

ORION'S BELT IN THE PYRENEAN STONE CIRCLE

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1 History

1.01 *The Pyrenean stone circle*

It is highly unlikely that any other archaeological monument has gone quite as unnoticed as the Pyrenean stone circle. The fact that there are hundreds of these circles in the Pyrenees, (many in good condition) with a virtually unknown yet comprehensible connection to astronomy, is disconcerting to say the least. These are not isolated monuments standing lost in some desert or other, but hundreds of circles in both Spain and France on either side of the Pyrenees laid out in groups, visible to the naked eye and quite precisely located geographically speaking by tens of more or less professional prospectors, including some of international renown, from no less than ten universities, scientific associations, museums and regional tourist boards. But not one single, all-encompassing study has ever been carried out on these monuments and the fact that they are related to one another, which was why I, with no preconceptions whatsoever, took the decision some fifteen years ago to tackle the job myself. These haphazard notes, which endeavour to explain the starting point (i.e. the Three Kings of Orion) of a unitary study of the Pyrenean stone circle, give an inkling of my current personal beliefs on the subject.

It all started with the firm belief that the Pyrenean stone circle enclosed a mystery yet to be uncovered. Reality and time have more than backed this intuition; as a result, it seems logical to believe that “everyone who knows that there is something to discover can do so” —as the private investigator, created by Raymond Chandler, Philip Marlowe states in *Playback*. This said, it's not the same to discover something as it is to share the finding with others, and even less so, to obtain the latter's approval of the subject. That is therefore the objective of this and other documents already written on the matter.

The whole thing started on having asked the question: what are so many stone circles doing here, and what do they mean? And the official reply: they are burial grounds; an answer considered unsatisfactory for a number of reasons. That was it, the search was on. The first step was to read everything (?) ever written on the subject and to visit the circles *in situ*, forming and rejecting hypotheses until obtaining what seemed

to be a satisfactory result, more from the investigation of a detective than that of a scientist, and I say this by way of an acquittal of scientists and in honour of the truth.

These Pyrenean stone circles take the shape of circumferences comprising a number of standing stones, of diameters – with occasional exceptions —ranging from 4 to 10 meters. Pyrenean stone circles are characterised by the modesty of the elements used to build them —to call them megaliths is obviously an exaggeration.

Despite the incomprehensible silence on the subject, the Pyrenean stone circle is not a mere triviality. There are, I repeat, **hundreds** of monuments, either standing individually or forming part of a group, related to one another, according to strict geographical-astronomical layout and lying along a longitudinal stretch of the Pyrenees measuring over a hundred and fifty kilometres.

These circles do not stand along a continuous belt, but are distributed over a number of areas, around which are large stretches completely devoid of monuments. The most important area, and the one, which I have studied most thoroughly, corresponds to the Atlantic foothills of the Pyrenees. This area stretches from the pyramidal Pico de Orhi, the first Pyrenean peak on the eastern extreme of the range, over 2,000 meters high; while the western border stretches as far as the river Leizarán, slightly to the north of which is the city of San Sebastián on the shores of the Bay of Biscay.

1.02 The decimal classification of stone circles

The stone circles standing in the Atlantic enclave have been classified according to the application of strict rules of physical geography based on their position in the relevant hydrographic basin. On the Atlantic side —from West to East, as far as the Pico de Orhi— are five main basins corresponding to the rivers: Urumea (0100), Oiartzun (0200), Bidasoa (0300), Nivelle (0400) and Nive (0500). Some stone circles in the southern part of the area stand on the Mediterranean side of the basins corresponding to the rivers Arga (0001) and Irati (0002). The stone circles have been arranged on the basis of 8 digit numbers, the first four of which correspond to the relevant hydrographic basin as stated above. The fifth and sixth digits correspond to the geographical location, the enclaves, of the stone circles within these different basins. These enclaves —a total of 25 as far as the Pico de Orhi— are either denominated according to the name of their most characteristic geographical feature, or to the

subsidiary effluent running into the principal basin to be classified. Within each basin, the different groups of stone circles have been classified in an anticlockwise direction, from west to east and north to south. Finally, the seventh and eighth digits correspond to the correlative position of the groups in each enclave. The number of groups classified within the area stretching from the Bay of Biscay to the Pico de Orhi comes to **one hundred and seventy**.

The sheer number of the groups of stone circles made classification a must in order to be able to study them as a whole. Once discovered in their totality, these groups demonstrated a number of similarities serving as a healthy basis for several working hypotheses and which, after some two years of work, tended towards one single result: astronomy. These discoveries have been made by a private eye who was at that time barely capable of recognizing the Ursa Major, but whose initial ignorance finally gave rise to a series of results. This working hypothesis has evolved, over these fifteen years, into a theory requiring approval and criticism, a theory which is nevertheless coherent for the simple reason that its application unlocks the astronomical meaning of each and every one of the groups of Pyrenean stone circles, turning up repetitions and geographical-astronomical intergroup relationships in the doing.

1.03 Summary of the proposed theory

All Pyrenean stone circles represent stars. **The diameter of the stone circle and the magnitude of the star are proportional, thus giving an idea of the magnitude of the star reflected by the circle.** Likewise, the outstanding witnesses of the stone circles give an idea of the ephemeris represented due to the fact that they point towards the stars in question at a particular moment —often coinciding with their rising or with their setting— and relate to the landmark surrounding the firmament.

According to different authors, Pyrenean stone circles were built around the first millennium B.C., at a date, closer to 600 B.C. This is therefore the historical period in which we have to search for the astronomical knowledge that made their construction possible.

I have deliberately avoided mentioning considerations other than those which are strictly technical and demonstrable *de visu* due to the fact that I consider them to do nothing but cause harm (something which I have learned from experience) while their technical-astronomical nature, that is, the facts, of the Pyrenean stone circle, have not

been discussed and accepted. This said, before going into more detail on the subject, I would like to mention some of the constant elements which have proven themselves over the years to be related to the construction of Pyrenean stone circles. This information appears in a somewhat disorganized fashion due to the fact that it is a result of my line of thought while writing these notes. Perhaps on another occasion these specifications would have followed a different path and, without a shadow of a doubt, would have placed emphasis on other details. Results have always been a crucial part of this work, and have not been considered satisfactory until they have proven themselves, based on different methods of verification, to be constant. The justifications and explanations date from a later period and come and go, within a certain order, as they wish, depending on the day; but there is still absolutely no doubt to their importance. This said, it's one thing to have turned up enough information to satisfy a theory and yet another to provide sufficient academic material to back these findings.

1.04 Some of the archaeoastronomical particularities of the Pyrenean stone circle

- Perhaps the first rule —condition?— on which to base an initial explication of the meaning of the Pyrenean stone circle, is to convey the enormous importance of the landscape with respect to their conception and creation.

It's not a question of unravelling the meaning of writings in an unknown language inscribed upon the surface of a clay tablet. No, it's something much easier, yet much more difficult. On the one hand is the fact that content of these writings and graphics are reflected up there in the sky, in the sequential development of its stars and, on the other, on the *tablet* of the terrestrial surface: hundreds of stone circles spread over tens of kilometres standing among the hills and valleys of casual orography, almost forming a set square and triangle when considered by the ordered eyes of man in his diligent attempt to find visible signs on the firmament permitting placement of their equivalent on earth. It is within this setting and in view of the great number of signs left by the builders of these stone circles, that preconceived ideas —including the knowledge of astronomy and topography with which these presumed herdsmen are attributed— either live or die, leaving nothing but the astronomically coherent solutions embedded in and adapted to the landscape. The truth may have been another, or perhaps no other, as believed until now, even though it is true that these conclusions were reached without investing the subject in any great depth. But the **empirical** truth is that,

in all cases, and by that I mean in every single one, the Pyrenean stone circles, on covering the horizon above (the firmament) and below (the land landscaped made by man), links the one to the other by means of stone circles, like a whole joined together by the sequence of astral movement, emphasizing certain celestial events in such a way that their repetition permits the establishing of numerous similarities between stone circles located several kilometres from one another.

- The repetition of these representations and, therefore, of the concepts, permits us to perceive analogies such as those presented in this work on the Three Kings of Orion. These were the first to appear during my research, which is not really surprising given the simplicity of the asterism.

- Another characteristic of the Pyrenean stone circle is that the representations found seem in most cases to have been drawn by an expert whom, although representing specific stars, would seem to be trying to show the entire firmament at a precise moment in time in order to point, without actually saying so, at something of greater importance to him, as if, like Hesiod, he had a certain respect for or fear of singling it out. We mustn't forget that the lack of means and the incredible amount of material to be expressed and conveyed, make it totally comprehensible that these people tended towards simplification and abbreviation. This surprises us today because, not only have we forgotten how to read imaginary stories in the sky, but we do not even know how to look at the firmament and follow the movement of the star sequences. Above all, we cannot understand that someone, three millenniums before our time, did it so naturally and precisely. Simply asking the question destroys our preconceived understanding of progress, and gives credibility to the belief of the erudite Edmund J. Webb (1852-1945) as stated in *The Names of the Stars*, who laments the disappearance in today's world of "stargazers", as he says, "if there are any left". *Rara avis*, the figure of the contemplator, an even rarer species if stargazing is increased, as in our case, to include stones and landscape.

- To bring a provisional end to this subject (the limits of which I am ignorant, and the concretion of which, on knowing it to be incomplete and partial, bothers me), another characteristic of the Pyrenean stone circle lies in the fact that the groups are related to one another by a specific stellar sequence, sometimes existing between groups facing in the same direction, or as a result of their position in relation to a particular aspect of the landscape, while for others the relation is simply between groups adjacent

to one another. It's a bit like being at the theatre and, knowing the play, not paying much attention to the words—in our case, the story we suppose could be told by the stars. We know that during the second act, a solstice for example, so-and-so comes onto the stage while another so-and-so is already somewhere up a ladder at the centre back of the stage. In theatre, when you've seen the work time and time again, maybe with your earplugs in or playing deaf in order not to mix facts with words, you end up knowing the length of the play, who comes on first and when he or she exits, what the others are doing meanwhile, who is the tallest and whom you think is the best dressed. You end up knowing a great deal, as a result of their entrances and exits from the stage, about each and every one of the characters, and even about their apparent relationship with one another. In fact, you know just about everything except the story you're not hearing and of which you can nevertheless imagine different versions, even adapting already known arguments to the comings and goings of the protagonists. Something similar can apparently be said of astronomy-astrology. Considered closely, it seems probable that, in the night of time, when man climbed the stairs towards his humanity, he started to observe the cycles of the principal stars, the sun and the moon, the seasons, etc. When the time came to study the less important stars and planets, there were already gods to be substituted and histories to be adapted according to new knowledge of astronomy and the religious character attributed to it, not to mention the fact that this science gave rise to new stories and gods with which we are not going to deal herein. The most important thing at the beginning of the study is the cast, the stars and planets—the Zodiac—, and, like in silent theatre, their appearances, disappearances and positions on the firmament, the sequences and coincidences of one star with respect to another, etc. For example, Sirius comes onto the stage—these names, not always the same, have taken shape with time— while Altair departs, Orion from here—and there must always be a “here” in order for things to make any sense at all— is up on that mountain over there, the Ursa Major elevated above Alkaid turns just to the north over that mountain to which they have given its name—although it's better not to mention the fact since doing so means that we are jumping ahead of ourselves and thus mixing concepts— hence completing the sequence that eternally repeats itself for men in an anticlockwise direction. Meanwhile, the Milky Way high on the zenith runs from East to West, something once hidden Fomalhaut. Shortly afterwards Regulus arrives on scene, thus linking the entrances and exits of some of the actors to the others, all joined together in

a perpetual circle. Aries culminates, the Winter and Summer Triangles, the set square and triangle form and deform in contrast to one another. The skies show more ephemerides not described, and others take place at a later date, but they will all subsequently repeat themselves, year after year, until we no longer exist. Useless forgotten proof not worth the remembering, but that, obstinate and repetitive, has gradually come to the surface on studying the stone circles in their different locations, on the different mountains, in order to subsequently present themselves on the map in the shape of precise alignments and preferential axes of stone circle layout, which in definitive demonstrate representations of the sky on the earth, generally in the shape of sequences, as I said at the beginning of this section. This coming and going of characters-stars on the celestial stage, as already noted by the Greek and Latin classics, is clearly demonstrated by the rising and setting synchronism.

The table of stellar coordinates specifically reflecting these repetitions, like all those made during the study, has been drawn up with the help of a little computer programme *MacStromy (version 2.03)*, based on the general supposition that the Pyrenean stone circle was built in 540 B.C. This calculation was made after coming to the conclusion —an ongoing belief despite the pitiful condition of most of the stone circles in the group— that the two main secants circles of the group, 0200-02-03 *North Oianleku*, represent Sirius and Antares, which made their appearance at that same time on the same point on the horizon, in this case, a great standing stone lying on a line of hills on *Eskas Buru*. Subsequently, at least with the current version of the said programme, I have been able to prove that this said coincidence took place sometime around 590 B.C., despite which I have made no modification to the date of construction of the stone circles, or rather, to the date on the basis of which the calculations were made. There are different reasons for having taken this decision: hundreds of calculations have been made based on the 540 B.C. coordinate; the different results of working with one or another dating, in the case of Sirius, is somewhere around 5', a relatively insignificant figure when comparing stone circles and stars framed by mountains, both when studied with the naked eye and when measured with a precision compass. I have also run a series of tests with different amateur computer programmes, having on occasions noted greater differences. On the other hand, the aim of the work is not to study the date of construction of the Pyrenean stone circle —which are in fact coherent, particularly if we accept that of 590 B.C., with the studies carried out to C14

by different researchers— but rather to compare stone circles and stars in a precise and logical manner, and always based on application of the same methodology.

2 Orion's Belt, Canis Major and Arcturus in the Pyrenean stone circle, according to Hesiod

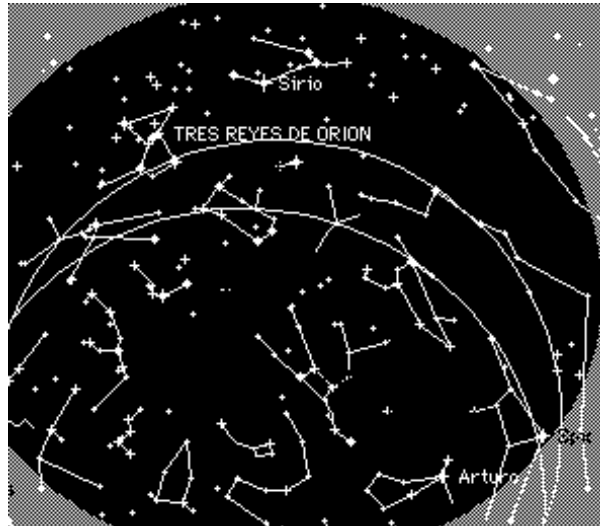
If the Pyrenean stone circle was built, in all practical certainty, in the early first millennium B.C., we can likewise confirm that the era of history had already started running in more than one part of the west, and hence texts —wherever they may have existed, not necessarily in the area of the stone circle— had already been written that may have been related to Pyrenean megalithism. In what subjects are we interested? Obviously on those of the epoch in principle related to matters close to the stone circles, starting with astronomy, mythology and religion, although this article only deals with the former. Without even glancing at the history of astronomy, and deliberately ignoring that of Babylonia, not due to their lack of interest vis-à-vis the stone circle, but rather for quite the opposite reason, as they would take us along paths of far more difficult initial understanding, we will head straight for written Greco-Roman documents. In the first place, to give ourselves an idea of the possible knowledge of astronomy in this period, given that it was the Greco-Romans who first made it possible to understand the technical-astronomical side of the Pyrenean stone circle thanks to the writings of Aratus —*Phaenomen* —, and those inspired by him, Hyginus —*On Astronomy*— and Germanicus —*Astronomical Poem* (in fact, we don't need anything else in order to understand the Zodiac, the Milky Way, the rising and setting synchronisms, certain constellations and legends, etc.), and, secondly, due to understanding that certain classic authors make explicit mention of the ephemerides reflected in stone circles. In this sense, the work of Hesiod, and particularly *Works and Days* —as far as outside help and authentication are concerned— can be considered primordial in reconstructing the path which I followed after having taken those first steps, when I was already seeing stone circles as stars. When a private investigator, with no prejudice, training, credibility or initial method, believes in something, in this case in the existence of a mystery enclosed in the Pyrenean stone circle, it is difficult to subsequently remember the moment when he first came to a coherent conclusion, at what time his belief started evolving from simple leisure activity to a vital undertaking, and the steps involved in the whole process. This said, these forgotten details of little importance today, gradually

uncovered the presence, after a number of vicissitudes and appearances, and given the simplicity of the asterism, of The Three Kings of Orion and, later, Arcturus, first in *Eteneta II* and later in *Unamene*. This had an effect on me still lasting today. Trying to compare circles that quite definitely, as a result of reasoned thought on the subject, corresponded to Sirius in diameter, and one day, after a great deal of this said reasoned thought, reaching the conclusion or suspecting the possibility that I could be in the presence of the until then unknown to the author: Arcturus, leaves a mark on the soul, thrills one to the bones and makes it difficult to 'play the scientist', on the one hand because that's not my intention, and on the other because trying to cheat, particularly, one's own self, is just not on. It is therefore preferable to lose credibility before an alleged expert than to forget one's own limits. In order to deduce simple things that may have happened some 3,000 years ago to people who had none of the accumulated knowledge offered by writing, you don't have to be a modern-day expert or scientist, you only have to find an interesting unexplored path, use a bit of common sense, and dedicate determination and unlimited commitment to the project at hand; the rest, the solutions, sometimes appear by themselves. It could even be said that they give themselves up like murderers to the police. Arcturus turned himself in when I didn't even know his name; however, my meeting with this individual of apparent interest led to me to carry out this investigation. Hesiod was one of the trustworthiest informants. Without entering the field of erudite discussion, his chronological dating would appear to stand somewhere between 800 and 700 B.C., a period somewhat prior to that attributed to the construction of the Pyrenean stone circle, deserving therefore of reflection when writing about matters or *people* unknown to myself and which or whom appeared unexpectedly while studying the Pyrenean stone circle, for example, the said Arcturus mentioned by Hesiod in verses 609-610 of *Works and Days*: «When Orion and Sirius reach the centre of the sky and the pink-fingered Dawn can see Arcturus, oh, Persses!,...». And then all of a sudden, it's no longer a question of science — at least when one is not a scientist. You feel, perceive something outside of yourself and that Philip Marlowe so precisely expresses in *Playback* at the beginning of chapter 12: « It is like a sudden scream in the night, but there is no sound. Almost always at night, because the dark hours are the hours of danger. But it has happened to me also in the broad daylight —that strange, clarified moment when I suddenly know something I have no

reason for knowing. Unless out of the long years and the long tensions, and in the present case, the abrupt certainty that what bullfighters call the "moment of truth" is here.»

I therefore started to develop the Pyrenean stone circle representations of the 'Hunter's Belt' based on the words of Hesiod. I wasn't particularly upset by this task, although on beginning to write this document I hadn't envisaged the possibility of dealing with this phenomenon. But when you've spent the last fifteen years deeply involved in a task, you realise that the road takes you wherever it wants, with no rules, and, moreover, when you start to tie in loose ends and observe similarities, ideas cannot or will not let themselves take shape, they come out when they decide to do so, not one after the other in a row, but linked to each other haphazardly, like cherries on a branch. The way in which Philip Marlowe functions and his intuitions, deductions obtained from deep and extensive fieldwork, provides more inspiration than the whole range of imaginable formally correct conclusions on an office desk. Not very scientific, but true—speaking to myself. Either you study a mystery with no preconceived ideas, that is, starting from zero, convinced that there is something to be discovered, or you end up understanding absolutely nothing. And that's not quite such good news, not for those whom before they reach the finishing line are already bidding their farewells, but for the stone circle which, despite this terribly undocumented and tottering guardian, remains forgotten; although, taking a closer look at the subject, that may be precisely what its builders wanted to achieve, since they would otherwise have behaved in a less enigmatic manner and would have left written traces on the classic authors in a much more durable and consistent classic way than in a mysterious oral manner today lost.

If we observe the firmament with criteria which the study of the Pyrenean stone circle would seem to confirm as those used in Antiquity, a same stellar representation, that of Figure 1, for instance, corresponds to verses 609 to 610 of Hesiod's *Work and*



Days, transcribed above. Figure 1, where the North is located at the bottom of the figure and the South at the top, indicates a stellar position somewhat later than that shown by the stars appearing in Table 1, given that Sirius has still not reached its southern culmination and Spica still has to cover 8° before becoming visible; on the other hand, Figure 1, a continuation of the stellar sequence corresponding to *Lepako* and Table 1, marks the rising of Spica and the culmination of the Canis Major, while accentuating the descent of Orion, a snapshot reflected in all its splendour and with all of the characters in Occabé. The Sistine Chapel of the Pyrenean stone circle? But that's another story which should also be left to one side in order not to lose the trail of the Three Kings of Orion; hence I will ignore this constellation as such and even the selfsame Canis Major, alleged leader of the Pyrenean pantheon of star-gods, in order to concentrate on the way in which the stone circle builders made, in more than one place, and perhaps without even intending to do so, a representation of the said verses by Hesiod which, apart from religious considerations, although they did exist, likewise avoided in this document, could be indicating a period of the year and, more specifically, due to observations herein omitted, the early evening of autumn.

However, back on the subject of the said verses by Hesiod, these were mainly represented in three ways: firstly building part of the circles of Orion and indicating the position of Arcturus with an outstanding witness, of which an example can be

considered to be group 0100-01-18 *Lepako Estua*; secondly by building the circle corresponding to Arcturus and marking the position of Orion and Canis Major, with the odd witness and even with Sirius itself. An example of both representations can be considered to be the groups: 0100-01-06 *Eteneta II* and 0100-01-11 *Unamene* and, lastly, perhaps the third option, by building the circles representing all or almost all of the stars in the upright position, which is the outstanding case of the central group of the *Occabé* stone circles. Along these same lines, I would continue:

3 Some groups of Pyrenean stone circles related to Orion's Belt

Below, following one of the loose ends already mentioned at the beginning of my personal adventures: **Orion's Belt**, with the guidelines subsequently discovered in the work of Hesiod, turned up some related groups which, summed up, can be considered as:

- Group 0100-01-18, *Lepako Estua*.
- Group 0100-01-08 *Ezioko Tontorra*.
- Group 0100-03-01 *Gaztarrozko Bizkarra*.
- Group 0200-02-05 *Munerre*.
- Group 0007-01-12 '*Doce de Guarrinza*'.
- Group 0100-01-06 *Eteneta II*.
- Group 0100-01-11 *Unamene*.
- Group: *Occabé*.

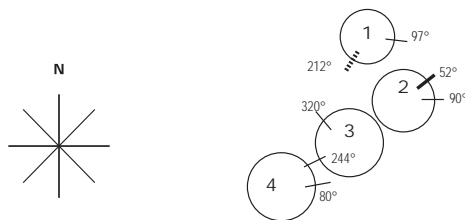
Of these, the first, *Lepako Estua*, is related both to Orion's Belt and to the verses of *Hesiod*. *Ezio*, *Gaztarroz* and "*Doce de Guarrinza*" are only related to the Three Kings of Orion. *Eteneta II* and *Unamene* are the positive-negative, the 'heads and tails' of the same *Hesiodic* ephemeris, expressed in *Lepako Estua*, given that Arcturus is present in the shape of a circle and that it contains witnesses pointing towards Orion. Lastly, *Occabé*, with ten stone circles forming a central group which could have had the same inspiration as verses 609 and 619 of *Works and Days*: the firmament; although it is true that in all ten cases and in the other no less than 21 circles in the group there are other hidden features, the simple enumeration of which more than surpasses the claims of these notes dedicated as far as possible only to the Hunter's Belt.

We will subsequently take a quick look at some of the astronomical aspects of the groups listed above.

3.01 Group 0100-01-18 Lepako Estua

Location: Lepako Estua stands in the 0100 Urumea hydrographic basin; Enclave 0100-01: Onyi-Mandoegi, Group number: 0100-01-18. Military Map of Spain, Scale 1 : 50,000: 24-4; 24-5, San Sebastián; Coordinates: Longitude 1° 53'00" W., Latitude 43° 11' 10" N., Altitude 520 meters.

The group comprises four stone circles —figure 2— which have been numbered N. to S., from 1 to 4. Numbers 2, 3 and 4 stand in line with one another from NE to SW, on the axis 55°–235°. To see the stars represented by these stone circles in the position they indicate, the firmament has to be observed in a southern direction. When using figure 2, drawn on the basis of field data, we have to turn it round 180°.



Lepako Estua
Grupo: 0100-01-18
Escala 1:500

(Figure 2)

Interpretation:

Accepting the stone circle = star theory, at least as a working hypothesis, a group of stone circles therefore becomes a stellar hieroglyphic, the resolution of which is only possible if based on principals of astronomy ranging, to quote but an example, from the recognition of an asterism and of star alignment to the most complex and unusual, for us, stellar synchronism. During my initial search at the beginning of this study for an asterism in *Lepako Estua*, I discovered that three stars aligned in a manner similar to the figure are to be found on Orion's belt, the Three Kings of Orion, which are oriented inversely in the NW/SE direction; however, when we look south towards the area around their culmination, these stars can be seen in the same way as when we turn the figure round 180°.

Based on this working hypothesis, the identification of the stone circles could be coherently considered as:

- Circle no. 1, of 4.8 meters in diameter: σ or ι of Orion, with respective magnitudes of 3.7 and 2.9.
- Circle no. 2, of 5.5 meters in diameter: Alnitak, ζ of Orion, with a magnitude of 2.
- Circle no. 3, of 6 meters in diameter: Alnilan, ϵ of Orion, with a magnitude of 1.7.
- Circle no. 4, of 6 meters in diameter: Mintaka, δ of Orion, with a magnitude of 2.2.

In order to compare cromlech number 1, I have chosen the σ or the ι of Orion, although similarly acceptable is Orion's great nebula, the M 42 —hence the representation of this circle beside the Hunter's Belt, which seems to have more of an effect on the stories the circles can tell than on the indicating of stellar ephemerides, thus surpassing the content of this presentation which, I repeat, only deals with the astronomical aspect. This limitation does not however prevent me from pointing out that the representation of this circle next to the Three Kings repeats itself in several places.

It seems in principle that the diameters of circles 2 and 4, in strict and punctiliously updated observation of the stars they represent, should actually be the opposite way round. This said, given the minimal difference in size between the diameters of both circles and the fact that Mintaka is a double thus variable star which could have had another kind of brilliance or consideration in Antiquity, we can consider that the interpretation given to all of the stone circles corresponding to *Lepako Estua* can be qualified, at least from the astronomical point of view, as acceptable.

The proposed solution, as demanded by obligation, must be backed by the position of the main witnesses of the different stone circles, the direction of which is illustrated in figure number 2.

† In stone circle number 1, the first outstanding feature is the witness, now lying on the ground, located at 193° . Does it indicate the direction in which we should search for the asterism corresponding to *Lepako Estua*? This may be the case. Likewise outstanding in circle number 1 is a second witness at 92° , which serves to indicate the rising of the star adjudicated to this stone circle to the left of mount Mendibiribi, in the direction coinciding with the complete apparition of the asterism at hand.

† Stone circle number 2 has the best standing monolith in the circle, a monolith which holds second place as far as importance within the group is concerned, at 52° , a position repeated in different representations of Arcturus in several different places. I

Table 1

Star	Azimuth	Elevation
σ of Orion	193° 44'	38° 30'
ι φ of Orion	193° 04'	35° 08'
ζ of Orion	193° 29'	39° 18'
ε of Orion	195° 13'	39° 32'
δ of Orion	196° 57'	39° 54'
Arcturus	51° 27'	6° 32'
Betelgeuse	194° 02'	49° 19'
Rigel	197° 34'	30° 54'
Saiph	188° 00'	32° 44'
Sirius	170° 14'	29° 08'
Hamal	260° 43'	24° 14'
Spica	77° 56'	-8° 37'

will explain this on discussing Table 1, a reflection on the position of the different stars in question at the moment of sighting the asterism in the sky. This is followed in importance by the stone located at 90°, useful for indicating the rising of the suggested star.

† Stone circle number 4, has an interesting witness at 80° which could indicate a neighbouring position to the rising — though perhaps somewhat earlier — represented.

This Table 1 which, inspired by the circles and witnesses in the group, reflects the stellar instant suggested by the solution proposed precisely for this said group:

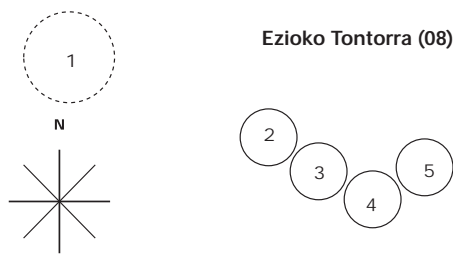
Where the principal witness of the group, located at 193°, makes sense on looking towards Orion, while that which follows it in importance, located at 52° on stone circle no. 2, precisely indicates the ephemeris expressed by Hesiod in vv. 609 to 611 of *Works and Days*: «When Orion and Sirius reach heavens middle, and rose-fingered Dawn looks upon Arturus, O Perses, then pluck [and take] all the grape clusters to home, and...»

Hesiod refers to grapes, while the constructors of the Pyrenean stone circle, in view of the fact that there were no such plants in this area, opted for ferns. Group: 0100-01-19, adjacent to the group at hand, and known by the name of *Iraurtza* due to the representation based on stellar sequence that it makes of the rising of Spica, could come from *Iraurtza*, i.e. from “Ira” = fern, and “uzta” = harvest, reaping, picking gathering. (It is complicated and perhaps confusing to refer to groups unknown to the reader, since this fact produces a feeling of untidiness and. Having covered an area on foot, and before opening one’s mouth, time and time again, the final conclusions, often rectified, come out in a splutter, just like the said cherries in a basket).

3.02 Group 0100-01-08 Ezioko Tontorra

Still on the subject of groups representing Orion’s Belt in the Urumea basin, not far from Lepako Estua, is the group known as Ezioko Tontorra —figure 3— located on the

same map as the previous group, with the coordinates: longitude 1° 45' 56" W., latitude 43° 12' 24" and a height of 459m.



Ezio
Grupo: 0100-01-08 y 09 (Figure 3)
Escala 1:500

These groups present the following differences: in Lepako Estua the asterism is identified on looking southwards, while the condition of the witnesses is extremely helpful vis-à-vis verification of the conclusions obtained; in group 0100-01-08 *Ezioko Tontorra*, however, the witnesses are of very little help, given that the passing of time has worn them away until they are virtually equal in size. This said, in Ezio, and thanks to the surrounding area, we can deduce that the asterism stands clearly to the west towards the area of Mount Adarra, a mythical mountain as far as stone circles are concerned, both because of the number of stone circles surrounding it, and of the fact that it stands precisely on the E-W axis of mountains which, starting from the area of Mount Gorramendi and its stone circles, crosses the Izu and its offspring, and on through Adarra, coming to an end on the massif of Izarraitz in Basque, or “Star Rock” in English. Seen from circle number 1, died/dies out towards Adarra, Aldebarán, although seriously and irreparably mutilated in Ezio during the construction of a forestry track, the follower of the Pleiades and precursor of the Three Kings of Orion, circles numbers 2, 3 and 4, thus demonstrating yet again that the astronomical decoding of the Pyrenean stone circle is not necessarily solely the domain of astronomers and archaeologists, but of those with good faith and common sense, lovers of stars, stones and mountains. In Ezio, unlike Lepako Estua, as I have already said, they put Aldebarán.

3.03 Group 0100-03-01 Gaztarrozko Bizkarra

I have also verified that Orion’s Belt likewise stands in the Urumea basin, at

Gaztarrozko Bizkarra, see Spanish Military Map, 25-5 Vera de Bidasoa, Scale 1 : 50,000, coordinates: longitude 1° 50' 40" W, latitude 43° 12' 38", altitude 512m.

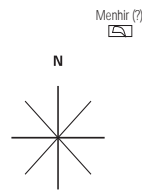
Gaztarrozko Bizkarra, like the already mentioned *Ezioko Tontorra*, stands on the E-W axis beginning 32 km to the east, at the foot of Mount Gorramendi, in the *Maistrugain* stone circles where once again among other ephemerides we can see, drawn on the ground with the conveniently oriented witnesses, a figure of the birth of Orion via the emblematic and pyramidal Pico de Orhi in synchrony with the setting of Fomalhaut and others of Capricorn, to which reference is made by the surprising nearby phallic Peñón de Aizpitxa. I make these observations by way of an inventory. My intention is not to demonstrate nor even to present *Maistrugain* but to give a detailed list of proven findings regarding the stone circle, in this case the E-W axis located on the U.T.M. grid between Y 4.784.000 and 4.785.000, according to which the eastern part of the same group is framed to the north by Mount Gorramendi and to the south, by the border with the Peñón de Aizpitxa, running 26 km to the west into Mount *Izu* with its stone circles, and the adjacent groups of *Izurritzi I* and *II*. Later, still within the same U.T.M. grid, they cross those of *Unalbide*, *Altueta*, *Deskantsu*, arriving 6 km to the west of *Izu* to *Gaztarroz* and, another 7 km in the same direction, to *Ezio* 3 kilometers further on they come to Mount Adarra, on the border of which stand the *Tximistako* stone circles – which, in the Basque language, means more or less ‘carrier of lightening’, like Zeus —facing Sirius. At the foot of Mount Adarra, in an area the size of a handkerchief, are *Eteneta I* and *II*, and, covering a somewhat bigger area, *Amunola*, *Elurzulo* and *Arleor*. Twenty-five kilometers further west, in exactly the same U.T.M. quadrant is, finally, the outstanding calcareous massif of Izarraitz, principal limit of many stars taking shape on this and other axes. (On communicating these observations to people who know these mountains and who actually own maps of the area, it is impossible to know their thoughts on the subject. They have absolutely nothing to say about it. This is in no way a critical reflection, probably because of my determination to study a subject that would bore the hind legs off a donkey. It’s probably a better idea to keep my mouth shut and if one day... oh well, the point is that you always end up talking to yourself as if you were slightly mad).

All of these groups are numbered and decoded, but I won’t go into detail as I would as usual rather follow the traces of the Three Kings of Orion, once again represented —figure 4— at sunset in *Gaztarroz*, such as those of *Ezio*, 7 km to its west.

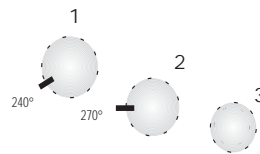
As we can see from the figure, this group only offers two witnesses of any reliability. One of these is located on circle 1, at 240°, and looking towards Etzela, where there is an obvious setting of Sirius. The other is to be found in circle 2, directed at 270° towards Adarra and Tximistako, an impeccable orientation for surprising the fall of Orion in this area, as can be seen on Table 2, in which I have stopped the stellar sequence on the vertical arrival of Sirius to Etzela at 240°.

Table 2

Star	Azimuth	Elevation
Mintaka, δ Ori	263° 38'	-0° 26'
Alnilan, ϵ Ori	262° 19'	-0° 01'
Alnitak, ζ Ori	261° 04'	0° 32'
Betelgeuse, α Ori	267° 12'	8° 29'
Bellatrix, γ Ori	270° 11'	1° 34'
Aldebarán, α Tau	282° 39'	-0° 25'
Sirius, α CMa	240° 01'	5° 46'



Gaztarrozko Bizkarra
 Grupo: 0100-03-01
 Escala 1:500



(Figure 4)

The table shows Orion merging into Adarra, at the point passed shortly beforehand by Aldebarán, and finally dying out to the right of this said mountain, while Sirius and its surrounding stars disappear to the left via the area of Etzela, thus repeatedly demonstrating the way stone circle builders worked in their endeavour to reflect, or at least that is the impression one gets, the sky on earth, always using similar stars in order to do so. Based on these suppositions, the three today anodyne and blurred tumularly circles of Gaztarroz would represent the Hunter's Belt.

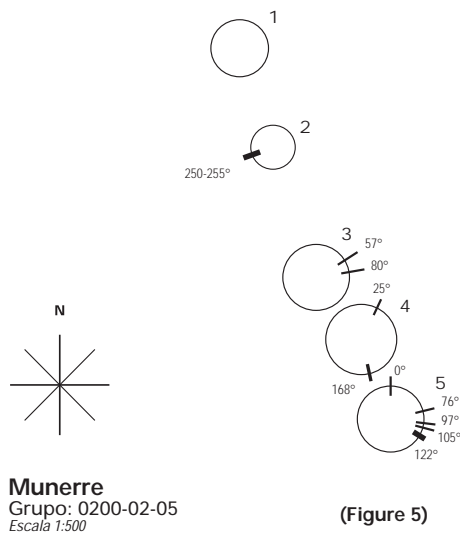
Although the ethereal state of the circles make it difficult to exactly determine their diameters, these circles are nevertheless aligned and the only two prominent monoliths, as said, locks towards Etzela —240°— and Adarra —270°— showing the

simultaneous settings of Orion and Sirius as shown in table 2. The following evidence permits me to hazard a congruent solution:

- ☆ Circle no. 1: Mintaka, δ of Orion, of magnitude 2.2.
- ☆ Circle no. 2: Alnilan, ϵ of Orion, of magnitude 1.7.
- ☆ Circle no. 3: Alnitak, ζ of Orion, of magnitude 2.

3.04 Group 0200-02-05 Munerre

I likewise encountered Orion's Belt in the Oiartzun basin in group 0200-02-05 Munerre — figure 5—, see Spanish Military Map 25-5 Vera de Bidasoa, Scale 1 : 50,000, coordinates: longitude $1^{\circ} 51' 50''$ W, latitude $43^{\circ} 14' 50''$, altitude 656 m.



(Figure 5)

Not all groups offer the same degree of reliability, some are impeccable, thus permitting an unquestionable stone circle/star comparison, such as the Lepako Estua group dealt with above, while others like that of Munerre, given their precarious condition, only permit the making of hypotheses tinged with a certain amount of skepticism. The location of this group and its stones are now ruins only to be found on the basis of experience deriving from having studied other better conserved groups and the information given in the figure accompanying these notes and with the *Carta Arqueológica de Guipúzcoa* to hand, published by the Aranzadi Science Association and which, in the section corresponding to Munerre, indicates the stones on the circles which were more obvious when the map was drawn up than they are today.

A new study of this group shows that the previous interpretation of its stone circles remains unchanged, despite the fact that the comparison of circles 1 and 2 may

seem a little fanciful to those not having studied the Pyrenean stone circle in depth. In short, the proposed interpretation is:

- ☆ Circle no. 1: Enif, ϵ of Pegasus, of magnitude 2.4.
- ☆ Circle no. 2: Sadalmelik, α of Aquarius, of magnitude 2.96.
- ☆ Circle no. 3: Mintaka, δ of Orion, of magnitude 2.2.
- ☆ Circle no. 4: Alnilan, ϵ of Orion, of magnitude 1.7.
- ☆ Circle no. 5: Alnitak, ζ of Orion, of magnitude 2.

This is a somewhat unusual synchronism implicating the Hunter's Belt on its way through the direction -122° — indicated by the most important witness on circle 5, which takes us to an elevation of some 11° on the circle, to a small hillock located to the east of the eastern pass of mount Bunaniarri, the point at which we presume that the Three Kings appeared, while I was able to establish the ϵ of Pegasus and α of Aquarius: the former on the emblematic pass of Zelatun, standing between mounts Ernio and Gazume, and the second, further south, on the way to its concealment by this pass. How can I propose such an unusual synchronism? Because, despite the passing of time and the making of several revisions, the solution remain the same, due to the analogy induced by the Pyrenean stone circle

constants, among which, as in this case, the presence of a slightly unusual synchronism related to Orion' Belt. I should however add that synchronisms related to the Three Kings evolution throughout their entire celestial run, despite the occasional rarity, including that mentioned above, had a great deal of significance in the Pyrenees.

Table 3 gives the coordinates of the stars in the sequence and indicates the synchronism noted at the moment of Alnitak's passing in the direction of its principal witness. I have placed at the head of

Table 3

Star	Azimuth	Elevation
Alnitak	122° 33'	21° 23'
Alnilan	123° 20'	22° 32'
Mintaka	122° 58'	23° 48'
Sadalmelik	243° 49'	11° 19'
Enif	254° 11'	16° 57'
Sadalsuud	248° 15'	2° 18'
Skat	225° 28'	3° 53'
Fomalhaut	218° 27'	-8° 01'
Procyon	91° 53'	12° 52'
Betelgeuse	114° 24'	28° 09'
Sirius	114° 55'	1° 03'
Altair	277° 11'	0° 30'
Regulus	57° 09'	-1° 42'
Deneb	291° 05'	36° 16'
Albireo	291° 39'	13° 59'
Alkaid	0° 53'	16° 09'

Table 3, in the direction -123° — of the principal witness of stone circle number 5, the three stars on Orion's Belt, which can be seen vertically at this point on the firmament, followed by Sadalmelik, α Aqr; Enif, ϵ Peg; Sadalsuud, β Aqr; Skat, δ Aqr and Fomalhaut, α PsA. Here Sadalmelik and Enif have been respectively identified with stone circles 2 and 1.

If any one group requires a clear understanding of the 'stellar sequence' concept, of synchronisms and analogies, including let's say between different groups, this is it. Munerre is geographically located between Kauso I and II — 0200-01-02 and 03 —, to the south, and Oianleku S. — 0200-02-04 —, to the north. Kauso I and II, which in reality form a single group of 4 circles are, I suppose for historical reasons, considered by the *Carta Arqueológica de Guipúzcoa* published by the Aranzadi Science Association to comprise 2 groups of 2 circles each, based on the interpretation that two of them represent the couple Skat and Fomalhaut, and the other two the couple formed by El Nath and Aldebarán. These were instantly detained on culmination of the former two to the south while the latter were taking shape via the north face of Mount Bunianarri, framed at the door of the Pleiades and giving the place its beautiful name: Kauso ('View over the swarm', according to the application of minimum and understandable derivations in the French Basque-Labourdine dialect, on the basis of information extracted from the *Diccionario Vasco-Castellano* by Plácido Múgica, Editorial Mensajero. The Swarm, *Al Thoreja*, as among others, the Arabs called the Pleiades, corresponds to a theory left undeveloped herein due to the fact that I do not want to introduce etymology to my studies of the Pyrenean stone circle on the same level as astronomy; I would however underline the fact that this toponymy demonstrates that the name given so long ago to more than one star and constellation, often argues in favour of a number of stone circle interpretations and gives at least some consistency to the astral theory of the Pyrenean stone circle.) This said, my only intention at this moment in time is to note the observation that the three said groups of stone circles: Kauso, Munerre and Oianleku S., were built according to a sequence traced from the stars. This sequence started in Kauso with the culmination of Fomalhaut, continued in Munerre via the location of Orion at the rising of Sirius and the simultaneous setting of Altair, not visible at that place and time, in synchrony with the indication, on the pass of Zelatun, of the position of the setting of Fomalhaut -8° — with the help of the Enif-Sadalmelik alignment? No, I would say that this is too sophisticated; maybe the

intention was only to indicate a specific point of the ecliptic in Aquarius; but Munerre is not the only group of stone circles existing in the Pyrenees to have been made on the basis of similar criteria, a fact that obliges a search for analogies with interpretations obtained in other places. This has often impelled me, with the landscape, to momentarily return —progressive interpretation of the stone circle means that rectification often has to be made, and in fact at the beginning all too often, to interpretations and concepts accepted as valid in earlier studies as a result of both ignorance and a lack of references— to this extremely strange couple which nevertheless requires more information.

Enif and Sadalmelik appear as extras in 0100-03-06 Arriurdiñeta, a group of outstanding conceptual interest, partly standing between trees, in quite a hazy but still clearly perceptible condition, with the advantage that its preservation seems to be guaranteed for the time being due to the fact that no roads are expected to be built over it. This group precisely and concisely represents the part of the firmament ranging from the Eagle to the Austral Fish, once again corroborating the standing enjoyed by the α of the Austral Fish in the Pyrenean stone circle. Provisionally and personally, I would say that the Canopus quoted by Giorgio de Santillana & Hertha von Dechend in *Hamlet's Mill*, page 73: «The Arabs preserved a name for Canopus — besides calling the star *Kalb at-taiman* ("heart of the south"): *Subhail el-wenz*, "Canopus Ponderosus," the heavy-weighing Canopus, a name promptly declared meaningless by the experts, but which could well have belonged to an archaic system in which Canopus was the weight at the end of the plumb line, as befitted its important position as a heavy star at the South Pole of the "waters below".» In the Pyrenees, where Canopus was not visible, it could be said that it was substituted on the extreme northern latitude of the range as "heart of the south" by Fomalhaut, visible on the Pyrenean latitude — born at 155° and setting at 205° — and that, apart from its mythical meaning, in probable relation with Ea-Oannes, it has constantly been recognized as an obvious indication of a geographical south beneath the regard of the deep stellar sea abode of the Austral Fish, —in Basque, slightly changing the concept and inherited toponymy: Elutxa Arrai, 'depth-fish', *Fish of the depths*, as was sufficiently explained on discussing the groups 0100-03-26/27 Birango and Elutxo Arria in which they, the stone circle builders, established an obvious, elegant and, above all, terrestrial-celestial relationship, N/S, evident to the eyes of any gazer who makes the modest effort of looking. Likewise, what could be called

the iconography of the Pyrenean stone circle, like the statues of Saints in churches, is repeated with its hierarchies time and again. Fomalhaut, in those celestial waters, given the number of times it is represented on this iconography, must have been equivalent to the statues of John the Baptist in our temples. The α of Austral Fish is related to the Eagle in Arriurdiñeta, to Orion in Maistrugain and to Aries and Sirius in the area of Iruñarri. A real character —impossible to miss, when it was represented so often, in its short course of some 50° putting the hat on the south.

3.05 Group 0007 - 01- 12: Doce de Guarrinza

To end this exposé on the Three Kings of Orion, some 100 — one hundred — kilometers southeast as the crow flies from the area dealt with herein, in Hecho's Valley, standing right in the Mediterranean basin, at the source of the River Aragón Subordán, which proceeds to flow into the Aragón, and on into the Ebro until jointly running into the Mediterranean Sea, is one of the most important stone circles enclaves in the Pyrenees. This area contains some seventy stone circles arranged into 25 groups, not counting the approximately 120 to be found on the so-called *Corona de los Muertos*, the latter of which covers some 3-4 hectares. Among the former, the decoding of which has but recently begun, I must mention —based on early notes related to the Hecho's Valley, by way of a conclusion of the Three Kings decoded to date, ignoring other Orion's belts further to the west, such as that of Arrataka, at the foot of Mount Urkulu— this heading group.

Location and background:

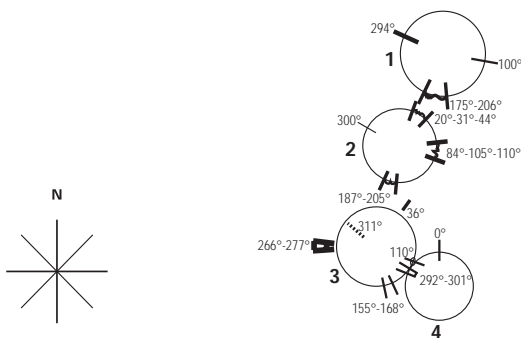
Teresa Andrés Rupérez has given this group of stone circles the name of “Group 12”, and says on the subject: “Almagro called it the ‘three circle monument’, while Beltrán interpreted it as “River Group B”. The three circles making up this group stand in a line along an axis of 25 m in the N.NW-S.SE direction, the center of which deviates slightly towards the west. The approximate coordinates of the group are a northern latitude of 42° 51’07” and an eastern longitude of 3° 00’ 32”. They are to be found on a small plain, highly visible from Oza track, and stand between this track and the banks of the river.»

As I have already said, when considered vis-à-vis the systematic study of Pyrenean stone circles on which I have spent a great deal of time, I understand this group to have been created as part of a whole, or at least to have been constructed on the

basis of similar criteria. I have therefore classified it according to strictly physical, geographical and hence unitary criteria based on 8 digits. The first four of these correspond to the hydrographic basin in which the stone circles actually stand; the first two of these four correspond to rivers flowing into the Atlantic, starting with the river Urumea (0100), and the second two to rivers flowing into the Mediterranean, starting with the river Arga (0001), and continuing on to the Aragón Subordán, home of the Guarrinza stone circles, to which I have given the provisional number of 0007. I likewise considered that the enclave that follows the hydrographic basin, Guarrinza, could in this case be 01, while for the other digits denominating the group itself, it seems logical to respect the numbering of Teresa Andrés, so that the provisional numbering of the group would therefore be: 0007-01-12.

Monuments:

The group in question —figure 6— comprises four stone circles numbered, as always, from N to S and from 1 to 4. Numbers 1, 2 and 3 stand in line from NE to SW, as indicated by Teresa Andrés in her work⁽¹⁾. Regarding previous works, we can see an obvious fourth stone circle to which we have given the number 4. This stone circle is somewhat eroded towards the east, probably quite simply due to the passing of time, since its construction gives the impression that it was built on an artificially even surface, i.e. that the land was filled in this area with the purpose of placing the four circles at the same level.



Doce de Guarrinza
Grupo 0007-01-12

(Figure 6)

Escala 1:500

Witnesses:

One of the keys to the astronomic decoding of a group of stone circles lies in the relative position, in addition to the carriage and size, of the singular witnesses forming

the different circles. As usual, in figure 6, I have indicated the most important stones by means of a continuous line when the witnesses are still standing, while I have used a discontinuous line in cases where they have fallen down. The relative importance of witnesses within the corresponding circle and group is demonstrated on the drawing by the thickness of the lines used to represent them —normally 0.4, 0.6, 0.8 and 1 mm, for those that truly stand out. The witnesses are either shown on the periphery of the circle itself, inside the circle, or sometimes outside of the circle as in the case of the stone standing somewhere between 266° and 277° on circle 3. The drawing attempts to reflect these differences; however, all first recordings, such as that presented provisionally, tend to contain errors which have to be corrected *in situ* during subsequent visits. Nevertheless, potential modifications do not now prevent me from offering an opinion that has been *simmering on a low heat* since 20/05/89, the date on which I made a first drawing without having located the witnesses —elements that I was not at that time taking into account. This said, the similarities, which I was able to observe in comparison with other groups in other places that I had already drawn and interpreted, made it possible to imagine a similar solution.

In this first approximation I have taken the liberty of presuming that the main witness of the group is the external stone standing between 266° and 277° on circle 3. I must likewise underline the similarity of the direction indicated by the outstanding witnesses on certain circles: number 1 —294°—, number 2 —300°—, number 3 —311°— and in number 4 —the door located between 292° 301°. Nor must we forget the stones located towards both the south and the north, considered on the basis of the liberal criteria that has to be used when dealing with the astronomical interpretation of stone circles —too much time has gone by and the condition of the monuments is too poor for inch tapes and telescopic sights to be of any use, their precision does nothing but induce mistakes. It's better to consider the similar direction of witnesses, the lines of the horizon, outstanding witnesses, etc. than to try to visualize and understand absolutely everything with mathematical precision on the very first day. In stone circle 1, for instance, we must therefore note the stones standing from 175 to 206 degrees; in number 2 those standing between 187°-205° and between 20, 31 and 44 degrees; in stone circle 3 those standing between 156 and 168 degrees, and to the north the external witness at 36° and, lastly, in circle 4, the witness pointing due north.

Interpretation:

Three circles similarly aligned can therefore be found on Orion's Belt, the Three Kings of Orion.

Based on this working hypothesis, the stone circles could be identified as follows:

- Circle number 1, of 7.5 meters in diameter: Mintaka, δ of Orion, with a magnitude of 2.2.
- Circle number 2, of 6.5 meters in diameter: Alnilan, ϵ of Orion, with a magnitude of 1.7.
- Circle number 3, of 7 meters in diameter: Alnitak, ζ of Orion, with a magnitude of 2.
- Circle number 4, of 5 meters in diameter: the σ or the ι of Orion, with respective magnitudes of 3.7 and 2.9.

Table 4

Star	Azimuth	Height
σ of Orion	106° 51'	7° 00'
ι of Orion	109° 18'	4° 37'
ζ of Orion	106° 04'	7° 17'
ϵ of Orion	106° 39'	8° 13'
δ of Orion	97° 04'	9° 50'
Betelgeuse	97° 52'	13° 14'
Rigel	114° 57'	5° 19'
Saiph	108° 41'	-0° 11'
Gomeisa	78° 09'	1° 28'
Altair	262° 30'	16° 08'
Vega	296° 32'	30° 23'
Deneb	280° 52'	51° 12'
Albireo	278° 42'	28° 52'
Fomalhaut	204° 35'	0° 28'
Alkaid	350° 49'	16° 53'
Dubhe	14° 53'	30° 16'
Kochab	350° 05'	42° 37'

Based on this provisional supposition, before launching into other considerations, such as the relative diameter of the circles or the synchronous stellar sequence that may be drawn by this representation, I would like to present the following stellar moment inspired by the witnesses on the group, and which took place shortly after the rising of Orion.

Yet again, for the n^{th} time in the Pyrenean stone circle, Table 4 shows stars grouped together which, following the indications of the almost opaque witnesses of the group, forecast the death of the Summer Triangle with the nearby setting of Altair, in synchrony with the definitive formation of the Winter Triangle at the birth of Sirius, which already announces the departure of the —prophet?— Fomalhaut and the recent arrival of Gomeisa preceding Procyon and Sirius itself, showing for an instant the two Triangles on the firmament —the set-square and triangle of stone masons? This is obviously something we will never know; having said this, however, we know that, at

one point, time decided that these astronomic ephemerides would coincide with the birth of Christ, the arrival of whom was announced by John the Baptist—, while Alkaid, η of the Ursa Major, culminated its lower cycle on its way past 360 degrees. How was it possible not to believe in messages sent by the sky, when a search was being made for celestial signs with preconceived ideas? And how when vestiges of those ideas can be seen, simply repeated, is it possible not to follow them with the sole aid of observing the firmament and the setting of the stone circle since both, with very few changes, are identical to their position of all those years ago? If, as it seems more than probable, these are more than simple funerary remains incapable of expressing themselves in unison, it is essential to look from up there on their terrestrial-celestial stage towards the period —approximately 600 B.C— already historic for some, on which these monuments were built. This point of view gives simple results based on solid astronomical logic which are, however, of no great importance, given that they in no way hinder the research since, once we have found the key, as is the case here, there is not one single group in even minimally reasonable condition that cannot be interpreted.

Remarks

– The stone circles with which we are dealing are built on the ground, as though they had been seen, at approximately 100° , at the rising of Orion. But they are drawn as though those who were doing so had been looking towards the west and Altair at its synchronic setting with the rise of Orion. That is, they were observed from right to left and drawn in the same way, but looking in the opposite direction.

– The concordance of the diameters of the circles/magnitude of the stars represented does not appear in the group to which we are paying such lavish attention to the same extent as it does in others. However, in view of the fact that these are stars of a similar magnitude, and of the tendency to observe and consider as most brilliant the star furthest from the horizon, the tiny differences that can be appreciated in comparison with reality are acceptable, particularly if we consider that there could well have other reasons for having adapted different diameters to pure and simple modern astronomic observation.

3.06 Group 0100-01-06, Eteneta II

(I have just —17/01/01— taken another look at my notes of 1996 and 97 on the subject of Eteneta II, and confirm my conclusions of that time. Not because I couldn't have said things better and

more clearly, or because some of them couldn't be changed or replaced, but because I know that I mustn't do it, I can't betray the spirit that was behind my enthusiasm at that time. When you've spent fifteen years on something, the last 7 full-time, round the clock, completely alone, not because I made no effort to talk to anyone—heaven knows I tried—but in all probability because of my personal inability, my disinterest in outsiders or whatever you'd like to call it, I believe that you earn a sort of licence, at least to stay faithful to your principals, since otherwise, having failed to raise even the slightest interest in my findings about the Pyrenean stone circle, there is always the danger that, without gaining one single adept, I could get lost in the ins and outs of supposedly correct rules, which I am not saying are not true, but which I have not so far needed in my unraveling of the stone circle. As a result, abandoning my own thread which, like that of Ariadna, helps me to make my way through the labyrinth without getting lost, to turn back, to rectify and make my way forward again, in order to follow the threads of others, the ends and particularities of which I would have to learn, always with the probable risk of failing to use them properly and, even if this were not the case, with no guarantee of proving my own theory any better, is not a particularly exciting prospect. This said, while not wishing to place the blame on anybody in particular, not even on myself, for the deplorable state of the question, I continue on my way full of hope, all the while in the knowledge that I would be extremely pleased if someone, I don't know when, could eventually come to understand the simplicity of the stone circle, to give an account of it in his or her own way, academically correctly, or in fact in whatever fashion he or she feels it should be done. But anyway, the way things are going, I will more than likely no longer be here when that happens and, if the truth be told, the subject is worrying me less by the day. The most important thing is the fun I get out of doing it, with the wisdom of age and the enthusiasm of a person just starting to work, asking myself the question: what am I going to do today, tomorrow and next year if I am still here, always in the knowledge that, no matter how much I hurry and progress, I won't have the time to see everything, particularly when I am dealing with *Chaldean truths*, that is, with truths that were never really true—not unlike those that came later of course—except when such zealous and passionate belief was placed in them that, after having built hundreds of monuments based on a series of rules observed in the skies and having converted into a landscape no less than half of the Pyrenean mountain range, some of the people who made them decided to reserve their knowledge and transmission. The last *Pyrenean Chaldee*—this term could also be used in the plural sense given that I am not exactly sure what I'm talking about—removed the secret, for whatever reasons, but was unable to remove the object of its inspiration, the firmament and the landscape, nor was it able to do away with the symbol, the Pyrenean stone circle, the result of beliefs based on abstractions obtained from the skies and earth and from the visions therein imagined. It is no easy task to clear the no longer visible paths of this subject covered, nowadays, with the weeds of new beliefs and emotions; this said, staying within the celestial space that inspired the stone circle, the terrestrial space on which it was depicted and, by way of a synthesis, the monuments that were therefore created, it is not particularly difficult to follow its traces. What is difficult is to make others do the same.

By rights, to believe — I later discovered that this is not actually true, but the reasoning is the same — that the skies, the starry nights, send messages written, let's say, by the great beyond, is both

false and beautiful, and its discovery more gratifying for man than accepting the words of a prophet who takes to pieces, reconstructs and labels truths which, although actually lies, are intimate and personal. One the one hand are the rules of behaviour and coexistence that we all accept and on quite another are the personal beliefs, or rather feelings and emotions, regarding all that discovered, the indefinable, the unattainable, that which kills the word as soon as it dirties the mind as it tries to understand, or even worse, to make a proposition. Draw me a lamb, well, more or less, even if it's not a very good drawing, you can still do it. Describe something you don't even know the name of, because included name —and let's not even mention the unknown concept— is false. Hey, come on, you're joking, what are you talking about? I'm talking about "that", about things of which I have absolutely no knowledge, about things of which you are perfectly aware and that you know nobody knows anything about. This said, to start from the same place as the others, from the false —they didn't know it— belief that there were messages to be decoded on the firmament, it is easier to interpret the work of others based on this false belief and on a deep knowledge of the celestial roll on which untrue messages were written.)

Summing up, figure 1 on page 11 was represented on Eteneta II, that is, verses 609-610 of *Works and Days* were depicted in another way, taking Arcturus into consideration — stone circle no. 4 — shortly after it had risen, and other stars from NE to SE, in order, silently, like some maps, to indicate by means of outstanding witness and menhirs, withered but still visible today, the presence and position of Canis Major and Orion, underlined by the adjacent Mount Onyo, the unsteady toponymy of which gives the impression that a name was given to the ephemeris on the basis of an explanation that misses the point. There no drawings or details on the reasons for the astronomic interpretation of the group, since these would take us beyond the strict representation of Orion's Belt constituting the nucleus of this work. The reason for mentioning this group and those that follow is to explain that all stone circles are related to one another and to demonstrate that they express far fewer concepts than we are led to believe by the variety of astronomic representations. Their study nevertheless requires a progressive introduction preceded by a desire to learn that can only be personal. It is quite another thing, as has been my intention in these notes, to present different groups with a common denominator, in our case the Three Kings of Orion, with no other intention than to demonstrate the astronomic nature of the Pyrenean stone circle.

3.07 Group 0100-01-10 Unamene

Although *Unamene* is a group of generally obvious interpretation, it does contain all sorts of nuances and singularities; the discussion and contrast of that bring us to conclusions that are no longer quite so obvious.

Having re-read, as with *Eteneta II*, my earlier work on *Unamene*, I cannot say the same as I did for this previous group. Today I would rewrite *Unamene*, not to change the final result: the stars represented by the different circles would remain unchanged, but in order to better understand the conclusions and adapt them to the Pyrenean stone circle as a whole. The point about the Pyrenean stone circle and its stellar paganism is that it is something like the Bible and its relationship with Jewish-Christian religions. It would be difficult to explain a particular Biblical passage to a person who knows absolutely nothing of the Bible's existence and magnitude. On several occasions, this passage would make absolutely no sense to the non-believer who, unable to understand it, would have to adapt it as he or she went along in order to give it an always perfectible unitary sense. That's my present position as far as stone circles are concerned. While my lucubrations on *Eteneta II* are still valid today and give an idea of the initial spirit of the work, to achieve a better understanding of *Unamene*, I should actually renovate my work on the subject and give it a breath of fresh air. Although these modifications do not form a part of this work, I would like to make the most of the occasion to implement a change to one of the 'guest stars' in the task of clarifying the Pyrenean stone circle: toponymy. This said, it would first of all be a good idea to give a brief description of the outstanding components of the group: to the south are stone circles 2 and 3, which we presume to be Mufrid and Arcturus, and crowning the narrow pass housing the group, slightly to the NW on a little hill, is a somewhat tumulary stone circle, partly shaped by outcrops on the land, representing Sirius. The α of Boötes has its main witnesses from 30 to 46 degrees, particularly the one standing last in the row towards a mythical mountain —Peñas de Aia, 46°— as far as seaside Pyrenean stone circles are concerned; meanwhile, the α of the Canis Major has its outstanding witnesses on the southern arch looking up towards the *Etzela* stone circles where, among others, is a setting of Sirius. In fact, three perfect Siriiuses are aligned from N to S in an area of less than 2 kilometers: in the center of the *Unamene* group mentioned above is a culminating Sirius, to the north is the one corresponding to the rising of Sirius at *San Miguel Soro*, and to the south that of the setting of *Etzela*.

However, now for us, the subject of this chapter is not Sirius, but the Three Kings and in passing, as a result of Hesiod, Arcturus.

(I believe that toponymy deserves to form part of a general study of the Pyrenean stone circle, and this despite its astronomic aspect is always present. However, if the question is whether or not a toponymic connection does exist, the answer is yes, it certainly does exist and can be found by anyone taking the trouble to look; having said this, we should nevertheless deal with toponymy in a different way; it is not as precise as astronomy, and should therefore be studied on a different plane, which is why I use a different lettering and format when dealing with the subject, while tiptoeing tentatively through it as though it was about to give me an electric shock. The thing is that it does in fact give off shocks, except when one is an electrician, which is not my case.

In *Unamene*, the current toponym once again winks its bothersome eye, given that it obliges speculation that, although coherent, opens another wound to the scepticism of new experts: the linguists; but it's part of the subject, and there's actually no option but to consider it in all of its dimensions and facets, despite the fact that this implies delving into too many disciplines for one's own good —and at the risk of being given a red face. It's either that or being condemned to understanding nothing. To be honest, nobody has looked me in the face, I must be invisible and talk too quietly, which is why I myself must rectify my own mistakes when I realize I have made them, although I must admit that I probably don't realize them all. Anyway, back to *Unamene* (apart from: Circle 1: Sirius; Circle 2: Mufrid and Circle 3: Arcturus, comparisons which I confirm). I understand that, in my attempt to give life to a toponymy still appearing on maps, I had missed or avoided (in fact I still hadn't seen it) the real meaning of *Unamene* as I see it today —according to Placido Múgica's *Diccionario Vasco-Castellano*— as Unai(n) Mene = Boyero Orientation, that is, 'Orientation towards Boötes'. Here I must add that on its way through the mythical Peñas de Aia, on the subject of which (aided by page 177 of the *Diccionario de la mitologías*, vol. I, directed by Yves Bonnefoy, in the Spanish version published by Ediciones Destino S.A. in 1997) we can see and accept that: «Theologists will also relate its designation to that of Water: hence È-a, or more often É-a, which was, in fact, a tentative translation of the name *Aia*, or perhaps *la/la'u* (Ebla), coming from a character befitting of the Jews of the country and syncretized by them in Enki, is but a brief expression meaning 'waterfall' or 'Residence (in) water». These two suppositions, related to the meanings of both Unai mene and Aia, are once again swatches expressing, on the one hand, a deep knowledge of astronomy, and on the other, the repeated presence of Babylonian gods in the current toponymy of (at least) the entire northern part of the Iberian Peninsula, hence pointing towards a probably Babylonian inspiration of the Pyrenean stone circle.

Considering toponymy as part of a study of the Three Kings of Orion, but without going into the depth permitted by the reality of the stone circle and of the current map, we can quote by way of an example:

The Basque etymology of Lepako Estua

Lepako Estua, becomes —last map, 1 : 25,000, issued by Gipuzkoa Regional Council's Department of Culture— Lepakaestu, in principle with a certain logic, resumed as: lepaka = slope of hills, long pass, and estu = narrow, small. However, while the stone circles standing in the spot in question may be located on a slope, but this slope has absolutely nothing in common with the words small or narrow. It seems more likely that the origin of the toponym —Lepako— which demonstrates one of the obvious Orion's Belts duly equipped with swordbelt to be found in the Pyrenean stone circle, must have been another, for example:

- Lepoko = collar, stole, necklace. Could we therefore deduce the word: swordbelt?: « waistband or belt, usually made from leather, with a number of strips from which the sword or sable is hung», is the definition given by the D.R.A.E. — Dictionary of the Royal Spanish Academy —, while one of the entries for strip is: « pl., hanging straps from which the sword is hung», that is, the swordbelt: « 2. Piece of leather which, hanging from the belt, holds the cane knife or bayonet.»

- And, always according to Plácido Múgica, estuak = 3. (in plural) diminished, a reduction in stocking length. Thus, by extension, diminishing or otherwise?

To sum up, and not forgetting the obligatory reservations of etymology:

Lepoko estua = Diminishing belt.

This interpretation puts the finishing touches to homage to a place in which Orion's Belt is visible and was represented after having culminating to the south.

We mustn't forget that time may have changed both the signifier and the meaning, hence making it perfectly feasible that at a certain point in time, due to the fact that it was hanging from the neck and not from the waist or due to any other contingency, Orion's Belt may have been called lepoko. It also seems likely that, forgetting the meaning of the stone circles, local logic may have substituted Lepoko by Lepako, because, once a meaning has been forgotten, no one signifier makes any sense. In any case, we have to recognize the fact that a place with an asterism as obvious as this could have had a name reflecting the fact: Lepoko-estu?...The diminishing belt?

An arguable point, although one that makes a fair bit of sense and deserves to be studied, given that at the site of more than one stone circle unquestionable results can be obtained based on the original linguistics and on the Basque language. Subsequently, leaving aside that said above in different lettering and format, I would only confirm that Orion's Belt does exist in group 0100-01-18, Lepako Estua, and is to be seen diminishing to the south shortly after the setting of Arcturus.

I say all this in a small voice, in different lettering and on a different level from my astronomic affirmations of the Three Kings of Orion.)

3.08 Group 0002-01-01 Occabé

«Occabé is a whole lot of Occabé, something which, although it should actually be explained, I believe should be left to simmer for the time being. If it wants to say

anything else, it will do so.» That's the last sentence of my provisional and dormant document on the latest interpretation of Occabé, one of the most important expressions of the Pyrenean stone circle: 21 circles corresponding to 21 stars, simultaneously indicating the representation of at least two different astronomic ephemerides. This document, however, only includes details of the 10 stone circles of the central group, rechristened with the name of Hesiod, in memory of the oft-mentioned verses 609 and 610 of *Works and Days*, and which, in the case of Occabé, extend the stellar sequence explained until the appearance of Spica, α of the Virgin (moreover giving rise to the finding of a relationship, aided by the names inherited from the stars and from their traditional meaning—for example, in the varied line indicated by Richard H. Allen's work *Star names, their lore and meaning*—, with some classical legend comparing the stars to mythological beings). Reasoning that surpasses the limits of this work, the sole intention of which, based on a number of examples, is to demonstrate the stellar condition of the Pyrenean stone circle, with the help of a number of groups comparable to Orion's Belt and, as a stellar counterpoint, to Arcturus, in honour of Hesiod who gave an account approximately one or two centuries ago in his *Works and Days* of ephemerides expressed in the stone circle; ephemerides not explained in words, but by means of stone circles that still represent the skies if we would all just learn to look.

Summary

The first millennium B.C. saw hundreds of stone circles being constructed in a considerable area of the Pyrenees, the meaning of which becomes clearly understandable on applying the rudiments of Babylonian astronomy—when I refer to Babylonia in this text, I always do so in a general sense, preferring not to make specific reference to Mesopotamia, Akkad, Sumer, etc. (it would probably better to say Asia Minor or, in some cases, Egypt, but it's another history)—later confirmed by the Greeks and the Romans.

In going back to the beginnings of my research, which I attempt to summarize herein, I have endeavoured to demonstrate at least one of my earliest findings as far as clues are concerned, that of the Orion's Belt, which came to my notice as a result of the simplicity of the asterism and its repeated representations. Having done this, I realised that I had to provide a series of historical explanations, therefore turning to the classics, including Hesiod, who states in *Works and Days* “once the Hyades, twice Arturus, three

times Sirius and four times the Pleiades and Orion”. It is really quite simple to recognize the representation of these stars in the Pyrenean stone circles as described by Hesiod. In this article I have followed the trail of Orion's Belt just as I could have pursued another star or constellation which would have taken us to the same place: the protohistory of astronomy: archaeoastronomy?

Conclusion

The geographic and astronomical aspects of the Pyrenean stone circles are not difficult to see, they are to be found in a number of different places, it's simply a question of going there to observe them. The major problem is believing that there actually is something to discover, since: “everyone who knows that there is something to discover can do so” —as Philip Marlowe states in *Playback*— and here I must repeat that I am not a person of any particular importance, but only a curious private investigator.

Nevertheless the real problem seems to lie in the farther deciphering of geographic and astronomic questions, the roots of which belong to a syncretism that exists not only in the classical world or astronomic science, but which comes from a misty, far-off origin, the clues to the making of which, despite their obvious relation to astronomy, involve religion in a way that, despite the existence of classical references on the subject, makes an amateur feel uncomfortable on discussing subjects implying a complete change of more than one fixed concepts in several fields. In any case, it is above all impossible to indicate in only a few pages all of factors to have inspired my study of the Pyrenean stone circles. We have dealt here with Orion's Belt, as we could have dealt with other stars and asterisms. This said, extending these astronomic studies to include other subjects would be advancing at too great a speed, thus obstructing the urgent and necessary professional attention so necessitated by the forgotten Pyrenean stone circle.