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BasePetroCeram: a database for petrographic and geochemical analysis of archaeological ceramics

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ABSTRACT

Based on ceramics petrographic and geochemical studies, "BasePetroCeram" project aims to reference petrographic and geochemical analysis of archaeological ceramics from France. In the form of a secure database associated with a web interface, this tool allows a stronger recognition of ceramic bodies, as well as exchanges over long distances, but also collaboration of research teams and emergence of new issues.

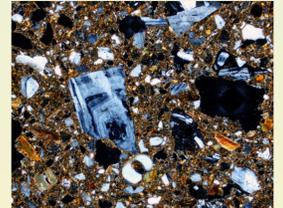
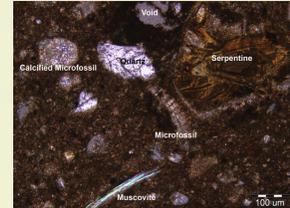
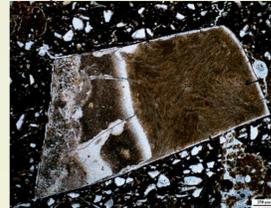
From a technical point of view, the web framework used is FuelPHP, which is a set of open-source software components written in PHP, and implements the MVC design pattern. It allows the fast implementation of the basic operations like CRUD (Create, Read, Update, Delete). The database is managed by the object-relational database management system PostgreSQL and is hosted on a perennial server administered by the University of Rennes. Automatic generation of interactive maps finally uses the free software library Leaflet.

The web interface allows to put on-line published data, bibliographic references, secured raw analysis results or photos for the periods from the Neolithic to Modern History. This database records can be submitted directly by registered researchers, PhD students and students, and provide a new means of recognition and contact between specialists in the field.

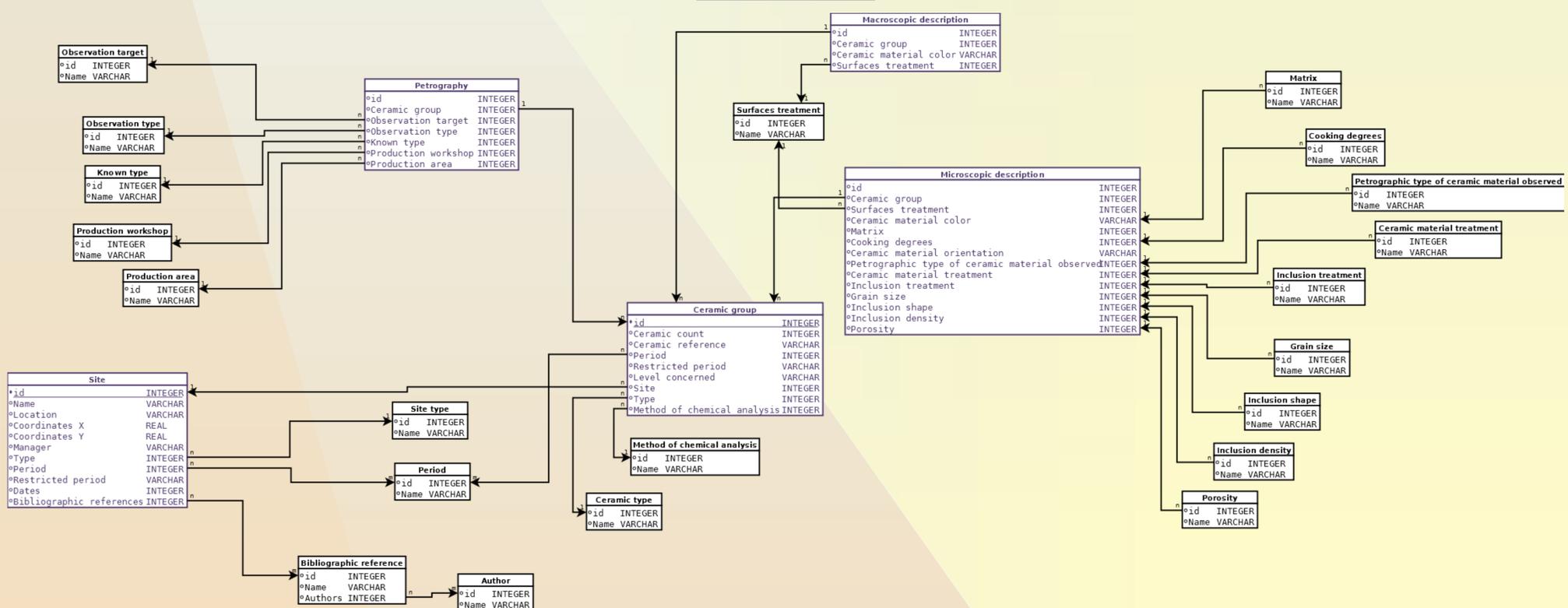
I/ CONTEXT

Many petrographic analysis of ceramics are conducted in France. However, the lack of a centralisation of the results don't allow us to make quickly comparisons on the regional or national scale.

The objective of this online database is to provide a tool for the petro-ceramologists and the archaeologists in order to compare their results, and to highlight their analysis, who are in some case few diffused, and to create a group dynamics at the national scale. Moreover, we would like to provide a framework for a live entered information during the petrographic and chemical analysis of the ceramics.

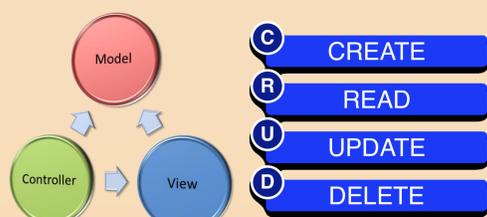


II/ DATA MODEL



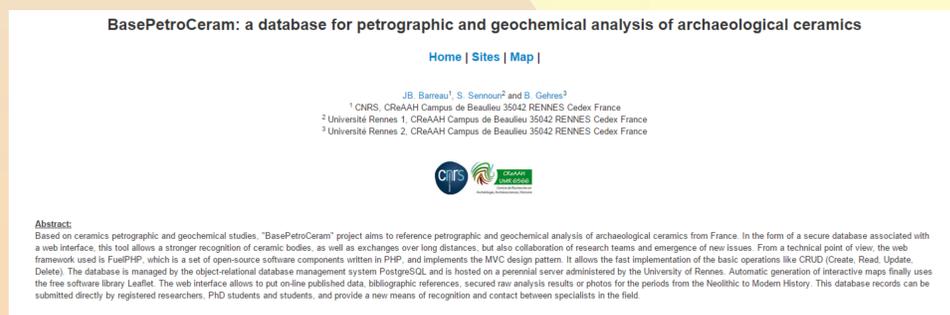
III/ TOOLS

Programming paradigms

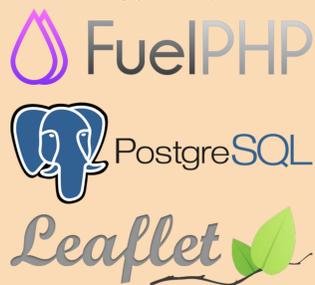


IV/ WEB INTERFACE

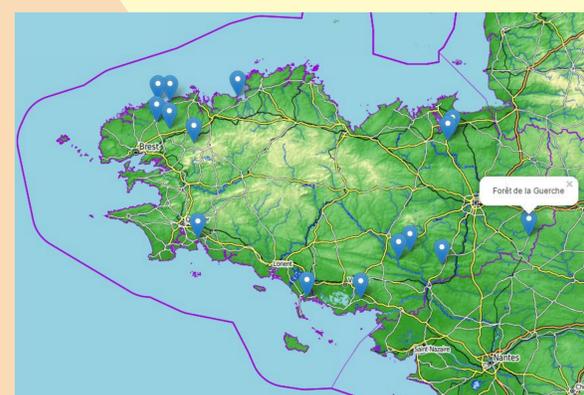
Showcase sandbox website <http://petroarchoe.olympie.in/public/>



Software



Zone	Site	Period	Bibliographic references
Tréal	Allée Couverte de Tréal	Neolithic	MORZADECH (1995) – Pétréo-archéologie des céramiques armoricaines du Néolithique à l'Age du Fer, Travaux du Laboratoire d'Anthropologie de Rennes /
Saint-Just	La Grée de Cojoux	Neolithic	MORZADECH (1995) – Pétréo-archéologie des céramiques armoricaines du Néolithique à l'Age du Fer, Travaux du Laboratoire d'Anthropologie de Rennes / HAMON G.
Plouescat	Pors Guen	Bronze Age	MORZADECH (1995) – Pétréo-archéologie des céramiques armoricaines du Néolithique à l'Age du Fer, Travaux du Laboratoire d'Anthropologie de Rennes /
La Forêt-Fousnant	Kerleven	Neolithic	MORZADECH (1995) – Pétréo-archéologie des céramiques armoricaines du Néolithique à l'Age du Fer, Travaux du Laboratoire d'Anthropologie de Rennes /
Saint-Laurent-sur-Oust	Beaumont	Neolithic	MORZADECH (1995) – Pétréo-archéologie des céramiques armoricaines du Néolithique à l'Age du Fer, Travaux du Laboratoire d'Anthropologie de Rennes / BRIARD J.
Camac	Le Castellec	Neolithic	COLAS C (1996) – Présence de céramiques à dégraisant osseux dans les régions de l'ouest de la France, Bulletin de la Société Préhistorique Française, T. 93, N° 4.
Plouneour-Trez	La Lividic	Bronze Age	MORZADECH (1995) – Pétréo-archéologie des céramiques armoricaines du Néolithique à l'Age du Fer, Travaux du Laboratoire d'Anthropologie de Rennes /
Plouneventer	Kerdomnard	Bronze Age	MORZADECH (1995) – Pétréo-archéologie des céramiques armoricaines du Néolithique à l'Age du Fer, Travaux du Laboratoire d'Anthropologie de Rennes /
Plounevez-Lochist	Kerveret	Bronze Age	MORZADECH (1995) – Pétréo-archéologie des céramiques armoricaines du Néolithique à l'Age du Fer, Travaux du Laboratoire d'Anthropologie de Rennes /
Ploudaniel	Le Kemo	Bronze Age	MORZADECH (1995) – Pétréo-archéologie des céramiques armoricaines du Néolithique à l'Age du Fer, Travaux du Laboratoire d'Anthropologie de Rennes /



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- Tweedie, R. (2013). *Learning FuelPHP for Effective PHP Development*. Packt Publishing Ltd.

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