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PART III FINE ARTS

1. WAYS OF PLACING MEGALITHS IN SPACE IN EUROPEAN NEOLITHIC

Ioana - Iulia Olaru⁹³

Abstract: *Monoliths of impressive dimensions, menhirs, dolmens and cromlechs are examples of the megalithic civilization which existed in the area of Afro-Eurasia, from Neolithic up to the Bronze Age included. And in the case of menhirs and dolmens, it is also about isolated presences, and about groups. Alignments are groups specific to menhirs: parallel catenations, equally distanced, of organized stones forming a true spacial composition, with the purpose of symbolizing solemn processions. The cromlech is a complex where many menhirs or/and dolmens were placed in concentric circles, here the spacial composition is even more obvious. The present material will refer also to the most complex and coherent megalithic ensemble in the world: Stonehenge Assembly.*

Key words: *alignment, cromlech, menhir, dolmen, megalith, trilith, barrow, cenotaph, lintel, henge, cist*

1. Introduction

*Menhirs*⁹⁴, *dolmens*⁹⁵ and *cromlechs*⁹⁶ are monuments spread all over the territory of Afro-Eurasia, to be found wherever they have not been destroyed by streets or previous field works, from Iberia up to Scandinavia, the oldest megaliths appeared in Palestina and Transjordan⁹⁷. Their large number in the French province has led to the preserving of their initially established names in the Breton dialect. In France, menhirs are more numerous than dolmens. Outside Bretania, menhires and dolmens can also be found in England, Scandinavia, Crimea, Caucasus, but also in other parts of the Earth: Palestina, Persia, Caucasus, Portugal, India⁹⁸, Japan (in the last two countries, the dolmens belong to the Iron Age⁹⁹), sporadically in North Africa (the 1st millenium B.C.)¹⁰⁰ to be more precise in Algeria. The first area where megalithic "architecture" was born is Malta¹⁰¹.

2. The Alignment

Alignments are liniar groups of menhirs organized in parallel strings (three

⁹³ Associate Professor PhD., „George Enescu” National University of Arts from Iași, România, email: olaru.ioana.iulia@gmail.com

⁹⁴ Menhir – a term derived from the Breton dialect (men = stone, hir = great)

⁹⁵ Dolmen – a term derived from the Breton dialect (men = stone, taol = table)

⁹⁶ Cromlech – a term derived from the Breton dialect (crom=circle, lech = place)

⁹⁷ Victor Kernbach, Dicționar de mitologie generală, București, Editura Albatros, 1995, p.399, s.v. mitologie megalitică

⁹⁸ Dinu-Teodor Constantinescu, Construcții monumentale, București, Editura Științifică și enciclopedică, 1989, p.14

⁹⁹ Victor Kernbach, op. cit., p.156, s.v. dolmen

¹⁰⁰ Idem, p.399, s.v. mitologie megalitică

¹⁰¹ Gheorghe Curcinschi Vorona, Istoria universală a arhitecturii ilustrată, vol.I, București, Editura Tehnică, 1982, p.58

or more), placed at equal distances (1-10m), having a length of up to a few kilometers (but, there are also alignments with 10 stones or less and, thus, it is possible that many menhirs nowadays found isolated were initially part of alignments). The alignment could be combined with the other type of megalithic space disposal, about which we will discuss below : the cromlech. If, in the case of dolmens covered in tumuli, the interior space is the one aesthetically organized, in the case of alignments, we can discuss about organizing an external space¹⁰², having the shape of alleys, in a monumental composition in the field. The purpose of alignments was that of performing sacred rituals there which probably included solemn processions along these strings of stones. The most elaborated alignments are the ones from Bretania.

The *Alignment from Carnac (Stone Pit)*¹⁰³ (Morbihan, France), having a length of 4km, comprising approximately 3 000¹⁰⁴ elongated vertical stones, of varied dimensions (initially, there were probably, all in all, over 15 000)¹⁰⁵. They were organized in 3 groups of 10-13 strings having a length of 3 km, ended by a semicircle of menhirs. The stones *The Alignment from Carnac* were used ever since Antiquity by the Romans who have sculpted, on some of them, gods' images¹⁰⁶. This alignment was erected between 3 500-2 000 B.C., in different phases¹⁰⁷. Though tombs were found underneath the tumulus and the cromlechs which separate sectors – these being clues of now disappeared graves, the destination of the ensemble seems to have been one which is not funerary, but connected, according to some researchers, to agricultural activities, for here, it was created in fact a gigantic structure like an astronomic calendar for observing the Moon, the eclipses and for studying the alternation of seasons, eventually in order to foresee periods which would be favourable to agriculture and raising animals.

And this happened because, besides the precision of the distance between strings (which define the so-called *megalithic yard* = 81,6m or 2,72 feet)¹⁰⁸ – it was found that the amendment of direction was done as a follow-up of some complex calculi, based on Pythagorean triangles, also applied in the interior of the cromlechs which interrupt the strings. The stones target the megalithic monuments around them, oriented towards the winter solstice (the tumuli from Gavrinis and Le Bono, the dolmen from Roche aux Fees and especially *The Great Menhir Brise* or *Er-Grah*, erected near the dolmen *The Table of the Merchants*)¹⁰⁹. But, for the time being, everything is just at the level of hypothesis¹¹⁰, eventually it can be about the merge of the agrarian cult (in which the Earth is fertilized by the Sky in order to obtain crops, connected to the mystery of the woman's giving birth)¹¹¹ or about the

¹⁰² Gheorghe Curcinschi Vorona, *op. cit.*, p.65

¹⁰³ Enzo Bernardini, *Atlas de arheologie; Marile descoperiri ale civilizatiilor antichitatii*, Oradea, Editura Aquila, 2006, p.70

¹⁰⁴ Albert Bernard Châtelet, Philippe Groslier (coord.), *Istoria artei*, București, Editura Univers enciclopedic, 2006, p.22

¹⁰⁵ Dinu-Teodor Constantinescu, *op. cit.*, p.175

¹⁰⁶ Brian Leigh Molyneaux, Piers Vitebsky, *Pământ sacru. Monumente sacre*, București, Editura All, 2008, p.131

¹⁰⁷ Enzo Bernardini, *op. cit.*, p.36

¹⁰⁸ Dan Grigorescu, *Arta engleză*, București, Editura Meridiane, 1989, p.41

¹⁰⁹ Enzo Bernardini, *op. cit.*, p.38

¹¹⁰ *Ibidem*

¹¹¹ Victor Kernbach, *op. cit.*, p.133-134, s.v. *culțe agrare*

myth of animals' fertility – associated with the deceased¹¹².

The breton small city Carnac also has other important alignments, in whose area one can enter after the great tumul from Saint-Michel (having a length of 122m, a width of 35m and a height of 10m), and also after an oval cromlech, with a diameter of 107m, delineated by 70 menhirs of 1m height¹¹³. *The alignment from Méneac (The Place of Stones)*, in south-west, having approximately 1 170m length and 100m width, is formed of 1 099 menhirs of 4m height and a weight of 50 tones, placed in 12 parallel strings which are not equidistant, ended by a semicircular cromlech composed of 90 menhirs, accompanied by a dolmen under a tumulus¹¹⁴. *The Alignment from Kermario (The Place of the Dead)*, situated 240m near the previous one, contains a group of 1 029 enormous blocks (from 6,4m to 0,6m height), in 10 strings of 1 120m width, having weird forms. At the end, there are *The Stones of Alignment, Le Manio*, and 39 menhirs of the inner square (*The Quadrangle*).

The Alignment from Kerlescan (The Place of Incineration, The Burnt Place) is separated by the previous one by the menhir called *The Giant from Manio*, of 5,8m height. The alignment (having a length of 880m and a width of 140m) has 555 menhirs (of a height between 0,8 - 4m), placed in 13 strings as a fan, preceded by a semicircular cromlech of 39 menhirs in the western extremity. The three groups (which together unite many thousands of stones!) are thus oriented that they each cover a right line from west to east, separated by intervals of variable length.

The alignment *Petit Menec (The Little Place of Stones)* counts no more than 2 934 rocks, stuck in the ground in four strings having a length of 4km, on a surface of 40ha. The alignment *Kerzerho*, near Erdeven, is formed of ten irregular strings of 1 129 menhirs, extended over a length of 2 105m length and a width of 64m¹¹⁵. Other alignments are much less complex: in Northern Ireland, the longest rows have 20-30 stones¹¹⁶. But alignments were found also in the south-west of Asia¹¹⁷: Assam, Western Birmania (Myanmar), Indonesia, Indochina, Oriental Polinesia. The oldest cultures left us dolmens used as altars or as monument menhirs placed in strings or circularly, stone benches, columns in V, platforms – links that made the connection between the living and the dead¹¹⁸.

3. Cromlechs

When more menhirs and/or dolmens are placed in concentric circles, more or less regular (oval or semicircular), with large diameters (50-60m, up to 113m), with a platform in the middle, on which it is eventually placed a menhir or a dolmen – that specific complex is called a cromlech. Cromlechs can be associated with alignments. A complex tandem exists in Beaghmore, Co. Tyrone (Ireland), with 7 stone circles and 8 alignments distributed on a surface of 0,5 hectares. Another one is the circle *Callanish*, Lewis, Outer Hebrides (Scotland), with 13 enormous vertical stone tiles, the tallest has a height of almost 5m, there are 4 rows of rocks starting

¹¹² Enzo Bernardini, *op. cit.*, p.39

¹¹³ Idem, p.70

¹¹⁴ Ibidem

¹¹⁵ Ibidem

¹¹⁶ Jane Turner, *The Dictionary of Art*, vol. 25, New York, Grove'Dictionaries, 1996, p.505, s.v. *Prehistoric art*

¹¹⁷ Brian Leigh Molyneaux, Piers Vitebsky, *op. cit.*, p.131

¹¹⁸ Tibor Bodrogi, *Arta Indoneziei și a insulelor din sud-estul asiatic*, București, Editura Meridiane, 1974, p.13

from the circle, the ones from the north, with measures of 82m, forming an alley having a width of 8m, the ones from the south, east and west form a cross together.

But, individual cromlechs were also found, without any alignments, in the coast regions from France and the British Isles. For example, on Er Lannic (an island in Morbihan Golf, France), a double oval made of menhirs (50 and, respectively, 30 stones), of 2,3m heigh, was associated with a big monolith of 7m. *The Rollright Stones* (Oxford, England) comprises 77 blocks of limestone placed in a circle having the diameter of de 31m¹¹⁹. The geometry of cromlechs, in general, is a proof of the appearance of differences between individuals, a hierarchy inside the community: between the one whose tomb was in the centre of the building and the ones from margin.

Just like alignments, cromlechs are abundant in Bretagne and the south of England. Their destination was as controverted as the alignments': religious monuments, solar temples, cenotaphs, gathering places –, it is certain that inside many of them, there are tombs. They did not have a defensive function. The association of liniar monuments with circular ones makes us think more about the procession that involved the order of the one that took part in it¹²⁰. The next evolutive step from stone circles is the one of the monuments called henge: stone circles closed by a wave of dust and a ditch. Except for the one from Stonehenge, we also mention other architectural forms in the British Island. *The Ring Brodgar* (Orkney) is the biggest stone circle from Scotland: 104m in diameter, initially containing 60 vertical stones (27 preserved), surrounded by a ditch of the henge type, of 3-4m depth, cut in the sandstone layer; at a distance of 137m towards south-west, there is *The Comet Stone*. In the neighbourhood, *Stones of Stenness* comprise a henge having a diametre of 70m, composed of a ditch of a width of 7m, containing 12 vertical stones.

The most complex and most coherent megalithic ensemble in the world is the *Ensemble from Stonehenge (The Suspended Stones)* (12km north from Salisbury, in the south of England), having a diameter of 90m. It was erected during a long period of time, between approximately 3 200-1 600 B.C., in three phases of constructions (cromlech – transposition in stone of a wood architecture – it belongs to the last period)¹²¹. Regarding the field of architecture, we can – or not – inscribe this complex in this field (it depends on what we understand by architecture, as a definition of the term¹²²), given the fact that it embodies, it materializes for the first time the fundamental principles that will constitute the basis of the future constructive thinking; in fact, it marks even the beginning of monumental architecture. We can even consider it a distant prototype of the Egyptian hypostyle halls.

The Ensemble from Stonehenge is situated in the middle of a field of funeral tumuli (an incineration cemetery), which dates from the end of the Neolithic (the

¹¹⁹ Jane Turner, op. cit., vol. 23, New York, Grove'Dictionaries, 1996, p.505, s.v. Prehistoric art

¹²⁰ Dan Grigorescu, op. cit., p.36

¹²¹ Gheorghe Curcinschi Vorona, op. cit., p.66

¹²² For the Greeks, Stonehenge would have been considered architecture; for them, "archi-tecture" was not only a closed space: see the architecture of theatres, articulated even if it was not about a closed interior, but it was something higher than the usual "tecture"= building: a structure different from the other given its magnitude, solemnity, function – and through which space is shaped according to the needs of man. Cf. Anthony F.Janson, History of Art, New York, Harry Abrams, 1986, p.33-34

ensemble was erected a little later, it functioned up to the Celtic period) (though recent research place the temple in an older period). Therefore, given the very controversial hypothesis on its dating – we present it here, together with the other Neolithic megalithic monuments. The complex was deserted after the year 1 500 B.C.¹²³. Up to the 19th century (A.D.), many stones had already disappeared or had already collapsed¹²⁴. *Stonehenge* is the only henge in this world whose stones were processed (carved and smoothed) and combined just like in carpentry, offering resistance to the entire structure.

Stonehenge Assembly is erected in the middle of a gigantic wave of soil having the diameter of 11km. The scenography foresaw that the ensemble would be arranged in such a way that it would indicate the rise of the Sun at the summer solstice and the dawn at the winter solstice¹²⁵. We can also notice that the religious function connected to the solar cult was completed by the function of astronomic observer. Moreover, inside the same scenography, the assembly was surrounded by a complex of tumuli necropoli. Therefore, it can be put in connection with a cult of the dead, maybe processions at the tombs of the ancestors, the perforations found in some blocks – (“holes of the soul”) – suggest the entrance and exit place of the soul. The engravings of an axe and of a Mycenaean spade on one of the rocks suggest the relationships with the Aegean world¹²⁶.

The construction phases of the complex have a controversial chronology. The first building phase (3200-2500 B.C.) was not a monumental one: on the lowland from Salisbury, a circular field was evened out (henge), having a diameter of 97,5m (115m¹²⁷), being delineated by a ditch and a wave of soil – having a delineation role – that surrounded a circle of holes having a menhir in the middle¹²⁸ (*Heel Stone = Piatra călcâiului*) – of 5m heigh, of the type of the one from Brodgar. After the rock made of sandstone, two monoliths accompanied the entrance in this enclosure – whose interior margin was marked (around 2400 B.C.) (*Aubrey Holes*), of 1m depth, for incinerated corpses. At a certain distance, four sandstone monoliths (*Station Stones = Pietrele poziției*) mark four corners of a virtual rectangle (probably used for astronomic observations)¹²⁹. The central building made of wood from this phase was a mortuary house, in which corpses were left to decay before being buried somewhere else.

Starting from the second phase (2500-2100 B.C.), the sacred space gains the aspect of a megalith. From this period (when the technology of copper appeared, a double enclosure dates, a semicircle formed from dolmens (of 4-5 tones each), added to the exterior and in a part of the interior circle composed of smaller menhirs (the so-called *blue-stones*). These small stones had been brought from the Mountain Prescelly (240km away, in the Wales), where there was a circle of stones previous to the one from Stonehenge (with a similar structure of the rock). These were transported from a very big distance (with a raft on the sea, on the coast, up to the Channel Bristol, then on the River Avon and on a ritual (*Avenue*) on the River Avon,

¹²³ Enzo Bernardini, op. cit., p.31

¹²⁴ Brian Leigh Molyneaux, Piers Vitebsky, op. cit., p.134

¹²⁵ Mary Hollingsworth, *Arta în istoria umanității*, București, Enciclopedia RAO, 2004, p.24

¹²⁶ Gheorghe Curcinschi Vorona, op. cit., p.64

¹²⁷ Jane Turner, op. cit., vol. 25, p.505, s.v. Prehistoric art

¹²⁸ Dinu-Teodor Constantinescu, op. cit., p.438

¹²⁹ Enzo Bernardini, op. cit., p.30

having a length of 600m and a width of 12m, oriented towards north-east, just like the Assembly from Woodhenge, towards *Heel Stone*. Another circle of *blue-stones* was added around it.

In the third construction phase (2 100 – 1 500 B.C.)¹³⁰, the assembly reaches its most monumental aspect. This is the dating period of the circle of 29,5 m in diameter which replaced the double ring from the previous phase. This circle was composed of 30 vertical blocks made of local sandstone, with over 4m height and a weight of 25tones each, over them, blocks of horizontal stone were placed, being of 3,2m each- this continuous circuit reproduced the ring beams of the original mortuary hut. This *Altar Stone* has a length of 4,8m. Inside the megalithic circle, a ring of 40 blue stones was placed, giving a height of 0,7 – 2m, the stones were disposed in opposing pairs. Inside the space delineated by the 5 trilithons, 19 conic blue stones, having a height between 1,83-2,83m, a semicircle was formed, having the opening towards the *Avenue*. Inside the circle of 29,5m diameter, two circles were dug, of 30 holes having the depth smaller than 1m, called *Y* and *Z*, in which there were probably stuck logs.

Inside, the building was composed of 5 trilithons (each having three stones) (with a height of 6,5-7,7 m and a weight of up to 50 stones), placed forming the Greek letter π ¹³¹, in a string having the shape of a horseshoe: a horizontal slab of 3m length¹³², was placed on two stone pillars, with joinings with grooves. The central trilithon is the highest (8m). There followed two more building periods, during which the rocks of bluestone were integrated in the big monument¹³³. Only 7 megaliths remained in initial position (nowadays, 11 have been reinforced and 6, re-erected). In the interior, a series of tombs were found. The construction technique consisted in the formula *spigot* and *groove*, each architrave being fixed on the pair of monoliths through a dimple in the lower part of the architrave¹³⁴. Regarding the technique, the influence is Mycenaean¹³⁵.

The great enclosure from Avebury has a circular ditch with a diameter of 427 427m and a height of 6m. It surely belongs to the Bronze Age, but, for the assembly unity of the presentation, we also describe this here. The external circle, formed of approximately 100 stones, is surrounded by a ditch and a wave of soil of a length of 430m. Inside, there were two smaller circles, each formed of 30 smaller circles, formed of 30 stones each, with a series of big stones in the centre¹³⁶. At south-west from Avebury, there is Silbury Hill, the tallest artificial tumulus from Europe (40m), probably an *omphalos* which marks the centre of the world, the womb of the pregnant Goddess-Mother, or it was a monument dedicated to an old ancient leader (King Sil, buried here together with the horse). Or it can mark the place where people gathered for the rituals from Avebury¹³⁷.

Another complex is at Windmill Hill (England). We should also remember

¹³⁰ Enzo Bernardini, op. cit., p.30

¹³¹ Dan Grigorescu, op. cit., p.40

¹³² Leonard Cottrell (sur la dir. de), Dictionaire encyclopedique d'Archelogie, Paris, S.E.D.E., 1962, p.494, s.v. Stonehenge

¹³³ Dan Grigorescu, op. cit., p.41

¹³⁴ Enzo Bernardini, op. cit., p.33

¹³⁵ Leonard Cottrell (sur la dir. de), op. cit., p.494, s.v. Stonehenge

¹³⁶ Brian Leigh Molyneaux, Piers Vitebsky, op. cit., p.138

¹³⁷ Idem, p.139

the ones from Boyne, Knowth, Newgrange (all in Ireland). The great monument on the shore of the River Boyne from Newgrange (in the northern part of Dublin) is a pile of stones having a diameter of 80m, a height of 11m and it is built from approximately 300 000 tones of stones¹³⁸; it covers a passage and a funeral cruciform room having a length of 24m, oriented south-west – north-east¹³⁹. The gravestones have a great variety of symbols engraved: triangles, rhombi, hourglass, arches, double and triple spirals, zig-zags¹⁴⁰; some assemblies have a special quality regarding the balanced arrangement of some true compositions, organizing angular and curvilinear motifs, but many have random overcrowding circles and other elements¹⁴¹. The complexul from Er Lannic (Morbihan, France) has a diameter of 55-60m.

In Sardinia, architecture is subjected to the Aegean influence (through the Maltese one). The hypogens with a lot of rooms – from Anghelu Ruju, Cugutta and Riu Mulinu – are completed by big megalithic structures, dolmens with vertical and horizontal gravestones, everything buried in the ground. Together with the type of dolmen having a circular cella, probably having its origin in the shape of the grottos carved in stone, the solution of covered alleys is adopted¹⁴² out of them there will result the so-called *Tombs of the Giants*. If dolmens could be used as tombs, but also as living spaces, menhires and other groups (like alignments and cromlechs) did not have an utilitarian function in themselves, but a symbolic destination (commemorative or votive)¹⁴³. In the constructions from Tustrup și Feslov (Denmark), pots and objects specific to cult objects were found.

4. Conclusions

Anyway, in megalithic rooms were found skeletons, the theory of ossuaries being thus confirmed¹⁴⁴. In a single tomb, there are interred the remains of more individuals (therefore, we can speak about deposits of individuals). The symbols engraved on megaliths are magical symbols of energy or birth: triangles, vulvae, hourglass, butterflies, snakes, spirals, axes, concentric arches¹⁴⁵. Irrespective of their meaning, which remains not known, what is sure is that the building of megaliths was not connected with material needs, but religious ones. They must be related to the new cult –of the dead, of the ancestors – which appeared in the mental structure and the ensemble of spiritual attitudes of the primitive man, all of them being found near some cemeteries. The religious instinct which was in the process of forming – the belief in the survival of the soul after death – has made that the human being, after he assured a shelter for the living, to be preoccupied by the idea of offering shelter as well to the deceased, to the most important ones at least, then to deities. Proofs show that the external wall and the ones of the façades received special attention.

¹³⁸ Marija Gimbutas, *Civilizație și cultură. Vestigii preistorice în sud-estul european*, București, Editura Meridiane, 1989, p.127

¹³⁹ Jane Turner, *op. cit.*, vol. 23, p.23

¹⁴⁰ Marija Gimbutas, *op. cit.*, p.128

¹⁴¹ *Idem*, vol. 30, p.191

¹⁴² Gheorghe Curcinschi Vorona, *op. cit.*, p.61

¹⁴³ *Idem*, p.60

¹⁴⁴ Marija Gimbutas, *op. cit.*, p.128

¹⁴⁵ *Idem*, p.137

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