ROCK ART BOUNDARIES: CONSIDERING GEOGRAPHICALLY LIMITED ELEMENTS WITHIN THE PECOS RIVER STYLE

A Thesis

by

JAMES BURR HARRISON III

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

May 2004

Major Subject: Anthropology

ROCK ART BOUNDARIES: CONSIDERING GEOGRAPHICALLY LIMITED ELEMENTS WITHIN THE PECOS RIVER STYLE

A Thesis

by

JAMES BURR HARRISON III

Submitted to Texas A&M University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Approved as to style and content by:

Carolyn Boyd (Co-Chair of Committee)	David Carlson (Co-Chair of Committee)
Michael Alvard (Member)	F. Kent Reilly III (Member)
Marvin Rowe (Member)	David Carlson (Head of Department)

May 2004

Major Subject: Anthropology

ABSTRACT

Rock Art Boundaries: Considering Geographically Limited Elements within the Pecos River Style. (May 2004)

James Burr Harrison III, B.A., Texas State University-San Marcos

Co-Chairs of Advisory Committee: Dr. Carolyn Boyd
Dr. David Carlson

This thesis examines six prominent Pecos River Style rock art anthropomorph attributes to determine if they are found in limited geographic districts of the Lower Pecos Region. Both Boyd (2003) and Turpin (2004) have suggested that spatially-segregated motif distributions exist in the rock art and that these patterns are important in understanding regional prehistoric hunter-gatherer lifeways during the Archaic Period. This study verifies that the feather hip cluster motif is geographically limited, identified only in the neighboring Seminole and Painted Canyon systems. As part of this spatial analysis, the previously undocumented principle of intersite stylistic traditions is introduced. Possible explanations for these anthropomorph attributes are also discussed. Finally, structural analyses of the six attributes are presented.

Dedicated to my parents,

Jim and Bea Harrison

ACKNOWLEDGMENTS

I would like to extend my sincerest gratitude to these organizations and institutions. Each was critical to the success of this research: The Rock Art Foundation Inc., The Clements Foundation, The Texas Archaeological Society, The Texas Historical Commission, The Shumla School, The Nature Conservancy, Seminole Canyon State Park, Devils River State Natural Area, and TARL.

I would especially like to thank Lauren Benz, who accompanied me on this project; you are my confidant, partner, and most thoughful critic.

To the members of my original San Marcos archaeology milieu: Chet Walker, Clay Schultz, and Shawn Marceaux, and to our collective mentor Dr. Reilly. The pushers of iconography. You are creating the path.

I would also like to extend my gratitude to these individuals, listed in alphabetical order. Each contributed something very significant to the Pecos River Style Iconography Project or to this thesis. Your generosity will not be forgotten: Bill Armstrong, Emmit "Pancho" Brotherton, Paul and Anne Briggs, Terry and Kathleen Burgess, Robert Corbin, Dr. Phil Dering, Jim Finnegan, Tommy Grey, Hubert Gubbels, Jim Bob Hargrove, Jack and Missy Harrington, Jerome Hesse, Howard Hunt, Roy Hurley, John and Judy Krevling, Lonnie Lischka, Ken Moore, Steve Norman, Elton Prewitt, Clyde Pursley, Rick Rylander, Rod Sanders, Jack Skyles, Dr. Solveig Turpin, Paul Weinman, and Cody White.

TABLE OF CONTENTS

LIST OF FIGURES

FIGURE Page

LIST OF TABLES

CHAPTER I

INTRODUCTION

In her dissertation fieldwork, Carolyn Boyd (1998a) noted that some Pecos River Style (PRS) anthropomorph attributes (rock art attributes found on human-like figures) seem to be found only in limited geographic regions of the Lower Pecos Region, and that this non uniform distribution may be culturally meaningful. In particular, Boyd pointed to the motifs known as the feather hip cluster, as well as to winged anthropomorphs and those with "rabbit-ears." In *Rock Art of the Lower Pecos,* Boyd (2003:44) states,

> The geographic distribution of these pictographic elements suggests that they may be affiliated with specific clans or perhaps are territorial markers; however, there is insufficient data at this time to adequately address these issues. A thorough survey of the rock art throughout the Lower Pecos River Region will be conducted in the future to determine the distribution of these elements across the landscape.
> This thesis attempts to address this lack of data.

In particular, the spatial distribution of six anthropomorph attributes will be analyzed. If these motifs are found only within a limited geographic range of the Lower Pecos Region, then these attributes may be considered to be geographically limited- motifs that subdivide the greater landscape of PRS rock art. Geographically limited motifs are defined as a particular PRS motif that is

---

This thesis follows the style and format of *Amerian Antiquity*.

found at multiple sites within a limited geographic region to the total or near exclusion of all other rock art sites, the style's greater distribution. Like Boyd (2003), Turpin (2004) has also noted that spatially segregated PRS motifs may indeed reflect some form of ethnic or territorial marking. Turpin (2004) states,

> Territoriality, a corollary of population density, may be expressed in the rock art at various aggregation sites. Although all Pecos River Style pictographs express a shamanic worldview, differences in emphasis may reflect group affiliation within the larger society. For example, Panther Cave is so named for the many large felines or feline shamans while Seminole Canyon is dominated by winged and antlered anthropomorphs found no where else. Rattlesnake Canyon has many rabbit-eared snake shamans but no were-cougars, as though proprietary control of motifs was spatially segregated. Such an expression of territoriality would be consistent with the principles of cyclical nucleation.

This thesis does not seek to prove whether or not territoriality existed in the Lower Pecos during the Middle Archaic period. The objective is only to demonstrate if a pattern exists within the artistic record. However, if found to be significant, spatial patterns necessitate explanation (Hodder and Orton 1976).

The Anthropomorph Attributes under Study

This thesis is an empirical study of six anthropomorph attributes: plume, U head form, rabbit-ears, feather hip cluster, antlers, and ecstatic-scalp. Four have been discussed by other researchers (Kirkland andNewcomb 1996; Bass 1989; Turpin 1994a; Boyd 1998a, 2003). Two others, termed "plume" and

"ecstatic-scalp," are previously unpublished. I have selected these six attributes for study because they occur fairly frequently and are recognizable and diagnostic in the art. Based on their ubiquity, these motifs most likely would have been well understood by the people of the Middle Archaic Lower Pecos.

Plume: A large feather-like motif in which multiple lines radiate from a central stalk emanating from the center of an anthropomorph's head (Figure 1.1.a).

U head form: An anthropomorph head form demonstrating oblong, rounded protrusions extending up from the lateral sides of the head (Kirkland and Newcomb 1996:49). This motif is one element of the "were-cougar" complex recognized by Turpin (1994), though this more descriptive term is used to refer specifically to the attributes of the head (Figure 1.1.b).

Rabbit-ears: An anthropomorph head form resembling jackrabbit ears (Boyd 2003; Zintgraff and Turpin 1991; Turpin 2004). These "ears" are tilted at an angle, constrict down where they join at the head, both emanating from a single point. Some examples classified as rabbit-ears demonstrate only one "ear" (Figure 1.1.c).

Feather hip cluster: This anthropomorph attribute consists of several oblong protrusions extending outward from near the hip of an anthropomorph. In some cases the feather hip cluster motif may include a band-like motif around the anthropomorph's "waist" (Boyd 1998a, 2003) (Figure 1.1.d).

Antlers: An anthropomorph head form demonstrating recognizable antlers. This form is broken down into two types, those with dots on the tips of the antler tines and those without (Boyd 2003) (Figure 1.1.e).

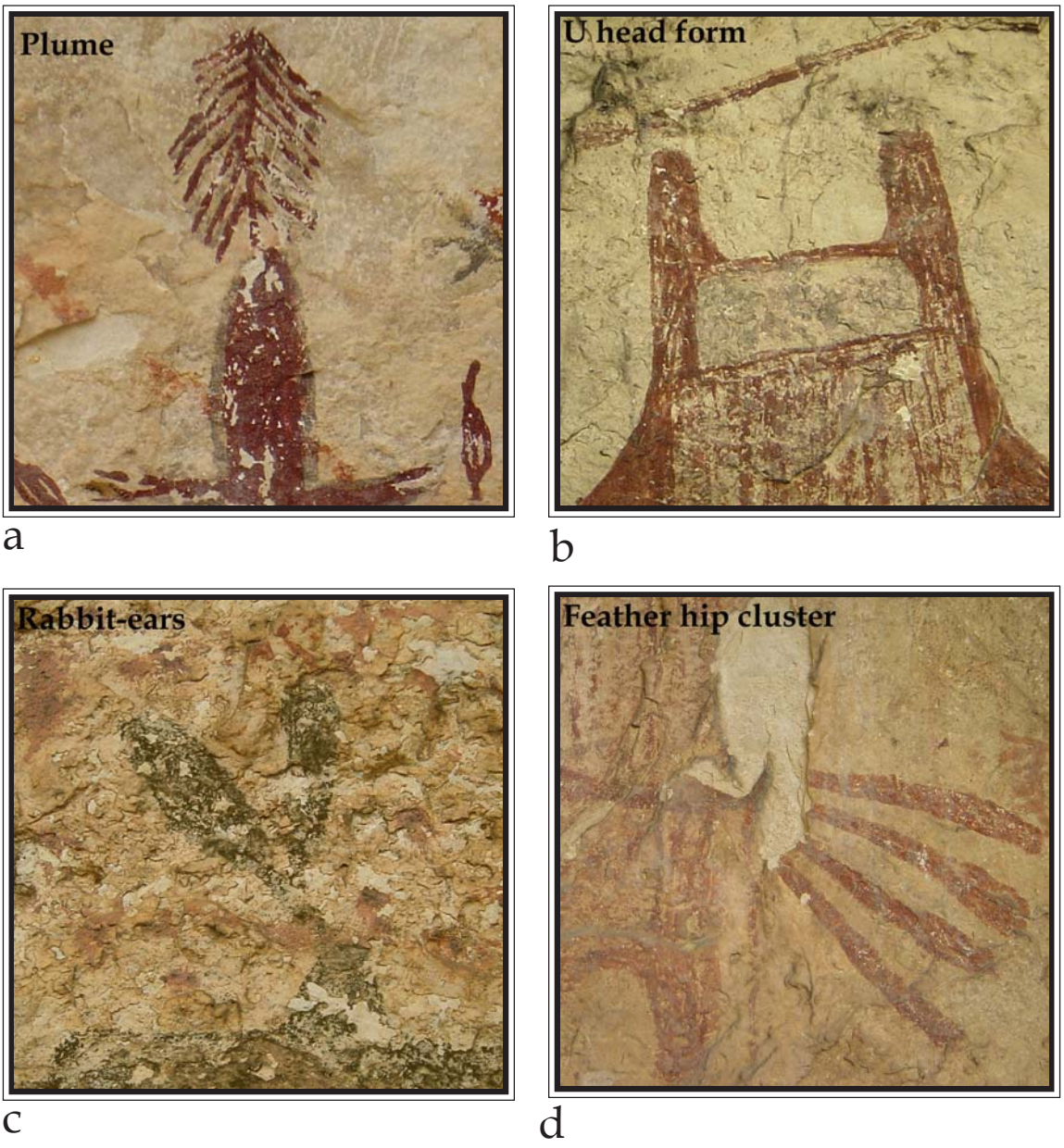
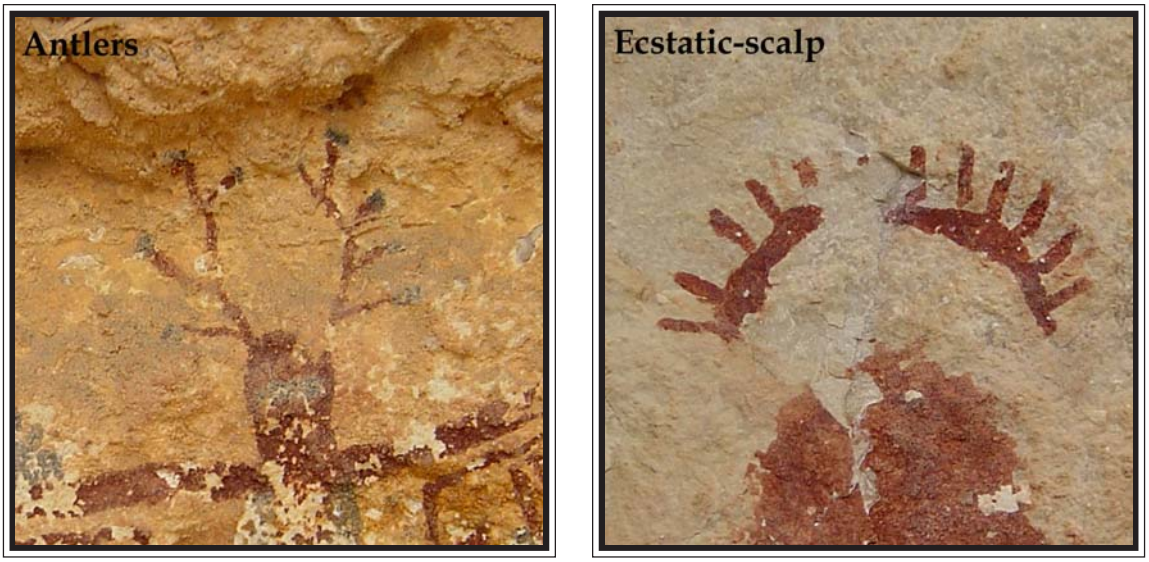


Figure 1.1. The Anthropomorph Attributes under Study



e f

Figure 1.1. Continued

Ecstatic-scalp: This motif illlustrates a corona-like arch over the figure's head. The arch is variably fringed on its upper margin (Figure 1.1.f).

Geographically Limited Elements

The objective of this thesis research is the recognition of significant patterning in the artistic record based on the spatial distribution of these anthropomorph attributes. The goal is to determine if these anthropomorph attributes have a wide or a restricted distribution, according to where they can be identified across the Lower Pecos Region, at least in the area north of the Rio Grande. Significant variation in the spatial distribution of these anthropomorph attributes may demonstrate some form of cultural discontinuity, such as

territorial circumscription, temporal change or disparate cultural traditions within the common social networks, and belief systems demonstrated by the Pecos River Style as a whole.

Identifying such patterns in the archaeological record is no simple task. Particular problems in this study include, (1) our meager understanding of the information encoded in and function of the PRS symbol system, (2) our insufficient seriation of this art style, (3) differential survival of rock art sites, and (4) limited sample size.

The PRS represents the visualization of a system of shared ideas, as well as a cultural horizon marker. The same principal themes can be found at any PRS site no matter what its location. The PRS is a unified "language"; its symbolism is arbitrary to us, but would have been understood by members of its parent culture (Shafer 1977; Turpin 2004). Therefore, if a particular motif is found in a limited geographic range, to the total or near exclusion of other areas, then the unity of the style is broken. This study's null hypothesis is that these rock art elements are randomly distributed across the landscape.

Enthographically Viable Possibilites for Such Motifs

The objective of this thesis is to empirically test if these six anthropomorph attributes are geographically limited, motifs circumscribed to a limited region of the Lower Pecos. If demonstrated to be evident, a variety of

possibilities exist as to the significance of these patterns. This thesis does not necessarily evaluate the following non-mutually exclusive categories.

Topo-glyphs: Place names; iconographic referents designating the indigenous name for that individual region or rock shelter (Coe and Stone 2001).

Emblem motifs: A reference to control of a region by some form of polity or name of that polity (Coe and Stone 2001). This category includes clan markers.

Ethnic markers: Aspects of material culture utilized by members of a culture to visibly differentiate themselves from others, as well as to be recognizable to one another. This category includes both ethnic symbols and other stylistic or behavioral traits (Hodder 1979).

Isocratic markers: Patterns in material culture produced by members of a culture through the processes of within-group learning and the replication of behaviors and motor activities (Sackett 1984).

Markers of particular mythological beings: Figures with consistent attributes indented to communicate their identity as a particular character from myth or legend (Hermerén 1969).

Indicators of particular historical personages: Motifs that are meant to designate an individual from prehistory (Coe and Stone 2001).

Indicators of individual artists: A prehistoric artist's either intentional or implicit stylistic signature (Coe and Stone 2001).

Spatially circumscribed sacred markers: Markers of geographically limited

ritual activity (Turpin 2004).

Temporal markers: Image or stylistic trait (e.g., index fossil) which marks temporal change and/or develpment within the PRS (O'Brien and Lyman 1999).

Boundary markers: A motif whose main purpose is to designate proprietary access and control. Boundary markers occur along the edge of a territory. A "no trespassing" sign is a modern example of a boundary marker.

Hard territorial markers: Designates the territory of an exclusive, endogamous culture with minimal interchange with other groups; a defended geographic area (Peterson 1975:54).

Soft territorial markers: Mark the territory of an inclusive, exogamous culture that has frequent interchange with other groups; designates some sort of privileged access to an area but not necessarily exclusive access or control over resources.

The Pecos River Style

The PRS is a form of archaic Native American art believed by most scholars to be religious in nature. Archaeologists use this style of polychrome rock paintings to define the cultural area known as the Lower Pecos Region located in southwest Texas and northern Coahuila, Mexico (Shafer 1988; Turpin 1990b). This area is semiarid with bimodal rainfall peaks in the spring and early fall (Dering 1999). This rock art is found in dry parabolic rock shelters

along the main canyons and tributaries of the Devils, Pecos, and Rio Grande rivers, as well as in the Sierranas del Burro. The focal points of this art's distribution, the areas with the greatest site density, are generally considered to be the mouths of the Pecos and Devils Rivers. The bulk of the known PRS sites are in Val Verde County, Texas. Peripheral sites classified as PRS are found as far north as Interstate 10 in Terrell and Crockett Counties. PRS art is located from approximately 20 miles west of Langtry to as far east as the hamlet of Carta Valley on the eastern Val Verde County line. Approximately 35 PRS sites have been discovered in Mexico, in the vicinity of the Sierranas del Burros, as far south as the town of Múzquiz (Turpin 1989, 2002:39; Saythe r 1997a).

Most scholars believe that the PRS was produced between around 2700-4250 radiocarbon years before present (RCYBP), a time span known as the San Felipe Period (Turpin 1990a). Evidence for the PRS's affiliation with this period includes the rock paintings' logical association with a greater body of local material culture including Pandale, Langtry, Val Verde, Jora, and Gubernador dart points, certain basketry and sandal styles, painted pebbles, clay figurines, stone pipes, paint brushes, paint pallets, and pigment cakes, as well as overall abundant cultural deposits (Taylor 1949; Suhm, et al. 1954; Taylor 1966:65; Shafer 1975, 1977:20, 1986; Hester 1988:89; Turpin 1991, 1995a, 1997, 2002:43). Evidence for this date range also comes from the PRS's general stylistic relationship with the four later rock art styles produced in the Lower Pecos: Red

Linear, Red Monochrome, Bold Line Geometric, and Historic Period rock art (Turpin 1990a, 1995a).

The inception of the PRS roughly coincides with period of increased aridity known as the Ozona Erosional (Bryant 1969). This period of environmental stress may have in some way set the stage for the creation of the PRS (Boyd 2003; Turpin 2004). A cooler and wetter period began in the Lower Pecos Region circa 2500 YBP (Shafer 1986). This climatic change would have been an impetus for the return of large herds of bison and presumably of nonlocal mobile bison-hunting populations (Shafer 1986:78). These hunters would have disrupted the long-insular indigenous peoples of this region whose economy was based primarily on the collecting and processing of desert succulents. Turpin (1984:195) sees evidence for this in the rock art of the Lower Pecos:

> The depiction of bison places the Red Linear style in the Late Archaic period, coincident with the entry of foreign groups into the Lower Pecos River Region during the bison presence period, ca. 1400 to 2600 years ago. The divergence from the Pecos River Style tradition in both form and content support the intrusion of a fully evolved ritual art, perhaps developed in another medium.

Many scholars view this cultural disruption as the impetus for the cessation of the Pecos River Style's production (Turpin 1984).

Dr. Marvin Rowe's laboratory at Texas A&M University began yielding

direct dates of PRS imagery through a new method of plasma-chemical extraction of carbon followed with AMS 14C analysis (Russ et al. 1990; Hyman and Rowe 1997a). Rowe's *initial* 20 or so published dates for PRS pigment generally fall between 4200 and 2750 RCYBP, lending support both for the accepted cultural historical model, as well as Rowe's dating technique (Hyman and Rowe 1997b). Newer unpublished data for the PRS site 41VV124, however, yielded dates for PRS imagery as young as around 2000 RCYBP (Rowe 2002 personal communication). If these young dates are correct then archaeologists will be forced to reassess some aspects of the Lower Pecos cultural sequence, the duration of the PRS's production, as well as the relationship between the PRS and the Red Linear Style. More comprehensive cultural setting, paleodiet,

Figure 1.2. Big Satan Canyon: Right Panel

and paleoclimate models for the Lower Pecos Region have been presented elsewhere (Boyd 1998a; Hester 1988; Shafer 1981,1986,1988; Taylor 1949; Turpin 1991, 1995a; Patton and Dibble 1982; Dering 1979,1998).

The repertoire of PRS imagery contains human-like forms, figures representing animals (most commonly deer, mountain lions, and birds), supernatural or mythological beings, realistic weapons and ritual accoutrements, certain symbols, wave-like sinuous motifs, and bulbous petaloid motifs. Of these, anthropomorphs are the most frequent and most elaborate set of patterns found in the art.

Anthropomorphs vary greatly. PRS anthropomorphs have a distinct linear form. They are characteristically elongated with either parallel or tapering sides (Figure 1.2). Some are simple and diminutive, whereas others are monumental (e.g., 10 m tall), dominating entire shelter walls. PRS artists used sophisticated artistic techniques to magnify the visual impact of their compositions. Anthropomorphs depicted at the focal point of such compositions are often surrounded by subordinate elements in heraldic fashion. Heraldic (Boas 1955; Jonaitis 1986) compositions are artistic structures that visually express hierarchy through the relationship between central and peripheral figures in a composition.

The visual elaboration of anthropomorphic forms within the PRS may include: centrastyling (patterning inside the body) (Boyd 2003), fringes along

the outer edges of the body, ecstatic hair, weapons, medicine bundles, and costume elements.

Anthropomorphs vary greatly in their level of abstraction. Some are clearly human, others are reduced to a rectangular shape.

Spatial Circumscription in Baja Gran Mural Rock Art

In a similar study to this one, Justin Hyland and María de la Luz Gutiérrez (2002) analyzed the spatial distribution of five common head forms found on the monumental anthropomorphs of the Gran Mural rock art of the Sierra de San Francisco in Baja California, Mexico. In their publication "Tierra, Linaje y Arte Rupestre," the authors found significant variations in frequency of these head forms when major canyon systems were compared.

On the northern and western edges of the Sierra de San Francisco, Arroyo San Pablo and San Gregorio contained very similar frequencies of the four head forms included in the final analysis. To the south and east, however, Canyons El Parral and Cuesta Palmento contained a significantly higher frequency of head types E and D, respectively. This study identified an unrefutable and significant pattern in the archaeological record encoded in the medim of rock art.

Ethnographic Analogies

In "Political and Territorial Structures Among Hunter-Gatherers," Layton (1986) cogently addresses the spectrum of forager group adaptive and political structures including San, Australian Aborigines, Northwest Coast Indians, and Eskimo. Layton argues that although similar adaptation patterns can be found worldwide, because of particular historical trajectories, "the specific form of cultural response to a harsh environment cannot be predicted from the nature of that environment except in very generalized, Malinowskian terms" (1986:29). Layton addresses egalitarian and nonegalitarian hunter-gatherer groups:

> Where territorial rights overlap and are non-exclusive and where rights over movable property are generalized…egalitarian structures result. Where exclusive rights in territories and their food resources or geographic sites and sacred knowledge, are vested in lineages, the opportunity for inegalitarian structures exists (1986:30).

In her discussion of the San, Patricia Vinnicombe states that for the !Kung culture, "access to economic resources is largely regulated by controlled access to ritual resources" (1986:279). Layton draws a more clear distinction between these two dimensions of land tenure in Australian culture. In Aboriginal culture a clan group's foraging territory is quite flexible and varies diachronically. Despite this, small descent groups have explicit, exclusive rights of access to sacred sites along "dreaming tracks" and "clan membership gives ownership of exclusive songs, legends and painted motifs, and the right

to perform increase ritual at (particular) sites" (Layton 1986:23). Relavantly, Gunn (1997) discusses how Aboriginal Arrernte dreaming sites frequently correspond with and are named for waterholes or springs (which they call rock holes) and nearby habitation sites. The same name in turn, "refers to dreaming beings who are mythologically associated with the place."

In an ethnographic discussion, "Powers of Place: Landscape, Territory, and Local Belonging in Northwest Amazonia," Kaj Århem (1998) demonstrates the interrelatedness of Tukano territoriality, myth, cosmology, kinship, and totemism. Descent-based leaders possess modest authority over scattered settlements known as *malocas*; additional political influence is exerted "by prominent ritual specialists, particularly protective shamans (*kumua*) and chanters (*yoamara*)" (Århem 1998:80). Exogamous groups maintain river drainage-based territories and for each group various clans maintain subterritories which include their "proper ancestor and distinct ancestral birthplace" (Århem 1998:81). The spatial distribution of these territories, including sacred sites and features in the surrounding landscape, in turn provide important metaphors included in myths of Tukano ethnogenesis and cosmology. In terms of territoriality, Århem (1998:79) states, "The picture that emerges is a complex one, where shamanic knowledge and ritual control over land and its creative potential - including river territories and river resources -

play a central role in mediating between a descent-derived notion of territorial 'ownership' and effective tenure."

While in no way directly transferable to the Lower Pecos Region these ethnographic case studies show the complexity of the issues involved and encompass many of the categories of geographically limited motifs discussed above. It is safe to assume that for the culture of the Lower Pecos Region during the Middle Archaic period an equally complex and dynamic system of territoriality, ethnicity, and subsistence existed.

CHAPTER II
LITERATURE REVIEW

Over the years various scholars have devoted their time and energy to the study of the PRS. This chapter is a brief synthesis of their work, presented in chronological order of each scholar's first publication. This chapter is particularly focused on seriations developed for the PRS.

Forrest Kirkland

Between 1933 and 1939 Forrest and Lula Kirkland took on the "historic self imposed task" (Kirkland and Newcomb 1996) of recording in watercolor the bulk of the rock art of Texas known at the time. As part of this project they created many full panel renderings of important PRS sites. These have proven to be an invaluable source of primary research material for those of us who follow (Kirkland and Newcomb 1996:3-13). Kirkland also published a series of articles which express his unique, early perspective on the rock art of the Lower Pecos Region (1937, 1938, 1939).

A. T. Jackson

While Kirkland was completing his rock art renderings, some of which would later be included in *The Rock Art of Texas Indians* (Kirkland and Newcomb 1996), A. T. Jackson (1938) was researching the equally ambitous *Picture Writing*

of Texas Indians. Jackson studied a total of 195 rock art sites located in 45 Texas counties.

Like Kirkland and others of his time, Jackson conceptualized rock paintings and engravings as an early form of a writing, not as decorative "art." Jackson quantified the imagery he recorded from each panel by dividing it up into classes of human representation, human workmanship, lower life, and geometric/symbolic. This system of organization is arbitrary, but general enough to be used across art styles. He also produced many quality illustrations of the imagery. Jackson's work is fundamental, and in many cases represents the primary source of documentation for rock art sites within the Lower Pecos Region (Jackson 1938).

T. N. Campbell

In "Origins of the Mescal Bean Cult," Campbell (1958:156-160) discusses why he believes PRS anthropomorphs represent members of a prehistoric ritualistic cult linked to the use of the "mescal bean" (*Sophora secundiflora*). He describes how ethnographically known costume elements and accoutrements such as gourd rattles, furs, and body ornamentation can be seen in the rock art. Campbell argues that these elements of ceremonial regalia link the artisans of the Pecos River Focus with members of the Protohistoric mescal bean cult of the Great Plains (1958:158).

Terrence Grieder

Terrence Grieder (1966) published a seriation for PRS rock art, which he, like others, calls "Pecos Style." His seriation divided this art into three periods: Fisherman, Deerhunter, and Miniature. The Fisherman period was the longest and/or most active. The art created during this period reflects the riverine focus of the indigenous culture when (at circa 9000 B.C.), "a slightly damper climate over a wide region would have been sufficient to raise the rivers in this region to a point at which continual fishing would have been possible" (1966:716). The second period, Deerhunter, is marked by the introduction of deer imagery into compositions. This period is said to be shorter and/or less productive- it reflects the shift in subsistence to upland deer hunting. A third phase, Miniature, marks later works which are smaller and produced in only red or black pigment. Although Grieder is somewhat opaque on this point, (1966:710) the Miniature period seems to encompass imagery typically classified as Red Linear Style (1966:718).

Even as Grieder (1966:716) cautions, "We are all justifiably suspicious of subject identifications because we know that the knowledge and interests of the observer so strongly influence the identification," a critical reader is drawn to question almost every premise he presents in this publication for this very reason. His model linking a hypothetical economy directly with the production of imagery in a simple, linear fashion is inadequate.

W. W. Newcomb Jr.

W. W. Newcomb Jr. published *The Rock Art of Texas Indians* in 1967, combining the story of the Kirklands' early research, Newcomb's research, and Kirkland's watercolor renderings. Because of its numerous color plates and Newcomb's text, this work has become a standard reference for PRS rock art. As part of *The Rock Art of Texas Indians,* Newcomb presents his own seriational model on the stylistic development of the Pecos River Style (Kirkland and Newcomb 1996; Newcomb 1976). Of the three seriations produced during this period, Newcomb's model is the only one which seems to have been utilized by later researchers, although less so in recent years. In addition to Newcomb's seriation, discussed here at length, this scholar wrote at length the meaning of specific PRS symbols as well as addressing the social context of the art.

Newcomb's seriation is broken down into four periods which progress from very simple shaman, to monumental monochrome shaman, to classic polychrome figures, to highly abstracted forms. Newcomb's analysis, although incorporating other symbolism, primarily focuses on the major elaborated and costumed anthropomorphs which he recognized as the focal point of many artistic compositions. Newcomb differentiates these anthropomorphs from other less elaborate and often subordinate anthropomorphs which "seem to represent ordinary men" (Kirkland and Newcomb 1996:46). Newcomb goes on to state that "the probabilities are good that these (larger) beings were in fact

intended to represent shamans, that is, individuals who possessed special knowledge of the supernatural world and more than ordinary ability to deal with it."

Newcomb's Period 1 includes simple, crude, dim red anthropomorphs that lack the conventionalization of later periods. Period 1 is considered a "tentative period," as only a few examples are recognized in the art (Kirkland and Newcomb 1996:47-48; Newcomb 1976:182).

Period 2 anthropomorphs are the largest; 41 percent are greater than 2 m tall and only Period 2 anthropomorphs are over 3 m tall. Seventy-eight percent are applied with only red pigment, a trait that drops off dramatically in later periods. Most lack heads, and facial features are never shown. Relevant to this thesis, the feather hip cluster motif and the U head form are believed to be limited to Period 2 paintings. Two additional traits of Period 2 compositions are the absence of impaled anthropomorphs and the absence of the single pole ladder symbol. This symbol often appears on the end of spear motifs and is referenced by Newcomb as a "stylized projectile point" or "dart symbol" (Kirkland and Newcomb 1996:48-54; Newcomb 1976:183-184).

Perhaps the most diagnostic trait of Period 3 is the introduction of what we now refer to as centrastyling (Boyd 2003), which Newcomb references as "bodies containing panels of color" (Kirkland and Newcomb 1996:54). Seventy percent of anthropomorphs classified by Newcomb as Period 3 are bichrome,

and 89 percent are less 2 m tall. In addition, 90 percent of anthropomorphs from Period 3 have a head. Though it is used less frequently than in Period 4, the single pole ladder symbol is introduced in Period 3. Half of Period 3 anthropomorphs are associated with sinuous lines. Fewer weapons and ritual items are shown than in the previous two periods. Period 3 sees the greater conventionalization of objects associated with the central shaman, as well as a greater occasion of heraldic compositions containing a "supporting cast" of nonshamans (Kirkland and Newcomb 1996:54-57; Newcomb 1976:183-184).

The final, more tentative Period 4 was reserved for highly abstracted anthropomorphs for which "the shaman has become a balanced, symmetrical, geometric design" (Newcomb 1976:185). Other diagnostic traits of Period 4 include dots or circles used as body ornaments and more frequent use of three colors in a composition. In a sample of 162 anthropomorphs, Newcomb assigned only 10 to Period 4.

David Gebhard

University of California art historian David Gebhard produced a third seriation of the Pecos River Style published in his report for the National Park Service, *Prehistoric Rock Paintings of the Seminole Canyon Area, Val Verde County, Texas* (Gebhard 1965). Gebhard breaks down the PRS, which he also calls Pecos Style, into the classifications of early, middle, and late styles. Gebhard's

seriation, like Newcomb's, centers predominantly on the attributes of major anthropomorphs found in the art, the focal point of much of the imagery.

Gebhard's Early Pecos Style or Type 1 is the first period. Attention is paid to anatomical details such as fingers or toes. Red pigment predominates, but black is used for outlining. Yellow pigment is rarely used. No zoomorphs are found as part of Type 1 imagery. Gebhard (1965:12) states, "It would appear that almost the sole subject of this first phase was that of the human figure."

A temporal marker delineating Middle Pecos Style or Type 2 is the introduction of centrastyling in the bodies of anthropomorphs. There is an increased use of yellow and black pigments, along with the first traces of white. For the first time we see the introduction of sinuous lines in association with main anthropomorphs. In addition, Gebhard (1965:16) states that, in what is probably a reference to 41VV83,

> In the later phase of this style the human form became much more elaborate, both in the detailing within the body and through associated geometric curvilinear and rectilinear forms placed outside of the contour of the body. The earlier drawings of humans within Middle Pecos Style are occasionally associated with solidly colored paintings of cougars. All of the later drawings of cougars appear to be in outline.

Gebhard's final period, Late Pecos Style or Type 3, is broken down into two subphases, Dart Point Style and Painted Pebble Style. Dart Point Style or Type 3 Phase 1 compositions are less naturalistic and involve more fine-line brush work than previous art. The two most diagnostic attributes of Gebhard's

Dart Point Style are the single pole ladder symbol and the presence of deer; both elements are found only in this sub-period. In regard to the Dart Point Style, Gebhard (1965:21) states, "The grouping of figures and forms into compositions is the most elaborate that is encountered within the classic Pecos Style." There is elaborate centrastyling of the human form, and ritual accoutrements are depicted less frequently. Impaled humans fall within this period. Red pigments are still the most common, but black, yellow, and white are used increasingly.

Gebhard's final substage, Type 3 Phase 2 or Painted Pebble Style, is presented as a transition between the Pecos River Style and "the later Red Figure Styles," a reference to Red Linear and Red Monochrome styles (1965:26). Gebhard states that during Phase 2, "the human figure has been reduced to a highly conventionalized geometric pattern" and that "The Painted Pebble Style must be considered as a direct… outgrowth of the earlier Pecos Style" (1965:10, 27). Some anthropomorphs during this period are said to be conventionalized in the manner of painted pebbles. Other details of Gebhard's Painted Pebble Style are sketchy, but he does cite examples from Seminole Canyon (1965:27-28).

Solveig Turpin

The position of the Lower Pecos Region's most prolific scholar must be reserved for Solveig Turpin. Since her dissertation, *Seminole Canyon: The Art and*

Archaeology (1982), Turpin has continually produced publications dealing with the prehistory of this region. In addition to her numerous publications, Turpin has also completed extensive field work in the Lower Pecos Region, probably documenting more PRS sites than any other individual. Turpin's contribution to the archaeology of this region is immense.

Turpin has published cultural historical syntheses for the region, "Time Out of Mind: The Radiocarbon Chronology of the Lower Pecos River Region" (1991) and "The Lower Pecos River Region of Texas and Northern Mexico" (1995a). She has written on the importance of integrating information contained in rock art with more traditional lines of archaeological inquiry (1990a, 1994a). Several of Turpin's (1989, 1990c, 1995b, 2002) publications deal with the documentation or excavation of PRS sites both in the United States and Mexico, including both the core and periphery of the Lower Pecos Region. Turpin's "An Example of a Mythical Creature in Pecos River Style Art: Southwest Texas" (1986a) identifies a supernatural character that appears frequently in the imagery. Turpin refers to this being as the Dart Headed Figure. In "Pigment Analyses from Panther Cave, Texas," Hyman, Turpin, and Zolensky (1996) discuss the results of analyses of microsamples of PRS pigments, including the identification of chemical compositions of different colors.

Three of Turpin's most theoretical and significant papers, "Cultural Implications of Seminole Sink" (1988), "Speculations on the Age and Origin of

the Pecos River Style, Southwest Texas" (1990b), and "Cyclical Nucleation and Sacred Space: Rock Art at the Center" (2004) grapple with the sociocultural impetus for the PRS. Turpin builds a model describing how the San Felipe Period may have been a time of increasing social complexity in the Lower Pecos Region which experienced the development of quasi-sedentary populations centered in resource-rich canyon systems, and gives archaeological evidence to support this hypothesis (1988:129-132, 1990b:115). A body of community reifying rituals practiced at aggregation sites create a culturally sacred space centered on these loci. Turpin (2004) states, "Redundancy in theme and rule-bound iconography in turn identify these images (PRS) as the ritual art that manifests social conventions while contributing to the consecration of these hallowed sites."

Two of Turpin's publications that deal more directly with the iconography of the PRS are "The Were-Cougar Theme in Pecos River-Style Art and its Implication for Traditional Archaeology" (1994a) and "On a Wing and a Prayer: Flight Metaphors in Pecos River Art" (1994b). Both rely heavily upon the principals of shamanism to explain particular redundant motifs. Turpin (1994a:77) describes the PRS as the "iconographic confirmation of the shamanic hypothesis."

Marvin Rowe

As discussed in Chapter I, Marvin Rowe's method of direct radiocarbon dating of rock pigments using miniscule samples holds tremendous potential for the future of Lower Pecos Region rock art research. His dates are invaluable for providing a precise temporal context for the production of the PRS. His methods also provide for the possibility of testing seriational models of the PRS. Additionally, Rowe's dates may prove extremely important in empirical studies of the PRS (Russ et al. 1990; Chaffee et al. 1994; Hyman and Rowe 1997a, 1997b). Although Rowe's group have attempted to verify their technique, rock art dating is a young science. Independent laboratory replication of the dating process is critical (Steelman and Rowe 2003).

Patricia Bass

Patricia Bass received her Ph.D. from Rice University in 1989 on the topic of PRS rock art and she has published several articles on the subject. The premise of some of her work is the application of semiotics in the interpretation of the art; however, the use of semiotic theory is impossible without first establishing a meaningful understanding of the structure of the art. In actuality, Bass (1992:409-10) builds a series of typologies classifying imagery into the categories of zoomorphs, anthropomorphs/shamans, vegemorphs, other representational motifs, and geometric images.

Bass' work focuses on amelioration of male gender bias of previous rock art research in the Lower Pecos Region but her identification of female-based gathering symbolism is forced. Bass is correct that PRS anthropomorphs typically, "have no sexual referents" (1994:70), and that only a percentage hold male-linked weapons. Bass' (1994:71) "female-associated art" is based on her classification of vegemorphs or plant-like motifs. While these motifs superficially resemble plants, when we examine their context within the art, we find that they more likely represent costume elements and ritual items such as medicine bundles associated with anthropomorphs (Campbell 1958). Bass identifies corn and wheat-like motifs, however, this Archaic period culture did not possess these agricultural plants. Bass (1992:412) admits that her vegemorph category is heavily biased, but continues to argue for this category in her 1994 article "A Gendered Search Through Some West Texas Rock Art."

Terry Sayther

Terry Sayther (1997a, 1997b, 1998), working under the auspice of the Instituto Nacional de Anthropología e Historia (INAH) has published several primary reports of PRS sites in Mexico. These discoveries extend the boundary of the Lower Pecos Region, the known extent of the PRS, to the south and west.

Carolyn Boyd

Boyd advocates a three step methodological approach in rock art studies (1998a, 2003); (1) The identification of recurrent motifs in the rock art through formal and spatial analyses; (2) Generating a hypothesis regarding this pattern by looking to comparable patterns in ethnography; (3) Testing this hypothesis through multiple lines of independent inquiry such as: the archaeological record, the social and biophysical environment, animal behavior, and cognitive neuroscience. She draws on information particularly from the Huichol, along with other Uto-Aztecan speaking peoples of the Gran Chichimeca Region and American Southwest. In her dissertation (1998a) Boyd identifies three recurrent motifs (motifs A, B, and C) and uses her methodology to shed light on their meaning. Boyd's publications elaborate these findings (Boyd 1996, 1998b, 2003; Boyd and Dering 1996).

In her 1996 article "Shamanic Journeys into the Otherworld of the Archaic Chichimec" motif A is discussed. This recurrent PRS motif constists of a crenelated arch, an opening at the center of the arch, and a skeltonized anthropomorph located in assocation with this opening. Boyd's review of the ethnographic literature identifies a comparable pattern found in the belief systems of many cultures consisting of a multilayered universe with a supernatural realm below the surface of the earth, a serpent that serves as gateway to this realm, sacred portals or passageways such as caves, and the

presence of spirit helpers or animal familiars. Boyd finds that motif A represents a comparable portal to the otherworld. This hypothesis was later tested in her dissertation (1998a).

Boyd and Dering's 1996 paper "Medicinal and Hallucinogenic Plants Identified in the Sediments and Pictographs of the Lower Pecos, Texas Archaic" discusses motif B (antlered anthropomorphs with dots on their tines, impaled deer, and impaled dots) and motif C (the enlarged spinecent ovular object at the distal end of a stafflike object). Boyd hypothesized that motifs B and C represent peyote and datura, respectfully. These psychoactive substances are an important part of a cross-cultural "shaman's tool kit."

In "Pictographic Evidence of Peyotism in the Lower Pecos, Texas Archaic," Boyd (1998b) further discusses motif B, found to represent a prehistoric peyote cult, a principal component of the belief system portrayed in the art. This symbol complex includes impaled dots, impaled deer, deer with dots, and deer antlers with dots on their tines. A prime example of this complex is seen at 41VV124. Through time, various cultures have associated deer with peyote. In *Rock Art of the Lower Pecos,* Boyd gives examples of deer antlers with dots from the Red Linear style, evidence that this symbolic complex persisted after the cessation of the PRS (2003:70).

In *Rock Art of the Lower Pecos* Boyd argues for a functional approach to the study of rock art; that is, in order to understand the imagery, we must not

approach it simply as "art" or symbolism, but instead analyze how, like other aspects of technology, the art "worked" for its parent culture as part of an adaptive system (2003:106).

> Both the art and artist perform active roles in the creation, maintenance, and transformation of social relations and religious identities…Produced by members of an egalitarian society within which direct order-giving is considered inappropriate, the rock art was a vehicle through which important information and instruction could be disseminated to the community without threatening autonomy. (2003: 107)

Boyd's detailed study of five rock art panels (41VV124, 696, 612, 83, and 180) finds that important PRS motifs are not evenly distributed across the landscape. Based on the results of this analysis, she states that,

> Rock art may have been used to delineate territories and designate property rights… [Examples include] feather hip cluster in the rock art of Seminole and Painted Canyons, and rabbit-eared anthropomorphs in Rattlesnake Canyon and canyons to the west of the Pecos River… Although more data is needed before this can be empirically tested, it appears that Lower Pecos rock art will provide researchers with the information necessary to determine [these] issues. (2003:112)

This study follows this line of research as a first response to Boyd's call for further spatial analyses.

CHAPTER III

METHODOLOGY

This study is a spatial analysis of six PRS anthropomorph attributes to determine if they are spatially circumscribed within the Lower Pecos Region and thus constitute geographically limited elements. This data was collected as part of the Pecos River Style Iconography Project, which will be discussed in greater detail below. The anthropomorph attributes under study are plume, U head form, rabbit-ears, feather hip cluster, antlers, and ecstatic-scalp. Four of these motifs were recognized by earlier scholars, although not necessarily using this nomenclature. The U head form was first noted by Newcomb, but is discussed most extensively by Solveig Turpin (1994) as part of her "were-cougar theme." Anthropomorphs with rabbit-ears are discussed both by Boyd (1998a) and Turpin (1991, 2004). Newcomb (1976:183) references the feather hip cluster motif as a "sash." Boyd suggested this Seminole Canyon motif as a territorial marker (1998a, 2003). Boyd (1998b) discusses the deer antler motif on PRS anthropomorphs; some of these antlers are illustrated with dots on the ends of their tines, a motif Boyd (1998b) believes represents peyote buttons. Similar antlers continue to be used by Huichol Indians during their yearly peyote pilgrimage (Lemaistre 1996). This document presents two additional motifs termed plume and ecstatic-scalp. Anthropomorphic head forms are a particular

focus of this study.

Iconographic Structural Analysis

The research presented in this thesis will rely partially on the method known as structural analysis, a broad iconographic approach which has roots in the work of Franz Boas (1955), Erwin Panofski (1979 [1939]), Hermann Beyar (1937), and is said by Reilly to be best articulated by the work of Linda Schele (1982; Coe 1992). In the study of the Mayan glyphs,

> structural analyses, revealed patterns that are inherent with the hieroglyphic system itself. A system of substitution was recognized in which different signs substitute for each other in the same context. By establishing the patterns of substitution, new decipherments became possible. (Reilly 2000:25)

Structural analysis involves the recognition of constant salient symbols or motifs inherent in a culturally and temporally bound iconography. Furthermore, structural analysis involves

> the deconstruction of art into identifiable components or elements that convey meaning beyond the (individual) piece of art and that are independent of the work as a whole. When these elements are combined or arranged it is much like forming a sentence. New meaning that transcends the individual elements is transmitted to the observer. This analysis focuses on identifying individual or salient elements. (Dye and Marceaux 2004)

Structural analysis is a general approach. Although primarily a formal

methodology (Taçon and Chippindale 1998), iconographic analysis is combined with ethnographic and ethnohistoric information whenever relevant. A principal step in this approach is the collection and comparative study of a corpus of art items that represent a particular style. What follows is the contextual analysis of particular symbols and motifs as interrelated elements of a greater art style or "symbol system" (Reilly 2000).

For the people of the Lower Pecos during the Middle Archaic period, rock art was an important means for capturing esoteric concepts, ritual or mythological events, and supernatural beings into a tangible material form (Shafer 1986:146). Only rarely in prehistory has such a coherent symbol system become crystallized in the durable medium of rock art. This symbolism would almost certainly have been well understood by the culture that created and "consumed" this imagery, but remains arbitrary to outsiders. However, through rigorous structural analyses of their iconography we can begin to understand certain dimentions of the mental world of prehistoric cultures (Febvre 1973 [1941]). By studying repeated patterns, indigenously relevant categories contained within can be defined and analyzed. It is a challenge to recognize emicly meaningful patterns and not to simply subject the art to one's own perspectives and biases. As a researcher, it is necessary to continually return to the art itself, relying on its inherent patterning and continuity as a guide.

Stuructural analysis is not a methodology that is used to determine whether or not these six anthropomorph attributes are geographically limited. However, the data collected toward this end are well suited to the conduction of structural analyses, and this method of inquiry may provide important insight.

Sample Acquisition

The PRS Iconography Project sample consists of 41 rock shelters containing PRS rock art located across the Lower Pecos region. All of the selected sites are located north of the Rio Grande within U.S. territory; no sites were visited within Mexico due to INAH restrictions (e.g., lack of a permit). During the bulk of the fieldwork, I was housed on the Harrington Ranch near the site of the Shumla School.

There were several principal aims of the sampling methodology. The first goal was to have the largest possible sample size in order to be able to build the largest artistic corpus. The second was to include sites from across the Lower Pecos region representing both the core and periphery of the PRS's distribution, and to match the density of sites found in various regions as much as feasible. One problem with this, however, is that the "core" of the PRS's distribution, the area surrounding Lake Amistad, has been surveyed much more extensively than the surrounding range lands. Unfortunately the reservior also inundated many important sites. Therefore, recorded PRS site density may

not reflect their actual distribution (Dymond 1976:62). Finally, when deciding between two proximal sites for study, in order to avoid ambiguous imagery, the site containing rock art in the more pristine condition was usually recorded.

The sample was built in several ways. First, a list of all the sites of which I had knowledge was made. A list of sites published by Kirkland and Newcomb (1996) and A. T. Jackson (1938) was included. These counts were supplemented greatly by conducting site file research at the Texas Archaeological Research Laboratory (TARL). Previously recorded site forms located at high probability regions along major and minor canyons of the Lower Pecos were pulled in search of the mention of PRS rock art. In the end, a list of 97 potential archaeological sites was compiled from which a final sample could be derived.

For the sake of spatial continuity, sites were visited as much as possible, in order of occurrence along an imaginary arc extending down the Devils River to Lake Amistad, curving northwest through Seminole Canyon and the confluence of the Pecos and Rio Grande rivers and finally splitting the narrow isthmus of land between these two canyons along the Pecos into the northwest. The order in which sites are discussed in Chapter IV reflects their respective positions along this arc.

Once in the field, decisions had to be made about which potential sites would be selected for the final study. Potential rock art sites were rejected for

one of three reasons: (1) inability to acquire landowner permission to visit the location, (2) the paintings are too badly impacted to allow comprehensive study, or (3) the rock art at the site turned out to not be PRS.

Equipment

Primary equipment consisted of an acid-free paper field notebook, a 35mm Canon EOS camera with Kodak 100 vivid saturation slide film, and a 4.0 megapixel Sony Cybershot digital camera.

Pecos River Style Typologies

During pilot research, a series of PRS typologies were produced in order to build a "sign inventory" of common salient symbols and motifs. Typologies are founded on the following "sets of patterns": core motifs, anthropomorph attributes, zoomorphs, enigmatic characters, symbols, petaloid motifs, and sinuous motifs. Of these, the data presented and discussed in this thesis are anthropomorph attributes.

Core Motifs

The imagery at each site visited was broken down into units which I have termed core motifs (Harrison 2003). The expression core motif refers to a series of thematically consistent compositions comprised of multiple interrelated rock

art elements. It is possible to define individual core motifs as salient units of related symbolism. Core motifs are defined structurally, not by the presence of any one symbol, but by the consistent relationship between discrete elements. Core motifs often contain a central figure or figures, which serve as the focal point of the composition. Core motifs are believed to represent painting episodes.

Core motifs are primarily recognizable by the highly consistent themes or scenes which they protray; 17 types have been identified so far. These themes are axiomatic, their structures are very consistent. Core motifs demonstrate rule-bound creativity.

In additon to knowledge of these themes the identification of core motifs also requires first hand examination of the paintings themeselves, with attention to intercomposition attributes such as (1) the standard use of color, (2) replicated stylistic traits, (3) consistent over painting by other figures on the panel, and (4) other idiosyncrasies such as the size of brush used (size of the brush strokes or lines) and various qualities of the pigment.

During the PRS Iconography Project, individual core motifs were defined as empirical units and coded in a numerical manner. By utilizing this platform, it is possible to more precisely pinpoint individual areas of imagery at rock art panels included in this study. Many of the occurrences of anthropomorph attributes presented in this thesis are *part of* a core motif and are identified as

such. Each core motif is assigned a unique label, for example 41VV1969 CM-1. The first part of the core motif number is the Smithsonian trinomial designation for the archaeological site where the motif appears. The trinomial system is used to systematically name archaeological sites as they are recorded. Trinomials consist of three referents: state, county, and a site number assigned by TARL. For example, for trinomial 41VV1969: 41 (Texas is forty-first in the alphabetical listing of states), VV (Val Verde County), and 1969 (site number assigned by TARL as new sites are recorded in this county). The second portion of the core motif designation are the numbers assigned to individual core motifs as they are recognized at a particular rock art site.

Whereas core motifs are by principle numbered in the order in which they are recognized, in practice, during the PRS Iconography Project, rock art galleries were arbitrarily "read" from left to right and core motif numbers were assigned in this same order. For example, at the site Cedar Spring, the fifth core motif recognized (also the fifth from the left margin of the panel) is assigned the unique numerical designation 41VV696 CM-5.

The sizes of the rock art panels included in the PRS Iconography Project vary greatly, and the sample selected included both large and small sites. In order to meaningfully compare the number of occurrences of the anthropomorph attributes at various sites, it is important to take into account the relative size of each site. As quantifiable units of imagery, the number of

core motif counts allows for rough ordinal ranking of the relative sizes of the various rock art sites included in this study. A very small panel may, for example, contain zero to one core motif. The medium-sized site White Shaman panel or 41VV124, contains 12 core motifs. The panel with the largest number of core motifs included in this study is 41VV696 which contains 45 core motifs.

Field Techniques

At each location a general site form was completed (see Appendix A). A great deal of time was spent carefully observing rock art imagery at each site with attention to nuance and detail. The time required to record individual sites varied from 15 minutes to five days. Most imagery was sketched into the field book along with notes. Rock art sketches also allowed the illustration of subtle, faded, or obscured details that did not photograph well. Notes and illustrations were executed following the typologies presented above. Additionally, each site was extensively photographed with slide and digital photography. Slide photographs were taken using information included in the field notebook as a guide. Each panel was photographically dissected based on the system of recognized salient elements discussed above. A separate photographic log was completed for digital photographs (see Appendix A). For database and archival purposes, all images have been assigned a unique number based on the site trinomial at which they occur.

CHAPTER IV
RESULTS OF THE SPATIAL ANALYSIS

Fieldwork for the PRS Iconography Project began January 5, 2003 at the Nature Conservancy's Dolan Falls Preserve on the Devils River with the recording of site 41VV1603. The final site recorded was 41VV770 near the Rio Grande on May 3, 2003. Forty-one sites were recorded during this study (Figure 4.1). The PRS Iconography Project is a visual project; it involved the organized collection and archiving of 1668 slides and 2664 digital images.

Ninety-one occurrences of the six anthropomorph attributes studied in this thesis were identified during the project (Table 4.1). Twenty-nine plume motifs were discovered, along with 64 occurrences of the U head form, 12 rabbit-ears, 10 feather hip cluster motifs, 14 anthropomorphs with antlers, and 12 ecstatic-scalp motifs.

Each occurrence of the six anthropomorph attributes identified during this research will be discussed in this chapter. Individual occurrences of each motif are presented first by motif and secondarily in a spatially ordered manner based on loosely defined subregions: upper Devils River, lower Devils River, Seminole Canyon, lower Pecos River, western Rio Bravo (Rio Grande), and upper Pecos River. Core motif designations are used through this chapter in reference to specific units of imagery within a panel whenever anthropomorph

Table 4.1. Number of Occurrences of the Six Anthropomorph Attributes at Each Site Recorded and the Number of Core Motifs at Each Site. The Numbers of Core Motifs Can Be Used to Compare the Relative Size of Each Rock Art Site.

	Site Trinomial	Common Name	# of Core Motifs	Sub Reg -ion	Pl.	U Hd.	Rb. Ear	Fe. Hip Cl.	Ant.	Es. Sc.
1	41VV1959	Carta Valley Panel	**1**	U D	6					
2	41VV207		**5**	U D						1
3	41VV888	High Country	**3**	U D		1				
4	41VV1603	Brazos Fuerte Annex	**2**	U D						
5	41VV1604	Brazos Fuerte	**17**	U D		1			1	
6	41VV1618	Hueco Shelter	**1**	U D						
7	41VV1350	Cook Candee Site	**1**	U D						
8	41VV696	Cedar Spring	**45**	L D	1	19			3	
9	41VV612	Mystic	**18**	L D		10			2	
10	41VV1230	Halo	**29**	L D	6				1	8
11	41VV1284	Delicado: left panel	**9**	L D		2			1	
12	41VV840	Sunburst	**10**	L D						
13	41VV40	Big Satan Canyon	**19**	L D	1	4	1			
14	41VV18	Curly Tail Panther	**4**	L D		1				
15	41VV79	Hanging Cave	**0**	S C				1		
16	41VV78	Painted Cave: rt. panel	**4**	S C		10				
17	41VV77	Vaquero Shelter	**5**	S C		1	1			
18	41VV76	Black Cave	**12**	S C	1					
19	41VV83	Panther Cave	**39**	S C	3	6		8		
20	41VV74	Fate Bell: left panels	**11**	S C	4			1	2	
21	41VV224	Parida Annex	**16**	L P		3			2	
22	41VV124	White Shaman	**12**	L P					1	
23	41VV129	Casper	**5**	L P						2
24	41VV237	Leaping Panther	**4**	L P		3				
25	41VV134	Kirkland's P.R. Site 14	**12**	L P						1
26	41VV1035		**1**	L P						
27	41VV912	Jennifer's Cave	**5**	L P						
28	41VV62	Kirkland's P.R. Cave 1	**12**	L P	2	1				
29	41VV65	Kirkland's P.R. Cave 2	**6**	L P	1					
30	41VV616		**6**	U P		1				
31	41VV584	Browns Ranch	**11**	U P	1		6			
32	41VV1971	Refugio Shelter	**14**	U P	1		1			
33	41VV530	Lewis Canyon Panel	**2**	U P						
34	41VV770		**4**	WRB						
35	41VV225	Langtry Bend Shelter	**2**	WRB		1				
36	41VV286		**3**	WRB					1	
37	41VV165	Kelly Cave	**9**	WRB						
38	41VV167	Eagle Cave	**3**	WRB			3			
39	41VV1970	Harkell Canyon Hole	**2**	U P						
40	41VV242	French Ingram Shel. #2	**14**	U P	2					
41	41TE309	Arch of Felines	**2**	U P						
			Totals:		29	64	12	10	14	12

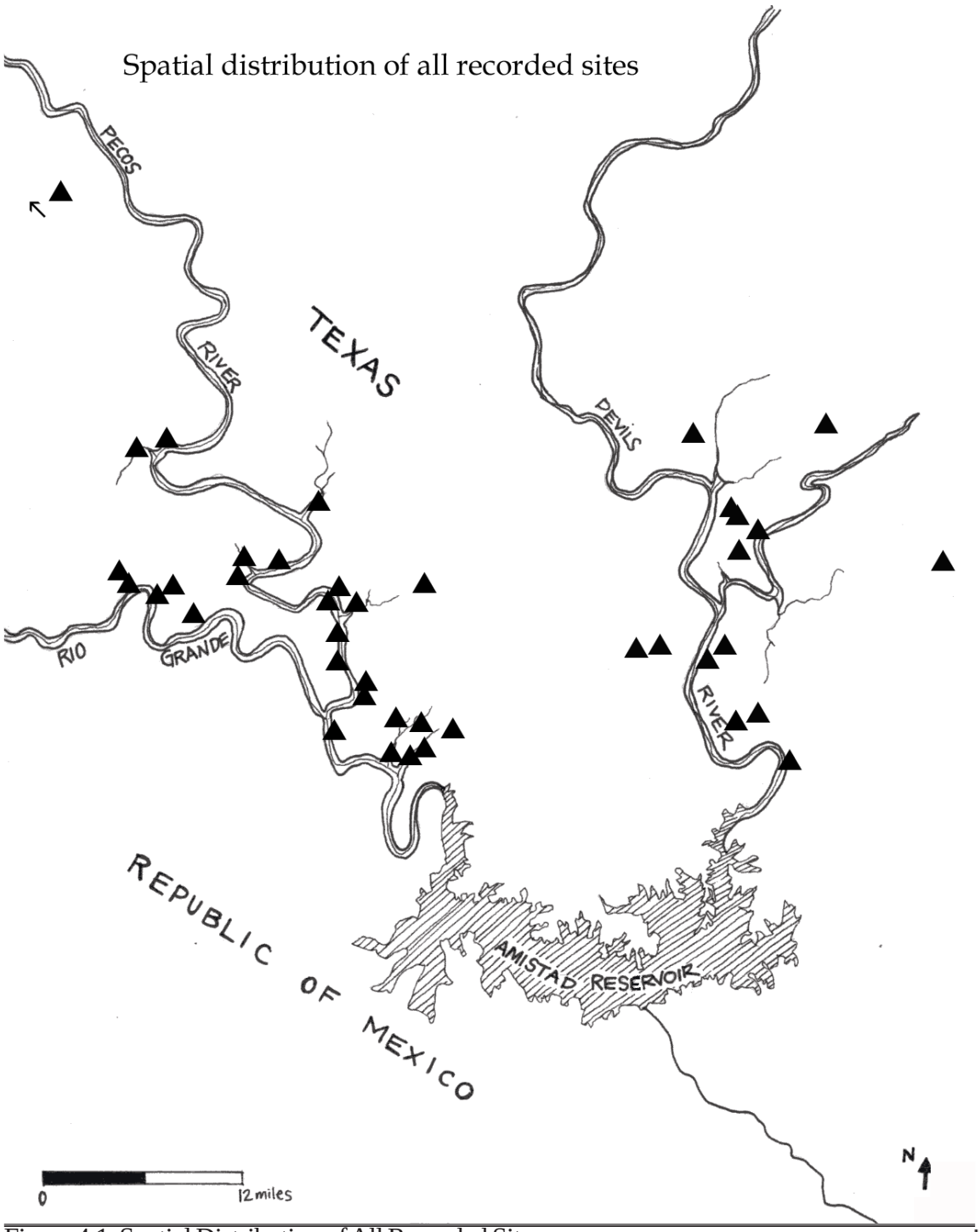


Figure 4.1. Spatial Distribution of All Recorded Sites

attributes occur as *part of* these units. These core motif designations consist of two parts, site trinomial and number assigned to the core motif.

Plume Head Form

The plume has a wide spread spatial distribution throughout the Lower Pecos Region (see figure page 47). The plume motif is found at four sites on the Devils River: 41VV1959, 41VV696, 41VV1230, and 41VV40; at three sites in Seminole Canyon: 41VV76, 41VV83, and 41VV74; and at five sites on the Pecos River: 41VV62, 41VV65, 41VV584, 41VV1971, and 41VV242.

Upper Devils River

The rock shelter 41VV1959 on Red Bluff Creek, the easternmost recorded PRS site, contains a striking example of the plume head form. Six trichrome, squat anthropomorphs are adorned with plumes equaling nearly the length of their bodies.

Lower Devils River

Cedar Spring Shelter has one example of the plume motif on the large and faded 41VV696 CM-2. The largest number of occurrences of plume motifs at the studied sites is at Halo Shelter, 41VV1230, located on the Devils River. Six anthropomorphs are depicted with plumes at this site: (1) an extremely

elongated needle-like anthropomorph found among a grouping of other anthropomorphs near the left margin of the wall, (2) A pristine maroon and grey anthropomorph, (3) a large brush-like plume on the well-preserved 41VV1230 CM-11, (this anthropomorph also has an ecstatic scalp), (4) an unusual plume form is found on the central figure of 41VV1230 CM-21, (5) a simplified anthropomorphic form with a corona of brush strokes, the central figure of the very faint 41VV1230 CM-24, (6) a stout red and black anthropomorph near the right margin of the panel. Case number six is perhaps the most interesting-an anthropomorph illustrated with a distinct thin plume. Situated at arm's length on each side are spear motifs which are uniquely portrayed with lateral upturned fringes in a manner which copies the figure's plume head.

The composition recorded as 41VV40 CM-6 is the southernmost example from the Devils River. In this illustration, a tilted plume motif tops a tiny head set in sunken shoulders. This large painting was done in red, black, and yellow pigments.

Seminole Canyon

At the site of Black Cave, 41VV76, in Pressa Canyon an inconspicuous rotund anthropomorph bears the plume head form. The large rock shelter known as Panther Cave (41VV83) contains three examples of the plume motif, all on the rightmost portion when facing the wall, of the main shelter. The first

example is a very simple plume found on a composite semihuman character. The second is a distinct black plume motif on a brilliant yellow and black anthropomorph. This figure has a distinct black plume. The third is found on a monumental red anthropomorph just to the right.

Four diminutive examples of the plume motif are found at Fate Bell Shelter (41VV74) near the headquarters of Seminole Canyon State Park. Both pairs of examples are adjacent to one another and both have been illustrated in a very similar style: small, fairly expedient and in red pigment. Core motif 41VV74 CM-10 is a simple anthropomorphic form with fringes with three smaller anthropomorphs on each lateral margin. Whereas some of these smaller anthropomorphs exhibit what is clearly ecstatic hair (Turpin 1991), others, especially the upper rightmost figure, exhibit clear plumes. The central figure of this core motif seems to have a minimal, yet deliberate, plume. Both of the fluid, arching anthropomorphs in the flight metaphor (Turpin 1984) recorded as 41VV74 CM-11 have distinct plumes.

Lower Pecos River

Several other examples of the plume motif were identifed at sites along the Pecos River canyon system. There are two plume motifs at 41VV62. The first is associated with 41VV62 CM-1 and the second is on an anthropomorph near the center of the panel. Site 41VV65 contains one example of this head

form. This very simple and small version of the plume is on a red anthropomorph near the right-hand margin of the panel. In Painted Canyon, west of the Pecos River near Shumla Bend, an example of the plume motif is part of the badly eroded 41VV584 CM-1, a composition which may represent a flight metaphor (Turpin 1994b). Refugio (41VV1971), a site recorded during this study, contains an unusual, multistemmed example of this motif occurring on an impaled black and red anthropomorph.

Upper Pecos River

The French Ingram Shelter (41VV242) contains two occurrences as part of 41VV242 CM-12. This composition depicts three horizontal anthropomorphs in black, outlined in red, flanked by spears. At least two of these anthropomorphs are illustrated with bold red plumes which are tilted (Figures 4.2 and 4.3).

Supplemental Information

Other than at the 41 sites included in this study plumes are also known to occur at Rattlesnake Canyon, 41VV180 (Boyd 2003), and at several sites in the *Sierranas el Burro* of Coahuila, Mexico (Saythe r 1997b).

Figure 4.2. Plumes

Figure 4.2. Continued

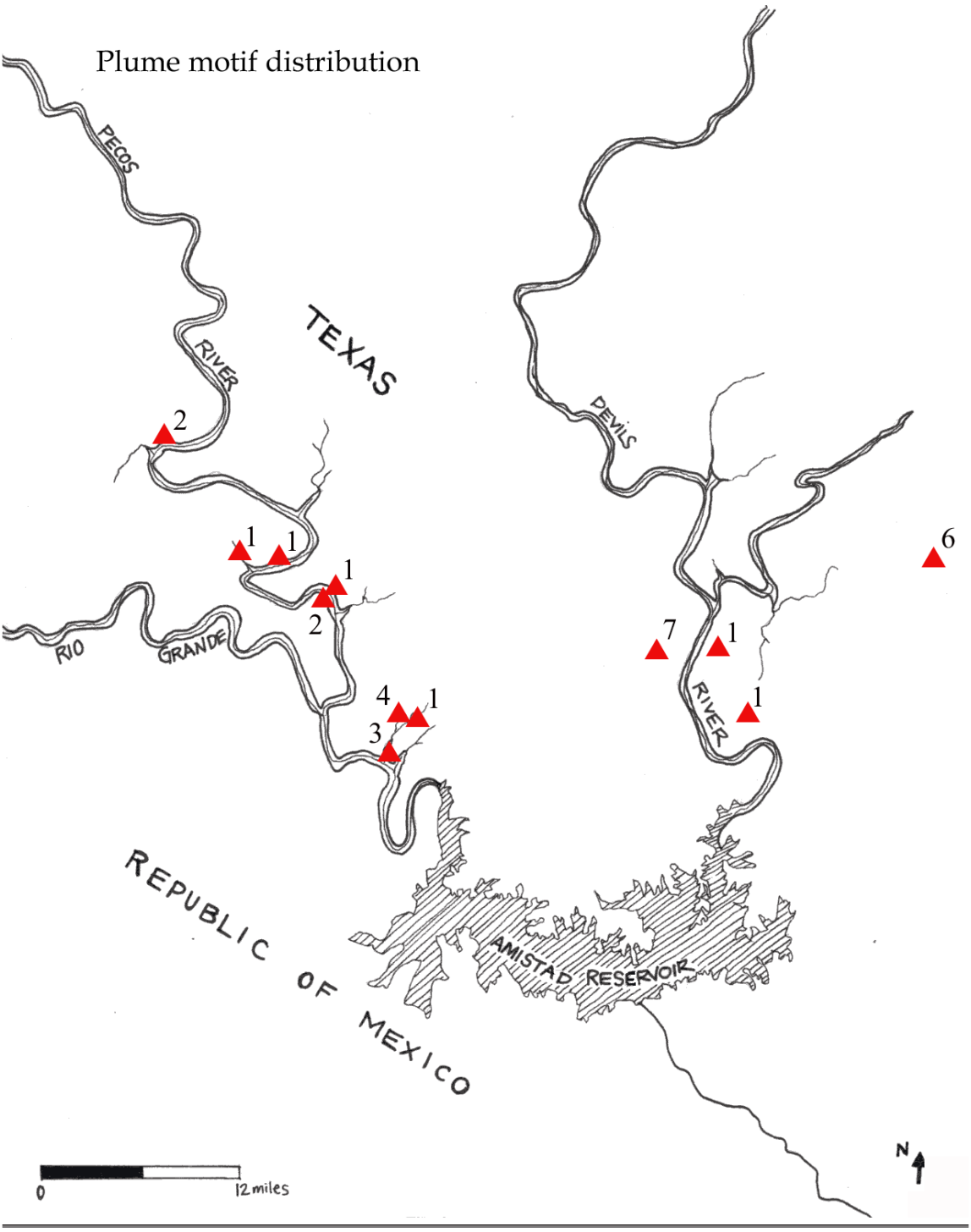


Figure 4.3. Spatial Distribution of Plumes

U Head Form

The U head form is the most widespread of all the anthropomorph attributes included in this study (see figure on page 56). Seven sites on the Devils River have anthropomorphs with U heads: 41VV888, 41VV1604, 41VV696, 41VV612, 41VV1248, 41VV40, and 41VV18. In the Seminole Canyon area, three sites contain occurrences of the U head form: 41VV78, 41VV77, and 41VV83. Parida Annex Shelter, 41VV187, on the Rio Grande contains three occurrences of the U head form. Three Pecos River sites, 41VV237, 41VV62, and 41VV616, have U head forms. Langtry Bend Shelter, 41VV225, also contains a U head form motif.

Upper Devils River

One occurrence of the U head form can be found at the amazingly well preserved High Country site, 41VV888, in the Devils River State Natural Area. An expedient light red anthropomorph here includes this motif. A few kilometers away, the much larger rock art site Brazos Fuerte, 41VV1604, also has one example of the U head form. Here 41VV1604 CM-5 contains a small yellow anthropomorph with a U head motif.

Lower Devils River

Many rugged canyons downstream from Brazos Fuerte, the Devils River's largest rock art site, Cedar Spring, contains 19 occurrences of the U head form. Occasionally PRS anthropomorphs are depicted simply as a floating head and torso. The first occurrence of the U head form. 41VV696 CM-11 is such a figure. The second occurs on the central figure of 41VV696 CM-16, an anthropomorph surrounded by comb symbols. The third, part of 41VV696 CM-18, occurs just to the right. This red, black, and yellow anthropomorph is surrounded by Y symbols and spattering. Like the previous example this U head form motif is illustrated with tufts on the tops of the "ears". The fourth, 41VV696 CM-25, is another torso-form anthropomorph.

The fifth case of the U head form at Cedar Spring lies partially underneath the preceding example. This, the multifarious 41VV696 CM-26, is a masterwork of symmetry. This black and yellow composition contains 13 cases of the U head form. The center of this motif consists of six anthropomorphs; a pair of outline yellow anthropomorphs above and a single anthropomorph on each lateral side. Two solid black, yellow outlined anthropomorphs face downward and are over-painted by the solid red 41VV696 CM-25. Radiating outward from these six central anthropomorphs are four sinuous and three straight lines terminating with small U head form anthropomorphic torsos. The sixth occurrence of the U head form at Cedar Spring is very similar to that of the

preceding example. 41VV696 CM-38 depicts a red U symbol surrounded by single pole ladder symbols crossing a black and red inverted arch which terminates on each side in a U head form anthropomorph.

Mystic Shelter contains ten occurrences of the U head form. The first four are part of 41VV612 CM-3. 41VV612 CM-9 is a hole in the universe theme motif that contains a series of six diminutive U head form anthropomorphs below a large central figure placed in a bounded field of red and black dots.

Elsewhere on the Devils River at the Delicado Shelter 41VV1284 CM-5 there are two small red anthropomorphs with U heads. The site known as Big Satan Canyon, 41VV40, has four examples of U head forms. The first two occur in 41VV40 CM-3, a composition involving two elongated anthropomorphs and an impaled sinuous being. A pair of torso-form anthropomorphs, 41VV40 CM-13, with typical U heads is the second example at this rock shelter.

On a high bluff the prominent Curly Tail Panther site overlooks the clear Devils River several hundred feet below. Though not illustrated at the scale of this site's most famous imagery, 41VV18 does host one U head form, on an orange and grey anthropomorph.

Seminole Canyon

Painted Cave, 41VV78, hosts 10 cases of the U head form. The first nine examples are on the very faint, complex 41VV78 CM-2, which depicts a host of

nine diminutive flying anthropomorphs with U heads. The next example is a red outline life-size anthropomorph, part of 41VV78 CM-3. Located one canyon to the west, Vaquero Shelter's 41VV77 CM-5 has two U head forms that are difficult to see.

At Seminole Canyon's confluence lies Panther Cave, 41VV83, at which six occurrences of the U head form can be discerned. The first is on a small red anthropomorph located within a complex of other imagery near the left-hand margin of the panel. The second is part of 41VV83 CM-8, a well known image used as Seminole Canyon State Park's logo, and this anthropomorph is believed to possess a U head form shown in three-quarter profile and tilted back is an artistic convention depicting a twisted, upturned face. The third 41VV83 CM-23, depicts an abstracted U head form. This core motif is one of the better examples of a stylistic convention seen occasionally in the PRS involving the use of negative space. Particular elements of such compositions are omitted in places where the rock is not painted. Knowledge of consistent forms found in the art allows a researcher to recognize the complex pattern intended by the artist. 41VV83 CM-23 depicts a frontal anthropomorph in red pigment. The lateral sides of the head and upper arms are left unpainted; only the interior margin of the U head form is depicted. The fourth example, part of 41VV83 CM-25, is found on a simple red frontally postured anthropomorph. The fifth is found as part of 41VV83 CM-33, a figure described by Turpin as the "Were-

Cougar of Panther Cave" (1994a). The sixth is found in the smaller rock shelter located to the right of the Panther Cave high fence, 41VV83 CM-39, seems to be a coarse imitation of the aformentioned 41VV83 CM-33. Both left-leaning figures display similar U form heads and blank faces.

Lower Pecos River

Parida Annex, 41VV187, contains three occurrences of the U head form. At this rock shelter, 41VV187 CM-4 contains several small yellow and red anthropomorphic figures with what appears to be U head forms in context with single pole ladder symbols.

Leaping Panther's 41VV237 CM-1 is a very important example of the U head form, another example of Turpin's Were-Cougar (1994a). While the central anthropomorph in this important core motif clearly has "ears" similar to the two surrounding cougars this "pointy" example of the U head form is atypical. A second example is part of 41VV237 CM-4, an example similar to the first example from Panther Cave.

Upper Pecos River

Not far from the Pecos River's Painted Canyon is 41VV616, a little-knownyet important PRS site. Here a diminutive "red linear" anthropomorph, part of 41VV616 CM-5, has a distinct U head.

Western Rio Bravo

To the west on the Rio Grande Langtry Bend Shelter, 41VV225, has an interesting example of the U head form. This occurrence involves a yellow anthropomorph with a U head motif accentuated with a dark red U symbol centrastyle element (Figures 4.4 and 4.5).

Supplemental Information

The U head form is also found at the site La Babia in the *Sierranas el Burro* (Turpin 1989).

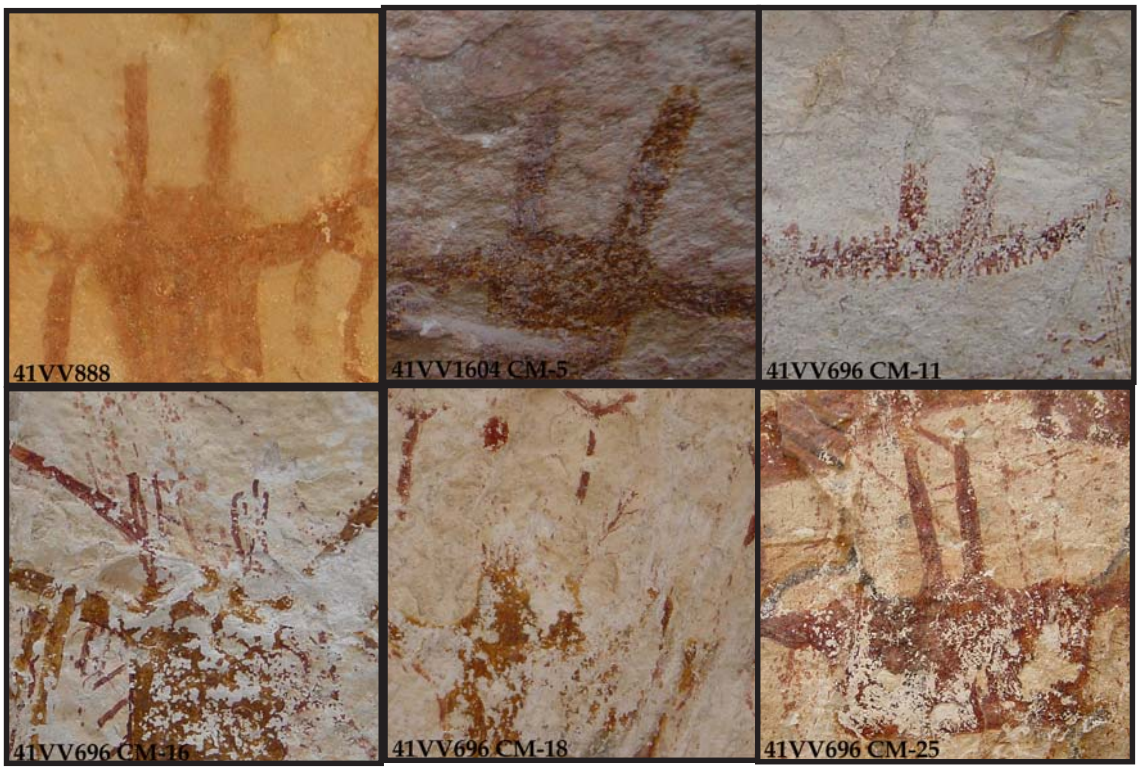


Figure 4.4. U Head Forms

Figure 4.4. Continued

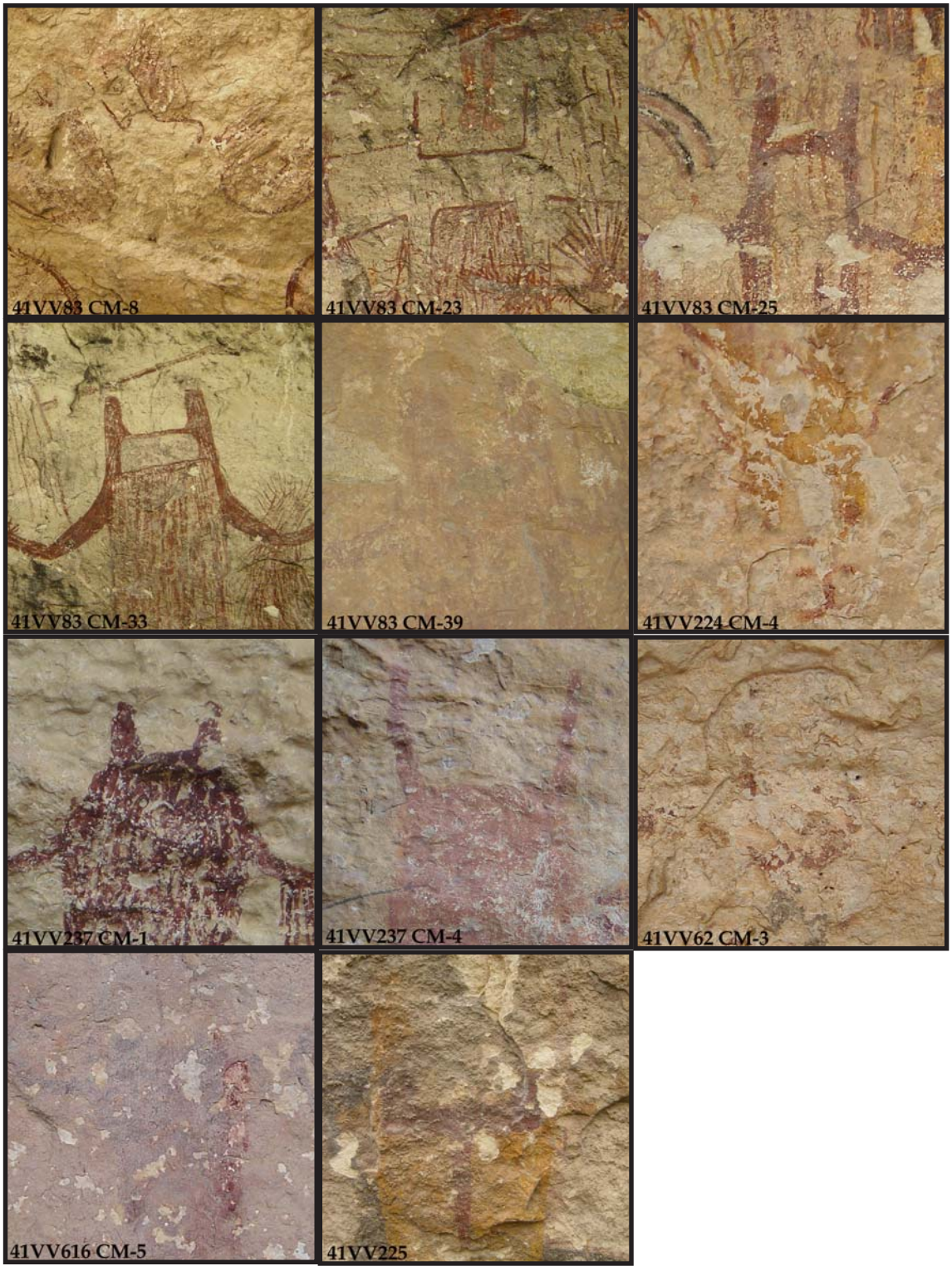


Figure 4.4. Continued

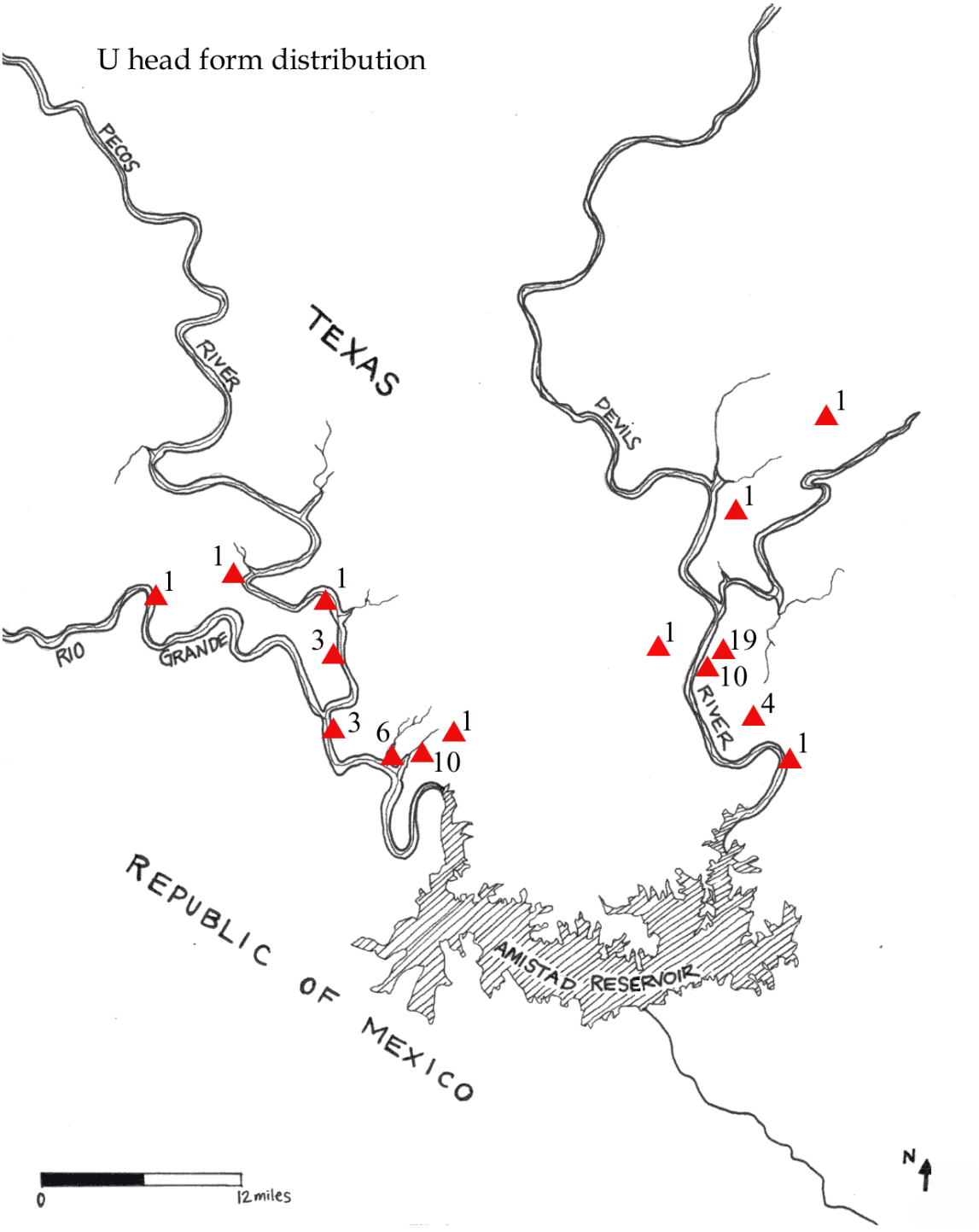


Figure 4.5. Spatial Distribution of U Head Forms

Rabbit-ears

Least frequent of all the anthropomorph attributes included in this study, the rabbit-ears motif, has a widespread spatial distribution (see figures page 64). One rabbit-ear motif was recorded on the Devils River in Big Satan Canyon, 41VV40. One occurrence was also noted in Seminole Canyon at Vaquero Shelter, 41VV77. Multiple rabbit-ears motif occurrences were recorded along the Pecos River at 41VV584, Browns Ranch, as well as the newly recorded Refugio Shelter, 41VV1971. Rabbit-ears are found near Langtry in Mile Canyon's Eagle Cave, 41VV167.

Lower Devils River

The sole rabbit-ears motif documented in the Devils River basin occurs as part of Big Satan Canyon's 41VV40 CM-7. This large composition consists of a black and yellow anthropomorph with rabbit-ears as well as a bold single pole ladder symbol centrastyle element. This figure is surrounded by a field of spears and brush strokes composed of red pigment.

Seminole Canyon

Seminole Canyon also contains one occurrence of the rabbit-ears motif at the Vaquero Shelter, 41VV77. This single rabbit-ear form occurs on a red anthropomorph near the right-hand margin of the panel.

Lower Pecos River

Two occurrences of the rabbit-ears motif were located at rock art sites in the vicinity of Painted Canyon on the Pecos River. The site known as Browns Ranch contains six occurrences of the single rabbit-ear motif as part of 41VV584 CM-8. This elaborate core motif is composed of an upper and lower register of anthropomorphic figures, each with a subtle yet distinct central figure. Eighteen individuals are currently visible; however, one figure is most likely obscured by a black streak. Therefore the original count was probably 19, 10 in the upper register and 9 in the lower. The whole composition is framed below by a long sinuous line. Six figures in the upper left-hand quadrant of this core motif 'including the central figure' contain the rabbit-ears head form. In the case of this core motif, which probably contains more members than any other, numeric counts of figures seems to have been intentionally emphasized toward some unknown end. For example, the upper left-hand series, those with rabbit-ears, contains five figures as opposed to the others which each contain four. This fractures the expected bilateral symmetry that would otherwise be present in this motif. Other characteristics such as alternate body forms seem to designate other subseries.

An additional example of the rabbit-ears motif found several miles to the north was recorded at 41VV1971 in the Pecos River canyon. One trichrome figure, faded yet visible, contains a single rabbit-ear.

Western Rio Bravo

The largest number of rabbit-ears motifs are found along the Rio Grande near the village of Langtry in Mile Canyon. The large habitation shelter known as Eagle Cave, 41VV167, contains three examples of this motif. The black monochrome 41VV167 CM-1 contains the first such example. Just to the right of this image is the striking 41VV167 CM-2 that also contains the rabbit-ears head form on its central figure. This beautiful red, black and yellow anthropomorph possesses a clear single rabbit-ear while in place of the second sinuous lines have been added. A third case just to the right also has a single ear along with sinuous lines. This much more expedient figure may indeed be imitative of 41VV167 CM-2.

Supplemental Information

In order to supplement this data it is important to mention additional occurrences of the rabbit-ears motif that were not at the forty 43 sites recorded in this study. Along the Devils River two additional rabbit-ears are found in Big Satan Canyon. One unique rabbit-ears like head form is found on an anthropomorph at 41VV961, a habitation rock shelter on Little Satan Canyon. This occurrence has a classic two-lobed form of rabbit-ears with six "tines" which resemble antlers. This head form seems to be an amalgamation of the rabbit-ears and antlers motifs. One additional rabbit-ears motif is known to

occur in Pressa Canyon, a tributary of Seminole Canyon (Kirkland and Newcomb 1996:68 [plate 29 no. 3]). Additional rabbit-ears motifs exist on the Pecos River near Painted Canyon at the sites 41VV595, 41VV576, and 41VV943.

Unfortunately, the large and important rock shelter Rattlesnake Canyon could not be included in this study due to access issues. This site is known to contain 17 examples of the rabbit-ears motif, by far the greatest number at any one site (Boyd 1998, 2003). The rabbit-ears motif is depicted very prevalently at this site (Boyd 2003:plate 1). A total of 17 anthropomorphs with rabbit-ears are found at Rattlesnake Canyon (Boyd 1998a:75). Rabbit-ears are also known to occur at several sites in Mexico, where they are said to be prevalent at the rock shelter Abrigo Diego (Zintgraff and Turpin 1991: 30) (Figures 4.6, 4.7 and 4.8).

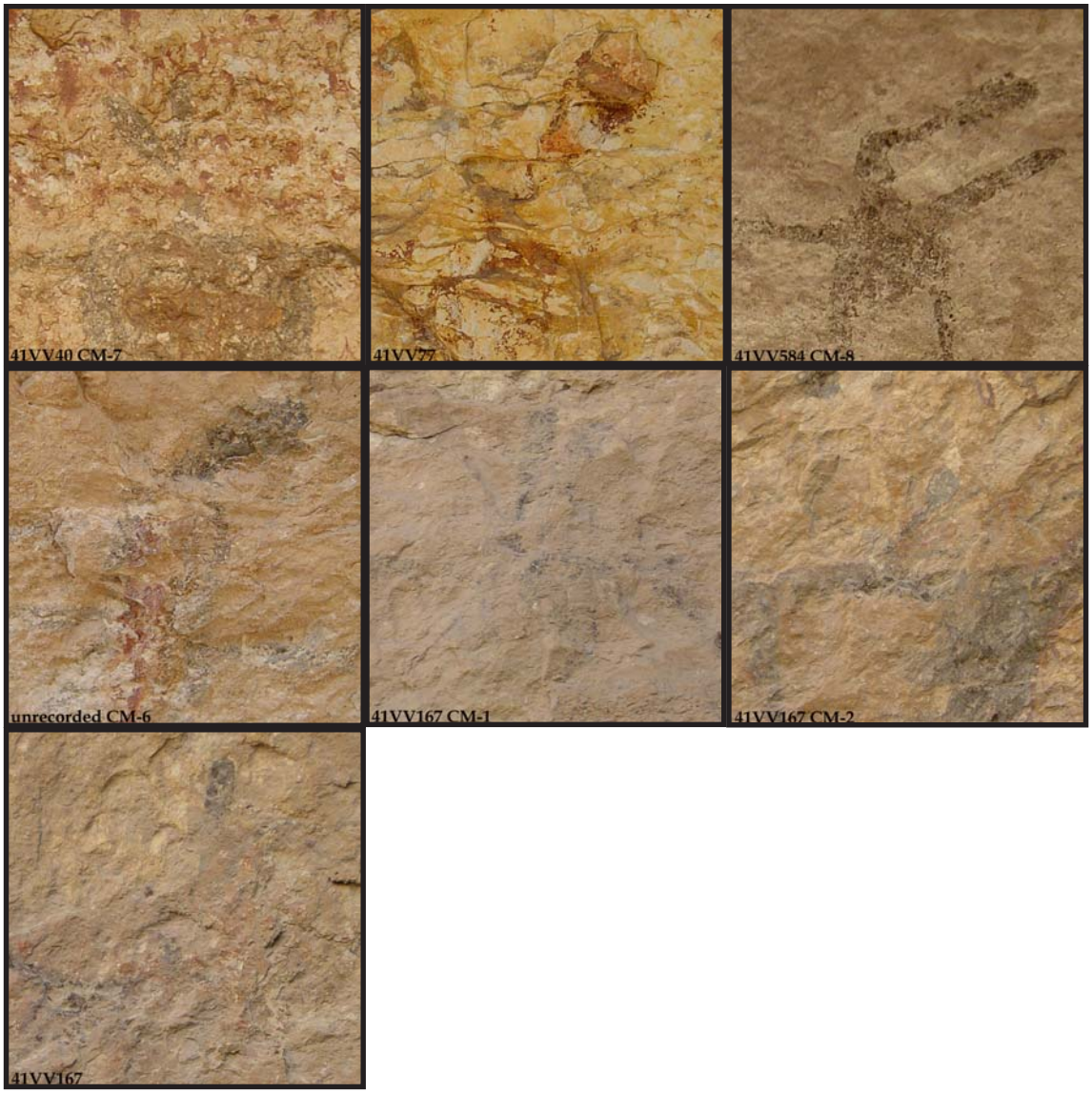


Figure 4.6. Rabbit-ears

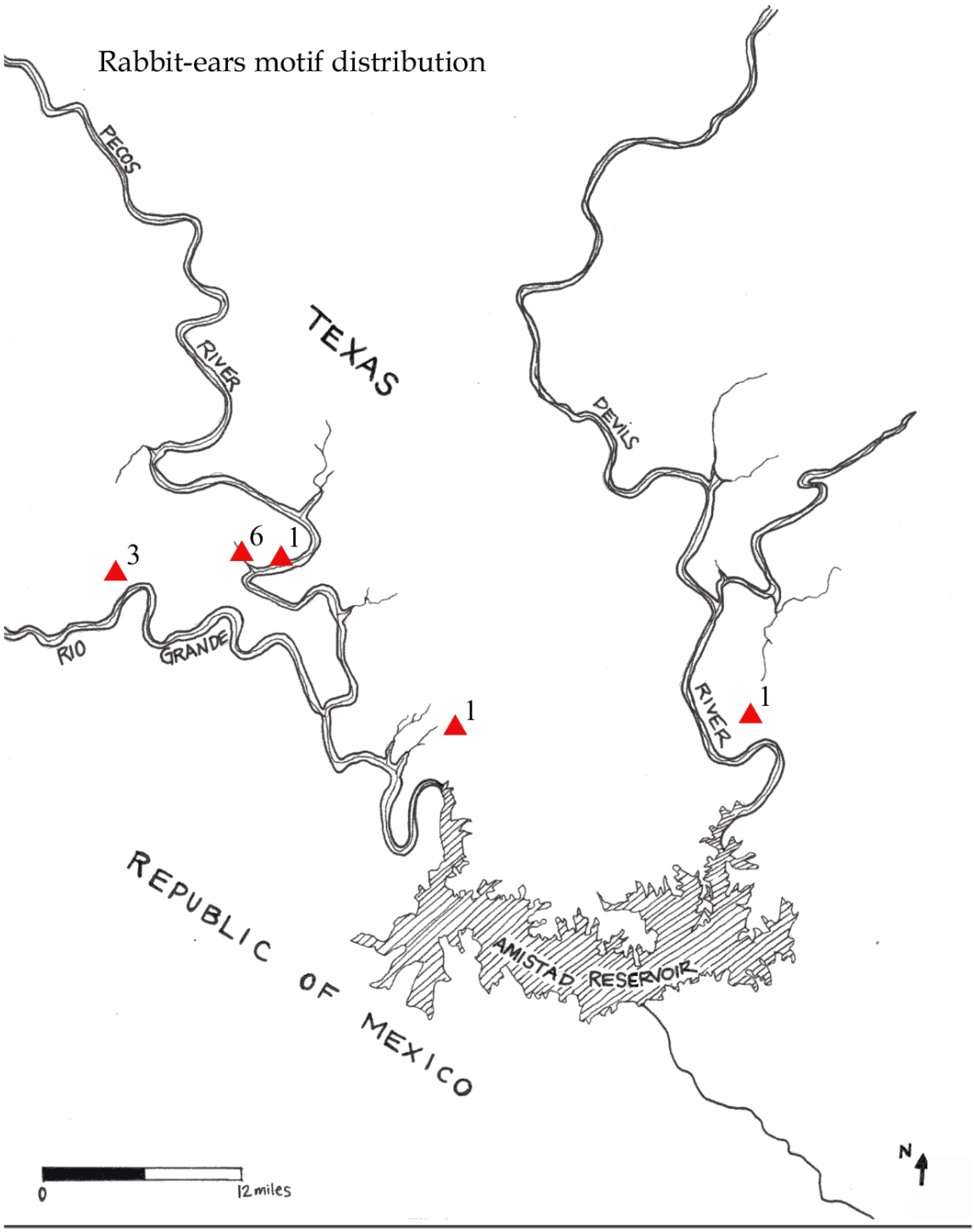


Figure 4.7. Spatial Distribution of Rabbit-ears

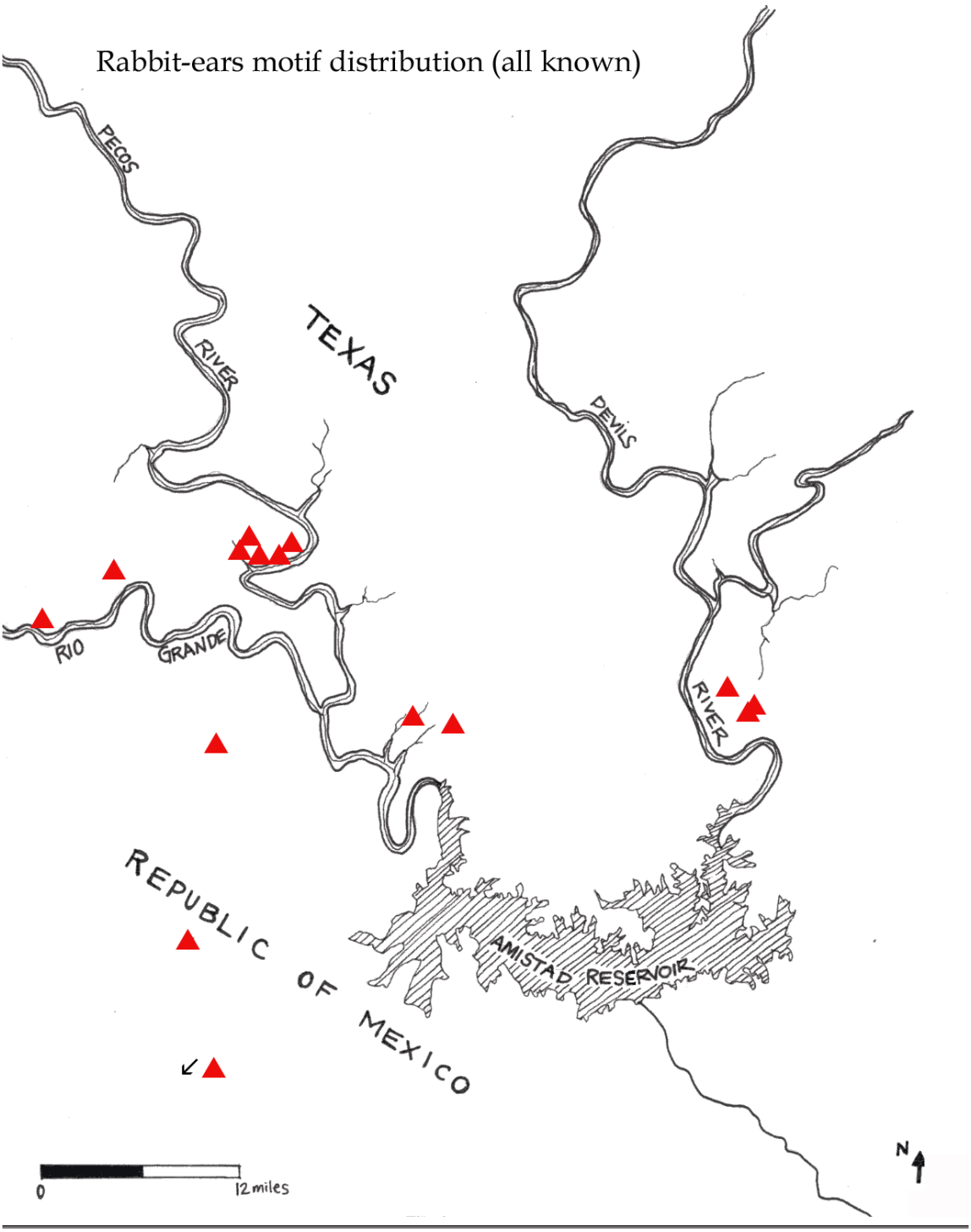


Figure 4.8. Spatial Distribution of All Known Rabbit-ears

Feather Hip Cluster

The feather hip cluster motif has a limited geographic distribution. This motif is found at two sites in Seminole Canyon, 41VV83 and 41VV74, and the site known as Hanging Cave deep in the neighboring Painted Canyon. The feather hip cluster motif was not identified at any other site during the Pecos River Style Iconography Project. This motif is limited to the immediate Seminole Canyon area (see figures page 70).

Seminole Canyon

Nearly inaccessible in the deep and winding recesses of the Rio Grande's Painted Canyon is Hanging Cave, 41VV79. This rock shelter contains a single stylistically unusual PRS anthropomorph. This solitary figure is explicitly illustrated with a feather hip cluster motif.

Eight of the 10 known occurrences of the feather hip cluster motif occur at the large and over-painted Panther Cave, 41VV83. This site is located at the confluence of Seminole Canyon and the Rio Grande. A simple linear form of the feather hip cluster occurs on a red headless anthropomorph not far from the left-hand margin of the cave shelter. The following seven occurrences of the feather hip cluster occur on the rightmost panel in the cave proper. The second is a large anthropomorph with upward bent arms and a rounded head which faces leftward. Extending downward from this figure's underarm is a sinuous line

terminating in a feather hip cluster motif that all appear to be associated. The third occurs as part of the abstract 41VV83 CM-23. As discussed above in the case of the U head form the outline of this anthropomorph is not illustrated due to the artist's use of negative space. Two sets of medicine bundles, as well as a feather hip cluster motif seem to float in space, in their expected positions. This feather hip cluster is partially broken by a large spall. The fourth is on a large red anthropomorph to the right, part of 41VV83 CM-26. The fifth is an amazingly well preserved yellow and black anthropomorph, also with a plume head form and a distinctive red feather hip cluster. This motif clearly over-paints the underlying yellow figure. The sixth is located just to the right of the previously mentioned example on a greater than life-size red anthropomorph. This example, like the first and the seventh occurrence, includes a band around the figure's waist. The seventh, just to the right as part of 41VV83 CM-31, is a fat red anthropomorph depicted with a feather hip cluster. The final example at Panther Cave is part of 41VV83 CM-33, Turpin's example of a typical were-cougar shaman. This example also has a band around the anthropomorph's waist.

Fate Bell, 41VV74, is a large habitation shelter located just a few miles up Seminole Canyon from Panther Cave; it contains a single example of the feather hip cluster. The faded right-hand panel of the main rock shelter includes what was probably at one time a black anthropomorph illustrated with a burgundy feather hip cluster. Like the rest of the imagery on this panel, this figure represents some of the largest PRS paintings found at any site. This approximaly 6 meters tall figure is now faded, but at the time of its production this anthropomorph would have been large enough, and its position on the canyon wall prevalent enough, to have been seen from a relatively long distance away. Any pedestrian traveling down Seminole Canyon from the north would have been confronted by this figure (Figures 4.9 and 4.10).

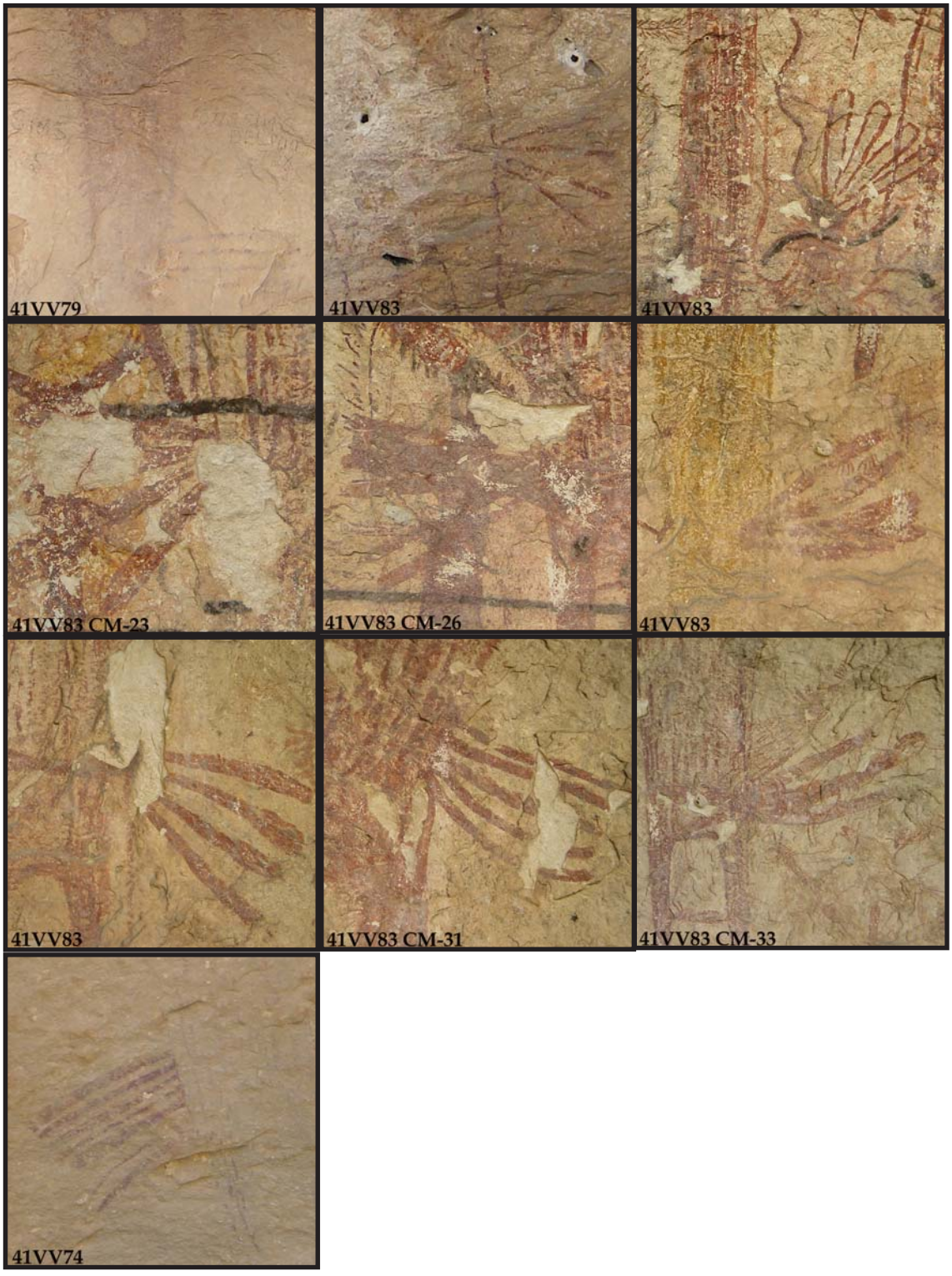


Figure 4.9. Feather Hip Clusters

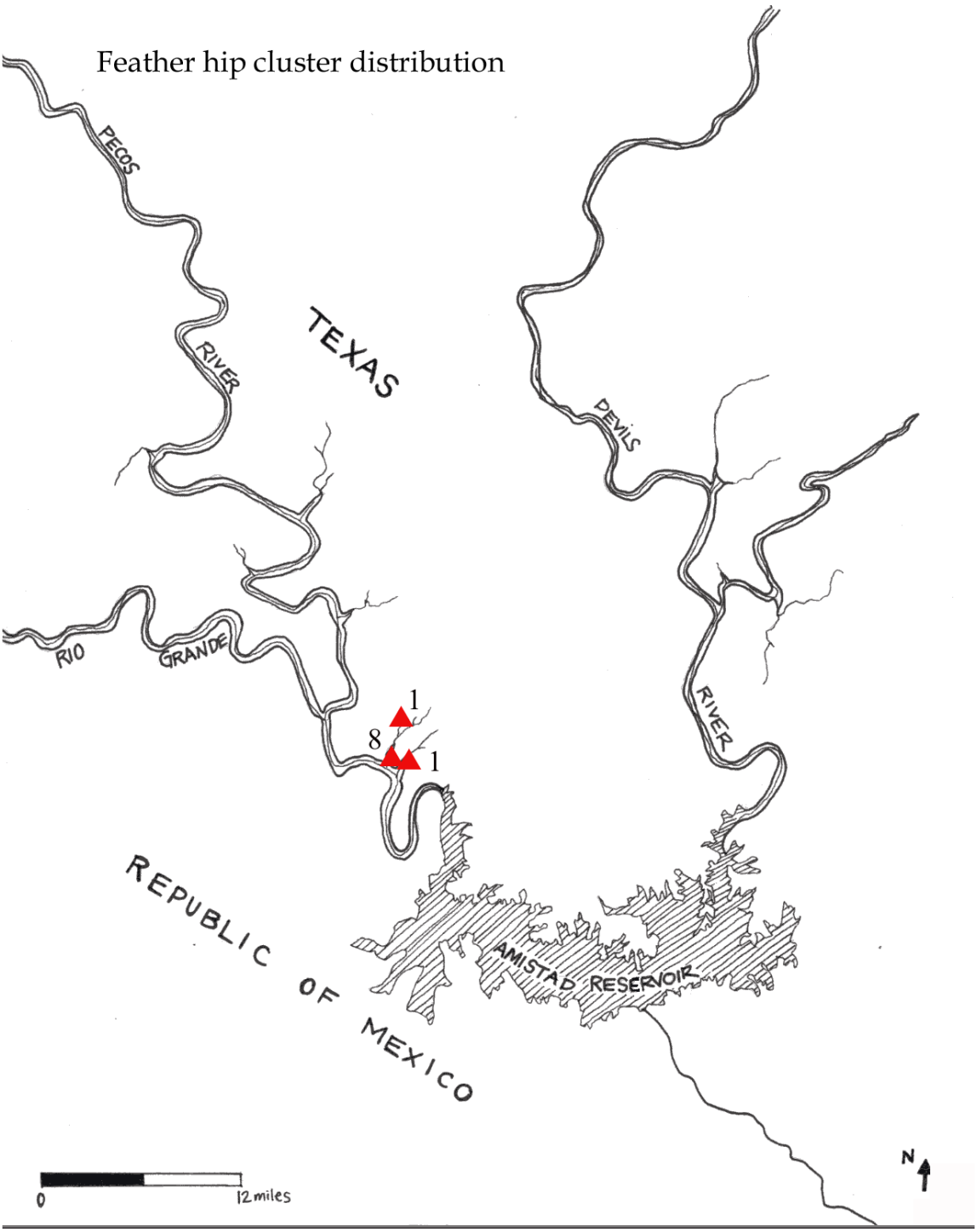


Figure 4.10. Spatial Distribution of Feather Hip Clusters

Antlers Head Form

Anthropomorphs with antlers are fairly widespread (see figures page 76). The majority are found on the Devils River at sites 41VV1604, 41VV696, 41VV612, 41VV1230, and 41VV1284. Antlers occur at Fate Bell Shelter, 41VV74, in Seminole Canyon. White Shaman and Parida Annex rock shelters, 41VV124 and 41VV187 respectively, located near the mouth of the Pecos River, also contain occurrences of antlers. One occurence of the antlers motif is found at 41VV286 near Langtry.

Upper Devils River

The first example of the antlers head form occurs at Brazos Fuerte, 41VV1604, on the upper Devils River. Unusual jaw-like antlers occur on a bullet-shaped anthropomorph. This figure demonstrates bilateral symmetry; one half of the body filled with sinuous lines, the other dots.

Lower Devils River

The large site Cedar Spring contains three examples of antlers. 41VV696 CM-20, is the first occurrence at Cedar Spring. Similar to the rest of this composition, these antlers are trichrome (red, black, and yellow). This anthropomorph is shown in profile. The highly complex 41VV696 CM-29 contains a very large pair of elk-like antlers. These antlers are located on a

central anthropomorph surrounded by a field of impaled single pole ladder symbols, impaled felines and spatter marks, completed with an impaled antlered feline. The remarkable 41VV696 CM-32 contains an occurrence of antlers with dots. This composition was produced in red, grey, yellow, and white pigments.

Two examples of antlers can be found at Mystic Shelter, 41VV612, located just downstream from Cedar Spring. The first example is part of core motif 41VV612 CM-10. This anthropomorph is also surrounded, albeit very differently from the aformentioned 41VV696 CM-29, by single pole ladder symbols. The second occurrence, 41VV612 CM-18, is very dim. While most of this anthropomorph's body is obscured by spalling and a water streak, an arm and head with thin antlers remains visible.

On the western banks of the Devils River, Halo Shelter, 41VV1230, contains an example of the antlers motif. Like the two described above, 41VV1230 CM-13 contains single pole ladder symbols in multiple contexts. The central anthropomorph has deer antlers with dots and is associated with impaled dot symbols. This composition employs the use of negative space and asymmetrical centrastyling.

Located close by in Dark Canyon is the enigmatic Delicado Shelter, 41VV1284. Antlers occur on an exquisite fine-line anthropomorph here. This small figure exhibits alternating line lateral body margins, a characteristic

typical of Halo Shelter.

Seminole Canyon

Fate Bell Shelter has two occurrences of antlers. Both illustrate particularly similar forms. The first example at Fate Bell, the well-preserved 41VV74 CM-4, is red, grey, orange, and pale gold. The second example is on the shelter's deepest wall. This cruder example is red and yellow.

Lower Pecos River

Parida Annex, 41VV187, contains two examples of the antlers head form. The first occurence at this site, an ovate red anthropomorph, demonstrates an unusual pair of antlers. Second is the diminutive 41VV187 CM-13; in addition to antlers, this figure is also surrounded by two pairs of antler symbols. This unique anthropomorph's body is expanded outward in the form of sinuous lines; inside are located single pole ladder and dot symbols.

One of the most strikingly beautiful cases of the antler head form occurs at the White Shaman panel as part of 41VV124 CM-2. This trichrome, detailed hole in the universe motif (Turpin 1994b) includes a small anthropomorph crowned by a tiny pair of antlers with dots.

Western Rio Bravo

In a low shelter in an unnamed tributary downstream from Mile Canyon on the Rio Grande is a small rock art panel which contains an example of antlers. This occurrence, part of 41VV286 CM-1, shares the same traits as the occurrences of antlers at Fate Bell, 41VV74, discussed above (Figures 4.11 and 4.12).

Figure 4.11. Antlers

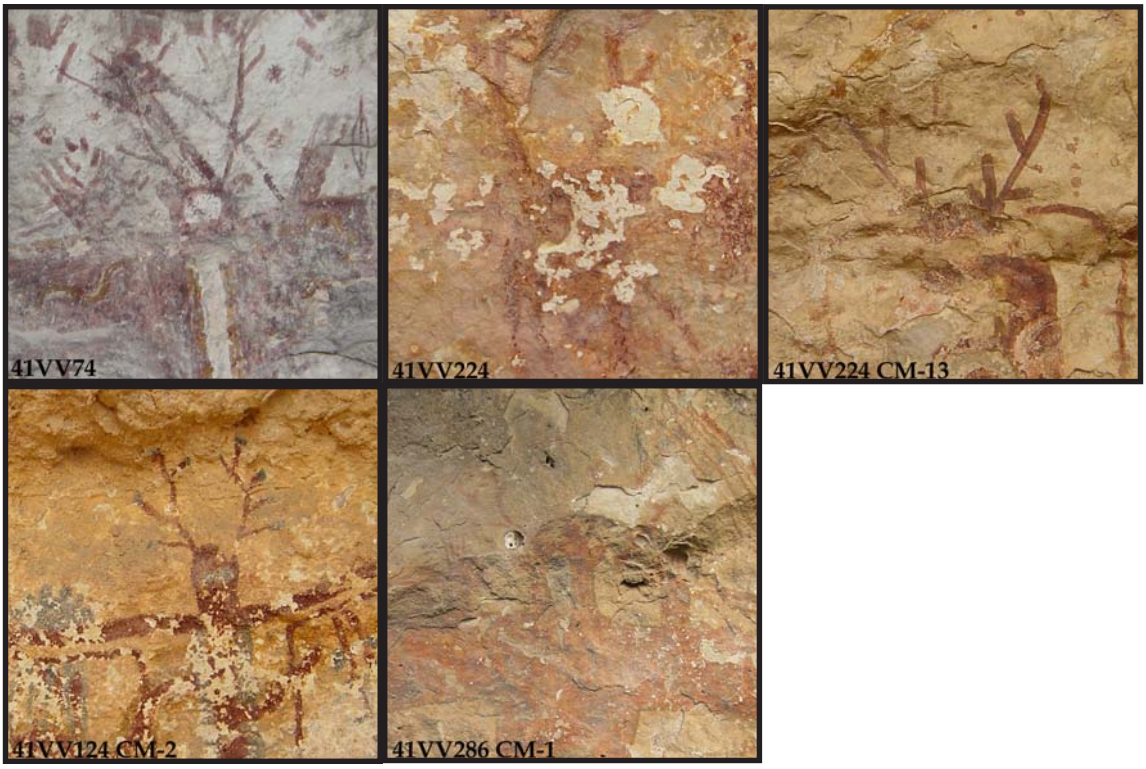


Figure 4.11. Continued

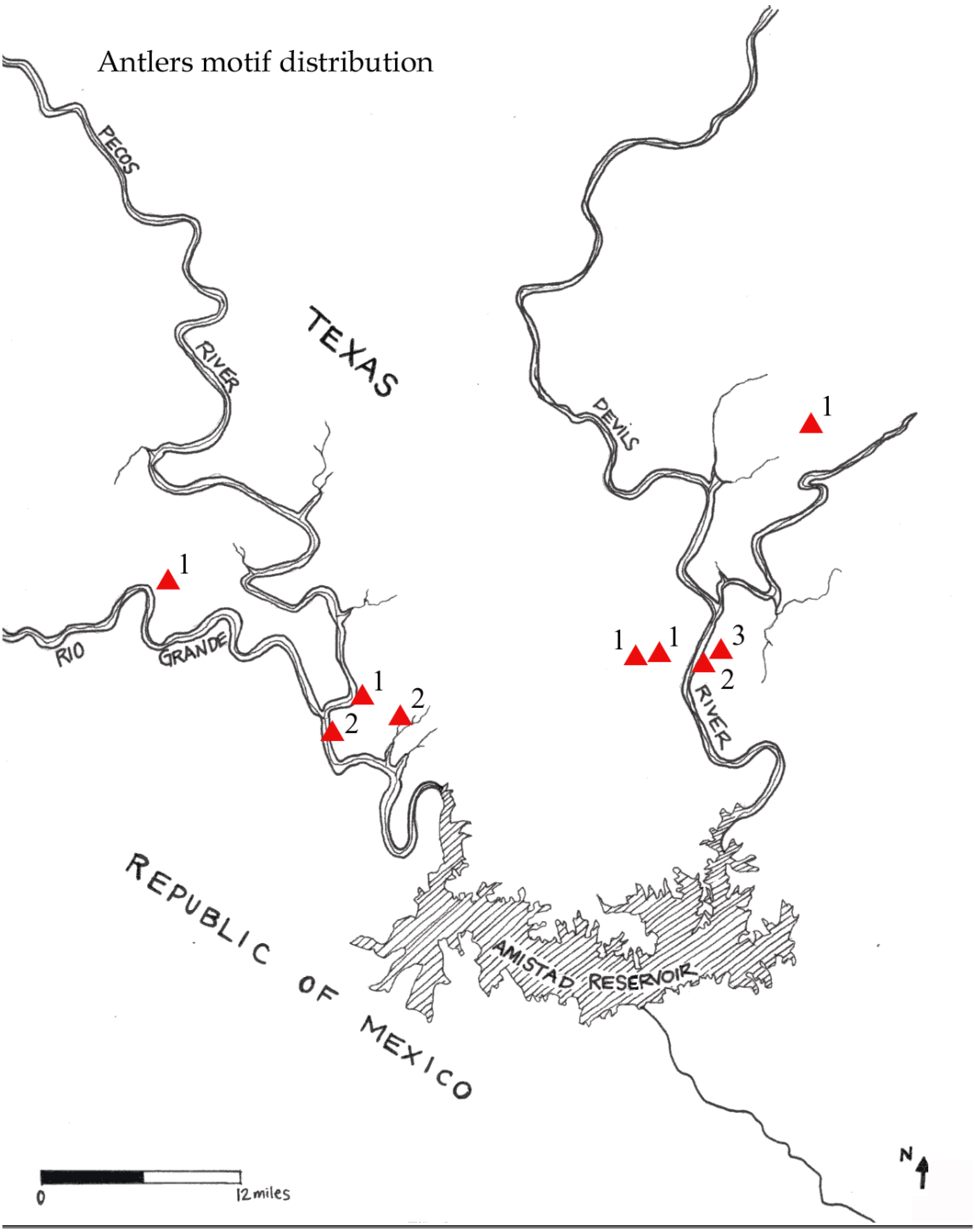


Figure 4.12. Spatial Distribution of Antlers

Ecstatic-scalp

Ecstatic-scalp motifs occur at two geographic loci, on the Devils River and on the last few kilometers of the Pecos River (see figures page 82). One such motif is found in a habitation shelter on Jack Creek, a tributary of Dolan Creek in Devils River State Natural Area. By far the greatest number of occurrences of ecstatic-scalp motifs are found at Halo Shelter, 41VV1230. On the Pecos River ecstatic-scalp motifs occur at two sites, 41VV129 and 41VV134.

Upper Devils River

The first example of the ecstatic-scalp head form occurs as part of 41VV207 CM-4 which is located at a small rock shelter on Jack Creek lying within the boundaries of the Devils River State Natural Area. In this occurrence the motif is a single line arch with evenly spaced fringes radiating outward.

Lower Devils River

By far the largest number of ecstatic-scalp motifs are found at the site Halo, 41VV1230; no less than seven examples are there. The first, 41VV1230 CM-1, depicts a pair of anthropomorphs brandishing weapons under a row of spears. While the head of the right-hand anthropomorph has been obscured by spalling, the leftmost anthropomorph has a clear example of the ecstatic-scalp motif, a simple line stretching from shoulder to shoulder. Like other examples

this ecstatic-scalp motif demonstrates asymmetry with two lines on its left side and one on the right. The second is on a red dash line body anthropomorph with stripes. This figure also has a curiously asymmetrical ecstatic-scalp motif, in this case with very little separation from the head and which touches at the temples. The third is found on the red and grey central anthropomorph of 41VV1230 CM-10. This unique example of the ecstatic-scalp demonstrates no separation from the head. Its red and grey alternating lines mimic ecstatic hair. The fourth is part of the superb red and yellow 41VV1230 CM-11. This pristine anthropomorph is crowned with both a plume and ecstatic-scalp. Located nearby, the fifth is found on a grey, and peach colored anthropomorph holding spears with clear triangular spear points. The sixth is part of the abstract 41VV1230 CM-18. The seventh is found on an elongated armless red anthropomorph near the right margin of the panel.

Lower Pecos River

The site known as Casper, 41VV129, is located in a steep side canyon enclave off the Pecos River not far from its confluence with the Rio Grande. This rock art panel contains two occurrences of the ecstatic-scalp motif. One of

the more prominent figures here is the approximately 2 m high elongated white, red, and yellow figure which due to its basic form most likely represents an anthropomorph. This figure's crowning ecstatic-scalp motif definitely resembles ecstatic hair. The second example here is an unusual one, the only petaloid ecstatic-scalp motif recorded. It should be noted that this figure was miscopied by Kirkland; he most likely was unable to examine the imagery here closely due to its placement several meters above a sloping and polished ledge.

About one mile upstream nestled amongst a complex of other imagery at the painted habitation shelter 41VV134 is a single occurrence of the ecstatic-scalp motif. A faded red anthropomorph here hosts a proportionally large black and white ecstatic-scalp motif. It is difficult to see but is located below the sinuous line (Figures 4.13 and 4.14) (Tables 4.2 and 4.3).

Figure 4.13. Ecstatic-scalps

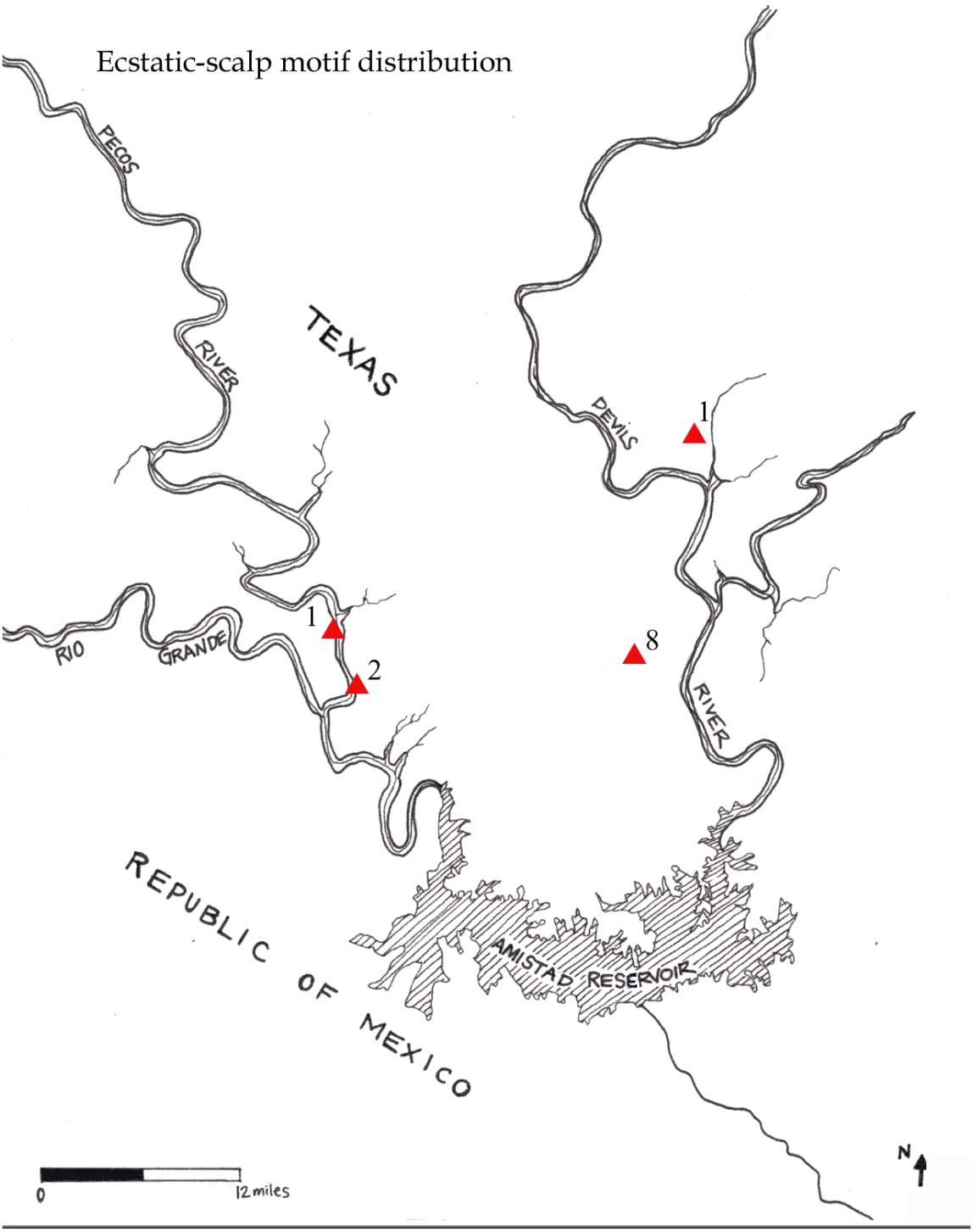


Figure 4.14. Spatial Distribution of Ecstatic-scalps

Table 4.2. Frequency and Percentage of Anthropomorph Attributes Comparing the Two Major Geographic Subregions: (1) The Devils River Basin and (2) The Pecos and Rio Grande Basins

Major Sub-Region	# of site	# of core mot.	Plume	U Head Form	Rabbit Ears	Feather Hip Cluster	Antlers	Ecstat. Scalp
Devils River Catchment	**14**	**164**	**14** 48%	**38** 59%	**1** 8%	**0** 0%	**8** 57%	**9** 75%
Pecos River & Rio Grande	**27**	**216**	**15** 52%	**26** 41%	**11** 92%	**10** 100%	**6** 43%	**3** 25%
Totals	**41**	**380**	29	64	12	10	14	12

Table 4.3. Frequency and Percentage of Anthropomorph Attributes, Comparing Six Geographic Subregions of the PRS Core Area

Minor Sub-Region	# of sites	# of core mot.	Plume	U Head Form	Rabbit Ears	Feather Hip Cluster	Antlers	Ecstatic Scalp
Upper Devils	**7**	**30**	6 21%	2 3%	0	0	1 7%	1 8%
Lower Devils	**7**	**134**	8 27%	36 56%	1 8%	0	7 50%	8 67%
Seminole Cany.	**6**	**71**	8 27%	17 27%	1 8%	10 100%	2 14%	0
Lower Pecos	**10**	**73**	3 10%	8 13%	0	0	3 21%	3 25%
W. Rio Bravo	**4**	**17**	0	1 2%	3 25%	0	1 7%	0
Upper Pecos	**7**	**55**	4 14%	0	7 58%	0	0	0
Totals	**41**	**380**	29	64	12	10	14	12

Statistical Analysis

A chi-square analysis was preformed on the data comparing the frequency of occurrences of each of the 6 anthropomorph attributes between sites on the Devils River (n=14) and those in the Rio Grande and Pecos River canyon systems (n=27). These are the two major geographic sub-regions within the study area, and where we might expect a strong spatial signature to appear.

This statistical analysis is used to determine whether or not there is a significant difference in the abundances of each anthropomorph attribute between these two geographic regions. While they are related, it is important to point out that this is not the same hypotheses as is discussed throughout the rest of this text, that is, determining whether or not the elements are geographically limited (see page 1).

One weakness of this analysis is that it does not take into account the relative quantity of imagery in each of the two regions. The results are somewhat skewed, in that, while the proportion of sites on the Devils River verses the Rio Grande and Pecos River is roughly 1:2, sites on the Devils River are on average have more imagery. Numbers of core motifs provide a rough estimate of the size of each rock art panel. The 14 sites studied on the Devils River contain 164 core motifs while the 27 sites on the Rio Grande and Pecos River contain 216 core motifs.

The proportion of plume motifs between the Devils River and Rio Grande and Pecos River is not significant ($\chi^2 = 2.605$). There is a nearly equal proportion of plume motifs in each geographic region.

The proportion of U head forms is highly significant ($\chi^2 = 18.127$). This strong result is likely explained by two factors. First is sample size. There are more than twice as many occurrences of the U head form as the next most frequent of the six motifs. Sample size affects chi-square results. Secondaraly, the results are due to the fact that U head forms are very common at Cedar Spring (41VV696) and Mystic (41VV612) on the Devils River. One composition alone, 41VV696 CM-26, contains 13 occurrences of the U head form (see pages 52, 58, and 110).

The proportion of rabbit-ears is not significant ($\chi^2 = 3.590$). While the majority of rabbit-ears do occur to the west on the Pecos and Rio Grande the relatively small number of overall occurrences recorded during this project, along with the large number of sites in this region, likely affected this result. If Rattlesnake Canyon (41VV180) could have been included in this study then the chi-square results would likely have been significant.

The proportion of feather hip clusters is significant ($\chi^2 = 5.27$). This is the only motif identified in this study as geographically limited restricted to the Seminole Canyon area. These findings support the notion that the spatial distribution of the feather hip cluster is a signigicant pattern.

The proportion of antler head forms is not significant ($\chi^2 = 3.306$). A roughly equal proportion of antlers are found in the two geographic regions.

The proportion of ecstatic-scalp head forms is highly significant ($\chi^2 = 8.990$) when the two geographic regions are compared. This result is due to the large number of such motifs at Halo (41VV1230) a shelter on the Devils River. Sixty four percent of all recorded examples of this element occur at this site.

CHAPTER V

DISCUSSION AND CONCLUSIONS

Analysis of the data revealed that one of the anthropomorph attributes under study is geographically limited. The feather hip cluster was found to be such a glyph, though even this pattern is not particularly strong. The rules which govern the art (interstylistic patterns) are much stronger than are stylistic traits differentiating regions.

The Pecos River Style is a remarkably unified and codified symbol system. It is highly canonical. Though this is not the purpose of this study, no regional substyles could be identified during the course of this project. This implies that during the time in which the art was being produced there existed fairly constant communication and idea transmission between the peoples who occupied the study area. Otherwise we expect that there would be more variance and divergent development within the art.

The PRS is salient. It is an iconography distinct from other rock art styles of the Lower Pecos Region. Additionally, the PRS does not blend into any neighboring styles. It is at least 1000 miles geographically isolated from any other possibly related and contemporaneous form of rock painting (Schaafsma 1994). The style itself, as a whole, is the strongest spatial marker of this study.

Territoriality, Ethnicity, Landscape, and Group Affiliation

The notion of looking to the PRS to investigate questions of hunter-gatherer territoriality was first approached by Shafer (1977:16), who remarked that "the distribution of the Pecos River Style pictographs may provide an unusually well documented territorial map of a group of Archaic bands who shared a common ideology. This might argue for a linguistically distinct population." In this paper Shafer establishes the PRS as a cultural horizion marker. He is discussing the PRS as a whole, its corpus. This thesis examines patterns within the style, that is, interstylistic patterns.

The form of mural art known as the PRS reflects a shared, transmitted, and ever-changing complex of ideas, beliefs, and practices. Within this larger cultural network it is possible that there existed smaller, distinct subgroups which may have maintained some form of symbol marking and enduring land rights (Griffen 1969; Boyd 2003; Turpin 2004). Like all humans, the individuals that made up these groups experienced a psychological need for group affiliation and belonging (Maslow 1968) and developed a sense of ethnicity through a "self-conscious identification with a particular group of people" (Jones 1997:123). Groups maintain a collective sense of location and belonging, which extends to their natural surroundings. Over time, a meaningful symbolic and mythological landscape was forged from an arbitrary geography. In the Lower Pecos this mythological landscape is not lost; it has been preserved

through the durable medium of rock art (Turpin 2004).

Through comparison and conflict with other groups, particular attributes of a people's material culture are selected as emblematic references of group affiliation and imbued with a great deal of social significance as true ethnic markers (Murray 1979:31; Hodder 1982; Wiessner 1983:257; Jones 1997:116-127; McElreath et al. 2003). This process is significantly accelerated during times of ecological or political stress (Hodder 1979; Jones 1997). Ethnic markers are not common within the archaeological record and their identification requires a high degree of discernment.

If Lower Pecos territories existed, they may have been defined more by a central core area of habitation sites, than by explicit frontier boundaries, as is the case in Australia (Gunn 1997). Territorial circumscription would likely have been focused on reliable water sources, a principle behind Taylor's theory of "tethered nomadism" (Taylor 1964; Dymond 1976:59; Layton 1989:3). There seems to be a correlation between the largest sites (e.g., Cedar Spring, Panther Cave, and Rattlesnake Canyon), as well as concentrated clusters of sites (e.g., Lower Devils River, Seminole Canyon, and Mile Canyon), and productive springs and fresh water sourses along with their reliable suite of related biological resources (Turpin 2003).

This is certainly true for the one motif identified as geographically limited, the feather hip cluster. This anthropomorph attribute is restricted to the

adjoining Seminole and Painted Canyons. Both gorges contain abundant springs and pools (Figure 5.1). Until recently Seminole and Pressa Canyon flowed year round (Emmett Brotherton: 2003 personal communication). These canyons contain rich springs and a concentration of natural resources that when combined with neighboring riverine and upland resources would have possibly been sufficient to sustain an aggregated population over an extended period of time (Turpin 1988:128). Large rock shelters with deeply stratified deposits and ample bedrock mortars such as 41VV74, 41VV75, and 41VV76 attest to the intensive prehistoric utilization of these canyons. Territoriality is a possibility in the Lower Pecos and should not be unexpected based on our understanding

Figure 5.1. A Spring in Painted Canyon

of analogous hunter-gatherer behaviors (Kelly 1995:302).

While the feather hip cluster is identified as a geographically limited element it does not comprise a particularly strong pattern. It was identified at only three rock shelters; three points only weakly signify a spatial pattern. The majority of the cases of the feather hip cluster occur at Panther Cave (n= 8); however, one motif is present at both Hanging Cave and Fate Bell.

Seminole and Painted Canyons are two of the deepest and most untraversable canyons of the Lower Pecos Region. If one enters Seminole Canyon from the south (from the Rio Grande canyon) Panther Cave must be passed. This habitation shelter is located high on the canyon talus slope. If one walks into Seminole Canyon from the north, Fate Bell Shelter must be passed. Fate Bell's highly visible right panel harbors a 6 m tall anthropomorph that has a feather hip cluster. Perhaps the only true slot canyon in the Lower Pecos, Painted Canyon joins the Rio Grande 1200 m west of the mouth of Seminole Canyon. The third example of the feather hip cluster is found here. Passing through this limestone gorge one must pass the shelter known as Hanging Cave. It is located high on the canyon wall and must be accesses by a difficult climb or with ladders. This shelter has little rock art other than one unusual PRS anthropomorph that has a feather hip cluster. A burial, located directly below this image, was uncovered by relic hunters (Elton Prewitt: 2003 personal communication).

Geographically limited elements may mark ethnic groups or territories; however, any number of other possibilites exist. Several alternative hypotheses which may account for these motifs will be discussed, and each is valid road of future research. The anthropomorph attributes in question may be (1) markers of individual artists, (2) temporal markers, or (3) markers of particular mythological beings or deities.

Markers of Individual Artists

The six motifs analyzed in this study could be the markers of individual artists. Recognition of individual prehistoric artisans is often difficult; the nature of the archaeological record does not lend itself to such levels of discrimination (Aldana et al. 2003). Though progress has been made in this front in the study of European Paleolithic art (Bahn 1998:201). The methodology behind this type of study involves the recognition of idiosyncratic aspects of form or design elements found on multiple artifacts so that in fact one can recognize the "handwriting" of a particular artist or workshop (Donnan and McClelland 1999). Distinctive individual styles develop over time, a pattern ingrained through the copying of particular forms over and over again. This principle of automatic repetition of form is not unlike Sackett's (1977, 1985), isocratic variation, but based on structures replicated at the individual instead of group level. An analysis of the anthropomorph attributes included in this

study based on those qualities has indicated that the motifs in question are not markers of individual artists. The stylistic traits of the figures which contain the various occurrences of the anthropomorph attributes included do not indicate that they were the product of a single artist.

Temporal Markers

The six anthropomorph attributes included in this study could be temporal markers. As discussed in Chapter II, Grieder (1966), Newcomb (1996[1967]), and Gebhard (1965) have published seriations for the PRS. There are fundamental problems with Grieder's seriation. Newcomb and Gebhard's seriations are in many respects very similar. It would be interesting to know whether these two scholars were in contact during this period or if their models were developed independently.

There are several weaknesses in Newcomb and Gebhard's models which must be addressed. To my knowledge no one has attempted to empirically validate these seriations through a study of either over-painting or radiocarbon dating; they remain untested. Based on my observations, polychrome and centrastyled anthropomorphs do not consistently over-paint images painted only in red and noncentrastyled anthropomorphs. Newcomb and Gebhard's seriations take into account a fairly limited segment of PRS imagery and are based primarily on the characteristics of major anthropomorphs. Many

important PRS themes, symbols, and motifs were not recognized by these scholars, and therefore, are absent from their models. Newcomb's model is also based on a unilineal evolutionary view of the sequential development of art across cultures (1976:185), a position refuted by most anthropologists and art historians (Boas 1955; Leroi-Gourhan 1968:189; Trigger 1989; Layton 1991).

The current seriation is inadequate. The six motifs under study may be temporal markers, but this is impossible to ascertain at this time. In order to answer this question scholars must either (1) test and validate the existing seriations and then expand on this base to include more themes and motifs recognized in the PRS or (2) develop a new and comprehensive seriation for the PRS.

Anthropomorphic Characters in Art

The motifs analyzed in this study may be iconographic references to a particular mythological entity or a subset of such beings. Though fundamental, the question of whether particular anthropomorphic characters found in prehistoric religious art represent ordinary human beings or supernatural beings is often incredibly complex and difficult to answer. Are compositions set in a historical or a mythical reality? Questions such as these continue to be the focus of a great deal of scholarly debate (Turpin 1986a; Donnan and Castillo 1992; Zighelboim 1995; Reilly 1996; Clottes and Lewis Williams 1998; Bourget

and Newman 1998; Kehoe 2000; Schaafsma 2000; Bourget 2001; Coe and Stone 2001; Knight et al. 2001; Kappelman 2002).

> Styles are necessarily the filters, the distorted mirrors through which a particular subject matter is conveyed to us. All styles schematize what is perceived according to conventional rules, that is to say, in arbitrary, non-natural ways. (Knight et al.:133)

In prehistoric art supernatural beings and deities are often anthropomorphized at the same time as ordinary humans are given otherworldly attributes. Durkheim long ago recognized how the structure of the supernatural world mirrors that of human social and political reality (Pandian 1991:33). We reflect human characteristics on supernatural inhabitants and deities. Conversely, those historical figures whose image would likely be recorded in art, such as rulers, priests, and shamans, often legitimize their positions by the ability to take on supernatural attributes, abilities, and responsibilities (Winkelman 1989; Layton 1989:4; Freidel et al. 1993; Århem 1998; Reilly 1996). These attributes may well be illustrated in iconography. Complicating possibilities for anthropomorphic characters appearing in iconography that are liminal between the supernatural and quotidian worlds include ancestors, deity impersonators, and shamans in transformation. In ritual, mundane and celestial words are momentarily united, and ritual is the focus of much of the art in question.

How do we then differentiate between otherworldly and real-world

anthropomorphic characters in iconographic systems that lack clear ethnographic informants? First of all, this enigma should be approached on a style by style basis and scholars should look to "internal clues" within the art for guidance (Knight et al. 2001). Secondly, as a general rule, it is possible to analyze a figure's (or type of figure's) combination of attributes in order to sort out this dilemma. Otherworldly characters reflect a mental template shared by members of a particular culture. Any particular character will possess a certain combination of specific attributes well understood by members of that culture. These attributes become incorporated into iconography in order to avoid ambiguity so that the figure will not be misidentified by the viewer (Hermerén 1969:100). Greater still, art is often a major means for preserving and disseminating such information, further strengthening the cultural mental template. Once incorporated into art, the idea becomes forever bound to the image; consider the depiction of angels or the character Jesus in Christian iconography.

If in a symbol system multiple examples of a character, anthropomorphic or not, demonstrate a consistent set of attributes, then a case can be made that this particular entity, or class of such entities, would have been recognized by that culture. The lack of consistent traits may indicate separate characters.

PRS anthropomorphs are characteristically dissimilar in various qualities. In the art, it is uncommon to find two or more identical

anthropomorphs unless they are directly related in a composition. Though lacking in natural body proportions or facial features, PRS anthropomorphs are highly *individualized* in terms of their combination of attributes. These same is true for figures that contain the motifs discussed in this thesis. Therefore, except for two cases discussed below (anthropomorphic characters A and B), there is no evidence that the anthropomorph attributes in this study are markers of particular mythological beings, or of a class of such beings. In most respects the figures which contain occurrences of these motifs tend to have other markedly dissimilar attributes.

Although most PRS anthropomorphs are individualized and unique, there are particular mythological beings that can be found in the imagery, characters with specific sets of attributes distinguishing them from all others. Recognized characters are broken down into those with human-like traits (anthropomorphic characters) and other nonanthropomorphic beings (enigmatic characters).

Intersite Stylistic Traditions

In the process of conducting this spatial analysis of PRS rock art, a surprising discovery was made. This finding is an important in understanding the spatial distributions of various motifs presented here and has implications in our overall understanding of PRS imagery. Rock paintings at particular PRS

sites demonstrate identifiable "intersite stylistic traditions" subtly differentiating their imagery from the greater corpus of the PRS. These traditions take on various forms, from the simple duplication of a motif to the repetition of subtle stylistic conventions. These traditions are incorporated into multiple painting episodes within a panel, a common thread running through segments of imagery. As a principle, stylistic traditions are typically found at only one individual site, though this may involve the exaggerated replication of motifs found rarely at other sites.

Perhaps the most unequivocal example of a intersite stylistic traditions is at the rock shelter called Halo, 41VV1230. There are four aspects to the stylistic tradition particular to this site: (1) esctatic-scalp head forms, (2) dash line-bodied anthropomorphs, (3) forked motif head forms, and (4) zig zag-like sinuous motifs. Eight anthropomorphs here are adorned with the corona-like ecstatic-scalp motif, nearly twice the number of the three other sites that contain this anthropomorph attribute combined. Indeed these "halos" are the site's namesake feature. A second aspect of this site's tradition, one which is practically unique to this site, is the use of dashed lines in the bodies of anthropomorphs. There are at least five examples of this trait. Third, several anthropomorphs at Halo have Y-shaped or forked motifs on their heads. Finally, many sinuous motifs here are much more zig zag-like than is typical in the PRS. Zig zags are a principal component of types of rock art found south of

the Lower Pecos Region in Coahuila in Nuevo Leon, Mexico, such as Bold Line Geometric and *Chiquihuitillos* (Turpin 1986b, Salas 1998; Sayther 1998; Sayther and Stuart 1998; Turpin et al. 1998; Murray 2002). Geometric motifs such as zig zags are, however, practically never integrated into the PRS. 41VV1230 CM-18 is one good example of zig zags which have been substituted in the place of sinuous lines.

Dash line-bodied anthropomorphs are a principal component of the intersite stylistic tradition of Halo Shelter. This trait was identified only at one other site, Delicado Shelter, 41VV1284, a relatively small neighboring shelter located less than one mile away. Both Halo and Panther Cave are major centers of rock art production. This is evident by the large amount of imagery present at each shelter. Panther Cave, 41VV83, is the second largest rock art panel in this study. Halo, 41VV1230, is the third largest. It may be that both of these sites, because of their "influence," express a rare form of stylistic tradition, one found at multiple sites.

By definition intersite stylistic traditions are constrained to a single site. However, it appears that in very rare cases they may spill over onto nearby, closely related shelters. Panther Cave's stylistic tradition involves the replication of the feather hip cluster, which is depicted on eight figures at this site. It is possible that spatial manifestation of the feather hip cluster motif may represent the most exaggerated example of a stylistic tradition, in which the

influence of Panther Cave's artistic tratition carries over into the paintings of the nearby Fate Bell Shelter and Hanging Cave.

Another, though less easy to define example is Parida Annex, 41VV224. Several salient compositions at Parida Annex share a common stylistic tendency. Each has block-like areas of elaborate space filling built into their imagery often as part of a hole in the universe theme (Turpin 1994b). The most striking example is 41VV224 CM-2, but 41VV224 CM-1, 41VV224 CM-6, 41VV224 CM-9, & 41VV224 CM-11 have similar traits.

Though intersite stylistic traditions are most evident at the largest sites, certain consistencies can also be found at medium-sized sites. Perhaps this difference lies in the greater number of painting episodes evident at larger sites making the repetition and, therefore, the recognition of intersite stylistic traditions more likely. At a smaller site there may be only two stylistically similar compositions, as opposed to more at a larger site.

One example of a possible stylistic tradition at a medium-sized site is found at 41VV65, Kirkland's Pecos River Cave #2, on the Pecos River where there are several monumental symbol-centered core motifs, a form practically unique to this site. Site 41VV770, located on the Rio Grande, is a second example where two individual PRS mythological beings (Turpin 1986a) that are found in separate compositions are illustrated quite similarly with yellow bodies and purple dots. A third example of a medium-sized site with a

intersite stylistic tradition is Kelly Cave, 41VV165, found near Langtry in Mile Canyon. 41VV165 CM-3, 41VV165 CM-5, 41VV165 CM-6, and 41VV165 CM-9 all feature sinuous lines terminating in unusual trapezoidal-shaped elements.

So what is the nature of these intersite stylistic traditions? At a fundamental level their existence means that PRS artists paid attention to the works of those who came before them, integrating aspects of earlier compositions into their own.

The principal level of organization of the PRS is the unity of style or canon: the common rules, themes, compositions, and body of symbols which make up the PRS. Intersite stylistic traditions are a second, subsidiary level of organization.

Intersite stylistic traditions may be related to the diachronic development of the PRS. If, for example, several painting episodes at a particular rock shelter were produced over a limited period of time they may, based on the "popularity principle," demonstrate similar traits (Lyman et al. 1997). The PRS, however, was presumably not produced one site at a time. Therefore, developmental trends should appear at multiple sites. A hallmark of these stylistic traditions is that they primarily appear within a single site. Therefore, while stylistic traditions may be partially explained by diachronic processes they are not sub-styles and most likely do not represent developmental phases.

Though the total significance of these stylistic traditions remains opaque,

we do know that they are an important aspect of the organization of the PRS. Intersite stylistic traditions should be considered in analyses of the PRS. At some sites, these traditions are an important form of intersite continuity within their panel. PRS artists were well versed in the works of their peers and forebears; intersite stylistic traditions are one aspect of the principle of "rule bound creativity" which was a guide to their painting.

Plume Head Form

Other than the recognition of its ubiquity, this analysis of the PRS has discerned little meaning behind the plume motif. It is possible that the plume motif may represent a particular headdress worn by ritual practitioners during the Middle Archaic period. Many groups have utilized such headdresses during rituals, ceremonies, and dances. Other items of ceremonial regalia, such as medicine bundles, furs, and staffs, are illustrated with PRS anthropomorphs. The 1933 excavations at Shumla Caves uncovered up to three "plume foundations, a device of interlaced leaf strips to which small feathers were attached" (Martin 1933:69). One plume foundation was found in a burial context. Additionally, a cluster of three large feathers tied together with fiber cord was recovered (Martin 1933:69). Whether or not these artifacts are indeed physical examples of the plumes found in the art is uncertain. A thorough review of archaeological collections from the Lower Pecos may

provide more answers.

U Head Form

Of the six anthropomorph attribute motifs included in this study the U head form is by far the most pervasive and widespread. This motif is discussed by Solveig Turpin as an element of the were-cougar theme. These half feline-half man composite shamans are described as "upright human beings with cat ears, claws, striped underbelly, and blank face" (Turpin 1994a:77). Illustrations of large mountain lions are fairly common in PRS imagery. Some of these large cats, for example the spewing panther of Halo Shelter, are illustrated with ears like those of the U head form. Most mountain lions however do not have ears resembling the U head form and instead have small rounded ears (Figure 5.2). One of the most striking examples of the were-cougar theme with a clear association between mountain lions and an anthropomorph with a U head is 41VV237 CM-1 (see Figure 4.4). This case is somewhat atypical, however, in that the ears are pointed, instead of the typical rounded form.

Figure 5.2. Four Pecos River Style Mountain Lions

Many ambiguous zoomorphs have long ears resembling the U head form but are not clearly mountian lions. For example, zoomorphic figures in 41TE309 CM-1 have long straight ears, but lack the long tail typically characteristic of cougars (Figure 5.3). For one pair of zoomorphs at this site, one is illustrated with antlers, the other with long lateral ears resembling the U head form (Figure 5.4). These zoomorphs, like those mentioned above, have medium-length tails. 41VV83 CM-8 is another important zoomorphic reference to the U head form. This composition depicts a large anthropomorph with a U head, apparently in three-quarter profile, (see Figure 4.4) in context with a row of subordinate deer which have very similar ears and the medium-length tails described above. This case appears to be clear evidence of U head form deer ears, until one considers that this anthropomorph also has distinct claws on its hands and feet (Figure 5.5), and that some of these deer have open jaws with sharp teeth, both feline traits. Ultimately, two possibilities exist as to the zoomorphic reference of the U head form. This motif is so common on such variety of anthropomorphs, that if it represents cat ears, this convention would have been so well understood, so implicit, that few iconographic clues are necessary in the art to link the U head form with feline symbolism. This would mean that the were-cougar theme is indeed very prevalent. It is also possible that the U head form does not represent cat ears, deer ears, or any other particular species at all but, instead represents a generalized therianthropic

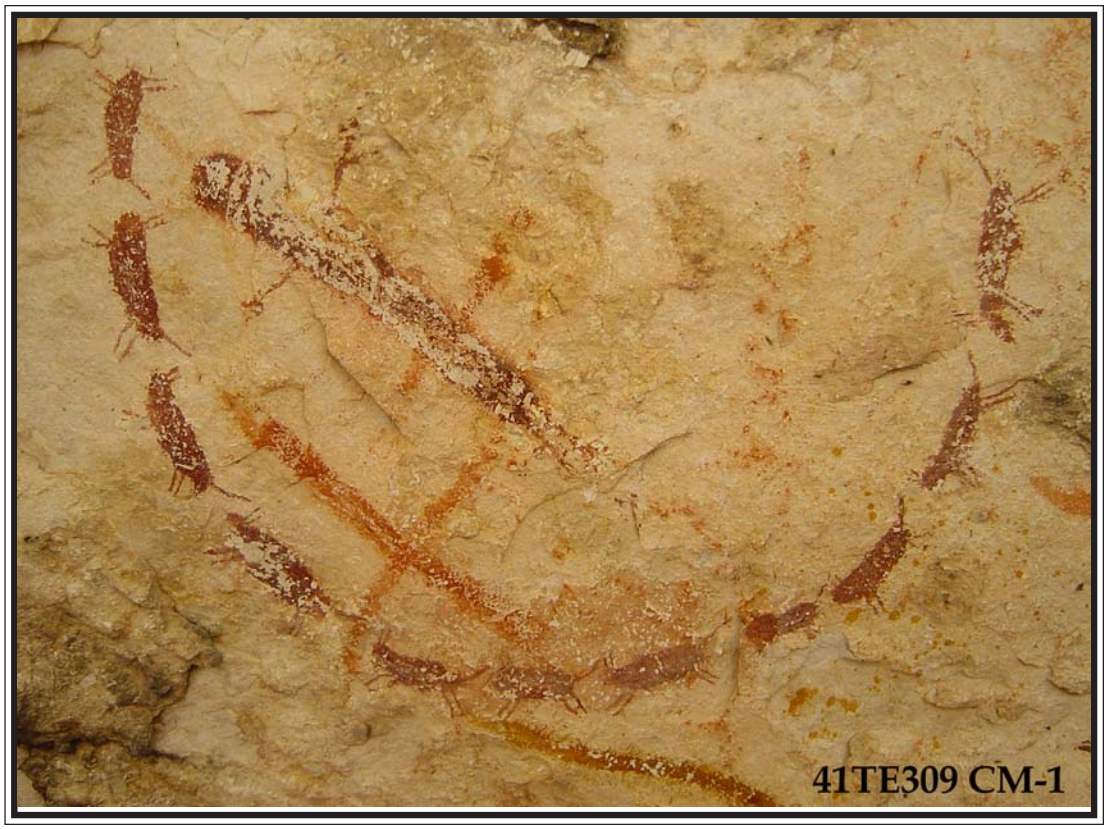


Figure 5.3. 41TE309 CM-1

Figure 5.4. 41TE309 Zoomorphs

Figure 5.5. Anthropomorph with Clawed Hand Grasping Atl Atl

(human-animal) head.

Anthropomorphic Character A

During the course of this study it became apparent that several anthropomorphs which have U heads share a host of other specific traits and seem to represent a particular anthropomorphic form here termed anthropomorphic character A. The primary examples of anthropomorphic character A are: 41VV696 CM-26, 41VV696 CM-38, 41VV612 CM-3, 41VV612 CM-9, and 41VV78 CM-2 (see Figure 4.4). There are several features which distinguish this anthropomorphic character from any other figure in the PRS. First of all they have a short, rounded version of the U head form with similar short, rounded arms. These figures lack any ritual accoutrements, weapons, fringes, or centrastyling. Perhaps their most interesting and distinguishing trait is that these figures are never depicted with legs and have abstract lower bodies. The lateral portions of the body may simply terminate or their "body" may be a long sinuous line, straight line, arch, or "swoosh." Finally, these anthropomorphic characters are characteristically small, several appear in a single composition, and they take on a subordinate or helping role in their constituent core motifs. Because of their common distinguishing traits it is the author's opinion that anthropomorph character A represents something other

then the standard anthropomorphic figure. This figure may represent a particular entity, or class of entities, from the spirit world.

U Symbol

A complete discussion of the U head form necessitates the introduction of a common PRS symbol inherently linked to this motif, the U symbol. This symbol inherits its form from the U head form, essentially mirroring the crown of the head. Chapter IV discusses "torso form" anthropomorphs, many examples of which have U heads (see Figure 4.4). The U symbol reflects a similar yet even greater level of abstraction than this and is an anthropomorphic symbol. This iconographic linkage is clear at the site 41VV225 near Langtry. Here a yellow anthropomorph with a U head form has a U symbol connected to a centrastyle element depicted within it, mirroring the shape of the head. Examples of U symbols found at Brazos Fuerte, Cedar Spring, and Vaquero are all connected to a sinuous line or lines perpendicular to the axis of the U. These sinuous lines mirror an anthropomorphic centrastyle element. This design may represent a stylized anthropomorph. In addition, these types of U symbols with connected sinuous lines are also found in pairs, reflecting the manner in which PRS anthropomorphs are frequently illustrated side by side, two in juxtaposition.

Rabbit-ears

Rabbit-ears motifs were the least common of all the anthropomorph attributes included in this study, though is is mostly due to the inability to visit one important site, Rattlesnake Canyon, 41VV180. Therefore, the information avaliable to draw on in the analysis of this head form is presently limited.

Both Boyd (1998a, 2003) and Turpin (1991) have addressed the significance of this motif. Turpin (1991:30) states,

> Rabbit-ear or two-feather headdresses are one of the most widespread of Pecos River motifs, found across an area bounded by the upper Devils River on the north and the Sierra del Carmen on the south.

As Turpin suggests, this rabbit-ears may represent a form of headdress. One intriguing example from the artistic record which suggests this possibility is 41VV167 CM-3, a composition at Eagle Cave. Though not a large site, most of the prominent anthropomorphs at this panel have rabbit-ears. The central anthropomorph of 41VV167 CM-3 does not have rabbit-ears; however, just to the figure's left, over its arm, a rabbit-ears-looking motif attached to a inverted cone-like design is depicted. This may represent the anthropomorph's disarticulated head (as is sometimes shown) with a rabbit-ears head form, or it may represent a "realistic" ritual accoutrement rabbit-ear headdress.

This research has determined that many examples of the rabbit-ears motif have only a single "ear." In some of these cases instead of the second ear sinuous lines are depicted. Thus, following Turpin's (1991) description this

motif may take the form of a one *or* two feather headdress.

Anthropomorphs with rabbit-ears dominate the rock paintings of three site: Rattlesnake Canyon (41VV190), Eagle Cave (41VV167) (Boyd 1998, 2003), and Abrigo Diego (Turpin 1991, 2004). These patterns may reflect these three shelters' three individual intersite stylistic traditons. Boyd (2003) and Turpin (2004) suggest that this may reflect some form of ethnic marker.

Feather Hip Cluster

Newcomb believed that the feather hip cluster may represent a ritual accoutrement that would have been worn by shamans or members of ritual societies during ceremonies. The feather hip cluster is depicted in the manner of other items which clearly resemble medicine bundles and perhaps furs very similar to those worn by "medicine men" captured in ethnographic photography and in Southeastern Ceremonial Complex art (Waring and Holder 1945; Phillips and Brown 1978; Schultz 2000). At some PRS sites, such as Brazos Fuerte and Panther Cave, ritual accoutrements are added on later, over-painting the original anthropomorph in a dissimilar dark red pigment. The rationale for this is unclear, as is the temporal lapse between the painting episodes. Several examples of the feather hip cluster have been added on in this manner. Additionally, 50 percent of these motifs have a horizontal belt or band painted darkly around the figure's waist, possibly representing the manner in which

Figure 5.6. Antlers-with-Dots Power Object at Black Cave

Antlers Head Form

The antlers motif is an important PRS head form discussed in this thesis. The antlers motif might reasonably represent a deer antler headdress worn by a ritual practitioner. At two locations, 41VV134 CM-1 and 41VV76 CM-1, antlers are depicted on an anthropomorph's upper arm in the typical placement of a medicine bundle or "power object" (Schaafsma 1994) (Figure 5.6). The ceremonial importance of deer antlers is expected based on examples from the archaeological, ethnographic, and ethnohistoric record from the Chichimeca

these items would have been worn (see Figure 4.9).

Region (Taylor 1966, 1972; Turpin and Eling 1999; Lemaistre 1996; Pérez de Ribas 1999; Griffen 1969). From the 14 occurrences of the antlers motif recorded as part of this study, it seems possible to differentiate two separate symbol complexes related to deer antlers inherent to the PRS.

Impaled Dot Symbol Complex

During this study it was discovered that six, and perhaps seven anthropomorphs with the antlers motif share a host of other symbolic attributes as well. This complex includes: (1) the antlers head form, (2) antlers with dots, (3) antlers symbol, (4) single pole ladder symbol, (5) dot symbol, and (6) impaled dot symbol.

Figure 5.7. Examples from the Impaled Dot Symbol Complex

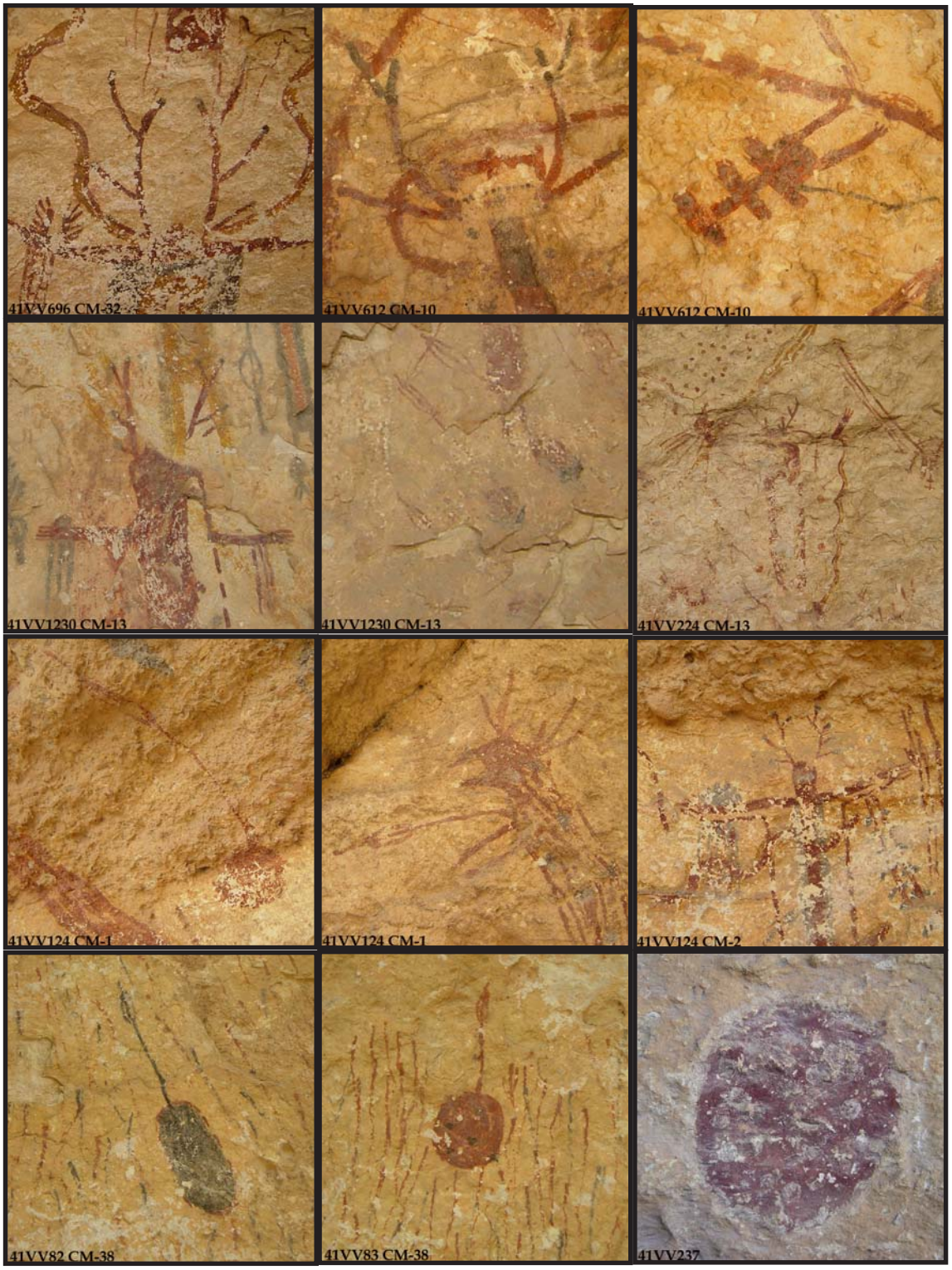


Figure 5.7. Continued

Examples of this complex include: 41VV696 CM-29, 41VV696 CM-12, 41VV612 CM-10, 41VV1230 CM-13, 41VV76 CM-1, 41VV224 CM-13, 41VV124 CM-1, 41VV124 CM-2, and 41VV83 CM-38 (Figure 5.7 and see Figure 4.11). A very similar complex of symbols was discussed by Boyd as an indication of peyotism in the prehistoric Lower Pecos (Boyd and Dering 1996; Boyd 1998b).

Anthropomorphic Character B

Three other examples of anthropomorphic figures with the antlers motif also bear a striking resemblance to one another (Figure 5.8). These are representatives of a second symbol complex, perhaps related peripherally to that discussed above. These figures are here termed "anthropomorphic character B." Two examples are found at Fate Bell (41VV74) and a third is from 41VV286. These figures possess a remarkable combination of identical traits: (1) square wings with upward facing claws, (2) bear-like rounded heads with round ears, (3) blank faces, (4) antlers, and (5) associated single pole ladder symbols, especially above and below their wings. This pattern was first recognized by Kirkland, who cited examples not included in this study (1938:23). Other examples exist at 41VV180 and in Mexico. Unlike Kirkland, it is the author's opinion that these figures may represent something other than ordinary humans, such as a particular supernatural entity, or class of entities, that would have been well understood by the people who created the PRS.

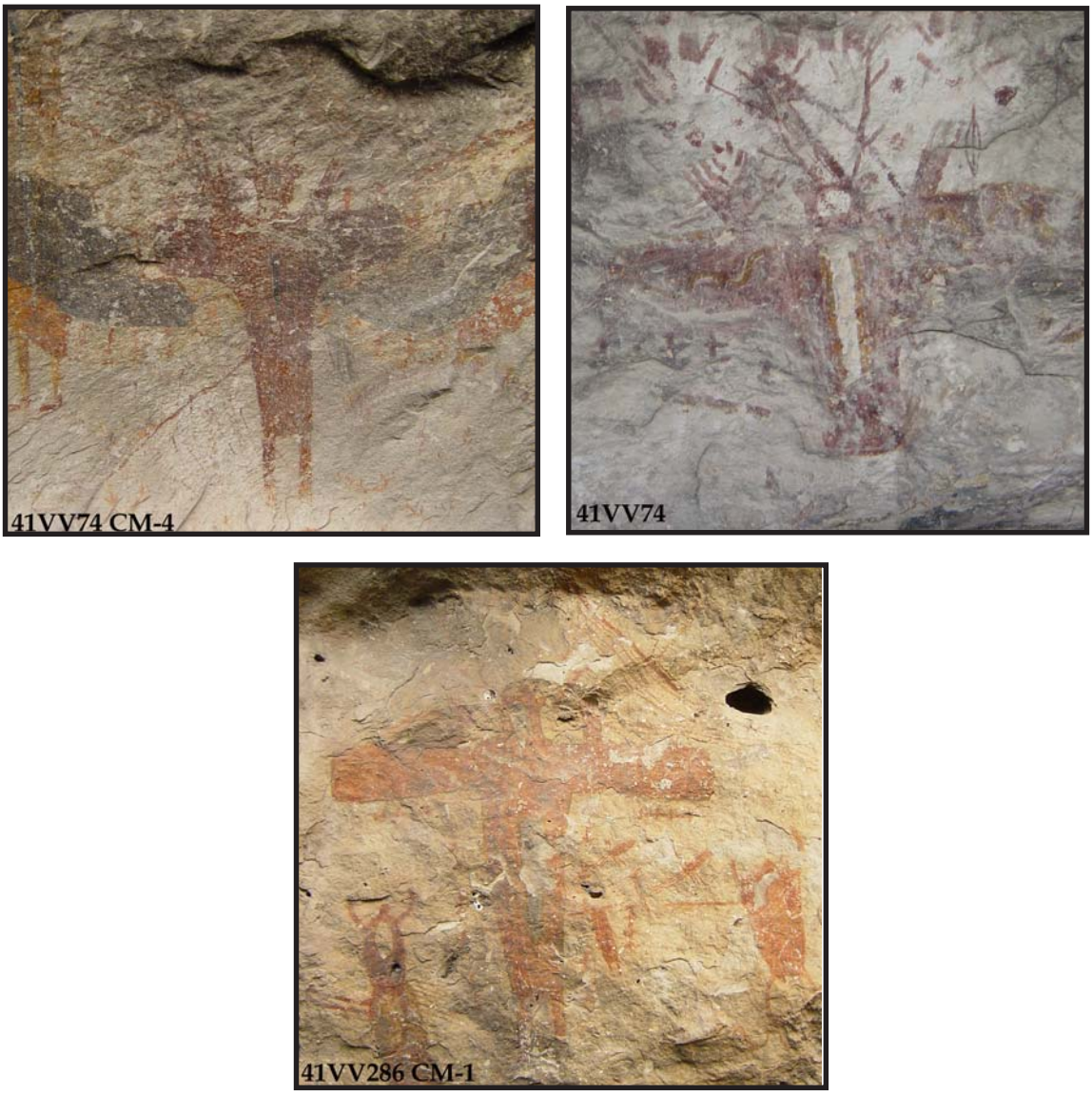


Figure 5.8. Examples of Anthropomorphic Character B

Ecstatic-scalp

The last motif to be included in this study is termed "ecstatic-scalp." A structural analysis, as defined in Chapter III, reveals how this motif is iconographically linked to other PRS themes. Fifty-five percent of the ecstatic-scalp motifs clearly resemble ecstatic hair. This "hair standing on end" is found on many PRS anthropomorphs. This motif is believed by scholars be a reference to ecstatic trance or of "soul flight," both central practices of shamanism (Eliade 1964; Turpin 1994b:87-88). Ecstatic-scalps also resemble a scaled down crenellated or petaloid arch of the cosmographic hole in the universe motif, believed by scholars to represent shamanic otherworldly or celestial passage (Turpin 1994b; Boyd 2003). We may be dealing with a dual artistic metaphor: a motif which represents both the radiant and separated crown of the head as an indicator of trance as well as representing the celestial horizon (Figure 5.9).

Figure 5.9. Four Stage Series from Bottom to Top: (1) Esctatic Hair (2) Ecstatic-Scalp (3) Transitional Ecstatic Scalp/Hole in the Universe, and (4) Hole in the Universe

Other Possible Geographically Limited Elements

In order to limit the scope of this thesis data for only 6 anthropomorph attributes is discussed in this work. In actuality around 50 attributes were analyzed. Thus other spatial patterns were noted. According to the findings of this research project the second best candidate for a geographically limited rock art element is the circle X symbol. This symbol is known from only two sites, both on the upper Devils River.

The large but deteriorated PRS rock shelter 41VV209 is located on Dolan Creek 1.4 km upstream from Dolan Springs and it contains one circle X symbol. The second site that contains a circle X symbol, 41VV888, is located 7 km to the west. This second panel illustrates a series of such motifs, (1) a circle X symbol in a concentric circle, (2) a circle X symbol, and (3) an X symbol (Figure 5.10). This composition is unified by red pigment spattering streaks.

Another possible geographically limited element is the motif described by Turpin as "a billowing streamer." Turpin (1989) reports that this motif has been recorded at four sites in Mexico but not in Texas. I am able to verify that this symbol does not occur at any of the 41 sites recorded during the PRS Iconography Project.

Figure 5.10. Circle X Symbol in Concentric Circle, 41VV888

Limitations of this Study and Suggestions for Future Research

There are several limitations to this study, some of which have been presented in Chapter I. The inablity to include sites in Coahuila is most likely the greatest weakness of this study. Those sites in the *Sierranas el Burro* are geographically isolated from the PRS's "core area" in the general vicinity of Amistad Reservoir. Secondly, it would have been beneficial to include more sites from the north of the U.S. border hinterland of the PRS's distribution, including the outskirts of Val Verde County, and Terrell and Crockett Counties. Very few sites have been recorded in this hinterland. This is no simple task and would involve surveying extensive tracks of land, identifying and recording new, likely small sites. The last 15 years of research have expanded the known distribution of the PRS quite substantially and in every direction (Turpin 1989, 1995b; Sayther 1998; Sayther and Stuart 1998). This process, the extension of the Lower Pecos Region, will likely continue.

Conclusions

The spatial distribution of six anthropomorph attributes (plume, U head form, rabbit-ears, antlers, feather hip cluster, and ecstatic-scalp) was analyzed with the objective of determining if they are geographically limited, motifs restricted to particular districts of the Lower Pecos Region. Boyd has suggested that the feather hip cluster is a possible territorial or clan marker of Seminole

and Painted Canyons and that the rabbit-ears motif possibly designates Rattlesnake Canyon and canyons west of the Pecos River (Boyd 2003:112). The analysis of the six anthropomorph attributes from 41 sites indicated that, according to the criteria outlined in Chapter I, the feather hip cluster is geographicaly limited. Rabbit-ears head forms are not limited to any one particular region of the Lower Pecos, though their spatial distribution is unusually clustered.

Each anthropomorph attribute was analyzed using the method of structural analysis through comparison of the visual corpus collected during this study. The methodologies of formal analysis and structural analysis are fruitful when rigorously applied in studies of the PRS.

To record a rock art panel one must account for every motif, indeed every brush stroke; to analyze a symbol system one must account for every symbol, indeed every sign relationship. The Pecos River Style is uniform and coherent. It is a language-like system which demonstrates rule bound creativity. A large corpus remains preserved, enough to allow meaningful advances in the information we can learn about the people of the Lower Pecos Region who created this sophisticated art. The PRS is their enduring cognitive legacy. Through sound methods we can approach the meaning behind this art and make strides toward understanding their culture.

REFERENCES CITED

Aldana, G., I. Robertson, and J. Watts
2003 Knappers, Workshops, and Technological Style at Teotihuacán, Mexico. Paper presented at the 2003 Society for American Archaeology Annual Meeting, Milwaukee.

Århem, K.
1998 Powers of Place: Landscape, Territory and Local Belonging in Northwest Amazonia. In *Locality and Belonging*, edited by N. Lovell, pp. 78-102. Routledge, New York.

Bahn, P. G.
1997 *Journey Through the Ice Age*. University of California Press, Los Angeles

Bass, P. M.
1989 The Pecos Project: Semiotic Models for the Study of Rock Art. Unpublished Ph.D. dissertation, Rice University, Houston.

1992 The Pecos Rock Art Project: Interpretive Models for Analysis. In *Ancient Images, Ancient Thought: The Archaeology of Ideology*, edited by B. Godwin, S. Garvie, D. Selin and J. Smith. pp. 407-415. University of Calgary, Calgary.

1994 A Gendered Search Through Some West Texas Rock Art. In *New Light on Old Art: Recent Advances in Hunter-Gatherer Rock Art Research*, edited by D. S. Whitley and L. L. Loendorf, pp. 67-74. University of California at Los Angeles Press.

Beyer, H.
1937 Studies of the Inscriptions of Chichén Itzá. In *Contributions to American Archaeology No. 21*. Carnegie Institution of Wasington Pub. 483. Washington D.C.

Boas, F.
1955 *Primitive Art*. Reprinted Dover Publications Inc., New York. Originally published 1927.

Bourget, S.
2001 Rituals of Sacrifice: Its Practice at Huaca de la Luna and Its

Representation in Moche Iconography. In *Moche Art and Archaeology in Ancient Peru*, pp. 89-109. National Gallery of Art, Washington.

Bourget, S., and M. E. Newman
1998 A Toast to the Ancestors: Ritual Ancestors and Sacrificial Blood in Moche Culture. *Baessler Archiv*, Neue Folge, Band XLVI:85-106.

Boyd, C. E.
1996 Shamanic Journeys Into the Otherworld of the Archaic Chichimec. *Latin American Antiquity* 7(2):152-164.

1998a The Work of Art: Rock Art and Adaptation in the Lower Pecos, Texas Archaic. Unpublished Ph.D. dissertation, Texas A&M University, College Station.

1998b Pictographic Evidence of Peyotism in the Lower Pecos, Texas Archaic. In *The Archaeology of Rock-Art*, edited by P. S. Taçon and C. Chippindale, pp. 229-246. Cambridge University Press, Cambridge.

2003 *Rock Art of the Lower Pecos*. Texas A&M Press, College Station.

Boyd, C. E., and J. P. Dering
1996 Medicinal and Hallucinogenic Plants Identified in the Sediments and Pictographs of the Lower Pecos, Texas Archaic. *Antiquity* 70:256-275.

Bryant, V. M.
1969 Late Full-glacial and Post glacial Pollen Analysis of Texas Sediments. Unpublished Ph.D dissertation, The University of Texas at Austin.

Campbell, T. N.
1960 Origin of the Mescal Bean Cult. *American Antiquity* 1:156-160.

Chaffee, S. D., M. Hyman, and M. W. Rowe
1994 Radiocarbon Dating of Rock Paintings. In *New Light on Old Art: Recent Advances in Hunter-Gatherer Rock Art Research*, edited by D. S. Whitley and L. L. Loendorf, pp. 9-12. University of California at Los Angeles Press.

Clottes, J. and D. Lewis-Williams
1998 *The Shamans of Prehistory: Trance and Magic in the Painted Caves*. Harry N. Abrams, Inc., New York.

Coe, M. D.

1992 *Breaking the Maya Code*. Thames & Hudson, New York.

Coe, M. D., and M. V. Stone
2001 *Reading the Maya Glyphs*. Thames & Hudson, New York.

Dering, J. P.
1979 Pollen and Plant Macrofossil Vegetation Record Recovered from Hinds Cave, Val Verde County, Texas. Unpublished master's thesis. Texas A&M University, College Station.

1999 Earth-Oven Plant Processing in Archaic Period Economies: An Example From a Semi-Arid Savannah in South-Central North America. *American Antiquity* 64(4):695-674.

Donnan, C. B., and L. J. Castillo
1992 Finding the Tomb of a Moche Priestess. *Archaeology* 45(6):38-42.

Donnan, C. B., and D. McClelland
1999 *Moche Fineline Painting: Its Evolution and Its Artists*. UCLA Fowler Museum of Culture History, Los Angeles.

Dye, D., and S. Marceaux
2004 Hightower Anthropomorphic Marine Shell Gorgets and Duck River Sword-Form Flint Bifaces: Middle Mississippian Ritual Regalia in the Southern Appalachians. In *Chronology, Iconography, and Style: Current Perspectives on the Social and Temporal Contexts of the Southeastern Ceremonial Complex*, edited by Adam King, pp. 1-20. University of Alabama Press, Tuscaloosa.

Dymond, J. Z.
1976 The Paradox of the Lower Pecos. Unpublished honor's thesis, The University of Texas at Austin.

Eliade, M.
1964 *Shamanism: Archaic Techniques of Ecstasy*. Princeton University Press, Princeton.

Febvre, L. P.
1973 Sensibility and History: How to Reconstitute the Emotional Life of the Past. In *A New Kind of History: From the Writings of Febvre*, edited by P. Burke, pp. 12-26. Harper & Row Publishers, New York.

Friedel, D., L. Schele, and J. Parker
1993 *Maya Cosmos: Three Thousand Years on the Shaman's Path*. Quill, William Morrow, New York.

Gebhard, D.
1965 *Prehistoric Rock Paintings of the Seminole Canyon Area, Val Verde County, Texas*. Report prepared for the National Park Service by the University of California, Santa Barbara.

Grieder, T.
1966 Periods in Pecos Style Pictographs. *American Antiquity* 31:710-720.

Griffen, W. B.
1969 *Culture Change and Shifting Populations in Central Northern Mexico*. Anthropological Papers of the University of Arizona No. 13, The University of Arizona, Tucson.

Gunn, R. G.
1997 Rock Art, Occupation and Myth: The Correspondence of Symbolic and Archaeological Sites Within Arrernte Rock Art Complexes of Central Australia. *Rock Art Research* 14(2):124-136.

Harrison, J. B.
2003 Anthropomorphizing the Landscape: The Pecos River Style Core Motifs. Paper presented at the 2003 Society for American Archaeology Annual Meeting, Milwaukee.

Hermerén, G.
1969 *Representation and Meaning in the Visual Arts*. Lund Studies in Philosophy 1, Scandinavian University Books, Copenhagen.

Hester, T. R.
1988 Chronological Framework for Lower Pecos Prehistory. *Bulletin of the Texas Archaeological Society* 59:53-64.

Hodder, I.
1979 Social and Economic Stress and Material Cultural Patterning. *American Antiquity* 44:446-454.

1982 *Symbols in Action*. Cambridge University Press, Cambridge.

Hodder, I., and C. Orton

1976 *Spatial Analysis in Archaeology*. Cambridge University Press, Cambridge.

Hyland, J. R., and M. L. Gutiérrez
2002 Tierra, Linaje y Arte Rupestre: Geografia Prehistórica en Baja California Central. In *Boundaries and Territories: Prehistory of the U.S. Southwest and Northern Mexico*, edited by M. E. Villalpando, pp. 37-48. Arizona State University Anthropological Research Papers No. 54, Arizona State University, Tempe.

Hyman, M. and M. W. Rowe
1997a Plasma-Chemical Extraction and AMS Radiocarbon Dating of Rock Paintings. *American Indian Rock Art* 23:1-9.

1997b Plasma Extraction and AMS 14C Dating of Rock Paintings. *Techne* 5: 61-70.

Hyman, M., S. A. Turpin, and M. E. Zolensky
1996 Pigment Analyses from Panther Cave, Texas. *Rock Art Research* 13(2): 93-103.

Jackson, A. T.
1938 *Picture-Writing of Texas Indians*. The University of Texas Publication No. 3809, Austin.

Jonaitis, A.
1986 Hierarchy in the Art. In *Art of the Northern Tlingit*, edited by A. Jonaitis and Z. P. Mathews, pp. 98-108. University of Washington Press, Seattle.

Jones, S.
1997 *The Archaeology of Ethnicity: Constructing Identities in the Past and Present*. Routledge, New York.

Kappelman, J. G.
2002 Carved in Stone: The Cosmological Narratives of Late Preclassic Izapan-Style Monuments from the Pacific Slope. In *Heart of Creation: The Mesoamerican World and the Legacy of Linda Schele*, edited by A. Stone, pp. 66-82. The University of Alabama Press, Tuscaloosa.

Kehoe, A.
2000 *Shamans and Religion: An Anthropological Exploration in Critical Thinking*. Waveland Press, Prospect Heights, California.

Kelly, R.
1995 Egalitarian and Nonegalitarian Hunter-Gatherers. In *The Foraging Spectrum: Diversity in Hunter-Gatherer Lifeways*, pp. 293-331. Smithsonian Institution Press, Washington D.C.

Kirkland, F.
1937 A Study of Indian Pictures in Texas. *Bulletin of the Texas Archeological and Paleontological Society* 9:89-119.

1938 A Description of Texas Pictographs. *Bulletin of the Texas Archeological and Paleontological Society* 10:11-39.

1939 Indian Pictures in the Dry Shelters of Val Verde County, Texas. *Bulletin of the Texas Archeological and Paleontological Society* 11: 47-76.

Kirkland, F., and W. W. Newcomb
1996 *The Rock Art of Texas Indians*. Reprinted. The University of Texas Press, Austin. Originally published 1967.

Knight, V. J., J. A. Brown, and G. E. Lankford
2001 On the Subject Matter of Southeastern Ceremonial Complex Art. *Southeastern Archaeology* 20(2):129-141.

Layton, R.
1986 Political and Territorial Structures Among Hunter-Gatherers. *Man* 21: 18-33.

1989 The Political Use of Australian Aboriginal Body Painting and Its Archaeological Implications. In *The Meanings of Things: Material Culture and Symbolic Expression*, edited by I. Hodder, pp. 1-11. Unwin Hyman, London.

1991 *The Anthropology of Art*. Cambridge University Press, Cambridge.

Lemaistre, D.
1996 The Deer That Is Peyote and the Deer That Is Maize: The Hunt in the Huichol "Trinity." In *People of the Peyote: Huichol Indian History, Religion, and Survival*, edited by S. B. Schaefer and P. T. Furst, pp. 306-329. University of New Mexico Press, Albuquerque.

Leroi-Gourhan, A.
1968 *The Art of Ancient Man in Western Europe*. Thames and Hudson,

London.

Lyman, R. L., M. J. O'Brien, and R. C. Dunnell
1997 *The Rise and Fall of Culture History*. Plenum Press, New York.

Martin, G. C.
1933 *Archaeological Explorations of the Shumla Caves: Report of the George C. Martin Expedition*. Southwest Texas Archaeological Society, Witte Memorial Museum, San Antonio.

Maslow, A. H.
1968 *Toward a Psychology of Being*. Van Nostrand Reinhold Company, New York.

McElreath, R., R. Boyd, and P. J. Richerson
2003 Shared Norms Can Lead to the Evolution of Ethnic Markers. *Current Anthropology* 44:122-130.

Murray, W. B.
1979 Interpretive Perspectives on the Rock Art Traditions of Northeastern and North Central Mexico, with Special Reference to Nuevo Leon. *South Texas Journal of Research in the Humanities* 3:27-51.

2002 Style, Context and Tradition: Analytic Frameworks for Identifying Coahuiltecan Rock Art. In *Boundaries and Territories: Prehistory of the U.S. Southwest and Northern Mexico*, edited by M. E. Villalpando, pp. 37-48. Arizona State University Anthropological Research Papers No. 54, Arizona State University, Tempe.

Newcomb, W. W. Jr.
1976 Pecos River Pictographs: The Development of an Art Form. In *Cultural Change and Continuity: Essays in Honor of James Bennett Griffin*, edited by C. E. Cleland, pp. 175-190. Academic Press, New York.

O'Brien, M. J., and R. L. Lyman (editors)
1999 *Measuring the Flow of Time: The Works of James A. Ford, 1935-1941*. The University of Alabama Press. London.

Pandian, J.
1991 *Culture, Religion, and the Sacred Self: A Critical Introduction to the Anthropological Study of Religion*. Prentice Hall, Englewood Cliffs, New Jersey.

Panofsky, E.
1979 *Studies in Iconology: Humanistic Themes in the Art of the Renaissance*. Harper & Row, New York. Originally published 1939.

Patton, P., and D. Dibble
1982 Archaeological and Geomorphic Evidence for the Paleohydrologic Record of the Pecos River in West Texas. *American Journal of Science* 282: 97-121.

Pérez de Ribas, A.
1999 [1645] *History of the Triumphs of Our Holy Faith Amongst the Most Barbarous and Fierce Peoples of the New World*. The University of Arizona Press, Tucson.

Peterson, N.
1975 Hunter-Gatherer Territoriality: The Perspective from Australia. *American Anthropologist* 77(1):53-68.

Phillips, P., and J. A. Brown
1978 *Pre-Columbian Shell Engravings from the Craig Mound at Spiro, Oklahoma, Part 1.* Peabody Museum Press, Cambridge.

Reilly, K.
1996 Art, Ritual, and Rulership in the Olmec World. In *The Olmec World: Ritual and Rulership*, edited by J. Guthrie, pp. 27-45. The Art Museum, Princeton University, Princeton.

2000 Linda Schele. In *Unlocking the Secrets of Ancient Writing: The Parallel Lives of Michael Ventris and Linda Schele and the Decipherment of Mycenaean and Mayan Writing; Catalogue of an Exhibition in Conjunction with the Eleventh International Mycenological Colloquium,* pp. 16-25. Program in Aegean Scripts and Prehistory, The University of Texas at Austin.

Russ, Jon, Marian Hyman, Harry J. Shafer, and Marvin W. Rowe
1990 Radiocarbon Dating of Prehistoric Rock Paintings by Selective Oxidation of Organic Carbon. *Nature* 348:710-711

Sackett, J. R.
1977 The Meaning of Style in Archaeology: A General Model. *American Antiquity* 42(3):369-380.

1985 Style and Ethnicity in the Kalahari: A Reply to Wiessner. *American*

Antiquity 50:154-159.

Salas, E. L. (editor)
1998 *Boca de Potrerillos*. Universidad Autónoma de Nuevo León, Museo Bernabé de las Casas, Monterrey.

Saythe r, T. T.
1997a Acebuches and Cueva del Águila, Two Pictograph Sites in Northern Coahuila, Mexico. *Journal of Big Bend Studies* 9:19-32.

1997b Rock Art of Coahuila: Twelve New Pecos Sites and the Electric Cross. Paper presented at the 1997 American Rock Art Research Association Annual Meeting, La Junta, Colorado.

1998 The Rock Art of Coahuila: A General Survey. In *Rock Art of the Chihuahan Desert Borderlands*, edited by S. Savage-Smith and R. J. Mallouf, pp. 89-103. Center for Big Bend Studies, Sul Ross State University and Texas Parks and Wildlife Department, Alpine, Texas.

Saythe r, T. and D. Stuart
1998 Rock Art of Coahuila: Pictographs of the La Linda Area. Manuscript on file, Shumla School, Comstock, Texas.

Schaafsma, P.
1994 Trance and Transformation in the Canyons: Shamanism and Early Rock Art on the Colorado Plateau. In *Shamanism and Rock Art in North America*, edited by S. A. Turpin, pp. 73-102. Special Publication 1, Rock Art Foundation, Inc., San Antonio.

2000 *Warrior, Shield, and Star: Imagery and Ideology of Pueblo Warfare*. Western Edge Press, Santa Fe, New Mexico.

Schele, L.
1981 *Notebook for the Maya Hieroglyphic Writing Workshop at Texas*. Institute of Latin American Studies, University of Texas at Austin.

Schultz, T. C.
2000 Medicine Bags, Secret Societies, and the S.E.C.C. Paper presented at the 2000 Southeastern Archaeological Conference, Macon, Georgia.

Shafer, H. J.
1975 Clay Figurines from the Lower Pecos Region, Texas. *American Antiquity* 40(2):148-157.

1977 Art and Territoriality in the Lower Pecos Archaic. *Plains Anthropologist* 22:13-21.

1981 The Adaptive Technology of the Prehistoric Inhabitants of Southwest Texas. *Plains Anthropologist* 26(92):129-138.

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

1988 The Prehistoric Legacy of the Lower Pecos Region of Texas. *Bulletin of the Texas Archaeological Society* 59:23-52.

Steelman, K. L., and M. W. Rowe
2003 Dating Pictographs: Independent Dates and Their Implications for Rock Art. Paper presented at the 2003 Society for American Archaeology Annual Meeting, Milwaukee.

Suhm, D. A., A. D. Krieger, and E. B. Jelks
1954 An Introductory Handbook of Texas Archeology (Pecos River Focus). *Bulletin of the Texas Archaeological Society* 25:52-56.

Taçon, P. S., and C. Chippindale
1998 An Archaeology of Rock-Art Through Informed Methods and Formal Methods. In *The Archaeology of Rock-Art*, edited by P. S. Taçon and C. Chippindale, pp. 1-10. Cambridge University Press, Cambridge.

Taylor, H. C.
1949 A Tentative Cultural Sequence for the Area About the Mouth of the Pecos. *Bulletin of the Texas Archaeological and Paleontological Society* 20:73-88.

Taylor, W. W.
1964 Tethered Nomadism and Water Territoriality: An Hypothesis. *Actas y Memorias 2*. XXXV Congreso International de Americanistas. Mexico.

1966 Archaic Cultures Adjacent to the Northeastern Frontiers of Mesoamerica. In *Handbook of Middle American Indians: Archaeological Frontiers and External Connections*, edited by G. F. Ekholm and G. R. Willey, pp. 59-94. University of Texas Press, Austin.

1972 The Hunter-Gatherer Nomads of Northern Mexico: A Comparison of the Archival and Archaeological Records. *World Archaeology* 4(2):167-178.

Trigger, B. G.
1989 *A History of Archaeological Thought*. Cambridge University Press, Cambridge.

Turpin, S. A.
1982 *Seminole Canyon: The Art and the Archaeology.* , Texas Archaeological Survey Research Report 83. The University of Texas at Austin.

1984 The Red Linear Style Pictographs of the Lower Pecos River Region, Texas. *Plains Anthropologist* 29:181-198.

1986a An Example of a Mythical Creature in Pecos River Style Art: Southwest Texas. *La Tierra* 13(4):15-19.

1986b Toward a Definition of a Pictograph Style: The Lower Pecos Bold Line Geometric. *Plains Anthropologist* 31:153- 161.

1988 Cultural Implications of Seminole Sink. *Plains Anthropologist* 33:120-141.

1989 Sin Nombre and El Fortín: Pecos River Style Pictographs in Northern Mexico. *Bulletin of the Texas Archaeological Society* 60:267-281.

1990a Rock Art and Its Contribution to Hunter-Gatherer Archeology: A Case Study from the Lower Pecos River Region of Southwest Texas and Northern Mexico. *Journal of Field Archeology* 17(3):263-281.

1990b Speculations on the Age and Origin of the Pecos River Style, Southwest Texas. *American Indian Rock Art* 16:99-122.

1990c Skyline Ranch: An Interim Report. Manuscript on file, Texas Archaeological Research Laboratory, The University of Texas at Austin.

1991 Time Out of Mind: The Radiocarbon Chronology of the Lower Pecos River Region. In *Papers on Lower Pecos Prehistory*, edited by S. A. Turpin, pp.1-50. Studies in Archaeology 8, Texas Archeological Research Laboratory, The University of Texas at Austin.

1994a The Were-Cougar Theme in Pecos River-Style Art and Its Implications for Traditional Archaeology. In *New Light on Old Art: Recent Advances in Hunter-Gatherer Research*, edited by D. S. Whitley and L. L. Loendorf, pp. 75-80. Institute of Archaeology Monograph 36, University of California, Los Angeles.

1994b On a Wing and a Prayer: Flight Metaphors in Pecos River Art. In *Shamanism and Rock Art in North America*, edited by S. A. Turpin, pp. 73-102. Special Publication 1, Rock Art Foundation, Inc., San Antonio.

1995a The Lower Pecos River Region of Texas and Northern Mexico. *Bulletin of the Texas Archaeological Society* 66:542-560.

1995b *West of the Pecos: An Archaeological Reconnaissance on University Lands, Terrell County, Texas*. Borderlands Archeological Research Unit Cultural Resource Report 2. University of Texas at Austin.

1997 Pigment Cakes from the Lower Pecos Region. *La Tierra* 24(4):34-37.

2002 Body or Soul: The Diffusion of Rock Art Imagery in Prehistoric Coahuila and Texas. In *Boundaries and Territories: Prehistory of the U.S. Southwest and Northern Mexico*, edited by M. E. Villalpando, pp. 37-48. Arizona State University Anthropological Research Papers No. 54, Arizona State University, Tempe.

2003 Lewis Canyon Explained: The Ritual Implications of Water in the Desert. Paper Presented at the 2003 Center for Big Bend Studies Conference, Alpine, Texas.

2004 Cyclical Nucleation and Sacred Space: Rock Art at the Center. In *New Perspectives on Prehistoric Art*, edited by G. Berghaus, pp. 25-35. Bristol Lecture Series, Praeger Press, New York.

Turpin, S. A., and M. W. Davis

1993 The 1989 TAS Field School: Devils River State Natural Area. *Bulletin of the Texas Archaeological Society* 61:1-58.

Turpin, S. A., and H. H. Eling

1999 *Cueva Pilote: Ritual Bloodletting Among the Prehistoric Hunters and Gatherers of Northern Coahuila, Mexico*. Institute of Latin American Studies, The University of Texas at Austin.

Turpin, S. A., H. H. Eling, and M. V. Moreno
1998 Toward the Definition of a Style: The Chiquihuitillos Pictographs of Northeastern Mexico. In *Rock Art of the Chihuahan Desert Borderlands*, edited by S. Savage-Smith and R. J. Mallouf, pp. 89-103. Center for Big Bend Studies, Sul Ross State University and Texas Parks and Wildlife Department, Alpine, Texas.

Vinnicombe, P.
1986 Rock Art, Territory and Land Rights. In *The Past and Future of !Kung Ethnography: Critical Reflections and Symbolic Perspectives*, edited by M. Biesele with R. Gordon and R. Lee, pp. 275- 309. Helmut Buske Verlag, Hamburg.

Waring, A. J., and P. Holder
1945 A Prehistoric Ceremonial Complex in the Southeastern United States. *American Anthropologist* 47(1):1-34.

Wiessner, P.
1983 Style and Social Information in Kalahari San Projectile Points. *American Antiquity* 48(2):253-276.

Winkelman, M.
1989 A Cross-Cultural Study of Shamanic Healers. *Journal of Psychoactive Drugs* 21(1):17-24.

Wobst, M.
1977 *Stylistic Behavior and Information Exchange*. University of Michigan Museum of Anthropology, Anthropological Paper 61, 317-342.

Zighelboim, A.
1995 Mountain Scenes of Human Sacrifice in Moche Ceramic Iconography. *Journal of the Steward Anthropological Society* 23(1-2):153-188.

Zintgraff, J., and S. A. Turpin
1991 *Pecos River Rock Art: A Photographic Essay*. Sandy McPherson Publishing Company, San Antonio, Texas.

APPENDIX A

PECOS RIVER STYLE ICONOGRAPHY PROJECT FORMS

The Pecos River Style Iconography Project

Site trinomial: **Common name:**

Date: **Start time:** **Finish time:**
Total time:

River drainage: **Tributary:**

USGS Quad: **U.T.M or Lat/long:**

Aspect °: **Max depth of shelter:**

Land owner: **Ranch/property name:**

Contact Information:

Rock art condition:

Site impacts:

% Pristine: **% Destroyed:**

Lighting conditions:

Best lighting for photography:

Type of film: **Roll #:** **Special equipment:**

O Burned rock	O Deflated site	O Intact deposits	O Stratified site
O Lithic debitage	O Unifacial tools	O Bifacial tools	O Projectile Points
O Monos	O Bedrock mortars	O Cupules	O Skin polish
O Red linear	O Red monoch.	O B.L. Geometric	O Historic rock art
O Petroglyphs	O Fiber artifacts	O Food remains	O Other artifacts

---

Notes:

Site #_____ Date_____

Core motifs #_____ #simple_____ #compound_____
_____(?_____)In sinuous lines
_____(?_____)In field
_____(?_____)Associated feline
_____(?_____)Hole in the Universe
_____(?_____)Associated Datura-like Character
_____(?_____)Heraldic motif
_____(?_____)Series of equals
_____(?_____)Two in juxtaposition
_____(?_____)Impaled objects
_____(?_____)Line of deer
_____(?_____)Flight metaphor
_____(?_____)Apprentice

Enigmatic Characters
_____(?_____)Datura-like
_____(?_____)Centipede-like
_____(?_____)Gar-like

Anthropomorph attributes
_____(?_____)Plume head form
_____(?_____)Were-cougar head form
_____(?_____)Rabbit ears head form
_____(?_____)Feather hip cluster
_____(?_____)Antlers head form

Symbols
_____(?_____)Single pole ladder
_____(?_____)Deer stand-like
_____(?_____)Impaled dot
_____(?_____)Circle with streamer
_____(?_____)Harrison bar
_____(?_____)U
_____(?_____)Cross
_____(?_____)Y
_____(?_____)T
_____(?_____)Curvilinear
_____(?_____)Two talons
_____(?_____)Fire cracker
_____(?_____)Antlers
_____(?_____)Thistles
_____(?_____)Comb

_____sinuous motifs(presence/absence)
_____petaloid motifs(presence/absence)

The Pecos River Style Iconography Project

Digital Image Form

Page____ of ____

Site #/name:

Date:

Image _____:

Image _____:

Image _____:

Image _____:

Image _____:

Image _____:

Image _____:

Image _____:

Image _____:

Image _____:

Image _____:

The Pecos River Style Iconography Project: Photo log

Roll #: 001 **Date shot:** **Date developed:**

Type of film: **Site/Sites:**

Notes:

Roll #: 002 **Date shot:** **Date developed:**

Type of film: **Site/Sites:**

Notes:

Roll #: 003 **Date shot:** **Date developed:**

Type of film: **Site/Sites:**

Notes:

Roll #: 004 **Date shot:** **Date developed:**

Type of film: **Site/Sites:**

Notes:

Roll #: 005 **Date shot:** **Date developed:**

Type of film: **Site/Sites:**

Notes:

VITA

James B. Harrison III
511 S. Meyer Ave., Tucson, AZ 85701
jharrison3rd@yahoo.com

Education
M.A., Anthropology, Texas A&M University (May 2004)
B.A., Psychology, Southwest Texas State University/ Texas State University-San Marcos (December 2000)

Research Interests
Lower Pecos Region rock art and archaeology, iconographic methodology, cognitive archaeology, and symbolism

Papers Presented
Aboriginal Scratching of Archaic Period Rock Art: Lower Pecos Region, Texas. The American Rock Art Rescarch Association Annual Meeting, May 2004
Anthropomorphizing the Landscape: The Pecos River Style Core Motifs. Society for American Archaeology Annual Meeting, April 2003

Publications
Analysis of Two Pecos River Style Curvilinear Motifs. *La Tierra*. (in press)

Positions Currently Held
Research Fellow: Center for the Arts and Symbolism of Ancient America (CASAA)

Professional Memberships
Society for American Archaeology
The Australian Rock Art Research Association

Employment History
HRA Inc. Conservation Archaeology-Tucson, AZ (April 2004-present)
SWCA Environmental Consultants- Tucson, AZ (August 2003- April 2004)
Supervisor: Jerome Hesse
Archaeological & Environmental Consultants LLC- Austin, TX (June- July 2003)
Supervisor: Tim Perttula
National Park Service- Santa Fe, NM (May 2002-August 2002)
Supervisor: Melissa Powell
Weaver and Associates- Memphis, TN (May 2000- May 2001)
Supervisor: Guy Weaver