Archaeological Paleography

A Proposal for Tracing the Role of Interaction in Mayan Script Innovation via Material Remains

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Archaeopress Pre-Columbian Archaeology 6

ARCHAEOPRESS PUBLISHING LTD
Gordon House
276 Banbury Road
Oxford OX2 7ED

www.archaeopress.com

ISBN 978 1 78491 239 0
ISBN 978 1 78491 240 6 (e-Pdf)

Front and back covers: Mayan Glyphs, drawings by Pearl Lau.

Printed in England by Oxuniprint, Oxford
This book is available direct from Archaeopress or from our website www.archaeopress.com

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Preface

This research explores the development of the Maya writing system in Middle–Late Formative and Early Classic period (700 BC–AD 450) Mesoamerica. It seeks to correlate script development with interregional interaction and diachronic changes in material culture, and proposes a new methodological template for examining script development via material remains. In doing so, it contributes to anthropological debate regarding the role and effects of interregional interaction in processes of development and change of material and symbolic culture. This investigation posits that Maya writing developed in late Middle Formative through Early Classic period Mesoamerica as a correlate of interregional sociopolitical and economic interaction. Scholars working in many areas of the world have long claimed that interaction is central to cultural innovation, especially in relation to the development of writing. If the emergence of the Mayan script is a correlate of systemic interaction, then its developmental process should be traceable archaeologically through artifactual evidence. This hypothesis is tested by exploring archaeological indicators of interaction against a backdrop of previously documented transformations in the emerging Mayan script. The methodological model proposed here builds on current models of the development of Mesoamerican writing systems and models of interregional interaction and cultural development to associate archaeological remains with the development of the Mayan script.

A significant revelation of this research is that the contextual framework in which material and symbolic goods were used and exchanged in past societies is equally as important as the formal qualities of the artifacts themselves in achieving a more complex understanding of their developmental histories and specific cultural meanings. This research represents a rare instance of investigation at the nexus of epigraphy, archaeology, and linguistic anthropology. Examining the development of writing in relation to stylistically defined zones of interaction permits more nuanced questions about the relationship between writing, other aspects of material culture, and cultural meaning. Archaeologists can infer cultural logics from artifactual exchange to create clearer links between material artifacts and symbolic concepts. The investigation shows how combining epigraphic, linguistic, and archaeological data can illuminate wider questions related to the development of sociopolitical complexity, cultural innovation, and long–term processes of linguistic and socio–cultural change, furthering anthropological debate in each sub–discipline.

The primary merit of this work is that it adds to the increasingly nuanced understanding of emerging complexity in the Late Formative period of Southeastern Mesoamerica. This study underscores the effects of shifting networks of interregional interaction on lowland Maya material culture, linguistics, and scribal traditions. By examining the relationship between such transformations and material variability against a backdrop of changing sociopolitical organization at a crucial moment in Mesoamerican history, the model proposed here elucidates more complex understandings of larger archaeological questions related to boundary formation, emergent hierarchies, the development of specialized systems of material production, and the functional uses of ostensibly 'elite' material culture.

The model is evaluated with ceramic data recovered from the archaeological sites of San Claudio, Tiradero, Mirador, and Revancha, located in southeastern Tabasco State, Mexico. This area is a boundary region between Mesoamerican interaction spheres. At such boundaries, ideas entwine with material goods in generative ways through interaction. In trans–regional contexts, differential interpretive principles prompt the emergence of innovative recontextualizations of artifactual elements, forms, and functions. This investigation analyzes stylistic, functional, and distributional variability in material markers of interaction to evaluate the relationship between material variability, interaction, and script development. The ceramic sample includes approximately 22,000 total sherds from the four sites dating from the late Middle Formative through the Early Classic period. Ceramics are an excellent variable by which to measure interaction and its relation to the development of the Mayan script. This is because ceramic materials readily display marked changes in style, form, and function that lend themselves well to comparative and quantitative evaluation against the morphological and functional changes is iconographic and linguistic evidence involved in the emergence of writing. Statistical measures of similarity and diversity within and between a sample dataset and regional sequences reveal quantitative patterns of change in ceramic materials.

Patterns of continuity and disjunction in the formal stylistic characteristics and functions of material artifacts are compared to the distribution and recontextualization of shared iconographic elements across space and through time. Such patterns of exchange in the material evidence should correspond spatially and temporally to iconographic and linguistic data, suggesting both the centrality of interaction to cultural innovation and a correlation between the developmental processes. Stylistic and functional variability in the distribution of material artifacts indicates both degrees of interaction and differential use of homologous material culture in discrete functional and stylistic contexts,

paralleling the emergent transformations of diffused icons into written signs. If the hypothesis is correct, an analysis of the data should reveal a greater degree of interaction and less relative variability between the ceramic sample and regional sequences in earlier temporal contexts, followed by a decrease in interaction and increase in material variation in the Early Classic as localized imposition of cultural meaning on icons and artifacts intensified in the Maya lowlands. Statistical measures of the archaeological evidence should indicate the significantly different functional and formal attributes of stylistically similar artifacts that parallel divergence in the localized use of diffused iconographic symbols. The emergence of Maya writing and the differential use of material culture would thus express the same processes of interregional interaction and innovation.

Quantitative and comparative analyses suggest that interregional interaction was intimately involved with both material and scribal innovation in the contexts of the study area. Ceramic, linguistic, and iconographic data indicate that a great degree of interaction occurred within and across the study area in the Formative period and that interaction decreased significantly in the Early Classic period. The iconographic and linguistic data also suggest that the innovations involved in the development of the Mayan script occurred in earlier temporal contexts than the inventive and locally specific changes in regional material and ceramic traditions. The interaction evident in the Middle Formative data appears intimately connected to subsequent innovations in ceramic, linguistic, iconographic, and scribal traditions across Mesoamerica. The timing of such innovation, at least in the case of ceramic materials and the Mayan script, is variable. The three datasets suggest that patterns of interregional interaction shifted at slightly different times within the Late Formative period. Thus, the data hint that changes in broad patterns of interaction occurred in stages throughout the Late Formative period and consequently were reflected in the evidence at different points in time. The results also suggest that distinct types of data were linked to specific types of interaction whose patterns shifted in discrete spatial and temporal contexts.

The first significant conclusion suggested by this research is the implication that large–scale changes in cultural processes within southeastern Mesoamerica may have occurred earlier than has previously been thought, closer to the Middle–Late Formative period transition. A second is the suggestion that subtle transformations in contextual frameworks may prove equally as integral to understanding processes of long–term cultural change as diachronic variation in the formal characteristics of material data. The results are complicated by the fact that so little evidence for the early history of Mesoamerican writing systems, including the Mayan script, is available. Further investigation may reveal new data, or suggest alternate lines of evidence that may be more profitably applied to an attempted correlation of developing scripts with material goods in Mesoamerican contexts. Alternately, the model proposed in this work may be applied in other spatial, temporal, or cultural contexts to elucidate the significance of the results suggested through this research.

Acknowledgements

This volume grew out of dissertation research conducted through the Department of Anthropology at Florida State University. First, I would like to offer my sincere gratitude to the members of my dissertation committee—Mary Pohl, Bill Parkinson, Joseph Hellweg, Daniel Pullen, and Michael Carrasco—for their support, encouragement, and patience. I am deeply indebted to all of these individuals, and I offer my most profound thanks for their guidance, encouragement, and diligent care.

Also at FSU, I thank the Eisele Foundation for their generous support of my research and for funding fieldwork in Mexico during 2009 and 2010. I also offer thanks to the members of the FSU Department of Anthropology for their support and feedback, particularly to Dan Seinfeld and Ian Pawn. Thanks also go to Barb Speck and the Congress of Graduate Students for their support, and to the FSU Dissertation Research Grant program for providing funds to purchase statistical analysis software. I am also indebted to Kelly McGinnity, Felicia Gray, and Kunle Olumide and the FSU Department of Statistics Consulting Center for their advice and assistance with statistical analyses.

While conducting my research in Mexico, I owe a debt of gratitude to many individuals. In Mexico City, thanks go to Lety Juarez Hernández, Joshua Balcells, and the family of Hector Muñoz Hernández. At the INAH Consejo de Arqueología, I extend thanks to Dolorez Juarez and Rach Cobos for their help and guidance in securing permission to conduct this research. At the UNAM Instituto de Investigaciones Antropológicas, my heartfelt gratitude goes to the late Dr Lorenzo Ochoa for his tremendous assistance and support of this investigation, and for opening the ceramic collection of the Proyecto Tierras Bajas Noroccidentales. Thanks also go to the faculty and staff of UNAM–IIA, particularly Rodrigo Liendo and Paty Peláez.

In Villahermosa, Tabasco, I offer thanks to José Luis Romero and Juan Antonio Ferrer Aguilar for receiving me so warmly at the Centro INAH Tabasco. Also at the Centro INAH, thanks to the investigators and associated staff, particularly Paty Islas for her assistance with administrative matters. Special thanks to Ariadna, Ito, and Roger for making my stay in Villahermosa infinitely more bearable. I offer my sincere gratitude to Angela González Moreno for all of her help and encouragement in my work with the archived ceramic materials. Also in Villahermosa, many thanks to Rebeca Perales and her staff at the Museo Regional de Antropología Carlos Pellicer Cámara and the Instituto Estatal de Cultura del Estado de Tabasco for their support, guidance, and for allowing me access to museum collections during the renovations of summer 2009. Special thanks go to Javier Ruíz Torrecilla and the family of Don Hugo Ruíz for their hospitality.

Finally, I am grateful to Pearl Lau and Mario Retiz for their considerable help in the preparation of images.

All errors of fact or omission are the sole responsibility of the author.