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Paleoamerican Artifacts from Cerro Largo, Northeastern Uruguay

Hugo G. Nami

CONICET-IGEBA, Buenos Aires, Argentina

A research program directed at deepening the knowledge and understanding of Paleo-American "Fishtail" points is being carried out. In pursuit of this goal, lithic remains from Cerro Largo Department, northeastern Uruguay were examined. One of the samples comes from Paso Centurión, a surface site that has yielded the greatest number of Fishtail points in Uruguay. There, and at the Paso Taborda site, several examples were reworked as scraping tools, constituting a peculiar case of stone-tool recycling and reclaiming by post-Pleistocene hunter-gatherers. The examined collection sheds new light on regional lithic assemblages, stone-tool use, and the early colonization of southeastern South America.

Keywords Fishtail points, projectile technology, morphological variation, South America, Uruguay

Since the early 1980s, we have conducted a research program directed at deepening the knowledge and understanding of the morphological variation, technology, and function of early stone tools, with particular focus on Fishtail or Fell points (\sim 11,000–10,000 ¹⁴C yr BP). This paper reports new data obtained on Paleo-South

288

American lithic remains from Cerro Largo Department (CL), northeastern Uruguay. These include a sample (n = 23) from the collections of Mr J. Rendo (Montevideo) and the Museo Histórico Regional de Cerro Largo (MHRCL), Melo, which comes from the surface of known and unknown sites (Figure 1).

Paso Taborda (PT) is situated along the main course of Bañados de Medina creek, 15 km southeast of

Correspondence to: Hugo G. Nami. Email: hgnami@fulbrightmail.org.



Figure 1 Map of South America and the location of Cañada de Aceguá (CA), Paso Centurión (PC), Paso Taborda (PT), and Paso La Catumbera (PLC) in the Cerro Largo Department (denoted by square), Uruguay (after Google Maps 2014).

Melo. There, when water levels are low, archaeological and paleontological finds occur on a clay surface. A large number of artifacts, mainly projectile points, come from this site; among them are three Fell points.

Paso Centurión (PC) is in a sandy area on the Yaguarón River, 52 km north of Melo on the Brazilian border. Except for the example illustrated in Figure 2A, formerly in the Mr C. Echeverry collection, these were collected by Mr Ramón Bazz during the first half of the past century. Remarkable is the significant number of Fishtail points (n = 16).

Tacuarí River (TR) is situated in the south of CL. The only Fell point found there comes from Paso La Catumbera.

The provenience of the remains curated at the MHRCL is unknown; however, they include three new Paleoindian artifacts.

Many specimens from PC belong to the lanceolate variety with narrow blades, stems with parallel concave or incurvate borders, and concave bases with pointed basal corners or ears (Figure 2B-D) (Nami 2014a, figure 25-4b; Turner and Hester 1985). Remarkable is their similarity with other Fishtails observed in several Uruguayan sites, such as El Puente, Cacique, and Carpintería creeks (Nami 2013, figures 3m, 3p, 4b, 4o). Similar pieces have been found in other South American localities, for example Dos Amigos, Argentina (Flegenheimer et al. 2013, figure 21-6), and Cueva del Medio, Chile (Nami 2014a, figure 22i). One specimen from PC and one curated at MHRCL have broad blades with convex borders, rounded shoulders, and slightly contracted stems with concave borders (Figure 2A). Several lanceolate examples from PC display pointed basal corners (Figure 2B–D, L–M). Remarkable is the similarity of the specimen exhibited in Figure 2J with those found at Cueva del Medio (Nami 1987, figure 16b). In most pieces, the stems' bases were shaped by short pressure retouch. The specimen shown in Figure 2E has long flutes on both faces. Its thickness is slightly thicker than many Fishtail points, probably intentionally preformed for fluting by direct percussion flaking. After flute detachment, the base was shaped by short pressure retouch. According to longitudinal cross sections observed in Figure 2, the thicker part of each piece is randomly located in different places. Maximum thickness may be near the tip, the center, the blade/stem intersection, and/or the stem. This fact is also observed in other pieces throughout Latin America (e.g., Bosch et al. 1980; Nami 2013).

The examined Fishtail points were manufactured employing thin flake-blanks and thinned bifaces made from thicker blanks. The former are visible in pieces from PC (Figure 2A), PT (Figure 2R), and TR (Figure 2U). Usually, for final shaping a kind of short and/or marginal retouch was bifacially applied with diverse continuity; hence the ventral face of the flake-blank is visible. Several pieces were made mostly by percussion (Figure 2F-H), and many were finished by short pressure retouch at PC and MHRCL (Figure 2A-D, I, V). This kind of production was a regular pattern among hunter-gatherers using these points (Bird 1969, figures 2a, 3f; da Silva Lopes and Nami 2011; Loponte et al. in press; Nami 2013, figures 3p, 4b, d; 2014b; Patané Araoz and Nami 2014). Also, longitudinal and transverse cross sections are generally plano-convex due to the use of thin flakes. In PT and PC points, the flake scars underlying the short pressure retouch that finished the points suggest the use of bifacial thinning from thicker blanks (Figure 2F-H), widely documented in sites across South America (Nami 2013, 2014b).



Figure 2 Fell points (A–V) and discoidal stones (W–X) described in the text, including edge details of artifacts recycled into end scrapers ((R) from CA; (S–T) from PT; (U) from TR; (V) of unknown origin).

The examined Fishtails were made with carefully selected rocks. At PC and PT, high-quality gray, dark gray (Figure 2R–S), and black material (Figure 2J) was used. At PC, several specimens are likely limestone with small impurities and cavities observed with a magnifying glass of $10 \times$ and $20 \times$ (Figure 2B–D, I, L–N). Probably, some of them were affected by chemical alterations and consequently developed clear tones on the surface (e.g., Nami 2013, figures 3d, 9d). The piece depicted in Figure 2T probably is a heat-treated petrified wood, with available sources in CL.

Once the finished points had been used, they were generally subjected to resharpening, detectable when (1) the blade form and symmetry was highly modified, (2) retouch does not follow the original form of the point, and/or (3) edges are strongly rounded or do not have enough mass to continue the task (Nami 2013). In comparison to Fell points with little or no resharpening (Figure 2A, Q, V) (Nami 2013, figures 3g, r, 4k–l; 2014a, figures 19–20), some specimens from PC show minimal (Figure 2I), moderate (Figure 2D, J), and strong resharpening (Figure 2M–N), as observed in other South American examples (Nami 2013, figures 3b, f, o, 4c; 2014b).

Two Fishtail points from PC show one beveled concave border (Figure 2O-P). In southern Brazil and Uruguay, this is a fairly common feature of Holocene stemmed points, called "sickles" ("foices" or "tipo hoz" (Baeza et al. 2001)), "drills," or "concave side scrapers" (Taddei 1987, figures 21-4, 21-5, 24-13). Also in PT, there are three Fishtail points recycled as end scrapers (Figure 2R-T), a previously unreported aspect of Paleo-South American technological behavior. However, PT vielded later Holocene points recycled in the same way (n = 10), a phenomenon of other nearby sites. Taddei (1980, figures XII-25, XII-26; 1987, figure 24-4) also illustrated points recycled as end scrapers and gravers (sensu Turner and Hester 1985) from Paso del Puerto, Uruguay; and Cerrito Dalpiaz rockshelter (southeastern Brazil) yielded a stratigraphic record with stemmed projectile points, which Miller (1969) culture-historically assigned to "period II" (the Umbu tradition (see Bueno et al. 2013; Dias 2007)) dated to $\sim 6000-4200^{-14}$ C yr BP. Interestingly, "stemmed scrapers," which are obviously recycled points, also were reported from that context (Miller 1969, figure 81-n, 80) and from other sites ascribed to the same archaeological construct (Schmitz 1987, figure 19a–e). Hence, due to these similarities, it may be suggested that the scraping tools produced on Fishtail points were made by later Holocene huntergatherers who collected them from the archaeological record. At present, the evidence suggests that early South American foragers who manufactured and used Fishtails did not practice this kind of recycling for making end scrapers, although they may have used and/or re-used Fell points in other functions, for example, as knives or lateral scraping tools (given that some Uruguayan specimens show a beveled edge suggesting another form or resharpening; or asymmetrical blades with one straight or slightly convex edge and another convex edge). Similar observations have been made in the Ilaló region, Ecuador (Nami n.d., figure 5d), Cerro El Sombrero, Argentina (Flegenheimer et al. 2009, 11), Fell's cave (Nami n.d., figure 5e), and Magallanes province, Chile (Bahamondes and Jackson 2006). Similarly, Suárez (2015, figure 9a) reports an exceptionally large Fishtail point with an asymmetrical blade suggesting its use as a knife.

Another diagnostic Paleo-South American marker artifact is the discoidal stone (Bird 1970; Flegenheimer et al. 2013). Recently, additional data regarding this artifact form come from multiple locales in Uruguay (Nami 2013), and from CL there are two new pieces made of granite and basalt identified at the MHRCL (Figure 2W–X). One of them (Figure 2W) possibly has red ochre adhering to it.

In summary, new data from northeastern Uruguay have led to greater understanding of diverse early technological topics. To the only previously reported Fishtail point from CL found by Mr C. Etcheverry in Cañada de Aceguá (Figure 2Q) (Bosch et al. 1980, figure 17; Schobinger 1974, figure 3), we have added a significant number of unreported specimens. These shed new light on the earliest lithic assemblages and stone-tool technology during the colonization of South America. The Fishtail record from CL shows strong formal variability, as observed in the southern cone (Flegenheimer et al. 2015; Nami 2013, 2014b). There, the lanceolate variety with incurvate stem and concave base seems to be a recurrent form. In PT and PC, several Fell points were reworked as either end scrapers or beveled pieces with concave borders, constituting a peculiar case of lithic recycling and reclaiming (sensu Schiffer 1987, 99) of Fishtail points in southeastern South America.

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