Craft Specialization: Operational Sequences and Beyond

Papers from the EAA Third Annual Meeting
at Ravenna 1997

Volume IV

Edited by

Sarah Milliken & Massimo Vidale

European Association of Archaeologists

Third Annual Meeting
Ravenna, September 24-28 1997

BAR International Series 720
1998
Defining Social and Symbolic Changes from the Bronze Age to the Iron Age through Operational Sequences in NW Iberian Pottery

Isabel Cobas Fernández & Pilar Prieto Martínez

INTRODUCTION

The aim of this paper is to study the ceramic material culture from the Bronze Age and the Iron Age in NW Iberia. We will try to define the patterns of formal regularity and their continuities and changes between the pottery styles of both periods. To do so, we will apply principles based on landscape archaeology, and comprehend the archaeological record as embedded within the social processes of the appropriation and semantization of space. In this case, all of the social dimensions (both material and ideal) are directly connected with the social material products which objectify these dimensions. We will examine how the stylistic trends revealed through the definition of the operational technological sequence of each period reflect these social conditions.

The main concepts used in this paper will be: style and operational technological sequence. This is implemented either as a methodological or interpretative tool: methodological as it allows us to deconstruct from the final material product the technological processes related to the production of ceramic material culture, and interpretative as it gives us access to the social and symbolic dimensions which determine the decision-making process of this production. Style will be used in a broad sense, understood as a mechanism of the power discourse of a culture reflected in the formal products of its society. In the light of certain dominant opinions, we propose to understand style as a formalisation of power according to Foucault. The patterns of formal regularity are better displayed comparing material products belonging to two very different cultures from the same geographical area.

PRESENTATION

The framework of this study is an examination of ceramic cultural material from the north-west of the Iberian peninsula according to the perspectives of Landscape Archaeology. It has a basically methodological value as the intention is to outline a new line of investigation for the study of different registers of material culture, based on the study of ceramics and landscape from the Bronze and Iron Ages in this part of Spain (Figure 1).

Theoretical-methodological principles

The theoretical basis for this study is Landscape Archaeology (see Figure 2), according to which archaeological entities do not stand alone but instead are spatial entities, produced through social action, related to a socio-cultural context, and comprehensible within this framework. Material culture is therefore considered as the product of a society combining both practical and symbolic aspects as, consciously or unconsciously, the concept of the material indicates a meaning.

As social products created within a community are closely related to all of the material and imaginary areas of its reality, the characteristics and elements of a particular society are reflected in all of the facets of its material production, causing patterns of similar regularity and complementary relationships between codes, as proposed by Lévi-Strauss (1987) for studying myths, and as applied by Criado (1993: 41) for the study of the archaeological landscape. Based on these principles, we defend relying on a structural line. Despite not working with modern societies and not having access to their language, meaning that in archaeology it is not possible to carry out a structural analysis as proposed by Lévi-Strauss, this does not prevent the existence of hypotheses and procedures that may prove very useful from a methodological viewpoint.

Style

The concept of style will be used in a broad sense, understood as a mechanism of the power discourse of a culture reflected in the formal products of its society. In the light of certain dominant opinions, we propose to understand style as a formalisation of power according to Foucault (1980). We therefore consider it important to assess how the patterns of formal regularity which exist between different codes of material culture may be defined within a given social group, making them coherent between themselves, and with a definite pattern of rationality: in short, identifying what can be referred to as a style (see Figure 2). However, it is not possible to arrive directly at the underlying conceptual schemes only by means of the identification of cultural choices. Accordingly, accepting the limits of interpretative practice in archaeology, our interest centres on identifying the matrix of theoretical possibilities, compiling all of the wide array of choices produced within an equally viable series of options, and extrapolating from them elements of regularity. The method used to arrive at a definition of the matrix of possibilities is formal analysis, using the concept of the technical-operative sequence as a basis.

Formal analysis

Considering that ceramics, like any human product, are the formalisation of a particular rationality, we propose that
formal analysis be used for the study of material culture (see Figure 2). This consists of studying shapes and the relationship between them, understood not just as morphology and finished products, but as a unit of activities, ideas, premises and mental schemes brought together in their fabrication. Investigation takes place reconstructing the technical sequence used to make ceramic products.

The Technological-Operative Sequence
The concept of the technical-operative sequence (see Figure 3) involves three interwoven aspects: the strictly technical aspects, considered in what is effectively the technical sequence; those aspects which refer to social instances, which may be denominated the conceptual sequence, considering the economical, social, territorial and imaginary elements which merge together and indicate all of the object's process of fabrication; and finally the result of these two processes, defined as the final product: a group of formal characteristics which, determined by social demands, is registered within a stipulated pattern of formal regularity, in line with other codes, and as a reflection of the pattern of rationality to which it belongs.

By using the concept of a technical-operational sequence, the technological aspect is incorporated as a new style parameter, meaning that by following the technical processes we may have access to criteria which are less susceptible to changes, as indicated by Gosselain (1992). With this, we may both define the 'points of continuity' which allow us to talk of a style, and the breaking points which form categories. We therefore underline the active role of the object in ancient societies, and the existence of a variable cultural choice for each society (which Lemmonier, 1986, denominated a socially suitable technological choice), over and above external constraints.

INTERPRETATION
We continue with a summary of the landscape and ceramics of the Bronze Age, then refer to the characteristics of the Iron Age, and finally examine the relationship which exists between both periods.

The Bronze Age
We shall firstly refer to the contexts in which Bronze Age ceramics appear, and then discuss the general characteristics of these ceramics. Three types of contexts are known in Galicia: ritual, with petroglyphs (see Santos 1996 for a summary), and domestic and funerary (see Méndez 1994 for a summary). Ceramics are only registered in the two latter contexts. The domestic context (see Figure 4) is characterised by settlements which are invisible in the landscape and have: perishable constructions (holes for posts, foundation trenches for huts), divided arable land nearby, and defined wetlands suitable for grazing. The funerary context (see Figure 4) is formed by two main groups according to their visibility in the landscape:

- visible megalithic monuments in the landscape: dolmens and tumuli;
- invisible sites in the landscape: underground cists and pits.

Having carried out the technical sequence of the ceramics, we offer a summary of the most important formal features. The most important characteristic of ceramics from the Bronze Age in Galicia is of decorated material, bell beaker pottery and undecorated ceramics. Two types of morphologies are documented: simple and composite (see Figure 5).

- simple open or closed profiles and closed composite profiles are associated with undecorated ceramics;
- open composite profiles are, however, associated with bell beaker pottery.

Accordingly, we have a strong morphological opposition between plain and decorated beaker pottery. The characteristics of the decoration are as follows:

- the use of incision and impression techniques;
- decoration instruments are combs, punches and cords;
- the decorative elements are always geometrical and horizontal;
- body decoration on the object may be divided into segments, outlined, integral or in strips.

We will now characterise ceramics within each context (see Figures 6 and 7). In a domestic context the morphological opposition is maintained between plain and decorated pottery, although this opposition is reflected in other aspects of the phases of production: the finish, colour, size of the gritting, the accessories and, above all, the final product. Non-decorated ceramics are roughly finished, with large gritting, and light, matt colours which are practically invisible. Bell beaker pottery, however, has a better quality finish, with smaller gritting, and lively, visible colours in various tones. The decoration displays a certain variety enabling us to group it into four substyles.

In a funerary context, differences may be seen according to the type of burial. In visible burial sites, or megaliths, the pottery is similar to that found in domestic contexts, a formal opposition between undecorated and decorated ceramics, which are always beaker shaped. Differences are only found in two phases of the technical sequence: in the modelling and application of the decoration. The other production stages use the same technology: a good quality finish, small gritting sizes, bright, light colours and a lack of accessories complementing the profile. This leads to both types of ceramic having a good visual appearance, with a visible character.

Ceramics from invisible burial sites differ between cists and pits. In cists only undecorated items appear, with two morphologically differentiated groups: one with simple,
open morphologies, and another with closed composite morphologies, well finished and with bright, clear, visible colours. The differences are only found in one production stage: the modelling phase.

In pits, undecorated or decorated pottery may be found, although these are not beaker shaped. There are two well defined morphological groups: one with simple, open morphologies, and another with complex, closed morphologies. Both use matte, dark tones, with rough, invisible finishes. The differences are only found in one production stage: the decoration phase.

If we compare the ceramic record of both contexts, we can underline the following aspects: (1) decorated ceramics in a domestic context are always beaker shaped, while in funerary contexts they may be beaker shaped or of another style; (2) the strong opposition between plain and decorated ceramics in a domestic context is diluted in a funerary context as more homogenous phases exist: finish, colour and gritting; (3) the existence of an association between the type of undecorated utensils and the type of funerary architecture which does not exist in a domestic context; (4) the decoration is more varied in a domestic context, giving rise to substyles, whereas in a funerary context it is more standardised. Differences may be seen in the following features:

- in a domestic context, instruments are used for decoration, which do not appear in a funerary context (shells, nails, fingers);
- in a domestic context, the decoration is horizontal, integral and flowing, and the most significant decorative element is the horizontal line. In a funerary context, the decoration is also horizontal but may be integral and in stripes for bell beaker pottery, and zonal and flowing for ceramics that are not beaker shaped. The most outstanding decorative elements are zigzags, reticulated shapes and oblique lines.

In summary, the rupture points within the technological process vary according to the contexts (see Figure 8): whereas in a domestic context the differences between plain and decorated items may be seen in five phases of production, in the funerary context these are reduced to two phases of production (with the exception of the technical process for ceramics in graves, which is totally different to the other ideal technical processes). Two types of relations exist in the visibility strategies between the landscape and the ceramics which in some cases are represented by way of an opposition between both codes, and in other cases by complementing each other.

The Iron Age

For this period, we found different characteristics from the Bronze Age both in its landscape and ceramics. For the landscape (see Figure 9), and following the scheme proposed by Parcer (1995), the greatest difference found with relation to the Bronze Age is the disappearance of the separation (at least visual) between the domestic and non-domestic landscape. This is due to the application of a strategy whereby the symbolic space was completely hidden (both funerary and ritual), resulting in a complete lack of examples in the archaeological record. On the contrary, an apparent strategy of exhibiting the domestic landscape characterised by the monumentalisation of domestic space is used, represented by the concept of the hill-fort not merely as a focus of population, or even as a fortified area, but as a major achievement. Instead of merely being situated in the landscape, the hill-fort organises it and gives it a conscious and ostensible meaning, and converts the landscape into territory by imposing a cultural order upon it (see Parcer 1995 for a review).

With regard to Iron Age ceramics from this region, and focusing on the domestic context, we should point out that once the ideal technical-operative process is reconstructed, separate from the varieties and internal categories which we will not consider here, a series of regularities may be identified in their formal configuration (see Figure 10). The most significant characteristic is that unlike Bronze Age ceramics, the opposition between decorated and plain ceramics lies only in the presence or lack of decoration, as it does not imply a different treatment during the technical-operative process (see Figure 11). We may therefore say that in general they share: modelling (as all of the recipients are handmade using a potter’s wheel), and a duality is maintained in the object’s morphology between simple profiles, which may be open or closed, and complex profiles, which are always closed, although divided into flexed and edged shapes; finishing techniques (as they use burnishing, combing, spatula designs and burnishing); type of firing (with a predominance of the use of an oxidising atmosphere) and surface colouring (with dark colours, either dark brown or black).

With reference to decoration (see Figure 12), it is possible to isolate a series of common features throughout all of the Iron Age. For thematics issues, the constants refer to decorative elements which are always geometric, and to perfectly independent decorative motifs in the same item, without the existence of an element which acts as an axis of what is represented. It may be said that more emphasis is given to the individual motif than in the general theme. For morphological issues, various aspects may be differentiated:

- ‘verticality’ of orientation, as the combination between orientation, disposition, distribution and the decorative scheme is executed so that the decoration is always vertical, without needing to turn the object;
- divisor distribution which instead of uniting the profile of the object divides it, and makes its different parts independent from one another. This may be either by giving special attention to a single area on an otherwise undecorated piece, or individually detailing each section using different decorations;
location in a visible area, as even though examples exist of relative invisibility, for example in the case of decoration which appears in the upper part of the rim, no invisible decoration as such exists, as neither the interior nor the bottom part of the piece ever appear with decoration.

However, within this regularity it may be seen that these ceramics respond to a system of categorisation based on ternary series. These take shape in a series of complex relations and combinations of choices among a wide range of varieties in each step of the decorative technical process. Three groups may therefore be identified (see Figure 13): undecorated items and items with simple decoration, which share the same technical operative process; undecorated items and items with complex decoration sharing the same technical operative process, and a group of items with complex decoration which belong to a different technical operative process.

Accordingly, we may propose a hypothetical model which includes three differentiated groups. Firstly, ceramics with scarcely specialised shapes including undecorated and decorated pieces with only moderate differences (as they share their morphology and technological treatment, although there are exceptions), where the decoration is ambiguous due to being very simple, barely visible, either unemphasised or with very little emphasis, or zonal. Secondly, we have a more specialised group of ceramics which we may refer to as non-domestic, with a probably more limited and specific nature than the previous. It is characterised by having more decoration, which is more complex, clearly visible and defined, and even integral in some cases. Within this second group we may differentiate between pieces which have a common technical operative process with both decorated and undecorated ceramics, and pieces which are always decorated and belong to a specific technical operative process (ceramics with an ‘S’ shaped profile with mainly stamped decoration and a varied decorative pattern).

If, finally, we relate the ideal model of the landscape with the ideal model of the ceramics, a coherent formal regularity is observed between both, which could be understood as an inverted structural relationship (see Figure 14). In the landscape a strategy of exhibition of domestic space exists, by means of the territorialisation of the surroundings and the monumentalisation of the hill-fort. This is transformed into an authentic landmark which organises and gives meaning to the landscape, combined with a strategy of concealment of the ritual space. On the contrary, a strategy of inhibition or even concealment is used for domestic ceramics, and a strategy of exhibition for non-domestic ceramics, in which the elements of the occupied space are reproduced: its monumental and territorial character: ‘monumental character’ through the existence of a precise decorative style, with a clear intention of visibility (the greater expansion of decoration in the piece, outlining of decorative fields, the difference between types of finish and decorative styles, etc.), and ‘territorial character’ through the divided and differentiating nature of the decoration with regard to the piece as a whole. This is seen in the predominantly successive decorative scheme, in the distribution and composition of the motifs which is different in each of its parts, and in the perfect definition given to the majority of the decorative motifs using straight horizontal lines.

CONSEQUENCES

A difference in styles may be seen between these two periods, despite the existence of common cultural choices in both (see Figure 15). These differences are related to a conscious intent, and differentiated cultural standards in each of them. The changes from one period to another are evident in the two codes of material culture which were studied. For the landscape, a change occurred from a clear separation between the domestic and non-domestic environment in the Bronze Age, to a less apparent or even inexistent separation of these in the Iron Age. For ceramics, although a type of decoration exists in both periods which received a differential treatment (bell beaker pottery decoration in the Bronze Age and stamped decoration in the Iron Age), there is a change between the Bronze Age, with a clear definition between decorated and undecorated pieces, and the Iron Age, where the technological treatment given to decorated and undecorated ceramics is the same.

BIBLIOGRAPHY


Lemonnier, P.

Lévi-Strauss, C.

Méndez Fernández, F.
1994 La domesticación del paisaje durante la Edad del Bronce gallego. *Trabajos de Prehistoria* 51 nº 1: 77-94.

Parcero Oubiña, C.

Prieto Martínez, M.P.
1993 *Aproximación al análisis formal de la cerámica de la Edad del Bronce en Galicia*. Trabajo de Investigación, inédito. Santiago de Compostela:

Departamento de Historia I, Facultade de Xeografía e Historia, Universidade de Santiago de Compostela.


Santos Estévez, M.

---

**Fig. 1: Galicia in the Iberian peninsula**
Fig. 2: Theoretical-methodological basis to the material culture studies

Fig. 3: Technological sequence of operations
Operational sequences in NW Iberian Pottery

Fig. 4: Bronze Age contexts in Galicia

<table>
<thead>
<tr>
<th>Simple morphologies</th>
<th>Complex morphologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPEN SHAPE</td>
<td>CLOSED SHAPE</td>
</tr>
<tr>
<td>CLOSED SHAPE</td>
<td>CLOSED SHAPE</td>
</tr>
<tr>
<td>OPEN SHAPE</td>
<td></td>
</tr>
</tbody>
</table>

Undecorated pottery and non-bell beaker pottery

Decorated pottery
(bell beaker)

MORPHOLOGICAL OPPOSITION

Fig. 5: General ceramic morphology in the Galician Bronze Age
Fig. 6: Similarities and differences in the technological process in the Galician Bronze Age

Fig. 7: Decorative features in the Galician Bronze Age pottery
Operational sequences in NW Iberian Pottery

Fig. 8: Formal patterns of regularity between landscape and pottery in the Galician Bronze Age

Fig. 9: Galician Iron Age landscape
Fig. 10: General ceramic morphology in the Galician Iron Age

<table>
<thead>
<tr>
<th>UNDECORATED</th>
<th>DECORATED</th>
<th>STAMPED DECORATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAY</td>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>Gritting</td>
<td>Small</td>
<td>Small</td>
</tr>
<tr>
<td>Middle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modelling</td>
<td>Manual</td>
<td></td>
</tr>
<tr>
<td>Morphology</td>
<td>Simple open shape</td>
<td>Complex flexed shape</td>
</tr>
<tr>
<td></td>
<td>Simple closed shape</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complex flexed shape</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complex edged shape</td>
<td></td>
</tr>
<tr>
<td>Finish</td>
<td>Smoothed</td>
<td>Burnished</td>
</tr>
<tr>
<td></td>
<td>Brushed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Padded</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Burnished</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>Brown</td>
<td>Brown</td>
</tr>
<tr>
<td></td>
<td>Red</td>
<td>Black</td>
</tr>
<tr>
<td>Others</td>
<td>Handle</td>
<td>Lid</td>
</tr>
<tr>
<td></td>
<td>Lid</td>
<td></td>
</tr>
</tbody>
</table>

Fig. 11: Galician Iron Age pottery in a domestic context
Operational sequences in NW Iberian Pottery

<table>
<thead>
<tr>
<th>DECORATIVE PATTERN</th>
<th>UNDECORATED</th>
<th>DECORATED</th>
<th>STAMPED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple</td>
<td>Simple</td>
<td>Complex</td>
<td></td>
</tr>
<tr>
<td>Divided</td>
<td>Defined</td>
<td>Complex</td>
<td></td>
</tr>
<tr>
<td>Non-divided</td>
<td>Defined</td>
<td>Complex</td>
<td></td>
</tr>
<tr>
<td>Non-defined</td>
<td>Defined</td>
<td>Complex</td>
<td></td>
</tr>
<tr>
<td>Invisible</td>
<td>Visible</td>
<td>Complex</td>
<td></td>
</tr>
<tr>
<td>Open</td>
<td>Visible</td>
<td>Complex</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DECORATIVE MORPHOLOGY</th>
<th>DECORATIVE TECHNIQUES</th>
<th>CARRIED OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-divided</td>
<td>Grooving</td>
<td>Before applying finish</td>
</tr>
<tr>
<td>Non-defined</td>
<td>Burnishing</td>
<td>After applying finish</td>
</tr>
<tr>
<td>Invisible</td>
<td>Appliqué moulding</td>
<td></td>
</tr>
<tr>
<td>Open</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stamping</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Impression</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grooving</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appliqué moulding</td>
<td></td>
</tr>
</tbody>
</table>

OPPOSITION
in the decorative features

Fig. 12: Galician Iron Age decorative features in a domestic context

Fig. 13: Hypothetical model for pottery styles during the Galician Iron Age
Fig. 14: Iron Age formal patterns of regularity between landscape and pottery in Galicia

Fig. 15: Symbolic change between the Bronze Age and Iron Age in Galicia