

TITLE

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JOURNAL

Antiquity

DEPOSITED IN ORE

25 February 2013

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Monumental burials and memorial feasting: an example from the southern Brazilian highlands

José Iriarte¹, J. Christopher Gillam² & Oscar Marozzi³

What happened at the sites of prehistoric burial mounds after they were erected? In the southern highlands of Brazil and Argentina the pre-Hispanic mounds of the twelfth-thirteenth centuries AD are surrounded by large circular enclosures with avenues leading to their centre. The authors discovered that the banks of the surrounding enclosure were built up over several generations of time, accompanied by a succession of ovens. Ethnohistoric observations of more recent peoples in the same region suggested an explanation: the cremation of a chief was followed by periodic feasts at his mound, where meat was steamed and maize beer prepared at the edge of the gathering.

Keywords: Argentina, Brazil, pre-Hispanic period, Taquara/Itararé, Kaingang, emergent complexity, public architecture, burial mounds, ceremonial enclosures, feasting

Introduction

Anthropologists and archaeologists studying the Neolithic in the Old World and Formative periods in the Americas have long been concerned with the study of the relationships between the living and the dead and in particular with the social and ideological roles of monumental burial and the appreciation and use of these burial monuments by successor societies (Fleming 1973; Beck 1995; Dillehay 1995; Barrett 1996). Debate has been focused on the way that the arrival of monumental burial practices reflected changes in subsistence, population growth, ranking and inheritance, territoriality, and ideology (e.g. Renfrew 1973; Bradley 1998; Carr & Case 2005; Dillehay 2007).

The southern Brazilian highlands features a pre-Hispanic culture of monumental earthwork construction, the Taquara/Itararé tradition, which includes both mounds and causewayed enclosures (Beber 2005). This is also one of the few regions in the world where indigenous mound-building and associated ceremonies have been recorded in a living people, the Kaingang (Métraux 1946). Comparison with the pre-Hispanic and the later practice may help us understand the role that burial monuments and post-funerary rites played in the emergence of complex societies more generally.

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Received: 11 December 2007; Accepted: 27 February 2008; Revised: 8 April 2008

ANTIQUITY 82 (2008): 947–961

This paper presents a synthesis of the Taquara/Itararé earthen monument tradition based upon recent investigations at the ElDorado mound and causewayed enclosure complex, PM01, in north-eastern Argentina. These are interpreted in light of procedures for the burial of a chieftain, as observed among the later Kaingang cultural tradition.

The Taquara/Itararé tradition and the arrival of mound and enclosure complexes in the southern Brazilian highlands

The Taquara/Itararé tradition (Beber 2005) otherwise the pre-Hispanic southern Jê (Noelli 2000; 2005) extends along the southern Brazilian states of Paraná, Santa Catarina and Rio Grande do Sul and the adjacent Misiones Province, Argentina, and Paraguay (Figure 1). Dating back to *c.* 220 BC, and possibly to 2860 BC (De Masi 2006), this culture is characterised by its diagnostic ceramics, highland pit-house villages, a mixed collective economy including *Araucaria* seeds, horticulture, hunting and fishing, and elaborate earthen mound and enclosure complexes (see Beber 2005 for a more detailed summary).

The earth monuments are located on hill-tops or ridges commanding wide views. Locally called *danceiros* (dance grounds) in Brazil, the enclosures are characterised by circular, elliptical and key-hole shape plans (Figure 2). The banks are typically 3-6m wide and the enclosures 20-180m in diameter. They may exhibit associated small ringworks, and their remains rise to between 30 and 80cm. Most earthen enclosures contain central mounds (1.5-20m diameter; 0.7-3m high), typically raised over a cremated burial of a single adult person associated with few lithics or ceramic sherds (Figure 3 shows an example). However, central mounds containing several interments have also been reported (De Masi 2005). The formal layout of these enclosures, and the lack of substantial domestic debris within them, indicate that they were ceremonial spaces. In some regions, mound and enclosure complexes occur together in small groups such as at ElDorado, Anita Garibaldi, Campos Novos, and in the Pinhal da Serra regions. In the latter, their distribution on the landscape suggests that they are placed at nodal points along regional transit routes (Saldanha 2005; Copé 2007).

Radiocarbon dates suggest the construction of these monuments coincides with a more intense late Holocene occupation of the southern Brazilian highlands by Taquara/Itararé groups (Table 1; Iriarte & Behling 2007: Figure 7). The genesis of this monumental tradition that peaked after AD 1000 took place in a time when regional cultures were flourishing, populations as reflected in the number of sites were increasing, more intensive ways of food-production were developing and long-distance population migrations over contested territories were taking place across lowland South America. We shall return to this topic in the final section of the article.

Recent excavations at ElDorado mound and enclosure complex

We carried out two field seasons of geophysical survey and excavations at a complex of earthworks in the vicinity of ElDorado city (Misiones Province, Argentina) that spread over 200ha and had once consisted of eight circular enclosures, two of which contain central mounds (Menghin 1957; Wachnitz 1984). Site PM01, the largest and best preserved of these enclosures is located on a promontory with a panoramic view of its surroundings.

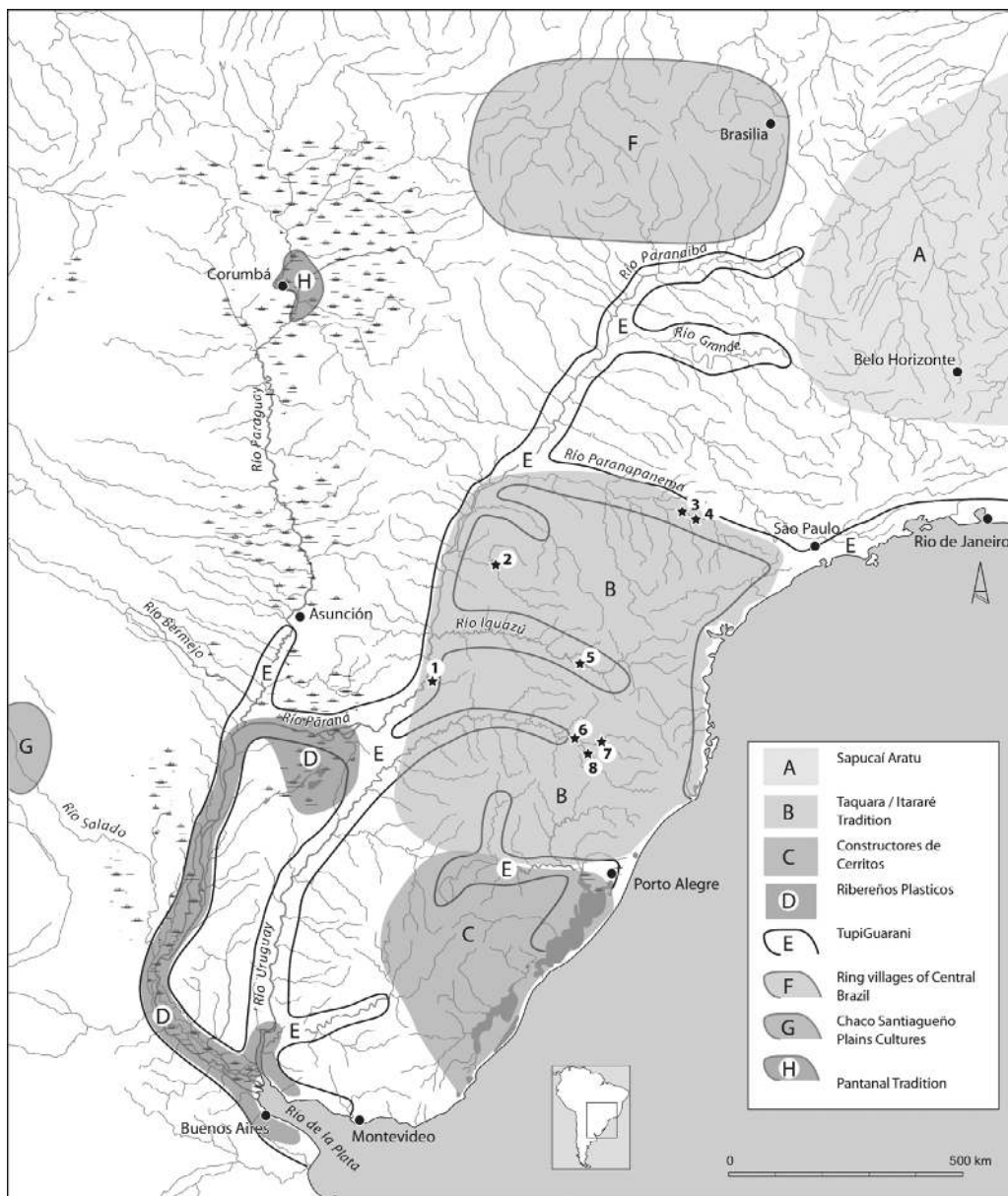


Figure 1. Map showing approximate locations of major archaeological traditions in south-eastern South America during the late Holocene, and the Taquara/Itararé mound and enclosure complexes discussed in the text. Key: 1. PM01 ElDorado; 2. PR-UB-4 Ubirata; 3. SP-IP-8 Itaberá; 4. T3Q1N8, SP, Areia Branca; 5. PR-MN-4 Urubici; 6. SC-AG-12 Campos Novos; 7. SC-AG-99 and SC-AG-98 Anita Garibaldi; 8. RS-PE-21 Pinhal da Serra and RS-PE-31 Esmeralda.

PM01 is characterised by a central mound (20m in diameter and 3m high) located on the highest ground of the hill facing a smaller mound (10m diameter) located 45m to the south-east (Figure 4). Framing the mounds there is a 180m-diameter circular earthen

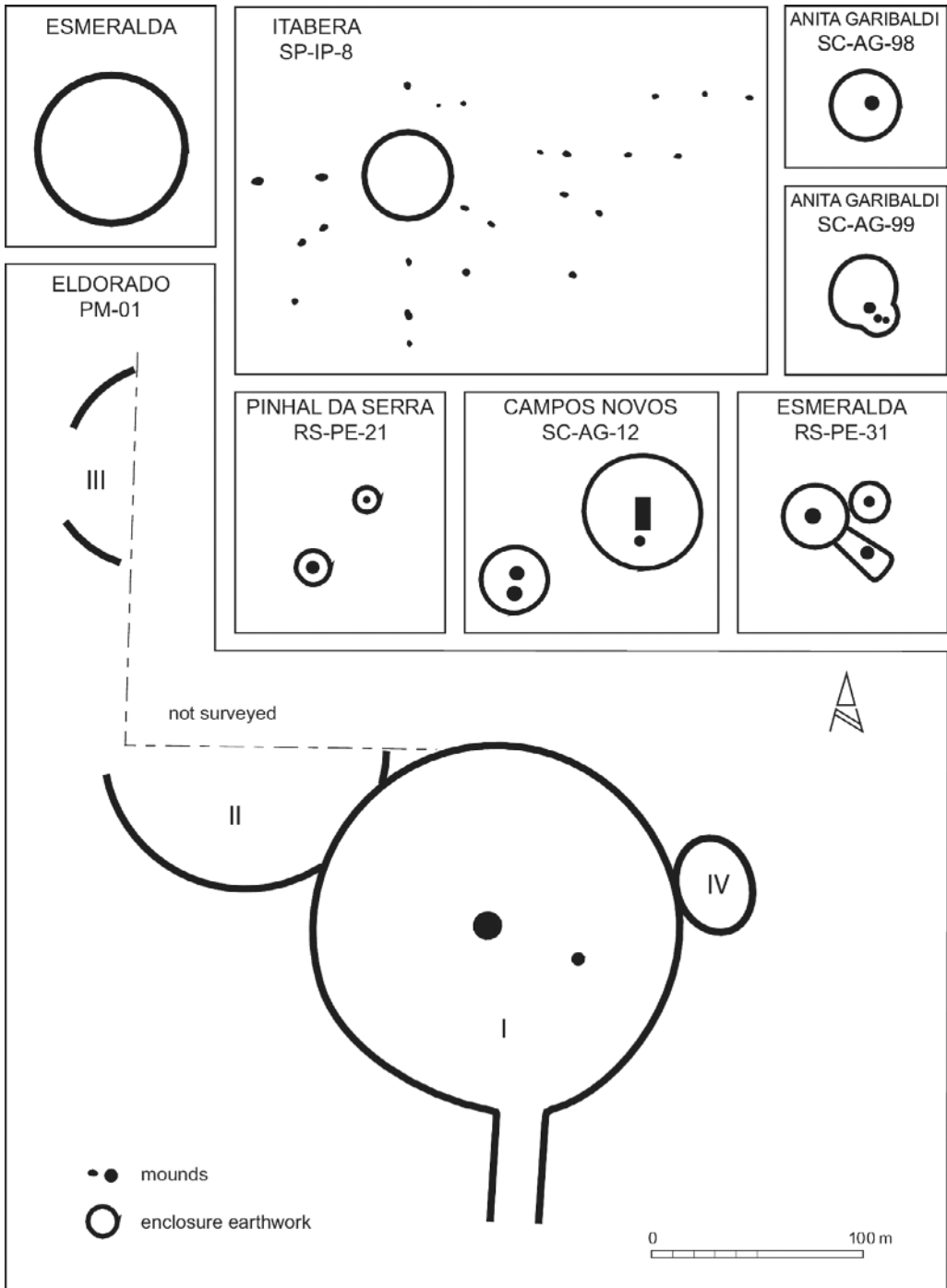


Figure 2. Mound and enclosure complexes from south-eastern Brazil and Argentina. (Esmeralda and RS-PE-31 (Schmitz & Becker 1991: 293); SP-IP-8 Itaberá (Chmyz et al. 1968: 19); SG-AG-98 and SC-AG-99 Anita Garibaldi (De Souza 2007); RS-PE-21 Pinhal da Serra (De Souza 2007); SC-AG-12 Campos Novos (De Masi 2005: 233); PM01 ElDorado (Wachnitz 1984: 207)).

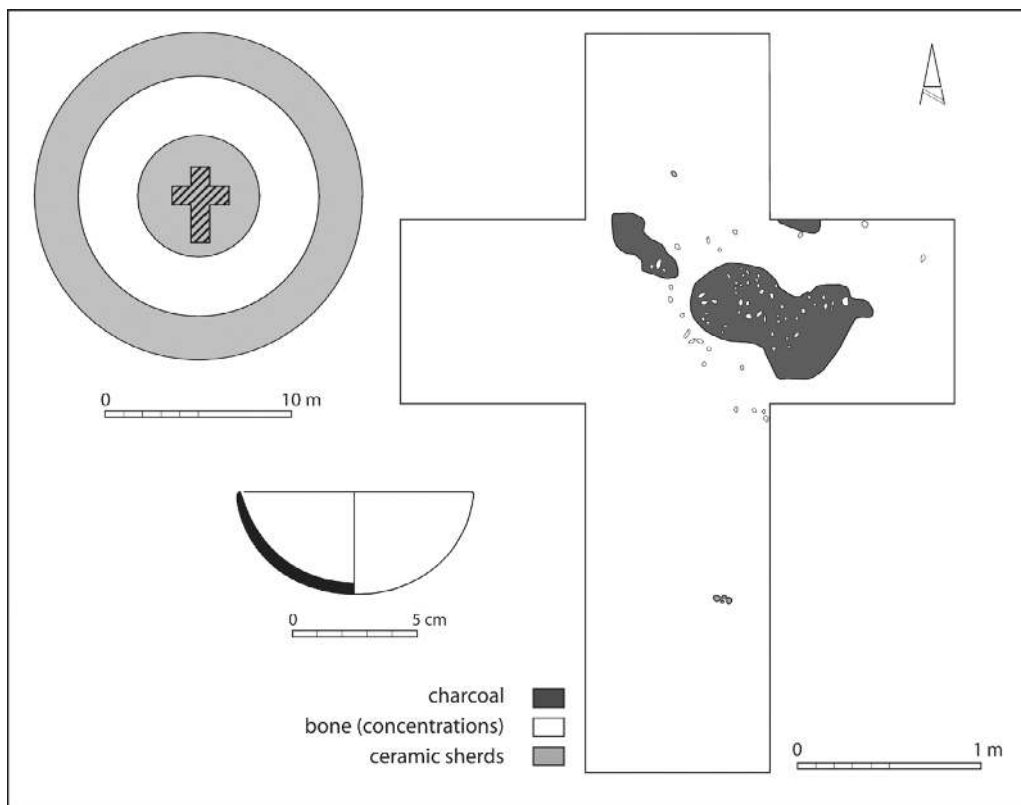


Figure 3. The mound RS-PE-21 explored with a cruciform trench revealed a pyre with human bone near its centre (modified from De Souza 2007: Figure 3).

embankment (with banks 6m wide and 30-40cm high), called Circle I, that was connected to a 400m-long and 18m-wide avenue marked by parallel earthen embankments (Figure 5). This formal entrance may have served to emphasise orientation and lead actors through a causeway that ascends 30m to the mound at the top of the hill. The northern opening suggests that people entered the enclosure by the southern avenue, passed through the plaza between the mounds and departed through a northern exit. On the western side of the ring, there are two smaller connecting earthen rings, whose diameters could be estimated as lying between 130 and 90m. A smaller elliptical-shaped ring (*c.* 35 × 45m), Circle IV, is located on the eastern side of the site. Most parts of Circle I are 30-40cm high, but reach 70cm where it meets Circle II. Today, only the central mound and portions of the primary ring enclosure are preserved. The layout resembles other Taquara/Itararé mound and enclosure sites, where circles are generally aligned NW-SE or SW-NE and with the largest structures always located in the western sector of sites (De Souza 2007).

Previous excavation by Menghin and his collaborators (1957) did not reveal any features or sequential layers in the mound, but Wachnitz (1984: 174) described a darker shallow basin pit feature at the very base of the mound, which probably represents a human burial. Menghin's excavations at the edge of Circle I, where it meets Circle II, revealed several

Table 1. Taquara/Itararé mound and enclosure complexes dates from the Brazilian states Rio Grande do Sul (RS), Santa Catalina (SC), Paraná (PR) and Misiones Province (MS), Argentina. The calibration of the radiocarbon dates have been carried out after CALPAL (Weninger *et al.* 2004).

Provenance Site	Locality	Lab no.	¹⁴ C age (yr BP)	68% range (cal BP)	Calendric age (cal AD)	Reference
PR-UV-11	Cruz Machado, PR	SI 1010	680 ± 70	576-684	1320 ± 54	Chmyz <i>et al.</i> 2003
PR-UB-4	Ubirita, PR	SI 2192	470 ± 95	375-594	1465 ± 109	Chmyz <i>et al.</i> 2003
PR-UB-4	Ubirita, PR	SI 2193	855 ± 95	714-890	1148 ± 88	Chmyz <i>et al.</i> 2003
PR-MN-4	Ubirita, PR	SI 6396	595 ± 60	555-643	1351 ± 44	Chmyz <i>et al.</i> 2003
PM01	ElDorado, MS	Beta 221418	760 ± 60	672-747	1240 ± 37	Iriarte <i>et al.</i> 2007
PM01	ElDorado, MS	Beta 237106	760 ± 40	680-726	1247 ± 23	Iriarte <i>et al.</i> 2007
PM01	ElDorado, MS	Beta 237105	720 ± 40	655-697	1274 ± 21	Iriarte <i>et al.</i> 2007
PM01	ElDorado, MS	Beta 221417	480 ± 60	478-558	1382 ± 40	Iriarte <i>et al.</i> 2007
RS-AN-03	Pinhal da Serra, RS	Beta 166588	1000 ± 40	843-951	1053 ± 54	Copé & Saldanha 2002
SC-AG-12	Campos Novos, SC	Beta 190304	600 ± 40	562-641	1348 ± 39	DeMasi 2005
SC-AG-12	Campos Novos, SC	Beta 185442	430 ± 40	443-515	1471 ± 36	DeMasi 2005
SC-AG-12	Campos Novos, SC	Beta 185443	690 ± 40	580-676	1322 ± 48	DeMasi 2005
SC-AG-12	Campos Novos, SC	Beta 185444	470 ± 40	502-535	1431 ± 16	DeMasi 2005
SC-AB-96	Abdon Batista, SC	Beta 190303	360 ± 40	344-475	1540 ± 65	DeMasi 2005
SC-AG-75	Campos Novos, SC	Beta 190309	980 ± 40	828-933	1069 ± 52	DeMasi 2005
SC-AG-77	Campos Novos, SC	Beta 190311	420 ± 40	380-510	1505 ± 65	DeMasi 2005
SC-CR-06	Celso Ramos, SC	Beta 190312	220 ± 40	146-299	1727 ± 76	DeMasi 2005
T3Q1N8	Areia Branca 6, SP	Beta 135824	1530 ± 40	1379-1495	513 ± 58	DeBlasis <i>Pers. Comm.</i> 2007
T3Q1N8	Areia Branca 6, SP	Beta 124752	1430 ± 60	1306-1388	603 ± 41	DeBlasis <i>Pers. Comm.</i> 2007



Figure 4. Central mound of site PM01, looking east.

discrete circular, oval and elongated stone clusters, spaced 30 to 50cm apart under the bank (Menghin 1957: 33; Wachnitz 1984: 173). Similar features were located by our excavations. A $6 \times 1\text{m}$ trench and several extensions totalling 15m^2 in the same north-west sector of the bank showed several phases of construction. Beneath the bank were two circular clusters of pebbles, overlaying a charcoal layer and associated with burnt clay, a few unidentifiable burnt bones, sherds and lithics (Figure 6). This was followed stratigraphically by several construction stages interspersed with occupation phases, including hearths and small clusters of disaggregated stones associated with charcoal and culminating in a stone cluster of elliptical shape ($2 \times 1\text{m}$). These strata gave a sequence of radiocarbon dates centring in the early to mid-thirteenth century AD. Test excavations in Circle IV revealed smaller, less compacted stone clusters dating to the same period. Another succession of stone clusters was defined on the opposite, eastern side of Circle I, with a radiocarbon date centering on the later fourteenth century. All stone clusters were embedded in sediments with charcoal and burnt earth.

In all sectors of the bank excavated, scatters of refuse were located beyond the bank, implying an intention to keep the enclosure's interior clean. The stone clusters are not

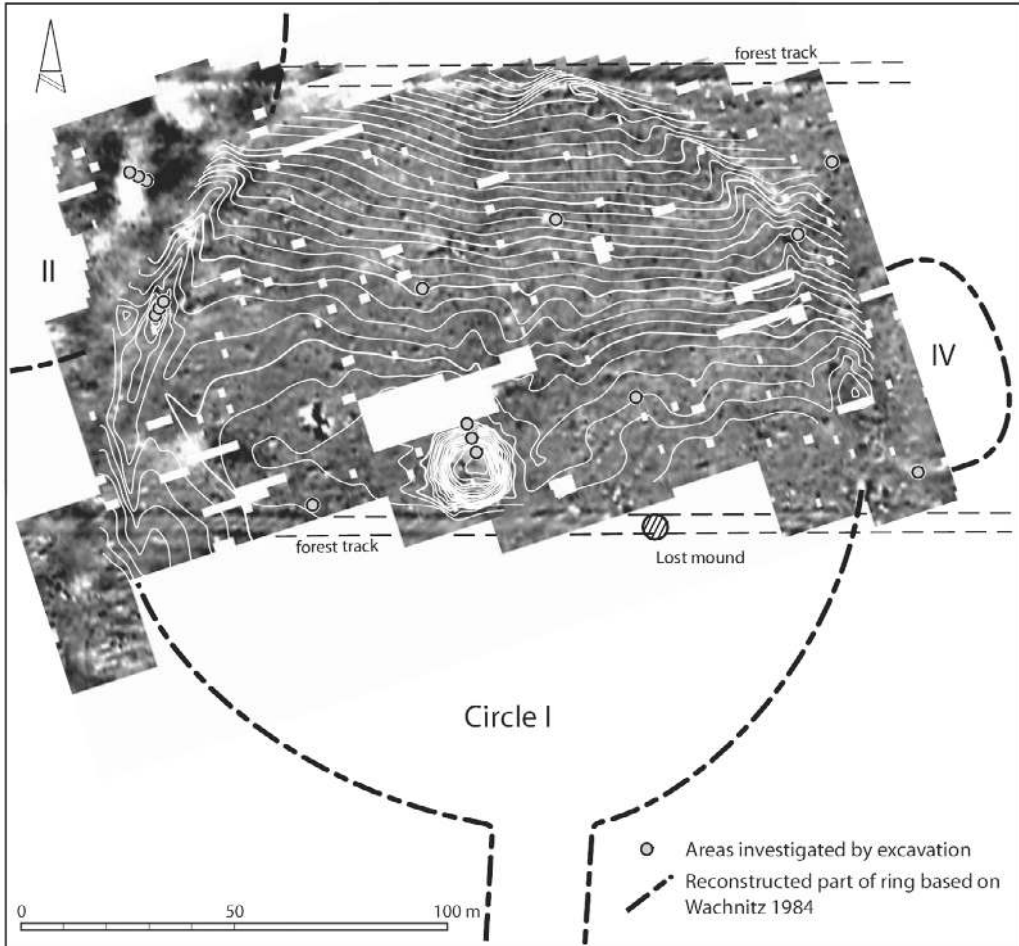


Figure 5. Combined geophysical and topographic map of site PM01. Reconstructed parts of the site are based on Wachnitz (1984: 207).

restricted to the lowest parts of the earthen embankment, but are found throughout the stratigraphic sequence and appear to mark discrete episodes of construction. The radiocarbon dates suggest that the construction of Circle I was broadly contemporary with Circle IV. A comparison of the dates on the western and eastern sectors of Circle I demonstrates that the embankment was used for at least 135 years. Collectively, the evidence suggests that Circle I grew in several episodes associated with the successive laying of stone clusters.

Ceramics recovered at site PM01 generally resemble Taquara/Itararé tradition ceramics (Beber 2005). Similar to reconstructed vessel forms recovered from other mound and enclosure complexes in the southern Brazilian Highlands (Saldanha 2005), they are small, shallow bowls representing drinking or serving cups (Figure 7) (Iriarte *et al.* 2007). Phytolith analysis from charred residues of four ceramic sherds associated with the stone clusters document the presence of maize cob phytoliths, suggesting these ceramics were used to drink maize-based beverages (Iriarte n.d.).

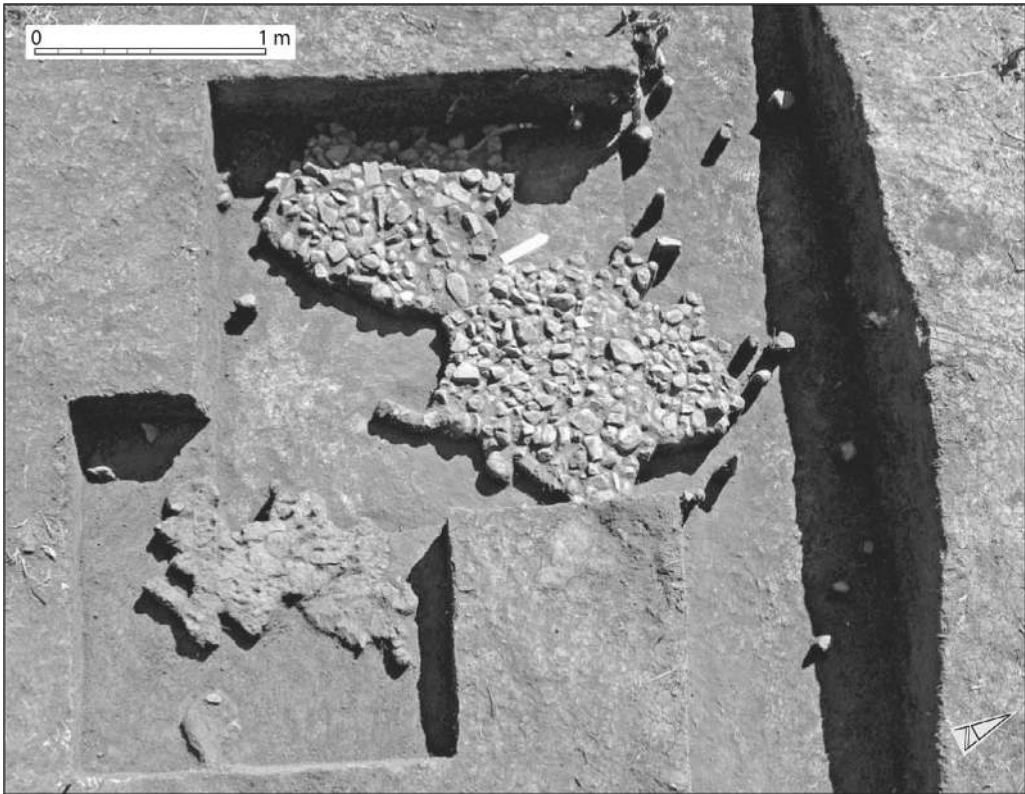


Figure 6. Excavation photograph of TW01 central sector showing superimposition of features including the stone clusters and hearth.

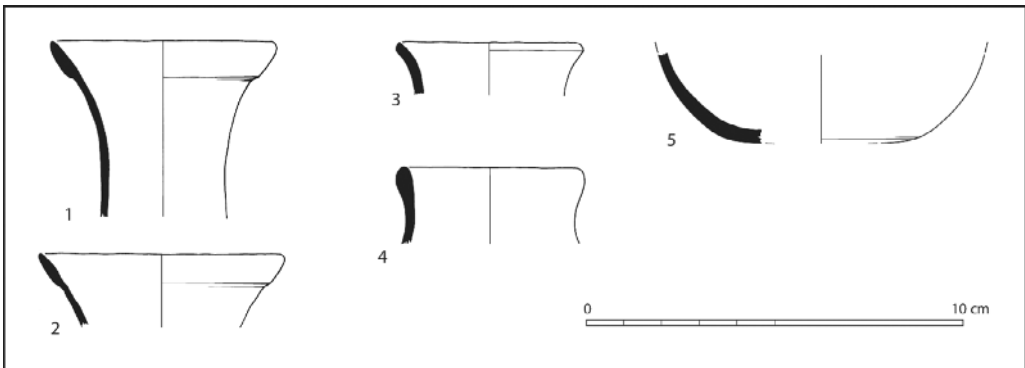


Figure 7. Sample of ceramic vessel shapes recovered from TW01 and TE01 trench transects in Circle I.

Ethnographic analogy: burial rites among the Kaingang

At the time of European contact, Kaingang and Xokleng groups belonging to the Macro-Jê linguistic stock and, more specifically, to the languages of the Akwen (Xakriabá, Xavante, Xerente) and the Apinayé in the states of Minas Gerais, Mato Grosso and Goiás (Noelli

2000; 2005: 178) inhabited the southern Brazilian highlands. The ethno-historic record of Kaingang mortuary practices in the nineteenth and early twentieth centuries have been previously used to interpret these archaeological sites as ceremonial spaces, where geographically dispersed groups came together to bury an important chief (e.g. Chmyz & Sauner 1971; Copé & Saldanha 2002).

When a Kaingang chief died, his subordinates were notified and appeared in the house of the dead chief. The elder chiefs usually carried the dead body to the place of burial. Paula (1924: 126) noted that they dug a shallow pit there and buried the dead man with his belongings (bow, arrows, clothes and axe). Métraux (1946: 465) on the other hand states that they destroyed part of the property of the deceased and imposed a strict taboo on his name. Mabilde (1983: 108-16) recounts that they put a vessel close to the head, which was oriented to the east and then lit a fire on the western side of the body. Other descriptions mention that they constructed a wood shaft or covered the body with palm leaves (Maniser 1930: 781). Schaden (1958) also described how Xokléng groups cremated bodies before interment. People from different tribes came to the funeral and formed a circle surrounding the deceased (Métraux 1946). After a collective expression of lament the corpse of the deceased was covered with earth and his eldest son proclaimed the new chief. They made honey wine and invited neighbours to build the mound by carrying dirt loads in baskets until the mound attained a pyramidal shape. After the interment of the body and the construction of the mound, the burial place was periodically visited to clean the area of vegetation and to remember the dead with lamentation, dancing, songs and drinking. Baldus (1937: 49) notes that these large gatherings took place in autumn between April and June when maize is ripe and *Araucaria* seeds are ready to collect.

In terms of political organisation, the account of Mabilde (1983) indicates that there were main chiefs and subordinate chiefs. Some big chiefs like the Cacique Braga were reported to be in command of 23 tribes (Becker 1976: 111). Mabilde's account (1983) also indicates that the construction of a mound was reserved for big chiefs, while the funerary rites associated with subordinated chiefs were far simpler. The deposition of personal weaponry as grave goods suggests that these were possibly renowned war leaders. In addition, the transfer of the chiefly office to the dead chief's eldest son during the burial ceremony indicates an inheritance of the chiefly office. Overall, these historic records point to an established, moderate degree of political complexity in the Kaingang.

There are many common features between the historically recorded Kaingang burial practices and the archaeological record. Most mounds systematically excavated exhibit human remains at its base accompanied by ceramics and lithics. A lack of stratification in the mounds also points to a single construction episode, like the one described in the historic accounts. In addition, the fact that neighbouring tribes gathered around the burial mounds in circles is reminiscent of the circular earthen embankments found in many sites and a semicircular arrangement of stone clusters found surrounding the central mound of site SC-AG-12 (De Masi 2005). The orientation of the avenue is also probably related to burial position and astronomical observations. Last but not least, the presence of dual patterns in public architecture, such as the presence of paired mounds and their associated minor ringworks may be the material representation of the dual social organisation characteristic of these Jê societies (Maybury-Lewis 1974; 1979) (e.g. sites RS-PE 21, 31, SC-AG-12 and PM01).

Despite these underlying similarities, the Taquara/Itararé archaeological mound and enclosure complexes and the circumstances in which they arose are very different from the historically reported ones. The pre-Hispanic mound and enclosure complexes are far more complex and elaborated than the ones recorded from the historic Kaingang groups, profoundly transformed as a result of the European colonisation of the region.

Discussion

We interpret the history of site PM01 as a funerary monument where an important chief was buried under the central mound in a single event followed by multiple feasting activities over several generations. Our interpretation of the stone clusters under the banks of the enclosure features differs markedly from that of Menghin (1957: 33) who suggested that the stone clusters represented a sacred fence, which was later replaced by an earthen embankment, on top of which a palisade was built. We interpret them rather as earth ovens. The size, discreteness and compactness of the stone clusters, in addition to the layer of charcoal within and below them, and the recovery of burnt bones seems to be the result of earth ovens for cooking meat similar to the ones described ethnographically for the Kaingang by Métraux (1946: 452-3). According to his account, an *'earth oven serves for baking large slices of meat, for example, tapir. A large pit is dug in the ground and lined with stones. A fire is built within the hole until the stones are glowing. The ashes and embers are then removed, the stones are covered with leaves, and the meat, carefully wrapped, is placed inside and buried under a thick layer of soil. Twelve hours later the meat is taken out, perfectly cooked'*. Cooking meat in earth ovens by steaming has also been documented among several Central Brazilian Jê groups including the Apinayé (Nimuendajú 1939: 95-6), the Kayapó (Dreyfus 1972: 26-7), the Mekranoti (Werner 1984: 104-5) and the Serente (Nimuendajú 1942: 34). Both Dreyfus (*op.cit.*) and Nimuendajú (1942) indicate that cooking by steaming with stones is due to a lack of large boiling cooking vessels. It is no coincidence that none of the ceramics recovered at the site are suitable for cooking by boiling.

Though not all Jê groups consume intoxicating beverages, the consumption of fermented alcoholic beverages is widely reported in Kaingang historical accounts. Métraux (1946: 465) indicates that the mourning of the dead was followed by a beer festival accompanied by dances and songs. Noelli (2000: 243) mentions the consumption of *kifê*, a fermented alcoholic beverage based on maize and honey among the Kaingang in profane collective feasting and the consumption of *kiki* a honey-based, fermented beverage during the annual homage to the dead. Maize was a crucial ingredient for many ritual foods among Jê groups, such as the Suyá, for whom the ripening of corn was closely associated with the beginning of the ritual period (Seeger 1981: 44). Overall, the ceramic, botanical and ethnohistoric evidence suggests that these small vessels were used to drink a maize-based beverage.

Feasting with meat and maize is a pervasive feature of Jê societies. As Maybury-Lewis (1974: 42) noted *'the Shavante, in common with other Gê tribes, value meat and maize as the basis of all ceremonial presentations'*. The vast plaza area, the numerous earth ovens accumulated through time and their associated ceramics, suggest that large numbers of participants came together regularly at this notable ritual structure to feast on meat delicacies

and maize beverages associated with post-burial funerary practices. To paraphrase Rebecca Saunders (2004), it seems that the circular earthen embankments at site PM01 represent '*consumption made conspicuous*'. These mound and enclosure complexes were places where people returned periodically to mourn the dead, dance, eat and drink. These festivals were likely sponsored by the lineage descendants of the chief buried in the central mound. Circle I with a south-north orientation marked by the entry causeway may have been used as an observatory to monitor the passage of the sun or other celestial bodies as a means of clocking agricultural and ritual cycles.

To understand the emergence of this monumental tradition, we need to look at the broader picture of what was happening in lowland South America during the late Holocene. At this time, many regions of lowland South America were experiencing population growth, regional integration, a marked increase in monumental activity, appearance of fortified settlements, the development of ceramic styles and long-distance population migration and displacement. This is also a time when lowland societies began to transform the landscape at a scale not seen before. Raised-field systems in seasonally-flooded savannas and dark earth soils associated with intensive agriculture appeared along the bluffs of major rivers in Amazonia and its periphery (e.g. Denevan 2001; Iriarte 2007). During this time, the Rio de la Plata Basin was a passageway that linked major zones of ecological diversity and cultural complexity. It represented a geographical enclave where major cultural traditions from tropical regions like the Tupi-Guarani (Brochado 1984; Noelli 1998; Prous 1992), the Arawak-Ribereños Plásticos (Nordenskiöld 1930; Métraux 1934) and the southern Jê (Noelli 2000) converged and interacted. These groups had arrived in the region by at least AD 1 and became well-established after AD 1000 along forested areas following major river courses and the southern Brazilian plateau. In other areas, archaeological evidence indicates that by AD 1000 groups were organised at a regional level, became more territorial, adopted more intensive food-production practices and monument construction reached its peak. Examples include the Central Brazilian (Wüst & Barreto 1999) and Sapucaí/Aratu tradition (Prous 1999) ring villages, the Pantanal ceramic mound-building cultures (Schmitz *et al.* 1998), the Middle and Late Period mounded villages of the Chaco-Santiagoño Plains (Otonelo & Lorandi 1987) and the 'Costructores de Cerritos' along south-eastern Brazil and Uruguay (López 2001; Criado *et al.* 2006; Iriarte 2006).

It is in this highly-contested ethnic arena that the Taquara/Itararé mound and enclosure monument tradition developed. The emergence of the monumental tradition and the elaboration of ceremonial conduct represent an eloquent sign of the social needs of communities whose territory and contacts were increasing. Kossok's cross-cultural finding showing that burial monuments as 'display graves' tend to be built during times of excessive cultural contact, or a period of military, social or political change is particularly appropriate for our case study (1974 in Dillehay 1995: 285). Ritual feasting often has significant social, economic and political role. It may serve to promote social integration and cohesion (e.g. Dillehay 2004), but also may encourage exclusion, appropriation and inequality (Dietler 2001). These ceremonial centres represent permanently designated sacred spaces that must have played a major role in the social and territorial stability of Taquara/Itararé groups. The post-burial gatherings associated with feasting that took place at site PM01 were political

events that at a large scale may have served to promote inter-village solidarity and military interdependence among Taquara/Itararé groups at a time of increased inter-group contact. These ritual sites may have also functioned as neutral places to resolve conflicts, foster reciprocity and forge alliances among groups.

Conclusion

The Taquara/Itararé earthworks are ceremonial places, where a leader is buried and power is subsequently played out by aspiring social actors (Kertzner 1988). The ethnohistory of the Kaingang has proved helpful in their interpretation. As indicated by Dillehay (1995: 285) for the Araucanian and ethnographic case studies, the burial of an important chief and the associated funerary practices are events when political succession takes place, a new leader is established and the deceased could be transformed into an authentic ancestor. These are times to legitimise and consolidate the authority of chiefs, maintain old alliances and build new ones.

No doubt, as more information becomes available on the archaeology of the Rio de la Plata Basin and its adjacent littoral zone, we will come to realise better how the elaboration of the different features of these Taquara/Itararé mound and enclosure complexes were related to more subtle socio-political changes. For example, what factors account for the variability in site size and layout? What were the uses and construction histories of circular enclosures that lack mounds and/or causeway entrances? What do mounds that contain several interments represent? Similarly, what determined the number of mounds that were built in particular areas across the southern Brazilian highlands? How do settlement patterns relate to monumental architecture? Future work at a regional level will be able to clarify the picture of settlement variability, allowing a more precise understanding of the role that PM01 played in the emergence of early Formative societies in the region, and by extension the role that such monuments played in societies undergoing similar transitions beyond South America.

Acknowledgments

We wish to thank the Dirección General de Patrimonio Cultural y Museos del Gobierno de la Provincia de Misiones, Ruth Poujade and Julia Argentina Perié for granting us permission to carry out investigations in ElDorado, Misiones. Research at site PM01 was funded by grants from the National Geographic Committee for Research and Exploration (CRE 7853-05) and the University of Exeter Exploration Fund. We also received support from the Department of Culture of the Municipality of ElDorado who provided us with accommodation, logistics and warm hospitality. We thank an anonymous reviewer, Francisco Silva Noelli, Fernando Santos Granero and Tom Dillehay for insightful comments on the manuscript. The manuscript greatly benefited from the editorial work of Martin Carver. Paulo DeBlasis is acknowledged for providing us with unpublished data. We also want to thank many people who collaborated with us during different stages of the project. The guidance of Dr Jorge Rodríguez and the help and enthusiasm of José Gerardi was invaluable in the first steps of this project. In ElDorado, we want to specially thank Juan Ernesto Aumer, Paola Bacalini, Margarita Kummerer, Roman Ríos, Eduardo Stirnemann and Pamela Cooper de Colcombet. We are also grateful to Jorge Saucedo who carried out the topographical survey of the site. Seán Goddard drafted all the figures present in this article. Last but not least, we are grateful to the many students from the Universidad Nacional de Misiones and the University of Exeter who participated in the fieldwork.

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