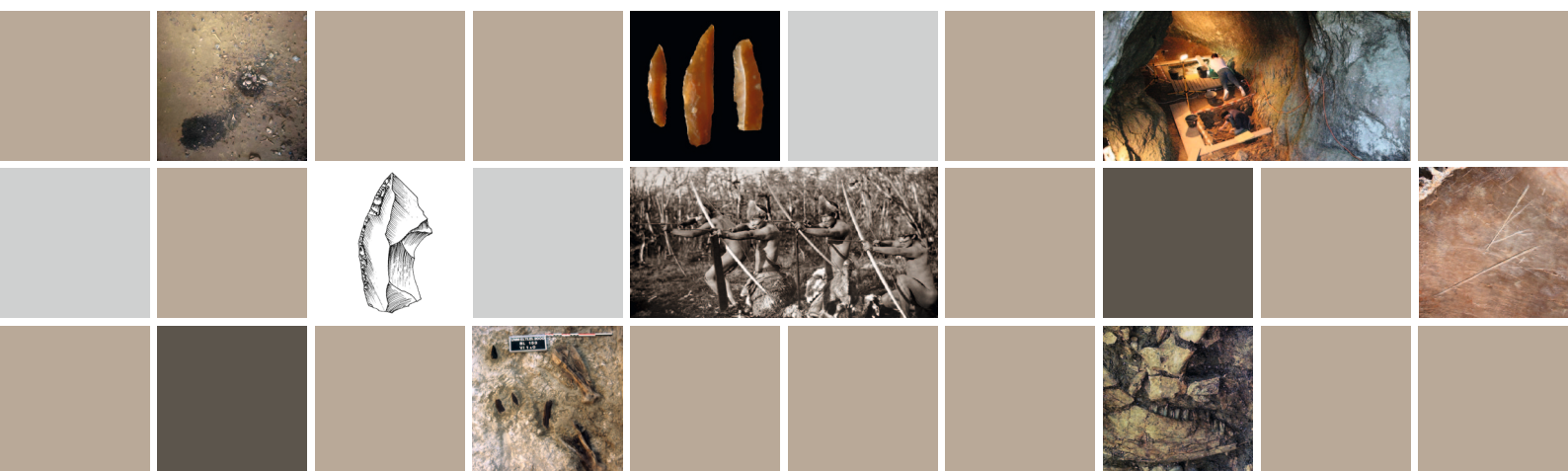


## HUNTING CAMPS IN PREHISTORY

**François BON**  
**Sandrine COSTAMAGNO**  
**Nicolas VALDEYRON**

## Current Archaeological Approaches



Review published by the P@lethnologie association, created and supported by the TRACES laboratory, the Ethnologie Préhistorique laboratory, the University of Liège and the Ministry of Culture and Communication.

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## Editorial office

Karim GERNIGON

Céline THIÉBAUT

## Translation

Karim GERNIGON

Hazel KING

Magen O'FARRELL

## Layout, graphics

Fabien TESSIER

*The contributions should be addressed to:*

REVUE P@LETHNOLOGIE

Vanessa LEA, Research associates

TRACES - UMR 5608 of the CNRS

Maison de la recherche

5 allées Antonio Machado

31058 Toulouse cedex 9, FRANCE

Phone: +33 (0)5 61 50 36 98

Fax: +33 (0)5 61 50 49 59

Email: [vanessa.lea@univ-tlse2.fr](mailto:vanessa.lea@univ-tlse2.fr)

**This event and its proceedings received support from**



## Article outline

# GUANACO HUNTING AMONG THE SELK'NAM OF TIERRA DEL FUEGO:

## Poor Traceability of Temporary Halt and Versatility of the Kill Site

**Dominique LEGOUPIL**

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## To cite this article

Legoupil D., 2011 - Guanaco Hunting among the Selk'nam of Tierra del Fuego: Poor Traceability of Temporary Halt and Versatility of the Kill Site, in Bon F., Costamagno S., Valdeyron N. (eds.), *Hunting Camps in Prehistory. Current Archaeological Approaches*, Proceedings of the International Symposium, May 13-15 2009, University Toulouse II - Le Mirail, *P@lethnology*, 3, 21-40.

## GUANACO HUNTING AMONG THE SELK'NAM OF TIERRA DEL FUEGO:

### Poor Traceability of Temporary Halt and Versatility of the Kill Site

Dominique LEGOUPIL

#### Abstract

*At the extremity of the south-American continent, Tierra del Fuego was occupied during the whole of the Holocene by hunter-gatherers whose survival was based on the exploitation of a camelid that was never domesticated: the guanaco. The way of life of these foragers is known through travellers and ethnologists who observed them towards the end of the 19<sup>th</sup> century and during the first decades of the 20<sup>th</sup> century, shortly before their extinction. Guanaco hunting was the main and practically daily activity of this population, and it is frequently mentioned in these writings. Several tactics seem to have been used. But whether the hunt was individual or collective, the main concern of the hunter was generally to return each evening to the hut; in this way halts were reduced to a strict minimum. Only the halt at the end of the hunt seems to have had a real significance, but it could take on a number of profiles – kill site, butchery site (of several types), bivouac, etc. – when it did not transform into a new residential camp. In addition, the absence of means of storage made mass killing unnecessary, and these sites are therefore more difficult to identify than those of the collector groups.*

#### Keywords

*Tierra del Fuego, Selk'nam, foragers, guanaco hunt, ethnology, archaeology.*

## 1 - Introduction

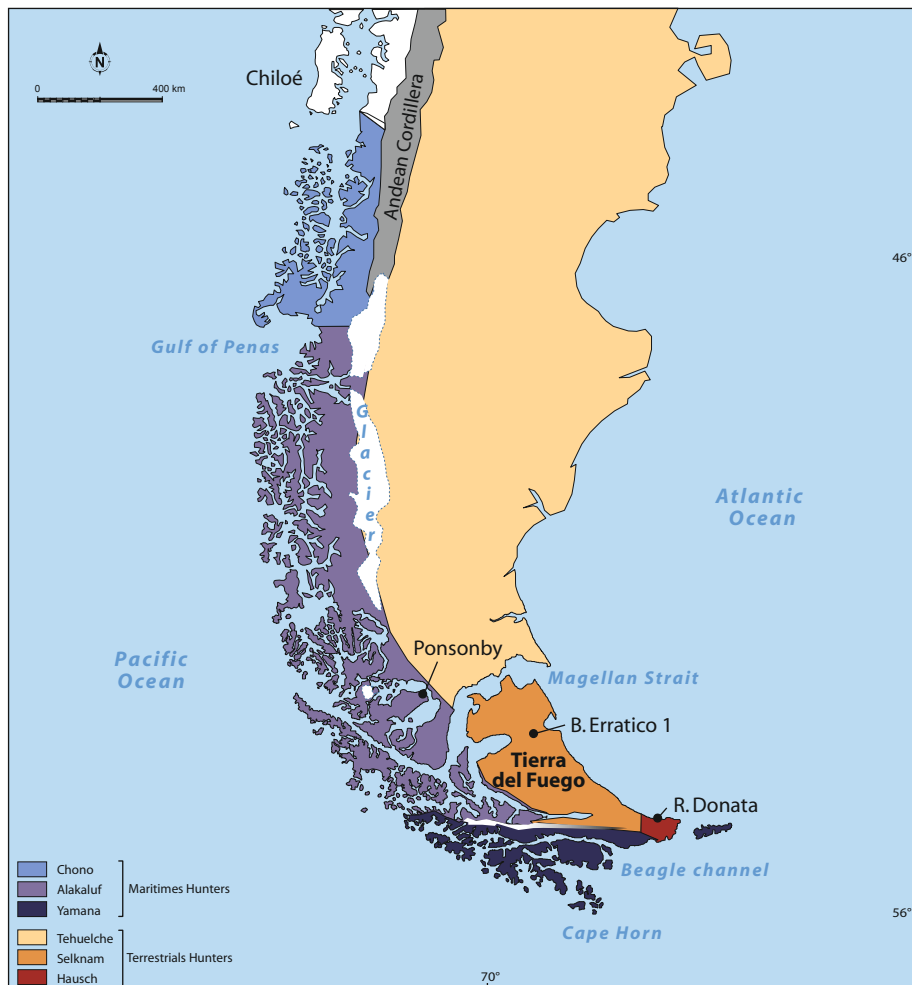
Along with Arctic peoples, the Indians of Patagonia and Tierra del Fuego (figure 1) are among the rare nomadic hunter-gatherers from cold countries whose way of life persisted almost intact until the arrival of Europeans. Two groups that were physically, linguistically and culturally very different from each other shared the space on either side of the Andean Cordillera: in the west, sea nomads in the labyrinth of islands and channels along the Pacific facade ending in Cape Horn; in the east, terrestrial hunters on the great Atlantic steppes (figure 2). Among the latter, the Selk'nam (or Ona) constitute a special case. Settling in Tierra del Fuego (then linked to the continent) at the end of the Pleistocene, as indicated by the site of Tres Arroyos (Massone, 2004), they rapidly found themselves isolated by the opening of the Straits of Magellan around 9000 years ago (Clapperton, 1992). The island, nine times the size of Corsica, supported a population of camelids, and until the end of the 19<sup>th</sup> century the Selk'nam were able to preserve a way of life based on the hunting of guanaco (*Lama glama guanicoe*). Over a forty-year period (1880-1920), the replacement of the guanaco by the breeding of sheep led to the near eradication of terrestrial hunters in Tierra del Fuego (figure 3), with the population at the end of the 19<sup>th</sup> century estimated at around 3600 (Lothrop, 1928).



**Figure 1** - Poster for *Tierra del Fuego*, a film project, lithograph, Agostini around 1928 (Legoupil archives).



**Figure 2** - Map of the distribution of the groups of terrestrial and maritime hunters of Patagonia and Tierra del Fuego.





**Figure 3** - Scene of Indian hunting by gold prospectors, near bahia San Sebastian, Tierra del Fuego (photograph: Popper, 1886, in Alvarado *et al.*, 2007).

## 2 - The documentary sources

Our knowledge of this population is relatively recent. Long protected from contact with navigators by the inhospitable nature of the coast, they were observed from the late 19<sup>th</sup> century and during the first three decades of the 20<sup>th</sup> century by Reverend Bridges, founder of the Ushuaia evangelical mission (Bridges, 1998) and numerous travellers and ethnologists, including F. Gallardo (1910), A. Cojazzi (1997) and S. Lothrop (1928). But it is to M. Gusinde (1982) that we owe the most complete ethnological summary relating to this group. His irreplaceable work is nonetheless flawed, both because the observed population was already significantly acculturated during the study (1920-1924) and due to the ideological bias of this Salesian priest of the German *Kulturkreise* school who was more interested in native beliefs than in their technologies. The last scraps of information date from the 1960s: they result from work with a handful of the final Selk'nam survivors (Chapman, 1982).

Ethnologists and travellers have often attempted to describe the socio-economic organisation of these hunter-gatherers, particularly in terms of their principal resource, guanaco hunting. The information provided is very uneven and often results from indirect sources (stories) or observation of the most accessible operations, but Europeans almost never participated in long hunting expeditions.

Over the last thirty years, the development of archaeological research has enabled a comparison of the archaeological and ethnographic data, offering a more critical view of the latter (Borrero, 1991). But while archaeological evidence is beginning to increase, it is still poorly documented.





The guanaco (figure 5) was therefore the basic resource. It was hunted for its meat and marrow (figure 6), as well as for its fur, which was used for clothing and hut covers (figure 7) and for its tendons, which were used for bowstrings. Contrary to other camelids (llamas and alpacas of the Andean high plateaus), guanaco have never been domesticated, except by Kwanip, a character from Selk'nam mythology mentioned by Gusinde. Spending the warm months in small herds of twenty females and young led by a male, the guanaco is a shy animal that can be very aggressive and that moves very rapidly (65 km/h). It is thus very difficult to hunt. The weapon used was the bow and arrow, which dates from the first centuries A.D., a period in which small stemmed and winged points began to appear (Prieto, 1994). For earlier periods, we can envisage the use of lances armed with large points in bone or stone, and *bolas* (stone balls) discovered on ancient sites and employed as a composite weapon of three linked balls, the *boleadora*, until the modern period. Finally, trapping may also have been used, as indicated by the remains of guanaco discovered in peat bogs on the mainland at Ponsonby (Lefèvre *et al.*, 2003) or Myren 2 in Tierra del Fuego (Prieto *et al.*, 2007).

According to ethnographic information, hunting was most often carried out individually, or more rarely in a collective manner. The daily business of the head of the family, hunting could take place at any time depending on needs and opportunities, including during the moving of the camp. According to M. Gusinde, this incessant search for game was the origin of the very rapid nomadic rhythm of the Selk'nam. In fact, with a few exceptions (large-scale ceremonial meetings, the stranding of a whale on the coast, etc.), Selk'nam camps lasted only a few days, and moving the camp was planned on a day-to-day basis, according to a decision made jointly between the two spouses.



**Figure 5** - Herd of guanaco in the volcano zone, Patagonia  
(photograph: D. Legoupil).



**Figure 6** - The guanaco hunt and its customs (Liebig-Oxo, 1929, advertising chromolithograph).



**Figure 7** - Selk'nam group in the hut (photograph: A. Agostini, 1910-1920, in Alvarado *et al.*, 2007).

This high residential mobility is explained both by the dispersion of the resources and by the absence of storage, if we exclude the very occasional burial of surplus whale meat in peat bogs. This is the major difference between this population and the hunter-gatherers of the Arctic or of the sub-Arctic boreal forests. Even if, according to Gallardo and Gusinde, Selk'nam nomadism corresponded to a perfect knowledge of the seasonal rhythm of the guanaco – more dispersed in the mountains in summer, grouped in the valley bottoms or near the coast in winter – no large scale kill was carried out in order to constitute reserves, due to a lack of means of preservation. Consequently, it was considered unacceptable, according to Gusinde, to kill more game than one was capable of consuming. The hypothesis of a semi-sedentary period among the Selk'nam comparable to that which marks the seasonal rhythm of the Eskimo (Mauss, 1904-1905), does not therefore stand up to critical study of the ethnographic information, nor of the ecological data (the summer being as favourable to guanaco hunting in the mountains as to the exploitation of coastal resources in terms of the reproductive colonies of birds or pinnipeds), nor of the topographical data (not all of the territories offer the mountain / coast alternatives), nor finally of the archaeological evidence which shows that coastal fishing was carried out in all seasons (Borrero, 1991).

In fact, the guanaco hunt was a hunt for food that could take place anywhere and at any time, even if seasonal trends may have justified certain choices.

#### 4 - Short and dynamic hunting expeditions, and non-existent or very ephemeral camps...

In such a context, where practically any camp was a camp involving hunting, the concept of the hunting camp *per se* cannot be of use unless it is given a very restricted definition: a temporary halt during a hunting operation, between the departure and return of the hunter to the family camp.

Other than his weapons, the equipment carried by the hunter provides some indications as to his activities during the hunt: *“The man's bag contains all he may require at short notice: two flints, dried mushrooms, feathers for the arrows, glass and a special stone for the arrowheads, a small bone to work the glass of the arrow, a stone to sharpen this bone so it remains usable, a small piece of fox leather on which stone powder is put to polish the arrows, sinews for the bows, arrows etc., grease for painting himself, sea lion or bird oil kept in a sea lion bladder, the knife and a small piece of stone to sharpen it. This bag and its contents weighs about 1.2 kg”*<sup>1</sup> (Gallardo, 1910: 264). Lucas Bridges (1983), the son of Reverend Bridges, added to this inventory a leather cord to tie bundles with. The hunter thus took with him on his expeditions the necessary articles to heat himself, which is essential in a region where the average temperature is less than 10°C, both in summer and winter; to feed himself, in particular with melted fat<sup>2</sup>; to repair his weapons (figure 8), and to cut up and transport the game.

1. *La bolsita del hombre contiene todo lo que pueda necesitar con urgencia: dos piedras de chispa, hongo seco, plumas para las flechas, puntas de flecha, nervios de guanaco, pinturas, brea procedente de los naufragios para poner en las flechas, vidrio y piedra especial para puntas de flechas, un huesito para trabajar el vidrio de la flecha, una piedra para quebrar la punta de aquel hueso á fin de que siga sirviendo, un pedacito de cuero de zorro sobre el cual ponen el polvo de piedra para alisar las flechas, nervios para los arcos, flechas, etc., grasa para pintarse, aceite de lobo ó de pajaros que guardan en una vejiga de lobo, el cuchillo y un pedacito de piedra para afilarlo. Esta bolsa con su contenido pesa alrededor de 1 kilo y 200 gr.*
2. Ethnologists sometimes talk of the consumption of «fat», perhaps by analogy with the melted fat of marine mammals, which was carefully preserved by the maritime hunters of the region. In the case of terrestrial hunters, this may in fact have been marrow.





**Figure 8** - Selk'nam hunter knapping stone  
(photograph: Ch. W. Furlong, 1908, in Alvarado *et al.*, 2007).

However, halts seem to have been very limited, with the hunt taking place in a restricted territory and the man being intent on returning each evening to the family hut. The estimation of the distances travelled varies according to the number of territories recognised in Tierra del Fuego. According to A. Prieto (1994), if we use the estimation of A. Chapman, a *haruwen* measured on average  $21 \times 21$  km. If we rely on the number quoted by M. Gusinde, we arrive at  $30 \times 30$  km (figure 4). A hunter was therefore generally less than thirty kilometres from his camp, the maximum distance he could cover in one day according to R. Kelly (1995). It was therefore theoretically possible for him to return to the hut in the evening, unless the hunt finished at the other end of the territory, if a detour was imposed by the nature of the terrain, or if he ventured into another *haruwen*, which was permissible during a period of famine, with the agreement of the clan concerned.

Resting phases were therefore very short, if not non-existent, and the Selk'nam had great resistance to both fatigue and hunger. They were capable of fasting for a whole day, without any provisions being provided for the trip other than a little fat. On returning to the hut after a long expedition, the hunter was expected to wait for a further period (around half an hour according to S. Lothrop), as an indication of his personal dignity, before eating. This frugality also formed part of the ordeals undergone by the young during the rites of initiation, according to M. Gusinde.

Repair of weapons was apparently very limited during a trip since, according to F. Gallardo, the hunter ensured that he took with him a good store of arrows (up to 50 or 60) in a quiver. Only a number of missed shots could therefore constrain him to repair or manufacture new projectiles. As for the bow, which was made by specialists according to S. Lothrop, only the bowstring could have been repaired during a hunt.

If we examine in detail the different processes of the hunt, we can see to what extent the static phases must have been minimal until the killing of the game, which represented the ultimate halt and the only one that was obligatory.



## 4.1 - Stalking

Stalking (figure 9) was the most common hunting method according to M. Gusinde, and the most valued according to A. Cojazzi, and involved the hunter setting off at random, helped only by his knowledge of the territory and the habits of the guanaco, or a lucky indication. The search phase was very unpredictable and could involve a long period of walking. During the stalking phase, the hunter's body was painted white and his head was covered with a headband of guanaco fur that was intended to reassure the game (figure 10). He dropped his cape at the moment of shooting and took several arrows between his teeth in order to be able to rapidly reload his bow in the case of failure, or in the hope of killing several animals. The shot had to be carried out from very close range (20 to 30 m according to M. Gusinde), and had to hit a vital organ to avoid the game escaping. If this occurred, the hunter was forced to undertake a long pursuit in which his dog participated actively<sup>3</sup>, and that might lead him far from the camp and oblige him to bivouac.

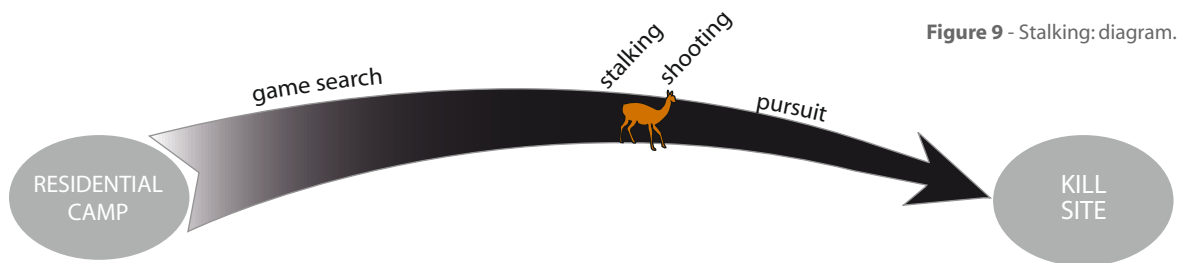


Figure 10 - Hunters wearing the *kocel* (fur headband), probably staged (photograph: M. Gusinde, 1920-1923, in Alvarado *et al.*, 2007).

3. The existence of a native dog remains a problem, both for the terrestrial and maritime hunters of Patagonia and Tierra del Fuego. In both cases, the dog played a major role in the historic period, but it may also have been adopted very early from the first Spanish invaders.

## 4.2 - Hide hunting

The second hunting method, practised both individually and collectively, was stand hunting (figure 11), which was common in wooded mountainous areas. The hunter or hunters positioned themselves on the paths used by the game and identified by footprints or excrement. They waited to intercept the guanaco, which were sometimes flushed towards them by the dogs. These positions constituted temporary halts of a specific type, but it is unlikely that they have left any visible remains. For obvious reasons, it was impossible to light a fire, and the only evidence of these positions would have been hide structures, as were used in the hunting of birds among the maritime populations of the region. Such constructions are mentioned by some travellers in reference to guanaco hunting; however, Gusinde categorically denies their existence: “*They do not construct special parapets; nor do they dig holes in the ground, because none can predict what will be the direction taken by the animal in flight*”<sup>4</sup> (Gusinde, 1982: 253).

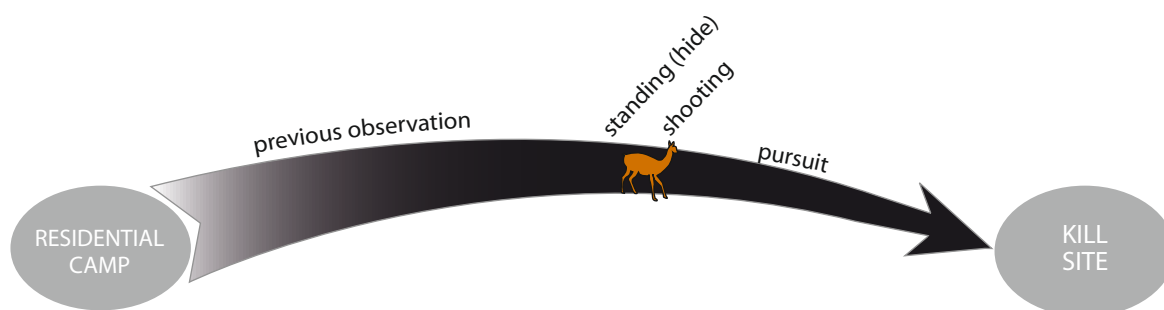


Figure 11 - Stand hunting: diagram.

## 4.3 - Collective hunting by encirclement

Sometimes collective hunts were organised: “*Frequently between three and eight men organise a communal hunt, either during a periodic meeting, or because they have specifically come to an agreement. Even though the guanaco are in constant and slow movement, they can remain in a group for several days on a spacious plain*”<sup>5</sup> (Gusinde, 1982: 253). Hunting tactics were basic (figure 12): “*Several of them come together to attempt to surround a troop of guanaco. At a given signal, the hunters abandon their furs and, entirely naked, all fall at the same time on their prey*” (Lecointre, 1904: 121). In other cases, the best hunters were positioned at strategic points while the dogs or less experienced hunters acted as beaters (figure 13).

The duration of collective hunts is rarely stated. The search phase was no doubt curtailed by the advance identification of the animals. However, the only long expedition (5 days) reported by L. Bridges (1998), the son of Reverend Bridges, is a collective hunt dating from 1778. The tactic employed was not described. We know only that 14 hunters set off for the mountains, thirty kilometres from Ushuaia, and returned with five guanaco, which was a very poor result compared to the sufferings endured, among which L. Bridges emphasised the hardness of nocturnal

4. No construyen parapetos especiales; tampoco cavan agujeros en la tierra, pues no puede predecirse cual será la dirección que ha de tomar un animal perseguido.

5. Con frecuencia de tres a ocho hombres organizan una caza en común, ya sea porque se han encontrado casualmente o porque se ponen expresamente de acuerdo. Por más que los guanacos estén constantemente en lento movimiento, es posible que permanezcan en rebaños durante unos pocos días en alguna llanura espaciosa.



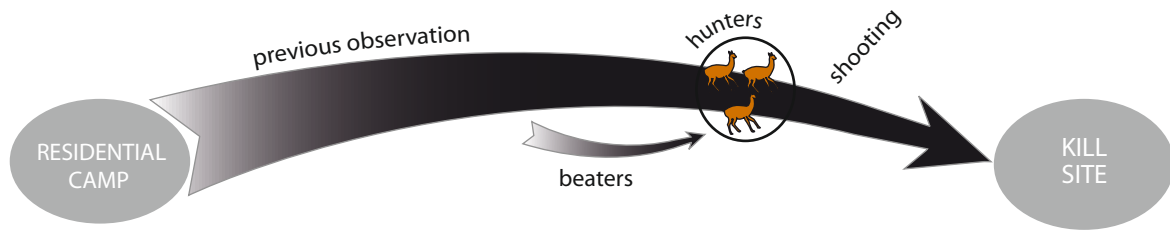


Figure 12 - Hunting by encirclement: diagram.



Figure 13 - Hunting scene, probably staged (photograph: A. Agostini, 1923, in Alvarado et al., 2007).

bivouacs without shelter. The insecurity of the halts far from the family hut was also emphasised by F. Gallardo (1910: 240): “In the case of rain, they construct a shelter... but if this is lacking, they seek out a fallen tree or group around a hearth, covering their heads with their capes”<sup>6</sup>.

#### 4.4 - While travelling (figure 14)

A final tactic, which was very common given the high mobility of these groups, was to hunt animals as they were startled out of their cover during the moving of the camp. Except for when he had to accompany his family to help in difficult terrain (for example the crossing of a river), the hunter most often set off on his own, with his weapons but without burdening himself with his bag; proof that no overnight halt was planned: “Generally, the man walks without a load, with just his

6. En caso de lluvia arman á la ligera un toldo pero si este les faltara, buscan un arbol caído ó se agrupan alrededor de una hoguera poniéndose la capa sobre la cabeza.



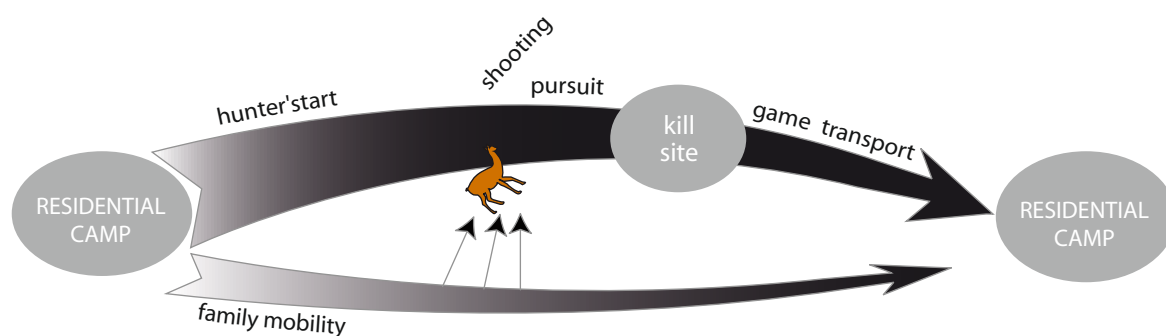


Figure 14 - Hunting while travelling: diagram.



Figure 15 - Selk'nam family travelling (photograph: A. Agostini, undated, around 1915).

weapons, having given to his women folk the leather bag containing his tools; but when he is single or travels alone, he carries it himself<sup>77</sup> (Gallardo, 1910: 263). He then kept at a distance, ready to intercept the guanaco flushed out by the passage of the small family group that followed the shortest route towards a previously determined spot (figure 15).

This type of hunting would have made it difficult to capture more than one animal and did not require any halt, except to prepare the game for transport.

In summary, whatever the hunting methods used, short, almost daily expeditions were clearly the most common. Temporary halts were thus reduced to the strict minimum and could only leave the most fleeting of remains: at best an unlined small hearth without associated equipment, as is most common in the region; a few lithic remains limited to debitage of the nodules removed, and occasionally some bony remains.

7. Generalmente el hombre marcha sin carga, con sólo sus armas, dando á sus mujeres sus bolsitas de cuero en que llevan los útiles, pero cuando es soltero ó se ausenta solo, la lleva él mismo.

## 5 - ... only the final halt

In fact, the only halt worthy of the name, the only obligatory halt and the only one likely to leave real archaeological evidence was the kill site, where the animal was slaughtered. The last phase of the active hunt, it was intended for the treatment of carcasses, and was therefore transformed into a butchery site.

The traces left during this halt were very varied, depending on the option chosen for the treatment and transport of the prey:

- If the game could be transported on the back of the hunter (a young guanaco) it was taken almost whole (figure 16-1): “The young guanaco was not skinned on the spot but was immediately gutted”<sup>8</sup> (Lothrop, 1928: 81);
- However, when the animal was an adult (100 to 120 kg), the carcass had to be reduced to a transportable bundle (figure 16-2), or cut into several pieces (figure 16-3).

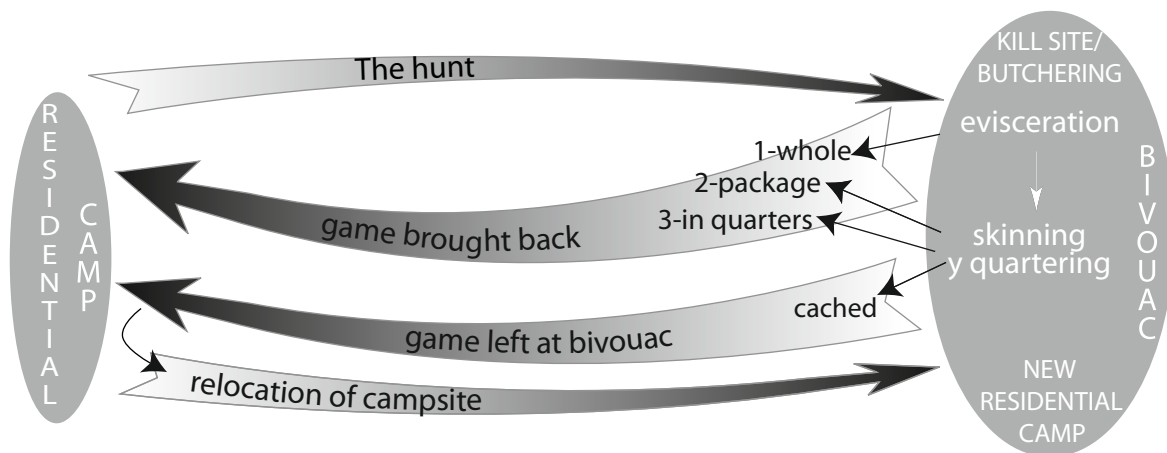


Figure 16 - The final camp and the treatment of game: diagram.

The preparation of the bundle began with the skinning of the prey, then “...The stomach was emptied and edible viscera such as the liver were packed in it. The head and legs were then forced into the abdominal cavity and the whole animal, lashed into a neat bundle, was carried home. The weight thus borne might be as much as 90 kg.”<sup>9</sup> (Lothrop, *ibid*: 81). Other than the intestines, we can wonder about the nature of the 20 to 30 kg that was removed: the non-edible viscera? Some parts of the head?

The second option, which involved cutting the animal into quarters (five according to most authors) enabled the division of the load between several hunters or, if it was impossible to carry everything, to package the meat and leave it on the site: “Only in the case where he could not carry the whole animal to the hut due to the distance, a difficult route, exhaustion, a serious injury or something of this nature, would he cut up the prey where it was killed. Prior to this he would skin it... he separated the skin from the ‘red meat’... First he skinned the trunk, then the legs... he cut the hands and feet [sic!] just above the joints without removing the skin. If, on returning to the hut, he could not carry all of the meat, he would take with

8. The young guanaco was not skinned on the spot but was immediately gutted.

9. The stomach was emptied and edible viscera such as the liver were packed in it. The head and legs were then forced into the abdominal cavity and the whole animal, lashed into a neat bundle, was carried home. The weight thus borne might be as much as two hundred pounds.

him at least the skin, because if it was not stretched, it would not delay in rotting”<sup>10</sup> (Gusinde, 1982: 255). The quarters of meat therefore remained hooked in trees, sheltered from predators, and the hunter would return to collect them the following day, unless the camp moved on: “It was sufficient to kill three guanaco for the hut to immediately be moved to the place where they had fallen, because it was easier than carrying the meat to the camp.”<sup>11</sup> (Gallardo, 1910: 240-24).

The hunt generally ended with a period of long or short duration in which the hunters would rest and eat, but the parts consumed on the kill site were extremely perishable, and have undoubtedly left no traces: “When a guanaco had been slain, the hunter immediately cut out the small lumps of fat behind the eye-sockets and ate them as a special delicacy. If he were hungry he might later eat a certain part of the intestine usually found clean, and perhaps also the heart...”<sup>12</sup> (S. Lothrop, 1928: 81). According to M. Gusinde (1982: 255): “When he has finished his task, he lights a fire”<sup>13</sup> in which he may cook a sausage made from the intestine and blood of the animal. Only T. Bridges (1998: 77) mentions the consumption of meat that would be likely to produce bony waste: “Their habit is to bring back to the camp the best parts of these animals, in such a manner that, when outside the camp, they consume the head and the bony parts”.<sup>14</sup>

According to the data of S. Lothrop and M. Gusinde, the bony remains abandoned on the kill site would have been rare if not non-existent (consumption of offal), while, according to the description by Bridges, we should expect to find some elements of the head and the least meat-rich bony parts (the ends of the legs?).

The final halt seems also to have corresponded to very varied activities. Always a butchery site, often a resting and eating place, it could turn, depending on the scale of the hunt, the distance to the camp and the time of day, into a nocturnal bivouac, and even a residential family camp. It therefore leaves complex traces, which are difficult to interpret: practically always a hearth, perhaps some waste from sharpening (of tools rather than weapons), and food-related waste from non-fleshy parts.

## 6 - And what of the archaeological data?

The archaeological data have begun to provide some indications as to the function of guanaco hunting camps in Tierra del Fuego and southern continental Patagonia, but they are still tenuous. The sites are often eroded and the surface collections biased by preservation conditions that favour the over-representation of lithic material as at Cabo San Vicente (Morello, 2005), or compact bones (Avilès 1 and Herradura, Santiago, Oria, 2007). The most extensive sites, generally considered as residential, are almost always studied through test excavations that provide only a truncated image of the multiple occupations that took place there.

10. *Unicamente si no puede arrastrar el animal entero hasta la choza a causa de la distancia, del mal camino, del agotamiento de alguna herida grave o algo por el estilo, descuartizara la presa en el lugar. Antes la desollará ... Separa la gruesa piel de la “carne roja” ... Primero desuella el tronco, luego ... las patas... Corta las manos y pies por encima de sus articulaciones sin quitarles el pellejo. Si al regresar a casa no puede cargar con toda la carne, al menos llevara consigo la piel, pues de no tenderse, no tardaría en podrirse.*

11. *Basta el hecho de matar tres guanacos para que inmediatamente traslade su choza al lugar en que aquéllos han caído, siendo esto más fácil que el acarrear la carne hasta el campamento.*

12. *When a guanaco had been slain, the hunter immediately cut out the small lumps of fat behind the eye-sockets and ate them as a special delicacy. If he were hungry he might later eat a certain part of the intestine usually found clean, and perhaps also the heart...*

13. *Despues de concluir sus tareas enciende un fuego...*

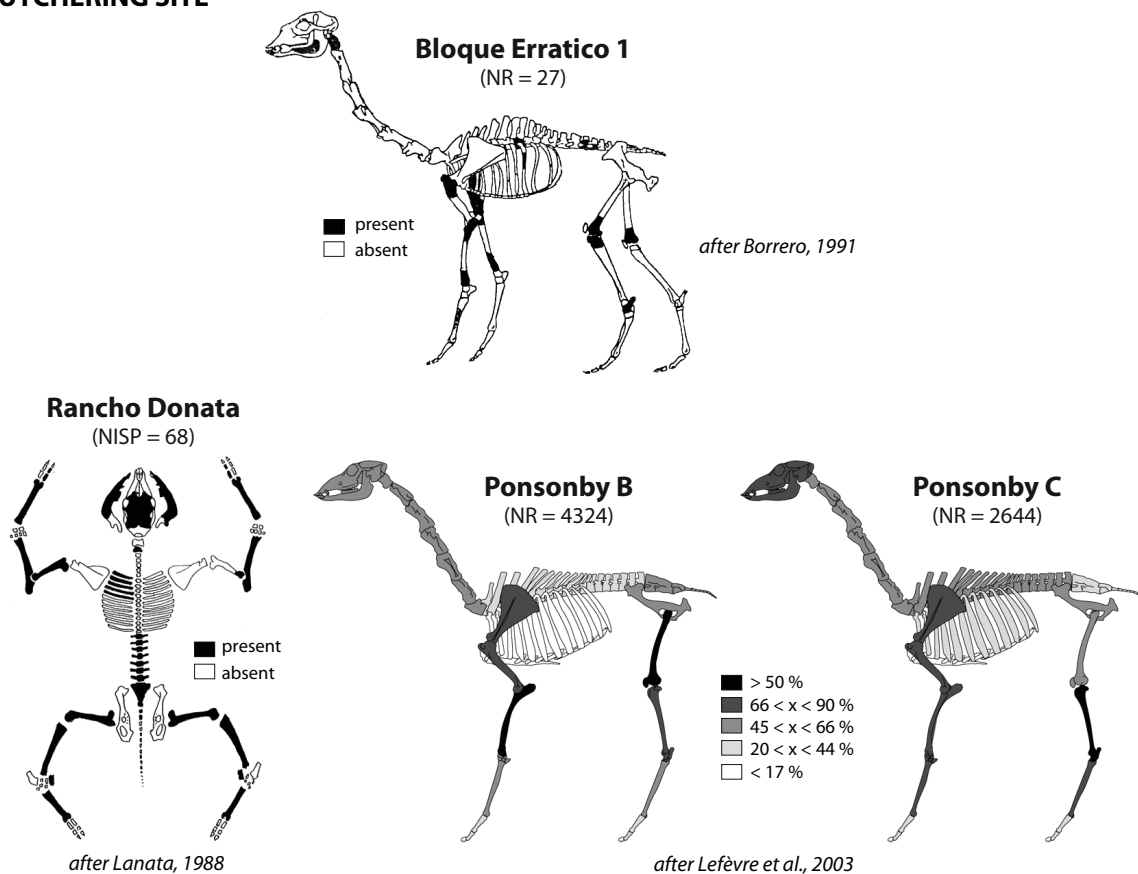
14. *Su practica es la de traer a su casa la mejor parte de esos animales, de manera que, cuando están afuera, usan la cabeza y partes huesudas.*



A single site, Bloque Erratico 1 (figure 2), dated to  $785 \pm 120$  BP, is for the moment considered as a temporary halt intended for the treatment of game (Borrero, 1985). It would have been complementary to a major habitation site located at a kilometre's distance. With a very limited surface, it is characterised by the presence of around one hundred pieces of lithic waste (flakes, two end-scrapers, one side-scaper) and 27 bone remains representing three guanaco. But, strangely for a temporary halt (one? several?), almost all of the anatomical parts of the animal are represented, including those providing a high energy yield such as the shoulders and the haunches (humerus, radioulnas and femurs), which one would expect rather to find in a residential camp.

The waste abandoned on this small butchery site is little different from that which has been discovered on other multi-functional sites in the region such as Ponsonby, on the mainland (Lefèvre *et al.*, 2003) or Rancho Donata in the extreme south-east of Tierra del Fuego, on the Mitre peninsula (Lanata, 1988). At Bloque Erratico 1, as on the residential sites, the most common parts are the upper legs and heads (in particular the jawbone), while the ribs and sometimes the vertebrae are lacking (figure 17). One may be tempted to believe in a taphonomic bias, and sometimes even in selection during excavation of the most resistant and most identifiable bones. On the contrary, the metapodes and phalanges, which are quite well represented on the residential sites are rare or absent at Bloque Erratico 1. The metapodes, lacking in meat, were commonly used in the manufacture of certain tools such as smoothers (particularly at Ponsonby): they may therefore have been the subject of particular attention and may have been taken back to the main camp.

## BUTCHERING SITE



## MULTIFUNCTIONAL SITES

Figure 17 - Representation of guanaco remains at Bloque Erratico 1, Ponsonby B and C and Rancho Donata.



As for the phalanges, which were separated from the carcass during the skinning of the animal (cf. M. Gusinde *supra*), they may also have been taken back to the camp for the consumption of their marrow, as is indicated by the frequent fracturing of these small bones at Ponsonby.

## 7 - Conclusion

The ethno-historical information on Tierra del Fuego is abundant but often imprecise, particularly in terms of technology; as for the archaeological data, it is still very fragmentary. Nonetheless, the comparison of the two shows the potential usefulness of this approach. It currently indicates the difficulty of interpreting hunting sites in this southern region.

We can thus observe the insecurity of the temporary halts during hunting expeditions for guanaco and the flexibility of the last halt; the most important one. The former, which correspond to simple moments of rest, are so ephemeral that only an exceptional topographic situation (a small shelter beneath rock, an erratic block, rocky relief, etc.) and a particular and rare activity (preparation of food, weapon maintenance) allows us to identify them. The latter, which coincide with the killing of game, are very versatile: they range from the simple gutting of an isolated young animal to the treatment of one or more carcasses using various methods prior to their transport. In the most extreme case, this butchery halt might even be transformed, in the following days, into a residential site.

The functional interpretation of the sites therefore requires close analysis and flexible interpretation, taking into account the different possible processes. Only extensive, well-controlled excavations may be able to validate the models suggested by ethnography. In all cases, it is clear that the function of the hunting camps of the foragers of the southern extremity of America is much more difficult to interpret than that of the major kill sites of collectors, with their more abundant waste and greater statistical reliability.

**Dominique LEGOUPIL**

CNRS - UMR 7041 - ArScAn

Équipe d'Ethnologie préhistorique

Maison de l'Archéologie et de l'Ethnologie

21 allée de l'Université

92023 Nanterre cedex, FRANCE

dominique.legoupil@mae.cnrs.fr

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