ETHNO-NEGLECT OR THE CONTRADICTION BETWEEN ETHNOHISTORICAL SOURCES AND THE ARCHAEOLOGICAL RECORD: THE CASE OF STONE TOOLS FROM THE YAMANA (TIERRA DEL FUEGO, ARGENTINA)

XAVIER TERRADAS, ASSUMPció VILA, IGNACIO CLEMENTE
Consejo Superior de Investigaciones Científicas, Laboratory of Archaeology – IMF Egipcioques 15, E-08001 Barcelona, Spain

ESTELA MANSUR
Consejo Nacional de Investigaciones Científicas y Técnicas, Centro Austral de Investigaciones Científicas – CADIC, 9410 Ushuaia, Argentina

Abstract
The Yamana, hunter-gatherer communities of Tierra del Fuego, adapted to the exploitation of sea littoral resources, were observed and described by many travellers and ethnologists. The result is a large number of bibliographical sources referring to their way of life and idiosyncrasies. However, aspects relating to the mode of production and the use of stone tools were not considered worthy of evaluation and in some cases were not even mentioned in the publications. In the present paper we shall attempt to compare and contrast the scarce bibliographical references concerning the procurement of lithic raw materials and their transformation into consumer goods and production tools, with the lithic archaeological record of the Tunel VII site (100 ± 45 BP).

Zusammenfassung

Resumé
Les Yamana de la Tierra del Fuego sont des groupes de chasseurs et de cueilleurs qui sont adaptés à l'exploitation des ressources du littoral et de la mer. Ils ont été décrits par beaucoup de voyageurs et d'ethnographes de sorte qu'il en résulte un grand nombre de données bibliographiques sur leur mode de vie et leur idiosyncrasie. En revanche, des aspects tels que le mode de production et l'utilisation d'outils en pierre apparaissent à peine, voire dans certains cas ne sont même pas mentionnés dans les publications. Dans cet article, nous voulons tenter de comparer et de confronter les quelques références bibliographiques sur l'approvisionnement en matière première lithique et sa transformation en produits finis et en outils avec les artefacts de l'inventaire archéologique du site Tunel VII (100 ± 45 BP).

Most of the so-called ethnographic analogies that have been used to explain those aspects which are (presumably) inaccessible to archaeology, have frequently started from final products without considering the fact that the same result might have been produced by different causes. Moreover, in the best cases, ethnographic observations have been used to either explain or complete archaeological information about prehistory, in a completely ahistorical manner. All these problems are widely recognised, but obviated nonetheless, and they become much more complicated when only written sources are involved.
Ethnographic literature about those societies known as 'contemporary primitive peoples' is abundant from the second part of the last century, and it always refers to societies that do not exist any more, at least no longer conserving the way of life on which the ethnographic description was based. Anyhow, as these written sources seem to be the only existing testimony of this former way of life, they have been used as if they were direct sources.

In order to discuss this approach and emphasize the fact that no particular type of source can be used alone (but that different kinds of evidence should be combined and confronted), we present an example which seems to be suitable, although not habitual, where written sources are used. We try to explore the limitations and contradictions of comparison where the results of an archaeological investigation of specific sites is contrasted with descriptions of their former inhabitants in ethnohistorical texts.

Our example concerns one of the aboriginal sea-nomad groups from the present day Grande Island of Tierra del Fuego and adjacent islands (Fig. 1), who call themselves Yamana. The analysis will be focused on the production and use of their stone tools.

We are not proposing an analogy in the strict sense, but an evaluation of the potentiality of different sources of information, which should help in establishing the limits and possibilities of analogical reasoning. This evaluation is possible in this case exclusively due to the fact that we use both indirect sources (ethnohistoric and ethnographic texts) as well as direct sources (the archaeological record).

Written descriptions concerning the Fuegian peoples and particularly the sea-nomads are abundant, but not homogeneous. They belong to different periods and were written by men (exclusively) whose historical and personal circumstances were also different. In a first stage, it is thus important to analyze the opinions and ideas expressed in the texts in relation to the epoch when they were written. This is substantial, not simply for classificatory reasons but because it provides information about the general ideological background, the socio-philosophical condition and the social and intellectual filters, influencing the authors in their judgement of the Fuegian aboriginal populations.

It is obvious that the image of the Fuegian populations gradually changed along with modifications in social situation and ideas in Europe (Fig. 2). While in the 16th century the Yamana people were seen almost as half-animals, in the 20th century they came to be considered as representatives of the first inhabitants of America, who can give important information about prehistoric societies. In the time between, the 19th century, they became the objects of scientific-palaeontological interest. General as well as specific descriptions consequently have to be viewed in relation to these different cultural filters.

Concerning the authors, it is self-evident that they had neither the same objectives (explorers, navigators, settlers, missionaries and ethnographers) nor equivalent education, and that the duration of contact and even the intensity of the relationship with the respective society also differed (sporadic contact from the ships in some cases, in others from a couple of months stay to years of life within the group). It is also important to remember that the methods used to obtain information were different. The fact that they spoke different languages rendered communication difficult. This problem was only resolved when missionary Thomas Bridges (1879), who was able to speak the indigenous language, settled with his family at Ushuaia in 1871.
Consequently, it is impossible to speak about the ethnographic sources in general. We should treat them as specific cases, situations, authors. A first general evaluation brings to light contradictions and negligence that can be obviated when the 'filters' previously stated are taken into account. It is then possible to obtain a general idea about the Yamana society: canoers, nomadic, utilising marine resources (hunting-gathering-fishing), sexual/social division of work, absence of chiefdoms, etc. (Fig. 3) (T. Bridges 1884, 1886; L. Bridges 1947; Hyades & Deniker 1891; Lothrop 1928; Gusinde 1937; Bird 1938; Emperaire 1955).

The comparison with the society of the observer is at the origin of comments (and judgements) about the low technological and social development, poverty, scarcity of food, etc. Following the circumstances of the contact, the Yamana were either presented as cannibals, violent people near to animal condition, or as poor people pushed to the extreme southern end of the continent, condemned to disappear in a modern world with superior technological resources (Orquera & Piana 1988, in press).
To approach the real functioning of this society, it would be necessary to select those authors who give more detailed and standardized information, because of their longer stay among the *Yamana*, the mastery of their language and the objectives of the contact. This selection reduces availability to a low number of sources, most of them from the 19th and the 20th century. In the present example, we want to study the case of production and utilisation of lithic tools among the *Yamana* of the last epoch in order to compare it with archaeological evidence dating from the same period. We also have a wide series of consumer goods from this society, which are preserved in different European and American museums, which have been organised and analyzed from an archaeological point of view (Piana et al. 1992; Vila et al. 1995a).

Consequently, we will use those sources describing the *Yamana* of the last moment. We have selected three main sources, considering their detail, extension and characteristics of the authors:

- the writings of Austrian ethnologist and missionary M. Gusinde, who was intermittently in the *Yamana* region between the years 1918 and 1924. His research about 'The Indians of Tierra del Fuego' was first published in German (Gusinde 1937), then translated into Spanish and published in Argentina (Gusinde 1982, reprinted in 1986).
- the series of volumes published by the French Scientific Mission to Cape Horn concerning a one year stay in the Fuegian archipelago (1882-1883), and especially the VIIth volume about Anthropology and Ethnography written by Hyades and Deniker (1891).
- different reports written and sent by the Anglican missionary T. Bridges (1867-1883, 1884, 1886, 1892), who settled with his family at Ushuaia in 1871, to the Main House of his Order, the bibliography mentioned above and the book written by his son L. Bridges (1947), translated into Spanish in 1978.

Due to different objectives and interests, methods, length of stay and circumstances of contact with the *Yamana*, the information given in these writings is sometimes complementary, sometimes contradictory. If at first sight this fact appears positive to obtain an objective view of the *Yamana* society, our research demonstrated that this was not the case.

The archaeological record that was analyzed comes from Tunel VII, a site located on the northern coast of the Beagle Channel in the southern border of the Grande Island of Tierra del Fuego (54° 49' 15" south and 68° 09' 20" west) (Fig. 1). Tunel VII is a shell-midden site, containing a stratigraphic sequence with ten occupational horizons (Orquera 1995; Orquera & Piana 1995a; Vila et al. 1995a).

Using 14C, the two most recent stages of this sequence, whose findings we treat in this work, have been dated to 100 ± 45 BP (INGEIS, Argentina), corresponding to the period when Europeans were in contact with the *Yamana* society and the ethnographic sources we mentioned above were written (Piana & Orquera 1995).

The surface excavated at this site corresponds to an occupational unit, the equivalent of what has been ethnologically described as a hut. It was studied in the scope of a cooperative Argentinian-Spanish project titled *Archaeological contrast of the ethnographic image of the Yamana of Tierra del Fuego*.

**STONE TOOLS**

One of our principal aims in archaeology is to reconstruct social phenomena which occurred in the past. Consequently, we consider archaeology as a social science, the principal aim of which is the reconstruction of social phenomena starting with the material remains of human activity (Argelés et al. 1995).

In the case of the lithic record, we consider lithic remains as a series of elements resulting from the production and use of lithic tools. Consequently, we place lithic analysis within the characterisation of strategies implemented by a society for the management of mineral resources. We structure this study from the point of view of the reconstruction of different working processes implied in the production of these instruments (raw material procurement and its subsequent transformation into consumer goods) and their integration in other production processes (Clemente 1997; Mansur & Vila 1993; Terradas 1996, 1997; Terradas et al. 1991).

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1 Developed between 1988 and 1994 by researchers from both countries and financed by the Consejo Superior de Investigaciones Científicas (CSIC, Spain) and the Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET, Argentina) (Piana et al. 1992; Estévez & Vila 1995a).
Concerning the process of raw material procurement, ethnohistorical data are very scarce. There are only a few references on provenance of pyrites and cherts used for lighting fire. According to L. Bridges (1978: 58), pyrites were not easy to find in the region, and “they were only found at one place, the Mercury Sound, at Clarence Island, where the Yamana and Alacaluf met”. As for chert, it was also scarce in the region, and Gusinde affirms that the Yamana people were dependent on exchange for its procurement: it came from Cockburn Channel, in the northern coast of Brecknock Peninsula, and not from the Beagle Channel. “At various places of the extended Yamana territory there are pyrite grains, while chert fragments are more rare and constitute a precious object for exchange... It was very hard and its colour was between brown and black. To prevent losses, some men used to knap a notch in it, where the extreme of a tendon fibre was attached, the other being fixed to a basket or other bigger object” (Gusinde 1986: 379). It is possible that it came from somewhere closer, according to L. Bridges (1978: 107): “My father was trying to explore a valley which was popular among all the Yamana, because there were flint and agate that the Indians used to make arrow points or cutting instruments”. Concerning the production process of stone tools, arrow and dagger points seem to be the only instruments that received the attention of European visitors. Their use by the Yamana is mentioned principally in the earlier texts (Walbeek 1643; Cook 1777; Forster 1777, 1778; Weddell 1825; Fitz-Roy 1839; Ross 1847) with no reference to their manufacture. However, later texts practically do not mention these products at all. Martial (1888) admitted that bows and arrows were still used in the eastern portion of the Beagle Channel, but said that the Yamana obtained the arrow points from their Selk’Nam neighbours, because they did not know how to work “neither glass nor obsidian”. According to Gusinde (1986: 452), there was an exchange of finished arrow points, especially in the eastern region: “At present, it is not possible to know how many finished arrow points were received by the Yamana directly from the Selk’Nam, but it is known that it has happened. I have received confirmation of this not only from old men, but also by the fact that these obsidian points are found in shell-middens from the eastern part of Beagle Channel, while they are scarce in the central portion and completely absent from the west”. Gusinde (1986: 450-451) gives the only reference for the manufacturing technique of these products, when he comments: “Schist as well as quartz are found at various points of Cape Horn archipelago. Both classes of stone are used to make arrow points... Schist is easiest to work. An appropriate fragment is chosen and, scraping it on a fine grained sandstone, the desired triangular form is obtained, with sharp edges converging in a plane point. Then the spine is thoroughly worked until it has a perfect rectangular shape...”. It is important to keep this reference to manufacture in mind, because the same author comments some paragraphs before that he did not personally see this operation. The information was given to him by an old Yamana man who said that he had done it this way when he was young. To us, the generalised use of this technique does not seem credible for this region. First, because there are no other ethnohistoric records on this fact; second, because within the broad ethnographic collections conserved in different museums there are no projectile points made by this technique. On the other hand, there are some arrow points made of bone which could have been manufactured in this manner. Shortly after this statement, Gusinde (1986: 451) writes that the manufacturing technique for arrow points was the same as that used by the Selk’Nam: “He covers the palm of his left hand with a piece of soft leather and takes with it the flake between the thumb and the index; while working he keeps his left fist on the thigh. In his right hand he holds a blunt bone stick that he applies on the edge of the flake, pushing strongly at the same time as he makes a rotating movement; thus he separates minute scalar fragments, at a short distance one to another”. Very few texts talk about the use of stone tools. There is mention of the use of beach pebbles as bases for fire-places (Forster 1777; Wilkes 1848; Hyades & Deniker 1891; Lothrop 1928; Gusinde 1986); hammerstones or anvils (Lothrop 1928; Gusinde 1986); hammerstones for whale bone wedges (Gusinde 1986); and as stones to cool water, cook birds (Hyades & Deniker 1891); or to grill grease on them without burning (Gusinde 1986); fiat stones and fragments of pumice stone were used in the manufacturing of shell and bone instruments (Lothrop 1928; Gusinde 1986); long pebbles were used as hafts for shell-knives (Martial 1888; Hyades & Deniker 1891; Lothrop 1928; Gusinde 1986), (Fig. 4); and little or un-worked stones as weights for fishing (Spears 1895; Hyades & Deniker 1891; Gusinde 1986).

The terms used for the different rocks and minerals by these authors cannot be considered to be the result of an exact or precise classification, because its significance and their discriminant criteria have changed as compared with those that are presently used.

According to L. Bridges’ geographical description, it is possible that this valley corresponds to the present Andora’s Valley (E.L. Piana personal communication), where some outcrops of pyroclastic rocks from the Lemaire Formation are present (Terradas 1996).

From the ethnohistorical and archaeological data, we know that these bone tools were made from longitudinal sections of Guanaco (Lama guanicoe) metapodiums rounded by polish action.
For cutting, scraping and axing (activities which are normally related to stone tools) most of the chronicles refer to shell knives as multi-functional tools (Martial 1888; Hyades & Deniker 1891; Spears 1895; Lothrop 1928; Gusinde 1986; Fig. 4). Moreover, Lothrop (1928) points out that shell knives were so important and appreciated that every adult had one of his own.

Many references, for instance, are made to hide or bark scraping, but they do no specify which tools were used in this activity. It is possible, nevertheless, to find isolated statements. For example, Gusinde (1986: 475) mentioned the working of bark, leather and bone: "If work is not intended to be very exact, people take the nearest mytilus shell or a bladelet of schist which is sharpened on a rough stone; with them it is possible to make deeper incisions than with the mussel shell". Furthermore, he writes that "the fuegian aborigines did not have generalised – and not even preponderant – use of stone tools. Work on stone only seems necessary for arrow and dagger points" (Gusinde 1986: 474).

Concerning the agents of the production/use and the property/possession of instruments, two basic questions when we are dealing with the economy of any society, we only dispose of this kind of sources and they are not very useful either. Most of the authors agree on the distribution of activities by sex (social-sexual or by gender), and even in the tools used in each activity. But there are almost no references to the actual persons who manufactured and used these instruments. Gusinde, for example, states that men used hammerstones to work on cetacean bone wedges (Gusinde 1986: 426, 454, 479), and that women utilised the notched weights for fishing (Gusinde 1986: 474; Bridges 1978: 95).

Can we deduce, in absence of contrary evidence, that each person manufactured his or her own instrument or instruments required for a specific task? This distinction is very important, because it is not the same if a person takes part in all processes required to produce a good (for example, manufactures the tools which are necessary to obtain reeds, processes and tresses them, gathers mussels and transports them in the basket, even when her appetite is already satisfied), and if a person depends on other people for the whole or a part of the process (can soften the hide, but depends on another who has to make the scraper; can cook but needs someone to bring something to cook; can collect but depends on someone who has to make the baskets...). Then, concerning property relations, we conclude that Gusinde only talks about the individual possession of instruments and not to private property in the strict sense.

Which conclusions would we arrive at if we only considered ethnohistorical sources? We could affirm that the Yamana had difficult access to lithic raw materials, and that most of the procurement was done by indirect means, e.g. by exchange (of finished products) with other groups like the Selk'Nam.

Concerning the types of rocks used as raw materials, we might infer that they preferred quartz, obsidian and glass for arrow points, and schist fragments for cutting activities (but only in exceptional cases).
Concerning manufacturing processes, we could only mention the manufacture of specific artefacts (arrows, daggers, etc.), but stating that there were polished schist points and that flaked arrow points were obtained by exchange from the Selk'Nam, because the Yamana did not know percussion and pressure techniques.

Then, considering that they used shell knives for most of the activities (related to any working processes) and that they did not know stone knapping and retouching techniques, Yamana archaeological sites should only contain few isolated lithic pieces, always finished products, and almost no residues of lithic production processes.

Stone tools according to the archaeological record

The collections of Tunel VII analyzed in this work consist of 2268 elements, corresponding to the last occupation episode (783 elements, totalling 1816g) and the one immediately preceding it (1485 elements, 4092g). The results obtained are presented together, considering that there are no important qualitative differences between both occupations. As these results have already been presented in publications concerning Tunel VII (Clemente 1997; Clemente & Terradas 1993; Clemente et al. 1996; Mansur & Vila 1993; Terradas 1996, 1997; Vila et al. 1995b), we will only present a brief summary here.

Production of stone tools

Most of the raw materials used in the production of instruments correspond to acid pyroclastic rocks of acidic composition -of ignimbrite/toba origin-, like rhyolite (85%), fine-grained tuff (9%) and ignimbrite (4%). These rocks were recovered near the site, in the numerous outcrops of fluvioglacial origin stretching along the Beagle Channel coast.

The characteristics of this procurement demonstrate that there was extensive and exclusive exploitation of mineral resources situated near the site: relatively abundant, always in secondary position (which renders extraction easier) and in a strictly littoral situation.

The lithological nature and morphometric characteristics of blocks that can be found in these raw material procurement zones are varied. This is due to the existence of numerous internal fracture planes produced by tectonic phenomena - related to Andean folding - which facilitate the breaking of the blocks into roughly tabular shapes, to different provenance of clasts and different mechanisms and conditions of transport.

Two lithic reduction methods were deduced from the archaeological material, differing in procedure, technique, the original morphology of the blocks selected, as well as in the aim of their execution:

- Knapping of blocks to produce flakes: exhibits a minimal shaping of the initial block, no or minimal preparation of percussion platforms, which normally correspond to necocirical surfaces or to internal fissure planes of the rock. Each nucleus shows many percussion planes which alternate as new fissure planes appear, thus rendering difficult the exploitation of the plane in use. The number of flakes obtained from each core by this procedure is very low and their morphology is very heterogeneous. The knapping technique employed is exclusively direct percussion with hammerstones. A small part of these flakes (less than 2%) has been transformed by retouch into side and end scrapers.

- Bifacial reduction: progressive bifacial reduction of tabular supports or of regular flakes, by constantly alternating percussion planes and knapping surfaces. In the first steps, the reduction technique is direct percussion with a hard hammerstone; the final form is obtained by pressure technique, using pressure-flaking tools made from longitudinal fragments of guanaco (Lama guanicoe) metapodium. Two different products are made by this technique: bifacial points, with stem and ailerons, classified by their dimensions into two types (smaller than 3cm and larger than 3cm) (Fig. 5), and bifacial side scrapers. However, we have found no direct relationship between these two methods and the type of raw material used to produce lithic instruments.

*see footnote page 107.*
INTEGRATION OF STONE TOOLS IN OTHER PRODUCTIVE ACTIVITIES

Use-wear analysis carried out on the whole assemblage of lithic remains revealed a very few number of elements bearing traces of use (approximately 4%). Pieces that could not be analyzed due to post-depositional alterations were also few.

Used stone tools have been employed to work materials of different hardness and nature. Most of them were used to work materials with medium hardness: especially wood/bark, but also dry hide; others were used on soft
materials (fresh hide, fish, meat, grease, tendons, etc.), and some on hard materials (bone and mineral resources). There were also some instruments that were classified as used on an undetermined medium/hard material (which could be vegetal – hard wood – or animal – fresh/wet bone).

Approximately 50% of the lithic instruments of the two last occupations of Tunel VII were used for the transformation of materials obtained from the exploitation of animal resources. 62% of these artifacts were used to cut meat, hide, fish or other undetermined soft materials, 30% were used in the manufacturing or reparation of bone goods, and 8% were used in activities related to hide processing (fresh and dry, with or without abrasives).

Although most of the used instruments are retouched tools (35-40% of the total amount of used artifacts) and normally more than one edge of each tool had been used, there is no evident association between the type of raw material, tool morphology, movement and the type of material worked. However there are certain tendencies:

- bifacial products were not used, they correspond to pieces rejected during the manufacturing process,
- unretouched flakes were usually employed in longitudinal actions on soft material, while retouched tools are used in transversal actions,
- tools manufactured of fine-grained tuff were used proportionally more often than the others. 29% of the instruments are made of fine-grained tuff, while this variety only represents 9% of the raw material transported to the site. Consequently, there was a preferential selection for this rock in the site.

What can we conclude if we only consider the lithic archaeological record?

Lithic elements in the last two occupations of Tunel VII site are abundant, including used tools (both retouched and unretouched) as well as manufacturing flakes and fragments. From their analysis we can conclude that all the activities related to the manufacture of lithic instruments were executed at this locality, with the partial exemption of the core preparation phase.

Some aspects, such as easy access to raw material (embedded procurement) and the methods of tool manufacturing, the absence of a direct relationship between instrument, raw material, morphology and use, a low percentage of utilisation – and re-utilisation –, demonstrate the existence of a diversity of strategies in the mineral resource management. These facts confirm scarce use and durability of lithic artifacts, and at the same time demonstrate that technical solutions were implemented in order to make the lithological and morphological conditions of these raw materials profitable, as well as the efficiency of the tools produced from them.

The explanation of this type of technology could be found in the existence of curated tools, more durable, elaborated with other materials, like metal (indirect evidence of use of metal knives has been found, Piana & Estévez 1995), glass (only one piece has been identified in the analyzed archaeological materials) or shell (this is the case of shell knives mentioned above, Fig. 4).

**DISCUSSION: THE CONTRADICTIONS BETWEEN WRITTEN AND ARCHAEOLOGICAL SOURCES**

The example we have presented concerning the production and use of lithic tools among the *Yamana* of Tierra del Fuego has confirmed one of the principal biases of written sources about ethnographic societies: the general lack of information concerning working processes involving lithic production. The almost complete lack of knowledge about stone tool production and use by non-archaeologist European observers led them to neglect most details of these processes.

As we can see, a comparison of results obtained from these two types of sources reveals several contradictions:

- certain aspects of lithic production and use processes revealed by archaeological research are not even mentioned in the written register concerning the *Yamana* of the last epoch,
- when mentioned, there are important contradictions between ethnographic and archaeological records.

Let us mention some examples:

- concerning the raw materials used in the production of stone tools, petrographic analysis of the archaeological material (rhyolite, fine-grained tuff and ignimbrite) is in contradiction with written texts (obsidian, quartz, chert). Only Gusinde’s observation on the use of schist for cutting actions is corroborated by the lithic spectrum.

\[\text{footnote}{\text{see footnote page 107.}}\]
from Tunel VII. Moreover, raw materials are abundant all around the site (thus mainly of local origin), while
texts mention procurement of lithic materials from distant sources, by exchange with other groups.

- Concerning arrow and dagger points, it is evident that the Yamana of Tunel VII were not dependent on exchange
  with the Selk'Nam to obtain them. It is known that these two groups had unfriendly relations and that Yamana
  people feared their northern neighbours. Moreover, during excavations in Tunel VII lots of lithic remains were
discovered corresponding to all stages of point manufacture with a bifacial reduction technique. This observation
and the great availability of raw material blocks confirms that Yamana mastered the technical aspects of
lithic reduction necessary to produce the instruments they needed.

- On the other hand, the relatively small number of lithic instruments found at Tunel VII can be understood if we
  consider the generalised utilisation of shell knives, both for cutting and scraping actions, the possible use of
  metal knives, and the fact, that production of bifacial artifacts created a large amount of residue that is not used
  in any other activity. As for shell knives, their almost complete absence in the archaeological record might be
  explained by their bad conservation possibilities. Metal knives are also mentioned, and traces of their use have
  been recovered from the site (Piana & Estévez 1995). In this case, their absence could be explained if we
  consider them as parts of a curated technology, which is rarely found in archaeological contexts of nomadic
  hunter-gatherers with a frequent change of residence.

CONCLUSION

What is then the role of ethnographic analogy? As we have tried to show with this example, analogies derived from
written ethnographic information are not valid, not even for the same groups described in the sources. Like all
indirect sources, they are too conditioned by the historical and personal circumstances of the writer. Contrarily,
archaeological research works on direct sources, representing the material remains of social activities.

As previously stated, in the example presented we are not proposing an analogy in the strict sense, but an
evaluation of the potential of different sources of information, which should help to establish the limits and
possibilities of analogical reasoning. Here we have limited our discussion to the production and use of stone tools,
but this kind of partial analogy is frequently extended mechanically to the whole society under study, especially
when the studied group is a prehistoric society. Thus, the possibilities of error are multiplied.

If it is possible, when dealing with lithic instruments, to arrive by means of an archaeological methodology (in a
broad sense) to results concerning production and use, we do not understand why we do not join efforts, in order to
eliminate the old assumption that it is impossible to arrive at aspects of social organisation by means of archaeologi-
cal research alone. Instead of discussing the validity, the limitations or the pertinence of the use of ethnographic
analogies, it is time to surpass apriorisms derived from the limited definitions of Archaeology made at the
beginnings of this century. We cannot continue to give explanations that are necessarily generalised, never
contrastable and always discussible – doubtful – in the light of the description of other ‘primitive groups’.
Continuing in that way, we will never be able to understand their own historical processes, and much less explain
them.

A possible solution will not come, in our opinion, from accumulating more ethnographic data or re-interpreting
the existing data, but from the proposition by archaeology of new conceptual instruments and of an appropriate
methodology. This refers to a methodology that lets us revise and evaluate, in the light of new questions, our
archaeological research methods in order to apply them to new objectives, and approach those aspects of social life
that archaeology is still missing.

This general interest led us to start, some years ago, a research project in this way, where we introduced a special
conception of ethnoarchaeology (Vila & Piana 1993; Estévez & Vila 1995b), in which ethnographic and archaeo-
logical data are compared and contrasted and the results used to develop a methodological approach to the socio-
economical study of prehistoric European hunter-gatherer societies, and here we return to the beginning of this
article.

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