RESOLUTION OF A SIGN (1).
REGARDING A NEOLITHIC SLAB IN THE PETIT MONT PASSAGE GRAVE (ARZON, FRANCE)

ABSTRACT
Our communication will make use of the word “resolution” in order to address both the original meanings of prehistoric signs and the new technical capabilities that make it possible to detect ancient engravings on stone. An interpretation of an iconographic program belonging to such an old period (6500 BP) relies on a precise inventory of material removals on the rock surface so that all the signs can be detailed and labelled. For this, we will focus on one of the two passage graves preserved in the Neolithic cairn of Petit Mont (Arzon, France). There, an engraved orthostat displaying a figure of a so-called “solar wheel” has been known for a long time; however, this type of motif neither fits the chronological context nor the usual corpus of signs in the megaliths of Brittany. A careful recording combining a compilation of images under oblique lighting and 3D modelling makes it possible to produce a graphical synthesis at several levels of information (contours, removal of material from the rock surface, chromatic and morphological alterations). All the signs identified on the basis of their hollow layouts allow us to recognize four main motifs: a circular composition consisting of 17 polished axe blades; a representation of a liquid element; two depictions of boats, one with crew, the other unmanned.

Key words: neolithic, engravings, funerary boat, solar motif, jade axes.

INTRODUCTION

When we tried to think about an image to express our tribute to Katja Devlet, the idea of a journey immediately came to mind. The journey in order to take part in the conference in Moscow, the long journey that made it possible for us to meet Katja in Siberia in 2015, the journey that we followed sometimes in the search of utopia or heterotopia, and finally the journey to the afterlife. In this text, and in order to make this association possible, we use the discovery on an engraved stone as an argument. Solving an archaeological enigma and working on the spatial resolution of a dataset is the dual objective of this study dealing with a Neolithic engraved monolith on the shores of Morbihan.

This work takes the form of an editorial triptych in which three engraved compositions are discussed, where the resolution of motifs that are well known within the symbolic repertoire of western France passes through this requirement in the processing of information. Part 1 focuses on the orthostat of a passage tomb displaying a "solar" motif (Petit Mont, Arzon); part 2 focuses on the composition of figures visible in the Men Bronzo stele in Locmariaquer [Cassen, Grimaud: forthcoming]; part 3 focuses on the last, unresolved motif in the corpus of the 5th millennium BC: the "sheathed axe".

THE CAIRN OF PETIT MONT IN ARZON (MORBihan)

The architectural context

Despite its imposing size, protruding on the top of a peninsula south of the Port-Navalo (fig. 1), the cairn of Petit Mont has long remained untouched by explorations comparable to those conducted during the 19th century in other giant monuments of the region. Or, at least, the excavation reports were not completed and / or published. Indeed, we had to wait until the intervention conducted by Z. Le Rouzic and G. d’Ault du Mesnil in 1901 and 1905 in order to have the first inventory of the objects previously collected by L. Galles and L. de Cussé in 1865. The excavation was carried out on the only dolmen visible at the time in the eastern sector (tomb IIIa in the modern nomenclature [Lecornec 1994]). The ensemble is heterogeneous, ranging from a perforated hammer-axe to Gallic coins. Variscite beads were also a part of this first collection [Le Rouzic 1913], together with a recent Castellic pottery production, comprising frag-
ments of *coupes-à-socle*, and a Bell Beaker set. In this quadrangular chamber and on the last sector of the passage, Z. Rouzic describes eleven engraved orthostats, one of which displays a pair of bare feet (probably Iron Age), which inscription in the granite intersects several Neolithic motifs.

The excavations directed by J. Lecornec (1979–1994) brought a new light on the site, which was seriously damaged by the construction of a German bunker during the Second World War (fig. 1). Four chronological phases have been identified that can, in turn, be related to three distinct architec-
S. Cassen, V. Grimaud • Resolution of a sign (1). Regarding a Neolithic slab in the Petit Mont passage grave (Arzon, France)

Cultural projects: first, a low elongated mound, originally marked with a stele covering at least one probable individual burial; second, overlying cairn, also elongated, would have covered a burial without any structured access, not detected in the field; and the third, a cairn encompassing at least two passage tombs built after the two above-mentioned structures. We will focus our attention only on the tomb IIIa due to its engraved orthostats. The numbering of the slabs used here will be based on the nomenclature established by Lecornec (1990).

**Orthostat C1 in the passage grave III**

Made in a fairly fine-grained granite, a rock possibly extracted in the commune of Arzon, the orthostat C1 in passage tomb III of Petit Mont was lying down when Z. Rouzic discovered it in the early 1900s. It was subsequently raised during the works of restoration. The upper part, which was probably partly engraved, is largely flaked away and the 1911 casting showed that this alteration is old. The partial destruction of the chamber in 1943 probably impacted further the integrity of the object. Erosion has also affected the bottom of the slab, where it partially erased the grooves, without being possible to determine their origin. Currently, two dominant chromatic alterations affect the slab (fig. 2): a white veil caused by mould that covers both the engraved and unengraved area, and reddish spots that are quite characteristic of oxidation phenomena. The latter can be seen especially in the sectors a and b where the intensity of "red" indicates a superficial heating of the granite. If the high ambient humidity is the cause of the mould developed after the restoration, the oxidized areas could be subsequent to both the burial of the monolith and to its rising. This inventory of the damages, however summarized, is an important descriptive point before addressing the inventory of the signs and their composition.

To facilitate its description, the composition can be divided into at least three iconographic sets: a central circular motive that catches the eye; an assemblage of concentric signs covering the entire

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**Fig. 2. Surface disorder mapping of slab C1 (Petit Mont, Arzon)**

Рис. 2. Отображение поверхностных нарушений плиты C1
lower third of the slab; and — finally — a juxtaposition of segments on the side of the "circle", along the edge of the monolith. The large circular motifs immediately bring to mind the representation of the sun that seems obvious: "Strictly speaking, it constitutes the true 'sun wheel', of which there are many examples in ancient civilizations" [Péquart et al. 1927: 59]. Few modern archaeologists have tried to develop an interpretation that will support the observation of the "solar" sign Lecornec (1990). It is so in favour of the emblematic Bronze Age "sun wheel" that some authors would reference the engraving [Markale 2012], to the point that Wikimedia as well as the Wellcome Collection in London present this figure of Petit Mont as indeed dated from the Bronze Age*.

**RECORDING AND PROCESSING OF THE ENGRAVED SIGNS**

**Methodology**

In order to implement the documentation of the surface of the slab C1, we used the following techniques:

- photogrammetry, to restore the three-dimensional morphology of the pillars, the volumes in which the signs will be reported;
- images compiled under real oblique lighting or virtual lighting from a relief map, a process that allows us to define the contours of the relief anomalies;
- deviation maps that by means of visualizing the distance between two meshes in high and low resolution make it possible to bring out the engravings;
- image decorrelation, which deals with colour spaces contributing to the detection of traces but most often to the mapping of damages (chromatic alterations).

As the production of 3D models, deviation maps, and image decorrelation have already been described for their use in surveying parietal art [Cassen et al. 2014; Cassen et al. 2016; Grimaud, Cassen 2019], we will only point out the principle that allows the detection of tracings as its role will be essential to solve the equation posed here. This method of using images compiled under oblique illumination, ICEO (from French: *images compliées sous éclairages obliques*) remains the most accurate method to account for micro-reliefs revealing anthropogenic action. It was carried out *in situ* or in the laboratory by taking images around the object under a fixed focal length. In this method, the light source is directed obliquely towards the scene at different angles of incidence in order to obtain the maximum information regarding even the most altered lines. Special care must be taken to thoroughly sort out the composition, the opposite focuses being the guarantee of a good processing [treatment] of the engraved signs and their validation. The limits and therefore the real surface areas of all these removals are thus determined.

The following procedure is performed by manually drawing lines using a graphic palette while waiting for the possibility to implement a recognition algorithm. Only high-contrast surfaces are considered in the image, and only the overexposed part of the surface of the medium on the lighting side, which is the opposite to the "shadow" — or under-exposed — wall of the engraving, is taken into account. This connecting line is drawn as a vector. So that the progressive superimposition of all these partial contours, each one holding a piece of information, will be able to provide the indication of the hollows conforming the engraving. On the worksheet, each groove is marked with a distinct color and identified with a specific layer that bears the number of the image used. Thus, the experiment can be checked, repeated, or corrected by another operator at any time. Once the inventory of the contours has been carried out, the material removals (corresponding to the surfaces determined

* URL links for a Bronze age date of the signs on C1 slab. Wikimedia: https://commons.wikimedia.org/wiki/File:Bronze_Age_representation_of_solar_symbols_on_dolmen._Wellcome_M0015077.jpg; Wellcome Collection website (Free museum and library, London): https://wellcomecollection.org/works/tsppfta6
between the limits of the trace) are coloured, each arbitrary colour thus attempting to reflect a stage in the production of the engraving.

In addition, the production of images of the object under different grazing virtual illuminations, according to a precise and regular pitch, makes it possible to apply the ICEO protocol without being dependent on the vagaries of the lighting in situ and without having to straighten the graphic survey since the 3D model is by default in parallel projection, with no perspective defect.

Station 1: in situ survey of the main engraved surface

The photographic corpus covering the main surface consists of 60 photos, 53 of which were finally used in the analysis. The graphic corpus was then composed of 53 vector files and 2 synthesis files. The description of the signs will follow a clockwise direction from the top of the object (fig. 3).

A is the only groove one of the "solar" pattern that could not be distinguished between the radial arch and the radius, the two main graphic units that make up the pattern in question. This groove is, therefore, continuous, and it is superimposed on B and AY.

B is a short segment of a circle that precedes the surrounding signs, A, C and D.

C is a "radius" that appears to precede the arch D.

D is a segment anterior to its following I.

E is a rectilinear segment, anterior to I and D.

F is a straight segment posterior to I.

G1-G2 are two rectilinear segments that were at some point intermixed, but that must really be dissociated. G1 is the oldest and narrowest, G2 overlaps G1 and it is also superimposed on I.

H is a short segment in the middle of several relief anomalies that are difficult to identify as engravings.

J is an undeniable sign, but it is an integral part of a poorly defined set due to impossibility to illuminate this part of the support. In any case, it seems to "support" the segments I to O.

P and Q seem to reproduce the previous configuration, with the segment P touching the enveloping Q sign.

R is a rectilinear groove which seems to be the extension of the sign AM (or even of the sign S), but instead is separated from it.

S is a "ray", whose chronological relationship to its neighbours was impossible to determine.

T is the following radius, superimposed on the large circular arch AN and the "chord" AN.

U is a rectilinear sign with an oblique upper end, redirected towards the central disc, probably under the constraint of the sign AL in a way that U appears posterior to AL.

V and W are two wavy signs (with 4 meanders) of which we cannot say whether they were made continuously or in segments. We noted that V presents a flattened meander in contact with AN that shows the posteriority of V.

X is a groove nested in the previous ones but, curiously, turned to itself. Either to occupy a vacant space between the two meanders W and Y, or to voluntarily convey the dynamics of the motive.

From Z to AE, the lines — always concentric — show a clear angulation of the inflection points, as if this new series of signs created another pattern similar in geometry to chevrons. While the right-hand part is well preserved, the entire left-hand sector is too faded to determine with certainty the continuity of the pattern.

AF-AG-AH are parts of erased patterns that seem to be the extension of the recognized chevrons on the right edge.

AI is a broken line sign that fits well into the surrounding plots, but ends on the right between Z and AA without reaching the edge of the slab. It is thus very likely that AI is posterior to these two signs.

AJ is individualized here because of a gap, but must certainly belong to the Y sign.

AK reconnects with the series of "rays". It is the shortest segment of the composition due to the fact that it couldn't reach the center of the "wheel", caught between AL and U. It is consequently posterior to them.
Fig. 3. Station 1 in situ: inventory of the contours of the engravings and synthesis of the removal of material (by ICEO process) on the surface of slab C1 (Petit Mont, Arzon)

Рис. 3. Позиция 1 in situ: контуры вырезанного изображения и описание выемки материала с поверхности плиты C1
AL largely overflows AN, but it does not exceed this sign; the impression of overflowing is given by a natural fold in the granite.

AM is a groove slightly curved on its right, and it connects the edges of the circular pattern forming a cord. AM is superimposed to AN, but it is systematically intersected by the signs AL, AK, U and T.

AN provides one third of the circumference of the apparent 'circle'. Each interruption of the groove is the result of a superimposition of signs (AM, AL, AK, T) or folds in the rock. This part of the pattern is, therefore, a single line and not a succession of material removals specific to each portion of the disc ('camembert' portion) as in the rest of the composition.

AO is a "ray", but this time prior to AM.

AP is another centrally directed rectilinear segment superimposed on AQ.

AQ is a fragment of a circle anterior to AN and intersected by AR.

AS is a circular sign (disc, not circle), which is the only entity engraved on the orthostat with preserved flake negatives that are signs of percussion on the granite surface.

AT is an arch of the circle clearly separated from the previous AQ, but their antero-posterior relationship could not be established with certainty. The removal was interrupted by the breaking / desquamation of the support.

AU is a large groove with no possible comparison to other similar signs, and for which it is difficult to find an explanation, except if we consider that the engraver wanted to draw a figure represented by its outline and, therefore, creating a champlévé, as we will see later in the interpretation of the scene.

AV and AW are two "rays" that both have the double characteristic of being interrupted by the breaking of the slab at their left ends and by the engraving of the central disc at their right ends.

AX is a part of the arch of the circle, interrupted by the monolith fracture.

AY is the last "radius" inventoried in the series, intersected by the groove A.

From the point of view of antero-posteriority relations, the “inter-sign” relation diagram, developed by Mermaid*, summarizes the verified links as follows:

(X-->Y: X prior to Y)

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Station 2 survey under virtual lighting of the sectors on the right and the top of the orthostat

This specific acquisition window aimed at a better resolution of the plotting undefined lines, located on the heavily eroded right median part, which is especially badly lit in the chamber (because of the angle formed with the next slab C2), and on the upper left side of the flaked support, where Z. Le Rouzic spotted a double pattern of concentric arches, not detected in station 1.

A set of virtual lights calculated from the relief map was used. In total 144 images were produced by modifying the directional azimuth of the virtual torch, as if they were rotating in situ around the scene, while playing on six oblique angles of incidence (from 0° to 25°). Out of these 144 images, 18 were chosen for conducting the contour survey and then compiled according to the ICEO protocol; the same number of graphic files were then produced to ensure the inventory of the contours of the anomalies and identified grooves that were compiled into two synthesis files (fig. 4).

A is a pattern of concentric arches according to the Corpus of 1927, out of which only one semi-circular sign (A2) can truly be reconstructed, and the pattern remains incomplete in our survey. The second arch A1 may have indeed existed, but we cannot prove it. The danger of mistaking them with natural folds in the granite is high at this point.

* Mermaid (Harris matrix): https://mermaidjs.github.io/mermaid-live-editor/
is a series of at least five short parallel segments (B1 to B5) that stop before the large circular sign. At the stations 1 and 3, we have not been able to find any perpendicular line connecting these segments.

C is recorded as a reference point; it is a short, straight line, which here is the equivalent of the R sign at the station 1.

D is the large circular sign, simplified to serve as a reference point.

Intermediate conclusion on the station 2: From the double pattern composed of two radiated arches, detected by St-J. Péquart and Z. Rouzic, we can only consider a semicircle leaning on the left edge of the monolith, to which a second concentric arch might be added, but which existence our survey has not been able to fully prove. No other signs reproduced by the above mentioned inventory could be found as several anomalies would actually be natural formations in the granite surface. On the other hand, to the right of the "wheel", short parallel segments were confirmed, but they remain poorly defined and poorly contextualized.

Stations 3 and 4: surveys under real lighting of the engraved surface casting

As several uncertainties were not resolved after the results obtained from the station 2, specific work was therefore carried out not on the positive casting made in 1911 by G. Pouzadoux (museum ref. N°2009.0.1539, like the other engraved slabs of Petit Mont also kept in the Museum of Prehistory in Carnac, produced from bon-creux casts made around 1895–1896), but those made in 1905 when Z. Le Rouzic discovered the slab C1 lying inside the chamber.

Two data acquisitions were conducted on the two sectors surveyed at the station 2. The station 4 covered the upper part, but, unfortunately, the quality of the casting, heavily altered at the time of drying or poorly reproduced, could not be used due to the
danger of restoring false information. Thus, only the station 3 will be commented on (fig. 5).

The photographic corpus covering the main surface consists of 37 photos, of which 20 were used. The graphic corpus is composed of 20 vector files and 1 synthesis file.

A is, just for the record, the sketched outline of the circular pattern.

B is a sign clearly detached from the sign A and which seems to intersect D, but it cannot be limited to a vertical segment, therefore it is extended here by a right-angled line.

C, D, E and F are four short, parallel segments inscribed within B.

On each side, at the top and the bottom of the previous assembly, other contours have been recorded, but the synthesis of the compiled images did not make it possible for us to combine them into definite proposals of tracings.

**Intermediate conclusion on the station 3:** Five short parallel segments identified in the station 1 are confirmed, connected by a vertical line on their left. However, the condition of the casting did not allow us to better specify the environment of the signs, i.e. whether the motif was more developed at its ends. The general configuration of the signs, a synthesis of the three stations, therefore, is a representation of a ship with crew.

**GRAPHIC SYNTHESIS**

**Chronological sequence on C1**

Despite the rather deficient information on antero-posteriority interrelations, a progression of the patterns can nevertheless be proposed and verified, while a first interpretation of the motifs is put forward (fig. 6).

Fig. 5. Station 3 on casting: inventory of the contours of the engravings and synthesis of the removal of material on the surface of slab C1 (Petit Mont, Arzon)

Рис. 5. Позиция 3 на поверхности муляжа: контуры вырезанного изображения и опись выемки материала с поверхности плиты C1
Fig. 6. Main phases of engraving on slab C1 (Petit Mont, Arzon)

Рис. 6. Основные этапы гравировки на плите C1
Phase 1. In the preserved scene, the sequence starts with the installation of isosceles triangles at the top before going down to the right. We have numbered the small circular arches one after another (1 to 4) to show their order of appearance, but some "rays" may be interspersed. This would make sense if one wanted to engrave an axe blade pattern first, then another, etc. On the left side of this large circular pattern, the data is fragmentary, but the two remaining relations show an equivalent order, by autonomous segments of drawn triangles. Finally, a central disc intersects the points of the triangles, or "rays". The first 12 polished blades are thus placed in a circle around a disc in our interpretation of the figure.

Phase 2. A large circular arche, flattened in its middle part, superimposes itself on the previous circular shape to close it at the bottom. A cord is then pulled that connects the two arms in a completely symmetrical way. Finally, four "rays" intersect these two signs, from left to right, to form five new, less regular isosceles triangles, probably constrained by the limits of the "crescent" shape. We interpret this pattern as the hull of a ship (without crew). In this respect, a segment inscribed on the right side, outside of the "hull", may be a part of this group, in which case it would be in the place of a steering oar, similar to the images discovered by us on the Gaivrins and Kercado slabs [Cassen et al. 2018]. However, we could just as well put aside the engraving of this sign till the next phase by stipulating that it belongs to the very damaged lateral motif.

Phase 3. On the straight sector along the monolith, a pattern of short parallel segments intersecting a rectilinear base is quite similar to the representations of ships with crew in Morbihan. It is possible that the uncertain tracings (shown on our figures in broken lines) could have completed this motif, which would therefore have been more elongated by including more than the five visible figures. The rectilinear sign placed just below could then be a continuation of this eroded group, unless, as we wrote for the phase 2, it is only a piece to be added to the adjacent large ship (a steering oar).

Then, downwards, two sets of concentric layouts follow one another in time: first the wavy lines that

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**Fig. 7. Interpretation of the main engraved motives.**
Polished jade axes from the Bernon / Mouairen deposit (Arzon) (photo RMN — L. Hamon /Musée d’archéologie nationale)

**Рис. 7. Интерпретация основных сюжетов изображений.**
Шлифованные топоры из жадеита с месторождения Бернон / Муарен (Арзон)
follow the shape of the flattened "hull", then the chevrons, the lower limit of which could not be safely defined.

Inventory of signs

After merging the data and weighting the hypothetical motives, seven main (and temporary — motives comprising one or more signs) patterns were inventoried and identified from top to bottom (fig. 7) as follows: 2 concentric arches at the top of the left edge (?); 17 elongated isosceles triangles, radiating; 5 parallel segments on a rectilinear base at the right edge of the monolith; 1 disc in the center of the "radiating" pattern; 1 "flattened" arch and a curved cord, together forming a "crescent"; 3 to 5 concentric wavy lines; at least 9 concentric chevrons, that have reached the bottom of the monolith.

Comparison with old surveys

Since this slab is a relatively recent discovery (early twentieth century), the classic inventories could not document it (L. de Cussé, G. de Closma-deuc ets.). Only the Corpus of 1927 gives an idea of the number of signs listed by St.-J. Péquart and Z. Le Rouzic (fig. 8). There we found the central disc from which 18 triangles radiate (one more than in our inventory), and inside, in the lower part, a chord that delimits a figure in a portion of the disc; this chord was interpreted as a "retouch" of the engraver [Péquart et al. 1927: 59], following a "faulty" execution: "Either his eye miscalculated the distances or the tool betrayed his intentions, the worker had originally drawn a curve that reduced the diameter of the lower part of the circumference" [Péquart et al. 1927: 58]. It should be pointed out here that the authors have, for once, noted antero-posteriority relationships between the lines, the "circle", and the "rays", with the latter being more recent. However, a better observation could have allowed them to detect that such retouch was anterior and not posterior to the rays of the lower sector of the motive; the chronology is more complex than they supposed. Finally, at the top of the monolith, two motives of radiated arches were detected, but we could only determine the presence of one arch. We do not know whether the poor preservation of the motives is the origin of these differences, especially taking into account the partial destruction of the chamber during the war (1943). In any case, it is very likely that the signs on the right side of the slab, noted in 1927 were confused with natural shapes in the rock.

The survey carried out by E. Shee Twohig (1981), based on the cast preserved in the Carnac Museum, does not take into account the traces in the upper part of the orthostat recognised in the Corpus of 1927 (fig. 8). On the other hand, the number of juxtaposed isosceles triangles is again 18, since our colleague probably inscribed the same supernumerary "radius" (dotted line in her drawing) as the one detected by Péquart and Le Rouzic. According to our survey, and thanks to the work on the real object, this trace was not be validated because it turned out to be only a natural fold on the granite surface. However, the chord at the bottom of the circular pattern is very present, a curious detail of the composition which was again interpreted as an error by the engraver, perhaps due to the influence of Péquart and Le Rouzic ("It appears as if the carver made a mistake and then overcorrected it. " [Shee Twohig 1981:176]). Moreover, the unusual number of supernumerary signs compared to our synthesis is probably explained by the condition of the casting preserved at the Carnac Museum, which was not restored at the time. As for the concentric signs at the bottom of the composition that are poorly displayed on the casting, our colleague's tracing could obviously not give the full measure of them.

Our main objective is the semiotic approach to engraved signs. However, a prerequisite for this is the renewal of methods for detecting and restoring the forms inscribed in stone. To this end, we summarized the differences between three technical surveys, separated by some fifty years (1920, 1970, 2017) that are largely based on questions of resolution. More specifically, the resolution limit, i.e., the smallest linear distance between two points that can be distinguished by a device.
— Z. Le Rouzic, first of all, used a paper print produced on the same scale as the dry glass plate (13 × 18 cm, with its side emulsified with gelatin-silver bromide) taken at the site or at a museum (casting). His graphic reconstructions, although less meticulous than those of Cussé or Lukis in the 1860s, included in the 1927 Corpus on a scale of 1/10th, are one drawing per layer on a print, in other words the heavy paper support on which the photographic image was printed. Today we know that the archaeologist wanted to "enter" into his photographs to better distinguish the engravings; technical mastery and the cost of such enlargements prevented the project from being carried out.

— E. Shee Twohig used a translucent sheet fixed to the engravings, obliquely illuminating the observed object while drawing it at scale 1:1. The resolution limit is much higher, the visual inspection is done generally in situ, (unfortunately, it was not the case for C1 of Petit Mont) and additional illuminations are possible, at least as far as the invasive tracing medium allows.

— In the digital age, in 2017, images extracted from a photogrammetric survey cannot achieve the same surface accuracy given by in situ night photography, capable of detecting the sub-millimetre detail of the relief on a scene with a diagonal of 1 m (in the rectangular window); the switch from raster to vec-

Fig. 8. Comparison of the three main graphic surveys on slab C1 (Petit Mont, Arzon) (after: [Péquart et al. 1927, Shee Twohig 1981])

Рис. 8. Сопоставление трех основных графических съемок с плиты C1
tor mode, combined with a good knowledge of the Armorican reference frame, makes the difference. In a dataset, in raster mode the spatial resolution corresponds to the size of the grid cell while in vector mode, the spatial resolution is the area or length of the smallest real entity. Vector mode corresponds to a discrete view of the world, made up of distinct entities, contrary to raster mode, which corresponds to a continuous model [Joliveau 2013]. Hence, the power of the ICEO method, which adds this vector mode where real-world entities are translated by means of geometric shapes through their outline (points, lines, polygons).

Finally, on the orthostat C1, we used a maximum of means to achieve the proposed result: photographic images under real lighting in situ, images of an old casting under real lighting, and images compiled under virtual lighting generated by a three-dimensional model. Thus, the gain in resolution and the precision of the traces were obtained. Hence the revaluation of the central motif on the slab as no longer an added engraving and necessarily referring by its quality of "wheel" to a much more recent world than the Neolithic, but on the contrary as a fundamental motif that animates and drives the scene.

Careful observation of the tracings and their chronography showed that this motive neither was made of successive rays joined by a peripheral circle nor a circle then divided by rays (which can easily be seen on engraved outcrops in Concello de Oia (Galicia, Spain), in fact dated to the Bronze and Iron Age [Vázquez Martínez 2020]), but that the engraver made a series of isosceles triangles juxtaposed by their large sides, thus indicating a very different intention. The result obtained for each triangle is exactly in accordance with the drawings of the polished axe blades recorded in this part of Morbihan so far (Er Hourel in Locmariquer, Er Lannic in Arzon, and Mané er Groez in Carnac [Cassen et al. 2018]), but without reaching the realistic morphology of the Gavrinis specimens. The diversity of the calibres also pleads in favour of the representation of "real" objects, since the width of the cutting edges goes from simple to double, whereas it was possible to establish a balanced distribution of "rays".

This radiating arrangement of the axes is, in this respect, similar to the exceptional "hiding place" of the polished jade blades of Largueven (Motte d’Argueven) in the neighbouring commune of Sarzeau (Morbihan), 5 km away from Petit Mont. The discovery dates from 1808 [Cassen et al. 2012] and was reported by A.-L. Maudet de Penhouët in a manuscript of 1809 (24 "corners" in "serpentine"). Abbé Mahé specifies that the axes were "under a rock and arranged in a circle around a common centre" [Mahé 1825: 41]. In addition, this deposit, or better still this deposition of jade axe blades, was next to the large lying stele Gourhit Janett ("Jeanne’s spindle") on which a specific examination may one day discover engravings. The same association of objects is repeated in contact with the stelae alignment of Bernon / Mouairen in Arzon, 2 km away (fig. 7), but the collection of jade axes, which also showed a circular arrangement, applies to polished blades planted in the ground with the edges towards the sky. In any case, the identification of axes on the orthostat of Petit Mont, and this relationship to a true arrangement, were — in fact — already proposed by Z. Le Rouzic, who did not know the modality of the Largueven deposit: "The rays of the sun wheels that I discovered on the pillars of the dolmen of Petit-Mont in the commune of Arzon in 1905, look very much like axes placed, the heels of the bits in the center, the cutting edges forming the circle, exactly like the 8 polished axes including one with a button, discovered in a circle at the Chapelle-Basse-Mer, in the Loire-Inférieure in 1863" [Le Rouzic 1927: 159]. This other deposition, at the gates of Nantes, consisted not of eight but nine polished blades and none of them were made of jade (rather dolerites according to: [Baudouin 1923]). In short, the comparison given by Z. Le Rouzic seems relevant to us, but it disappeared from the Corpus published in 1927 under St-J. Péquart direction who privileges the "solar" representation, on the slab C1 as well as on the slab C5 of the chamber.

Then, the addition of a central disc (and not a circle), finely staked at the end of the sequence, in the center of the isosceles triangles, will add to this confusion or semantic proximity (the "rays" of the
axes) to mix various effects, pushing of course on the side of the representation of a star (lunar or solar). Speaking about “atmosphere”, we remain undecided regarding the figure displayed on the left border of the orthostat, too erased to allow us to ensure that it is indeed a double radiated arc, in other words, what we consider to be a representation of a rainbow, the best examples of which are engraved on the slabs of the Table des Marchands 10 and Gavrinis L11.

Then, inserted in the lower part of this large circular figure singled out by a flattened base, a geometry that proves that it is not an ideal "solar" circle, an autonomous shape in the form of a flattened disc portion was inscribed by the engraver: it is similar to a boat, a ship as we describe it on the regional stelae, perhaps with a steering oar, but unmanned. Henceforth, the couple now comprised of the boat and the disc surmounting it, in its exact middle, reestablishes the cosmological allegory of the "solar chariot" of Greek or Scandinavian myths, or better still of the "solar boat" of dynastic Egypt [Maspero 1893].

Finally, to conclude, at the bottom of the monolith, the nested signs are resolve themselves on contact with the boat since we find here, with the concentric undulatory lines, the representation of the liquid element found by intuition in the study of Gavrinis. Similarly, the small boat with the crew that vertically borders the engraved composition contributes to this relationship with the maritime voyage, imaginary or real, funeral or appropriation trip, utopian or heterotopian journey [Cassen 2011].

The entire background, patiently constructed in recent years from technical facts and symbolic images shared between the shores of Brittany, Galicia, and Portugal [Cassen et al. 2019], is illuminated by the scene discovered at Petit Mont. The deciphering of the slab C1 seems to be a remarkable contribution to the general understanding of Neolithic iconographic programs in Western Europe.

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