

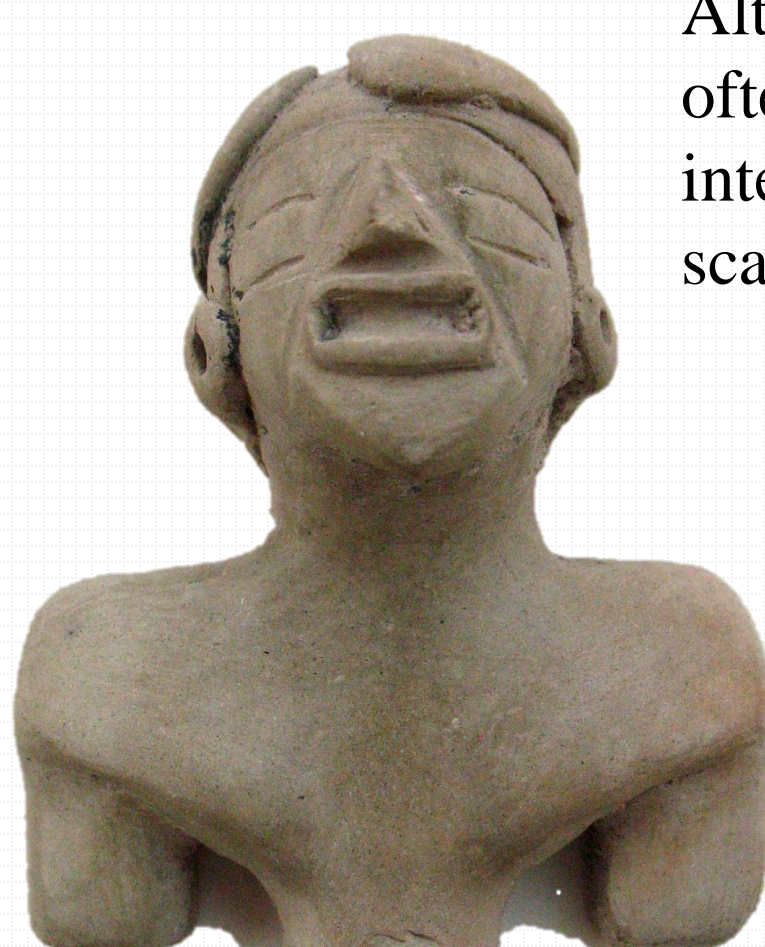


The Social Context of Violence: Migration and Sacrifice in Prehispanic Central Mexico

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Identity-based Violence

As humans, we innately sort ourselves into groups of “us” and “them”. Such behavior reliably produces preferences toward in-group members and biases against out-group members¹⁻².



Figurine recovered from Non-Grid 4 shrine

Although this social boundary formation often takes place non-violently during intergroup interactions, during periods of scarcity or stress humans often carry out preemptive violence to defend their in-group if they perceive out-groups as potential threats.

Socio-political upheaval, then, is often accompanied by increasing violence directed at individuals or groups perceived as categorically different or “other”⁴.

Research Question

This research examines identity-based violence in the past by answering the question:

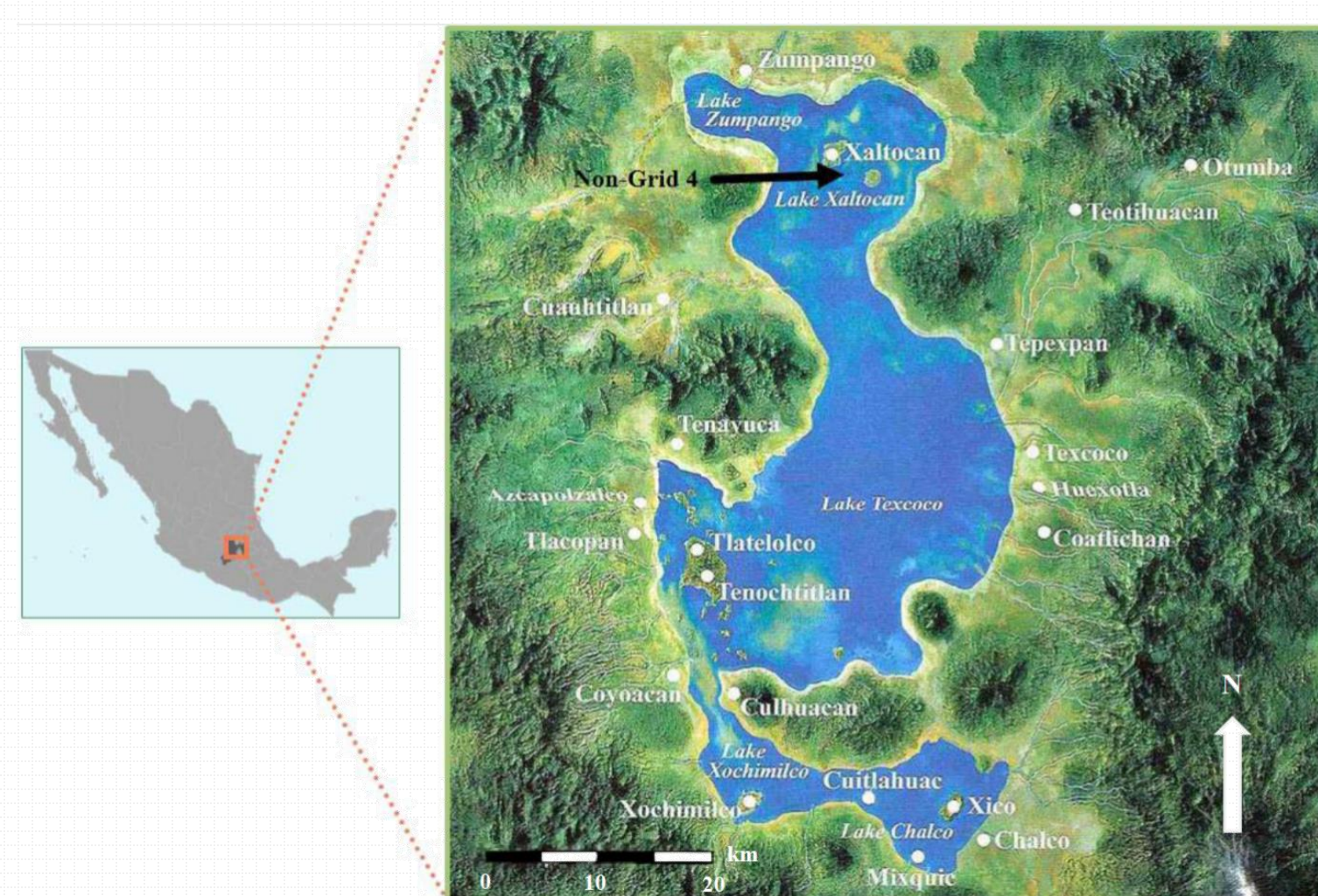
How did aspects of individuals’ social identities—specifically their geographic origin—contribute to the selection of victims of ritual violence?



Codex Laud

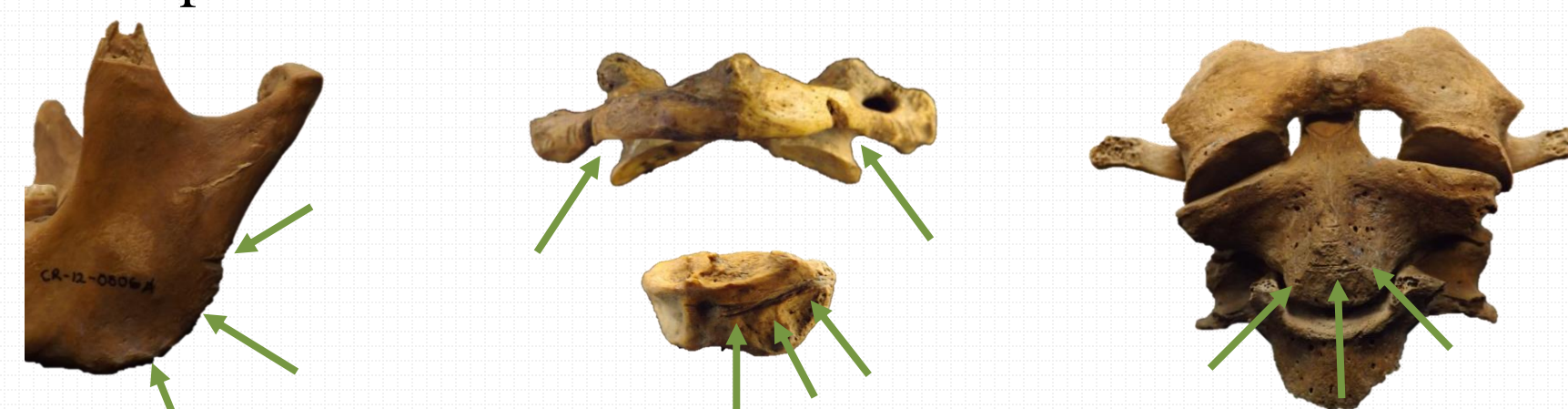
The Non-Grid 4 Shrine Site

The central Mexican shrine site of Non-Grid 4 is located in the Basin of Mexico⁴. It dates to the Epiclassic period (600-900 CE), a time of dramatic political upheaval and social reorganization in central Mexico.



Prehispanic central Mexico. Non-Grid 4 is indicated by the black arrow.

The skulls of at least 173 individuals were interred at the Non-Grid 4 shrine. Many individuals exhibited evidence of throat slitting, ritual exsanguination, and subsequent decapitation.



Cut marks on mandibles (left), cervical vertebrae (top center, right), and hyoids (bottom center) from Non-Grid 4

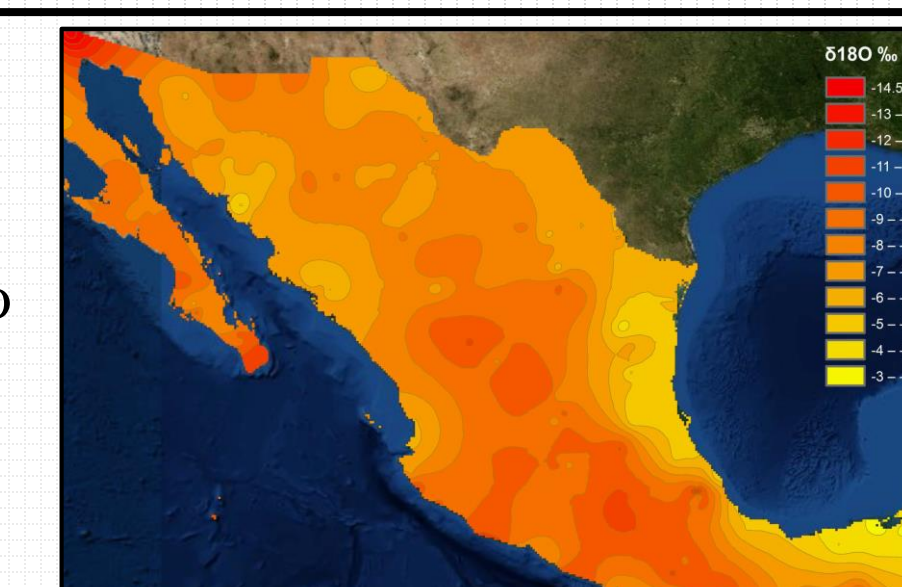
Methods – a biogeochemical approach

Element	Period of Life Represented
First Molar (n = 73)	In utero – 3 years
Third Molar (n = 73)	7 – 16 years
Bone (n = 48)	~last 10 years of life

I analyzed radiogenic strontium isotopes ($^{87}\text{Sr}/^{86}\text{Sr}$) and stable oxygen isotopes ($\delta^{18}\text{O}$) in first molars, third molars, and bone fragments from a sample of Non-Grid 4 sacrificed individuals. Because these tissues all mineralize and remodel at different times, their isotopic composition can be used to trace individuals’ mobility over the life course.

Samples were prepared in the Archaeological Chemistry Laboratory⁵. $^{87}\text{Sr}/^{86}\text{Sr}$ samples were analyzed on a multi-collector inductively-coupled plasma mass spectrometer. $\delta^{18}\text{O}$ samples were analyzed on an isotope ratio mass spectrometer.

$\delta^{18}\text{O}$ isotopes vary according to local hydrology⁶



Maps from Moreira et al. 2017⁸ (above) Servicio Geológico Mexicano⁹ (below)

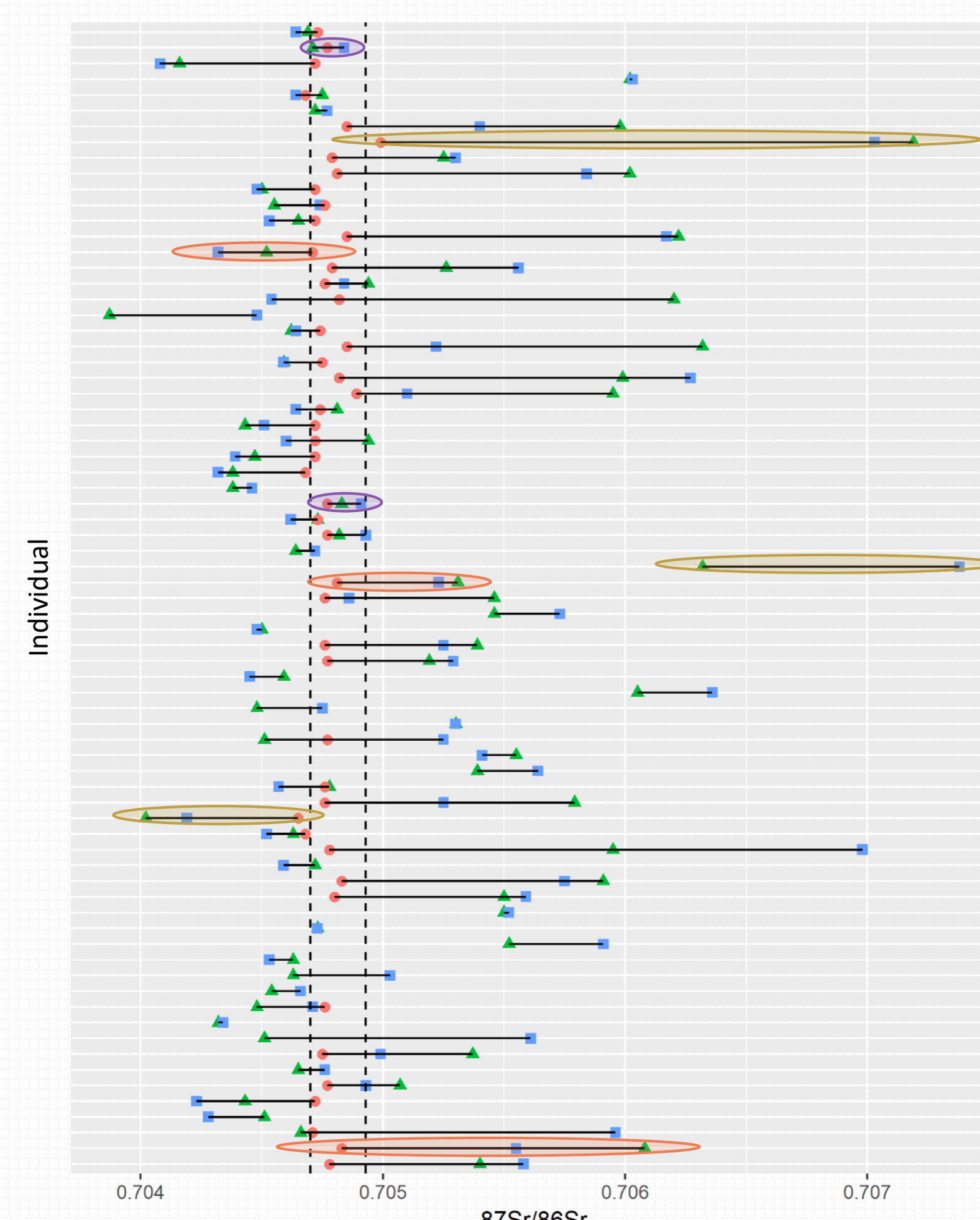
$^{87}\text{Sr}/^{86}\text{Sr}$ isotopes vary according to local geology⁷



Results

Reconstructing Residential Mobility among Sacrificial Victims

$^{87}\text{Sr}/^{86}\text{Sr}$ and $\delta^{18}\text{O}$ values in sacrificial victims’ bone and enamel tissues were compared with expected local isotopic baselines indicated by the dotted lines. Elements falling within the baseline values indicate that individuals lived locally at the Non-Grid 4 shrine site during the time of tissue formation.

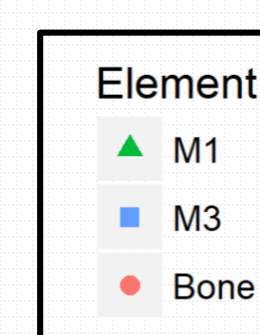


Interpreting $^{87}\text{Sr}/^{86}\text{Sr}$ Results

58% of the victims were **immigrants** to the region, having been born elsewhere but moved to the region later in life.

27% were **foreigners** who were born and lived elsewhere for most of their lives.

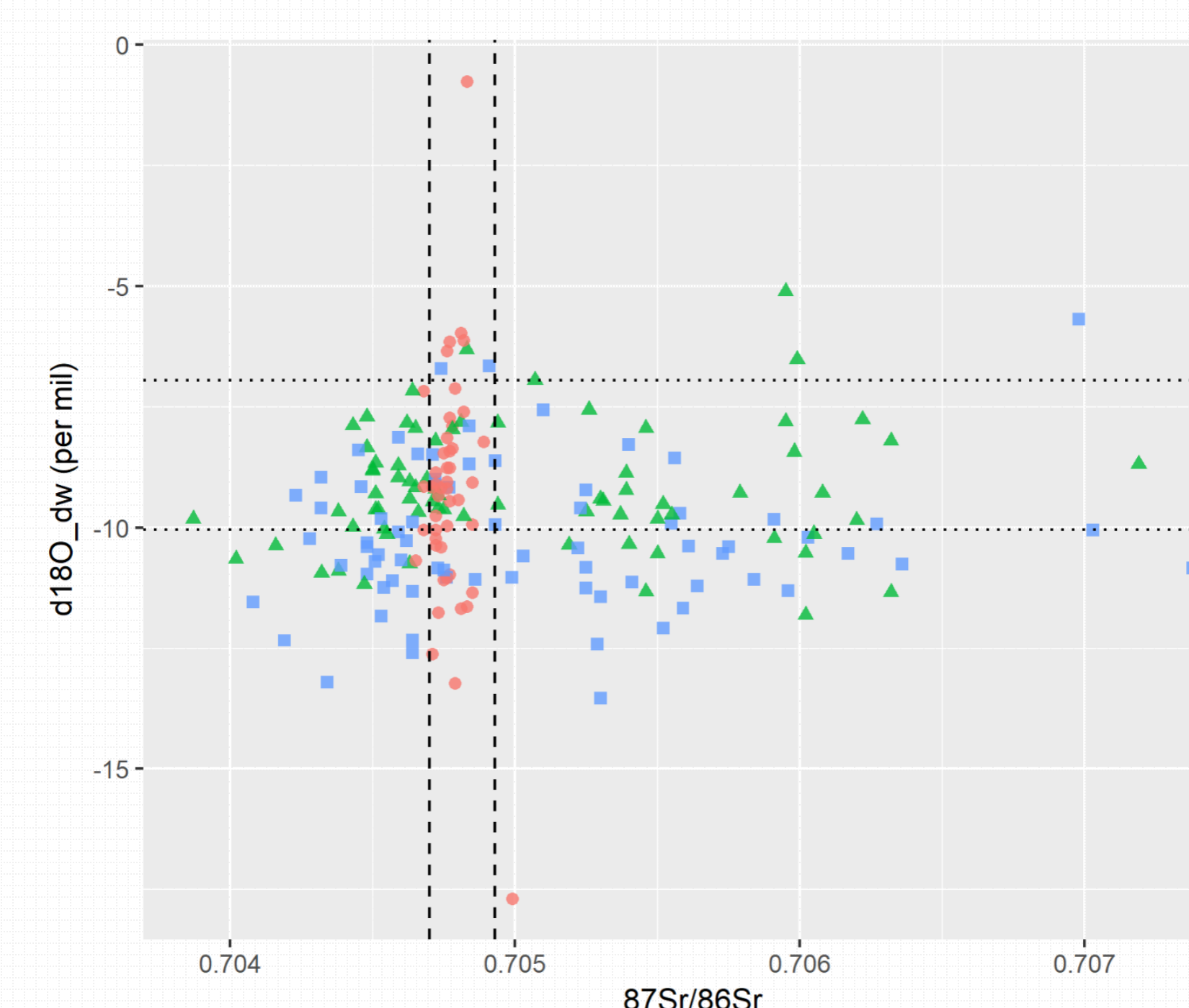
14% were **locals** who were born and lived in the region their entire lives.



Combining Multiple Isotopic Systems: $^{87}\text{Sr}/^{86}\text{Sr}$ and $\delta^{18}\text{O}$

Most first and third molar samples fall outside of the $\delta^{18}\text{O}$ and $^{87}\text{Sr}/^{86}\text{Sr}$ expected baseline range.

The majority of bone samples fall inside the combined isotopic baseline.



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Discussion

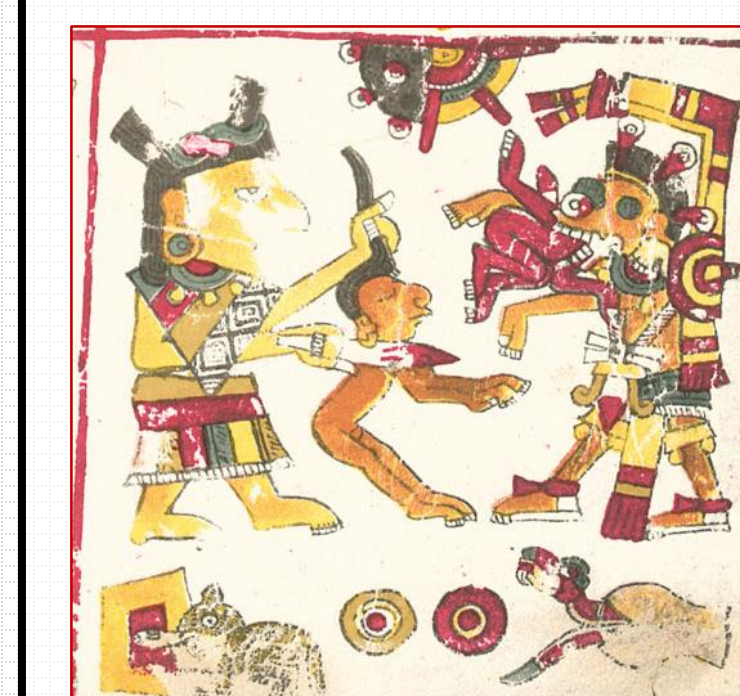
$^{87}\text{Sr}/^{86}\text{Sr}$ and $\delta^{18}\text{O}$ isotopic values indicate that most sacrificial victims were not “local” to the Non-Grid 4 region.

A majority of sacrificial victims were immigrants or foreigners.

Few sacrificial victims were “locals.”

Individuals of non-local origin appear to have been predisposed to suffer violence at Non-Grid 4.

In prehispanic Mesoamerica, geographic origins were important signifiers of social difference¹¹. During a time of socio-political upheaval such as the Epiclassic period, immigrants and foreigners would have been perceived as “other” and may have been targeted for violence specifically because of their divergent residential histories.



Codex Borgia

Future Research

Future work will examine how other aspects of social identity including:

Ethnicity

Biological kinship

may have predisposed individuals to suffer violence.



Decapitated skulls were interred in rows underneath a platform at Non-Grid 4.

Acknowledgments

Samples were exported from Mexico with permission from INAH (Oficio no. 401-3-6715). Thanks to Gwyneth Gordon and 11 undergraduate research apprentices for assistance with sample preparation and analysis. Thanks to my committee for their support: Jane Buikstra, Kelly Knudson, Christopher Morehart, and Christopher Stojanowski.

This research was supported by grants to Pacheco-Forés from NSF (#2013155229, 1744335) and the Center for Bioarchaeological Research.

