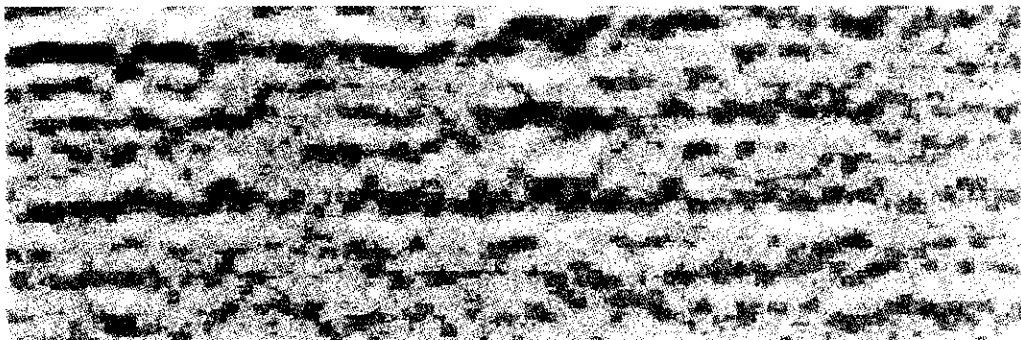


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MONUMENTALIZING LANDSCAPE: FROM PRESENT PERCEPTION TO THE PAST MEANING OF GALICIAN MEGALITHISM (NORTH-WEST IBERIAN PENINSULA)

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Abstract: The study of landscape as social construction implies considering its economic and territorial dimensions, as much as its symbolic ones. A major topic in such kinds of studies is the reconstruction of the ways in which natural and social space was perceived by past societies. We ought to approach the project of building an *archaeology of perception*. One of the aims of such a research programme would be the evaluation of the effects of natural and artificial landscape features on past human observers. This paper will argue that a possible strategy for studying these dimensions of past landscapes could be based on the systematic analysis of the visual features of prehistoric monuments and in the characterization of the scenic effects and vistas related to them. A detailed analysis of the pattern of location of megalithic monuments and of their visibility and intervisibility allows us to recognize certain regularities which display an intention to take account of monuments by provoking dramatic artificial effects. In such a way, we could approach a phenomenology of prehistoric perception without falling into merely subjective solutions. This study is based on a systematic review of the megalithic monuments from Sierra de Barbanza (north-west Iberia). Its main aims are: (1) the proposal for a theoretical and methodological study of these phenomena, combined with; (2) a case-study to reconstruct those monumental strategies used to shape cultural landscapes in Neolithic Europe, and; (3) the explanation of continuities and changes of these traditions.

Keywords: archaeology of perception, architecture, barrows, landscape archaeology, megalithism, monumentality, social space, symbolic space, territoriality

INTRODUCTION

This study is a revision of the megalithic phenomena of the Sierra de Barbanza (the Barbanza Mountains), a well-known area in Galician archaeology, which was the object of a research project at the beginning of the last decade by one of the authors (Criado Boado et al. 1986). The object of the investigation was to discover, using data obtained through palaeo-environmental investigation, the distribution of monuments and their pattern of location: the reconstruction of methods of construction of social space in the Megalithic Period.

Since then, new data have been accumulated, new interpretative perspectives have arisen, and more rigorously defined theoretical approaches and methodological procedures have been applied. For this reason, we consider it opportune to return to the Sierra de Barbanza (hereafter referred to as SB) in order to see how old hypotheses have changed in the light of recent advances.

Specifically, the present review will examine three new themes: (i) the study of ways of *perceiving landscape* in prehistory; (ii) the application of a deconstructive approach to the study of *past spatiality*, and; (iii) the definition of *diachronic tendencies in monumental landscapes*.

In the same way that a geography of perception exists, in recent years investigations have appeared which support an archaeology of perception. These studies try to reconstruct how the environment and social space were perceived by past societies; they attempt to discover the impact of natural and artificial landscape features upon the prehistoric people who observed them.

This line of investigation is particularly important with regard to the fact that an understanding of social landscape is incomplete without considering the appreciation and positions of the individuals who constructed and used a particular landscape. The *perceptual* dimension should be added to the three fundamental dimensions of a landscape (environmental or physical space, social or used space, and symbolic or imagined space).¹

However, the study of this fourth dimension raises a series of important difficulties. It may easily become subjective or subjectivizing. It is, on one hand, doubtful that this subject may be analysed without substituting the reconstruction of the perception of the space by prehistoric humans for the reification of our own perception. On the other, it is subjectivizing, as by doing so it extends our pattern of subjectivity upon history. The notion that we, when presented with a particular space, may discover the impact that this environment produced upon its observers based on our own reactions, is not only idealistic, but also maintains the illusion that patterns of subjectivity do not change but instead remain invariable independently of the social and historic context.²

Another problem which should be dealt with affects the basic foundations of archaeology of perception. In order to talk about perception, we need an individual-who-perceives. This, however, is not just any human being, but instead a particular type of subject, conceived as an observer of the world, who is subjectivized in the light of an objective external reality. But this is a very modern attitude: it is the product of the artistic experience implanted within our culture since the Renaissance, and is not a priori verifiable for all cultures. In any case, before attempting to study archaeological perception, certain critical precautions should be adapted in this regard. The aim is not to say if the individual members of societies different from our own did not perceive landscape or have feelings. It is to say that these individuals, their dimension, character and individual attitude towards observations are determined by social codes. We must therefore elucidate *who* was observing, and *how* and *what* they were observing.

We do not, therefore, have to study perception in its directly individual or subjective dimension (which is a dangerous territory in archaeology for the previously

mentioned reasons, and for the lack of sufficient empirical data); we have to discover the social systems which guide, orientate and predetermine perception. By using any means possible to overcome the degree of subjective observations, which are inaccessible in archaeology, and placing ourselves within the material level upon which these are constructed, we should be able to achieve a real approximation to an archaeology of perception. This strategy accordingly calls for a displacement of the objective. We may state that this consists of studying perception in its objectivity. This means not studying perception at an individual level, which is what the prehistoric subject felt, but instead on a social scale, taking into consideration how these feelings were directed and controlled, and to what extent a certain kind of perception was imposed. Instead of having to rely upon simple subjective appraisals which, from our point of view, exist within the strategies and archaeological texts referred to as phenomenological (Shanks 1992; Thomas 1996; Tilley 1994), we propose to study perception through its materialization, i.e. the material format which determined and imposed the perception of individual human beings. We may then, perhaps, come closer to a phenomenology of prehistoric perception.

This investigation may be based upon the reconstruction of the mechanisms and technologies through which a social landscape reflected its meaning and imposed itself upon the individuals who recognized its visual and symbolic code. We may achieve this using a systematic analysis of visual features of prehistoric monuments and a characterization of the scenic effects and views related to them. The study of the location pattern of megalithic monuments, their visibility, particularly of the visual catchments related to them, and their inter-visibility allows us to recognize the regularities which reveal an intentional strategy to make a monument perceptible, take account of its presence and provoke dramatic artificial effects related to it. In order to do this, we may analyse ways used to create visual impacts, scenic horizons, and contrasts of shapes, textures and colours.

The analytical method we use (Criado Boado 1997; Santos et al. 1997; Parcero et al. 1998) may be summarized as a way of deconstructing archaeological space (including its natural and artificial elements) in order to isolate the formal model (i.e. the basic model which synthesizes the physical shape) around which this space is articulated and, using the description of this model, to interpret the original meaning of the archaeological landscape under consideration. The study is intended to be a 'zoom approach', which tries to identify all of the scales forming the archaeological space in order to recognize their underlying formal basis and to determine the extent of their similarity.

Putting theoretical-methodological proposals to one side, this study is aimed at making a contribution to the reconstruction of the strategies which, through megalithic architecture, made it possible to shape a cultural landscape in the Neolithic period. By considering the contributions of previous research (Criado Boado 1989a, 1989b, 1993b; Criado Boado and Vaquero 1993; Filgueiras and Rodríguez 1994; Vaquero 1989, 1990, 1992; Villoch 1995a, 1995b, 1995c), we now intend to consider the diachronic depth of monumental landscapes. This study will allow us to see how a cultural landscape with a long tradition was constructed, and how it changed the landscape between the fifth and second millennia BC.

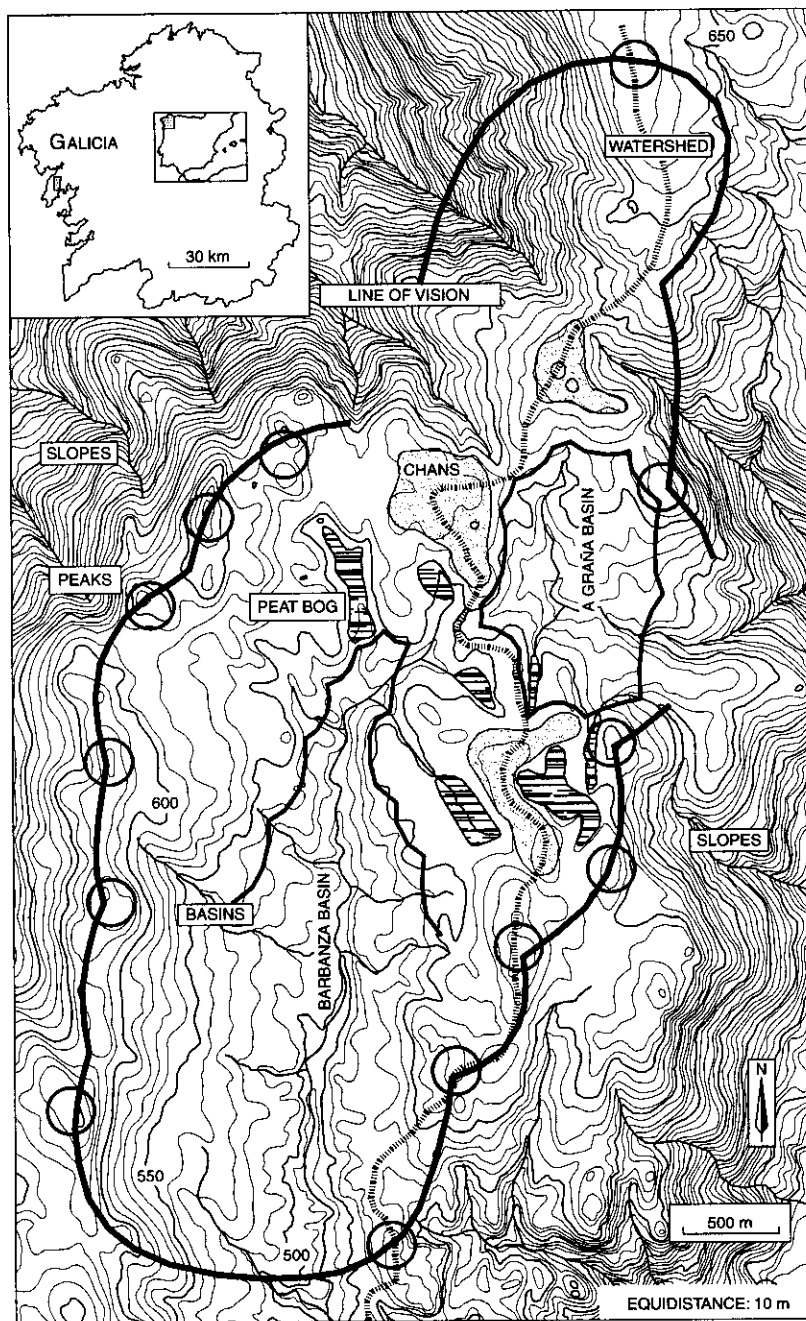


Figure 1. Position of Barbanza Peninsula and its mountain range (inset). Physiographical and morphological analysis of Sierra de Barbanza: definition of the elemental features of physical space.

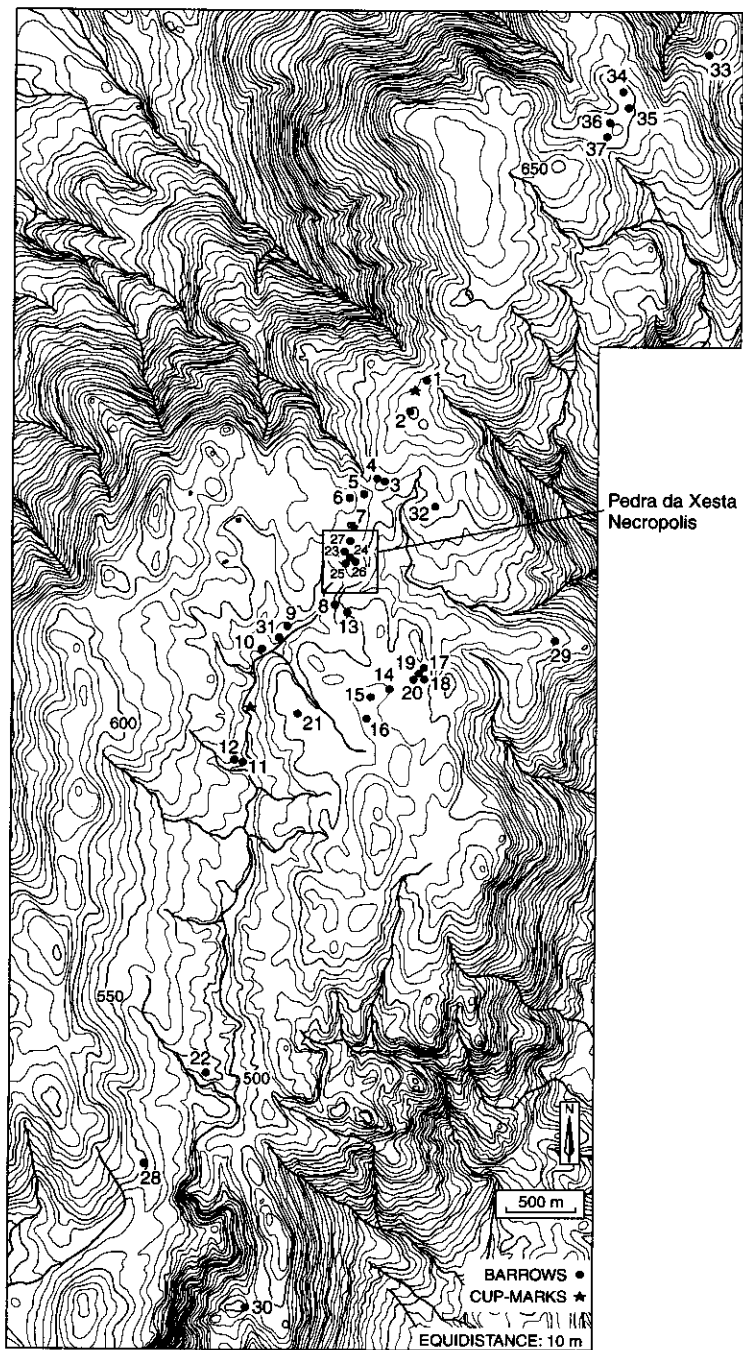


Figure 2. Distribution of barrows and cup-marks.

The study is based on a systematic revision of the location of barrow monuments of the SB (Figs 1 and 2) which included their evaluation under different lighting and vegetational conditions, the search for new archaeological data, and the location of barrows using GPS.

DATA: FORMS OF SPACE

The study area is a coastal hill range limited by steep slopes and dominated by gently rolling and flat terrain. It is perfect for this type of study thanks to the fact that its natural and traditional landscape is quite well preserved, with a predominance of open vegetation.³

Geography

The mountain range of SB is part of the Barbanza Peninsula on the west coast of Galicia, in the north-west part of the Iberian Peninsula (Fig. 1). It reaches a maximum height of 685 m, with a mean height of around 550 m. The steep, lateral slopes of the range are topped with an ancient erosion surface dominated by gently-defined shapes. The Barbanza river has carved itself into this landscape, running from north to south between the two lines of peaks to the east and the west.

Physiographical analysis allows us to recognize, on a detailed scale, what we have called *elemental forms of space* (Fig. 1). This space is structured by a longitudinal division running from north to south formed by a succession of flat areas, with lower areas between them which are traditionally, and significantly, known as the *Barbanza plains* (*chans* in the Galician language).

On either side of these are found two valleys (*depressions*): to the east, the A Graña basin, with a smooth, wide appearance, and, to the west, the upper basin of the Barbanza river, which is longer and narrower. The northern and southern extensions of the range give rise to a steep line of peaks, which splits and defines the Barbanza basin, so that from the interior of the SB the only way of observing wide visual panoramas is from the lateral peaks of the range, looking out towards its exterior. The interior space of the SB is, conversely, visually enclosed.

Analysis of the pattern of movement in the peninsula (see later) shows us that the SB, and particularly its central sector, is a key point: it is a major natural pass which organizes movement throughout the peninsula (Fig. 3). In turn, detailed analysis of the SB allows us to identify the different lines and key elements of movement (Figs 4 and 5).

The pattern of land use offers a series of particularly relevant contrasts, for, while the majority of the SB is covered with uncultivated land, traditionally dedicated to extensive use, the A Graña basin is the only inhabited sector currently dedicated to intensive agriculture. Its geographical characteristics made it the most suitable sector within the SB for permanent agriculture and settlement in the past.

We may now define the network of natural places, simultaneously establishing their hierarchical structure. The resulting model is an ideal topographical scheme (Fig. 6).

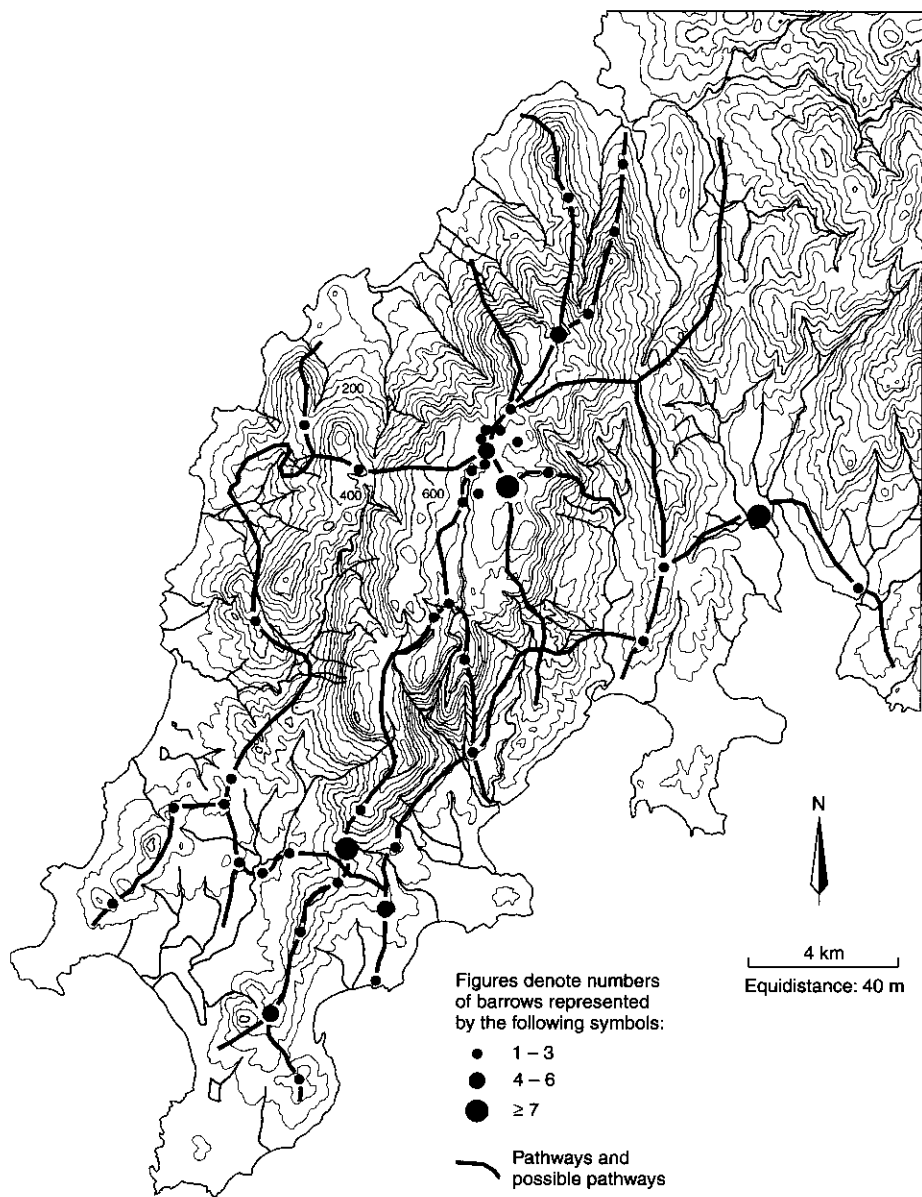


Figure 3. Relationship between barrows and geography of movement in Barbanza Peninsula.

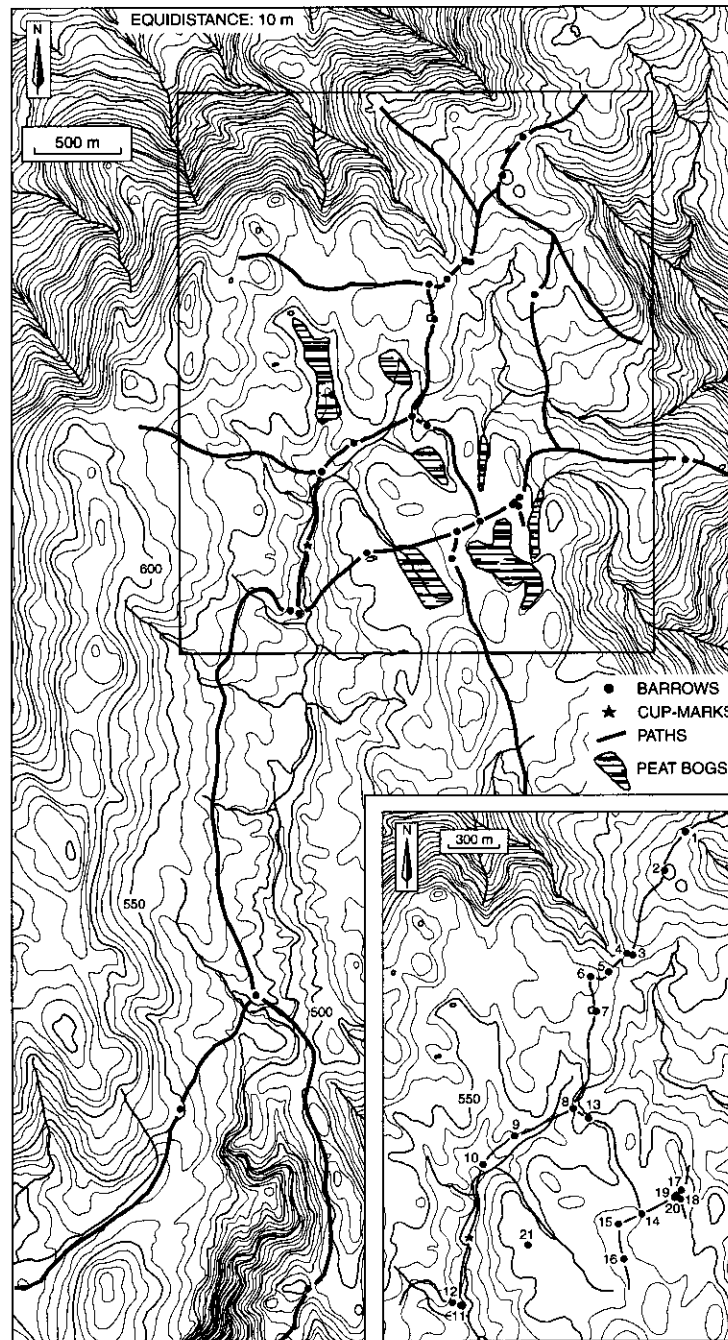


Figure 4. Relationship between barrows and geography of movement in Sierra de Barbanza. The studied area is shown inset.

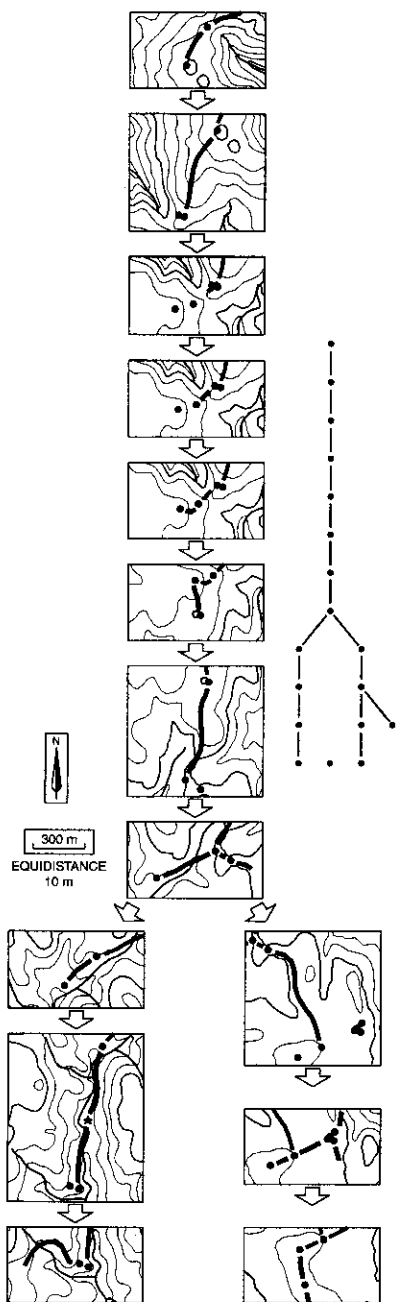


Figure 5. Abstraction of the pattern of movement represented by the barrows and generation of a permeability diagram of the space containing the barrows.

Palaeoenvironment

The hill range today reveals important erosion processes, resulting from the disappearance of plant cover in zones with steep slopes and the rainfall which is frequently torrential.

However, reconstruction of the prehistoric plant cover based upon pollen analysis indicates that the area was less degraded in the megalithic period than today, although there was an equal predominance of open vegetation. In the high areas and *chans*, there was a concentration of natural grasslands with isolated trees, indicating that this is a perfect environment in order to see barrows from medium and long range and to observe the visual interactions which we shall later reconstruct in this article (Criado Boado et al. 1986:124–30). In the low-lying areas corresponding to the basins of A Graña and the Barbanza river, there would have been denser vegetation and, at least in the more sheltered areas, which are hydromorphic with deep soil cover, there would have been extensions of oak forests (Díaz et al. 1988). The only, limited, evidence about human modification of the environment comes from the A Graña basin, along with the possible opening of spaces for cultivation, as revealed by the appearance of *Ruderalia* pollen under the palaeosol from monument no. 3 (Criado Boado et al. 1986:110, Fig. 45). The fact that the indications of land use at the time when the barrow cemetery was constructed and in use proceed from the same area in which population and traditional agriculture has been concentrated may be related to this part of the range's suitability for settlement.

The archaeological record

Around 128 barrows are known in the Barbanza Peninsula group (Fig. 3). The most important concentration is found in the SB, where, in an area of 3 km², there are

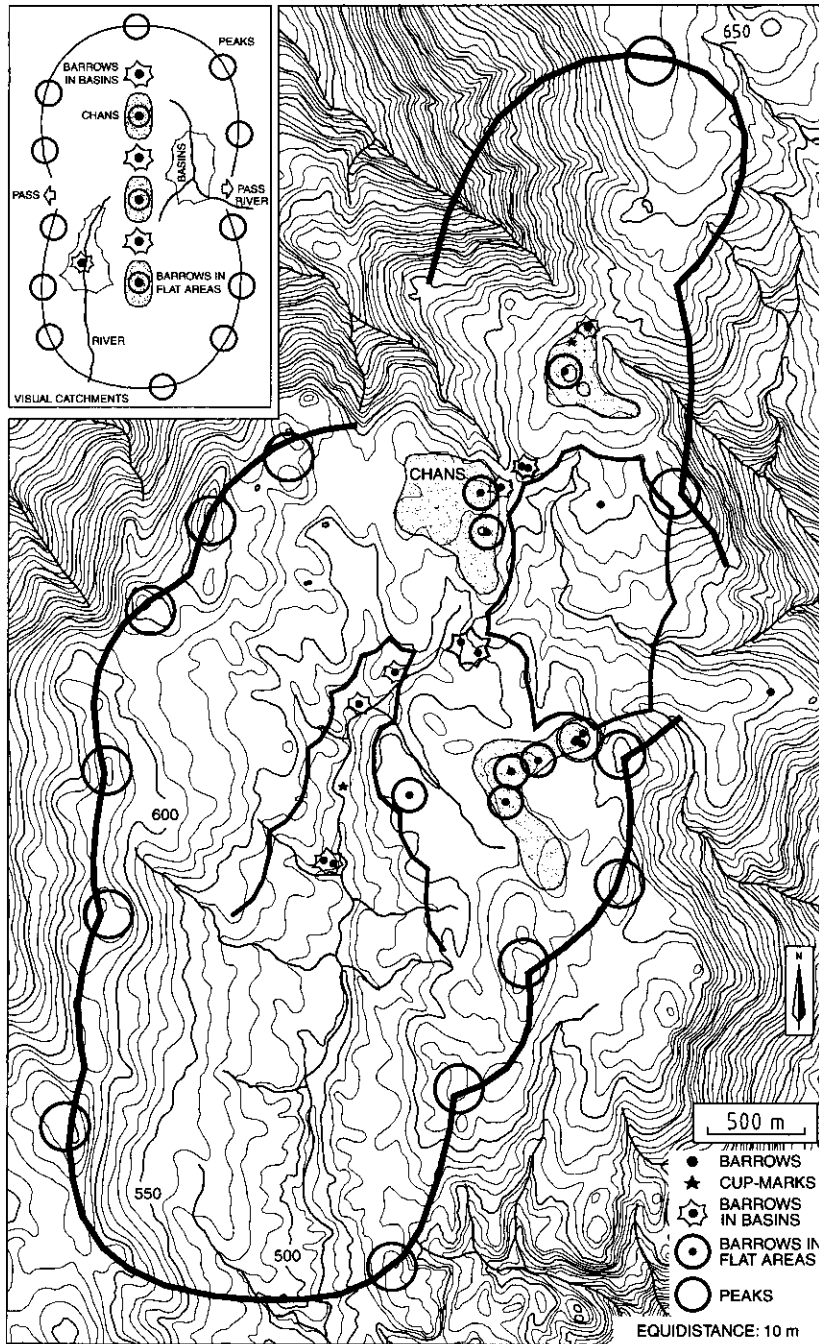


Figure 6. Distribution of barrows in relation to the elemental features of physical space. An ideal topographic diagram of Sierra de Barbanza is represented inset.

28 Neolithic barrows (Fig. 2). There are a further 10 in the rest of the range, scattered and with a linear distance of at least 4 km between each pair.

The barrows in the SB belong to two well-defined types. The most frequent type are circular barrows with a diameter of 20–25 m and a height of 2 m, which cover small megalithic passage graves. Among them are found some of Galicia's most monumental examples: *Casota do Páramo* (no. 3), *Casarota do Fusiño* (no. 22) and *Arca da Barbanza* (no. 11); this last example is one of the largest chambers found in Galicia. There are also significant chambers in five other cases (nos 5, 6, 8, 13, 21). Our analysis will initially focus on this first type of barrow.

The second type of barrow is represented by nine examples (nos 23, 24, 25, 26, 27, 28, 29 and two more beyond the limits of Fig. 2) with completely different characteristics: small dimensions of between 10 and 15 m diameter and a height of 50 cm, with a small burial space formed by a stone cist. Whereas the first group of monuments is prominent and sharply contrasted with the surrounding landscape, the second group is difficult to differentiate from its surroundings.

According to our present knowledge about Galician megalithic funerary constructions, the second type appears to correspond to the first horizon of monumental architecture, which has been chronologically dated to around 4200–4000 BC. The other type, however, represents the characteristic group from the main megalithic period, built between 3500 and 3000 BC, and would have been in use until 2800 BC, when the corridors were sealed and appear to have been abandoned (Alonso and Bello 1997).

In recent years several examples of rocks with cup-marks have been documented in association with the barrows (Villoch 1995b:49–53). Despite the fact that partial knowledge of the distribution of these carvings does not permit a systematic study, we recognize the same relationship in them as in other Galician areas (see later).

Other elements of the archaeological register in the SB have not yet been discovered. In principle, we may suspect the existence of Bronze Age villages and even some type of Neolithic settlement related to the barrows. The settlement pattern defined in Galicia (Méndez 1991, 1994; González 1991) is related to the distribution of peat bogs located in the flat interior areas of the range and, above all, within the A Graña basin. Despite the fact that there has been no detailed prospecting aimed at discovering this type of remains, it is true to say that the conditions present in the area (low hills, open vegetation, frequent forest fires and opening of paths) may have permitted the identification of some evidence of this nature. Perhaps this lack of data should be considered as proof of absence.

ANALYSIS: DECONSTRUCTION OF SPACE

Studies carried out in Galicia have shown that barrows are the artificial reference of a cultural landscape based on the symbolic domestication of nature.⁴ This domestication is principally constructed by using four types of resource whose regular association with the emplacement of monuments is underlined by visual relationships and proximity:

1. Association with natural lines of movement which make a particular natural space accessible and allow monuments to be discovered by following them.
2. Association with rocks and significant natural features which make the monumental effect outstanding and have the effect, together with the monuments, of extending a network of outstanding landmarks throughout the surrounding space, and bringing a series of references to the spatial group which make it comprehensible.
3. Association with other previous monuments, which would enable the construction of the representation of a social tradition which is maintained within a territory and which articulates it.
4. Association with the villages of its builders.

While the recurrence of these factors has been checked in the SB, we may go further in our analysis and thus extend our knowledge about the strategies used to construct a cultural landscape through monumental architecture.

Monuments and movement

The association between monuments in the SB with movement is so close that it is possible to think of it as the principal and only necessary factor for the emplacement of barrows. However, it is only a part of a complex process of localization which includes routines for making the monuments perceivable. This phenomenon may be seen in four scales of successive analysis.

The study of the geography of mobility at the scale of the Barbanza Peninsula allows us to explain the general barrow distribution. A map consisting of lines and key elements of movement (Fig. 3) indicates that: (1) all of the barrows form widespread groups or are isolated, and; (2) the most important groups or cemeteries are associated with key points of movement. It could almost be said that the more lines of transit there are converging upon one point, then the more barrows there will be in it.

Thus, the factor which permits an understanding of the concentration of barrows in the SB and the reason why the majority of them form an uneven nucleus is that this region is a major natural pass, the most suitable point for crossing the topographical barrier of the range. The fastest and most economical way of carrying out long-distance movements in the peninsula is by moving up through the range using its lateral pathways, reaching the central point where the barrows are found, and then taking any one of the paths which converge on this point to reach the destination point. This area thus becomes a type of traffic distributor, a key crossroads in the peninsula as a whole.⁵

If we go down one level in the scale of observation, the importance of this factor may be understood more clearly since the particular distribution of the monuments in the centre of the range depends on the specific lines of movement which cross it. The most important routes – those which offer the best physical conditions for movement – can be identified from the presence and distribution of particular types of barrows (Fig. 4).

We may, however, give more definition to this relationship if we reduce the scale of observation still further and carry out a detailed analysis. When a traveller crosses the natural routes, s/he understands that choice of the most suitable route is guided by the barrows seen in the distance. Furthermore, when s/he arrives at crossroads or points lacking in definition, it is the precise emplacement of the barrows which shows the route to be taken. This is clear at ambiguous points where the observation of a monument on the horizon offers an incorrect indication, for, instead of following the line indicated by the distant monument, the traveller has to make a change in route, indicated by an intermediate monument (Fig. 4). Specific examples of this location are offered by barrow 4 in relation to numbers 3, 13 or 12. In all of these cases, the monument seen in the distance indicates the general orientation but it is the foreshortened situation of the next monument which marks the change in direction the traveller should make. We therefore see that movement not only allows us to understand the distribution and emplacement of the barrows within the range but also their local position.

Having arrived at this point, it would be easy to conclude that *movement explains everything*, and that the rationality of this model of emplacement breaks down into a practical-utilitarian dimension, according to which the function of the monuments consists of showing the route to be taken, and would be the formal expression of a type of 'highway code'.⁶ The barrows denote a relationship with patterns of movement which would have allowed anyone who understood the principles of this code to be able to move throughout this space, even though it was unknown to them. However, it is necessary to avoid a generic application of this phenomenon as an explanatory mechanism.

In reality, this relationship is more complex; it is only an initial instrument of a technology for the articulation and organization of the entire cultural landscape. This relationship serves to convert the totality of physical space into a constructed space, as movement creates links between the artificial landmarks which modify this space, and gives it an axis of architectonic references.

In order to widen our investigation, we will use a non-standard application of the technique known as a permeability diagram. This technique, particularly useful in the study of constructed spaces (Hillier and Hanson 1984), allows us to create an abstract model of the patterns of accessibility to a particular space, differentiating its buildings and pathways, and the spaces and intervals which are found between them. In this case, we shall consider each barrow as a building and each stage between them as a pathway (Fig. 5). The diagram thus obtained is remarkable for the symmetry it reveals. However, before discussion of this point in more detail, it is necessary to complete the remaining steps of the analytical process we are following and to observe the correspondences between barrow distribution and the formal analysis of physical space.

Monuments in nature

The relationship with natural features does not appear to have been particularly important in SB, as the majority of barrows are not linked with rocky outcrops

despite their frequency. In other Galician areas, prominent rocks serve as a complementary means of organizing the space beside the monuments. However, in the SB, the relationship observed with significant natural landmarks adopts a special form.

A specific variant of this relationship would be the connection between barrows and rock carvings with cup-marks. According to recent studies (Villoch 1995a, 1995b), in this recurrent relationship, the cup-marks tend to define the barrow's immediate line of vision. They are found in the transition zone of the slope, sharing complete visual continuity between themselves and the barrows, although they mark a degree of discontinuity with what comes after. The cup-marks accordingly outline a topographic border which is both a visual and effective limit.

The cup-marks would have been an artificial signal which identified the proximity of a monument, marking the line of access to it by being placed on the edge of its line of movement and, possibly, limiting the sacred space around the barrow (Fig. 2). The cup-mark found between barrows 1 and 2 would have had this function. The cup-mark found between monuments 10 and 11 is a special example, as it is located in the exact centre of the trajectory,⁷ on a rock with a rounded appearance which marks the point where the route between both barrows, following the river, has to pass from the west bank to the east, as the terrain is too steep and irregular to the west. In general, cup-marked rocks acted as a technical resource which made the elements of the natural space both artificial and monumental. However, the most important link with particular natural landmarks (such as rocks) is substituted by the situation of barrows in monumentalizing locations: on the *chans*.

This observation may appear to be subjective; to overcome this objection, both a method and a system are required. When the distribution of barrows is compared with the analysis of elemental forms of physical space (Fig. 1) and, more specifically, with their topographic distribution, it may be seen that all except number 29 are situated upon the principal topographic features (Fig. 6). It is now possible to see that the distribution of barrows forms seven nuclei: three are found on each of the previously defined *chans*, another three in the depressions between the *chans* and the seventh in the interior of the Barbanza basin, one of the two river basins.

Furthermore, if we superimpose on the access diagram the different types of relief within which each group is situated, the initial appearance of symmetry is observed more clearly. There is a low/high alternation throughout the pathways contained in the diagram which, after the forking of the route in the southern section, may be seen more clearly where one of the pathways follows lower-lying ground and the other a higher route (Fig. 7).

Monuments and visual catchments

The barrows found in the SB are situated so that some are visible from a distance of more than 2 km. Logically, these are barrows situated on higher ground, which also possess a higher degree of intervisibility with other barrows.

An analysis of intervisibility reveals that, with some exceptions (seven in total: 1, 13, 10, 9, 21, 11 and 12), the majority of monuments may be seen from any other monument. The average frequency of intervisibility is 8–9 monuments and, in some cases, is more than 15 (2, 6, 7, 14, 15 and 16).⁸ With two exceptions

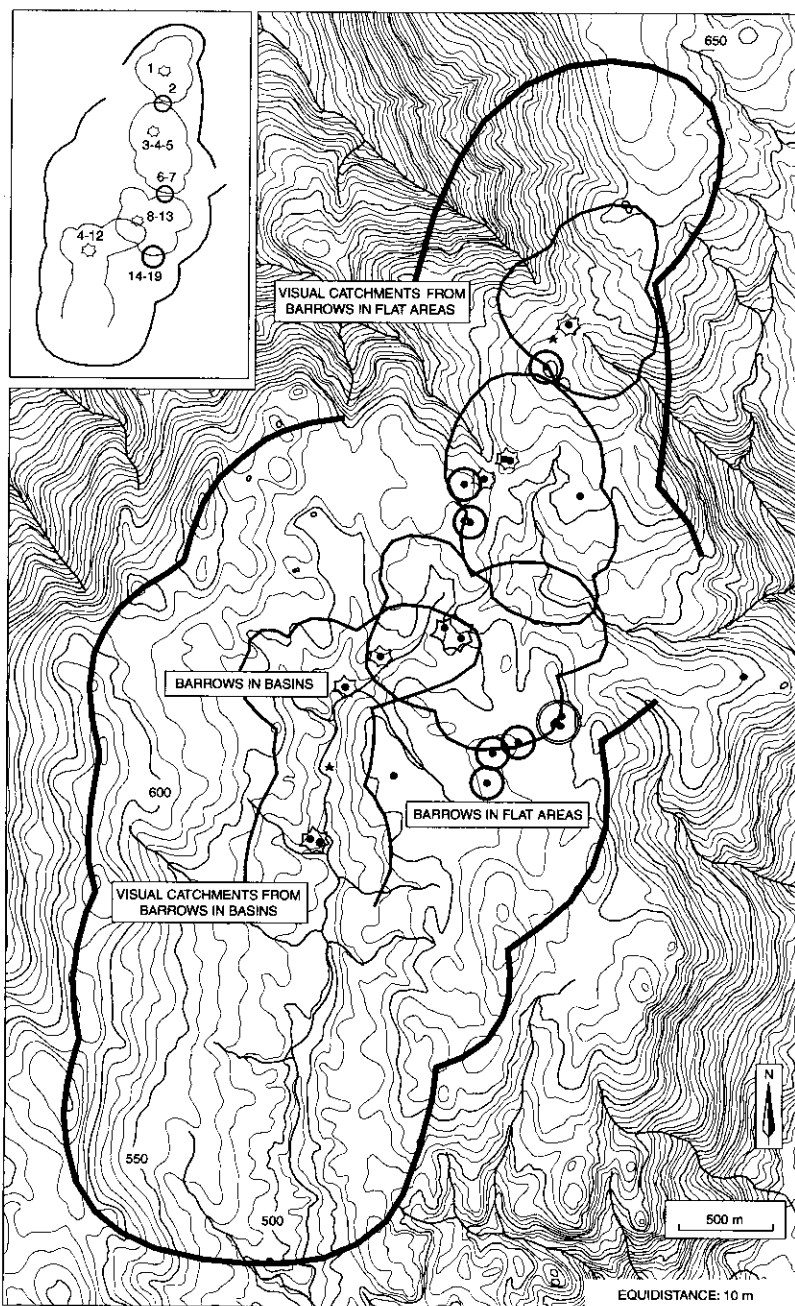


Figure 7. Analysis of visual catchments and diagram of the panoramas seen from the barrows.

(2 and 3; 7 and 8), there is intervisibility between a barrow and its nearest neighbour. This means that all the stages of any given route are marked by means of a visual relationship.

Analysis of the perceived visual catchments from the barrows also offers a clear duality (Fig. 7 inset). The monuments situated in depressions between the *chans* or in the Barbanza valley only command a reduced visual catchment. However, the monuments situated in more elevated areas have a wider visual catchment.

We shall now examine how the conjunction of routes and the visualization of monuments enable the space to be crossed and understood as a unitary experience. Based on the recognition of the monuments and the related network of movements, a mode of organizing space is represented which contains both a cognitive map and a form of conceptual domestication of the environment. Discourse and vision – walking and looking – bring about a particular experience of physical space, which actually transforms this into a social space filled with symbolic meanings. Given that this method of organization is discovered by the observer while crossing the terrain, the perception of this model of landscape becomes a vivid experience. Throughout this route, the observer receives a series of perceptions which have the potential to represent the meaning of this social landscape.

May we then learn anything else about this landscape by analysing these perceptions? As previously mentioned, we cannot have access to a strictly subjective and individual dimension, nor can we make an accurate reconstruction of how pre-historic individuals perceived the landscape. However, we may at least create an approximation of the scenes which gave rise to these perceptions, as this particular experience of physical space constructed through discourse and vision results in a series of visual catchments which are revealed to the observer throughout the space which s/he is crossing.

Despite the duality which differentiates large and small catchments, the majority of these megalithic scenes have a similar basic form, characterized by the concurrence of three features:

1. They have a circular vista, visually enclosed, defined by topographic divisions within either a low-lying area or a basin. This is particularly apparent and logical in the barrows found close to watercourses, although this also occurs with those found on hills; in this case, the panorama is framed by lines of distant hills.
2. The border of this panorama is marked by natural features and artificial monuments: barrows may always be seen on the skyline of the visual horizon, at times outlined against the horizon.
3. The scene tends to have a well-defined central point from which its totality may be observed, and which is identified by the presence of a barrow, situated either on the top of an elevated feature or in the axis of a depression.

The model of scenery is always the same: enclosed circles, with a monumental circle and a natural, monumentalized centre. If we combine the scheme of visual catchments with the permeability diagram (Fig. 8), we may see that movement produces a succession of two different, alternating types of scenery which conform to the basic model, although in both cases the model of observed space is the same.

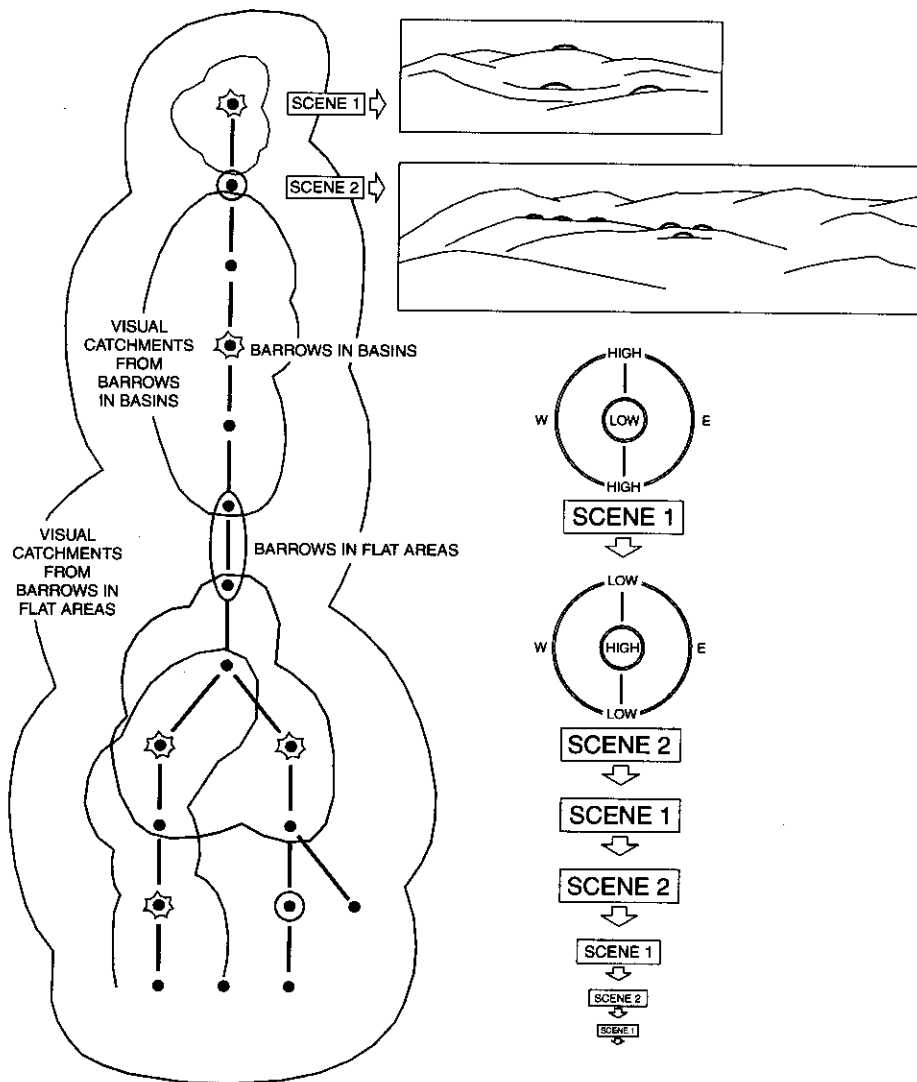


Figure 8. Representation of the visual panoramas diagram on the permeability diagram of the space containing barrows. Movement creates two different prototypes of scenes (top right) and a sense of alternating succession from one to the other and back to the first (left).

In low-lying areas, there is a reduced panorama (scene 1), while a wider panorama is perceived in higher areas (scene 2). The position of the barrows therefore becomes an artificial mechanism through which the differences and discontinuities of natural space are domesticated and may then be seen as similar.

We believe that the fact that a regular form is maintained in all of these cases reveals to what extent perception is guided by the construction of pre-established scenes. The conservation of a regular form in both situations is of great importance, as it demonstrates the existence of a uniform system of the articulation of territory based on the succession or juxtaposition of circular scenes which also repeat the same perceptual model.

RESULTS: ORGANIZATION OF SPACE

The organizing structure of monumental landscape

By means of the formal analysis of physical and archaeological space, we may see how the experience of space constructed by the megalithic landscape takes shape in a series of circular scenes, presided over, and defined by, monumental constructions and articulated by the network of movement.

We may, however, go further in this analysis. Instead of merely viewing the monumental space of the SB as a series of seven different scenes, we may try to understand it as a unit within which different specific sectors would appear. Accordingly, the question is: with regard to the organization of the total monumental space within the SB, is it limited to creating an order through the grouping of discrete units which repeat the same model, or does it in itself reproduce a principle of order which confers identity on the whole space? In this case, it is important to investigate the formal model which underpins the general system.

We are led to propose a hypothesis concerning the organization of the system under consideration which, because of the existence of a series of relationships of symmetry and proportion, suggests the possibility that the organizing principles function within it on a larger scale than the level of each group of barrows. If we observe the succession of megalithic scenes within the permeability diagram (Fig. 8), and superimpose the physiographical differences, it may be seen that each barrow is in a perfectly symmetrical location with regard to the corresponding barrow in the access diagram (Fig. 9). We may therefore see that barrows 2 and 16 occupy the same relative position in the diagram. The same is true of 4, 13 and 9, which mark the transition between the four natural forms occupied by four of the barrow clusters (the three *chans* and the Barbanza valley). The centre of the central unit is simultaneously marked by two barrows: 6 and 7. These represent the centre of the whole system, as the same number of stages and barrows are present both to north and south.

These observations are extended if we consider relationships of visibility as well as relative and physiographical location. The barrows which mark the centre of each unit are the most visible within the system (i.e. those that are most easily seen from any of the units and even from their exterior), and also have the largest number of intervisibilities.

Finally, the set of symmetrical correspondences in the barrow zones of the SB is refined by considering the group of barrows found in the Barbanza basin, which initially could be considered as an aberrant case. This group offers us an example of inverse symmetry, for, although it has the same number of sections as the group parallel to it, it has opposing characteristics. Whereas the second group is found on high ground, the first is laid out in a depression. Applying the formal rules of the system, we should also have to search for a barrow in the Barbanza basin sector that defines its centre and has a parallel emplacement to barrow 15, which marks the centre of the sector on the other side. Given that this is a low-lying region, we should not expect to find a barrow which is particularly visible, but instead would have to find a monument which is outstanding thanks to some other feature. Interestingly, the barrow found in this position is the *Arca da Barbanza* (11) which is the most monumental megalithic construction in all of the SB and one of the largest in Galicia.

In order to comprehend more fully the definition of this system, we must remember that the system as a whole is contained within a circular, enclosed visual space, whose centre is represented by barrows 6 and 7, which separate the visually defined northern and southern sectors. This circumstance appears to be both highly significant and intentional, since, in some cases (barrow 6, but also 2 or 3), an alternative location for a barrow, only some dozen metres away, could have dominated a wide visual panorama towards the exterior of the range if this had been desired. This feature is documented in many Galician examples of barrow emplacement in hill ranges, and appears to demonstrate a firm wish to link the monument to visually defined spatial scenes, as well as a degree of indifference towards controlling these panoramas.

Similarly, the defined eastern and western halves of the north–south alignment present, as a symmetrical feature, their location in the two main basins – A Graña to the east, and the Barbanza basin to the west (Fig. 9). There is no further similarity between them. The relationship is defined by a quite apparent inverse correspondence: whereas the western basin contains barrows, the eastern does not. However, the A Graña basin is the most suitable zone for human settlement and, as shown by pollen analysis, may have been in domestic use in megalithic times, while the Barbanza basin offers a series of geographical conditions which make it inhospitable for prolonged use or occupation.

We may now make a *formal description of the whole system*. If the previous observations are true, then the group of barrows within the SB is organized according to a complete programme with complex rules. The organizing and structuralizing model of landscape would, in synthesis, be the following (Fig. 9):

A circular space defined both visually and topographically, in which the distribution of barrows introduces a principal centre and marks a north–south axis which divides this space into two halves with opposing characteristics. The eastern half is dominated by high, open ground with uninterrupted views up to 3 km: it is a high, open and visible space. However, the western half (or rather, the southern section of this half) is dominated by depressions, with a fragmented and enclosed relief

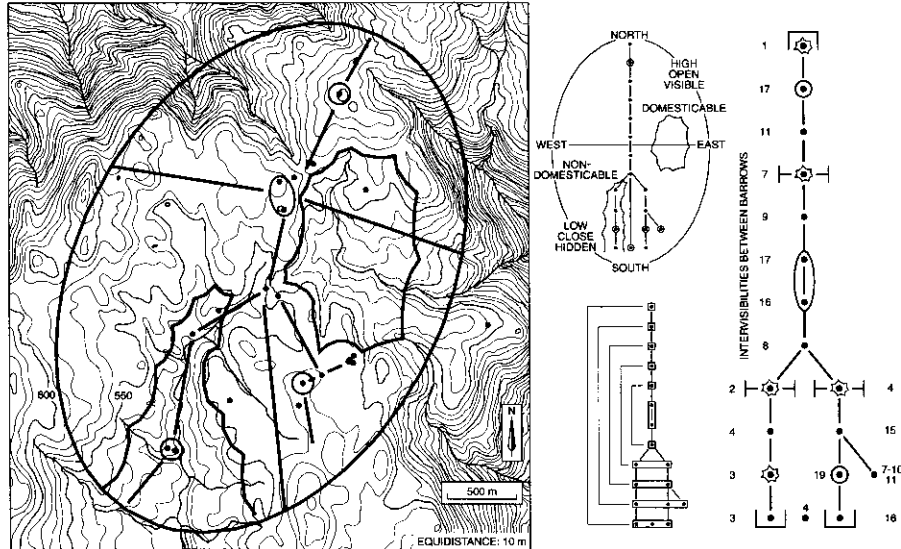


Figure 9. Diagrammatic scheme of the structure of monumental landscape in Sierra de Barbanza (top centre); translation of this into physical space (left) and representation of the symmetrical correspondences of the barrow system (bottom centre and right).

where it is only possible to establish visual relationships at a short distance, up to a maximum of 1 km: it is a low, enclosed and hidden space. In turn, the eastern half is differentiated by a basin which is suitable for human settlement and particularly for domestic activities, whereas the western half is inhospitable and untamed.

This general model is repeated in smaller discrete units where space is subdivided, starting from the geometric centre of the system. The first unit specifically corresponds to this centre, and is juxtaposed to the north by another similar discrete unit, and two more to the south – one in the south-eastern quadrant, and the other in the south-west.

The temporality of monumental landscape

We shall now offer some brief considerations about the time depth of the system. This means an account of its formation and permanence, as well as a discussion of the Pedra da Xesta type group of barrows (23 to 27), which are strongly differentiated when compared to the other monuments in the SB (Fig. 10). We did not deal with them in the previous analysis, as their presence distorts the results of the process. We shall now reintroduce them and see how they fit within the monumental landscape.

The Pedra da Xesta group is situated in the very centre of the system (Fig. 2, inset). The four barrows of this type known in Barbanza (28, 29 and two more outside of

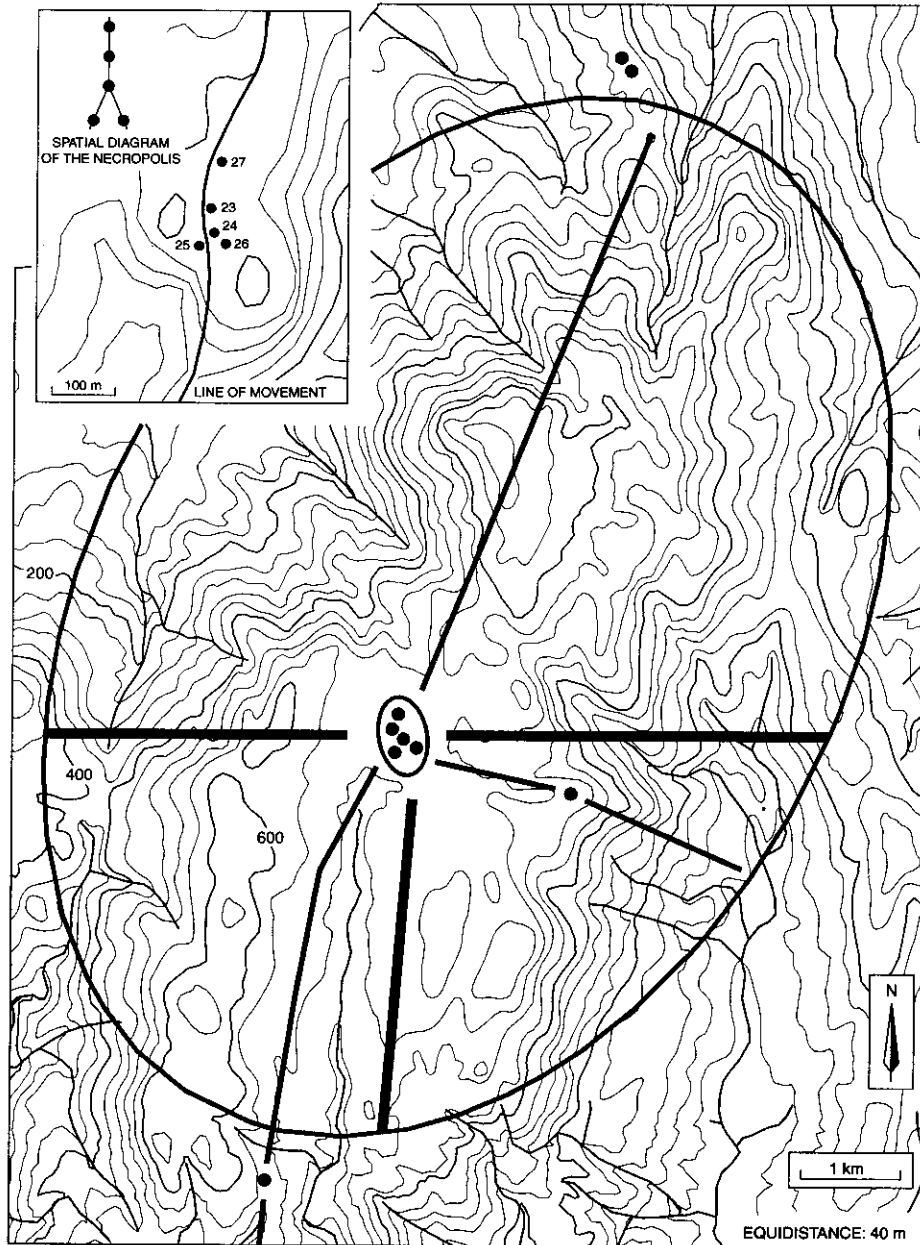


Figure 10. Early stage of the monumental landscape: the same structure organizes the whole Sierra and the local space of the Pedra da Xesta cemetery (inset).

the map), although found at a considerable distance from the central sector of the range, are situated in each of the three lines of movement which lead towards its interior from its frontiers, and correspond to the prolongation of the three lines of movement dealt with in the access analysis.

Furthermore, this group is placed exactly in the centre or natural axis of the range, at a point which forms a small hillock and creates a link between two high features (Fig. 10). If it were necessary to define the centre of the system, economically and with a limited number of constructions, then this would be more likely to be at Pedra da Xesta rather than at the location of barrows 6 or 7. These two monuments only operate as the centre of the system because they are complemented by other monuments which balance them (3 and 4 to the north, and 8 and 13 to the south, all in a symmetrical and complementary position). Similarly, it is highly suggestive that the internal organization of the Pedra da Xesta group reproduces the design of the formal scheme which we are considering, as well as the position of the previously mentioned lines of movement (Fig. 11).

If we add to this the fact that chronological evidence would appear to indicate that these constructions are older than other types of Galician megalithic construction, then we would have here the testimony that both the principles of articulation and the organizing principles of monumental space were imposed from the earliest time of monumental construction and that the general lines of this model continued to be used in later times. If further megalithic building had any real effect on the overall model, it was to confer a higher degree of development, time-depth and solidity to a pre-existing model.

This leads us to another problem: evaluating the significance of the apparently lengthy duration of the system. We now offer some considerations about what this concordance indicates in relation to the temporality of the megalithic tradition.

Continuity means, above all, the permanence of one model of understanding natural space based on its own natural features; it means that the monumental landscape of the late megalithic period in the SB incorporates a model of spatial organization built in the early megalithic period with limited resources on a small scale, in turn based on a profound understanding of the natural order.

However, alongside this incorporation of a previous tradition, there is a certain rupture underlined by the fact that the Pedra da Xesta type constructions are not involved in the late model. An examination of the relationships of barrow inter-visibility appears to indicate that the late model made certain practical use of the initial monuments. Proof of this would be that: the 'megalithic route' which crosses Barbanza is denoted by the existence of intervisibility relationships between the barrows of each interval. This rule is only maintained by barrows 6-7 and 8-13; however, this rupture is false, as the relationship is re-established by the intrusion of the Pedra da Xesta group into the centre of this interval, with intervisibility by monuments 6 and 7 with 23-27, and between these and 8 and 13.

The construction of the Dombate monument at the beginning of the third millennium BC over a smaller, more primitive monument which was finally hidden (Bello 1995:49-50) is an example of the phenomenon of the incorporation of cultural creations from initial phases in the late megalithic period. The study of monumental

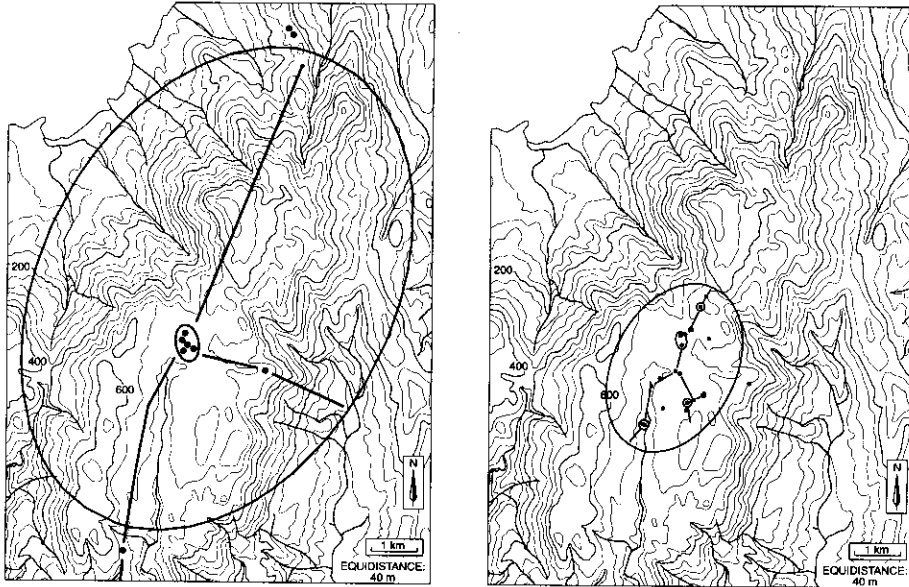


Figure 11. Continuity and change in the monumental landscape of Sierra de Barbanza: two main stages maintaining the same basic structure.

space in the SB offers us a different example of this same phenomenon. In both cases, there is a relationship of ambiguity: like any example of the incorporation of a cultural tradition by another, it is both an act of reaffirmation of what has come before, and of negating it or overcoming it. There is a strategic use of the past in order to legitimize a new order.

The structural model of monumental landscape: the sense of place

In closing, we shall take the risk of offering some interpretations of the meaning that would have been represented by the technologies of constructing landscape and perceiving space which we have attempted to discover in the SB.

If we try to make a description of the structural model⁹ which underlies this integrating model of landscape, then it is possible that we can access, by means of the materiality of the system itself and without introducing subjective values, part of the cultural meaning of the spatial code.

The model of articulation which we find considers social space as a closed unit (defined panoramas) with a circular morphology, both introduced into nature and to some extent diluted by it (as the codifying principle used re-uses natural resources and is based upon a profound understanding of natural space), and partially built upon it (as it substantiates this natural space with artificial elements), occupied by a centre with a funerary and ceremonial character, with two clearly opposing halves: one open to human domestic action, and the other hidden and enclosed, orientated towards the untamed and inhospitable side of nature.

In a more interpretative sense, although keeping alongside as far as is possible the materiality of the formal correspondences, we may say that the link between monuments and movement indicates that the barrow acted as an artificial reference within a complex code of signals which transmits information about routes. Apart from a practical function, it evidently had an important symbolic dimension. On the one hand, it linked the world of the dead with a path (*via*) which represented the link between life and death, based on a metaphor of movement and discourse. On the other hand, it used movement, access and proximity to the barrow dramatically and scenically, as a basic resource for the construction of its monumentality.

Put another way: the process of the symbolic domestication of space is supported by a control of space and time based upon the visibility and permanence inherent within monumental constructions and upon the control and manipulation of the experience of time and movement in space produced throughout the barrows. Simultaneously, the hegemony of the circular perception of space should perhaps be understood as a metaphor for human domestication of the surroundings. A circular shape is the greatest expression of domain and control, in the same way that circular views are a fundamental element of the *panopticum*.

Here we find a phenomenon which is particularly important within the European Neolithic period: the existence of circular patterns of organization of space takes shape in the re-use of natural spaces and/or the construction of artificial spaces and, more generally, the production of ways of perceiving the landscape based on circularity. We shall leave the analysis of this subject for a later date, as well as an investigation into whether the same formal structure which we have deduced may be found in other spatial levels of the megalithic phenomenon, such as architectonic design, and in other points of the Atlantic Neolithic.

CONCLUSIONS

The practical strategy followed in this study consisted of comparing archaeological spaces (i.e. the distribution of monuments, their situation and architectonic typologies; elements which may be observed without the need for excavation) with geographical and physiographical data. This allowed us to discover the corresponding elements and to deconstruct the models of spatial organization which exist within a megalithic ceremonial landscape. From here, we were able to describe the model of articulation of the monumental landscape and the possible structural model to which this landscape corresponds. In this analysis, we concentrated on the study of the most recent monuments, later turning to the older examples to build a diachronic vision of change and continuity in the monumental landscape.

An important consequence was the discovery that the same principles of articulation or codification of space are recovered in different spatial levels of the monumental landscape. Using a zoom-type approximation, we observed this regularity throughout the barrow space within the SB, in each of the units or groups within it, and in the organization and particular emplacement of small groups of barrows.

Although we have risked certain interpretations about the cultural meaning of these models, we believe that a certain weak understanding may be derived from their formal characteristics. Our intention is to contribute to the theoretical-methodological programme which we proposed elsewhere (Criado Boado 1993a) in order to develop within archaeology the procedures necessary to evaluate the implicit contents in the material belonging to the archaeological record, recognizing them for what they are, and without overloading our work with subjective interpretations.

A radical criticism is necessary of *phenomenological archaeology*. The aim is not to reconstruct original meaning through present-day perceptions. This would mean postulating the existence of a trans-cultural subjectivity whose subjective proximity to our own would allow us to understand it. Instead, the intention is to perceive, from the point of view of one subjectivity, another which is different, as the way in which the phenomena belonging to the first were manifested have a materiality which is imposed upon our own. Apart from the risks which are assumed, the price to pay for this is the limitation of interpretation only to observations with more objective weight. The general message for today's archaeologists is to inhibit the interpretative impulse offered by phenomenological approaches and *stop making sense*.

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NOTES

1. See this categorization in Criado 1993b. In particular we understand by social landscape the environment shaped by social practices and where social relationships play an important role; and by symbolic (or 'imaginary') landscapes, the intellectual or cognitive construction of a human medium. So the perceptual landscape would be the experience of this space as conceived by individuals.
2. This process also forms part of the logocentric strategy of modern metaphysics as described by Derrida (1976, 1989).
3. One of the motives for reviewing this area was the evaluation of the archaeological impact of some wind energy plants destined to be constructed here (Villoch and Barreiro 1997).
4. The concept 'domestication' would need further discussion. We use it to refer to the way that environment is incorporated into social relations and then modified (physically or intellectually) by social practices whose character radically implies the human modification of the untamed environment.
5. The area has lost this use due to the creation of a modern network of communications which has become separate from the constraints of the geographical features. However, using a weak analogy, we may still see this function in the fact that all of the electrical networks that cross the SB intersect precisely at this point.
6. It would also be very simple to correlate this fact with the presumed continuity during the Atlantic Neolithic period of mobile patterns of settlement, proto-agricultural types of land use, and an incipient domestication of the environment which remained quite untamed.
7. This estimation was made using GPS technology with differential correction, which gives the coordinates a precision to within 5 m (Amado 1997).
8. These data were obtained by covering the ground with a visibility matrix; they are accordingly real intervisibilities, and not approximations derived using cartography or GIS technology.
9. We use the term 'description' as defined by Santos et al. 1997.

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ABSTRACTS

La monumentalisation du paysage: de la perception actuelle, jusqu'à la signification ancienne du mégalithisme galicien (Péninsule Ibérique du nord ouest)

Felipe Criado Boado et Victoria Villoch Vázquez

L'étude d'un paysage en tant que construction sociale doit prendre en considération ses dimensions économiques et territoriales aussi bien que ses dimensions symboliques. Un sujet d'importance majeure dans ces types d'études est la reconstruction de la façon dont l'espace naturel et l'espace social étaient perçus par les sociétés de l'antiquité. Nous devrions essayer de construire un projet pour l'étude d'une archéologie de la perception! Un tel programme de recherches pourrait avoir pour but l'évaluation de l'effet des paysages naturels et artificiels sur les observateurs humains anciens. Dans cet article, on démontre qu'une stratégie possible pour l'étude de la dimension de ces paysages anciens pourrait être basée sur l'analyse systématique des caractéristiques visuelles des monuments préhistoriques, des effets scéniques et des points de vue qui leur sont associés. L'analyse détaillée des groupements et de la location dans l'espace des monuments mégalithiques, de leur visibilité et inter-visibilité, nous a permis de reconnaître certaines régularités qui soulignent la mise en valeur intentionnelle des monuments par l'utilisation d'un effet dramatique artificiel. De cette façon, nous pourrions approcher une phénoménologie de la perception préhistorique sans tomber dans de simples solutions subjectives. Cette étude est basée sur la revue systématique des monuments mégalithiques de la Sierra de Barbanza (Péninsule Ibérique du nord ouest). Les buts principaux de cette étude sont: 1) un projet d'étude théorique et méthodologique de ces phénomènes combinée avec; 2) la sélection d'un site où les stratégies monumentales utilisées lors de l'aménagement des paysages culturels de l'Europe néolithique pourraient être reconstruites; et, 3) l'explication des continuités et des changements de ces traditions.

Monumentalisierung der Landschaft: von der gegenwärtigen Wahrnehmung zur vergangenen Bedeutung des galizischen Megalithismus (NW der iberischen Halbinsel)

Felipe Criado Boado und Victoria Villoch Vázquez

Das Studium der Landschaft als sozialer Konstruktion beinhaltet, ihre ökonomischen und territorialen Dimensionen zu beachten wie auch ihre symbolischen. Ein Hauptthema in Studien dieser Art ist die Rekonstruktion der Möglichkeiten der Wahrnehmung von natürlichem und sozialem Raum durch vergangene Gesellschaften. Wir sollten versuchen, eine *Archäologie der Wahrnehmung* anzugehen. Eines der Ziele eines solchen Forschungsprogramms wäre die Bewertung der Wirkungen natürlicher und künstlicher Landschaftscharakteristika auf menschliche Beobachter in der Vergangenheit. Dieser Artikel argumentiert, dass eine mögliche Strategie für ein Studium dieser Dimensionen vergangener Landschaften auf der systematischen Analyse der sichtbaren Merkmale prähistorischer Monumente basieren könnte, wie auch auf der Charakterisierung der landschaftlichen Wirkungen und Aussichten, die mit ihnen verbunden waren. Eine detaillierte Analyse des Schemas der Standorte megalithischer Monumente und ihrer Sichtbarkeit, auch der Megalithen untereinander, ermöglicht, bestimmte Regelmäßigkeiten zu erkennen, die die Absicht offenlegen, auf die Monumente aufmerksam zu machen durch das Hervorrufen dramatischer künstlicher Effekte. Dadurch könnten wir eine Phänomenologie prähistorischer Wahrnehmung versuchen, ohne uns auf rein subjektive Lösungen zu beschränken. Die vorliegende Studie basiert auf der systematischen Übersicht über die megalithischen Monumente von Sierra de Barbanza (NW Iberien).

Ihre Hauptziele sind (1.) ein Vorschlag für eine theoretische und methodische Untersuchung dieser Phänomene, verbunden mit (2.) einer Fallstudie der Rekonstruktion der zur Formung der kulturellen Landschaft im neolithischen Europa angewandten monumentalen Strategien, und (3.) die Erklärung von Kontinuitäten und Wandlungen dieser Traditionen.

La monumentalización del Paisaje: percepción actual y sentido original en el Megalitismo de Galicia (NW de la Península Ibérica)

Felipe Criado Boado y Victoria Villoch Vázquez

El estudio del paisaje como construcción social implica considerar sus dimensiones económicas, territoriales y simbólicas. Sería importante reconstruir cómo fue percibido el espacio natural y social, para lo que se debería construir una Arqueología de la Percepción que tendría entre sus objetivos evaluar el efecto de los rasgos naturales y artificiales del paisaje sobre sus observadores pretéritos. Aquí se propone una estrategia de aproximación basada en el análisis sistemático de los rasgos visuales de los monumentos prehistóricos y en la caracterización de los efectos escénicos y panorámicas relacionadas con ellos. Un examen detallado del patrón de emplazamiento de los megalitos y de sus condiciones de visibilidad y visibilización, permite reconocer regularidades que evidencian una voluntad intencional de remarcar su presencia y provocar artificialmente efectos dramáticos. Así, proponemos aproximarnos a una fenomenología de la percepción prehistórica sin incurrir en soluciones subjetivas. El estudio se basa en una revisión del megalitismo de la Sierra de Barbanza (NW de la Península Ibérica). Su objetivo final es contribuir al estudio de las estrategias monumentales de configuración de los paisajes culturales en el neolítico europeo, además de aproximarse a la diacronía y proceso de formación de esas tradiciones.