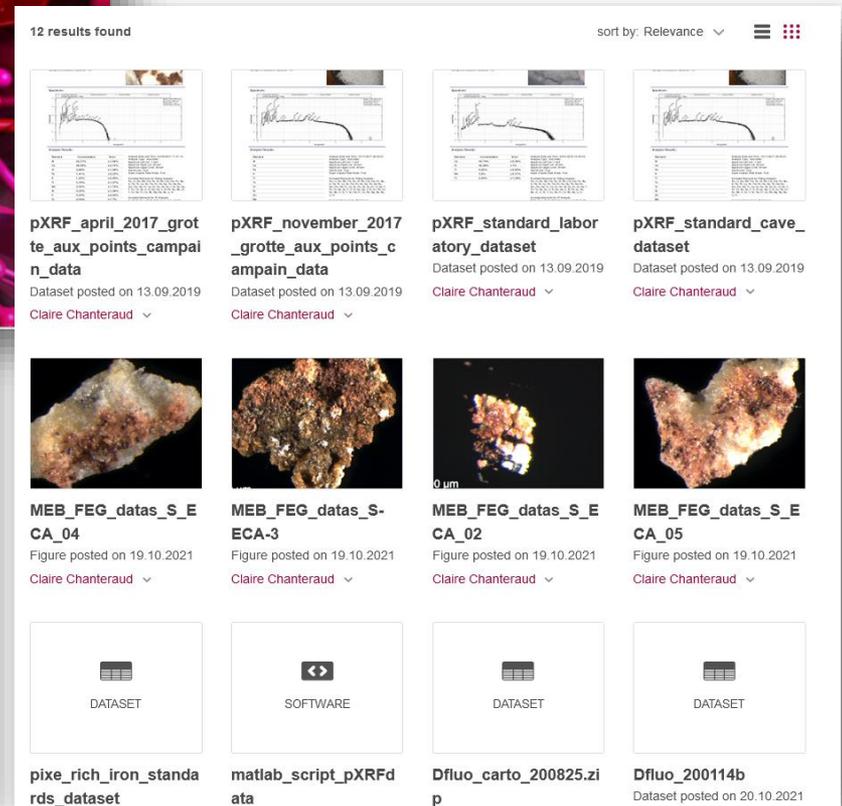
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Claire Chanteraud

**pXRF\_november\_2017\_grotte\_aux\_points\_campaign\_data**  
Dataset posted on 13.09.2019  
Claire Chanteraud

**pXRF\_standard\_laboratory\_dataset**  
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**pXRF\_standard\_cave\_dataset**  
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**MEB\_FEG\_datas\_S\_ECA-3**  
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**MEB\_FEG\_datas\_S\_ECA\_02**  
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**MEB\_FEG\_datas\_S\_ECA\_05**  
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Claire Chanteraud

**pixe\_rich\_iron\_standards\_dataset**  
DATASET

**matlab\_script\_pXRFdata**  
SOFTWARE

**Dfluo\_carto\_200825.zip**  
DATASET

**Dfluo\_200114b**  
Dataset posted on 20.10.2021

<https://archaeo.peercommunityin.org/PCIArchaeology>

The screenshot shows the homepage of Peer Community In Archaeology. At the top left is the PCI Archaeology logo. Below it, there are navigation links for 'Articles', 'About', 'Help', and 'Log in'. A 'Show sidebars' button is also present. The main heading is 'Peer Community In Archaeology' with a decorative graphic of various archaeological icons. Below the heading are buttons for 'SUBMIT A PREPRINT', 'LOG IN', and 'REGISTER'. A search bar is located below the buttons, with a 'SEARCH' button and a 'Filter by thematic fields' link. The 'Latest recommendations' section features two articles: 'Ran-thok and Ling-chhom: indigenous grinding stones of Shertukpen tribes of Arunachal Pradesh, India' (dated 15 Aug 2021) and 'The strength of parthood ties. Modelling spatial units and fragmented objects with Topological Study of Archaeological Refitting' (dated 24 Jun 2021).

The screenshot shows a tweet from @PCI\_Archaeology. The tweet text reads: 'Mon dernier article sur @FR\_Conversation Comment la science ouverte peut faire évoluer les méthodes d'évaluation de la recherche theconversation.comcomment-la-sci... #OpenScience'. The tweet includes a retweet from @olivier\_pourret and a video thumbnail showing a blue abstract image.

The screenshot shows the 'About PCI Archaeology' page. The title is 'About PCI Archaeology'. The main heading is 'What is PCI Archaeology?'. The text explains that PCI Archaeology was launched in March 2020 and is a community of recommenders. It details the process of peer review and the role of recommenders. A video thumbnail is shown with the text 'Peer Community In. What is it?'. Below the text is a list of key features: PCI Archaeology is stimulating, free, transparent, and not exclusive. The page also mentions the managing board of PCI Archaeology, including co-founders Alain Queffelec and Bruno Maureille, and managers.

## What is PCI Archaeology?

PCI Archaeology has been launched in March 2020. PCI Archaeology is a community of recommenders, playing the role of associate editors, who recommend unpublished articles based on peer reviews to make them complete, reliable and citable articles, without the need for publication in "traditional" journals. Evaluation and recommendation by PCI Archaeology are free of charge. When recommenders decide to recommend an article they write a recommendation text that is published along with all the editorial correspondence (reviews, recommenders' decisions, authors' replies) by PCI Archaeology. The article itself is not published by PCI Archaeology, it remains on the preprint server where it was posted by the authors. PCI Archaeology recommenders can also recommend postprints, but this is done to a lesser extent.



PCI Archaeology is a community of the parent project [Peer Community In](#), an original idea of Denis Bourguet, Benoit Facon and Thomas Guillemaud.

PCI Archaeology is not designed to be a free peer reviewing service for authors aiming to improve their articles before submission to a journal, although, of course, it remains possible to submit a recommended preprint to a traditional journal.

- PCI Archaeology is **stimulating**: it recommends remarkable articles.
- PCI Archaeology is **free**: there are no fees associated with the evaluation process, and no charge for access to the comments and recommendations. The website is freely accessible.
- PCI Archaeology is **transparent**: reviews and recommendations (for unpublished articles) and recommendations (for published articles) are freely available for consultation. Recommendations are signed by the recommenders. Reviews may also be signed if the reviewers agree to do so
- PCI Archaeology is **not exclusive**: an article may be recommended by different Peer Communities in X (a feature of particular interest for articles relating to multidisciplinary studies), and may even be published in a traditional journal (although this is not the goal of PCI Archaeology).

## Managing board of PCI Archaeology

Co-founders:

**Alain Queffelec** (Univ. Bordeaux, CNRS, France)

**Bruno Maureille** (Univ. Bordeaux, CNRS, France)

Managers:

