RESEARCHING ARCHAEOLOGICAL QUARTZITES

AT THE INSTITUT FÜR UR- UND FRÜGESCHICHTE, ERLAGEN

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The Forces: Human being

The characterization of lithic raw materials used by prehistoric societies to create artefacts has been a concern of prehistoric archaeology since its beginnings as a scientific discipline. The conclusions reached by those studies have shown their

- importance in: · Tracing mobility routes
- · To test prehistoric exchanges of material
- · Detecting raw material acquisition processes (discovery of new sites)
- · Better understanding of raw material management
- Understanding the reason of raw material selection
- Detecting prehistory territories
- Exploitation of landscapes

The Matter: Archaeological Quartzite

related axes:

- where quartzite is well represented in the geological strata.
- periods in which flint or obsidian are not well represented, e.g. provenance studies. the Middle Palaeolithic.
- related with flint and obsidian, generally long-distance mobility study in archaeological terms, were crucial to start the study or raw material interchanges.

Despite being the second most-often used lithic raw material. The formal definition and characterization of archaeological This poster summarises the methodology and partial results of in European Palaeolithic, quartzite has not received the same quartzite is difficult because of the ambiguity of its very name. In the research project I have recently finished: "Procurement and geo-archaeological interest as flint and obsidian. This omission numerous texts, the term 'quartzite' refers to the mineralogical management of quartzite in the Cantabrian Region". • The geographic axis creates a loss of information in areas degree of granularity, conchoidal fracturing and strength of the research and it tries to: material. They consider that the genesis of the material may . Deep into the economy and the way of live created around

• The interpretation axis overrepresents the information raw material in depth and the potentiality and possibilities of its • Reinforce the methodology proposed, exporting the method to

Gravettian

Time

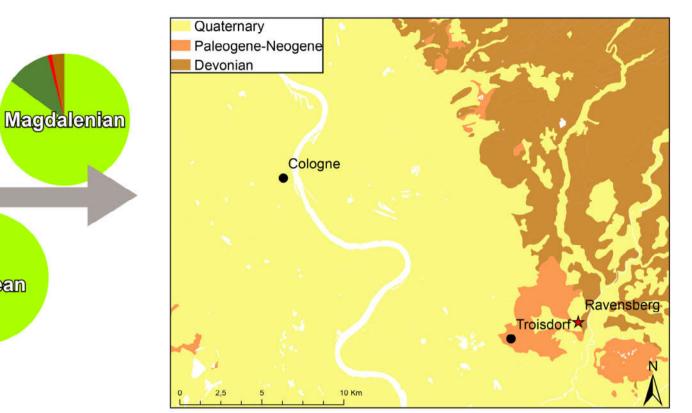
Mousterian

Main goals

The author is a Postdoctoral researcher supported by the Government of the Basque Country (POS_2018_1_0021)

generates a serious loss of information and bias in three inter- composition of the rock, in fact considering rocks with a quartz. The recently started post-doctoral research I am developing content of over 90% also refer to characteristics such as the at the Institute of Prehistory and Protohistory is based on this

- The chronocultural axis hinders information in chronological be as wide as sedimentary or metamorphic, which can hinder quartzite in previous research area (Deva and Cares Valleys, in the Cantabrian Region, Spain)
 - The absence of geo-archaeological studies that address this Enlarge the area of Study, including the Sella Valley
 - another European Region: The Lower Rin Valley (Germany) "archaeological quartzites" as the basis of my research career. I hope this poster could show the potentiality of this research line, but especially, to open new collaborations.





Mobility Obsidian Raw material routes catchment **Palaeolithic** Raw material socieities

Flint

¿Quartzite?

Prehistoric territories

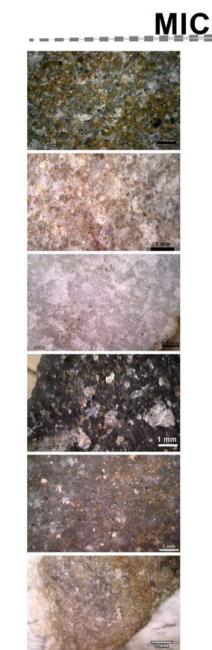
Exploitation of landscapes

Management of lithic mass

MACROSCOPIC APPROACH

REGIONAL APPROACH

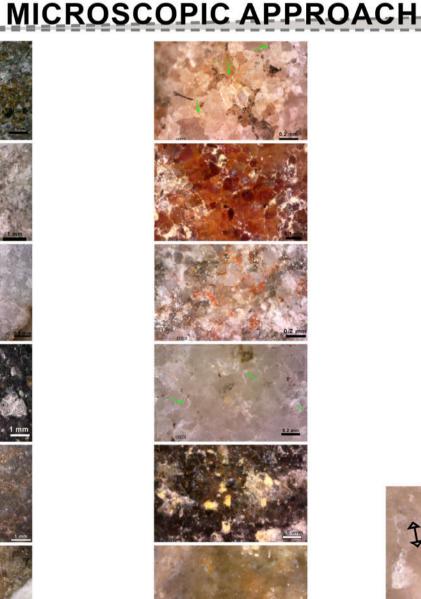
Solutrean



Texture analyisis

GEO-CHEMICAL

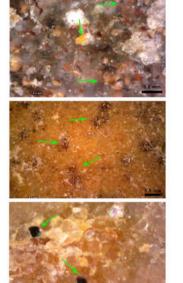
COMPOSITION

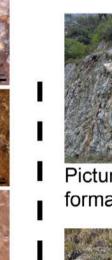


Quartz feature description

BINOCULAR

CHARACTERISATION





Mineral identification

Grain size measuring

PETROGRAPHIC |

CHARACTERISA-I

TION

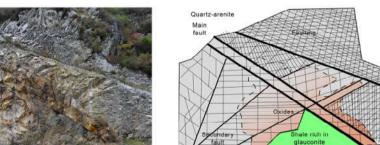




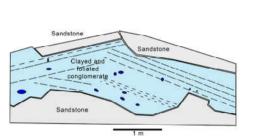
te formation



Picture of a beach river (main secondary deposit)



Scheme of an outcrop formation



Scheme of a conglomerate formation



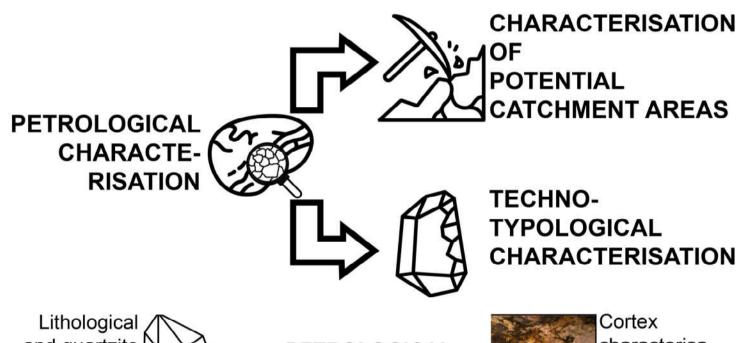
A square metre on a beach river deposit

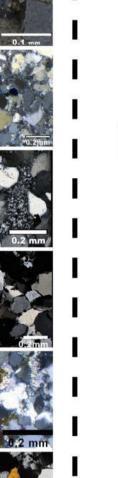


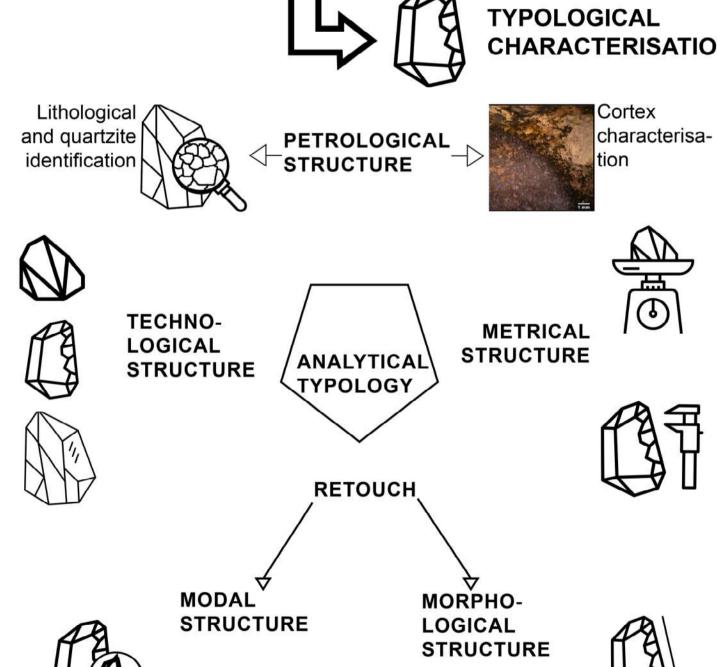
Detail of an outcrop

formation

Scheme of a flank deposit with a conglomerate fragment



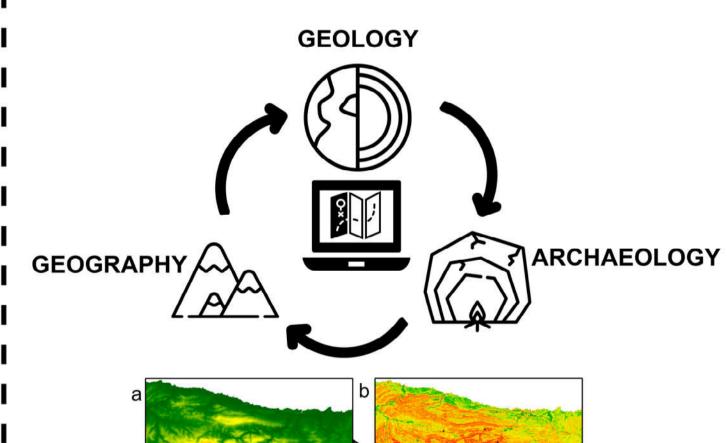


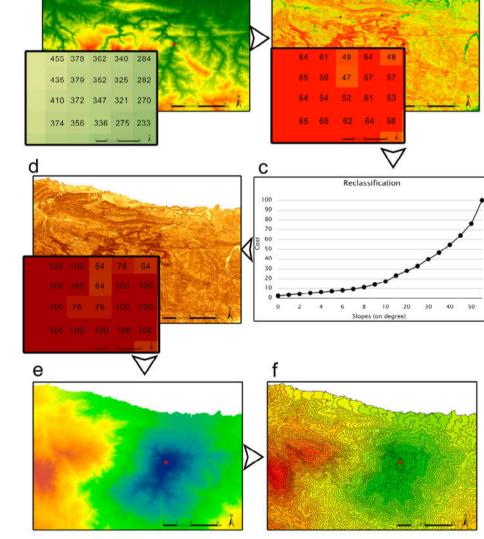


PARTIAL RESULTS

Maraña-Brañas Gr. Pontón Gr. M.T.C_03 •-- C_14

Map of conglomerate formation from the Upper Pennsylvanian in the Deva and Cares valleys. Icons represent bedding, joint system and cement properties.

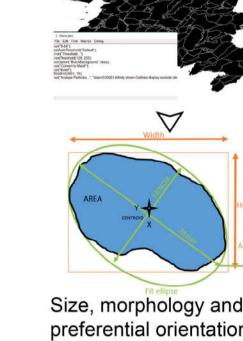




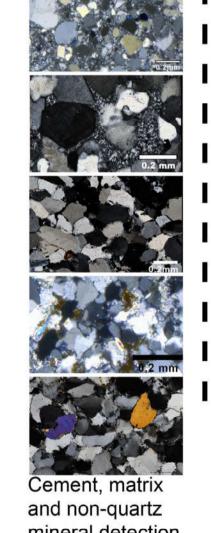
Cost map from the site of El Esquilleu. Cost allow us to determine mobility taking into account the variable relief together with distance, also determine where transit is easier.

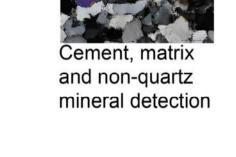
Texture, packing and quartz grain features analyisis





Size, morphology and preferential orientation of quartz grains measuring





Define & characterise "archaeological quartzite"

