

Archaeological Perspectives on the Ranquel Chiefdoms in the North of the Dry Pampas, in the Eighteenth and Nineteenth Centuries

Alicia Haydée Tapia¹

In this article, I present some results of the archaeological study about the cultural manifestation of the Ranquels. This Indian group occupied the north part of the province of La Pampa, Argentina, from the late eighteenth century until the end of the nineteenth century. Through a perspective that links the theoretical and methodological purposes of historical archaeology of the landscape, I analyze the settlements' distributions, the access to natural resources, the methods of circulation, and the strategies of interethnic conflict with the national army and the colonists on the border area. Taking into consideration the archaeological record and its contrast with written sources, I have defined some indicators about the process of culture change. My special interest concerns changes in nineteenth-century Ranquel material culture produced before the dissolution of the ethnic groups because of the military actions of the "desert conquest."

KEY WORDS: Ranquel historical archaeology; settlements patterns; culture change; Argentina.

INTRODUCTION

The Ranquel chiefdoms developed from the late eighteenth until the late nineteenth centuries in two different areas: the "calden" (*Prosopis caldenia*) woods, and the herbaceous steppe located north of the dry pampas, in Argentina's central region. Theirs was not an isolated cultural manifestation; on the contrary, their emergence as chiefdoms is linked with an historical context called the "araucanización process" which has largest spatial and temporal amplitude. The historical dynamics of this process arose from two significant events. First was the growth of

¹Sección Arqueología y Universidad Nacional de Luján, División Historia, Departamento de Ciencias Sociales, Instituto de Ciencias Antropológicas, Universidad de Buenos Aires, Buenos Aires, Argentina; e-mail: atapia@filo.uba.ar.

equine and bovine livestock introduced by the Hispanic conquerors in the pampas plains at the beginning of the sixteenth century, and second was the expansion of diverse Indian groups that spoke the *mapudungun* o *mapuche* language, had a cattle and pastoral economy, and adopted the horse as a means of transportation (Mandrini, 1985, 1987; Palermo, 1986, 1991).

By the middle of the seventeenth century, the *mapuche* people—natives of the Araucanía that was located at central Chile—intensified its migration from the occidental mountains toward the oriental pampas to capture large amounts of wild livestock they could take to Chile. By the middle of the eighteenth century, the aboriginal traffic in livestock and salt had already been consolidated, and extensive commercialization nets existed among aboriginal groups themselves, and between them and European colonists and creoles. According to written sources, by the end of the seventeenth century, the particular cultural characteristics of the native Indians from the pampas were not recognized. The *mapuche* language was the lingua franca, and the *mapuches* had an economy based on cattle raising, shepherding, and, on a smaller scale, hunting, gathering, and agricultural practices (Falkner, 1911; Mandrini, 1984, 1993; Sánchez Labrador, 1936).

The expansion of the *mapuches* in the pampas reached its culmination around 1770, when disturbances between the Spanish authorities and the aboriginal populations of the Chilean Araucania and Argentinean center west took place. This imbalance caused the so-called “*war pehuenche*,” during which serious warlike conflicts occurred between the different aboriginal groups and the colonial agents. Impelled by intraethnic and interethnic frictions, several war leaders of different *mapuche* groups settled in the pampas with their numerous families and other relatives. In the south, in different areas of the humid, dry pampas, settlements arose of Chilean *mapuches* as the *vorogas* and then, the *huilliches* under the leadership of *Calfucurá* (León Solís, 1982, 1989, 1991; Pinto Rodríguez, 1988, 1996, 1998). The *Ranquel* territory was located north of the dry pampas and northwest of the humid pampas. They came from *Ranquilcó* (reed-grass earth), situated northeast of the province of Neuquén. The *Ranquel* were culturally connected with the Indian *pehuenches*, who had received strong cultural influences from the Araucania, and, toward the end of the eighteenth century, had occupied the mountains south of the province of Mendoza’s and north of the province of Neuquén (Fig. 1).

The word *Ranquel* (people of the reeds-grass) is first mentioned in written documents toward the end of the eighteenth century, and it appears with some cacique names, such as “*Yanquetruz*” and “*Carripilun*.” Both war leaders began the *Ranquel* chiefdoms of the central pampas, which lasted until 1879, when the Argentinean army—commanded by General Julio A. Roca—completely occupied the Indian territory. By that time, the interethnic conflicts in the frontier deeply affected the relationships among the different social actors and caused changes in the material culture, socioeconomic organization, and the transfer of power among the caciques (CGE, 1973–1975; Fernández, 1998; Olascoaga, 1974; Racedo, 1965; Walther, 1976).

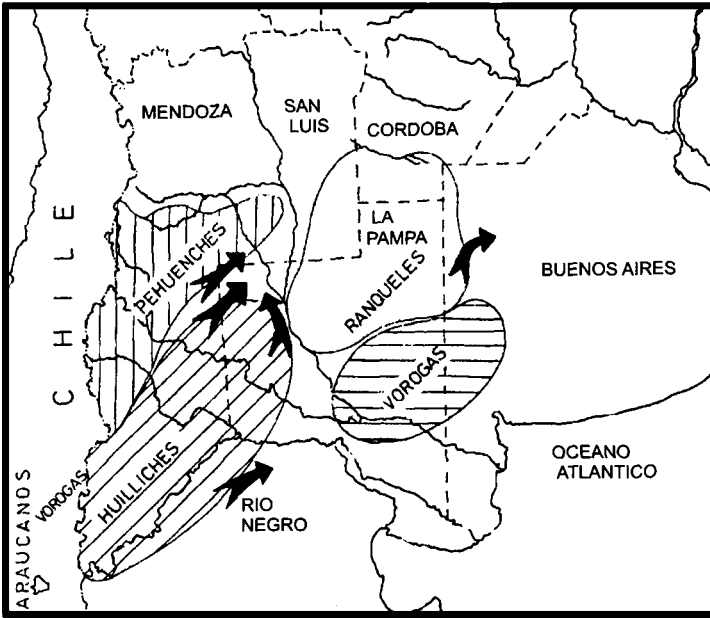


Fig. 1. Spatial distributions of the Indian groups and the direction of their mobilizations during the XIX century in Central area of Argentina.

In the last 15 years, diverse ethnohistoric studies of the cultural dynamics of Ranquel chiefdoms have been developed, but there were no archaeological studies that would allow us to compare or to enlarge the data provided by written sources. With the aim of approaching the study of this question, since 1994 I have been developing an archaeological investigation in the north of the province of La Pampa, and I have begun to elaborate archaeological hypotheses that enlarge or contrast with the written sources (Tapia, 2002a, 2003, 2004). In accordance with the results obtained up to this moment, this paper focuses on the analysis of the following issues: (1) the spatial and temporal distribution of settlements, (2) the resources for subsistence, (3) the ways of circulation and the toponyms, and (4) the indicators of cultural change through the innovations and continuities represented in the material culture.

SPATIAL AND TEMPORAL SETTLEMENT'S DISTRIBUTION, TOPONYMS, RESOURCES, AND WAYS OF CIRCULATION

Location and Classification of the Ranquel Settlements

Under the theoretical and methodological perspective of landscape archaeology, the aim of the analysis of the archaeological manifestation is to create a

settlement pattern model. In constructing this model, I used the interrelation of the following elements: the materials of the archaeological records, the natural characteristics of the aboriginal territory, the uses of the environment throughout time, and the collective perception of the environments (through the natural and cultural aspects designated by toponyms). To make the distributional analysis, I apply the theoretical concepts and the methodological procedures of spatial archaeological studies developed since the 1970s (Butzer, 1989; Clark, 1978; Ebert, 1992; Wandsnider, 1992, 1996, 1998).

Using old and modern cartography, air photographs, and written documentation, several sites have been identified as possible nineteenth-century Ranquel settlements. The information obtained allowed us to register 168 settlements grouped in three periods: 1779–1840, 1840–1870, and 1870–1885. (In the first period, the interethnic relations with the people of the national society were sporadic, but in the second period, they were more frequent. During the last period, the frequency and violence of conflicts at the frontier increased.) During nine seasons of fieldwork, 14 archaeological sites that correspond to Ranquel occupations were surveyed. The archaeological sites are distributed among three different vegetal areas in which the province of La Pampa is divided: the herbaceous prairie that expands toward the east, the *calden* woods (or *caldenar*) located at its center, and a steppe of low bushes that opens up toward the west (Fig. 2).

To this day, some places still maintain the aboriginal toponyms in the *mapuche* language. In the area of the woods, the *Leubuco*, *Poitahue*, *Quillay Lauquen*, *Don Isidoro 1*, *Don Isidoro 2*, and *La Gama* archaeological sites are located. In the transitional area, between the calden woods and the herbaceous prairie four sites have been surveyed: *El Recado*, *Vuta Trequen*, *Parera*, and *Solera*. The *Jagüel del Monte*, *San Manuel*, and *Currú Mahuida* sites are located between the woods and the western steppe of low and thin bushes. *La Maroma* archaeological site is located in the western steppe. The greatest number of sites is concentrated on the woods, an attractive environment with diverse resources for subsistence (wood, fauna and flora, and lagoons with potable water placed among the dunes) and for shepherding, because, clearings in the woods provide good grasses.

The comparison between the different sites, especially between the artificial characteristics and the specific environment of each settlement allows us to establish some similarities and differences. The variability observed is related to the diverse cultural and natural formation processes of the archaeological sites. The following aspects could explain the variability: (a) the chronology (the occupation of the sites occurred at different times), (b) the environment (according to the landscape characteristics and the differential use of the resources), and (c) the sociopolitical strategies (peace and war on the frontier).

To analyze the temporal occupations' variability, it is necessary to take into account the written references by travelers and colonial administrators, religious functionaries, and army officers during the eighteenth and nineteenth centuries (Amigorena, 1969; De Angelis, 1969; de Haedo, 1944; de la Cruz, 1969; Mansilla,

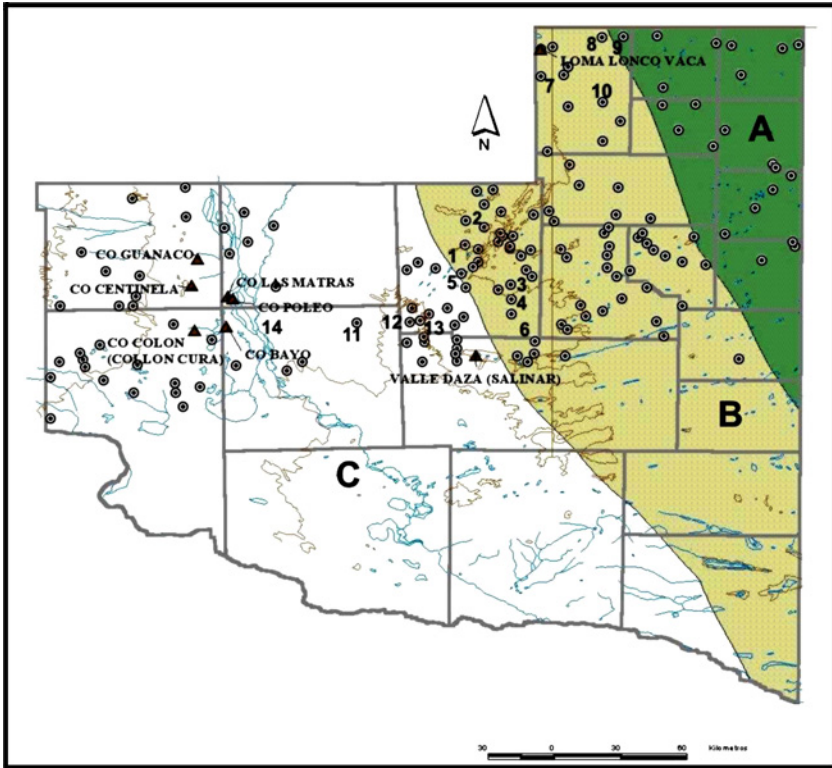


Fig. 2. Spatial distributions of the toponyms (circles), the lithic quarry (triangle) and the archaeological sites mentioned in the text (numbers): 1- Poitahue, 2- Leubuco, 3- Don Isidoro 1, 4- Don Isidoro 2, 5- laguna la Vega, 6- La Gama, 7- Vuta Trequen, 8- Parera, 9- Solera, 10- El Recado, 11- Currú Mahuida, 12- Jagüel del Monte, 13- San Manuel y 14- La Maroma. The letters show the vegetation areas: A- herbaceous prairie, B- calden woods (or caldenar), C- steppe of low bushes.

1993; Olascoaga, 1974; Racado, 1965). Such references give the chronology of the military advances in the Ranquel territory, the warlike confrontations that occurred, the migration of the Indian groups, and the elaborated strategies for survival in and defense of the territory in the context of the interethnic conflict (Bechis, 1992, 1994; Hux, 1991, 1999). The temporal differences among the settlements can also be explained through the following aspects of the Ranquel's economic organization: the extensive cattle activities that included seasonal use of the landscape (during winters and summers), and the extraction and exchange of intra and interregional resources, aspects that required frequent and massive migrations. For such reasons, the location of the aboriginal settlements was not stable; on the contrary, it varied through time because of diverse factors, including the search for drinkable water sources and good pastures for the livestock, the gathering of wild fruits in the summer, the organization of meetings among the groups, the

celebration of ceremonies, or the launching of attacks against creoles and military settlements on the frontier, to obtain livestock and other goods (Avendaño, 2000; Zeballos, 1955, 1986, 2002).

In the border areas, the interethnic conflicts placed into high risk the obtaining of natural and domestic resources (equine and bovine livestock, guns, European clothing and pottery, glass, and metal goods, and other consumable products). In consequence, the location of settlements conforms to a complex interaction of natural, cultural, and sociohistorical factors. The written documentation mentions diverse places of alternative occupation where the main leaders lived. For example, the cacique *Carripilum* settled in the *Marivil* site between the winter and the spring of 1806, but he was at another site in 1812. In addition, the cacique *Painé* lived in the *Leuvuco* site between the summer and the winter of 1832, and in 1838, he settled in the *Trenel* site with his family (de la Cruz, 1969; Fernández, 1998; Hux, 1991).

It is possible to say that the more stable settlements (such as *Leuvuco* where the cacique *Paine* lived for several years), were directly connected not only with the control of localized basic resources (water, wood, flora, and fauna, good pastures), but also with the quick access to the main circulation routes and the efficient controls of the colonists', merchants', missionaries', and military movements. At the end of the nineteenth century, especially before the entrance of the army of General Julio A. Roca, the transformations of the settlement patterns are interesting to evaluate. In the first place, the diffusion of illnesses, such as smallpox, caused a high mortality rate and accelerated the ethnic groups' dissolution and the settlements' dispersion (with a smaller demographic density for each occupation). In addition, the end of the peace treaties caused both loyalties and betrayals to the main Indian leaders and their integrative power, and provided for the appearance of new secondary leaders (*caciquillos* or *capitanejos*). Finally, some Ranquel groups left their native territory and became friends with whites (or *huinca*). At this time, the Ranquel control over La Pampa's northern territory was lessening, and several aboriginal settlements disintegrated into occupations of smaller size and density (Tapia, 2002b, 2003).

Distributional Analysis of the Aboriginal Toponyms

In the region that was known as Ranquel territory, an important number of aboriginal toponyms are still used. For these reasons, it is interesting to relate their spatial distribution with the archaeological sites' location and the characteristics of the material remains. The toponyms designate diverse natural characteristics like geomorphologic, sedimentary, hydric, fauna, flora, and several other cultural characteristics, such as the name of a prominent person or an historical event that took place there, or places where supernatural powers are said to be present. In consequence, the relationship between the different aspects allows us to generate a hypothesis about the settlement's function and the strategies elaborated in the construction and social use of the landscape (Tapia, 2002a,b).

I do not hope to reconstruct all the perceived ambience or a “cognitive map” that would have oriented the native groups in their landscape and along time (Butzer, 1989) just with the distributional analysis of the toponyms and their meanings. The toponymic information is affected by different factors of duration or change, and it only provides a summary of the diverse denominations that should have existed at the wide Ranquel territory. Nevertheless, despite the partial information, the analysis of the toponyms’ distribution can provide information about the following variants: (a) the attractive places to build settlements (to obtain daily resources, firewood, and water) or dangerous places (where the waters produce digestive illness), and (b) the sites’ functionality in relation to places where the natives held political meetings, celebrated religious ceremonies, and conducted commercial exchanges.

The first methodological stage used to analyze the toponyms’ distribution was classification and tabulation. Then, followed the phonetic control of the symbols, and the linguistic control of the toponyms’ meanings, the use of GIS to create a map of the toponyms’ coverage (and other thematic maps), the comparison between toponyms’ meanings and the current environmental characteristics, and the quantification and interpretation of the archaeological data obtained. In Table I, the toponyms have been discriminated by natural and cultural categories. In the first category, the toponyms include different variants: (1) water (lagoons, swamps, muddy waters, waters that produce diarrhea, small streams, and saltpan); (2) sedimentary (white clay, yellow earth, red lands, dry earth); (3) geomorphic (big or small dunes, hills, mound, and dale); (4) fauna (puma, cow, fox, etc.); and (5) flora (*caldén*, *chañar*, *carrizal*, etc.). The cultural aspects include: (1) settlement names (sites with stockyards, houses, or fences); (2) caciques’ names or those of other well-known characters; (3) historical events that happened at the sites; and (4) cardinal points.

The percentages obtained show that most toponyms correspond to water (31%) and of them, the highest quantity are located in the regions of Loventué and Utracán (central sector of La Pampa), which coincide with the area of the woods where, at the end of the nineteenth century, contained the highest occupation density in the Ranquel territory. The toponyms that follow are fauna (17%), flora (12%), geomorphic (11%), settlement type (11%), sedimentary (7%), caciques’ names (6%), cardinal points (3%), and a scarce use of terms that designate events which took place at those sites.

The high percentage of water toponyms is closely linked with the semiarid conditions of the north of the province of La Pampa. Even now, water continues to be a critical resource for people living in this part of Argentina. Among the toponyms that designate diverse water forms, the main one is that which indicates watershed, followed by lagoons, springs, run waters, saltpan, swamps, and dams. Dunes, hills, and dale are the main toponyms used to designate geomorphic variants. The highest number of geomorphologic toponyms is located at low bush steppe that develops over any structural basaltic formation, an arid and irregular landscape where the toponyms indicate elevation, plains, dunes, and canyons.

Table 1. Toponym Numbers by Department and Natural and Cultural Characteristics That They Design

Numbers of toponyms by department	Natural aspects					Cultural aspects				Mixed aspects (negative numbers)	
	Hydric		Geomorphic		Faunistic	Plants	Settlements	Personages	Historical		
	Sedimentary								events		Cardinal
<i>Chicalcío</i>	11	4	3	3	2	2	1				-4
<i>Chatileo</i>	8	3	1	2	3	2		1			-4
<i>Toay</i>	17	9	1	4	1	3	4	2		4	-11
<i>Capital</i>	10	4	2		3		3	1	1	1	-5
<i>Catrilló</i>	3	1			1			1			-1
<i>Quemú-Quemú</i>	4	1	1				2		1		
<i>Maracó</i>	3	1	1	1	1	1					-1
<i>Trenel</i>	4	1	1	1	1		2	1			-2
<i>Realicó</i>	3	2	1			1					-1
<i>Chapaleufú</i>	4	2		1	1						
<i>Rancul</i>	12	5		3	3	1	2	1			-3
<i>Conhelo</i>	8	4		1	3		2				-2
<i>Puelen</i>	16	9	1	3	5	4	1			1	-8
<i>Loventué</i>	38	12	2	4	11	9	5	2			-7
<i>Limay Mahuida</i>	4	2		2	1						-1
<i>Utracán (fractions</i>	13	8		2	2	4	2				-5
A y B)											
<i>Atreucó (fractions</i>	2	1					1				
A y B)											
Total and percentage ^a	157	67	15	26	36	27	25	8	2	6	-55
	%	31	7	12	17	13	12	4	0.9	3	

Note. The negative numbers correspond to toponyms that have a mixed means and are formed with two different aspects, for example *Nerecó: neré* means fox and *co* means water, consequently, *fox* is classified as Faunistic and *co* as Hydric aspects (see Araoz, 1987; Plana, 1981; Vuletin, 1972).

^aThe total number of toponyms are 212 but 55 are negative numbers. The percentage is computed with 212 toponyms.

The highest number of toponyms that designate different types of settlements corresponds to campsites and then stockyards, places where firewood for provisioning was easy to obtain, and places where *rehue* or totems were to be found (a *rehue* is a place where several groups went to celebrate their religious ceremonies). In addition, several other meeting places are mentioned, where the Ranquel celebrated parliaments, prepared for war (through shouting), captured livestock, or tamed horses.

The classification of the settlements took into account the etymology of each toponym, as well as other aspects, such as the subsistence probability (where there was firewood, potable water, etc.), the system of belief (where there were totems, dangers, shouting, etc.), the activities of cornering and taming horses (where there were stockyards and fences); and settlement (where there were houses or where the main cacique lived). The highest concentrations of settlements and activity areas are found at the woods. This distribution directly relates to the high density of Ranquel occupation sites, just as the written sources mentioned and the archaeological investigations have demonstrated.

Relationship Between the Resources and the Ways of Circulation

Taking into account that the Ranquel territory was located in a semiarid habitat and that the economy was essentially pastoral, the different sources of drinkable water, associated with good grass for shepherding, was the main attractiveness for human settlement. The location of the settlements and the etymology of the toponyms corroborate this interpretation. Beside the water sources, other necessary resources for subsistence were also heterogeneously distributed in the environment. Nevertheless, the wide mobility offered by the use of horses afforded the acquisition of the natural subsistence resources (lithics, sedimentary elements, and flora and fauna).

Some artifacts appear among the material remains made of different types of lithic. Mineralogical analysis shows that chalcedony, silex, and chert were the lithic materials most frequently used. Several types of granite, basalt, and quartzite were used for making ground-stone tools, such as *sobadores* (using for rubbing leather) and *bolas*. Chalcedony and silex are lithic materials that can only be obtained in far away mountains at Mendoza and Neuquén (280 or 300 km toward the west). Other small lithic outcrops occur in northern La Pampa. Chert can be obtained at *Meseta del Fresco*, located in the west center of the province of La Pampa, but it is also possible that some pebbles of the same raw material could have been gathered south of the calden woods (Charlin, 2002; Tapia *et al.*, 2001).

Basalt and fine-grained quartzite can only be obtained in the hills located toward the northwest of the province of La Pampa. The source locations are 110–180 km (on a straight line) from the archaeological sites *Poitahue*, *Quillay Lauquen*, *Don Isidoro*, and *La Gama*. North of the Ranquel territory there is an

important granite outcrop named *Lonco Vaca*. This outcrop is located 60 km away from *El Recado* site, where ground-stone tools (grinding slab, handstone, and mortar and pestle), *sobadores* and *bolas* have been found, all made with *Lonco Vaca* raw materials. The same stone tools and raw materials were found in some archaeological sites located between 150 and 160 km away of that outcrop.

If we take into consideration the use of horses for traveling, the distances for provisioning and transportation of lithic raw materials were not so great. Moreover, in accordance with the increasing Indian cultural changes and the more frequent interethnic conflicts, we must bear in mind that during the nineteenth century, interest in obtaining lithic raw matters to make tools (projectile points and scrapers) diminished, while the number of foreign goods that were incorporated to the material culture (guns, dresses, glasses, iron, and other domestic objects) increased.

The cartographic information obtained between 1882 and 1883 by the first surveyors allows us to analyze the Ranquel migration through the region. The surveyors compiled a meticulous report on the environmental characteristics of the area, and noted several Ranquel settlements, which were abandoned 3 years before the survey. They also traced the course of aboriginal roads. On a large scale, the road network is closely linked with the cattle and pastoral economy. The roads had a general direction west to east, and vice versa; from the east, the roads allowed access to equine and bovine (either wild or at rural settlements) which were situated near fields or border areas; from the west, they allowed access to places where the Ranquel exchanged livestock and other native and foreign goods.

At a medium scale, this analysis allows us to observe the connection between the settlements and the lagoons and other water places, hunting places of wild animals such as the *Rhea americana* (ñandú), and gathering pods of *Prosopis flexuosa* (algarrobo), *Prosopis caldenia* (caldén), and fruits of *Geoffroea decorticans* (chañar). In addition, some roads lead to different salt pans, where salt of good quality was obtained. Figure 3 shows the spatial road distribution over the region of *Loventué*, which is associated to dune and lagoon formations. The *Poitahue* and *Leuvuco* settlements, where the caciques *Baigorrita* and *Mariano Rosas* lived toward the end of the nineteenth century, are situated at a crossroad. Moreover, the *Don Isidoro* and *Chicalco* settlements were located near the only road (running south to north) that indirectly connected them with *Poitahue* and *Leuvuco*.

It can also be observed that, toward the southwest of *Loventué* where the *Nahüel Mapü* (earth of the tiger) was located, that roads cross an area of wide dunes, where the direction maximizes the effort of the migration: the roads connect to lagoons located among the dunes, even if the distance is greater. Toward the eastern sector of the same region, where the woods are dense, the roads also connect lagoons, but here, the straight direction minimizes the efforts of the migration. Applying this analysis to other regions and comparing the information

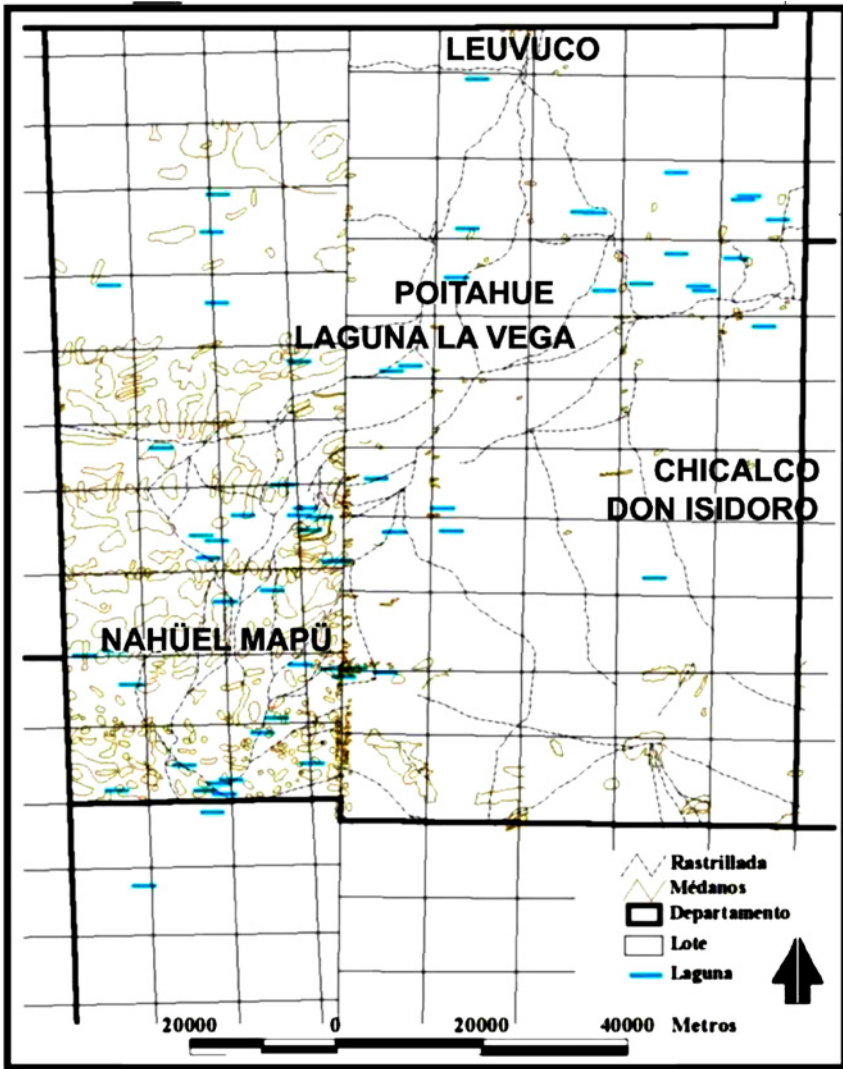


Fig. 3. Spatial distributions of dunes and ways in Loventue department, La Pampa province, Argentina. The information proceeds of cartographic dates registered to 1881–1882 by the firths land surveyor. The locations of *Leuvuco*, *Poitahue* and *Quillay Lauquen* sites are coincident with the ways crossing but *Chicalco* and *Don Isidoro* 2 sites, are located near of only one ways.

obtained, we hope to obtain data that will allow us to formulate a hypothesis about the functional variability and the spatial and temporal connection between the Ranquel settlements.

ARCHAEOLOGICAL VISIBILITY OF THE MATERIAL CULTURE

In most of the sites, the archaeological materials are dispersed through the lagoons, the bodies of water, or over the surface of the dunes. An exception is the *Don Isidoro 2* site, where a stratified fireside was uncovered. The archaeological information made it possible to determine an area of domestic activity (probably linked to the nearby presence of a native structure). At present, the analysis of the faunal remains, the stone tools, ceramics, leather, metal, glass, and pottery provides the most significant evidence to establish a relative chronology. For example, according to the metal and glass remains (cartridges from Remington guns and bottles of Dutch *Jurgen Peters* gin), the human settlement of *Don Isidoro 2* can be dated to the end of the nineteenth century, probably around 1879 (Tapia, 2004). We have historical references for other sites that provide a date close to which the Ranquel occupation could have taken place. For example, the *Leuvucó* and *Poitahue* sites are mentioned as important settlements where the main Ranquel leaders lived between the mid-eighteenth to the end of the nineteenth centuries.

The indicators of cultural change at the 14 archaeological sites are: (a) the presence or absence of native and imported materials, and (b) the different raw materials used to make artifacts (Table II). The carved stone tools include abundant, small flakes and short scrapers, bifacial pieces, small cores, and small projectile points. Polished artifacts include several types of grinding slabs, hand stones, mortars and pestles, *sobadores*, and different-sized *bolas*. Lithic artifacts do appear at all the archaeological sites, but ceramic remains only appear at eight sites. These ceramics are of different sizes, thicknesses, and cooking quality.

Taking into account the information obtained through the comparative analysis of the different archaeological artifacts, whether made from foreign or native raw materials, we can establish two groups of sites. The first group includes the *Don Isidoro 1*, *Currú Mahuida*, *San Manuel*, and *La Maroma* sites where there are blue necklaces of Venetian glass, small in size and spiral, that were brought by the end of the seventeenth and during the eighteenth centuries by the Spaniards (Hyduk, 1991). However, artifacts made with imported materials, such as glass or metal, were not found. Although the absence of metal materials, glass, and European ceramics can be explained in several ways (for example, having to do with the site formation processes), the morphological differences of the lithic instruments (triangle projectile points without peduncle and small scrapers with arched edge) are indicators of older Ranquel settlements. These settlements were occupied between the end of the eighteenth and the beginning of the nineteenth centuries. The second group includes the *Poitahue*, *Quillay Lauquén*, *Don Isidoro 2*, *El Recado*, *La Gama*, *Leuvuco*, *Jagüel del Monte*, *Parera*, and *Solera* sites, where we have found many artifacts made with raw materials traditionally used by the Ranquel (in addition to European artifacts). Written documents note that interethnic conflicts on the frontier intensified from the middle to the end

Table II. Linkage Between Vegetation Areas, Sites, and Native and Imported Artifacts Presence—Absence

Vegetation areas	Sites	Native materials			Imported materials		
		Lithic	Pottery	Leather	Glass	Metal	Ceram.
Woods (of <i>Calden</i>)	1. <i>Poitahue</i>	x	x				x
	2. <i>Letuico</i>	x					x
	3. <i>Don Isidoro 1</i>	x	x		x		
	4. <i>Don Isidoro 2</i>	x	x	x	x	x	x
	5. <i>Laguna La Vega</i>	x	x	x	x	x	x
	6. <i>La Gama</i>	x	x		x	x	x
Border between woods and herbaceous prairie	7. <i>Vita Trequen</i>	x					
	8. <i>Parera</i>	x				x	
	9. <i>Solera</i>	x				x	
	10. <i>El Recado</i>	x	x	x	x	x	x
Border between woods and steaps of low bushes	11. <i>Curru Mahuida</i>	x	x		x		
	12. <i>Jagüel Del Monte</i>	x					x
	13. <i>San Manuel</i>	x			x		
Steaps of low bushes	14. <i>La Maroma</i>	x	x		x		

Note. The glass goods include both blue beads of Venetian glass (to left) and glass bottles (to right).

of the nineteenth century. Consequently, we can observe changes in the archaeological record: less chipped lithic artifacts appear (the lithic projectile points were replaced by iron spear points), but the ground-stone tools increase, as well as the metal and glass artifacts that were incorporated to the Ranquel material culture.

The archaeological record and the written references make it possible to infer that some settlements were occupied at different times of the chiefdom's development, from the end of the seventeenth until the end of the nineteenth centuries. The foreign goods could be obtained by different exchange forms, including commercial exchanges, looting of settlers, and gifts given to seal alliances or make agreements of peace on the frontier. The latest archaeological remains are characterized by cartridges for Remington guns made in the United States and used by the Argentinean Army during the "desert conquest" of 1879. Also found are sherds of European ceramics, and glass bottles of gin, wine, liquor, and medicines. In the *Don Isidoro 2* site, the metal goods are represented by a piece of an iron pot, thin sheets of lead (to close bottles), knives, copper strips, iron nails, buckles, and military jacket buttons and pins (Tapia *et al.*, 2002).

Cultural Change Indicators in the Archaeological Record

The *Don Isidoro 2* site can serve as diagnostic since it is the only excavation that presents reliable stratigraphic information and a domestic area indicated by the presence of a fireside, formed by 16 superimposed layers (Tapia, 2002a, 2004). The excavation allows setting control indicators as an alternative to palimpsests. The horizontal and vertical stratigraphic associations between the different artifact classes (glass, metal, lithic, ceramic, pottery, and leather) allow us to sustain the hypothesis of a contemporary association of the recovered context. For this reason, the results obtained from the study of this archaeological record can be used as diagnostic indicators of the Ranquel material culture by the end of the nineteenth century. Analysis of the archaeological remains indicates that most goods were foreign made (80%), with the rest being aboriginal (20%) (Table III).

In the *Don Isidoro 2* archaeological record, are 80 foreign goods from the domestic area and the fireside. The highest number are metal goods (55%), then artifacts of glass (21%), lithic (12.5%), European ceramics (3.5%), and aboriginal pottery (7.5%). The presence of stone tools in the cultural context of the end of the nineteenth century indicates their continuity. However, the abundance of metal goods incorporated to the Ranquel material culture, especially the sharp objects, suggests that the obtaining and using foreign artifacts gave a high social prestige to their owners and, at the same time, would have allowed them to perform some domestic activities in a more efficient way than by using stone tools.

Table III. Artifact Distribution of Native and Foreign Raw Materials at the *Don Isidoro 2* Site

Categories	CI	CI Lents	CII	CIII	C IV	Sub.	%
Native materials							
Lithic							
Flakes	1	1	3			5	12.5
Proyectil points	1					1	
Scrapers	1	1	2			4	
Pottery							
Potsherd	2	1	2	1		6	7.5
<i>Subtotals</i>	5	3	7	1		16	20
Foreign materials							
Ceramics	2		1			3	3.5
Glass	11	2	4			17	21
Metal							
Household furniture					1	1	55
Various	10		3	3	5	21	
Clothes	9			1	1	11	
Cartridges	5	2			2	9	
Knives					1	1	
Equestrian					1	1	
<i>Subtotals</i>	37	4	8	4	11	64	80

DISCUSSION AND CONCLUSION

The spatial relationships between the archaeological sites, the methods of artifact circulation, the toponyms, and the diverse environmental characteristics (woods, lagoons, saltpans, valleys, dunes, hills) provide us with information about the strategies applied to establish settlements and to perform migrations during the Ranquel chiefdoms. The interrelation of the analyzed variants allows us to classify the settlements according to distance to the resources and to their density, functionality, and temporality (Butzer, 1989; Hodder and Clive, 1990; Kelly, 1983; Wood, 1978).

Though the *araucanización* process produced some cultural homogeneity between the Indian inhabitant of Argentina's central area, the Ranquel chiefdoms' case is unique in the process. The Ranquel territory had particular environmental characteristics (especially woods and dunes) and, consequently, the settlement pattern was different from other Indian groups. In addition, to a greater scale, the cattle economic system of Indian people presented a marked contradiction; peaceful relationships toward the west allowed for commercial transactions to be done while, on the contrary, conflictive relationships toward the east banned the access to bovine and equine livestock. While the Indian *pehuenches* controlled the mountain steppes and traded (legally or illegally) with the Hispanic-Creoles, in the east, obtaining the wild or stolen livestock from the

rural establishments generated interethnic frictions that brought destruction and death.

The incorporation of equine, ovine, and bovine into the aboriginal economy allowed the Ranquel and other *mapuches* groups to integrate into regional markets. In the settlements, lived sheep and horse raisers, and several products derived from leather and wool were made. In the diverse historical sources written in the nineteenth century, some changes in the material culture were mentioned, especially those generated by the adoption of the horse, cattle, other animals, and the use of firearms (Amaya, 1982; Mandrini, 1987; Palermo, 1986). In the *Don Isidoro 2* archaeological record, the association between sharp, metal artifacts and aboriginal stone tools, such as scrapers and *sobadores*, allows us to take into consideration that the Ranquel material culture underwent several changes by the end of the nineteenth century. These processes include the addition of new artifacts, the substitution of aboriginal artifacts with imported ones, and the persistence of traditionally used aboriginal artifacts.

The foreign, metal goods found in *Don Isidoro 2* show no modification of their original shape. Nevertheless, at the beginning of the nineteenth century, some written references indicate the use of sheet copper and kitchen knives to make spear points (de la Cruz, 1969). This process may be similar to the substitution of aboriginal artifacts with metal artifacts among the Cherokee in Tennessee (Ramenofsky, 1998). According to the Cherokee archaeological record, at the beginning of the nineteenth century, the group modified and recycled foreign metal goods to make aboriginal artifacts. They selected the metal goods not so much for their function but for their raw material, being stronger than stone, wood, or bone. This selection could be linked to the scarcity of commercial exchanges and the poor functional diversity of the foreign goods incorporated into the Cherokee material culture. However, toward the end of the nineteenth century, the highest number and diversity of unmodified and recycled metal goods indicates their use as they were originally intended.

In a similar way, the introduction of European and national industrial products to Ranquel material culture, begun by the end of the eighteenth century, only increased by the middle of the nineteenth century (Tamagnini, 1998; Tamagnini and Lodeserto, 1999), when interethnic relationships became more conflictive and violent. In *Don Isidoro 2*, 80% of the foreign goods, of which 56% are metal, show no modification from their original form. Nevertheless, these high percentages do not necessarily indicate that the aboriginal culture had lost its traditional identity. The process of change that affected domestic behaviors, language, or the system of beliefs might have been scarcely connected with the changes in the material culture. This implies that some traditional behaviors could have lasted without substantial change along the time. In many cases, the changes in material cultural took place to achieve greater efficiency and to resist better the impact of colonization. Consequently, the material culture was changed in a way that made it possible to

maintain and redefine the substantial characteristics of cultural identity (Leonard, 1993; Lightfoot, 1995, 1998; Wilson and Rogers, 1993).

Our understanding of the frontier multiethnic interactions is based on the available written documents, but the archaeological data also offers an independent source of evidence to control the bias of the data mentioned by the different observers who, for the most part, were representatives of the colonizer society. The historical dynamic of Ranquel chiefdoms took place during the historical emergence of the Argentinean state-nation, characterized by conquest strategies elaborated according to the national government's politicians. Nevertheless, from the archaeological perspective, we can observe the existence of agents that promoted a different historical dynamic, of cultural change, and answers in the face of interethnic conflict. Although the relationships of commercial exchange did integrate the Ranquel economy into the regional market, the impact suffered by its material culture did not necessarily indicate the loss or substitution of their cultural identity. In this sense, the archaeological investigation performed has started to provide material evidences for resistance and cultural continuity, represented as much through the domestic activities as in the exploitation of regional resources and settlement patterns.

In addition, from an archaeological perspective, it is possible to recognize some cultural answers to solve daily problems of subsistence in the settlements and, at the same time, to face the interethnic conflict in the frontier by the end of the nineteenth century. The type and amount of foreign goods incorporated into the material culture relates not only to the processes of cultural selection, but also to negotiation and to passive or active resistance. On the other hand, the archaeological evidence contributes to reinforce the concept of the frontier as a dynamic space, where human groups constantly generate new forms of social interaction (conflictive, peaceful, diplomatic, economic, religious, military, cooperative, friendly, integrative, excluding, segregationists, and so forth), and where several processes of cultural change for coevolution, symbiosis, or resistance take place. Finally, at a greater scale, the Ranquel chiefdoms' history can be linked to capitalism expansion from the central, industrialized countries to Latin America. The presence of Dutch gin bottles, firearm cartridges from the United States, and English iron goods in the Ranquel archaeological record can be explained in terms of the different colonialist processes developed by both external and internal politicians.

REFERENCES CITED

- Amaya, L. E. (1982). Aculturación en torno a los indios ranqueles. *Cuadernos del Instituto Nacional de Antropología* 9: 269–279.
- Amigorena, J. F. (1969 [1780]). Diario de la Expedición que de orden del Excelentísimo Señor Virrey acabo de hacer contra los indios bárbaros peguenches. In de Angelis, P. (ed.), *Colección de obras*

- y *Documentos relativos a la historia antigua y moderna de las Provincias del Río de La Plata*, Vol. 4, Plus Ultra, Buenos Aires, pp. 203–220.
- Araoz, F. (1987). *Cobertura de Geonimia para el mapa de La Pampa*, Biblioteca Pampeana, Fundación Chadileuvú, Santa Rosa, La Pampa, Argentina.
- Avendaño, S. (2000). *Usos y costumbres de los indios de la pampa*, Editorial El Elefante Blanco, Buenos Aires.
- Bechis, M. (1992). Instrumentos para el estudio de las relaciones interétnicas en el período formativo y de consolidación de los estados nacionales. In Hidalgo, C., and Tamagno, L. (comps.), *Etnicidad e identidad*, Editado por CEAL, Buenos Aires.
- Bechis, M. (1994). Matrimonio y política en la génesis de dos parcialidades Mapuche durante el siglo XIX. *Memoria Americana* 3: 41–62.
- Butzer, K. L. (1989). *Arqueología una ecología del hombre*, Ediciones Bellaterra, Barcelona, Spain.
- CGE [Comando General del Ejército] (1973–1975). *Política seguida con el aborigen*, Vols. 1–5, Dirección de Estudios Históricos, Circulo Militar, Biblioteca del Oficial, Buenos Aires.
- Charlin, J. (2002). Aprovechamiento de materias primas líticas en el NO de la provincia de La Pampa fines del siglo XIX. In Mazzanti, D., Beron, M., and Oliva, F. (eds.), *Del mar a los salitrales. Diez mil años de historia pampeana en el umbral del Tercer milenio*, UNMP, Facultad de Humanidades, Laboratorio de Arqueología, pp. 205–218.
- Clark, D. (1978). *Analytical Archaeology*, Methuen, London.
- de la Cruz, L. (1969 [1806]). Viaje a su costa del alcalde provincial del muy ilustre Cabildo de Concepción de Chile, don Luis de la Cruz, desde fuerte Ballenar, frontera de dicha Concepción hasta Melincué. In de Angelis, P. (ed.), *Colección de obras y documentos relativos a la Historia antigua y moderna de las Provincias del Río de La Plata*, Vol. 2, Plus Ultra, Buenos Aires, pp. 45–385.
- de Angelis, P. (1969). *Colección de obras y documentos relativos a la Historia antigua y moderna de las Provincias del Río de La Plata*, Vol. 2, Plus Ultra, Buenos Aires.
- Ebert, J. (1992). *Distributonal Archaeology*, University of New México Press, Albuquerque.
- Falkner, T. (1911). *Descripción de la Patagonia*, Biblioteca Centenaria I, Buenos Aires, pp. 1–126.
- Fernández, J. C. (1998). *Historia de los indios ranqueles. Orígenes, elevación y caída del cacicazgo ranquelino en la Pampa central (siglos XVIII y XIX)*, Edición del Instituto Nacional de Antropología y Pensamiento Latinoamericano, Buenos Aires.
- de Haedo, F. (1944 [1777]). Informe elevado por Don Felipe de Haedo al virrey del Río de la Plata, don Pedro de Cevallos. Batidas realizadas contra los indios en el año 1776. *Revista de la Biblioteca Nacional* 12: 72–99.
- Hodder, I., and Clive, O. (1990). *Análisis espacial en Arqueología*, Editorial crítica, Barcelona, Spain.
- Hux, M. (1991). *Caciques pampa—ranqueles*, Ediciones Marymar, Buenos Aires.
- Hux, M. (1999). *Memorias del Ex-cautivo Santiago Avendaño*, Editorial El Elefante blanco, Buenos Aires.
- Hyduk, A. (1991). Las cuentas vítreas del sitio arqueológico de Caepo Malal (Departamento de Chos Malal, Neuquén). En *Cuadernos de Investigación. Arqueología y Etnohistoria de la Patagonia Septentrional*, María Teresa Boschín (compiladora), IEHS, Universidad del Centro de la Provincia de Buenos Aires, Tandil.
- Kelly, R. (1983). Hunter gatherer mobility strategies. *Journal of Anthropology* 39: 207–306.
- Leonard, R. (1993). The persistence of an explanatory dilemma in contact period studies. In Rogers, D., and Wilson, S. (eds.), *Ethnohistory and Archaeology: Approaches to post-contact change in the Americas*, Plenum, New York, pp. 31–43.
- León Solís, L. (1982). La corona española y las guerras intestinas entre los indígenas de Araucanía, Patagonia y Las Pampas. *Nueva Historia. Revista de Historia de Chile* 2(5): 31–67.
- León Solís, L. (1989). Comercio, trabajo y contacto fronterizo en Chile. Cuyo y Buenos Aires, 1750–1880. *Runa. Archivo para las Ciencias del Hombre* 19: 177–221.
- León Solís, L. (1991). *Maloqueros y conchavadores en Araucanía y las Pampas, 1700–1800*, Ediciones Universidad de la Frontera, Serie Quinto Centenario, Temuco, Chile.
- Lightfoot, K. (1995). Culture contact studies: Redefining the relationship between prehistoric and historical archaeology. *American Antiquity* 60: 199–207.
- Lightfoot, K. (1998). Daily practice and material culture in pluralistic social settings: An archaeological study of culture change and persistence from Fort Ross, California. *American Antiquity* 63: 199–222.

- Mandrini, R. J. (1984). *Los araucanos de las pampas en el siglo XIX (selección y prólogo)*, Centro Editor de América Latina., Buenos Aires.
- Mandrini, R. J. (1985). La agricultura indígena en la región pampeana y sus adyacencias (siglos XVIII y XIX). *Anuario IEHS* 1: 11–43.
- Mandrini, R. J. (1987). Desarrollo de una sociedad indígena pastoril en el área interserrana bonaerense. *Anuario del IEHS* 2: 73–98.
- Mandrini, R. J. (1993). Las transformaciones de la economía indígena bonaerense (ca. 1600–1820). In Mandrini, R. J., and Reguera, A. (comps.), *Huellas en la tierra. Indios, agricultores y hacendados en la pampa bonaerense*, IEHS-UNCPBA, Tandil, Argentina, pp. 45–74.
- Mansilla, L. V. (1993 [1881]). *Una excursión a los indios ranqueles*, Editorial Espasa Calpe, Colección Austral, Buenos Aires.
- Olascoaga, M. (1974 [1880]). *Estudio topográfico de la pampa y el Río Negro*, Edición Ostwald y Martínez, Buenos Aires.
- Palermo, M. A. (1986). Reflexiones sobre el llamado “complejo ecuestre” en la Argentina. *Runa* 16: 157–178.
- Palermo, M. A. (1991). La compleja integración hispano-indígena del sur argentino y chileno durante el período colonial. *América Indígena* 1: 153–192.
- Piana, E. (1981). *Toponimia y Arqueología del siglo XIX en La Pampa*, Eudeba, Buenos Aires.
- Pinto Rodríguez, J. (1988). *Misioneros en la Araucanía, 1600–1900*, Editorial Universidad de La Frontera, Temuco, Chile.
- Pinto Rodríguez, J. (1996). Redes indígenas y redes capitalistas. La Araucanía y las Pampas en el siglo XIX. In Bonilla, H., and Guerrero Rincón, A. (eds.), *Los pueblos campesinos de las Américas. Etnicidad, Cultura e Historia en el siglo XIX*, Escuela de Historia de la Universidad Industrial de Santander, Colombia, pp. 144–151.
- Pinto Rodríguez, J. (1998). Araucanía y Pampas. Una economía fronteriza en el siglo XVIII. *Boletín de Historia y Geografía* 14: 197–221.
- Racedo, E. (1965). *La conquista del desierto. Memoria militar y descriptiva de la 3a División Expedicionaria*, Ediciones Pampa y cielo, Editorial Plus Ultra, Buenos Aires.
- Ramenofsky, A. (1998). Evolutionary theory and the native americans record of artefact replacement. In Cusick, J. (ed.), *Studies in culture contact*, Center for Archaeological Investigations Occasional Paper 25, Southern Illinois University, Carbondale, pp. 77–101.
- Sánchez Labrador, J. (1936 [1772]). *Los indios Pampas—Puelches—Patagones*, Editorial Viau y Zona, Buenos Aires.
- Tamagnini, M. (1998). La frontera del Río Cuarto vista desde la cuenta de agasajos de indios del año 1861. In *Memorias de las Jornadas de Historia y cultura Ranquelina*, Edición de la Subsecretaría de Cultura de la provincia de La Pampa, La Pampa, pp. 207–245.
- Tamagnini, M., and Lodeserto, A. (1999). Arqueología de frontera. In *Actas del XII Congreso Nacional de Arqueología Argentina*, La Plata, Argentina, pp. 483–491.
- Tapia, A. H. (2002a). Aspectos lingüísticos considerados en el estudio arqueológico de los cacicazgos ranqueles. In Aguerre, A., and Tapia, A. (eds.), *Entre médanos y caldenes de la pampa seca. Arqueología, historia, lengua y topónimos*, Universidad de Buenos Aires, Facultad de Filosofía Letras, pp. 273–310.
- Tapia, A. H. (2002b). Distribución espacial de asentamientos ranqueles en el norte de la provincia de La Pampa (siglos XVIII y XIX). In Mazzanti, D., Beron, M., and Oliva, F. (eds.), *Del mar a los salitres. Diez mil años de historia pampeana en el umbral del Tercer milenio*, UNMP, Facultad de Humanidades, Laboratorio de Arqueología, pp. 65–83.
- Tapia, A. H. (2003). Relaciones interétnicas y cambio cultural en la frontera al sur del Río Cuarto. In *Signos en el tiempo y rastros en la tierra. III Jornadas de Arqueología e Historia de las regiones Pampeana y Patagónica*, Publicaciones de la Universidad Nacional de Lujan, Argentina, pp. 272–282.
- Tapia, A. H. (2004). Conflicto interétnico en territorio ranquel y registro arqueológico. En Gradín, C., and Oliva, F. (eds.), *La Región pampeana, su pasado arqueológico*, Centro de Estudios Arqueológicos Regionales, Editorial Laborde, pp. 149–163.
- Tapia, A. H., Cabanillas, E., and Casas, G. (2002). Obtención y uso de artefactos de metal entre los ranqueles (siglos XVIII y XIX, norte de la provincia de La Pampa). In *Actas del 1er Congreso Nacional de Arqueología Histórica Argentina*, Agencia Nacional de Promoción Científica y Tecnológica, Municipalidad de Mendoza, CAU-UBA, Argentina, pp. 517–531.

- Tapia, A. H., Charlin, J., and Pera, L. (2001). Piedras entre vidrios y metales. Análisis lítico en un contexto de contacto cultural. In *XIII Congreso Nacional de Arqueología Argentina*, Vol. 1, Universidad Nacional de Córdoba, Córdoba, Spain, pp. 61–74.
- Vuletin, A. (1972). *La Pampa: Grafías y etimologías aborígenes*, Eudeba, Buenos Aires.
- Wandsnider, L. A. (1992). The spatial dimension of time. In Rossignol, J., and Wandsnider, L. (eds.), *Space, Time, and Archaeological Landscape*, Plenum, New York, pp. 257–282.
- Walther, J. (1976). *La conquista del desierto*, Eudeba, Buenos Aires.
- Wandsnider, L. A. (1996). Describing and comparing archaeological spatial structures. *Journal of Archaeological Method and Theory* 3: 319–384.
- Wandsnider, L. A. (1998). Regional scale processes and archaeological landscapes units. In Ramenofsky, A., and Steffen, A. (eds.), *Unit Issues in Archaeology. Measuring Time, Space, and Material*, University of Utah Press, Salt Lake City, pp. 87–102.
- Wilson, S., and Rogers, D. (1993). Historical dynamics in the contact era. In Rogers, D., and Wilson, S. (eds.), *Ethnohistory and Archaeology. Approaches to Post-Contact Change in the Americas*, Plenum, New York, pp. 31–43.
- Wood, J. (1978). Optimal location in settlement space: A model for describing location strategies. *American Antiquity* 43: 259–270.
- Zeballos, E. (1955 [1889]). *Painé y la dinastía de los Zorros*, Editorial Hachette, Buenos Aires.
- Zeballos, E. (1986 [1878]). *La conquista de quince mil leguas*, Editorial Hyspamerica, Buenos Aires.
- Zeballos, E. (2002 [1881]). *Viaje al país de los araucanos*, Editorial Elefante Blanco, Buenos Aires.