THE CHURCH OF NOTRE-DAME-SOUS-TERRE (MONT-SAINT-MICHEL, FRANCE), A CASE OF CERAMIC BUILDING MATERIAL DATING APPLIED TO EARLY MEDIEVAL BUILDING ARCHAEOLOGY

S. Blain¹ -- P. Guibert¹ -- Ph. Lanos² -- Ph. Dufresnes² -- Ch. Sapin³ -- M. Baylé⁴ -- A.Bouvier¹

 ¹IRAMAT-CRP2A – UMR 5060, CNRS – Université de Bordeaux 3, Pessac, France, <u>blainsophie35@hotmail.com</u>, <u>guibert@u-bordeaux3.fr</u>, <u>bouvier_armel@yahoo.fr</u>
²IRAMAT-Laboratoire d'archéomagnétisme – UMR 5060, CNRS - Université de Rennes 1, France, <u>Philippe.lanos@univ-rennes1.fr</u>
³Laboratoire Archéologie, Culture et Société – UMR 8894, CNRS - Université de Bourgogne, Dijon, France, <u>sapin.christian@wanadoo.fr</u>
⁴Laboratoire de médiévistique occidentale de Paris, UMR 8589, CNRS – Université de Paris 1, France, <u>maylis.bayle@wanadoo.fr</u>

Notre-Dame-sous-Terre is the oldest remaining church on the island province of Mont-Saint-Michel, France. Used as a substructure for later buildings on the island, the little church, progressively abandoned and forgotten, has been well preserved until the 20th century when it was rediscovered by the archaeologist Paul Gout (1908). Therefore, this small, underground church constitutes the only existing evidence of the monastic origins of Mont-Saint-Michel.

The building is situated at the west of the island and is rectangular in shape. A median wall splits the building into two naves, each with small apses at the eastern end.

The whole building is typologically dated to the last third of the 10th century, displaying masonry made up of granite rubble interrupted by rows of brick, flat brick semicircular arches, rectangular pillars with simple imposts and the absence of an original vault.

This punctual use of ceramic material in the building has been considered for a long time as a practice of re-using Gallo-roman building material in early medieval building.

However, a recent study suggests that the bricks could have been made purposefully at the time of the construction. If this is the case, it would mean that dating this material could lead us to an accurate date of original construction. Moreover, dating bricks from different masonries could allow us to evaluate the phasing of the building.

We are presenting here the results obtained by two different physical ceramic dating methods (thermoluminescence and archaeomagnetism) correlated with historical and archaeological data and their related interpretation.