Paleoindian Occupation in the Central Mountains of Argentina: Was It a Failed Colonization?

Diego Rivero and Eduardo Berberián

➤ **Keywords**: Peopling, Pleistocene/Holocene transition, central Argentina

The aim of this report is to present information about human presence during the Pleistocene/Holocene transition in the Central Mountains of Argentina and to discuss its implications for the peopling of the Southern Cone of South America. The Central Mountains are located in Córdoba and San Luis provinces, in central Argentina. They consist of a number of main strands, with heights ranging between 1,000 and 2,800 m above sea level, extending along a north-south direction more than 600 km (Figure 1).

The Paleoindian occupation of the Central Mountains dates from the Pleistocene/Holocene transition. At the El Alto 3 site (EA3), in the basal unit was uncovered the oldest evidence for human presence in the region. Two charcoal concentrations associated with the cultural remains were dated to 9790 ± 80 (LP-1420) and 11,010 ± 80 RCYBP (LP-1506). In the context of the human peopling model proposed by Borrero (1994) for southern South America, these results were interpreted as an occupation assignable to the territorial exploratory stage (Rivero and Roldán 2005). Recently a new charcoal sample from this site associated with quartz flakes was dated to 9371±51 RCYBP (AA94987).

Recent ^{14}C analysis of human bones from the Gruta de Candonga site (GC) have yielded one date of 10,450 ± 50 RCYBP (SRLA-1062; Cornero y Neves 2011).

Other evidence for Paleoindian occupation in the Central Mountains is scarce and consists only of three Fishtail projectile points found in surface collections from two localities (Laguens et al. 2007; Politis 1991). This Paleoindian occupation is of low density, especially when compared with the Paleoindian record from other sectors of the Southern Cone of South America like Uruguay, Chile, and the *Pampas* and Patagonia in Argentina (e.g., Steele and Politis 2009; Suárez 2003).

The scarce Paleoindian records of the Central Mountains belong to groups with a technology of Fishtail projectile points. This is followed by a period of ca. 9300–8000 RCYBP, which has yielded no archaeological evidence (Rivero 2010). Only after ca. 8000 RCYBP does the archaeological signal resurface in the region (González 1960; Rivero and Berberián 2008). This archaeological record is characterized by sites with a technology of lanceolate or foliate

Diego Rivero, Centro de Estudios Históricos "Prof. Carlos S. A. Segreti" – CONICET, Raúl Casariego 4096 (C.P. 5008) Córdoba, Argentina; e-mail: ayampitin1@yahoo.com.ar

Eduardo Berberián, Centro de Estudios Históricos "Prof. Carlos S. A. Segreti" – CONICET, San Lorenzo 550 piso 11 departamento "B" (C.P. 5000) Córdoba, Argentina; e-mail: eduardoberberian @conicet.gov.ar

projectile points, known as "ayampitín," dated ca. 8000–6000 RCYBP (e.g., González 1960; Rivero 2009, 2010; Rivero et al. 2009).

These scarce archaeological data for the Pleistocene/Holocene transition in the region were not due to sampling problems. The Central Mountains have been intensively investigated for the last 20 years (e.g. Laguens et al. 2007; Rivero 2009; Rivero and Berberián 2008; Rivero and Roldán 2005). To date, more than 700 archaeological sites have been recorded, and a total of 62 ^{14}C dates are available. Only four dates and two archaeological sites belong to the Pleistocene/Holocene transition. The remaining dates and archaeological sites belong to the period after ca. 8000 RCYBP.

These observations have strong implications for the peopling of the Southern Cone of South America because we could be facing failed colonization situations in certain regions. In the Central Mountains of Argentina, this situation might be produced because the Paleoindian groups may have been few and far between, hindering the maintenance of reproductive viability (e.g., Anderson and Gillam 2001; Moore and Moseley 2001).

Only after ca. 8000 RCYBP could there have occurred a new Exploration and Colonization Process (*sensu* Borrero 1994) in the Central Mountains of Argentina, which finally led to the effective settlement of the region.

This project is funded by CONICET PIP 11220080102678.

References Cited

Anderson, D., and J. Gillam 2001 Paleoindian Interaction and Mating Networks: Reply to Moore and Moseley. *American Antiquity* 66:530–35.

Borrero, L. 1994 Spatial Heterogeneity in Fuego-Patagonia. In *Archaeological Approaches to Cultural Identity*, edited by S. Shennan, pp. 258–66. Routledge, London and New York.

Cornero, S., and W. Neves 2011 Ocupaciones tempranas en las Sierras Centrales: la Gruta de Candonga, Córdoba, Argentina, aportes a su antigüedad. *Actas de Resúmenes del 1° Congreso Internacional de Arqueología de la Cuenca del Plata*, pp. 218–19. Ciudad Autónoma de Buenos Aires.

González, A. 1960 La Estratigrafía de la Gruta de Intihuasi, (Prov. De San Luis, R. A.) y sus relaciones con otros sitios Precerámicos de Sudamérica. *Revista del Instituto de Antropología* Tomo 1:1–290. Córdoba, Argentina.

Laguens, A., E. Pautassi, G. Sario, and R. Cattáneo 2007 ELS1, a Fishtail Projectile-Point Site from Central Argentina. *Current Research in the Pleistocene* 24:55–57.

Moore, J., and M. Moseley 2001 How Many Frogs does It Take to Leap around the Americas?: Comments on Anderson and Gillam. *American Antiquity* 66:526–29.

Politis, G. 1991 Fishtail Projectile Points in the Southern Cone of South America: an Overview. In *Clovis. Origins and Adaptations*, edited by R. Bonnichsen and K. L. Turnmire, pp. 287–301. Center for the Study of the First Americans, Oregon State University, Corvallis.

Rivero, D. 2009 *Ecología de cazadores-recolectores del sector central de las Sierras de Córdoba (Rep. Argentina)*. BAR International Series 2007, Oxford.

——— 2010 The Intensity of Human Occupation during Pleistocene-Holocene Transition (11,000–9000 BP) in the Central Ranges of Argentina. Paper presented at the V Simposio Internacional "El Hombre Temprano en América" *El poblamiento temprano de América: a un siglo del debate Ameghino-Hrdlicka*, La Plata.

Rivero, D., and E. Berberián 2008 El poblamiento de la región central del territorio argentino durante la Transición Pleistoceno-Holoceno (12,000–9000 A.P.). *Revista Española de Antropología Americana* 38(2):17–37.

Rivero, D., and F. Roldán 2005 Initial Peopling of the Córdoba Mountains, Argentina: First Evidence from El Alto 3. *Current Research in the Pleistocene* 22:33–35.

Rivero, D., S. Pastor, and M. Medina 2009 Intensificación en las sierras de Córdoba. El abrigo rocoso Quebrada del Real 1 (ca. 6000–500 AP, Córdoba, Argentina). *Anales de Arqueología y Etnología* 64:227–46.

Steele, J., and G. Politis 2009 AMS 14C Dating of Early Human Occupation of Southern South America. *Journal of Archaeological Science* 36 (2009) 419–29.

Suárez, R. 2003 Paleoindian Components of Northern Uruguay: New Data for Early Human Occupations of the Late Pleistocene and Early Holocene. In *Where the South Winds Blow: Ancient Evidence of Paleo South Americans*, edited by L. Miotti, M. Salemme, and N. Flegenheimer, pp. 29–36. Center for the Study of the First Americans, Texas A&M University Press, College Station.

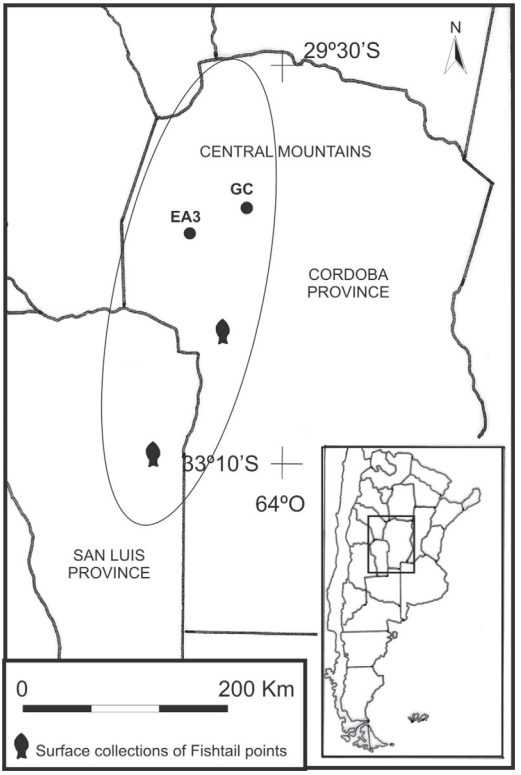

Figure 1. Locations of the EA3 and GC archaeological sites and surface collections of Fishtail projectile points.

14