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Discovery of one of the oldest maps in Europe, the Saint-Bélec Slab (Bronze Age)

Researchers from the French National Institute for Preventive Archaeological Research (Inrap), the Bournemouth University, the CNRS and the Université de Bretagne Occidentale (UBO – University of Western Brittany) recently brought to light the oldest 3D-map in Europe, dating from the early Bronze Age (2150-1600 BCE). This research covers the carved slab from Saint-Bélec (Leuhan, Finistère Department), and appears in the *Bulletin de la Société préhistorique française*. Excavated in 1900 by Paul du Chatellier in a barrow and forgotten for a century, this ornamented slab was recently rediscovered in the Musée d'Archéologie nationale (MAN – Museum of National Archaeology) and was the subject of a significant study that allowed it to be interpreted as the oldest cartographical representation of a known territory in Europe, a probable marker of the political power of a principality of the early Bronze Age.

The Saint-Bélec Slab, hidden, lost, and rediscovered

The broken slab was re-used in the burial of the Saint-Bélec 1 barrow towards the end of the early Bronze Age (c. 1900-1640 BCE). At the time, the schist slab formed one of the walls of a stone-cist. Its engraved face was turned towards the inside of the tomb, but its ends were hidden. In August 1900, the slab was moved to the Château de Kernuz, the home and private museum of Paul du Chatellier (Pont-L'Abbé, Finistère Department). The Musée des Antiquités nationales (MAN – Museum of National Antiquities) of Saint-Germain-en-Laye acquired this important collection in 1924. Until the 1990s, the Saint-Bélec Slab was stored in a niche in the castle moat. Finally, in 2014, it was found in a cellar of the castle. Starting in 2017, researchers carried out photogrammetric coverage and high-resolution 3D surveys to record the surface topography of the slab and to analyse the morphology, technology, and chronology of the engravings.

A complex set of signs

The Saint-Bélec Slab is made of grey-blue schist of local origin, and measures 2.20 m long, 1.53 m wide and 0.16 m thick. At the centre is a trapezoidal motif with convex edges, deeply engraved and bearing two axes: a horizontal axis that crosses the slab from edge to edge, and a vertical axis that is more difficult to discern because of breaks. The graphic composition is thus divided into four quarters bearing unevenly-distributed signs (round and oval cup-marks, straight or curved lines, squares, circles, ovals, and pear-shaped motifs) forming a series of complex patterns linked by a network of pecked lines.

One of the features of the slab is the use of bas-relief. Several techniques were used, including pecking and incision.

A map?

The presence of repeated motifs joined by lines gives this composition the appearance of a cartographic layout. A map is 'a drawing or plan of the earth's surface or part of it' (Oxford Dictionary). The Saint-Bélec Slab does indeed bear the three elements that are most probative of prehistoric cartographic representation: homogenous composition with engravings that are identical in technique and style, repetition of motifs, and a spatial relationship between the

motifs (network of lines). To confirm their hypothesis, the researchers compared it with other, similar representations drawn from European prehistory and from ethnography (Tuareg, Papuans, Australian Aborigines, etc.).

The territorial map of a hierarchical political entity

Could it be that the Saint-Bélec Slab represents its environment between the Montagnes Noires and the valley of the River Odet, the Coadri Hills, and the Landudal massif? An examination of the engraved surface shows that the slab's topography was purposely 3D-shaped to represent the valley of the River Odet, whilst several lines appear to depict the river network. In order to test the similarity between the engravings and the landscape elements, several series of statistical network and shape analyses were carried out. On the basis of these highly probative results, a georeferencing of the slab was then performed. The work shows that the territory represented on the slab appears to relate to an area of about 30 km by 21 km, orientated ENE-WSW along the course of the River Odet. The central motif, interpreted as a symbol of an enclosure, allows the hypothesis to be formulated that the centre of a territory might have existed within three river springs (the Odet, the Isole, and the Stêr Laër).

Since it is probably a mind map, some of the elements represented may be overdimensioned, whilst their positioning is not necessarily in proportion to the distances that separate them.

Finally, the mapping of the territory should be seen from the perspective of the socio-historical context of the so-called "Armorican tumulus" culture, which bears witness to a strong social hierarchy and no doubt tight control of the economy. The famous "princely" tombs of that period are distributed at regular intervals within the space, being linked by a road network, and appear as territorial centres.

The Saint-Bélec Slab is contemporaneous with the famous Nebra skydisc (Germany), and it highlights the cartographic knowledge of prehistoric societies. The Saint-Bélec Slab depicts the territory of a strongly hierarchical political entity that tightly controlled a territory in the early Bronze Age, and breaking it may have indicated condemnation and deconsecration. Burial and an iconoclastic act may thus have marked the end or the rejection of the elites who exercised their power over the society for several centuries during the early Bronze Age.

Article reference

Nicolas C., Pailler Y., Stéphan P., Pierson J., Aubry L., Le Gall B., Lacombe V., Rolet J. (2021) – La carte et le territoire : la dalle gravée du Bronze ancien de Saint-Bélec (Leuhan, Finistère), *Bulletin de la Société préhistorique française*, 118, 1, p. 99-146.

Inrap

The Institut national de recherches archéologiques préventives (National Institute for Preventive Archaeological Research) is a public body under the oversight of the Ministry of Culture and the Ministry of Research. It works to detect and study archaeological heritage ahead of land-use planning. Each year, it carries out about 1,800 archaeological diagnostic missions and over 200 excavations for public and private developers, working in mainland France and overseas. Its missions cover the scientific analysis and interpretation of excavation data, as well as disseminating archaeological knowledge. Its 2,200 officials, who are spread out over 8 regional and inter-regional directorates, 42 research centres, and a headquarters in Paris, make it the largest European archaeological research operator.

Contacts

Mahaut Tyrrell Media Communications Officer Inrap, Cultural Development and Communication Directorate +33 1 40 08 80 24 / +33 6 07 40 59 77 – mahaut.tyrrell@inrap.fr

Sandrine Lalain Communication and Cultural Development Officer Inrap, Grand Ouest inter-regional directorate +33 2 23 36 00 64 / +33 6 45 99 16 03 – <u>sandrine.lalain@inrap.fr</u>

François Maginiot Press Officer CNRS, Communication Directorate – Press Office +33 1 44 96 43 09 - presse@cnrs.fr

Enora Leproust Communication Officer Université de Bretagne Ouest +33 7 63 74 53 67 – enora.leproust@univ-brest.fr

Emma Matthews Communication Officer University of Bournemouth ematthews@bournemouth.ac.uk

Fabien Durand Cultural Development, Communication, and Digital Technology Officer, Musée d'archéologie nationale – Domaine national de Saint-Germain-en-Laye +33 1 39 10 13 18 - fabien.durand@culture.gouv.fr