Chapter 9
Growing Up Maya. Gender, Identity and Dynasty

The previous chapter has set out some regional trends in Mesoamerican modeling techniques and head shapes during the Classic period. By themselves, these do not, however, grant any further insights into any internal, familiar, emblematic, and daily roles, as conceptualized in Chap. 6. In the following, these aspects are examined specifically for the ancient Classic Maya, who witnessed a growing hierarchy. Since the Late Preclassic period, long-standing Maya forms of organization evolved into a progressively institutionalized state system, reinforced by an ideological, administrative, and coercive apparatus that had its seat in capital cities and was regionally instrumented at the level of city states (Houston and Inomata 2009). In the course of the Classic period, a dynamic mosaic of territorial units evolved, led by local aristocrats with changing political and family ties (Martin and Grube 2008). It appears as if the regions maintained a certain cultural independence despite apparently feeling an ethnic and language cohesion, at least among the major sectors of Maya territories.

This chapter seeks to exemplify local head attributions and embedded ideological meanings for the Classic period Maya, expressly their importance within the nuclear family, the role of the practitioners, and the infants whose heads they molded. These aspects confer importance on head-modeling traditions at the community and settlement level, to be explored in two case studies in this chapter. With its rich legacy of writing, art, and abundance of material vestiges, the data-rich Maya area, a hub of Mesoamerican research, is especially well suited to such an endeavor. More than most other Mesoamerican cultural settings, this study environment (and the bulk of published Mayanist research available) concedes more nuanced and culturally embedded interpretations. For the purposes of this volume, I will refer to my own systematic cranial survey of some 2,000 crania from the Maya area, which includes 1,200 individuals dated to the Classic period (Table 9.1). The latter represent 91 site collections that span over southern and southeastern Mexico, Guatemala, Belize, and Honduras (Tiesler 2012).

The documented distribution of head forms over their cultural territories roughly follows some of the Mayan vernacular language divisions during the Classic period and points to their significance as visible emblems of group affiliation. This will be explored here also for regional adoptions of obelionic flattening, a compression of the parietals that has been discussed already in Chap. 8 for Mixtequilla populations

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Table 9.1 Frequency of artificial cranial-vault modifications in the Maya area according to time periods and phases ($N = 1{,}918$). (Tiesler 2012, p. 107)

Period/phase[a]	Absence (0–0.25)[a]	Presence (≥ 0.5)[a]	N (% modified)[b]	Average degree of modification in modeled adult crania (0.5–4)
Middle Preclassic (B.C. 1,000–300)	6	11	17 (64.71)	1.69
Late Preclassic (B.C. 300–A.D. 100)	6	16	22 (72.27)	1.50
Terminal Preclassic (A.D. 100–250)	4	24	28 (85.71)	2.19
Early Classic (A.D. 250–550)	19	107	126 (84.25)	1.80
Middle-Late Classic (A.D. 550–800)	140	530	670 (79.10)	1.90
Terminal Classic (A.D. 800–900)	10	117	127 (92.13)	2.17
Early Postclassic (A.D. 900–1200)	6	64	70 (91.42)	2.16
Middle to Late Postclassic (A.D. 1200–1521)[c]	6	98	127 (92.91)	2.01
Colonial/postcolonial (A.D. 1521–1900)	53	24	77 (31.17)	1.67
Total	250	992	1,242	

[a]Only dated individuals included; included in each category were individuals with dates that span toward the subsequent phase

[b]Percentage of total number of cases in each category

[c]The sinkhole series of San José Mayapán, Yucatán, was excluded from this analysis for potentially dating to colonial times

of coastal Veracruz. Apart from integrative roles, head shapes did not seem to decode any meanings of vertical distinction among the ancient Maya. The aristocracy did not appear to perform head modeling to proclaim their noble status, but instead displayed analogous head forms to their commoner underlings. The regional survey of the Maya is balanced and fleshed out by local glimpses of head-modeling customs.

9.1 Maya Practitioners and Their Infants

One of the inherent qualities of head modification is that it can be practiced only during the first year of infancy and to a lesser degree during the second, thereby demarcating biologically both the maximum duration of the compression and the corresponding age range (see also Chap. 3). Regarding the Maya, historical accounts remain rather vague as to the real duration of the compression routine. According to most early colonial Maya references, compression was initiated just days after birth. Friar Diego de Landa states that among native Yucatecans it was custom to start head compression "four or five days after the infant was born, [and continued] . . . until at the end of several days, the head remained flat and molded" (Tozzer 1941, p. 125). The Friar further specifies that "once through with the torment of flattening their forehead and heads, they went with them to the priests, so that they might see his destiny and tell the profession which he was to pursue, to give the name which he was to bear during his childhood . . . " (Tozzer 1941, p. 129). If the compression of infant heads really ended after only days or weeks, we may assume that subsequent

natural cranial growth would soon neutralize the effects of compression completely, or at least mitigate the changes to a substantial degree. It is significant that Postclassic and Classic period figurines from the Maya area include representations of infants with headboards in upright sitting posture, while carried by their female caretaker. The capability of sitting upright leads us to conclude that still older babies were continuing to wear compression devices. These age groups, well into the second half of the first year, or maybe beyond the completion of the first year, definitely surpass the perinatal period that colonial testimonies associate with active head compression. If the written and figurative information from the Maya region is simply vague or if it is an expression of the diversity in its regional and local enactment, we cannot be certain. The Classic and Postclassic Maya skeletal record probably supports the latter possibility, with degrees of artificial modifications ranging between absence to severe modifications within many archaeological site series.

The presence and expression of postcoronal grooves behind *bregma*, a spot just behind the capillary widow's peak on the forehead, provides additional clues as to the duration of the compression process in artificially modified skulls. As argued in Chap. 3, continuous postcoronal grooves occur when the compression of the baby's calotte continues past the closing of the anterior fontanel (see also Tiesler 1999). As the fontanel is obliterated in around 96 % of the infants at the conclusion of the second year of life (Scheuer and Black 2000), the presence of the postbregmatic sulcus suggests that the process was prolonged beyond this age. When comparing the average expressions of postcoronary grooves around *bregma* (measured on a scale ranging from 0 to 3),[1] our Maya regional cranial survey confirms a shift in its expression in the dated individuals. This shift denoted a gradual increase in visibility of the postcoronary groove between the Preclassic (0.35), then the Classic (0.53) and finally the Postclassic era (0.67). This increase, which in other elaborations has shown to be relatively independent from the specific compression technique used, appears to suggest a gradual prolongation of head-compressor use among the ancient Maya.

The profiling of the practitioners of the body modification is also of interest, as it addresses the potential role of skull transformation as a visible gender expression, a female way to pass on family or community membership and identity. The fact that it was women who were in charge of crafting the desired shape in their children's heads illuminates the collective ritual enactment from an angle that has been little explored until now: the perspective of females and their participation in the ideological re-creation of group identity and accouchement of ethnogenesis and social change. Pre-Hispanic imagery and the ethnohistoric record appear to identify the female caretakers who enacted the daily compression routine as mothers, midwives, and related female kin. Some of these women were well beyond child-bearing age. The elderly practitioners are portrayed with warts, as toothless and wrinkled (see Chaps. 4 and 5; Fig. 9.1). From what is known of the pre-Hispanic cycling of life, we may infer therefore that apart from the mother herself, there were a lost of helpers, like midwives, godmothers, grandmothers, and other kin, many allegedly seniors, who were responsible for teaching or actually performing head swaddling and compression techniques.

[1] For reasons of consistency, only tabular erect flattening was considered for this score.

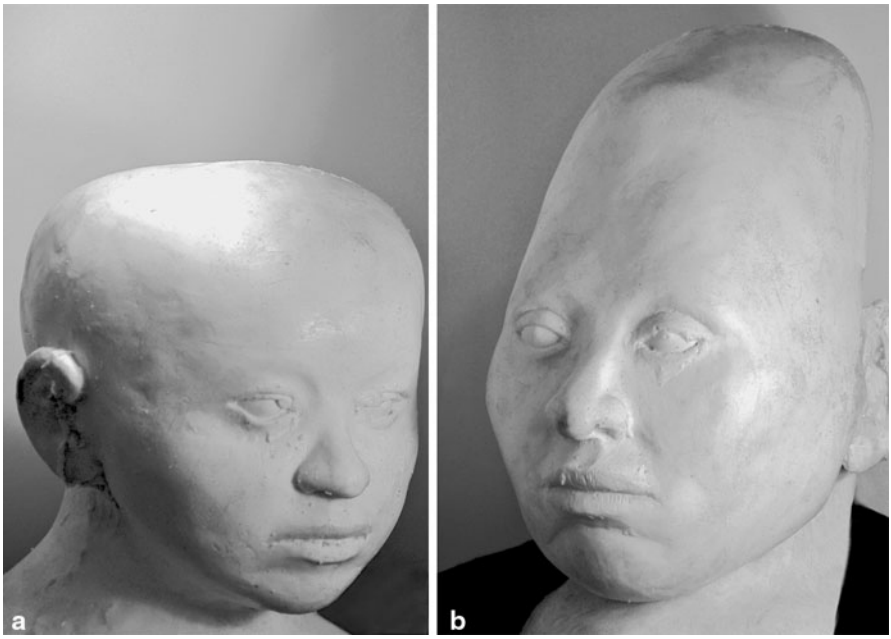

Fig. 9.1 Silicon molds of two head sculptures reconstructed on skulls, using forensic methods. The artistic renderings express different head looks from northern Yucatán. The sculpture on the *left* (**a**) was reconstructed from the cranium of a child recovered from the Sacred Cenote of Chichén Itzá, Yucatán (DAF/INAH). It displays strong superior flattening, resulting in a characteristic broadening of the head. The individual on the *right* (**b**) was reconstructed from a cranium deposited at the site of Yaxuná, Yucatán, which dates to the Early Classic period (Proyecto Arqueológico Yaxuná/UDLA). It shows an extreme pseudocircular form of head elongation, which appears prominently represented in Classic portraiture. (Facial reconstruction and replication by M. Sánchez and J. Chi; Laboratorio de Bioarqueología, University of Yucatán, Mérida; photo by V. Tiesler)

It is interesting that the majority of those Maya figurines that represent pairs of adult practitioners with their infants are modeled on hollowed and perforated clay tubes, crafted to serve as whistles or flutes. This function makes me believe that these objects had been used before either as child toys or might have intonated infant transition ceremonies (Figs. 4.11, 4.12, and 6.3; Tiesler 1999, 2012). Unfortunately, the lack of contextual information on the exact origin of these statuettes, many of which are curated at the Popol Vuh Museum of Guatemala, limits the real possibilities of inferring their use contextually. Conspicuously, whistles and flutes also equipped many Maya infant burials, again emphasizing their close association with children. It is probably no coincidence that seven of eight whistle-equipped burials from systematically scored coastal Maya burials—concretely of the mortuary records of Jaina and Xcambó—pertained to subadults. This aspect still awaits systematic study.

Apart from the portraiture of female head modelers, the produced head forms also grant crucial glimpses of the ways how the ancient practitioners enacted head flattening and their potential purposes (Fig. 9.1, see also Fig. 9.2).

Fig. 9.2 Geographic location of Copán and Xcambó, Yaxuná and Chichén Itzá. (Map by V. Tiesler)

A comparison of cephalic models between males and females has the potential of expressing gender differences in maternal treatment of babies. We might wonder, for example, if Maya mothers employed the same techniques and modeling devices on the heads of their infant daughters as they did on their infant sons. Even though sexing subadult crania is problematic due to the lack of morphological dimorphism in infant skeletal formations, the individuals who survived beyond infancy still retained the artificial head shape conferred on them after birth and therefore can be studied and compared just as well. To this end, we confronted the distribution of presence, formal characteristics, and head compression techniques between adult males and females.

On the whole, the scores of the Maya crania indicate that the custom was performed similarly on male and female offspring. Boys acquired the same head shapes as girls. These, we assume, reflected regional and local preferences during different stages of Maya cultural development. Also, the overall proportion of female crania which are not artificially altered appears similar to that of males. Only the female degree of head modification (scored as 1.99 on average on a scale of 0 to 4) was

Table 9.2 Average degree of cranial modification in pre-Hispanic male and female Maya (0–4)

Type of modification	0	0.25–1	1.25–2	2.25–3	3.25–4
Presence in males (% of total)	33 (55.00)	78 (56.12)	76 (50.33)	94 (55.95)	6 (33.33)
Presence in females (% of total)	27 (45.00)	61 (43.88)	75 (49.67)	74 (44.05)	12 (66.67)
Total	60 (100)	139 (100)	151 (100)	168 (100)	18 (100)

Table 9.3 Proportions of cranial modification in pre-Hispanic male and female Maya

Type of modification	Tabular erect	Tabular oblique	Total
Presence in males (% of total)	167 (57.99)	32 (52.46)	241 (54.90)
Presence in females (% of total)	121 (42.01)	29 (47.54)	198 (45.10)
Total	288 (100)	61 (100)	439 (100)

slightly but not significantly more pronounced than male skulls of our series (1.92 on average; Tiesler 1998, pp. 122–123; Tables 9.2 and 9.3). However, this slight discrepancy might just as well be the byproduct of scoring dimorphic male and female cranial morphology. Note that there are subtle gender-based shifts in some areas and site series. These shall be explored further for urban Copán, Honduras, and the coastal settlement of Xcambó (see also Tiesler and Cucina (2008) for the Southeast Petén area).

The apparent uniformity of male and female models points to an absence of any gender preferences, distinction, or discrimination in this body tradition, at least in the general regional sample scored. It appears that the female child's head was protected in the same way as that of the boys'; the same methods would have been used in modifying the little calottes. This conclusion, at first glance surprising, may find its explanation both in the idea that females treated their offspring uniformly and in the fact that the individuals subjected to the practice were still infants. Once childhood was reached, the gender distinctions acquired greater weight as the individual grew, matured, and as puberty drew near. This argument should also hold true for other cultural areas of Mesoamerica (see Chap. 6).

9.2 Local Head-Shaping Practices Among the Maya

This section explores the distributions of archaeologically contextualized head shapes within archaeological sites. The site-internal profiling of different cranial-vault modifications provides important clues on daily life within residences and particular family, and perhaps lineage, traditions. The culturally transmitted emblems furthermore express the residence, permanence, and sometimes mobility of their human carriers (Tiesler 1998, 1999). Naturally, the analytical possibilities of comparing cephalic modification among different neighborhoods within settlements depend directly on burial patterning, numbers of burials, and wealth of contextual information. These conditions were met relatively well at the Classic period sites of Copán and Xcambó, inasmuch as both harbor broad, well- documented and dated skeletal collections (Fig. 9.2). The balanced distribution between sexes and age ratios in both

samples likewise suggests a suitable representation of their residents, and, in the case of urban Copán, of its social sectors and neighborhoods.

9.2.1 *Displaying Head Models in the Neighborhoods of Copán, Honduras*

The archaeological ruins of Copán, located in western Honduras near the Guatemalan border, once functioned as an important capital on the southeastern edge of a dynamic mosaic of interconnected Maya regional states. These were Maya borderlands fringed with non-Maya populations that a number of scholars identify with Lenca cultural heritage. Here, small farming hamlets started to grow during the second millennium B.C. and monumental construction ensued toward the Early Classic period (ca. A.D. 200–400). During the fifth century A.D., a Maya royal dynasty was founded at Copán by a foreign-born individual known as K'inich Yax K'uk' Mo'. From there, Maya aristocracy ruled the area for several centuries, until ca. A.D. 822 (Bell et al. 2004; Martin and Grube 2008; Price et al. 2009; Webster et al. 2000). At its peak, Copán's population probably numbered between 20,000 and 30,000 individuals (Webster et al. 1992). The architectonic vestiges of the ancient city extend over an area of approximately 16 km^2 in the Copán Valley. Elite and commoner residential compounds surround a central core area, including an acropolis. Their architectural design ranges from large, masonry palaces to low earthen mounds that once supported pole-and-thatch houses.

The skeletal population from the Copán Valley available for this survey, includes is comprised of 478 skeletons that were recovered during Copán Project Phases I and II in Copán, Honduras (*Proyecto Arqueológico Copán,* PAC I (1977–1980) and PAC II (1981–1984); Operations III-XXVII; Tiesler 1997, 1999, 2005). The Copán skeletal series is one of the largest series from the Maya Lowlands and one that has been extensively studied over the years (Storey 2005; Whittington 1989). The PAC I and PAC II samples include primary burials from residential and ceremonial contexts in the center of the city, as well as secondary burials and isolated sets of bones. This varied mortuary record materializes the diverse domestic and public activities of the city, providing important archaeological data on key aspects of life and death for the Maya of the Classic period. Additional skeletal collections, included here, had been recovered in and around Copán during the explorations conducted by Harvard University and are now curated at the Peabody Museum, Cambridge.

It is noteworthy that only one-third of the total number of skeletons scored from the Copán Valley ($N = 583$) could be evaluated in terms of cephalic modification, mainly due to deterioration, especially for the earlier phases of occupation of the site (Fig. 9.3). None of the skulls that were dated to the Middle Preclassic (Gordon Phase) or Bijac Phase (100–400 A.D.) was sufficiently preserved to allow a determination of cultural skull modification. The earliest preserved crania that showed signs of cephalic modeling date to the Acbi Phase (400–700 A.D.). By contrast, funeral contexts from the Coner Phase of the Late Classic period (700–900 A.D.) constitute the largest portion of the sample, while only three skulls from later phases

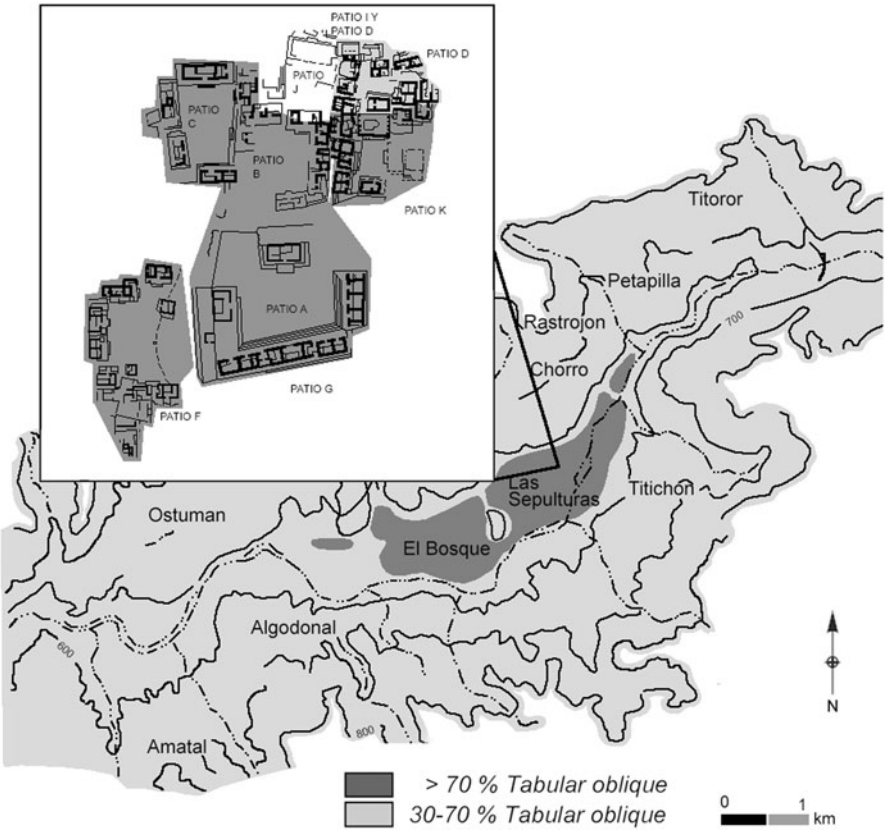

Fig. 9.3 Distribution of head shapes in and around Copán. *Inset*: Distribution at the multifamily residential compound 9N8, Las Sepulturas, Copán. (Redrawn by B. Ceballos)

were available for study. For purposes of methodological consistency, we present below only the results of the series dated to the Classic period, of which artificial modification was noted in 119 of 154 scored skulls (77.3 %), most of which were dated to the Coner Phase (see also Tiesler and Cucina 2010). In additional four cases, shaping was suspected but too slight to be scored as present. The overall proportion in the series from the Copán Valley is roughly in line with other frequencies around the Maya area (see Chap. 8).

In a nutshell, our findings show that Classic period Copanecans had a strong penchant for tabular oblique modifications in mimetic expressions (implying two separate posterior planes). They performed this kind of modification mainly with head splints that were applied on the head solely, or by adding circular constriction as was documented in 69.14 % of the modified crania in our series that could be classified by type ($N = 81$). When their orientation is averaged, the two flattened surfaces on the back of the head make one combined plane that appears approximately parallel to the profile of the forehead. There is a general rearward inclination of the head, especially the forehead, an appearance that confirms the use of a cephalic device.

An additional 10 % of the examined specimens from Copán held other tabular oblique shapes; namely, extreme, intermediate, occipital curve or top-flattened variants. Two of these reclined crania, classified as extreme, show by far the strongest modifications. Another 22 crania displayed tabular erect shapes, produced in classic compression in cribs. They only make up 27.2 % of the classifiable specimens, compared to 72.84 % of artificially reclined (oblique) crania. Local crib use normally produced alterations that were much less severe in comparison with those resulting from head splinting. Many of the mimetic variants and the erect skulls show the impression of a sagittal sulcus in the superior part of the cranium, just where the anterior and posterior boards should have been held together on the top of the head. In this collection, a (pseudocircular) constriction band was used only in combination with head splints (tabular oblique forms). Upon comparing the presence of each technique, the resulting modification patterns are similar to those found in other sites of the Classic period Maya Lowlands, but differ noticeably from the head shapes staged later, during the Postclassic period.

As we confront urban head profiles with those from the satellite villages, differences in looks are immediately apparent. Some 76.5 % of Central Copanecans ($N = 68$) display an elongated, oblique head morphology, whereas in the outskirts of the city, head modification appears less expressed and, when practiced, was enacted in a more diverse way, including the use of compression cribs. Here, tabular oblique shapes are less frequent than inside the city (58.3 %). Hinterland dwellers also display less severe cranial modifications, which are on average slighter (0.89 on average [0–4]) than among central urban residents (1.35 on average [0–4]). The latter express a strong preference for mimetic forms, produced by head splinting. This was in all probability the common local pattern at Copán, at least during the Late Classic period.

The difference between urban and rural Copán's material culture has been the subject of mainstream archaeological discussions. These revolve around the possibly multiethnic nature of the population that occupied the Copán Pocket during the Classic period, with ethnic Maya urban folk surrounded by possibly non-Maya populations. Given the patent differences in head form, we ask ourselves if the old rural stock surrounding Copán distinguished themselves ostensibly by their shortened heads? And did the Mayan-speaking urban Copanecans take pride in their elongated head profiles and their reclined foreheads?

In order to gain a deeper understanding of the distribution patterns of different head styles within and between the urban households of Copán, we zoomed in on their presence among the patio compounds of Las Sepulturas, a large residential area to the north of Copán's acropolis. The distribution of artificial skull modification within Copán's residential areas helps to reevaluate its emblematic role in the residential and family ambits, where differences in head shapes are evident on the scale of many household compounds. To this end, head shapes were scored according to residence type, location, and, in the case of Group 9N-8, also according to patio number.

Within the multipatio compound of Group 9N-8, within the neighborhood of Las Sepulturas, most of its patio compounds show a marked preference for the mimetic forms of the oblique type; here the erect type is practically absent, at least in our study

Table 9.4 Different expressions of artificial head modeling at Classic Copán, according to sex and age, with chi-square values

	Infants (0–10 years)		Adolescents and adults (> 10 years)			Females		Males		
	%	N	%	N	p	%	N	%	N	p
Frequency	82.1	28	76.2	126	0.4966	70.1	67	83.3	48	0.1043
Frequency of circular wrap	0.0	5	18.8	69	0.2851	18.4	38	20.7	29	0.8160
Frequency of sagittal groove	0.0	4	32.9	79	0.1662	34.1	44	31.3	32	0.7947
Tabular oblique/erect	100.0	9	69.4	72	*0.0520*	72.2	36	64.7	34	0.4984
Mimetic/rest	75.0	8	68.1	72	0.6877	73.7	38	58.1	31	0.1710
Superior flattening/rest	0.0	8	6.9	72	0.4414	7.9	38	6.5	31	0.8181

Significant differences appear in italics

sample. This strong preference for inclined head styles contrasts markedly with the more diverse head forms observed in Patio D, whose dwellers appear to have had a penchant for erect head shapes. Although no statistical validation was intended due to insufficient sample size, the trend traced by cranial forms from Patio D is echoed by other findings on architectural style and ceramic wares (Gerstle 1985; Diamanti 1991). Melissa Diamanti (1991), Andrea Gerstle (1985), and Julia Hendon (1987) infer from the material evidence that Patio D must have been occupied by folk that were culturally distinct from the neighborhood of Group 9N-8, perhaps ethnically related to Lenca stock from the interior of present-day Honduras.

The degree of in-migration and internal heterogeneity becomes also apparent upon confronting the adult frequencies of the different models with those of minors, who did not live long enough to reach adolescence (Tiesler and Cucina 2010; Table 9.4). This age group comparison provides relevant clues on local residence vs. population mobility. Its underlying idea is that, given their young ages, infants and children (here defined as age 10 years and below) have lived less than grown-ups and are therefore less likely to have moved from one place to another. It follows that children, and especially babies, must express the local population and their longstanding modeling preferences much more closely than grown-ups. Adults, because of their longer life span, are more prone to have moved in the course of their lives; accordingly, their head forms are more inclined to differ from the local modality at the settlement where they die and are buried, especially when having originated in a place that did not share the head-shaping traditions at the place of death and burial.

Table 9.4 expresses different qualities of artificial cranial modifications, such as its popularity (as manifested by the proportions of shaped heads), the uses of sagittal and circular wraps along with the preferences of modification types and diagnostic varieties (superior flattening and mimetic forms). Our findings underline differences between the enactment of shaping in minors and in grown-ups, which is especially evident when comparing the ratio of oblique as opposed to erect head forms ($p = 0.052$) None of the babies and infants displayed the latter, which was present in every one in three adults. Following our conjecture, this discrepancy implies that infant cradleboarding did not count among the local head traditions

among Copán's urban neighborhoods and that incoming folk were to adopt the more common splinting customs soon after arrival.

Note deserves also that the differences in head shapes between men and women are less noticeable than those between adults and subadults, as expressed again in Table 9.4. Comparing the artificial head forms among sexed adults, no clear preference was noted on the overall sample in terms of technique or type of molding, although men appear to have been slightly more subject to undergoing the procedure during infancy in comparison with women (83 % vs. 70 %, $p = 0.1043$; Table 9.4). Although small sample sizes constrain statistical validation, the frequencies suggest a slight male preference for this custom or, alternatively, a higher proportion of incoming women from areas where it was not as popular as in the Copán pocket itself. The fact that the global series of sexed adults showed similar diversity and prevalence in head deformation types may have also important implications for understanding mobility migration, suggesting that incoming families, not individuals of one or the other sex, arrived and settled at Copán.

Regarding the residential organization within the urban spaces, we identify the coexistence of various shaping traditions. Presuming the techniques were passed on through the female line in a society, which we know apportioned chores and occupations according to gender, the recurrent presence of different modification techniques among females in each housing complex (and given a continuity between living and mortuary spaces), could well be associated with the coresidence of females from different kin groups. This would suggest a patrilocal more than matrilocal organization of extended families inside Copán, an issue that has also been explored from other angles (see, for example, Diamanti 1991).

In synthesis, the patterning of cranial modifications adds to the general research on Copán's population and its vibrant social and multiethnic makeup on the fringes of Maya civilization. The outcome of this analysis is consistent with other sets of data regarding the cultural differences between Copán's residential areas and its surrounding hinterland (Hendon 1987; Hendon 1991; Diamanti 1991; Fash and Agurcia 1991). Although not necessarily related to any ascribed distinctions, these observations reveal artificial head shapes in residential contexts to be powerful (bio)archaeological indications of everyday social and ideological reproduction, especially if we as some that the burial places were associated with places of residence and, therefore, with the spheres of family and interfamily interaction, perhaps also lineage, descent, cultural, and ethnic affiliation.

9.2.2 Head Styles Among the Merchants of Coastal Xcambó, Yucatán

Still more numerous than the cranial series from Copán is the collection from the small settlement of Xcambó, nestled in the off-shore marshlands of northern Yucatán (Fig. 9.4). The site occupies a 700 m east–west by 150 m north–south area on top of a natural mound that was artificially expanded and raised above the sea level by

Fig. 9.4 Center of Xcambó, Yucatán, with view toward the coastline of northern Yucatán, Mexico. (Photo by V. Tiesler)

its Classic period settlers. The 564 skeletal remains, which were recovered between 1996 and 2000, are mostly well preserved, contextualized, and dated, spanning the Early (300–600 A.D.) and Late Classic period (600–750 A.D.). They belong to mostly well-equipped burials placed in simple or cist graves. Many of the graves contained imported ceramic vessels and figurines along with diverse local or imported items of personal adornment (Medrano Chan 2005; Sierra 2004). Under the direction of archaeologist Thelma Sierra (2004), the Proyecto Arqueológico Xcambó (INAH) has combined various lines of research and data-sets to explore the trajectory of the settlement and its role in the shifting coastal Maya networks during the Classic period. The ongoing interdisciplinary efforts prominently embrace bioarchaeological data sets (Ceballos 2003; Cetina and Sierra 2005; Jiménez 2002; Maggiano et al. 2008; Méndez et al. 2009; Peña and Sierra 2004; Quintal 2000; Sierra 1999a, b, 2001, 2004; Suzuki et al. 2009; Tiesler et al. 2002, 2004, 2005; Tiesler and Cucina 2010; Wanner et al. 2007).

During its 500 years of formal settlement occupation, Xcambó functioned as a salt production center and port, maintaining long-reaching ties with other parts of the Maya world and Veracruz. This underlines Xcambó's active interaction with other parts of the Maya world and toward Veracruz. Specifically, the western coastal communication route is critical for understanding the broader social and economic dynamics during the centuries that anticipated the so-called "collapse" of inland Classic hegemonies which on the peninsula went in tandem with a reorientation of political and economic networks from the coast.

Toward the Late Classic period, Xcambó's exchange routes and connections shifted and expanded (Sierra 2004). Xcambó's settlers must have experienced new prosperity, which was expressed by growth and architectural transformation with

all its earlier structures being built over. Overbuilt and densely Packed residential spaces, which surrounded two public plazas, replaced earlier ceremonial architecture and the former storage facilities. The central plaza was surrounded by new monumental structures, built with fine carved stones (Sierra 1999a, b). Civic, religious, and administrative functions were likely carried out in this plaza and the adjacent north pier of the elevated island settlement with embarking facilities. A swift end of Xcambó's occupation follows soon after A.D. 700 and has been associated with the rise of a new order of coastal traders toward the end of the Classic, watched over by Chichén Itzá and its coastal outpost Isla Cerritos.

For the purposes of this study, we used 371 skulls that were preserved enough to be scrutinized at least in terms of presence or absence of head modification. The cephalic modification was present in 80.1 % of this overall series. Among those crania that could be classified according to the type of modification, mimetic tabular oblique profiles prevail (in 112 cases), evidencing a marked preference for this technique, in fact, quite similar in fact to urban Copanecan head looks. Other tabular oblique forms, and still others, catalogued as tabular erect, are present in smaller proportions among Xcambó's neighbors (22.2 %). Here, oblique modifications often result in severe to extreme morphological change. While the dominant mimetic look is the outcome of specific forms of head splinting and wrapping, the erect configurations were produced, by definition, solely by compression cribs. The almost complete absence of supra-inial lesions is noticeable at Xcambó and is probably due to the reduced use of compression cribs at Xcambó. Sagittal bands are evident in 44 of 169 examined individuals (26.05 %).

The scarcity of erect models and the patent preference for oblique shapes in the practice of cultural modeling is manifested above all during the first phase of occupation. Elongated, reclined head forms also characterize other folk that lined the western and northern shorelines of the peninsula during the Classic period (Tiesler 2012; see also Sect. 8.3). This predilection for oblique variants persisted in Xcambó during the Late Classic, although to a lesser degree. Probably even more than in Copán, mimetic shaping constituted a standardized local tradition among Xcamboans and sets it apart from coeval inland series. Further south and far from the coast, the Maya engaged in various different shaping practices, especially the larger inland centers of Yucatán and the Central Petén, such as Dzibilchaltún and Yaxuná, Calakmul, Ixtonton or Dzibanché (Tiesler 1999, 2013).

The degree of local standardization becomes even more apparent upon confronting the adult frequencies of the different models with those of minors, who did not live long enough to reach adolescence (Tiesler and Cucina 2012; Tables 9.4 and 9.5). Our findings show that, during the Early Classic, some 94 % of Xcambó's population still displayed an artificially modified head. Back then, the local mimetic oblique form was still crafted in over 90 % of the modified individuals (Fig. 9.5; Table 9.5). Their reclined forehead was backed up by an elongated oblique skull vault with two flattened areas on its back. Note that during Xcambó's early occupational phase, this style is similarly dominant in adults, children, and infants. According to our proposed scenario of population mobility vs. permanence, the uniformity of head looks and the similarity of head form between the different age segments, come to confirm

Table 9.5 Different frequencies of "diagnostic" features of artificial head modeling among the Early and Late Classic Maya settlers of Xcambó, Yucatán, according to sex and age

	Subadults (0–10 years)		Adolescents/ adults (> 10 years)			Females		Males		
	%	N	%	N	p	%	N	%	N	p
Early Classic										
Frequency	94.4	18	94.4	36	1.000	100.0	12	95.0	20	0.4313
Frequency of circular wrap	55.6	9	64.7	17	0.6482	62.5	8	66.7	9	0.8576
Frequency of sagittal groove	0.0	7	26.3	19	0.1310	37.5	8	22.2	9	0.4902
Tabular oblique/tabular erect	90.9	11	94.7	19	0.6855	100.0	7	90.9	11	0.4117
Mimetic/rest	100.0	12	84.2	19	0.1475	66.7	9	100.0	9	*0.0578*
Superior flattening/rest	0.0	12	0.0	19	1.000	0.0	9	0.0	9	1.0000
Late Classic										
Frequency	89.5	76	73.2	164	*0.0043*	70.8	72	75.6	78	0.5059
Frequency of circular wrap	31.8	22	7.9	76	*0.0036*	5.4	37	8.6	35	0.5974
Frequency of sagittal groove	13.0	23	33.3	87	*0.0567*	52.6	38	18.6	43	*0.0013*
Tabular oblique/erect	97.3	37	72.6	73	*0.0019*	56.3	32	81.3	32	*0.0310*
Mimetic/rest	68.8	32	73.5	68	0.6195	43.3	30	55.2	29	0.3632
Superior flattening/rest	0.0	32	10.3	68	*0.0598*	13.3	30	10.3	29	0.7227

Significant chi-square values in italics

Fig. 9.5 Lateral frontal view of tabular oblique flattening at Xcambó, Yucatán, Mexico. Note the elimination of the nasal root. (Proyecto Arqueológico Xcambó, Yucatán/INAH; photo by S. Suzuki)

the high standardization of head devices among local Early Classic practitioners and identifies Early Xcamboans as folk who were firmly rooted to their native soil.

The distribution of head looks changes noticeably toward the Late Classic era. Table 9.6 presents direct values from the comparison of the Early and Late Classic periods, many of which are statistically significant. The overall frequency of the practice has decreased, by them as both groups of adolescents/adults, female and male, show a significant or almost significant decrease in the proportion of shaped

Table 9.6 Differences in head-shaping practices between the Early and Late Classic at Xcambó, Yucatán, according to sex and age

	Subadults	Adolescents/ adults (> 10 years)	Females	Males
Frequency	$p = 0.5193$	$p = 0.0060$	*$p = 0.0308$*	*$p = 0.0553$*
Frequency of circular wrap	$p = 0.2181$	*$p = 0.0000$*	*$p = 0.0001$*	*$p = 0.0001$*
Frequency of sagittal groove	$p = 0.3138$	$p = 0.0622$	$p = 0.4366$	$p = 0.8023$
Tabular oblique/tabular erect	$p = 0.3519$	*$p = 0.0406$*	*$p = 0.0288$*	$p = 0.4541$
Mimetic/rest	*$p = 0.0276$*	$p = 0.3361$	$p = 0.2193$	*$p = 0.0133$*
Superior flattening/rest	$p = 1.000$	$p = 0.1447$	$p = 0.2475$	$p = 0.3147$

Significant chi-square values in italics

heads. This later stage of occupation witnesses a significant drop in artificially modified heads ($p = 0.006$), which now make up only 73.2 % of the adult segment of the series, compared to 94 % during the Early Classic (Tables 9.5 and 9.6). This later phase also displays a greater variety in head shapes and a trend toward erect forms, which again is significant for the adult segment ($p = 0.0406$). Now, superior flattening made its debut in the heads of Xcambó's settlers. Here, some 10.3 % of Late Classic adolescents and adults show this distinct form, which has also been described for other coastal Maya populations past A.D. 500 (Tiesler et al. 2010), and for Mixtequilla sites, where they were identified as "El Zapotal" modification by Arturo Romano (1977) who described these distinct vault shapes for the first time 40 years ago (see Chap. 8).

Also, when Late Classic period adult and subadult head forms are compared, the results show significant differences in almost all of the examined criteria (Table 9.6). While Late Classic subadults keep presenting the local oblique shapes (97.3 %), adults show a much broader range of head looks, also when compared to the previous occupational phase and when compared to children. Our chronological comparison shows statistically significant differences (chi-squared) between the frequencies of forms found during the Early and Late Classic periods. This difference is also significant when comparing the population of children (up to 10 years of age at death) with the adolescent and adult segment of its population. In addition to age group discrepancies, there are also differences now, although less marked, between the head shapes that men and women exhibit (with $p = 0.05$; Table 9.6; see also Tiesler and Cucina 2011).

If we follow our age-group conjecture, the above elaborations affirm the residential permanence of Xcambó's settlers during the Early Classic and of a higher mobility during the Late Classic. Apparently, foreign individuals (adults, perhaps young families without children) with a different head look were arriving at Xcambó to live and die there, but still expressing their cultural and geographic origin by their distinctive head shape. Evidence from strontium isotope ratios, performed on 131 individuals from Xcambó appears to confirm the increase in mobility among its residents during the Late Classic period and is described in detail in other work (Sierra et al. 2013). For our topic, it is relevant that the individuals born in the inland areas to the south, and more so, those residents who have been presumed to have emigrated to Xcambó

from the shores several hundred miles away, were buried predominantly in the administrative core of the settlement, adjacent to the site's main plaza. As expected, this segment stages a higher variety in head looks when compared to coeval locals.

Especially noteworthy is the high number of women with erect head shapes among the Late Classic folk. These represent over 40 % of the population in comparison with only 20 % of men displaying this head form during the same occupation phase (significant difference; Tables 9.5 and 9.6). The difference between adult female head shapes and that of the minors, who still largely exhibited elongated heads, comes as a surprise if we recall that it was the women who were in charge of modeling the heads of their little ones. Our findings suggest instead that incoming prospective mothers, who had been cradleboarded as girls elsewhere, did not reproduce this same technique in their children, but must have swiftly adopted the treatment that was the local custom. It is difficult at this point to infer any specific mechanism or circumstance that might have led to said adoption but we may assume a medianism of local assimilation. We may speculate as to whether the incoming women were part of extensive family networks, some of whose members had already settled at Xcambó. Had they been initiated by Xcamboan midwives and local relatives on the suitable forms of local cephalic modeling?

9.3 Classic Maya Head Shapes and Ethnicity

9.3.1 Regional Diversity

Especially during the Classic period, artificially produced head shapes must have constituted a widespread and highly visible body emblem of group identification, as we argue also in other work (García and Tiesler 2011; Tiesler 2010, 2011, 2012; Tiesler and Cucina 2010). This is when culturally modified head forms reached a peak both in popularity and diversity. This section attempts to trace some of the deeper cultural undercurrents that could explain the vibrant mosaic of head forms and the shifts of cranial-vault modifications across the cultural geography of the Maya territories. Here, a noticeable predilection for erect head shapes is observed across the southern mountain chain that connects the Highlands of Guatemala to the Central depression of Chiapas and down the isthmic strait that extends toward Oaxaca, still further west. These later areas were the lands of Mixe-Zoque-speaking populations, who were arguably non-Maya (Sharer and Traxler 2006; Wichmann 1999).

Toward the north, the mountains open toward the vast Maya Lowland and the Petén corridor. Toward the Lowlands, the erect head forms are gradually replaced by a diversity in head profiles, a pattern staging different degrees both of broad and short, elongated, and artificially narrowed cephalic models. This distribution is also reproduced by the Classic communities lining the western and northern shores of Yucatán.

Toward the later stages of the Classic period, however, changes in head form become patent along these coastal stretches, most noticeably on the east coast of Yucatán with a shift toward cradling traditions and the appearance of superior

flattening, to be discussed in detail in the last segment of this chapter. Apparently, this shift is not paralleled by peninsular inland head traditions, which remained practically unchanged over the Classic period (statistically reduced difference in a chi square analysis, with $p = 0.611$). This shift advocates a segregation of some sort—being populational, merely cultural, or social—between coastal Maya folk and inhabitants of the interior. This divide becomes more pronounced in the second half of the first millennium A.D., as is statistically expressed in a comparison of tabular erect to tabular oblique forms in the coastal series with those from inland sites ($p = 0.000$; highly significant).

Also further south, in the Central Petén, the inland canons of cephalic modification continued to be practiced toward the close of the Classic period with fewer changes than along the coast. The skeletal series from this area conveys the notion that each population echoed others in terms of preferences, shapes, and general enactment of the custom. Here, different tabular oblique and erect shapes appeared in a balanced proportion that remains virtually unaltered throughout the first millennium. The Central Petén and Northern Petén, in particular, show similar percentages in all evaluable collections, communicating a cultural uniformity within the Petén corridor that simultaneously emphasizes, although indirectly, the importance of family ties and horizontal relations that must have prevailed between the groups, an aspect to be revisited later in this work. Patterns found in dental morphology (Cucina and Tiesler 2008; Tiesler and Cucina 2012) similarly give testimony of an open population dynamic and continuous and stable occupation in the Petén corridor before the collapse. This vision complements views on the dynamic, essentially unstable nature of the political landscape of those hegemonic networks that dominated the Lowlands over the centuries (Martin and Grube 2008).

Our regional survey of head forms also suggests that the head shapes preferred in the Petén zones differ noticeably from those found further west, along the banks of the Usumacinta River. This observation once again gains importance as we recognize the cephalic forms that were most frequently represented in images of the pantheon of Maya gods. We wonder if these discrepancies in preferences between the western, eastern, and northern stretches of the Maya Lowlands could have expressed a deeper cultural divergence. This perhaps linked linguistic and/or ideological differences, an interpretation that seems feasible considering the diversity and extent of the cultural geography represented by the Maya Lowlands during the Classic period.

Our idea of cultural separation also finds support through less tangible cultural expressions such as speech and style conventions, whose geographic distributions follow those of the type of cephalic modeling (see for example Kettunen 2008, pp. 182–186). Alfonso Lacadena and Soeren Wichmann (2002) recently inferred a linguistic line that divides the eastern and western territories of spoken Ch'olan. This linguistic boundary, which runs parallel to the Usumacinta River, must have been located somewhere west of the Petexbatún region, erasing the differences in speech along both sides of the Río de la Pasión watershed to the south. Correlated with the distribution of head forms, the linguistic demarcation between different versions of Ch'olan roughly follows that of preferences in head shapes. This is probably no coincidence and adds ethnic value to cephalic modification and its potential for

tracing and interpreting populational and cultural dynamics that at one time or another grounded the evolvement of ancient society.

Among the living, the differences in cranial morphology must have been most visible in and around the Usumacinta basin. In the multiethnic Maya fringes, territories of contact and exchange, Western Ch'ol-speaking folk from Palenque, Yaxchilán, or Bonampak, would be readily recognized as such by their extremely reclined and tubular head form. Their western neighbors toward Toniná and Chiapa de Corzo would not share these looks. Many of their mostly short and artificially broadened heads appear to be opposite to western Cholan styles, still enhanced by strong sagittal grooving, which divided both parietal lobes and thereby increased the bilateral expansion still further.

9.3.2 Families and Communities

Apart from regional ethnic attributions, we believe that the different Maya head modifications must also have held ideological value for their bearers on the local level, as proposed by us in Chap. 6. As a number of scholars argue (García and Tiesler 2011; Houston et al. 2009; Sotelo and Valverde 1992), head shape, per se, would have acted as a visible sign of outer and inner beauty; the latter was identified with sacred powers, an attempt perhaps to emulate the gods that protected the families or communities or those that were venerated by different sectors of the community. This connection was established already during the 1980s by Arturo Romano, who affirmed that the "variety of artificial head forms among different Maya groups [. . .] should reflect to an important degree mythical, magical and religious thought . . . " (Romano 1987, p. 25). The attributes of head morphology in the portraiture of Maya gods provides a promising point of departure to gain a deeper understanding of the aggregate religious meanings that the ancient Maya practitioners might have reproduced on the heads of their infants. Other published work, conducted together with my colleague, Ana García Barrios (García and Tiesler 2011), focuses on this aspect by surveying systematically Classic Maya anthropomorphic portraits of the supernatural. For this purpose, we revert to a database of some 300 images representing sacred forces. In this sample, head form was inferred categorically as either indistinguishable, unshaped, short, flattened on top, or artificially narrowed and elongated.

Our findings show that Classic period Maya artists did not assign head attributions by chance. They delineated each deity preferrable with one specific head configuration, although there is some variation in the conventions, which adhered to the Maya cartography of expressing the sacred. In general, we found the elderly gods were displayed with erect profiles, while young deities appeared with elongated and reclined heads (García and Tiesler 2011). The young God E, especially, of the Schellhas pantheon is represented in this fashion. As an image of the fertile earth and life-sustaining maize, he is figuratively converted into a husk of corn. His head is drawn with an elongated, reclined profile, quite similar to the rendering of the affiliated Moon

Fig. 9.6 Representation of the foliated young Maize God, showing strong head reclination and elongation. Note the visible postcoronary groove above the forehead, a secondary effect of prolonged compression. (Adapted from Taube 1992, Fig. 21b, p. 49; drawing by M. Sánchez)

Goddess (Taube 1992, pp. 64–69). The identification of these, complemented by their equal head forms, are repeatedly expressed by the artists of the first millennium A.D. Stephen Houston and his colleagues (2006, p. 45) supplement with insight on this form was accepted as a beauty ideal and by the female practitioners as the desired form to imprint on their offspring (Fig. 9.6; see also Taube 1992, pp. 46–50).

Other gods are drawn consistently with erect heads, which are distinct from the Maize God's rendering. Such is the case of Chaahk, the God of Rain, and, K'awil, the Scepter God. Also, the Solar God G, the elderly Goddess O, and gods N and A, the Lord of Death, are consistently delineated in this fashion (see also Taube 1992). The latter sometimes also appear with natural head profiles in Classic period portraiture, showing a visibly rounded, protruding occiput (Fig. 9.7). Lastly, God L, who was venerated by merchant folk, is also represented as a Muan bird in native iconography (Taube 1992, pp. 79–88). The anthropomorphic rendering of this trader deity appears in many portraits with a strong superior flattening when not covered by his wide-brimmed head.

Naturally, it is problematic to establish categorical associations between the head attributions of the Maya pantheon of gods and more so of their potential emulation among Classic Maya families and communities. The exception to this is, perhaps,

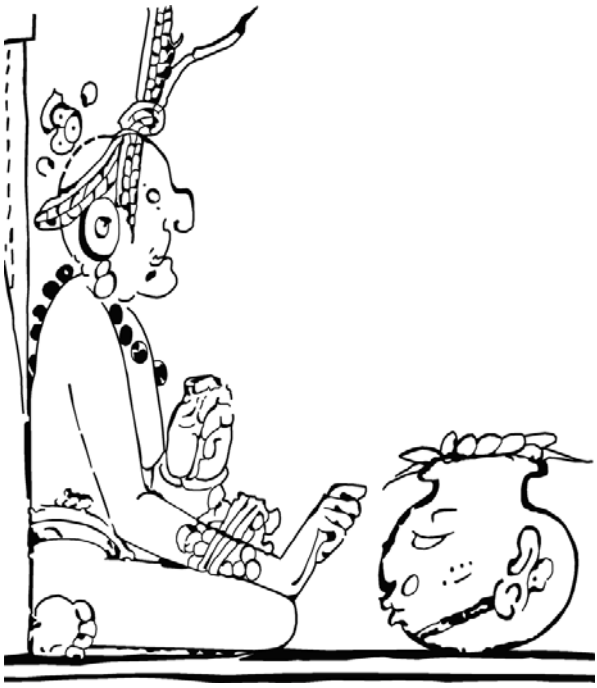

Fig. 9.7 God N in a palace scene (left). His head does not show signs of artificial head reclination or elongation. Note the visibly rounded occipital bulge behind the ears. (Kerr Archive 4113; redrawn by B. Ceballos)

of some extremely elongated head forms that strongly recall the look of the young Maize God, and superior parietal flattening, which is reminiscent of God L, as we have argued. It is probably also premature to speak with certainty on the exact ideas and mechanisms that among the living practitioners justified the selection of cephalic shapes, an area that still awaits examination in specific contexts of the Maya world or for Mesoamerica in general. For I shall take up the aspect of supernatural emulation for specific segments of society; namely, the royal upper crust, which is known to have reverted to a myriad of visible recourses to underline their divine right to authority and rulership.

9.4 Ascribing Social Roles to Maya Head-Shaping Traditions

9.4.1 The Head Forms of Classic Maya Aristocracy

Human interactions occurred at many different levels and among different segments of society. In this vein, the aristocracy that once protagonized Classic Maya society—and the personal cult that was celebrated on their behalf—are food for thoughts about the possible aggrandizing roles that cephalic models once held among courtiers (McAnany 1995). This function may have marked exclusivity, the exhibiting of certain head shapes by some but not others, as was common among the Inca aristocracy,

for instance (Chap. 5). Specifically, head shaping lends itself as an ostentatious means of distinction, maybe by forcing an exceptional look on the head or by visibly emulating sacred forces. In this section, I wish to explore potential symbolic transposition and the role of cephalic modeling in the appropriation for self-aggrandizement. I will go about this idea by comparing the cephalic looks of the Classic Maya elite with those of the mass of society and use tandem information from the iconographic record.

In fact, the idea of visual self-enhancement and identification with the sacred among aristocrats has prominently engaged the minds of Mayanist scholarship who have explored this aspect mainly from the perspective of Classic period imagery (Houston et al. 2006). An iconographic study of head modification, anchored in the portraiture of Palenque's upper crust (Romano 1987), suggests that the tabular oblique modification predominated among members of the ruling elite. Also, the skeletal record has been consulted to establish potential associations with the ancient elite. Haviland and Moholy-Nagy (1992, p. 56) conclude that compression cribs were used exclusively by members of the aristocracy of the city of Tikal and that the initial enactment of cranial modification was ascribed to elite contexts.

However, more recent regional surveys of head looks among tomb occupants of the most exquisite Classic Maya funeral contexts have come to deny any elite associations of head shaping (Tiesler and Benedict 2001; Tiesler 2012). Namely, a series of 25 richly attired funeral contexts (with status markers of 4 and 5 (0–5); $N = 25$; Table 9.7) was consulted to examine diagnostic attributes of modeling. These dignitaries come principally from urban centers of the Central Petén and the Usumacinta areas; most of them date to the Late Classic period. This list includes the famous king Janaab' Pakal, of Palenque and his fernale consort. From Calakmul comes the body of who is presumed to be Lord Jaguar Paw, fierce rival of Tikal's powerful league (Martin and Grube 2008; Tiesler 2004), and who may be Lord Sky Witness, from Dzibanché. Other political heavy weights come from primary and secondary Maya centers of hegemonic power, like Copán in Honduras, Holmul in Guatemala, as well as Toniná and Chiapa de Corzo from Chiapas, Mexico, and Xuenkal and Oxkintok from Yucatán, Mexico.

As expected, the majority of these personages are males, although the group does include women. One of the prominent females who led Palenque's high society was Lady Tza'k bu' Ahaw whom in life was married to the decorated ruler Janaab' Pakal of Palenque (Tiesler et al. 2004; Fig. 9.8). She has been known in popular literature as the Red Queen, given the lack of inscriptions on her tomb and the thick layer of red cinnabar that covered her skeleton. As with Janaab' Pakal, her cephalic physiognomy is determined by a pronounced tabular oblique modeling in its pseudocircular variant, a type of modification that is shared by the majority of the population buried in and around Palenque (Montes 2000; Tiesler 1999). It was achieved by a prolonged anteroposterior compression of the head by use of cephalic splints, which were reinforced with tight constricting bands, which reduced the bilateral cephalic expansion. As a result, the head of Lady Tza'k bu' Ahaw was lengthened and her forehead severely reclined. As with other extreme forms of cranial constriction, her facial profile looks outthrusting, dominated by an aquiline nose with no visible nasal root and a buccal protrusion (Fig. 9.8).

Table 9.7 Artificial head forms among Classic Maya aristocrats

Burial/name	Archaeological site	Sex	Age range (years)	Status score (0–5)	Type of modification	Variant	Degree/ presence
16-1-3a	Xuenkal, Yucatán, Mexico	M	Young to middle aged adult (25–45)	4	Tabular erect	Intermediate	1.5?
16-1-3b	Xuenkal, Yucatán, Mexico		Young adult (15–25)	4			2
E. 2 AC/CA-3A	Oxkintok, Yucatán, Mexico	F	Adult (no range)	4	Tabular oblique	Mimetic	Present
T. XIII-3 "Tzak' Bu Ahaw"	Palenque, Chiapas, Mexico	F?	Mature adult (50–60)	5	Tabular oblique	Intermediate	3
1 TI "Janaab' Pakal"	Palenque, Chiapas, Mexico	M	Old adult (> 55 y.)	5	Tabular oblique		Present
XVIII-1 (1956) A/B	Palenque, Chiapas, Mexico		Adult (no range)	4	Tabular oblique		Present
XVIII-T.3	Palenque, Chiapas, Mexico	F	Young adult (25–30)	5	Irregular		0.25?
IV-6 (1)	Toniná, Chiapas, Mexico	F	Middle aged adult (35–45)	4	Tabular erect	Intermediate	2.25
121-1		M	Young to middle aged adult (25–45)		Tabular erect	Superior flattening	2.25
121a	Chiapa de Corzo, Chiapas, Mexico	F	Adult (no range)	4	Tabular erect	Intermediate	1.25
E.8 (27-2/2000) "Our Lord"	Kohunlich Quintana Roo, Mexico	M?	Mature to old adult (> 45 y.)	4			Present
3004 (D/B-2)	Dzibanché, Quintana Roo, Mexico	M	Middle aged adult (40–45)	4	Tabular oblique	Intermediate	3?
3005 (D/A-1)	Dzibanché, Quintana Roo, Mexico	F	Middle aged to mature adult (35–55)	5	Tabular oblique	Mimetic	1.25
3009 (K/A-1)	Dzibanché, Quintana Roo, Mexico	M	Young adult (25–30)	5			0
3010 (K/A-1)	Dzibanché, Quintana Roo, Mexico	M	Mature to old adult (> 45)	5	Tabular erect	Intermediate	0.5
E-2 (north)	Dzibanché, Quintana Roo, Mexico	M	Young to middle aged adult (25–45 y.)	4			Present
E-2 (south) "Lord Sky Witness"	Dzibanché, Quintana Roo, Mexico	M	Young to middle aged adult (25–35)	5	Tabular oblique	Mimetic	2
XIII-1	Calakmul, Campeche, Mexico	F?	Young adult (20–25)	4	Tabular oblique	Intermediate	2.5
XV-1	Calakmul, Campeche, Mexico	F	Mature to old adult (45–60)	5	Tabular	Mimetic?	
III-t.5 (9)	Calakmul, Campeche, Mexico	M	Middle aged adult (35–45)	5	Tabular oblique	Mimetic	3?
VII-t.1 (1)	Calakmul, Campeche, Mexico	M	Middle aged to mature adult (35–55)	5			Present
II-4a (97) "Lord Jaguar Paw"	Calakmul, Campeche, Mexico	M	Mature to old adult (50–60)	5			0?
II-B-5A	Holmul, Belize	M	Middle aged adult (35–45)	4			Present
36	Copán, Honduras	M?	Middle aged adult (30–35)	5	Tabular erect	Occipital plane	0.5
V-4	Copán, Honduras	F?	Middle aged to mature adult (35–55)	5			Present

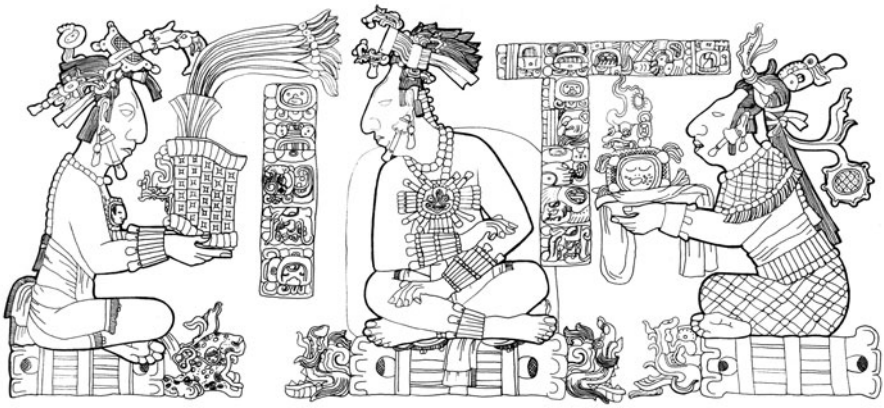

Fig. 9.8 Royals interacting in palace scene at Palenque, Chiapas, Mexico; all of them display strongly reclined head profile, as is common in the Usumacinta area. On the *left*, Janaab' Pakal is shown, handing the attributes of royal power to his son. To the *right*, Pakal's consort, Lady Tza'k bu' Ahaw is participating in the ceremony. She is presumed to be the unidentified dignitary, discovered in 1994 in Palenque's Temple XIII-sub. (Adapted from Greene 1991; drawing by M. Sánchez)

More diverse than at Palenque were the head looks displayed among the elites of the opposite side of the Classic Maya cultural sphere. At Copán's acropolis, recent research (Buikstra et al. 2004, pp. 194–195) has been conducted on a skeletal series from the Early Acropolis. The findings offer valuable insights into the role of cephalic modification in the looks of Copán's early aristocrats. From here comes the "Hunal" Tomb whose occupant was accredited with founding the Copán dynasty and in life bore the title of K'inich Yax K'uk' Mo'. This man died at an advanced age and in the years of his youth seems to have migrated to Copán from some place in the Petén (Price et al. 2009). Adjacent to his funeral chamber is another tomb which archaeologists colloquially call "Margarita." This tomb contained the remains of a woman who was also buried with abundant grave goods. She was a resident of Copán or its surroundings and must have lived shortly after Yax K'uk' Mo' (Price et al. 2009). For the purposes of this review, it is significant that, unlike the majority of later Classic Copanecans (with mostly mimetic oblique modifications), both dignitaries' heads display a tabular erect form.

In a nutshell, the results detailed in Table 9.7 indicate categorically that aristocratic head modifications were not patently different from those modifications that the mass of local society displayed. Tabular erect and oblique shapes are equally represented in the series; the latter appear somewhat below the general ratio for the Classic period. The proportion of artificially shaped crania ascends to 88 %, with a moderate expression on average of 1.928 (in a scale of 0–4), again being equivalent to the patterns exhibited by the popular sectors. Consequently, we can affirm that prevalence and choice of head form is similar to the models established for the remaining population of its time and area. Therefore, there appears to be no indication that could argue for any exclusive head form or any specific enactment of these body modifications among nobles.

In a second approach, we compared the average status index for each type of cephalic modification to distinguish if any particular form appeared more frequently in richly attired funerary contexts. While tabular erect forms marked an average score of 0.982 ($N = 257$), tabular oblique shapes, which the literature identifies with dignitaries of the Classic Era Maya courts, are associated with a score of 0.899 ($N = 449$). This result is still below the average for erect modifications and again discounts any assignment of exclusivity to reclined and tabular heads from the Classic era. Also, the criterion of presence (0.913, $N = 1{,}000$) vs. absence of modification (0.875, $N = 206$) does not denote any privilege or wealth either for the practice or lack of practice. Likewise, the degrees of modification offer no elements that could establish correspondence between status and the visibility of modification (such as the more pronounced the modification, the higher the status). As previously discussed, presence, degrees, and forms were not applied preferentially, let alone exclusively, among members of different social sectors among Classic period Maya. This observation is also confirmed for specific site series from our database. In the skeletal series of Copán, Honduras, for example, which includes individuals of different social groups, no significant difference was documented when presence and type of modification were compared between high and low status groups ($p = 0.936$ and $p = 0.873$, respectively).

In view of the lack of any tendency, there is no evidence that would lead us to suppose that cephalic modification, in itself or its generic types, performed a role as a marker of social position, a conclusion that confirms the results of previous phases of my regional survey of the Maya area (Tiesler 1997, 1999). The assimilation of popular cephalic forms by the Maya aristocracy differs somewhat from Andean head practices, for example (Torres-Rouff 2002; Yépez 2006, 2009). Cognizant of the importance of other body attributes to denote aristocratic exclusivity and even divinity, the apparent social equality communicated by the enactment of infant head modeling comes as a surprise. Explanations could lie in the fact that the practitioners were female and the idea that those who experienced the head procedure were too young to acquire leading roles and authority. Among central Petén elites, we note that their real artificial head forms do not necessarily coincide with their head rendering in royal portraiture, which tends to stick to the reclined aesthetic ideal.

There is a single exception that contrasts noticeably with the panorama described earlier in the regional survey. It identifies the superior head flattening, which is achieved either by using cradleboards or cephalic devices (Chap. 4). This form, which in funerary contexts is associated with richly attired burials, proliferated in the Maya area during the latter half of the Classic period. The elite connotation of this modification is expressed in markers of status, which scores an average of 1.90 in our series, well above the remainder of the series (0.83). Although modifications with flattening also appear in women and children, the majority of the individuals who show superior flattening were men, constituting 71.15 % of those individuals for whom it was possible to determine the sex ($N = 52$). Who were the people who showed their head flattened on top? What was their role in the ancient social fabric? Why was this artifice introduced only in the Late Classic period in the area? Why was it not used as was the vast majority of the forms centuries or even millennia before? We will explore these and other questions in the following section.

9.4.2 The Social Signification of Superior Flattening

We recall that a specific form was added to the Mesoamerican caleidoscope of cephalic shapes during the Classic period (Chap. 8). This model, called parallelepiped, superior, parietal or obelionic flattening, or simply El Zapotal type (Romano 1973), displays a visible compression plane in the upper portion of the neurocranium. The cultural origin of this cranial configuration appears to lie in southern-central Veracruz. At least here, the practice found its most visible expression during the Classic period (Chap. 8).

Apart from other cultural areas within the Mesoamerican sphere, which we have already documented in the previous chapter, superior head flattening also came to be known and applied in the Maya area and vicinities. A total of 74 shapes of the type were registered in the recently expanded survey of the Maya area. These prominently identify males from rich funerary contexts, suggesting they were wealthier than most other Maya and/or enjoyed a higher level of prestige. Superior flattening seems to have appeared in the circum-Maya area during the Middle Classic period. Here, skulls bearing this form are recorded from the Mixe-Zoque region around Chiapa de Corzo. Shortly afterward, the people bearing top-flattened head forms appear to have breached immense distances along the coastline of Yucatán toward Honduras and adjacent settlements connected to maritime trade. Also, a few inhabitants of the Copán Pocket, on the other side of the peninsula, exhibit superior flattening. It is noteworthy that superior flattening appears to have been practiced among coastal or nearby communities, that is, by those with direct or indirect access to the sea such as Kohunlich, Barton Ramie, and Copán. Registries of other inland sites, including numerous skeletal series such as Calakmul ($N = 41$) or the entire collection from the southeastern Petén ($N = 91$), do not include a single remain with this form. A statistical comparison of the presence of superior flattening among coastal Maya series with the interior areas of the Maya world highlights this cultural separation ($p = 0.002$).

Heads with their top portion flattened, especially in the ports of Xcambó and Isla Cerritos, are visible in 7 and 20 % of the crania, respectively. The population of Jaina in Campeche likewise includes this form in its cultural repertoire. Here, it is apparent in 12 % of the evaluable crania. Note that this style continued to be crafted in infant heads up to the Early and Late Postclassic period, although in a smaller proportion. It is still either coastal populations that display it or those from the Chiapas Mixe-Zoque peripheries of the Maya area. The configuration is expressed by 2.7 % of the evaluable population for the Postclassic site of El Rey, and still makes up 6.3 % of all evaluable crania from the island site of San Gervasio, most of which date to the Early Postclassic period. Conversely, we could not document any cases of superior flattening in the skeletal populations of Tulum or Champotón, which date to the Late Postclassic period (Vargas 1997; Folan et al. 2003).

Although we cannot confirm exact chronological ranges for the human remains of what were presumably sacrificial victims, recovered from the depth of the Sacred Cenote of Chichén Itzá, these deserve special mention, as they represent the vast

majority of the Maya crania documented with superior compression so far. This trend is noted both in the series of skulls found in the Peabody Museum, Harvard University, and in another more recent series recovered by Piña Chan in the 1960s. Almost one third of the examined pieces show superior flattening (29 %; $N = 147$), which constitutes almost the same level of acceptance noted centuries before among the residents of El Zapotal in Veracruz. Given the strong pan-Mesoamerican trader network controlled by Chichén Itzá (Vargas 2001; Wyllie 2002), the skulls with cranial forms reminiscent of merchant folklore seem to decode the cultural and possibly ethnic pertinence of the individuals presumably offered for ritual purposes by Chichén's hegemonic rulers (see Chaps. 8 and 10).

In synthesis, the fact that folk with top-flattened heads appear to have been propagated along the coast, and given the similarity found with head forms further west, toward Veracruz, invites reflection on their possible meanings as visible signifiers of ethnicity, social role, and ideological association. As for the individuals who bore superior flattening, we must engage questions on their possible ethnic and geographic origin. Recalling the similarity of this head form with that of the Maya Merchant God, we cautiously infer that this model emulated this magical–religious power venerated by traders. The cult of God L, enacted by Maya merchant folk from the overarching networks of ever more Mesoamerican maritime and terrestrial trade routes, gained strength in the area toward the Late to Terminal Classic period (Wyllie 2002; see also Tiesler et al. 2010). The geographic and chronological distribution of those Maya individuals who display superior flattening, along with the richness of their funerary clothing, appears to reaffirm their collective identity and affiliation with traders. Ideological elements introduced, flows of materials such as obsidian, and the presence of foreign personages, likewise suggest strong influences that emanate from the west along the Gulf coast (Grube et al. 2009; Pallán Gayol 2009). In this line of thought, the coastal Maya head shapes with their similarity to forms common in Veracruz would therefore have constituted a visible expression of the new sociocultural dynamics that were beginning to be felt in the receiving Maya territories, including centuries before the so-called "collapse."

We conclude this section by musing on the role of the top-flattened head looks and its propagation in collective group ideology and visible representation. Broader connotations relate to the nature of trade and the mobility of traders. If the superior flattening indeed denotes merchant identity, then Late and Terminal Classic trade was conducted by people who breached large distances along the shores that surrounded the Maya area to the east and north. They did not only move and introduce objects and styles but also made themselves conspicuous by showing a distinctive head form. Set in the historical context of precollapse Maya society, heads with superior flattening somehow appear as living bearers of a new ideological system that accompanied a new network of military allies and trading partners. Its initial expansion along the Gulf coast would soon reach the coastal borders and territories on the other side of the Peninsula (Tiesler et al. 2010). The early protagonists of this new order could well have turned to the visual resource of head shape to identify themselves with a magical–religious power that they venerated as traders, a sector whose rise was consolidated around the end of the Classic era. This was a time marked by dramatic

social adjustments and changes in population, including the abandonment of a large part of the Central Lowlands and the rise of new powerful hegemonies, the first of which was Chichén Itzá in the northern Peninsula.

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