

Anthropology Book Forum

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Two heads are better than one: a brief demonstration of the value of interdisciplinary approaches to archaeological inquiry at Teopancazco

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Multiethnicity and Migration at Teopancazco: Investigations of a Teotihuacan Neighborhood Center

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Multiethnicity and Migration at Teopancazco provides its readers with a glimpse into the socioeconomic fabric of Classic period (CE 200–550) Teopancazco, a residential compound situated in the southeast corner of Teotihuacan, Mexico. The authors achieve this by revealing the life histories of Teopancazco's residents through an interdisciplinary approach. Drawing on the disciplines of osteology, biogeochemistry, genetics and archaeology, the authors were able to robustly support their interpretation of Teopancazco as a multiethnic and multicultural district, with a corporate economic structure administered by an intermediate elite (Chapter One).

Chapter Two outlines common mortuary practices in Teopancazco, as well as the paleopathology of the ailments those interred there endured. The majority of the population were situated in non-elite burials, and these individuals suffered from numerous pathologies, such as enamel hypoplasia, *cribra orbitalia* and scurvy. In addition, these individuals were accompanied with few grave goods and were arranged according to cardinal orientations that conform with other non-elite burials at Teotihuacan. By contrast, those that were located in elite burial contexts displayed negligible pathological indicators.

Chapters Three and Four provide the reader with an outline of the paleodietary patterns exhibited at Teopancazco. Approximately half of the twenty-seven individuals sampled displayed dietary isotopic values indicative of diets that consisted of almost 100% maize consumption, while the

remaining half revealed a more mixed dietary protein signature (106–109). The authors interpret these findings as evidence of the widespread consumption of maize (a C₄ crop) and maize fed animals (116–118). Those individuals whose isotopic values deviated from the C₄ protein line were interpreted as potential members of the intermediate elite, who enjoyed a more varied diet that included a significant intake of marine protein (Chapter Four).

Chapters Five through Seven offer an overview of how ethnic diversity and migratory patterns changed over time at Teopancazco. Ancient mitochondrial DNA (mtDNA) haplogroups sourced from twenty-nine individuals interred in Classic period graves revealed Nei's genetic diversity index readings of 0.6404 (170–174). This value is greater than some modern Mexican populations, with the states of Mexico, Hidalgo and Oaxaca yielding diversity index readings of 0.5152, 0.5037 and 0.5190 respectively (171). Teopancazco subsequently experienced a high degree of demographic flux (172). These findings were consolidated by the migratory isotopic data (Chapter Five; Chapter Six). An oxygen isotope analysis revealed nineteen of the forty-four sampled individuals to be of non-local origin, yielding values corresponding to low, middle and high altitudes (134). A corresponding strontium isotope analysis of twenty-seven individuals identified fifteen migrants and verified most of the oxygen isotope data (Chapter Six).

Chapter Eight reveals that children were generally overrepresented at Teopancazco grave sites, constituting 27% of the formal burials (176). This indicates that high infant mortality rates occurred at Teopancazco, which correlates well with data sourced from elsewhere at Teotihuacan. The sex of these individuals was determined using polymerase chain reaction (PCR) amplifications, which indicated that the ratio of males to females was 1:1. This value contrasts markedly with the ratio of adult males to females, with males disproportionately overrepresented in Teopancazco burials.

In Chapter Nine, the authors attempted to identify ethnic markers using facial reconstructions. Broadly speaking, the authors define ethnicity as “cultural differences that arise from social interactions and contribute to processes of cultural identity” (187). Moreover, the authors state that individuals belonging to a given ethnic group may exhibit shared physical features (187). Judging by their analyses, the authors concluded that five distinct ethnic groups were interred at Teopancazco. In addition, deliberate cultural modifications were visible in some individuals, who exhibited evidence of *in vivo* cranial or enamel deformations.

When one combines the migratory data with individual mortuary contexts, activity and pathology markers and paleodietary evidence, a clear picture of the socioeconomic structure of Teopancazco begins to emerge. Most of those dependent on maize and maize fed animals as dietary staples were found to have migrated from coastal and lowland regions (204–207). Furthermore, these individuals were likely to have worked fibers with their teeth and to have suffered from pathologies caused by nutritional stress, such as porotic hyperostosis, scurvy or enamel hypoplasia (204–207). By contrast, the five individuals that exhibited evidence of marine protein consumption tended to be local or from the Central Highlands of Mexico, with fewer labor activity markers and negligible pathological indicators (204–207). Of these individuals, one juvenile male and one juvenile female were buried together in an elite mortuary context (81).

The authors' interdisciplinary approach reveals a clear picture of Teopancazco's corporate socioeconomic structure, with poorly nourished low altitude migrant and local laborers working as garment makers to serve the interests of a local and highland intermediate elite (Chapter One; Chapter Ten). However, this interpretation would quickly become opaque without the clarity that an interdisciplinary inquiry provides. Whether intentional or not, the authors of *Multiethnicity and Migration at Teopancazco* make a strong case in favor of interdisciplinary approaches to archaeological inquiry. Unlike the practitioners of ethnohistory and ethnography, archaeologists must interpret their databases without observing the societies that created it. A silent set of recovered materials is all archaeologists have to work with. Archaeology's interpretive models are thus extremely vulnerable to forays into the realms of conjecture, especially if these interpretations are supported by weak methodological frameworks. In order to interpret the archaeological record to the highest degree of contextual integrity, archaeologists sometimes deem it necessary to draw upon methods and theories from other disciplines. These interdisciplinary approaches arguably enable archaeologists to avoid the pitfalls associated with interpreting their mute databases according to a single line of inquiry.

I would recommend *Multiethnicity and Migration at Teopancazco* to those with an interest in Mesoamerican archaeology, as it offers unique insight into the lifeways of Teopancazco's residents. More generally, biological scientists with an interest in archaeology would also find this book to be an engaging read. In the era of the specialist, the interdisciplinary perspective adopted by the authors of *Multiethnicity and Migration at Teopancazco* provides readers with a refreshing reminder of the importance and utility of collaborative research projects.

Andrew Lythe is a PhD student at the University of Montreal, specializing in stable isotopic analyses of human and faunal remains to elucidate patterns of diet and migration in prehistory. He is currently working on discerning patterns of animal management at Ganj Dareh, Iran, which contains the remains of the oldest known domesticated animals in the world.



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