

Perspectives: the Two Cs: Cola de Pescado and Clovis

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When I was asked by Ted Goebel if I would write this Perspectives column I had a mixed reaction. I certainly have a personal perspective on the issues of the peopling of the Americas, including South America, but I also feel that it would be a bit presumptuous of me to suggest that I have a detailed knowledge of this issue in South America. I do know that North American perspectives have dominated historically and that this has changed with excellent research being conducted by Latin American, North American and European colleagues.

However, writing this column has forced me to reflect on the influences and biases that have contributed to my perspectives. My views are heavily influenced by my flintknapping experiences and by the friends, students, colleagues and mentors that have supported and especially challenged me throughout my career. I admit to a certain arrogance that comes from being an expert knapper and hope that this is tempered by my training as a scientist and the advice of others. In any case I feel I must admit to some biases. First and foremost is my assumption that complex technologies in early societies, were deeply ingrained and when new situations arose that effected change, the changes would first be based on traditions and only when these proved inadequate would practitioners invent and innovate new ways of doing things. This should be visible in the archaeological record as a sequence of changes; ie. it should be traceable through time, especially in relation to flaked stone technologies. I also accept that sometimes things change for reasons other than efficiency or adaptability to environmental influences, with the possibility of maladaptation. While I readily admit that physical environments heavily influence choice, I am not an environmental determinist when it comes to flaked stone. There are alternative ways to make things work. For example, microblade inset technologies worked well in many of the same circumstances where bifaces were a reasonable alternative. I am also a diffusionist in that people may adopt foreign ideas and quickly change the ways they do things, but even in these situations the underlying 'native' technology will likely be the first option. An exception might be where the introduced process holds its own special significance and/or meaning rather than just the end products. The following discussion and perspectives should be viewed with these biases in mind.

By far the majority of what I discuss here are the products of many other people's ideas and I do not claim any of them as uniquely mine. I do mention some names and attribute some of the ideas and concepts but, this being a perspectives column; I have not included a bibliography. I am not knowingly misrepresenting or misattributing any of these ideas and am obliged to those who have shared in the discussions and interactions from which they are derived.

While I hadn't planned on becoming involved in South American archaeology my interactions started over two decades ago at Society for American Archaeology meetings. This ultimately led to my being invited to make a presentation at the *El Hombre temprano en América* conference in La Plata, Argentina in November 2010. Following the conference I joined a small group of colleagues on the excursion to Patagonia, including a visit to the famous Cola de Pescado site of Cerro Amigo Oeste (Fig. 1a), and then went on for a visit and knapping workshop organized by Nora Flegenheimer in Necochea, Argentina. She took a group of students and me to



a



b

Figure 1 High mesa locations of two Cola de Pescado sites: a) Cerro Amigo Oeste in Patagonia; and b) Cerro El Sombrero in the Pampas.

a stone source and the site of Cerro El Sombrero (Fig. 1b). These activities gave me first hand exposure to Cola de Pescado (fishtail) point assemblages, select sites and the various ideas about what it may have represented, then being discussed by a range of colleagues. This visit was followed two years later to another knapping workshop in Montevideo, Uruguay organized by Rafael Suarez. Following this he took me to see a number of private and museum collections as well as some of the better known raw material sources in Uruguay. Raphael came to Exeter on an exchange visit. I have also been engaged with Astolfo Araujo, University of São Paulo in presenting workshops and giving short courses, undertaking joint excavations in São Paulo State and receiving him in Exeter. I am also working with Mercedes Okumura of the National Museum, Federal University of Rio de Janeiro. Through these activities and reading what literature I could find, in English and Spanish, I think I have a reasonably up to date perspective on this early South American archaeological culture; especially how it may have technologically related to Clovis.

Since the earliest work at Fells Cave by Junius Bird, archaeologists have recognized and commented on the technological similarities between Cola de Pescado and Clovis points. When 14C dates were obtained from the deposits that produced the Cola de Pescado point assemblage it was also noted that the oldest was nearly coeval with Clovis. While there was some speculation that Cola de Pescado points may have been derived from Clovis the prevailing understanding of the origin and spread of Clovis, as the first people in the Americas was hard to reconcile. The result was the dates were considered suspect and that any close similarities were probably the result of convergence. In the last few years with the increased evidence of people being in South America before either Clovis or Cola de Pescado, new ideas are beginning to emerge, one of which is that while the dates make it unlikely that there is a direct descent from Clovis to Cola de Pescado, they could be derived from a common cultural and technological source. With my predilection toward historical connection trumping convergence in complex flaked stone technology, this is the theory to which I currently subscribe.

There are some very strong similarities between the technologies of Cola de Pescado and Clovis, but there are also some notable differences. The basic emphasis on bifacial technology with a well-developed bifacial thinning technique, the possible controlled use of overshot flaking and basal stem and base grinding are all shared traits. Beyond these the manner in which platforms were prepared for the removal of thinning flakes, the wide spacing of flake removals, and the seeming lack of pressure flaking for the production of the original unmodified points also seem to be the same. Beyond these technological traits there are examples of very large oversized 'points' (many of which were made from the highest quality and most colourful stones) in both Clovis and Cola de Pescado. Basically a Cola de Pescado point could be produced from a Clovis preform simply by retouching the lower edges to form a stem (Figure 2b).

The most apparent difference is the final outline of the points. Where Clovis points tend to have fairly straight slightly constricting lower margins, Cola de Pescado points were clearly stemmed, usually with flaring basal ears (figure 2a, c, e and h). While to typologists these constitute significant differences, they were produced with the same methods.

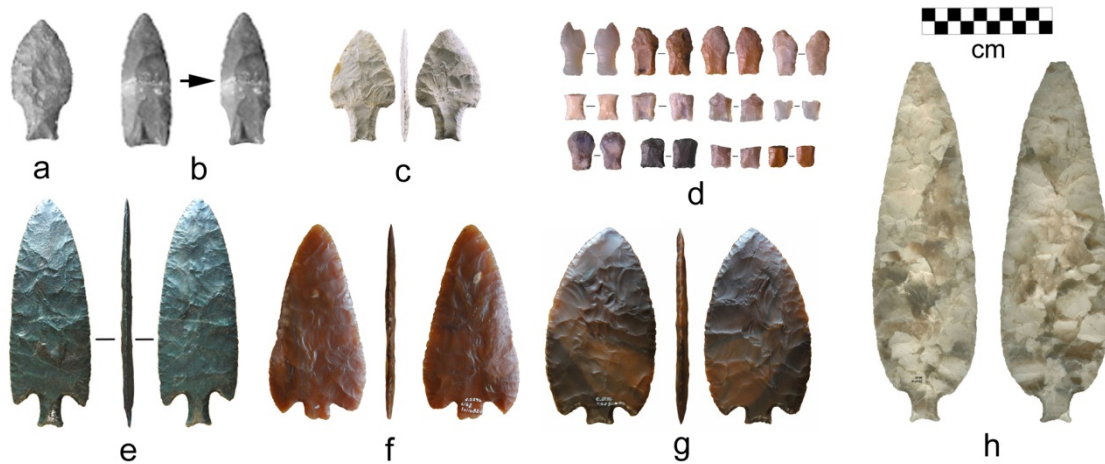


Figure 2 Cola de Pescado (fishtail) points: a) prototype from Fells Cave, Tierra del Fuego; b) digital transformation of point blank to Cola de Pescado point, Fells Cave; c) Cola de Pescado point prototype, Belize; d) Cola de Pescado point fragments from the Cerro Amigo Oeste site, Argentina; e) oversize Cola de Pescado point from Uruguay, silicified sandstone; f) oversize Cola de Pescado point from Uruguay, silicified limestone; g) ; oversize Cola de Pescado point from Uruguay, silicified limestone; h) oversize Cola de Pescado point from Victoria County, Texas, material unknown.

To me the most significant differences between the two technologies are the presence of nearly unifacial technology on a significant number of Cola de Pescado points, which occurs in Clovis but at quite low frequencies, and the way used points were reworked for further use. The tendency, although there are exceptions, in Clovis was to completely rework damaged points, retaining the basic outline proportions. This resulted in the hafting area of the reworked points to become narrower while in Cola de Pescado points the stem widths tended to remain highly standardized regardless of what was done to the rest of the point. This standardization of stem width is apparent if one compares unmodified standard-sized points (Figure 2a and c) to heavily damaged and reused pieces (Figure 2d) and oversized specimens (Figure 2e-h). Another difference is that the fluting on the Cola de Pescado points is inconsistent in that quite a few were fluted on only one face. The post-fluting retouch to produce the stem also frequently invades the channel scar. Whereas with Clovis there is generally care taken so that the post-fluting retouch, also percussion, does not invade the channel scar. This difference may be more related to the amount of retouching that was done to produce the stem than to real intention.

Looking at the similarities and differences it seems that a case may be made for the two types to have the same conceptual source but applied to different

precursors. Clovis looks to have had a fully bifacial precursor, such as Page-Ladsen or Simpson points, which in turn derived from earlier forms such as Cactus Hill and Miller. Cola de Pescado points may have derived from a unifacial industry that through time became fully bifacial. There are indications that there was an earlier unifacial technology in the Southern Cone.

The distribution of Cola de Pescado points and technology is curious and may indicate an origin through the Caribbean and then down the west coast, in spite of Bird's assertion that it came through an inland route. Sites are generally found in or adjacent to river valleys, such as Pay Paso along the Uruguay River and there are large concentrations noted in the central Rio Negro in Uruguay. However, there are sites in most physiographic areas in the Southern Cone and the west side of South America, including high elevations such as the El Inga site in Ecuador. The distribution extends up into southern Brazil on the east side of the continent but not into northeastern Brazil, where there are other contemporaneous industries such as Atiparica and Lagoa Santa. The two mesa top sites in the plains of Argentina, Cerro Amigo Oeste and Cerro El Sombrero are also interesting in their own right. Both can be interpreted as hunting camps where retooling took place, and they both would have provided secure overviews of expansive hunting territories, but while this is reasonable for the sites, there are questions that still need answering. These land forms are fairly common from Southern Brazil all the way down through Patagonia yet only a few were used by the Cola de Pescado people. Those that were do not seem to have any subsequent use. Why might this be? There are north American analogues, such as the Mesa site in northern Alaska and a number of Avonlea sites in the high plains.

The conundrum for my perspective is that for the Cola de Pescado industry to have been related to a Clovis expansion, it should have moved quickly through the groups settled on the eastern side of South America, especially along the edge of the continental shelf, rather than down the west coast. This hypothesis has not been tested as this entire possible route is now inundated and far out to sea, except in a few places. It would be very interesting to investigate those as yet archaeologically poorly unknown areas.

I have to agree with the consensus view that wherever the Cola de Pescado originated and however it came to be in the Southern Cone, it was in some way related to Clovis but not derived from it.

