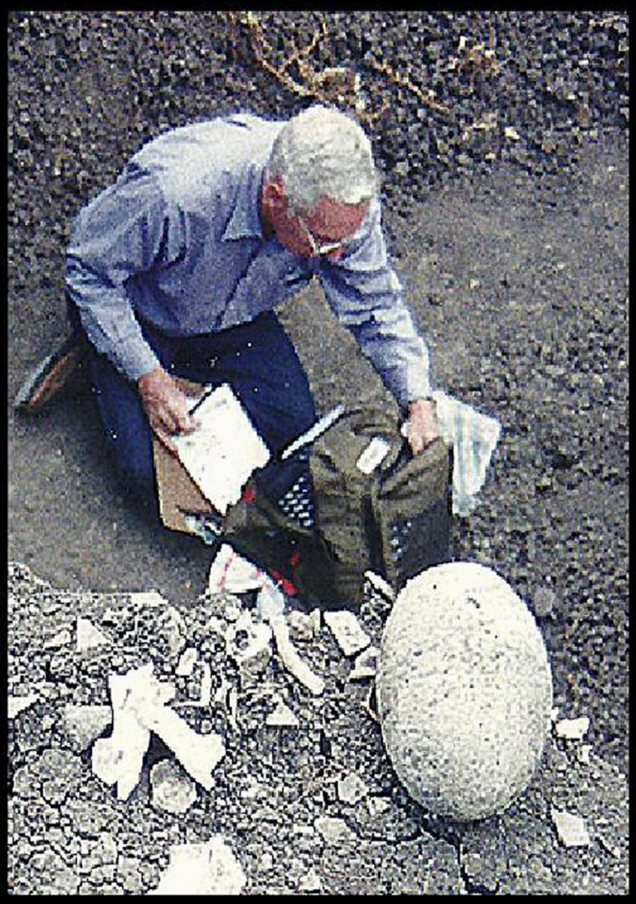
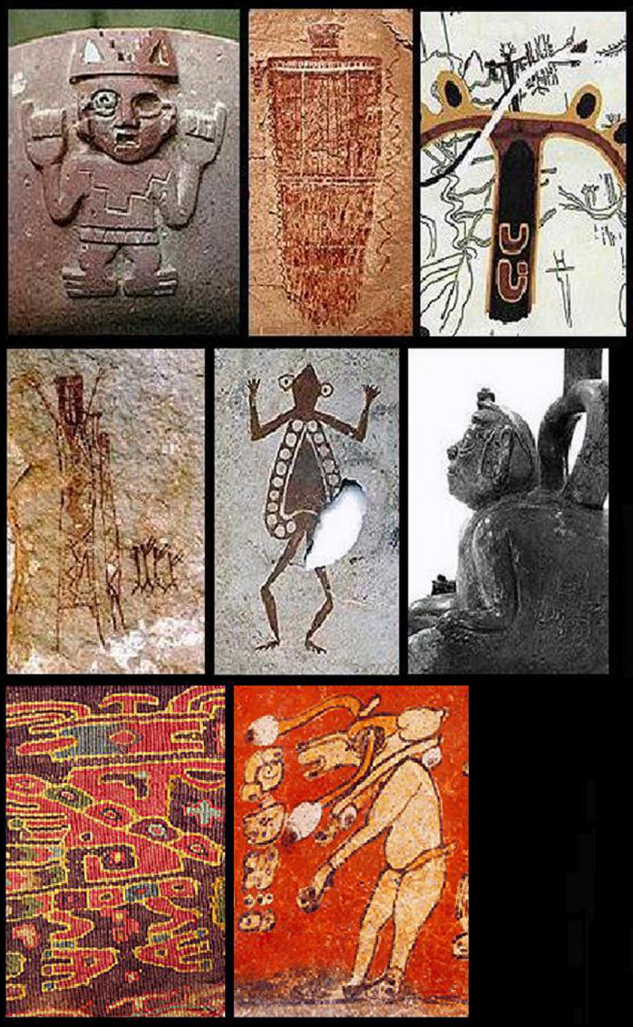


Making "Meaning"

Precolumbian Archaeology, Art History, and the Legacy of Terence Grieder



Edited by James Farmer & Rex Koontz

MAKING "MEANING": PRECOLUMBIAN ARCHAEOLOGY, ART HISTORY, AND THE LEGACY OF TERENCE GRIEDER

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JAMES FARMER AND REX KOONTZ

CAROLYN E. TATE; REINALDO MORALES, JR.; HARRY J. SHAFER; YUMI PARK HUNTINGTON; AMY OAKLAND; AND VIRGINIA E. MILLER

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Contents

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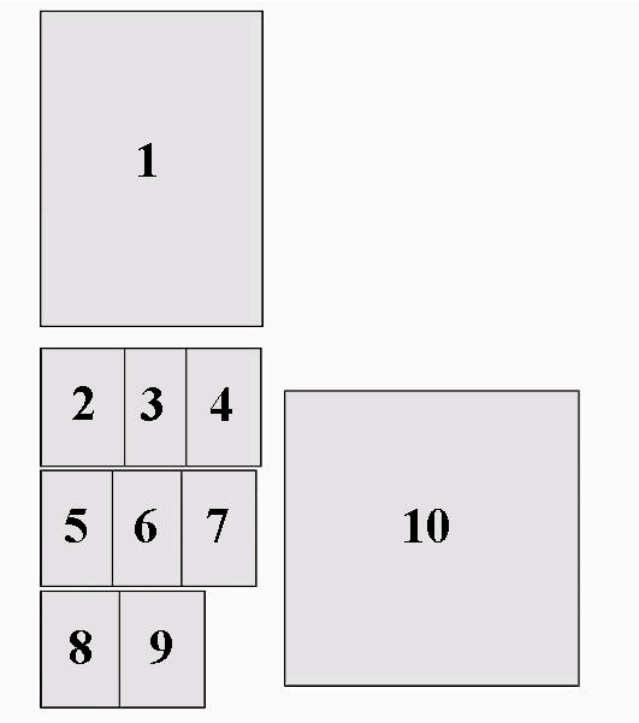

1. Terence Grieder in the field in Ecuador in 1997. Photo courtesy of James Farmer.
2. Terence Grieder, *The Art and Archaeology of Pashash*, plate 4. Austin: University of Texas Press, 1982.
3. James Farmer, this volume, Figure 2.6
4. Carolyn E. Tate, this volume, Figure 3.1
5. Reinaldo Morales, Jr., this volume, Figure 4.2
6. Harry J. Shafer, this volume, Figure 5.
7. Yumi Park Huntington, this volume, Figure 6.1
8. Amy Oakland, this volume, Figure 7.33
9. Virginia E. Miller, this volume, Figure 8.10
10. Adapted from Michael D. Coe and Justin Kerr, *The Art of the Maya Scribe,* Figure 78, page 108. New York: Harry N. Abrams, Inc., 1998.

Dedication

For Dagmar

Acknowledgments

The editors gratefully acknowledge the contributions and assistance provided by a number of individuals, without whom this volume would not have been possible. Dr. Jeffrey Quilter, Director, Peabody Museum of Archaeology and Ethnology and Senior Lecturer at Harvard University provided invaluable insight and suggestions in his intensive review of each essay. Dr. Jeanette Nicewinter of Northern Virginia Community College provided thorough editorial reviews of the essays. The University of Houston Libraries, including Ariana Santiago, Open Educational Resources Coordinator, Taylor Davis-Van Atta, Director of Digital Research Commons, and Athena Jackson, Dean of University Libraries and Elizabeth Rockwell Chair, were graciously patient, engaged, and constantly available for inexhaustible assistance with the digital formatting, uploading, and publication of the final document, and navigation of the Pressbooks publication website. We of course extend our thanks and gratitude to the individual authors for their essays. As noted in the Introduction, many of the essays began as paper presentations originally intended for a professional conference session scheduled in 2020, but cancelled by the COVID pandemic, so in some sense these authors performed "double duty" in the preparation and revision of their original drafts for e-publication. And, we are especially grateful to Dagmar Grieder for her generous support of the project. Dagmar was a dedicated companion and supporter of Terence Grieder in all of his professional accomplishments.

Contributors

Editors

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Dr. Rex Koontz has studied and published on the public sculpture of Ancient Mexico for more than two decades, including articles, book chapters and the books *Lightning Gods and Feathered Serpents* (University of Texas Press 2009) and *Organized Violence in the Art and Architecture of Mesoamerica* (with Heather Orr, UCLA, 2009). He was one of three North Americans chosen to contribute to the bicentenary exhibition catalog at the National Museum of Anthropology

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Contributors

Dr. Carolyn E. Tate is Professor Emerita of Pre-Columbian Art History at Texas Tech University, which stewards the Pecos River Style site, Rattlesnake Canyon. Her book, *Yaxchilan: The Design of a Maya Ceremonial City* (1992), shows how Maya notions of aesthetics, ancestor worship, and astronomy impacted monumental art and architecture. *Reconsidering Olmec Visual Culture: The Unborn, Women, and Creation* (2012) garnered an American Library Association "Outstanding Academic Title" Award and TTU President's Book Award. It investigates the overlooked omnipresence of human embryos, infants, and women in the earliest myth and art of Mesoamerica. In 2019, she contributed eight programs on the principles that guide Mesoamerican architecture to the online Global Architectural History Teaching Collaborative. She has curated numerous exhibitions, including *The Olmec World: Ritual and Rulership* (with F. Kent Reilly; the Art Museum, Princeton University, 1995), *Human Body / Human Spirit: A Portrait of Ancient Mexico* (Carlos Museum Emory University and The Royal Ontario Museum, 1993); and *1519 / The One Reed Year: Wonders of Aztec Mexico* (Lubbock TX 2003).

Dr. Reinaldo Morales, Jr. is Adjunct Faculty at Norfolk State University, and formerly Assistant Professor of Art History at the University of Central Arkansas. He received his PhD in Art History from Virginia Commonwealth University in 2002. His areas of specialization include the art and architecture of the ancient Americas, specifically rock art, cave art, and the arts of the Amazon Basin. He has published essays on the critical and theoretical

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Dr. Harry J. Shafer is Curator of Archaeology at the Witte Museum in San Antonio, Texas. He is professor emeritus at Texas A&M University where he started the archaeology program in 1972 and retired from there in 2002. Dr. Shafer received in PhD in Anthropology in 1973 from The University of Texas at Austin, and has been active in archaeological research for the past 60 years. His main research interests are Texas prehistory, American Southwest (Mimbres and Jornada Mogollon), and Lowland Maya stone technology. He has written, *Mimbres Archaeology at the NAN Ranch Ruin*. He has co-authored *Field Methods in Archaeology* and *Maya Stone Tools*, and edited two books, *Ancient Texans: Rockart and Lifeways of the Lower Pecos* and *Painters in Prehistory: Archeology and Art of the Lower Pecos Canyonlands,* both award winning. He has authored or co-authored over 300 articles in scientific journals, book chapters, and monographs.

Dr. Yumi Park Huntington is an Associate Professor of Art History at Framingham State University in Massachusetts. She received her PhD in Art History from Virginia Commonwealth University in 2010. In 2012, she curated an exhibition for which she also wrote and published a catalogue called *Mirrors of Clay: Reflections of Ancient Andean Life in Ceramics from the Sam Olden Collection* (University Press of Mississippi). She published the edited volume *Ceramics of Ancient America: Multidisciplinary Approaches* (University Press of Florida) in 2018. Her scholarship uses a multidisciplinary approach to understand the material objects and architecture of South America from the formative periods. She has worked in the field site of Jequetepeque Jatanca since 2017. She received the William R. Levin Award for Research in the History of Art from SECAC in 2019 and the Framingham Cultural Council's Contributor of the Year Award in 2021.

Dr. Amy Oakland discovered Andean weaving as an undergraduate at Florida State University (BA 1972) and continued that study receiving an MFA (1979) in Fabric Design at the University of Georgia. A Fulbright Fellowship (1979-81) allowed the opportunity to study archaeological textiles in La Paz, Oruro and Cochabamba, Bolivia and in Arica and San Pedro de Atacama, Chile. She

worked with Terence Grieder (1981-1983) at the University of Texas and received the PhD in Art History in 1986 focusing on Tiwanaku Textile style from Bolivia and North Chile. Following a Summer Fellowship studying Wari textiles at Dumbarton Oaks (1983) she moved to La Paz, Bolivia until 1989 when she accepted a faculty position in Art History at California State University East Bay. During her 25 years at CSUEB, Dr. Oakland lived in Berkeley, CA where she examined Max Uhle's collections in the Phoebe Hearst Museum of Archaeology at the University of California, Berkeley. Research continued with Tiwanaku textiles in Chile (1991-1993) and with Moche textiles in Chicama, Peru (1999-2001) through funding from the National Endowment for the Humanities. CSU research grants supported work at the Hearst Museum and at the University of California, Davis with Delbert True's collections from Tarapaca, Chile. Since retiring in 2015 Dr. Oakland has concentrated on completing publications on Uhle's large Chimu Capac collection and his small Moche textile collection that is the topic of the paper in the current volume.

Dr. Virginia E. Miller was the second student to complete her doctorate in Pre-Columbian art history under Terence Grieder, in 1981. Subsequently she spent most of her career at the University of Illinois Chicago, from which she retired in 2015. Miller also taught at Oberlin College, Northwestern University, and universities in Guatemala and Mexico. Her research has been supported by fellowships from the National Endowment for the Humanities, the Pre-Columbian Studies program at Dumbarton Oaks, and the Fulbright Scholar Program. Miller's scholarship has focused largely on the Terminal Classic period (800-1000) in northern Yucatan. A forthcoming article co-written with bioarchaeologist Vera Tiesler, on the treatment and representation of skulls and bones at Chichén Itzá, will appear in *Ancient Mesoamerica*. Among her publications are *The Frieze of the Palace of the Stuccoes, Acanceh, Yucatan, Mexico* and an edited volume, *The Role of Gender in Precolumbian Art and Architecture*, considered a landmark in the literature on gender in Pre-Columbian studies.

INTRODUCTION

James Farmer and Rex Koontz

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The essays in this volume emerged from a series of scholarly papers scheduled to be presented at a professional conference, the Annual Meeting of the Society of American Archaeology (SAA), in the spring of 2020. The papers were part of a session dedicated to a critical reassessment of the scholarly legacy of Dr. Terence Grieder, a leader in the field, until his passing in 2018, of Precolumbian art history and archaeology during the later 20th and early 21st centuries. Beyond merely a celebratory review or *festschrift* of his work, the session and this subsequent publication sought critical reevaluation of a number of his theories, ideas, and methodological approaches to his interpretation of both the specific field of Precolumbian (aka. Ancient American) art and culture, and the larger, global discipline of art historical and cultural studies. The scheduled SAA session never transpired, due to cancellation of the 2020 SAA meetings because of the COVID-19 pandemic, but continued interest by the co-organizers and co-editors Drs. Rex Koontz and James Farmer, as well as the session participants, spurred the continued development of a publication of extended versions of the session papers, supplemented by additional contributions from other interested scholars.

The short term "Making "Meaning" in the title is by no means a novel term for scholarly titles or their contents. A simple title search on any current book database, library catalog, or commercial outlet reveals dozens of publications employing this title phrase. The vast majority of these publications, however, focus on disciplines generally outside of mainstream arts-related topics, such

as business strategy, counseling psychology, psychotherapy, and educational philosophy. One broadly-shared general definition of the term is simply as the process by which people intellectually organize, understand, share, or "make sense" of life's experiences, material objects, relationships, and the "self". It is no mere coincidence that the term and its basic concepts experienced substantial growth in scholarly literature beginning only in the 1960s and 70s, at the very time that Terence Grieder was completing his graduate education in Art History and embarking on his scholarly career. Yet, even as recently as 2010, scholars in the field have noted that the concepts of "making meaning" have only rarely been employed for "empirical" (fact-based) research or scholarship, being relegated primarily to theoretical and philosophical discourses (Park 2021). The term is used in the title of this collection of essays to imply, as we hope the enclosed essays reflect, that Terence Grieder was in fact an early and firm advocate of this concept, and particularly (though never so overtly stated) in his approach to art historical inquiry, writing, and the understanding of human art and culture, past and present.

For 40 years, Terence Grieder taught art history in the Department of Art at the University of Texas in Austin, retiring as David Bruton Jr. Centennial Professor of Art History in 2000. As a specialist in Ancient and Latin American art, his scholarship was driven by a firm commitment to both the positive and negative aspects of the emerging hybridization of archaeological and art historical methodologies. Though known primarily for his work in the Andes, his scholarship spanned the broad temporal, cultural and intellectual range of the Americas, including Archaic rock art of the American Southwest, Maya ceramics, modern Latin American art of Mexico, and ancient Andean ceramics and architecture. The diversity of topics included in this volume reflects this wide-ranging focus in Grieder's work. Several recurring methodological themes, or shall we say theoretical "undercurrents", recur throughout the bulk of Grieder's scholarship, the echoes of which are evident (though not necessarily overtly obvious) in the included essays. These themes, though not often so clearly identified in his own work, can nevertheless be broadly distinguished in both his work and the essays, and thus provide the theoretical "jumping off" point for a reevaluation of his legacy.

Making "Meaning": The Primary Data of Art History

Grieder was deeply engaged in the persistent and ongoing methodological conflict regarding the nature of so-called "primary data" in art historical research. A related question emerges at several points in his work: Did Terence's art background directly affect the way he dealt with the "evidence" of art objects? Were art objects considered as "vehicles" of cultural change ("art makes culture") or were they better analyzed as "expressions" of broader cultural shifts as seen in artistic innovation ("culture makes art")? What were the roles of individual artists or "hands" in their impact on archaeological data, stylistic criteria, and thus art historical interpretation?

Dyads

Grieder stressed the communicative function of *style* across cultural and/or archaeological boundaries while organizing the analysis of style into opposing dyads: "diffusion" vs. "independent invention"; "ethnological" vs. "configurational", and "meaning" vs. "form" are some of the more important pairs for his work. These dyads tended to organize his thinking on fundamental issues and provide the structure for some of his most innovative (and speculative) thought. This theme is fundamentally rooted in a "structuralist" approach to understanding. While Grieder was a strong advocate for structuralist theory, he simultaneously constantly challenged the rigor and application of the theory in his work.

The Place of Precolumbian Art in Global Art History

Grieder constantly interrogated the specific role of Precolumbian *art* ("objects") in defining the pre-modern cultural identities of an entire hemisphere, their relative value in a global art historical context, and their sophistication and integrity as opposed to the accepted dominance and traditional superiority of the Euro-centric art historical paradigm. While certain aspects of the evolution of Precolumbian art styles and traditions frequently were interpreted using deeply entrenched Euro-American (aka. "Colonial") intellectual art historical models, Terence Grieder was part of an early generation of Precolumbianists confronted with a growing body of

artistic and archaeological data that often seemed to contradict, supersede, and even negate the established paradigms of global art history.

Precolumbian Art History and Other Disciplines

Grieder was interested in the evolving nature and role of art history as a distinct academic discipline related to but different from traditionally established (and previously deemed "dominant") academic areas (anthropology, archaeology, history, etc.); hence Grieder's pride and problem with being the first Precolumbian Art History PhD, as opposed to previous PhDs in this field awarded through Anthropology, Archaeology, History, or other related, but non-Art Historical disciplines. To what extent was Grieder's sense of being the originary PhD and his evolving methodology tempered by his scholarly relationship with those he saw as art history's giants–especially George Kubler and Erwin Panofsky?

The editors acknowledge that both themselves and a number of the contributors are former students or colleagues of Terence Grieder, and thus bring a somewhat personal and arguably biased perspective to this topic. Yet we hope and believe that the issues and interrogations offered herein are presented neither as strictly celebrations nor denigrations of Grieder's work and methodology, but rather as objective, ongoing evaluations and applications of such to our own independent investigations into the nature of Precolumbian Art History in the 21st century.

Park, Crystal L.
2010 "Making Sense of The Meaning Literature: An Integrative Review of Meaning Making and Its Effects on Adjustment To Stressful Life Events", *Psychological Bulletin*, Vol. 136, No. 2: 257–301. DOI: 10.1037/a0018301

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GRIEDER'S THEORY OF SYMBOLS IN THE DISCOURSE OF ART HISTORY

Rex Koontz

https://doi.org/10.52713/CYID6505

Introduction

In 1975 Terence Grieder published a theoretical reflection on ancient pictorial symbolism and its interpretation called "The Interpretation of Ancient Symbols" in the journal *American Anthropologist* (Grieder 1975c). As the title indicates, the article aspires to be a general treatment of the process of ascribing meaning to ancient motifs. This was to be his first and only intervention in art historical theory published by a major journal. As such, it gives us another vantage point from which to analyze Grieder's theoretical foundations. That the author was loath to reveal those foundations outside this article makes such an examination vital if we are to understand the arc of his work.

The fact that Grieder was not interested in publishing a full account of his method and theory beyond this article raises the question: why do it at all? The sustained theoretical argument was never Grieder's favored form. Perhaps a more precise question would be: why do it at this point in his career? As James Farmer discusses elsewhere in this volume, Grieder was prone to a style of argumentation that valued succinct declarative statements over theoretical justifications. Even when Grieder allowed for a theoretical statement in other works (see, for example, Grieder 1978: 6ff.), that statement is brief, pointed, and specifically targeted to the matter at hand. "The Interpretation of Ancient Symbols" is an exception to all these habits of exposition. This chapter will explore the scholarly context of the piece as well as the goals—stated and unstated—in order to propose some possible answers to the questions of why Grieder would write such a piece, and why he would do it in 1975.

Throughout the article, Grieder was focused on those pictorial symbol systems that were not accompanied by texts. The focus on symbols without texts is an unstated premise but is absolutely central to his definition of the problem. One could imagine another article with the same title that also included ancient symbols accompanied by hieroglyphic or cuneiform texts, for example, but such examples are not treated as part of Grieder's argument. Instead, through this theoretical intervention, Grieder wanted to create an analytical process that could effectively join a verbalized meaning with the pictorial symbols that lack accompanying texts or any contemporary descriptions of the semantic systems to which these symbols belonged. Here we see Grieder taking on a challenge that has vexed art history since its inception: how to account for the meaning of ancient things that have no related texts.

If Grieder's circumscription of "ancient art" meant privileging objects without texts, it also had a specific geographic focus not clearly laid out in the title or abstract. Although the author cited "traditions of every society" as his field of inquiry in the introduction, he was obviously focused on the possibilities of interpretation for ancient American (Pre-Columbian) art. It is unclear why this was not made more apparent, given that the journal *American Anthropologist* generally published articles on anthropology treating cultures from around the world and, thus, an Americanist focus for the audience cannot be assumed. One reason for this Americanist focus, despite the announced wider subject

matter, could be that Grieder was preparing his own future work in ancient American art history through this theoretical essay. It is not a strange idea that a scholar would prepare a theoretical statement to launch a new phase of their own work, but if Grieder was indeed preparing the rationale for his next research phase, he does not make this clear in his abstract or general framing.

There are other reasons to suppose that Grieder was focused on the art history of the ancient Americas. In addition to most of the examples being taken from the Americanist literature, the structure of the article is based on what was a key cleavage in ancient Americanist scholarship at the time. Grieder breaks the scholarship on ancient pictorial symbolism into two competing camps: the configurational and the ethnological methods, the outlines of which are based in the historiography of ancient American archaeology and art history, as we discuss further below.

In Grieder's telling, each of these primary methods of interpreting ancient symbols in the Americanist tradition, the configurational and ethnological, has its exemplary scholar. The chief proponent of the configurational method is the ancient Americanist art historian George Kubler, and the key text is a work on period and style published just a few years before Grieder's own account.[1] The configurational method may be briefly described as the study of ancient iconographic clusters occurring in single, defined periods. In this system there can be no interpretations of iconographic motifs that hold over long time periods. Later documentation on similar cultures is not admissible as evidence for ancient meanings. Given these strictures against any continuity of meaning over the long term, Kubler argued that the verbal meaning given to each cluster and its relationships in a truly configurational analysis must be supplied by the scholar working exclusively with the visual materials of the period in question.

Kubler's rejection of any later documentation on a motif's meaning descends from Erwin Panofsky's iconographic explorations of European art, where the continuity of form and content over a thousand or more years could not be assumed. Panofsky noted that during the medieval period, classical (ancient Greco-Roman) figure types were often given Christianized meaning, such as when the pose of an ancient Venus figure was recuperated by the artist to serve

as a figure of Christian Prudence. In this way the ancient meaning was divorced from the ancient form for later medieval artists. Panofsky elevated this to an historical principle: the "principle of disjunction" that later served Kubler in his arguments with those who found post-conquest documents to elucidate pre-conquest meaning in the Americas. Kubler carried European disjunction to the Americas and replaced the ancient/Christian dichotomy with a pre-European invasion/post-European invasion one.

The ethnological method, the second of Grieder's methodological dyad, uses the material found in documents created since the European invasion of the Americas to create analogies for the meanings of symbols found in pre-conquest art. The verbal meaning given to any symbol is thus developed out of documents that have some relationship to indigenous meanings, but are not of the same period. Peter Furst, an Americanist anthropologist who studies the art of the shaft tomb cultures of West Mexico, is the scholar Grieder associated with this mode of analysis (see Grieder 1975c:850), although Furst's work is not the focus of anything like the detailed analysis that Grieder reserves for Kubler's work. Even though one of the authors is backgrounded, using Kubler and Furst as his main antagonists assures an Americanist focus for the article.

The Year 1975 in Grieder's Scholarship

Although Terence Grieder is often considered principally an Andeanist, it was only around 1975, at the same time that he published "Interpretation of Ancient Symbols," that the publication record began to bear this out. The theoretical statement found in that piece appeared as Grieder was committing more time and energy to the history of Andean art. By 1975 he had several extensive archaeological seasons at Pashash, Peru, behind him, but he had yet to publish those results. In that same year, he published the results of a modest excavation at the early site of Las Haldas, on the Peruvian coast (Grieder 1975a). In the Las Haldas piece, Grieder wanted to examine connections to the Chavín style that were not pictorial. Rather than working with objects as he had in the great majority of his previous output, here he mapped architectural sequences during the Chavín style horizon that had "implications for the social history

of the Chavín period" (T. Grieder 1975a: 99). Grieder was able to map the sunken circular architectural features that he related directly to the Chavín horizon.[2] He was also able to gather and seriate the ceramic evidence needed to anchor these architectural features in time and relate them to Chavín horizon developments on the coast. In focusing on architectural features of Chavín style, he noted that he was explicitly rejecting Gordon Willey's advice to study Chavín style through its representational aspects (Grieder 1975a: 105–6). This focus on Chavín stylistic emergence and duration, begun in this 1975 article, was to be a staple of Grieder's Andeanist work for much of his career. As I argue below, "The Interpretation of Ancient Symbols" may have been a prelude and theoretical foundation for what Grieder saw as a chief question of Andean prehistory: What were the roots of Chavín style and how did that style's history play out after the abandonment of Chavín de Huántar?

George Kubler's "Period, Style and Meaning in Ancient American Art" as the Point of Stasis

While Grieder glances at the archaeologist Gordon Willey's framing of early Andean history, his real gaze is elsewhere, specifically in the construction of an art history of the early Andes. In his "Interpretation of Ancient Symbols," Grieder inherits much of the article's structure, and especially its configurational/ethnological dyad, from the art historian George Kubler, as alluded to earlier. Grieder cited Kubler, then the dean of Pre-Columbian art history, more than any other scholar in the text and at the most critical moments in the argument. His main focus was Kubler's 1970 article on the nature of period and style in ancient American art history (Kubler 1970). It is interesting that Grieder chose this article, and not one on iconography or more general methods of interpretation. It is especially puzzling that given Grieder's interest in Kubler's configurational analysis he does not focus on the 1967 work that defines configurational analysis via an iconographic analysis of Teotihuacan (Kubler 1967). Grieder's choice to background Kubler's major work in configurational analysis while foregrounding a work that deals mainly with art history's traditional interest in style periods is one of the more interesting analytical strategies in the 1975 article.

Grieder's focus on Kubler's 1970 article may be key to understanding Grieder's agenda. Unlike in the 1967 piece on the configurational analysis of the art of Teotihuacan, Kubler does not set out in his 1970 article to theoretically circumscribe the interpretation of ancient symbols. Instead, Kubler wanted to refine the idea of an historical period by first recognizing the contingency of all periodizations and then more firmly relating any contingent period to its key trace, that of style. In this way he hoped to construct a firmer basis for the analysis of style and the creation of historical periods based on styles in ancient American art history.

As outlined above, during the mid-1970s Grieder had already been working on problems of Chavín style and its history. How did the focus on stylistic periods and the problem of duration in Kubler's work, as opposed to more traditional (and seemingly more pertinent) discourses on the interpretation of symbols, attract Grieder in this context? One looks in vain for an answer in the Kubler article itself: for Kubler, the problems of iconography are largely contained in the problems of period style. This relationship between the interpretation of symbols and period style requires a certain amount of exposition. Before we proceed to the argument on Grieder's motivations in borrowing heavily from Kubler's 1970 article on style, it is helpful to go over Kubler's main concerns and conclusions in that work from the vantage of our current interests.

Kubler argues that style must be thought of as basically synchronous. Any period based on stylistic criteria, then, should be thought of as a synchronous creative duration that can be measured chiefly in its spatial extension. "The idea of style is best adapted to static situations, in cross-cut or synchronous section. It is an idea unsuited to duration..." (Kubler 1970: 140). He contrasts a period based on style with the idea of a stage or horizon based in part on worldview or other extra-stylistic features. These latter rest on unverifiable assumptions of cultural coherence, so that "An intuition alone binds these diverse strands" (Kubler 1970: 132). Kubler argued that any period based on cultural content but resting on style is trying to do too many things at once. If style is to be the basis for periodization, then style must be allowed its singular integrity across space and time. In the horizon style or cultural stage models of periodization, style is not allowed this integrity, but serves simply as a handmaiden to theories of cultural content identified with the style.

Further, Kubler believed that with the ascent of evolutionary theory in archaeological thought each of the supposedly coherent blocks of cultural time took its place in an evolutionary sequence (see Steward 1956 for a synthesis of such evolutionary thinking). For Kubler, a series of historical periods based on evolutionary stages that are viable and meaningful must not only be coherent in themselves, but must also exhibit some coherence in the development of the series of stages that matches with evolutionary theory. In short, stage coherence must be matched by coherence in the developmental trajectory of the series of stages. Kubler noted that for the Andes the canonical stages and their sequencing had already been defined by Bennet and Bird as Cultist, Experimenters, Master Craftsmen, and so on (Kubler 1970: 136). A variant of the evolutionary paradigm had spread to the scholarship on Mesoamerica as well. These evolutionary periods carried significant and, for Kubler, largely intuitive assumptions that were unwarranted. Such evolutionary developments could not be read into the development of style, and yet the evolutionary sequence was based on stylistic analysis. Again, style was asked to bring order and coherence to cultural assumptions that Kubler felt were unwarranted and even misleading for ancient American studies. Thus the question of periodization was not idle theorizing for Kubler, but something he thought was at the heart of the scholarly problems in ancient American history. By the end of this section of his argument, Kubler had established his basic critique of periodization in that history: periods based on style were firmly grounded while periods based on coherent worldviews or evolutionary trajectories were unverifiable and intuitive. Neither of these latter traits was positive as far as Kubler was concerned.

After establishing the fundamental problems with ancient American periodization as worldviews or stages, Kubler then yoked ethnological analogy to the problems in evolutionary thought he just laid out with periods as coherent horizons or stages. For Kubler, ethnographic analogy compounds the errors in the assumptions of cultural coherence and continuity that doom the stage and horizon (Kubler 1970: 140–41). Although made to seem logical and inevitable, Kubler's vision implies a radical synchrony as the only viable method on which to construct historical periods. Taken to its logical extreme, Kubler argued that the historical integrity of the synchronous group of objects

is the optimal–perhaps the only–way to honestly apprise the meaning of such objects.

If periodization built on cultural assumptions is undesirable, then is Kubler's alternative truly limited to the synchronous group? Perhaps the most telling paragraph in Kubler's article, at least for our purposes, lays out the choice between analogizing approaches and those that get at the "total visual configuration" (Kubler 1970: 142). Kubler states: "As long as entire configurations of evidence are under study, then the fragmentation of analogizing is minimized." Kubler's reference to "entire configurations" here refers to pictorial elements created in a specific period. Again, it is important to remember that for Kubler a period is a synchronous unit. Thus a configuration of evidence is a body of artistic objects that were created in the same region at approximately the same time. Without distorting Kubler, one can define time here as elastic enough to include clear and discrete archaeological units of time, but it is not the time of cultural units that are posited to cover large time periods. In other words, Kubler privileges the place of production (the regional synchronic period style) over the sequence of objects extending in time (Miller 2009:71). This conception of a synchronic configuration of artistic traits is the basis of what Grieder refers to as configurational analysis, which is the latter's alternative to ethnological analogy.

Kubler had, by this time, limited the viable corpus for a style period to the clear and discrete archaeological unit. He was not yet finished with delimiting the proper sphere of art historical research, however. The entire configuration referred to by Kubler does not include aspects of material culture and other cultural elements not included in the image systems studied by art historians. Recall the Kubler quote above that the configurations under study here have more to do with iconographic clusters—a reference to mainly elite pictorial objects and monuments–than pottery types, the latter largely aniconic, less focused on the elite, and more fundamental to archaeology than art history. Kubler is here carving a space for art history practice with just enough input from archaeology to get a discrete archaeological unit of time, but without the noxious cultural assumptions contained in evolutionary social theories. The pictorial materials are those over which the art historian has the most control and disciplinary mastery, especially when compared to the archaeologist.

After establishing the legitimate corpus of objects for any study, Kubler then goes on to argue that Panofsky's principle of disjunction holds more firmly when we are dealing with cultures lacking extensive primary documentation, even when form and meaning are seemingly related over long periods of time: "On the contrary, prolonged continuities of form *or* meaning, on the order of thousands of years, may mask or conceal a cultural discontinuity deeper than that between classical antiquity and the middle ages" (Kubler 1970: 144). It would be difficult to find a more direct dismissal of Americanists who believed there were important long-term continuities in Indigenous American cultures that survived the European invasions. Kubler's argument against continuity in American materials constantly returns to the analogy of the rift between classical antiquity and the Middle Ages in the West, as in the quote above. For Kubler, one cannot assume continuity of meaning when moving across the divide between Pre-Columbian/ancient American cultures and those after the European invasions. Further–and this is where disjunction becomes a "principle"–one should *assume* disjunction when dealing with objects on either side of the divide. Grieder had little interest in such prescriptive and rather rigid approaches to the archaeological record in general, and to the history of Chavín style and its aftermath in particular.

A clear problem with Kubler's principle of disjunction is its claim to universality coupled with a lack of verifiability in any particular instance. Beyond the analogy of the rift between the ancient and medieval worlds, the scholar is left with no mechanism to check Kubler's principle of disjunction: there is no systematic way to use patterns (iconographic, settlement, material culture, or other cultural patterns) to check if forms or meanings are disjunctive or not in any specific context. As an example of what one should not do in order to verify disjunction, Kubler argues against using pottery to check for disjunction or any other cultural development (Kubler 1970: 132). To paraphrase Clement Greenberg, for Kubler, pottery was about crafting pots and could not be used as evidence of other large-scale cultural phenomena. If pots and other material culture patterns are not allowed to indicate moments of historical change or disjunction, then the principle of disjunction systematically takes precedence over other assumptions in explanatory paradigms and does not permit comparison with the common data of archaeology such as pottery sequences. Grieder would have none of this; pottery sequences were key

indicators of cultural change, and it is through pottery that "one can learn a good deal about the cultural history of whole societies" (Grieder 1975c: 851).

Grieder and Kubler are diametrically opposed on the value of material culture patterns and their relationship to the study of meaning in art. Kubler's 1970 study negates the value of material culture patterns, such as pottery types, and in so doing minimizes one fundamentally productive relationship between art history and archaeology. Grieder quotes Kubler's admonition to the student of style in art objects to be ..."concerned more with iconographic clusters than with pottery types and chronology" and then vehemently disagrees yet again, stating that "Contrary to Kubler...it is hard to find a material product in any period that provides more immediate and exact information about the state of society than does pottery" (Grieder 1975c: 849–50). While Grieder follows much of what Kubler has to say on style, the argument regarding pottery and its role in culture is a striking and telling disagreement. In the 1975 article, Grieder is situating himself with those who would combine as much data as possible from both art history and archaeology to build a case for meaning. He argues against those (especially Kubler) who want to cleave off a certain corpus (for Kubler, objects studied under the rubric of style) and divorce it from other forms of data and other disciplines so that it may be studied in its pristine patterning. Grieder had no interest in carving out such an isolated sphere for art-historical expertise in the larger context of Americanist studies. On the contrary, as we will see, this article prepares the reader for the next two decades or more of Grieder's work, in which his own archaeological projects produce the majority of his evidence for the art-historical arguments he makes.

At the time of Grieder's article, it was the most serious commentary by an art historian on Kubler's 1970 work. The iconography of Olmec sculpture had taken note of Kubler's treatise (Clewlow Jr. 1974: 6) and literary theorists had noticed Kubler's talk on periodization, but no art historian had dealt systematically with Kubler's 1970 article as a coherent theoretical statement on the interpretation of ancient American art. That said, the fact that no scholar had systematically taken on Kubler's 1970 article as a theoretical paradigm does not mean that the principle of disjunction was not widely discussed. In Mesoamerican studies, the 1970 Metropolitan Museum of Art exhibition *Before Cortes*, and an accompanying symposium, provided an important venue for

the discussion of the principle of disjunction, ethnographic analogy, and, to a lesser extent, configurational analysis (Bernal et al. 1973). In that venue, the senior archaeologist Gordon Willey argued for a Mesoamerican *oikumene* with significant continuities and directly against the principle of disjunction, citing Kubler's 1970 piece as the definitive statement on the latter (Willey 1973: 154). Grieder would have been well-attuned to the importance of the argument on disjunction as he composed his own theoretical work.

Kubler, Grieder, and Ancient American Art History

While we have examined the Kubler 1970 article and Grieder's stance towards it largely in terms of the art history of ancient America, this was not the original focus of Kubler's article. The larger context of Kubler's 1970 piece was its publication in the journal *Critical Inquiry.* That particular journal number was not limited to an ancient American conversation, but instead engaged a wider discourse on style in art history. This discourse was carried out by eminent art historians mainly examining the Euroamerican sequence (Schapiro, Janson, and Gombrich 1970). Kubler's article was constructed as a counter-argument to the concerns of western art historians: where the Western art historians saw the art-historical problems of ferreting out classical and non-classical elements–problems given to them by their historiography–Kubler saw the more fundamental problems of duration and sequence in the American materials. As Western art historians rested lightly on their assumptions, Kubler aggressively interrogated his.

In the end, however, Kubler had found a more rigorous "principle" for the interpretation of ancient American symbols—the principle of disjunction–in the earlier experience of Western art history. Erwin Panofsky, the dean of iconographic studies of the European tradition at the time, coined this principle specifically for the chasm that separated the ancient world from the late medieval and Renaissance periods, as alluded to above (Panofsky 1960). Panofsky questioned the existence of any real continuities between the medieval and Renaissance periods, suggesting that all quotations of ancient form and meaning in the later periods of European art history were rebirths

or recreations that did not draw upon a continuous cultural tradition, because the ancient world had been "cut off" from the Renaissance and later periods by the intervening medieval period. In a simple sense, Panofsky argued that the ancient world was dead as far as the Renaissance was concerned. The ancient world had to be reanimated artificially through a scholarly process—the process we know as Classical Studies and Ancient Art History. Kubler was essentially saying the same for ancient American culture: any direct connection to the American world before the Spanish invasion was irredeemably lost to us. The iconographic motifs that undergirded the Pre-Columbian system were extinguished soon after the Spanish invasion, as were Pre-Columbian artistic styles (Kubler 1961). In this way, the classical scholar and the scholar of Pre-Columbian cultures are in similar situations, at least as far as Kubler was concerned. While we may recoil at a profound lack of engagement with descendant cultures in this view, it is important to note that the target relationship for Kubler was not primarily with indigenous descendants, but rather with the scholarly peers of other "dead" cultures.

Viewed against the categories of living and dead cultures, Kubler may have been positioning ancient American scholars in the academy in the "dead cultures" group at the same time that he was arguing about periodization. Much like his strategy in that same 1970 article to carve out a place for art historians to reign supreme in ancient American studies (that of iconographic clusters and synchronous stylistic units), Kubler is here declaring his academic affiliation with other "ancient" cultures and their studies. It is interesting to note in this context that Kubler was *the* major scholar to insist on the term "ancient American" for the periods before the Spanish invasion. This may be seen most clearly in the title of his earlier Pelican/Penguin survey *The Art and Architecture of Ancient America: The Mexican, Maya, and Andean Peoples* (Kubler 1962). The use of "Ancient American" in the present article, instead of the more common "Pre-Columbian," descends in part from Kubler's argument that Pre-Columbian studies is another ancient studies area (as opposed to that of living cultures, and rather clearly distinguished by the events associated with the arrival of Columbus). Grieder, *contra* Kubler, does not agree that for scholars there is no meaningful connection between the ancient Americas and the culture, practices, and arts of current indigenous peoples. This belief grounds Grieder's earliest work in the area, and never leaves him. As James

Farmer points out elsewhere in this volume, one of the first arguments Grieder made in his dissertation was an ethnological analogy.

While not a convert to complete historical disjunction, by 1975 Grieder was not immune to arguments against the promiscuous use of contemporary indigenous beliefs to explain art from a thousand years earlier. What Grieder sought with his 1975 piece is a theoretical statement that would provide a justification for using an ethnographic analogy in one case while admitting disjunction as a possibility in another—a critical but balanced sense of when continuity might be posited. The criteria posited for such a balanced assessment of continuity and disjunction included a capacious sense of cultural materials and their relationships: styles may be seen in relation to other aspects of material culture like pots, buildings, body decoration, and/or lithics, to take only a few of the elements Grieder later used in combination in his scholarly arguments.

Although Grieder argues specifically against Kubler's radical insistence on disjunction and his prohibition on ethnographic analogy in the 1975 theoretical article, in the end Grieder leaves this part of Kubler's argument on style unremarked on in most, if not all, of his own later work, as if the solution to the disjunction problem posited in the 1975 article was definitive. While disjunction was rarely remarked on later, other aspects of Kubler's article continued to interest Grieder over the next decades. Over the long term, what was interesting to Grieder in Kubler's 1970 article was not Kubler's radical historical cut at the Spanish Invasion and the principle of disjunction. Instead, Grieder was captivated by the problems Kubler was raising in his treatment of periods inside of ancient American history, and specifically the contingency of periodization and how ancient American style periods were defined and used by scholars.

Kubler was interested in the scholarly problems caused by reifying period styles that were created contingently. As a cautionary tale for scholars who do not realize the contingency of periodization and thus fall prey to the "hardening of the periods," in his 1970 article Kubler briefly examines the notion of the Chavín style and its relationship to Cupisnique and later Moche pottery on the coast. Kubler notes the obvious, that stirrup-spout vessels–then a key marker of

Chavín style–continue long after the extinction of the Chavín horizon. To take this duration seriously is to question the extent and duration of Chavín style (Kubler 1970: 128–29). For Kubler, such thinking is evidence for a reification of the Chavín style period to fit other, non-style criteria and thus a misuse of the period concept, as discussed above. The problem of Chavín style was to be key for Grieder for the next fifteen years and more. Kubler's thoughts on this, and his stance as an art historian critiquing other avenues of stylistic analysis, were a powerful influence for Grieder when seen in this context.

The 1975 article may be evidence that by this time Grieder had identified a specific problem of stylistic duration in Andean prehistory: how to map the Chavín horizon style and its aftermath and respond to it, as well as critique Kubler's less-grounded analysis. The Pashash materials he had already obtained, such as the tenon relief sculptures (Grieder 1975b: 179), were three years later seen in light of the earlier Chavín tradition and its language of power (Grieder 1978: 182–83), presupposing important continuities between the Chavín and Pashash materials. In this key passage, Grieder describes how the Recuay culture inherited the Chavín artistic language of power via the stone sculpture tradition. Pashash was for Grieder one key to how the Chavín style tradition played out after the abandonment of Chavín de Huántar, based on the materials he had recently unearthed and his interest in style periodization. He was less interested in arguments about ethnological continuity and disjunction than he was in defining ancient styles and their histories inside a larger history of human creativity and communication. In effect, unlike Kubler who largely eschewed the concept of horizon style, Grieder *was* interested in earlier concepts of a Chavín horizon style seen from the point of view of communicative culture–or art history, in Grieder's telling (Grieder 1978; see Lau 2011: 116 for a more recent assessment and historiography that takes issue with Grieder's interest in continuities in Chavín style).

Grieder was not only exploring Chavín style duration through Pashash tenoned heads. In his introduction to that volume, Grieder explained that the entire Pashash project "...grew out of studies of the Chavín style...I was seeking a site which might reveal the "decline and fall' of the Chavín style and the rise of its principal successor, the Recuay style" (Grieder 1978: 8). One can see the interest in Chavín style and its duration in the introduction to

his Pashash volume published three years after the "Interpretation of Ancient Symbols." Grieder begins that volume by rehearsing the basic points of the 1975 theoretical piece in the introduction to the Pashash materials (Grieder 1978: 6–7). He focuses on the productive interplay between archaeological information and "aesthetic re-creation," the latter the purview of art history. He quotes Panofsky's directive that archaeology and art history must be used together to forge a more complete historical synopsis (Panofsky 1955: 19), using the father of iconographical studies and the source of the principle of disjunction against Kubler's reading of the same author. Although on some level Kubler may have agreed with Panofsky's sentiment, the productive marriage of archaeology and art history is not the Panofskian "big gun" on which Kubler chose to focus his theory of style. Instead, Kubler focused on the "principle of disjunction" between form and meaning that Panofsky defined for the longue durée of European art history, as we saw above. Grieder's use of Panofsky here in the Pashash volume is entirely consistent with his desire to effectively marry archaeological data and art historical questions, such as those on the duration and development of artistic style that can also be seen in "The Interpretation of Ancient Symbols," and it is directly opposed to Kubler's desire to cut off objects of study from archaeology and make them the property of art history.

To summarize the argument to this point, at this stage in his career, Grieder was interested above all, I believe, in the way we thought about the emergence and development of Chavín style. Grieder's key 1975 theoretical work may be viewed most profitably not as a universal statement to rival Kubler's 1970 work, but as a theoretical program crafted for a specific art historical problem: that of Chavín style history. Whether this context was communicated clearly in Grieder's 1975 text is another matter. Given the title of the article and the avowed aim to consider "the traditions of every society," it would seem that Grieder was trying to play two games at once: to defend and extend a capacious iconography for ancient American art historians working on objects and monuments without text (and thus the focus on the interpretation of symbols), while at the same time setting up theory and method for a further exploration of the emergence and duration of Chavín style (and thus the focus on Kubler's problems of style period analysis as laid out in the 1970 piece quoted extensively by Grieder).

The Role of Art History in the Self-Identity of Terence Grieder

One may ask why Grieder would take on both interpretation and style periodization in the same theoretical statement without properly disentangling the two or even acknowledging the true scope of his project. Grieder felt a certain responsibility for the discourse of ancient American art history that may be difficult for us to imagine today. He was, after all, an early practitioner in a burgeoning and transforming field. Grieder took enormous pleasure and pride in the fact that he was the first PhD in Pre-Columbian art history in the United States.[3] It was not simply a milestone; it was also an identity. The first sentence of his key 1978 work *The Art and Archaeology of Pashash* states "The study of the archaeology of Pashash has been made from the standpoint of the history of art" (Grieder 1978: 5). In this he and Kubler may have had some overlap in their mission: both self-identified as pioneers in the emerging field of ancient American art history with the ability (or responsibility) to set discursive boundaries and productive methods. As we saw in much of the discussion above, Grieder was carefully demarcating his own approach in relation (and sometimes opposition) to that of Kubler.

An Art Historian in "Archaeologyland"

A fundamental area where Grieder was clearly differentiating himself from Kubler was in the place of archaeology in his own work, as argued above. In seminars Grieder would often speak of why he did archaeology, given that he was invested in his identity as an art historian. In his telling, at some point he realized that he had to do archaeology when he found that no archaeologist was gathering the sort of data he needed. Grieder wanted to address the question of origins of ancient Andean culture and style generally, and more specifically the emergence and trajectory of the Chavín style. He felt the data obtained up to that point was woefully inadequate to address the question of origins. In this sense Grieder seems more aware of the problem of partial data and the contingencies of the archive. As Elizabeth Boone later explained, what we have

left to us–what Boone calls "the defining sample"–"forms the very armature by which we conceptualize an ancient culture and explain it for ourselves" (Boone 2006: 22). The difference between Grieder and many of his fellow art historians then and now seems to be in his unwillingness to take the defining sample as a given.

The desire to actively participate in the archaeological work necessary to gather new data was, paradoxically, at the heart of Grieder's thinking on art history. This is evident in the "Interpretation of Ancient Symbols." Towards the end of his theoretical section, Grieder returns to the nature of induction and deduction in historical studies. He argues that historians (and archaeologists) formulate their research question based on earlier generalizations. Grieder then requires the historian to gather evidence which bears on the question, and to reach conclusions based on that evidence. But this inductive method only goes so far for Grieder. He asserts that "...art historians in particular, are nominalists at heart" (Grieder 1978: 7), believing in the end that each object and its context are the ground zero of our data as art historians. Art history cannot be a long march to confirm premises; it must be "full of surprises" as well as "full of answers one could not have asked until one saw the data" (ibid). How best to "see" the data in ancient American studies as an art historian? For Grieder, it was to do the archaeological spadework oneself.

The Rotary Wheel and Making–A Way Not Taken

I have argued above that Grieder took on a significant part of the ancient American art historian's task in his 1975 article, even if the components of that work were not always well differentiated and defined. With the value of decades of hindsight, there are other opportunities that were missed in Grieder's most important theoretical statement. In the same year that "The Interpretation of Ancient Symbols" appeared, Grieder also published a work on the use of rotary tools in ancient Andean art (1975b). Here he argued that tools had ritual uses that imbued the objects with symbolic meaning. Objects made from these meaningful tools partook in that meaning. Here he demonstrated a path to the "Interpretation" article that relies little, or not at all,

on colonial documents or other upstreaming; instead, Grieder used a closely-observed application of slip to a ceramic vessel to show that it was applied while being spun; he also had a colleague recreate the effect of a cloth used on soft clay vessels as they spun, to explain specific marks on ceramic cups he found in a burial at Pashash (Grieder 1975b: 181).

In "Rotary Tools in Ancient Peru", Grieder is exceptionally attentive to the traces of making as significant to the symbolism of the object. And yet, Grieder makes little of this avenue for generating meaningful interpretations of ancient symbolism in his more theoretical 1975 work.

The Afterlife of "The Interpretation of Ancient Symbols"

While we may wish that Grieder would have explored other fruitful analytical strategies that were well in hand by 1975, in the end it may be vain when doing historiographies to require that past scholars attended to issues we are now interested in. Rather than lament the things we think (with the privilege of hindsight) should have been there, it may be more interesting here to measure the effects, if any, that Grieder's treatise had on his contemporaries and to speculate on why it had the effects it did.

Elsewhere in this volume, James Farmer suggests that the 1975 piece argued tenets that are now widely accepted in ancient American art history, although Grieder's role in the establishment of these tenets is often overlooked. The citation record for the 1975 article—or the lack thereof–strongly suggests that Farmer's insight is valid. This is the case even though, as I have argued above, the piece was fully in the thick of the scholarly argument at the time it was written. Although there is certainly no single reason for the article's fate, one may speculate as to why it has been largely overlooked.

Earlier I noted that Grieder seemed to be playing two games with the 1975 piece: on one hand, he wanted to create a theoretical statement that covered "traditions of every society" while at the same time privileging questions in Americanist scholarship. Specifically, he may have been creating a more robust paradigm for the study of Chavín style. One wonders if a more focused

treatment of the Chavín problem would have made for a more direct and transparent argument. The disjunction between the avowed subject, a universal symbolic analysis, and what I take to be the fundamental goal, the creation of a method for studying problems of Chavín style, may have to do with the article's reception and its place (or lack thereof) in later theoretical debates in ancient American art history.[4]

A second reason for the article's long sojourn in scholarly oblivion may be Grieder's relationship with iconographical studies. Although the article was titled "The Interpretation of Ancient Symbols," and many in his audience would have interpreted the title as basically an iconographic process, Grieder was never content with traditional Panofskyian iconography as the major method for the study of ancient American art history. The idea that visual experience should be interpreted mainly through documents and linguistic means was something he was never entirely comfortable with, and often pushed against in favor of a more capacious definition of the study of visual meaning. Throughout his career, Grieder argued and searched for visual meaning not only in symbols, but also in creative processes (such as the analysis of fiber art processes in Grieder et al. 1988: 155ff), patterns of technical equipment and problem-solving (such as the use of the rotary tool discussed above and in Grieder 1975a), the creation of illusionistic space (such as the examination of Maya spatial constructions in Grieder 1964), and other extralinguistic elements that can be said to impact a work's meaning. In an ancient American studies environment during the 1970s and 80s in which newly deciphered hieroglyphic texts and the ever-increasing sophistication of ethnohistorical analysis were once again privileging the text in iconographical studies, interests such as those outlined above could seem less well-grounded, or even quaint and peripheral.

Yet a third reason that the article languished is the field's general loss of interest in periodization. The contingent nature of periodization, while still stirring a controversy here and there, is no longer a major concern of most ancient American art historians. The emergence and duration of something that can be called Chavín style, while interesting, is no longer the central question it was when Grieder made his entrance into the professoriat.[5] Instead of worrying over periodization, recent syntheses of the field tend to cite scholars such as

Michael Baxandall and the importance of attending to indigenous visuality in our interpretive accounts (Klein et al. 2012: 13; Koontz 2009). As alluded to just above, the revolutionary impact of Maya hieroglyphic decipherment is one reason that scholars can speak seriously of ancient visualities and other emic cultural modalities. An increasingly sophisticated ethnohistoric discourse for regions across the Americas is another. Grieder's work was not against using the evidence from hieroglyphic writing, ethnological analogies and conquest documents, but his vision for doing so was limited to reconstructing cosmologies and related symbolic identifications (see Shimada 1978 for the limits of Grieder's iconographic approach).

Finally, it may be that Grieder's approach to symbols in the 1975 work was simply too limiting for his own interests. Recall that in other of his works at the time, he was less interested in reconstructing cosmologies and the configurational/ethnological dyad and more interested in exploring other aspects of the creative process, such as early fiber techniques (briefly discussed above), or the effects of stone carving equipment, but these aspects of the creative process do not enter into the "Interpretation of Ancient Symbols." And yet, in another publication from that year and alluded to above, Grieder states that "in Precolumbian America, mechanical devices were endowed with symbolic meaning" (Grieder 1975b: 178). Even with the dangers of hindsight acknowledged above, one must ask what stopped Grieder from bringing this type of consideration—grounded in facture and process–more effectively and enthusiastically on board in his theoretical statement. After all, Grieder was viscerally familiar with such considerations as a long-time practicing artist (see Farmer, this volume). Any reply to the question of Grieder's motivation in leaving facture and process out of his theory of interpretation would be speculative, but perhaps some elements for an answer may emerge from the accumulation of thought on his work found in this volume.

Notes

1. Kubler published examples of the configurational method in practice before and after the 1970 theoretical statement, but Grieder does not cite these in 1975. See especially the senior scholar's work on Teotihuacan (Kubler 1967).
2. These sunken circular spaces were to become important for Grieder in his work at La Galgada, where he finds evidence for much earlier examples. For Grieder these sunken features, among other cultural elements, were good evidence for Chavín de Huantar as simply one step in a much longer and recognizably continuous trajectory (Grieder et al. 1988: 31ff.).

3. While I believe this to be the case, Grieder's primacy is poorly attested in the literature. Klein (2013: 187) seems to refer to Grieder as the student who received his PhD at Penn in the early sixties but does not mention him by name. In another recent overview of the field, Grieder is noted as an early practitioner, but not as the first art history PhD. (Klein et al. 2012: 20).

4. A significant exception to the oblivion in which Grieder's 1975 article fell is Vernon Knight's *Iconographic Method in New World Prehistory*. Cambridge University Press, 2012. Knight structures his book much like Grieder does his article–with the configurational v. ethnological analysis dyad. He cites Grieder 1975 numerous times on this and other iconographic issues.

5. Rowe (1962) published his major inquiry into Chavín style and meaning the year that Grieder received his doctorate. That same year Willey (1962) published his comparative and general account of the "great early styles," the Chavín and the Olmec. Grieder (oddly) does not cite Willey. Three years later, Coe (1965) published his extended study of Olmec style. The definition of the great early styles was a fundamental preoccupation during the period around Grieder's entrance on the scholarly stage.

Works Cited

Bernal, Ignacio, et al.
1973 *The Iconography of Middle American Sculpture*. New York : Metropolitan Museum of Art. http://libmma.contentdm.oclc.org/cdm/ref/collection/p15324coll10/id/201658.

Clewlow Jr., Carl William.
1974 "A Stylistic and Chronological Study of Olmec Monumental Sculpture."

Coe, Michael D.
1965 "Handbook of Middle American Indians." In *The Olmec Style and Its Distributions*, edited by Gordon R Willey, 3:739–75. Archaeology of Southern Mesoamerica. Austin: University of Texas Press.

Grieder, Terence.
1964 "Representation of Space and Form in Maya Painting on Pottery." *American Antiquity* 29 (4): 442–48. https://doi.org/10.2307/277979.

1975a "A Dated Sequence of Building and Pottery at Las Haldas." *Ñawpa Pacha: Journal of Andean Archaeology*, no. 13: 99–112.

1975b "Rotary Tools in Ancient Peru." *Archaeology* 28 (3): 178–85.

1975c "The Interpretation of Ancient Symbols." *American Anthropologist* 77 (4): 849–55.

1978 *The Art and Archaeology of Pashash*. Austin: University of Texas Press.

Grieder, Terence, et al.
1988 *La Galgada, Peru: A Preceramic Culture in Transition*. Austin, TX, UNITED STATES: University of Texas Press. http://ebookcentral.proquest.com/lib/uh/detail.action?docID=4826193.

Klein, Cecelia, et al.
2012 "Theory, Method & the Future of Pre-Columbian Art History." *Journal of Art Historiography* 7. http://arthistoriography.files.wordpress.com/2012/12/klein.pdf.

Koontz, Rex.
2009 "Visual Culture Studies in Mesoamerica." *Ancient Mesoamerica*. 20 (02): 217–20. https://doi.org/10.1017/S0956536109990046.

Kubler, George.
1961 "On the Colonial Extinction of the Motifs of Pre-Columbian Art." In *Essays in Pre-Columbian Art and Archaeology*, edited by Samuel K. Lothrop, 14–34. Cambridge, MA: Harvard University Press.

1962 *The Art and Architecture of Ancient America: The Mexican, Maya, and Andean Peoples*. The Pelican History of Art Z21. Baltimore: Penguin Books.

1967 *The Iconography of the Art of Teotihuacán*. Washington: Dumbarton Oaks Trustees for Harvard University.

1970 "Period, Style and Meaning in Ancient American Art." *New Literary History* 1 (2): 127–44. https://doi.org/10.2307/468624.

Lau, George F.
2011 *Andean Expressions: Art and Archaeology of the Recuay Culture*. Iowa City, UNITED STATES: University of Iowa Press. http://ebookcentral.proquest.com/lib/uh/detail.action?docID=843306.

Miller, Mary.
2009 "Shaped Time." *Art Journal* 68 (4): 71–77.

Panofsky, Erwin.
1955 *Meaning in the Visual Arts*. University of Chicago Press Chicago. https://content.taylorfrancis.com/books/download?dac=C2018-0-83345-3&isbn=9781912453900&format=googlePreviewPdf.

1960 *Renaissance and Renascences in Western Art*. New York: Harper and Row.

Rowe, John Howland.
1962 *Chavin Art, an Inquiry into Its Form and Meaning*. New York: Museum of Primitive Art, distributed by University Publishers.

Schapiro, Meyer, H. W. Janson, and E. H. Gombrich.
1970 "Criteria of Periodization in the History of European Art." *New Literary History* 1 (2): 113–25. https://doi.org/10.2307/468623.

Shimada, Izumi.
1978 "Review of The Art and Archaeology of Pashash." *The Hispanic American Historical Review* 58 (4): 765–74.

Steward, Julian H.
1956 "Cultural Evolution." *Scientific American* 194 (5): 69–83.

Willey, Gordon R.
1962 "The Early Great Styles and the Rise of the Pre-Columbian Civilizations." *American Anthropologist* 64 (1): 1–14. https://doi.org/10.1525/aa.1962.64.1.02a00010.

1973 "Mesoamerican Art and the Integrity of the Mesoamerican System." In *The Iconography of Middle American Sculpture*, 153–68. New York: Metropolitan Museum of Art, http://libmma.contentdm.oclc.org/cdm/ref/collection/p15324coll10/id/201658.

2

THE LACK OF "CREATIVITY" IN PRE-COLUMBIAN ART: TERENCE GRIEDER'S EARLY SCHOLARSHIP AND RECENT ROCK ART STUDIES

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Terence Grieder and "Creativity"

In his earliest scholarship, Terence Grieder set forth several broad-ranging concepts regarding the interpretation of ancient American art. Grieder was an avid proponent of the idea that in spite of deep-set historical classifications imposed on ancient American cultures (i.e. "Olmec," "Maya," "Anasazi" (aka "Ancestral Pueblo"), "Moche," etc.), virtually all documented ancient American societies shared a basic set of fundamentally similar beliefs and ideologies. He was a strong believer in the idea that all ancient American art

forms extending well into the past had always been technically, intellectually, and iconographically highly sophisticated. As a result of these two assertions, as well as his application of strict art historical analysis, the traditional notion of "creativity" in both ancient American archaeological and art historical scholarship warranted significant reconsideration. This essay considers aspects of Grieder's earliest methodological approach to ancient American art history, as generally established in his earliest publications between 1961 and 1982, and the impact of his approach on recent studies of two early ancient American rock art traditions, specifically the Barrier Canyon Style centered in Utah and the Pecos River Style in southern Texas.

These styles have long been believed to be disassociated with any historic Native American peoples, and thus archeologically "extinct". However, recent scholarship incorporating aspects of Grieder's early pioneering methodology, in conjunction with expanded recording and documentation projects, are now establishing possible ancestral ties to later Puebloan peoples of the American Southwest, and Mesoamerican cultures of central Mexico, including the *Mexica* (Aztec) and historic Huichol. These ties may establish a more direct cultural context for these ancient painting traditions.

It was my good fortune to collaborate with Grieder for over 25 years on a number of research and scholarly endeavors. During that span, we had many, mostly rather social and informal discussions regarding historical research and interpretation (particularly as they intersected with current anthropological and archaeological methods and theories), so much of this essay may be understood as rooted in rather anecdotal information gleaned from those discussions. But much of this essay is also based on his and others' published arguments and ideas regarding the methodological terrain of ancient American art historical scholarship as it evolved during his lifetime, primarily from his first scholarly publication in 1960 until the mid-1980s, when his focus had ultimately shifted firmly and permanently to Andean antiquity.

"Creation" (and its grammatical variations) is one of the most used and, Grieder would argue, most *abused* critical terms in the history of art historical scholarship. While Grieder did use the terminology in his own scholarship, he preferred to use it in rather cautious and restricted contexts, and I know

of no particular publication in which he pointedly articulated his theoretical problem with the term. He was particularly conflicted by widespread popularized and romanticized uses of the term when applied somewhat loosely to describe significant artistic achievements in human history. Grieder drew a very clear intellectual distinction between two different understandings of artistic creativity. He generally opposed the romanticized concept of an artist or individual introducing or employing a new "idea" seemingly gleaned from nowhere and (in some ill-defined inspired manner) appearing or being injected into the artist's consciousness through some mystical, supernatural fashion (i.e. divine intervention, trance-induced altered consciousness, etc.). This application of the concept most closely adheres to a standard Merriam-Webster's Dictionary definition of the terminology, i.e. "to bring into being, beget, give birth to, cause to grow," as derived from Latin *creātus* (Merriam-Webster Online).

Grieder much preferred, rather adamantly when provoked, the position that most if not all great human artistic advances frequently tagged as "creative" were in truth the result of rational, intellectual problem-solving, based on extensive experience, training and technical expertise, and cultural context and adaptation. He much preferred terminology such as "influenced by," "appropriated/borrowed from," "adapted from," or even "evolved from." In numerous personal critiques of my own work (and perhaps others as well) over the years, he fondly reminded me that human beings "had really ever had only one truly creative idea" (Grieder, personal communication, 1990), that occurred at (and perhaps even fostered) the very earliest evolutionary stages of human thought in the modern *homo sapien* mind. That idea was essentially the intellectual capacity to manipulate natural materials, including but not limited to the human body, to express thoughts and ideas that exceeded basic survival needs and would otherwise be inexpressible in specific forms (as in "make art"). This reflected a capacity for abstract and symbolic thinking which seemingly exceeded the mental capacity of other life forms (such as a concept of "nature"). For Grieder, that represented the only truly "creative" idea that the human race had ever experienced. Creation in that sense was not an occasional divine spark or biological anomaly, but an ongoing, ever-evolving aspect of human intelligence, in essence the history of humanity.

From that perspective, occasional and sporadic acts of "creation" throughout human history, including those of artistic merit so romantically popularized as such in much traditional art historical scholarship, were in actuality innovative ways of combining, reorganizing, or re-prioritizing basic ideas that had always been part of the nature of modern human thought. As reported or documented by uninformed contemporaries or backward-looking historians without proper context, such acts are easily seen as acts of true genius or "creativity". One goal of sound art historical scholarship therefore (according to Grieder at the time, though now strongly supported by many modern scholars (Stokstad and Cothren 2020: 15), is to determine the cultural mechanisms of communication and transmission which provided the context and opportunity to the art world of the time to initiate such innovations.

One of his long-running pet targets of this approach was scholarship on the renowned Renaissance master Michelangelo Buonarroti. Grieder had no particular issue with Michelangelo's attested talent, but Michelangelo's name itself had become (and still often is) intimately entwined with a perception of his so-called divine "creative process", even to the point of his famously self-assigned nickname, "*Il Divino*" (the Divine One); he actively fostered a public perception of his talent as having "just popped out of his being fully formed, without any blood, sweat, and tears" (Keener 2019). Simona Cohen's 1998 essay demonstrates how certain compositional changes introduced by Michelangelo into the painting of the Sistine Chapel ceiling, long considered examples of his divinely-inspired creative genius, were in fact very rational "methodological" adjustments in the aesthetic needs of the design and configuration of the ceiling (Cohen 1998: 61).

Grieder never clearly articulated a personal theory or methodological approach to art historical interpretation in his early writings prior to 1975. But the broad ideas and attitudes presented in the previous passage clearly underlie the majority of his art historical scholarship, though one must frequently read between the proverbial lines to ascertain this. Typically, he simply applied his particular approach to the material at hand and let the interpretive results stand for themselves.

Grieder published his first significant scholarly article, a descriptive report of

the results of a small archaeological survey project he participated in at several Classic Maya sites in northern Guatemala (Grieder 1960). This early interest in Classic Maya art manifested itself more thoroughly in his 1962 dissertation (Grieder 1962). Over some 388 pages, Grieder provides an exhaustive formal and stylistic analysis of the complete body of documented Classic Maya ceramic vessels bearing representational imagery available at the time. His background as an artist intimately familiar with materials and techniques is evident in his approach. But he also integrates other methodological techniques, such as comparisons to other Maya media, somewhat subjective, critical entries on the aesthetics of Maya imagery, and extended analysis of Maya artists' attempts to render illusionistic three-dimensional space on two-dimensional surfaces. Overall the dissertation reflects heavy art historical influence from George Kubler. Yet, it is very difficult to get a clear sense of Grieder's methodological approach or even a clear thesis statement from anywhere in the entire document. Only after reading through the first 20-30 pages of text does the reader begin to get any sense about his methodology (it seems highly unlikely in today's academic environment that such an omission in a dissertation would even be accepted by any accredited institution or program). "Chapter I: Techniques of Maya Pottery" is devoted to an extensive, detailed analysis of Maya pottery production techniques and materials, everything from clay compositions, temper, and firing temperatures to vessel building, forming and surface decoration (Grieder 1962: 68-87). He frequently cites modern and historic Maya ethnographies and applies them retroactively to Classic Maya pottery techniques. He assumes a substantial line of socio-cultural continuity and evolution from the Maya past to the present, interrupted by the occasional historical cultural disruptions (i.e. historic European contact, industrial age technologies, etc.) which are easily accountable for. He never provides any theoretical argument or justification for the use of this ethnographic method, he just *does it!* Literally the second sentence of the chapter states that "Often several kinds of clay were available and in use at a single site, as at Holmul, which used two in ancient times, and in modern pottery of the Chorotegan area described by Doris Stone." (Grieder 1962: 68). Hence, the seeds of what would later define his better-established methodological position were already in place.

By the early 1960s, George Kubler was widely regarded as the preeminent

scholar of Pre-Columbian art history, responsible in large part for incorporating the field into the broader, Western scope of traditional art historical scholarship (Sorensen). He was a staunch proponent of his so-called configurational method, a formalist-based methodology emphasizing the analysis of individual elements, their relationship within a given style, and any discernible iconographic references (i.e. "symbolism"; Koontz this volume). Grieder never overtly acknowledges this specific methodology as his official approach, though he does cite Kubler frequently throughout his dissertation. Grieder knew Kubler well, and Kubler was one of the acknowledged outside readers of his dissertation. In fact, a review of all of the outside readers of the dissertation draft listed in the Acknowledgements of the document reads like a veritable "Who's Who" of Maya and Mesoamerican art and archaeological scholarship, both then and even today: Linton Satterthwaithe, Edwin M. Shook, Anna O. Shepard, Tatiana Proskouriakoff, Gordon Ekholm, William Coe, Georges Guillemin [sic], Stephan de Borhegyi, Carlos Navarrete, and Kubler all provided comments and critiques of early drafts of the manuscript; Frederick Hartt, the noted Renaissance art historian, signed the dissertation as the Graduate Chair of the Art Department (Grieder 1962: ii).

Mesoamerican, and particularly Maya scholarship was exploding across the academic world in the late 1950s and early 1960s, and the University of Pennsylvania was right in the middle of this explosion, primarily due to the Tikal Project, an extensive and comprehensive archaeological program sponsored by the University museum and conducted at Tikal, Guatemala between 1948 and 2008 (Moholy-Nagi 2012). The most significant excavations were conducted between 1956 and 1962, yielding, among many results, an extensive quantity of ceramic vessels. Grieder had easy first-hand access to this material, but he also depended heavily on recent archaeological reports from other sites and institutions for comparative imagery and data, especially Robert Smith's *Ceramic Sequence at Uaxactun, Guatemala* from 1955. One can easily understand Grieder's initial attraction to a study of Maya art in this environment, though conducted not from a strictly archaeological perspective, but as an art historical exercise.

Terence's abiding "anti-creation" attitude regarding artistic innovation drove both the actual language he employed and the method he seemingly followed

to arrive at specific conclusions regarding artistic innovations in Maya art. For example, when discussing Maya attempts to develop convincing techniques for rendering illusionistic three-dimensional space on flat surfaces, he makes numerous comparisons to a variety of Maya objects which display other renderings of illusionistic three-dimensional space, such as mural paintings and carved stone relief panels. He draws a comparison between the carved relief scene on Piedras Negras Lintel 3 (Figure 2.1), and a painted ceramic plate dubbed the Jaguar Sacrifice Plate (Grieder 1962: plate 29). In his discussion, he notes that:

> ... in "Lintel 3" this illusionistic effect [naturalistic space] is carried to a point far beyond that found in most Maya sculpture. This suggests that "Lintel 3" may show the influence of lost mural paintings,...(Grieder 1962: 169).

Figure 2.1. Piedras Negras Lintel 3, as displayed in the Museo Nacional Arqueología y Etnología de Guatemala, Guatemala City in 2005. Classic Maya carved limestone relief, c. 48" x 24", late eighth century CE.
Photo by James Farmer, 2005; all rights reserved.

Though not definitively inaccurate, it still reads like a blatant assertion of an assumption presented as an established fact, yet he offers no information or argument to justify such an assertion. Some yet unidentified or lost work, style or artist must be exerting said influence on Piedras Negras sculptors in the development of new techniques; so-called independent invention (aka "creation") cannot be credited for "Lintel 3", and his strong belief in rational problem solving dictates that the source of inspiration simply hasn't yet been identified. The dissertation is filled with similar assertions, yet nowhere does he take the time to clearly explain the theoretical basis for his approach.

Major advances were also occurring in the decipherment of Maya hieroglyphic writing and in archaeological theory and method, but these advances were only just beginning to disseminate through the academic community and public discourse. Tatiana Proskouriakoff's seminal work on hieroglyphic translation at Piedras Negras was only recently published in 1960, and her follow-up work on hieroglyphic inscriptions from Yaxchilan wouldn't be published until 1963-64 (Proskouriakoff 1960; 1963; 1964). The field of archaeology was in the early stages of a professional revolution as anthropologist Lewis Binford's theories regarding what would come to be known as "Processual" (or "New") Archaeology would only first be published in 1962 (Binford). Grieder would ultimately embrace much of Binford's approach, but in his own somewhat mediated way, and not clearly articulated in his scholarship until much later.

Grieder subsequently condensed his dissertation arguments regarding Maya rendering of space and form into an article for the journal *American Antiquity* (Grieder 1964). Again, there is no clear methodological statement to frame the article. In his abstract for the article, he asserts that the Maya invented seven ways of showing solid forms and two ways of depicting spatial depth in their paintings, and then proceeds to demonstrate various instances in pottery and painting of the various techniques. Throughout the essay, he makes numerous statements that tend to read as unassailable arguments, or at best, unsubstantiated assertions, which he repeatedly offers as mere statements of fact:

> The Maya never formulated a standard relationship even between the first and second dimensions – between length and width – for they did not have the conception of an angle as a measurable entity. (Grieder 1964: 447).

The statement is offered as definitively obvious, with no supporting evidence for the premise. Perhaps this is merely poor phrasing, but such categorical and borderline politically incorrect wording would probably never pass critical review by modern standards. Yet, such direct, definitive comments were always a part of Grieder's literary "voice" and style.

Terence Grieder and Rock Art

Grieder did not publish as extensively on traditional rock art imagery (painted and/or pecked images on in-situ rock surfaces), as on his other topics of interest.[1] But he was drawn to early rock art styles in the Americas because of his philosophical interest in the idea of "origins" and tracking the arc of stylistic influence, evolution and adaptation, as reflected in his support of the implications of the ethnological method (cultural evolution over long periods of time) combined with his anti-"creation" or diffusionist position, which dictated that any given style always owed something to its predecessors or foreign contemporaries. But for archaeologists and art historians alike, ancient or prehistoric rock art imagery has always been perhaps the most challenging art medium to interpret. It is notoriously difficult to date specific images or overall styles; specific artist's identities or social affiliations are rarely available (though individual artist's "hands" can sometimes be discerned); and cultural context is frequently completely lost, and can only be hypothesized or generalized. More recent archaeological techniques occasionally provide clues or data to address some of these issues, but the results of these methods are rarely universally accepted as completely accurate or valid, and these techniques have only been applied to an exceptionally small percentage of the documented rock art imagery across the Americas. And, of course, there is the ever-present lack of any direct ethnographic records, and in many cases no evidence of any direct ancestral relationship to any historically documented cultures (aka archaeologically "extinct"). Because of this, overall themes and specific subject matter of scenes and figures is typically limited to basic formal identifications; basic actions may often be determined if active figures are depicted. These difficulties usually relegate interpretations of more complex symbolism and iconography to the realm of hypothesis and speculation, again typically in only the most general terms.

Even basic formal traits so fundamental to any critical analysis of art works are often difficult or impossible to ascertain. Specific sizes and dimensions of individual elements and motifs may be measured, but many rock art panels incorporate natural features of the surrounding rock surface and landscape, considered in more detail below. How then should one determine the actual overall dimensions of a total composition? And even in the 21st century, the

recording and cataloging of previously unreported rock art sites is very much an ongoing process. We still do not know how many examples of most major Ancient American styles were originally produced. And perhaps the most pervasive problem with rock art analysis is the constant threat to the medium's very existence; under constant direct exposure to the forces of nature, including human and animal interference, natural erosion, and weathering, conservation of rock art imagery is now a major component of professional archaeological and government agencies around the world. Unknown quantities of images are disappearing or being altered on a daily basis with little or no associated documentation. In part because of these challenges, rock art imagery has only rarely been considered in major art history survey textbooks, the one obvious exception being the prehistoric cave art of Europe (i.e. Lascaux, etc.); scant acknowledgment of one of the oldest and most prolific forms of human visual expression.

Yet Grieder never lost sight of the broader implications of rock art studies for archaeological and art historical interpretation, most specifically that rock art imagery is the most common, widespread and at least the second oldest form of human visual expression (body adornment most certainly being the oldest and original form of such expression). Wherever humans have occupied space on the planet, with even the most meager natural landforms available, they have left behind rock art imagery of some form. To this end, any investigation of influences or context for the evolution of specific ancient styles or traditions, including iconographic readings, must surely consider possible influences of contemporary or more ancient rock art imagery, especially if such imagery could be tied to a given style or forms by complementary methodologies (i.e. ethnographic, archaeological and/or formal assignments).

His most in-depth interpretations of rock art imagery would be encapsulated in his 1982 book *Origins of Precolumbian Art*, considered below, but only as a relatively small portion of a much larger body of artistic expression, primarily body adornment and portable objects. In 1965 Grieder joined the Texas Archeological Salvage Project of the University of Texas to record archaeological sites in the Rio Grande River drainage west of Del Rio, Texas. Construction of Amistad Dam had just begun to create Lake Amistad reservoir, which threatened to inundate hundreds of undocumented ancient

and historic painted rock art panels. Over a period of approximately three months, Grieder, with David Gebhard of the University of California at Santa Barbara, recorded some forty pictograph (painted) rock art sites in the region. The subsequent publication presented his detailed analysis of the painted imagery from twelve of the recorded sites (Grieder 1966). Gebhard had previously identified four distinct style variations within the rock art styles of the region (Gebhard), the most famous of which is now known as the Pecos River Style, presently dated between c.2000 BCE and 100 CE. But the relative dating and chronology of these styles was still unclear at the time. Grieder's essay was an attempt to establish a basic chronological sequence for three of the four styles recorded in his survey. Although primarily a straightforward archaeological survey report describing the formal and technical aspects and physical condition of the pictographs, he includes what can only be described as a basic iconographic analysis (i.e. art historical methodology) of many elements to supplement his proposed chronology.

Grieder would return to Pecos River Style rock art twenty years later, in a 1986 essay in a catalogue published by the Witte Museum in San Antonio to accompany an exhibition focusing on the culture history of the same region. The exhibition was dominated by rock art imagery, and Grieder's article proposed two principle problems facing students of ancient rock art: issues surrounding accurate recording and documenting rock art imagery (first-hand drawings vs. tracings vs. modern photographic techniques), and the assignment of "meaning" to elements and figures in a given style (Grieder 1986: 176). This second problem is as much an art historical issue as an archaeological one. Grieder's methodology is much more clearly stated in this later article, though not until near its end. In the last paragraph, he states: "It is clear that the interpretation of Lower Pecos River petroglyphs rests on ethnology" (Grieder 1986: 179). He draws on several ethnographic sources from beyond the Pecos River region, including Plains, Woodland, and Zuni and Hidatsa myths and rituals, to aid in the interpretation of Pecos River Style scenes.

The 1986 essay must be understood, however, in the light of his 1975 essay "The Interpretation of Ancient Symbols", published eleven years earlier, and his subsequent 1982 book *Origins of Precolumbian Art*. In the 1975 essay Grieder, for the first and perhaps only time, provides a reasonably clear argument regarding

his methodological approach to art interpretation, especially as it relates to usually "pre-" or non-literate societies of ancient America. He basically defines and then compares the advantages and disadvantages (as he saw them at the time) of Kubler's configurational method (especially as Kubler had recently argued for in his seminal 1970 article on style, versus the "ethnological method" (aka ethnographic analogy), which had emerged from more recent anthropological scholarship as a method of artistic interpretation that challenged perceived limitations of Kubler's configurational method (Kubler 1970; Koontz, this volume). Grieder appropriates Tatiana Proskouriakoff's term "total cultural context" to refer to the results of interpretations drawn from the valid application of both methods to the same subject. In his concluding paragraph, he states:

> Realistic expectations for the recovery and interpretation of ancient cultures must lie somewhere between the "total cultural context" required by Proskouriakoff (1950: 182) for understanding of the development of art, and the purely pictorial materials on which Kubler pins his hopes. (1975: 853)

The "awareness" of "disjunction" which Grieder notes in this passage refers to Kubler's application of Erwin Panofsky's "principle of disjunction" as a major objection to the use of the ethnological method. Kubler cites the danger of significant or extensive changes or breaks in cultural continuity, such as the shift from the Classical to the Medieval world in Europe, causing parallel shifts or changes (disjunctions) in the relationship between style ("form") of art works, and their associated content ("subject matter" and "symbolism"). When the ethnological record fails to supply adequate information regarding the motivations for such changes, or even a clear definition of the mechanisms of the change itself, then erroneous or invalid interpretations of the associated art works are inevitable. Kubler adamantly pushed this critique of the ethnological method, but Grieder countered Kubler with the position that, yes, cultural changes or upheavals might indeed result in substantial "disjunctions", but with the aid, especially in cases of prehistoric and non-literate societies, of well-done archaeological investigation, the impact of such disjunctions could be accommodated in any interpretations. For Grieder, disjunction was not

a theoretical flaw in the ethnological method; it was an integral part to be properly addressed.

In many, though frequently overlooked, ways, the 'Symbols' article laid down some basic methodological approaches now widely used in ancient American art interpretation. But independently, neither methodology was universally accepted, and both methods engendered considerable controversy at the time and still today. Yet, the mixed acceptance of the 1975 article does not overshadow the impact of it on subsequent art historical research (as reflected in other essays in this volume). Maya scholar Michael Coe employed a similar synthetic methodology in his seminal 1978 analysis of Maya ceramics, *Lords of the Underworld: Masterpieces of Classic Maya Ceramics* (Coe), which convincingly demonstrated the importance of the role that ancient Maya creation mythology as recorded in the *Popol Vuh* played in understanding much pictorial Maya imagery, particularly on ceramics. More recently, Carolyn Boyd (2016) makes similar use of this methodology to yield an even more compelling (and somewhat controversial) interpretation of Pecos River Style rock art imagery considered below.

The 1975 'Symbols' article was prepared and published while Grieder was involved in his first full-scale excavation project at the ancient site of Pashash, Peru. Grieder had been working at Pashash since 1969, and ultimately published *The Art and Archaeology of Pashash* (1978), his first book focused exclusively on ancient Pre-Columbian art of the Americas. Though primarily a summary analysis of the archaeological material and data recovered from his excavations, Grieder supplements his reporting with ample art historical analysis and interpretation, as befitting his earlier scholarship. Even the book title was no small matter, clearly declaring the book to be about both "art" and "archaeology" interpretation. As this was Grieder's first time to serve as the director and principal investigator of a major archaeological project, as well as the primary author of the subsequent book, it is possible to understand the publication of the 1975 'Symbols' essay as a (perhaps necessary) step to more firmly demarcating his own "theoretical" terrain (Koontz, this volume). In the introduction to *Pashash*, Grieder provides interesting comments on his view of the nature of historical inquiry as it underlies both art historical and archaeological practice. He notes, for example, that:

> History is full of surprises. If it is not, then the investigation may have been a waste of time. Historical data are full of answers to questions one could not have asked until one saw the data. It is important that the value of history lies in its production of new knowledge that could not have been subsumed under a [previous] premise and that, in its conclusions, still resists reduction to generalizations. (Grieder 1978: 7)

Upon publication of the 1978 Pashash book, Grieder almost immediately began work on his next book project, *Origins of Pre-Columbian Art* (1982). In *Origins* Grieder expanded the scope of the approach presented in the 1975 article. He applied it to an expansive near-global interpretation (Asia, the entire Pacific basin, and the Americas) of the evolution of human cultures and associated art forms across the entire spectrum. Even by today's standards, this was an extraordinarily grand and ambitious goal, but his confidence in the validity of his now-(more) clearly established method permitted him to develop the project. The reader is encouraged to review his book in depth to gain a more detailed understanding of the nuances and details of his assertions and conclusions; I offer for consideration herein merely a highly condensed summary of his major hypotheses. Grieder asserted that both Pacific basin and ancient American cultures had evolved through a three-stage process of cultural diffusion, which he designated "waves," originating from the earliest human cultures in eastern Asia, migrating eastward over vast periods of time across the Pacific basin and ultimately into the Americas. Each successive wave emerges from, absorbs, and builds upon the previous set of cultural beliefs and ideologies, ultimately defining the cultural profiles and art styles of the major Pre-Columbian societies. *Origins* is the most grandiose reflection not just of his methodology, but of his underlying belief in the rational, intellectual capacity of the human mind and spirit.

However, while it draws directly from the 1975 article, it in fact presents a fundamentally different approach to the methodology. The earlier Pre-Columbian publications were more focused and "style specific"; they offered interpretations of specific works or bodies of works from specifically defined styles (configurational method), supported with ethnological sources as he deemed appropriate. The goal was to "explain" or assign better "meaning" to a particular style (Koontz, this volume). In *Origins*, in contrast, the goal is

reversed; to demonstrate how the methodology can be applied to most any art tradition, regardless of questions of style or subject; that is, *prioritizing* the ethnological over the configurational.

I offer this very condensed abstract of the heart of *Origins,* without any assertion of its validity, merely to highlight what it reveals about Grieder's methodological evolution. Reviews of *Origins* were generally positive, but rarely overwhelmingly so, often tempered by the theoretical challenges reflected in the book. Flora Clancy noted:

> Another thing to consider is the breakdown of Asian and New World prehistory into three different cultures where one is defined as simple, one is complex, and one mediates between the two extremes. Structuring related phenomena into a trilogy made up of two extremes and an in-between is a common and convenient procedure...
>
> Thus Grieder's three cultures seem arbitrary: why not two, or four, or five? A method that was useful for structuring cultural traits into three coherent groups according to their complexity of associations and presumed meanings has been arbitrarily (?) deemed, as well, a description of three different and distinct cultures. (Clancy)

Yet she concludes that:

> Terence's contributions to this arena are valuable. Despite the questions of this review, his ideas are clearly stated and well argued. It is an easy book to read (a definite virtue) and it is highly recommended to anyone who wishes to enter into the discourse on the origins of cultures. (ibid)

Implicit in Grieder's approach was an acceptance of the premise that ancient American cultures across the entire hemisphere had interacted and shared ideas with each other in much more intense and highly developed systems of communication than traditional archaeology and art history had generally acknowledged (in part fueling his discomfort with the deep-set historical classifications noted in the introductory paragraph). Southwestern archaeologist Steven H. Lekson has suggested rather blatantly that in the Ancient Greater Southwest, "Everyone Knew Everything!" (Lekson 2008: 9).

In his opinion, most every major culture group throughout ancient North and Mesoamerica (and probably South America as well) was always well aware of who and what their cultural neighbors were and weren't doing across almost the entire continent. Cultural and stylistic differences had little to do with cultural isolation or autonomy from the larger world. Such isolation, by theoretical extension, would foster classification of cultural change (i.e. artistic innovation) as examples of independent invention and/or "creation" (vis-à-vis Grieder's "creation" model), as opposed to "adaptations" resulting from ongoing interaction with, or diffusion from, a variety of often "foreign" influences, the broader cultural context. Although Lekson does not cite Grieder directly, this view seems to reflect a philosophical position similar to Grieder's heavily diffusionist model of culture spread, as opposed to independent "creativity." Recent scholarship on the now-recognized extensive nature of pre-historic exchange networks throughout the entirety of ancient America offers more corroboration of Grieder's hypothesis (Smith, Michael E.). Despite still current challenges of some aspects of his methodology, Grieder's broad approach seems to have foreshadowed much current scholarly thinking.

Recent studies on ancient American rock art in the United States have begun to reflect the influence of his synthetic configurational / ethnological method. Carolyn Boyd's recent publication on the White Shaman Mural presents a highly detailed analysis of a complex polychrome rock art panel in the Pecos River Style (Boyd 2016). The White Shaman Mural has long been well-known among rock art scholars and students of the Pecos River Style, but problems in dating, defining an archaeological or cultural context, and identifying many specific pictorial elements in the scene have long hindered serious attempts to interpret the scene (problems typical of most rock art research). At first glance to the untrained eye, the mural appears to be a confusing mass of abstract elements and motifs, with little or no apparent compositional unity or structure (Figure 2.2). It has often been suggested that the imagery in some vague way depicts visionary experiences by shamans in states of ecstasy or supernatural flight (Shafer 1986: 140). Using 21st century recording techniques (D-Stretch software, digital-field microscopy, and portable X-ray fluorescence) and updated field paintings and drawings, her team produced highly detailed technical data regarding the composition and application of pigments, allowing

her to more accurately date the mural, and analyze in very specific detail the painting techniques and pigments.

Figure 2.2. The White Shaman Mural. Painted polychrome rock art panel, Pecos River drainage, Texas. Pecos River Style, c.300-100 BCE. Overall mural dimensions are c. 26 feet tall by 13 feet high; the central white anthropomorph is c. 3 feet tall.
Photo by James Farmer, 2019; all rights reserved.

More significantly however, Boyd offers a revised iconographic reading of the entire composition. The presumption had long been held that possible connections with other northerly Southwestern cultures was likely because of the Pecos River region's close proximity to the ancient Southwest, as opposed to the traditional area of ancient Mesoamerica to the south, and some basic similarities between the Pecos River Style and other archaic rock art styles from the Southwest, such as the Barrier Canyon Anthropomorphic Style (henceforth BCS Style) centered in southern Utah, first defined by Polly

Schaafsma (1971: 131-135). In a rather bold and radical step, Boyd engages Southern Uto-Aztecan linguistics and ethnography, primarily Aztec/Nahuatl, as well as historic Huichol myths and legends, to assign various cultural and iconographic interpretations to the composition. The implications of this method are not without their challenges. Despite numerous extensive archaeological projects in the Pecos River area, virtually no hard archaeological evidence has ever surfaced suggesting a definitive ancient Mesoamerican presence in the immediate area. Furthermore, while Boyd gleans powerful iconographic readings from her Southern Uto-Aztecan sources, she generally avoids any similar readings from Northern Uto-Aztecan sources, which would include Hopi ethnographies. If indeed Uto-Aztecan linguistics are key to understanding the mural imagery, it would seem that a more equitable application of available linguistic sources might be expected, or at least some rationalization as to why the southern dialect is so appropriate, while the northern dialect is essentially ignored.

Despite these inconsistencies, I find her interpretations compelling and generally persuasive, and my point is not so much to critique her findings or assertions, as it is to place the results of her approach in relation to Grieder's methodological modeling. Once again I would encourage any motivated reader to thoroughly review her book and associated reviews and related scholarship. While this is indeed a powerful application of Grieder's original "ethnological" method to assign complex iconographic interpretations to the mural (and thus a negation of the mystically "created" nature of the images), a more formal or configurational interpretation of the mural in fact suggests much stronger formal affinities with Southwestern rather than Mesoamerican styles. Simply stated, stylistically the White Shaman Mural really doesn't *look* much like any known style associated with any ancient Mesoamerican culture. It is worth noting that recent rock art studies have revealed a substantial amount of under-researched rock art imagery throughout northwestern Mexico, some of which may be related to the Pecos River Style (Liponi, Wyndham). Additionally, both Boyd and Carolyn Tate (this volume) point out general formal similarities between a few individual motifs and possible Mesoamerican equivalents. However, at this writing, little of these archaic rock art styles from the Southwest seems to be stylistically directly related to the traditional Mesoamerican styles to the south; the focus has been on iconographic

interpretations. Hence any configurational analysis seems exceedingly weak in supporting any Mesoamerican connection, and in fact much more strongly supports a more northerly Southwestern cultural affiliation.

And this seems to highlight a potential flaw or weakness, or least an intellectual "pitfall" in Grieder's approach. To his credit, Grieder does acknowledge this issue in the 1975 article. Accepting the relative validity of both Boyd's and Schaafsma's analyses, this situation might easily be understood as a clear demonstration of Panofsky's "principle of disjunction" of form and meaning in styles spanning hundreds or thousands of years (Grieder 1975: 849). But it does reveal a rather peculiar aspect (call it a "flaw", "weakness", or even "failure") in Grieder's proposed synthetic method. Applying both methods (configurational and ethnological) in his model to interpret any given work or style, one of four theoretical results are to be expected:

1. Both methods definitively reveal the same or reasonably similar interpretations; each method concurs with and supports the other method. This is the optimal outcome, providing the strongest line of interpretation for the subject.
2. One method provides a strong interpretation, but the second method (regardless of which is which) yields little or no useful interpretive data to compare with that of the first method. This result typically relegates any final interpretation to a more speculative assertion, pending more research, but does not necessarily negate the interpretation offered by the first method.
3. Neither method produces any substantial data from which any interpretations of the work might be formulated. Typically this indicates that, at least at this point of investigation, the object lacks enough basic contextual information (identification, associated styles, archaeological context, etc.) to produce fruitful interpretive results.
4. One method produces strong data and evidence supporting one particular interpretation, usually of a specific aspect of the work (iconographic, authorship, patronage, cultural or stylistic affiliation, etc.), but the other method presents equally strong evidence

> supporting an opposing interpretation, sometimes even negating that of the first method. This result is obviously the most problematic, as it provides no real clarity in how to resolve the apparent conflict, and, worse, reveals, in a rather ironic way, a theoretical limit to the entire method. Each method independently seems to provide a valuable point of interpretation of an object, which is useful, but the lack of concurrence between, or negation of, the results between the methods tends to weaken each one.

Boyd's analysis of the White Shaman Mural is a good example of result #4. Her iconographic reading of the mural based on Mesoamerican sources is strong and compelling, but a configurational (stylistic) analysis of the imagery reveals no such Mesoamerican interaction, and in fact supports much stronger ties to the greater American Southwest. At this time, it leaves the interpretive question somewhat unresolved for this particular rock art panel, but the question itself has been clarified somewhat. However, the interpretation of this particular work is not the focus here; rather I present it only as an example of how Grieder's methodology can be applied to rock art imagery with some positive (if not always conclusive) results, while simultaneously recognizing the possible pitfalls.

I have experienced a similar situation in my own research on the aforementioned BCS Style of rock art distributed primarily across south-central Utah and the Colorado River Basin. While the greater American Southwest (including portions of northwestern Mexico) is widely regarded as one of the three or four great regions in the world for its quantity and diversity of ancient rock art styles, myself and numerous other rock art specialists have now long noted that a handful of these styles reflect formal, technical, and thematic qualities that noticeably distinguish them from the rest of the regional styles, to such a degree that they are more accurately categorized as "painting" rather than rock art styles. The aforementioned Pecos River Style, the BCS Style, and the Great Mural Tradition of Baja California (Crosby) are particular examples.

As noted by Lekson and Boyd, one of the longest running debates in the history of American archaeology has been the question of the ancient

relationship between the ancient Greater Southwest and ancient Mesoamerica, or more specifically the nature of the interaction (if any) between the major cultures comprising the two regions. Over nearly a century and a half of anthropological research, scholarly theories have spanned the gamut of hypotheses, ranging between the assertion that the two cultural regions emerged over the centuries basically separate and autonomous from each, with only occasional and inconsequential contact, to the other extreme, positing that the two regions in fact constituted just one big, unified culture area that happened to display certain regional stylistic distinctions. This typically took the form of a much expanded Mesoamerica, with the Southwest serving as a kind of colony or satellite community. In recent years, a more mediated, complex, but probably more accurate position on this issue has generally been adopted; that while both regions maintained a high degree of cultural and linguistic autonomy, a significant amount of regional interaction and influence also occurred over a long period of time, primarily in the form of trade, that played a key role in the cultural evolution of both areas (see Lekson 2008; López Austin and López Lujan, 2001: 6-21).[2]

The BCS Style

My research on the BCS Style since the 1990s has landed me right in the middle of this Mesoamerican debate. In 2001 I noted specific formal, thematic, and possibly iconographic features of several BCS Style figures that displayed strong similarities to certain major Mesoamerican "gods," specifically the Aztec Rain God *Tlaloc* and the Feathered Serpent *Quetzalcoatl* (Farmer 2001). At that time I considered them only as clear examples of artistic parallels between the two regions. Similar parallels had previously been noted for other prehistoric Southwestern imagery (Schaafsma 1999, 2001) from the late prehistoric period; my purpose was mainly to demonstrate that similar parallels actually extended well back in the antiquity of the Southwest.

BCS Style rock art panels have been documented since the early 20th century, but until Schaafsma's 1971 publication, they were generally assigned to the ancient Fremont culture which flourished across most of modern-day Utah

between c.1 and 1300 CE. (Janetski and Talbot 2014: 118; Morss 1931: 34-42). Schaafsma first recognized the distinctive nature of the style, assigning the name Barrier Canyon Anthropomorphic, and realized that it was not produced by the Fremont people, but rather earlier migratory, non-sedentary hunter-gatherer groups of the Archaic Period (c.6000 BCE – 1000 CE), roaming the landscape and exploiting natural floral and faunal resources. As such, they left no permanent architecture, and very little material culture or permanent art behind for the archaeological record, with the noticeable exception of rock art. However, much like the Pecos River Style, the BCS Style seems to have no apparent ancestral links to historic native cultures, and thus no directly-related ethnographic sources, at least until now. As such, interpretations have generally been limited to what little information archaeological techniques might yield, mostly in attempts to date the style (currently somewhere between c.6000 BCE and 1000 CE, with a peak period of activity between c.2000 BCE and 500 CE.), and variations of the Kubler / Grieder configurational analysis to define basic elements of the style. Iconographic interpretations of content have been limited to general assertions (and I would emphasize the term "assertions" here) of figures and activities relating to intensely spiritual subjects or activities, i.e. shamanism or spiritual transformation. Schaafsma first offered this interpretation in 1980, based primarily on her rather subjective conclusion that:

> One senses that the remote, awe-inspiring anthropomorphic forms of the Barrier Canyon Style are beings imbued with supernatural power. It is not unreasonable, considering the content of the paintings, to suggest that we are dealing with a shamanic art (1980: 71).

This interpretation of BCS subject matter (and by implicit extension, matters of style, context, function, etc.) has permeated the scholarship on BCS Style imagery for the past 40 years.

The style is characterized by typically static, frontal-facing anthropomorphic figures, ranging between c.6 inches and 7 feet tall; less–frequently, such figures do occur in scenes of narrative activity. An intense, typically-blood red pigment (primarily iron oxide) is by far the most dominant hue used in BCS Style imagery, and the anthropomorprhs are frequently accompanied by a wide variety of animal and plant forms. The anthropomorphic figures are typically

rather abstract, often lacking arms, legs, hands, or feet. Torsos are often highly decorated, but it is difficult to discern whether this represents body painting, some fashion of clothing, or perhaps even ceremonial reworking of the image itself. Head and facial features are extremely rare, with the exceptions of either occasional head adornment (a hat or a hairdo), and, most significantly, large, staring, often highly-exaggerated eyes, which have contributed heavily to the widespread assignment of a deeply spiritual meaning to the figures (shamans?; ghostly spirits?; ancestors?, mummies?, etc.).

Figure 2.3. Great Gallery rock art panels, Horseshoe Canyon, Canyonlands National Park, Utah. Photo by James Farmer, 2009; all rights reserved.

Figure 2.4. "Holy Ghost Panel", Great Gallery, Horseshoe Canyon, Canyonlands National Park, Utah. BCS Style, c.1000-500 BCE. The largest, central figure is c.6 feet tall. Note how the central composition both physically and visually engages the natural stone framing arch. The pyramidal ordering of the group mimics the shape of the arch, and the diminishing scale creates the illusion of the group "emerging" from the wall surface. The figures appear to emerge from (or "float" in) an illusionistic 3-dimensional space, rather than on a 2-dimensional flat canyon wall.
Photo by James Farmer, 2005; all rights reserved.

Figure 2.5. Holy Ghost Panel at right, during a seasonal thunderstorm. Note thunderstorm, waterfalls, and flash flooding creek. I have proposed that images such as those illustrated in Figure 2.7 were in fact intended to be understood as anthropomorphized (or "deified"?) depictions of the natural phenomenon illustrated above (Farmer 2017b). Note, this photo was taken approximately one hour after the previous photo in Figure 2.4 was taken. Of course, thunderstorms are naturally powerful and dramatic events, but in this region of the American Southwest, the quickness and intensity of their occurrence is substantially amplified by the environment. Such "drama" could not have been lost on the ancient inhabitants.
Photo by James Farmer, 2005; all rights reserved.

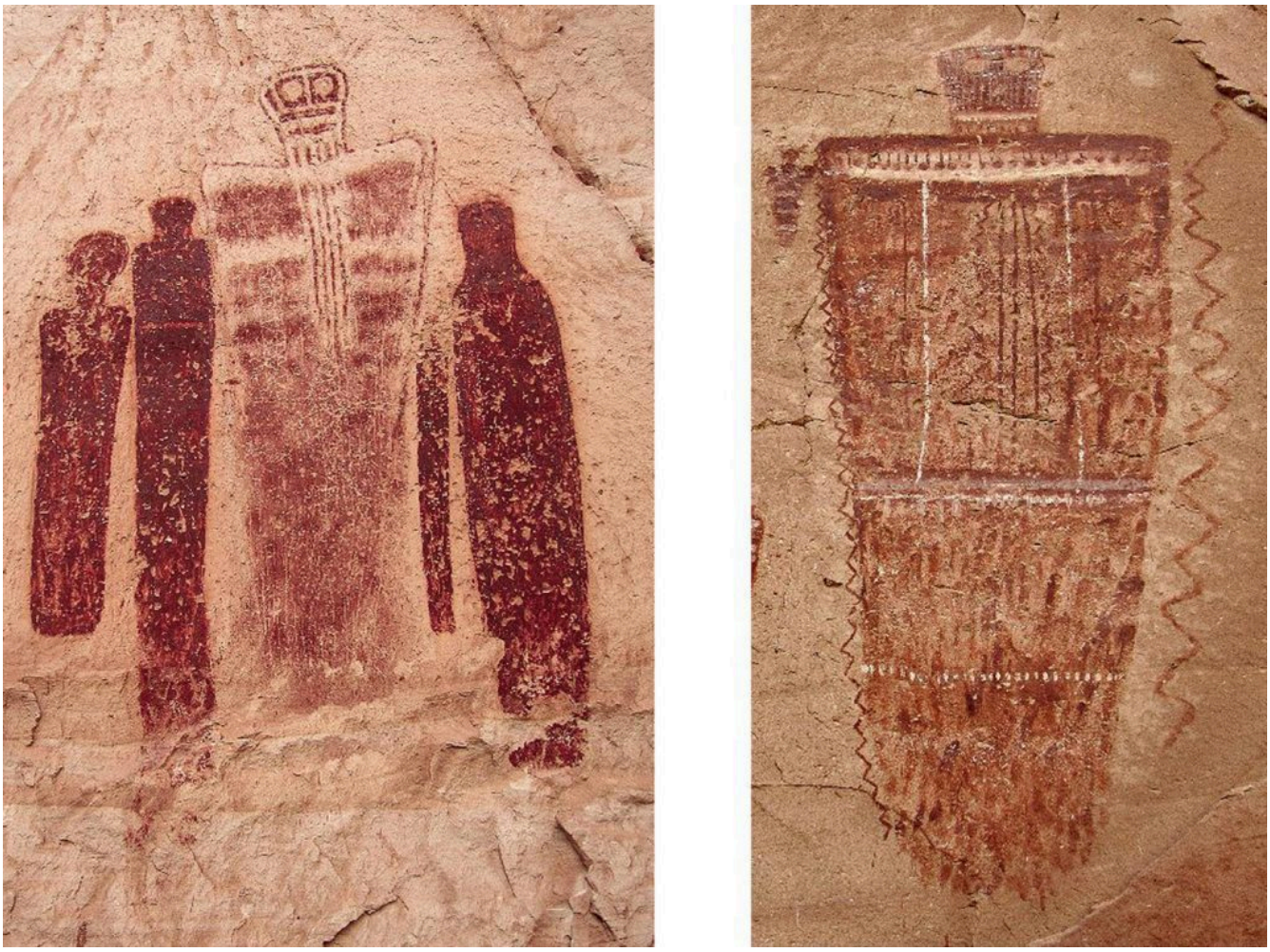

Figure 2.6. Figures of the Great Gallery (cf. Fig. 2.3).
Left: Central figures of the Holy Ghost Panel (cf. Figure 2.4).
Right: Figure located along the same Great Gallery canyon wall (cf. Figure 3) approximately 50 feet to the right of the Holy Ghost Panel. Note the small-scale figure in the same BCS Style at the (viewer's) left shoulder. Note the "waterfall" elements adorning the torsos of both large figures, and the vertical, zigzag serpents flanking the right figure.
Photos by James Farmer, 2007; all rights reserved.

Figure 2.7. Section of a large painted panel with at least four possible "Thunderstorm God" figures, Sego Canyon, Thompson Wash Rock Art District, Utah. Left-hand figure is c.4 feet tall. Note at least four vertical serpent/lightning motifs, and two figures displaying the "waterfall" motif.
Photo by James Farmer, 2017; all rights reserved.

Figure 2.8.
Left: BCS Style composition, San Rafael Swell, Utah, c.1000 BCE; overall height approximately 10 feet. At least seven anthropomorphs, three of which are clearly Thunderstorm God images, 15 animals or composite figures, including two vertical serpents, and numerous geometric motifs, including a rainbow, are presented in this complex composition.
Right: Detail from upper left, "Thunderstorm God" figure, c.30" tall. Note the linear "Waterfall" motif on the torso and fingers suggesting a gesture to create rain or waterfalls and the associated water streaking on the canyon wall. A bird in flight retreats from the waving hands. The figure is rendered with a distinctly three-quarter view of the head and upper torso (note the offset "antennae" and legs), as if frozen in motion while turning in or emerging from space to face the viewer as it engages in the gesture. This a rare example of a BCS Style anthropomorph depicted in such a dynamically rendered posture. The "antennae" (or possibly feathers) are rare appendages on BCS Style "Thunderstorm Gods", but do occur more frequently on other BCS Style figures. Photos by James Farmer, 2011; all rights reserved.

In 2007, I became Director of the BCS Project, a non-profit project based in Utah, established in 1992 and dedicated to creating a photographic database

of all BCS Style rock art sites and imagery throughout the region, the vast majority of which is previously undocumented (BCS Project). Some readers may be familiar with one of the more famous examples of the BCS Style, known as the *Great Gallery* located in Horseshoe Canyon in a section of Canyonlands National Park, Utah (Figure 2.3). The *Great Gallery* consists of a series of over 200 figures ranging in size between c.1/2" and 7 feet, extending along a 200 foot section of sandstone wall. The figures are loosely grouped into about 20 discreet compositions, or "panels", the most famous of which is known as the Holy Ghost Panel, frequently reproduced and cited in discussions of this style (Figure 2.4). Schaafsma first defined the style based on only 19 documented BCS style sites throughout the region (including the Great Gallery), an extremely small number of sites, leaving any sort of general interpretations somewhat speculative. However, by 2020, as a result of the BCS Project, the number of documented BCS Style sites throughout the region now exceeds 400, containing several thousand figurative and non-figurative elements. As a result of this vastly expanded inventory, more sophisticated and insightful interpretations are now possible.

BCS Style compositions typically occur on the vertical sandstone walls or in recessed alcoves of the dramatic canyons and drainages that define the southern Utah landscape. Many reasons influenced specific site locations, but one important reason is the fact that many locations exhibit dramatic geologic and climatic activities that actively alter the surrounding landscape. The local sandstone is relatively soft and highly susceptible to erosion and breakage, especially to wind and water, resulting in visually powerful settings and surfaces for rock art imagery (Figure 2.4). Such intense geologic and climatic vitality invests the region with overwhelming vistas of dramatic landscapes formed and being formed by powerful natural processes, vistas that inspire modern viewers and, no doubt, inspired the ancient inhabitants as well.

Many BCS Style panels display close visual awareness and interaction with the immediate rock surface and associated erosion features, frequently accommodating such features into the composition. The sandstone and its ongoing alterations become an active design element of the painted imagery. This often creates a perceived dimension of direct physical interaction between the viewer, the imagery, and the location, which further heightens a sense of

"spirituality" frequently ascribed to BCS Style imagery. This effect is often enhanced by clear visual evidence in several scenes of the intentional depiction of spatial recession, or illusionistic 3-dimensional space. This assertion is *not* just the product of a visual or configurational interpretation; recent studies by Hampson (2016), Loubser (2006), and Whitley (2000), discuss the wide-spread shamanic belief that the canyon wall served as a pictorial "ground" indicating the sacred nature of the location, in that the solid wall is actually perceived as a spiritual membrane or portal through which supernatural entities move between the earthly and supernatural realms (i.e. 3-dimensional space extending beyond the canyon wall).

The compositional sophistication of BCS Style imagery is complemented by equally sophisticated technical aspects of the paintings. The larger, deep red-hued anthropomorphs required substantial amounts of paint mixed from natural materials readily available in the landscape, especially red iron-oxide pigment. Some large figures exceed six feet in height and nearly three feet in width, covering approximately 15 square feet of rock surface. In such instances, the pigment often approaches 1/8 inch thick in some areas. In addition to pigment, paint requires adhesive qualities to bind to its ground, so emollients and binders must be prepared in adequate quantity. And a reliable water source is required, to not only support the basic subsistence needs of the people, but to service such artistic production. A large, multi-figure BCS Style composition at a single site may contain hundreds of individual figures. The production alone of the necessary paint for these images (a need shared by other similar large-scale painting traditions such as the Pecos River Style) was no small task, especially for non-sedentary, migratory hunter-gathers who produced little else in the way of material culture.

Application techniques were equally as complex. While the larger visually "eye-popping" BCS Style anthropomorphs tend to dominate most scholarly work on the style (and garner the most "oohs" and "ahhs" from the casual viewer; re: Figure 2.4.), BCS artists actually produced figures across a wide range in scale, from the six-foot plus anthropomorphs to a wide variety of animal figures no more than 1/2 inch high. These miniscule figures require the viewer to place his/her face within just a few inches of the rock surface to even discern the figures, in contrast to the prerequisite greater distance, often a

matter of many feet or yards (or more) to adequately perceive and comprehend the larger figures (cf. Morales, Jr., this volume, Figure 4.10). When combined with the matter of the natural rock surface visually functioning as part of the composition, discussed above, the experience of viewing a BCS Style painting is no passive event; it is a dynamic, physically engaging experience involving motion, time passage, spatial illusionism, and constant visual adjustment.

To create such wide variations in scale and perception, the artists employed the widest possible array of application techniques. Close scrutiny of individual painted elements across the entire inventory of BCS Style images reveals clear evidence of pigment being applied in large quantities via finger painting, direct smearing of handfuls of paint, large tufts or pads of animal skin or fur, or large "brushes" of plant fiber or leaves. Smaller, medium-sized brushes made of small branches, twigs, or plant stalks, probably similar to historically documented examples from early Puebloan communities, were used for smaller-scale figures and elements between one and three feet tall. At the smallest end of the scale, the miniscule animal figures, which contain some of the most articulate and extremely small details ("body adornments," "dripping liquids," or tiny linear serpents and birds), were painted with extraordinarily small implements. Brushes consisting of no more than two or three individual filaments (hairs), probably similar to those made from thin stalks of yucca leaves used by modern and historic Pueblo potters to create intimate details on vessel surfaces, were clearly used (cf. Figures 2.9, 2.10). A small wooden or bone "stylus" usually less than 1/8 inch thick with a small dab of pigment on the end was sometimes used to punch or tap rows of dots. Such small and intricately detailed BCS figures required a different quality of paint from that used on the larger anthropomorphs, and an extremely steady hand on the part of the artist, in contrast to the long, full length arm gestures and broad strokes required for the larger figures. The paint was thinner and more fluid, requiring a delicate, almost calligraphic touch reminiscent of the techniques of early Northern European Renaissance artists working with oil-based paints (not to mention extraordinarily good eyesight!). Indeed some type of arm or wrist support resembling the Renaissance *mahl* stick may have been employed for these tiny images. And, beyond directly applied techniques, paint was also splattered, thrown, and apparently spit, and many painted figures were subsequently altered by the use of sharpened or spade-shaped stone or bone implements to

scrape or scratch away lines and rows of pigment to reveal the natural original rock tone below the pigment, adding texture and a sort of positive/negative reversal to the surface. BCS Style rock art panels are indeed quite sophisticated "paintings."

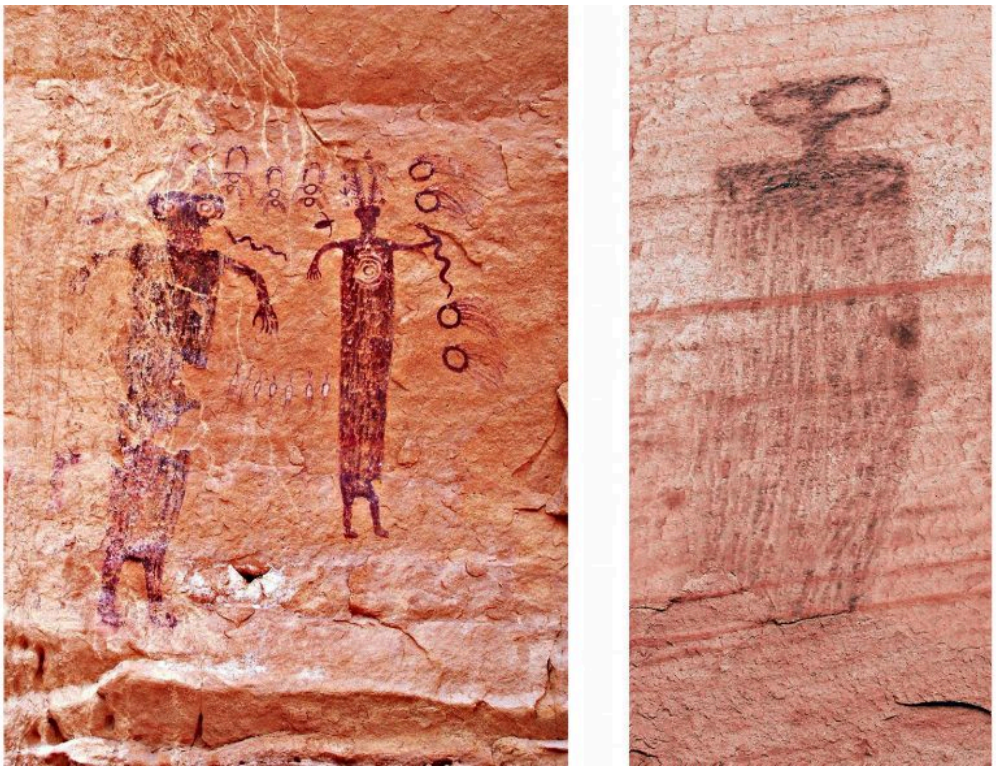

Figure 2.9.
Left: Head of Sinbad Canyon, near Green River, Utah. Images occur on a vertical canyon wall, approximately 15 feet above current ground level. Large figures are c.3 and 4 feet tall. Note direct engagement of figures with white calcium carbonate water stains at left naturally deposited by waterfall runoff. (cf. Figure 2.5).
Right: Bartlett Flat, near Moab, Utah. Note the extensive "waterfall" vertical lines comprising the entire lower torso. Close scrutiny of the torso reveals that these lines are actually a combination of dozens of painted vertical lines which have then been carved or incised over with a series of vertical engraved lines. Close scrutiny also suggests that the figure may actually consist of a "Rain Cloud" band (the shoulders) with falling rain below, and a goggled-eyed head emerging from the top (anthropomorphic transformation in the act?!).
Photos by James Farmer, 2007; all rights reserved.

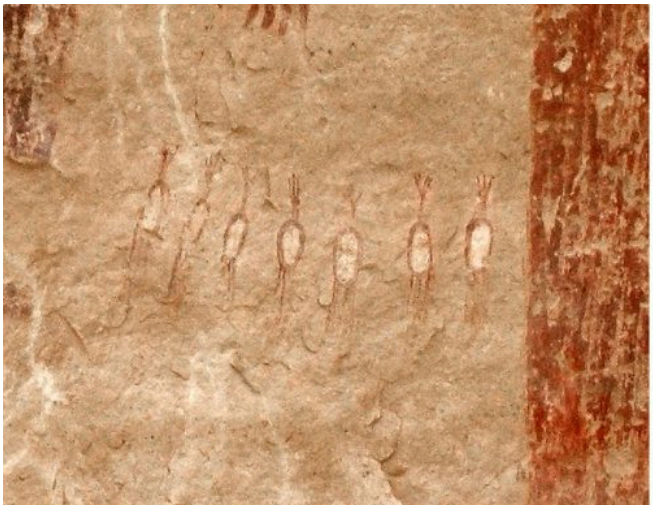

Figure 2.10. Left: Detail of central section of Figure 9-left, depicting a herd of pronghorn antelope retreating away from the viewer (right.). Each painted antelope is c. 1.5 inches tall. When viewed within the entire composition in Figure 2.9: left, a powerful illusion of a 3-dimensional landscape occurs, rather than a flat canyon wall.
Photos by James Farmer, 2007; all rights reserved.

The BCS "Thunderstorm God" Iconographic Complex

In recent years, I have isolated and identified a distinct cluster of apparently iconographically-related figures and elements in many BCS Style compositions that recur throughout the region in more or less consistent associations. I have named this cluster the Thunderstorm God Iconographic Complex (Farmer 2017a, 2017b, 2018a). I have identified at least 20 distinct rock art panels exhibiting elements of this complex across the region. Using historic Puebloan ethnographies alone (Olsen; Patterson), which of course implicitly asserts some cultural continuity, I can assign more specific meanings to several common BCS Style elements in this complex (Figures 2.4 – 2.13):

1. A frontal upright anthropomorph with exaggerated eyes ("Goggle-eyes"), typically accompanied by linear elements identifiable as *atlatl* darts or arrows, serpents, plant stalks, or lightning bolts, held or

displayed vertically next to the figure. Anthropomorphs range in height from c.6" to over 6 feet in height.

2. Individual linear elements rendered either vertically or horizontally and typically in zigzag form that clearly depict a serpent; some of these include additional elements of feathers, claws, or horns. These serpents usually appear to be free-floating within the overall composition. When depicted vertically, Puebloan ethnographies consistently identify these as symbols of water serpents, darts or arrows, or lightning. When depicted horizontally, they symbolize serpents or fast-flowing water, such as rivers, streams or flash floods. These serpents can range up to 20 feet in length, occasionally functioning as framing elements for an entire composition.
3. A distinctive abstract element consisting of a horizontal band or elongated rectangle of solid color (usually red) across the upper portion of the composition; again, these can measure up to 12 feet long. Some examples have a serrated or knobby top edge. These bands are typically accompanied by a series of vertical lines, sometimes so dense and numerous they resemble a curtain or screen, other times descending from the bottom into the composition. Occasionally, similar vertical lines descend from outspread hands of the anthropomorph, or appear on the torso, apparently as a form of body adornment. Puebloan ethnographies consistently identify this element as a rain or storm cloud with falling water below; this falling water may be rain or waterfalls, a common effect of thunderstorms in this canyon country where many BCS Style sites are located (cf. Figures 2.4 – 2.13).
4. Upward arching semicircular arcs, consisting internally of a series of nested bands, also usually arching above the main composition, substituting for the above "rain" band. Universally identified in Puebloan ethnographies as a "rainbow."

Figure 2.11. Seven Mile Canyon near Moab, Utah. c. 1000 BCE. Largest anthropomorph is c.5 feet tall. Note the large "Rain Cloud" above with falling water below, and similar falling water elements decorating the torsos of the two anthropomorprhs and, a horizontal serpent above the head of the left figure, and a vertical serpent to the (viewer's) right of the right figure. Photo by James Farmer, 2007; all rights reserved.

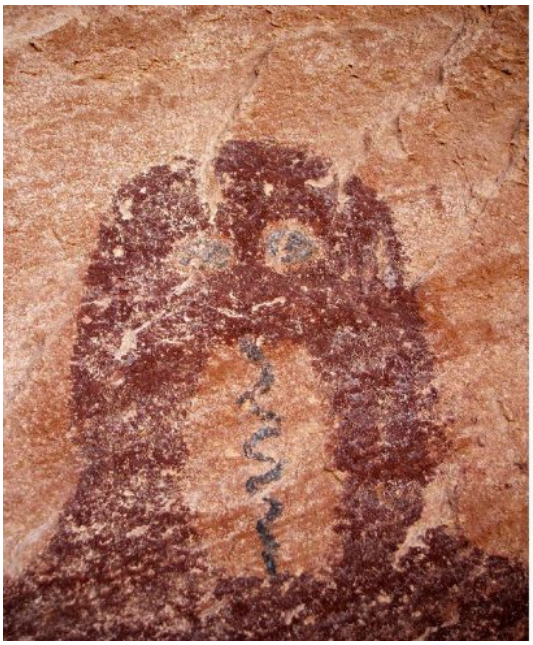

Figure 2.12. Details of Figure 2.11.
Left: Head of the right-hand figure. Note the exaggerated "goggle" eyes with green pupils, and the green lightning bolt/serpent in the mouth. Throughout both the Puebloan and Mesoamerican worlds, shades of green and blue are symbolically associated with water, fertility, and creation (Miller, this volume, page 2), and the image of a serpent in the mouth recalls historic photographs of the Hopi Snake Dance, traditionally performed in late summer to encourage seasonal rain storms, in which priests display snakes carried in their mouths (Frigout 1979: Fig. 14).
Right: Head of the horizontal serpent. Note the green "necklace" and stripes, perhaps indicating water.
Photos by James Farmer, 2007; all rights reserved.

Figure 2.13. Buckhorn Wash, Utah. c. 1000 BCE. Central anthropomorph is c. 4 feet tall. Note the "waterfalls" flowing from the upraised hands and feet of the central and right-hand figures, and the "rainbow" arching above the right-hand figure. A zigzag vertical serpent overlaps the upraised (viewer's) left arm of the central figure, and a similar zigzag serpent (difficult to distinguish) descends below the right armpit (viewer left) of the right-hand figure.
Photo by James Farmer, 2011; all rights reserved.

Having defined this complex, I realized that the elements articulated above generally match many of the major iconographic elements associated with two major, related deities in ancient and historic Southwestern and Mesoamerican thought: *Sotuknangu*, a principal Hopi god of creation, and its Aztec / Nahuatl equivalent, *Tlaloc*, the same goggle-eyed Aztec Rain God previously identified with early BCS Style images.

The major iconographic elements and associations for both the Aztec *Tlaloc* and Hopi *Sotuknangu* are well documented, and require no in-depth ethnographic excavation herein. Additionally, in a 1994 essay comparing Western Puebloan and Mesoamerican ideologies, M. Jane Young charts the complex iconographic parallels between major Aztec and Western Pueblo (Hopi, Zuni) deities, revealing numerous points of iconographic overlap between *Tlaloc* and *Sotuknangu* (Young 1994: 109). Similarly, a close relationship between Mesoamerican and Puebloan horned or feathered serpents has long been recognized by Schaafsma (2001). Rain God and Feathered Serpent iconographies are not mutually exclusive; *Tlaloc* and *Quetzalcoatl* share numerous iconographic features (at least according to Young). Images of *Tlaloc* are well-familiar to Mesoamerican specialists and non-specialists alike; it is one of the most often-depicted entities in Mesoamerican art (Figure 2.14), and widely exploited in modern times. Conversely, and perhaps ironically, depictions of *Sotuknangu* are extremely rare. The most common depictions of *Sotuknangu* are found in symbolic ceremonial costumes associated with historic Pueblo ceremonies, and small carved figurines placed around modern ceremonial altars, or produced for a modern commercial market. Admittedly, these recent historic versions bear little stylistic resemblance to the BCS Style figures under consideration, but they are very much the products of heavy influence from a variety of different "foreign" cultures and processes since the 16th century.

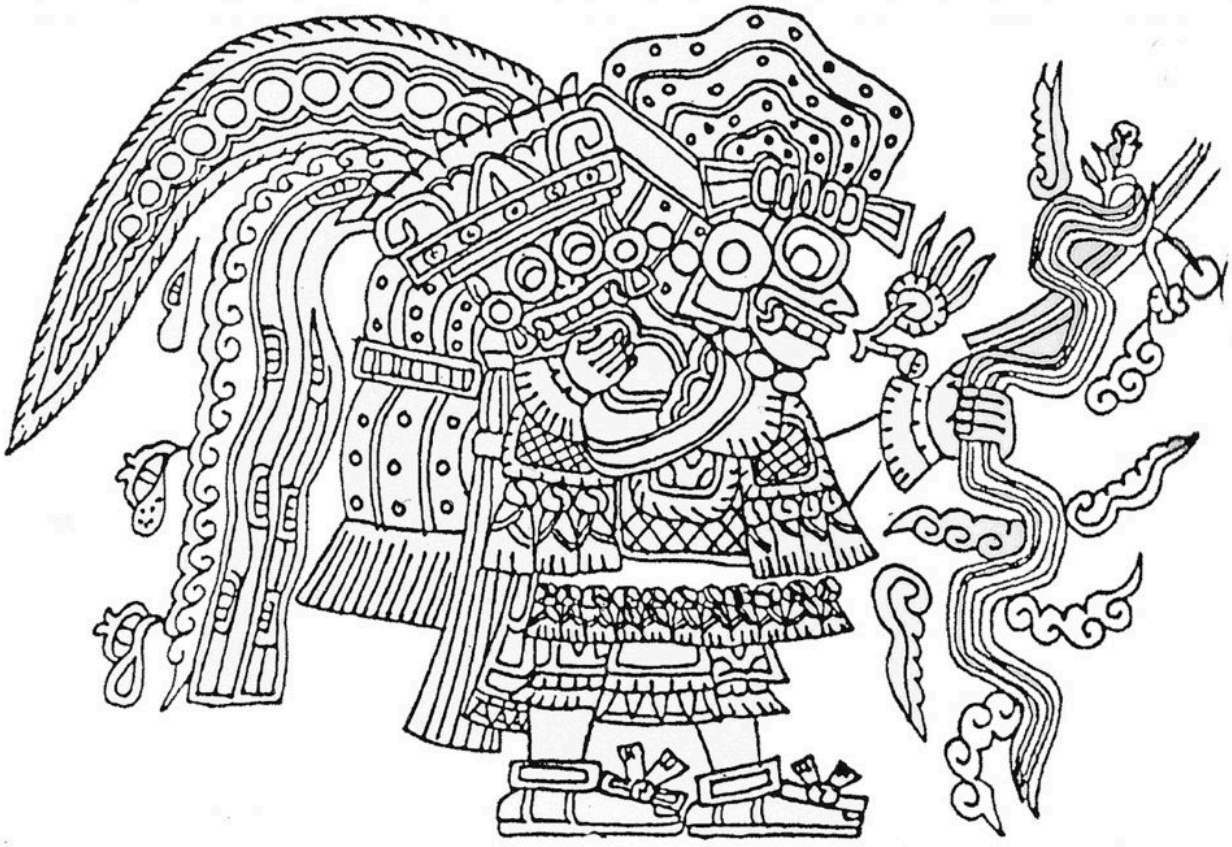

Figure 2.14. Tlaloc Priest, possibly from Techinantitla residential compound, Teotihuacan, Mexico. Drawing of a polychrome fresco mural fragment, c. 500 CE. The figure wears a Tlaloc "goggle-eyes" mask, displays a lightning bolt in its outstretched left hand, and holds a Tlaloc censer in his cupped right hand.
Redrawn by James Farmer from Berrin 1988: Figure VI.18, p. 190.

Elements and Associations:	Aztec, *Tlaloc*,[1] c. 1400 CE-present	Pueblo, *Sotuknangu*,[2] c. 1500 CE-present	BCS Style Thunderstorm God, c.1000 BCE
Exaggerated Eyes	X	?	X
Prominent Upper Fangs	X	?	
Lightning Bolts	X	X	X
Serpents	X	X	X
Atlatls, Darts or Arrows	X	?	X
Sky or Clouds	X	X	X
Rain or Thunderstorms	X	X	X
Running Water	X	?	X
Rainbow			X
Fertility	X	X	X
Warfare	X	X	
Agriculture	X	X	

1. Nicholson 1971:408-foldout; Miller and Taube 1993.
2. Courlander 1982; Fewkes 1986; Loftin 1991; Olsen 1985; Page 1994; Tyler 1964; Waters 1977; and Young 1994.

Chart 2.1: Comparison of Major Aztec *Tlaloc*, Pueblo *Sotuknangu*, and BCS Thunderstorm God Iconographic Elements and Associations

Chart 2.1 presents a comparison of the basic iconographic features of *Tlaloc*, *Sotuknangu*, and the BCS Style Thunderstorm God, merely to clarify the bases for the interpretation suggested herein. The numerous ethnographic sources on Hopi myths, religion, and ceremonialism provide ample information about their creation mythology. Though different versions vary in some details, the comparisons in Chart 1 are generally accurate. I offer it simply to underscore the significance of *Sotuknangu*.

Hopi creation tales tell us that the First World was endless space. *Taiowa*, the Sun God, created his nephew *Sotuknangu* and charged him with creation of the first nine universes, the fourth of which is the one occupied by modern Hopi society. *Sotuknangu* created *Kokyangwuti*, "Spider Woman," who in turn created all life on earth, as well as knowledge, wisdom, and love. Spider Woman then created the (sometimes "war") twins, *Poqanghoya* and *Palongawhoya*, to maintain balance on earth and in the universe. Even this brief description of

Hopi creation mythology clearly reflects the importance of *Sotuknangu,* who I would assert has probably been a most significant mythic figure (god?) in Hopi and pre-Hopi culture for centuries or even millennia. Some version of such an important entity and its associated iconography must surely date well-back in time, and therefore be more susceptible to Panofsky's "disjunction between form and meaning."

One critical issue is the lack of reasonably fixed dates for the BCS Style. If the BCS Thunderstorm God images generally date before c.1500 BCE, then they *predate* the Olmec fluorescence in Mesoamerica and the adoption of intensive agriculture in the Southwest, hence a lack of agricultural iconography, and probably warfare associations as well, given the lack of permanent settlements. Warfare and agricultural iconography associated with the later *Tlaloc* and *Sotuknangu* complexes may reflect the adaptation of an established fertility/creation deity to a new cultural paradigm (sedentism and intensified farming).

However, the range of some BCS Style images (including the Great Gallery) may be later in date (c. 1000 BCE to 1000 CE), thus contemporary with the early sedentary phases of Ancestral Puebloan culture and the advanced cultures of Mesoamerica (Olmec, Zapotec, Teotihuacan, Classic Maya, and perhaps even Toltec). In this case, a very different relationship will have to be defined, but such a scenario is still very much a product of the same interpretative approach.

This line of research is still in its infancy, with much work yet to do, and, admittedly, Grieder's methodology discussed here is now 50 years old, and therefore somewhat dated or perhaps superseded by more recent theoretical advances in art historical scholarship. But the progress achieved so far, at the very least, suggests further avenues of investigation. I offer these speculations at this point only as a premise for such continued investigation, but the implications seem large. The ancestral origins of modern Puebloan societies, including Hopi, are generally dated to c. 2000-1500 BCE. Do BCS Style Thunderstorm Gods indicate even substantially deeper cultural and religious roots in the antiquity of the region? Is it feasible to conceive of the BCS Style Thunderstorm God as a very early manifestation of the same entity that eventually evolves into the Pueblo god *Sotuknangu*, or the Aztec god *Tlaloc*? The interpretive method championed by Grieder in his early scholarship at

least allows us to ask such questions, and search for answers based on rational, grounded research and critical analysis of available data, rather than romantically seeking some divinely-inspired Mesoamerican "Michelangelo."

I close this essay by offering one final quote by Grieder from "The Interpretation of Ancient Symbols," the statement that concluded his essay as well. If the reader has indulged me to this point, it will be most apparent that this statement not only reflects the essence of the discussion contained herein, but indeed my general adherence to its assumptions and application, my own "working methodology" as it were, at least as far as ancient rock art imagery is concerned:

> With a full catalogue of images, with the archaeological record, including ceramics, with an awareness of evidence of disjunction, and with historical and ethnographic records to provide one end of the traditions of content, we can attain reasonably good descriptions of the more recent prehistoric cultures, and at least increase the evidential base for speculation about the remote ones. (Grieder 1975: 853-54).

Notes

1. Strictly speaking, the commonly used designation "rock art" as a distinct artistic medium actually has little validity as an art historical concept. Typical "rock art" images are in fact paintings, drawings, or shallow to relatively deep relief carvings or engravings. The term "rock art" actually originated in early archaeological scholarship, but it is now so deeply entrenched in modern scholarship, that its use is retained herein. Semantic challenges to its use here are beyond both the scope and focus of this essay.

2. Anthropologist Paul Kirchhoff first coined the terms "Aridoamerica" and "Oasisamerica" to describe the combined Pre-Columbian culture areas of far northern Mexico (i.e. northern Mesoamerica) and the southwestern United States. "Oasisamerica" is generally preferred by Mexican archaeologists, whereas "Greater Southwest" is commonly used by American (United States) archaeology for the same area.

Works Cited

BCSProject, http://bcsproject.org, accessed January 19, 2021.

Berrin, Kathleen, ed.
1988 *Feathered Serpents and Flowering Trees.* San Francisco: The Fine Arts Museums of San Francisco.

Binford, Lewis R.
1962 "Archaeology as Anthropology", *American Antiquity*, Vol. 28, No. 2, pp. 217-Cambridge, England: Cambridge University Press.

Boyd, Carolyn
2016 *The White Shaman Mural: An Enduring Creation Narrative in the Rock Art of the Lower Pecos.* Austin: University of Texas Press.

Clancy, Flora
1984 "Review of *Origins of Pre-Columbian Art* by Terence Grieder", *The Americas*, Vol. 41, No. 1, pp. 132-134. Cambridge, England: Cambridge University
Press.

Coe, Michael D.
1978 *Lords of the Underworld: Masterpieces of Classic Maya Ceramics*. Princeton: Princeton University Press.

Cohen, Simona
1998 "Some Aspects of Michelangelo's Creative Process", *Artibus et Historiae*, Vol. 19, no. 37, pp. 43–63. Krakow, Poland.

Crosby, Harry W.
1975 *The Cave Paintings of Baja California: Discovering the Great Murals of an Unknown People*. San Diego: Sunbelt Publications.

Courlander, Harold
1982 *Hopi Voices: Recollections, Traditions, and Narratives of the Hopi Indians.* Albuquerque: University of New Mexico Press.

Farmer, James
2001 "Goggle Eyes and Crested Serpents of Barrier Canyon: Early Mesoamerican Iconography and the Archaic Southwest". In *The Road to Aztlan: Art From a Mythic Homeland*, pp. 124-137. Virginia M. Fields, ed. Los Angeles: Los Angeles County Museum of Art.

2008 "Thunderstorm Iconography and Site Locations in the Barrier Canyon Style", *Papers from the Utah Rock Art Research Association Annual Symposium*, Salt Lake City: Utah Rock Art Research Association.

2017a "God Before Corn: Rock Art and the Origins of a Pre-Agriculture Thunderstorm God in Ancient America", paper presented at the Society for American Archaeology Annual Conference, Vancouver, Canada.

2017b "Before Corn: "*Sotuknangu*" and the Origins of the Gods in Archaic America", paper presented at the Utah Rock Art Research Association Annual Symposium, Green River, Utah.

2018a "*Tlaloc*, *Sotuknangu*, and the Origins of the Gods in Ancient America: The Case of Barrier Canyon Rock Art", paper presented to the Precolumbian Society of Washington D.C. Annual Meeting, Washington D.C.

2018b *The White Shaman Mural: An Enduring Creation Narrative in the Rock Art of the Lower Pecos,* College Art Association Book Reviews. http://www.caareviews.org/reviews/3239#.YAUIzBZ7mgg. Accessed 17 Jan. 2021

Fewkes, J. Walker.
1986 *Hopi Snake Ceremonies*. Albuquerque, New Mexico: Avanyu Publishing Inc. (Republication of Bureau of American Ethnology Annual Report Nos. 16: 1894–1895, and 19: 1897–1898).

Frigout, Arlette
1979 "Hopi Ceremonial Organization". In *Handbook of North American Indians, Vol. 9, Southwest*. William Sturtevant, Gen. ed.; Alfonso Ortiz, Vol. ed., Washington D.C., Smithsonian Institution, pp. 564-576, Fig. 14.

Gebhard, David
1960 *Prehistoric Paintings of the Diablo Region – A Preliminary Report*. Roswell, New Mexico: Roswell Museum and Art Center, Publications in Art and Science, No. 3.

Grieder, Terence
1960 "Manifestaciones de Arte Maya en La Region de Petexbatun". *Antropologia e Historia de Guatemala,* Vol.12, No. 2, pp. 10-24. Guatemala: Ministerio de Educación Pública, Instituto de Antropologia e Historia de Guatemala.

1962 *The Development of Representational Painting on Pottery of the Central Maya Lowlands During the Proto-Classic and Classic Periods.* PhD dissertation, Philadelphia: University of Pennsylvania.

1964 "Representation of Space and Form in Maya Painting on Pottery", *American Antiquity*, Vol. 29, No. 4, pp. 442-448. Cambridge, England: Cambridge University Press.

1966 "Periods in Pecos Style Pictographs", *American Antiquity*, Vol. 31, No. 5, Part 1, 710-720. Cambridge, England: Cambridge University Press.

1975 "The Interpretation of Ancient Symbols." *American Anthropologist 77* (4): 849–55.

1978 *The Art and Archaeology of Pashash,* Austin: University of Texas Press.

1982 *Origins of Pre-Columbian Art*. Austin: University of Texas Press.

1986 "Recording and Interpreting Lower Pecos Pictographs", in *Ancient Texans: Rock Art and Lifeways Along the Lower Pecos.* Harry J. Shafer, ed. San Antonio: Witte Museum of the San Antonio Museum Association, pp. 176-179.

Hampson, Jamie
2016 "Embodiment, Transformation and Ideology in the Rock Art of Trans-Pecos Texas", *Cambridge Archaeological Journal*, No. 26: 217-241; doi:10.1017/S0959774315000505.

Janetski, Joel C. and Richard K. Talbot
2014 "Fremont Social Organization: A Southwestern Perspective". *In Archaeology in the Great Basin and Southwest, Papers in Honor of Don D. Fowler*, pp. 118-129. Nancy J. Parezo and Joel C Janetski, eds. Salt Lake City, Utah: University of Utah Press.

Keener, Katherine
2019 "Must see – Exhibitions, Michelangelo: Mind of the Master", *Art Critique*, online journal, Paris, France. https://www.art-critique.com/en/2019/09/exhibition-of-drawings-by-michelanglo/. Accessed 17 Jan. 2021.

Kubler, George
1970 "Period, Style and Meaning in Ancient American Art." *New Literary History*, 1(2): 127–44. https://doi.org/10.2307/468624.

Lekson, Stephen H.
2008 *A History of the Ancient Southwest*. Santa Fe: School for Advanced Research Press.

Liponi, Don, et al.
2016 *La Rumorosa Rock Art Along the Border: A Survey of Kumeyaay and Related Artwork in Southern California, Colorado River Corridor, Western Arizona and Baja California, Vol. 1.* Louisville, Kentucky: Four Colours Print Group.

Loftin, John D.
1991 *Religion and Hopi Life in the Twentieth Century.* Bloomington & Indianapolis: Indiana University Press.

López Austin, Alfredo and Leonardo López Luján
2001 *Mexico's Indigenous Past*. Norman: University of Oklahoma Press.

Loubser, J.H.N.
2006 "Rock art, Physical Setting, and Ethnographic Context". In *Talking With the Past: The Ethnography of Rock Art*, pp. 225–48. J.D. Keyser, et al., eds. Portland: Oregon Archaeological Society Publications.

Merriam-Webster Dictionary
2021 Merriam-Webster Online Dictionary, https://www.merriam-webster.com/dictionary/create. Accessed 17 Jan. 2021.

Miller, Mary and Karl Taube
1993 *An Illustrated Dictionary of The Ancient Gods and Symbols of Ancient Mexico and the Maya.* London: Thames and Hudson, Ltd, p.166.

Morss, Noel
1931 *The Ancient Culture of the Fremont River in Utah, Report of the Explorations of the Claflin-Emerson Fund, 1928-1929.* Cambridge, Massachusetts: Papers of the Peabody Museum of American Archaeology, Vol. XII, no. 3.

Nicholson, Henry B.,
1971 "Religion in Pre-Hispanic Central Mexico". In *Handbook of Middle American Indians, Vol. 10*, Robert Wauchope, General Editor. Austin: University of Texas Press.

Olsen Nancy H.
1985 *Hovenweep Rock Art: An Anasazi Visual Communication System, Occasional Paper 14*. Los Angeles: Institute of Archaeology, University of California.

Page, Susanne and Jake Page.
1994 *Hopi*. New York: Harry Abrams.

Patterson, Alex
1992 *A Field Guide to Rock Art Symbols of the Greater Southwest*. Boulder, Colorado: Johnson Books.

Proskouriakoff, Tatiana
1960 "Historical Implications of a Pattern of Dates at Piedras Negras, Guatemala", *American Antiquity*, Vol. 25, No. 4, pp. 454-475. Cambridge, England: Cambridge University Press.

1963 "Historical Data in the Inscriptions of Yaxchilan, Part 1", *Estudios de Cultura Maya, Vol. III.* Mexico City: Universidad Nacional Autónoma de México.

1964 "Historical Data in the Inscriptions of Yaxchilan, Part 2", *Estudios de Cultura Maya. Vol. IV.* Mexico City: Universidad Nacional Autónoma de México.

Schaafsma, Polly
1971 *The Rock Art of Utah: From the Donald Scott Collection*. Boston: Peabody Museum of Archaeology and Ethnology, Harvard University.

1980 *Indian Rock Art of the Southwest*. Albuquerque, New Mexico: School of America Research Southwest Indian Arts Series.

1999 "Tlalocs, Kachinas, Sacred Bundles, and Related Symbolism in the Southwest and Mesoamerica". In *The Casas Grandes World* , pp. 164-192. Curtis F. Schaafsma and Carroll L. Riley, eds., Salt Lake City: University of Utah Press.

2001 "Quetzalcoatl and the Horned and Feathered Serpent of the Southwest". In *The Road to Aztlan: Art From a Mythic Homeland*, pp. 138-149. Virginia M. Fields, ed. Los Angeles: Los Angeles County Museum of Art.

Shafer, Harry J.
1986 *Ancient Texans: Rock Art and Lifeways Along the Lower Pecos.* San Antonio: Witte Museum of the San Antonio Museum Association.

Smith, Michael E.
2010 "Trading Patterns, Ancient American". In *Berkshire Encyclopedia of World History, 2nd Edition*,pp. 2533-2538. Great Barrington, MA: Berkshire Publishing Group LLC.

Smith, Robert Eliot
1955 *Ceramic Sequence at Uaxactun, Guatemala*. New Orleans: Middle American Research Institute, Tulane University.

Stokstad, Marilyn and Michael W. Cothren
2020 *Art: A Brief History, Seventh Edition*. United States: Pearson Education.

Sorensen, Lee, ed.
2021 "Kubler, George." Dictionary of Art Historians (website). https://arthistorians.info/kublerg.

Moholy-Nagi, Hattula

2012 *Historical Archaeology at Tikal, Guatemala, Tikal Report No. 37* (Series Editors William A. Haviland and Christopher Jones). Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology.

Tyler, Hamilton
1964 *Pueblo Gods and Myths*. Norman: University of Oklahoma Press.

Waters, Frank
1977 *Book of the Hopi*. New York: Penguin Books.

Whitley, David
2000 *Art of the Shaman*, First Edition. Salt Lake City; University of Utah Press.

Wyndham, Felice.
2011 "The Semiotics of Powerful Places: Rock Art and Landscape Relations in the Sierra Tarahumara, Mexico", *Journal of Anthropological Research*, Vol. 67, No. 3: pp. 387-420. Albuquerque: University of New Mexico Press.

Young, M. Jane
1994 "The Interconnection Between Western Puebloan and Mesoamerican Ideology / Cosmology". In *Kachinas in the Pueblo World*, Polly Schaafsma, ed., pp. 107-120. Albuquerque: University of New Mexico Press.

3

THE SHAPE OF PLACE: THE LOWER PECOS CANYONLANDS AS A *CHICOMOZTOC*?

Carolyn E. Tate

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"That is the essence of science:
Ask an impertinent question, and you are on the way to a pertinent answer."
– J. Bronowski, *The Ascent of Man*, BBC series, 1973

In the Art Appreciation classes he taught at the University of Texas in the mid-1980's, Terence Grieder often quoted Jacob Bronowski's insistent focus on open-minded inquiry while dangling his legs off the edge of the stage in the vast lecture hall. By getting physically closer to students, he meant to disarm them, to embolden them to feel excited by the fascinating artworks he showed them

each day. By making it clear that "your question is probably more important than your answer," as he would say, he inspired me, his Teaching Assistant and graduate student, and probably many others whom he captivated, to challenge established ideas and to fear no question. For that reason, questions structure this chapter. They are meant to guide us as we consider how two quite disparate phenomena – Nahua pictography and Archaic rock paintings from the Lower Pecos Canyonlands – might be related.

Could Nahua images of *Chicomoztoc*, their legendary place of origin, relate to a symbol made 3,000 years earlier and over 1,500 kilometers away in a place that was regarded as primordial even then? This paper looks at toponymic signs as a way to explore possible interaction between Archaic Period pictographs of the Lower Pecos Canyonlands on the Texas – Mexico border (called Pecos River Style pictographs) and several Mesoamerican cultures. While it doesn't deny the obvious connections between Pecos River Style pictographs and motifs in rock art traditions of the western United States and northwestern Mexico, it aims to share the parallels the author, a Mesoamericanist, sees and to encourage broader contextualization of the Mesoamerican phenomenon. In conducting this far-reaching study, we will explore several cultural moments in which a similar toponymic sign occurred, briefly considering how the new cultural contexts modified the form and meaning of the sign.

When and Where were Mesoamerica's Early Toponyms?

Toponymic signs were among the first to appear in Mesoamerican pictorial writing and iconographic symbol systems and they occurred among different cultures (Houston 286). Around 150 BCE, signs for conquered places were incised on slabs at Monte Alban. At Teotihuacan, paintings of flowering trees emerging from variable elements like "mask-step" or "yellow platform" served to signal places (Pasztory 161) around 300 CE (Magaloni 175), and toponyms appeared in other contexts as well (Taube 2011; Helmke and Nielsen). It's possible that earlier, the Olmec people of La Venta used the elongated *quincunx* as a self-referential place sign (Benson 1971: 29; Tate 186) by around 800 BCE (ibid: 143). Moving to later periods, toponymic signs featured prominently in

Mixtec and Nahua manuscripts in the Post-Classic and into the Post-Conquest era.

One of these, the Aztec sign for *Chicomoztoc*, a primordial place from which the ancestors of Nahuatl speakers emerged, bears a significant resemblance to a sign prominent in the Pecos River Style pictographs of the Lower Pecos region on the modern-day border between Texas and Mexico (Figure 3.1). This study proposes that the pictograph artists of the Lower Pecos region developed a toponymic sign referring to the unusual region called Lower Pecos Canyonlands as early as 1700 BCE (the "crenelated arch") and continued using it in paintings as late as 400 CE. Additionally, it explores the possibility that Mesoamericans, including the Nahua, journeyed to the Lower Pecos Canyonlands and returned home with memories of a sacred *rinconada* — a generative place where waters gushed forth, ancestors dwelled in the alcoves of the canyons, and primordial power resided.

How do Mesoamerican toponyms enter into a conversation about the pictographs of the Lower Pecos? Because, although we have scant archaeological evidence of direct contact between Mesoamerican groups and the Lower Pecos, the *Gran Chichimeca,* the arid region between northern Mesoamerica and the Lower Pecos, was populated by nomadic Uto-Aztecan speakers who could have relayed information to their southern cousins. Furthermore, scholars suspect that Post-Classic Mesoamerican trade routes passed through or near the Lower Pecos. And, tantalizingly, an ancient narrative recorded by Diego Durán suggests that Aztec rulers sought the birthplace of *Huitzilopochtli,* their tribal deity, in a distant *Chicomoztoc* beyond the desert.

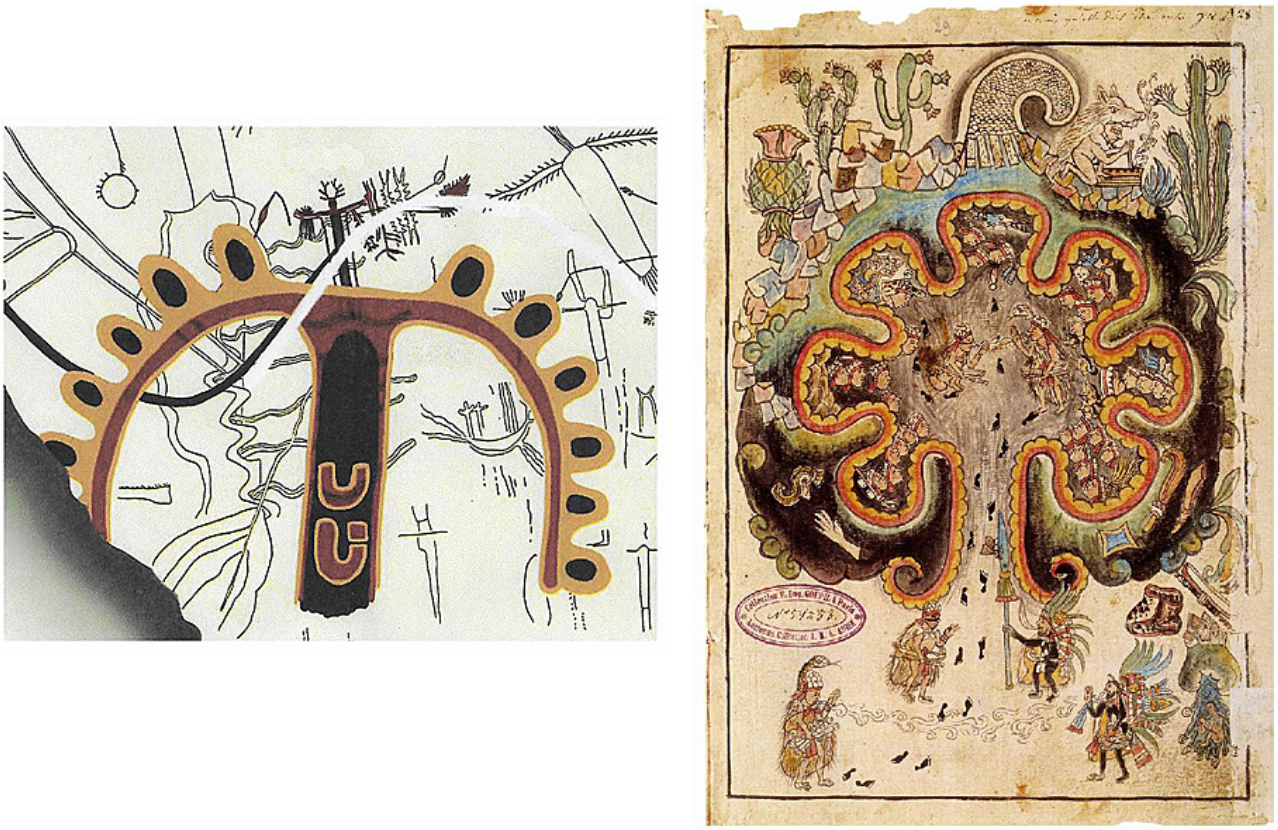


Figure 3.1. Comparison of possible Pecos River Style toponymic sign and Toltec toponymic sign.
Left: "Crenelated Arch" or the proposed toponymic sign for the Lower Pecos Canyonlands, from White Shaman rockshelter.
Drawing by Carolyn Boyd (2016: Fig. 6.11).
Right: Toltec priests lure the Chichimecs from their caves in *Chicomoztoc*. Historia Tolteca Chichimeca, f. 16r, ms 51-53.
From Liebsohn 2009.

The Lower Pecos Canyonlands (LPC)

The Lower Pecos Canyonlands is a liminal place (Figure 3.2). Approaching from the north, the steep-sided canyons are hidden as they drop down below the visible terrain. The Pecos and Devils Rivers begin to penetrate the Stockton and Edwards Plateaus in central Texas, gouging the canyons that grow deeper as the river channels empty into the Río Grande / Río Bravo. When rainstorms cross the Plateaus, torrents of water shoot over the cliffs (Figure 3.3). This hydraulic action has carved innumerable rock shelters along the canyon walls. Where these major and smaller seasonal rivers merge into the

Río Grande they have created a series of deeply undulating or serpentine bends (Figure 3.4). This series of deep bends in the Río Grande arcs northeastward as the river wraps around a great upthrust, the Serranías del Burro in Coahuila, which are an outlier of the Sierra Madre Oriental.

If one approaches the Canyonlands from northern Mexico, one must contend with the Serranías del Burro, which rises to about 6,000 feet, presenting a formidable barrier. To enter the canyonlands, one would have to go around the mountains or find the passes that thread through the rugged terrain. Once beyond the mountains, a traveler encounters a semi-arid, mostly flat, basin watered by springs that flow northward from the slopes of the Burros toward the Río Grande. Near the springs, however, which one would certainly approach for water, one might find pictographs in dry rockshelters (Turpin 23). On the north side of the Río Grande, the cliffs of the canyonlands rise, and in their river-carved rock shelters are hundreds of pictograph tableaux (Figure 3.5). The region's biology is as unusual as its terrain. Three different biotic regions – the Tamaulipan Brushlands, the Balconian, and the Trans-Pecos/ Chihuahua desert – overlap in the Canyonlands. Species from each region found that the springs, seeps, and runoff from rain offered conditions conducive to their success. This situation led to an astonishing degree of biological diversity (Blair 93-117; Poole 8-82). In the Lower Pecos Canyonlands, the rivers penetrate the thorny desert, creating a union of opposites. As we can see, the Lower Pecos Canyonlands (LPC) constitutes a peripheral and relatively hidden, semi-arid wonderland of flowing waters and an impressive variety of flora and fauna, including aquatic creatures.

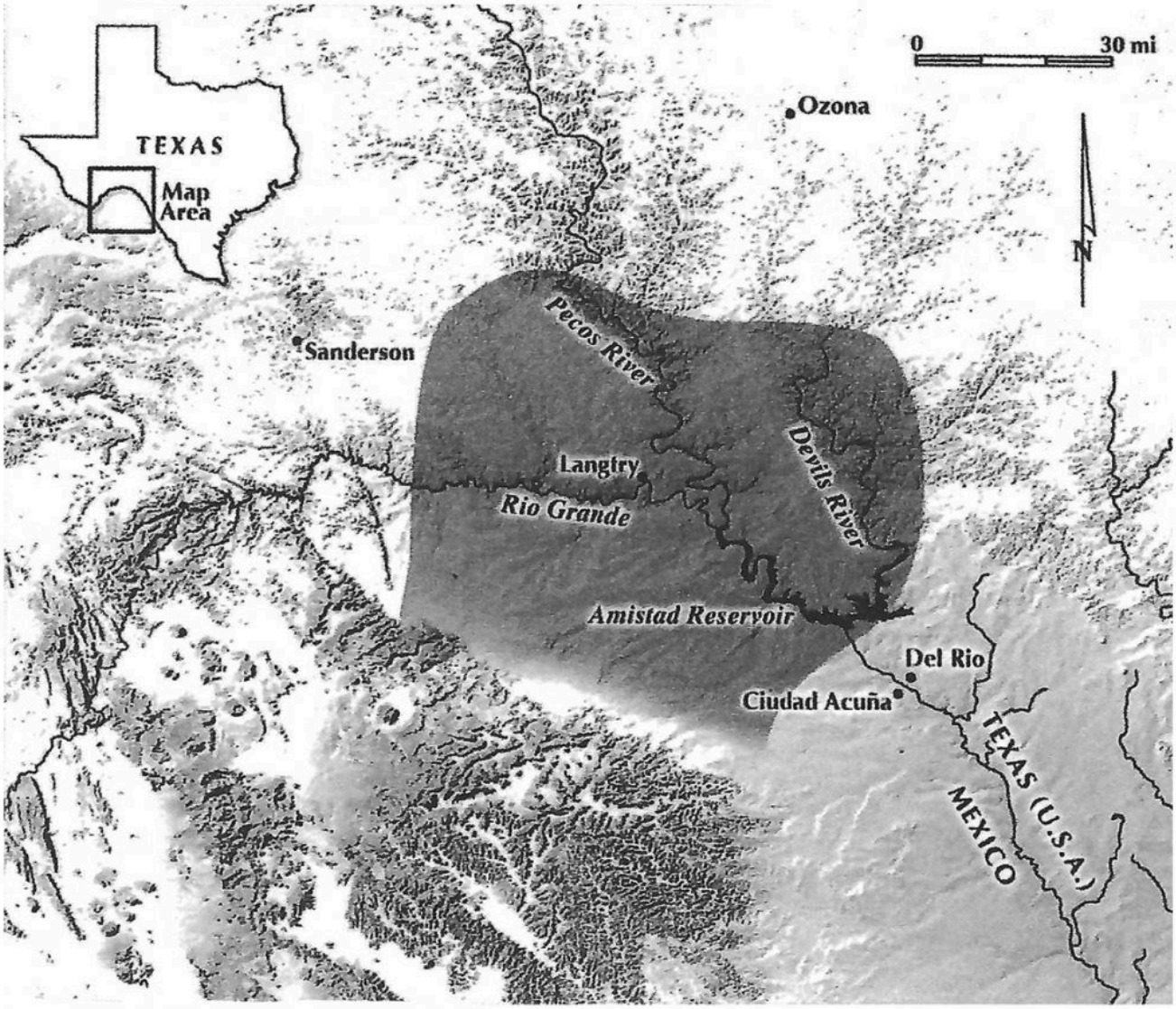


Figure 3.2. Map of the Lower Pecos Canyonlands. Pecos River Style pictographs are found in the shaded area.
Image courtesy of Shumla Archaeological Research & Education Center.

Figure 3.3. Torrential rain near Eagle Cave, Lower Pecos Canyonlands. Photo by Charles Frederick, courtesy of the Ancient Southwest Texas Project, Texas State University.

Figure 3.4. View of the Devils River Canyon, showing the deep side canyons and undulating bends.
Photo courtesy Tom. W. Stone.

Figure 3.5. View of Fate Bell rockshelter at Seminole Canyon State Park, 2016. Photo courtesy Ashley Busby.

In the 10,000 years that humans have frequented the region, their use of the LPC has fluctuated with the climate. When increased moisture allowed the grasslands of the central United States to extend southward toward the Río Grande River, Paleo-Indians drove bison over the cliffs and butchered them (Prewitt 36). Late Paleo-Indian and Early Archaic bands used the canyons from

around 8000 BCE and lived in the rock shelters beginning around 7500-7000 BCE (Shafer 2013a: 30-31). Different groups of humans came and went for thousands of years until the Middle Archaic, around 2100 BCE, when warm, dry conditions on the plains sent people to the relative oases of the canyonlands and the rivers (Ibid. 74). Beginning in the Middle Archaic and continuing into the Historic Period, humans used this region as a locale for pictographs at different times, producing them in several "styles." Based on both overlapping of paintings and radiocarbon dating, the "Pecos River Style" (Kirkland and Newcomb 37) is the most ancient, produced from around 2300 BCE to 400 CE (Boyd 2016: 24-26). Chemists at Texas A&M (Russ et al. 710-711) developed a radiocarbon dating method specifically for analyzing the organic binders that carried the inorganic pigments used at Pecos River Style sites.

Their closest stylistic affiliations are with the Barrier Canyon pictographs in Utah (Shaafsma 61-72), Abstract Style Petroglyphs of the Chihuahua Desert (Ibid: 43-47), and Archaic pictographs in Baja California. Dates for Barrier Canyon style pictographs, with their elongated anthropomorphic figures, are still disputed and many have argued that they date from the Archaic period. Recent studies refute this and suggest a range of 1 – 1100 CE (Pederson et al. 12986-12981), so consensus is lacking. They were probably made by Northern Uto-Aztecan speakers, who are known to have traveled through this area. Also, at least one of the Abstract Style Petroglyph sites of the Chihuahua Desert, Tres Ojos, which is west of the LPC and near the city of Chihuahua, contains zigzag or undulating lines. These are slightly less complex than the PRS crenelated arch and do not usually involve the emergence of an anthropomorphic figure from an arch. However, they were probably made by Archaic period hunter-gatherers, who frequently situated the petroglyphs near springs and near mountains where food sources were more varied than in the desert plains (Schaafsma 44-47). Until further scientific dating resolves the debate, Pecos River Style pictographs are as early as or predate any major body of paintings elsewhere in North America, including Mesoamerica.

Over thirty-five Pecos River Style (PRS) pictograph sites have been found among the Serranías and, on the Texas side of the border, over 320 rock shelters with PRS pictographs have been documented. Together, these form one of the most extensive corpuses of pictographs surviving in North America. There are

complex painted compositions ranging in size from a few painted figures in a small alcove to rock panels measuring over 100 feet (30.5 meters) in width and 30 feet (9.1 meters) in height, populated with hundreds of figures (Kirkland and Newcomb 31; Boyd 2013: 182).

Around 1965, Terence Grieder responded to the imminent threat of flooding of the Pecos River Style pictographs as the Amistad Dam was planned. He and David Gebhard of the University of California at Santa Barbara served on the Texas Archaeological Salvage Project, administered through the University of Texas under contract with the National Park Service. Grieder undertook a study of pictographs at forty sites and published "Periods in Pecos Style Pictographs" (1966: 710-720) based on an analysis of twelve sites. Grieder suggested that as the climate changed, the economy of those living around the Pecos River shifted from a reliance on fishing to a focus on deer hunting on the plateaus. The criteria that Grieder used to determine the order in which paint was applied at a given mural included overlapping of figures and fading of paint.

Since 1998, Shumla Archaeological Research & Education Center has used advanced technology to document these sites before the pictographs disappear. By using digital microscopy to analyze the overlapping of paint layers, portable X-ray fluorescence spectroscopy to determine the elemental composition of the paints, and 14C Plasma oxidation to refine the dates at which the paintings were made, Shumla has greatly improved the reliability of Pecos River Style chronology since Grieder's time. Instead of the shift in subject matter and style that Grieder proposed, what has emerged is a surprising consistency of style over two millennia. Some subject matter also persisted; certainly further research will find meaningful variation in subject matter over time.

The Pecos River Style (PRS)

Although Grieder called the PRS imagery "abstract" (1996:324), it was based on knowledge of human and animal forms, so perhaps it should be called

"stylized." Across hundreds of rock shelters, and probably two thousand years, artists worked in a consistent mode of representation (Figure 3.6).

All PRS anthropomorphic figures are composed of simple, elongated shapes that make no effort to represent anatomy accurately. Their consistently frontal torsos are usually slightly broader at the top, where outstretched, stick-like arms were attached, and taper toward the bottom. Simple, linear legs hang below the elongated torso. Heads may be frontal or profile, are often small relative to the torso, and mostly lack facial features. Despite these similarities, anthropomorphic figures are far from identical. The colors and patterns that decorate the interiors of the torsos differ, although in many compositions, similar figures appear, such as at White Shaman, where a black-torso figure with a red top or head repeats five times across the mural (Boyd 2016: Fig. 5.11). Most quadrupeds are shown in profile. Their stick-like legs sprang from simply-shaped bodies, to which are attached identifying elements such as horns or long tails. Compositions generally ignore indications of a tangible earth surface, such as a groundline.

Because these basic forms (elongated torsos) and principles (such as lack of groundline) were so consistent at sites throughout the Lower Pecos it is reasonable to claim that – at least to some extent — they were "conventionalized;" by which I mean that in their choice of shape, color, interior patterning, accoutrements like feathers or rabbit ears, and position relative to other figures within a composition, painters made decisions that conveyed agreed-upon meanings. This degree of intentionality in PRS pictographs is made more evident by the recent discovery made by archaeologist Carolyn Boyd (2016: 37-45) that the White Shaman panel, which measures about 26 feet wide and 13 feet high, was conceived as a single composition. She supports this claim with evidence from digital microscopy that each of the four colors found in the mural was painted separately. First, three layers of black, including dissociated dots and lines as well as interior decoration of future figures, were painted across the shelter panel. Following this event, the painter applied red paint in five layers, yellow in two layers, and white in two layers. In other words, individual figures or forms were not painted as a unit. While there may not have been a complete "cartoon" of the final image – a drawing on the earth or maybe deer hide (the binder for

the pigments at White Shaman was deer bone marrow) — there must have been some pre-conception of the images that would emerge from this layered application of paint. And, although studies are not yet complete, a similar color-layering process seems to have occurred at some other sites (Boyd, personal communication). The point of this discussion of style is that the PRS pictographs were not randomly conceived or drawn. Artists adhered to a *system* of image-making. Several design units, or "motifs" within that system (Boyd 2003: 45-81) seem to have been conventionalized symbols.

Figure 3.6. Left half of the pictograph panel at Rattlesnake Canyon, c. 50 wide x10 feet high. Note the crenelated arch in black near the lower left, and another in light red and black to its right. A third, with yellow filaments around its central hole, appears above the line of seven small figures and to the right of the prominent black-chested anthropomorph.
From Kirkland 1967: Plate 1.

Crenelated Arch: a Toponymic Sign

Among the vast corpus of PRS pictographs that have been documented are several recurring "motifs" which appear at multiple sites. Boyd (ibid. 41) defines "motif" as a repeated image composed of more than one element. One of these is the "crenelated arch" (ibid 41-42, 45-66; 2016: 67–70). This consists of an undulating line, enhanced by lines, dots, or protrusions, which creates an arcing shape (Figure 3.7). Often there is a circular void at the apex of the arch. In all cases there is an anthropomorphic figure with animal attributes that seems to be in the process of passing through the arch.

In her earlier work, Boyd (2003: 49-54) saw the undulating line as a serpent, a symbol for the earth surface, and generally discussed a shamanic context for the PRS pictographs. From that viewpoint, the anthropomorphic figure passes through a portal, for the purpose of contacting spirits or ancestors as helpers. Evidence for the "serpent-portal" comes from Huichol and Yaqui traditions, in which the serpent serves as the gateway to the world below. In a later work that focuses on the White Shaman site, which may date to as late as the first centuries CE, Boyd (2016: 67-74) draws further analogies with Huichol oral tradition, proposing that this crenelated arch corresponds to the Huichol Dawn Mountain, "the flowered destination of the pilgrims as they pursue the deer through the underworld" (Ibid. 69). At Dawn Mountain, ancestors emerged, the deer sacrificed themselves so that the sun could dawn, and so both sun and its analog peyote were born there. More generally, she considers the crenelated arch motif to refer to the "prototypical primordial mountain, the location from which all life emerged" (ibid 69).

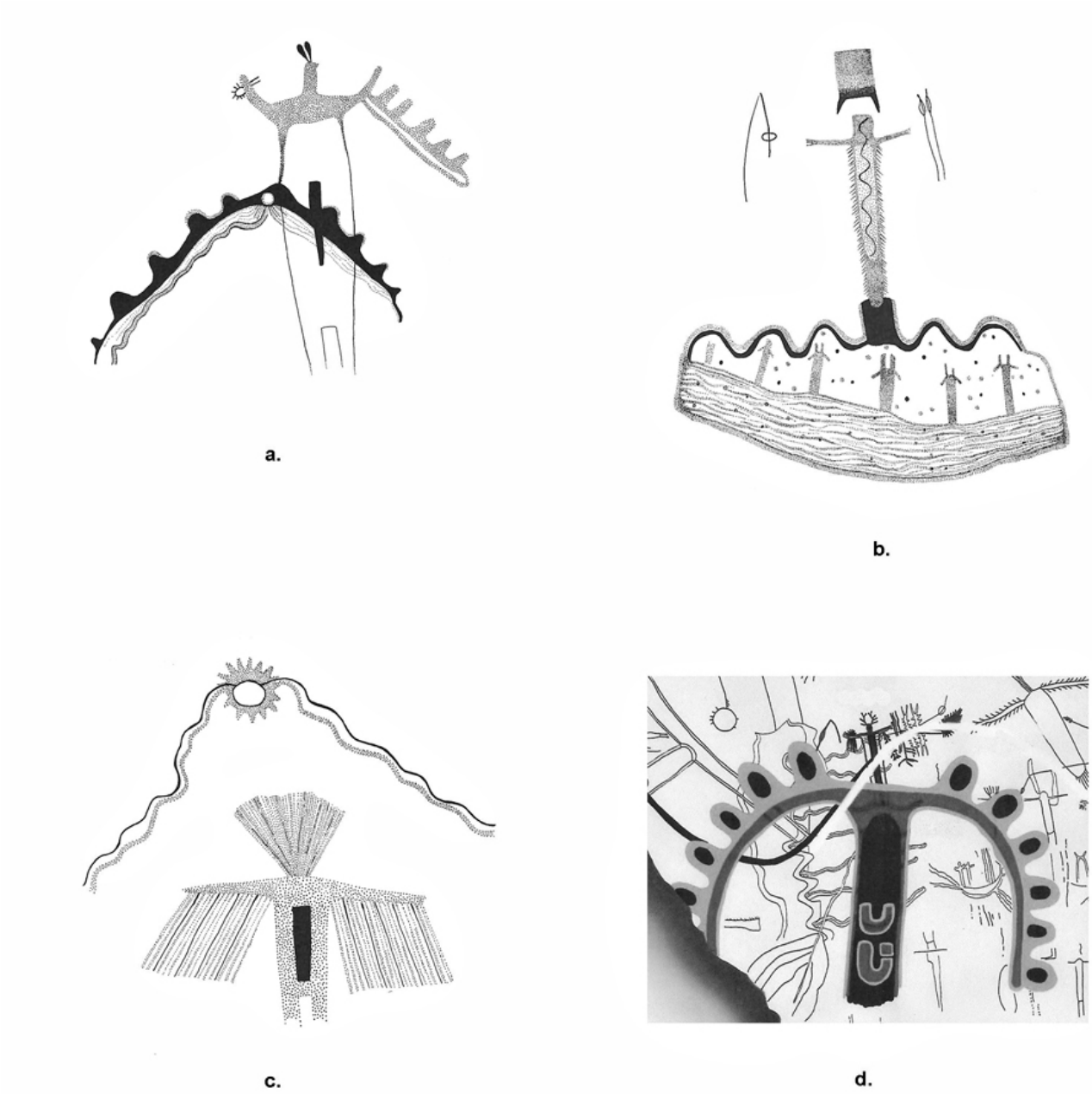


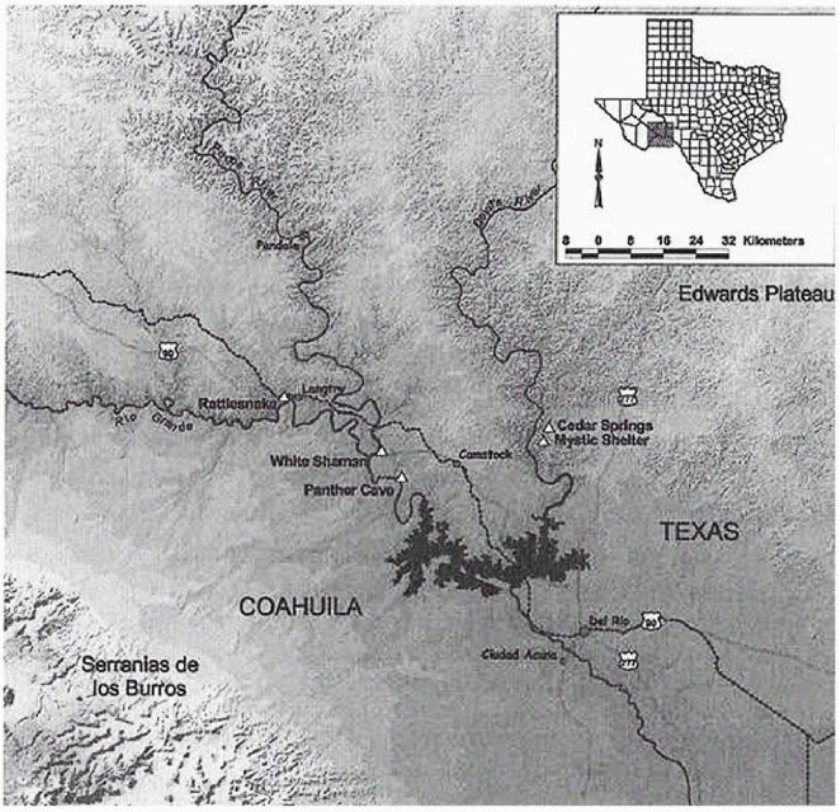
Figure 3.7. Possible toponymic signs as Pecos River Style crenelated arch motifs:
a. Rattlesnake Canyon (from Boyd 2003)
b. Mystic Shelter (from Boyd 2003)
c. Rattlesnake Canyon (from Boyd 2003)
d. White Shaman Shelter (from Boyd 2016: Fig. 6.11)

Because the crenelated arch is a recurring, recognizable component of PRS art but does not appear as a "motif" (an undulating line plus a consistent additional element) in known rock art at Archaic period sites in northern

Mexico or the southwestern United States, I propose that in addition to the possible meanings derived from analogies with the beliefs of the Huichol and Nahua, it is an early example of a toponymic sign, a conventionalized sign that refers to the overall character of the Lower Pecos Canyonlands. Figure 3.8 shows the current courses of the Pecos, Devils and Río Grande near their confluences. Note that the Río Grande arches northward as it wraps around the Serranías del Burro, which perhaps led to the use of the arcing shape of the toponymic sign. Nowhere else along the Río Grande are the bends as deep as in this region, and the Pecos and Devils also follow extreme switchbacks.

In the polyvalent way that many symbols function, the arch's undulating shapes may refer to both a primordial mountain, perhaps to the Serranías, and to the bends of the Río Grande, Pecos, and Devil's Rivers which supported the abundant life forms of the region. The pronounced undulations of the three rivers imbued the region with serpentine qualities, especially the snake's ambivalent but powerful abilities to kill others and regenerate itself. The anthropomorphic figure that passes through the arch arises from the rivers and canyons as either an ancestor or as part of shamanic activity.

What we are seeing in the development of a toponymic sign by 2000 BCE may be a phase in the development of a semasiographic communication system. Semasiographic symbols communicate information directly to a viewer and do not depend on language. As discussed by art historian Elizabeth Boone (2000: 30-31), images in such a system visually evoke the referent. In this case, the referent is the hidden *rincón* of the Lower Pecos region, its undulating arcs of canyons through which water explodes, creating a basin bordered by mountains and filled with a diversity of life forms, which bore evidence of very ancient human use and occupation. We will return to the importance of the *rincón* in a later section.



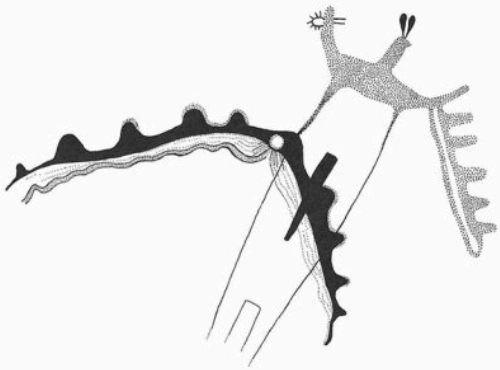


Figure 3.8. Map of the Lower Pecos Canyonlands showing most sites mentioned in this chapter. Note the bends in the rivers, how the Rio Grande / Rio Bravo arcs around the Serranias, and how the crenelated arch from Rattlesnake Canyon (cf. Figure 3.7a) echoes the shape of the Rio Grande in this region.
Map courtesy of Shumla Archaeological Research & Education Center; crenelated arch from Boyd 2003.

I do not claim that Pecos River Style pictographs are "writing," because most of the imagery is neither as consistent nor as fully developed as Central Mexican pictography. Instead, I merely suggest that the crenelated arch motif is a toponym. These, however, were among the types of signs to emerge when pictorial writing systems did develop in Mesoamerica.

How Have Scholars Identified Toponymic Signs?

In the 1970's, several scholars recognized the presence of toponyms in Mesoamerican art and pictorial writing. Examining the murals of Teotihuacan, archaeologist Jorge Angulo (50–51) suggested that the repeated motif of a scalloped arch enclosing an interior border of serrated shapes was a sign for mountain and served as part of a toponym (Figure 3.9). This image appeared in multiples along the lower portion of the walls in Room 13 of Zone 5-A, a building along the northwest side of the Avenue of the Dead.

Mary Elizabeth Smith's pioneering study of Mixtec place signs clarified that they consist of a "geographic substantive" which is a sign referring to a feature such as a town, irrigated plain, hill, or river (Smith 38-42). This is modified by the addition of a "qualifier," which could be a color, animal, ritual object, or other item that designates a specific feature (Figure 3.10). Some toponymic signs, especially Aztec ones, included phonetic elements, but because of their pictorial nature, they could often be read by different speech communities (Boone 51). From this brief overview, we glean that early Mesoamerican toponymic signs usually consisted of more than one element; they may appear in multiples in a single composition; that similar toponymic signs may occur at different locations within a cultural zone; and that the emphasis on pictorial rather than phonetic elements in early signs made it more likely that speakers of different languages could understand them. These are all characteristics of the PRS crenelated arch.

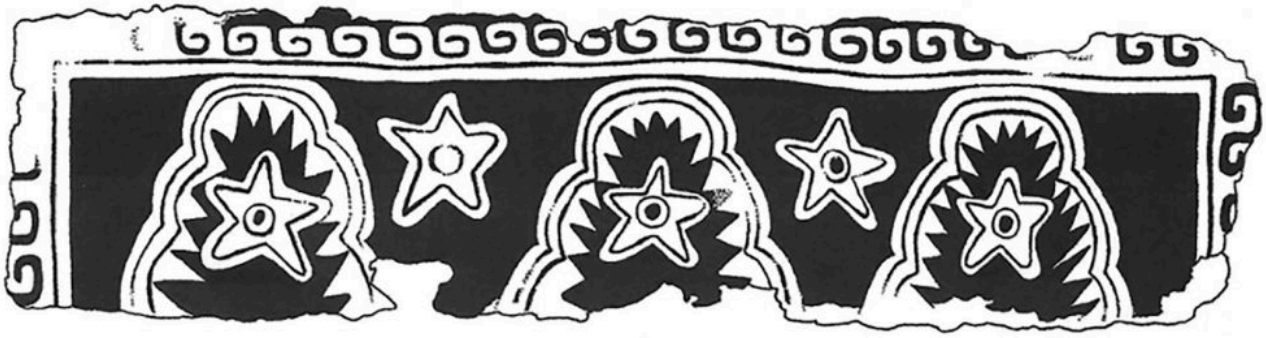


Figure 3.9. "Star Mountain" toponym from the Group of the Sun Zone 5a, Room 13, Mural 7, Teotihuacan, Mexico, c. 400-600 CE. Note undulating lobes and triple outline of mountain form. From Helmke and Nielsen 2014.

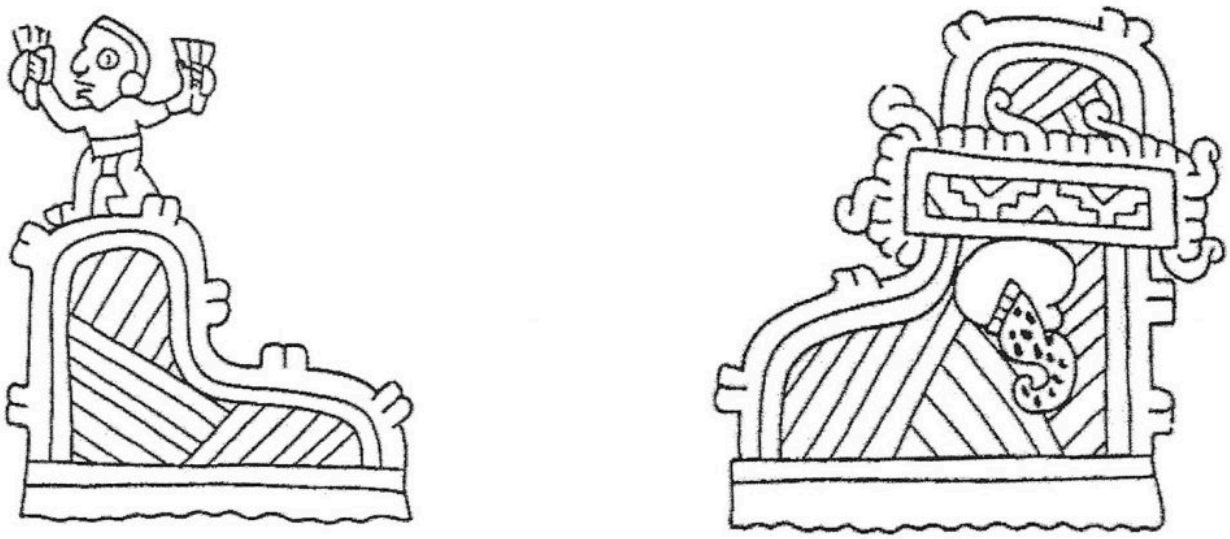


Figure 3.10. Mixtec Toponymic Signs. The sign for "hill" is the large boot-shaped element with "stone" texture within.
Left: Zahuatlán or *Yucu Nicata* (Hill That Danced).
Right: Magdalena Jaltepec or Añute (Place of Sand).
Images from Boone 2000: Fig. 24.

What Kinds of Places Have Toponymic Signs Referred To?

In the toponym in Figure 3.9, the scalloped arch referred to a mountain and the five-pointed star within and beside the three mountain images named it as "Star Mountain" (Helmke and Nielsen 85-91). Signs for Star Mountain occurred in several different locations at Teotihuacan. Christophe Helmke and Jesper Nielsen (ibid) use 17th century documentary evidence to suggest that the hill to which the sign refers lies about six kilometers north of the Moon Pyramid. This "Star Mountain" mural is in a room in which another mural portrays a mythical event, the shooting of a celestial bird by blowgunners, and Helmke and Nielsen (ibid.) suggest that the two "Star Mountain" murals in the room indicate where the mythical event occurred, perhaps at *Citlaltepetl*, Star Mountain, Mexico's highest peak, now called Orizaba. In addition to referring to actual places, such as the local and distant Star Mountains, toponymic signs at Teotihuacan can also refer to supernatural ones, like Flower Mountain, a primordial place of abundance and one to which the souls of warriors returned (Taube 2006: 153-170).

Around 150 BCE, Zapotecs developed toponymic signs to represent conquered places. These appear on the Conquest Slabs of Monte Alban during Period II (Caso 938). By the Post-Classic, of course, toponymic signs helped the Mixtec convey narratives of genealogy, conquest, and ritual in their pictorial histories. One mythic place the Mixtecs referred to (in the Codex Vienna Obverse) was *Chicomoztoc*, a place of ancestral origins. Similarly, the PRS crenelated arch and the anthropomorph that passes through it probably refer to a place that exists but was thought to possess supernatural qualities; a primordial place of ancestral or shamanic emergence. Like the Teotihuacan example, the crenelated arch can occur multiple times in a single composition.

Comparing Toponymic Signs

Figure 3.11 compares a Middle Archaic crenelated arch from Cedar Springs to the Early Classic "Star Mountain" toponymic sign from Teotihuacan. The exterior lobes of the PRS crenelated arch are black on the left and white on

the right, with a central opening decorated with stripes. A double-outline undulating form drapes within both sides of the arch. Within or behind this are faint lines that seem to flow from above the opening to the antlered anthropomorphic figure below, who reaches toward hunting tools. The Teotihuacan example shares an elongated undulating arch with interior jagged crenelations. The purpose of this comparison is twofold – to consider the similar forms of the two toponyms and to show that toponymic signs may refer to both physical and mythical places.

Figure 3.12 also compares Mesoamerican mountain motifs, including one toponym, to two PRS crenelated arch images. The arch motif at Mystic Shelter (Figure 3.12a) is located slightly left of the painting's center. We can see the snakelike line of the undulating earth surface or the river. In this case, the anthropomorph, who is associated with an atlatl and dart points, emerges through a black hole. The crenelated arch seems to surround an alternate realm of smaller anthropomorphs surrounded by black and red dots.

Figure 3.12c shows one of three crenelated arches from Rattlesnake Canyon, one of the earlier sites, radiocarbon dated between 2000 and 1700 BC. The 106-foot wide (Boyd 2016: 21) painted panel at Rattlesnake Canyon is tucked into a large grotto within fifty meters of the Río Grande. The undulating lobes are painted black with a red outline. Like many arches, this one has an aperture near the top and a paler membrane of undulating red and black lines within the arch echoes its shape. More than many, this early arch and its membrane suggest the canyons along the Río Grande (the black lobes) and the river itself (the "membrane").

Figure 3.12b is a drawing of a large stela from the Gulf Coast Olmec site of La Venta. It probably dates to the end of the Olmec era, about 600 – 400 BCE (Tate 208). The frontal face on this stela is a stylized image of the human embryo, bundled in three intra-uterine sacs (represented by three bands below the face) and a maize seed headband (directly above the face; ibid. 38–45; 208–211; or for alternative interpretations see Schele 105-117 and Taube, 1996: 39-81). With the triple maize sprouts emerging from the apex of the image, this combination of human embryo and maize symbols is an early example of the southern Mesoamerican metaphor "humans are maize," which originated in the Middle

Formative Period (Tate 58), after humans transformed tiny cobs of maize into larger ones and it became a useful crop (Rust and Leyden 181-201; Pope et.al. 1370-1373). The crown of the embryo's head takes the form of deeply undulating lobes similar to those in the crenelated arches. Interestingly, the lobed head on this image has been called a mountain (Grove 255-300). The maize sprouts from this sign for mountain. This is one of four green schist stelae carved with the human embryo-maize image that stood at the southern foot of the large earthen mound at La Venta, marking it as a "Mountain of Sustenance" or "Flower Mountain," a primordial, mythical place.

Figure 3.12d shows a Teotihuacan toponym for "Flower Mountain," a mythic primordial location of abundance for deceased Teotihuacan warriors (Helmke and Nielsen 83-84). The Flower Mountain toponym consistently possesses three peaks. The purpose of this comparison is to show that Middle Formative and Early Classic Mesoamerican graphic communication systems used similar ways of stylizing the concept of mountain and that these also bear some resemblance to the crenelated arch toponym in the Pecos River Style, and, further, that all three seem to refer to a primordial place of abundance. Pecos River Style pictographs gradually filled the grottoes of the Lower Pecos Canyonlands between about 2000 BCE and 600 CE (Boyd 2016: 25-26), suggesting that the region was probably a sacred destination for hunter-gatherer groups of arid North America.

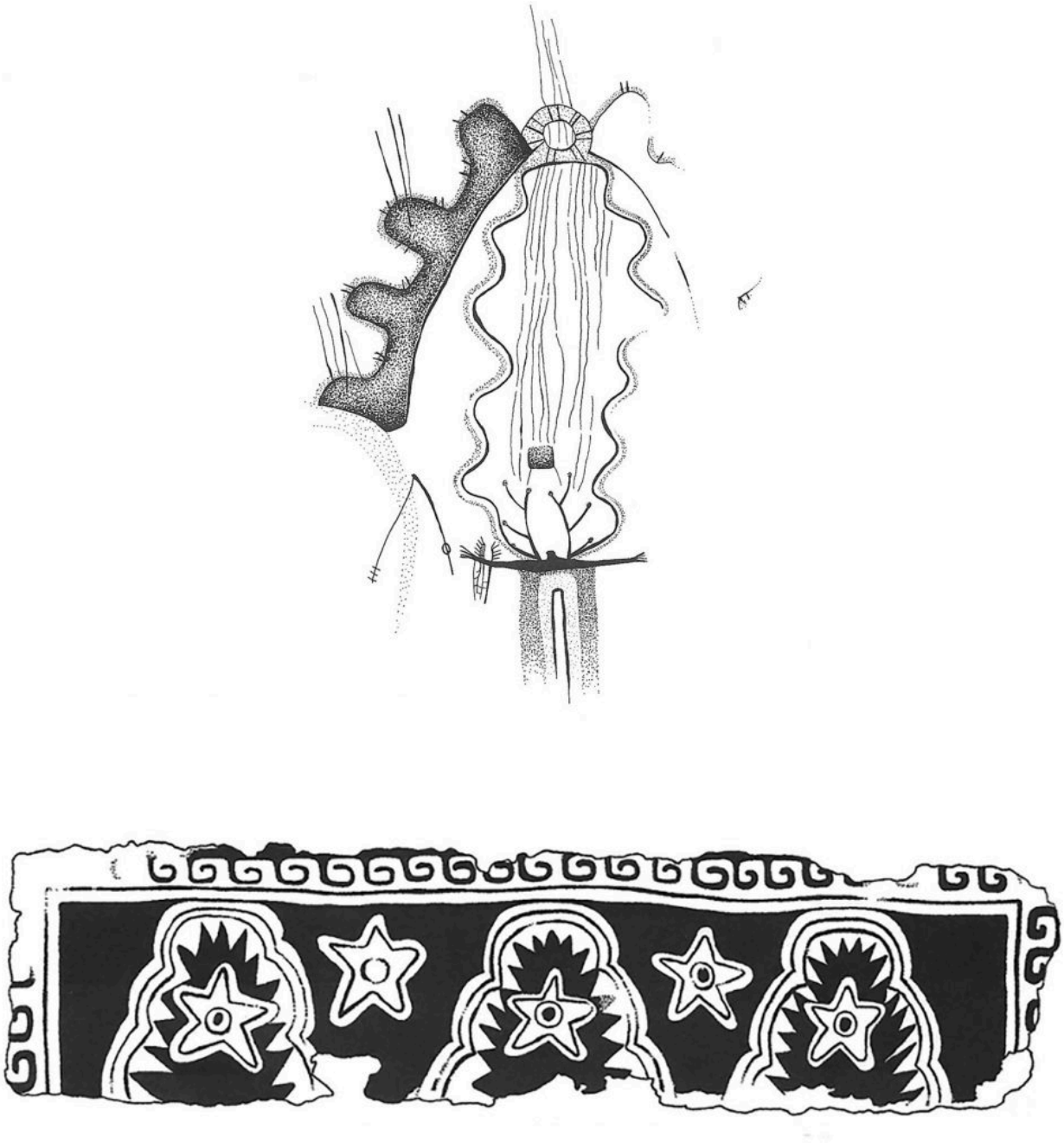


Figure 3.11. Comparison of a Pecos River Style crenelated arch, c.1700 BCE- 600 CE, to a Teotihuacan "Star Mountain" toponym, 400-600 CE. Note the undulating lobes and interior lobes or jagged shapes.
Upper: Proposed toponymic sign from Cedar Springs site.
From Boyd 2003.
Lower: "Star Mountain" mural (cf. Figure 3.9).

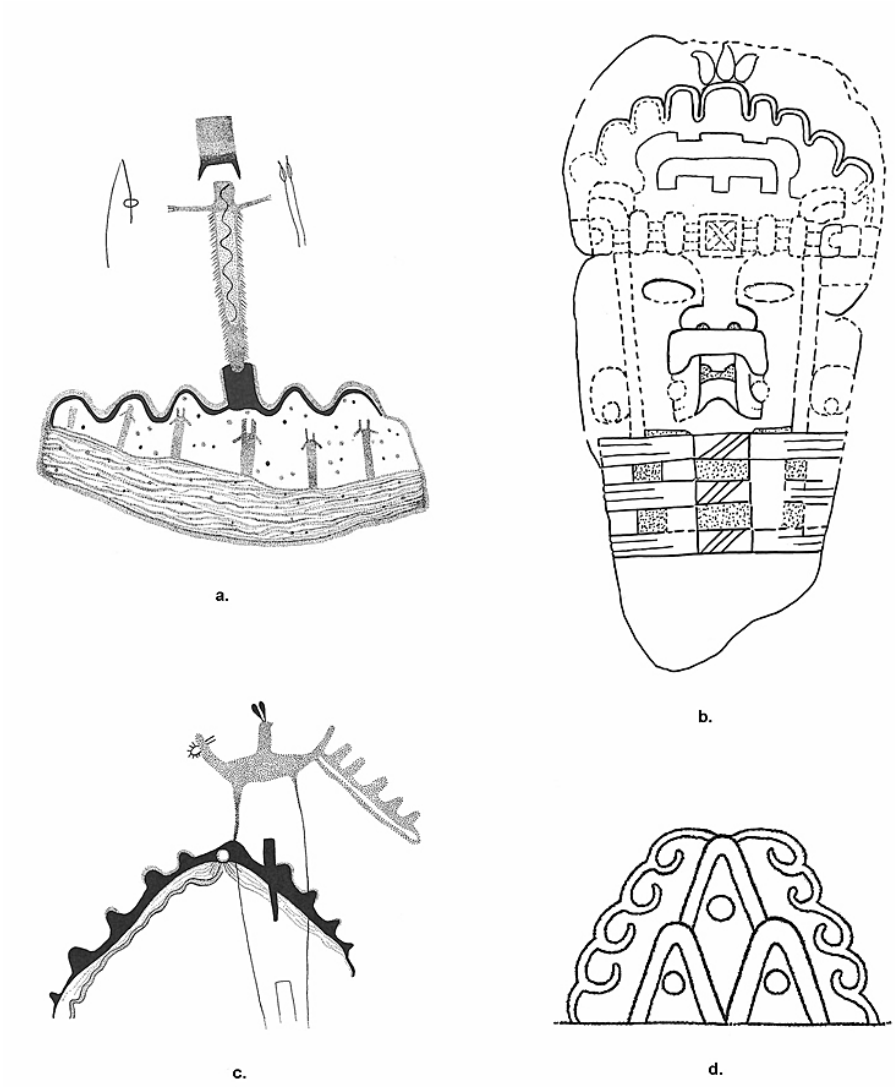


Figure 3.12. Toponymic signs or elements. Signs a. and c. (left) are Pecos River Style signs for "Ancestor" or shaman emerging from the mountain, river, or rincón. Signs b. and d. (right) include a lobed element signifying "mountain".
a. Mystic Shelter (cf. Figure 7b.)
b. Olmec Monument (Stela) 25/26, La Venta, Mexico, c.1000-700 BCE, showing a bundled embryo's co-identification with maize, which sprouts from a "mountain" sign. Drawing by Carolyn Tate.
c. Rattlesnake Canyon (cf. Figure 7a.)
d. Teotihuacan "Flower Mountain" sign, c. 400-600 CE. From Helmke and Neilsen 2014.

Could Mesoamericans, at Various Times, Have Visited the Lower Pecos Canyonlands?

Nahua pictorial manuscripts and early Colonial texts from Central Mexico document several instances in which Nahuatl speakers journeyed from *their* place to *other* places, in search of the *primordial* place, *Chicomoztoc*, which means "Place of Seven Caves." There are many representations of *Chicomoztoc*; space limits this discussion to a few.

Figure 3.1 includes a portrayal of *Chicomoztoc* from the *Historia Tolteca Chichimeca,* a bound manuscript from *Cuauhtinchan*, Puebla (1545-63; Liebsohn 38). The seven caves surround a vaginal opening which is penetrated by the Toltec *Quetzaltehueyac's* spear as he summons the Chichimecs within the caves. Red and orange paint outline the deeply lobed shapes of the seven caves and the interior of the womb-like shape is lined with smaller undulating bulges, which by the Post-Classic signify internal tissue, in this case, the lining of the womb (Milbrath 155). Within the lobes of the cave are multiple heads representing clans of Chichimecs, each named except for the lobe containing four women. Above the cave sign is the curled hill signifying *Colhuatepec*, Place of Those With Ancestors (Boone 37). The dark color surrounding the cave is marked by the curlicue signs for stone and as the underground transitions to the earth surface, plants are shown growing from rocks. These are thorny desert plants found in the Chihuahua Desert Biotic zone, which extends into the Lower Pecos. At the lower right corner of the image, a cave gives birth to a child, its water bursting forth. This specifies that *Chicomoztoc* is a place of gushing, life-giving waters, where humans emerged.

Figure 3.1 compares this image to the latest crenelated arch in Pecos River Style, the one from White Shaman Cave (Boyd 2016: Fig. 5.6), for which radiocarbon dates provide a mean and standard deviation of 2000 +/- 400 RCYBP, or about 400 BCE – 400 CE (ibid. 26). In this late version of the Lower Pecos toponym, the arch takes a more regular shape with six lobes on each side of a central vertical passageway, painted black with red and yellow outlines. The arch and lobes are painted with yellow and red bands and with black ovals within each lobe, much like the *Chicomoztoc* cave. U-shaped signs adorn the black central

passageway, which I suggest refer, like their Olmec counterparts, to the womb (Tate 222-227). An antlered anthropomorph grasping ritual paraphernalia emerges from within the arch.

The *Chicomoztoc* image and the facing page from the Historia record, in Nahuatl alphabetic text and pictures, depicts a journey to *Chicomoztoc*, taken between 900 and 1200 CE, when the rule of the Tolteca-Chichimeca in Cholula had been challenged by a confederation of smaller polities. Their patron deity advised them to seek out their ancestors, the great Chichimec warriors of *Chicomoztoc*, to help them fight for their authority to rule (Liebsohn 33 – 35). Two Tolteca-Chichimeca priests set out from Cholula for *Chicomoztoc*. After arriving, they performed rituals and made entreaties to the ancestral Chichimec, who remained inside *Chicomoztoc*. An interpreter emerged and negotiated the aid requested. Many Chichimecs grabbed their bows and arrows. This is of interest because the recurved bow and arrow are found in the Lower Pecos somewhere between 900 and 1200 CE (Shafer 2013b: 84; Boyd 2013: 191) and subsequently introduced to Mexico. These Chichimecs returned with the priests to Cholula.

Nahuatl speakers claimed that their Chichimec ancestors emerged from Aztlan / *Chicomoztoc* at the behest of their tribal deity, *Huitzilopochtli* (Hummingbird on the South). Sixteenth-century Friar Diego Durán recorded that in 1441, when Motecuhzoma I reigned as emperor, the origin place of the Mexica, *Chicomoztoc*, was already lost (Duran 1994). The emperor told his prime minister, *Tlacaelel*, that he wanted to send a party of warriors to seek out the place their ancestors had lived and to honor *Coatlicue*, the mother of *Huitzilopochtli*. *Tlacaelel* replied that the mission should be staffed not by warriors but by wizards, who could use enchantments to discover the place. It is a great hill in the midst of lagoons filled with reeds and rushes, where the ancestors had lived for many years, he said, cultivating crops and traveling in canoes. It will be covered by thorny bushes, and difficult to find. The wizards first went to Snake Mountain, where they transformed into animals for the rest of their journey. Arriving in *Chicomoztoc* they found an amazing abundance and variety of fish, plants, and animals. The ancient earth mother, *Coatlicue*, told them their rich foods and fancy lifestyle had shortened their life span, for here in *Chicomoztoc*, people did not grow old (Durán 212 – 222). These accounts

show that *Chicomoztoc* was considered a faraway, hidden location. Although it was near water and had a great variety of life forms, it was a thorny desert.

Evidence has been mounting that the peoples of the American Southwest interacted with Mesoamerica-related groups. Archaeologist Stephen Lekson, for example, considers the hierarchical settlement pattern of Chaco Canyon in northwestern New Mexico to relate to the Nahua altepetl (Lekson 8-9; Toner 26-32). Art historian James Farmer (135) suggests that the use of Mesoamerican symbols like feathered serpents and goggle eyes in rock art traditions in the Southwest points to a "conscious choice" to participate in a greater Mesoamerican interaction sphere – and that this began at a very early period.

For me, the question becomes "what kind of mental image would the Nahua have created to encapsulate the qualities of Lower Pecos Canyonlands?". Amidst the desert is a hidden zone of flowing water and deep canyons. Within the canyons are hundreds of rock shelters crammed with images of floating anthropomorphic beings and their hunter-gatherer tools. Ancient projectile points lie near bison bones in several corners of these canyons. With its diverse life forms, it was a place of primordial abundance from which the ancestors emerged. How would a Nahuatl speaker portray such a place?

The Lower Pecos Canyonlands as a Primordial Rincón

The Nahua tied both dates and movements to places, not to space. This emphasis on movement as being from place to place is vividly shown in their cartographic histories in which paths, sometimes populated, meander among place signs (Boone 162-196). Movement and place are fundamental aspects of Aztec thought, according to philosopher James Maffie. He emphasizes that the Western concept of space as timeless, neutral, and abstract, does not fit the Aztec concept, which is better understood as place. Place, he writes:

> "...is a[n] ... intricate web of interrelationships between humans, plants, animals, mountains, waters, and sun – all of which are animated and charged with

> power....[P]lace...situates things within a unique environment rather than within uniform space," (Maffie 2014: 421).

How did places and people choose each other? Working with 16th-century documents and land titles, art historian Ángel García Zambrano has studied the specific configurations of landscape in which the Nahua founded settlements. The most important geomorphological configuration was the cove or *rincón*. This was a concave, water-filled basin surrounded by cliffs that were sliced through with ravines in which, ideally, were caves or rock shelters. Where there was a confluence of waterways, the resulting serpentine undulations of the gushing rivers created the mental image of a generative womb. Also, the *rincón* was hard to reach; one often passed through a narrow ravine or riverbed to find it. García Zambrano writes: "So, whenever indigenous groups embarked on journeys to explore the land in search of a new place to live, they established themselves only in sites that bore specific geomorphological features" (García Zambrano 2007:193). García Zambrano sees the choice of such a *rincón* as a meta-reference to the mythical *Chicomoztoc*. Or *was Chicomoztoc* mythical? Instead, maybe it was ancient and far away. All the features of the *rincón* can be seen in the Lower Pecos Canyonlands. García Zambrano's work is informed by Pascal Boyer's influential descriptions of how humans create meta-representations. García Zambrano writes that in creating place signs or toponyms, the Nahua constructed a mental image of a landscape in which mythic events occurred. Prime among such events was when humans and/or supernaturals emerged through a *rincón* (García Zambrano, 2015: 923). After emerging through the uterine watery canyons at *Chicomoztoc*, humans began populating the earth through migration (García Zambrano 2007: 198).

Having provided some evidence that suggests that Mesoamericans of various eras had some knowledge, direct or indirect, of the Lower Pecos and its pictographic record, here I will speculate on some ways they might have obtained it.

Possibilities

It is possible that by 1700 BCE, the people who created Pecos River Style pictographs revered this landscape — populated by the remains of ancestors — as a place of generation, of human origins. I suggest that they devised the "crenelated arch" as a toponymic sign that referred to the generative undulating womb-like canyons and waterways through which ancestors, plants, and animals emerged. Between 600 and 1200 CE, the semi-nomadic groups in Mexico's far north (Braniff 32-37) who encountered the Lower Pecos may have created a mental representation of this *rincón*, a place of abundant life and many caves, as one of their places of origin, and retained in their memories and stories, and perhaps even in drawings, this meta-representation as they migrated southward into Central Mexico. In the Late Post-Classic, if Motecuhzoma I did send a search party northward, and if the Tolteca-Chichimeca of Cuauhtinchan did the same, one of the *Chicomoztocs* they found could have been the Lower Pecos, where they would have seen the *rincón* and its toponym and adapted the ancient sign to create their own toponym.

Finally, supporting the connection between the Lower Pecos region and Mexico is a DNA study, published in abstract form in 2018, that finds that human remains from the Pecos River style pictograph region are "most closely related to present-day indigenous populations in Mexico, with affinities to contemporary South Americans as well" (Raff, et.al. 217-218). For decades, the late archaeologist Beatríz Braniff proposed that the U.S. Southwest and northern Mexico are part of the "Gran Chichimeca" – the territories of the nomadic ethnic groups of the arid lands. In this region, people often inscribed petroglyphs in the places they passed through for ritual or economic purposes. Figure 3.13 is a 2006 reconstruction of trade routes throughout the Gran Chichimeca (Fournier 28). There is tentative evidence now for a route that intersects the Lower Pecos. These maps show that either Nahua were traveling through the region or were in communication with those who did.

When we think of what leads people from place to place, we should not forget the pathways created by plants and animals, such as peyote, which draws the Huichol into the arid north (Terry); the monarch butterfly, which passes directly over the Lower Pecos; and the ruby-throated hummingbird, like

Huitzilopochtli, whose migrations also lead them over the water-filled LPC. Even people walking along the trade routes running west of the Sierra Madre might follow these valiant creatures to the *rincón* of the Lower Pecos, a place of human origins.

Figure 3.13. Map indicating trade routes among Mesoamerica, the Gran Chichimeca, and the American Southwest from the Formative through Post-Classic eras. Note the dashed red line running past the Lower Pecos River Canyonlands.
From Fournier 2006: 28.

Conclusions

This study has briefly examined the use of toponymic signs in greater Mesoamerica from 1700 BCE to 1550 CE. Tracking some of the occurrences of the undulating or lobed line as a "mountain" or "earth surface" symbol provides a thread of continuity, a "solid nucleus" as Alfredo López-Austin (1993:304) has termed it. Within each culture, however, the sign carried a distinct significance. For the Pecos River Style people, I think it referred to the combination of cliffs and canyons through which water flowed as a place of abundance and ancestral origins. When the Olmec placed this undulating mountain on the head of a human-maize seed, then showed the seed sprouting, and placed four such monuments at the foot of a human-made mountain, they referred to a Mountain of Abundance, reflecting the concerns of the new lifestyle of maize agriculture that they had recently adopted. In Teotihuacan, surrounded by the mountainous landscape, the sign was adapted to form a variety of specific place names, both real and mythical. The Post-Classic Mixtec and Nahua used the undulating arc to create a toponym for a place of origins, *Chicomoztoc*.

Although scholars have proposed several possible locations for *Chicomoztoc*, including Teotihuacan and La Quemada (for example, see Hers 48-53), the Lower Pecos is another possibility. Clearly it was a place of extreme antiquity, filled with images of ancestors or mythical beings, with many cave-like rockshelters, a great variety of life forms, and life-giving, gushing waters. Middle Archaic people who frequented it may have developed the toponymic sign that remained in the memories of the pilgrims or traders who periodically rediscovered it.

This paper has combined Kubler's configurational method (the study of the topographic sign in PRS) and Grieder's ethnological method with a strategy of tracking continuity and change through time (Grieder 1975). Not surprisingly, we found both informative disjunction and apparent continuity. While our comparisons proved little, they strongly suggest that the PRS people were engaged in creating conventionalized symbols, including a toponym that referred to the *rincón* of the Lower Pecos. The similarity of this toponymic sign to those in later northern Mesoamerican cultures reinforces the growing body

of evidence that the peoples of the American southwest, including the Lower Pecos Canyonlands, engaged, from the Middle Archaic onward, with northern Mesoamerican groups.

Acknowledgments

I'm grateful to colleagues at Texas Tech who helped me nudge the administration toward better stewardship of its important Pecos River Style pictograph site at Rattlesnake Canyon. As I began researching the Lower Pecos and the concept of *Chicomoztoc*, Carolyn Boyd and Ángel Julián García Zambrano generously shared ideas and suggested bibliographic resources, but responsibility for errors is mine. The following kindly furnished maps, photos, and illustrations: Carolyn Boyd and Shumla Archaeological Research Center; Ashley Busby; Steve Black, Charles Frederick, and the Ancient Southwest Texas Project; and Tom W. Stone. Finally, thanks to the editors, authors, and reviewers of this volume for providing an opportunity to rethink the ways in which Terence Grieder showed us all how to integrate creative endeavors and scholarship in an exploration of how humans generate meaning.

Works Cited

Angulo, Jorge

1972 "Reconstrucción Etnográfica a través de la Pintura." In *Teotihuacan: XI Mesa Redonda*. México D. F.: Sociedad Mexicana de Antropología, p. 43 – 68.

Benson, Elizabeth P.

1971 *An Olmec Figure at Dumbarton Oaks*. Studies in Pre-Columbian Art and Archaeology Number Eight. Washington D.C.: Dumbarton Oaks.

Blair, W. F.
1950 "The Biotic Provinces of Texas", *Texas Journal of Science* 2 (1950): 93 – 117.

Boone, Elizabeth H.
2000 *Stories in Red and Black: Pictorial Histories of the Aztecs and Mixtecs*. Austin: University of Texas Press.

Boyd, Carolyn E.
2003 *Rock Art of the Lower Pecos*. College Station, TX: Texas A&M University Press.

2013 "Drawing from the Past: Rock Art of the Lower Pecos". In *Painters in Prehistory: Archaeology and Art of the Lower Pecos Canyonlands*. Harry Shafer, ed., pp. 171-222. San Antonio: Trinity University Press.

2016 *The White Shaman Mural: An Enduring Creation Narrative in the Rock Art of the Lower Pecos*. Austin: University of Texas Press.

Braniff, Beatríz
2001 "Los Teochichimecas". In *La Gran Chichimeca: El Lugar De Las Rocas Secas, Corpus Precolombino*, Beatríz Braniff, ed., pp. 31 – 38. Milan, Mexico City: Jaca Books and Consejo Nacional para la Cultura y las Artes.

Caso, Alfonso
1965 "Zapotec Writing and Calendar". In *Handbook of Middle American Indians,* Vol. 3, Robert Wauchope, ed., pp. 931-47. Austin: University of Texas Press.

Durán, Fray Diego
1994 *The History of the Indies of New Spain*. Doris Heyden, trans. Norman: University of Oklahoma Press.

Fournier, Patricia
2006 "Arqueología de los Caminos Prehispánicos y Coloniales", *Arqueología Mexicana* XIV.81, pp. 26 – 31.

García Zambrano, Ángel Julián
2007 "Ancestral Rituals of Landscape Exploration and Appropriation among Indigenous Communities in Early Colonial Mexico". In *Sacred Gardens and Landscapes: Ritual and Agency*. Michel Conan, ed. pp. 193-195. Washington D.C: Dumbarton Oaks Research Library and Collection.

2015 "Topónimos / Serpiente: Sacralización del Paisaje en Las Relaciones Geográficas, Crónicas y Documentos Pictóricos del Siglo XVI en México". In *Cartógrafos Para Toda La Tierra: Producción y Circulación de Saber Cartográfico Iberoamericano: Agentes y Contextos*. Francisco Roque de Oliveira, ed., pp. 831 – 933. Lisboa: Biblioteca Nacional de Portugal.

Grieder, Terence
1966 "Periods in Pecos Style Pictographs". *American Antiquity* 31.5, pp. 710-720.

1975 "The Interpretation of Ancient Symbols". *American Anthropologist 77* (4): 849–55.

1996 *Artist and Audience. Second Edition*., London: Brown & Benchmark.

Grove, David C.
1999 "Public Monuments and Sacred Mountains: Observations on Three Formative Period Landscapes". In *Social Patterns in Pre-Classic Mesoamerica*. David C. Grove and Rosemary A. Joyce, eds., pp. 255-300. Washington D. C.: Dumbarton Oaks.

Helmke, Christophe, and Jesper Nielsen
2014 "If Mountains Could Speak: Ancient Toponyms Recorded at Teotihuacan, Mexico". In *Contributions in New World Archaeology 7*. Mesoamerican Writing Systems, pp. 73 – 112.

Hers, Marie-Areti
2002 "Chicomóztoc, Un Mito Revisado." *Arqueología Mexicana* X.56, pp. 48 – 53. Print.

Kirkland, Forrest, and William W. Newcomb, Jr.
1967 *The Rock Art of Texas Indians*. Austin: University of Texas Press.

Leibsohn, Dana
2009 *Script and Glyph: Pre-Hispanic History, Colonial Bookmaking and the Historia Tolteca-Chichimeca*. Washington D. C.: Dumbarton Oaks.

López-Austin, Alfredo
1993 *The Myths of the Opossum: Pathways of Mesoamerican Mythology*. Salt Lake City: University of Utah Press.

Maffie, James
2014 *Aztec Philosophy: Understanding a World in Motion*. Boulder: University Press of Colorado.

Magaloni, Diana
2017 "The Colors of Time: Teotihuacan Mural Painting Tradition". In *Teotihuacan: City of Water, City of Fire*. Matthew H. Robb, ed., pp. 174-79. San Francisco: The Fine Arts Museums of San Francisco.

Pasztory, Esther
1988 "Feathered Serpents and Flowering Trees with Glyphs". In *Feathered Serpents and Flowering Trees: Reconstructing the Murals of Teotihuacan*. Kathleen Berrin, ed., pp. 137 – 61. San Francisco: The Fine Arts Museums of San Francisco,

Pederson, Joel L., et al.
2014 "Age of Barrier Canyon-Style Rock Art Constrained by Cross-Cutting Relations and Luminescence Dating Techniques". *Proceedings of the National Academy of Science* 111.36, pp. 12986 – 91.

Poole, Jackie M.
2013 "An Inventory of the Vascular Plants of Amistad National Recreation Area, Val Verde County, Texas". *LUNDELLIA* 16, pp. 8 – 82.

Pope, Kevin O., et al.
2001 "Origin and Environmental Setting of Ancient Agriculture in the Lowlands of Mesoamerica". *Science* 292.5520, pp. 1370 – 73.

Prewitt, Elton
2013 "Bonfire Shelter: An Anomaly". In *Painters in Prehistory: Archaeology and Art of the Lower Pecos Canyonlands*. Harry Shafer, ed., pp. 36-37. San Antonio: Trinity University Press.

Raff, Jennifer A., et al.
2018 "Paleogenomic Investigations of the Ancient Inhabitants of the Lower Pecos Region of Texas and Northern Mexico". In *American Journal of Physical Anthropology* Abstracts of 87th Annual Meeting of the American Association of Physical Anthropologists pp. 217 – 18.

Russ, Jon, et al.
1990 "Radiocarbon Dating of Prehistoric Rock Paintings by Selective Oxidation of Organic Carbon" *Nature* 348, pp. 710-11.

Schaafsma, Polly
1980 *Indian Rock Art of the Southwest*. School of American Research. Albuquerque: University of New Mexico Press.

Schele, Linda
1995 "The Olmec Mountain and Tree of Creation in Mesoamerican Cosmology". In *The Olmec World: Ritual and Rulership*. Jill Guthrie, ed. Princeton and New York: The Art Museum and Harry N. Abrams, pp. 105-17.

Shafer, Harry
2013a "The First Arrivals to the Lower Pecos Area". In *Painters in Prehistory: Archaeology and Art of the Lower Pecos Canyonlands*. Harry Shafer, ed., pp. 27-56. San Antonio: Trinity University Press.

2013b "Cultural and Stylistic Change through Time in the Lower Pecos Canyonlands". In *Painters in Prehistory: Art and Archaeology of the Lower Pecos Canyonlands*. Harry Shafer, ed., pp. 57-92. San Antonio: Trinity University Press.

Shumla Archaeological Research & Education Center
2021 https://shumla.org

Smith, Mary Elizabeth
1973 *Picture Writing from Ancient Southern Mexico: Mixtec Place Signs and Maps*. The Civilization of the American Indian Series 124. Norman: University of Oklahoma Press.

Tate, Carolyn E.
2012 *Reconsidering Olmec Visual Culture: The Unborn, Women, and Creation*. Austin: University of Texas Press.

Taube, Karl
1996 "The Olmec Maize God: The Face of Corn in Formative Mesoamerica". *Res: Anthropology and Aesthetics* 29/30, pp. 39 – 81.

2006 "Climbing Flower Mountain: Concepts of Resurrection and the Afterlife at Teotihuacan". In *Arqueología e Historia del Centro de México: Homenajo a Eduardo Matos Moctezuma*. Leonardo López Luján, Davíd Carrasco and Lourdes Cué, eds., pp. 153 – 70. México D. F.: Instituto Nacional de Antropología e Historia.

2011 "Teotihuacan and the Development of Writing in Early Classic Central Mexico". In *Their Way of Writing: Scripts, Signs, and Pictographies in Pre-Columbian America*. Elizabeth H. Boone and Gary Urton, eds., pp. 77-110. Washington D.C.: Dumbarton Oaks Research Library and Collections.

Terry, Martin, et al.
2006 "Lower Pecos and Coahuila Peyote: New Radiocarbon Dates." *Journal of Archaeological Science* 33.7, pp. 1017 – 21.

Turpin, Solveig
2010 *El Arte Indígena En Coahuila*. Saltillo: Universidad Autónoma de Coahuila.

4

1492 BCE: A NEW WORLD OF PRE-COLUMBIAN PAINTING

Reinaldo Morales, Jr.

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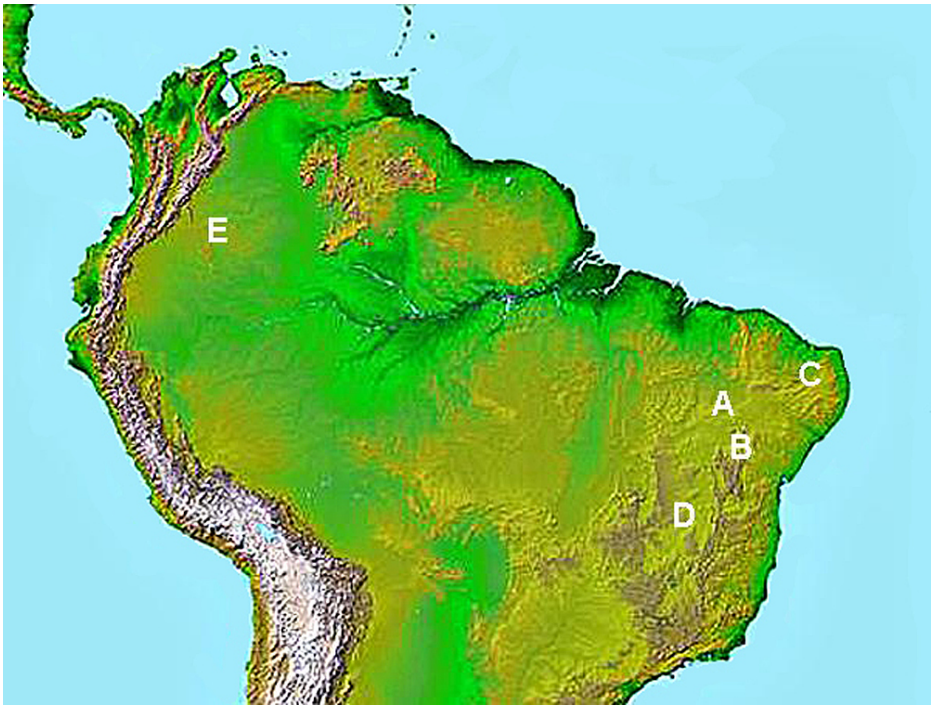
I. Nordeste Rock Art: Archaeology and Style

Geographically, Brazil is most closely associated with the Amazon River Basin in popular discourse, and the vast eastern section of the country, known as the "Nordeste" and comprised of mostly semi-arid, mountainous environments interlaced with deep canyons and rock shelters (Map 4.1), receives considerably less attention from the international community. Yet the Nordeste region includes one of the oldest and most sophisticated prehistoric painted rock art traditions in the New World (Figure 4.1). Unlike other more famous, well studied areas of prehistoric rock art traditions worldwide (aka the Paleolithic cave paintings of Western Europe, the painted rock shelters and canyon walls of Australia or those of the American Southwest and Mexico), the Nordeste rock art styles have only been extensively documented and reported on since

the late 20th century, primarily as the result of the Franco-Brazilian Archaeological Mission begun in the state of Piauí, Brazil in the 1970s.[1] This essay presents an updated and revised chronology of the Nordeste rock art tradition and its sub-styles, based on more recent dating techniques, and considers the implications of this new chronology for interpretations of two fundamental areas of investigation: the methodological relationship between evolutionary changes in art "styles" across time as compared to archaeologically defined chronologies, and the role of "style" as an index of cultural identity in archaeological contexts.



Map 4.1. Major rock art locations referred to in the text.
A – Serra da Capivara National Park, Piauí, Brazil
B – Northern Chapada Diamantina, Bahia, Brazil
C – Serridó region, Rio Grande do Norte, Brazil
D – Peruaçu Caverns National Park, Minas Gerais, Brazil
E – Serranía de Chiribiquete National Natural Park, Caquetá and Guaviare, Colombia.
Adapted from NASA Jet Propulsion Laboratory website.

Figure 4.1. Boqueirão da Pedra Furada, Serra da Capivara National Park, Brazil.
Photo credit Diego Rego Monteiro, Wikimedia Commons, 2011.

Nordeste paintings are evidence of ancient spheres of regional interaction spanning hundreds of square miles of the Nordeste region. The prehistory of the region is one of long periods of cultural continuity punctuated with periods of dramatic innovation, reflecting a pattern that art historian Terence Grieder recognized across most of ancient Pre-Columbian America (Grieder 1982). The Nordeste tradition encompasses diversity of styles reflecting a mosaic of prehistoric cultural expressions. These expressions are part of a ten-thousand year practice of rock painting that spanned periods of ecological upheaval and adaptation. The year 1492 BCE is used here as a rhetorical device to focus our attention on a significant period of innovation in the Americas that gave rise to new worlds of culture, which, in turn, saw the rise of new Pre-Columbian "artworlds", the term coined by Arthur Danto in 1964, referring to "an

atmosphere of artistic theory, [and] a knowledge of the history of art" which surrounds the perception and function of works of art in given societies (Danto 1964; Morales, Jr. and Risatti 2019).

Style as a synchronic unit has been a fundamental assumption of the art-historical concept of *period style*, and the archaeological notion of *chrono-stylistic evolution*. Style and iconographic analysis have been the wheelhouse of the art historian, and in the field of rock art research they have proven to be valuable tools. Close analysis style, for example, can identify the work of a single painter in different works. It often allows one to recognize shared values, aesthetics, and associated iconography shared across vast distances. But in the case of Nordeste rock art, the critical limits between assessments based on reasonable diffusion of cultural traits vs. the mere coincidence of generally similar features of in form, are particularly stark. In the Nordeste tradition, we have a historical laboratory of sorts, a collection of images that apparently span almost the entirety of the current, post-glacial period of human activity in the hemisphere (aka the Holocene era), from c.11500 years ago to the present time. This appears to confirm Grieder's hypothesis that the waves of artistic innovation and continuity reflect the work of "cousins in culture" spanning great distances in both time and space (Grieder 1982:184, 195). Some of the most fundamental questions about this process—this relationship between art, culture, and time—have been posed in the arena of style, and how it operates as a cultural and temporal marker.

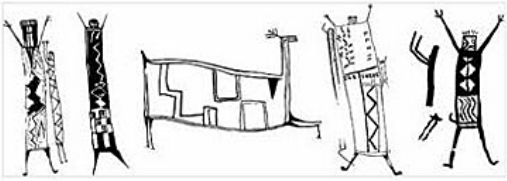
Cultural Phases	*Rock Art Traditions & Styles*	*Guidon & Pessis Rock Art Dates*	*Morales, Jr. Revised Dates (herein)*
Pedra Furada I-III 50000–14,300 BP (pre-Nordeste)	*Painted spalls buried in stratified deposits; style not defined*	29860–26300 BP & 17000 BP	
Nordeste culture	Nordeste Tradition		
Serra da Capivara /Serra Talhada I 10400–8050 BP	Serra da Capivara Style (cf. Figs. 4-7) 	12000–8000 BP	10500–500 BP
Serra Talhada II 7750–6150 BP	Serra Talhada "Stylistic Complex" 	8000–7000 BP	*(not defined)*
	Serra Branca Style (cf. Figs. 2, 8b) 	7000–6000 BP	4500–2500 BP
	Angelim Style (cf. Figs. 7,11,12) 	*(not defined)*	4500–2500 BP
Agreste culture 6150–3000 BP	Agreste Tradition (cf. Figs. 3,5) 	10500–2000 BP	7000–1800 BP

Table 4.1. Serra da Capivara Cultural Phases and Rock art Styles. All dates are uncalibrated radiocarbon years BP.
Drawings by Reinaldo Morales, Jr., 2021.

The Nordeste Styles

In the last quarter of the twentieth century, pioneering research by Niède Guidon and Anne-Marie Pessis began reporting on one of the most important concentrations of rock art in the Americas (Guidon 1984, 1986; Pessis and Guidon 1992). By the turn of the twenty-first century, the World Heritage art at Serra da Capivara National Park (UNESCO 2021) had garnered international recognition. It also became the focus of one of the most fundamental debates in archaeology: the antiquity of the earliest migrations of people into the Americas. Archaeological evidence from Serra da Capivara challenged the dominant "Clovis First" paradigm in American archaeology—that the Clovis culture marked the earliest human presence in the Americas, about 13000 years ago. (Lourdeau 2019). The intersection of a *new* New World chronology and a rich corpus of rock art documented at Serra da Capivara provided new evidence of the antiquity and sophistication of ancient American painting. The site of Pedra Furada provided the model for a proposed cultural sequence based on the evolution of the lithic technology, summarized below and illustrated in Table 1:

- Pedra Furada Phase I: 50000–35000 BP (Before Present)
- Pedra Furada Phase II: 32160–25000 BP
- Pedra Furada Phase III: 21400–14300 BP
- Serra Talhada Phase I: 10400–8050 BP (originally the Serra da Capivara phase)
- Serra Talhada Phase II: 7750–6150 BP
- Agreste Phase: 6150-2000 BP

The rock art at Pedra Furada was associated with the two more recent lithic phases, Serra Talhada I and II: the Nordeste Tradition (c.12000-6000 BP) and the Agreste tradition (c.6000-2000 BP). The Agreste Phase was presumed to end 2000 BP, after ceramics appear across the region (Pessis 1999: 72).

Guidon and Pessis then proposed a rock art chronology that sought to match phases in the lithic evolution with differences in the *subject matter* of the rock

art: "the study of the rock paintings confirms the evolution demonstrated by the study of the lithic industries." (Pessis 1999: 47; Pessis 1987). This provided the rock art *chrono-styles* addressed herein. However, more recent test results and newer data, discussed below, now suggest that the Serra da Capivara style persisted until at least 2700 BP, and the Agreste tradition continued until at least around 1800 BP. This data, based on more recent rock art dating techniques, invites a rethinking of Guidon's and Pessis' original evolutionary sequence, as well as reconsideration of their original concept of how rock art styles are defined and how they function in their original cultural contexts.[2]

Chrono-Styles and Evolution

The Nordeste tradition paintings were originally ordered into a series of *chrono-styles*—an evolution of painting styles superimposed upon the phases of lithic technology evolution. Style, as it was used in this model, was based on themes (iconography) that were interpreted in the paintings, or "moments of chronological evolution of graphic presentation patterns" (Pessis 1992: 35). Iconography is not style, however. Specific *formal* qualities define the manner in which images are made (the style), not subject matter. Nonetheless, imagery like the "effusive staging of joy and playfulness" (Pessis 1999: 69, author translation) was believed to characterize the earliest style. The lithic material of the original Serra da Capivara phase was thereby connected to the style of the same name, the Serra da Capivara style (Table 4.1). Guidon and Pessis rounded the dates of this style to 12000–9000 BP, consistent with Serra da Capivara style paintings on spalls found in stratified deposits dating between 10040 and 8760 BP.[3] Subsequent archaeological investigations at the site of Baixão da Perna confirmed evidence of a reasonable minimum age of 9650–10530 BP for Serra da Capivara style rock art—the cusp of the Pleistocene/Holocene transition.[4]

Figure 4.2. Examples of Serra Branca style paintings.
Left: Caboclo (large figure 70 cm).
Right: Morcego (large figure 849 cm tall).
Photos by Reinaldo Morales, Jr., 2021.

Figure 4.3. Examples of Agreste tradition paintings:
Upper Left: Anthropomorph from Extrema II, 41 cm.
Upper Right: Anthropomorph from Canoas II, c.20 cm tall.
Lower: Agreste tradition jaguar surrounded by Serra da Capivara style anthropomorphs at Baixa das Cabaceiras, jaguar c.120 cm, small figures c.6-9 cm.
Photos by Reinaldo Morales, Jr., 2021.

Following the interpretations of Pessis and Guidon, this presumed evolution of styles reached its peak with the most sophisticated paintings, those of the Serra

Branca style (Figure 4.2). Because these feature "hierarchy symbols within the ethnic group," like headdresses, masks, and other "religious vestments," they represent the most highly *evolved* painting of the Nordeste tradition, dating to 7000–6000 BP.[5] So certain was this overlay of painting phases onto lithic phases that when the material record at Pedra Furada suggested an abandonment at 6000 BP (Parenti 2001: 99-108), this was thought to indicate that the populations of Nordeste tradition painters disappeared completely (Pessis 2004a: 163; Guidon 1998). A new population, responsible for the subsequent Agreste lithic tradition, were thought to have immigrated to Serra da Capivara and were thus assigned credit for a subsequent and obviously very different painting style, the Agreste style, dating to around 6000–3000 BP (Figure 4.3).

Compared to those of the Serra Branca style painters of the Nordeste tradition, these Agreste paintings are rough and unsophisticated (as the Brazilian Portuguese term *agreste* suggests in its pejorative). This is not unlike the "decadence" of the Agreste lithic tradition, less sophisticated than (and following) the Serra Talhada lithic phase—an "involution of lithic industries around the sixth millennium BP," as Fabio Parenti characterized it (Parenti 2001). In this 'evolution of art' model, Agreste paintings represented an *involution* of style that was bound to follow the presumed departure of the people responsible for the refined Serra Branca period style (as well as the refined Serra Talhada II lithic phase).

Willibald Sauerländer's critique is salient to the rock art chronology that was originally proposed for Serra da Capivara, and for a raft of chronologies based on misuses of style as a chronometric tool—"the stylistic quest for chronology," as George Kubler put it (Kubler 1970: 131). If an art historian speaks of the style of a period, according to Sauerländer, they are "in danger of understanding style as the visual expression of a social constellation...dreamt of as symbolically unified" (Sauerländer 1983: 265-266). In this model of a temporally confined and evolutionarily ordered "social constellation," style is an inevitability of its specific phase of sociocultural evolution—a narcissistic reflection at best, an unwilling servant at worst. The force of that sociocultural evolution is the inescapable *zeitgeist* that insinuates itself upon the cultural developments of a given human moment, or Kubler's unavoidable shapes of time (Kubler 1962: 32). George Kubler, for example, preferred *format* because

style was too "heavily fraught with evolutionary associations," and thus "not only implies but demands exclusive domination over its 'period.'" (Kubler 1979: 170). All arts are possessed by their cultural period in this evolutionary model, and must therefore all run a parallel track with the ordered social constellation of an irresistible *zeitgeist*, "because the same Demiurge is active in them all."(ibid). Subsequent archaeological and art historical scholarship has repeatedly been swept up by this methodological solution to chronologically ordering the past (Sauerländer 1983).

Style and the Linguistic Turn

Gabriela Martin has noted that by introducing André Leroi-Gourhan's idea of *graphisme* to Brazilian rock art research—a term which draws little distinction between alphabetical characters and pictorial images—Pessis re-centered the analysis from one of visual art to one of language and texts (Martin 1997: 243). This follows the linguistic turn in anthropology championed by Claude Lévi-Strauss. The mid-twentieth-century linguistic turn is seen most influentially in the contributions by researchers like Lévi-Strauss, Leroi-Gourhan, and Annette Laming-Emperaire. Their students include Niède Guidon and André Prous, among the most respected and influential Brazilian archaeologists. These scholars essentially defined Brazilian rock art research for generations, an impressive academic lineage from the Sorbonne to the *sertão* of the Nordeste. Semiotics and evolution are closely married in this methodological turn. From Pessis' use of *graphisme* (adopted from Leroi-Gourhan's evolution of writing (Ingold 2004), the analytical discourse establishing the Serra da Capivara chronology sought to articulate an evolution of chrono-stylistic units, through scenographic, hypothetical, and conjectural analysis. This involved identifying the component *graphismes* (loosely translated as "graphics"), whether they are pure *graphismes* , *graphismes* of composition, or *graphismes* of action (Pessis 1982). The idea of an *evolution* of painting mated synchronously to phases of lithic development is the driving principle that resulted in the original chronology proposed for Nordeste rock art.

II. A New Century, A New Chronology

New Archaeology

The twenty-first century brought new methodologies, data, and ways of approaching rock art, providing new opportunities to build upon the pioneering work of Guidon and Pessis to generate new insights, revise early proposals, and test the chrono-style and evolution of art hypotheses. While the interpretation of this rock art benefits from the careful use of ethnographic analogy, which was anathema to structuralist readings of ancient painted *texts*, the focus of this essay is limited to two less subjective proposals based on the art-historical study of Nordeste rock art. The first is a revised chronology of these painting styles, a fairly conservative revision, but one that accounts for compositions that seem to contradict the clean Winckelmann-based progression (evolution) of one chrono-style after another. The second proposal offered here relates to a revision of the painting styles using the relatively uncontroversial method of formal analysis. Both proposals have implications for other rock art traditions in the Americas and the persistent debate about diffusion versus independent innovation in ancient American art.

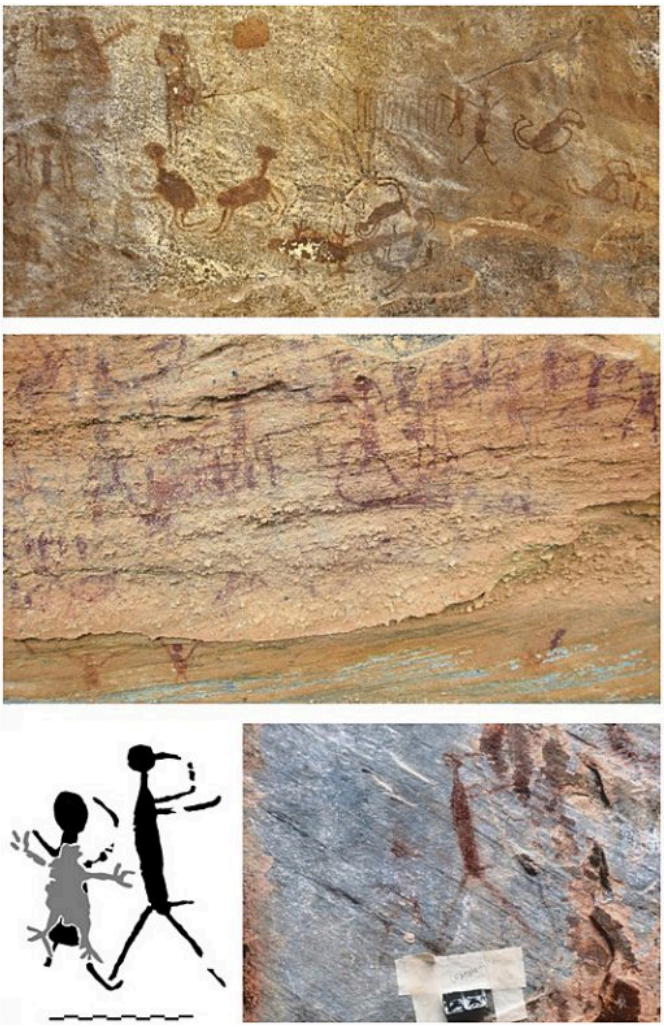


Figure 4.4. Examples of Serra da Capivara Style Paintings.
Upper: Characteristic anthropomorphic stylizations from Deitado, figures 8-12 cm. Photo by Reinaldo Morales, Jr., 2021.
Middle: Figures buried in stratified deposits as old as 9650–10530 BP at Baixão da Perna I, figures 4-12 cm. Photo by Reinaldo Morales, Jr., 2021.
Lower Left: Drawing of the heavily sampled Serrote da Bastiana figure, c.17cm tall. Drawing adapted from a photo by Niéde Guidon, after Steelman et al., 2002.
Lower Right: Serrote da Bastiana figure before 2000 sampling. Photo by Reinaldo Morales, Jr., 2004, after almost all the pigment was removed for dating.

Figure 4.5. The limestone alcove of Serrote da Bastiana where several paintings were sampled and radiocarbon dated. Central red Agreste tradition figure c. 50 cm; small red Serra da Capivara style anthropomorph from Figure 4.4: Lower Right, c. 17 cm.
Photograph by Reinaldo Morales, Jr.

The direct sampling and radiocarbon dating of pigment samples at the turn of the century warranted a reassessment of the rock art chronology proposed in the 1980s.[6] Between 1999 and 2000 paint samples were taken from a red Serra da Capivara style anthropomorph at the site of Serrote da Bastiana (Figures 4.4, 4.5). This painted figure has been sampled almost out of existence and is probably now the single most sampled and dated rock art image in the world. Using plasma oxidation and accelerator mass spectrometry (AMS) radiocarbon measurement, pigment from the sampled anthropomorph yielded a date of 3730 BP (Figure 4.4, Lower: Left). This evidence argues for revising and expanding the temporal span of the Serra da Capivara style (to 12000–3730 BP rather than 12000–9000 BP). This would mean that Nordeste tradition painting persisted beyond the presumed 6000 BP "abandonment" of the "Nordeste people," and the disappearance of their eponymous lithic tradition (Guidon 1998: 48). The implications of these various direct dating efforts on this particular Serra da Capivara style painting are significant.

The 3730 BP painting date at Bastiana is one of a suite of direct radiocarbon measurements from paintings at Bastiana that were all in the range of only a couple of thousand years (versus the tens of millennia of disagreement in other efforts) (Guidon 2004: 140; Guidon and Buco 2006: 127; Watanabe et al. 2003:351-353). Paintings of this date should not be unexpected. There are numerous, similarly later dates for sites with paintings in this Serra da Capivara style (after the proposed 6000 BP Nordeste abandonment). Considering this evidence, it seems reasonable to accept the Baixão da Perna I dates as the earliest solid evidence of Serra da Capivara style rock art (10530–9650 BP), and reasonable to conclude it lasted until at least 3730 BP (well beyond the style's originally proposed 9000 BP terminus). While these dates call the original chronology for Serra da Capivara style rock art into question, and make the methodology responsible for it problematic at best, it is evidence of a very persistent painting style, if indeed these various paintings are all the same style.

Stilus v. Chronos

Here is where style may fail to cooperate as some might like. It would be easy if a style indicated a clean-cut, well-measured span of time followed by a different style with its own clean-cut, well-measured span of time, and so on. But styles need not be sequential (serial)—they can coexist within a single cultural moment—nor must they have clearly defined limits. Style is incompatible with the clean-cut appearance of Linnaean evolutionary and phylogenetic taxonomic systems borrowed from the biological sciences. The idea of style representing a clean-cut, well-measured span of time has been fundamental to the evolution of the chrono-styles model, where supposedly un-evolved styles are presumed to precede more complex, evolved styles. Winckelmann's original evolutionary model of art held that "the form of real beauty" suffered in the work of late artists because "taste declined among them, and the arts were trampled on" by political and moral decline (Winckelmann 1765: 261); art was the unwitting "mirror of a lost felicity" (Sauerländer 1983: 261). Stylistic sequence is not in question here, only artificial sequences based on a synthetic *a priori* proposition that art evolves like textual graphemes or biological organisms. But how can the Serra da Capivara style be both the oldest *and* the youngest dated rock art here? Winckelmann and his methodological progeny inebriated countless future generations of art scholars on the simple beauty of evolution in the study of very old things, "the greatest temptation of an understanding of style" (Sauerländer 1983: 262). This notion was eventually applied to many other places and times, meeting with especially poor success in the early studies of art in European caves.[7] Timothy K. Earle noted how, "methodologically, the radiocarbon revolution in dating in the 1950s transformed the field of archaeology, and studies of rock art styles as a means to establish time-space culture histories were discontinued" (Earle 1994: vii). Now we can see that styles as simple to replicate as these Serra da Capivara miniatures[8] (formal varieties of which occur in many rock art traditions, as considered below) cause special problems with stylistic analysis *qua* chronometric analysis.

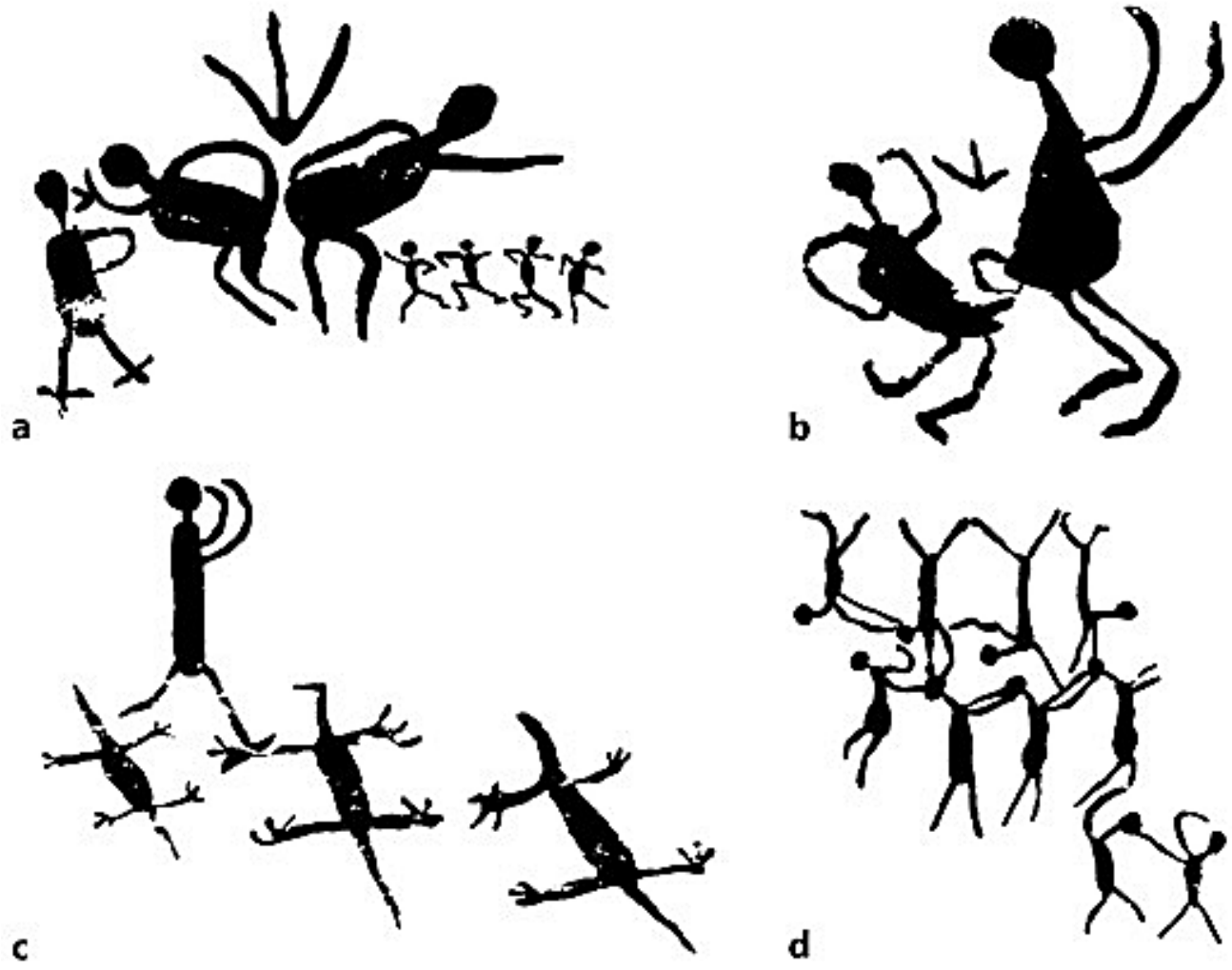


Figure 4.6. Serra da Capivara style paintings with the same figural stylization as the dated figures from Serrote da Bastiana (cf. Fig. 4.4: Lower):

a. Entrada do Pajaú

b. Entrada do Baixão da Vaca

c. Sítio do Meio

d. Pedra Furada All figures c.6-12 cm.

Drawings by Reinaldo Morales, Jr., 2021.

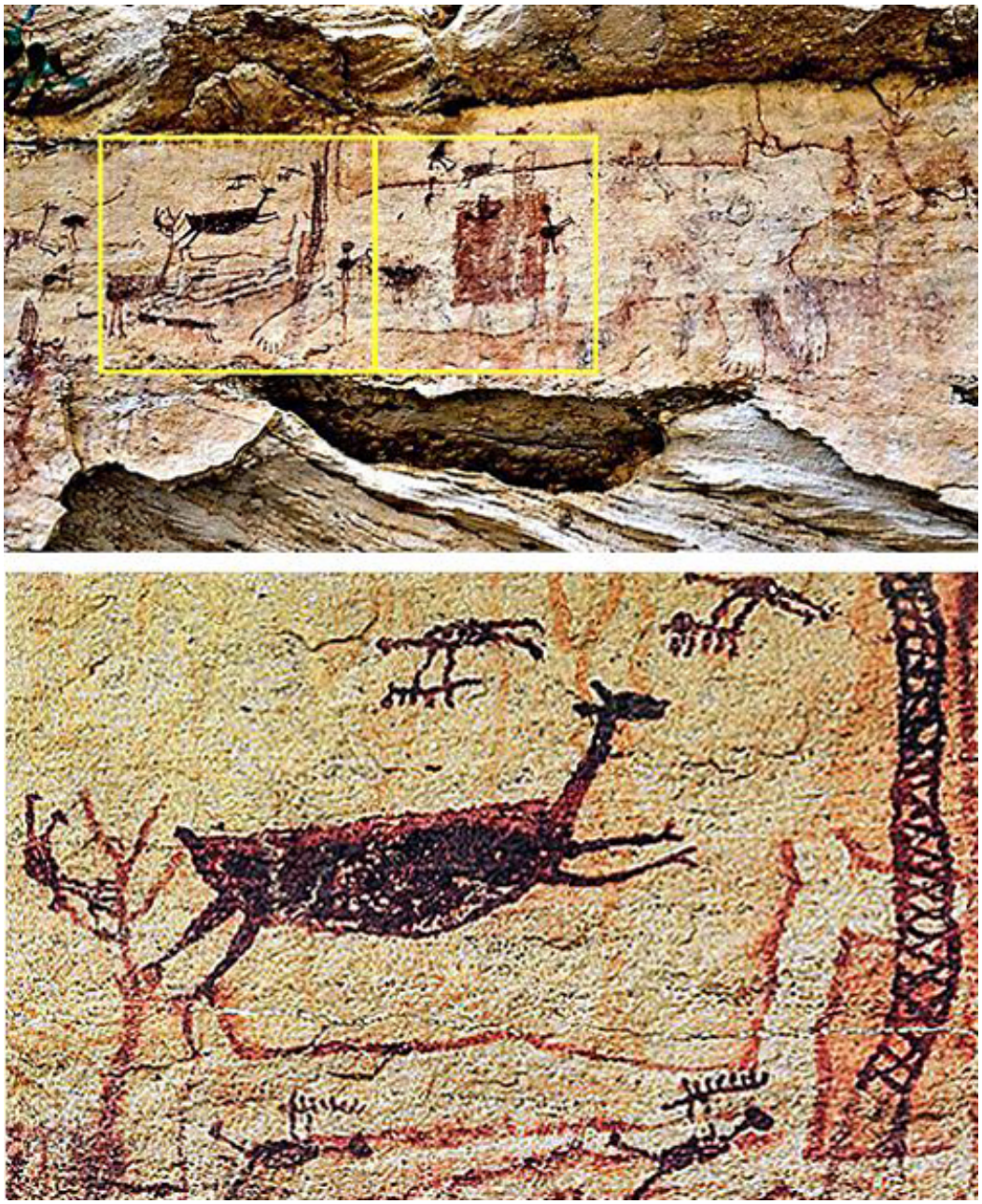


Figure 4.7. Toca do Estevo III, Parque Nacional Serra da Capivara.
Upper: Smaller Serra da Capivara style red figures painted over a large polychrome Angelim style white jaguar, c.118 cm wide. Two similar scenes of the same subject (deer capture) highlighted, each in the same style, though probably by different artists. Note the vertical nets to the right of each scene (right net is somewhat obliterated by red patch).
Lower: Detail of upper left scene.
Photos by Reinaldo Morales, Jr., 2021.

It seems reasonable to expect that a specific, well-defined style may have a limited duration in time—a single period—but it is not reasonable to expect that a specific moment in time will have only a single style. This idea is all the more counterproductive when it is assumed that a period or place has a style that reflects the values or *mental template* of every artist working during that period in that place. The frequently flawed application of such temporal and spatial determinism has often proven to be more of a methodological hindrance than benefit in art historical and archaeological scholarship. For example, figures like those at the heart of the Serrote da Bastiana dating attempts are strikingly similar in style to examples from the Serra da Capivara type sites of Entrada do Pajaú, Entrada do Baixão da Vaca, Sítio do Meio, and Pedra Furada (Figure 4.6).

Also, like Serrote da Bastiana, sites with the Serra da Capivara style yielded evidence of use from 4760 BP (at Ema do Sítio do Brás) to 2700 BP (at Sítio do Meio). These are within a millennium of the 3730 BP date for the Bastiana anthropomorph. The Serrote da Bastiana dates seem even more reasonable when we consider that these sites with similarly styled paintings were being used at similarly later dates, well after the proposed 6000 BP Nordeste abandonment. One must concede that while there is a clear and early Serra da Capivara style (such as at Baixão da Perna I), other Serra da Capivara styles must have independently appeared much later (as at Serrote da Bastiana). Some of these styles are certainly intentional copies or revivals of earlier ones. That these Serra da Capivara styles appear widespread across both time and space in the region is reinforced when we examine examples that appear to violate the initial chrono-stylistic evolution.

The Serra da Capivara style figures painted over a larger polychrome jaguar at Toca do Estevo III are great examples of how two almost identical hunting scenes were painted side by side, in almost identical styles, but probably by two different hands (Figure 4.7). The left group of five anthropomorphs, a net, and a larger deer is mirrored by another composition to the right featuring five anthropomorphs, a net, and a larger deer, with an extra figure back near the left group (but clearly in the hand of the right group painter). The right group anthropomorphs have larger, rounder heads and larger, rounder torsos, compared to the scale and proportions of those on the left. The left deer is

larger than that in the right group and shows more graceful drafting skills, especially in the legs and nape. The comparatively more refined brushwork and draftsmanship of the left group painter is most apparent in the two nets. This illustrates two important points: The Right Group Painter copied the Left Group Painter, whether minutes or years later; and, basic art-historical style analysis can not only identify one style from another, but can identify different painters using the same style. Significant here is that these Serra da Capivara style figures were painted over another painting, the large jaguar. The Estevo III jaguar was considered an example of the *last* Nordeste tradition painting style, the Serra Branca style, following the original chrono-stylistic evolution model.[9]

The intimate juxtaposition of Serra da Capivara style anthropomorphs around large Agreste tradition paintings at Baixa das Cabaceiras (Figure 4.3: Lower) shows that Serra da Capivara style painters were working *after* Agreste tradition painters. There are three prominent Agreste tradition jaguars along the rear wall of this rockshelter. Two of these large jaguars have small red anthropomorphs tightly encircling them, as in Figure 4.3: Lower. Some of these miniature anthropomorphs have outstretched appendages touching the jaguar, while others are connected to it by long lines representing projectiles (jaguars, dart throwers, and darts are very common in the iconography at sites in this particular canyon system). These examples from Baixa das Cabaceiras invert the original chrono-style rock art sequence at Serra da Capivara. In a Serra Branca style composition from Morcego, several figure types are present in a composition possibly painted by a single hand (Figure 4.2: Right). A group of Serra da Capivara style anthropomorphs, painted in a smaller scale or abbreviated technique, seems to reflect the same hand of the painter of a nearby "Classic" Serra Branca style composition. In this fashion, the smaller images clearly create a strong visual contrast with the elaborate, elongated anthropomorphs executed in a purposeful rectilinearity. At Morcego, we see an apparent intentional manipulation of form (the elements of art and principles of design) in the service of communicating something with greater effect. This is well known to students of art history and nothing new in Pre-Columbian art. See, for example, the contemporary use of a "folk" style and an "elite" style of Maya cave art at the same time in the same caves. Irene Winter (1998) and Andrea Stone (2005) have each argued that style, like iconography,

can be used intentionally to carry meaning. This Serra Branca style composition from Morcego seems like a reasonable example.

III. A New World: Monuments, Migrations and Miniatures

The presumed oldest, least evolved painting style turned out to also be the most recent painting style in Serra da Capivara National Park. This is not unreasonable if this is a style or a collection of closely similar styles that were loosely shared across various temporal, and even cultural boundaries. These were experienced painters living around the eastern highlands of the Serra Bom Jesus da Gurguéia from the dawn of the Holocene (if not earlier) until *at least* the advent of ceramics and formal settlements by 3000 BP, at the beginning of the Nordeste Formative period. Certainly rock art was not the only form of visual expression; these painters no doubt lived in a world of many other, archaeologically transparent, painted media. Grieder cautioned that we must acknowledge that culture "is people perceiving, *reacting*, imagining, explaining, remembering and forgetting" (emphasis added) (Grieder 1982: 178). These very human terms allow for human proclivities like copying or reviving styles (or independently generating formally identical shorthand styles from time to time). Reactions, like copies or revivals, are part of artworlds across the Pre-Columbian Americas. We have to remember that these painters were not just observing and reacting to their world. Like all painters living in painting-rich environments, these painters were reacting to their artworlds as well.

By the advent of pottery around 3000 BP, Serra da Capivara was certainly a rich artworld, one confronting new forms and demands (such as ceramic crafts) of a new domestic reality in an emerging small village dynamic. Generations of copies of old arts were so commonly encountered by 3000 BP that a tradition of revivals of convenience may have been the norm—perhaps even the *mean* of the style (Grieder 1996: 140). Thus rock art itself had to compete with other painting media to the point that its (seeming) primacy in visual expression began to fade, beginning a process that led to the apparent lack of any recorded rock art traditions witnessed by the European immigrants who wrote the first

textual histories of the Nordeste. Lacking later archaeologically dated evidence, a c.2500 BP terminus for the Nordeste tradition rock art is therefore proposed.

A Nordeste Formative

The onset of a Nordeste Formative around 3000 BP didn't only inaugurate an era for Nordeste painters, it marked the advent of a new world in other significant ways. The stylistic and iconographic variability we see in this rock art may reflect cultural responses to the mid-Holocene Climatic Optimum and subsequent environmental changes. Around the time of a presumed Nordeste hiatus or abandonment (by 6000 BP), rock shelters became much less frequently used. Higher temperatures and more humid seasonal patterns then reached a maximum by 4000–3500 BP (the Mid-Holocene Climatic Optimum) (Guidon 1986; Behling 1995: 265-266; Ledru et al., 1996: 239-240). This dramatic shift was probably responsible for some of the adaptive strategies and technological changes we see in the archaeological record. The transition to the Nordeste Formative was almost as culturally dynamic as the Pleistocene/Holocene transition ten thousand years earlier. Climatological evidence suggests that there was a return of humidity after the drought conditions of the climatic optimum, by around 3000 BP. The vegetation "intensified extraordinarily," and was characterized by "large forests in the valleys and *cerrado* on hills and slopes, ...with a dry season of around 5 months and higher precipitation" (Behling 1995: 253; Ledru 1996: 239). Conditions became more conducive to the spread of dense cerrado and semi-deciduous forests in nearby regions. The dry season became shorter and the influence of fires on the vegetation diminished (Behling 1995: 253).

The beginning of the "New World" of the Nordeste Formative is marked at Serra da Capivara with the pottery at the site of Pinga do Boi around 3320 BP. By this time the rock shelters in the canyons were being largely abandoned or only used very occasionally. Archaeological evidence suggests that this occasional use was temporary and was not specifically connected with domestic activities (Vidal, personal communication).[10] The return of more permanent water sources would have enabled an abandonment of the rock

shelters as occupational sites in favor of other, more permanent locations in the landscape. The proposed Nordeste abandonment might have been a result of the increasing archaeological transparency of the adaptive strategies employed by bands of hunter-gatherers moving into new environmental niches—out of the rock shelters and into the open. By this time the environmental conditions we see today were fairly well established in Northeast and Central Brazil (Sheel-Ybert, and Bachelet 2020: 285–286).

1492 BCE

It is somewhat poetic that the calibrations required to convert radiocarbon years (BP) to calendar years place the year 1492 BCE squarely in the range of the uncalibrated radiocarbon date of 3320 BP for the ceramics from Pinga do Boi (Bronk 1998; Hogg 2020). The date 1492 BCE used here for rhetorical purposes similarly refers to a range of hundreds of years. It broadly points to the adoption or influx of Formative lifeways across Brazil, but we can see fundamental changes in societies across the Americas as well. There was a marked increase in the number and size of Formative sites in the Amazon, including sites with elaborate ceramic assemblages.[11] Regarding other areas of South America, Pozorski and Pozorski note that the Initial Period along the Pacific Coast (2100-1000 BCE) was "the time of decisive cultural innovations…a dynamic time of remarkable cultural achievements. Suddenly,… at least a half a dozen cultural developments or polities" appear (Pozorski and Pozorski 2008: 614). Farther north, John Hoopes notes that "Mesoamerica experienced a veritable explosion of ceramic styles between 2000 and 1500 B.C." (Hoopes 1994: 28). Around this consequential time the earliest reliably-dated Mesoamerican cave paintings appear. At Oxtotitlán, oxalate accretions overlaying rock art date to 1520–1410 BCE, "a *terminus ante quem* marker," for the Early Formative polychrome painting at the site, "the earliest evidence for this medium in Mesoamerica" (Russ et al., 2017: 179).

Figure 4.8. Monumental painted anthropomorphs.
Left: Pecos River style figure at Fate Bell Annex, Seminole Canyon State Historical Park, Texas, c.190 cm tall.
Right: Serra Branca style figure at Morcego, c.170 cm tall.
Photos by Reinaldo Morales, Jr., 2021.

Figure 4.9. Barrier Canyon Style mural, c.1500 BCE, with a large Fremont style figure, c.800 CE, superimposed upon one of the older anthropomorphs, so that its head appears to peek out from behind or rest on the Fremont figure's shoulder. The drawing illustrates this careful superposition with the Fremont figure (light grey) over the older Barrier Canyon Style figure (dark grey). From the eastern San Rafael Swell in Utah (largest red figure fragment c.180 cm).
Photo and drawing by Reinaldo Morales, Jr., 2021.

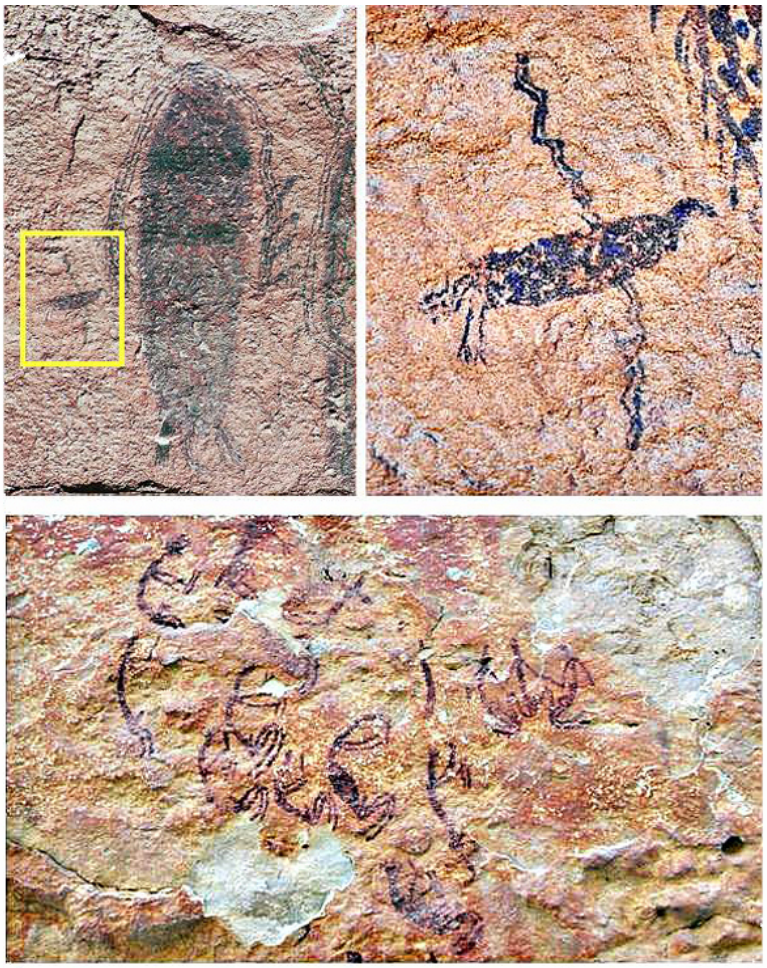


Figure 4.10. Examples of miniature painting from the American Southwest:
Upper Left: Barrier Canyon Style anthropomorph(?), c. 22 cm. tall; detail from a larger composition, from central Utah.
Upper Right: Detail enlarged from upper left figure. Polychrome Barrier Canyon Style bird c.35 mm long, with some lines less than one millimeter wide, one of several small animals surrounding larger figures in this composition.
Lower: Composition of Red Linear Style figures, c.10 cm each, with appendages only a few millimeters wide, from Seminole Canyon State Historical Park, Texas.
Photos by Reinaldo Morales, Jr., 2021.

The American Southwest saw a new world with the Late Archaic arrival of increased humidity and the sub-boreal interval, or Medithermal, after the Middle Archaic Altithermal drought.[12] A number of major rock art styles, primarily painted (as opposed to carved or "petroglyph" imagery) arose throughout the region during this time, the most notable of which include the Pecos River Style, Barrier Canyon Style, and the Grand Canyon Esplanade Style (Boyd 2013, Schaafsma 1980; Christensen and Dickey 2004a; Dickey and Christensen 2004). The adaptive strategies that the hunter-gatherers developed as responses, certainly included changes in the arts. Solveig Turpin points to a combination of ritual activity with new aggregation and dispersal patterns in the rock shelters along the essential watercourses of the Lower Pecos River region (Turpin 1994). Pecos River Style rock art, Turpin argues, may have been one response to the new social frictions and fractures resulting from the new ecological demands. These monumental polychrome murals date to the late Middle Archaic (2100–1200 BCE) (Boyd 2013: 19). The most recent (January 2021) and by far the most secure dating of an Archaic Southwest painting is from one of the iconic Pecos River style sites, Eagle Cave. Using both the direct sampling of the pigment and the dating of the accretion covering it, the method we saw at Serrote da Bastiana, Karen Steelman and colleagues report a weighted average of 3280 ±70 BP for the paintings (a median date of 1556 cal BCE) This latest of several direct dates "firmly places the production of the dated [Pecos River style] figures at the end of the Middle Archaic in the Lower Pecos," around 1492 BCE (Steelman et al., 2021: 9). The similarity in the rendering of monumental anthropomorphs between this Pecos River Style and the more-or-less contemporary Nordeste Serra Branca style seems remarkably striking (Figure 4.8).

Further north, on the Colorado Plateau in modern-day south-central Utah, a similar and fairly contemporaneous Archaic new world played out with Barrier Canyon Style rock art, dated c.5000? BCE-1000 CE (Figure 4.9) (Schaafsma 1980; Farmer, this volume). This significant corpus of rock art appears to have been one of the adaptations an artworld made around our rhetorical 1492 BCE moment. Phil Geib described in detail how these hunter-gatherers may have adapted to the Middle- to Late-Archaic upheavals in seasonal resource procurement. A significant increase in site use occurred in the region during the second millennium BCE, contemporary with 1492 BCE. The Barrier

Canyon Style emerges as one of the most impressive and distinct artworlds in the ancient Americas (c.5000? BCE-1000 CE) (see Farmer, this volume and 2001; Geib 1995). It is important to note that these Barrier Canyon Style painters were not only master muralists but also master miniaturists. It is common to find figures often over a meter tall with miniature animals around them, barely 20 mm long with clearly articulated details like horns or feathers (Figure 4.10: Upper), in millimeter-wide brushstrokes interspersed among compositions of larger figures visible to the naked eye over a half mile away. Miniaturism was combined with monumental painting intentionally as a means of expression.

"Reacting and remembering" are as much a part of Pre-Columbian cultural dynamics as innovation and diffusion (Grieder 1982: 178). Formal influences of the Barrier Canyon Style painters and their inescapable artworld are evident in the rock art images of the later Fremont culture of the same general area, c.700-1300 CE (Schaafsma 1980: 61). Fremont people, contemporaries of the early Ancestral Puebloan peoples to the south, were former hunter-gatherers transitioning to the new world of the Formative, developing incipient horticultural and associated sedentary life styles, nascent architectural traditions, and early ceramics, while looking back in time to the artworlds they inherited. Fremont rock art style imagery includes impressive engravings as well as monumental paintings, similar to, but distinctly different from earlier Barrier Canyon imagery. Perhaps most intriguing from an art-historical perspective are the instances of ancient Fremont artists apparently paying homage to their Archaic forebearers. Sites like the Temple Mountain Wash site, in the San Rafael Swell region of central Utah (Figure 4.9), demonstrate how Fremont paintings were carefully composed to appropriate, accentuate, copy, and adapt Barrier Canyon Style motifs. In the San Rafael Swell example, a large Fremont figure was intentionally superimposed over an older Barrier Canyon Style figure. The shoulders and torsos align in such a way as to create the appearance of a Barrier Canyon Style head resting on the shoulder of a Fremont figure. These are eloquent examples of early American artists reacting to a rich and sophisticated artworld from the past. They did so in a manner that reveals an awareness of the aesthetic impact such technically distinguished images have upon viewers, especially when presented on the monumental scale we see in the San Rafael Swell example.

In the Trans-Pecos region of west Texas, we also see sites with a distinct miniature painting tradition labeled the Red Linear style (Figure 4.10: Lower). Recent scholarship confirms that this style and the more monumental Pecos River style were generally contemporary (Boyd et al., 2013), just as we see Serra da Capivara style miniaturism contemporary with presumably later, larger-scale painting styles in Brazil's Nordeste. Nothing about miniaturism precludes it from being one of several aesthetic strategies exploited contemporaneously with large-scale mural painting—one style does not have to be chronologically, evolutionarily, or ethnically segregated from the other. Each style of painting could have simply served different purposes for the same people, people who were clearly skilled enough to express themselves in any manner they thought necessary (just as *in-situ* stone was certainly only one surface they painted on). There appears to be a fluorescence of painted rock art beginning with the end of the late Middle Archaic with its drought-related climatic stress, and this seems to continue vigorously through the Late Archaic, right up to the first experiments with a Formative lifestyle in the Southwest.

A Pan-Archaic Fluorescence?

The Serra da Capivara rock art and archaeological record reflects a similar series of radical changes peaking around 1492 BCE, with the appearance of ceramics at sites like Pinga do Boi and Morcego (Martin 1997: 216). At sites like these we also see some of the most sophisticated paintings in Brazil. These may be among the last paintings in the Nordeste tradition, as the original chronology proposed, though solid dates like those for the Serra da Capivara style are still lacking for these paintings. What we do have are several unique styles that share a strong iconographic underpinning. These painting styles are related to each other by a larger tradition, as Guidon and Pessis first recognized. An analogy from Western civilization might be the various relief sculptures around late Medieval European church portals between c.1000–1500 CE, which share common iconographic themes but represent a range of regional and temporal differences in sculptural style. The archaeological reconnaissance at these sites shows that they were used after the presumed 6000 BP end of the Nordeste tradition, yet they provide some of the most refined rock art examples

of that tradition. This level of refinement makes them attractive candidates for a last style in a series or an evolution of styles from simple to complex, and consistent with the proposed c.2500 BP terminus for the Nordeste tradition, if such a sequential formal development across time were the case for Serra da Capivara rock art.

The Serra Branca and Angelim Styles

The Serra Branca style was originally proposed as the end of the Nordeste culture's painting tradition based on the impressive compositions found at sites in the Serra Branca region in the remote northwestern reaches of the national park. A hallmark of this style is a distinct, sometimes severe, torso elongation, extreme attenuation of appendages (occasionally absent), use of abstracted heads and torso patterning, and a static, orant pose (frontal with arms outstretched). A pair of yellow figures from the site of Caboclo show the careful brushwork common in this style, made even more impressive by the scale of the largest figure, around seventy centimeters tall (Figure 4.2: Left). This rectilinear elongation, three-register torso patterning, and static, orant pose are also repeated characteristics of form we see in other Serra Branca figures at Caboclo. We also see this formal convention in other Serra Branca style paintings, like the monumental figure at Morcego and the compositions at Boqueirão do Paraguaio II (Figures 4.8: Right and 4.11). The Morcego figure is around 170 cm tall with both finger-painted and brush-painted lines, some only a few millimeters wide, with a slightly shorter but far more narrow yellow figure in profile to the left. Illustrating one of Pessis' emblematic compositional themes, this frontal-profile pair is juxtaposed with a large, 90 cm deer a meter to the right. This is a fairly standard compositional convention in the Serra Branca style, one we also see at Boqueirão da Paraguaio II.

One of the frontal-profile pairs at Boqueirão da Paraguaio II is painted in a different manner than the sharp-cornered Serra Branca style figures at Morcego. This pair, two of a dozen figures, has a large attending deer to the left, anchoring the impressive painted panel at this site (Figure 4.11). The deer is 120 m tall, from hoof to rack, and the larger anthropomorph is 73 cm tall, with some

lines barely over a millimeter wide. In addition to the sophisticated painting techniques, there is a distinct formal feature which these figures share with dozens of other sites around Serra da Capivara, which I have labeled "open-contour appendages". This is a key formal diagnostic element which I have designated the "Angelim Style" (Morales, Jr. and Risatti 2019), now recognized as a distinct variation of the broader Serra Branca style. A scene from Pinga do Boi is another strong example of painterly sophistication and importance of form of one of these open-contour Angelim-style paintings (Figure 4.12). Half-centimeter white lines were painted first, providing the shape of the large, central deer, including three distinct sets of interior patterns. These white lines, which have faded considerably, were then outlined by thinner red lines with the ends of the visible appendages left open, terminating in graceful fluted lines.

Figure 4.11. Site Boqueirão do Paraguaio II. Polychrome Angelim style figure with "attendant" to the right and part of a large deer to the left, showing the open-contour appendages diagnostic of the style (73 cm).
Photo by Reinaldo Morales, Jr., 2021.

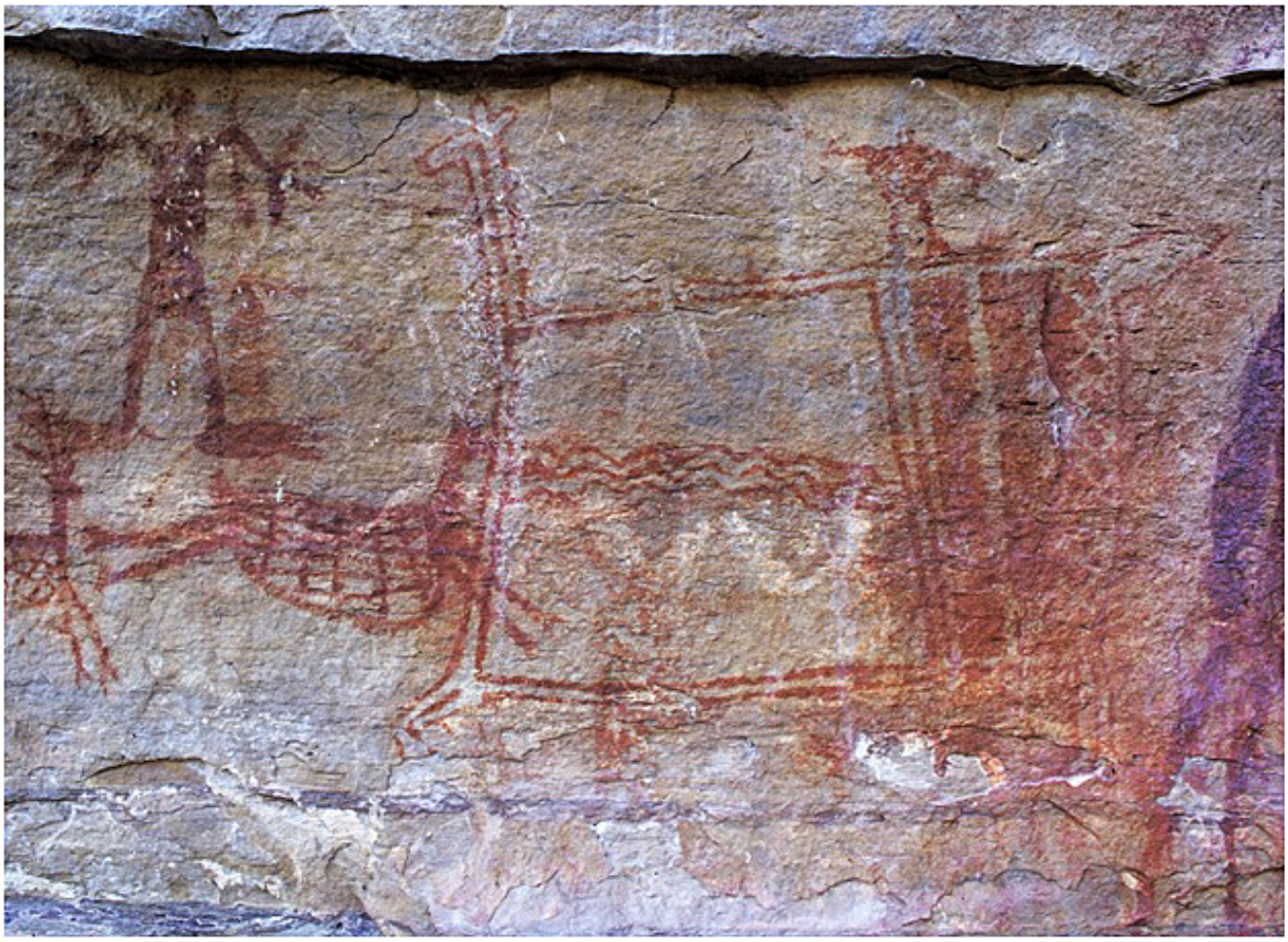


Figure 4.12. Polychrome Angelim style deer at Pinga do Boi, with two anthropomorphs and two deer of different styles painted afterward and around it (70 cm).
Photo by Reinaldo Morales, Jr., 2021.

These Serra Branca and Angelim styles were originally lumped together as a single, tradition-ending style. An iconography-based methodology that sought cultural themes as indicators of social evolution did not recognize the distinct manner of painting represented by the Angelim style. Approaching these paintings, however, as *formal* evidence of changes in cultural context, by means of careful art-historical approaches to an analysis of style (i.e. the "configurational" method of Kubler and Grieder), allows a much more sophisticated understanding of the true diversity of the prehistoric artists who created these images.

A Piauí Homeland?

A style-based analysis also verifies, to an extent, the widespread distribution of some of the painting styles to other parts of the Nordeste, and to more effectively assess whether far distant paintings might indicate far-flung cultural progeny of the Serra da Capivara populations. An unofficial but widely accepted 'Out of Piauí Model' of sorts has permeated Brazilian archaeology over the decades since the 1970s rediscovery of the rock art at Serra da Capivara. Paintings that resemble Serra da Capivara miniatures have been found in Bahia, Rio Grande do Norte and other states in the Nordeste (Figure 4.13: a-c). These have been considered evidence of migrations out of Piauí around 9000 years ago (Martin 1997: 266). This, however, is based on the chrono-stylistic evolution model that isolates the Serra da Capivara style in the earliest millennia of the Holocene. Because the miniature painting tradition in Piauí represented by the Serra da Capivara style(s) persisted through the Holocene to the advent of the ceramic horizon, (or the Nordeste Formative as referred to here), we must re-assess the 9000 BP origins of this artistic diffusion.

Figure 4.13. Comparison of similar modes of figural abstraction from various South and North American miniature painting traditions (scale varies, c.5-15 cm).

a. Serra da Capivara National Park, Piauí (Brazil)

b. Chapada Diamantina, Bahia (Brazil)

c. Seridó region, Rio Grande do Norte (Brazil)

d. Serranía de Chiribiquete National Park, Colombia. Drawings adapted from Castaño-Uribe 1998.

Figure 4.13. (cont.)
e. Pair of miniature figures with plant motif (far left) from Peruaçu Caverns National Park, and three groups of larger (25-35 cm) figures from the Lagoa Santa region, Minas Gerias, Brazil. (drawings adapted from Prous, Baeta, and Ruboli 2003)
f. Seminole Canyon State Park, Texas (USA)
g. Lincoln National Forest, New Mexico (USA)
h. Barrier Canyon Style, Utah (USA)
i. Kanab Plateau, northern Arizona, USA (adapted from photos by James Farmer)
All drawings by Reinaldo Morales, Jr., 2021, except where indicated.

Some notable examples of South American rock art seem to stretch the notion of direct transmission of a style even though they share a lot of the formal qualities we see in the Serra da Capivara paintings (Figure 4.13). Some small stick-figure and similarly simplified figurative paintings and drawings in Peruaçu Caverns National Park have been considered evidence of a Nordeste

intrusion, implying that local populations were not responsible (Figure 4.13:e) (Prous 1994). This semi-subterranean river and cave system in Minas Gerais is another of Brazil's most important concentrations of rock art. At only 700 km south of Serra da Capivara, not much farther than the Nordeste outlier in Rio Grande do Norte, nothing about the distance precludes the transmission of a style between the two areas. These appear to be late and less painterly contributions to the Peruaçu artworld. But formal analysis reveals that there are significant differences between the Peruaçu examples and their presumed Serra da Capivara style progenitors in Piauí. Elaborate, elongated anthropomorphic figures documented in the national park established around the Chiribiquete highlands in southern Columbia (Figure 4.13:d) are similar to those in Serra da Capivara and the northern Chapada Diamantina in Bahia (Figure 4.13:b). We see this especially in the finely-detailed anthropomorphs wielding dart throwers, around 15–20 cm tall with elongated torsos and frequently with C-shaped heads. The C-shaped head is a diagnostic stylistic quality of the Nordeste miniature tradition in Bahia and Rio Grande do Norte (Figure 4.13:c), but practically absent in Piauí. The Minas-Piauí connection seems less plausible than the Bahia-Piauí connections, and the Colombia-Piauí similarities are probably coincidental, but these are excellent cases for more granular, detailed studies.

Farther Afield: Diffusion or Invention?

In arid and semi-arid regions throughout South and North America we can find candidates for a trans-American stylization that, without further evidence, appear to be independent innovations of form. Archaic rock art of the American Southwest shares in this tradition, so much so that there has been a long-running discussion of cultural connections between the Colorado plateau and the Trans-Pecos region of southwest Texas (Allen 2004; Christensen and Dickey 2004b). The formal hallmarks of these styles include a distinct, sometimes severe, torso elongation, extreme attenuation of appendages (occasionally absent), use of abstracted heads and torso patterning, and a static, orant pose—almost exactly as seen in some Nordeste styles (Figure 4.14). Lekson has offered a view of Southwest prehistory that engages long-distance

cultural similarities like those we see among these elaborate painting traditions. He asks: "What picture would emerge if we began our thinking about the Southwest with the premise that it and its subregions were *more likely interconnected than otherwise*?" (Lekson 2008:8). Why should we assume that Archaic, *highly migratory* painters of the Colorado Plateau knew nothing about distant painting traditions and ideologies to the south in Mesoamerica or to the southeast along the Rio Grande? As Stephen Lekson once again points out, in the ancient Americas, long distance communication and knowledge sharing were never really an issue; quoting Alice Kehoe: "Distances can be dealt with. Long distances did not intimidate Native North Americans." (Lekson 2008: 9).

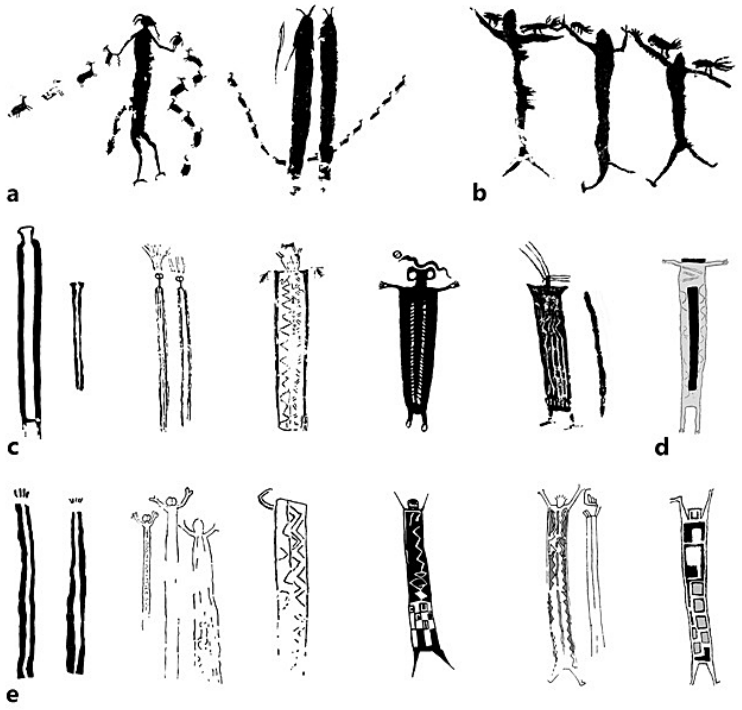


Figure 4.14. Comparison of similar modes of figural abstraction from various monumental painting traditions from North and South America.
a. Barrier Canyon style composition with stylized anthropomorphs interacting with a miniature bird and mountain sheep, central Utah (USA) (animals c.12-20 mm)
b. Nordeste tradition composition with stylized anthropomorphs interacting with miniature birds, central Bahia (Brazil) (birds c.15-20 mm)
c. Examples of different modes of figural abstraction in the Barrier Canyon Style from Utah (scale varies)
d. Pecos River Style polychrome figure from Texas, c.110 cm, showing the rectilinear stylization and refined draftsmanship (cf. Farmer, this volume, Figure 2.2).
e. Examples of different modes of figural abstraction in Brazil's Nordeste tradition (scale varies). Drawings by Reinaldo Morales, Jr., 2021.

A similar discussion surrounds the miniature paintings of the Red Linear style of the Trans-Pecos region and those found in the mountains of West Texas and the Guadalupe Mountains of southern New Mexico (Figure 4.13: f-g). Early research by David Gebhard attempted to discover a seriation in the various styles of the Trans-Pecos, concluding that the miniature, mostly red paintings

followed the larger, more elaborate paintings (Gebhard 1960). This was also the conclusion of later research by Grieder, who noted features of the compositions that apparently reinforced their isolation as a period in themselves, and a chronology consistent with Gebhard's (Grieder 1966). When comparing the shorthand miniature paintings in Northeast Brazil to these various miniature styles of the middle Rio Grande drainage, they appear to be just as similar to those of the Trans-Pecos and the Guadalupe Mountains as those two styles are to each other. More than just a comparison of iconography and interpreted themes is needed to demonstrate stylistic similarities; miniaturism and deer hunting themes are insufficient to rule out a coincidence of formal convenience and presume a culturally-unified tradition. Little evidence indicates a stylistic connection between ancient rock art painters situated in modern-day Texas and New Mexico, unless such a broad connection is drawn that the Nordeste painters would have to be included. These are, in the absence of further evidence, most likely independently developed painting traditions unbound to any presumed evolutionary chronology of style.

IV. Solutions and Complications

As Grieder notes, "some kind of migration is a factor in virtually every society—with migrants providing unconventional responses in their new environments and starting new chains of inventions" (Grieder 1982: 10). Artworlds as a cultural trait were neither new or invented in the New World; they no doubt were part of the cultural matrix of the earliest migrants. But rich new artworlds subsequently developed, reflecting the unique societies who occupied practically every environmental niche in the hemisphere. Yet, once here, art did not *evolve* in the same manner as traditionally defined archeological materials or processes, or even biological organisms or languages and writing (i.e. human evolution). One must keep in mind however, that Danto's 'artworld' is as much an ideological construct (if not more so), as it is a physical galaxy of people and material things (art works). In this regard, 'migration' may well refer only to the transfer or exchange of ideas, as opposed to physical relocation or exchange. And somewhat ironically, the transfer of

"ideas" (i.e. a sense of styles or technical expertise) ultimately requires only minimal physical contact between members of disparate groups; a serendipitous, random one-on-one conversation between two long-distance traders along an ancient trade route, in a manner quite different from Grieder's broader notion of large, migratory populations (cf. Tate, this volume, Figure 3.13).

Evolving Methods

Pictures are not words, and vice-versa; the paintings addressed here are not *pictographs*. This relic terminology from the heyday of nineteenth-century epigraphy implies an unevolved form of picture-writing that will one day become a fully evolved writing system, and implicitly devalues and denigrates any painterly or artistic merits of the imagery. Contemporary art historical methodology assumes quite the opposite; these are "complete" visual expressions (i.e. "works of art") created in the most sophisticated and intentional manner possible by the original artists. Art does not inevitably evolve over time like we presume languages do (glottochronology). A sincere evaluation of archaeologically distant rock art styles necessitates the incorporation or adaptation of any biological or linguistic approaches and associated data with a dedicated and more productive art-centered analytical framework ("art history"). Above all, modern art history methodologies no longer assume that *simple* or so-called schematic art must be considered an early style, and more *complex* or naturalistic art a later style.[13] Formal evolutions and changes in art styles can no longer be so simply explained.

The miniature paintings of the Serra da Capivara style present so few formal differences between oldest and youngest that style as a chronological marker is problematic to the point of practical uselessness. These miniature brush-painted styles from across the ancient Americas are so easily invented, replicated, and modified to personal tastes that their presence in one region does not mean that their presence in another region indicates contemporaneity or cultural connection. Nor (and perhaps more germane to this essay) can one assume, as the earliest Nordeste scholarship did, that the general similarities

between miniature styles and large scale varieties must reflect both cultural and archaeological contemporaneity and origin.

Waves of Culture

That the paintings in these regions share a common iconography is unimportant to this issue; these almost global similarities in subject matter are what one would expect of deer hunters painting their deer-hunting world. *Iconography* is not *style*; specific formal qualities are not generated solely by subject matter, although some styles can have associated iconographies. Likewise, nothing about style requires that the miniature paintings of the Trans-Pecos region, for example, must have come sequentially after or before the polychrome mural tradition.

In *Origins of Pre-Columbian Art*, Grieder argued that "Any culture is the product both of heredity from cultures which are ancestral to it and of its own adaptation to its environment" (1982: 4). He proposed a three-wave peopling of the Americas, and with each wave came distinct art traditions. These "waves" are now believed to have been from internal population movements in the middle Holocene (c.8000-4000 BP). Despite "at least four genetic exchanges between South America and other regions," a recent study of genome-wide DNA samples from forty-nine individuals concludes, "all the ancient South Americans descend from the same Eurasian source population" (Posth et al., 2018: 1189-1192.). If Grieder's "waves" were to be tested against the rock art addressed here, we would find that a "First Wave" must include the earliest Serra da Capivara rock art. In fact, the oldest communities in Brazil share a distinctive genetic ancestry c.12800 BP with the formerly "First" Americans, the Clovis people (the *Anzick-1* genome) (ibid). This is practically contemporary with the oldest confirmed occupants of Baixão da Perna I (12706–11998 cal BP). Cosimo Posth and colleagues (2018) also discovered evidence of a major expansion event, a second wave, out of the Andes around 4200 BP, which "is notable in light of the increasing density of sites in this region at approximately this time, a pattern that is consistent with a demographic expansion of a previously more restricted population"(ibid). A second, Late Holocene wave

would have not only adapted to their new worlds, but to the old artworlds already thriving in those consequential centuries leading up to 1492 BCE.

An Art History of Rock Art

Stylistic similarities, especially those that are so striking that they beg to be treated as a single cultural phenomenon (related migratory groups sharing miniature painting styles across Northeast Brazil or across West Texas and southern New Mexico), require a sensitive connoisseurship to discern, a careful eye for stylistic analysis and attribution, and, above all else, an acknowledgement that painting styles do not change across time like tool types or ceramic series. Just as Alfred Gell urged anthropologists to use the best anthropological methods in the development of an "anthropology of art" (Gell 1998), so should art historians apply the best art-historical methods to the art history of rock art.

As such, formal and stylistic analyses are still most powerful interpretive tools. We can identify a single hand working at many sites, and we can confirm significant similarities between the rock art from different regions. But what does that *mean*? Was there a unified Archaic ideology and tradition of form shared among those distant "cousins in culture," the Nordeste Tradition of Brazil (Figure 4.13: a-c), the Pecos River Style (Figure 4.13: f), the Barrier Canyon Style (Figure 4.13: h), and the Grand Canyon Esplanade Style (Figure 4.13: i), as Grieder might say (Grieder 1982: 175)? These seem like remarkable consistencies in regions of the ancient Americas up to c.5000 miles apart. Were there truly, as Stephen Lekson asserts, *no coincidences* (Lekson 2008: 8-9)?

Perhaps somewhat ironically, one finds one's self reconsidering a philosophical stance popular a century ago. Contemporary with Wölfflin's (now untenable) notion of a racial character that determines "the style of individuals, periods, and peoples" (Wolfflin 1950: 11), T. A. Joyce proposed such a solution for the widespread iconographic tradition of the so-called Weeping God in Pre-Columbian art: "This link may be forged of nothing more than a community of thought, but even so it affords strong evidence that the various manifestations

of ancient American culture possessed at least a common psychological element" (Joyce 1913: 373). Psychoanalysis of long dead people is no longer as popular as it was in 1915, so we must look for a more reasonable explanation.

One most obvious (and arguably overused/abused) argument here has been the use of "shamanism" to explain shared ideologies and practices, as these were widespread throughout the Americas and probably date back to the earliest trans-Pacific migrants (a point emphasized by Grieder in *Origins of Pre-Columbian Art*, 1982). By extension, and lacking much solid evidence to the contrary, associated ancient rock art imagery has long been assumed to reflect heavy shamanic influence, particularly regarding issues of content or subject matter, or the function of rock art sites. Yet, much ethnographic evidence in Brazil indicates that shamans have only a circumstantial relationship with the actual production of Brazilian rock art. Among a number of well-studied indigenous Brazilian societies, artistic production is not the purview of the shamans, but that of the sponsors of specific ceremonies where the presence of the spirits is required. The painters *might* have been religious specialists/shamans, but the research suggests that the painters may also have been members of the community for whom the depicted personages or spirits were summoned (Coimbra 2004; Maybury-Lewis 1967; Morales Jr. 2002). But the issue under consideration in this essay is primarily an issue of form and style, particularly as addressed by the "configurational analysis" methodology first asserted by George Kubler and Terence Grieder in the early 1970s (Grieder 1975). Despite wide-ranging scholarly popularity of shamanism as a tool of interpretation, specific criteria of form or style have never really been adequately or clearly defined for so-called "shamanic" art. To refer to any specific art form or imagery as "shamanic" in style is about as useful as referring to a specific category of "European" art. The shamanic argument simply has little bearing on the issue of style as considered in this essay.

In examples like the Serra da Capivara miniatures we see that a style is not necessarily limited to a single, short period of time; examples from the Trans-Pecos region, among other areas, show that different styles can coexist in any given period. Additionally, more recent archaeological data and a "configurational analysis" approach indicate that those of the Nordeste

tradition in ancient Brazil did not "evolve," and certainly did not do so in perfect unison with lithic or other archaeologically determined sequences.

Rock art, as a discrete medium of visual expression, continues to be perhaps the most challenging art form to interpret, particularly styles of long past and pre- or non-literate societies. Critical art-historical criteria fundamental to any analysis of artworks (when? who? how? why?), are often only generally hinted at or completely lacking; cultural contexts, social, environmental, and economic factors, and even "baseline" data, such as how many examples of a style exist, or even seemingly mundane matters, such as size, scale and location, most often can only be deduced through hypothesis. For example, much evidence suggests that the unpainted rock surface and associated geologic features extending beyond the painted imagery were, in fact, intended to visually interact with and be viewed as part of the painted composition (see Farmer, this volume). In such cases, exactly how are modern eyes even supposed to assign precise measurements or dimensions to a given work? To complicate matters further, many areas rich in rock art imagery, such as the Nordeste region or the American Southwest (or for that matter the great Paleolithic cave art of France and Spain) have only attracted the attention of serious scholarly research in the past 100 years or so. In many cases, we are still documenting new sites and establishing basic "catalogs" or databases.

What art historians assumed constituted 'style' a century ago – a "known" known – is no longer entirely accurate. Initial, archaeologically-based interpretations of Nordeste painting traditions produced a certain "art history" of the style. Subsequent archaeology, based in part on technological advances in the field, offered a revised "art history." Both approaches were hampered by a dependence on relatively outdated, even antiquated anthropological and art-historical methods and assumptions. This essay offers an-updated, more interpretively robust understanding of the history of Nordeste rock painting, through the application of sound art-historical methodology, including scientifically-accurate data. We rationally and repeatedly challenge the "knowns," while simultaneously engaging the "unknowns," and accommodating methodological flexibility within new approaches.

Notes

1. See Guidon 1984; 1986; Parenti 2001; and Pessis 1999.

2. This approach is not new in this investigation; similar reconsiderations of other rock art styles and chronologies have been recently revised based on similar research; see Boyd et al. 2013; and Fontugne et al. 2013;

3. Guidon, personal communication, 1998. See Guidon 1986; Pessis 2003: 135-137; Parenti 2001: 99; Pinheiro de Melo 2004: 129, 276).

4. See Alvarenga and Fátima da Luz 1991; Guidon and Arnaud 1991; Martin 1997; Pinheiro de Melo 2004; Pessis 1999; and Roosevelt 1999.

5. See Pessis and Guidon, 1992: 24; Pessis 1999: 69-72; Pessis 2003: 202-227; and Pessis 2004a: 161.

6. See Steelman et al. 2002; Morales, Jr. and Steelman 2005; Steelman 2005; Rowe and Steelman 2003; and Steelman and Rowe 2005.

7. See Bahn 1998: 62; Pettitt and Bahn 2015; Pettitt and Pike 2007; and Whitley 2000: 48.

8. For the purpose of this essay, "miniature" refers to small-scale painting styles that require very fine brush flags a few millimeters wide, at most, and figures that are generally 5-10 centimeters in size. This is in contrast to the monumental painting traditions addressed here, where figures are a meter or more in size and in many cases can be seen from hundreds of meters away. Miniaturism is typically associated with images intended for intimate or personal viewing, whereas monumentalism is typically associated with public art meant to broadcast to a large audience.

9. Guidon 1984: 183. This was originally identified as a Serra Branca style painting. Subsequently this has been identified as an example of the Angelim style (Morales Jr., "The Angelim Style," and "Nordeste Painting").

10. Irma Asón Vidal, *Fundacao Do Museu Do Homem Americano* , São Raimundo Nonato, Brazil, personal communication, 2016.

11. See Oliver 2008; Heckenberger 2008; Grieder et al. 2009; Hoopes and Fonseca, 2003; Hoopes 1992; 1994.

12. See Jennings 1986: 113; Schaafsma 1981: 64; Geib 1995, 1996a, and 1996b.

13. Unfounded assumptions like these are not unusual. When the Paleolithic art was discovered in Chauvet Cave in southern France in 1994, it shattered the expectations of the previously held chrono-stylistic models of Abbé Breuil and Leroi-Gourhan; see Pettitt and Bahn 2003, "Current Problems in Dating."

Works Cited

Allen, Mary
2004 "Comments." *American Indian Rock Art* 30:86.

Alvarenga, Leonete, and Maria de Fatima da Luz
1991 "Interpretação estilística de painéis do sítio Toca do Baixão do Perna I e sua aplicação na cronologia das tradições rupestres." *Annais do Iº simpósio de pré-história do Nordeste Brasileiro, CLIO – Serie Arqueológia* 4:137–140.

Bahn, Paul
1998 *The Cambridge Illustrated History of Prehistoric Art*. Cambridge: Cambridge University Press.

Behling, Hermann
1995 "A High Resolution Holocene pollen record from Lago do Pires, SE Brazil: vegetation, climate and fire history." *Journal of Paleolimnology* 14: 253-68.

Boyd, Carolyn E.
2013 *Rock Art of the Lower Pecos*. Texas A&M University Anthropology Series, Volume 8. College Station: Texas A&M University Press.

Boyd, Carolyn E., et al.
2013 "A Reassessment of Red Linear Pictographs in the Lower Pecos Canyonlands of Texas," *American Antiquity* 78, no. 3:456–482.

Bronk Ramsey, Christopher
1998 "Bayesian Analysis of Radiocarbon Dates." *Radiocarbon* 51, no. 1 (2009):337–360.

Christensen, Don, and Jerry Dickey
2004a "The Esplanade Style: A Reappraisal of Polychrome Rock Art in the Grand Canyon Region, Arizona." *American Indian Rock Art*, 30:69–85.

2004b "A Reply to Comments by Allen." *American Indian Rock Art*, 30:87.

Coimbra, Carlos E. A. Jr., et al.
2004 *The Xavante in Transition: Health, Ecology, and Bioanthropology in Central Brazil*. Ann Arbor: University of Michigan Press.

Danto, Arthur
1964 "The Artworld." *Journal of Philosophy* 61, no.19:571–584.

Dickey, Jerry, and Don Christensen
2004 "A Functional Analysis of the Esplanade style." *American Indian Rock Art*, 30:89–102.

Earle, Timothy K.
1994 "Preface." In *New Light on Old Art: Recent Advances in Hunter-Gatherer Rock Art*, David S. Whitley and Lawrence L. Loendorf, eds., vii–vii. Monograph 36, Institute of Archaeology University of California, Los Angeles. Los Angeles and Berkeley: University of California, Los Angeles.

Farmer, James D.
2001 "Goggle Eyes and Crested Serpents of Barrier Canyon: Early Mesoamerican Iconography and the Archaic Southwest." In *The Road to Aztlan: Art from a Mythic Homeland*, Virginia Fields, ed., 24-137. Los Angeles: Los Angeles County Museum of Art.

Fontugne, Michel, et al.
2013 "Cross-Dating (Th/U-14C) of Calcite Covering Prehistoric Paintings at Serra Da Capivara National Park, Piaui, Brazil." *Radiocarbon* 55, no. 2–3 :1191–1198.

Gebhard, David
1960 "The Diablo Cave Paintings." *The Art Journal* 20, no. 2:79–82.

Geib, Phil R.
1995 "Radiocarbon Record for Archaic Occupation of the Central Colorado Plateau." In *Proceedings of the Second Biennial Conference on Research in Colorado Plateau National Parks, 25-28 October 1993*, Charles van Riper III, ed., 89-136. National Park Service Transactions and Proceedings Series NPS/ NRNAU/ NRTP-95/11.

1996a "AMS Dating of Plain Weave Sandals from the Central Colorado Plateau." *Utah Archaeology* 9, no. 1: 35-53.

1996b *Glen Canyon Revisited*. Salt Lake City: University of Utah Press.

Gell, Alfred
1998 *Art and Agency: An Anthropological Theory*. Oxford: Oxford University Press.

Grieder, Terence
1966 "Periods in Pecos Style Pictographs." *American Antiquity* 31, no. 5:710–720.

1975 "The Interpretation of Ancient Symbols." *American Anthropologist* 77:849-855.

1982 *Origins of Pre-Columbian Art*. Austin: University of Texas Press.

1996 *Artist and Audience, 2nd ed.* Madison, WI: Brown and Benchmark.

Grieder, et al.
2009 *Art and Archaeology of Challuabamba, Ecuador*. Austin: University of Texas Press.

Guidon, Niède
1984 "L'art Rupestre du Piauí dans le Contexte Sudamericain. Une Première Proposition Concernant Méthodes et Terminologie. PhD thesis, Paris: University of Paris, Panthéon-Sorbonne.

1986 "A Sequëncia Cultural da Area de São Raimundo Nonato, Piauí. *CLIO – Série Arqueológica* 8:137–161.

1998 "As Ocupações Pré-Históricas do Brasil (executando a Amazônia)." In *História dos Índios no Brasil*, M. C. da Cunha, ed., 2nd ed., 37–52. Companhia das Letras, São Paulo.

2004 "Arqueologia da Região do Parque Nacional Serra da Capivara." In *Antes: Histórias da Pré-História*, Marcello Dantas et al., eds., 132–141. Rio de Janeiro: Centro Cultural Banco do Brasil.

Guidon, Niède, and Bernadette Arnaud
1991 "The Chronology of the New World: Two Faces of One Reality." *World Archaeology* 23, no. 2:167–178.

Guidon, Niède, and Cristiane de Andrade Buco
2006 "Zone 3: Brésil–Nordeste–États du Piauí, Pernambuco, Rio Grande do Norte et Paraíba." In *Rock Art of Latin America and the Caribbean: Thematic Study*, 122–137. Paris: ICOMOS (International Council on Monuments and Sites).

1985 "Inventaire des Sites Sud-Américains Antérieurs a 12 000 ans." *L'Anthropologie* 89, no. 3:385–408.

Ingold, T.
2004) "André Leroi-Gourhan and the Evolution of Writing". In *Autour de l'homme: contexte et actualité d'André Leroi-Gourhan,* N. Schlanger, & F. Audouze, eds., pp. 109-123. Aberdeen, Scotland: University of Aberdeen.

Heckenberger, Michael J.
2008 "Amazonian Mosaics: Identity, Interaction, and Integration in the Tropical Forest." In *The Handbook of South American Archaeology*, Helaine Silverman and William H. Isbell, eds., 941-961. New York: Springer Science + Business Media.

Hogg, Alan G., et al.
2020 "SHCal20 Southern Hemisphere Calibration, 0–55,000 Years cal BP. *Radiocarbon* 62, no. 4:759–778.

Hoopes, John W.
1994 "Ford Revisited: A Critical Review of the Chronology and Relationships of the Earliest Ceramic Complexes in the New World, 6000–1500 B.C." *Journal of World Prehistory* 8, no. 1 (March 1994): 1-49.

Hoopes, John W., and Oscar M. Fonseca Z.
2003 "Goldwork and Chibchan Identity: Endogenous Change and Diffuse Unity in the Isthmo-Colombian Area." In *Gold and Power in Ancient Costa Rica, Panama, and Colombia*, Jeffrey Quilter and John W. Hoopes, eds., 49–89. Washington, DC: Dumbarton Oaks Research Library and Collection.

Jennings, Jesse D.
1986 "Prehistory: Introduction." In *Great Basin*, Warren L. d'Azevedo ed., by, 113-119. *Handbook of North American Indians, Vol. 11.* Washington D.C.: Smithsonian Institution.

Joyce, T. A.
1913 "The Weeping God." In *Essays and Studies Presented to William Ridgeway*, edited by E. C. Quiggin, 365- 374. Cambridge: Cambridge University Press.

Kubler, George
1962 *The Shape of Time: Remarks on the History of Things*. New Haven: Yale University Press.

1970 "Period, Style and Meaning in Ancient American Art." *New Literary History* 1, no. 2 (Winter):127-144.

1979 "Toward a Reductive Theory of Style." In *The Concept of Style*, Berel Lang, ed., by 163-173, Revised and expanded. 1979; Ithaca, NY: Cornell University Press, 1987.

Ledru, Marie-Pierre, et al.
1996 "The Last 50,000 Years in the Neotropics (Southern Brazil): evolution of vegetation and climate." *Paleogeography, Paleoclimatology, Paleoecology* 123: 239-57.

Lekson, Stephen H.
2008 *A History of the Ancient Southwest*. Santa Fe, NM: School for Advanced Research.

Leroi-Gourhan, André
1988 *Gesture and Speech*. Translated by Anna Bostock Berger. Cambridge: MIT Press, 1988.

1968 *The Art of Prehistoric Man in Western Europe*. London: Thames and Hudson.

Lourdeau, Antoine
2019 "A Serra da Capivara e os Primeiros Povoamentos Sul-Americanos: Uma Revisão Bibliográfica." *Boletim do Museu Paraense Emílio Goeldi. Ciências Humanas, Belém* 14, no. 2, May-August, pp 335-366.

Martin, Gabriela
1997 *Pré-História do Nordeste do Brasil. 2nd ed*. Recife: Editora Universitária da UFPE.

Maybury-Lewis, David
1967 *Akwé Shavante Society*. Oxford: Clarendon Press.

Morales Jr., Reinaldo
1998 "Nordeste Paintings: The Case for a pan-Archaic American Aesthetic." Master's thesis, Department of Art History, Virginia Commonwealth University.

2002 "The Nordeste Tradition: Innovation and Continuity in Brazilian Rock Art." PhD dissertation, Department of Art History, Virginia Commonwealth University.

2010 "A Style Analysis of Prehistoric Miniature Paintings in Lincoln National Forest, New Mexico." *Lincoln National Forest Cultural Resources Report,* 2011-08-011. Alamogordo, NM.

Morales Jr., Reinaldo, and Howard Risatti
2019 "Pre-Columbian Rock Art and Sensitive Cognition." In *Aesthetics, Applications, Artistry and Anarchy: Essays in Prehistoric and Contemporary Art. A Festschrift in honour of John Kay Clegg,* 11 January 1935 – 1 March 2015, Jillian Huntley and George Nash, eds., pp. 9–24. Oxford: Archaeopress.

Morales Jr., Reinaldo, and Karen Steelman
2005 "Style and Chemistry: Dating Rock Art in Brazil." Paper presented at the American Rock Art Research Association 32nd Annual Meeting, Reno, Nevada.

NASA Jet Propulsion Laboratory
2010 South America, Shaded Relief and Colored Height. Shuttle Radar Topography Mission, California Institute of Technology. Electronic file. https://photojournal.jpl.nasa.gov/catalog/PIA03388. Accessed October 1, 2021.

Oliver, José R.
2008 "The Archaeology of Agriculture in Ancient Amazonia." In *The Handbook of South American Archaeology*, Helaine Silverman and William H. Isbell, eds., pp. 185-216. New York: Springer Science+Business Media.

Parenti, Fabio
2001 *Le Gisement Quartenaire de Pedra Furada (Piaui, Brésil): Stratigraphie, Chronologie, Évolution Culturelle*. Paris: Éditions Recherche sur les Civilisations.

Pessis, Anne-Marie
1982 "Methode d'Analyse des Representations Rupestres". *Etudes Americanistes Interdisciplinaires* 1: 17-39.

1987 "Art Rupestre Préhistorique: Premiers Registres de la Mise en Scène." PhD thesis. University of Paris X, Nanterre. São Raimundo Nonato, Piauí, Brazil: Fundação Museo do Homem Americano.

1992 "Identidade e Classificação dos Registros Gráficos Pré-históricos do Nordeste do Brasil." *CLIO – Série Arqueológica*, 8:35–68.

1999 "The chronology and evolution of the prehistoric rock paintings in the Serra da Capivara National Park, Piauí, Brazil." In *Dating and the Earliest Known Rock Art*, Matthias Strecker and Paul Bahn, eds., pp. 41–48. Oxford: Oxbow Books.

2003 *Imagens da Pré-História: Parque Nacional Serra da Capivara*. São Paulo: FUMDHAM/PETROBRÁS.

2004 "A Transmissão do Saber na Arte Rupestre do Brasil." *In Antes: Histórias da Pré-História*, Marcello Dantas, Niède Guidon, Anne-Marie Pessis, and Gabriela Martin, eds., pp. 149-165. Rio de Janeiro: Centro Cultural Banco do Brasil.

Pessis, Anne-Marie, and Niède Guidon
1992 "Registros Rupestres e Caracterização das Etnias Pré-históricas." In *Grafismo Indígena: Estudos de Antropologia Estética*, Lux Boelitz Vidal, ed., pp. 19-33. São Paulo: Studio Nobel, Editora da Univ. de São Paulo, and FAPESP.

Pessis, A.-M & Guidon, Niède
2009 "Dating Rock Art Paintings in Serra de Capivara National Park". *Adoranten*, 1: 49-59.

Pettitt, Paul, and Alistair Pike
2007 "Dating European Palaeolithic Cave Art: Progress, Prospects, Problems." *Journal of Archaeological Method and Theory* 14:27–47.

Pettitt, Paul, and Paul Bahn
2015 "An Alternative Chronology for the Art of Chauvet Cave". *Antiquity* 89, no. 345: 542-553.

2003 "Current Problems in Dating Palaeolithic Cave Art: Candamo and Chauvet" *Antiquity 77*, no. 295: 134–141.

Pinheiro de Melo, Patricia
2004 "A transição pleistoceno/holoceno e a conservação dos vestígios arqueológicos, no Parque Nacional Serra da Capivara – Piauí – BR: Um estudo comparativo entre o Sítio do Meio, a Toca do Boqueirão da Pedra Furada e a Toca da Perna I." PhD thesis, Universidade Federal de Pernambuco. Fundação Museo do Homem Americano, São Raimundo Nonato, Piauí: Brazil.

Posth, Cosimo, et al.
2018 "Reconstructing the Deep Population History of Central and South America", *Cell,* Volume, 175: 5.

Pozorski, Shelia and Thomas Pozorski
2008 "Early Cultural Complexity on the Coast of Peru." In *The Handbook of South American Archaeology*, Helaine Silverman and William H. Isbell, eds., pp. 607-631. New York: Springer Science + Business Media.

Prous, André
1994 "L'art Rupestre du Brésil." *Bulletin de la Société Préhistorique Ariége-Pyrénées* 44: 77-144.

1999 "Dating Rock Art in Brazil". In *Dating and the Earliest Known Rock Art*, Matthias Strecker and Paul Bahn, eds., pp. 29–34. Oxford: Oxbow Books.

Prous, André, et al.
2003 *O patrimônio arqueológico da região de Matozinhos: conhecer para proteger*. Belo Horizonte: Editora do Autor.

Rego Monterio, Diego
2011 "Passarela do Sítio Arqueológico Boqueirão da Pedra Furada.jpg", *Wikimedia Commons*, https://commons.wikimedia.org/wiki/File:Passarela_do_S%C3%ADtio_Arqueol%C3%B3gico_Boqueir%C3%A3o_da_Pedra_Furada.jpg

Roosevelt, Anna C.
1999 "Dating the Rock Art at Monte Alegre, Brazil." In *Dating and the Earliest Known Rock Art*, Matthias Strecker and Paul Bahn, eds., pp. 35–40. Oxford: Oxbow Books.

Rowe, Marvin W. and Karen L. Steelman
2003 "Comment on 'Some Evidence of a Date of First Humans to Arrive in Brazil." *Journal of Archaeological Science* 30: 1349–1351.

Russ, Jon, et al.
2017 "Strategies for 14C Dating the Oxtotitlán Cave Paintings, Guerrero, Mexico." *Advances in Archaeological Practice* 5, no. 2: 170–183. DOI:10.1017/aap.2016.10.

Sauerländer, Willibald
1983 "From Stilus to Style: Reflections on the Fate of a Notion." *Art History* 6, no. 3:253-270.

Schaafsma, Curtis S.
1981 "Settlement Patterns and Social Organization During the Southwestern Archaic." Paper delivered at the Anasazi Symposium, Mesa Verde National Park, Colorado.

Schaafsma, Polly
1980 *Indian Rock Art of the Southwest*, Albuquerque: University of New Mexico Press.

1985 "Form, Content, and Function: Theory and Method in North American Rock Art Studies." In *Advances in Archaeological Method and Theory. Vol. 8.* Michael B Schiffer, ed., pp. 237-277. New York: Academic Press.

Sheel-Ybert, Rita, and Caroline Bachelet
2020 "A Good Place to Live: Plants and People at the Santa Elena Rock Shelter (Central Brazil) from Late Pleistocene to the Holocene." *Latin American Antiquity* 31, no. 2: 273–291.

Steelman, Karen L.
2005 "Non-Destructive Radiocarbon and Stable Isotopic Analyses of Archaeological Materials Using Plasma Oxidation." PhD dissertation, College Station: Texas A&M University.

Steelman, Karen L., and Marvin W. Rowe
2005 "Dating Pictographs: Independent Dates and Their Implications." In *Making Marks: Graduate Studies in Rock Art Research at the New Millennium*, Jennifer K. K. Huang and Elisabeth V. Culley, eds., pp. 17–26. Tucson: American Rock Art Research Association.

Steelman, Karen L., et al.
2021 "Two Independent Methods for Dating Rock Art: Age Determination of Paint and Oxalate Layers at Eagle Cave, TX." *Journal of Archaeological Science* 126: 105315. Available at doi.org/10.1016/j.jas.2020.105315; accessed 7 January, 2021.

Steelman, Karen L., et al.
2002 "Accelerator Mass Spectrometry radiocarbon ages of an oxalate accretion and rock paintings at Toca do Serrote da Bastiana, Brazil." In *Archaeological Chemistry: Materials, Methods, and Meaning*, Kathryn A. Jakes, ed., pp. 22–35. Washington D.C.: American Chemical Society.

Stone, Andrea
2005 "Divine Stalagmites: Modified Speleothems in Maya Caves and Aesthetic Variation in Classic Maya Art." In *Aesthetics and Rock Art*, Thom Heyd and John Clegg, eds., pp. 215–233. Aldershot, England: Ashgate.

Turpin, Solveig A.
1994 "On a Wing and a Prayer: Flight Metaphors in Pecos River Art." In *Shamanism and Rock Art in North America,* Solveig A. Turpin, ed., pp. 73-102. Special Publication 1. San Antonio, Texas: Rock Art Foundation.

Vidal, Irma Asón
2016 Personal communication, *Fundacao São Raimundo Nonato, Brazil, Do Museu Do Homem Americano*.

Watanabe, Shigueo, et al.
2003 "Some Evidence of a Date of First Humans to Arrive in Brazil". *Journal of Archaeological Research* 30: 351–354.

Whitley, David S.
2000 *The Art of the Shaman: Rock Art of California*. Salt Lake City: University of Utah Press.

2005 *Introduction to Rock Art Research*. Walnut Creek, CA: Left Coast Press.

Winckelmann, Johann Joachim
1765 *Reflections on the Painting and Sculpture of the Greeks: With Instructions for the Connoisseur, and an Essay on Grace in Works of Art*. Translated by Henry Fuseli. London: A. Millar.

Winter, Irene
1998 "The Affective Properties of Styles: An Inquiry into Analytical Process and the Inscription of Meaning in Art History." In *Picturing Science Producing Art*, Caroline A. Jones and Peter Galison, eds., pp. 55–73. New York: Routledge.

Wölfflin, Heinrich
1950 *Principles of Art History: The Problem of the Development of Style in Later Art*. Translated By M.D. Hottinger. New York: Dover Publications.

5

SOME THOUGHTS ABOUT MIMBRES POTTERY AND MORTUARY CUSTOMS

Harry J. Shafer

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Introduction

I want to express my appreciation to Dr. James Farmer for inviting me to participate in this book honoring the legacy of my friend and colleague Dr. Terry Grieder. My initial connection with Terry began in the late 1960s. I first met Terry while working for UT Texas Archaeological Salvage Project, the agency conducting archaeological recovery in reservoir basins across the state. Terry was tasked with recording and interpreting some rock art murals in the Lower Pecos region as part of the Amistad Reservoir archaeological recovery program (Grieder 1965: 1966). Later in that decade I took his art history course at UT-Austin. I was conducting archaeological projects and going to school part time. Being somewhat older than the mean age of the class, I had no hesitation to question Dr. Grieder in class since we took different approaches

to the interpretation of prehistoric art, he from an art history perspective and me from an anthropological perspective, much to the surprise of the art students. In addition to his interest in ancient rock art imagery, Terry also maintained a strong commitment to the importance of ancient ceramic arts, especially pottery, in the interpretation of ancient societies (see Koontz and Farmer, this volume).

In 1984 the Witte Museum in San Antonio organized a "think tank" to bring together a select group of scholars to discuss hunters and gatherers across the world in preparation for a new gallery. The purpose of this gathering was to generate content and a book for a permanent exhibit entitled *Ancient Texans*. The exhibit featured comparative hunter-gatherer cultures from the Lower Pecos Region of Texas to South Africa and Australia. Terry and I were among the scholars who were invited to that gathering. One product of that think-tank was a book I edited, *Ancient Texans: Rock Art and Lifeways of the Lower Pecos* (Shafer 1986), that included a contribution by Terry entitled "Recording and Interpreting Lower Pecos Pictographs: Methods and Problems" (Grieder 1986: 176-179).

The ancient Mimbres culture in southwestern New Mexico is best known in the art and archaeology worlds for their exquisitely painted black-on-white pottery (Brody 2004). The Mimbres culture, a regional Mogollon tradition centered in southwestern New Mexico along the Mimbres River, began about 200 CE and culminated during the Classic Period, 1010-1130 CE (Hegmon et al., 1999). Mimbres ruins occur eastward to the Rio Grande Valley, to the upper Gila River Valley, and southward into northern Chihuahua, Mexico. The ruins, unlike those in Chaco Canyon, Mesa Verde, and elsewhere in the Four Corners area, are unimpressive. They were constructed of cobble-adobe masonry that melted into piles of rubble over time. It is the painted pottery, however, that has drawn archaeological and art-historical attention to the Mimbres culture.

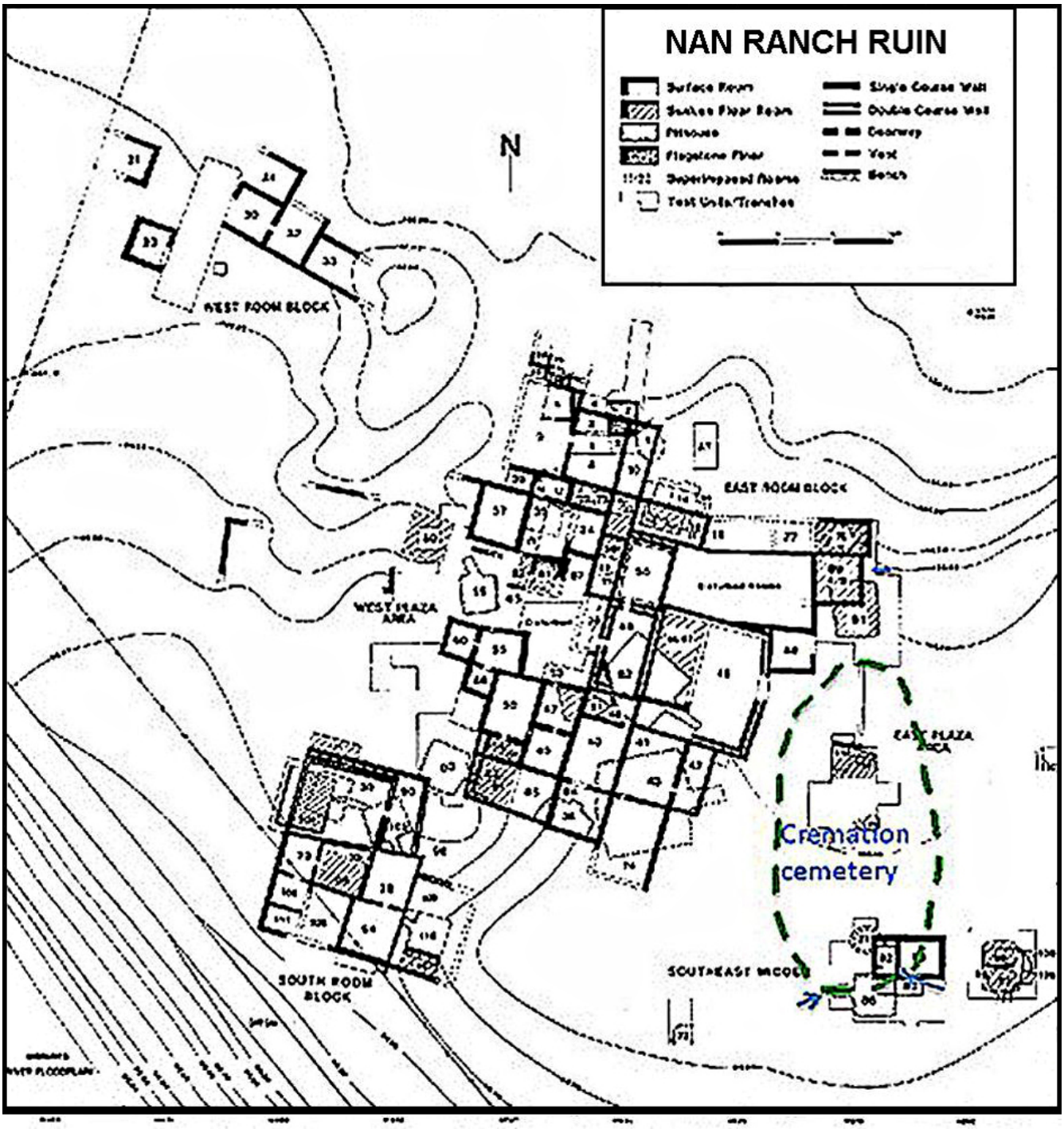

Figure 5.1. Plan of the NAN Ranch ruin. Hatched lines indicate areas excavated by Texas A&M University, 1979-1996.
From Shafer 2003: Figure P:2.

The ceramic and mortuary data used in this chapter comes from my excavations at the NAN Ranch ruin in Grant County, New Mexico.[1] The ruin

was excavated by a team from Texas A&M University under my direction from 1978-1996 (Figure 5.1) (Shafer 2003). The site consists of at least four Classic Mimbres room blocks overlying part of a large pithouse village that dates from throughout the Late Pithouse Period. The investigation exposed most of two room blocks, tested two others, explored outdoor space, and recovered an enormous amount of material culture and data, including a large collection of ceramics that are now accessioned at the Western New Mexico University museum in Grant County.

Mimbres Pottery

The exquisitely painted Mimbres pottery is a white-slipped brownware. It is technologically made of generally poor-quality clays using the coil-and-scrape method of production. Use of white slip as a canvas on the brownware begins sometime in the Late Three-Circle phase, c.850 CE. Firing was probably in above-ground kilns and reduced firing to achieve the black-on-white was not well controlled. Some vessels were accidentally, or purposely, oxidized to a red-on-white and some were partially oxidized. As a ceramic tradition the basic technology remained consistent, but the decorative styles changed over time with subtle micro-stylistic changes occurring about every generation or so (Shafer and Brewington 1995).

As Koontz and Farmer noted in Chapter 1, Terence Grieder emphasized the cross-cultural communicative function of meaning vs. function of style. This notion plays big in Mimbres ceramics given the rather dramatic stylistic change that occurred c.950-1000 CE and the proliferation of decorative ceramics after that date. In this chapter I address the stylistic progression of Mimbres painted pottery and the functional roles it served. While the main functions of the pottery were for cooking, serving, and storage, I go beyond those functions and show how the pottery was used in the ritual transformation from life to death.

Figure 5.2. Mimbres Pottery Styles, c.1010-1130 CE.
Photos courtesy of Dr. Harry Shafer / Western New Mexico University Museum.

The three major styles are labeled Style I, Style II (both previously lumped under the heading of Boldface), and Style III (previously referred to as Classic Mimbres black-on-white) (Figure 5.2). Style I is distinguished by bold lines with wavy cross-hatched patterns. Style II is identified by geometric and naturalistic motifs outlined with bold lines with fine-line cross-hatching. In Style III, hatched motifs are all fine line. Micro-styles within Style II and III have been defined based on archaeological stratigraphy at the NAN Ranch ruin and have been a useful tool for ceramic cross-dating (Gilman and LeBLanc 2019; Shafer and Brewington 1995).

Most of the Mimbres pottery vessels viewed in museums and elsewhere were produced during the Classic Period (c.1010 to 1130 CE; Gilman et al. 2014: 93). Recent NAA studies have shown that most of the pottery was produced in the upper elevations of the Mimbres region by a limited number of cottage-level craft specialists (Creel and Speakman 2018). Curiously, many of the vessels seen in museums and collections have a hole in the bottom. The common interpretation for this attribute is a "kill hole" to deliberately render the vessel useless once it is placed in mortuary context (Brody 2004: 50). The kill hole was not due to people using pickaxes to excavate the sites as some might think but was a purposeful act of transformation by the Mimbres people as part of the mortuary ritual. In this paper, I discuss the varied mortuary behaviors of the Mimbres, and explain why many of the bowls were "killed" prior to being placed over the face of the deceased. It is imperative to review the variability in Mimbres mortuary behavior in order to provide a context and possible understanding of the purpose of the kill hole.

Mimbres Mortuary Practices

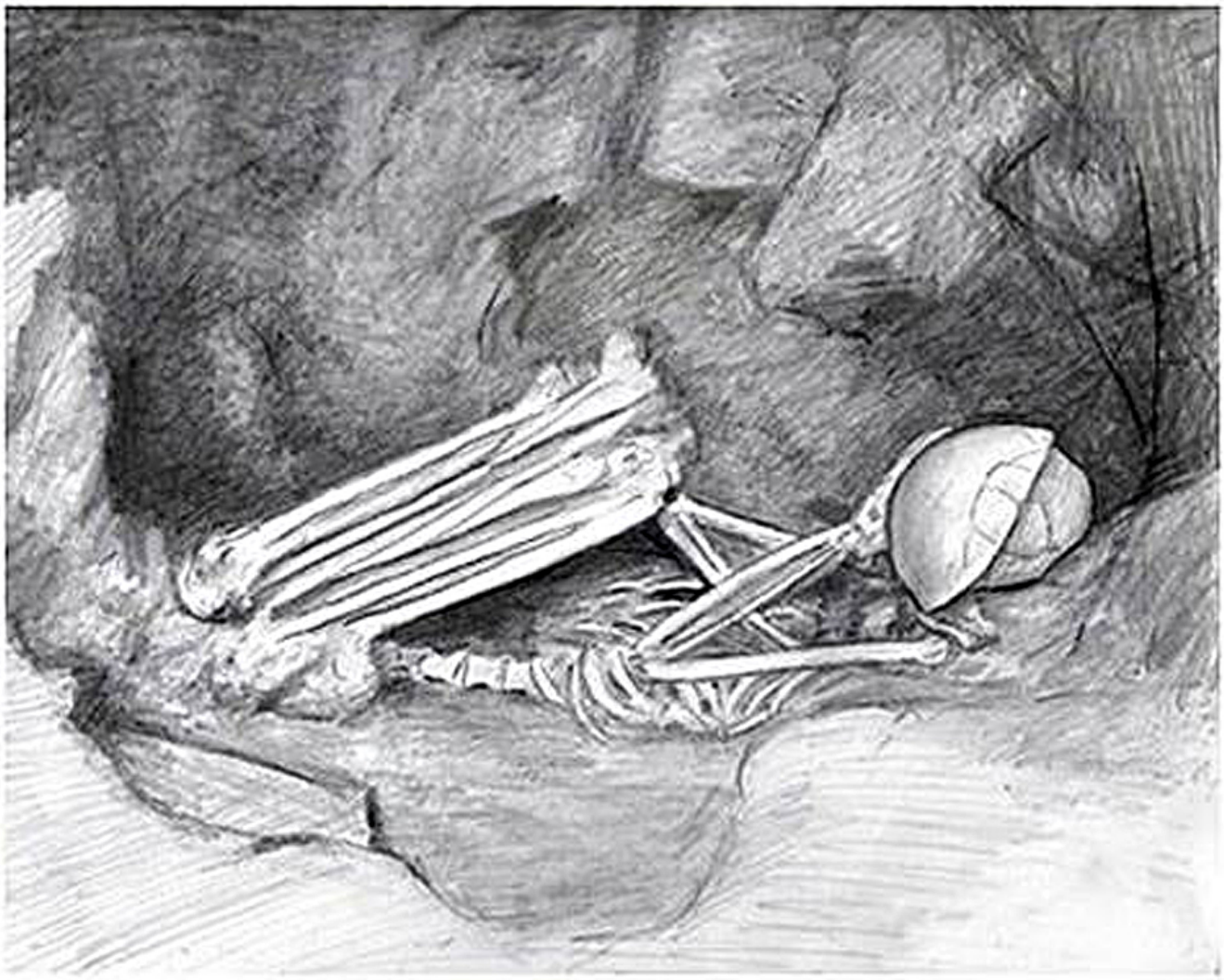

Figure 5.3. Burial 165, NAN Ranch ruin showing the burial mask over the face. Illustration by Frank A. Weir.

Figure 5.4. Textile impression on bowl from Burial 141, Room 28, NAN Ranch ruin.
Photo courtesy of Dr. Harry Shafer / Western New Mexico University Museum.

A great percentage of Mimbres bowls in museums were recovered from mortuary contexts, but this was not the primary function of the vessels, as noted above. They were made to be used in everyday functions, such as cooking, serving, and storage, as shown by the use-wear exhibited on the interior of the bowls (Lyle 1996). The most common reference to Mimbres mortuary practices was intramural burial beneath the floors with a "killed" bowl placed over or about the head (Figure 5.3) (Cosgrove and Cosgrove 1932: 23-29). But this was only one method of mortuary treatment, albeit the most common during the Classic Mimbres Period (1010-1130 CE) as about 55% of all burials at NAN Ranch ruin were associated with a mortuary vessel. Inhumation burials were flexed on the back with minor examples of flexed on the left or right, or sitting. There is some evidence that some of the burials were wrapped in shrouds (Figure 5.4). Extramural inhumations were more frequent during the pithouse period and cremations were infrequent but did occur. The trends toward intramural burial and cremation occurred in the Late Pithouse transition (c.950-1030 CE) albeit a few subfloor burials occurred prior to that

time. The best example for indoor burials in the South Room Block location was in Room 104 with 13 interments including men, women, and children. This trend became commonplace in corporate households by the early Classic Period. Some were buried outside of structures in plazas and middens, and at least at the NAN Ranch a significant segment of the population was being cremated. Cremations were in specially-defined plaza locations, but cremating the dead ceased for all practical purposes by the mid-Classic Period. The question is what precipitated the change to indoor burial? Sophia Petrovich (2001) analyzed the NAN Ranch ruin mortuary data to assess the religious determinants of the spatial aspects. She examined the burial data with 36 cosmological themes based on cross-cultural studies of Native American Indian groups in the Southwest and northern Mexico. Petrovich offers an explanation for intramural burial:

> In religious terms, the highly charged symbolic act of burying the dead with the living ensures that the ancestors of the living remain intimately conjoined to the descendents (sic). The Power of the ancestors would not be lost but would instead remain concentrated around the descendents (sic). In turn, the living could protect and propitiate the dead by protecting their remains from outside discretion. Such direct harnessing of the power of the dead is consistent both with the pan-Southwestern theme of Rain Beings associated with the dead who provide rain and other blessings and with the theme that the dead can return. After all, they never left (2001: 48).

Creel and Anyon (2003) and I (Shafer 2006) have speculated that the incorporation of irrigation agriculture was correlated with the move from pit houses to pueblos. I also think this architectural change is attributable, at least in part, to the mortuary change as well, and here is why. Domestic burial may have been related to the chain of inheritance and control of resources, particularly agricultural land. This pattern of indoor burial and inheritance of resources is well documented in Mesoamerica among the Maya (McAnany 1995: 65; Scherer: 2015: 174-177) where domestic burial was commonplace. Furthermore, as McAnany (1995: 16) argues, placing the dead within the domestic arena legitimized resource rights through lineal descent. I have mentioned elsewhere (Shafer 2006) that the indoor cemeteries restrict access

to the dead whose spirits communicated to the descendants via the portal of the floor vault. These ancestors were guarded from public access due to competition between lineages for power within the community.

Elizabeth Ham (1987) was the first to investigate the social organization of the NAN Ranch ruin community. She examined all of the burial data through the 1987 season. She used the NAN burial data to see if there was any evidence for social ranking or distinction between the East Room Block and South Room Block populations. Like Anyon and LeBlanc (1984) and Gilman's (2006) conclusion for the Galaz and Mattocks sites respectively, she did not find any marked evidence of social differences in the mortuary behavior that would indicate anything other than an egalitarian social organization. She noted, however, that females were interred with more ceramics than males, and that 38.46% of all females were interred with a pelvis/spine direction to the east. Ham attributes these statistically significant differences to the Mimbres society being matrilineal.

Diane Young Holliday (1996) offers another attempt to define social differentiation using osteological data. She posed the question: could the south room block women represent the prime lineage of the NAN population? As suggested by the "corporate-base strategy" towards complexity, perhaps emphasis was placed on the groups as a whole, and status was not expressed in the great accumulation of personal wealth". She, like Ham, noted that more women had multiple vessels associated with them than the East Room Block. She found that South Room Block children were less affected by anemia than those in the East Room Block. Also, she noted that tooth loss in older women was greater in the South Room Block, possibly owing to their longer life span.

While studies of mortuary association and diet have not yielded apparent evidence for social differences within the NAN Ranch ruin Classic Mimbres Period population, location and energy expenditure in act of burial indicates some rather strong evidence for social distinction. The mortuary population of the South Room Block has already been shown to be much greater than if this suite was occupied by four or five families over several generations. Creel (2006) and Creel and Anyon (2003), have noted that placement of burial itself carries social distinction. This view follows Arthur Saxe (1970) that one

should look for regularities in the process rather than in the formal attributes of the practices themselves. Therefore, the inordinate number of burials in the South Room Block compared to the East Room Block does indicate that the South Room Block carried an important place for burial in the community. The other notable cemetery location was the cremation area in the East Plaza. Cremations require much more energy expenditure in burial preparation than pit burials and are public spectacles rather than private ceremonies when compared to intramural interments as shown by the primary cremation at the NAN Ranch ruin (Creel 1989). I think the processes implied by both of these factors, location and treatment, when weighed together and compared to the other household suites described here quite clearly signify significant social differences among the lineages residing at the site.

The "Killed" Bowl

Mimbres mortuary bowls placed with inhumations were intentionally "killed" usually by perforating near the bottom. The perforations were usually done by puncturing the bowl with a pointed stone from the exterior (Figure 5.5) or interior (Figure 5.6), drilled (Figure 5.7:a), or smashed (Figures 5.8 and 5.9). Sometimes the attempt to kill the bowl resulted in breaking it; in such cases the fragments were assembled and placed over the head. There is evidence that the act of punching or "knocking" the hole occurred at the grave site. Instances where the kill hole was placed at the feet in the grave occurred at the NAN Ranch site. Also, as a cautionary note, there are at least three instances at the NAN Ranch site where additional holes were made in the vessels by digging sticks penetrating existing graves while attempting to dig new graves. These holes were off-center from the intentionally made "kill" holes.

Figure 5.5. Examples of kill holes, punctured from outside-in.
Left: Mimbres Style III
Right: Mimbres Style II.
Photos courtesy of Dr. Harry Shafer / Western New Mexico University Museum.

Figure 5.6. Examples of kill holes in Mimbres Style III bowls punctured from inside-out.
Photos courtesy of Dr. Harry Shafer / Western New Mexico University Museum.

Figure 5.7. Examples of kill holes in Mimbres Style II (B) and early Style III (A) bowls.
Left: drilled
Right: inside-out with fractured bowl and missing sherd.
Photos courtesy of Dr. Harry Shafer/Western New Mexico University Museum.

Figure. 5.8. Examples of Mimbres Style III killed bowls that were smashed.
Photos courtesy of Dr. Harry Shafer/Western New Mexico University Museum.

Figure 5.9. Bowls from the Nan Ranch cremation cemetery killed by smashing.
Photos courtesy of Dr. Harry Shafer / Western New Mexico University Museum.

The common explanation for the "killing" of the bowl by puncturing or drilling a hole in the bottom was to release the spirit for the journey to the afterworld (see Burt 2013; Ellis 1968: 67). Granted the animistic beliefs of Native American Indians customarily attributed things in nature as has having souls. However, the behavior of placing a killed bowl over the face of the deceased possibly carries more complex implications. Barbara Moulard (1981: xviii) was the first to suggest that the bowl itself was symbolic of the earth sky dome placing the body in the Underworld. She also regards the "kill hole" as analogous to the *sipa'pu*, the connection between the Underworld and the corporeal world (Ibid). I have argued that while the metaphoric explanation of the layered universe may be correct, extending that metaphor to the built environment and the architecture within which the burial took place was also a recreation of the universe (Figure 5.10) (Shafer 2003: 212). I also posited that the bowl itself served as a mask and suggested placement of the mask transformed the once living being into an ancestral spirit.

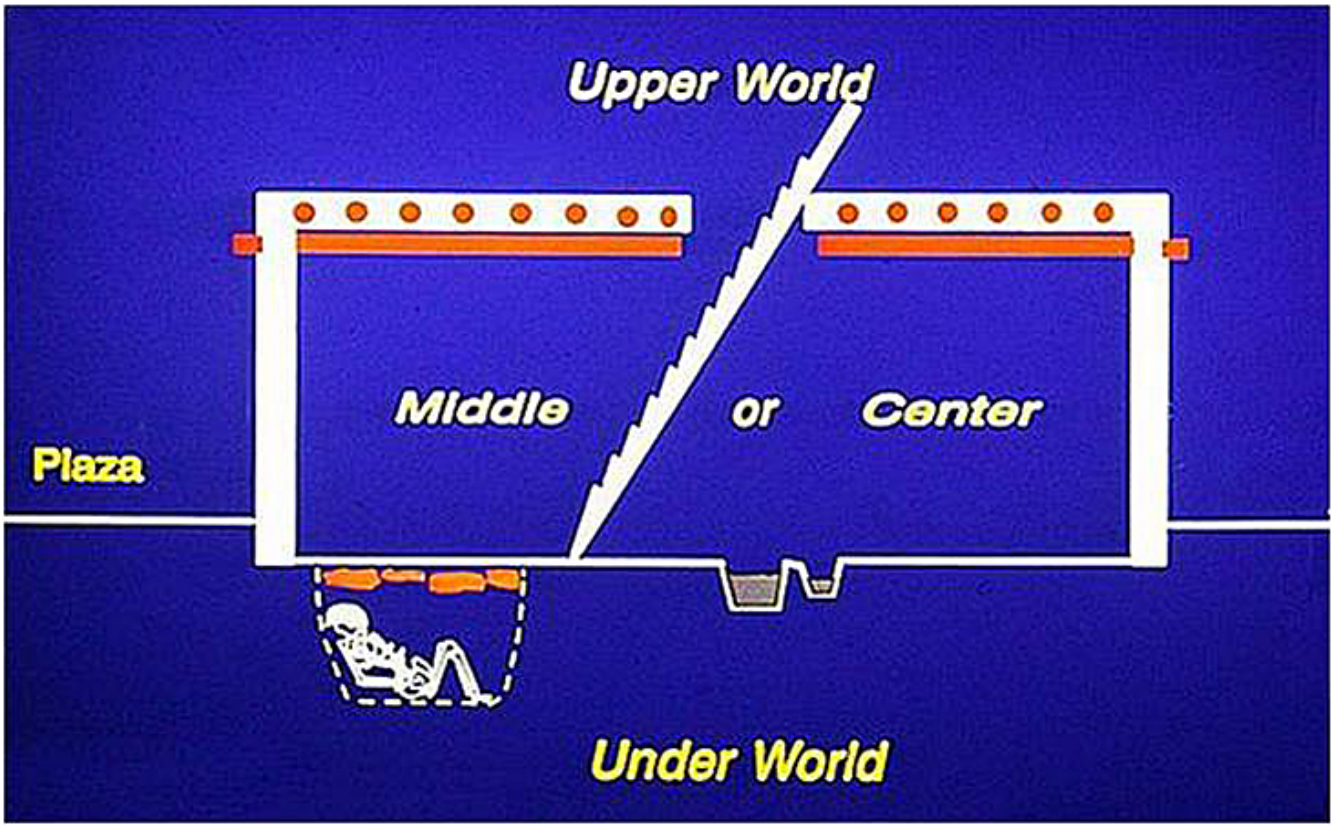

Figure 5.10. Mimbres cosmology as expressed in vernacular architecture.
After Shafer, 2003: Figure 12.1, credit Jason Barrett for color rendering.

I believe the kill hole provided a mouth for the mask that allowed the breath of the person's spirit to leave and communicate ritual knowledge with the living. The ancestor's spirit, who dwelled within the lineage household, provided the justification for the living to claim ancestral rights to the critical resources connected to that household, namely agricultural fields (Creel and Anyon 2003; Rice 2016: 141; Shafer 2006). Placement of the burials beneath the floor within the residential suite, out of the public arena, provided restricted access to the ancestral knowledge within the competitive social environment.

Another possible explanation for the kill hole in the mask is to allow the spirit person to breathe (McGuire 2001: 13). McGuire goes on to add in the Hopi case that the father or other male relative blackens the chin and places a "white-cloud mask" of raw cotton over the face" (ibid.; see also Moulard 1981: xxviii). The Hopi parallels are interesting, as are those of the Hohokam for

the cremations. These ancient beliefs were probably wide-spread and shared among the Native American lineages and clans of Mesoamerica and the American Southwest.

Masking the dead was widely practiced in Mesoamerica (Headrick 1998), and perforating a bowl and then placing it over the face of the dead was also practiced by the Maya (Scherer 2015: Pl. 12). Vessels associated with most cremations were not perforated, they were smashed. The exceptions were urn cremations where the cremated remains were placed in pottery vessels. Most sherd concentrations marking cremation deposits were from vessels included in the funeral pyre, as they show evidence of burning. The smashing varied from breaking the vessel into a few sherds as in NAN Ranch ruin Feature 11-25 or, in one case, Feature 11-31, a single bowl was smashed to over 700 sherds (Shafer and Judkins 1996). The act of vessel "killing," however, may also mimic the Hohokam pattern of breaking or smashing vessels with the belief they would be restored to completeness in the spirit world (Rice. 2016: 49). According to Rice (2016: 49), the greater the degree of smashing in this world, the more beautiful the restoration in the next. Interestingly, Rice cites the Pee Posh with the belief that reversal occurs in the Underworld. The logic being that property, including pots, is broken before entering the Underworld so they will be restored there. This belief of reversal is analogous to the Huichol belief that when one enters the sacred land of *Wirikuta* (the desert where the world was created), where peyote is gathered, behavioral reversals occur and are restored when one ritually leaves *Wirikuta* (Myerhoff 1974: 147-172). Interestingly, Bartlett (2013: 17-19) applies this notion of inversion, analogous to reversal, to the bowl placed over the head of the deceased in the Mimbres case.

The destruction of property at death is widespread among Native American Indians from Archaic times on, and is not limited to the American Southwest (Bartlett 2013). Smashing pottery vessels occurred in the Late Pithouse Period in the NAN Ranch sample. However, placing the bowl over the head or face as a mask represented a major change in the mortuary behavior during the Pithouse-Pueblo transition about 950-1000 CE.

Killed Vessels and Wealth or Prestige

Was the placement of a killed vessel indicative of the person's wealth or prestige? If wealth in the sense of power and prestige and not material possession was expressed in any way within this Mimbres community, I think it was through legitimizing lineage rights to ancestral lands and resources, especially the irrigated fields that yielded bountiful food for the lineage members and their reciprocal agents. Were the people who held lineage rights to ancestral lands marked by being buried with bowl masks over the face or head? There is no age distinction between those with and those without mortuary a mask; ages ranged from infants to older adults of both sexes. That is the same age range for burials without mortuary association. Furthermore, at the NAN Ranch ruin only Classic Mimbres phase burials within rooms had killed bowls. None of the extramural burials had ceramics associated. Given that discrepancy, it would appear that killed bowls did have significant symbolism with regard to who had legitimate lineage rights and those who did not.

Archaeologists often regard "wealth" as measured by the number of items associated with any given burial (Gilman 2006). It is interesting that the wealthiest burials, as measured by associated items, were the children. This was true at the NAN Ranch ruin in the South Room Block rooms 28 and 29, and in the Room 47 suite with Burials 33 and 34. Infants or small children in Room 28 (Burial 128) and Room 29 (Burial 133) also had jewelry and multiple vessels associated (Parks-Barrett 2001: 216). Also, a burial excavated by Harriet and C. B. Cosgrove at the NAN Ranch site in 1927 (Cosgrove and Cosgrove 1932: 67; Pl. 76), possibly from the East Room Block, appears to have been the wealthiest interment at the site in terms of associated jewelry. Archaeologists often seek out the graves with the most material possessions as being the higher ranks to identify social stratification. Gilman and LeBlanc (2017: 267) have shown that is not the case at Mattocks where little evidence of social stratification was detectable through mortuary associations. This also was Ham's (1989) conclusion after studying mortuary associations at the NAN. So why are infants and children getting the attention? Children may have been

the rebirth of ancestors and were so venerated (Scherer 2015: 173), and Ellis (1968) mentions a Pueblo Indian informant stating that children were buried beneath the floor in hopes the souls would be reborn (Ellis 1968).

The energy expenditure during the course of cremation and that it was a public event places the cremations in a special category of social distinction. How are these individuals related to those interred within structures? Were these families the highest-ranked lineages at the site? Were they outsiders who died away from home and had no formal place within the settlement? Or were they part of another ethnic group residing at the pueblo?

Rice (2016: 49) offers some interesting clues for understanding the purpose of cremation. He cites the Pee Posh's two beliefs regarding cremation. First, people who were not cremated smelled in the land of the dead and were segregated from those who were cremated and could not participate in dances or games. Second, is the notion of reversal (or perhaps, reciprocity) mentioned above; that is, everything consumed by the fire in the world of the living was subsequently restored in the land of the dead. The first belief stands in marked contrast to the common Mimbres practice of interring the dead in the flesh beneath house floors which would negate the concern for smell. These fundamentally different beliefs would certainly suggest two separate ethnic groups occupying the NAN Ranch pueblo.

Not knowing what guided the behaviors during the course of preparing the corpse, choosing the location or room for burial, digging the grave or preparing the cremation pyre, placing the body, choosing associated symbolic items, placing the items in the grave, and what these behaviors may have stood for leaves any archaeological interpretation as speculation. We have to reach out to other Native American cultures for parallels to gain some kind of understanding from the Native American perspective.

Conclusions

Recent research has shown that Mimbres painted pottery was made by cottage industry ceramicists in villages located in the forested elevations of the

Mimbres region, mainly in the upper Mimbres Valley (Creel and Speakman 2018). The assumption for the restricted production area is guided by the availability of wood needed for firing the pottery, something that would have been a valued commodity in the lower valley desert region. The production followed a tradition of white-slipped brownware that showed subtle stylistic changes through time (Shafer and Brewington 1995; Figure 2). The pottery was distributed across a wide area by a system that probably included both exchange and gifting. Mimbres pottery was not produced as mortuary ware. Once in the hands of the consumer the pottery went into household use as serving bowls, water jars, and storage containers, functional roles shown by archaeological context and use wear (Figure 5.11) (Lyle 1996). One final function of a selection of some bowls, however, was to kill the bowl and place it as a mask over the dead.

Figure 5.11. Mimbres Style III mortuary vessels showing extensive wear from domestic use, illustrating that vessels used as burial masks were drawn from domestic contexts. Left vessel shows remains of an unidentifiable figurative image destroyed during usage.
Photos courtesy of Dr. Harry Shafer / Western New Mexico University Museum.


78-1
Room 12


78-1
ROOM 29
Fire box &
vent
16 June 87

Figure 5.12. Floor vaults next to the fire box hearth. Floor vaults may have served as portals to the Underworld like the *sipa'pu* of Ancestral Pueblo kivas.
Photos courtesy of Dr. Harry Shafer.

The practice of killing a bowl and placing it over the face or head as a mask was embedded in mortuary ritual and world view. Placing the bowl over the face was part of the transformation ritual, transforming the once living person to an ancestral spirit being. The interpretation here is that the perforated bowl was to provide a mouth for the mask to allow the ancestor spirit to breathe and communicate with the living. Placing the body beneath the floor returned it to the Underworld, the world of the dead. The floor vaults of certain rooms identified as corporate kivas served as the portal through which the communication could occur with ancestor spirits dwelling in the Underworld below (Figure 5.12). Placing deceased ancestors within the confines of private residential space also kept their secret knowledge and power in the possession of their lineal kin and to keep them close by, as argued by Petrovich (2001).

Not all of the dead were so treated, only select individuals, about 55%, interred beneath structural floors had bowl masks. That everyone was not treated the same by having a mask may be indicative of social differences and may have distinguished between those who had access to resources assigned to corporate groups through kinship association and those that did not. Assuming social distinction was marked by a mask is a trait not considered by any of the previous efforts to define social differences.

A subset of the mortuary sample was cremated, and treatment of cremated individuals was much different from that of those interred beneath structural floors. The various attributes represented in the cremation cemetery, primary cremation, secondary cremations marked by sherds from multiple vessels included in the cremation pyre, other artifacts were included in the secondary cremation pits such as pallets, shell ornaments, arrow points, and corn, a pattern strikingly similar to the cremation patterns among the Hohokam of southern Arizona, albeit the ceramics are almost exclusively Mimbres.

Note

1. NAN is the cattle brand for the Y-Bar NAN Ranch near Faywood, New Mexico. Ranches often use the brand for the ranch name.

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Works Cited

Anyon, R. and S. LeBlanc
1984 *The Galaz Ruin: Prehistoric Mimbres Village in Southwestern New Mexico*. Albuquerque: Maxwell Museum of Anthropology and the University of New Mexico Press.

Bartlett, S.
2013 *Ancient Burial Rituals and Imagery: The Relationships of "Kill-holes" to Images on Mimbres Ceramic Bowls and the Ideology Behind Them*. MA thesis, University of Oklahoma, Norman.

Brody, J. J.
2004 *Mimbres Painted Pottery: Revised Edition*. Santa Fe: School of American Research.

Burt, C. K.
2013 "Ritually Killed Ceramic Vessels in Mortuary Contexts Across the Prehistoric Southwest". In *Proceedings of the 17th Jornada Mogollon Conference,* T. L. VanPool, E. M. McCarthy, and C. S. VanPool, eds., pp. 211-226. El Paso: El Paso Museum of Archaeology.

Cosgrove, H. S. and C. B. Cosgrove
1932 *The Swarts Ruin: A Typical Mimbres Site in Southwestern New Mexico*. Papers of the Peabody Museum of American Archaeology and Ethnology, Vol. 15, No. 1. Cambridge: Harvard University.

Creel, D. C.
1989 "A Primary Cremation at the NAN Ranch Ruin, with Comparative Data on Other Cremations in the Mimbres Area, New Mexico". *Journal of Field Archaeology* 16: 309-329.

2006 "Evidence of Mimbres Social Differentiation at the Old Town Site". In *Mimbres Society*, V. S. Powell-Marti and P. A. Gilman, eds., pp. 32-44. Tucson: University of Arizona Press.

Creel, D. C. and R. Anyon
2003 "New Interpretations of Mimbres Public Architecture and Space: Implications for Cultural Change". *American Antiquity* 68 (1): 67-92.

Creel, D., and Robert J. Speakman
2018 "Mimbres Pottery: New Perspectives on Production and Distribution". In *New Perspectives on Mimbres Archaeology*, pp. 132-148, Barbara Roth, Patricia Gilman, and Roger Anyon, eds. Tucson: University of Arizona Press.

Ellis, F. H.
1968 "An Interpretation of Prehistoric Death Customs in Terms of Modern Southwestern Parallels". In *Collected Papers in Honor of Lyndon Lane Hargrove*, Albert H. Schroeder, ed., pp. 57-76. Papers of the Archaeological Society of New Mexico No. 1. Santa Fe: Museum of New Mexico Press.

Gilman, P. A.
2006 "Social Differences at the Classic Period Mattocks Site in the Mimbres Valley". In: *Mimbres Society*, V. S. Powell-Marti and P. A. Gilman, eds., pp. 66-84. Tucson: University of Arizona Press.

Gilman, P. A. and S. A. LeBlanc
2017 *Mimbres Life and Society: The Mattocks Site of Southwestern New Mexico*. Tucson: The University of Arizona Press.

Grieder, Terence
1965 "Report on the Study of the Pictographs in Satan Canyon, Val Verde County, Texas". *Texas Archeological Salvage Project Miscellaneous Papers No. 2,* The University of Texas at Austin.

1966 "Periods in Pecos Style Pictographs". *American Antiquity* 31 (5): 710-720.

1986 "Recording and Interpreting Lower Pecos Pictographs: Methods and Problems". In *Ancient Texans: Rock Art and Lifeway Along the Lower Pecos*, Harry J. Shafer, ed., pp. 176-179. Austin: Texas Monthly Press.

Ham, E. J.
1989 *Analysis of the NAN Ruin (LA15049) Burial Patterns: An Examination of Mimbres Social Structure.* MA Thesis, Department of Anthropology, Texas A&M University, College Station.

Headrick, A.
1998 "The Street of the Dead...It Really Was: Mortuary Bundles at Teotihuacan." *Ancient Mesoamerica* 10 (1): 69-85.

Hegmon, M., et al.
1999 "Scale and Time-Space Systematics in the Post-A.D. 1100 Mimbres Region of the North American Southwest". *Kiva* 65: 143-166.

Lyle, R. P.
1996 *Functional Analysis of Mimbres Ceramics from the NAN Ruin (LA15049), Grant County, New Mexico*. MA Thesis, Department of Anthropology, Texas A&M University, College Station.

McAnany, P. A.
1995 *Living with the Ancestors: Kinship and Kingship in Ancient Maya Society*. Austin: University of Texas Press.

McGuire, R. H.
2001 "Ideologies of Death and Power in the Hohokam Community of La Ciudad". In *Ancient Burial Practices of the American Southwest: Archaeology Physical Anthropology, and Native American Perspectives*, D. R. Mitchell and J. L. Brunson-Hadley, eds., pp 27-44. Albuquerque: University of New Mexico Press.

Moulard, B. L.
1981 *Within the Underworld Sky: Mimbres Ceramic Art in Context*. Tucson: Twelvetrees Press.

Myerhoff, B. G.
1974 *The Peyote Hunt: The Sacred Journey of the Huichol Indians*. Ithaca and London: Cornell University Press.

Parks-Barrett, M. S.
2001 *Prehistoric Jewelry of the NAN Ranch Ruin LA14049), Grant County, New Mexico*. MA Thesis, Department of Anthropology, Texas A&M University, College Station.

Petrovich, S. N.
2001 *Religious Determinants of the Spatial Aspects of Mortuary Behavior at the NAN Ranch Mimbres Site*. M.A Thesis, The University of Texas at Austin.

Rice, Glen E.
2016 *Sending the Spirits Hone: The Archaeology of Hohokam Mortuary Practices*. Salt Lake City: The University of Utah Press.

Saxe, A. A.
1970 *Social Dimensions of Mortuary Practices*. PhD dissertation, University Microfilms International, Ann Arbor, Michigan.

Scherere, A. K.
2015 *Mortuary Landscapes of the Classic Maya: Rituals of. Body and Soul*. Austin: University of Texas Press.

Shafer, Harry J.
1986 *Ancient Texans: Rock Art and Lifeways Along the Lower Pecos*. Austin: Texas Monthly Press.

2003 *Mimbres Archaeology at the NAN Ranch Ruin*. Albuquerque: University of New Mexico Press.

2006 "Extended Families to Corporate Groups: Pithouse to Pueblo Transformation of Mimbres Society". In *Mimbres Society*, V. S. Powell-Marti and P. A. Gilman, eds., pp. 15-31. Tucson: University of Arizona Press.

Shafer, H. J. and R. L. Brewington
1995 "Micostylistic Changes in Mimbres Black-on-White Pottery: Examples from the NAN Ruin, Grant County, New Mexico". *Kiva* 64 (3): 5-29.

Shafer, H. J., and C. K. Judkins
1996 "Archaeology at the NAN Ranch Ruin: 1996 Season". *The Artifact* 34 (3 & 4): 1-62.

6

MAPPING MOTIFS AND TECHNIQUES: TRACING THE DEVELOPMENT AND TRANSMISSION OF CUPISNIQUE-STYLE ENGRAVED HEAD IMAGES

Yumi Park Huntington

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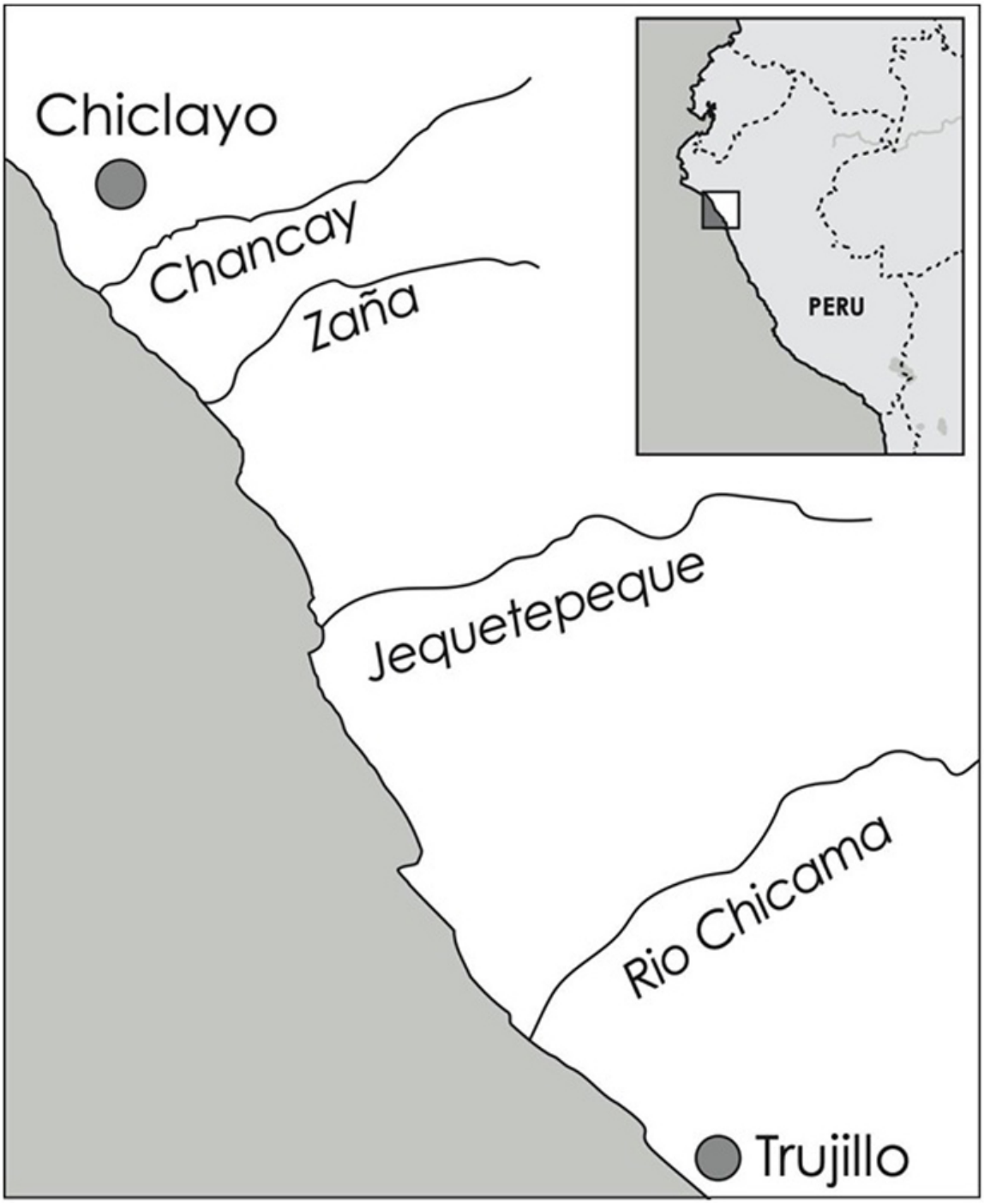
"Social and environmental changes and external contacts, for example, are evident in the archaeological records of ancient societies, especially in the form of changes in pottery, which immediately reflects changes that affect the members of a society."
– Terence Grieder, "The Interpretation of Ancient Symbols", 1975

Cupisnique Ceramics

Ancient societies along the West Coast of South America produced some of the earliest and most sophisticated pottery styles of all Pre-Columbian civilizations. The Cupisnique (koo-pis-NEE-kay) style is named for the *quebrada* located between the Jequetepeque and Chicama rivers on the northern coast of Peru; the term is more generally used to refer to archaeological objects found in this and nearby regions (Map 6.1). Thousands of Cupisnique-style ceramic objects have been assembled in both public and private collections worldwide, including approximately 180 dark-colored, stirrup-spouted, Cupisnique-style ceramic vessels filling the cabinets in the public storage rooms of the Museo Arqueológico Rafael Larco Herrera (hereafter Museo Larco) in Pueblo Libre, Peru, a suburb of Lima. On my first visit to the museum in 2008, these objects captured my eyes, not because of their shiny surfaces or their unusual stirrup spouts, but because of the subtle linear motifs engraved on their surfaces. The Museo Larco digital database makes photographs of these objects available online,[1] and many are illustrated in ancient South American publications, but the small details of these engraved motifs are really only clearly visible with close, in-person inspection. I was already familiar with such motifs from two Cupisnique style ceramic vessels in the Ancient American collection of the Virginia Museum of Fine Arts (hereafter VMFA) in Richmond, Virginia (Figures 6.1 and 6.2), but it was not until I encountered the abundance of such motifs in the collection of the Museo Larco that I gave them proper attention and realized their importance as indicators of broader cultural patterns.



Map 6.1. Cupisnique region, North Coast of Peru.
Drawing by Eric Huntington.

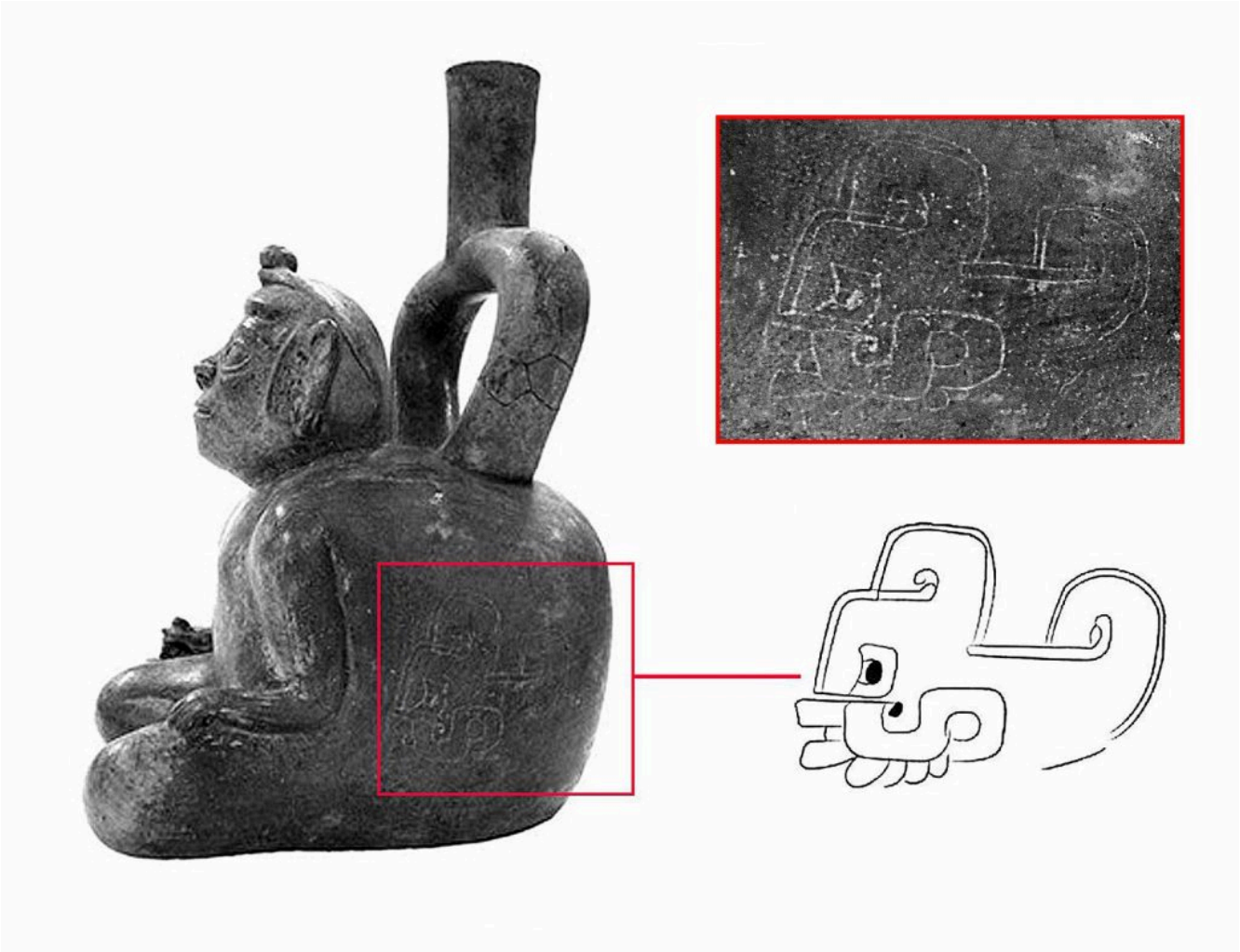


Figure 6.1. Cupisnique style ceramic vessel with engraved head motif on its left side. Collection of the Virginia Museum of Fine Arts, catalog 69.56.
Photo and drawing by Yumi Park Huntington.

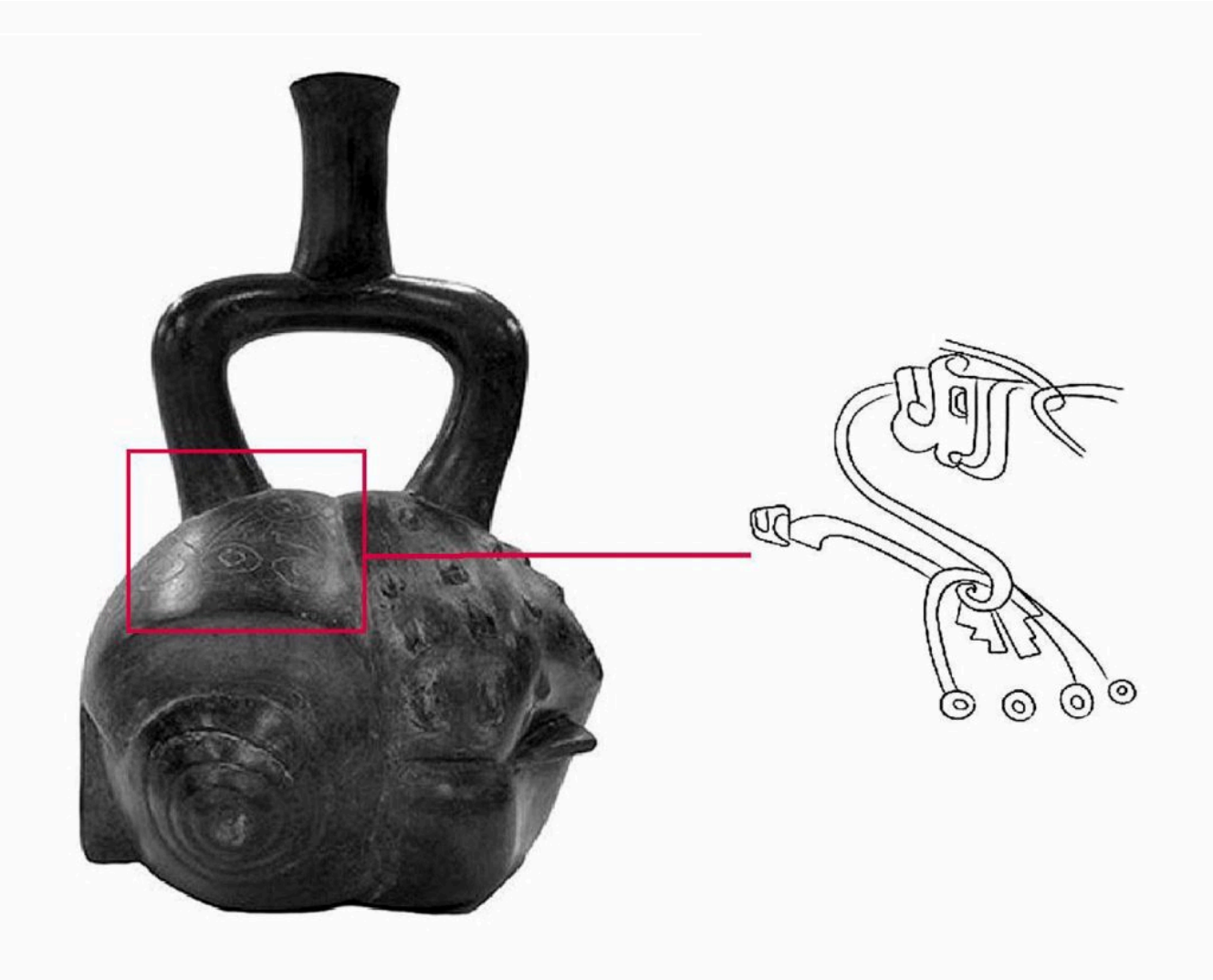


Figure 6.2. Cupisnique style ceramic vessel with engraved head motif on top of conch shell.
Collection of the Virginia Museum of Fine Arts, catalog 84.85.
Photo and drawing by Yumi Park Huntington.

The motifs, which generally focus on imagery of human heads with animal features, range from little more than a few ragged scratches to large and intricate designs. Many of these motifs are engraved after the final firing completely hardens the smooth clay surface, so the qualities of their lines differ dramatically from motifs that are drawn before firing. The roughness and thinness of the lines seems to have been intentional, as it would have been easy to create a different line quality using another technique. A line created before firing, for example, could be smooth and precise. Despite such obvious distinctions, however, it can be difficult to determine the precise characteristics

and techniques used to create some of these motifs, as the engravings may be filled with dirt even after excavation or have been eroded or damaged in other ways, making them difficult to discern. Even so, the apparently unique combination of head motifs and post-firing engraving in Cupisnique ceramics became a focal point in my interpretation of the symbolism of the designs and their cultural value (Park 2010, Park Huntington 2018).

In order to better understand their cultural context, it is typically crucial to know the precise geographic sites where these objects were made, used, buried, and subsequently unearthed. Because many of these vessels were unearthed without the precision of modern archaeology, however, detailed records of their excavation were not kept. The central contribution of this paper is thus to attempt a reconstructive mapping of the general origins of these vessels and thereby more precisely analyze geographic and cultural differences among them. While they all may be said to be in the Cupisnique style, in fact there appear to be regional differences within this style that may reveal local cultural differences and be productive for further analyses.

The term "Cupisnique" was first applied to ceramic vessels by Rafael Larco Hoyle in the early 1930s, based on his many excavation projects throughout the region of these two valleys and centered on the Cupisnique *quebrada* (Larco Hoyle 1941, 1945). Based on the collection of other vessels with similar characteristics from surrounding regions, the Cupisnique stylistic region was expanded to include the Chancay and Zaña valleys in addition to the Jequetepeque and Chicama.[2] The recognition of this style and the coinage of the term "Cupisnique" to refer to a distinctive local culture were extremely important, as they enabled scholars to contemplate the possibility of local developments in ceramics outside Tello's dominant theory of Chavín-centered societies.[3] During the Middle, Late, and Final Formative periods (c.1200–200 BCE), many different societies developed and flourished in the coastal and highland regions. Although these societies were previously collectively identified as Chavínoid, based on the fang motifs on their objects, current Andean scholarship now recognizes the greater diversity of cultures that occurred in these regions, and focuses on individual styles and specific cultural developments. The shared styles and forms of objects that prompted previous identifications as Chavínoid are not likely to be the result of a one-way

influence from Chavín society to all others. Rather, the styles of these objects probably emerged from a variety of reciprocal interactions (Lumbreras 2013: 186). Even the Cupisnique style itself is almost certainly the result of various interactions among local communities.

Many Cupisnique-style ceramics excavated in the four valleys that define the region share characteristics of black or brown color, stirrup-spouted shape, and thinly engraved head motifs that relate to the imagery of other neighboring cultures (Park Huntington 2018). Unfortunately, the development of the technique of post-fire engraving has not been mapped either historically or geographically based on the archaeological record. While it is widely recognized that this technique first appeared in the late Formative period (c.1200–200 BCE), much more remains to be known about how post-fire decorative techniques spread through the region over time, for example also appearing in Paracas objects, and when and where the specific motifs of Cupisnique imagery appeared. Mapping the excavation locations of individual objects allows progress beyond the identification of a general Cupisnique style to trace local developments and transmissions even within this region previously defined only by a single name. Furthermore, analysis of technique and imagery also provides insights into the cultural values and social structures of the larger region. Since the combination of post-firing engraving and head motifs in Cupisnique vessels can be understood as an emblem of Cupisnique cultural identity within the broader Andean political environment (Park Huntington 2018), further analysis within the Cupisnique region is likely to reveal more finely-detailed cultural relationships.

Theoretical Approach and Methodology

How can motifs, designs, and images be used to understand ideas, symbolism, and social structures from an ancient culture without written records? The engraved motifs on the 62 Cupisnique vessels examined in this essay show that even subtle differences in material objects can be correlated to real historical and social circumstances. Indeed, scholars like Paul Wason have argued that

social structures and interactions affect, and are therefore recorded in, material objects and artistic expressions (Wason, 1994).

In the discipline of art history, two fundamental modes of interpretation described by Erwin Panofsky are traditionally applied: iconography and iconology (Panofsky 1970). Iconography, from the Greek *eikōn* (image) and *–graphia* (writing/drawing), is the interpretation of the subjects of images as distinct from their formal characteristics, while iconology, from *–logia* (discourse),[4] is the explanation of artistic works in terms of cultural, social, and historical contexts. As Terence Grieder argued, however, even iconographic analysis requires addressing both formal and ethnographic elements (Grieder 1975). Indeed, cultural traditions are crucial to contextualizing even artifacts that were created for utilitarian purposes (Margolis and Laurence, 2007). While ceramic plates are generally used simply to hold food, plates from Pier 1 Imports and Wedgwood clearly hold different social values in a capitalist society. Beyond just discussing the aesthetics of artifacts, art historians have several approaches to address meaning and cultural context, even for objects that were created for limited purposes and with little concern for beauty.

This article adopts Grieder's approach of combining formal, pictorial, symbolic, and cultural analyses to interpret the Cupisnique-style head-motifs from the four different valleys in the relevant period, c. 1200–200 BCE. The main limitation in applying Grieder's methods here is the complete lack of ethnographic context for the Cupisnique culture(s), due to the absence of written documents in the Andean region before the Spanish arrival and the middle of the 16th century. Later documents by Pedro de Cieza de Leon, Bernabé Cobo, Titu Cusi Yupanqui, and Felipe Guamán Poma de Ayala documented mainly the Inka culture from a contemporary colonial perspective, centuries after the Spanish conquest. These documents thus prove difficult to use even to understand the Inka, let alone cultures that flourished long before the Inka and in other geographic regions. The Cupisnique was a relatively small culture localized to the northern coast of Peru, and, although it influenced later Moche and Chimu cultures, such later written records are only distantly relevant. Therefore, this paper seeks to find cultural information that may substitute for ethnography in the visual and technical details of the material objects. Based on analysis of both the motifs on the vessels and the

techniques used to engrave them, it is possible to understand specific cultural information about this region and the people who made these ceramics.

The following analysis proceeds in three parts. First, the motifs on the ceramics are typologized and mapped to the regions of their excavation, as far as is possible with available data. This allows a division of different types of Cupisnique-style motifs by sub-region and suggests a diversity of local traditions within the larger Cupisnique category. While more research remains to be done about how these regional differences relate to local cultural differences, such mapping is an important first step. It also may allow the more accurate attribution of newly-found Cupisnique-style objects without provenance, when they appear in collections around the world.

For this essay, a total of 62 vessels in the Cupisnique style were analyzed, the complete number for which either a regional or more specific geographic point of origin could be assigned.[5] At least 173 vessels in the Cupisnique style possess engraved head motifs, so this sample represents slightly more than one-third of known, related objects. Unfortunately, find-site data for the other 111 vessels is simply not documented. Of the 62 analyzed, 30 are housed in the Museo Larco collection, and all of these come from the Chicama region. Because of the more detailed records of the Museo Larco, it was also possible to link each of these objects with specific cities or localities within the Chicama Valley region, allowing for even more fine-grained analysis.[6] The other 32 vessels are housed in private collections and listed with geographic attribution by Alva (1986).[7] For the most part, these objects are associated only with valley regions and not specific sites. Still, although the sample is not comprehensive and the find-site data is not always specific, it is possible to make some significant conclusions about the differing geographic distribution of specific motifs and motif configurations in the Cupisnique style.[8]

In the second section of analysis, the techniques used to make the Cupisnique-style objects are described and shown to be not just stylistic concerns but matters of deeper cultural context. Even in the absence of ethnographic data, it is possible to correlate cultural concerns with the analysis of artworks, especially the value of specific techniques for particular ritual functions or expressions of cultural identity. Building on the theoretical foundations

described above, this section incorporates further technical analyses by other scholars to show the specific factors at play in the Cupisnique period.

Having established the local geographic distribution of objects within the Cupisnique region and their value within those societies in the first two sections, the third section examines several Cupisnique-style objects that were excavated outside the Cupisnique region to further explore the style's broader significance and value among other various cultures across the Andes. Given the more nuanced view of local variation in the Cupisnique style provided in the first sections, it is possible to suggest more precise relationships between distant regions and particular locations within the Cupisnique cultural sphere.

Quantifying Cupisnique Head Motifs

Cupisnique motifs may be typologized by breaking them down into parts, essentially identifying the specific characteristics that come together to form a complete image. Since all known head motifs include a certain set of requisite features (such as eyes, nose, and mouth), these may be understood to form a basic head pattern to which other, optional characteristics (such as fangs or feathers) may be added (Figure 6.3). The basic head pattern, even when it appears as a complete motif without other characteristics, is not necessarily historically prior or symbolically more central, but since its features seem always to be found together, it may be treated as an essential unit. The optional characteristics may then be identified separately, with each part assigned a single letter to simplify description of different configurations:

- A – basic head
- B – distinct fangs
- C – rows of teeth
- D – connective band
- E – elongated body
- F – feathers

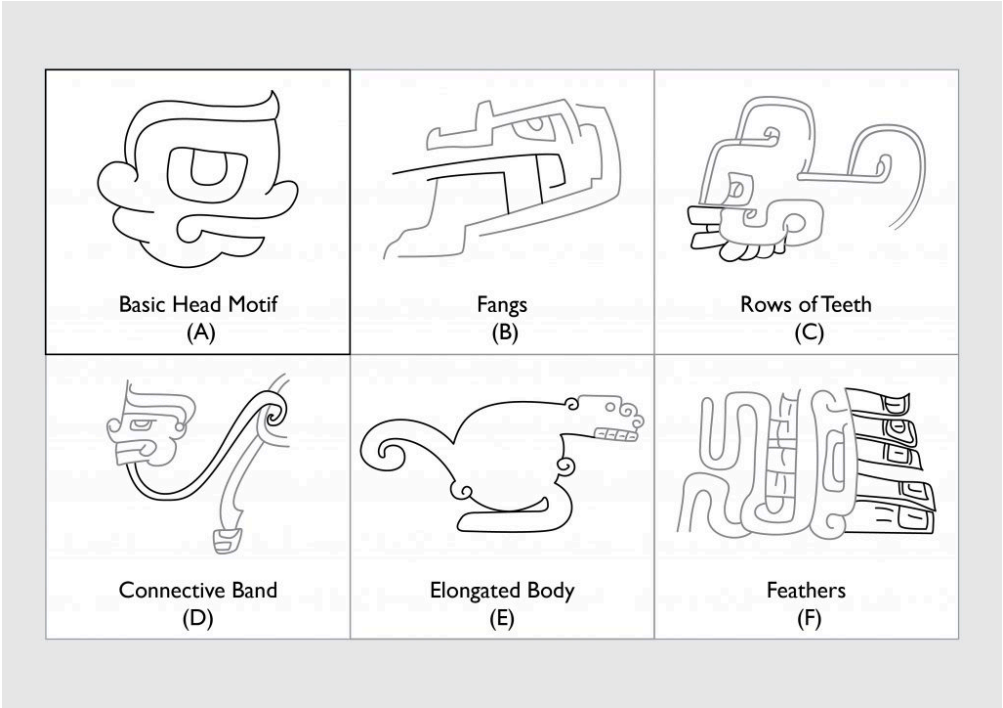


Figure 6.3. Six variations of Cupisnique engraved motifs.
Drawing by Eric Huntington, from Park Huntington 2018.

Thus, an image of the basic head in isolation can be abbreviated as A, while an image of a head with fangs and a connective band can be abbreviated as ABD.[9] A complete list and description of the configurations that have been identified can be found in Table 6.1. The 62 head motifs analyzed for this paper were each given a descriptive code and mapped to the specific region where they were unearthed (Tables 6.2-6.7). Based on available data, the locations cannot be linked to specific archaeological sites but only to the names of nearby valleys or, in some cases, cities. All of the vessels were from the region of the Chancay, Zaña, Jequetepeque, and Chicama Valleys on the northern coast of Peru, and the vast majority were from Jequetepeque or Chicama. The following charts indicate the quantity, location, motif, and motif types from each region. All of the examples are from private collections, except for the objects from Chicama, which are held in the Museo Larco.

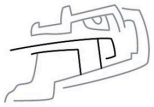
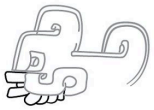
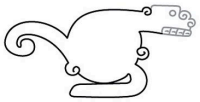
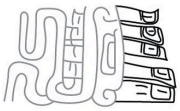
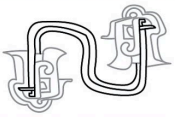
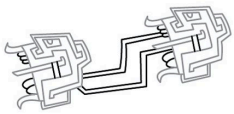
Basic Head Motif **(A)**	
(A) with Fangs **(AB)**	
(A) with Rows of Teeth **(AC)**	
(A) with Connective Band **(AD)**	
(A) with Elongated Body **(AE)**	
(A) with Feathers **(AF)**	
(A) with Fangs and Rows of Teeth **(ABC)**	
(A) with Fangs and Connective Band **(ABD)**	
(A) with Fangs and Elongated Body **(ABE)**	
(A) with Fangs and Feathers **(ABF)**	
(A) with Fangs, Rows of Teeth, Connective Band **(ABCD)**	

Table 6.1. Eleven types of Cupisnique-style engraved head motifs with specific diagnostic features highlighted. Drawing by Eric Huntington, from Park Huntington 2018.

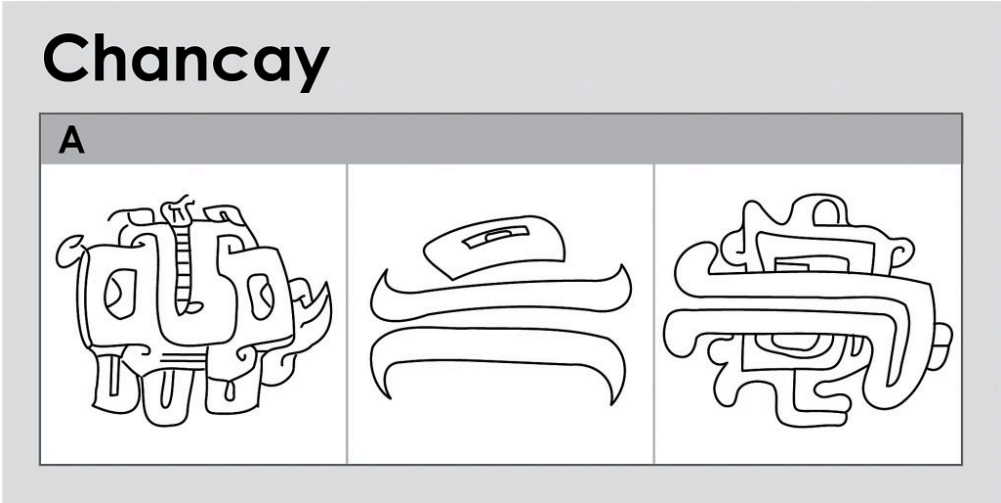


Table 6.2. The Chancay Valley
Adapted from Alva 1986, drawing by Eric Huntington.

Only three vessels were identifiable from the Chancay Valley, and all of these exhibited the basic head configuration (A) without other characteristics .

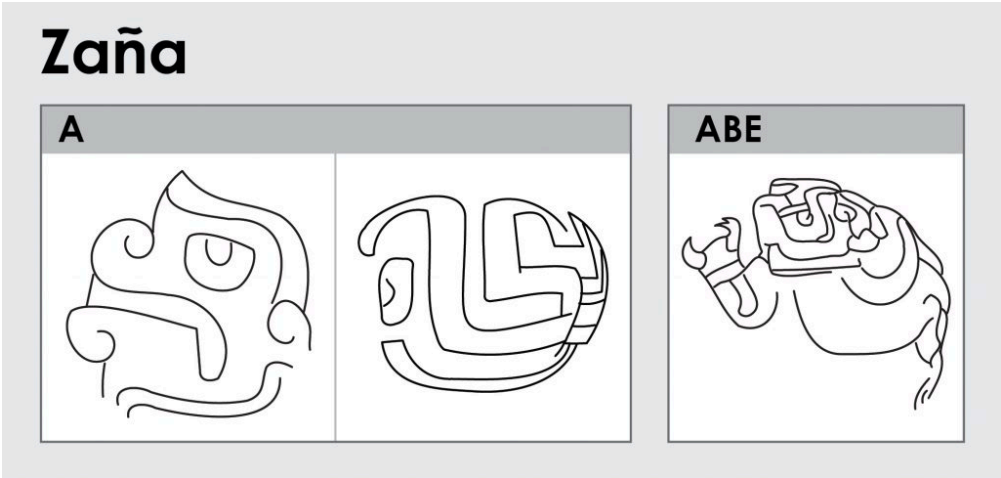


Table 6.3: The Zaña Valley
Adapted from Alva 1986, drawing by Eric Huntington.

Only three vessels were identifiable from the Zaña river valley. Of these, two exhibited the basic head (A) in isolation, and one showed the head with fangs and elongated body (ABE).

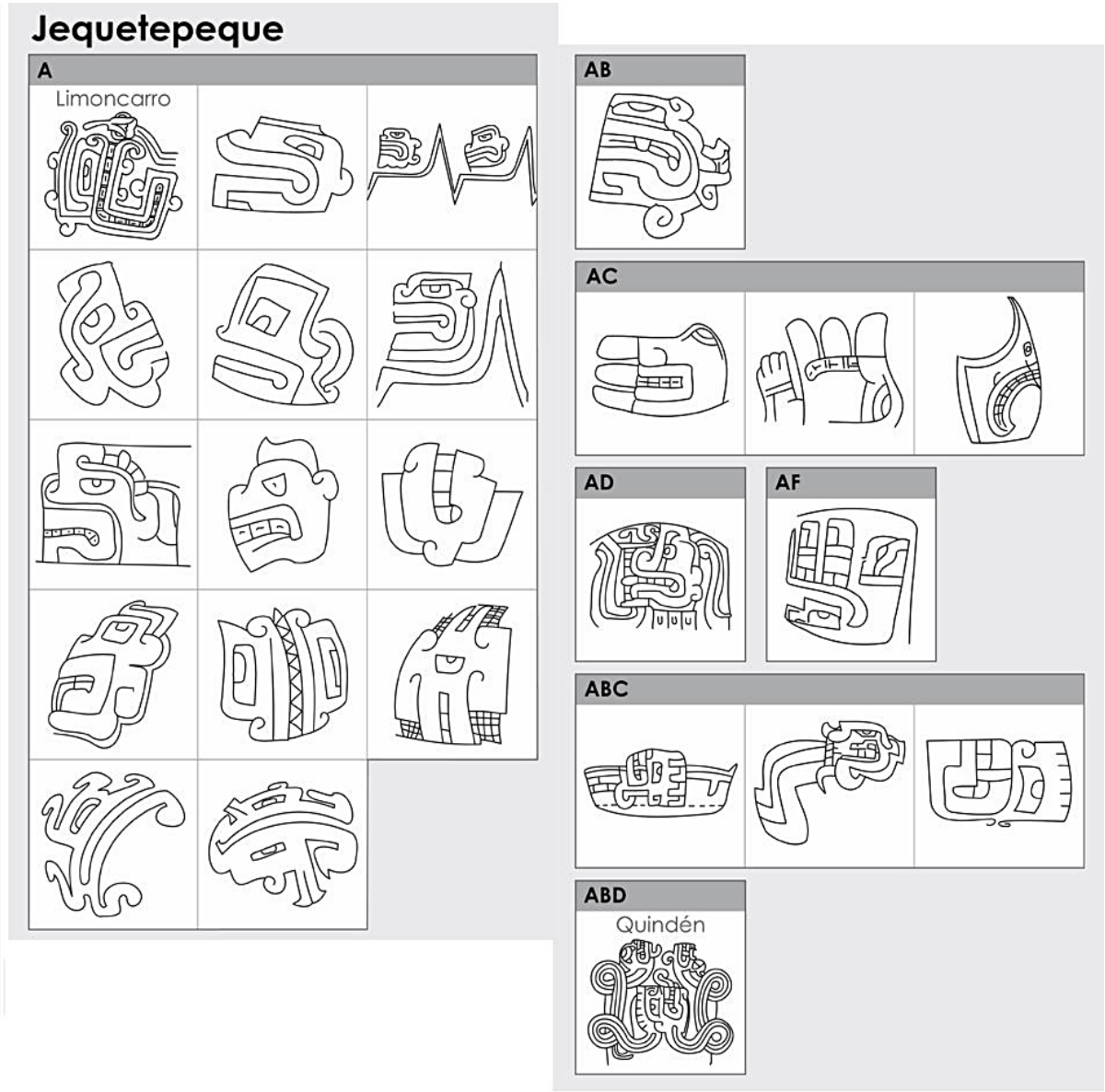


Table 6.4: The Jequetepeque Valley
The examples labeled Limoncarro and Quindén are from specific sites by those names.
The precise geographic origins of the other examples are unknown.
Adapted from Alva 1986, drawing by Eric Huntington.

The Jequetepeque examples were far more varied, possibly because of the significantly larger sample size of 24 vessels identifiable from this region. All characteristics except elongated body (E) could be found among these examples.

- All included the basic head (A)
- 5 included fangs (B)
- 6 included rows of teeth (C)
- 2 included connective bands (D)
- 1 included feathers (F)

A total of seven different configurations were in evidence:

- 14 examples of A
- 1 example of AB
- 3 examples of AC
- 1 example of AD
- 1 example of AF
- 3 examples of ABC
- 1 example of ABD

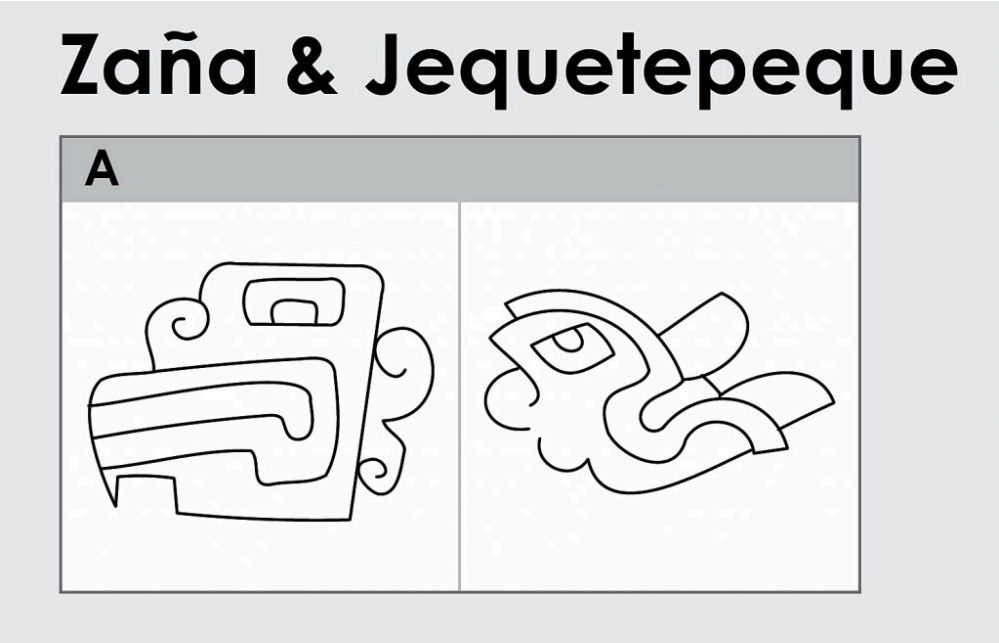


Table 6.5. The Zaña & Jequetepeque Valleys
Adapted from Alva 1986, drawing by Eric Huntington.

Although the Zaña and Jequetepeque Valleys are separate, Alva (1986) did not always make a distinction in his attributions. Because no further information is available, I have retained his interpretation of these as a combined category. Fortunately, only two Cupisnique-style vessels with engraved head motifs were attributed to the Zaña & Jequetepeque region, and both of these exhibited the basic head in isolation (A).

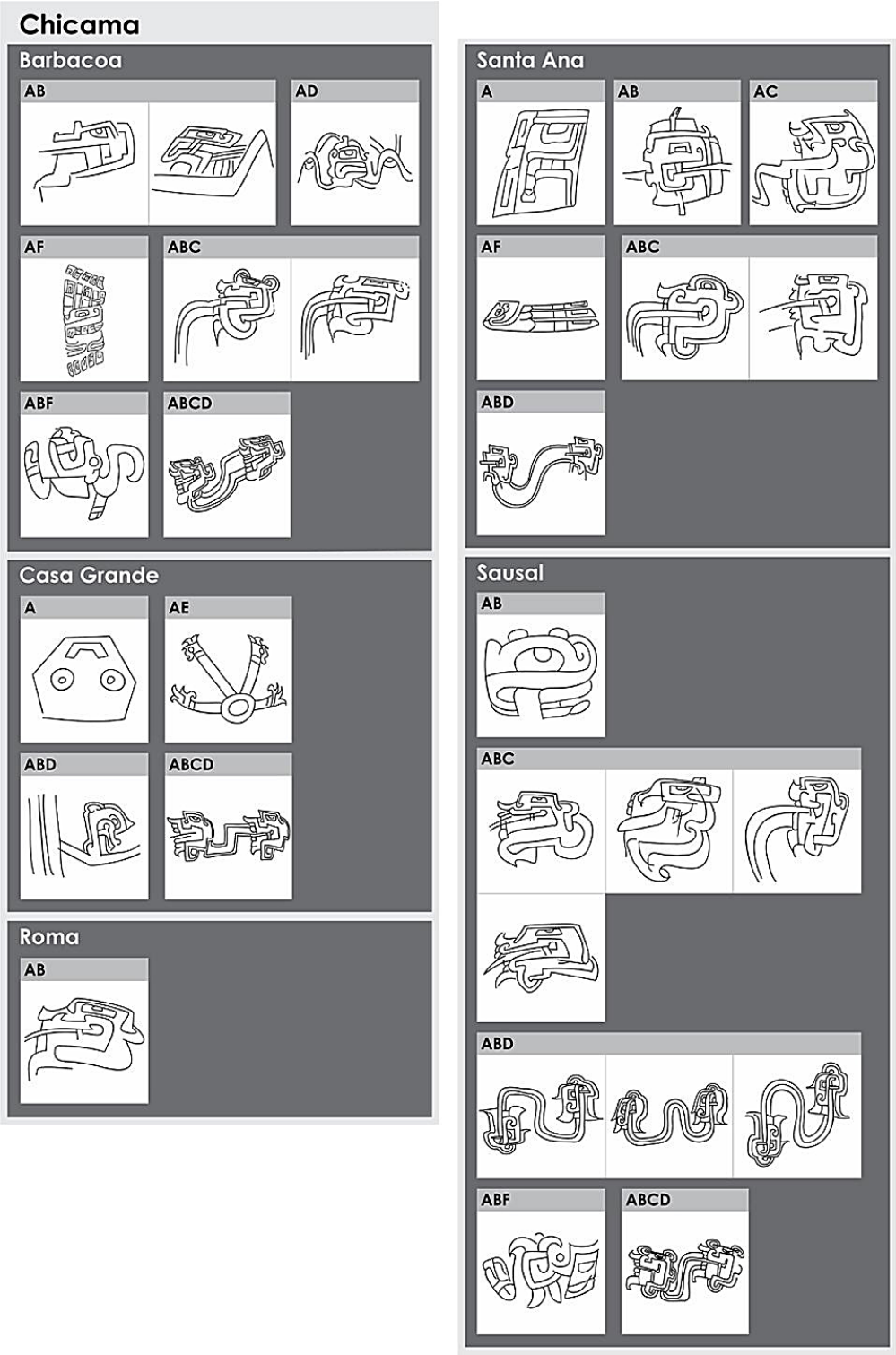


Table 6.6: The Chicama Valley

Adapted from Alva 1986, drawing by Eric Huntington.

As with Jequetepeque, a significantly larger and more varied sample (30 vessels) was identifiable from the Chicama region. All known features (A, B, C, D, E, F) were found among these samples.

- All included the basic head (A)
- 23 included fang motifs (B)
- 12 included rows of teeth (C)
- 9 included connective bands (D)
- 1 included elongated body (E)
- 4 included feathers (F)

A total of 10 different configurations were in evidence:

- 2 examples of A
- 5 examples of AB
- 1 example of AC
- 1 example of AD
- 1 example of AE
- 2 examples of AF
- 8 examples of ABC
- 5 examples of ABD
- 2 examples of ABF
- 3 examples of ABCD

Sites Within the Chicama Valley (further breakdown of the same vessels in Table 6.6):

The Chicama Valley is the only region for which Larco Hoyle (1941) recorded where the vessels were unearthed in terms of the locations of modern cities, in this case, Barbacoa, Roma, Casa Grande, Santa Ana, and Sausal. As such, a more detailed analysis is possible in this region.

Barbacoa (8 vessels): The eight vessels from Barbacoa exhibited all features except for elongated body (E).

- All included the basic head (A)
- 6 included fangs (B)
- 3 included rows of teeth (C)
- 2 included connective bands (D)
- 2 included feathers (F)

The eight vessels from Barbacoa occurred in six (6) different configurations:

- 2 examples of AB
- 1 example of AD
- 1 example of AF
- 2 examples of ABC
- 1 example of ABF
- 1 example of ABCD

Roma (1 vessel): The one vessel from Roma occurred in AB configuration.

Casa Grande (4 vessels): The four vessels from Casa Grande exhibited all features except for feathers (F).

- All included the basic head (A)
- 2 included fangs (B)
- 1 included rows of teeth (C)
- 2 included connective bands (D)
- 1 included elongated body (E)

Each of the four vessels from Casa Grande had a different configuration: A, AE, ABD, ABCD.

Santa Ana (7 vessels): The seven vessels from Santa Ana exhibited all features except for elongated body (E).

- All included the basic head (A)
- 4 included fangs (B)
- 3 included rows of teeth (C)
- 1 included connective bands (D)
- 1 included feathers (F)

The seven vessels from Santa Ana exhibit six (6) different configurations of motifs: A, AB, AC, AF, ABC (in 2 vessels), ABD.

Sausal (10 vessels): The ten vessels from Sausal exhibited all features except for elongated body (E):

- All included the basic head (A)
- All included fangs (B)
- 5 included rows of teeth (C)
- 4 included connective bands (D)
- 1 included feathers (F)

The ten vessels from Sausal occurred in five (5) different configurations:

- 1 example of AB
- 4 examples of ABC
- 3 examples of ABD
- 1 example of ABF
- 1 example of ABCD

The cities of Casa Grande, Santa Ana, and Roma lie towards the lower end of the Chicama Valley (toward the coast), while Sausal and Barbacoa are closer to

the middle of the valley (somewhat inland). It may be notable that only Casa Grande, towards the lower end of the valley, has an example of the elongated body (E), and that these vessels also lacked any feathers (F) that could be found at most of the other sites in the region.

Overall Patterns

Given this sample of 62 head-motif vessels with various combinations of features and locations of origin, some general analyses are possible. Using these overall characteristics of the entire sample set as a baseline, one can also compare subset samples from different regions to see how they match or differ from the overall distribution and from each other.

Considering the complete set of 62 vessels as a whole, the basic head (A) is a part of all (100%) of the designs. 29 vessels (47%) included fangs (B), 18 vessels (29%) included rows of teeth (C), 11 vessels (18%) included connective bands (D), 2 vessels (3%) included elongated body (E), and 5 vessels (8%) included feathers (F).

Out of all numerically possible configurations of these individual characteristics, only 11 combinations actually appear on the vessels surveyed in this study (Table 6.1). The frequencies of these configurations are listed below (percentages do not total one hundred due to rounding):

- A = 23 (37%)
- AB = 6 (10%)
- A = 4 (6%)
- AD = 2 (3%)
- AE = 1 (2%)
- AF = 3 (5%)
- ABC = 11 (18%)
- ABD = 6 (10%)

- ABE = 1 (2%)
- ABF = 2 (3%)
- ABCD = 3 (5%)

The basic head in isolation (A = 23) is by far the most common configuration, followed by various configurations of the head with fangs, including with teeth (ABC = 11), with fangs alone (AB = 6), and with fangs and connective bands (ABD = 6). A much smaller number of vessels omitted fangs (B) but had other features such as teeth (AC = 4), connective bands (AD = 2), elongated body (AE = 1), or feathers (AF = 3).

Some characteristics were never found together. Neither rows of teeth (C) nor connective bands (D) ever occurred with elongated body (E) or feathers (F). These latter features, elongated body (E) and feathers (F), only occurred either without any other additional features besides the basic head (AE, AF) or in combination with fangs (ABE, ABF). Likewise, elongated body (E) and feathers (F) were never found to combine with each other. ACD was also not found as an independent combination, although A, C, and D may occur together if B is also included (ABCD).

The only extant configuration with more than three characteristics is ABCD (found in three objects from Chicama).

Distribution of Characteristics and Combinations by Region

Based on the mapping of these characteristics and configurations to their apparent excavation regions, it seems that some certain types of imagery can be localized to specific river valleys or regions. The pattern that emerges is one of more complex imagery in the southern regions, as compared to the simpler configurations that dominate further north, as summarized in Figure 6.4 and Table 6.7.

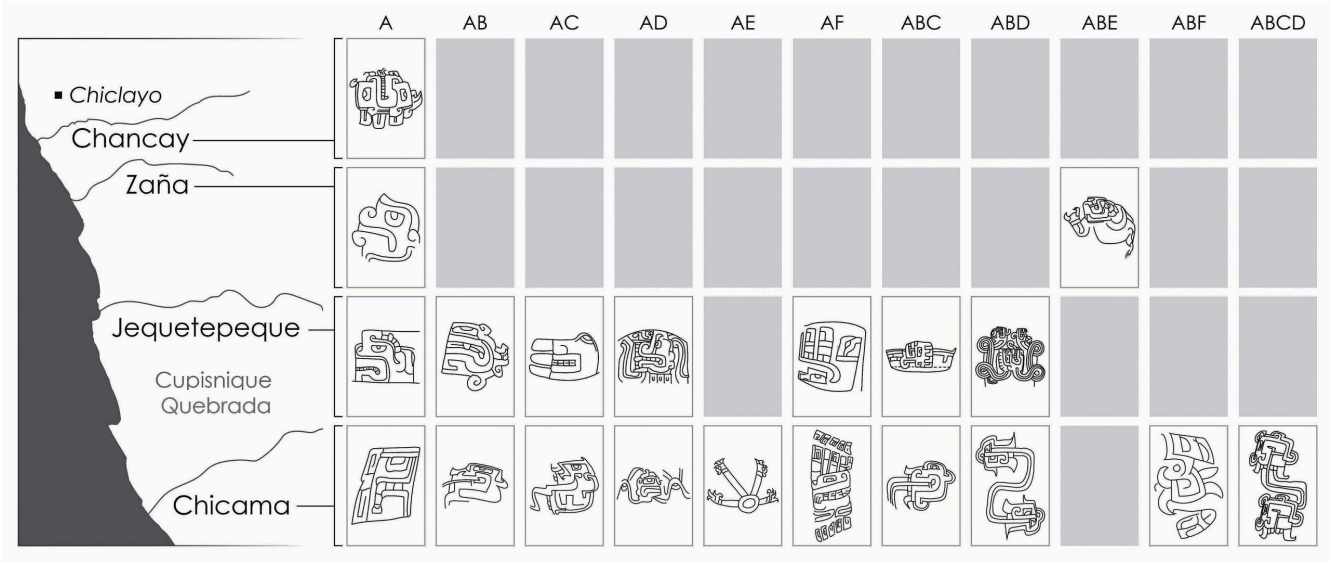


Figure 6.4. Cupisnique-style engraved head motifs by regional locations.
Drawing by Eric Huntington, from Park Huntington 2018.

CONFIGURATION	REGION			
	Chancay	Zaña	Jequetepeque	Chicama
A	3	4	14	2
AB			1	5
AC			3	1
AD			1	1
AE				1
AF			1	2
ABC			3	8
ABD			1	5
ABE		1		
ABF				2
ABCD				3

Table 6.7: Configuration Distribution by Regions

Fangs (B) appear on at least some objects from every valley except Chancay, the northernmost of the four valleys associated with the Cupisnique style. While the sample size from Chancay is extremely small (only 3 objects), it may be that this characteristic was not as popular in the northern regions. Indeed, this hypothesis is supported by the additional fact that fangs seem fairly rare in the middle-southern Jequetepeque Valley (5 out of 24 samples = 21%) and significantly more common in the southernmost Chicama Valley (23 out of 30 samples = 77%). Furthermore, the frequency of fangs in Chicama is much greater than that of the overall sample (47%). Given this distribution, it may be that fangs, as a characteristic, were more associated with the southern artistic traditions, especially the southernmost.

Likewise, rows of teeth (C), connective bands (D), and feathers (F) only appear on the vessels from the Jequetepeque and Chicama Valleys, both of which are located in the southern half of the Cupisnique stylistic region. Again, while

the relatively small sample size from the northern regions may be a factor, it may also be that the more complex imagery with these additional features was more common toward the south. As occurred with the fangs (B), imagery from southernmost Chicama uses these features even more frequently than middle-southern Jequetepeque, supporting an interpretation of greater popularity further south. Rows of teeth (C) occur at a rate of 25% (6 out of 24) in Jequetepeque, compared to 60% (18 out of 30) in Chicama. Connective bands (D) occur at a rate of 8% (2 out of 24) in Jequetepeque, compared to 37% (11 out of 30) in Chicama. Feathers (F) occur at a rate of 4% (1 out of 24) in Jequetepeque, compared to 13% (4 out of 30) in Chicama. Unless more objects with these characteristics from the northern valleys are identified, it seems that they are far more common as one progresses south.

The elongated body (E) is the least common characteristic of all, only being found in two vessels from the Chicama and Zaña Valleys. While Alva previously connected motifs from the Zaña Valley and the Jequetepeque Valley, due to their neighboring physical location, it may be that certain aspects of the Zaña motifs were in fact more closely related to the Chicama Valley traditions, given this unique appearance of the elongated body in both places. Given the distribution of more individual features toward the south, and especially toward Chicama, it also follows that many of the more complex configurations are also more common in the same places.

Even given the relatively small sample size in some of the regions, it seems quite possible to divide the Cupisnique style into several regional sub-styles, based on the known find-sites of available ceramics. While better excavation and provenance information will undoubtedly refine these analyses in the future, several patterns have emerged. In general, it seems that the imagery is more complicated in the southern valleys than in the northern ones. This pattern holds even between the Jequetepeque and Chicama Valleys of the southern region, where the sample size is much more robust.

Such analysis can provide great insights into the cultural contexts and societal relationships between these different regions, although more research remains to be done. It may be that the center of the Cupisnique culture was indeed near the Cupisnique *quebrada*, or perhaps it was rather closer to the Chicama

river valley, with the most complex and varied motifs being developed there. Surrounding regions may have only later adopted the most basic elements of southern Cupisnique design, based on limiting religious, economic, or other cultural factors. Alternatively, the simpler designs might have developed first in the north and been expanded as they traveled south, perhaps to regions that were more populous or had greater interactions with other cultures.

The geographic analysis provided above will also allow for the more precise attribution of other Cupisnique objects in the future. Many Cupisnique-style ceramic vessels with engraved head motifs collected in museums throughout the world do not have specific provenance or excavation information, but comparing their features to a known geographic distribution might allow them to be identified with specific regions or valleys and to help form a fuller picture of the complex Cupisnique culture.

Using Materials and Techniques to Understand Culture

Quite distinct from the preceding iconographic analysis of the subjects depicted in Cupisnique-style motifs are the technical aspects of the constructions of the vessels, which include the choice of clay, firing temperature, surface treatment, thickness of the vessel, stirrup-spout shape, and post-fire engraving. Regardless of the particular imagery, potters also went through many stages of deciding upon and manipulating materials, adapting designs, and developing skilled practices to make even a single vessel. These elements are neither accidents of history and culture nor solely the intentional decisions of singular artists, but rather result from combinations of broader cultural contexts and the actions of individuals. The collection of raw clay, for example, depends on the specific geology of a region, but it also relies on the accumulated knowledge, experience, and decisions of specialists who select and refine materials for use. People need to know where to find the right kind of earth and how to mix it with water and other minerals, and individual artists may adapt these materials to diverse techniques and functions.

Much of this knowledge is accumulated over decades and centuries not just by individuals but by collective communities. At the same time, this knowledge may also be limited to a very few individuals in a society, such as a particular lineage of artists, and, without being passed down from generation to generation, it may be lost or irrevocably changed.[10] This makes the knowledge and skills of those craftspeople all the more valuable within a given society, sometimes greatly enhancing the artists' power and prestige (Inomata 2001). Conversely, if such knowledge, and thereby the production of such objects, becomes commonplace, the value of the knowledge and the objects diminishes.

Since many Cupisnique-style ceramic vessels were unearthed from burial sites and therefore presumably intended as offering items (Hoyle 1941), it is likely that these objects were considered valuable means for honoring the dead. Therefore, one may speculate that they may be associated with a higher level of material, skill, or technique, perhaps beyond what might have been used for the everyday. The use of exotic or valuable raw materials, for example, is significantly associated with social and political prominence (Helms 1993). Although Cupisnique vessels were made of common earthenware and perhaps not valuable for their material alone, other technical aspects, such as their surface and decoration, could have enhanced their prestige. For example, additional techniques were used to make the surface of the vessels smooth, less porous, and even watertight. As evinced by small textural details, it seems that Cupisnique potters used stones to smooth clay surfaces before they completely dried. They also seem to have burned special fuel in their kilns to polish and blacken the finish. Ursel Wagner and his research team experimented with a variety of fuel types and found that green *bichayo* leaves were particularly effective at replicating the shiny black surface of Cupisnique-style ceramics, producing an almost glaze-like effect that results from a reduced-oxygen firing environment (Wagner et al 1994). Wagner also notes that the contemporary potter Geronimo Sosa Alache (who lives in Chulcanas in Morropón Province) uses similarly waxy mango leaves to achieve the same kinds of surface (1994).

The use of specific techniques can also be understood as markers of social identity or ideology (Costin and Wright 1998; Arnold 1985; Lemonnier 1992, 1993; Stark 1998). Even a modest earthenware vessel that was carefully smoothed and fired with leaves to create a shiny black surface could explicitly

indicate an identification with Cupisnique society. Of course, the forms of the engraved head motifs would also have delivered similar associations with the identity of specific potters or cultural groups (Park 2010, Park Huntington 2018). While the Cupisnique style can be distinguished from other regional styles and, therefore, speaks to broad cultural differences, the identification of specific geographic groupings within the Cupisnique styles suggests that each region may have had reasons from creating slightly different variations, perhaps based on different artistic lineages, regional identities, religious symbolism, or other factors. Indeed, the variety of motifs may suggest several layers of meaning and interpretation. The clearly intentional choice of using post-fire engraving also marks these images as different from other variations of the same subjects that were created with different techniques, again probably marking a particular cultural identity and belief-system in the region (Park 2010; Park Huntington 2018).

The techniques used to create an object can be just as effective as its imagery in communicating information, expressing social identity, and providing evidence for a broad spectrum of cultural phenomena. Whether an object is interpreted in terms of the amount of labor used to produce it (Marx 1990), the actions and decisions of its individual creators (Graeber 2001), or the skilled use of particular materials and processes (Costin 2016), the cultural value and meaning of an object goes beyond its pictorial symbolism or even use (Hodder 1982). By considering the conjunction of technique and imagery in Cupisnique ceramics, a better understanding of the culture as a whole is possible.

Cupisnique Ceramics Found in the Highlands and Southern Region of Peru

While Cupisnique-style ceramics had value in their own region, including for burial practices and marking cultural identity, they apparently also had value in other places as well. They appear to have been delivered by trade from the northern coast of Peru to the distant southern coast (Silverman 1996), and a few examples have also been found at important sites in the highlands (Burger 1984, Lumbreras 1993, Nesbitt and Matsumoto 2014). On its face, this indicates a broader cultural value of these objects and cultural connections between

the regions. Given the more refined geographic analysis of the Cupisnique regional styles described above, it also becomes possible to offer a more nuanced understanding of the relationships between some of these distant places and particular locations within the greater Cupisnique area.

The transregional value of Cupisnique-style ceramics is especially evident from the discovery of two such vessels at the site of Chavín de Huántar in the northern highlands. These vessels were excavated by Lumbreras from the offering gallery at the site (1993), where many other objects from various regions of the Andes were also found, suggesting that many people from different places brought their own objects to this particular site for some singular purpose. Burger also found one small Cupisnique-style fragment engraved with a head motif in the town of Chavín de Huántar, to the east of the archaeological site. Burger argued that the Cupisnique-style vessels were transported from the coastal Cupisnique region rather than produced locally at the highland site (Burger 1984).

Three ceramic shards in the Cupisnique style were also unearthed by Nesbitt and Matsumoto from the southern highlands site of Campanayuq Rumi, also probably brought there rather than created there (2014). Nesbitt and Matsumoto found that one of the sherds bore a fragment of an engraved motif that seemed strikingly similar to an example from Chavín de Huántar, so they concluded that the sherds might have been brought directly from the northern regions, perhaps even from Chavín de Huántar itself. There is little evidence that Campanayuq Rumi had much direct trade with the coastal regions of southern Peru, where other Cupisnique-style ceramics traveled by trade (Silverman 1996). If the Cupisnique-style objects brought to Chavín de Huántar were considered particularly valuable, they might even have been brought to Campanayuq Rumi as souvenirs (Burger 2013), perhaps after religious pilgrimage to Chavín de Huántar (Nesbitt and Matsumoto 2014).

The particular sherd that Nesbitt and Matsumoto found comparable to an example from Chavín de Huántar also provides evidence of further geographic relationships, because the comparable design from Chavín de Huántar is clearly of the ABCD configuration, a combination of head (A) with fangs (B), rows of teeth (C), and connective band (D) that is the most complex of all the

known head motif configurations. Based on the geographic mapping described above, this most complex of designs is only known to have been found in the southernmost Chicama valley of the Cupisnique region (Figure 6.4). It seems likely, therefore, that both the vessel found at Chavín de Huántar and the fragments found at Campanayuq Rumi either originated from, or were highly influenced by the style of the Chicama Valley specifically, as opposed to just the Cupisnique region as a whole.

The fact that this ABCD configuration is the most complex of the known examples also supports the interpretation of the pieces found at Chavín de Huántar and Campanayuq Rumi as exceptionally valuable. As argued above, the skill and labor necessary to create these drawings would have exceeded that of those found on simpler or more ordinary vessels and made them stand out both as material objects and as cultural signifiers. Consequently, it may also be suggested that, among all the valleys of the Cupisnique region, Chicama may have produced the objects that were most valued and recognized by outsiders.

Conclusion

The head motifs engraved after firing on Cupisnique ceramic vessels point towards a variety of ways of conceptualizing cultural value, identification, and relationships. Clearly, they were transported to outside regions where they were valued, as evinced both by the relative complexity of the designs found in exported objects and in their excavation from sites of particular religious significance, such as the offering gallery at Chavín de Huántar. The social practices that involved the transportation and deposition of these objects provide a clear sense of their cultural value. The particular technique of using a smooth surface as a ground to highlight graphic motifs engraved after firing also suggests one possible function of these objects as symbolic markers or reflections of Cupisnique identity within a broader and more diverse area. Although actual ethnography for the ancient Cupisnique people does not exist, some aspects of their culture may be known through analysis of these technical aspects of their objects.

Inside the Cupisnique region itself, there was also great variation between different localities, as especially evinced in the subjects of the engraved motifs. Although only about one third of known vessels can be attributed to specific valleys or cities within the Cupisnique region, the available dataset clearly suggests that certain places may have employed different motif features and produced more complex designs than others. Mapping the use of these motifs to different places allows a greater analysis of cultural relationships both within the Cupisnique sphere and to regions beyond. With more research in the future, it will be possible to better attribute Cupisnique head motifs in museums around the world, clarify local relationships among Cupisnique communities, and understand how Cupisnique-style ceramics played a variety of roles in the larger Andean world.

Notes

1. The Museo Larco collection database can be found in the online catalogue at https://www.museolarco.org/catalogo/.

2. Peru has more than one Chancay Valley. The one referred to in this paper is on the northern coast of Peru, just north of the Zaña Valley. The Cupisnique-style ceramic vessels described by Walter Alva as coming from the Chancay Valley are distinct, mainly coming from the area of Saltur.

3. The discussion of possible local social developments and their reciprocal connections was mentioned in the exhibition catalogue edited by Peter Fux (2013: 186).

4. This etymology is based on the Oxford English Dictionary at https://www.oed.com.

5. These attributions are based on available records from the Museo Larco online catalogue and Alva (1986).

6. Museum registration numbers for each of the vessels from the Museo Larco are available in Park (2010: 343–388).

7. Specific citations to Alva (1986) can be found in Park (2010: 492–543).

8. There is also the possibility that attribution for any single object might be incorrect, given the inaccurate record-keeping at the time of excavation.

9. This configurational analysis of Cupisnique-style engraved head motifs derives from my previous article, "Emblems of Cultural Identity in Early Andean Art: Engraved Head Motifs on Cupisnique Ceramics" (2018).

10. For example, Koryō dynasty (935–1935 CE) celadon techniques were lost due to the lack of training of a next generation in glazing. The slightly dark-hued celadon color from the Koryō dynasty was not revitalized again.

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Works Cited

Alva, Walter
1986 *Cerámica Temprano en el Valle de Jequetepeque, Norte del Perú*. Materialien zur Allgemeinen und Vergleichenden Archaologie Band 32. München: Verlag C.H. Beck.

Arnold, Dean
1985 *Ceramic Theory and Cultural Process*. London: Cambridge University Press.

Burger, Richard
1984 *The Prehistoric Occupation of Chavín de Huántar, Peru*. Berkeley: University of California Press.

2013 "In the Realm of the Incas: An Archaeological Reconsideration of Household Exchange, Long-Distance Trade, and Marketplaces in the Pre-Hispanic Central Andes". In *Merchants, Markets, and Exchange in the Pre-Columbian World*, ed. K.G. Hirth and J. Pillsbury, pp. 319-334. Washington, D.C.: Dumbarton Oaks Research Library and Collection.

Cieza de Leon, Pedro de
1998 *The Discovery and Conquest of Peru: Chronicles of the New World Encounter*. Alexandra Parma Cook and Noble David Cook, ed., and trans. Durham: Duke University Press.

Cobo, Bernabé
1979 *History of the Inca Empire: An Account of the Indians' Customs and their Origin, Together with a Treatise on Inca Legends, History, and Social Institutions*. Translated and edited by Roland Hamilton. Austin: University of Texas Press.

1990 *Inca Religion and Customs*. Translated and edited by Roland Hamilton. Austin: University of Texas Press.

Costin, Cathy L., ed.
2016 *Making Value, Making Meaning: Techné in the Pre-Columbian World*. Washington, D.C.: Dumbarton Oaks Research Library and Collection.

Costin, Cathy L., and Rita P. Wright., eds.
1998 "Craft and Social Identity", *Archaeological Papers of the American Anthropological Association 8,* Washington, D.C.: American Anthropological Association.

Fux, Peter., ed.
2013 *Chavín: Peru's Enigmatic Temple in the Andes*. Zürich: Museum Rietberg and Verlag Scheidegger & Spiess.

Graeber, David
2001 *Toward an Anthropological Theory of Value: The False Coin of Our Dreams*. New York: Palgrave.

Grieder, Terence
1975 "The Interpretation of Ancient Symbols." *American Anthropologist 77* (4): 849–55.

Guamán Poma de Ayala, Felipe
2009 *The First New Chronicle and Good Government: on the History of the World and the Incas up to 1615*. Translated and Edited by Roland Hamilton. Austin: University of Texas Press.

Helms, Mary W.
1993 *Craft and the Kingly Ideal: Art, Trade, and Power*. Austin: University of Texas Press.

Hodder, Ian
1982 *Symbols in Action: Ethnoarchaeological Studies of Material Culture*. Cambridge: Cambridge University Press.

Inomata, Takeshi
2001 "The Power and Ideology of Artistic Creation", *Current Anthropology* 42 (3): 321-349.

Larco Hoyle, Rafael
1941 *Los Cupisnique*. Lima: La Crónica y Variedades S. A. Ltda.

1945 *Los Cupisnique*. Trujillo: Sociedad Geogrfica Americana.

Lemonnier, Pierre
1992 *Elements for an Anthropology of Technology*. Ann Arbor: Museum of Anthropology, University of Michigan.

Lemonnier, Pierre, ed.
1993 *Technological Choices: Transformation in Material Cultures Since the Neolithic*. New York: Routledge.

Lumbreras, Luis Guillermo
1993 *Chavín de Huántar: Excavaciones en la Galería de las Ofrendas*. Mainz: Verlag Philipp von Zabern.

2013 "Religious Rituals in Chavín and Their Supraregional Significance". In *Chavín: Peru's Enigmatic Temple in the Andes*, Peter Fux, ed., pp. 176-187. Zürich: Museum Rietberg and Verlag Scheidegger & Spiess.

Margolis, Eric., and Stephen Laurence., eds.
2007 *Creations of the Mind: Theories of Artifacts and their Representation*. New York: Oxford University Press.

Marx, Karl
1990 *Capital Volume 1*. Ernest Mandel (Introducer), Ben Fowkes (Translator). London: Penguin Classics.

Nesbitt, Jason, and Yuichi Matsumoto
2014 "Cupisnique Pottery from Campanayuq Rumi, South-central Highlands of Peru: Implication for Late Initial Period Interaction", *Peruvian Archaeology*. 1: 47-61.

Panofsky, Erwin
1970 *Meaning in the Visual Arts*. Harmondsworth: Penguin.

Park, Yumi
2010 *The Engraved Head Motifs on Cupisnique Style Vessels: Innovation and Appropriation in Early Andean Art*. PhD dissertation, Richmond: Virginia Commonwealth University.

Park Huntington, Yumi
2018 "Emblems of Cultural Identity in Early Andean Art: Engraved Head Motifs on Cupisnique Ceramics". In *Ceramics of Ancient America: Multidisciplinary Approaches,* Yumi Park Huntington, Dean Arnold, and Johanna Minich, eds., pp. 131-155. Gainesville: University Press of Florida.

Silverman, Helaine
1996 "The Formative Period on the South Coast of Peru: A Critical Review", *Journal of World Prehistory* 10: 95-146.

Stark, Miriam T. ed.
1998 *The Archaeology of Social Boundaries*. Washington, D.C.: Smithsonian Institution Press.

Wagner, Ursel, et al.
1994 "Kiln Firing at Batán Grade: Today and in Formative Times". In *Archaeometry of Pre-Columbian Sites and Artifact: Proceedings of a Symposium Organized by the UCLA Institute of Archaeology and the Getty Conservation Institute, Los Angeles, California, March 23-27, 1992*. David A. Scott and Pieter Meyers, eds., pp. 67-84, Marina Del Rey, CA: Getty Conservation Institute.

Wason, Paul K.
1994 *The Archaeology of Rank*. Cambridge: Cambridge University Press.

Yupanqui, T., & Bauer, R.
2005 *An Inca Account of the Conquest of Peru*. Boulder, Colorado: University Press of Colorado.

7

WARI AND THE HUACA DEL SOL: MAX UHLE'S 1899 TEXTILE COLLECTION AT MOCHE, PERÚ

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Terence Grieder takes an important position in his essay "The Interpretation of Ancient Symbols": an art historical investigator should consider both style *and* ethnology (1975: 853-854). At a basic level Grieder recognizes that characteristics in ancient objects continue to be meaningful today. I appreciated his active involvement in Andean archaeology, derived in large part from an early interest in the work of Max Uhle, which he encountered at the University of Pennsylvania while completing his PhD work. In an early collaboration with Grieder, I analyzed the textiles he had excavated at La Galgada, Perú (Grieder et al. 1988). In the present article I discuss textiles that Max Uhle excavated on the Huaca del Sol in the Moche Valley now housed in the museum of his patron Phoebe Apperson Hearst Museum of Anthropology,

at the University of California, Berkeley. Uhle catalogued only thirteen textiles numbered 4-2594 and 4-2595 A-L, all from the Huaca del Sol. The group is significant for the time period during when they were created – the Andean Middle Horizon (600-900 CE), when religious imagery from Tiwanaku (Tiahuanaco) was spread throughout Perú by the Wari (Huari), for the textile style and details of construction, and for the location on the north coast where Moche textiles are rarely preserved. The textiles identify at least three separate traditions found together: a locally-developed Moche style, a hybrid style with both highland and coastal characteristics, and a Wari-associated style. This article analyzes the textiles from the Huaca del Sol as an opportunity to examine relations between the two important Peruvian cultures of the Moche and Wari.

North Coast Moche and Highland Wari

Uhle excavated at Moche during his first Peruvian expedition for the University of California, concentrating on monumental adobe structures called huacas along the lower Moche River (Figure 7.1) (Rowe 1954:7). His work began on August 26, 1899 and ended March 15, 1900 and included surveys, mapping, and two principal excavations (Kaulicke 2014). One excavation was in the early Moche Site F (300-600 CE), a cemetery platform near the Huaca de la Luna where he collected ceramics, metal, and stone objects (Uhle 1913: Fig.1). This article discusses Uhle's excavation on the *Südplateau* or southern platform of the Huaca del Sol, marked C on his map (Figure 7.2) (Uhle 1913: Fig.3). The Huaca del Sol was the principal huaca during the late Moche period (600-900 CE) and one of the largest ancient constructions in the Americas.[1] The Huacas Luna and Sol, together with an urban core, comprise the archaeological center now called Huacas de Moche (Figure 7.3). Uhle illustrated "Tiahuanacoid"/Wari artifacts that he collected in the *Grabfeld* or grave field on the southern platform including broken ceramics, a section of a carved wooden Wari cup, and a slit-tapestry textile with a Wari image (Figure 7.4) (Uhle 1913: Plate V b; Figure 16). He also published drawings of another four textiles fragments with local and Wari-associated styles (Figure 7.5) (Uhle 1913: Figure 17).

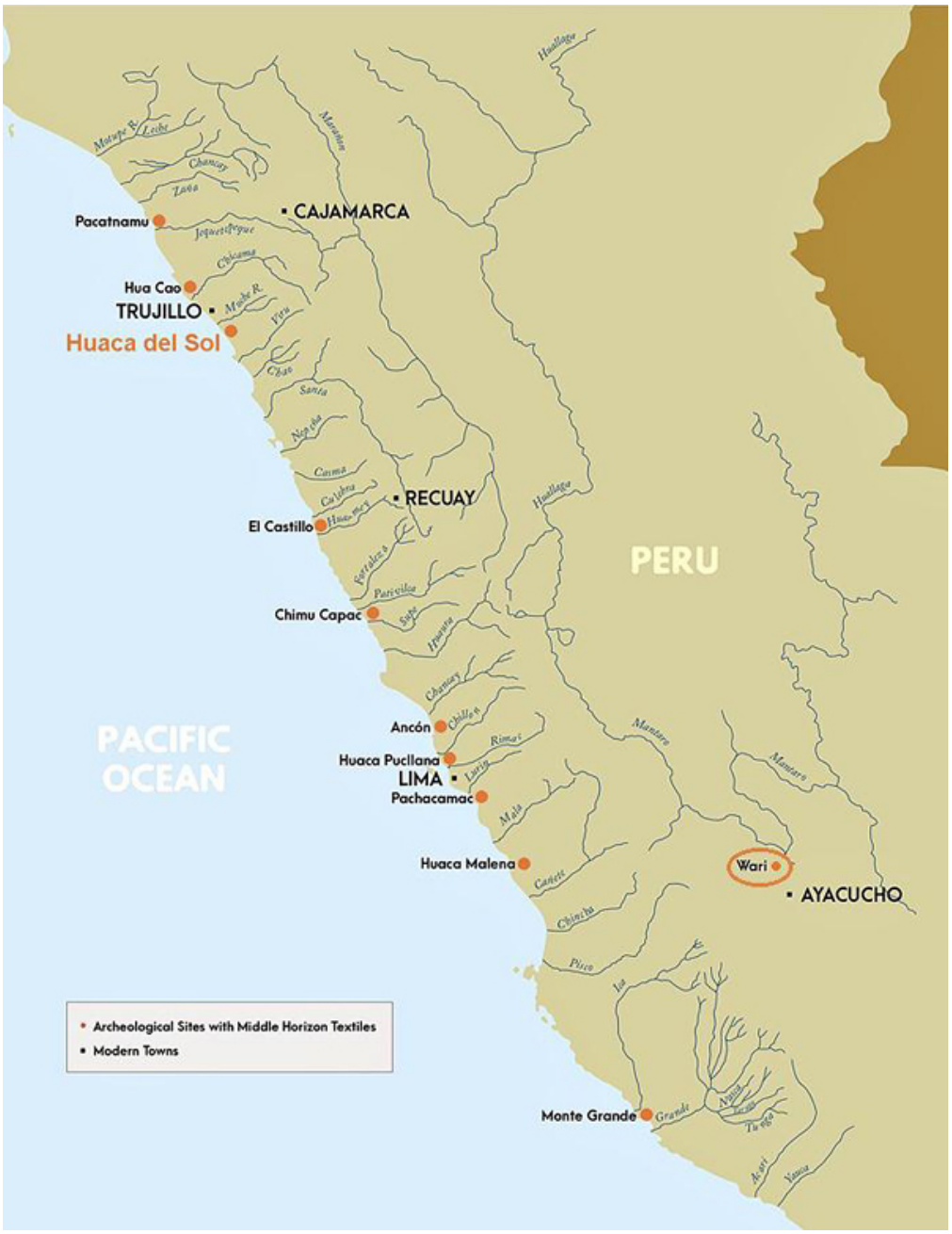

Figure 7.1. Huaca del Sol in the lower Moche Valley and other coastal sites where Middle Horizon archaeological textiles have been identified. Map by Alicia Mattera.

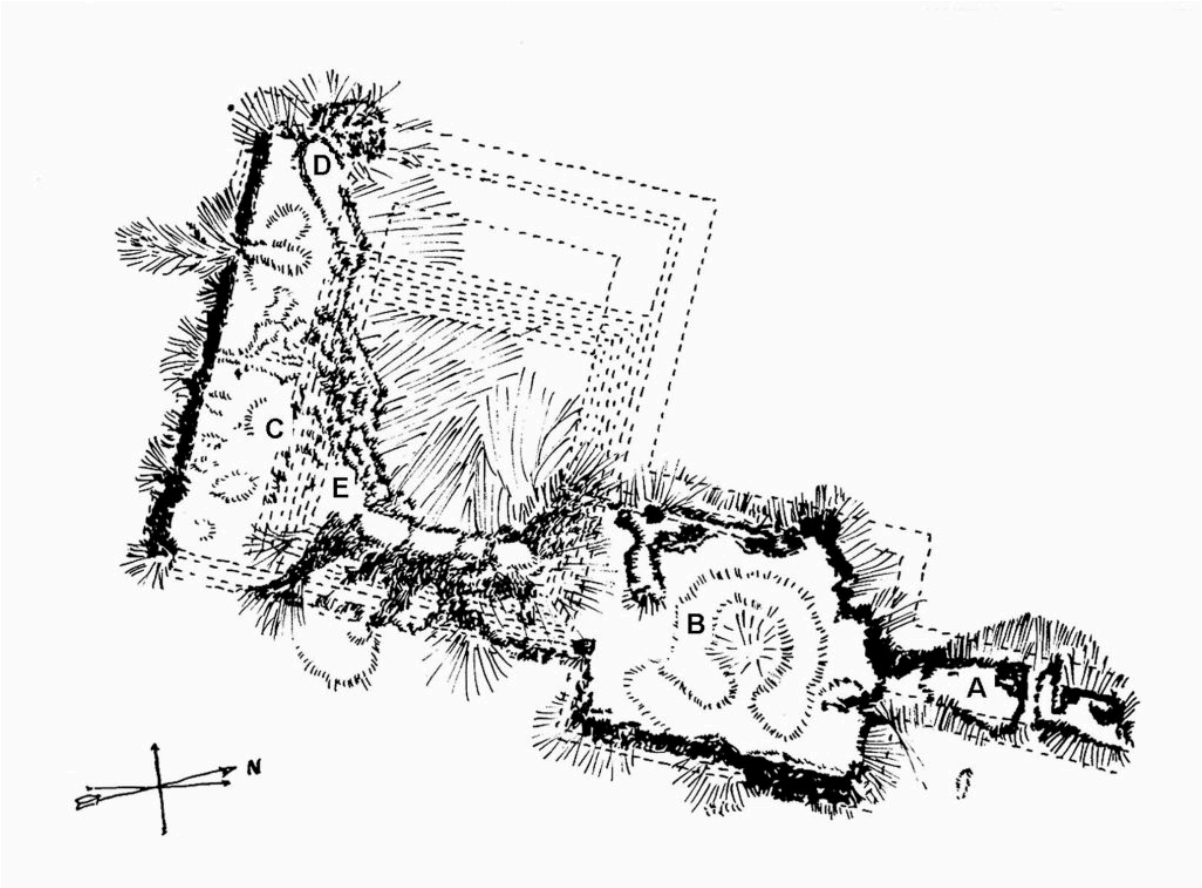

Figure 7.2. *Die Huaca del Sol.* Uhle's plan of the Huaca del Sol with locations A-E:
A. Dam of ancient road
B. Northern plateau
C. Southern plateau with cemetery
D. Raised part of plateau
E. Pyramid.
Redrawn by Amy Oakland from: Max Uhle, 1913: *Die Ruinen Von Moche*, Fig. 3.

Figure 7.3. Huaca del Sol (in the background) and the Huacas de Moche urban center as viewed from the top of the Huaca de la Luna, February 2020.
Photo by Amy Oakland.

Figure 7.4. Slit-tapestry patch 4-2594. Max Uhle Collection, Huaca del Sol. S2Z cotton warp, Z2S camelid-hair weft, 8 x 16 cm. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

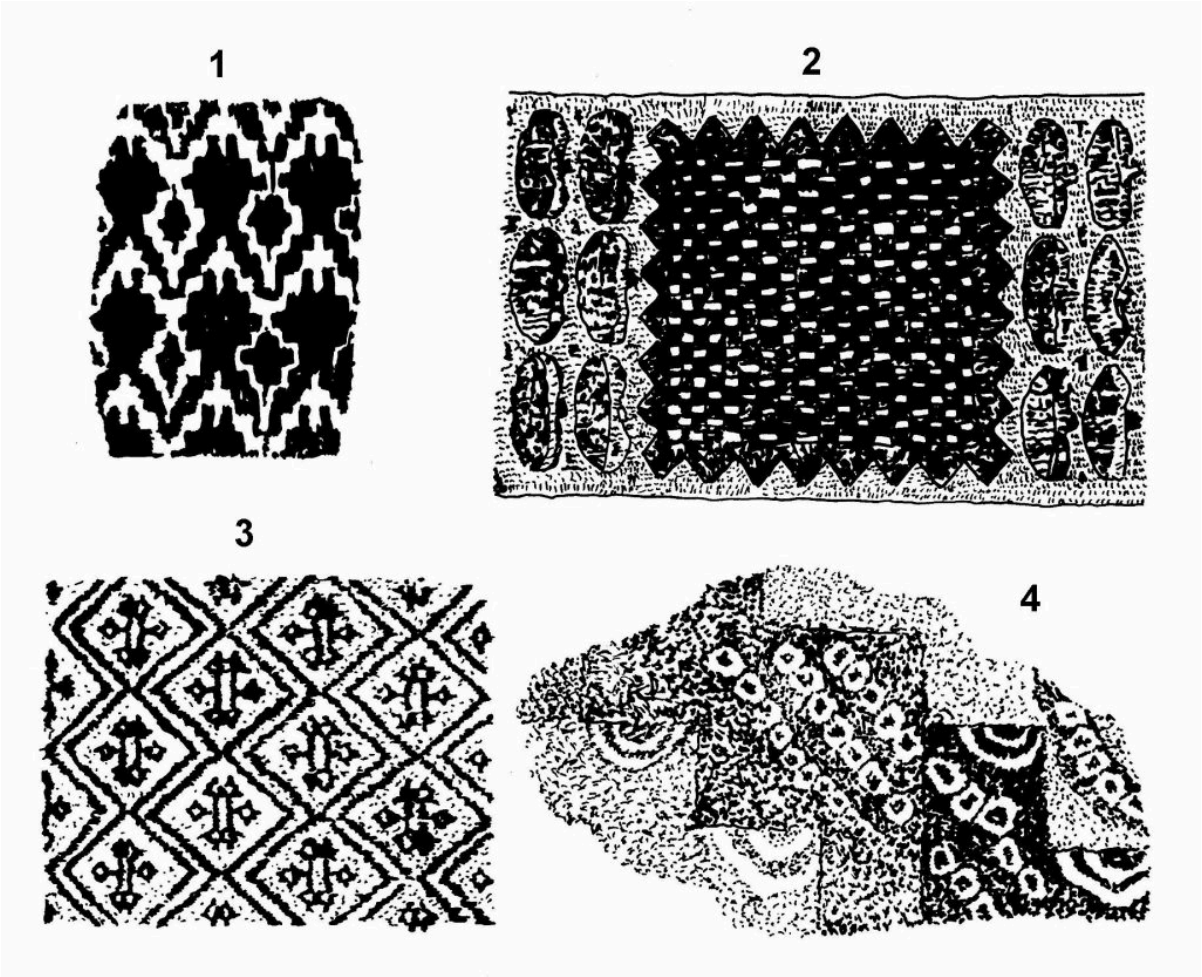

Figure 7.5. Textiles from the Grave Field (*Gewebe aus dem freien Grabfeld*).
1. Double cloth 4-2595C;
2. Openwork tapestry band ?4-2595H;
3. Supplementary-weft 4-2595G;
4. Wari tie-dye (s.n.).
Redrawn by Amy Oakland from: Max Uhle: 1913: *Die Ruinen Von Moche*, Fig. 17.

The Huacas de Moche have been considered the capital of a southern Moche state. Jeffrey Quilter and Michele Koons provide a description of the "complicated picture of the past in 'Mochelandia'" and consider that Moche culture existed instead within multiple centers along the coast, sharing a Moche religious system, but differentiating themselves especially through distinctive ceramic styles as Christopher Donnan observed (Quilter and Koons 2012: 138; Donnan 2011). Northern Moche centers are often described within Early, Middle, and Late Moche ceramic phases while southern Moche ceramics

have been related to a five-phase stylistic sequence Moche I-V. In an important recent study Koons and Brigit Alex reviewed radiocarbon dates associated with Moche ceramics and found that before 600-650 CE, "Moche people living in the various valleys seem to have been using regional ceramic styles," but after this period a host of changes occurred; the Moche IV ceramic style was developed at the Huacas de Moche just before 600 CE and continued to be used there, never adopting the later Moche V style that was developed around 650 CE in the neighboring Chicama Valley (Koons and Alex 2014: 1050). Koons noted at the Moche site Licapa II in the Chicama Valley "both southern Moche IV and V and northern Late Moche styles of ceramics of the highest quality are found" and she suggests that "alliances and relationships crosscut the northern and southern Moche boundary" (Koons 2015: 61, 68). Koons and Alex (ibid: 1052) conclude that:

> between 600-650 CE, Moche IV, V, and Late Moche are adopted at roughly the same time at different sites throughout the Moche world and suggest that political affiliation was more complex and extended beyond local spheres in this later Moche phase.

This is the period when the influence of the Wari, with its capital in the southern highlands, begins to be noticed within the northern valleys. Luis Jaime Castillo states that "around 650 CE things started to change rapidly in the Moche world, particularly in the Jequetepeque Valley" when Late Moche Fineline ceramics were adopted in elite tombs at San José de Moro along with a small group of Wari ceramics, Wari obsidian blades, Wari blackware *keros* (traditional Andean cups), and Cajamarca ceramics that Castillo suggests may have arrived through Wari exchange (2012: 53-55). From the evidence of burials at San José de Moro, Castillo concludes "Late Moche, Wari, Cajamarca, and Lima-were somehow connected" (ibid). Textiles have not survived in San José de Moro burials and they are rarely mentioned in excavation reports from Moche centers, but Uhle's Huaca del Sol collection included both ceramics and textiles in Moche, Wari, Casma, and Cajamarca styles during the Late Moche period. The Huacas de Moche experienced the same dramatic events during the same time period. Between 600-650 CE the Huaca de la Luna was abandoned, ending the Early Moche period that featured Moche warriors, priests, and Moche gods in elaborate sacrificial rituals (Uceda 2008; 2010: 195-199). The following Late Moche culture continued for 150-200 years with a

new urban focus, a new ruling urban elite, and the construction of the New Temple/ *Plataforma* III (Uceda 2010). The monumental Huaca del Sol was constructed during this late time and continued in use during the period known throughout Perú as the Middle Horizon (600-900 CE) (Tufinio et al. 2014).

Dorothy Menzel (1977: 59, note 191) identified these same late Moche and Wari connections where Moche V ceramics had been discovered together in tombs with Wari styles in the Piura Valley, Pacatnamu, and the Santa Valley. Ubbelohde-Doering's Pacatnamu excavations contained Moche and Wari ceramic styles and textiles in the group Tomb E-1 where early Moche slit-tapestries were found with textiles that he described "as red and yellow, which are remarkably bright colours for the Mochica palette," an observation that matches late Moche, Middle Horizon style (1967: 22-81). At San José de Moro, Moche artists copied a wide variety of Wari ceramic forms and themes in a combined Moche-Wari ceramic style (Castillo 2001, 2012). Although few textiles are preserved on the north coast, there is no reason to suggest that a Moche-Wari textile style would be "hypothetical" (Bernier and Chapdelaine 2018: 586). The opposite is now evident: a Moche-Wari textile tradition existed and products of this union have been discovered in large Middle Horizon cemeteries along the Pacific Coast (Oakland 2020b; Prümers 1990, 1995, 2001). The authors analyzed shared iconography and missed the structural information that identifies a Moche textile. Unlike spinning techniques used on the central and south coast and in the highlands, the Moche used a different method. Moche artists spin and weave with S-spun cotton yarns, a topic considered below. Ubbelohde-Doering's Middle Horizon Moche textiles are similar to the large collection of hundreds of fragments of Moche-Wari textiles created by Moche weavers at El Castillo in the Huarmey Valley, analyzed by Heiko Prümers (1990). In addition, Middle Horizon Moche textiles have been discovered in non-Moche central and south coast burial sites together with Wari textiles, ceramics, and local styles (Oakland 2020a, 2020b). The small collection that Uhle excavated from the Huaca del Sol identifies this same Moche-Wari textile connection at Moche.

Spinning, Weaving and Moche Textiles

The foundation of Moche textile structure rests on S-spun cotton yarns used as singles or paired in cotton plain weave and sometimes plied S2Z, especially for use in slit-tapestry warp. This cotton tradition forms the basis of all Moche textiles and it has been identified in Early Intermediate Period Gallinazo weaving in the Virú Valley (Millaire 2009; Surette 2015).[2] The style identifies a northern weaving tradition that followed in later Chimu textiles and persists today in regions of the Lambayeque and Jequetepeque valleys (Rowe 1984; Vreeland 1986). As James Vreeland describes, northern spinners hold their spindle horizontally often without a whorl and spin off the tip like Victoria Inoñaú Valdera from Mórrope, Lambayeque (Vreeland 1986). Figure 7.6 shows Valdera seated in front of her wooden tripod *kaite* that supports the *copa*, a roll of prepared cotton fiber in front of her. The position of the spindle is important and is the reason that the yarn produced will have fibers aligned in a right-slanted direction like the letter S. On the Huaca del Sol, Uhle collected a spindle filled with cotton yarn (Figure 7.7) where the S-slant of the white cotton fibers is visible (Figure 7.8). The small pieces of shiny red camelid, probably alpaca fiber, on this spindle were formed by two Z-spun yarns that have been re-plied Z2S, typical for almost all camelid fiber yarns. By comparison, this northern S-spinning cotton tradition contrasts completely with spinning traditions that continue in the highlands, where spinners use a drop-spindle like Florintina Huaman Condori from Pitumarca near Cusco (Figure 7.9). The drop-spindle is equipped with a whorl, is held vertically, and the yarn is drawn from the top, not the tip, producing a yarn aligned in the Z direction, usually plied Z2S. Spinners in both traditions twist the spindle in the same way, by sliding the spindle forward between the thumb and fingers, but if the spindle is horizontal and the fibers are drawn from the tip the yarn will have an S-spin, opposite from fibers drawn from the top of a vertically spinning spindle. These learned traditions have been passed through generations and remain regionally distinct. The most common Andean fibers are cotton on the coast and the hair from camelids in the highlands: llama for bags and rope, alpaca for fine textiles, and vicuña for the finest garments. Modern spinners also often use sheep's wool.

Figure 7.6. Victoria Inoñaú from Mórrope, Lambayeque, Peru spinning cotton yarn in the northern tradition on a horizontally-held spindle at the Museo Tumbas Reales de Sipán in Lambayeque.
Photo by Amy Oakland.

Figure 7.7. Spindle with yarn 4-2598. Max Uhle Collection, Huaca del Sol. Cotton S-spun yarn and Z2S-spun red dyed camelid hair, 21.4 x 3 cm. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California. Photo by Amy Oakland.

Figure 7.8. Detail of 4-2598 (Figure 7.7), spindle with white cotton and red dyed camelid-hair yarn. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

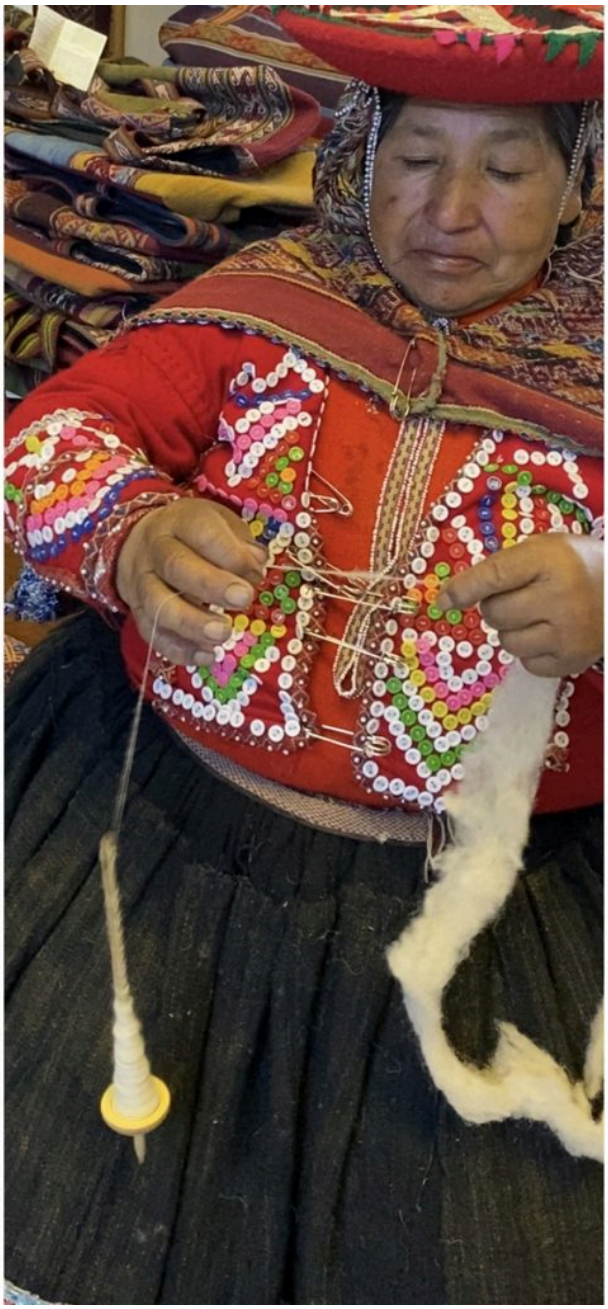

Figure 7.9. Florentina Human Condori of Pueblo Pitumarca spinning Z-spun sheep's wool with the drop spindle in the Centro de Textiles Traditionales de Cusco. Photo by Amy Oakland.

Highland and coastal weaving techniques remain distinct as well. In Moropé, Victoria Inoñaú grows and spins native-colored cotton to use for contrast with white cotton and weaves in weft-patterned techniques. In the highlands near Cusco, Florintina Huaman weaves the opposite warp-faced patterns in alpaca

and sheep's wool for herself and her family. There are several loom types used in Perú today, but, interestingly, both Inoñaú and Huaman and their communities of weavers use the backstrap loom, the type pictured on the inside rim of a flaring Moche vase painted during the Late Moche period (Figure 7.10). Many people have discussed this image because it clearly depicts larger-sized men wearing wrapped and tied headcloths, and women of different ages with dark hair seated in front of their looms with the loom bars tied around their waists and attached to wooden roof supports.[3] The vertical elements on the loom, called warps, are kept in tension by the weaver's body as she holds shuttles filled with weft yarns that pass between the warp yarns to produce either plain weave, where both elements of warp and weft are balanced, or warp-faced weave where the warp is predominant, or weft-faced weaves where the wefts are predominant, as in a tapestry. To prepare patterns in warp-faced textiles, the warp will be selected in various colors that are pre-arranged in the warping process, a technique developed early in highland areas based on natural and dyed camelid fiber (Rowe 1977). Coastal weavers wove many styles, but they usually patterned textiles in weft-faced structures like those on the looms in the Moche vase painting. The loom's simple construction belies the complex weaving structures possible.

Figure 7.10. "Weaver Vase", Moche, Perú: Object no. Am1913, 1025.1, British Museum 37cm h. x 28cm with flaring rim painted with a weaving scene in fine-line Moche style. Courtesy of The Trustees of the British Museum.

Uhle and the Huaca del Sol Tiahuancoid/Wari Textiles

Max Uhle realized the differences in time between the two great huacas at Moche, noting that the Huaca del Sol had continued in use in the period of Tiahuanaco while "the Huaca de la Luna lay untouched in the Valley of Trujillo when a newer culture was taking place" (Uhle 1913: 110). Uhle

concentrated excavations in the *Grabfeld* or cemetery of what he thought were sacrificial burials on the surface of the *Südplateau*, the wide southern platform of the Huaca del Sol (Kaulicke 2014; Uhle 1913).[4] He published illustrations of what he called "Tiahuanaco" artifacts from the Huaca del Sol and stated "I was able to find numerous remainders of artifacts of the Tiahuanaco period, enough to use as hard evidence for the use of the grave field in this period" (Uhle 1913: 113, Fig. 16). Uhle is using the name Tiahuanaco for the Wari-style artifacts that he excavated on the Huaca del Sol because at this early date the Wari capital had not yet been identified in the southern highlands near Ayacucho (Rowe 1998: 12). Before excavating Moche, Uhle had studied stone sculpture at Tiahuanaco in Bolivia in 1894-1895 (Rowe 1954: 5-6). When he excavated Pachacamac in 1896-1897, he discovered Tiahuanaco/Wari artifacts and when he found similar objects on the Huaca del Sol he compared them to specific examples from his Pachacamac report (Uhle 1903). Lila O'Neale (1946, 1947) was the first to examine Uhle's Moche collections at the University of California from both the Early Moche Site F and the Huaca del Sol. In the early Moche collection, O'Neale (1946) identified textile evidence on tiny fragments attached to metal objects where she recorded cotton yarns spun in the S direction and woven textiles in plain weave, twill, tapestry, double cloth, and supplementary-weft structures. O'Neale and Kroeber (1930: 43-44, Figs. 12 and 13) analyzed two of Uhle's late Moche textiles collected from the Huaca del Sol. They stated that the structure of discontinuous-weft color spots they called "embroidered raised dots" in textile 4-2595g (Figure 7.11) must be considered unique to Moche textiles. The color spots or dots are not embroidered, but instead are integral to the weaving process and the structure does appear to be a technique created and used extensively by Moche weavers (Conklin 1979; Prümers 1995, 2007). Together with the slit-tapestry 4-2594, O'Neale and Kroeber (1930, op cit) discussed Uhle's Huaca del Sol collection as evidence of "Tiahuanacoid Moche".

Figure 7.11. Plain weave fragment with supplementary-weft pattern 4-2595G. Max Uhle Collection, Huaca del Sol. Paired S-spun cotton warp, S-spun cotton weft with Z2S red dyed camelid hair (cf. Figure 7.21). 20 x 34cm. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

Alfred Kroeber (1925: Plates 63-66) illustrated Uhle's Huaca del Sol ceramics as examples of "Tiahuanacoid-ware." Menzel also illustrated and discussed Uhle's collection in relation to ceramics of the early epochs of the Middle Horizon, including Wari *keros*, Cajamarca ceramics, face-neck jars, Casma-style press-molded and incised bowls, and Moche clay musical instruments (Menzel 1977: Figs. 80, 82-86, 89, 92-93). Through stylistic analysis, Menzel (ibid: 37) determined that the press-molded ceramics excavated in sealed tombs dated to later Middle Horizon epochs, but that the collections from the surface of the *Südplateau*, including the fragments of Moche and Wari ceramics, the fragment of a carved wooden Wari cup, and the slit-tapestry, all dated to early epochs of the Middle Horizon. Uhle noted this same time difference when he distinguished the Huaca del Sol *Grabfeld* collection of broken pottery and textile fragments from complete ceramics that he excavated within enclosed

tombs (1913: 111). He thought that the destroyed *Grabfeld* was earlier and as evidence he said that he found fragments of Tiahuanaco/Wari cups spread across the plateau and that a shard of one of the same cups had been walled into the closing wall of a tomb suggesting that the burial ground was destroyed before the sealed tombs had been constructed.

The *Südplateau* measured 136 m. long x 29 m. wide with some stratigraphy in the 80 cm fill (Uhle 1913: 110-113). In the bottom layer Uhle found *thousands* (my emphasis) of fragments of clay trumpets in "horn-like and shell form, the finding of which curiously makes one think of an earlier sacred place," a comment that appears particularly fitting for the dramatic southern platform. He thought the evidence pointed to a demolished cemetery:

> In general, all of the graves up to the last are destroyed, and it seems for a long time, that the former history of the grave field must be reconstructed out of debris... I was able to find numerous artifacts of the Tiahuanaco period in the open grave field (ibid).

He noted that "with the Tiahuanaco-like remains go together in the same bottom a lot of fragments that belong to other cultures", and he specifically stated that mixed in the *Grabfeld* of the *Südplateau* he found "textile fragments, threads, pieces of reed, parts of human and animal bone, and numerous fragments of vessels, and other decorative objects" (ibid: 113).

Uhle's excavations were the only ones to discover Wari and associated Middle Horizon material at the Huacas de Moche until new excavations on the Huaca del Sol by Moisés Tufinio and his collaborators, who excavated the area where Uhle worked on the southern platform now called *Sección 4* (Tufinio et al. 2012, 2014; Uceda et al. 2016). Tufinio describes evidence of occupation, administration, storage, banquets, and feasting on the west side of the southern platform, and ritual activity and burials concentrated on the east side, which is now called *Unidad 1*. Tufinio excavated three tombs and discovered burials scattered across the platform's width under the same shallow layer of fill. Unlike Uhle, who did not record any burial associations in the debris on the southern platform, Tufinio (2014: 150-158) was able to separate burial remains and associated material into ten *Groupos* and twenty *Pozos* where he uncovered human and camelid remains, fragmented ceramics, gourds, foodstuffs, and

textiles. Mixed with this material, he collected over 500 fragments of the same musical instruments in all levels of all contexts and the same small quantity of Wari and Cajamarca ceramic styles, local ceramics, hybrid styles, and textiles similar to the types that Uhle excavated in the same location a hundred years earlier (Cruz et al. 2019; Pariona n.d. 2021; Tufinio et al. 2014). In addition, excavations within Moche habitation areas uncovered Middle Horizon and Wari related artifacts including Wari *keros* and Cajamarca ceramics in the urban sector (Cruz et al. 2019; Zavaleta et al. 2013, 2014).

Textiles from Uhle's 1899 Excavations on the Huaca del Sol

On the Huaca del Sol, Uhle recovered textiles, yarn, and basketry fragments mixed with ceramics, human and animal remains. In addition to the spindle (Figures 7.7 and 7.8), Uhle cataloged two reed basketry samples 4-2597A-B, one coiled and the other woven in a twill pattern. He did not specify if the nine pairs of small cotton skeins 4-2596 (Figure 7.12) were discovered together, but they are wound in a similar manner and size and are all S-spun cotton yarns in natural white, brown, and dyed blue. Two important fragments, the openwork band and the Wari tie-dye (Figures 7.5:2, 7.5:4) are not located in the museum at present, however these textile types are easily recognized and Uhle compared each one with published examples that he had excavated at Pachacamac as discussed below.

Figure 7.12. Nine pairs of cotton skeins 4-2596. Max Uhle Collection, Huaca del Sol. S-spun cotton, 8 cm long. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

Wari-associated Textiles, Südplateau Huaca del Sol: Tapestry, Tie-dye and Openwork

Uhle (1913: 113, note 2) specified that the Huaca del Sol slit-tapestry 4-2594 (Figure 7.4) "compares with the winged figures of the big monolith gate in Tiahuanaco", as well as a fragment of a Wari weft-interlocked tapestry tunic that he excavated at Pachacamac and illustrated as a complete design block in a drawing (Uhle 1903: Plate 4, fig.2). Even from the drawing in his report and the small Pachacamac fragment no. 26718 (Figure 7.13), it is clear that the Pachacamac textile was originally part of a Wari tapestry weft-interlocked tunic similar in image and color to a Wari tunic fragment (Figure 7.14) from Tomb 1 at El Castillo in Huarmey (Prümers 1990, Band 1: 21, Abb. 271-272; 2001: Fig. 19). Wari weavers used an interlocking tapestry technique that links each weft yarn between warps before turning back to create color areas. The Huaca del Sol slit-tapestry 4-2594 is not Wari tapestry, but instead a Moche, coastal slit-tapestry

type with Wari-inspired standing winged figures (Figure 7.15) woven as a small, complete textile patch with S2Z-spun white cotton warps. The slits are visible in the Huaca del Sol tapestry where wefts turn back without linking between color areas. Slit-tapestry is a coastal tapestry technique not unique to Moche, but the S2Z cotton warps are yarn types created by Moche spinners. The Huaca del Sol tapestry has cut warps visible on the bottom of the tapestry that might have been folded under and sewn below the neck on a man's shirt (Donnan and Donnan 1997: Fig. 27; Oakland Rodman and Fernandez 2001: Figs. 27-29). This is the textile that Menzel (1977: 39-40: Fig. 89) describes as early Wari-related Middle Horizon 1B with two standing, facing winged figures holding staffs ending in human heads.

Figure 7.13. Fragment of a weft-interlocked Wari tapestry, Textile 26718, excavated by Max Uhle at Pachacamac.
Courtesy of the Penn Museum, University of Pennsylvania, Philadelphia.

Figure 7.14. Large fragment of Wari weft-interlocked tapestry tunic collected by Heiko Prümers (1990: Abb. 271-272) at El Castillo, Huarmey. Textile MNAAH RT-034701. Warp Z2S cotton and Z2S camelid hair weft. 31 x 54cm. Courtesy of Museo Nacional de Arqueologia, Antropologia, y Historia, Lima.
Photo by Amy Oakland.

Figure 7.15. Detail, left side of 4-2594 Slit-tapestry patch. Max Uhle Collection, Huaca del Sol. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

Uhle illustrated two additional textiles that are related to Wari style, a tie-dye fragment woven with discontinuous warps and wefts that he called "partly painted" and an openwork tapestry band (Uhle 1913: 113-114, Fig. 17.1-4). He stated that the tie-dye fragment Figure 7.5.4 was like Pachacamac textile 29782

(Figure 7.16) with hooked sections woven with discontinuous warp and weft technique (Uhle 1903:32, Fig. 31).

The technique of discontinuous warps and wefts is not confined to Middle Horizon textiles or to Wari, but it became particularly associated with Wari and is painted on Wari ceramic figures as a principal garment worn by elite men. It was woven in stepped or hooked sections and often tie-dyed in brilliant colors (Rehl 2006; Rowe 2012: Figures 181-190). Ann Rowe (2012: 201) suggests that the style possibly originated in "far southern Peru", and was spread by Wari in the Middle Horizon. Uhle excavated several examples at Pachacamac with stepped tie-dyed sections like no. 29783 (Figure 7.17) similar to the Huaca del Sol tie-dye, and he states that at Pachacamac another tie-dye textile "was found upon a mummy under a poncho of pure Tiahuanaco style."[5]

Figure 7.16. Fragment of a Wari-associated tie-dye textile woven with discontinuous warp and weft technique. Textile 29782, excavated by Max Uhle at Pachacamac.
Courtesy of the Penn Museum, University of Pennsylvania, Philadelphia.

Figure 7.17. Fragment of a Wari-associated tie-dye textile woven with discontinuous warp and weft technique. Textile 29783, excavated by Max Uhle at Pachacamac. Courtesy of the Penn Museum, University of Pennsylvania, Philadelphia.

Uhle illustrated a drawing of another Middle Horizon textile, the openwork slit-tapestry band with rows of repeating beans (Figure 7.5:2) (1913: Fig. 17.2). He stated that this Moche textile was familiar to him from his Pachacamac excavations as the type "constitutes a characteristic of the period" and he

noted that the Moche band "has the identical technique" as a narrow band no. 29673 (Figure 7.18) illustrated in his Pachacamac report (Uhle 1913: 114; 1903: 31, pl. 6, fig. 7). The Pachacamac band is also very similar to an openwork fragment from El Castillo (Figure 7.19) woven in slit-tapestry with alpaca yarns over S2Z cotton warps (Prümers 1990: Abb. 82). In this style, tapestry sections alternate with rectangular openwork areas where wefts are pulled together tightly leaving wide, open slits to create a grid-like decoration. These bands would have originally been woven for garments, especially tunic borders like the borders on a complete Moche sleeved-shirt (Figure 7.20) that Uhle excavated at Chimu Capac in the Supe Valley. In addition, the bands are often discovered in burials already removed from original garments (Menzel 1977: Fig. 77; Oakland 2020b: Fig. 15; Uhle 1903: Pl. V1). The openwork slit-tapestry technique was woven in many different iconographic styles and, like the tie-dye, are particularly representative of Middle Horizon Wari textiles.

Figure 7.18. Openwork band fragment, Textile 29673 excavated by Max Uhle at Pachacamac.
Courtesy of the Penn Museum, University of Pennsylvania, Philadelphia.

Figure 7.19. Openwork band fragment collected by Heiko Prümers (1990: Abb. 82) at El Castillo, Huarmey. Textile MNAAH RT-034705. Warp S2Z cotton and weft Z2S camelid hair. 32.4 x 14cm. Courtesy Museo Nacional de Arqueologia, Antropologia, y Historia, Lima.
Photo by Amy Oakland.

Figure 7.20. Moche sleeved-shirt 4-7827 woven in 12 different panels of paired cotton S-spun warp and single S-spun wefts in plain weave and Z2S camelid fiber in reinforced tapestry in the upper panels, discontinuous warp and weft Z2S camelid fiber in the bottom panels, with borders woven in S2Z cotton warp and Z2S camelid fiber openwork slit-tapestry. Max Uhle collection, Chimu Capac, Supe.
Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.

Late Moche Textiles, Südplateau Huaca del Sol: Supplementary-weft and Double Cloth

The other two Huaca del Sol textiles that Uhle called "partly double weave" include one double cloth (Figure 7.5:1) and one patterned with supplementary-wefts (Figure 7.5:3). These two fragments are related to a third Moche textile that Uhle excavated on the Huaca del Sol also woven in supplementary-weft patterning (Figure 7.11) (O'Neale and Kroeber 1930: 43-44, Fig. 12; Uhle 1913: Fig. 17.1, 3). These three textiles 4-2595 C, D, and G form their own group of local late Moche coastal-style (Conklin 1979: Fig. 10). Textile 4-2595G (Figures 7.11 and 7.21) and fragment 4-2595D (Figures 7.22-7.23) share similar structural features

with white cotton plain weave woven with S-spun yarns paired in warp and single in the weft with the addition of paired Z2S red-dyed alpaca fiber used in supplementary wefts. In both textiles, the images repeat in rows of small patterns and in a diamond grid with discontinuous-weft color spots in blue, green, and gold alpaca yarns.

Figure 7.21. Detail of supplementary-weft patterned textile 4-2595G (cf. Figure 7.11). Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

Figure 7.22. Plain weave textile with supplementary-weft pattern in diamond grid with color spots woven in discontinuous wefts. Textile 4-2595D. Max Uhle collection, Huaca del Sol. Paired S-spun cotton warp, S-spun cotton weft with Z2S red dyed camelid hair. 10 x 17cm. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

Figure 7.23. Detail of reverse side of textile 4-2595D. Max Uhle collection, Huaca del Sol. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

The third late Moche Huaca del Sol textile 2595C (Figures 7.24-7.25) is woven in double cloth in paired Z2S red alpaca and paired S-spun white cotton with the addition of color spots of blue alpaca Z2S in discontinuous wefts. The image of repeating catfish or stingrays in an overall diamond grid pattern relates closely to early Moche-style textiles from the Huacas de Moche, described by Fernández (2008), woven with fine S-spun brown and white cotton yarns and with discontinuous-weft spots in red camelid fiber. Jean-Francois Millaire (2009) and Flannery Surette (2015: Fig. 137-138) identified a similar blue and white double cloth cotton textile from the Early Intermediate Period site Huaca Santa Clara in the Virú Valley with similar catfish motifs in diamond pattern.[6] Early Moche textiles like these Huacas de Moche and Viru Valley examples are woven principally in cotton, in diamond-grid layout with dots of dyed camelid fiber for color. During this early period the small amounts of camelid fiber are usually spun S2Z. Uhle's Huaca del Sol textiles were woven with

supplementary weft patterning and in double cloth with images that repeat in a diamond grid like these early Moche textiles, but the use of a much larger quantity of Z2S-spun and brilliantly dyed camelid fiber and the Wari associations on the *Südplateau* determine their late Moche, Middle Horizon period. The close similarity in style suggests very few generations separating these early and late Moche textiles at Moche.

Figure 7.24. Fragment of red and white double cloth woven in diamond grid with blue discontinuous weft color spots. Textile 4-2595C. Max Uhle collection, Huaca del Sol. Paired S-spun cotton and paired Z2S red dyed camelid hair. 25 x 9cm. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

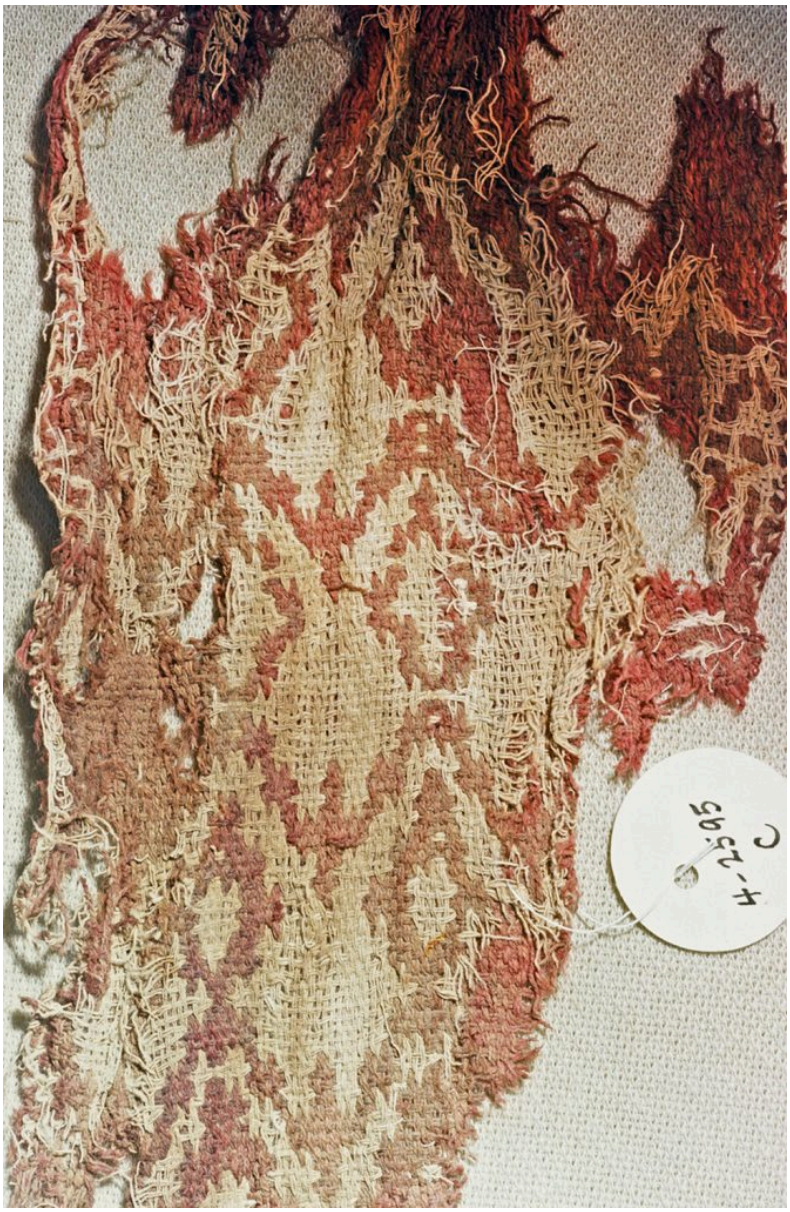

Figure 7.25. Detail of reverse side of double cloth textile 4-2595C (Figure 7.24). Max Uhle collection, Huaca del Sol. PAHMA.
Photo by Amy Oakland.

Highland-related Textiles, Südplateau Huaca del Sol Warp-faced

The last four Huaca del Sol textiles form a distinct group with no Wari imagery. These textiles are woven primarily in Z2S camelid fiber and are predominately warp-faced, an opposite tradition originating from a still undetermined area of

the highlands (Rowe 1977). The two narrow bands 4-2595E and 4-2595F (Figure 7.26) use red camelid-fiber in both warp and weft, an unusual feature to weave dyed yarns in the mostly hidden weft of a warp-predominant structure. Both bands are woven with long, paired white S-spun supplementary cotton yarns that float on the back and are brought forward in small areas to create outlines of circles.

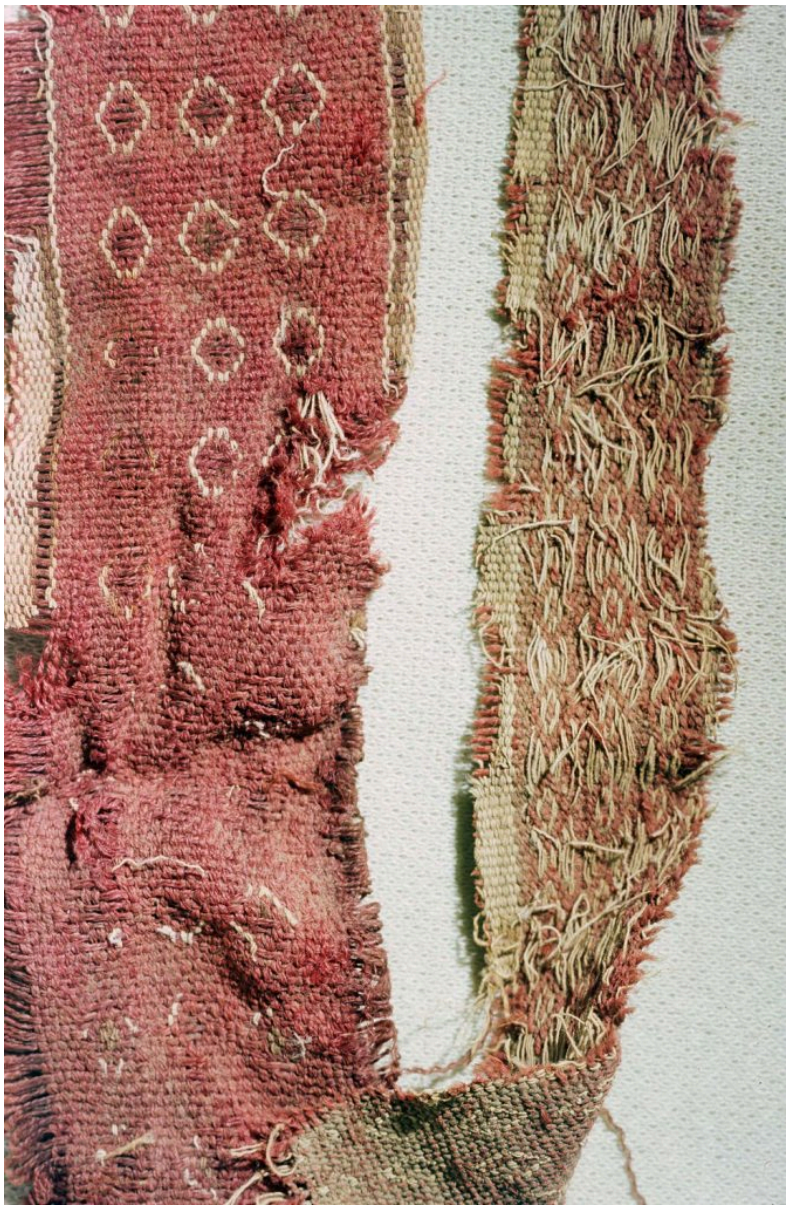

Figure 7.26. Warp-faced plain weave bands with supplementary-warp float pattern. Textile 4-2595 E and F. Max Uhle collection, Huaca del Sol. Paired S-spun cotton and paired Z2S-spun red dyed Z2S camelid hair warp and red dyed weft. 60 x 4.5cm and 44 x 2.5cm. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California. Photo by Amy Oakland.

The striped camelid-fiber textile cataloged as 4-2595L (Figures 7.27, 7.28) is woven with the addition of thin cotton warp-stripes in blue and white S-spun cotton with brown S-spun cotton weft. The use of cotton for weft and cotton mixed with alpaca warp stripes is not common to either Moche textiles or to textiles considered completely highland. The S-spun cotton probably identifies a local textile style with highland connections at this time period at Moche. For the Viru Valley Early Intermediate site of Huaca Santa Clara, Flannery Surette (2015) attributes the large quantity of camelid-fiber warp-faced textiles to its mid-valley location with access to the adjacent highlands. Surette (2015: 201, Fig. 295, 300) also describes a particular long, narrow, warp-striped, all camelid-fiber bag that she considers an import into Huaca Santa Clara. In shape and design the bag relates to the last textile collected by Uhle on the Huaca del Sol labeled 4-2595K (Figures 7.29, 7.30). But Uhle's Moche bag is woven with both cotton and camelid fiber warp-stripes and S-spun cotton weft. This mixture perhaps identifies a late Moche population at Moche with skills and access to resources of both traditions of the highlands and those of the north coast.

Figure 7.27. Large fragment woven in warp-faced plain weave with warp-stripes and narrow stripes with warp float pattern. Textile 4-2595L. Max Uhle collection, Huaca del Sol. Z2S red, blue dyed camelid and S-spun warp and S-spun cotton weft. 66 x 53.2cm. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

Figure 7.28. Detail of warp-faced camelid-hair and cotton warps-striped textile 4-2595L. Max Uhle collection, Huaca del Sol. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

Figure 7.29. Top portion of long bag woven in warp-faced plain weave with warp-stripes. Textile 4-2595K. Max Uhle collection, Huaca del Sol. Z2S red dyed camelid hair and Z-spun cotton warp and S-spun beige cotton weft. 30.5 x 16.7cm. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

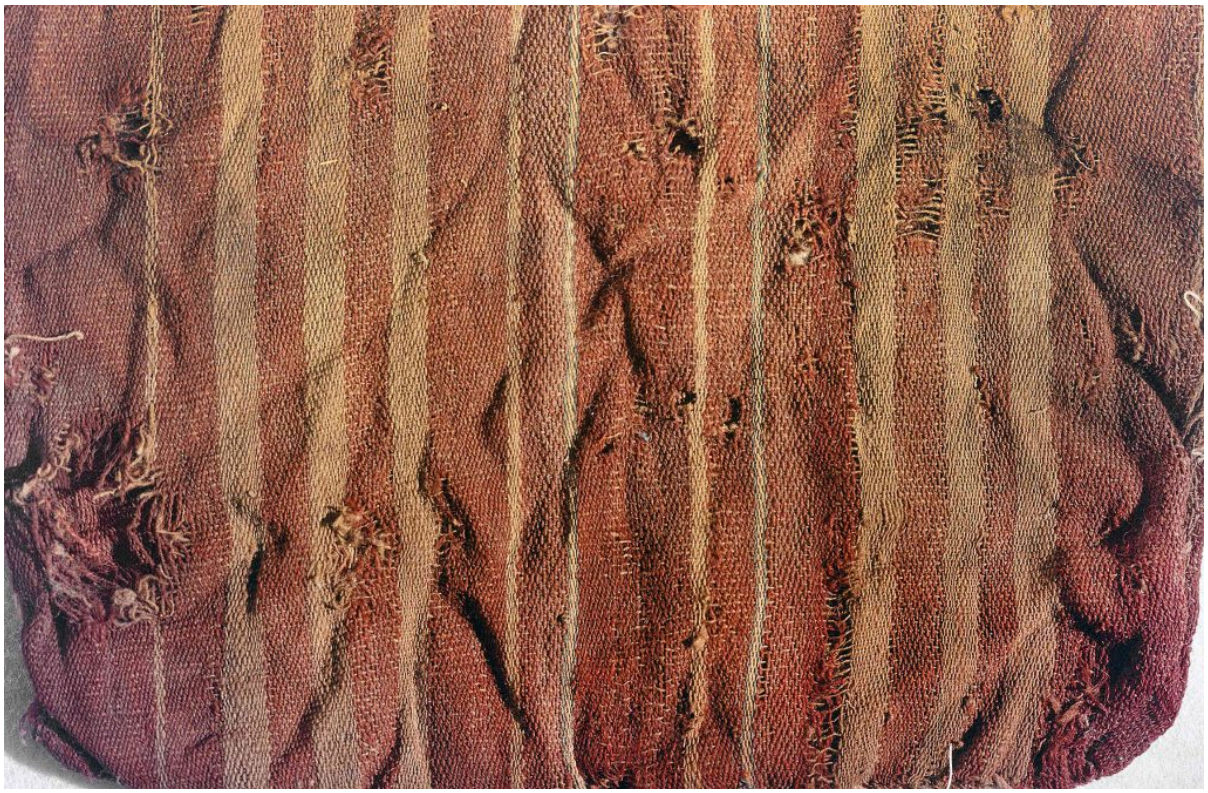

Figure 7.30. Detail of bottom of warp-striped bag 4-2595K. Max Uhle collection, Huaca del Sol. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

Discussion: Wari at the Huaca del Sol

These fragmented textiles originally formed parts of burial offerings that Uhle stated were found together with human and camelid remains, ceramic sherds, and with thousands of broken clay musical instruments scattered across the southern platform. The original burial form was destroyed, but Uhle recognized the artifacts as similar to those from funerary bundles that he excavated at Pachacamac and later at Chimu Capac, where he also recorded opened tombs with contents scattered, skeletons altered, skulls removed, ceramics broken, and textiles cut and torn, including shattered Wari material mixed into the cemetery debris (Oakland 2020b). The Huaca del Sol was undoubtedly visited continuously and the remains on the southern surface may have been desecrated over centuries. Colonial glass was discovered in the recent excavations and today the huaca continues to be a sacred space for local

rituals. Even so, Tufinio (2014: 153-154, Figure 73) was able to detect some burial associations and he illustrated a brocaded textile of Moche-Wari style that he stated was found together with Wari and Cajamarca ceramics.

Menzel (1977: 37) described the Huaca del Sol as "one of Uhle's most important excavations" that reflected "changes in north coast culture history over a period of about 400 years" before, during, and just after the Middle Horizon. In particular, Menzel (1977: Figs. 80, 82-86) serrated the images molded into clay musical instruments finding that the faces of Moche gods were altered through Wari influence during the Middle Horizon. The thousands of fragments of these Moche trumpets and whistles "demand attention" as Dianne Scullin and Brian Boyd (2014: 376) suggested. Public rituals must have been staged on the wide southern platform of the Huaca del Sol involving large numbers of people. Loud and disruptive in sound (Scullin and Boyd ibid), these clay instruments have been excavated throughout the Huacas de Moche during early and late periods and recovered in a late Moche ceramic workshop within the urban sector (Bernier 2010: Fig. 8). Uhle's textile sample also identifies styles that suggest a continuation of early Moche techniques into the Middle Horizon. The local Moche double cloth and supplementary-weft patterned styles are a direct continuation of early Moche textiles with the addition of a larger quantity of red, dyed camelid-fiber instead of the usual cotton warp and weft used in the earlier period. The Wari tie-dye textile was imported from the south where Wari tie-dye styles date 600-900 CE (Rowe 2012: 200-201). At least some textiles discussed here could have been produced during the first part of the Middle Horizon, but the time period when they were placed on the southern platform of the Huaca del Sol remains unclear.[7]

As highland Cajamarca ceramic styles were discovered together with Moche, Wari, and other ceramics on the Huaca del Sol, what was the nature of highland interaction at the Huacas de Moche? Shinya Watanabe (2019) identifies Wari connections with Cajamarca throughout the Middle Horizon. George Lau (2012: 23, 30) suggests Wari and local Recuay leaders united within "religion and prestige economies" connected to "mummy bundles, portable huacas, marked adobes, trophy heads, even laborers" as well as Cajamarca ceramics, spondylus shells, greenstone objects, obsidian, ceramic figurines, and probably textiles. Textiles are rarely preserved in the highlands, and although

Early Intermediate Period Recuay textiles have been discovered on the coast (Oakland Rodman and Cassman 1995), highland Middle Horizon textile styles are not well known. Cajamarca ceramics on the Huaca del Sol do identify association with late Moche culture at Moche and warp-faced textiles woven with cotton wefts in the Uhle textile collection could represent highland migrants together with local people buried on the southern platform. The cotton and camelid fibers mixed in these Middle Horizon warp-faced textiles represent an unusual feature at the Huacas de Moche. Cotton was spun in the S direction, but camelid fiber was always spun in the highland Z2S manner during late Moche periods. These camelid yarns could have been imported from the highlands as identified with isotope analyses for earlier yarn exchange in the Virú valley and in later Chancay yarns on the central coast (Szpak et al. 2015). Or highland spinners may have been present to spin imported or local camelid fiber at Moche. Late Moche people continued to spin cotton in their traditional method, but they may have begun spinning camelid fiber in the opposite direction with vertically held spindles as Vreeland (1986: 370-371) describes for highland migrants to the *chaupiyunga* or "half-coast." Because it is not necessary to use whorls for Moche-style horizontal spinning, the clay spindle whorls discovered at the Huacas de Moche in late Moche contexts (Millaire 2008) and produced in the late Moche urban workshop (Bernier 2010) suggest that whorls were either added to the horizontal spindle for cotton or that drop-spindles may have been adopted for spinning camelid fiber in late Moche period at Moche.

What does Wari have to do with the Huaca del Sol?

In a recent study, Jeffrey Quilter examined changes in Moche ceramic forms toward probable Moche and Wari relations finding strong evidence in ceramics associated with feasting and the use of small *copitas* in northern Moche centers that ultimately derive from earlier use at Wari with the same form and use (Quilter 2020a, 2020b) . Edward Swenson (2012: 97-98) described cosmological co-existence within northern late Moche with Wari and Cajamarca highland influence in the use of masculine chicha-drinking rituals and feasting at the same time as the rise of the coastal, Moche cult of the female priestess or

Sacerdotisa; an explanation for continued Moche religion, albeit in an altered Wari world. The *copita* form has not been excavated in southern Moche contexts, however, Tufinio's new excavations identify feasting on the western side of the southern platform of the Huaca del Sol and rituals and burials as Uhle discovered on the east side. Santiago Uceda (2010: 199-200) discussed the political context of late Moche at the Huacas de Moche as a "society in crisis" and wondered how a construction as monumental as the Huaca del Sol could have been accomplished. He noted that the brick type, form of the huaca, and the massive building project with its control of tribute and labor suggested northern Moche and Lambayeque traits at the Huacas de Moche. He also considered that foreign influence from Wari or Pachacamac and pressure from Cajamarca or Huamachuco might all have been involved. Archaeologists working in regions bordering southern Moche in the Culebras and Huarmey Valleys see the strongest evidence for Wari interference and conquest during the late Moche period that explains Moche site abandonment and population movement as a response to direct Wari control (Giersz and Makowski 2014; Giersz et al. 2014). Justin Jennings (2006: 277-278; 2010) considered that Wari could have worked with local elites in the exchange of specialty items valued for their exotic qualities and ritual significance with "no coercive or redistributive mechanisms". But in a later article considering "if a Wari Empire existed," Timothy Earle and Jennings have proposed much stronger Wari control of elaborate textiles and decorated pottery as a probable foundation for wealth finance and the principal way that Wari could have interacted with local elites (Earle and Jennings 2012: 216-220). By controlling raw material, "high-end commodities," and perhaps even "capturing gifted specialists", they could establish the network for distribution of these coveted objects "that represented status and carried the state-sponsored ideology." This article did not intend to address Wari as an empire, the original goal was an attempt to understand where and when elegant and vibrant Moche-Wari textiles could have been produced.[8] Moche weavers were active during late Moche in the production of magnificent cotton and alpaca textiles and the large quantity of brilliant alpaca yarns suggests that raw materials, perhaps yarns already spun and dyed, were imported into Moche centers where Moche specialists wove panels of different textile structures to be assembled into garments. Some Moche-Wari textiles were woven with Wari imagery, like the small tapestry

that Uhle excavated at Moche, and other Moche textiles were exported outside of Moche where they have been discovered in Middle Horizon burial contexts.

Figure 7.31. Wari weft-interlocked tapestry tunic fragment collected by Heiko Prümers (1990: Abb. 281) at El Castillo, Huarmey Valley. Textile MNAAH RT034907-B. Warp Z2S cotton and weft Z2S camelid hair. 27 x 18.5cm. Courtesy of Museo Nacional de Arqueologia, Antropologia, y Historia, Lima. Photo by Amy Oakland.

Figure 7.32. Detail of profile standing figures woven in brocade or reinforced tapestry in the upper portion of the Moche sleeved-shirt 4-7827 (Figure 7.20). S-spun cotton and Z2S camelid-hair. Max Uhle collection, Chimu Capac, Supe. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California. Photo by Amy Oakland.

Figure 7.33. Detail of Moche slit-tapestry panel woven with Wari associated image of standing, staff-bearing figures in Z2S camelid fiber and white S-spun cotton. Textiles 4-7499-7450. Max Uhle collection, Chimu Capac, Supe. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

Figure 7.34. Detail of Moche slit-tapestry panel with Moche-associated catfish image in diamond grid woven with Z2S camelid fiber and white S-spun cotton. Textile 4-7502. Max Uhle collection, Chimu Capac, Supe. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California. Photo by Amy Oakland.

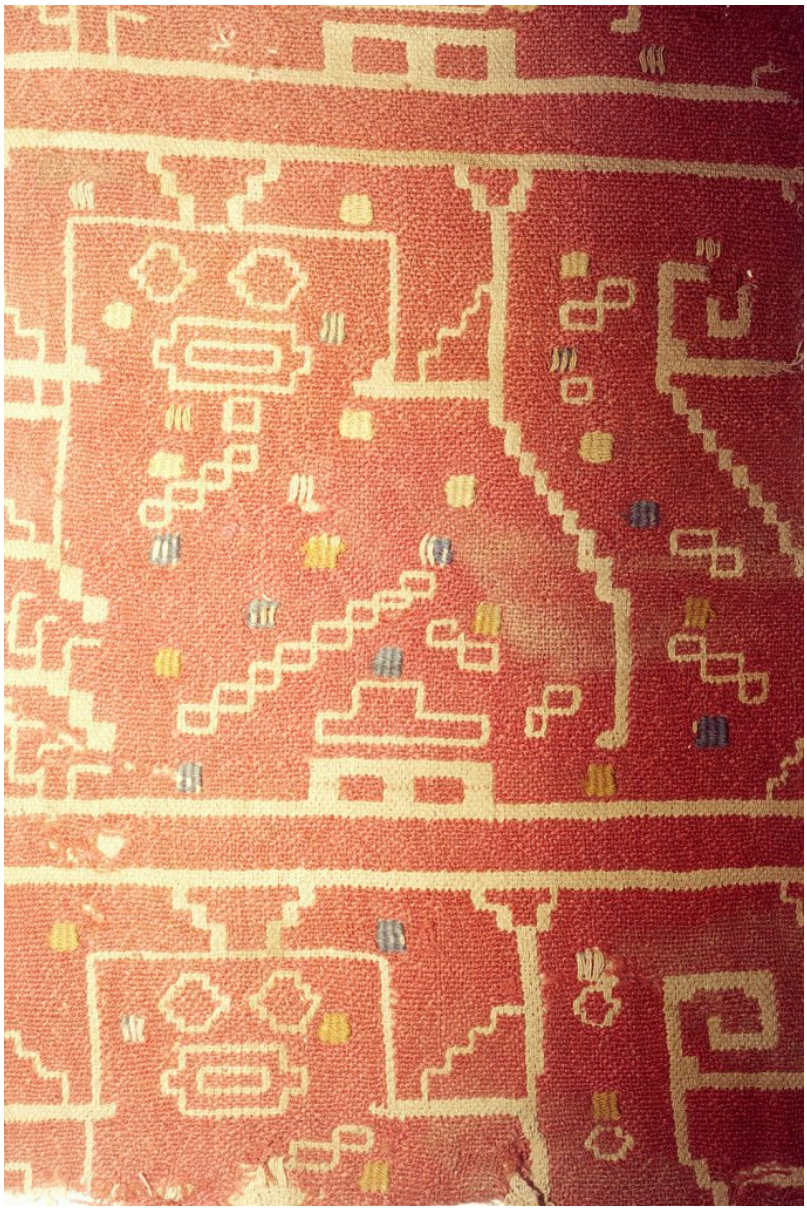

Figure 7.35. Detail of large Moche double cloth panels woven in red Z2S camelid fiber and white S-spun cotton. Textile 4-7484. Max Uhle collection, Chimu Capac, Supe. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California.
Photo by Amy Oakland.

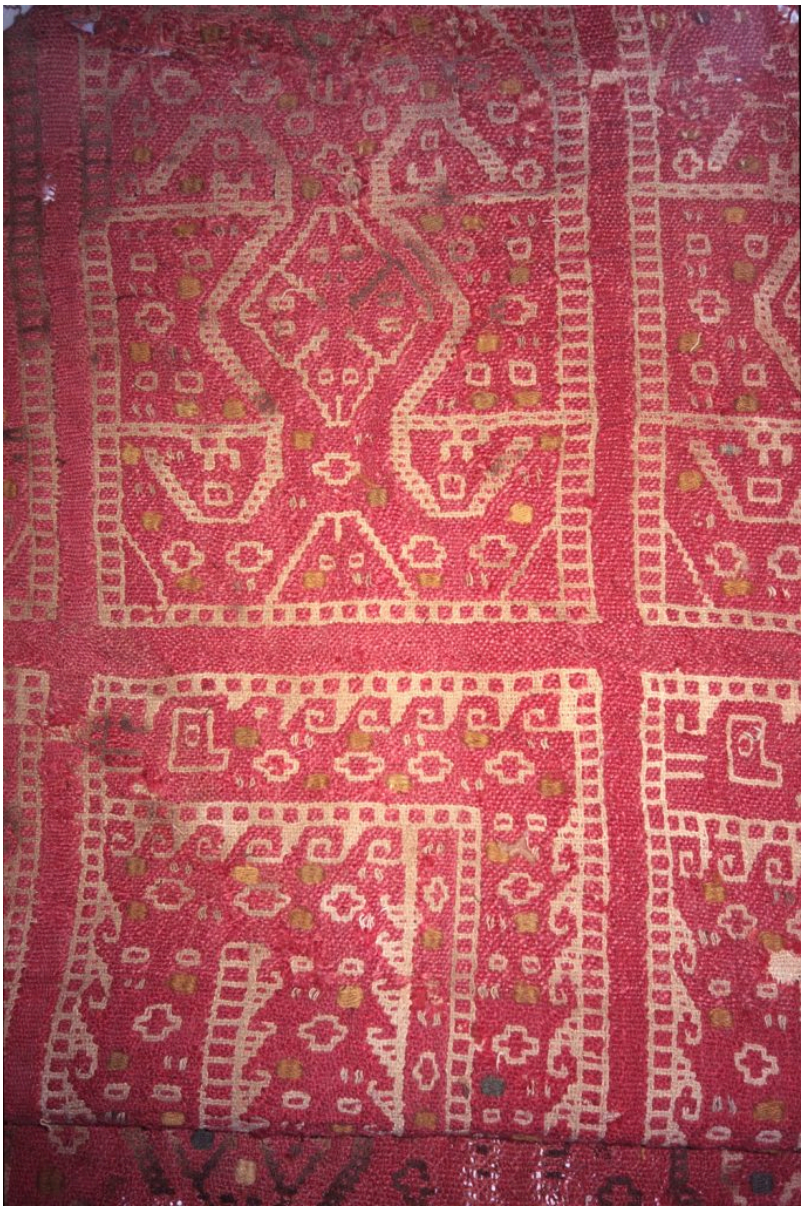

Figure 7.36. Detail of Moche double cloth sleeved shirt 4-7702 woven in Z2S red camelid fiber and white S-spun cotton. Max Uhle collection, Chimu Capac, Supe. Courtesy Phoebe A. Hearst Museum of Anthropology and the Regents of the University of California. Photo by Amy Oakland.

Before and after Max Uhle excavated at Moche, he collected well-preserved textiles at Pachacamac and Chimu Capac in the Supe Valley, many woven with Moche-style S-spun cotton yarns (Oakland 2020a, Oakland 2020b). Huarmey

Valley's El Castillo textiles were woven with Moche S-spun cotton yarns and in each of these sites coastal, highland, and Wari textiles were also present. Prümers (1990, 2001) discovered twenty different examples of iconic Wari weft-interlocked tapestries, like the yellow man's tunic (Figure 7.14) from Castillo Tomb 1 (Prümers 1990: 21-24, Fig. 6E) and a red Wari tunic fragment (Figure 7.31) from Tomb 4 (Prümers 1990: 30-32, Fig. 10C), a textile similar to an almost complete Wari tunic at Dumbarton Oaks, Washington D.C. (Berg and Jennings 2012: Fig. 15). Along with hundreds of Moche-Wari textiles found at El Castillo, Prümers also collected fragments of Moche face-neck jars, incised and modeled Casma styles, and a small sample of Wari ceramics, a combination specific to the Middle Horizon. Uhle excavated a similar mix of styles at Chimu Capac where he catalogued four Wari tapestry tunics as well as central coast and highland shirt styles together with the complete Moche-Wari sleeved shirt 4-7827 (Figures 7.20, 7.32). Lila O'Neale (1933) was the first to discuss this shirt as a remarkable example of combined weaving patterns and techniques woven in twelve separate panels that included "patchwork" or discontinuous warp and weft technique, reinforced tapestry, and Moche-Wari slit-tapestry borders.[9] The shirt was woven by Moche weavers with S-spun cotton yarns paired in the warp and used as singles in the weft in the plain weave sections, S2Z cotton yarns in the warps of the slit-tapestry borders, and Z2S camelid fiber for the patterns that combine Wari figures with Moche cat images below. At Chimu Capac on the central coast, Uhle excavated a wide variety of brilliantly dyed Moche weavings in slit-tapestry technique with S-spun cotton warp yarns, some with Wari style staff-bearing figures (Figure 7.33) and others with Moche catfish designs within a diamond grid (Figure 7.34). Moche weavers also created sleeved-shirts in double cloth technique with red camelid fiber and white S-spun cotton woven in the Moche technique that adds discontinuous-weft color spots, some with feline motifs (Figure 7.35) and other sleeved shirts with images of snakes and rays (Figure 7.36). Moche weavers created slit-tapestry openwork bands like the type that Uhle collected on the Huaca del Sol. The garments could have been produced specifically for burials (Millaire 2008) or perhaps this highly decorative clothing style is represented in Moche V and late Moche Fineline ceramic paintings as the patterned tunics worn by late Moche men. The Moche IV ceramic that Bernier (2010: Fig. 8) illustrates from the late Moche workshop depicts a Moche man holding a sleeved-shirt in front of himself, as if presenting the finished object. Were the Huacas de

Moche involved in the exchange of textiles with Wari or with other coastal groups? Moche textiles have been discovered in regions far from Moche and surely more will be identified in Ancon and Pachacamac and other large Middle Horizon coastal cemeteries when investigators notice the Moche tradition of S-spun cotton yarns, as Mary Frame and Rommel Ángeles (2014) have in Middle Horizon burials at Huaca Malena in the Asia Valley of Perú's south coast. At the Huacas de Moche, weavers must have been involved in the production of Moche-Wari textiles during the late Moche period, some with Wari imagery like the small slit-tapestry that Uhle excavated on the Huaca del Sol. According to Uceda (2010; Uceda et al. 2016), following the abandonment of the Huaca de la Luna, Moche inhabitants remained at the Huacas de Moche for at least 150 years. This late urban group is responsible for the expansion of the Huaca del Sol and the construction of the New Temple with murals depicting Moche weavers (Trever 2016) and the famous "Revolt of the Objects" where spinning tools and weavings hold Moche warriors by the hair.[10] Clearly weaving figured prominently during this period at the Huacas de Moche.

This study presents Uhle's Huaca del Sol *Südplateau* textile sample as evidence for the existence of multiple and synchronous forms and styles of textile production occurring at the Huacas de Moche, including distinct Moche and Wari textiles, hybrid Moche-Wari textiles, and Middle Horizon ceramic styles. Although the collection is small, Uhle excavated this same stylistic mixture in larger Middle Horizon cemetery collections along the Peruvian coast. Future analyses on the most recent excavations at the Huaca del Sol will help to understand more precisely when Moche and Wari relations occurred at the Huacas de Moche and when Moche-Wari textiles were woven and placed by Moche people on the Huaca del Sol.

Notes

1. Uhle (1913: Figure 3) marked this area as C and called the east side the *Südplateau* or southern platform on his plan of the Huaca del Sol. Kroeber (1925) and Menzel (1977) called these Huaca del Sol excavations Site A. This same area is now called *Unidad 1 de Sección 4* at the Huacas de Moche (Tufinio et al. 2014).

2. Extensive scholarship exists on the Moche cotton tradition; see Bennett and Bird 1964; Conklin 1979; Donnan and Donnan 1997: 215; Fernández 2008; Jimenez Diaz 2002; Millaire 2008; O'Neale 1946, 1947; O'Neale and Kroeber 1930; Prümers 1990, 1995, 2007

3. Lila O'Neale (1946: 276, note 4) identified complex twill structures in Uhle's Site F collection and stated: "Fortunately, a solution of the question of when the heddle appeared among people of Mochica culture does not depend upon a piece of ceramic evidence" countering Thomas A. Joyce's (1921) description that the vase painting depicted only simple weaving. She noted that the vase was discovered in "a Chicama valley grave" illustrated by Means (1931: Fig. 2) and Montell (1929). For more recent discussions of Moche production weaving and the Weaver Vase see Gayoso Rullier (2007), Millaire (2008), and Shimada (2001).

4. Uhle's unpublished book-length Moche report, written in German, was translated into Spanish by Peter Kaulicke (2014). Rafael Valdez (1998) translated Uhle's 1913 *Die Ruinen von Moche* "del alemán al español" in Kaulicke, editor (1998). For this paper I am using Uhle's 1913 *Die Ruinen von Moche* translated from German to English by Pedro Bandolero.

5. The same combination of Wari tie-dye, Wari tapestry tunic, and coastal slit-tapestry was found together burned, under a newly prepared mummy bundle placed over the abandoned Huaca Cao in the Chicama Valley (Oakland Rodman and Fernandez 2001: Figs. 30-33). The Huaca Cao was abandoned at the same time as the Huaca de la Luna at Moche.

6. Flannery Surette (2015: 74, Figure 21, 117-118) illustrates and discusses another blue and white cotton, early Moche/Gallinazo textile from the Virú Valley at Huaca Gallinazo (PAV20 a) that is woven with paired white S-spun cotton warp and weft with paired blue S-spun cotton supplementary-wefts to create images of catfish heads and crosses within a diamond grid very similar to the later Huacas de Moche textiles discussed in this paper.

7. Recently, Shinya Watanabe (2019:239) determined from Uhle's (1913[1998]2014) drawings that the Cajamarca ceramics from the Huaca del Sol date to Cajamarca Medio C (850-950 CE), however new excavations completed on the Huaca del Sol (Tufinio et al. 2014) illustrate various Cajamarca styles. The textile portion of Tufinio's Huaca del Sol excavations are currently being analyzed by Lizbeth Pariona Muñoz (n.d. 2021). Giersz and Makowski (2014) have published new estimates for absolute Middle Horizon dating that suggest a period 100-200 years later than the dates originally suggested by Menzel. Other Moche chronologies have also suggested later Middle Horizon dates (Aimi et al. 2016).

8. Uhle (1903: 26) "for want of a better term" chose "epigonal" to describe a style that, "although closely related to the style of Tiahuanaco, is inferior to its famous prototype in almost every respect." The epigonal textiles that Uhle excavated at Pachacamac and Chimu Capac include Moche-Wari examples and other coastal-Wari styles woven in Z2S-spun cotton and camelid-fiber that identify their central and south coast origins. The term misrepresents the immense artistic skill and innovative combination of materials and techniques created by coastal weavers during this period.

9. Dorothy Menzel (1977) illustrated and discussed the Chimu Capac sleeved-shirt and William Isbell and Margaret Young-Sanchez (2012) illustrated the shirt in color as an example of late Wari style. Ann Rowe (1977, 2012) has described the Wari-associated tie-dye and the structure of discontinuous warp and weft and Jane Rehl (2006) has discussed the construction and distribution of this iconic Peruvian technique. Helen Engelstad (1986) named the particular technique "reinforced tapestry": a type of brocading within a plain weave textile. Englestad's examples were all from Pachacamac and the central coast woven with Z2S cotton and camelid fiber.

10. The Huacas de Moche "Revolt of the Objects" mural has been illustrated as a drawing (Kroeber 1930: Frontispiece; Quilter 1990, Figure 2) and recently in a color version (Uceda et al. 2016: 198-199). The life-size mural appears to represent objects specific to spinning and weaving and to the Moche priestess. The largest, central objects include the priestess headdress and beads with neck ties and attached cloth bands as noted in drawings such as the Presentation Theme (Quilter 1990: Figure 6) or in ceramic figurines (Donnan and Donnan 1997: Figure 19). The priestess's beads and headdress attributes are animated with arms and legs and they hold or threaten Moche warriors. Two other animated objects, a Moche textile panel patterned in diamond grid and dots with a small shield and a tall oval image that probably represents a *copa,* the roll of prepared cotton fiber for spinning (Vreeland 1986) both hold warriors by the hair. The right side of the mural illustrates three men,

two dressed in spotted tunics holding ropes connected to naked prisoners and the other with a vertically striped tunic holds the stemmed cup associated with the priestess. Two non-animated spindles begin the sequence on the left and a "nonanimated tripod", (Quilter 1990: 47, Figure 2)) not pictured in the new Uceda et al. drawing, could represent the three-legged Moche spinner's stand or *kaite* next to an animated narrow band, perhaps a weaver's backstrap belt.

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Works Cited

Aimi, Antonio, et al.
2016 "Hacia una Nueva Cronología de Sipán". In *Lambayeque Nuevos Horizontes de la Arqueología Peruana*, Antonio Aimi, Krzysztof Makowski and Emilia Perassi, eds., pp. 129-156. Milan: Ledizioni.

Bennett, Wendell C. and Junius B. Bird
1964 *Andean Culture History. Second and Revised Edition*. Published for the American Museum of Natural History. Garden City, New York: Natural History Press.

Berg, Susan E. and Justin Jennings
2012 "The History of Inquiry into the Wari and Their Arts". In *Wari: Lords of the Ancient Andes*, Susan E. Berg, eds., pp. 5-27. Cleveland: Cleveland Museum of Art.

Bernier, Hélène
2010 "Craft Specialists at Moche". *Latin American Antiquity*, Vol. 21, No. 1 (March)22-43.

Bernier, Hélène and Claude Chapdelaine
2018 "Interacting Polities on the North Coast of Peru: The Moche and Wari Dilemma". In *Images in Action, The Southern Iconographic Series*, William Isbell, Mauricio Uribe, Anne Tiballi, and Edward Zegarra, eds., pp. 571-598. Los Angeles: Cotsen Institute of Archaeology Press, UCLA.

Castillo, Luis Jaime
2001 "La Presencia Wari en San José de Moro", *Huari y Tiwanaku: Modelos vs. Evidencias. Boletín de Arqueologia PUCP* 4 (2000), Peter Kaulike and William Isbell, eds., pp. 143-180. Lima: Fondo Editorial PUCP.

2012 "Looking at the Wari Empire from the Outside In". In *Wari, Lords of the Ancient Andes*, Susan Bergh, ed., pp. 47-64. Cleveland: The Cleveland Museum of Art and New York: Thames and Hudson.

Conklin, William
1979 "Moche Textile Structures". In *The Junius B. Bird Pre-Columbian Textile Conference, May 19th and 20th*, 1973, Ann Pollard Rowe, et al. eds., pp. 165-184. Washington, D.C.: The Textile Museum and Dumbarton Oaks, Trustees for Harvard University.

Cruz, Gianella, et al.
2019 "Contextos Funerarios del Horizonte Medio (c. 600d.C.-900 d.C.) en el Complejo Arqueológico de Huacas del Sol y la Luna". In *Informe de Practices Pre-profesionales (Tesina)*. Trujillo: Escuela de Arqueología, Facultad de Ciencias Sociales, Universidad Nacional de Trujillo, Perú.

Donnan, Christopher
2011 "Moche Substyles: Keys to Understanding Moche Political Organization", *Boletín Del Museo Chileno de Arte Precolombino*, Vol. 16, No. 1, pp. 105-118. Santiago.

Donnan, Christopher and Sharon Donnan
1997 "Moche Textiles from Pacatnamu". In *Pacatnamu Papers Volume 2, The Moche Occupation*, Christopher Donnan and Guillermo Cock, eds., pp. 215-242. Los Angeles: The Fowler Museum of Cultural History, and The Cotsen Institute of Archaeology Press, UCLA.

Earle, Timothy and Justin Jennings
2012 "Remodeling the Political Economy of the Wari Empire", *Boletín de Arqueología PUCP*, No. 16, pp. 209-226.

Engelstad, Helen
1986 "A Group of Grave Tablets and Shirt Fragments from Pachacamac", *Ñawpa Pacha* 24:61-72. Berkeley: Institute of Andean Studies.

Fernández, Arabel
2008 "Notas sobre el testigo No. 3, Tumba 18, Plataforma Superior, Huaca de la Luna". In *Investigaciones en la Huaca de la Luna 2001*, Santiago. Uceda, Elias Mujica, and Ricardo Morales, eds., pp. 261-267. Trujillo: Patronato Huacas del Valle de Moche and Universidad Nacional de Trujillo.

Frame, Mary and Rommel Ángeles Falcón
2014 "A Female Funerary Bundle from Huaca Malena", *Ñawpa Pacha* 34(1):27-59. Berkeley: Institute of Andean Studies.

Gayoso Rullier, Henry Luis
2007 *Tejiendo el Poder: Los Especialistas Textiles de Huacas del Sol y de la Luna*. Tesis de Maestria, Sevilla: Universidad Pablo de Olavide.

Giersz, Milosz and Krysztof Makowski
2014 "The Wari Phenomenon: In the Tracks of a Pre-Hispanic Empire". In *Castillo de Huarmey. El Mausoleo Imperial Wari*, Milosz Giersz and Cecilia Pardo, eds., pp. 285-294. Lima: Mali.

Giersz, Milosz, et al.
2014 "Las Fronteras Meridionales de Moche y Chimu". In *Contributions in New World Archaeology, New Series*, vol. 6, Janusz Krysztof, et al., eds. Cracow: Polish Academy of Arts and Sciences.

Grieder, Terence
1975 "The Interpretation of Ancient Symbols." *American Anthropologist 77* (4): 849–55.

Grieder, Terence, et al.
1988 *La Galgada, A Preceramic Culture in Transition*. Austin: University of Texas Press.

Isbell, William and Margaret Young-Sanchez
2012 "Wari's Andean Legacy". In *Wari: Lords of the Ancient Andes*, Susan Bergh, ed.,251-266. Cleveland: The Cleveland Museum of Art and New York: Thames and Hudson.

Jennings, Justin
2006 "Understanding Middle Horizon Peru", *Latin American Antiquity* 17(3) 265-285.

Jimenez Diaz, Maria Jesus
2002 "The Evolution and Changes of Moche Textile Style: What Does Style Tell Us about Northern Textile Production?". In *Silk Roads, Other Roads: Textile Society of America 8th Biennial Symposium*, Sept. 26-28, 2002, Northampton, Massachusetts: Smith College.

Joyce, Thomas A.
1921 "The Peruvian Loom in the Proto-Chimu Period", *Man*, pp. 177-180.

Kaulicke, Peter
1998 "Releer a Uhle, Comentarios y Lecturas". In *Max Uhle y el Peru Antiguo*, Peter Kaulicke, eds., pp. 179-203. Lima: Fondo Editoral, PUCP.

2014 *Max Uhle: Las ruinas de Moche*. Libro Electrónico. Lima: Fondo Editorial de la PUCP.

Koons, Michele
2015 "Moche Sociopolitical Dynamics and the Role of Licapa II, Chicama Valley, Peru", *Latin American Antiquity*, Vol 26, No.4, pp. 473-492.

Koons, Michele and Bridget Alex
2014 "Revised Moche Chronology Based on Bayesian Models of Reliable Radiocarbon Dates", *Radiocarbon*, Vol. 56, No. 3, pp. 1039-1055.

Kroeber, Alfred
1925 "The Uhle Pottery Collections from Moche", *University of California Publications in American Archaeology and Ethnology*, 21(6) 191-264.

1930 "Archaeological Explorations in Peru, Part II: The Northern Coast", *Anthropological Memoirs* Vol. 2, No. 2, pp. 45-116. Chicago: Field Museum of Natural History.

Lau, George
2012 "Intercultural Relations in Northern Peru: The North Central Highlands During the Middle Horizon", *Boletín de Arqueología PUCP*, No. 16, pp. 23-52, Lima.

Makowski, Krzysztof
2003 "La deidad suprema en la iconografía mochica: Como definirla?". In *Moche: Hacia el Final del Milenio*, Santiago Uceda and Elias Mujica eds., pp. 343-381. Trujillo: Universidad de Trujillo and Pontificia Universidad Católica del Perú.

Means, Philip
1931 *Ancient Civilizations of the Andes*. New York: Charles Scribner's Sons.

Menzel, Dorothy
1977 *The Archaeology of Ancient Peru and the Work of Max Uhle*. Berkeley: R. H. Lowie Museum of Anthropology, University of California Berkeley.

Millaire, Jean-François
2008 "Moche Textile Production on the Peruvian North Coast, A Contextual Analysis". In *Art and Archaeology of the Moche, An Ancient Andean Society of the Peruvian North Coast*, Steve Bourget and Kimberly Jones, eds., pp. 229-245. Austin: University of Texas Press.

2009 "Woven Identities in the Virú Valley". In *Gallinazo, An Early cultural Tradition on the Peruvian North Coast*, Jean-François Millaire with Magali Morlion, eds., pp. 149-166. Los Angeles: Cotsen Institute of Archaeology Press, University of California.

Montell, Gösta
1929 *Dress and Ornaments in Ancient Peru: Archaeological and Historical Studies*. Goteborg: Elanders Boktryckeri Aktiebol AG.

Oakland, Amy
2020a "Middle Horizon Textiles from Chimu Capac, Supe Valley, Peru". In *PreColumbian Textile Conference VIII/ Jornadas de Textiles PreColombinos VIII (2019)*, Lena Bjerregaard and Ann Peters eds., (Lincoln, NE: Zea Books, 2020). https://digitalcommons.unl.edu/zeabook/

2020b "Max Uhle's Field Notes and Textile Collections from Chimu Capac, Supe Valley, Peru; Style and Cultural Affiliation During the Early and Late Middle Horizon", *Nawpa Pacha,* Vol. 40, Issue 2. Lima: Editorial de la Pontificia Universidad Catolica del Peru.

Oakland Rodman, Amy and Viki Cassman
1995 "Andean Tapestry, Structure Informs the Surface", *Art Journal*, Volume 54, Issue 2: Conservation and Art History pp. 33-39.

Oakland Rodman, Amy and Arabel Fernandez
2001 "Los Tejidos Huari y Tiwanaku: Comparaciones y Contextos". In *Huari Y Tiwaaku: Modelos vs. Evidencias, Primera Parte, Boletin de Arqueologia PUCP*, No. 4 (2000), Peter Kaulicke and William H. Isbell, eds., pp. 119-130. Lima: Pontificia Universidad Catolica del Peru.

O'Neale, Lila
1933 "A Peruvian Multicolored Patchwork", *American Anthropologist*, New Series, Vol. 35, No. 1 (Jan.-Mar.) pp. 87-94.

1946 "Mochica (Early Chimú) and Other Peruvian Twill Fabrics", *Southwestern Journal of Anthropology* 2:269-294.

1947 "A Note on Certain Mochica (Early Chimú) Textiles", *American Antiquity* 12:239-245.

O'Neale, Lila and Alfred Kroeber
1930 "Textile Periods in Ancient Peru". In *University of California Publications in American Archaeology and Ethnology*, Vol. 28, pp. 23-56.

Pariona Muñoz, Lizbeth
(n.d. 2021) *Presencia Wari en el Valle de Moche?: El Estudio de los Textiles del Horizonte Medio en Huaca del Sol*. Tesis de Licenciada en Arqueología, Trujillo, Spain: Universidad Nacional de Trujillo, Facultad de Ciencias Sociales.

Prümers, Heiko
1990 *Der Fundort "El Castillo" in Huarmeytal, Peru. Einbertrag Zum Problem Des Moche-Huari Textilstils. 2 vols*.. In Mundus Reihe Alt-Amerikanistik, Band 4, 2. Bonn: Holos Verlag.

1995 "Ein Ungewöhnliches Moche-Gwebe aus dem Grab des "Fursten Von Sipan" (Lambayeque-Tal, Nordperu) /Un Tejido Moche Exceptional de la Tumba Del Señor de Sipán". In *Beitrage zur Allgemeinen und Vergleichenden Arquaologie*, 15, 309-369. Mainz: Komission für Allgemeine und Verleichende Archäologie,

2001 "El Castillo" de Huarmey: Una Plataforma Funeria del Horizonte Medio". In *Huari y Tiwaaku: Modelos vs. Evidencias, Primera Parte, Boletin de Arqueologia PUCP*, No. 4 (2000), Peter Kaulicke and William H. Isbell, eds., pp. 289-312. Lima: Pontificia Universidad Catolica del Peru.

2007 "Los Textiles de la Tumba del "Senor de Sipan", *Zeitschrift fur Archaologie Au Bereuropaischer Kulturen* 2:255-324.

Quilter, Jeffrey
1990 "The Moche Revolt of the Objects", *Latin American Antiquity*, Vol.1, No. 1,42-65.

2020a "Moche Pottery: Forms, Functions, and Social Change", *Ñawpa Pacha*, pp.1-23. Berkeley: Institute of Andean Studies.

2020b "Moche Mortuary Pottery and Culture Change", *Latin American Antiquity*, Vol. 31, No. 3, pp. 1-20.

Quilter, Jeffrey and Michele L. Koons
2012 "The Fall of the Moche: A Critique of Claims for South America's First State", *Latin American Antiquity*, Vol. 23, No. 2, pp. 127-143.

Rehl, Jane
2006 "Weaving Principles for Life: Discontinuous Warp and Weft Textiles of Ancient Peru". In *Andean Textile Traditions, Papers from the 2001 Mayer Center Symposium at the Denver Art Museum*, Margaret Young-Sánchez and Fronia W. Simpson, eds., pp. 13-42. Denver: Denver Art Museum.

Rowe, Ann Pollard
1977 *Warp-Patterned Weaves of the Andes*. Washington D.C.: The Textile Museum.

1984 *Costumes and Featherwork of the Lords of Chimor*. Washington D.C.: The Textile Museum.

2012 "Tie-Dyed Tunics". In *Wari: Lords of the Ancient Andes*, Susan E. Berg, ed., pp. 193-206. Cleveland: Cleveland Museum of Art.

Rowe, John
1954 *Max Uhle, 1856-1944, A Memoir of the Father of Peruvian Archaeology*. University of California Publications in American Archaeology, and Ethnology, Vol. 46, No. 1. Berkeley and Los Angeles.

1998 "Max Uhle y La Idea del Tiempo en la Arqueología Americana". In *Max Uhle y el Peru Antiguo*, Peter Kaulicke, ed., pp. 5-21. Lima: Fondo Editoral, PUCP.

Scullin, Dianne and Brian Boyd
2014 "Whistles in the Wind: The Noisy Moche City", *World Archaeology*, 46:3, 362-379.

Shimada, Izumi
2001 "Late Moche Urban Craft Production: A First Approximation". In *Moche Art and Archaeology in Ancient Peru*, Joanne Pillsbury, ed., pp. 177-206. Studies in the History of Art 63. Center for Advanced Study in the Visual Arts, Symposium Papers, XL, National Gallery of Art of Washington. New Haven and London: Yale University Press.

Surette, Flannery
2015 *Virú and Moche Textiles on the North Coast of Peru during the Early Intermediate Period: Material Culture, Domestic Traditions and Elite Fashions*. Electronic Thesis and Dissertation Repository. 2829. Ontario: Western University.

Szpak, Paul, et al.
2015 "Origins of Prehispanic Camelid Wool Textiles from the North and Central Coasts of Peru Traced by Carbon and Nitrogen Isotopic Analyses", *Current Anthropology* 56 (3):449-459.

Swenson, Edward
2012 "Los Fundamentos Cosmológicos de las Interacciones Moche-Sierra Durante el Horizonte Medio en Jequetepeque", *Boletín de Arqueología PUCP*, No. 16:79-104.

Trever, Lisa
2016 "The Artistry of Moche Mural Painting and the Ephemerality of Monuments". In *Making Value, Making Meaning: Techné in the Pre-Columbian World*, Cathy Lynne Costin, ed., pp. 253-280. Washington, D.C.: Dumbarton Oaks Research Library and Collection, Trustees of Harvard University.

Tufinio, Moisés, et al.
2012 "Excavaciones en la Sección 2 de Huaca del Sol". In *Informe Técnico 2011 del Proyecto Arqueológico Huaca de la Luna*, Santiago Uceda and Ricardo Morales, eds., pp. 241-305. Trujillo, Perú.

2014 "Excavaciones en la Sección 4 de Huaca del Sol". *In Informe Técnico 2013 del Proyecto Arqueológico Huaca de la Luna*, Santiago Uceda and Ricardo Morales, eds., pp. 87-170. Trujillo, Perú: Ubbelohde-Doering, Heinrich.

Ubbelohde-Doering, Heinrich
1967 *On the Royal Highways of the Inca, Civilizations of Ancient Peru*. London: Thames and Hudson.

Uceda, Santiago
2008 "En Busca de los Palacios de los Reyes de Moche". In *Señores de los Reinos de la Luna*, Krzysztof Makowski, ed., pp. 111-127. Lima: Banco de Crédito del Perú.

2010 "Huacas del Sol y de la Luna: Cien Años Después de los Trabajos de Max Uhle". In *Max Uhle: Evaluaciones de Sus Investigaciones y Obras,* Peter Kaulicke, et al., eds., pp. 175-204. Lima: Fondo Editorial de la Pontificia Universidad Catolica del Peru.

Uceda, Santiago, et al.
2016 *Huaca de la Luna: Templos y Dioses Moches/ Moche Temples and Gods*. Lima, Perú : WM, World Monuments Fund Perú: BACKUS Fundación.

Uhle, Max
1903 *Pachacamac: Report of the William Pepper, M.D., LL.D., Peruvian Expedition of 1896*. Philadelphia: Department of Archaeology, University of Pennsylvania.

1913 "Die Ruinen von Moche", *Société des Américanistes de Paris*, Journal, n.s., 10, pp. 95-117.

Valdez, Rafael
1998 "Las Ruinas de Moche, Traducción del Alemán al Españo". In *Max Uhle y el Peru Antiguo*, Peter Kaulicke, ed., pp. 205-227. Lima: Fondo Editoral, PUCP.

Vreeland, James
1986 "Cotton Spinning and Processing on the Peruvian North Coast". In *Junius B. Bird Conference on Andean Textiles, April 7 and 8, 1984*, Ann P. Rowe, ed., pp. 363-383. Washington, D.C.: The Textile Museum.

Watanabe, Shinya
2019 "Dominio Provincial Wari en el Horizonte Medio: el Caso de la Sierra Norte del Perú". In *Research Papers of the Anthropological Institute*, Vol. 8. Nagoya, Japan: Nanzan University.

Zavaleta, Luis Enrique, et al.
2013 "Excavaciones en El Sector Noroeste del Núcleo Urbano Moche: Contextos Funerarios y Su Relación con las Plataformas y La Plaza". In *Informe Técnico 2012 del Proyecto Arqueológico Huaca de la Luna*. Santiago Uceda and Ricardo Morales, eds., pp. 263-362. Trujillo, Perú.

Zavaleta, Luis Enrique, et al.
2014 "Cambios Sociales y Políticos en el Moche Tardio y la Configuracíon de un Conjunto Administrative en el Núcleo Urbano del Complejo Arqueológico Huaca del Sol y Luna". In *Informe Técnico 2013 del Proyecto Arqueológico Huaca de la Luna*. Santiago Uceda and Ricardo Morales, eds., 247-336. Trujillo, Perú.

8

THE DISEMBODIED EYE IN MAYA ART AND RITUAL PRACTICE

Virginia E. Miller

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Enrolling out of curiosity in a graduate seminar in Pre-Columbian art as a first year MA student in Latin American Studies at the University of Texas at Austin, I first met Terry Grieder in 1972. As would be expected during that era, George Kubler's ideas were at the forefront of our lively class discussions, and we spent hours arguing the merits of disjunction vs. ethnographic analogy for interpreting ancient iconography. In fact, at that time there were few other art historians publishing on Pre-Columbian art, so we read a lot more anthropology and archaeology than art history. Although I eventually read Terry's dissertation, which focused primarily on Maya form and style, at the time I don't think I was aware that his was the first U.S. doctorate in Pre-Columbian art, nor that the field was so new.

Inspired by that seminar, I decided to continue my studies beyond the MA and complete a PhD, the second under Terry's direction. By the time I knew him, he had moved away from his early work on the Maya and was deeply involved in Andean archaeology, while I chose to focus on Mesoamerica. Furthermore, he was always more interested in the study of style and technique than he was in iconography, which intrigued me the most. Nevertheless, he was a generous, supportive and at times challenging mentor who encouraged my efforts to understand the complexity of Classic Maya imagery as I struggled through the dissertation. Subsequently, I sent him all my publications and received reassuring and insightful commentaries in return. The following contribution is a testament to Terry's intellect, guidance, and encouragement over many years.

Figure 8.1. Skull reliefs, *tzompantli* at Chichén Itzá.
Photo by Virginia E. Miller.

Mesoamerican iconography, archaeology, and ethnohistory all attest to the practice of removing and displaying a wide range of human body parts, either of revered ancestors or more frequently of humiliated captives (Chacon and Dye 2007). The best-known method of exhibiting a detached body part in Mesoamerica is the skull rack or *tzompantli*, which has its origins in the Preclassic period and culminates in the elaborately decorated platform of Chichén Itzá and later in the spectacular and massive displays of skulls at Tenochtitlan (Figure 8.1). The ritual use of digits, femurs, and other bony appendages is also well documented, as I have discussed elsewhere (Miller 2007). But with the exception of the heart, few sources address how organs and soft body tissues were curated during the brief time they could have been

viable for manipulation or public viewing. Nevertheless, there is a rich corpus of Mesoamerican art that demonstrates that such exhibitions must have taken place. One vivid example is a recently discovered carved boulder in the Late Classic Cotzumalguapa style from Bilbao in Guatemala (Figure 8.2). Similar displays of body parts occur on Maya vessels depicting warriors and captives (www.mayavase.com: K1082, K6987).

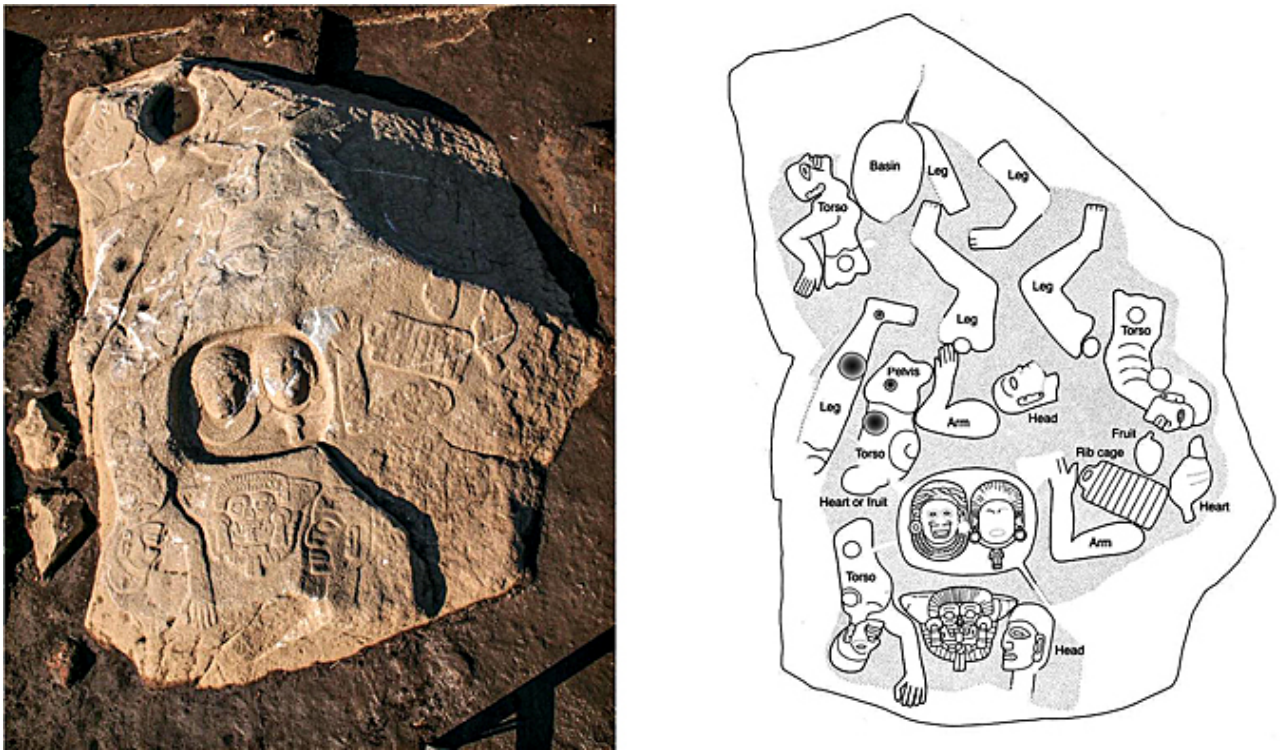

Figure 8.2. Bilbao Monument 93, photo and drawing.
Images courtesy of Oswaldo Chinchilla Mazariegos (2014: figs. 9 and 11).

While skulls and bones are common motifs in Maya art and have been extensively analyzed, the pervasive imagery of eyeballs has not received the same attention. The detached eye appears in Mesoamerican art and writing from all periods, represented realistically or more frequently abstractly. Not surprisingly, the Classic Maya hieroglyph for "seeing", read *il* or *ila*, depicts an eyeball in profile (Figure 8.3) (Houston et al. 2006: 172). Simplified or stylized versions of frontal eyes occur in a variety of contexts. They decorate streams of water in Teotihuacan murals, for example (Figure 8.4). The eyes may also

be enclosed within jade disks, suggesting that they refer to something precious or shiny, or to superior vision (Figure 8.5). Extruded and detached eyeballs are represented in Postclassic highland Mexican art, appearing in murals, codices, and on ceramics (Boone and Collins 2013). They are usually represented as spheres with the cornea and/or pupil indicated and with the optic nerve, often unnaturally long, still attached (Figure 8.6:). Stylized eyes, usually with a distinctive red lid and presented frontally, are particularly prevalent in the Postclassic and sometimes stand in for stars in Central Mexican and Mixtec codices (Figure 8.7). Similar motifs, also representing heavenly bodies, appear earlier in painting and sculpture at Chichén Itzá and Tula (Miller 1989).

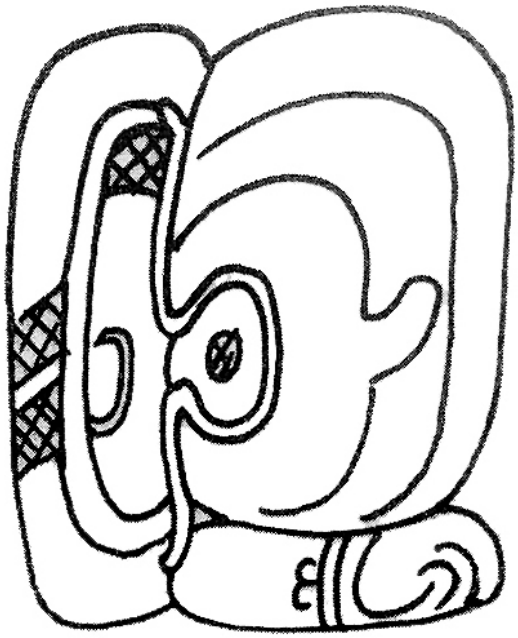

Figure 8.3. Maya glyph for "see" (after Houston et al. 2006: fig. 4.28b). Used with the permission of Stephen Houston.

Figure 8.4. Detail of "Tlalocan" mural showing eyes in water streams, Tepantitla, Teotihuacan.
Photo courtesy of Claudia Brittenham.

Figure 8.5. Tripod basin with eyes encircled by jade disks beneath and framing a feathered serpent and dangling hearts, Teotihuacan.
Photo courtesy of The Cleveland Museum of Art, J.H. Wade Fund 1965.20.

Figure 8.6.
Left: Codex Laud, page 23, detail of figure with extruded eye, courtesy of John Pohl.
Right: Late Postclassic polychrome cup from the Valley of Mexico depicting skull, crossed bones, and eye with optic nerve below.
Museo Amparo, Puebla, registry number 52 22 MA FA 57PJ 1438.

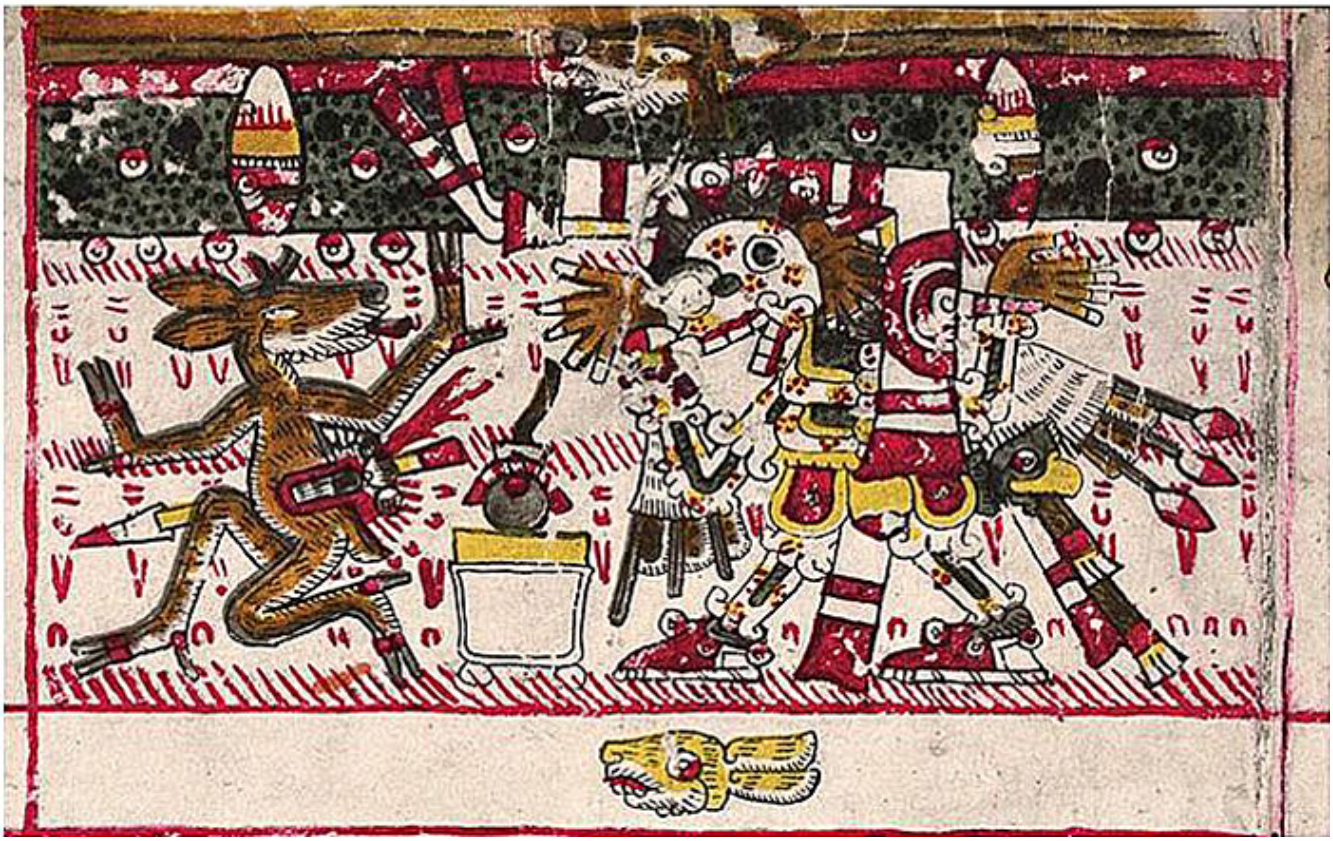

Figure 8.7. Eyes representing stars in Postclassic highland Mexican codices.
Upper: Detail, Nuttall Codex, page 75.
Lower: Detail, Borgia Codex, page 52.

In general, the eye motif is meant to signify radiating light (Garton and Taube 2017: 38). But when it is shown completely out of its orbit, either still attached to the head by the optic nerve, or as an independent object, the eye surely has a more ambiguous, if not outright sinister, connotation. Here, I will explore the various treatments and meanings of the detached human eyeball in Maya art, whether as a sacrificial offering, costume element, architectural and sculptural adornment, and symbol of both sight and loss of vision.

Eyeballs are a common motif on Classic Maya vessels, often combined with crossed bones (Figure 8.8). These grisly items are among the attributes of the *wahyis*, spirit beings combining human, zoomorphic, and skeletal attributes (Velásquez García 2015: 191). According to imagery on painted plates and pots, their food was particularly repellent, consisting of human body parts including femurs, hands, and eyes (Houston et al. 2006: 122-123, 221; Velásquez García 2015: 190). These three elements are often grouped together on plates being offered by denizens of the underworld (Figure 8.9). Humans and animals are shown with extruding eyeballs but appear still alive and active (Figure 8.10).[1] Until the stalk is cut, the eye is still able to receive optical input (Houston et al. 2006: 166). Therefore, these figures should be understood not as blinded, but perhaps experiencing sight in an altered state (Hamann 2004: 84).

Figure 8.8. Bowl with crossed bones and eyeballs, Piedras Negras PN 041E-06-06-21, from Str. C-10, South Plaza of Group C, between stones of burial 105.
Upper: Museo Nacional de Arqueología y Etnología, Guatemala (Calvin n.d).
Lower: Rollout photograph.
Photos permission of Inga Calvin.

Figure 8.9. Rollout photograph of codex-style vessel showing animal *wahyis* holding plates containing eyes, hands, and femurs. Museum of Fine Arts Boston MA 1988.1186.
Photo by Justin Kerr, [K1181], Dumbarton Oaks, Trustees for Harvard University, Washington, D.C.

Figure 8.10. Detail of animal procession on polychrome vessel, probably from El Zotz, depicting deer with extruded eyeballs. Mint Museum of Art Charlotte NC Museum number 84.217.15.
Photo by Justin Kerr, [K1743], Dumbarton Oaks, Trustees for Harvard University, Washington, D.C.

Of course, it is also possible that some images are meant to show eye detachment as a result of violent actions. In a recent article on ritual boxing in Mesoamerica, for example, two stone carvings of human faces are illustrated,

one from highland Guatemala and the other in the Cotzumalguapa style, both with pendant eyeballs (Figure 8.11).[2] The latter may depict the aged God N, a primordial Maya earth god (Taube and Zender 2009: 189-190). In any case, the authors suggest that blows to the head during a boxing event featuring stone weapons might cause eyes to pop out of their sockets.

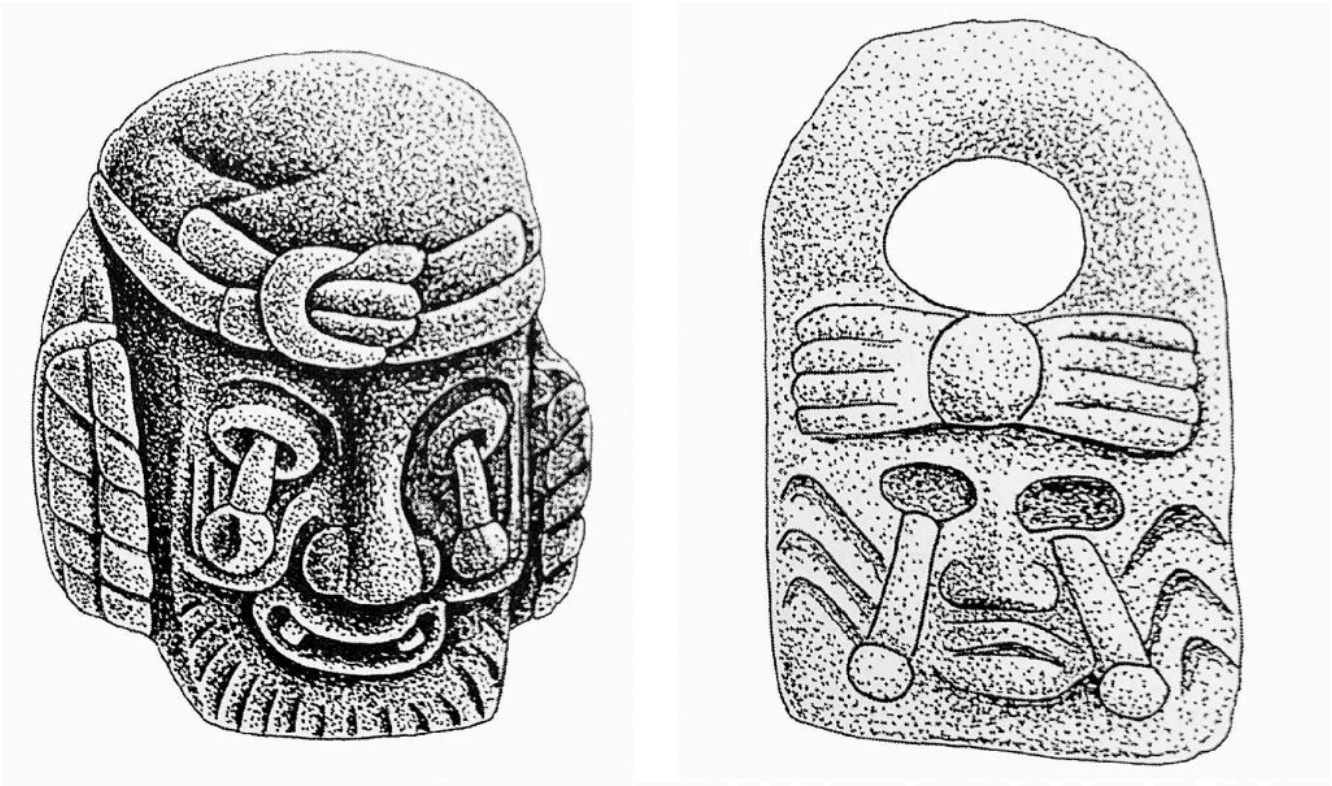

Figure 8.11. Stone heads with extruded eyeballs.
Left: In the Cotzumalguapa style
Right: From highland Guatemala
Images from Taube and Zender 2009: 7.16 a and b. Published with the permission of the Cotsen Institute of Archaeology Press at UCLA.

Animals, humans, and supernaturals, especially skeletal ones, are shown wearing a collar of detached eyeballs (Figures 8.10, 8.12). Many years ago, Jean-Jacques Rivard (1965) argued against the prevailing idea that such dangling objects, represented across Mesoamerica in various media, were copper bells. He identified them instead as eyeballs, and even suggested that a pair of clay objects excavated at Las Charcas in Guatemala were eyeball effigies forming

part of a ritual costume (Figure 8.13) (Rivard 1965: 87). There is some evidence that he may have been correct. An unprovenienced, eroded column fragment now in a private collection in Mérida shows a standing lord wearing eyeballs around his waist (Figure 8.14) (Merk and Krempel 2017). The necklace worn by the ruler on Naranjo Stela 30 also appears to include pendant eyeballs (Figure 8.15).[3] Given the prevalence of small, decapitated heads and skulls worn by Classic Maya rulers, there may be overlooked examples of pendant eyeballs, misunderstood as bells or shells.[4] Whether body parts serving as accoutrements for the elite were real or "clever props" is less important than the fact that Mesoamericans chose to include them as part of their dress (Houston et al. 2006: 221).

Figure 8.12. Rollout photograph of codex-style vessel with two seated figures wearing death-eye collars, frontal and profile views.
Photo by Justin Kerr, [K0759], Dumbarton Oaks, Trustees for Harvard University, Washington, D.C.

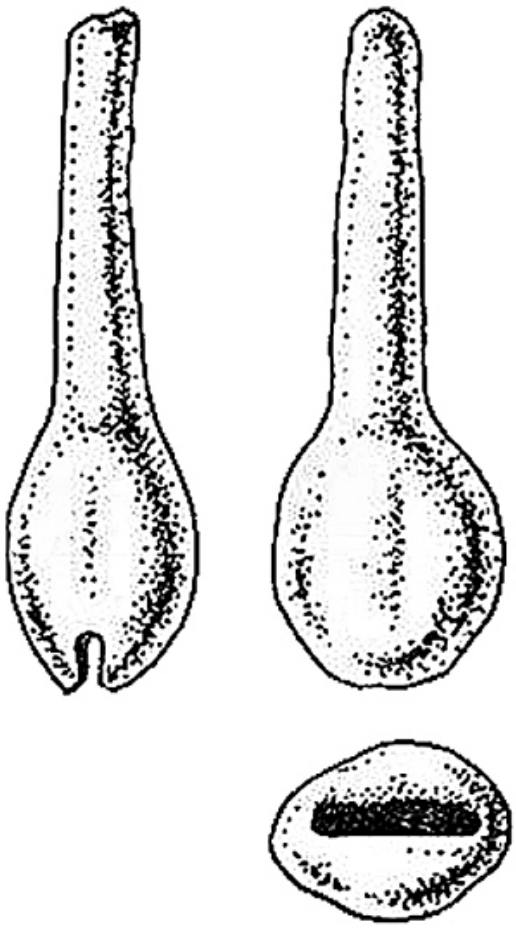

Figure 8.13. Clay objects, possibly representing eyeballs and optical nerves, from Las Charcas, Guatemala.
Drawing after Rivard 1965: fig. 23.

Figure 8.14. Column from Yucatán depicting ruler wearing eyeballs at his waist, private collection, Mérida.
Upper: Photos by Stephan Merk, digitally enhanced by Guido Krempel.
Lower: Preliminary drawing by Guido Krempel.
Images courtesy of Guido Krempel.

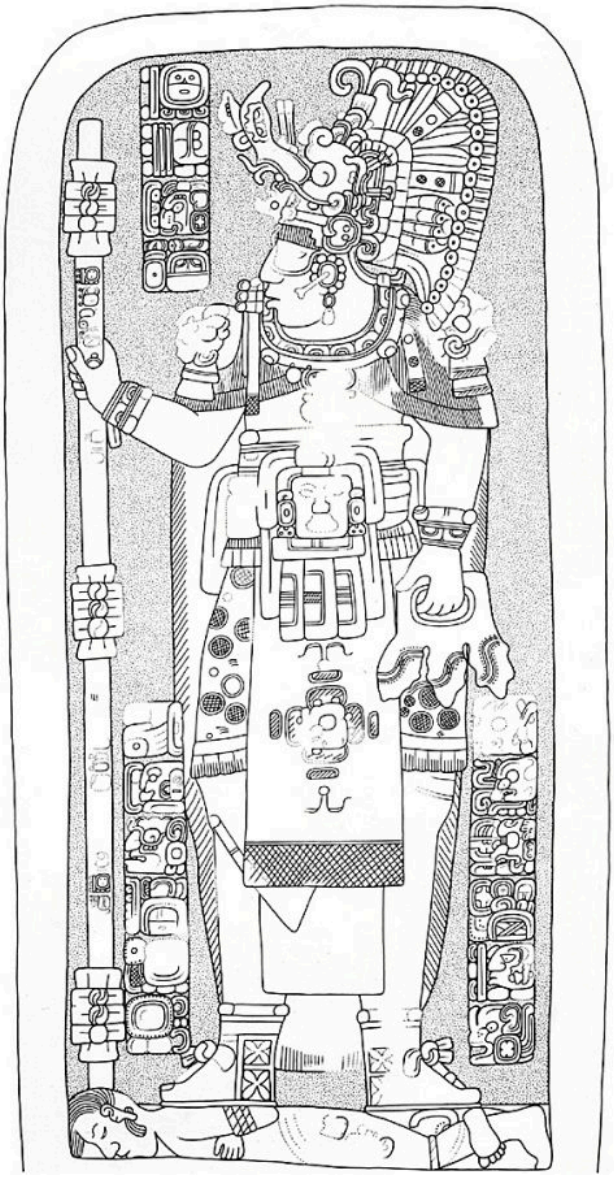

Figure 8.15. Naranjo Stela 30, front, drawing by Ian Graham (1978:2:79). ©President and Fellows of Harvard College, Peabody Museum of Archaeology and Ethnology, 2004.15.6.3.10

Crossed bones, skulls, and eyeballs form a cluster of elements that separately or in tandem adorn Mesoamerican clothing, architecture, and objects. A striking example can be seen in the battle scene covering the walls and vault of Room 2 at Bonampak, where trumpeters, festooned with human head necklaces, carry round objects with handles adorned with crossed bones and eyes.[5] The same elements are painted on the trumpet of one of the musicians (Helmke 2020: fig. 5 c and d). Surely these sinister motifs, combined with the blare of martial music, were meant to intimidate the enemy during the attack pictured. Equally

menacing were round shields edged with eyeballs, and sometimes covered with what appear to be flayed faces, carried by supernatural warriors represented on Maya vases (cf. Krempel 2015: figura XXIX-2-1; www.mayavase.com: K8201, K1873).

Both humans and deities, particularly aged ones, wear cloaks and skirts displaying various combinations of death motifs which may have been woven into cotton cloth or embroidered or painted on its surface (Figure 8.16) (Coltman 2018: fig. 10.2; Carter et al. 2020: fig. 2.6).[6] Additionally, in images of skeletal *wahyis* on Classic Maya vases, eyeballs are often placed on top of crania, sometimes in tandem with a towering headwrap (Figure 8.17).[7] Oddly, Classic Maya polychrome vessels sometimes feature deer covered in dark blankets decorated with bones and eyes. Although the deer was an important game animal for the Maya, its role in art and mythology is still not well understood. Nevertheless, the symbols on the blankets, as well the presence of deer remains in burials, hint at a close relationship between the animal and death in Maya ritual and belief (Graña-Behrens 2014: 5).[8]

Figure 8.16. Maya polychrome cylinder vessel depicting standing figure wearing cloak decorated with crossed bones and eyeballs. Gift of Edwin Perlman and Museum purchase 86.400.
Used by permission of the Chrysler Museum of Art, Norfolk, Virginia.

Figure 8.17. Detail of codex-style vessel depicting skeletal *wahyis* with eyeballs on head and death eye collar.
Photo by Justin Kerr, [K8333], Dumbarton Oaks, Trustees for Harvard University, Washington, D.C.

A rare example of skeletal imagery on a monumental scale in the Late Classic period is seen in the well-known stucco frieze at Toniná. Among the various figures represented, a skeletal *wahyis* sports not only the requisite eyeball necklace and head ornament (not shown here), but also wears an eyeball pulled through his earlobe by the optic nerve in place of the conventional jade or cloth ear ornaments (Figure 8.18).[9] Death deities represented in the Postclassic codices also wear the same sort of grisly earplug (Figure 8.19).

Figure 8.18. Toniná stucco relief, detail of head of skeletal *wahyis*, showing optic nerve pulled through earlobe (after Taube 2018: fig. 45c).
Drawing used with the permission of Karl Taube.

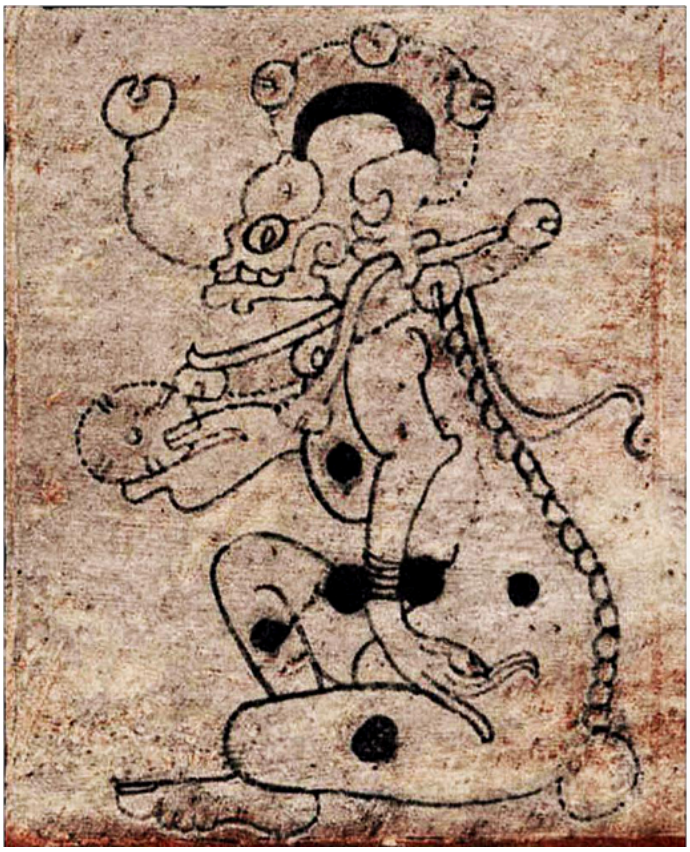

Figure 8.19. Death deities with eyeballs on their heads from the Dresden Codex.
Left: page 15c (also note the death eye collar)
Right: page 12b (after Houston et al. 2006: fig. 4.28a), used with the permission of Stephen Houston.

Skulls and crossed bones are common architectural ornaments throughout Mesoamerica (cf. Miller 1999), but realistic eyeballs appear less frequently. Real eyes, or more likely effigies, may have once adorned buildings and monumental stone sculpture, however. One Maya vase, for example, depicts a cross-section of a structure whose surface is entirely covered with detached eyeballs (Figure 8.20). It is reminiscent of foliage-covered frameworks from which heads are hung, a form of skull rack also represented on Maya vases (Taube 2017: 32). Another vessel (www.mayavase.com: K718), although heavily damaged, shows a sacrificial victim reclining on a sacrificial altar marked with eyeballs and symbols for stone. Behind the altar rises a cloth-wrapped stela or speleotherm also painted or carved with floating eyeballs and other elements (Coltman 2021: 212, fig. 8.5a).

Figure 8.20. Polychrome vase displaying a ruler and his spouse seated on a platform and under a canopy decorated with eyeballs.
Photo by Justin Kerr, [K5538], Dumbarton Oaks, Trustees for Harvard University, Washington, D.C.

It should be noted that eyeball motifs may not always relate to dismemberment and death, but rather to aspects of sight or, alternatively, sightlessness (Brady and Coltman 2016). The eyeballs that decorate bats' wings on Maya ceramics, for example, could refer to their ability to move around in complete darkness (Figure 8.21). Indeed, c*h'een*, the hieroglyph for "cave", depicts a profile enclosure in which a disembodied eye floats on a black or cross-hatched background (Figure 8.22). Here, the eyeball would appear to simply signify complete darkness.

Figure 8.21. Bat with outstretched wings showing eyeball motif, Chama-style vase. Duke University Museum of Art, Durham, Museum number 1976.77
Photo by Justin Kerr, [K5224], Dumbarton Oaks, Trustees for Harvard University, Washington, D.C.

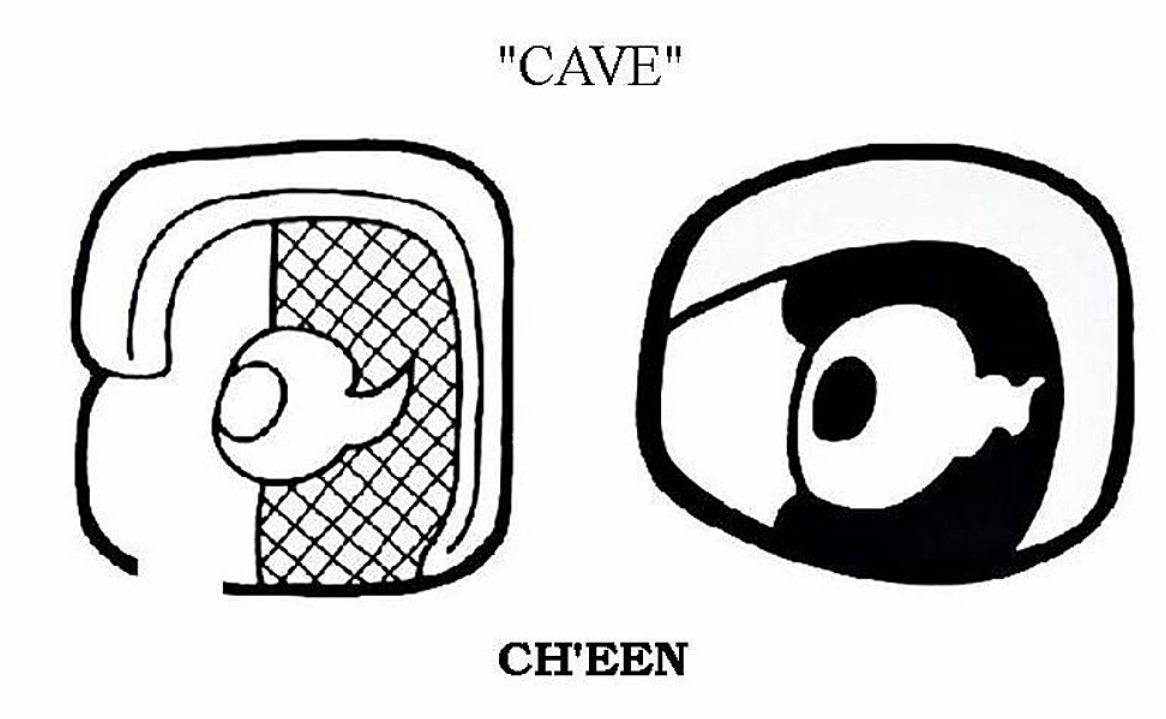

Figure 8.22. Hieroglyphs for "cave".
Drawing courtesy of Marc Zender (Stone and Zender 2011:133).

The eye might also refer to superior vision. In the Madrid Codex, for example, a seated astronomer with a protruding eye observes the eye-studded heavens (Figure 8.23) (Milbrath 1999: 251-253).[10] A similar image occurs in the Central Mexican *Codex Mendoza,* c.1542, in which a disembodied eye is connected to the astronomer's face by a dotted line, serving as "a kind of optical projectile" heading toward the eye-dotted sky above (Hamann 2018: 635, fig. 7). As Susan Milbrath (1999: 253) has suggested, death-eye collars may also represent stars, thereby connecting the night sky and the underworld. Clearly, while we may see disembodied eyes as purely macabre, ancient Mesoamericans may have viewed them differently depending on circumstances.

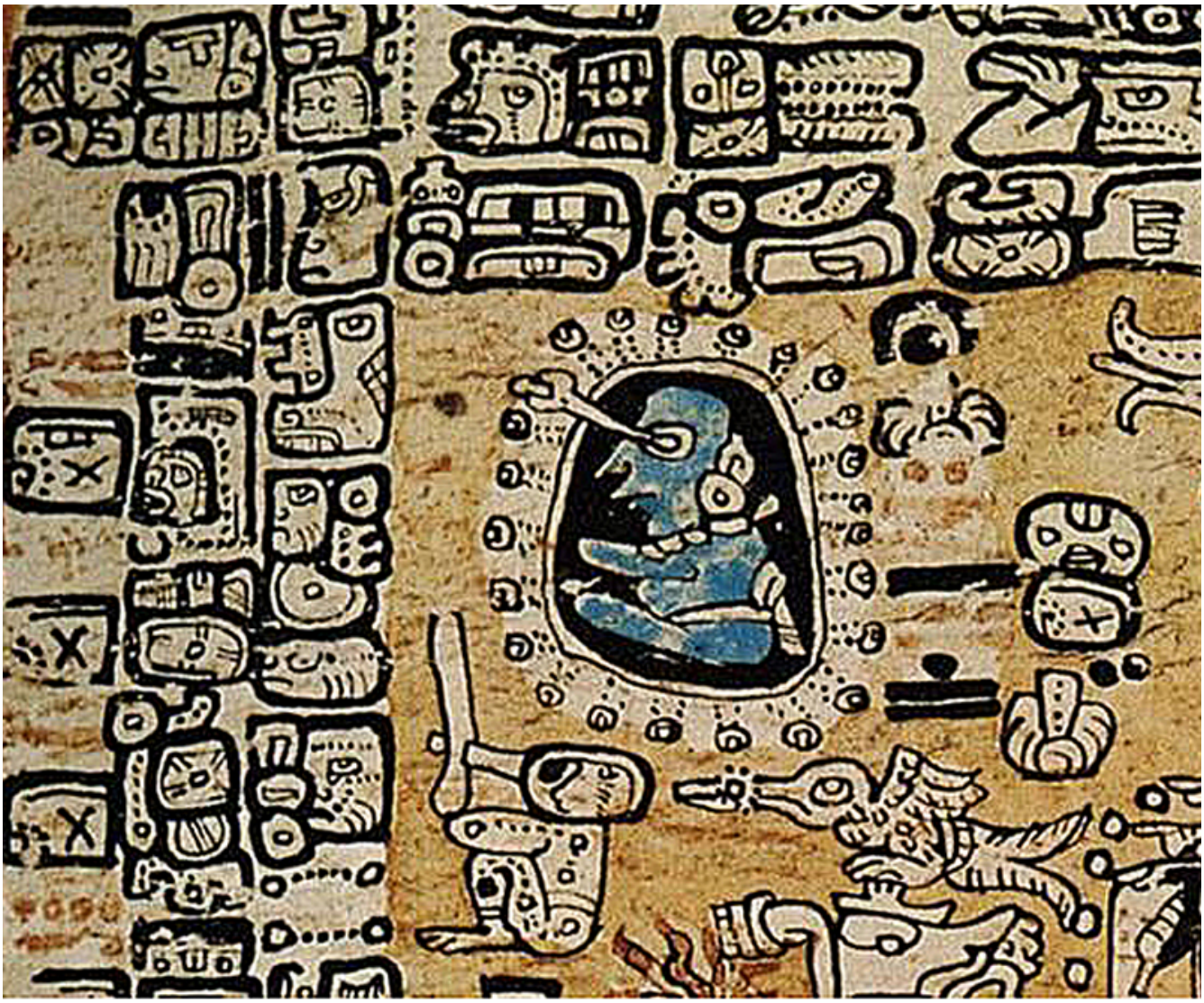

Figure 8.23. Detail, Madrid Codex page 34a, possible astronomer (Vail and Hernández 2018). Image provided by Gabrielle Vail.

In the northern Maya area during the Terminal Classic period, there is increased emphasis on skull and bone imagery, often on a monumental scale. This trend is illustrated most vividly by the carved stone skull rack at Chichén Itzá, which I have discussed extensively elsewhere (Figure 8.1) (Miller 1999, 2017). In addition to impaled heads in various states of decomposition, the reliefs illustrate warriors with defleshed limbs carrying weapons and human heads. Like skeletal imagery, disembodied eyeballs are also featured in this region at this time. One example is the well-known motif from the Great Ballcourt, of a ball encasing a profile skull with a sort of Mohawk hairstyle

ornamented with detached eyeballs (Figure 8.24: Upper).[11] The same hairstyle is worn by death deities in the Postclassic screenfolds, including the Dresden and the Madrid codices (Figure 8.7: Lower, Figure 8.19, Figure 8.24: Lower).

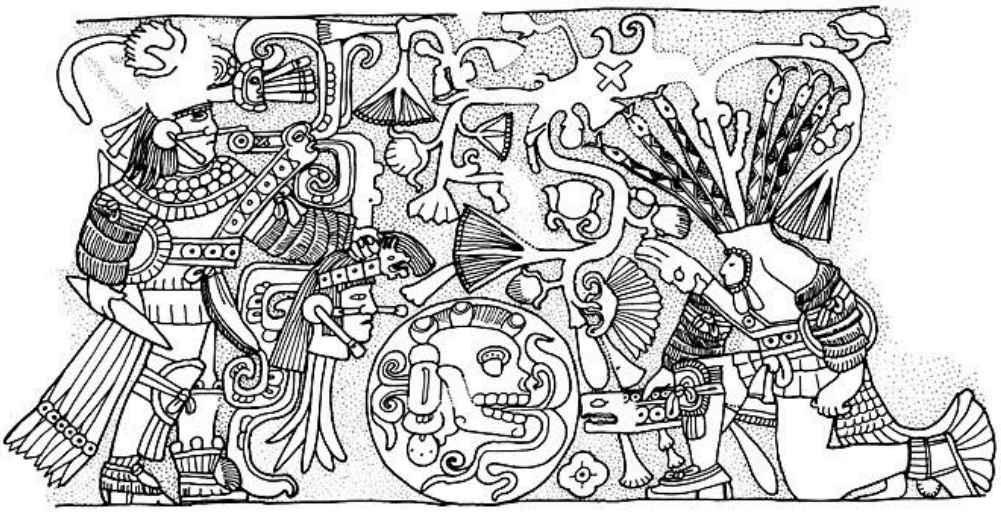

Figure 8.24.
Upper: Detail of central relief panel from the Great Ballcourt at Chichén Itzá showing a ball encasing a skull with Mohawk hairstyle and eyeballs in hair. Drawing SD-5058 by Linda Schele@David Schele, courtesy Ancient Americas at LACMA (ancientamericas.org).
Lower: Madrid Codex, page 99c. Detail of death deity with similar hairstyle, also wearing death-eye collar (Vail and Hernández 2018).
Drawing courtesy of Gabrielle Vail.

Crossed bones are paired with eyeballs on the reliefs of the low platforms of the so-called Cemetery Group at Uxmal, the largest city in the hilly Puuc area of Yucatán (Figure 8.25). These structures may have served as *tzompantlis*, but without excavation, this is merely conjecture. Here, eyeballs with optic nerves are represented, as in panels E and G, as well as circles with infixed elements that may represent corneas, most clearly seen at the bottom of panel E (Figure 8.26).[12] A similar design, although much simpler, appears on a stone forming part of the wall of a structure on the top of the Nunnery at Chichén Itzá; this stone has been reset from a different structure, but its original context is not known (Figure 8.27). At Nohpat, not far from Uxmal, platforms like those at Uxmal's Cemetery Group were first reported by John Lloyd Stephens and Frederick Catherwood (Mayer 2010, 2019). The panels have been looted and are poorly documented, but in a recent drawing of one relief, the detached eyeballs are quite prominent next to crossed femurs (Figure 8.28).

Figure 8.25. View of Cementerio group, Uxmal, Yucatan.
Photo by Virginia E. Miller.

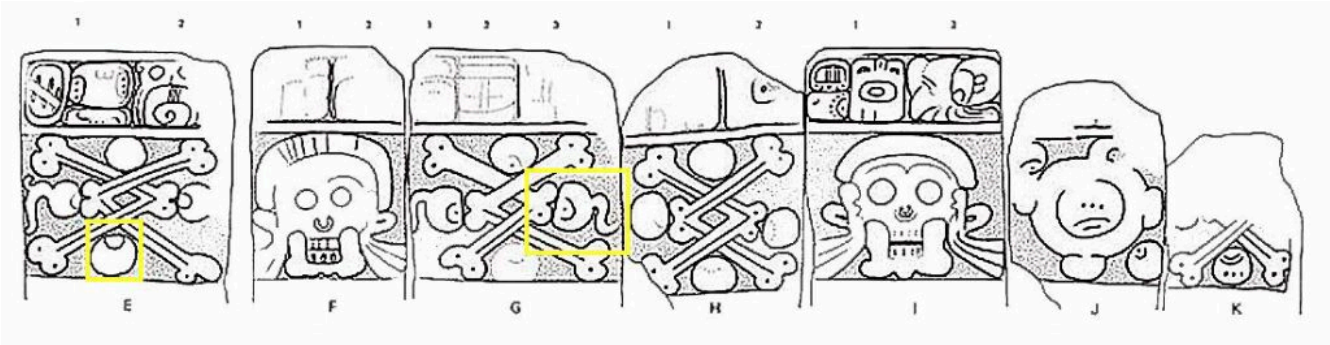

Figure 8.26. Skulls, bones, and eyeballs on Uxmal Monument 1, panels E to K, Cemetery Group. Drawing by Ian Graham (1992: 4:122). © President and Fellows of Harvard College, Peabody Museum of Archaeology and Ethnology, 2004.15.6.9.22.

Figure 8.27. Reset stone relief of crossed bones and eyes, upper level of the Nunnery, Chichén Itzá.
Photo by Virginia E. Miller.

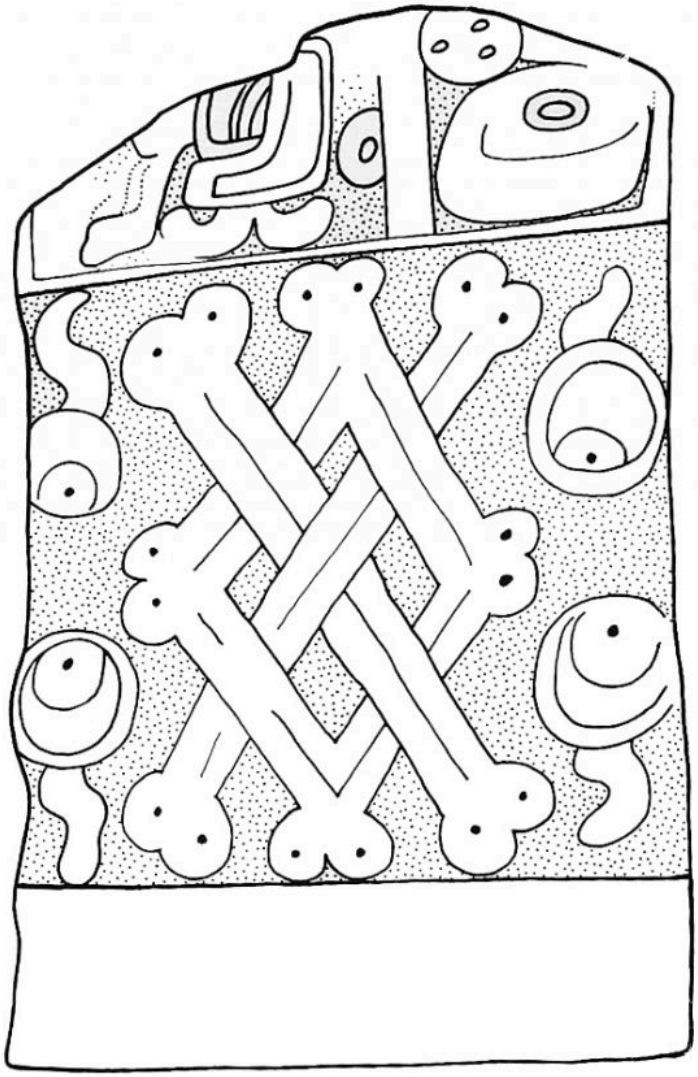

Figure 8.28. Nohpat Monument 1 Panel 3.
Drawing by Daniel Graña-Behrens, from Mayer 2010: fig. 23. Used with permission of the artist.

Like Nohpat, Kabah is connected to Uxmal by a *sacbe*. While no *tzompantli* has been documented for Kabah, the discovery of a relief during the Instituto Nacional de Antropología y Historia (INAH) excavations there in 2006 demonstrates that the three sites share similar macabre imagery. The basal molding on the exterior of Room 14, at the southern end of the Codz Pop, consists of three rows of carved stones, the upper representing frontal skulls

like those at Nohpat and Uxmal. The middle row depicts squat skeletal figures in a squatting, hocker posture with extruded eyeballs that are grasped in each figure's outstretched hands. Barely visible below are reliefs of crossed bones (Figure 8.29). The chamber in question is not very accessible, being located on the least public façade of the building and contained within another room, suggesting it had a specialized function (Rubenstein 2015: 172). Is it conceivable that this modest, hidden chamber was reserved for body processing? Door jambs from both the Codz Pop and Manos Rojas building feature lively scenes of captive-taking, with captors grasping their victims by the hair (Rubenstein 2015: Figure 79-82, Figure 137-138). Newer reliefs from Kabah include the display of prisoners, participants holding femurs, and a scaffold sacrifice (Rubenstein 2015: 176-185, Figures 152-155, 161-163, 165). A variation on this theme occurs on a carved lintel at Sayil, where a deity holds his own eyeballs in his hands (Figure 8.30) (Houston et al. 2006: 166). Even death gods seem to sport "active" death eyes: the eyeballs perched on the heads of supernatural figures have lines emanating from them almost like speech or breath, suggesting active seeing (Figure 8.19: Right) (Houston et al. 2006: 170).

Figure 8.29. Basal molding on the exterior of Room 14, at the southern end of the Codz Pop at Kabah. Frontal skulls, skeletal figures in a squatting, hocker position holding their own eyeballs, and crossed bones.
Photo by Meghan Rubenstein, used with the permission of Lourdes Toscano Hernández.

Figure 8.30. Detail of photo showing central lintel from Structure 4B1 at Sayil, depicting frontal deity grasping its own eyeballs in its outstretched hands.
Gift of the Carnegie Institution of Washington, 1958. © President and Fellows of Harvard College, Peabody Museum of Archaeology and Ethnology, Harvard University, 58-34-20/28106.

During the Terminal and Postclassic periods the crossed bone, skull, and eyeball designs on clothing became more prominent in monumental art, as well as in the codices. The long skirt of one of four goddesses carved on a pier at the Lower Temple of the Jaguar at Chichén Itzá, for example, bears these motifs (Figure 8.31). Deities of both genders represented in the Dresden Codex also wear items of clothing adorned with the eyeball and crossed bone pattern (Figures 8.19: Right, 8.32). Note that the femurs seem to terminate in eyeballs, as if the artist wished to conflate the two body parts.

Figure 8.31. Detail from Lower Temple of the Jaguar, Chichén Itzá, column A3. Aged goddess in skirt bearing crossed bones and eyeball motifs.
Drawing SD-5044 by Linda Schele@David Schele, courtesy Ancient Americas at LACMA (ancientamericas.org).

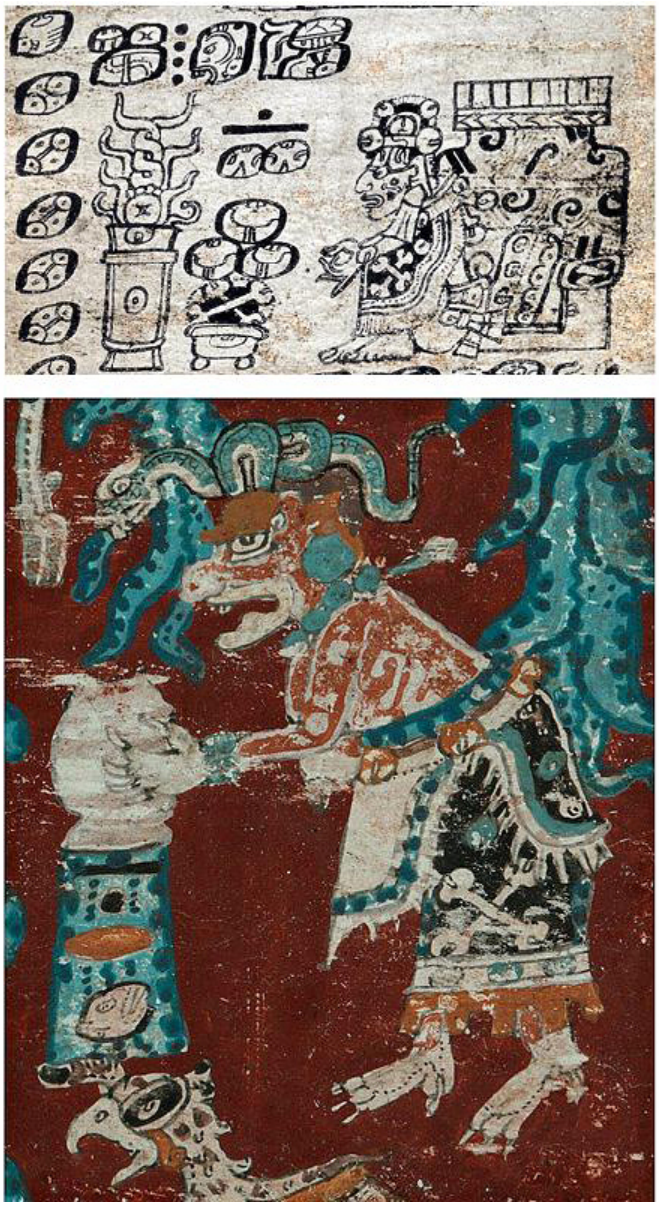

Figure 8.32. Maya deities in the Dresden Codex wearing clothing decorated with crossed bones and eyes.
Upper: Page 28a, Death deity (God A'?) (from Vail and Hernández 2018).
Lower: Page 74, Creation deity *Chak Chel*.

As noted, heart extraction and decapitation are amply documented in Mesoamerican art and writing. With the aid of the systematic scrutiny of skeletal remains, the varied perimortem treatments of flesh and bone are now more clearly understood (cf. Tiesler 2020). But is there evidence of the

deliberate removal of eyeballs, or are the many representations of eyes merely symbolic? In a study of about 200 crania from the Sacred Cenote at Chichén Itzá, Vera Tiesler (2017: 48; Tiesler and Miller in press) documented signs of eyeball extraction by way of levering in six skulls, all of which displayed marks of soft-tissue detachment (Figure 8.33). While there is no way to ascertain if these particular crania belonged to victims of sacrifice, the evidence of flaying, defleshing, disarticulation, and impalement in so many skulls recovered from the depths of the Cenote makes this the most straightforward explanation.[13]

Figure 8.33. Skull from the Sacred Cenote at Chichén Itzá displaying signs of eyeball extraction, as indicated by levering trauma in the bony eye sockets.
Photo by Vera Tiesler, image © President and Fellows of Harvard College, Peabody Museum of Archaeology and Ethnology, Harvard University, 07-7-20/58224.0.

At least one Classic Maya vessel, from the *Ik'* corpus, appears to depict a victim of eye removal (Figure 8.34) (Houston 2008; Just 2012: 207).[14] A wretched captive, naked, bound, and with chopped off and disheveled hair, sits on the floor below an enthroned lord. He has empty eye sockets and blood streams down his face. Even more ominously, what looks like a heap of flayed human skin lies on the dais before the seated ruler (not shown here) (Beliaev and Houston 2020). The so-called "Wound-by-Obsidian" sign includes a face with unlidded eyes, suggesting that it may represent a flayed human face (Beliaev and Houston 2020). Were sacrificial victims subjected to both eye removal and flaying? One of the Maya hieroglyphs for the verb "to die," *kim* or *cham*, depicts a skull in profile with the eye closed, or perhaps even ripped out (Calvin 2012: 24; Graña-Behrens 2014: 13).

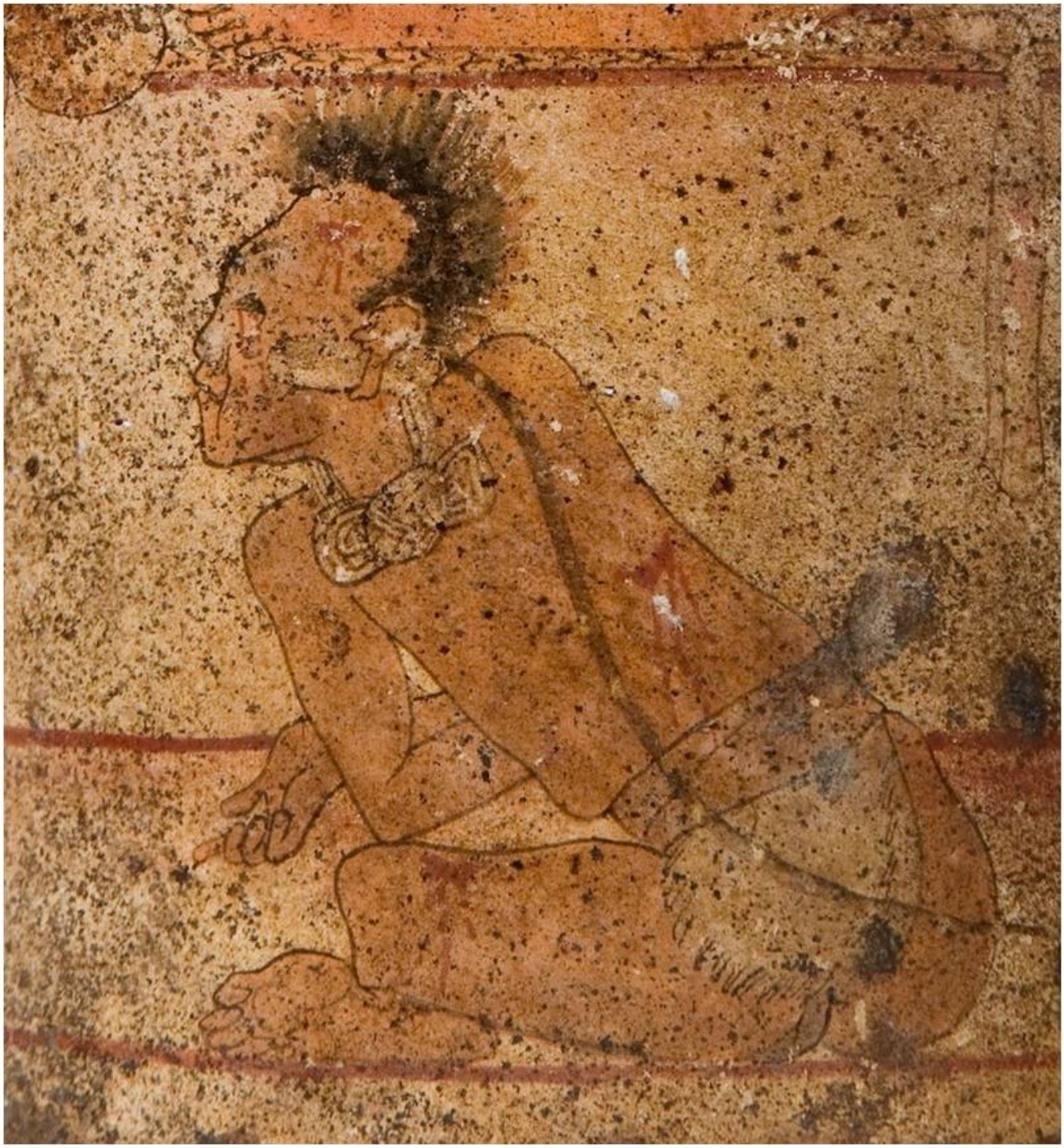

Figure 8.34. Captive possibly suffering from eye removal, from polychrome vessel showing presentation of prisoners to a seated lord (detail from K6674). Photo courtesy of Stephen Houston.

Fleshed human beings whose eyes have been extracted are difficult to locate in the Maya sculptural corpus, but there is one possible example, a carved column now in the Quai Branly Museum in Paris (Figure 8.35). It represents a partially skeletal, ithyphallic figure with deep cavities for the eyes and what looks like a hole for a removable nose (Patrois 2008: 201). He also appears to have eyeballs in his hair or headdress. There are several of these skeletal columns, apparently all from northern Yucatan, but in poor condition, so it is difficult to verify if other examples share these elements (Mayer 1984: 63-64).

Figure 8.35. Carved column from Yucatán with partially skeletal, ithyphallic figure with deep cavities for the eyes. Quai Branly Museum, Paris.
Photo courtesy of Guido Krempel.

Of course, it is impossible to know what the Maya actually did with the extracted eyeballs. Were they really worn as ornaments? Could they have been ingested? Were eyeballs gathered and exhibited with other body parts as battle trophies? Or could they have been displayed in processions or performances? There is, for example, an intriguing carved jade bead from Chichén Itza's Cenote of Sacrifice around which an armed figure appears to float, trailing a skull and a string of what may be eyeballs, although not represented in the usual way (Figure 8.36).

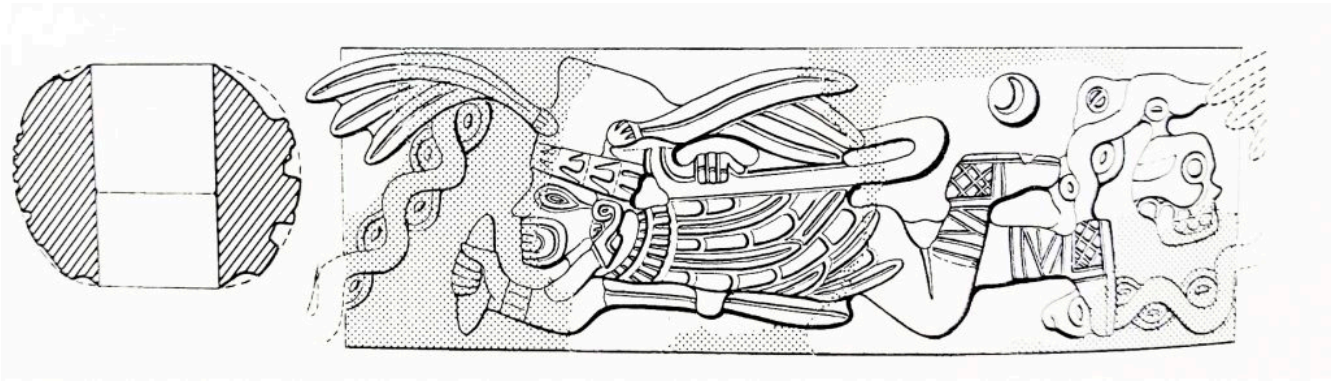

Figure 8.36. Rollout drawing of jade bead from the Sacred Cenote at Chichén Itzá. (Proskouriakoff 1974: plate 43, drawing 8). © President and Fellows of Harvard College.

While many still suffer nightmares from having watched Alfred Hitchcock's movie *The Birds* (1963), attacks by birds on human eyes are relatively rare (Abdulla and Alkhalifa 2016; *The Guardian* 2017). Nevertheless, certain birds, such as vultures, will pluck out the eyes of weak or immobile prey, including humans. This act is occasionally represented in Maya art, notably in the Dresden codex where a vulture pulls out the eye of a sacrificial victim (Figure 8.37: Right). Gabrielle Vail (2015: 179: 2021) presents epigraphical and iconographical evidence that this enigmatic scene signifies an eclipse. Her hypothesis finds support among the contemporary Tzotzil Maya who fear eclipses, believing that at that time malignant birds of prey come down and rip out humans' eyes (Nájera Coronado 1995:322-323).

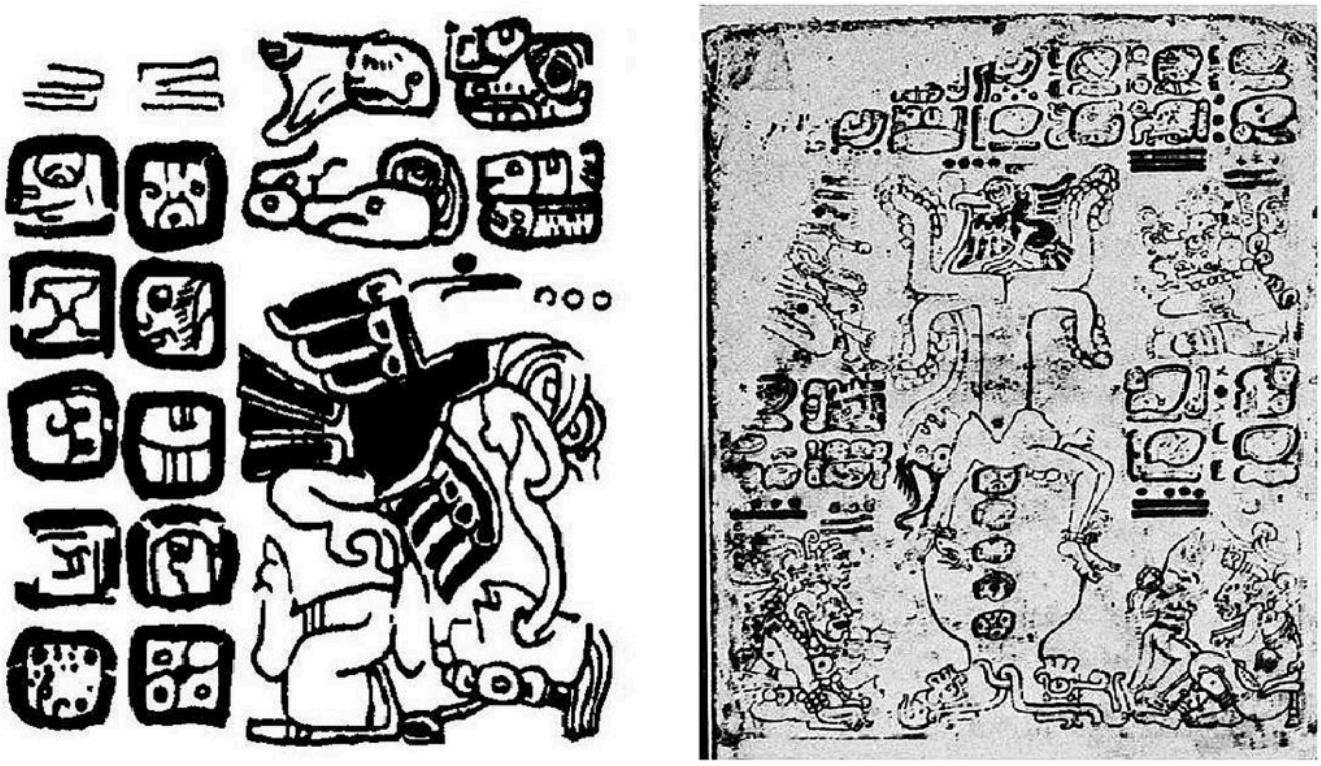

Figure 8.37. Vultures plucking out the eyes of sacrificial victims.
Left: Madrid Codex 87a (Vail and Hernández 2018).
Drawing courtesy of Gabrielle Vail.
Right: Dresden Codex 3a (Vail and Hernández 2018).

A cremation burial uncovered at Dzibilchaltún in the 1990s contained an exquisitely carved deer bone, apparently belonging to an early 9th century local ruler (Figure 8.38) (Maldonado et al. 2002). According to the object's excavators, the Jaguar God of the Underworld is losing his eye to a large bird that plunges down from the sky to grasp and pull the optical nerve. The inscription unfortunately does not describe the scene presented, although Gabrielle Vail (personal communication May 2021) suggests that like similar images in the later codices, it may refer to an eclipse.[15] While there is no way of knowing whether this sharpened bone was intended for eye removal, it can be compared to a similar object pulled from the Cenote at Chichén Itzá during the explorations of the 1960s (Schmidt 1990:205-206). Probably carved from a human long bone, its handle is shaped to represent a bird not unlike the one depicted on the Dzibilchaltún example. Sharp bone weapons are employed by two fighters on a Late Classic marble vase (Figure 8.39). They are probably

captives, accompanied by attendants–possibly their owners or sponsors of the fight–who are at the ready with more daggers (Taube and Zender 2009: 175-176). While the combatants do not appear to be aiming for each other's eyes, the scene does demonstrate that pointed bones were used as weapons.

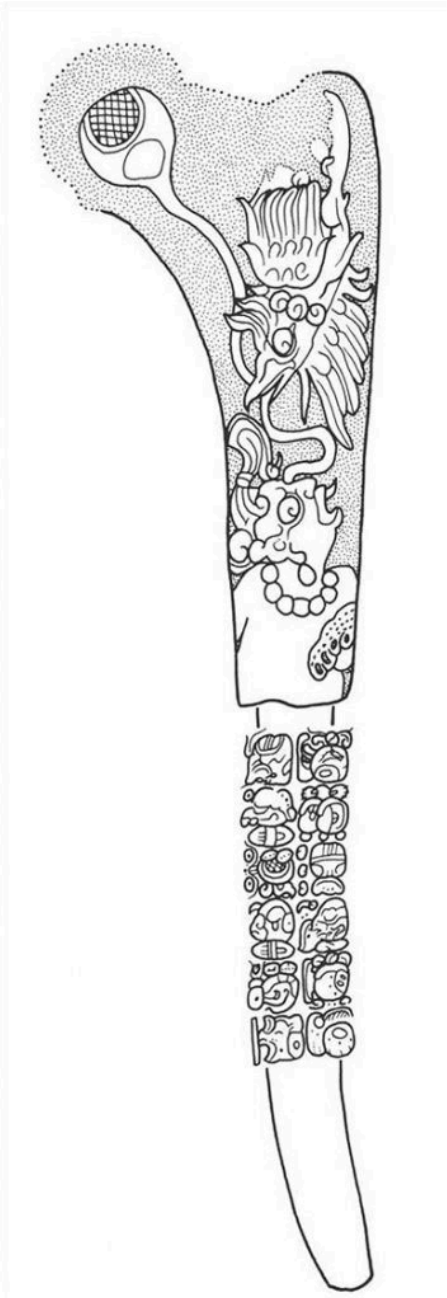

Figure 8.38. Carved deer bone excavated at Dzibilchaltún (Tomb 1, Structure 42) depicting a bird of prey pulling at the optic nerve of the Jaguar God of the Underworld.
Drawing courtesy of Alexander Voss. From Maldonado et al. 2002: fig. 6.

Figure 8.39. Rollout photograph of carved *tecalli* vessel showing combatants sparring with sharpened bone weapons. Los Angeles County Museum of Art.
Photo by Justin Kerr, [K7749], Dumbarton Oaks, Trustees for Harvard University, Washington, D.C.

Vision was considered a source of power throughout Mesoamerica. In the Mixtec screenfolds, for example, elite figures are often depicted with feathers, smoke, serpents, and other elements emanating from the eyes. These elaborate vision scrolls surely had metaphorical meanings alluding to special powers or authority (Hamann 2004: 84-89). Indeed, for the Maya, losing one's eyesight signified defeat. The Chilam Balam of Chumayel, a colonial Maya manuscript from Yucatan, describes a series of riddles that would have been used in the past to interrogate and authenticate rulers. Those who failed to answer the questions correctly would be bound, hung by the neck and have the tips of their tongues clipped and their eyes gouged out (Roys 1967:91-92).

According to the mid-sixteenth century Ki'che' Maya manuscript of the *Popol Vuh*, the all-seeing creator gods dimmed the eyes of the first humans in order to maintain their potency at a lower level (Christenson 2007:16,197, 200-201). At another point in the creation story, the arrogant Seven Macaw declared himself to be the sun and the moon. Brought down by the actions of the Hero Twins, Seven Macaw's eyes—glittering blue-green jewels–were plucked out (Christenson 2007: 92,93,100; Vail 2015: 167-168; Hamann 2018: 636). In

battles between sky and underworld deities recounted in the Chilam Balam de Chumayel, the sun god's eyes are put out, once more a probable reference to solar eclipses (Vail 2015:172-173, 175). Postclassic Maya iconography and texts appear to the support the idea that blinding or covering the face of the sun relates not only to eclipses, but also to the end of a previous world age (Vail 2015: 164, 2021).

The act of seeing was understood to be active as well as receptive, having an effect on the viewed as well as the viewer (Houston et al. 2006: 167). In most Mayan languages, "seeing" carries the additional meaning of discerning, understanding, or witnessing while in hieroglyphic texts, those who "see" are always high-status individuals (Houston et al. 2006: 173; Calvin 2012: 29; Brittenham 2019:10-12). The hieroglyphic book on which the *Popol Vuh* is based was called by its authors an *ilb'al*, which translates as "instrument of sight or vision", the same term used today by the Ki'che' for quartz crystals used in divination, as well as for eyeglasses (Christenson 2007: 34).

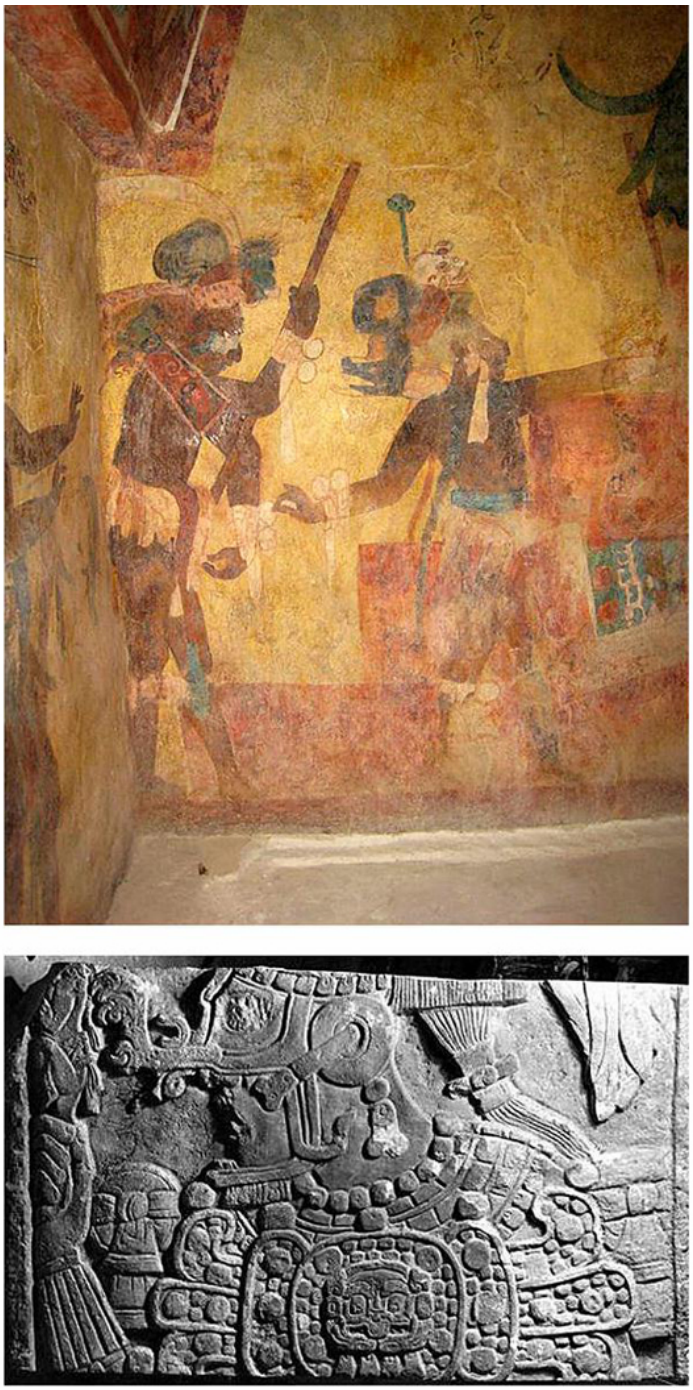

Figure 8.40. Obliteration of eyes in Maya monumental art.
Upper: Bonampak Room 3, detail east wall.
Photo by Virginia E. Miller
Lower: Detail of face on Dos Pilas Stela 11.
Photo courtesy of David Stuart

As several scholars have noted, the active power of the visage is demonstrated in the Classic-era custom of mutilating faces and eyes on sculptures and paintings (Figure 8.40) (Jackson 2019: 33; Houston et al. 2006: 170). Given that the Maya word for both "face" and "eye" is the same (*ich*), it may not have made a great difference which was obliterated, although in some cases the eyes are specifically targeted. While it has been argued that the defacement of a ruler portrait was a reverential act (O'Neil 2013), it is also likely that such destruction was at times intended as an act of defiance, disrespect, erasure, or even simple post-occupational vandalism. Whatever the intent, the portrait is deactivated, its life–however it was understood by the ancient Maya–taken away (Houston 2014:99-100). In the supernatural realm, on the other hand, eyes continued to have a life of their own.

Notes

1. The deer shown here is a *wahyis*, named by a double eyeball glyph before his snout (Houston et al., 2006: fig. 4.26b).
2. Oswaldo Chinchilla Mazariegos (personal communication February 2021) reports that there are numerous figures with extruded eyes in the Cotzumalguapa region, e.g. a monumental feline head from the site of Palo Verde (Chinchilla Mazariegos et al. 2001: fig. 8).

3. The ruler represented on newly discovered Stela 47 wears a similar neckpiece, while eyeballs also adorn the figure's belt and possibly his wrists (Martin 2020: fig. 58).

4. The 4th century ball-player mural from Tikal's Group 6C-XVI, Structure Sub 39-7 includes a figure who may be wearing eyeballs around his neck (Hurst 2020: fig. 31.5, central figure). I thank Nelda Marengo Camacho (personal communication May 2021) for spotting this detail.

5. Mary E. Miller (personal communication February 2021) suggests that they are maracas, literally "death rattles".

6. Mary E. Miller (2005) provides a brief discussion of the clothing associated with the aged Maya goddess Chak Chel and later Aztec deities. Jeremy D. Coltman (2018) expands on the theme, with useful illustrations.

7. While most skeletal figures are anthropomorphic, fireflies and mosquitoes are sometimes represented on Classic Maya pottery with skull heads and eyeballs attached to their crania (cf. Chinchilla Mazariegos 2017:fig. 35; www.mayavase.com: K8608). Andrea Stone and Marc Zender (2011: 188-189) suggest that the Maya may have seen a relationship between hard insect carapaces and bones.

8. For a thorough and wide-ranging investigation of the significance of deer for the Maya, see Matthew Looper (2019). This book includes several illustrations of deer wearing the blanket with bones and eyes, including one from a mural at Ek' Balam (Looper 2019: figs. 7.2, 7.15).

9. A stucco frieze from the Palace of the Fireflies at Toniná, Mexico displays a pair of vividly painted stucco skeletal busts wearing eyeball collars. Large eyeballs on lengthy optic nerves sprout upward from their eye sockets (Yadeun Angulo 2011: 56).

10. Gabrielle Vail (personal communication January 2021), however, suggests that what is represented here is a bone awl inserted in the eye of a blue-painted sacrificial victim.

11. Oddly, dwarfs represented on Classic Maya pottery, especially in the Holmul dancer style, sometimes wear this haircut, albeit without attached eyeballs (cf. www.mayavase.com: K633, K4619).

12. Rivard (1965: 82) recognized these motifs at Uxmal as eyeballs.

13. In the Andean region, the removal of eyes, or of the flesh around the eyes, has been documented in the skeletal record of the Moche, Tiwanaku, and Wari, as well as an Inka period punishment (Becker and Alconini 2018: 245).

14. The *Ik'* corpus refers to a large group of Late Classic polychrome ceramics, mostly without provenience, with shared stylistic and epigraphic features. The sign *Ik'* (wind, breath or soul) is the main sign of the Emblem Glyph of Motul de San José, near Lake Petén in Guatemala. It is believed to be the center of a kingdom where these vessels were produced (Just 2012).

15. An incised bone, supposedly from Campeche, represents a seated sun deity pulling out the eye of a partially skeletal serpent. Below him, the serpent is held aloft by a supernatural figure with *akbal* markings and a skeletal mandible, who ascends a ladder or scaffold (Franco 1968: lámina IV). I thank Stephen Houston for directing me to this unique object, the only one of which I am aware where an animal's eye is pulled by a human.

Acknowledgements

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Works Cited

Abdulla, Haitham A. and Saad K. Alkhalifa
2016 "Ruptured Globe Due to a Bird Attack", *Case Reports in Ophthalmology* 7(1): 112-114.

Becker, Sara K. and Sonia Alconini
2018 "Violence, Power, and Head Extraction in the Kallawaya Region, Bolivia". In *Social Skins of the Head: Body Beliefs and Ritual in Ancient Mesoamerica and the Andes*, Vera Tiesler and María Cecilia Lozada, eds., pp. 235-252. Albuquerque: University of New Mexico Press.

Beliaev, Dmitri and Stephen Houston
2020 "A Sacrificial Sign in Maya Writing". In *Maya Decipherment*. https://mayadecipherment.com/

Boone, Elizabeth Hill and Rochelle Collins
2013 "The Petroglyphic Prayers on the Sun Stone of Motecuhzoma Ilhuicamina", *Ancient Mesoamerica* 24: 225-241.

Brady, James E. and Jeremy D. Coltman
2016 "Bats and the *Camazotz*: Correcting a Century of Mistaken Identity", *Latin American Antiquity* 27(2): 227-237.

Brittenham, Claudia
2019 "Architecture, Vision, and Ritual: Seeing Maya Lintels at Yaxchilan Structure 23", *Art Bulletin* 101(3) September: 8-36.

Calvin, Inga
2012 *Maya Hieroglyphics Study Guide*. http://www.famsi.org/mayawriting/calvin/index.html

n.d. (2021) *Mesoamerican Pottery Database*. http://research.famsi.org/rollouts/index.html

Carter, Nicholas, et al.
2020 "The Clothed Body". In *The Adorned Body: Mapping Ancient Maya Dress*, Nicholas Carter, Stephen D. Houston, and Franco D. Rossi, eds., pp. 9-31. Austin: University of Texas Press.

Chacon, Richard and Richard Dye, eds.
2007 *The Taking and Displaying of Human Body Parts as Trophies by Amerindians*. New York: Springer.

Chinchilla Mazariegos, Oswaldo
2014 "Flaying, Dismemberment, and Ritual Human Sacrifice on the Pacific Coast of Guatemala", *The PARI Journal* 14(3): 1-12.

2017 *Art and Myth of the Ancient Maya*. New Haven and London: Yale University Press.

Chinchilla Mazariegos, Oswaldo, et al.
2001 "Palo Verde. Un centro secundario en la zona de Cotzumalguapa", *Journal de la Société des Américanistes*, Vol. 87, pp. 303-324.

Christenson, Allen J.
2007 *Popol Vuh: The Sacred Book of the Maya*. Norman: University of Oklahoma Press.

Coltman, Jeremy D.
2018 "Where Night Reigns Eternal: Darkness and Deep Time Among the Ancient Maya". In *Archaeology of the Night: Life After Dark in the Ancient World*, Nancy Gonlin and April Nowell, eds., pp. 201-222. Boulder: University Press of Colorado.

2021 "The Cave and the Skirt: A Consideration of Classic Maya *Ch'een* Symbolism", in *Night and Darkness in Ancient Mesoamerica*, Nancy Gonlin and David M. Reed, eds., pp. 201-224. Louisville: University Press of Colorado.

Franco C, José Luis
1968 *Objetos de hueso de la época precolombina*. Mexico City: Museo Nacional de Antropología.

Garton, John, and Karl Taube
2017 "An Olmec Style Statuette in the Worcester Art Museum", *Mexicon* 39: 2 29, 35-40.

Graham, Ian
1978 *Corpus of Maya Hieroglyphic Inscriptions, Vol. 2, Part 2 (Naranjo, Chunhuitz, Xunatunich)*. Cambridge, Massachusetts: Peabody Museum of Archaeology and Ethnology.

1992 *Corpus of Maya Hieroglyphic Inscriptions, Vol. 4 Part 2 (Uxmal)*. Cambridge, Massachusetts: Peabody Museum of Archaeology and Ethnology.

Graña-Behrens, Daniel
2014 "Death and Deer Riding Among the Ancient Maya of Northwest Yucatan, Mexico". In *The Archaeology of Yucatan: New Directions and Data*, Travis W. Stanton, ed., pp. 3-20. Oxford: Archaeopress.

The Guardian
2017 "Surge in Eye Injuries as Melbourne Magpies Go On Attack Spree".
https://www.theguardian.com/environment/2017/oct/19/surge-in-eye-injuries-as-melbourne-magpies-go-on-attack-spree

Hamann, Byron Ellsworth
2004 "In the Eyes of the Mixtecs/To View Several Pages Simultaneously': Seeing and the Mixtec Screenfolds", *Visible Language* 38(1):68-123.

2018 "The *Higa* and the *Tlachialoni*: Material Cultures of Seeing in the Mediterratlantic", *Art History* 41(4): 624- 649.

Helmke, Christophe
2020 "Tactics, Trophies and Titles: A Comparative Perspective on Ancient Maya Raiding", *Ancient Mesoamerica* 31: 29-46.

Houston, Stephen
2008 "A Classic Maya Bailiff?", *Maya Decipherment*, https://mayadecipherment.com/

2014 *The Life Within: Classic Maya and the Matter of Permanence*. New Haven: Yale University Press.

Houston, Stephen, et al.
2006 *The Memory of Bones: Body, Being and Experience Among the Classic Maya*. Austin: University of Texas Press.

Hurst, Heather
2020 "Maya Mural Painting". In *The Maya World*, Scott R. Hutson and Traci Ardren, eds., pp. 578-598. London and New York: Routledge.

Jackson, Sara E.
2019 "Facing Objects: an Investigation of Non-human Personhood in Classic Maya Contexts", *Ancient Mesoamerica* 30: 31-44.

Just, Bryan
2012 *Dancing into Dreams. Maya Vase Painting of the Ik' Kingdom*. New Haven: Yale University Press.

Kerr, Justin
n.d. (2021) *Maya Vase Database: An Archive of Rollout Photographs*. www.mayavase.com

Krempel, Guido
2015 "Capítulo XXIX, Análisis iconográfico y epigráfico de vasijas polícromas con inscripciones: Temporada 2014". In *Proyecto Arqueológico Regional SAHI-Uaxactun, Informe no. 6, Temporada de Campo 2014*, Milan Kováč and Silvia Alvarado Najarro, eds., pp. 563-580. Bratislava: Instituto Eslovaco de Arqueología e Historia. Report submitted to the Instituto de Antropología e Historia de Guatemala.

Looper, Matthew
2019 *The Beast Between: Deer in Maya Art and Culture*. Austin: University of Texas Press.

Maldonado, Rubén, et al.
2002 "Kalom Uk'uw, señor de Dzibilchaltun". In *La Organización Social Entre Los Mayas. Memoria de la Tercera Mesa Redonda de Palenque, Vol. 1,* Vera Tiesler et al., eds., pp. 79–100. Mexico City: Instituto Nacional de Antropología e Historia and the Universidad Autónoma de Yucatán.

Martin, Simon
2020 *Ancient Maya Politics: A Political Anthropology of the Classic Period 150-900 CE*. Cambridge, UK: Cambridge University Press.

Mayer, Karl Herbert
1984 *Maya Monuments: Sculptures of Unknown Provenance in Middle America*. Berlin: Verlag Karl-Friedrich von Flemming.

2010 "Maya Hieroglyphic Inscriptions from Nohpat, Yucatan, Mexico", *Mexicon* 23 (1-2): 9-13.

2019 "Monument 1 of Nohpat, Yucatan, Mexico", *Mexicon* 41(5):121-125.

Merk, Stephan and Guido Krempel
2017 "Two Unprovenanced Maya Sculptures in a Private Collection in Merida", *Mexicon* 39(4): 83-85.

Milbrath, Susan
1999 *Star Gods of the Maya*. Austin: University of Texas Press.

Miller, Mary E.
2005 "Rethinking Jaina: Goddesses, Skirts, and the Jolly Roger", *Record of the Art Museum, Princeton University* 64: 63-70.

Miller, Virginia E.
1989 "Star Warriors at Chichen Itza". In *Word and Image in Maya Culture: Explorations in Language, Writing, and Representation*, William F. Hanks and Don S. Rice, eds., pp. 287-305. Salt Lake City: University of Utah Press.

1999 "The Skull Rack in Mesoamerica". In *Mesoamerican Architecture as a Cultural Symbol*, Jeff K. Kowalski, ed., pp. 340-360. New York: Oxford University Press.

2007 "Skeletons, Skulls, and Bones in the Art of Chichén Itzá". In *New Perspectives on Human Sacrifice and Ritual Body Treatments in Ancient Maya Society*, Vera Tiesler and Andrea Cucina, eds., pp. 165-189. New York: Springer.

2017 "Tzompantlis: Un Espejo en el Arte Maya", *Arqueología Mexicana* 25(148): 40-45.

Nájera Coronado, Marta Ilía
1995 "El Temor a Los Eclipses Entre Comunidades Mayas Contemporáneas". In *Religión y Sociedad en el Área Maya*, Carmen Varela Torrecilla et al., eds., pp. 319-327. Madrid: Sociedad Española de Estudios Mayas, Pub. 3.

O'Neil, Megan
2013 "Marked Faces, Displaced Bodies: Monument Breakage and Reuse Among the Classic-Period Maya". In *Striking Images, Iconoclasms Past and Present*. Stacy Boldrick et al., eds., pp. 47-64. Farnham, England: Ashgate Publishing, Inc.

Patrois, Julie
2008 "Etude Iconographique des Sculptures du Nord de la Péninsule du Yucatán". In *Paris Monographs in American Archaeology, British Archaeological Reports n°20*, Oxford, England: International Series, 297.

Proskouriakoff, Tatiana
1974 *Jades from the Cenote of Sacrifice, Chichen Itza, Yucatan: Memoirs of the Peabody Museum of Archaeology and Ethnology, Vol. 10, No. 1.* Cambridge, Massachusetts: Harvard University Press.

Rivard, Jean-Jacques
1965 "Cascabeles y Ojos del Dios Maya de la Muerte, Ah Puch", *Estudios de Cultura Maya* 5: 75-91.

Rubenstein, Meghan
2015 *Animate Architecture at Kabah: Terminal Classic Art and Politics in the Puuc Region of Yucatán, Mexico*. PhD Dissertation, Department of Art History, Austin: The University of Texas at Austin.

Schele, Linda
n.d. (2021) Schele Drawing Collection, Los Angeles County Museum of Art, http://ancientamericas.org/artist/linda-schele

Schmidt, Peter J.
1990 "Chichen Itza and Prosperity in Yucatan". In *Mexico: Splendors of Thirty Centuries*, pp. 182-211. New York: The Metropolitan Museum of Art.

Stone, Andrea and Marc Zender
2011 *Reading Maya Art: A Hieroglyphic Guide to Ancient Maya Painting and Sculpture*. London: Thames & Hudson.

Taube, Karl
2017 "Los "Andamios de Cráneos" Entre los Antiguos Mayas", *Arqueología Mexicana* 25(148): 28-33.

2018 *Studies in Ancient American Art and Architecture: Selected Works by Karl Andreas Taube, Volume 1*. Precolumbia Mesoweb Press: http://www.mesoweb.com/publications/Works/Taube_Works_v1.s.pdf

Taube, Karl and Marc Zender
2009 "American Gladiators: Ritual Boxing in Ancient Mesoamerica". In *Blood and Beauty: Organized Violence in the Art and Archaeology of Mesoamerica and Central America*, Heather Orr and Rex Koontz, eds., pp. 161-220. Los Angeles: Cotsen Institute of Archaeology Press, University of California at Los Angeles.

Tiesler, Vera
2017 "Cráneos Perforados y Tzompantlis en Chichén Itzá", *Arqueología Mexicana* 25(148): 42-47.

2020 "Feeding the Gods. Sequences and Meanings of Human Sacrifice, Ritual Body Processing, and Exhibition Among the Ancient Maya". In *Rituelle Gewalt, Gewaltrituale. XX Tagung der Landesmuseums für Vorgeschicht, Halle, 2019*, Harald Meller et al., eds., pp. 1-18. Halle, Germany.

Tiesler, Vera and Virginia E. Miller
2021 "Heads, Skulls, and Sacred Scaffolds: New Studies on Tzompantlis in Mesoamerica". For special issue of *Ancient Mesoamerica* on Chichén Itzá, Rafael Cobos, ed. In press.

Vail, Gabrielle
2015 "Iconography and Metaphorical Expressions Pertaining to Eclipses: A Perspective from Postclassic and Colonial Manuscripts". In *Cosmology, Calendars, and Horizon-Based Astronomy in Ancient Mesoamerica*, Anne S. Dowd and Susan Milbrath, eds., pp. 163-196. Boulder: University Press of Colorado.

2021 "Celestial and Underworld Deities in Postclassic and Colonial Maya Narratives". In *Indigenous Conceptions of the Sky in Mesoamerica and the Andes*, Gabrielle Vail, ed. Peter Lang, New York. Under review.

Vail, Gabrielle, and Christine Hernández
2018 *The Maya Codices Database, Version, 5.0.* http://www.mayacodices.org/.

Velásquez García, Erik
2015 "Spirit Entities and Forces in Classic Maya Cosmovision". In *The Maya: Voices in Stone*, Alejandra Martínez de Velasco Cortina and María Elena Vega Villalobos, eds., pp. 177-195. Mexico: Turner/Ambar Diseño/UNAM.

Yadeun Angulo, Juan
2011 "K'inich Baak Nal Chaak (Resplandeciente Señor de la Lluvia y el Inframundo) (652-707 d.C.) Toniná (Popo), Chiapas", *Arqueología Mexicana* 19 (110): 52-57.