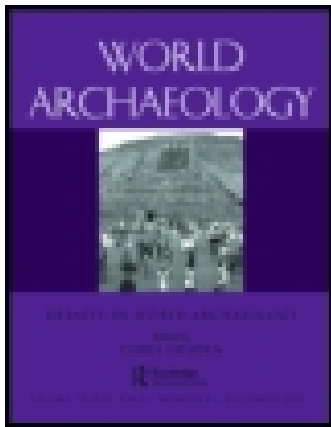


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# Miniature points in an exceptional early South American context

Nora Flegenheimer, Celeste Weitzel and Natalia Mazzia

## Abstract

Miniature points, similar to full-sized types used as hunting weapons, have occasionally been described in North and South America for Late Pleistocene/Early Holocene hunter-gatherer societies. They are explained as toys, practice pieces or ceremonial objects. They are an interesting case to use to reflect on how people materialize abstractions, encode visual communication and develop special practices related to particular places. Here we present six miniature points found at Cerro El Sombrero Cima (Buenos Aires province, Argentina), an early site with an unusual assemblage. Five specimens are fishtail projectile points and the sixth is an undescribed stemmed type. We use relevant theoretical insights and address point life histories according to their techno-morphological characteristics, raw material identification and fatty acids and sterols analyses. Finally, these projectile-point miniatures are considered in the context of discard, and their role among early American hunter-gatherers is addressed.

## Keywords

Miniature projectile points; Cerro El Sombrero; late Pleistocene/early Holocene.

## Introduction

Little objects, tiny things, small artifacts...in spite of their reduced size, miniatures always call for special attention in archaeological contexts. In this article, we focus on miniature points from Cerro El Sombrero Cima (CoSC), an early site assigned to the Late Pleistocene-Early Holocene in the Argentine Pampas.

Miniature points are occasionally described in the literature of the early peopling of North and South America. They are explained as toys, practice pieces or ceremonial objects (Dawe 1997; Ellis 1994; Gillespie 2007; Hamilton et al. 2013; Politis 1998; Stanford 1978; Storck 1991), and their social significance is discussed, stressing their relationship to and similarity with full-sized dart and spear projectile points used as hunting weapons (Bayón and Flegenheimer 2003; Gillespie 2007; Storck 1991). A role that goes beyond economy is recognized for hunting

and weaponry in many hunter-gatherer societies; weapon manufacturing is even described as essential in the constitution of the self in one ethnographic study (González-Ruibal, Hernando, and Politis 2011). Miniature points in use among Late Pleistocene-Early Holocene hunter-gatherer societies are an interesting case to use for reflecting on how people materialize abstractions, encode visual communication and develop special practices related to particular places in the landscape.

Here we address the significance of miniature points found at CoSC (Buenos Aires province, Argentina). They include five specimens which correspond to fishtail projectile points (FTPP) and one that corresponds to another undescribed point type. A complete description of the life histories of small points from CoSC is offered based on techno-morphological analysis, raw material description and fatty acids and sterols analyses. Finally, the role of these miniatures within their context is addressed.

### **Full-sized point context in early American sites**

To understand miniatures better, the context for early full-sized points is briefly discussed. Characteristic projectile-point types, some of them notable for their basal thinning or fluting, have been used as evidence for spreading populations during the Late Pleistocene-Early Holocene throughout America. In North America these spear and dart points are referred to as Paleoindian and include several different types (Bradley 1993; Collins et al. 2013; Frison 1991); according to most authors the bow and arrow was a late innovation in the Americas (Shott 1997). Some authors maintain that weaponry and hunting, as well as fluting and raw material selection, held a role of prestige, represented costly signaling or were symbolically meaningful in Paleoindian society; also, points in themselves could have been considered powerful objects (Bradley and Collins 2013; Robinson et al. 2009; Speth et al. 2013; Storck 1991). Within this line of thought, miniature Paleoindian points found in some assemblages acquire a special relevance. Whether they are described as toys (Dawe 1997; Hamilton et al. 2013) or related to the realm of ceremony and ritual (Ellis 1994; Stanford 1978), they can be considered as support for the special cultural significance of projectile points among early peoples (Gillespie 2007; Storck 1991; Speth et al. 2013).

Their South American counterparts are several projectile-point types broadly assigned to populations in the Late Pleistocene-Early Holocene (Dillehay 2013; Nami 2014). Among them, FTTP are emblematic, especially for the Southern Cone where they were first recorded (Bird 1938). They are now known from several sites and are roughly dated in the range of 11,500–9000 <sup>14</sup>C yr BP (Dillehay 2013; Flegenheimer, Miotti, and Mazzia 2013). These points exhibit a great variety of shapes and sizes, including miniatures. Some other early point types overlap with FTTP either in time or in space; they are mainly studied in Perú and Chile (Dillehay 2013; Grosjean, Nuñez, and Cartajena 2005) and have been recently reviewed by Nami (2014). Also, Mayer-Oakes (1986) describes an important variety for El Inga (Ecuador), but with poor chronological control. Closer to our case study, Pay Paso, K87-Tigre points and another stemmed variant resembling an El Inga type are recorded in Uruguay, and in the Pampas, an unidentified bifacial point is mentioned (Nami 2007; Politis and Messineo 2008; Suárez 2010). In this article, we present an additional miniature stemmed-point type, though at present chronological control is poor.

Even if early South American points do not require the same flint-knapping skill as their North American counterparts and the results are not so aesthetically exquisite, their manufacture is generally more elaborate than that of subsequent point types. Also, they are usually made from a different and highly selected set of raw materials.

In the southern cone, FPHP seem to be concentrated in the Uruguayan and Argentine Pampas, the Somuncurá Plateau in northern Patagonia and in southernmost Patagonia (Flegenheimer, Miotti, and Mazzia 2013; Nami 2014). Miniature points show a similar distribution: they are found at CoSC site (Argentina) and in the Middle Negro River basin (Uruguay); the latter location includes three points considered as toys (Nami 2013, 2014). Another miniature point has been mentioned for the Tapera de Isidoro site in the Somuncurá Plateau (Terranova 2014).

In the Southern Cone several themes related to communication among groups with FPHP have been addressed in the study of early societies. For example, extensive social networks based on raw material provenance studies have been identified (Flegenheimer et al. 2003). Additionally, other social links have been proposed through the study of special landmarks, separated by about 800km, as is the case for CoSC in the Pampas and Cerro Amigo Oeste in Patagonia. These sites exhibit a large number of fractured points on the flat summits of similarly shaped buttes. This repeated association of landscape choice and material record suggests that early societies shared a worldview and certain social practices among which hunting and projectile points had a significant role (Flegenheimer and Mazzia 2013; Terranova 2014). In this context for full-sized early projectile points, miniatures are especially appropriate objects to consider for understanding the way in which the sphere of hunting relates to other avenues of life.

## **Miniatures**

Miniatures may be considered as scaled-down representations of full-sized objects (Mills 2010). This assertion, however, is valid for only some characteristics of the full-sized objects. With miniatures some aspects are lost through miniaturizing, and others are selected and highlighted for representation; that is, after a first selection of relevant characteristics, these are scaled down. Miniaturizing involves manipulating reality through abstraction and compression; the reduction in size also reduces detail, thus demanding experimentation and selection (Bailey 2005; Lévi-Strauss 1997).

Miniatures are meaningful as they encode information involved in visual communication; also condensing experience is a key component of miniaturization (Jones 2013). Miniatures empower the handler and set his/her imagination free; the small stimulates big thoughts and increases levels of significance (Bailey 2005). As do all objects they intertwine practices, technologies and meanings; their materiality implies social and cultural relationships (Meskell 2005; Pels, Hetherington and Vandenberghe 2002). But on occasions, as in our study case, they also represent another full-sized object and its relationships (Laugrand and Oosten 2008). Thus, their significance as objects is twofold: their own and that of the object they represent; therefore the full-sized objects should be born in mind during analysis.

Whether miniatures in the past were toys, amulets, weapons, lures, ornaments or offerings depends on their context. Also, an object can belong to more than one of these categories, making these distinctions less obvious. For example, among the Inuit, a key concept is the transformative power of such objects; through miniatures children can be transformed into

adults, a game can turn into an omen and the full-sized objects represented can be protected. According to Laugrand and Oosten (2008, 81) Inuit miniatures ‘may seem to be small toys and ornaments but they can easily come into play in another context and thus come to life in unexpected ways’.

Several ethnographic and ethnoarchaeological studies show that among hunter-gatherers miniature weapons are made by children or adults as toys or to learn adult roles (Dawe 1997; Laugrand and Oosten 2008; Politis 1998, 1999). Also, small toys may be retained by adults as symbols of their early years (Crawford 2009). Similar objects can be intended for adult use as mementos, symbols of adult interests, ornaments for shamanic belts, mortuary goods, ritual offerings for hunting, powerful amulets, war tokens, protectors of full-sized points and so on (Crawford 2009; Harrington 1914; Laugrand and Oosten 2008; Stanford 1978; Wildschut 1975). It can be difficult to distinguish between toys and tools; in fact, toys can even be domestic objects in-between daily activities (Rogersdotter 2008). Furthermore, as miniatures can be used or perceived as most of these categories (Kamp 2001) we agree with those who propose that the key to interpreting these objects is contextual information (Crawford 2009; Laugrand and Oosten 2008; Politis 1999). The spatial dimension is central in identifying toys in the archaeological record as children’s places can be different from those of adults (Lillehammer 2010). So, projectile point miniatures can be considered as toys, practice pieces, amulets, ceremonial offerings based on their context; however, the distinction among various potential categories is not always clear cut.

### **Miniature points in context**

The Pampean region historically played a role in the discussion of the early peopling of the continent where currently several Late Pleistocene-Early Holocene sites are known (Ávila 2011; Bayón et al. 2011; Flegenheimer et al. 2010; Martínez and Gutiérrez 2011; Mazzanti, Martínez, and Quintana 2012; Mazzia and Flegenheimer 2012; Politis, Barrientos and Stafford 2011; see complete references in Prates, Politis and Steele 2013). Among them, sixteen sites in the Tandilia Range are dated between *c.* 12,000 and 9800 <sup>14</sup>C yr BP. Great inter-site variability has been described for both places and site functions. These include: living spaces in small shelters, caves and open air protected spaces; a possible hunting space; ephemerally visited rock shelters; specific activity places and quarry areas (Colombo and Flegenheimer 2013; Flegenheimer 2003; Flegenheimer and Leipus 2007; Mazzanti et al. 2010; Mazzanti, Martínez, and Quintana 2012; Mazzia 2013; Mazzia and Flegenheimer 2012).

CoSC stands out as an exceptional place; it has been considered a node in past social networks and a meaningful place for early peoples (Flegenheimer and Mazzia 2013). It is the largest and densest early site in Tandilia; located at 428m asl, this butte is an outstanding feature projecting 200m above the neighboring plains. The open-air site occupies the entire flat summit, about 25,000m<sup>2</sup>. The material assemblage was recovered from both surface and buried contexts; excavations cover 39m<sup>2</sup> distributed throughout the hilltop with a main excavation area (Sector 12) (Fig. 1). No organic remains are found due to poor preservation conditions produced by pedological processes (Flegenheimer 2003; Zárata et al. 2000–2002). Therefore, no radiocarbon dates are available and the occupation is assigned to the Pleistocene/Holocene transition by comparison

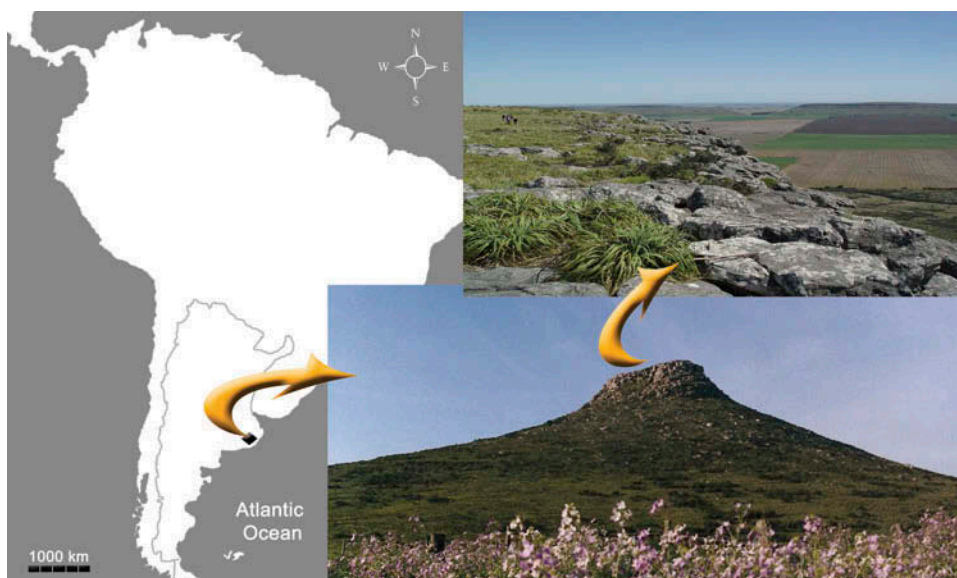


Figure 1 Site location, with inset view of hill and hilltop.

with nearby dated sites (Flegenheimer 2003). The assemblage is very homogeneous and no diagnostic artifacts of late-aged occupations are identified.

Material evidence includes more than 1,500 flaked tools, with a breakage ratio of 93 per cent, 9,500 small flakes related to the last moments of tool manufacture, eleven pecked and ground fragmented artifacts, a hammer stone, abrasive clasts and mineral fragments. Some tool types stand out, such as ninety FTTP at different stages of their life history, a decorated discoidal stone and three small spheres (Flegenheimer and Mazzia 2013; Flegenheimer and Cattáneo 2013; Weitzel et al. 2014).

Use of wood was identified on a small tool sample through microscopic use-wear analysis (Flegenheimer and Leipus 2007); fatty acid analysis informs us about a great diversity of organic materials used, including plants and marine resources; also there is evidence of hafting on FTTP (Mazzia and Flegenheimer 2014).

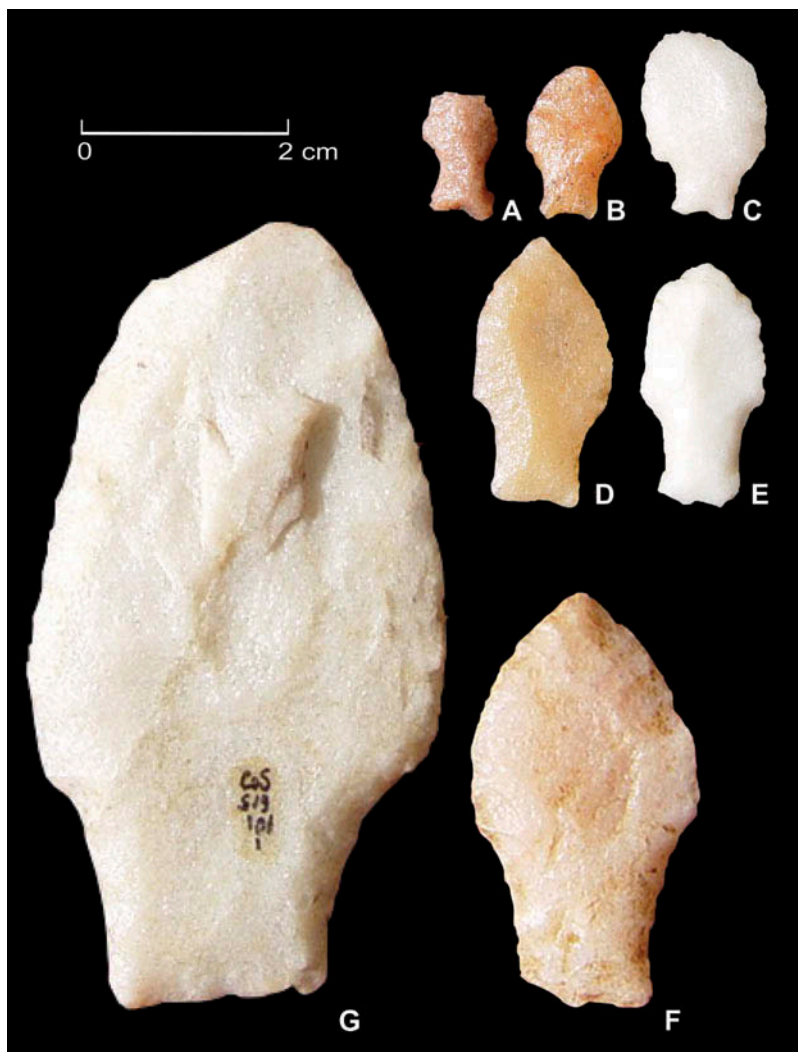
Spatial analysis of Cerro El Sombrero revealed that the summit is not difficult to reach despite a steep quartzite outcrop surrounding the hilltop. The wind is generally stronger than in the plains and the top offers no shelter. Only the edges of the summit are visible from the plains and it is best seen from nearby hilltops. Depending on sunlight, haze and climate conditions, the view from the hilltop is panoramic and reaches 40km in most directions (Flegenheimer and Mazzia 2013).

On the basis of information derived from both objects and spaces we proposed that the hilltop was a look-out used to control the surroundings and a place chosen for refurbishing weapons and discarding tools possibly broken elsewhere (Flegenheimer 2003; Weitzel 2012). Therefore it was not necessarily visited by the whole community but probably by only some members. We consider the hilltop not as a simple background for activities carried out there, but as a meaningful place in itself, probably important as a node for communication among early people (Flegenheimer, Miotti, and Mazzia 2013).

*Point miniatures*

The small points are represented by six specimens, five are FTTP (Fig. 2) and the sixth is an undescribed stemmed type, here referred to as ESP (Fig. 3). There are full-sized specimens of both types in the assemblage. Notably, no later stemmed points are known in the region during prehistoric times. Miniatures correspond both to surface collection and excavation; it has previously been proposed that they are related to children and learning practices (Politis 1998). The excavated miniatures come from Sector 12, along with other exceptional objects like small ground spheres and a discoidal stone.

All miniature points are complete, although one (Fig. 2a) exhibits a small bending fracture at the tip, most likely resulting from post-depositional processes. Tool completeness is exceptional



*Figure 2* Cerro El Sombrero FTTP miniatures (A–E); example of medium-sized point (F); example of large point (G).



Figure 3 Full-size and miniature of ESP points from CoSC.

in the assemblage; all other tool types exhibit a high breakage ratio (Mazzia and Flegenheimer 2012; Weitzel and Flegenheimer 2007). In striking contrast with miniatures, the breakage ratio for full-sized projectile points is 86.5 per cent, and most fractures are due to impact (Weitzel et al. 2014).

Average measurements of miniature points are: 18.6mm length; 2.9mm thickness; 5.3mm stem width and 10mm blade width (Table 1, Fig. 4). Other FTTP at CoSC exhibit a continuum of sizes (Bayón and Flegenheimer 2003) ranging from 19 to 94mm long. Miniature points are scaled-down versions of larger specimens (Fig. 5) in contrast with other small points in the assemblage that do not preserve the proportions of full-sized points because they were (re)shaped in response to maintenance and possibly other requirements (Fig. 6).

Sierras Bayas Orthoquartzite (SBGO) and quartz, the two raw materials employed to manufacture miniatures (Table 1), are available at 40–60km from the site (Colombo and Flegenheimer 2013). Full-sized points are made from a similar range of materials in similar proportions to the miniatures: SBGO (77 per cent), quartz (18 per cent), phtanite (3.6 per cent) and silicified limestone (1.2 per cent). Early peoples practiced significant selection of stone for tool-making related to SBGO. Colored rocks, especially pink, red and yellow, were chosen for tool manufacture even though white outcrops and quarries are more frequent and were predominantly used by later people. We contend early preference for colored stones resulted from symbolic and/or aesthetic purposes or beliefs (Flegenheimer and Bayón 1999). Flake blanks used to manufacture miniature points were probably selected from small-sized debitage scattered across the hilltop, mainly bifacial thinning flakes resulting from full-size point manufacturing (Flegenheimer and Cattaneo 2013); a similar observation is made by Nami (2013) for



Table 1 Characteristics of miniature points from CoSC discussed in the text

<i>Specimen</i>	<i>Raw material</i>	<i>Length</i>	<i>Max. thickness</i>	<i>Min. stem width</i>	<i>Max. blade width</i>	<i>Max. base width</i>	<i>Reference</i>
<i>Excavated collection</i>							
301-23 FTTP	Pink SBGO	13mm (12 fractured)	2mm	4mm	7mm	6mm	Fig. 2a
301-1 FTTP	Red SBGO	14mm	3mm	5mm	9mm	5mm	Fig. 2b
S12 s/n FTTP	White SBGO	22mm	4mm	6mm	11mm	7mm	Fig. 2c
401-1 FTTP	Pink SBGO	24mm	2.5mm	7mm	13mm	8mm	Fig. 2d
<i>Surface collection</i>							
CoS 131 FTTP	White SBGO	17mm	3mm	5mm	11mm	5mm	Fig. 2c
152 ESP	Quartz	22mm	3mm	5mm	9mm	5mm	Fig. 3a

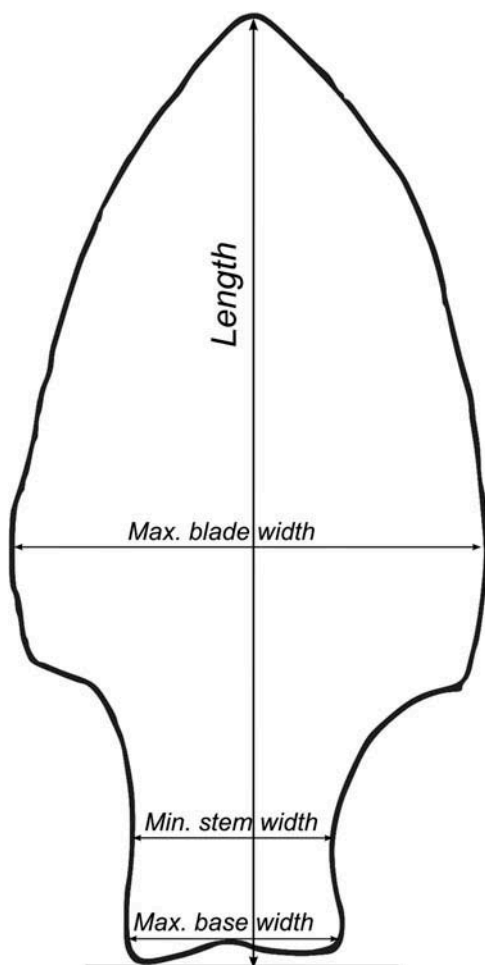


Figure 4 Point measurements considered.

point miniatures from Uruguay. In all miniatures, dorsal ridges run across the flake blank, and one specimen (Fig. 2c) still preserves flake curvature. A similar practice has been observed in North America where some Paleoindian miniatures are produced on channel flake blanks; thus miniatures are intimately linked to the full-sized objects (Storck 1991). The assemblage at CoSC includes channel flakes, yet the orientation of the dorsal ridges and the convexity of one of the miniatures exclude their use as blanks. Nonetheless, as miniature points are probably manufactured on thinning flakes obtained from full-sized points, they are strongly related to these larger objects and to their manufacture.

Miniatures have been shaped by marginal bifacial (N = 5) or unifacial (N = 1) retouch. Only one FTTP (Fig. 2e) and the ESP exhibit some attempt to shape a biconvex cross-section, whereas the others are only slightly modified flakes. Retouch is mostly restricted to stems; some blade edges were simply shaped by abrading. None of these small specimens exhibit percussion flaking or fluting. All six points exhibit abraded stems, a trait usually related to point

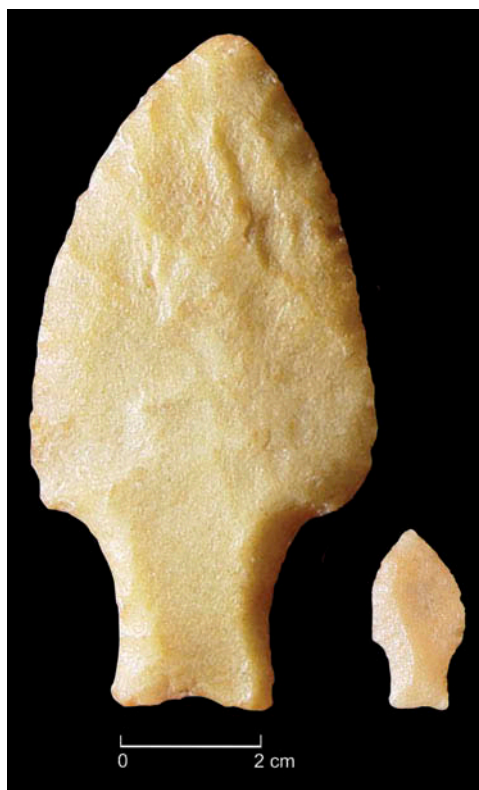


Figure 5 Comparison of full-sized and scaled-down similar points from CoSC.

hafting. Manufacture of full-sized points is more elaborate; though most were made on flakes, some FTTP exhibit bifacial thinning and/or fluting. In contrast, all miniatures have a low labor investment, some exhibiting minimum blade retouch while others were only marginally shaped.

This simple manufacture was effective for making points with an outline that clearly represents the type. If miniaturizing reduces detail and demands selection (Bailey 2005) the outline of these miniatures was selected as the significant trait. No attention was paid to representing their three-dimensional aspect. For example, stems are very distinctive in FTTP, yet none of the miniatures exhibits fluting or the characteristic stem transverse section. Also, blades have biconvex sections in only two specimens; the others preserve the original flake curvature.

The outline of these miniatures shows an important morphological variation, replicating variation recorded for full-size points and including rounded or straight-angled shoulders, symmetrical or asymmetrical shapes and pointed or rounded tips (Fig. 2). This great internal variability of full size FTTP has been discussed on several occasions (Castiñeira et al. 2012; Suárez 2006; Nami 2014). These traits are important when considering these miniatures as abstractions and representations of ordinary-sized objects (Bailey 2005).

Five of these small points were studied using organic residue analysis to identify resources on which they were used. Fatty acid and sterols analyses were carried out to recover information

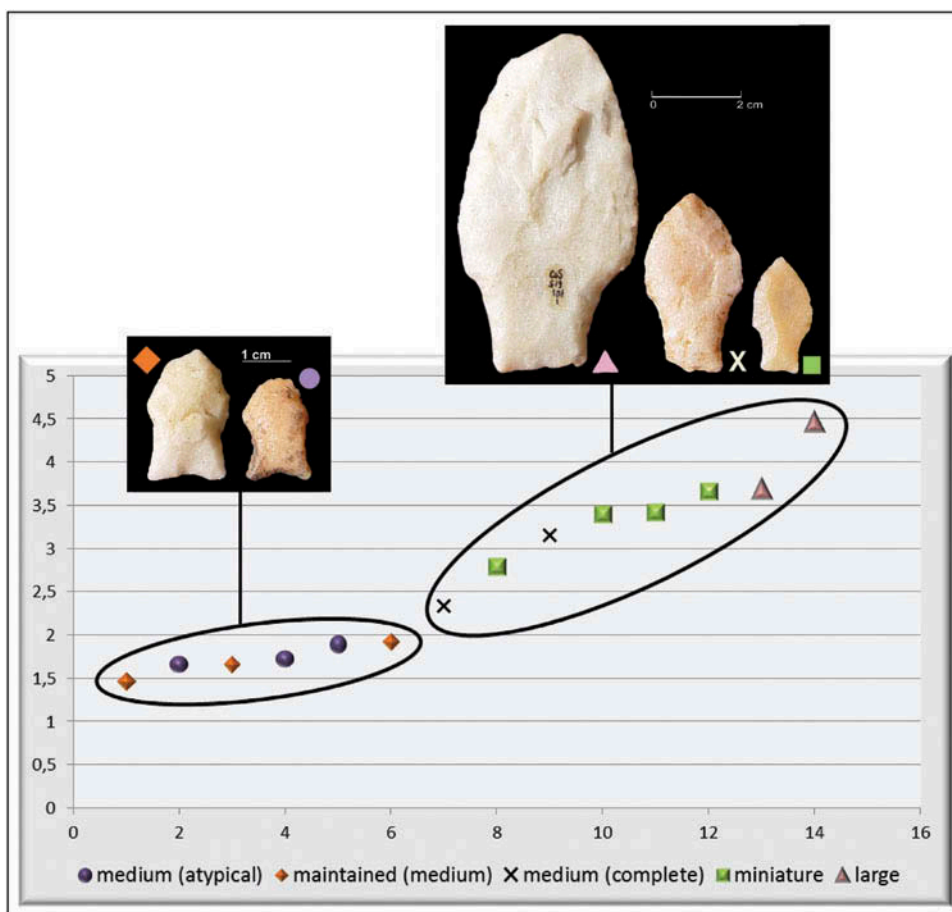


Figure 6 Graph comparing size proportions among FТПP from CoSC.

not recoverable through macroscopic studies. Previous analysis of full-sized points had yielded data about hafting and animal residues possibly from use in hunting and confirmed the use of some specimens as recycled tools (Mazzia and Flegenheimer 2014).

Because of their size, miniature points were totally immersed in 2ml of chloroform for twenty-four hours. Each extract was divided into two parts. The saponifiable fraction was processed through a methylation protocol (see detail in Mazzia and Flegenheimer 2014) to obtain methyl esters for fatty acids analysis. Sterols analysis was prepared by silylation of the unsaponifiable fraction. A sample of 3 $\mu$ l of each fraction was injected into gas chromatography-mass spectrometry equipment (Agilent 6890–5973 N) with a 50m capillary column. As a result, ten chromatograms were obtained, two for each miniature analyzed. All turned out to be chromatograms without peaks (Fig. 7); extracts were under the limit of detection (in this case 0.01 per cent). This limit is the lowest quantity of a substance that can be distinguished from its absence (Boqué 2004). This means there was not enough organic substance trapped in rock porosities and micro-cracks, probably because these points were not in direct and regular contact with organic resources.

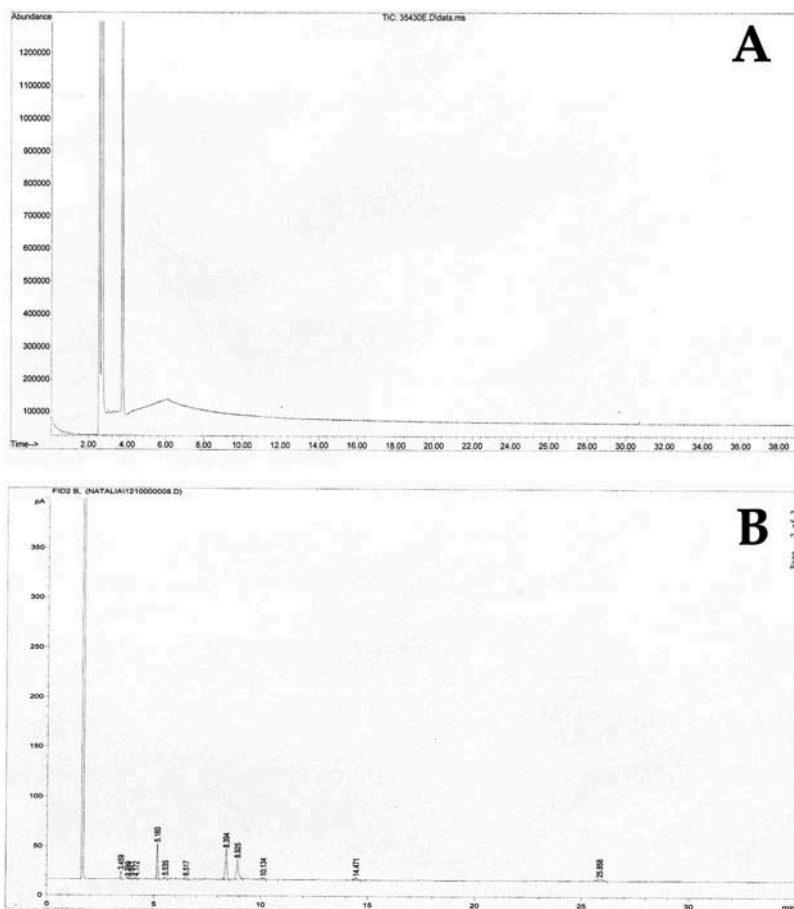


Figure 7 Two chromatograms presented as examples: A. 301 23 (sterols); B. sample of sediments.

The small point size does not necessarily explain the small lipid sample. Two previously analyzed specimens serve as examples. A fragmented polished artifact from CoSC yielded a remarkable amount of fat although its largest side is only 2cm; twelve fatty acids were identified, indicating use on vegetal resources (Mazzia and Flegenheimer 2014). Another example from nearby Cueva Zoro is a bipolar flake (2.7cm long) which offered at least seventeen fatty acids related to indeterminate organic resources (Mazzia 2013).

Thus, the blank chromatograms obtained imply that these five small points were not used on organic resources nor was organic evidence of hafting found. We therefore conclude that these miniatures were not utilized during daily tasks related to animal or plant processing.

## Discussion

Even though the size of the miniature points falls into the arrow-point range (Knecht 1997), this notion is not supported by contextual evidence. In the Pampean region, arrow-point types (small

stemless triangular points) are dated to the Late Holocene and, as expected (Lombard 2005), are associated with important changes in faunal assemblages and in technology (Martínez and Gutiérrez 2004; Politis 2008). This is supported by evidence of occupational stress markers analyzed on Pampean human remains, which point to a shift in hunting technologies with the introduction of the bow and arrow in Late Holocene times (Scabuzzo 2010).

As summarized above, miniatures are abstractions and compressions in which the total object is perceived, rather than its parts; also, they require selection of traits depicted (Bailey 2005; Lévi-Strauss 1997). This abstraction refers to the practice of reducing the main components of an object while at the same time, preserving the relevant traits. As Bailey (2005, 32) stated, 'One result of abstraction is that the viewers of a miniature are cheated. They are not shown everything nor are they shown the full detailing of those elements that are selected for representation.' In the case of the miniature FFTP analyzed here the raw material choice and the outline have been preserved, including the morphological variability related to the type, while other traits, such as the complex manufacturing sequence and volume, have not been selected for representation. This selection raises the possibility that these points might have been intended only for frontal view, rather than being manipulated and seen from every angle. Also, the miniatures exhibit edge abrasion of the stems. This trait is usually related to hafting, but, in contrast to previous results from full-sized specimens where the use of vegetal mastic was inferred, this was not confirmed by chemical analysis. If miniature points were really only for frontal view and not hafted, they could have been tied or sewn onto a surface with a material other than mastic which did not leave organic residues and stem abrasion would be useful to avoid damaging the binding material.

Another issue that merits consideration in these miniatures is their morphological variability. Bearing in mind that miniatures represent larger objects (Bailey 2005), the morphological variation represented is important for several reasons. First, the existence of an ESP miniature point is significant because there is only one full-sized specimen in the assemblage. Furthermore, the full-sized ESP shows evidence of reshaping and could be considered a highly maintained and transformed FFTP. Yet, the existence of a miniature object representing this type endows it with entity, suggesting it was a 'type' in its own right. Second, the morphological variations in the outlines of FFTP miniatures are noteworthy. Again, much has been said about transformations produced by point maintenance, yet, this set of miniatures supports the notion that the type in itself includes great morphological variation (Nami 2013; Bayón and Flegenheimer 2003). We are not implying that maintenance and recycling do not alter point shape, but simply that each object needs careful observation before shape modifications can be assessed. These miniatures support the notion that FFTP design includes great internal variability; although the shape is recognizable, the design is flexible and does not always repeat the same set of traits.

What do we know about the life history of these points? It is probable that they were fully made, discarded and possibly also used, at the same place, in contrast with other tools discarded at the hilltop which were at least partially manufactured and used at other places. Miniatures could have been manufactured with little labor investment from debitage found at CoSC while full-sized points were being finished. We have little information about their use, save that, according to stem abrasion, they were possibly bound, that is, they were probably part of a composite object, such as a necklace or pendant. They were discarded complete at the hilltop and have not been recorded at other sites in the region exhibiting full-sized FFTP. We do not

know if they were in use for long periods or had short use lives, yet they suffered less transformations than full-sized points and possibly are tied to place like no other object on CoSC. This hill in itself is considered as an exceptional place for early Pampa hunter-gatherers (Flegenheimer and Mazzia 2013); in this perspective miniatures are exceptional objects linked to an exceptional place.

When very small, such as the lithic objects here discussed, things require special attention from the observer, thus creating a sense of intimacy between the object and the person handling it. On the other hand, Cerro El Sombrero stands out as the highest geomorphological feature in the area; its importance as a look-out has been repeatedly mentioned. From the hilltop there is a commanding view of the surrounding plains and hills. This view produces an experience of immensity that strongly contrasts with the intimate experience produced by the manipulation of the miniatures (Bailey 2005). The possibility that these miniatures were used as toys either by children (Politis 1998) or by adults cannot be ruled out, but requires reflection. As discussed, the definition of a toy is not a straightforward matter and there is much overlap between objects used in a game and other situations of life. Whoever used these points must have been at the hilltop. Yet, if our current perspective on the social practices carried out at his hilltop is correct, the hilltop was probably not visited by all members of society; rather, access was possibly restricted to only some members. In such a case, these points were not meant for general use but for specific occasions or certain people, probably related to hunting. It is difficult to discuss further until we know more about how early societies were organized and how they organized space.

As most authors suggest, archaeological context is of major importance when discussing the past use of miniatures (Crawford 2009; Laugrand and Oosten 2008; Politis 1999). At this point two important suggestions for the identification of toys need mention. The first relates to context; it has been stated that toys have a strong spatial link to hunter-gatherer campsites and their surroundings where children spend most of their time (Dawe 1997; Politis 1998, 1999). Instead, the miniature points discussed here were recovered at a weapon-refurbishing place. The second point is accurately expressed by Dawe (1997, 314) where 'impact damage, use wear and even reworking of toys should be expected' because toys are used. None of these forms of evidence were found on miniature points from CoSC. The CoSC miniature points are complete without any macroscopic sign of use damage or maintenance and chemical analyses suggest they were not used in hunting practices. Yet, the continuum of sizes represented in the other broken points is promising, and might be the place to search for toys or practice points in the assemblage (Fig. 6).

It is interesting that miniatures are probably made on thinning flakes and found in a place selected for the last moments of point manufacturing and weapon repair. Nami (2013) also mentions that one of the miniatures from Uruguay was found at the Arroyo Cacique site where possibly point repair took place. That is, our current data suggest that FPHP miniatures are strongly related to weapon manufacturing and repairing in contexts that include broken points.

Although no direct analogy can be drawn, it is interesting to find that, among the Inuit, practices relating the manufacture of full-sized objects and miniatures existed and were connected to preventing breakage. Among the Inuit, all beings possessed a 'shade' or miniature image and could not live without this small counterpart. Miniatures were used to replace objects in offerings, but they could also precede the object they represented. Making a miniature from a piece of the same stone selected to manufacture a full-sized object, ritually prevented the actual

object from being easily broken (Laugrand and Oosten 2008); this concept is pertinent to stimulate thought about the miniatures discussed here which are found in a manufacturing context with the broken full-sized objects they represent. For example, Fig. 5 shows one of the few full-sized FTTP found at the site and a miniature manufactured from the same orange SBGO with outline similarities.

Considering our case study in a wider perspective, Paleoindian studies include different explanations for the spread of Clovis; some take into account that point morphology and technology were shared in large spaces and played a deeper role in society than being effective for hunting (Bradley and Collins 2013; Storck 1991). A similar view is proposed for FTTP in the Southern Cone, where FTTP points, discoidal stones, small spheres and landscape are proposed to be linked to the worldview of hunter-gatherers (Flegenheimer, Miotti, and Mazzia 2013). Here we suggest that the existence of miniatures reinforces the significant role point design played in these societies.

## 6. Conclusion

Early miniature points from CoSC are scaled-down representations of full-sized points manufactured with minimum labor investment, probably from point manufacture debitage, to obtain a distinctive outline; they show no macroscopic or chemical traces of use, and were intentionally deposited without breakage at a meaningful place for early societies of the Argentine Pampas. Two other miniatures FTTP were found in Uruguay where large collections of full-sized FTTP have also been recovered. Additionally, exotic lithic raw materials in Pampean assemblages provide evidence of direct links with Uruguay among early societies (Flegenheimer et al. 2003). Also a miniature was recovered from the Somuncurá Plateau where links with the Pampas are being studied (Flegenheimer, Miotti, and Mazzia 2013).

The presence of complete miniatures along with a high percentage of full-sized points, mostly broken by impact in a context of point manufacture and repair, and their absence at other regional sites, gives support to the idea that these small objects are linked to point production. One of their meanings could include the protection of full-sized points. These miniatures, related to their full-sized counterparts, participated in the complex network that intertwined Late Pleistocene/Early Holocene people, FTTP and places. In this case, they strongly link meanings with a special place. We hope this presentation of miniatures at a site related to the early peopling of South America adds to the discussion of the complexity of early American societies.

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