

2012

The Rock Art of the Blood of the Ancestors Grotto (11SA557): The Archaeology of Religious Theater

Lenville J. Stelle

Parkland College, LStelle@parkland.edu

Recommended Citation

Stelle, Lenville J., "The Rock Art of the Blood of the Ancestors Grotto (11SA557): The Archaeology of Religious Theater" (2012). *Anthropology Faculty Scholarship*. Paper 6.
http://spark.parkland.edu/ant_fac_pubs/6

Open access to this Article is brought to you by Parkland College's institutional repository, [SPARK: Scholarship at Parkland](#). For more information, please contact spark@parkland.edu.

THE ROCK ART OF THE BLOOD OF THE ANCESTORS GROTTA (11SA557): THE ARCHAEOLOGY OF RELIGIOUS THEATER

LENVILLE J. STELLE

11SA557 is a pictographic rock art site in the Hill Section of southern Illinois. To date, 33 icons, both simple and complex, have been identified. The distinctive biophysical qualities of the site have compelled an interpretation that it was in some fundamental sense “female.” Ethnohistorical and ethnographic explorations inform a treatment of 11SA557 as a religious theater where female puberty ceremonies of the Dhegiba Sioux were performed. Exploitation likely dates to the Protohistoric period. Twenty-one elements of religious theater are explored archaeologically and ethnographically. The application of the heuristic model of religious theater afforded a measureable enhancement of the understanding of the site.

In a recent paper delivered at the Society for American Archaeology, Mavis Greer (2010) noted that 85 percent of the counties in Montana have documented rock art sites. Such is not the case in Illinois, where prehistoric rock art is extremely rare. 11SA557 (Blood of the Ancestors Grotto, or BAG) is one of less than 100 known rock art sites in Illinois. Even more compelling is the fact that fewer than a dozen are pictographic. Given the rarity of such sites in Illinois and, more broadly, in the Ohio Valley, a deeper analysis and interpretation of 11SA557 is warranted.

In March and May 2005, field crews from Parkland College, Champaign, Illinois, rediscovered and documented the archaeologically unknown pictographs of 11SA557 (Figure 1). They returned at winter solstice of the same year for further site exploration and data collection.

Lenville J. Stelle, Parkland College, 2400 West Bradley Avenue, Champaign, IL 61821, lstelle@parkland.edu

©2012 Illinois Archaeological Survey, Inc., *Illinois Archaeology*, vol. 24, pp. 1–70



Figure 1. Parkland College students documenting the rock art of 11SA557: (a) the “pool of blood,” (b) *Osmunda regalis* (Royal fern).

Discussions of methodology that include detailed descriptions of the instrumental techniques employed for image collection and manipulation have been published (Stelle 2006a, 2006b, 2009; available online at http://spark.parkland.edu/ant_fac_pubs/5). The approach was ultimately driven by concerns over the fragile and dynamic properties of pictographs and the technologies and techniques that would result in minimal invasiveness, heightened interobserver reliability, replicable results, and the intergenerational availability of one's findings. The reader is advised that most of the illustrations in this article reflect an enhancement of the color of the icons. (Figure 18, which depicts a view of their natural, existing state, shows how the icons currently appear on the walls of the Grotto.)

The next task is in many ways a more complex one for the student of rock art: how is the art and, indeed, the site itself to be understood?

Description of Biophysical Environment and Initial Interpretations

11SA557 is located within the physiographic unit of southern Illinois labeled the Hill Section (Figure 2). Found here are remnant stands of the oak-hickory forest that dominated the region until well into the historic period. The Grotto's microenvironment suggests a more easterly mesophytic association that is reflected in the measurable presence of both sugar maple (*Acer saccharum*) and the Royal fern (*Osmunda regalis*).

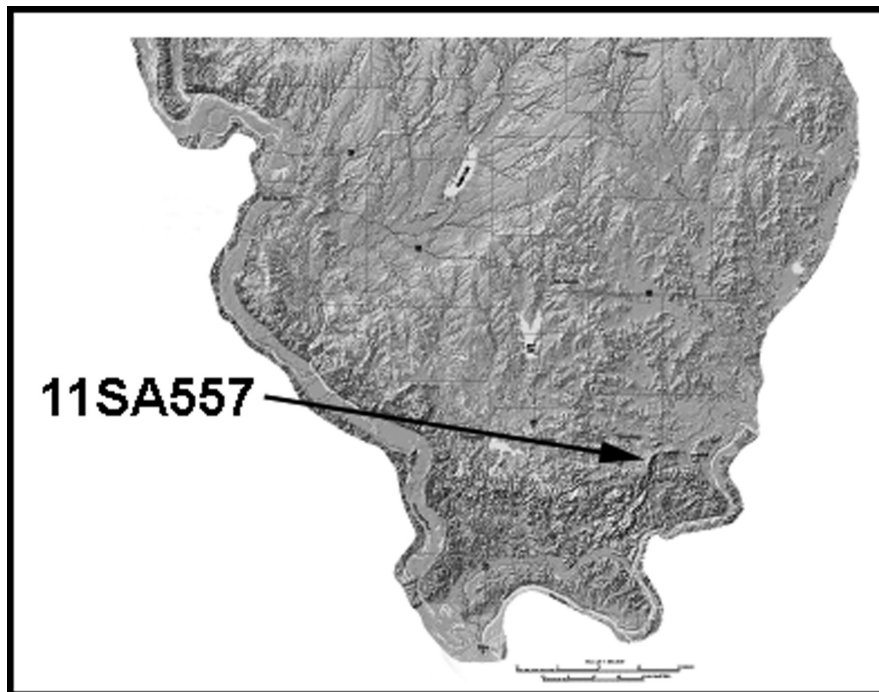


Figure 2. The location of 11SA557 in Saline County, Illinois.

The journey into the rendering of meaning is initiated with a considerable amount of trepidation. The interpretation of prehistoric iconography is fraught with a variety of intellectual dangers. As George Herbert Mead (1934:47, 71–72, 268–269) concluded nearly a century ago, significant symbols have an arbitrary meaning conventionalized to the members of a specific group or society. If the society is dead and no recognizable cognitive bridges survive, then by definition, the meaning of the icon is lost. The best that can be offered is empirically nonfalsifiable statements of meaning. Some relief from this derived anthropological fact is the insight that arrived with the demonstration that rock art was not randomly distributed over the landscape. In the Midwest over the past quarter century, the articulation of rock art sites with elements of the natural environment has become a consistent methodological strategy (i.e., Swauger 1984:256; Coy, et al. 1997:25; Diaz-Granados and Duncan 2000:49–62; Wagner et al. 2000:188–190; Fortier 1995:96). Consequently, the first step in deriving the art's meaning (Figure 3, 4, and 5) necessitates an exploration of the distinctive and unusual qualities of 11SA557's biophysical context.

Embarking on this interpretative adventure, I was reminded of Patricia Galloway's (1998) searing indictment of late prehistoric southeastern archaeology. In a short article titled "Where Have All the Menstrual Huts Gone," she accuses archaeologists of the Southeast (and I would expand this to the entire eastern half of North America) of failing to archaeologically identify what 51 percent of the population was doing 20 percent of the time. She was right. Perhaps what is offered here can be viewed as a step in the direction of correcting past oversights. A detailed examination of the rock art literature for the Eastern Woodlands reveals little systematic attention directed at female qualities of the artists, the art, or the ethnographic analogies so commonly employed in the art's interpretation. Generally, the ethnographic data speak only to what Buckley and Gottlieb (1988) have labeled "blood magic." The literature provides abundant examples of both prescribed and proscribed behaviors, often ritualized, that were culturally ordained to provide spiritual protections from the biological fact of menstruation (Dorsey 1940:93–97; Shimony 1994:216–218; Wallace and Steen 1972:38; Waugh 1916:21, 59, 131; Vecsey 1983:130–131). Indeed, I was exposed to surviving aspects of this concern during our work at the site, when my male Native American students and guests inquired if any of the female members of our crew were on their "moon time" and where they were in their "lunar cycle." When I got past how the interrogatives shocked my middle-class standards and could respond, they observed that they needed to know prior to initiating certain ceremonial activities. Blood magic is "powerful, you know, we must be careful." But one finds little literature addressing where and how the knowledge of "blood magic" was transferred from generation to generation. Perhaps pictograph sites that entail symbolic menses being finger applied to the walls of a vulva-shaped opening into Mother Earth signals a place where such transfers could have been achieved.

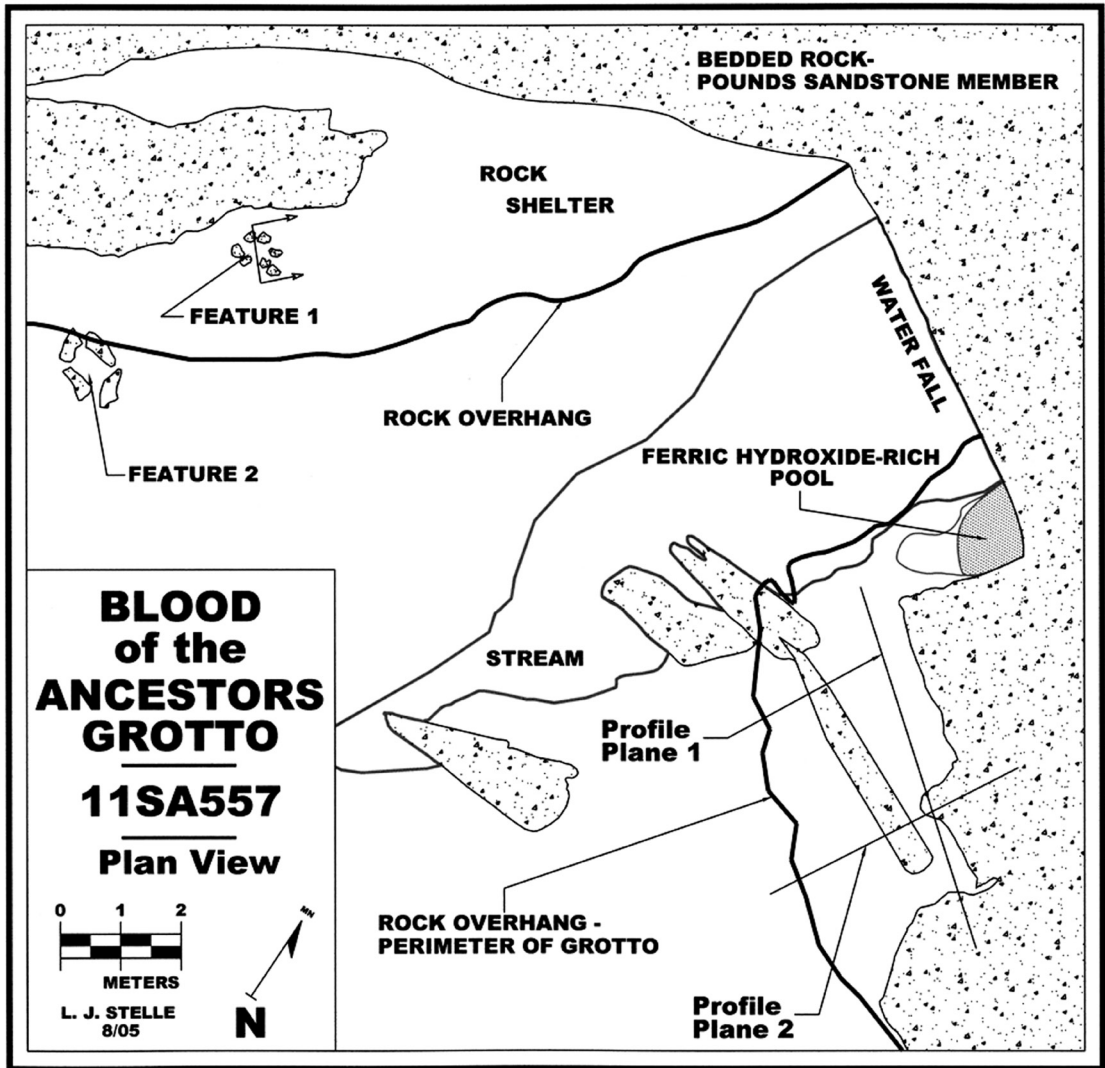


Figure 3. Plan view of 11SA557.

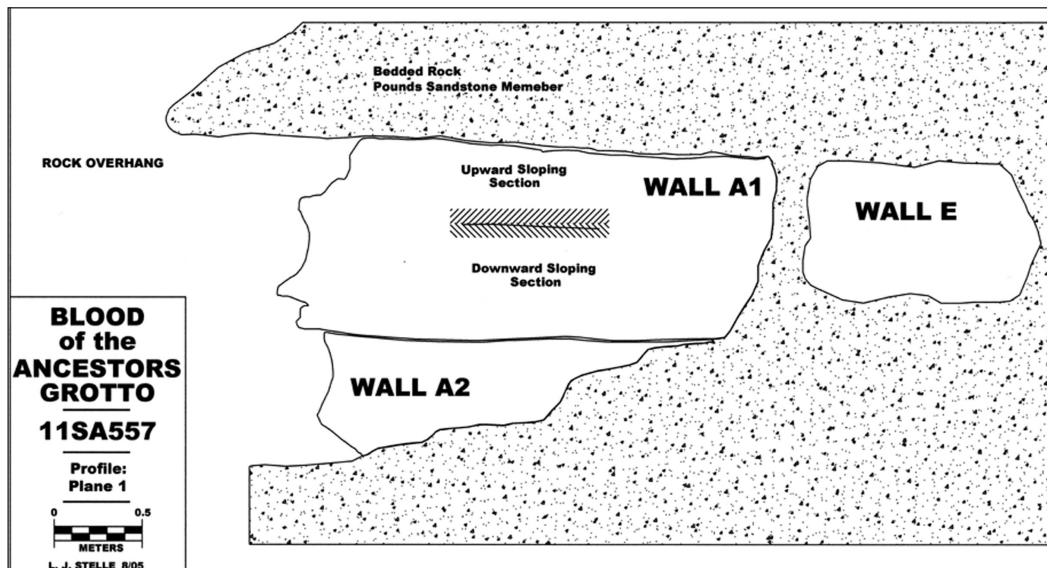


Figure 4. East-west profile of 11SA557, Profile Plane 1.

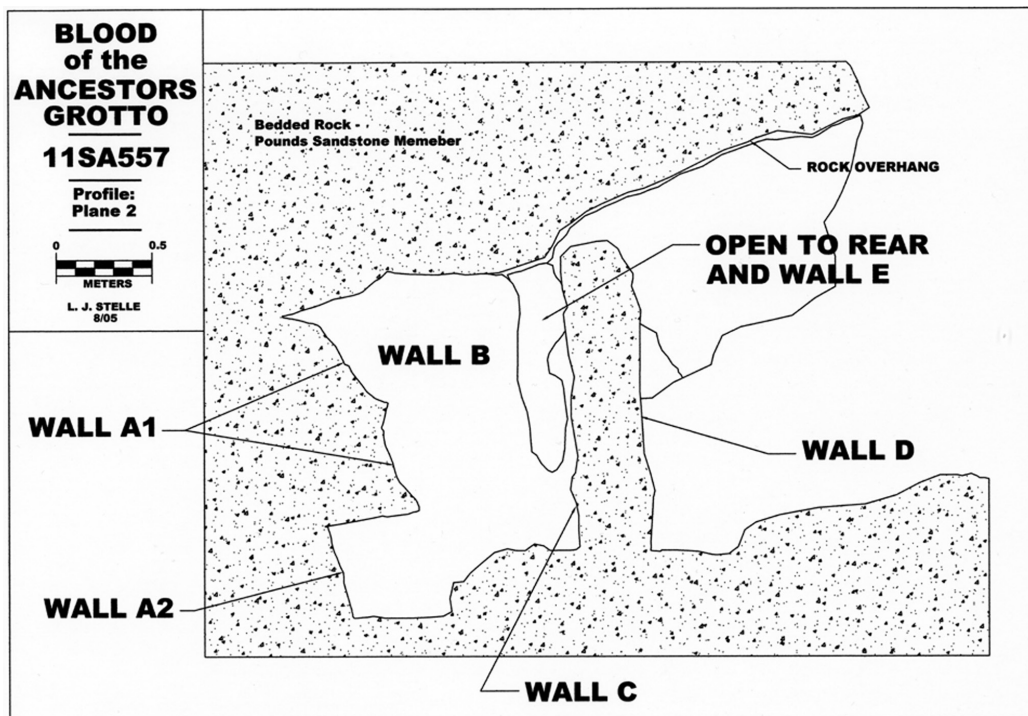


Figure 5. North-south profile of 11SA557, Profile Plane 2.

11SA557 is situated in a locale that midwestern archaeologists would consider to have been a sacred precinct for the ancients. For, as the Ojibwa elder and Methodist missionary Peter Jones (1861:85) observed in the first half of the nineteenth century, “Any remarkable features in natural scenery...become objects of superstitious dread and veneration, from the idea that they are the abodes of [spirits]: for instance, curious trees, rocks, islands, mountains, caves, and waterfalls.” 11SA557 includes a waterfall wrapped by openings into the earth (Figure 6). Many studies from the region have illustrated the importance of such locations and the high frequency of associated rock art (Diaz-Granados and Duncan 2000:20–27; Wagner et al. 1999:179; Wagner et al. 2000:188–190).

Surface Water and Falls

The intermittent and unnamed stream lying proximate to the Grotto helps drain the western face of an eastward sloping cuesta. Water levels vary, but the falls can be active even as the stream becomes buried below its canyon’s mouth. At 11SA557, the stream cascades down a two-tiered falls approximately 3 m high and 2 m wide (Figure 6).

Groundwater

The single most distinctive physical feature of the site beyond the earth-openings and the falls is the “pool of blood” (so labeled by the field crew) expressed in the meter’s distance separating the Grotto and the base of the falls (Figures 1a and 7). The “blood” was initially thought to be chemolithotrophic in derivation (Diaz-Granados 2000:104–105). Further investigation revealed a different origin. There is here a permanent source of groundwater with the distinctive chemical properties of being (1) anoxic, (2) neutral to slightly acid, and (3) rich in dissolved iron. This very narrow environmental niche supports iron-eating bacteria including *Gallionella ferruginea* (Stelle 2009:209, Figure 12). *Gallionella ferruginea* oxidizes iron dissolved in groundwater. The iron is transformed into the insoluble precipitate ferric hydroxide [Fe(OH)₃], or the pigment in the thick, reddish-orange slurry. The “pool” is actually a mound of living bacteria and decayed organic residues. While further instrumental study is planned, at this point it is thought that the pool provided the paint employed in the creation of the icons. The technique of application, with but three exceptions, was, presumably, that of daubing one’s fingers into the pool and then applying the material to the lithic canvas.

Important also to a fuller understanding of 11SA557 are the small springs feeding the creek above the falls, which extend for a distance of approximately 60 m (Figure 8). The groundwater can be observed bubbling through the surface soils and issuing from fissures in the bedrock. Seasonally this groundwater is also anoxic, rich in iron, and neutral to slightly acid. The consequence is a microenvironment favorable to colonization by the iron-eating bacteria just described. What happens here is that during an annual cycle, the creek itself will turn to an orangish-red color. Indeed, observe the waterfall at winter solstice (Figure 6b). Groundwater specialists at the Illinois State Water Sur-

vey and the Illinois State Geological Survey affirm that this phenomenon likely has an annual cycle and suggest that it is a manifestation of groundwater reservoir levels (H. Allen Wehrmann, Senior Hydrologist and Director, Center for Groundwater Science, Illinois State Water Survey, personal communication 2006). While the pool of “blood” seems always present, it is only during the season of the winter solstice that the springs flow and the stream “turns to blood.”



Figure 6. The waterfall in April (a) and December (b).



Figure 7. The “pool of blood” in May 2005. The pool is actually a mound of Gallionella ferruginea remains, including the insoluble precipitate ferric hydroxide, supported by an anoxic spring. It was the source of the paint employed for the pictographs. Note the presence of the Royal fern (Osmunda regalis). The canvas camera bag is sitting at the base of Wall A2.



Figure 8. The presence of anoxic, iron-rich springs feeding the creek above the waterfall begins with this pool. The distance is approximately 60 m upstream of the falls. Note that in this winter solstice photo, colonies of Gallionella ferruginea are already in bloom.

Salt Springs

Intertwined with a discussion of 11SA557's physical environment must be recognition that significant salt springs are to be found within its larger catchment. At a distance of approximately 10 km is found Half Moon Lick and, at 13 km, the Great Salt Spring of the Saline River. The Great Salt Spring (11GA6) is included in the National Register because it was a point-resource of considerable midcontinental economic import. 11GA6 demonstrates a deep prehistoric record and was exploited by many different peoples (Butler et al. 1979:66–70; James 1905:81; Sellers 1877). Jon Muller (1996) has here noted an uncommon cultural expression reflecting the “the communal use of the salterns.” Even in the historic period, a variety of indigenous groups from seemingly distant regions held claims to the spring. The claims were apparently based on utilization rather than possession. For instance, in the land cession treaty signed in 1803 at Ft. Wayne, Indiana, the Delaware, Shawnee, Potawatomi, Miami, Eel River, Wea, Kickapoo, Piankishaw, and Kaskaskia were all signatories. In Article 3 of the treaty, they collectively relinquished their right to extract salt and a “quantity of land around it not exceeding four miles square” (Kappler 1904:64–65). Of note is that this lithic resource was being exploited by native societies well into the historic period and that the exploitation involved ethnic groups not otherwise associated with this region.

Lithic Context and Geomorphology

The exposed bedrock of the locale is the upper boundary of the Pennsylvanian age Pounds Sandstone Member (Caseyville Formation). On one side of the falls is the Grotto and on the other a rather typical, medium-sized rock shelter (Figures 3 and 17).

While rock art was only identified in the Grotto, the proximity of the shelter was intriguing. A simple, informal, and effective strategy (cf. Waller 2011) was employed to gauge the relationship between these two lithic features. The students took seats on the exposed lithic surfaces of the floor of the rock shelter while I stood in the Grotto facing the pictographs and gave a lecture. Even over the sound of the waterfall, they collectively reported no difficulty in hearing my voice or noting my gesticulations. Demonstrated was an acoustical and visual bridge that would have allowed the shelter to function as a surprisingly effective listening and viewing area for activities spoken or performed within the Grotto.

Sunlight

The relationship between sunlight and rock art is an area of discussion frequented by voices and ideas not always considered professionally sound. However, the agency of 11SA557 is great, and I must share an experience and register my observations.

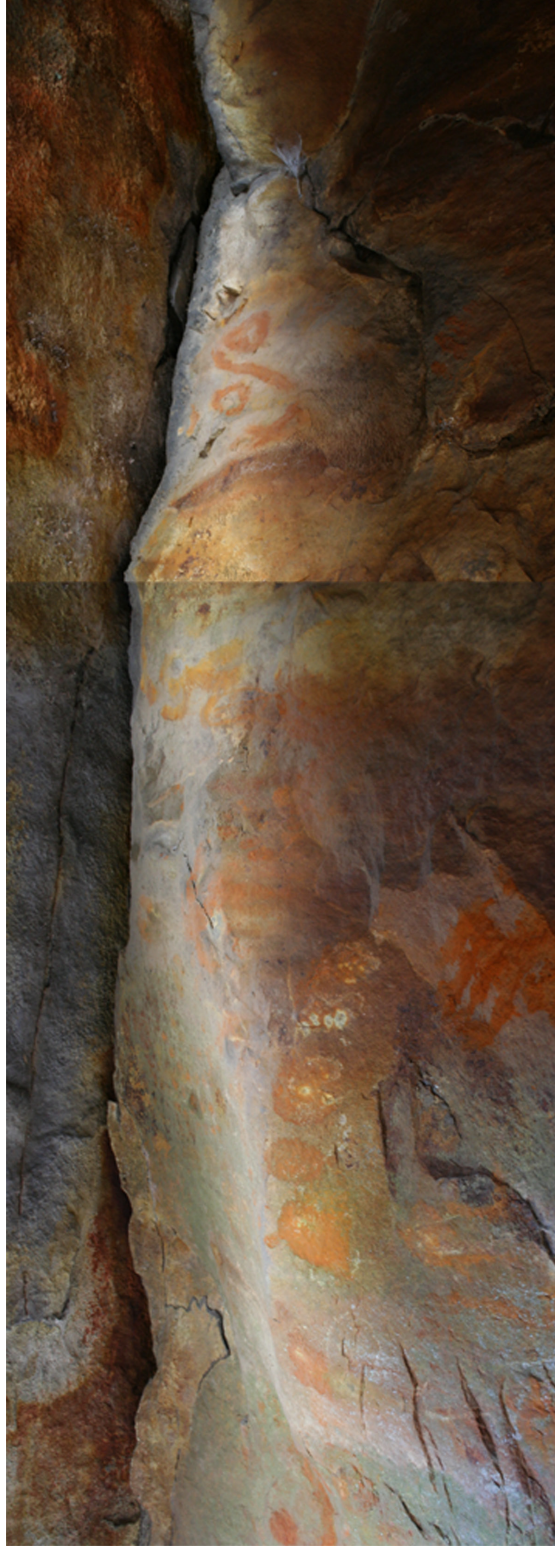


Figure 9. The solar illumination of the ceiling-wall block fault during the late afternoon of winter solstice, December 21, 2005. The sunlight is being reflected off of the leaf litter on the forest floor. Snow cover or frost would certainly enhance the intensity of reflected sunlight.

At the end of May, when my Parkland students and I were doing our fieldwork, we were running late getting out of the site and back to camp. Sometime after 6 p.m. one of my students was giving the Grotto a test to explore the acoustical properties of voice and drum performance from within 11SA557's confines. I was snapping pictures (Figure 17) when I realized that sunlight was now directly illuminating parts of Wall A2 and then, shortly, the lower section of Wall A1. Over the next hour, before the sun slipped behind the crest of the ridge to the west of 11SA557, more of these two walls were directly illuminated.

Convinced that the sun at winter solstice deserved observation, we returned on December 21. Alas, it became quickly apparent that the sun would be too far south and too low in the sky for its radiance to reach the Grotto's walls. And then I heard the voice of my assistant, Jon, call out from the interior of the Grotto, "You better come and look at this." Sunlight was illuminating the upper reaches of Wall A1. In fact, the ceiling-wall block fault had light penetrating it. I grabbed my camera but must confess that the soft lighting was difficult to capture (Figure 9). There was no direct sunlight. The light that was entering and revealing the Grotto's upper wall was being reflected off of the leaf litter on the forest floor. The opening of the forest canopy with the dropping of the leaves produced a curious effect that would only be enhanced by frost or snow cover.

The presence or absence of sunlight and its character may be central to interpreting the structure and positioning of the pictographs on the walls of the Grotto. Further discussion of the significance of sunlight will be provided later in the article.

Flora

A regionally uncommon plant is commonly encountered growing from and in association with the pool and springs of 11SA557. The Royal fern (*Osmunda regalis*) is observed issuing from the pool (Figures 1b and 7). In a slightly extended view, the phytogeography of the plant is coterminous with the previously described anoxic springs. There is a clear association between the distinctive chemical properties of the groundwater and the spatial distribution of the plant.

The significance of *Osmunda regalis* in this place may not be readily apparent to the reader. An even cursory examination of the ethnobotanical literature for the Eastern Woodlands reveals that this plant, as well as other ferns occupying similar niches, was frequently employed as a remedy for "female disorders." It is well documented, for instance, among the Six Nations of the Iroquois (Herrick 1977:260; Shimony 1994:218). Huron Smith (1923; 1933) indicates in his ethnobotanies of the Forest Potawatomi and the Minomini that the Lady fern (*Athyrium filix-famina*) and the Maidenhair fern (*Asplenium trichomanes*) were both similarly employed. The Maidenhair fern was also exploited by both the Ojibwa (Hilger 1951:92) and the Cherokee (Hamel and Chiltonsky 1975:34) for such conditions as "breast diseases," "acrid humors," and "irregular menses." A brief list of fern species growing in the context of iron-eating bacteria like *Gallionella ferruginea* were thought by indigenous peoples to have useful medicinal properties for

“female” issues. The hypothetical logic was apparently that there is a plant that grows in the “menses” discharged by Mother Earth; one can use it to help address her own gynecological disorders. It was the spatial relationship observed in the natural world that produced this understanding of the pharmacological importance of the plants. Lastly, Huron Smith (1933:72) observes with regard to the Forest Potawatomi that the name “Lady fern” “is the common Indian [Potawatomi?] word ... for all ferns and is probably derived from the use to which they put many of the roots.” The implication, given the widespread ethnobotanical evidence for the practice, is that women may have come to 11SA557 to extract a plant they thought curative of their sex-specific medical circumstance.

Lichens

Irwin Brodo observes that, “Lichens are the most overlooked of the conspicuous organisms in the natural landscape. The eye often cannot see what the mind does not already know” (Brodo, et al. 2008). His admonishment is well taken. At least two species of lichen, a crustose and a foliose, are visible on parts of Wall A (Figures 10 and 18). None of the lichens have been subjected to thin layer chromatography (TLC), and as a result species-level assignment is not possible at this time. Importantly, the spatial distribution of the organisms corresponds to the pattern of the direct sunlight of the summer sun. In general, lichen grows where the sunlight of summer strikes the Grotto’s wall. The implication is that with study, the prehistoric users would have observed “vegetative” growth on portions of the Grotto’s walls. As will be suggested later in the discussion of the *This World* of Dhegihan cosmology, the presence of plant life may be key to an understanding of the design layout of the pictographs.

Summary of Environment Conditions and the Modest Interpretive Implication

In conclusion, the exploration of the biophysical context of the Blood of the Ancestor’s Grotto affords a compelling logic that the site was “female”; that the Grotto and associated rock shelter had the potential to articulate as a natural classroom or theater; and that it was a place of medicine and healing. Observed and documented are Mother Earth’s menses, the cycle of her flow, and the availability of blood medicine. Of course for traditional cultures “medicine” and healing also typically incorporated large admixtures of spiritual understanding and techniques of spiritual manipulation, that is, ritual behavior. It seems safe to therefore conclude that 11SA557 was a very spiritually powerful place—and this for both females and males alike.

The interpretation of at least some rock art sites requires attention to environmental attributes beyond topography, lithic morphology, and the presence of water features. Groundwater chemistry and periodicities, bacterial action, and floristic associates would all also seem worthy of investigation. A broader and deeper environmental analysis, cor-

responding to an expanded view of what constitutes critical contextual considerations, seems to provide much traction in addressing two levels of understanding: why these people chose this locale and where in this place they chose to place their rock art. Perhaps George Herbert Mead's linguistic law that meanings are lost with the termination of living memory is in need of limited qualification. At archaeological sites like 11SA557, the biophysical matrix possesses such great and time transient agency that some, though certainly not all, meaning can be directly and correctly deduced.

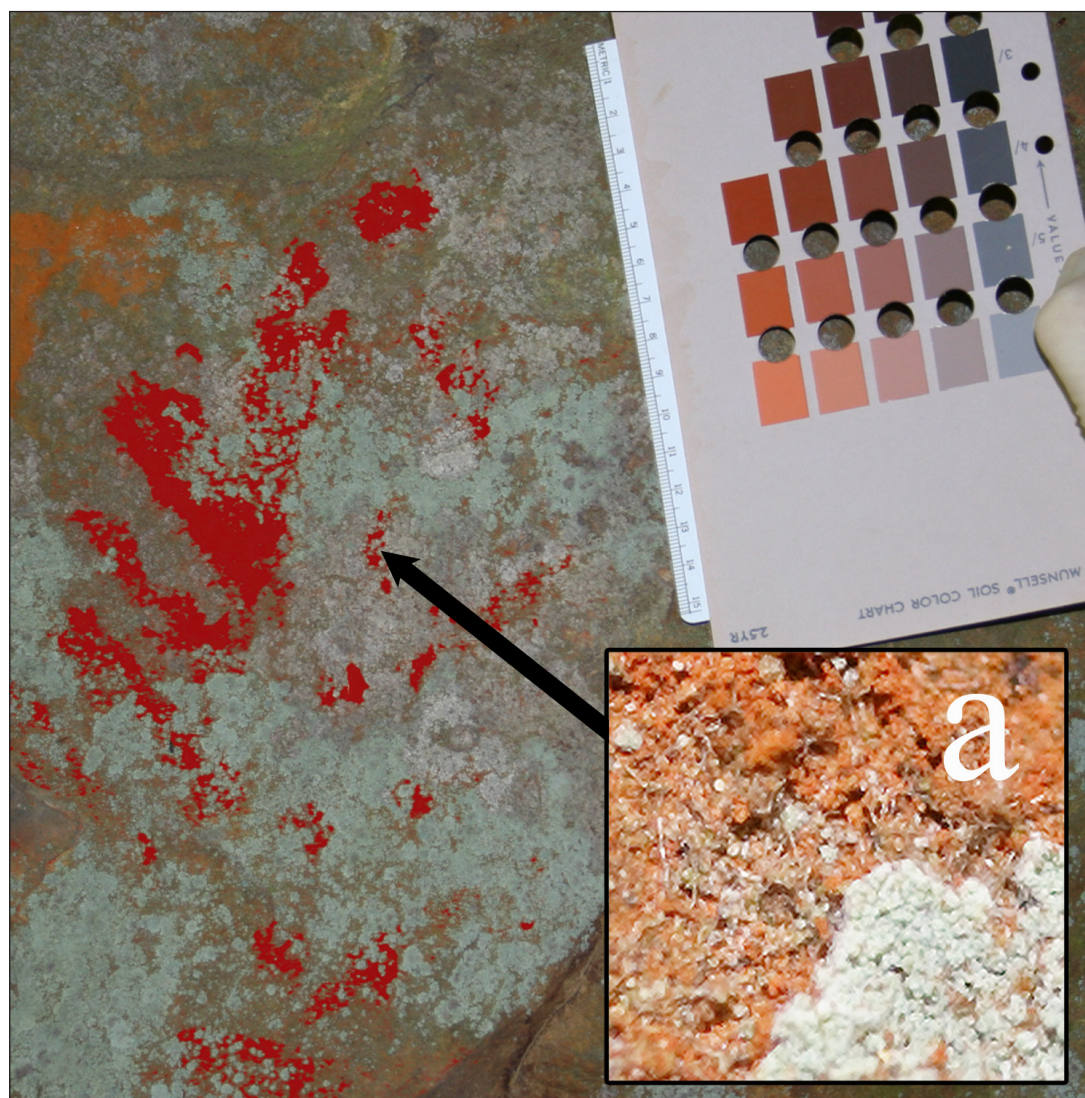


Figure 10. The density of crustose lichen growth over the Fern icon is significant: the rod-like structures (a) are the roots of the lichen penetrating the pictograph. The Fern icon has been colorized for purposes of visual acuity (see Stelle 2009 for a lengthy discussion of instrumental techniques involved in image capture and manipulation). The Fern is situated in the This World panel (Wall A2) and receives direct sunlight from the summer sun.

To echo the concerns Galloway expressed almost a decade ago, archaeologists are encouraged to a new sensitivity to the possibility of “female” sites. The only other rock art site known to the author to be interpreted in terms of naturally occurring, menses-like substances flowing from earth openings and resultantly labeled “female” is located outside of Phoenix, Arizona. Carpenter (2007) assigns it to a Hohokam horizon. While distant in time and space to 11SA557, issues of blood magic may remain reasonably constant. Without doubt there are many more locales where the interpretive requirements of the biophysical matrix obtain.

Lastly, an initial foray into the interpretation of the pictographs of 11SA557 involves the examination of just one motif element, that of the circle. The circle in varying manifestations is the modal design form at 11SA557. It occurs as an outline, a concentric circle, and as a filled solid. It occurs in isolation, in sets, and as an element of a more complex image. In its iteration as a solid, it has the distinction not only of visual prominence, but also of having been initially incised, then painted, then painted again, and finally of having been struck with a blunt instrument. If this is a female site, then one might logically offer that the circle must be a symbolic device employed at least sometimes to designate gender. In what may be an iconic display of the icon, the reader’s attention is directed to Figure 11 and Figure 20c. The image would seem to be that of an anthropomorph formally painted in a familiar shamanic pose with arms outstretched and hands extended upward. There is a suggestion of ear treatment or headdress. Issuing from the left hand are three “power balls” arrayed in the direction of a discrete section of the ceiling-wall fissure that will later be assigned the label “Sanctum Sanctorum.” What is initially confusing is the use of a circle for the torso. In this study, the image is interpreted as the symbol of a powerful and respected medicine woman or in an ahistorical, etymological twist, a “shawoman.”

If this interpretation is correct and the painting is intended to represent a medicine woman, then is the iconographic form all that singular? Others have been documented, if not interpreted in this fashion (Figure 12). For instance, one possibility might be an anthropomorph in shamanic pose from the rock art of Missouri. Observe the circle appended to her left leg (Diaz-Granados and Duncan 2000:94). At the Reedyville (15BT65) site in Kentucky, Coy et al. (1997:25–26) recorded and illustrated the state’s only known (at the time of publication) anthropomorph petroglyph. It is in shamanic pose and standing on a circle bisected by a vertical line. Support and concurrence is extended to Diaz-Granados and Duncan’s (2000:166) speculation that the circle and vertical line is a female icon. A third possibility might be an unusual pictograph from the Leo Petroglyphs site in Ohio (Swauger 1984:101, 105, 111). Swauger suggests that it may be associated with the *Midewiwin* (Swauger 1984:111). Note both the circle between her legs and the close proximity of the vulvar form. Might one not be looking at medicine women in all three cases? The ethnohistorical record clearly indicates that such existed (Buffalohead 1983:243; Jones 1861:143) although students of regional rock art have been reluctant to identify their iconic expression. Bromidic is the assumption that rock art was, throughout the time and space of Eastern North America, the exclu-

sive domain of males, that only males could create it and only males could be imaged. Given extant knowledge of anthropological cultures and their variability, this condition seems extremely unlikely.



Figure 11. Medicine Woman icon from 11SA557. Observe the familiar shamanic repose with arms extended and hands up-reaching. A line of three power spheres moves away from the left hand and then curves toward the wall-ceiling block fault and the panel's putative Sanctum Sanctorum.

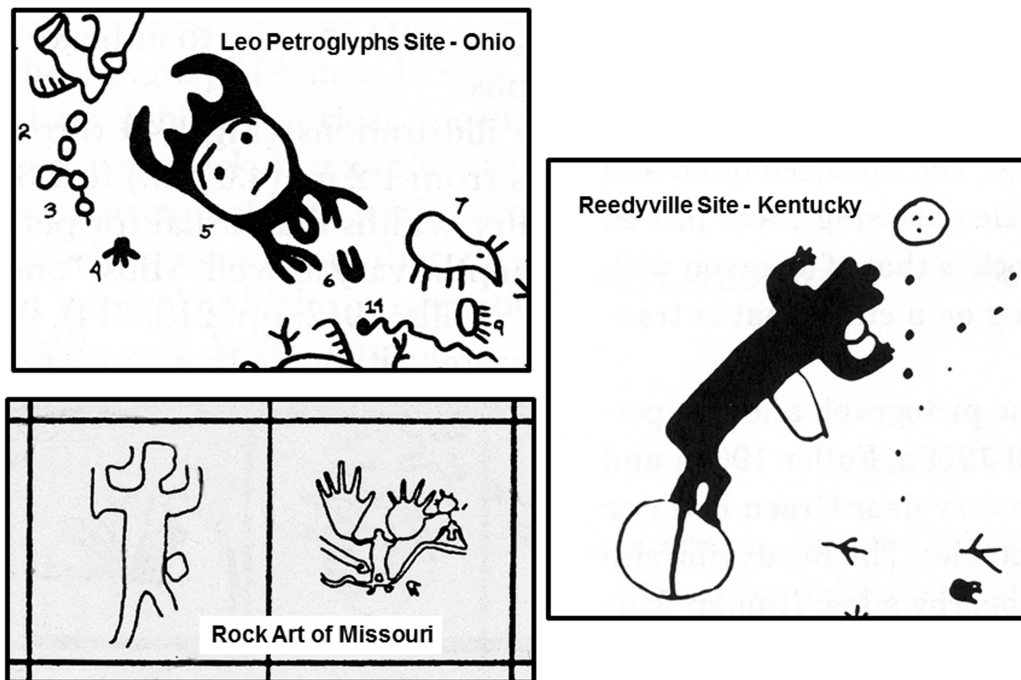


Figure 12. Illustrations of Medicine Woman icons from the published rock art of Ohio, Kentucky, and Missouri.

11SA557 in Ethnic, Artistic, and Temporal Contexts

The cultural identity of the women that created the images in 11SA557 represents a complex and thorny issue for contemporary regional archaeology, one that is far too complex for full exploration in this article. The images exist on the walls of the Grotto and must necessarily have been created by someone at some point in the past, but by whom and when? One can either conclude that the artists remain culturally invisible or one can venture into the realm of probabilities and likelihoods. The bones of the present elucidation are several.

First, an extensive and detailed review of the primary historical literature beginning with the narrative of Father Marquette's journey of exploration indicates that along the course of the Mississippi in 1673 there were but three communities (Peouarea, Mons8pelea, and Mitchigamea) between the mouth of the Wisconsin River and the village of the Akamsea (Quapaw or Dhegiha Sioux) (Thwaites 1899[59]:115–155; Tucker 1942; see McCafferty 2008:45–50 for a recent discussion of the ethnicity of the Mons8pelea community). It is important to note that both the Marquette narrative and manuscript map locate the Quapaw village on the east bank of the Mississippi and opposite the confluence of what is today labeled the Arkansas River. The great Mississippian cen-

ters of Cahokia, Angel, and Kincaid were apparently invisible to him. Along the full course of the Illinois River, only the villages of the Peouarea (Peoria) and the Kaskasia (Kaskaskia) are recorded by Marquette (Thwaites 1899[59]:161–163). In those times, river towns were apparently very widely dispersed. The “vacant quarter” hypothesis is largely supported (Cobb and Butler 2002:625–626; Williams 1990:173); however, human communities were nonetheless present (Lewis 1990:53–55), and one was that of the Quapaw (Dhegiha Sioux) who were living on the east side of the Mississippi River, below the confluence of the Ohio.

Second, long-distance river travel was common for regional indigenous societies as evidenced, for instance, by the Iroquois attacking the Tamaroa at the mouth of the Illinois, Dakota paddling down the Mississippi also to attack Inocan communities, or Native Americans traveling all the way to Montreal to trade peltry. As long-distance river travel might be documented for the Dhegihan Sioux, Father Hennepin notes that while with LaSalle during the construction of Fort Creve-Coeur (near modern Peoria, Illinois) in 1680 “several Savages of the Nations of Osages, Cikaga, and Akansa, came to see us, and brought fine Furs to barter for our Axes” (Hennepin 1698:177). Signified is a trip of many hundreds of river miles for purposes of trade.

Third, 11SA557 lies within the primary catchment of the Great Salt Spring. As earlier indicated, the salines were a major mid-continental mineral resource that afford much archaeological evidence of significant exploitation ranging far back in prehistory. Implicit in the 1803 treaty through which the Euro-Americans seized economic control is the circumstance that a wide variety of recognizable ethnicities traveled hundreds of statute miles to harvest this resource.

Fourth, one of the more curious compound images of the Grotto is that of a red feather and an associated solid, red circle (Figure 13). Because of its distinctive realism, technique of production, and reapplication, the feather was an interpretive conundrum. It is unlike any other icon and consequently seemed out of place and suspicious. However, Fletcher and La Flesche (1992:342) indicate that the collection of salt was an “avocational” activity of Omaha (Dhegiha Sioux) women. Indeed,

Salt was obtained from a stream...known to the Omaha as Salt creek, the waters of which left on the grassy banks a white saline deposit. This fine salt the women brushed into piles by means of feathers and afterwards it was deposited in bladder bags for future use. [Fletcher and La Flesche 1992:343]

That the red feather and the associated solid, red circle could symbolize this female activity seems a fairly simple leap. In two dimensions, the waterproof container of a bladder would be a solid circle. The connection between (1) the image of the artifacts and implicit technique of salt recovery, (2) female, and (3) Dhegihan Sioux (Omaha) provides a coherence to the otherwise confusing properties of the compound icon.



Figure 13. Icons of Feather (a, b, and c) and Solid Circle or Sack (d and e) are located in the This World panel with the exception of the second two repaintings of the Feather. In the final iterations, the Feather almost touches the right leg of the Shawoman with Power Streak (f) icon. The photo also displays (g) vulva form of Old Woman, (h) Two Hoof Prints of Deer Woman, (i) Thunderer, (j) Three Rows of Dots Below and to the Right of Thunderer, and (k) Disk Appended to Tail of Thunderer.

Fifth, many Dhegihan origin narratives reference a movement down a great river and then across a river (generally interpreted as the Ohio and Mississippi, respectively). While one must be extremely careful in accepting the accuracy of time and place in sacred legends, its widespread and unsolicited expression certainly lends credence to

its essential correctness (Bizzell 1981:72; Dorsey 1884:211; Fletcher and La Flesche 1992:36; Swanton 1943:49–54; cf. Chapman 1974:202–203; Hall 2004:102). The Omaha name for the lower Ohio was “the river down which they [Omaha] came,” or *Uhai ke* (Fletcher and La Flesche 1992:36).

Sixth, Jesuit Father Jacques Gravier, that great student of the Inocan language, in his journal detailing his voyage in 1700 from the country of the Inoca to the mouth of the Mississippi writes:

There are a great many Islands and Shoals along the course of the Mississippi river, From the Tamarouha to the Ouabachi River.... We encamped in sight of that River.... At its Mouth it forms a wide basin, 2 arpents from Its discharge. It is called by the Illinois and by the Oumiamis the River of the Akansea [*acanseasipi* (McCafferty 2008:50)], because the Akansea formerly dwelt on it. It is said to have 3 branches: one coming from the Northeast, which flows at the rear of the country of the Oumiamis, called the River St. Joseph, which the savages properly call Ouabachi; The 2nd comes from the Iroquois country, and is what they call the Ohio; the 3rd from the South-Southwest, on which Are the Chaouanoua. As all 3 unite to fall into the Mississippi, the stream is commonly called Ouabachi; but the Illinois and other Savages call it the River of the Akansea. Its water is Clear; it does not appear to be very rapid. It flows gently into the Mississippi, which loses a little of its muddy color, given it by the River of the Missouriis. [Thwaites 1899[65]:105]

Important to the current discussion is Father Gravier twice stating that the modern Ohio River is called by the Inoca, Miami, and other nations, the River of the Akansea (Quapaw), because they “formerly dwelt upon it.” Father Gravier was assigned to the Illinois Mission in 1688 and remained there until 1705. Many have credited him with the most extensive and complete Illinois (Kaskaskia) to French dictionary (Costa 2003:11; Packard and Dunnagan 2007; cf. Masthay 2002:12;). One can feel some confidence in his little intellectual exploration of the various names for the Waboukigou River and, across time, appreciate his interest in making a linguistic contribution that would have extended past Marquette’s. Certainly one of his major callings was that of word-merchant. To conclude, there existed in 1700 an oral tradition independent of Dhegihan origin narratives that the Akansea (Quapaw) once lived along the Ohio River (see Note 2).

Lastly, a final historical hint is supplied from a time 13 years earlier (August 1687) when Henri Joutel, the commander of the group (totaling five in number) surviving the assassination of La Salle and now returning to Fort St. Louis in the Illinois Country, was moving up the Mississippi River. He employed as his guides four Accensea (Quapaw) paddlers.

The 19th, we came to the Mouth of the River, call'd *Houabache*, said to come from the Country of the *Iroquois*, towards *New England*. That is a very fine river, its Water extraordinary clear, and the Current of it, gentle. Our *Indians* offer'd up to it, by Way of Sacrifice, some Tobacco and Beef [bison] Steaks, which they fix'd on Forks, and left them of the Bank, to be dispos'd of as the River thought fit. [Joutel 1714:163; emphasis in original]

Several observations can be offered. First, it is notable that, from the journal, the only time “sacrifice” was required by the “guides” in crossing a river was with the Houabache: not the St. Francis, Kaskaskia, Missouri, or even at the entrance to the Illinois. While I, personally, never cross big rivers in my canoe without first offering sacrifice—owing to my lack of courage—this is the only place that Joutel records it being necessitated by his Accensea guides. Their behavior was not a personal act but rather a culturally prescribed ritual or ceremony. The Houabache occupied a place of special meaning for the Akansa. Second, ritual obligations were required by the guides in attempting to pass the pictographs of the Under Water Monster (near Alton, Illinois, and referenced locally as Piasa) first described by Marquette. Third, these four men (one being *bardache*¹) are labeled “guides.” Implicit in the notion is the fact that these are people knowledgeable about where they were going. The idea that the indigenous people of the region had no knowledge of the Ohio or Mississippi or Missouri or Illinois Rivers, their course and channels, useful places to haul out, eddies, whirlpools, and so forth is historically uninformed and pretentious.

Turning next to the art proper, the pictographs of 11SA557 beg to be placed in an artistic context. While there are images familiar to any student of Mississippian period rock art, the iconography of 11SA557 does not seem to be particularly Mississippian when compared to the nearby rock art site of Millstone Bluff (Schwegman shelter pictographs), some 20 statute miles to the southwest (Wagner et al. 2004), or the slightly more distant sites of Korando (Wagner et al. 1999) or Fountain Bluff (Wagner et al. 1990). It lacks the classic Southeastern Ceremonial Complex icons of the stylized Falcon-Impersonator, cross-in-circle, swastika-in-circle, batons, ceremonial mace, and ogees (Wagner 1996:70; Wagner and Swedlund 2009:159). The techniques of production and the overall iconography of 11SA557 seem reasonably distinctive. Indeed, the only named pictographic rock art style of the midcontinental region is Petit Jean Painted Rock Art Style (here after, PJPRAS). Some aspects of the PJPRAS (Sabo and Sabo 2005; Fritz and Ray 1982:252; Vogel 2007) found in the central valley of the Arkansas River seem to display a clear affinity to what one here finds. Fritz and Ray (1982:252) assign it to a proto-historic context of Caddoan and Quapaw. The possible connection to Quapaw is obviously significant. The similarities of PJPRAS to the rock art of 11SA557 include aspects of both technique and imagery. Similarities of technique include: (1) the predominance of single line forms and stick figures; (2) the near total reliance on finger painting; (3) the virtually exclusive use of the color red; and, lastly, (4) a more subjective observation in both contexts, the technique of application frequently displays

a strong quality of construction suggesting that the artisan felt artistic competence and confidence, that is, the artisan had some training and experience. An examination of the pictography frequently reveals this shared artistic quality. With regard to PJPRAS imagery, and keeping in mind that the comparison is of but one site to a vastly larger array, there are two points of significant intersect: (1) fern images and an apparent, although limited, interest in ferns, and (2) the “diamond and dot” image with its associated image set. The literature review concludes that the two Indian Cave icons (Arkansas Archaeological Survey 2007:Element 17, Panel 7; Sabo and Sabo 2005:69, 108) are the only other illustrations of a fern in eastern rock art outside of South Carolina (Charles 2004:264–269). With regard to correspondence of the “diamond and dot” motif, please see the later discussion in the section titled Religious Theater: Element 11, Scenic Design. The correspondence to PJRAS to the art found in 11SA557, particularly with regard to technique, seems compelling.

To summarize: in 1673 people were present along the Mississippi and Ohio Rivers with the Quapaw living on the east bank of the Mississippi; long distance river travel was not uncommon for the Dhegihan peoples; the Great Salt Spring drew salt collectors from throughout the mid-continent; the tools employed by Dhegihan women for collecting salt are expressed in distinctive fashion on the Grotto’s wall; Dhegihan origin narratives place them along the lower Ohio in late prehistory; and Father Gravier attests that cultural groups other than the Dhegihan (Inoca and Miami specifically) recognized the lower Ohio River as an ancestral homeland for the Quapaw (Dhegihan Sioux) in 1700. Lastly, it is easy to argue that the pictographs of 11SA557 are a manifestation of the Petit Jean Painted Rock Art Style and a Quapaw/Dhegihan pictographic tradition.

In conclusion, the women of the Dhegihan Sioux, to include the Omaha, Osage, Ponca, Quapaw, and Kanza peoples, were most likely the creators of much of what is revealed at 11SA557. Their collective ethnohistorical intersect with the archeologically documented cultures of the lower Ohio Valley places them in this locale subsequent to the abandonment of the Mississippian centers (Pollack 2004:188) and prior to the arrival of the Inoca (Bizzell 1981:71–72; Mazrim and Esarey 2007:185), say between A.D. 1500 and 1625. Perhaps then there were five or six generations of Dhegihan women exploiting the Blood of the Ancestors Grotto.

III. 11SA557 in Cultural Context

There are ethnographically attested indications that female puberty rites, now lost, were once one of the Seven Sacred Rituals of the Dhegihan Sioux (Stanley 2004:34; McDermott 1940:138). 11SA557 is a place where such *rites de passage* could have been performed (Stelle and Sadler 2007; Whitley 2000). Therefore, the balance of the current research will be an exploration of the Grotto as an expression of ritual behavior organized and expressed at the level of religious theater (Brockett 1974:455–619; Hatlen 1981:257–327; Whiting 1978:283–434; see also Holt 2009 for a very different application of social theater to an archaeological culture).

The reader may now be pondering why the issue of ethnographic association is being belabored. At a recent international conference, a senior and much-venerated colleague articulated the prospect that southeastern rock art was simply “doodles” placed on the walls of rock shelters and caves during periods of inclement weather and associated boredom. Old school “new archeologist” was he, and perhaps he was correct. Answering the “doodle” question requires going beyond the art itself. The solution is thicker description (Geertz 1973; Loubser 2010; Whitley 2008): the art without reference to its enveloping cultural milieu affords little beyond the description of the icon itself. There is the icon hanging on the wall: bare, naked, and meaningless—a curious doodle. It is possible and appropriate to apply ethnographic flesh and blood to the archaeological bones of 11SA557. Whether the reader views this act as the bridging argument of ethnographic analogy or as an actual ethnographic attestation, seems of lesser importance than avoiding the attempt altogether. Embracing the American intellectual tradition initiated by William James and John Dewey, the ultimate criterion upon which this approach ought be judged is that of utility. Does the ethnographic flesh and blood cause one to see archaeological bones that would not otherwise have been recognized? If at the conclusion of the exercise the response is “yes,” then the endeavor will have been worthwhile.

The ultimate purpose of anthropological archaeology is the description and explanation of human behavior. The analysis of material cultural remains is but an intermediate step in the realization of this final goal. A review of the literature surrounding the rock art of eastern North America indicates that the achievement of this goal continues to elude researchers. Even when allusions are made to the broader behavioral contexts of ritual acts, ceremonialism, and sacred precincts, what one finds is a centering on the art itself, a focus on the technique and style of artistic expression and a projected meaning.

Perhaps a quick review of how the independent variable “ritual” is currently being operationalized would be useful. The listing is considered indicative rather than exhaustive. Ritual is said to have occurred at rock art and other type-sites when one or more of the following conditions obtain:

1. Repeated behavior (Stelle 2008)
2. Special, uncommon, or exotic artifacts exposed by excavation (Stanley 2004)
3. Location relative to living spaces, habitation areas, or working spaces (Edging and Ahler 2004:100; Wagner et al. 2004:62-63)
4. Special, uncommon or exotic materials (Emerson and Hughes 2000:93);
5. Some element of the sacred as a spatial, locational, or environmental element (Williams and Jansen 2008)
6. Caches of a single faunal element (e.g., Canada goose humeri) or dog burials proximate to human burials (Walker 2008)
7. Entopic elements in the art (Kistler 2008)
8. Specially modified floor surfaces (Boszhardt 2008)
9. Simple human burials (Crothers et al. 2008)

10. Place or locality relative to distinctive geophysical, hydrological, or biological forms or manifestations (Wagner et al. 1999:149–186)

What is being asserted in these researches is that the archaeological identification of such phenomena heralds the presence of “ritual” activity. There seems little doubt that ritual behavior was associated with these findings. However, little or no attention is given to the actual nature of the behavior, or what “ritual” might consist of, or why these archaeological deposits would have necessitated ritual, or even to something as basic as “What do you mean when you say ‘ritual?’” The question is simple: What was the ritual? Whitley’s (2000:30; 2008) work with puberty rituals among the Yokuts of California is noteworthy as an exception. In that situation the cupules on the rock face were still being employed by the people, and he could provide the ethnographic documentation. In varying degrees, a few others (Edging and Ahler 2004:100; Gartner 1993; Holt 2009:239; Salzer and Rajnovich 2001; Wagner et al. 2004:62) have made reference to the nature of the surrounding ritual. Generally however, the issue has been ignored. More useful would be to take the situation of ceremony and ritual as far as the archaeology will allow.

A re-examination of Emile Durkheim’s *The Elementary Forms of the Religious Life* (1947) affords a point of departure for viewing ritual activity. Once the Sacred (spiritual, transcendent, noumenal) had been separated from the world of the Profane (of this-world, of the world-of-experience, prosaic, things understood in terms of utilitarian functionality), then direct physical contact with elements of the Profane would result in very dangerous spiritual pollution. The Sacred must be protected from contamination by the Profane. Ritual will tell the believer how the Sacred is to be approached and addressed. Ritual will specify when the Sacred is present or when it requires a particular behavioral response. Ritual will provide for the protection of the officiant as she mingles with powerful, unpredictable forces not of the world of experience. Lastly, ritual will serve to unite the participants as one body of believers organized around an integrated system of beliefs.

The task in this section is to elucidate any archaeologically revealed behavior that might suggest ritual. Religious ritual will be defined as an element in a system of behaviors, imbued with symbolic meaning, the performance of which is prescribed by cultural tradition, and is itself part of the Sacred. The behavior is displayed because it is thought to produce spiritual outcomes either instrumental (problem solving) or expressive (emotive). Ritual actions can include such varied acts as esoteric gesticulations and verbalizations; narration of revealed texts as script; performance of liturgically prescribed music or dance; procession; manipulation of theatrical properties or objects or the source materials from which they were rendered; prescribed costume, hair, and cosmetic device, as well as the fabrication or application of same; and the proscribed or prescribed consumption of food and drink. Physical context or setting and calendrical and time of day considerations are often central elements in the where and the when of

action. In the specific context of 11SA557 as religious theater, seemingly every aspect of observed or inferred behavior was an element of ritual action.

Proposed is the use of the lexicon of stagecraft as an analytical and interpretative framework. This is done first and foremost because what 11SA557 seems to afford is the archaeologically recoverable cultural residues of religious theater as contrasted with prehistoric, rainy-day doodles. Perhaps the conceptual framework of theatrical production can guide and structure a more useful examination of the material cultural remains documented through archaeological technique. Whether this approach has useful utility is ultimately an empirical question. As students of human behavior, anthropological archaeologists preside over a body of knowledge about theater and religion and rituals of transition. The goal is to apply some of those understandings to achieve a more complete exposure of the behaviors that have occurred on this landscape.

11SA557 lends itself to the heuristic application of the device of religious theater at least in part because of the uncommon characteristics of the locale's geomorphology. One can infer potential spatial function by the physical limitations imposed by landscape (Carpenter 2007; Loubser 2002; M. Munson 2008). As a teacher who has spent most of his adult life organizing spaces for more effective teaching-learning events, 11SA557 is perfect for theatrical production. Theater is generally described as incorporating three basic components: architecture, stage preparation, and the production. Thinking of 11SA557 as a spatial complex within which female *rites de passage* were enacted and experienced, affords archaeological support for at least 21 discrete elements of the hypothesized dramaturgical endeavor (Figure 14).

Religious Theater: Element 1, The Sacred. To quickly review the earlier discussion of why 11SA557 is thought to have been considered to be a sacred place, recall the presence of the waterfall, the earth opening, the strange phenomenon of the creek turning to "blood," and the "pool of blood" at the entrance to the earth opening. It is small wonder that prehistoric women found it remarkable and mysterious. Even armed with the tools of modern science, the totality of the place is unsettling in its anomalous manifestations. The difference in approach centers on their assignment of animate, spiritual properties to the mystery. This was undoubtedly a place of very intense and immediate spiritual quality. 11SA557 contains much power and agency.

Religious Theater: Element 2, Stage. The stage was the Grotto proper (Figures 1 and 15). In type, it corresponds to the familiar three-walled, proscenium theater with its audience viewing area directly opposite the performing space. The playing area or acting space of the Grotto is, as the field crews discovered while doing their data collection, quite limited. The stage is very small. It is difficult for two people to simultaneously turn around and not bump elbows. A behavioral implication is that only one performer at a time worked this space, or two at the most. Its function would be that of the high altar or sanctuary.

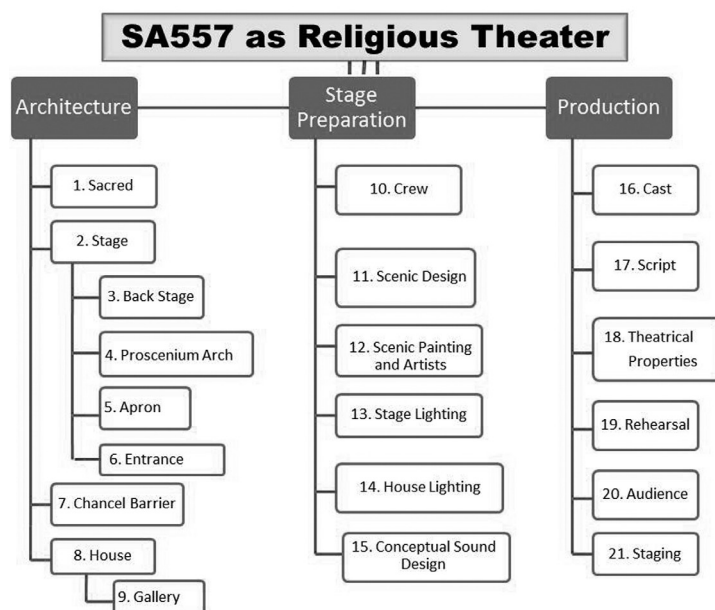


Figure 14. SA557 as Religious Theater. Identified are 21 elements of theater that have received some support from the archaeology of the site.

Given the geomorphological qualities of the Grotto, it is a small leap to envision the Grotto's symbolic interpretation as a vagina. The Grotto may have symbolized the vagina of the Dhegihan mythic character labeled First Woman or Old Woman (Diaz-Granados 2004:143; Diaz-Granados and Duncan 2000:219; Dorsey 1904:21–30, 49–50; Duncan and Diaz-Granados 2004:193–194; Prentice 1986:249–262). If so, it was a very special, very sacred place that could only be entered by designated religious specialists. Considered, disciplined, informed behavior would be required in this space. The Catholic Christian analog would be the chancel with admission reserved for ordained clergy. Diaz-Granados and Duncan (2000:155, 200) have also suggested the prospect of fissure caves in Missouri rock art symbolizing Old Woman's vulva.

Religious Theater: Element 3, Backstage. While the stage lacked wings, a backstage does exist. The extreme rear of the Grotto terminates in a small opening easily interpreted as an allegorical cervix. This “cervix” could not be directly viewed from the house. Passing through this constriction, the walls expand into an, again allegorical, uterus (see Figure 4, Wall E). Intriguing is the presence of a small anthropomorph (Figure 16) in shamanic repose proximate to the distal portion of our “uterus.” In the context of stagecraft, this backstage area could itself have been accessed from an external entrance.

Religious Theater: Element 4, Proscenium Arch. The proscenium arch was an innovation in European theater design dating to the seventeenth century. The functions of the arch were to create an audience viewing window referencing the stage's fourth wall and to visually screen off-stage production activities. A visual proscenium arch does

exist even though it is not particularly well defined. The stage lacks an archaeologically revealed curtain, although stage left cannot be seen from the audience viewing area and represents an “off-stage” area devoid of scenery.



Figure 15. View of the stage from the house. Note that direct sunlight has begun to enter the Grotto and illuminate Wall A2 and the lower portion of Wall A1.

Religious Theater: Element 5, Apron. A stage apron extends forward from the proscenium arch, or mouth of the Grotto. It is anchored stage right by the “pool of blood.” It is also an area large enough for the operation of other liturgical characters such as chorus, dancers, musicians, or prompters (see Fletcher and La Flesche [1992] for an extensive review of these participants in Dhegihan sacred ceremonies).

Religious Theater: Element 6, Entry. A backstage entry could have been achieved via the small, symbolic cervix (Figure 16). However, arrival upon the stage was presumably achieved either by directly crossing the creek from the viewing area, essentially employing a vomitory entrance, or by scrambling over the boulders (stage left), or descending the face of the waterfall (stage right). With formal costume, the vomitory

entrance seems most likely. A final observation might be that new characters could either magically (as in mysteriously or unexpectedly) or symbolically (as in birth) arrive on stage via the backstage. Whether this design capability was so exploited is not revealed archaeologically.



Figure 16. The Shawoman icon may be standing guard at the rear entrance to the Grotto and stage. The assistant holding the color chart is standing at the extreme rear of the Grotto. The opening, a metaphorical cervix, is small but passage is possible.

Religious Theater: Element 7, Chancel Barrier. Because this is religious theater, the stage is separated from the house by a physical and spiritual barrier functioning to isolate the uninitiated and impure from the sacred (Figure 3). The running water and, particularly, the “bloody” water of the winter solstice (Figure 6b) would have had ethnographically recognized spiritual qualities associated with female. In Christian architecture, this design element is labeled the chancel barrier or alter rail.

Religious Theater: Element 8, Auditorium or House. The audience viewing area (Figure 17) would have been confined to the floor of the rock shelter opposite the Grotto. As such it would have been relatively small. Audience seating would have been on the ceiling spalls and exposed bedrock. Archaeological evidence to support this locational interpretation derives from several considerations to include the fact that there was no art on Wall C of the Grotto. Art, understood as scenery, that was placed there could not be seen from the house. The viewing area is at a 30-degree angle to the longitudinal axis of the Grotto.



Figure 17. View of the auditorium or house from the stage. The Parkland College field crew is placing a test excavation into Feature 1 (hearth).

Religious Theater: Element 9, Gallery. Galleries are viewing areas reserved for special members of the audience. Neither the existence nor location of such devices is directly available through our current archaeology. It may have been the case that the young woman simply sat with her sponsor, family members, and neighbors. More likely was the use of a special viewing area reserved for special members of the audience, that is, a gallery.

An illustration from the Omaha culture as it survived into the last quarter of the nineteenth century is relevant to the argument. The observations are extracted from Fletcher and La Flesche's (1992:117–122) description of the Omaha's "Ceremony of Turning the Child." Fletcher and La Flesche allow as how this naming ceremony was one of the Omaha's most ancient rites (Seven Sacred Rituals) and one through which all

boys and girls traditionally passed, but that “Only parts of the ritual belonging to this ceremony have been obtained. Those whose prerogative it was to conduct the rites are all dead, and with them knowledge of much of the ceremony passed away” (Fletcher and La Flesche 1992:118). This circumstance has likely implications for the disposition of the presumed puberty rite. However, continuing:

The tent was always a large one, set facing the east, and open at the entrance, so that the bystanders [gallery] who kept at a respectful distance, could see something of what was going on within. As the ceremony was one of tribal interest, many flocked to the Sacred Tent to watch the proceedings. In the center was a fire. On the east of the fire was placed a stone. There was also a ball of grass, placed at the west of the fire-place near its edge. It was the mother who led the child to the tent. At the door she paused, and addressed the priest within, saying: “Venerable man! I desire my child to wear moccasins.” Then she dropped the hand of the child, and the little one [three or four years of age], carrying his new moccasins, entered the tent alone. He was met by the priest, who had advanced to the door to receive the gifts brought by the mother as fees. [Fletcher and La Flesche 1992:118]

To summarize the balance of the ceremony, after some script and the singing of an invocation to the Winds, the priest lifted the child, maneuvered it so that its feet were placed on the stone from the direction of the four winds (note implications for human footprint petroglyphs), then recited more script, and sang another song. Members of the Wind gens were prepositioned within the Sacred Tent and each in turn whirled the child. The priest now put the new moccasins on the child’s feet, sang another ritual song, announced the *ni’kie* name of the child and presented him to the community. And finally “The priest next instructed the child as to the tabu it must observe, and what would be the penalty for disobedience. If the child was a girl, she now passed out of the tent and rejoined her mother” (Fletcher and La Flesche 1992:122).

The “Ceremony of Turning the Child” has many implications for our research, ranging from the role of song, to liturgical property rights, to the payment of fees to the performers, and to the implication of footprint petroglyphs being a manifestation of similar rituals. However, most relevant to the present discussion is the segregated location of the gallery.

In this circumstance, one would want to distinguish between the novitiates as audience and the mothers and grandmothers, older sisters, aunts, and other concerned or interested members of the female portion of the sponsoring community as audience. These last would set apart from the “class.” Where they were located has not been directly revealed by the archaeology but possibly affords direction for future research. Whether they were separated by only a social barrier or whether the barrier was physical as well is currently unknown. If it was simply a social barrier, then these observers would likely have been segregated to a reserved area of the house. If there was a spiritual need

for physical separation, but the observers wanted to be able to see both the pageant as well as the faces of the young women, then they were likely positioned within the area inside the chancel barrier and to stage left. Lastly, if the novitiates were to perceive themselves as isolated and only in the company of priestesses and the *Manitous*, then the gallery was likely positioned on the sloping canyon wall above the rock shelter. The natural morphology of the ritual complex limits the range of possibilities and provides direction for future research.

A last comment regarding the potential use of galleries is that they may have required the use of “ushers” to socially control the placement and movement of what Fletcher and La Flesche (1992:122) labeled “bystanders.” The possible presence of ushers, as a fully differentiated status and role in the ceremony, illustrates the unexpected power of the theater model. In May 2005, standing before the pictographs, I could not envision the behaviors labeled “usher.” Now it is not only possible to envision the social role of “usher,” but one can also speculate regarding the usher’s biological state. Could this be a social position available or assigned to crew members on their “moon time”?

Religious Theater: Element 10, Crew. Crew signifies those individuals responsible for assembling the sets and providing technical support for the staging of the theatrical performance. Because the theme of the production must necessarily have focused on issues of adult female biology conveyed in a sacred context, then one can reasonably infer that all members of the crew would have been initiated, evidenced competence in the management of spiritual forces, and be ritually purified prior to entering this sacred space. An issue the answer to which is not empirically available is the crew members’ own catamenial circumstance. Whether the crew member was or was not on her “moon time” was likely important.

Examples of crew activity that can be demonstrated archaeologically are several. First, crew would have been required for the securing, assembling, and disassembling of the scaffolding necessitated for the painting of some of Wall A1 and the *World Above* panel. Over-painting indicates that this activity would have occurred at least two times. Second, crew would have been required to clean the floors of both the house and the stage/apron prior to each staging of the ceremony. Third, if the fireplaces served for house lighting, then crew would have needed to construct and maintain the fireplaces, gather fire wood, and properly maintain the fire. Lastly, the “prompters” that will be discussed in relation to Element 17: Script would have been part of the crew.

Religious Theater: Element 11, Scenic Design. Scenic design refers to the distribution of the art on the wall surfaces (Figure 18). The three divisions of Dhegihan cosmology, the *World Above*, *This World*, and the *World Below* (Dorsey 1888:378–379; Reilly 2004:127–129), are reasonably distinct in the spatial arrangement or layout of the iconography. Or, at least, so I originally thought. Extrapolating from formal geometry, I had presumed that *Above* was up and *Below* was down. However, when I attempted to interpret the iconography in this fashion, I became confused when I asked myself the questions, “What is there about the iconography of the lower portion of Wall A1 (Figure 4) that indicates the *This World* and furthermore, what is there about Wall A2

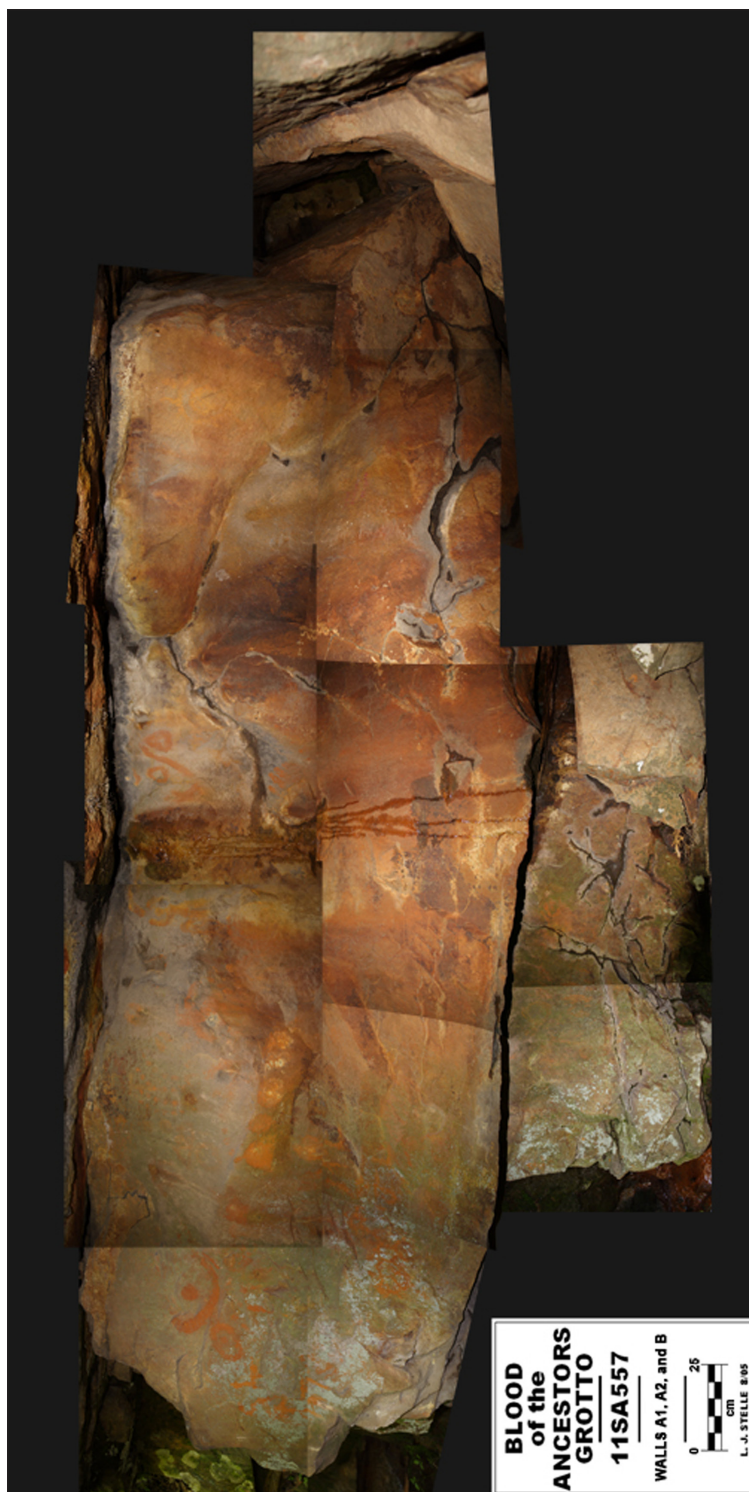


Figure 18. The scenic design or a panoramic view of the Grotto's art. The image is synthesized from 14 individual photographs. Displaying a curving, three-dimensional surface in two dimensions is difficult. Walls A1, A2, and B are included. No technique of icon colorization or enhancement has been applied.

that indicates the *World Below*?” Additionally there was the issue of the interpretation of the Owl figure located on Wall B. I had rather naively presumed that the natural, horizontally trending, breaks, fissures, ridges, and lines of Wall A were the vertical demarcations of the Dhegihan cosmos. The more I reflected on what my eyes revealed, the more convinced I became that the scenic design was not laid out vertically but rather in an asymmetric, horizontal arrangement. It seemed counterintuitive. A return to Rev. Dorsey and La Flesche led me to Bailey’s (1995; Bailey and Swan 2004) synthesis of La Flesche’s ethnographies. In Bailey’s work I found relief. Bailey notes (2004:28–29) that in the Osage cosmos, the *World Above* was also to the “left side,” the *World Below* was also to the “right side,” and that the *This World* formed a lens between the two. Such a geometry corresponds quite nicely to what one sees painted on the several wall sections of the Grotto.

This said, I am always put-off by the current archaeological convention of rather automatically assigning a three-tired cosmos to the indigenous cultures of interior North America. It suggests an ideological uniformity with which I am conceptually uncomfortable. So, in order to stir the pot a bit, I draw the reader’s attention to a rather simple, hand-drawn illustration provided by the Rev. Dorsey (1888:378) in his description of an Osage creation tradition, this one titled “Revelations of the elders of the Red Eagle gens” (Figure 19).

He [Red Corn] observed that several of the elder men, members of the secret order in which these traditions are preserved, had parts of the accompanying symbolic chart (Fig. 389) tattooed on their throats and chests. This chart is a fac simile [sic] of one that was drawn for the author by [Red Corn]. At the top we see a tree near a river. The tree is a cedar, called the tree of life. It has six roots, three on each side. Nothing is said about this tree till the speaker nearly reaches the end of the tradition. Then follows the “ceremony of the cedar.” The tree is described very minutely. Then follows a similar account of the river and its branches. Just under the river, at the left, we see a large star, the Red or Morning Star. Next are six stars. The Omaha know a similar group, which they call “Large foot of a goose.” Next is the Evening Star; and last comes the small star, “Mikak’ě-udatse.” Beneath these four we see the seven stars, or Pleiades (the Seven Gentes of Stars), between the Moon (on the left) and the Sun (on the right). Beneath these are the peace pipe (on the left) and the hatchet (on the right). A bird is seen hovering over the four upper worlds. These worlds are represented by four parallel horizontal lines, each of which, except the lowest one, is supported by two pillars. The lowest world rests on a red oak tree. [Rev. Dorsey 1888:377–378]

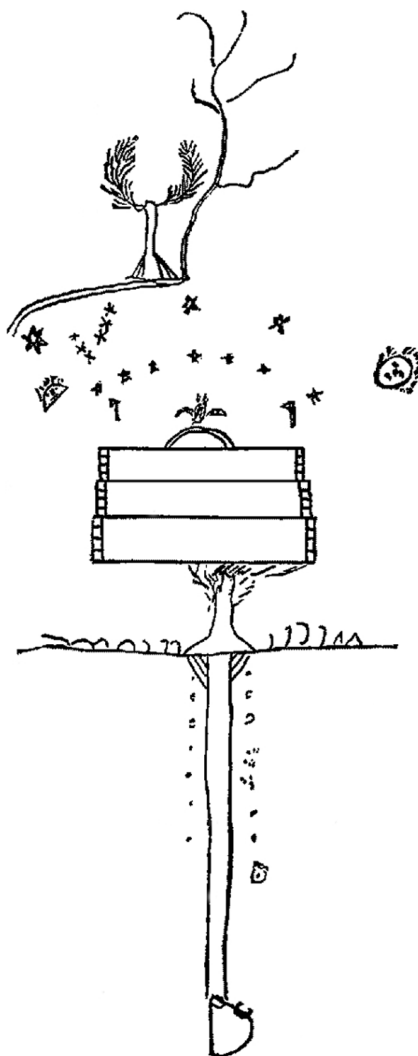


Figure 19. Dorsey's FIG. 389 (1888:378) attributed to the male Osage informant Red Corn.²

The accompanying narratives are intriguing, but oddly incomplete. Dorsey notes that he had hastily left the agency after receiving a report of a nearby case of smallpox. Perhaps he intended to return and complete the narratives at a later point in time. In any event, it is clear that he also rather hastily abandoned the manuscript. Of moment in the present context is that (1) there were four upper worlds and not just one, (2) he provides pre-1883 ethnographically correct iconography of Osage spiritual beings, and

(3) those that had responsibility for the traditions had parts of the drawing permanently applied as tattoos to their throats and chests, likely thereby signifying liturgical ownership (also see the discussion below regarding mnemonic devices). Unfortunately, Dorsey's treatment is too fragmentary for the present work, and one is forced to fall back on the model of a three-tiered cosmos.

Most obvious in the scenic design of 11SA557 is a *World Above* panel (Table 1). It is situated on the top, up-sloping section of Wall A1 (Figures 4, 5, and 9). It terminates in the fissure created by the wall-ceiling block fault. The panel comes to incomplete and eerie, but effective, illumination when the mid-winter sunlight is reflected off of the leaf litter of the forest's floor (see the discussion of Element 13, Stage Lighting). Lastly, the images located here most closely correspond to the interpreted iconography of the Dhegihan Sioux pantheon. Situated in this panel of the *World Above* are at least 14 icons, some simple and some compound (Figure 20). With the passage of time there were modifications and additions to the backdrop of sacred icons (this circumstance is in curious contrast to the permanence of the tattooing described by Dorsey [Figure 19] or to the apprehension evidenced by Pahaⁿle-gaqli with regard to lost images on his chart; see discussion of Figure 27). Lost images as well as new images are apparent. In fact, this is the panel that contains the "lost" and over-painted image of an additional "Little Bird." The overall sequence of design elements likely began with the *World Above* panel.

There is movement and directionality in the design of the panel. The movement and directionality (Nevin 2004:252–255) were initially a puzzlement until the Grotto was observed at winter solstice. While the importance of the solstices will be further discussed under stage lighting, it is during midwinter that the creek turns to "blood" (Figure 6b) and sunlight illuminates the upper section of Wall A1. It is the illumination that reveals the significance of the directional indicators. The directional indicators point to where sunlight enters the ceiling-wall block fault (Figure 9). This region of the wall may signify the *Sanctum Sanctorum*, and it will be so referenced henceforth. The unique quality of the 60-m stretch of the creek turning to "blood" may have been an important initial visual attractant to this locale. The simultaneous illumination of this reach of the upper panel by the winter sun suggests that the icons of upper Wall A1 may have been the first to be applied. In contrast, as a more complete knowledge of the movement of sunlight was discovered by the Dhegihan women, the glyphs of the lower wall were rendered. Additional evidence of this possibility is suggested by the relatively crude quality of the stick figures of the lower wall. The considerable variation in technical skill would seem to minimally imply work by a different artist, and perhaps she was also a later artist.

Movement and directionality are also suggested by aspects of the interplay of sunlight, icon, and bedrock morphology. It is the reproductive coupling of Sun and Old Woman that produces Spring Boy and his several siblings. When one observes vulva forms at different rock art sites, it is easy to reflect on the issue of orientation. In the present context, the vulvas are generally oriented to the *Sanctum Sanctorum*. Curious in its own right, it is undoubtedly significant that the sunlight actually enters the wall-

ceiling block fault. When viewed from the house, the crack or fault clearly extends back into the bedrock behind the panel upon which the art is arrayed. At a varying distance of 1 to 2 m, the crack finds the back of the block and then visually (from the House) descends down to where the blood of the pool issues from the rock face (Figure 1a). A speculation concerning script is that there is here represented an opportunity for an explanation of the menstrual cycle.

Table 1. Icons from the World Above Panel (N=14).

Element Number	Label	Illustration
1.	Conflated Shawoman-bird with Whoosh (Whitley 2005:120–121)	Figure 20a
2. and 3.	Two “Little Birds” (large one on a weep, smaller one over-painted) who are Old Woman’s messengers (Duncan and Diaz-Granados 2004:194)	Figure 11, 20b
4.	Medicine Woman with Three Power Balls (Stelle and Sadler 2007; Sadler 2006:8)	Figure 11, 20c
5. and 6.	Two vulvaforms of Old Woman	Figure 20f
7.	Four rows of dots (numbering, left to right, 7:6:7:6) that may document a lunar cycle and constitute a device for predicting “moon time” (Diaz-Granados 1996:85) or alternatively, symbolic representations for female (six) and male (seven) (Bailey 2004:28–29)	Figure 11, 20d
8.	Two Hoof Prints of Deer Woman, another of Old Woman’s female helpers (Duncan and Diaz-Granados 2004:198)	Figure 13h, 20e
9.	Thunderer	Figure 13i
10.	Power Path connecting Thunderer to Four Rows of Dots	Figure 20
11.	Shawoman (?) with Power Streak (Stelle and Sadler 2007; Sadler 2006:10)	Figure 13f, 20g
12.	Long Nosed God (a.k.a. Spring Boy), Old Woman’s first son (Duncan and Diaz-Granados 2004:202; Mary Mc-Corvie, personal communication 2007)	Figure 20h
13. and 14.	Two small but reasonably distinct images (above and to the left of the Long-Nosed God) of unknown meaning or relation. One speculation might be that they are abstract elements of the Long-Nosed God’s headdress.	Figure 20h

One last design aspect of the elements of the *World Above* is that this is the panel upon which one finds most of the common ocular impressions of spiritual power experienced during subjective encounters with nonoccasional realities or alterations in intra-psyche perception (Whitley 2005:110–121): that is, spirit journeys, hallucinations, out-of-body experiences, psychotic episodes, or just regular old things that have to be believed in order to be seen. Five of the pictographs incorporate visualizations

of disembodied “spiritual power” (Conflated Shawoman-Bird with Whoosh, Medicine Woman with three power balls, Power Path connecting Four Rows to Thunderer, Shawoman with Power Streak, Power path between Seven Disks and Four Rows of Dots). As Curtis Gray Eagle, the spiritual healer and tribal elder who accompanied my field school observed, “Sometimes the ‘power’ appears as a streak as it leaves my hands and sometimes it looks like a ball or sphere. These paintings are ‘power paths’” (personal communication 2005). Both of the forms revealed by Gray Eagle find graphical expression in the Grotto.

The remaining element of the *World Above* panel in need of discussion is its fine structure hydrology. In the context of seasonality, it is only proximate to the winter solstice that the walls weep. The most distinct and profuse of these weeps is the one that originates in the *Sanctum Sanctorum* (see the wet area between the Shawoman with Power Streak and the Long-Nosed God in Figure 20). It transects the *World Above* panel and terminates in the *This World*. Perhaps it is related to the river in Red Corn’s illumination of the sacred legend of creation (Figure 19). There are at least two other weeps in this panel, both of which are over-painted with “Little Birds.” The spatial coincidence between the natural feature (weep) and the icon implies a symbolic connection that is at this time unrecognized.

It is on the lower section of Wall A1 and on Wall A2 that the *This World* panel (Table 2) is arrayed. The panel is very busy, evidences much weathering of pictographs, and might include at least 14 discrete icons, depending on how compound items are tallied:

Notable is the fact that five icons bridge the rock ridge separating the *This World* and *World Above*: (1) the Conflated Shawoman-Bird with Whoosh, (2) the Thunderer, (3) the Power Path connecting the Seven Disks to the Thunderer, (4) the final painting of the Feather, and (5) at least two other power paths. Some of the overlap may be incidental (power paths) and some may be purposeful (Thunderer).

Why do I consider the panel to be a *This World* symbolization? First, it is situated immediately below the panel of the *World Above*. A second reason is sunlight. During the period of the summer solstice, direct sunlight will illuminate this area of the wall in this section of the Grotto. The late afternoon sun will irradiate the base of the panel and then move up the wall in the direction of the *Sanctum Sanctorum*, which it ultimately fails to reach. This circumstance renders these areas unique. The third reason is that these portions of the Grotto’s walls are decidedly green and gray in color. Perhaps this is why Irwin Brodo’s observation has such personal resonance: “Lichens are the most overlooked of the conspicuous organisms in the natural landscape. The eye often cannot see what the mind does not already know” (Brodo, et al. 2008). According to Rev. Dorsey (1888:379) in his *Osage Traditions* “The ground [*This World*] was covered with grass and other kinds of vegetation” and it was upon this surface that the sacred red oak tree grew. The region of Wall A1 and Wall A2 that evidences direct sunlight and consequent lichen growth defines the extent of the *This World* glyphs. Lastly, in the context of the Grotto, this is the only panel upon which plant life (the Fern glyph) is painted.

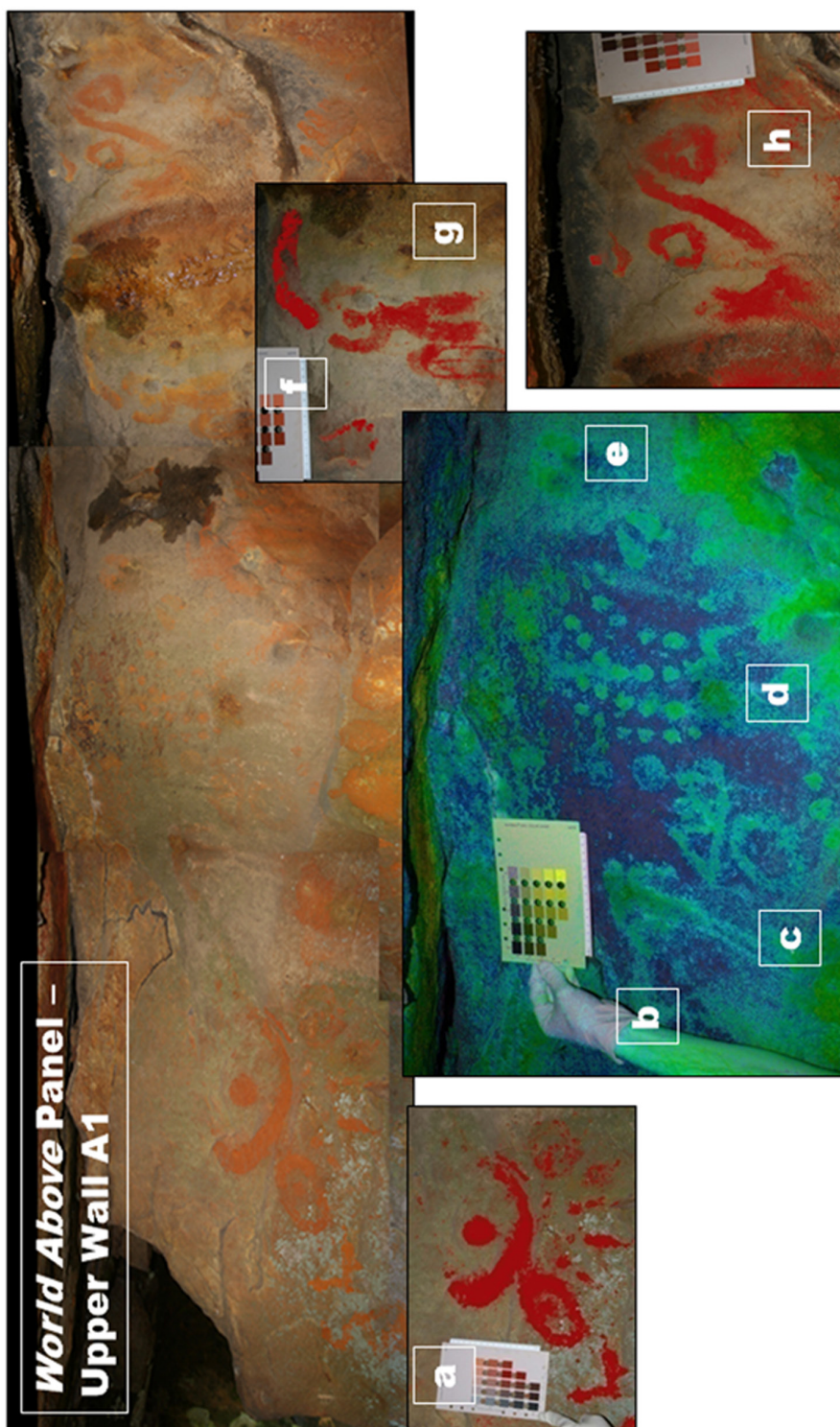


Figure 20. The World Above Panel with associated icons: (a) Conflated Shawoman-bird with Whoosh; (b) Little Bird on Weep; (c) Medicine Woman with Power Balls; (d) Four rows of dots; (e) Two Hoof Prints of Deer Woman; (f) upper vulva form; (g) Shawoman with Power Streaks; and (h) Long-Nosed God. Above and to the left of Long-Nosed God icon are two unidentified pictographs.

Table 2. Icons for the This World Panel (N=14).

Element Number	Label	Illustration
1.	Fern	Figure 10
2.	Four Sisters and Sun Group	Figure 21
3.	Seven Disks Group (Incised, painted, repainted, and then struck)	Figure 22
4.	Power Path (Dots) Emanating from Second of Seven Disks and running to Thunderer	Lower portion of Figure 11
5.	Disk Appended to Tail of Thunderer	Figure 13k
6.	Three Rows of Dots Below and to the Right of Thunderer	Figure 13j
7.	Feather (repainted three times)	Figure 13a,b,c
8.	Solid Circle or Sack (repainted two times)	Figure 13d,e
9.	Anthropomorph (Head and Ears)	Figure 23a
10.	Sunning Vulture	Figure 23b
11., 12., and 13.	Diamonds and Interior Dots (3 paired sets)	Figure 23d
14.	Nested Diamond with Dot in Center	Figure 23c

While the Fern glyph is the first to be illuminated by the late afternoon summer sun, the second cluster of glyphs to be illuminated is curious. The compound composition includes four stick anthropomorphs, arrayed left to right as smallest to largest, and they are positioned below a radiating circle (Figure 21). Conceivably it corresponds to an ancient narrative (Prentice [1986:257] associates it with the Birger Figurine) in which Old Woman, sitting in the mouth of a cave, presents herself in succession first as a young woman, then as an young adult woman, then as a mature woman, and finally as an old woman. The compound image, labeled the Four Sisters and Sun by my students, possibly offers an interesting interpretation of “The Small Ants Bundle and the Buffalo” (Dorsey 1997:21–28). While Dorsey attests the narrative as Pawnee, it likely also found expression among the Dhegihan women.

The Seven Disks Group (Figure 22), in spite of its apparent visual simplicity, is compositionally the most complex element in the iconography of 11SA557. The seven disks were initially incised or micro-pecked (rendered in black for the photo image), then painted, then repainted, and finally struck with a lithic percussor (rendered in blue for the photo image). Novitiate participation and liturgical evolution are implied. A fuller exploration of the grouping’s central role and significance is offered in the discussions of Element 12: Scenic Painting, Element 17: Script, and Element 18: Manipulation of Theatrical Properties.



Figure 21. The Four Sisters and Sun Group may represent a woman at four stages of development.

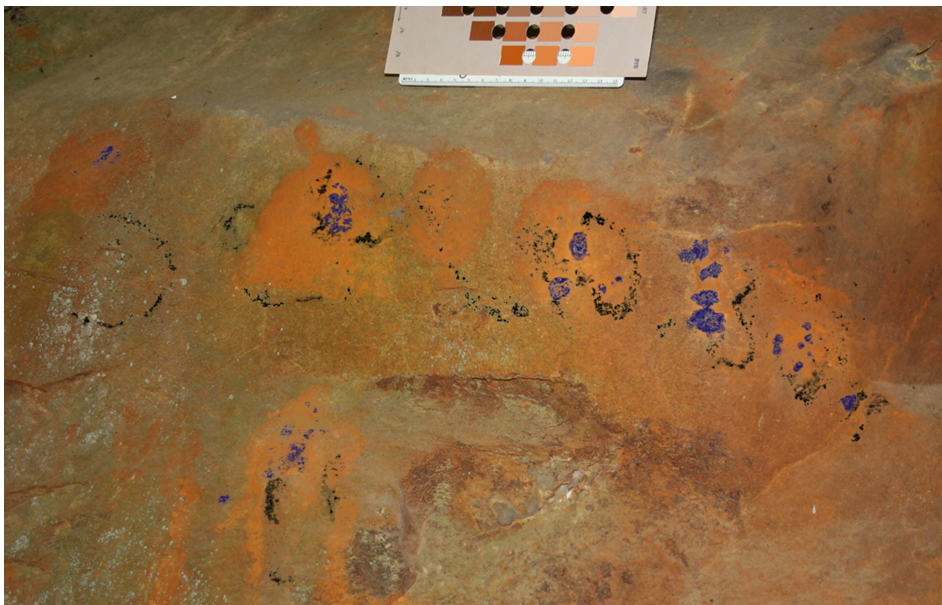


Figure 22. The Seven Disks Group, in spite of its apparent simplicity, is compositionally the most complex element in the iconography of 11SA557. The seven disks were initially incised or micro-pecked (black), then painted, then repainted, and finally struck with a lithic percussor (blue). Novitiate participation and liturgical evolution are implied.

One's ability to resolve and interpret the images of Wall A2 is compromised by weathering, lichen growth, and lack of ethnographic insight. Two motifs that have been re-established are the Diamonds and Interior Dots (3 paired sets) and the Nested Diamond with Dot in Center images (Sabo and Sabo 2005:9) (Figure 23). As previously indicated, these representations are also found in the Petit Jean Painted Rock Art Style of Arkansas, a locale inhabited by the Quapaw after they removed from the lower Ohio Valley. They are also to be found in the tattooing of the Osage woman, presumably of the Isolated Earth Clan, depicted by La Flesche (La Flesche 1921:113) (Figure 24). While La Flesche offers little expiation of the imagery, the diamond symbols seem integral to the Spider's "paths" for animals/life and lines of descent by the People from the *World Above*. Even a cursory examination of Figure 24 proclaims just how central the symbol and its referent was to the script revealed and likely owned by the woman. Lastly, recall my earlier references to Curtis Gray Eagle, the Cherokee tribal elder who had accompanied my field school. When I first inquired of him why he had tattooed this symbol on his chest, he responded that to contemporary Cherokee the diamond and dot image signifies "spiritual healer." When I pressed him a little further, he noted that he thought that "the design represented the Eye of God." I will leave it to the reader to judge the significance of this information. *Wako'da* is the Dhegiha operational equivalent of the Christian God in the sense of Great Creator Being. *Wako'da* is sometimes expressed in the form of the Small Hawk. In Mississippian iconography, the Small Hawk can take the form of Falcon-Man or Falcon Impersonator. While the eyes of the Falcon Impersonator can assume many morphologies, sometimes they are diamonds with dots on the interior (e.g., Brown 2004:Figure 2, Figure 23, Figure 28, Figure 29; Dye 2004:Figure 13; King 2004:Figure 11; Reilly 2004:Figure 3; see also Sharp et al. 2010 for a discussion of the diamond dot eyes as diagnostic of Braden-style ceramics). Imaginably there is here an additional linkage, with the paired sets in this case simply reflecting bilateral symmetry and a stylized or nonrepresentational frontal view. It is possible to interpret the sets of eyes as the Great Creator Force of the Universe (*Wako'da*) looking at the participants for purposes of spiritual evaluation and healing.

The *World Below* (Table 3) is not represented in vertical array as one would suppose; rather it is located to "the right" and to the rear of the Grotto, in the region where sunlight never enters. In speleological terms, it is in the twilight zone. At the extreme rear of the Grotto, on Wall B, most proximate to our symbolic cervix, reside four very intriguing images: only one that can be directly viewed from the house, none that experience direct solar illumination, and the dominant one of which sits astride a crack in the bedded rock wall. The panel (Figures 25 and 26) consists of a hand print with a power path (dots), an anthropomorph, a "Little Bird," and an apparent horned serpent or underwater panther (*Misbepishu*). The horned serpent and underwater panther have clear cosmologic connections with the *World Below* and with female, and they are encountered in Dhegihan lore (Fletcher and La Flesche 1992:515). However, after encountering Pahaⁿle-gaqli's drawing (Figure 27), my thoughts changed completely. The closing scene (Scene 27) in the mourning ritual involved "Owl," who on

that mnemonic device, with its ancient and sacred iconography, is portrayed in a most nonrepresentational fashion. The head of Paha^{le}-gaqli's Owl corresponds nicely to the image painted on the wall.

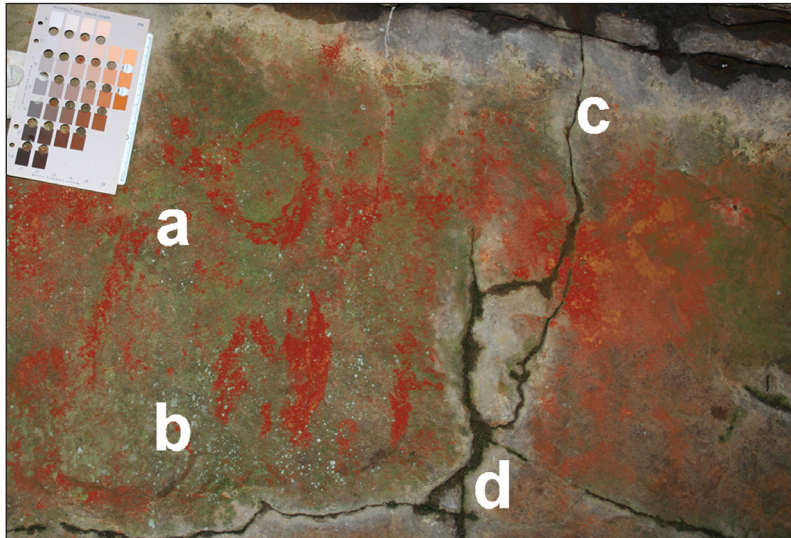


Figure 23. Icons of Wall A2: (a) Anthropomorph (Head and Ears); (b) Sunning Vulture; (c) Nested Diamonds and Dot; and (d) three pairs of Diamond and Dot. There is much pigment on this wall that cannot be rendered in a coherent fashion, that is, eroded and lost iconography.

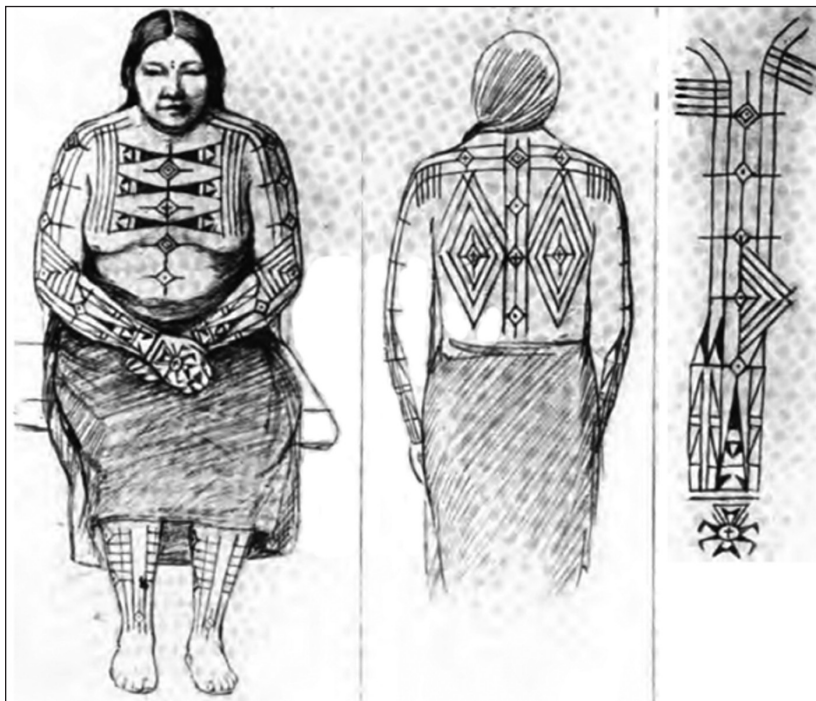


Figure 24. Tattooed Woman "Osage Woman with Conventional Symbols Pictured on Her Body" (La Flesche 1921:Fig. 119).

Table 3. Icons from the World Below Panel (N=5).

Element Number	Label	Illustration
1.	Hand Print with a Power Path (dots)	Figure 26
2.	Anthropomorph	Figure 25a
3.	Little Bird	Figure 25c
4.	Owl	Figure 25b
5.	Shawoman proximate to rear entrance and separating the allegorical uterus from the proximal portion of the allegorical cervix	Figure 16

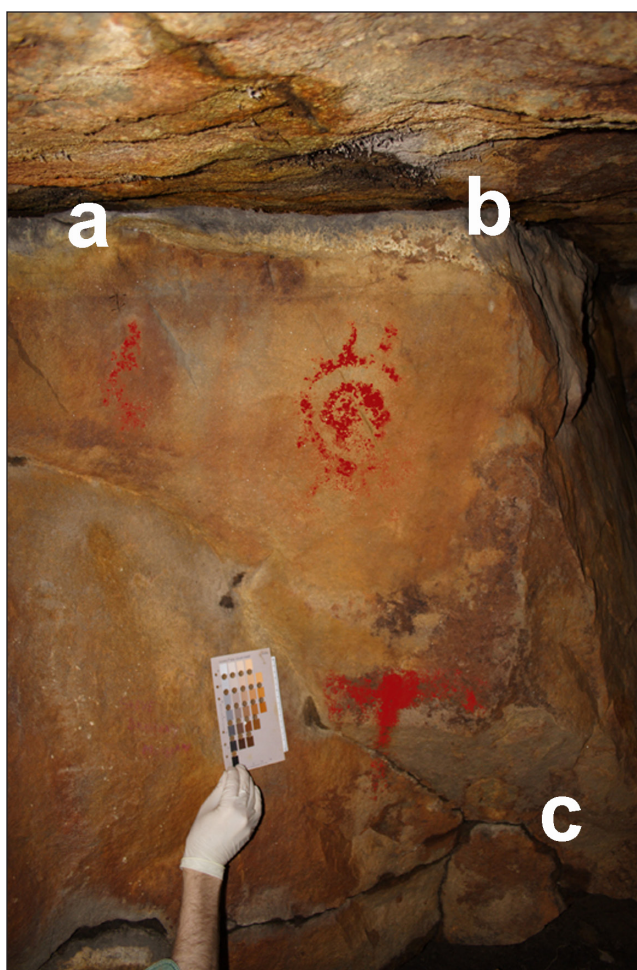


Figure 25. The World Below Panel on Wall B to include: (a) Anthropomorph; (b) Owl icon; (c) Little Bird who would be Old Woman's messenger.

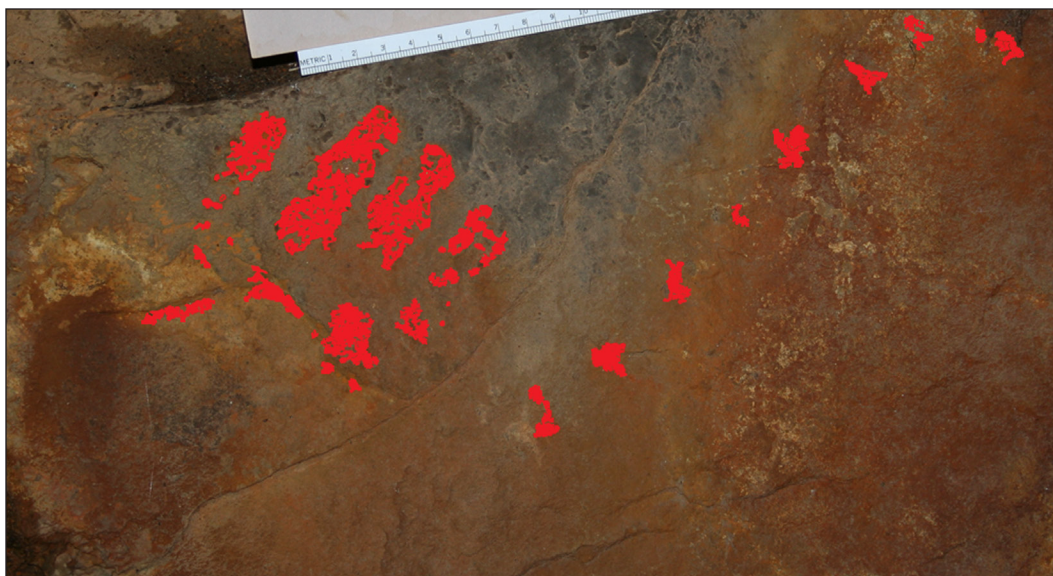


Figure 26. The Hand Print with a Power Path icon suggests the possibility of amputation and self-sacrifice. The dots extend in the direction of the Owl icon.

In the sacred origin narrative of the Omaha Shell Society as related by Fletcher and La Flesche (1992:512), Owl is one of the seven animals connected with women and is a hunter of the night (night also being female). To the Dhegiha, Owl is both messenger and, frequently, harbinger of death. George Dorsey (1904:41–42) attests for the Dhegihan Osage a narrative text, common to a widespread, transcultural tradition, involving Owl stealing the baby and the baby becoming a cannibal. Dahlstrom (2008) has recently and successfully explored the connection between Owl and the cannibal monster known to the Ojibwa/Cree as *windigo*. Faulkner's (Faulkner et al. 1984:354) interpretation of a very realistically rendered glyph in Mud Cave in eastern Tennessee in terms of Cherokee mythology indicates that the Cherokee consider Owl to be a witch or an avenger for breaches of taboo. Lastly, the strength of the association between death and the owl has produced an unwritten rule for those attending Native American powwows in the Midwest, Great Lakes or Plains: do not wear owl feathers because doing so will frighten and offend people.

The messenger function is affirmed by the location of the Owl icon over the 14 cm long exposure of a fracture plane in the bedrock. The fissure is a "portal" to the *World Below* (Lewis-Williams 2009; Rozwadowski 2009), that is, the interior of the rock. Only the Owl's head is displayed and it with a distinct full frontal view. One would presume that Owl is passing through this doorway from the *World Below* into *This World*. One can but wonder the particulars of the message.

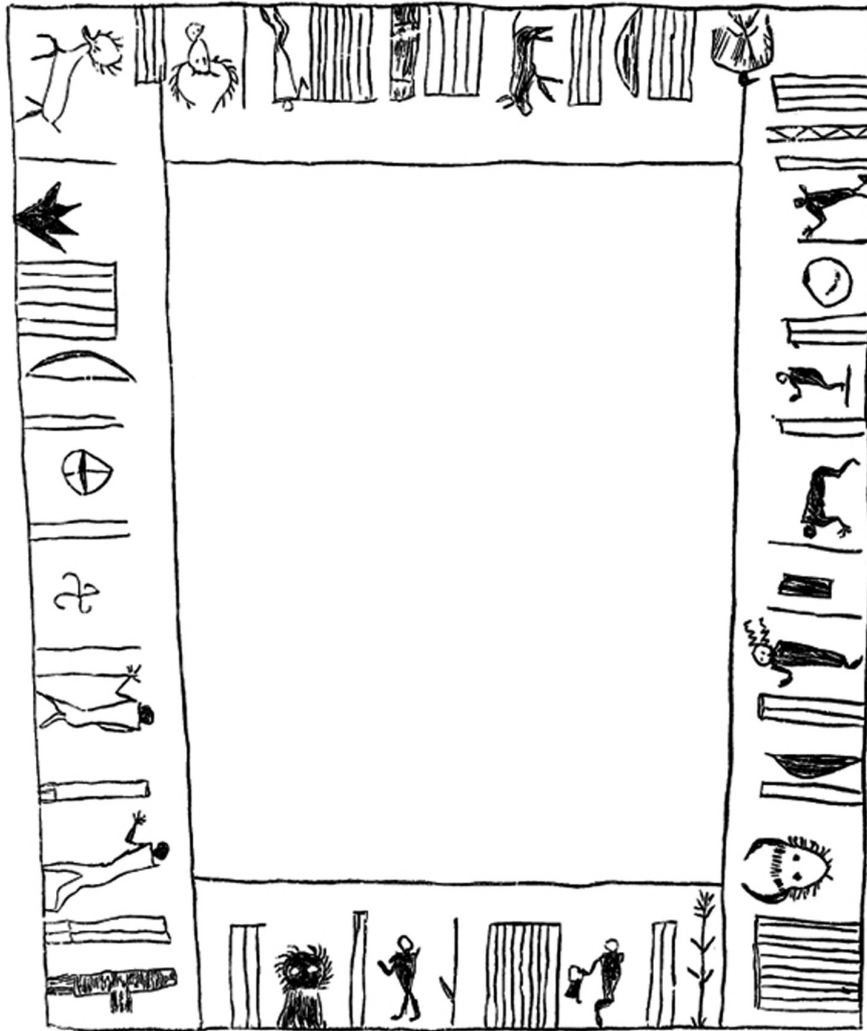


Figure 27. Dorsey's (1885:677, Plate XX) illustration of the mnemonic device employed in 1882 by the singers during the Kansas mourning ritual. The discrete icons indicate segments of the ritual with the edge-perpendicular lines indicating the number of songs to be performed. The act begins in the lower-left corner, proceeds up the left margin, across the top, down the right margin, and then returns to the lower left corner for a total of 27 scenes. The owner and primary informant was Pabaⁿle-gaqli, war chief and head of the Black Eagle gens. Pabaⁿle-gaqli reports that he copied it for Dorsey from the one he inherited from his father and his father's father: "There used to be many other pictographs on it. The Osages have a similar chart, on which there are fully a hundred pictographs. Pabaⁿle-gaqli said that there should be a representation of fire in the middle of his chart, but he was afraid to make it. The songs are very sacred, never being sung on ordinary occasions, or in a profane manner, lest the offender should be killed by the thunder-god" (Dorsey 1885:675).

Curiously, in the wall area most proximate to the *This World* panel resides a thumbless handprint with a stream of dots that are interpreted as a power path emanating from the site of the missing appendage (Figure 26). The dots flow toward the Owl and thus bind the thumbless handprint to the Owl. Thomas Say provides the following description regarding the “Konzas” [Kanza] in James’ account of Long’s expedition of 1819–1820: “After the death of the husband the widow scarifies herself, rubs her person with clay, and becomes negligent of her dress” (James 1905:193). Wedel (1946:26) adds further that only females engaged in mourning self-mutilation. From George Dorsey’s (1904:21–23) Osage texts comes the tale of “The Rolling Head.” In this Old Woman story, the primary female character, Michihi, engages in what appears otherwise as common mourning behavior: “The boy’s former wife mourned for him, cut her ears off and her hair, and cried all of the time, all through the village” (Dorsey 1904:21). What is important is the casual fashion in which Michihi amputates her two ears. Additionally, Fletcher and La Flesche (1992:Plate 26 Mi’gthitoⁿⁱ and grandchild) provide a photograph of a senior woman and her grandchild. Mi’gthitoⁿⁱ displays amputation of parts of three fingers of her right hand (Figure 28). Lastly, observe the second icon down from the upper-left corner (Scene 7) on the Kanza mourning ritual chart used by Paha^{le}-gaqli (Figure 27). Dorsey provides the following description of the scene:

Fig. 7, song of the deities. The sign for this song is a hand of which four fingers are seen. As this is sung some gift is thrown down and left as an offering to the Wakanda, and to all the deities, those above, those under the hills, the winds, Venus, etc.

As Ali^{kawahu} and Paha^{le}-gaqli are Yata people, they elevate the left hands, beginning at the left with the east wind, then turning to the south wind, next to the west wind and lastly to the north wind. To each they say, “That I give to you, O Wakanda!” They used to pierce themselves with knives or small splinters, and offer small pieces of their flesh to the deities. [Dorsey 1885:676]

The four-fingered icon of the left hand, as an indication of self-sacrifice and self-mutilation, is connected to both bereavement and the imagery of Owl (albeit in this context male dramaturgy) for the Kanza people, at least back into the eighteenth century.

In conclusion, if the handprint is interpreted, and note that it is the off, or left, hand, as an example of female self-mutilation associated with bereavement, then combining these compositions into a single liturgical construct is warranted. Certainly such an expression would in all ways be consistent with this study’s other findings regarding female concerns and spirituality.

I need to here make a connection between the social issues of bereavement and female puberty. Perhaps an illustration from my own life would be useful. I have discussed the possibility of mourning scarification and amputation with my wife. She volunteered that if in mourning, she would weep and maybe get a haircut. As regarded

amputation, she suggested trimming her fingernails. And yet I know that she loves me greatly. My point being that an act as desperate, disfiguring, and everlasting as amputation would require a level of motivation that could only be achieved through a high level of understanding, social legitimation, and personal acceptance. Perhaps a puberty ceremony would have been an appropriate context for providing a formal introduction to the concept. After all, this self-mutilation might be her final act as a married woman, a woman now of modified social honor and who has moved to a different life stage.



Figure 28. Mi'gthito'it (Flesher and La Flesche 1992:Plate 26), or Return of the New Moon, tended to the needs of the Venerable Man, or Sacred Pole of the Omaha, after her husband was too enfeebled to carry forward with this responsibility. Her husband, Shu'denaci, or Smoked Yellow, who was the last designated Keeper, bestowed the Venerable Man and certain of his ceremonies on Harvard's Peabody Museum in 1888. Presumably widowed by the time of the photograph, note her right hand and the missing elements of her middle, ring, and pinkie fingers.

The final icon to be counted is not to be found exactly on the *World Below* panel, rather it lies proximate to the stage's rear entrance and separates our allegorical uterus from the cervix (Wall E, see Figure 4). While like the other elements of the panel in that it cannot be seen from the house, perhaps it ought not, strictly speaking, be considered a part of the scenic design. It is a small anthropomorph in shamanic repose, with arms extended and hands pointed skyward. Recalling that males could have no contact with this spiritually charged place for fear of pollution and death, the image would necessarily be that of a Shawoman. The function of the icon in this theater is not clear. Given the location, whether she was participant and character of the script or rather a protecting, guarding agent remains unresolved. However, as a senior colleague once suggested (Teddy Stickney, personal communication 2008), "Be sure to examine all nooks and crannies and rest assured that every icon was present for a reason."

To summarize the discussion of the distribution of the art on the wall surfaces, or what is known in theater as scenic design, three major groupings or panels are apparent. The panels correspond to the three divisions of Dhegihan cosmology, the *World Above*, *This World*, and the *World Below*. The divisions are arrayed in a complex geometry, with the *World Above* to the left and generally highest on the walls; the *World Below* is to the right and to the darkest region of the Grotto; and the *This World* is located between the other two and includes all of the wall surfaces receiving direct sunlight. The three panels contain a total of 33 icons. Lastly, it is generally possible to render the associated iconographies in a fashion that would be consistent with the Dhegihan *Weltanschauung*.

Religious Theater: Element 12, Scenic Painting/Scenic Artist/and Stage Preparation. Before a full performance could take place, the stage would have required preparation. During this preparatory phase of the drama to be revealed, the icons would have been applied. Subsequent performances may have necessitated that the icons be enhanced or reapplied. An initial consideration is that the creation of the *World Above* images would have compelled the use of some sort of climbing device or scaffolding. Currently there are no archaeological clues regarding the design of such a tool, and one can only speculate on the ritual significance of allowing such a device direct contact with the "vaginal" surfaces.

Undoubtedly the crew member and religious specialist chosen to apply the tattoo or permanent mark (Duncan and Diaz-Granados 2004:214) to Old Woman's vulva was a personage of many qualities. Clearly she would have required religious training and had a demonstrated spiritual competence. For instance, she would have been allowed to take a measure of menses from Old Woman's pool of "catamenial flow" and then, with the tips of the fingers of her drawing hand, apply it to the walls of Old Woman's "vagina." Each step would have posed a very dangerous interaction with the Sacred, and only proper ritual would have afforded protection.

A third and more demonstrable quality of this religious specialist would be her considerable artistic ability. I first came to this realization when we were exploring the theater's acoustical properties. Employing the various art panels as a storyboard-like device, I air traced the designs as I invented a script. What I realized was that the woman

artist had greater skill and ability than I did in making simple geometric forms, such as a circle. For her, the angle of line closure was exact; for me, I could never achieve in freehand the correct closure of the line. Another example (Figure 20a) of her artistic skills is evidenced in the “swoosh” of the Conflated Shawoman-Bird with Whoosh glyph standing sentry at the entrance to the Grotto. Beyond the compositional intricacy of the glyph and its interpretive complexity lies the fact that the upstretched forelimbs display a “swoosh” effect with both limbs pointing and then trailing off in the direction of the Grotto’s *Sanctum Sanctorum*. Descriptors like carefree, fanciful, and self-assured come to mind. Perhaps the highest expression of artistic skill is associated with the image currently considered to in many ways be definitive of the Grotto, the Medicine Woman with Three Power Balls icon. We have discussed in other contexts (Stelle 2005; Stelle and Sadler 2007) an Omaha, high degree, female, Shell Society personage ritually named *U’zhu* (Fletcher and La Flesche 1992:516). The character is significant because it is one of the few times that any of the ethnographies place a woman in an organizational status of high prestige and power. If the icon correlates with an *U’zhu*-like figure, then her mark (Figures 11 and 20c) sits perched high up on the wall as an element in the panel that is associated both metaphorically and physically with the Dhegihan *World Above*. The image is solid, well executed, and powerful. From her raised and extended left hand issues three power balls (note that it is also a left hand that is missing the thumb in the Hand Print with a Power Path icon). The power balls progress in the direction of the *Sanctum Sanctorum*. An interesting issue likely to remain unanswered is whether this is the symbol of a real, living woman—a real woman known to the artist through tradition, perhaps mythic—or of a supernatural creator-being like Old Woman.

The Red Feather and associated Red Sack icons (Figure 13a, b, c, d, and e.) are of interest for several reasons. First, a pictograph of a feather seems very inconsistent with either Dhegihan or Mississippian iconography. Second, the feather was painted using a device other than one’s finger. One of my students suggested that a feather was employed. In fact, if a feather was employed for pigment application, and archaeologically this seems likely, then one might search for answers to questions like, What species of bird? Why that species? Did the feather have to be modified for use? Did the feather need to be consecrated before it could have contact with the “menses”? How was the feather disposed of after use? Currently no answers can be provided. Third, the image has been reapplied at least three times. Fourth, the orientation of the feather icon has changed with each reapplication. Fifth, the calamus or tip of the quill extends to the Red Sack, which itself was reapplied, although the angles so formed varied. And lastly, the feather joins and therefore seems associated with the little curvilinear shawomanic form with the power streak emanating from her upstretched right hand. The women that created these images possessed both ability and training. The art is very well executed.

There is also iconography that clearly demonstrates low artistic skill or a lack of concern over technique. It is arguably the case that the Grotto’s most conspicuous glyphs (Figure 22) are the seven large disks visually dominating the *This World* panel. They seem not to have been very carefully applied. Moreover, they display at least three

expressions, perhaps four (Stelle 2009:201, 209). First, they were micro-pecked into the wall as incomplete circles (a true and curious design-scarification or tattooing of Old Woman's vagina). Second, they were defined by the application of the "blood" paint as a solid circle. There may have been multiple paintings, only some of which are coincident with the micro-pecking. And lastly, each of the painted disks was struck a multiplicity of blows with a hard object (a rock), a blow of sufficient force so as to dislodge a flake of the sandstone bedrock. (Note: If tattooing Old Woman's vagina seems difficult to understand, then striking Old Woman's vagina with a rock and then hard enough to dislodge a chunk [Stelle 2009:Figure 9] may be even more difficult to comprehend.) I think that what the archaeology is demonstrating is a sequence of liturgical changes and liturgical evolution.

Even more interesting is the prospect that each of the three evolutionary stages of the liturgy, executed as they were at eye level, may have involved the active participation of one or more members of an audience of initiates. This breaking of the theatrical fourth wall by allowing the initiates to pass through the chancel barrier and onto the stage seems likely to have occurred late in the ceremony. The initiates would have required ritual purification and then instruction regarding the meaning and technique of entering and striking the Sacred. It is also important to note that the third stage, involving a robust trauma to the disks, would have occurred as the Grotto was in its final stages of abandonment or when, at least, this liturgical act was abandoned. This conclusion is based on the observation that these major modifications to the disks were never repainted. Evidence of audience participation is also suggested by the nine incomplete circles defined by the micro-pecking. Circles were started but not closed. Additionally, the degree of closure was variable. There is also noticeable deviation in the precision of the micro-pecking, again suggesting either audience participation or differing scenic artists. One last observation regarding the sequencing and variation in expressions is that the robust striking does not occur in the stage of micro-pecking.

A final intricacy remains. The Red Feather and Red Sack icons have also been applied at least three times. Moreover, they are connected to the Seven Disks by a power path. The power path starts in the *This World* panel (the first dot intersects a painted disk), crosses over into the *World Above*, and then returns to the *This World* (wherein is located the Red Sack). The power path emanates from but one specific painted disk, and it is one that overlays a micro-pecked circle as well as one that has also been struck. The Seven Disks and the Feather and Sack icons may be related in some direct, social act of veneration.

Religious Theater: Element 13, Stage Lighting. Stage lighting involves the use of light to make visible the liturgical performance of the sanctuary or to affect mood. The light source could be either natural or artificial. While there is no archaeological evidence of artificial lighting, it is the natural lighting that is in many ways most intriguing and visibly related to the production. The entrance of direct sunlight into the Grotto was initially noted during a visit in May (Figure 29). The sunlight entered the Grotto by first illuminating the Fern and the Four Sisters icons. It continued up Wall A2 until the

Seven Disks were reached. The icons of the *This World* were all illuminated by direct sunlight. Indeed my students informally labeled the midsummer script “The Story of the Sun,” as though the movement of sunlight drove the storyline of the script. Later, when we returned for winter solstice, we found reflected sunlight (Charles 2004:270) illuminating (Figure 9) only the *Sanctum Sanctorum* aspect of the *World Above*. Sunlight clearly was important to the placement of the icons and the scripts that were performed.

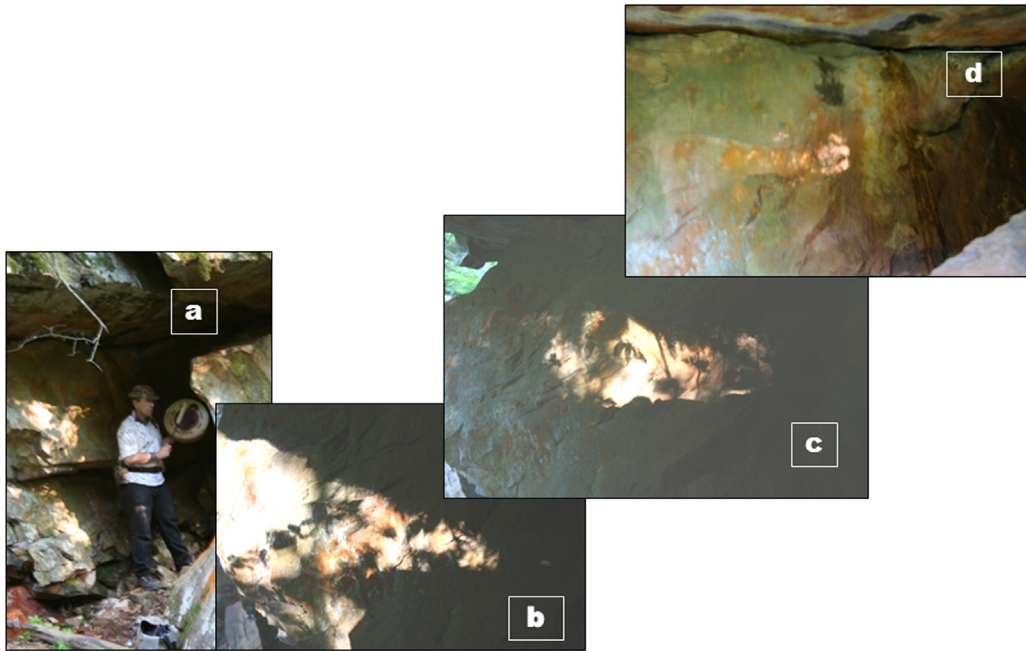


Figure 29. The movement of early evening, summer sunlight across portions of two walls of the Grotto. The movement of the sunlight (a) begins on lower Wall A1 and Wall A2, (b) traverses further along these walls, (c) begins to truncate or shrink over the Seven Disks Group, and finally terminates (d) in the area of the Feather and Sack. On upper Wall A1 only the Conflated Shawoman-bird with Whoosh icon receives some incomplete exposure; otherwise the illumination is confined to the This World panel.

Interestingly, Duncan and Diaz-Granados (2004:200) note that all vulva forms in Missouri rock art receive sunlight, albeit at different times of the day or season. In the Grotto, the two vulva form icons only receive illumination during the brief weeks immediately preceding and following winter solstice, and it is indirect, reflected light. The Siouan connection between sunlight and the vulva is found in the mythic expression of the first seven (or six) “People” being the fruit of sexual intercourse between Sun and Old Woman.

Religious Theater: Element 14, House Lighting. There are two stone hearths proximate to the audience viewing area (Figures 3 and 17). They may have functioned as sources of light. One or both may also have had liturgical significance. The two are

of different design. The southernmost one (Feature 2) consists of four relatively large, rectangular, flat stones, with longitudinal axes intersecting at 90 degrees, and with one stone positioned to the east, south, west, and north. There is a curious possibility of intentionality in rock morphology selection and positioning. The hearth is located outside of the shelter but in the drip-line. Lastly, a fire in its location would not have obstructed a view of the stage. Alternatively, Feature 1 seems more casual, simple, and utilitarian in design. However, supposition aside, little useful archaeological evidence can be offered regarding the hearths, and even then it is negative evidence. An exploratory excavation of the north half of Feature 1 (the one most proximate to the Grotto and with the many and smaller rocks) rendered no further cultural debris. All that can now be demonstrated is that someone, at some point in the past, created two enclosures of rocks of varying size and number and then built fires of relatively short duration.

Religious Theater: Element 15, Conceptual Sound Design. Conceptual sound design reflects the determination of which sounds to employ in the creation of mood or setting. The acoustical properties and integration of the stage and house were informally evaluated with prayer, song, and recitation. These evaluations resulted in a conclusion that the quality of the acoustics was surprisingly good. However, with regard to sound design proper, the only element that can be demonstrated is that produced by the waterfall. As has been previously reported, the soft tumbling of the water affords a consistent acoustical stimulus or soundtrack that in no way drowns human vocalizations even from the depths of the Grotto, at least as noted from the house. Whether the sound effects of the waterfall would have been interpreted as pleasing, as it was to the ears of my students, or frightening, as in the vocalization of the Underwater Panther, is archaeologically unknowable. Also unknowable are the music, songs, chants, and the like that even a cursory examination of the Dhegihan ethnographic literature attests to having accompanied all sacred ritual (Fletcher and La Flesche 1992).

Religious Theater: Element 16, Cast. Little is revealed archaeologically regarding the actress or actresses that performed upon this stage, other than the rather gross assertions that they must have been female, trained religious specialists, and personages that had been “purified” before entering the presumed sanctuary or chancel. They would have, of course, been members of the various families that held ownership of the several rituals likely performed. They would have spent years learning and perfecting their delivery. At any one point in time, more than one individual may have been in possession of the ceremony or one of its parts. Therefore, one potential performer may have been more popular or “desired” than another. It may also have been the case that a special social relationship, say familial, could have rendered one actress more desirable or more motivated to render the performance than another (e.g., “My niece is in this class of novitiates and she and the her mother would like for me to be the one to perform the ceremony.”). Lastly, at least the primary performer would likely have expected gifts in exchange for her having conferred the gift of her sacred knowledge or the application of her sacred properties or her call for blessing. Recall the earlier

discussion of the Omaha's "Ceremony of Turning the Child." In it, the lead character receives his "fee" before actually giving his gift.

Religious Theater: Element 17, Script or Recitation. It is unfortunate that the script of the Dhegihan female puberty ritual seems to have been lost, judging by the Euro-American histories, by the first part of the nineteenth century. At present, the primary clues to the structure of the dramatic text are those that are suggested by the ethnographically derived assignment of meaning to the various icons. Perhaps an analogy to what is here possible would be useful: pick up a Wonder Woman comic book and randomly remove 33 (the number of discrete images found in the Grotto) distinct, graphical frames. Scatter them on a table and then reconstruct the story. One sees Wonder Woman with the iconic red star of her tiara, one sees a landscape populated with female warriors, one sees the swastika symbol of the evil Nazis, and one sees cute boys; but there is no further clue to the story line. This is 11SA557's situation regarding script: one can recognize some images and place them within an ethnographic context but that is all. There are no archaeological guideposts beyond this to storyline or plot.

However, additional aspects of the script—and ones that are revealed archaeologically—is that it changed over time and would likely have involved the participation of the audience. Recall the earlier discussion of the Seven Disks. The Seven Disks (Figure 22) are so very different in their techniques of application, location, reapplication, and traumatic modification from anything else in the Grotto that one can safely conclude that they reflect differential ritual activity, and indeed a ritual that changed over time.

It is important to also consider how script was stored and recovered. Oral tradition means stored in the brain. However, external tools could be employed to facilitate recollection, for example, the pictographic artifact (Figure 27) employed by the performers in the mourning ritual of the Kanza in 1882. The mourning "chart" was employed as a mnemonic device by the singers. One begins in the lower left corner and then moves up and around the margin. Each of the 27 pictographs represented an object of veneration as well as a scene in the larger dramaturgical act that in turn constituted but one act in a yet larger liturgical construct or play. While script was necessarily stored exclusively in living memory, there were picture devices in this example that could be employed to aid recall. The "chart" was sacred. Pollution resulted in death. It was ancient. It evidenced loss and change. Perhaps these were also fundamental properties in the relationship between the pictographs of 11SA557 and their associated script.

Another mechanism for enhancing script recall is described by Fletcher and La Flesche (1992:231–232), who noted that complex rituals—for instance the play labeled "Anointing the Sacred Pole"—often had "prompters" (another element of crew) associated with their invocation. These cast members did not have the right to perform the ritual, but they were expected to know it and to make corrections as required. If the order of songs was incorrectly sequenced, they were required to interrupt and send the performer back to the beginning.

If by any chance a mistake occurred during the ceremonies connected with the Sacred Pole, and one of the songs was sung out of sequence, then the following ceremony became obligatory: All of the Waxthe'xetoⁿ subgens of the Hoⁿ'ga they who had charge of the Sacred Pole and its rites, arose, lifted their arms, held their hands with the palms upward, and, standing thus in the attitude of supplication, wept. After a few moments one of the official servers came forward, passed in front of the line of standing singers, and wiped the tears from each man's face. Then the singers resumed their places, and the ceremony began again from the beginning as though for the first time. [Fletcher and La Flesche 1992:232]

The potential for public embarrassment was considerable, and as such tells us something about the relationship between the person on stage and the one standing just off. The performance script was owned by specific members of specific families. Only they had the right to say the words, sing the songs, or engage in the choreography, but others were designated to assist in this endeavor.

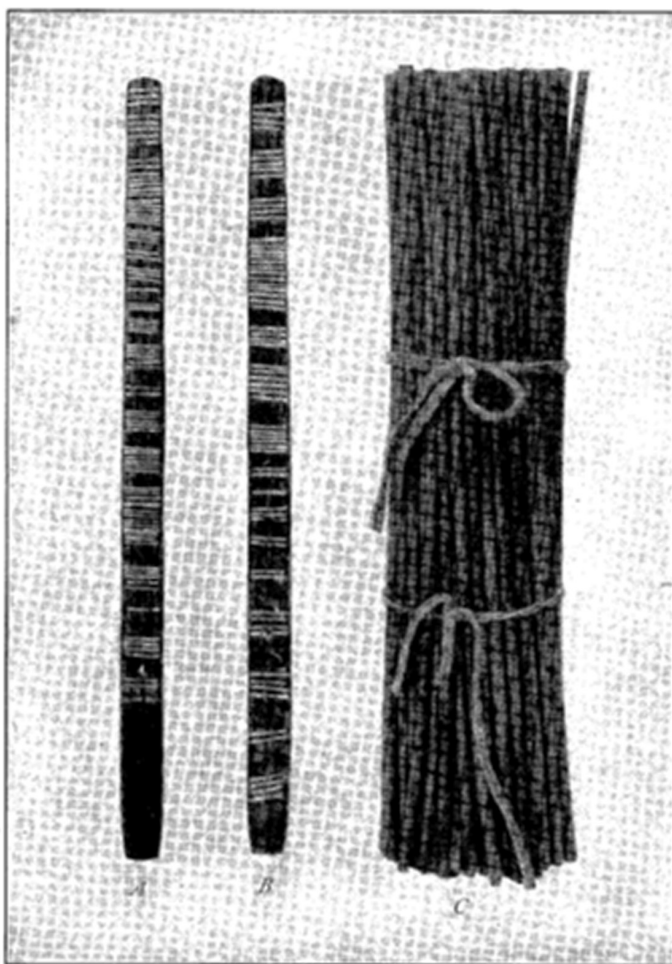


Figure 30. La Flesche's (1925:Plate 2) illustration of the counting sticks employed as mnemonic devices for ritual songs.

La Flesche (1925:77) describes family members who were prompters and brought bundles of sticks (Figure 30) with them to the performances. They would use the sticks as mnemonic devices (counts) and would as well keep a rhythm or cadence by tapping the sticks on a hard surface. The two sides of the illustrated stick (A and B) evidence a total of 148 lines, that is, 148 songs. The song counts and their sequence seemingly related to particular scenes (N=36). Each stick might represent a single act. As the reader can note, there are a very large number of sticks but, unfortunately, La Flesche provides no count. Part of the contribution of the “counter” would be to remember which stick went with which act and to make sure that no stick was lost or disfigured as the sticks were themselves part of the Sacred. Additionally, observe the knots on the cords holding the bundle together. It seems likely that ceremony, song, and prayer, was required for opening and closing the bundle.

I am reminded of Bob Hall’s (1997:ix) comments regarding La Flesche’s contribution to our ethnographic knowledge of the Osage culture. In spite of the focus of La Flesche’s life’s work being the recording of rituals, a complete documentation of Osage scripts and their translations would have required an estimated 40,000 pages of print. Hall allows that La Flesche was able to record perhaps five percent of this larger body of knowledge, and the balance is now lost.

It is troubling that the script I would most like to study, a script that I believe to have been one of the Seven Sacred Rituals, the female puberty ceremony, is part of that which was lost. Ethnohistorical sources (McDermott 1940:138; Stanley 2004:34) strongly imply that it once existed but the evidence requires a lengthy discussion of documentary evidence best saved for a different venue. For the Dhegihan cultures the time frame of 1500 to 1900 A.D. was a period of tremendous upheaval and change. With regard to the status and fate of knowledge held as part of collective memory, let me offer but one illustration. The missionary Father Jean Francois Buisson de St. Cosme traveled to the Acansae (Arkansas) community in 1699. His narrative notes that, “There was nothing to be seen in the village but graves.... We estimate that not a hundred men [were still alive]; all of the children and a great part of the women were dead” (St. Cosme 1861:72). The deaths were a result of war and a smallpox epidemic that had only ended the previous month. Such episodes of mortality signified oral tradition bottlenecks through which little knowledge was able to pass.

Religious Theater: Element 18, Manipulation of Theatrical Properties. While there is scant archaeological data bearing on the use of portable props, that which is revealed is most interesting. There is direct evidence of the use of both percussors and chisel or punch-like devices. The Seven Disks composition (Figure 22) leaves open the potential of novitiate participation and liturgical manipulation of the Sacred. The disks were located in the *This World* panel; they are unique because they were expressed as both petroglyph and pictograph; they were re-expressed over time; ultimately they were forcibly struck with what was most likely a fist-sized, lithic object. These archaeologically demonstrated actions convincingly argue for audience participation, in which case, the instrument of direct percussion and the two instruments required for the micro-pecking

are also clearly dramaturgical props. Indeed, the novitiates may have been allowed or required to touch and manipulate these objects.

One unresolved but extremely intriguing set of questions has to do, first, with whether the novice was allowed or required to touch the “vaginal” wall in order to catch the lithic flake; second, what was to be the final disposition of the detached flakes of bedrock surface; and third, the final disposition of any debris from the tools. The surface of each detached flake would have borne some of the “blood” paint. I am here reminded of the disposition of bread crumbs and residual drops of wine at the end of the Roman Catholic communion rite. The items, having been consecrated (doctrine of transubstantiation), are now part of the Sacred and require prescribed liturgical action for disposal. Perhaps chunks of material from the walls of Old Woman’s vagina also necessitated special care. While the micro-pecking was a controlled and delicate activity, the third and final form of ritual was hard and harsh. Clearly the intent was to dislodge a measureable quantity of “blood” covered lithic material. What happen to the detached flake? Did it become part of a young woman’s medicine bundle? Or was it as what Whitley (2000:30) found among several indigenous societies of modern California, namely that the rock fragment was ground into dust and then consumed as a drink or inserted into the vagina as a paste.

One last archaeologically visible prop was the “pool of blood” and the paint/pigment removed from it. During the second phase of the evolving Seven Disks ritual, the initiate may have been required to collect some of the blood on her finger and then apply it to the wall. This act would be consistent with the thematic attribute of novice participation. One can but speculate on how the child was taught to remove the blood from her fingers and the implications of this knowledge and skill for her bathing and washing her dishes and eating utensils (Dorsey 1884:267) at the conclusion of her four prescribed days of menstrual seclusion.

Religious Theater: Element 19, Rehearsal. While rehearsal is a basic property of theater because of the widely held notion that practice is required for successful performance, the archaeological demonstration of the behavior seems not to be empirically available. What is ethnographically significant is the realization that all dramatization at 11SA557 was driven by oral tradition. All scripture, song, dance, stage direction, and performer location was virtually an exclusive function of memory. While learning curves would have been variable, significant amounts of social time and energy would have been required for its intergenerational transfer and commitment to long-term memory. Rehearsal and preparation would have been a lifelong endeavor. Spending time, perhaps on a daily basis, with one’s coach or teacher must have been an elemental feature of communal existence. As might be expected, ethnographic references to rehearsal are manifold. For instance, Le Flesche (1925:68) notes informal gatherings at the house of one of the participants where cast members rehearsed the songs of the ceremony that was to be performed the following morning.

Direct archaeological support for rehearsal is sparse. The most that can be offered is based upon the perception and experience of the Parkland field crews: the acting space

is small, confined, complex, and yet very precisely designed. To effectively work in this space and not stumble, collide with other actors, have polluting contact with walls, damage costumes during an entrance through the water of the creek, and so forth would clearly have required run-throughs and perhaps even dress rehearsals. It is again the uncommon characteristics of the locale's geomorphology that affords this conclusion.

Religious Theater: Element 20, Audience. Little is revealed archaeology regarding the audiences that occupied the house. Seemingly they would have been young women whose lives were being redirected by the promise and problems of sexual maturity and menstruation. The existential issues surrounding maturational events like menstruation are the foundation of rituals of transition. While the young female audience member would be desperate for a better understanding of what was happening with her body, she would also want to know why she would be required to engage in menstrual segregation; why she could not touch the food of her father, brothers, husband, or sons while she was on her "moon time"; the nature of the social penalties and spiritual consequences for having sexual intercourse during her "moon time"; what happened to a man that was touched with menses; how to manage "slips"; how to clean herself both physically and spiritually; and even questions like, "Why is it called 'moon time'?" They were here to learn how to move forward with their lives in useful and socially appropriate ways. In the company of Grandmothers and in the abode of the *Manitous*, the mysteries of womanhood would be revealed.

The archaeology may provide one additional insight. Based upon the number of percussive flakes that were detached from the Seven Disks icon, there were likely a total of 31 novitiates that participated in the final iteration of the ceremony. The 31 women may have been arrayed into seven cohorts, each of which would have signaled a discrete performance. This last observation reflects the fact that the defacing of the icon is localized to seven clusters of variable strike counts.

Religious Theater: Element 21, Staging the Production. The archaeology provides some evidence regarding the staging of the production. Annually, or as need arose, two performances were scheduled. Each may have evidenced distinct qualities, but the two were bound by an underlying unity of transcendent concern.

The first production would have been scheduled for the few weeks preceding and following the winter solstice. It is at this time that the 60 m segment of the creek displays its most distinctive quality, that is, it "turns to blood." This is also the only point in the annual solar cycle that the meaning of the directional pointers of the art is revealed. Only then is the winter sun at a low enough angle so as to illuminate the special region (Figure 9) of the ceiling-wall block fault that I have labeled the *Sanctum Sanctorum*. The more specific timing of the event would have been determined by the position of the sun—that is, late afternoon and early evening—so that the illumination might be observed by the audience.

The second production would have been scheduled, although not necessarily with great precision, to coincide with the summer solstice sun and the florescence of the fern *Osmunda regalis* with its ethnographically attested gynecological applications (Stelle

2006b). This performance would also have been staged in the late afternoon or early evening, that is to say, when the direct sunlight plays upon the walls of the Grotto and reveals the structure of the scenic design.

Given the overriding import of sunlight, then there is one last environmental constraint that needs to be referenced. The successful staging required sharp, bright sunlight. Weather delays may have been a common consideration: no overcast, no rain, no snow.

Summary

The forgoing discussion of 11SA557 has examined the archaeological support that might be extended to 21 commonly understood properties of religious theater. There are more that could be supported through ethnographic analogy. The tasks were to search in the archaeological data for behavior that might have otherwise gone unseen and to provide a greater interpretive synthesis to rock art sites of this type. Discovered were any number of limitations to this approach, ranging from poorly revealed or unrevealed script plot; rehearsal; costume, hair, and make-up; qualities of voice; portable props; dance and song; and procession. Each of these represents a theatrical rudiment that is described time and again in the Dhegihan ethnographies as being of critical importance to both the performers and their audiences. However, applying the conceptual model of religious theater did afford a framework that led the interpretive assignment of archaeologically revealed elements of the religious theater. The disparate components of the site and its remarkable biophysical context were integrated into a larger interpretive whole. Whether the effort is viewed as the bridging argument of ethnographic analogy or a partial revelation of historical ethnography seems less important than the fact that I discovered behavior that I did not know to look for, let alone predict. I judge the strategy to have been useful and in need of further exploration at other rock art sites.

One final question with regard to 11SA557 is whether all features of the religious theater have been archaeologically identified. Edging and Ahler's (2004:100) more expansive notion of a "ritual complex" seems to have resonance. For instance, at least one of the nearby rock shelters, one that incorporates certain distinct modifications, might also have been a structural feature in a ritual complex that would include more than just the more obvious components of a theater (e.g., stage and house). Perhaps its function was as a place where the novitiates were prepared and penned in anticipation of the ceremonies or where they were subsequently sequestered. It might also have served as a place of menstrual segregation. The report was initiated with a recitation of Galloway's rhetorical question, "Where Have All the Menstrual Huts Gone?" Perhaps one has been located. Additional unanswered questions would include the location of habitation areas, duration of occupancy, and whether males were part of this manifestation of a Dhegihan residential community. Further archaeology is clearly required, and these unresolved questions suggest directions for future research.

Conclusions

The plan for this article was to first describe the several peculiar properties of the site's biophysical context and how it might be possible to employ those properties for the assignment of gender to the rock art. Demonstrated were qualities that compelled the conclusion that 11SA557 was indeed related to "female." The Grotto is a small earth opening appearing very much in the morphology of a vagina terminating in a cervix. From an associated block fault issues groundwater with properties that allow for the growth of iron-eating bacteria. The bacteria produce a red-orange insoluble precipitate that, at the macroscopic level, very much resembles thick blood. A 60-m segment of the creek, to include the waterfall, will in an annual periodic cycle be filled with colonies of the bacteria, giving the whole creek and waterfall the appearance of having turned to blood. The phytogeography of the bacterial expression is co-terminal with a particular fern, *Osmunda regalis*. Indeed *Osmunda regalis* even issues from the spring pool associated with the seep at the base of the Grotto's critical block fault—that is, the "pool of blood." A review of the ethnobotanical literature for regional indigenous societies revealed that this plant was frequently employed for the treatment of gynecological disorders. Lastly, it was this precipitate that was employed as the pigment in the paint applied to the Grotto's walls.

Second was an historical, ethnographic, and archaeological review that concluded that the women of the Dhegiha Sioux were the mostly likely exploiters of 11SA557. This consideration found further support when the pictographs were situated in the rock art traditions of the region. What was discovered was that while there are particular motifs found here that appear widely distributed over the Eastern Woodlands, the context of 11SA557, techniques of production, and the overall iconography seems reasonably unique, and decidedly post-Mississippian. The closest correspondence in both artistic technique and imagery was to the Petit Jean Painted Rock Art Style of northern Arkansas and the artistic cornucopia of Missouri. The Petit Jean Painted Rock Art Style has been successfully argued by others to be a product of Dhegiha Sioux traditions and specifically the Quapaw.

The somewhat limited review of the regional archaeological literature produced a working conclusion that the Grotto was exploited and the paint applied to the walls between A.D. 1500 and A.D. 1625. Based on the intersect of archaeology and ethnohistory, the Dhegihan Sioux again emerged as the best candidates for cultural assignment. However, because of firm historical documentation placing them in the locale of 11SA557 at an admittedly later (A.D. 1800) point in time, such diverse groups as the Delaware, Shawnee, Potawatomi, Miami, Eel River, Wea, Kickapoo, Piankishaw, and Kaskaskia could not be ruled out as either creators or users.

Lastly, a description was presented of the archaeologically revealed cultural residues found at 11SA557, constrained as they are by the specific geomorphology of the site's locale. An heuristic strategy was offered by which those residues could be woven into a larger, ethnographically informed, interpretative whole. Americanist archaeologists

have long assigned the label “ritual” to rock art sites, but they have rarely attempted to address what is behaviorally contained in the implied interpretive categorization. Employing ethnographic data from the Dhegiha Sioux, none of which coheres to an exact narrative or script, an attempt was made to put behavioral flesh on the archaeologically revealed bones of artifact and geomorphology. The interpretation has remained sensitive to criticisms of reification. The product was a synthetic piece of antiquity in which correspondence was inferred for 21 elements of religious theater. Correspondence was better established for some elements than for others, but the attempt demonstrates the possible information yield of such an approach. In this regard, issues of falsification remain complex, and appreciation of the model’s efficacy will likely remain a consideration largely framed by aesthetic disposition and one’s concern with the application of thicker texts to archaeological cultures.

For me personally, I think that what I have ultimately discovered is not what I had anticipated at the beginning of my analysis. I thought that I had a rock art site in need of description and interpretation. What I now understand is that 11SA557 is the archaeologically revealed residues of a religious theater. The art painted on the walls is but one artifact category in the reconstruction of this site type. The appellation “rock art site” seems rather like labeling the missing Akansea villages “arrowhead sites.”

Notes

1. The social category of *bardache* approximates our contemporary usage of transgendered male. Exactly how biological males living their lives as “female” and being assigned distinctive parts or “characters” in liturgically driven collective expressions of the community would have articulated with female puberty rites or sites like 11SA557 are unknown. The question begs further ethnographic research.

2. I must add an additional comment on Red Corn’s drawing. It is most unfortunate that Dorsey provides no further explanation of the drawing of the river. It would be misguided for me not to point out that the configuration of the river, which in fact seems to be two rivers with one flowing into the other, at a superficial level corresponds nicely to the Wabash and Lower Ohio—“the river down which they came,” or *Uhai ke* (Fletcher and La Flesche 1992:36). It is equally true that this same observation could be made with regard to countless other river systems in the Midwest. Whatever its ritual and symbolic meaning might have been, the drawing in no way compromises our argument that the Dhegiha were from the Ohio Valley or as it was referenced in late prehistoric Miami-Illinois language, /akaansee(a)siipi/, literally “Quapaw River” (McCafferty 2008:50-51).

Acknowledgments

I need to extend my thanks to several people. The first goes to Mary McCorvie and the Shawnee National Forest for allowing us to do the work of discovery and documentation. My second thank-you goes to my two field supervisors, Jacob A. Stelle and Jonathan P. Stelle, without whose able assistance neither the discovery would have been made nor the data collected. To my Parkland students, Tonie Sadler, Jenna Mortensen, Roger Fontana, and Ashlie Morfey, many thanks for the effort, sweat, tick feedings, and able discussion. And lastly, to our friend Curtis Grey Eagle, thank you for helping us better understand that which must be believed to be seen.

I very much appreciate the extensive and useful commentary offered by the four anonymous reviewers of the draft submission. I am sure that the final report is significantly improved as a result of you so generously sharing your time and critical insights.

My indebtedness for support and editorial comment to my wife, Gina D. Walls, is beyond measure. All errors are, of course, mine alone.

References Cited

- Arkansas Archaeological Survey
 2007 *Rock Art in Arkansas*. An electronic data base, <http://arkarcheology.uark.edu/rockart/index.html?pageName=Show%20Advanced%20Rock%20Art%20Image&Image=2130>, accessed February 23, 2008.
- Bailey, Garrick
 1995 *The Osage and the Invisible World: From the Works of Francis La Flesche*. University of Oklahoma Press, Norman.
 2004 Continuity and Change in Mississippian Civilization. In *Hero, Hawk, and Open Hand American Indian Art of the Ancient Midwest and South*, edited by Richard F. Townsend, pp. 82–91. The Art Institute of Chicago, Yale University Press, New Haven, Connecticut.
- Bailey, Garrick, and Daniel C. Swan
 2004 *Art of the Osage*. Saint Louis Art Museum. St. Louis, Missouri.
- Bizzell, David W.
 1981 A Report on the Quapaw: The Letters of Governor George Izard to the American Philosophical Society, 1825–1827. *Pulaski County Historical Review* 29:66–79.
- Boszhardt, Robert F.
 2008 Caves, Cervices, and Pillars: Rock Art Variation in the Driftless Area of the Upper Mississippian River Valley. Paper presented at the 73rd Annual Meeting of the Society for American Archaeology, Vancouver, Canada.
- Brockett, Oscar G.
 1974 *The Theatre: A Introduction*. Holt, Rinehart and Winston, New York.

- Brodo, Irwin M., Sylvia Sharnoff, and Stephen Sharnoff
 2008 Lichens of North America. Electronic document, <http://www.lichen.com/index.html>.
- Brown, James A.
 2004 The Cahokia Expression: Creating Court and Cult. In *Hero, Hawk, and Open Hand American Indian Art of the Ancient Midwest and South*, edited by Richard F. Townsend, pp. 105–124. The Art Institute of Chicago, Yale University Press, New Haven, Connecticut.
- Buckley, Thomas, and Alma Gottlieb (editors)
 1988 *Blood Magic: The Anthropology of Menstruation*. University of California Press, Berkeley and Los Angeles, California.
- Buffalohead, Priscilla K.
 1983 Farmers, Warriors, Traders: A Fresh Look at Ojibway Women. *Minnesota History* 48(6):236–244.
- Butler, Brian M., Glen P. Harrell, and Mary C. Hamilton
 1979 *An Archaeological Reconnaissance of the Illinois Portions of the Smithland Pool of the Ohio River*. Research Paper, No. 5. Center for Archaeological Investigations, Southern Illinois University at Carbondale.
- Carpenter, Tina
 2007 Hohokam Rock Art in Two Canyons in the South Mountains, Phoenix, Arizona. Paper presented at the 72nd Annual Meeting of the Society for American Archaeology, Austin, Texas.
- Chapman, Carl H.
 1974 *The Origin of the Osage Indian Tribe*. Garland American Indian Ethnohistory Series, Osage Indians, Vol. 3. Garland Publishing, New York.
- Charles, Tommy
 2004 The South Carolina Rock-Art Survey. In *The Rock-Art of Eastern North America*, edited by Carol Diaz-Granados and James R. Duncan, pp. 258–274. University of Alabama Press, Tuscaloosa.
- Cobb, Charles R., and Brian M. Butler
 2002 The Vacant Quarter Revisited: Late Mississippian Abandonment of the Lower Ohio Valley. *American Antiquity* 67(4):625–641.
- Costa, David J.
 2003 *The Miami-Illinois Language*. Lincoln: University of Nebraska Press.
- Coy, Fred E., Thomas C. Fuller, Larry G. Meadows, and James L. Swauger
 1997 *Rock Art of Kentucky*. University Press of Kentucky, Lexington.
- Crothers, George, P. Willey, and Patty Jo Watson
 2008 Mortuary Caves and Sinkholes in the Interior Low Plateaus and Southern Appalachian Mountains of the Eastern U.S. Paper presented at the 73rd Annual Meeting of the Society for American Archaeology, Vancouver, Canada.

- Dahlstrom, Amy
 2008 The Importance of Language and the Importance of Meskwaki. Paper presented at the Meskwaki Symposium: History, Culture, Language. Sac and Fox Tribe of the Mississippi in Iowa, Meskwaki Settlement, Iowa.
- Diaz-Granados, Carol
 1996 Missouri's Petroglyphs and Pictographs: Overview of a Statewide Survey and Analysis. In *Rock Art of the Eastern Woodlands*, edited by Charles H. Faulkner, pp. 47–79. American Rock Art Research Association, San Miguel, California.
 2004 Marking Stone, Land, Body, and Spirit. In *Hero, Hawk, and Open Hand American Indian Art of the Ancient Midwest and South*, edited by Richard F. Townsend, pp. 138–149. The Art Institute of Chicago, Yale University Press, New Haven, Connecticut.
- Diaz-Granados, Carol, and James R. Duncan
 2000 *The Petroglyphs and Pictographs of Missouri*. University of Alabama Press, Tuscaloosa, Alabama.
- Dorsey, George A.
 1904 Traditions of the Osage. In *Field Columbian Museum*. Publication No. 38, Anthropological Series, VII(1). Chicago, Illinois.
 1940 *Notes on Skidi Pawnee Society*. Field Museum Press, Chicago.
 1997 *The Pawnee Mythology*. Bison Books edition. University of Nebraska Press, Lincoln and London.
- Dorsey, Rev. J. Owen
 1884 Omaha Sociology. In *Third Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institution 1881–1882*, pp. 211–370. Washington, D.C.
 1885 Morning and War Customs of the Kansas. *The American Naturalist* 19(7):670–680.
 1888 Osage Traditions. In *Annual Report of the Bureau of American Ethnology to the Secretary of the Smithsonian Institution*, No. 6, pp. 373–397. Washington, D.C.
- Duncan, James R., and Carol Diaz-Granados
 2004 Empowering the SECC: The “Old Woman” and Oral Tradition. In *The Rock-Art of Eastern North America*, edited by Carol Diaz-Granados and James R. Duncan, pp. 191–215. University of Alabama Press, Tuscaloosa.
- Durkheim, Emile
 1947 *The Elementary Forms of the Religious Life*. Free Press, New York.
- Dye, David H.
 2004 Art, Ritual, and Chiefly Warfare in the Mississippian World. In *Hero, Hawk, and Open Hand American Indian Art of the Ancient Midwest and South*, edited by Richard F. Townsend, pp. 191–206. The Art Institute of Chicago, Yale University Press, New Haven, Connecticut.

- Edging, Richard, and Steven R. Ahler
 2004 Rock-Art and Late Woodland Settlement in the Northern Ozarks. In *The Rock-Art of Eastern North America*, edited by Carol Diaz-Granados and James R. Duncan, pp. 191–215. University of Alabama Press, Tuscaloosa.
- Emerson, Thomas E., and Randall E. Hughes
 2000 Figurines, Flint Clay Sourcing, the Ozark Highlands, and Cahokian Acquisition. *American Antiquity* 65(1):79–101.
- Faulkner, Charles H., Bill Dean, and Howard H. Earnest, Jr.
 1984 A Mississippian Period Ritual Cave in Tennessee. *American Antiquity* 49(2):350–361.
- Fletcher, Alice, and Francis La Flesche
 1992 *The Omaha Tribe*, Vol. 1 and 2. Reprinted. University of Nebraska Press, Lincoln. Originally published in 1911, *Twenty-Seventh Annual Report of the Bureau of American Ethnology*. Washington, D.C.
- Fortier, Andrew
 1995 The Vogt Petroglyph Complex in Monroe County, Illinois. *Illinois Archaeology* 7(1–2):82–101.
- Fritz, Gayle J., and Robert Ray
 1982 Rock Art Sites in the Southern Arkansas Ozarks and Arkansas River Valley. In *Arkansas Archeology in Review*, edited by Neal Trubowitz and Marvin Jeter, pp. 240–276. Arkansas Archeological Survey Research Series 15.
- Galloway, Patricia
 1998 Where Have All the Menstrual Huts Gone? In *Reader in Gender Archaeology*, edited by Kelley Hays-Gilpin and David S. Whitley. Routledge, London and New York.
- Gartner, William Gustav
 1993 *The Geoarchaeology of Sediment Renewal Ceremonies at the Gottschall Rockshelter, Wisconsin*. Unpublished master's thesis, University of Wisconsin, Madison.
- Geertz, Clifford
 1973 *The Interpretation of Cultures: Selected Essays*. Basic Books, New York.
- Greer, Mavis and John
 2010 Graffiti: To Clean or Not to Clean, That Is the Question. Paper presented at the 75th Annual Meeting of the Society for American Archaeology, St. Louis, Missouri.
- Hall, Robert L.
 1997 *An Archaeology of the Soul*. University of Illinois Press, Urbana and Chicago.
 2004 The Cahokia Site and Its People. In *Hero, Hawk, and Open Hand American Indian Art of the Ancient Midwest and South*, edited by Richard F. Townsend, pp. 92–103. The Art Institute of Chicago, Yale University Press, New Haven, Connecticut.

- Hamel, Paul B., and Mary U. Chiltoskey
1975 *Cherokee Plants and Their Uses: A 400 Year History*. Herald Publishing, Sylva, North Carolina.
- Hatlen, Theodore W.
1981 *Orientation to the Theater*. 3rd ed. Prentice-Hall, Englewood Cliffs, New Jersey.
- Hennepin, Louis
1698 *A New Discovery of a Vast Country in America*, Vol. 1. Bentley, Tonsan, Bonwik, T. Goodwin, and S. Manship, London.
- Herrick, James William
1977 *Iroquois Medical Botany*. Unpublished PhD thesis, State University of New York, Albany.
- Hilger, M. Inez
1951 *Chippewa Child Life and Its Cultural Background*. United States Government Printing Office, Washington, D.C.
- Holt, Julie Zimmerman
2009 Rethinking the Ramey State: Was Cahokia the Center of a Theater State? *American Antiquity* 74(2):231–254.
- James, Edwin
1905 *James's Account of S. H. Long's Expedition, 1819–1820*. A. H. Clark, Cleveland, Ohio. Available online at [http://memory.loc.gov/cgi-bin/query/r?ammem/lhbtn:@field\(DOCID+@lit\(lhbtnth014div9\)\):#N0079-01](http://memory.loc.gov/cgi-bin/query/r?ammem/lhbtn:@field(DOCID+@lit(lhbtnth014div9)):#N0079-01).
- Jones, Peter, Rev.
1861 *History of the Ojebway Indians; With Especial Reference to Their Conversion to Christianity*. A. W. Bennett, London.
- Joutel, Henri
1714 A Journal of the Last Voyage perform'd by Monsr. De La Sale to the Gulf of Mexico, To Find the Mouth of the Missisipi River; Written in French by Monsieur (Henri) Joutel A Commander of That Expedition and Translated from the Edition just published at Paris. Printed for A. Bell, B. Lintott, and F. Baker, London.
- Kappler, Charles J., Ed.
1904 *Indian Affairs: Laws and Treaties*. Vol. II (Treaties). Government Printing Office, Washington, D.C.
- King, Adam
2004 Power and the Sacred: Mound C and the Etowah Chiefdom. In *Hero, Hawk, and Open Hand American Indian Art of the Ancient Midwest and South*, edited by Richard F. Townsend, pp. 151–166. The Art Institute of Chicago, Yale University Press, New Haven.
- Kistler, Logan
2008 Rock Art of Mammoth Cave, Kentucky. Paper presented at the 73rd Annual Meeting of the Society for American Archaeology, Vancouver, Canada.

- Lewis, R. Barry
1990 The Late Prehistory of the Ohio-Mississippi Rivers Confluence Region, Kentucky and Missouri. In *Towns and Temples Along the Mississippi*, edited by D. H. Dye and C. A. Cox, pp. 38–58. University of Alabama Press, Tuscaloosa.
- Lewis-Williams, J. David
2009 Surfing Cosmological Boundaries. Paper presented at the 74th Annual Meeting of the Society for American Archaeology, Atlanta, Georgia.
- La Flesche, Francis
1921 Researches Among the Osage. *Smithsonian Miscellaneous Collections*, vol. 70, no. 2. Explorations and Field-work of the Smithsonian Institution in 1918. July 1919, pages 110–113. Smithsonian Institution, Washington, D.C.
1925 The Osage Tribe: Rite of Vigil. In *Thirty-Ninth Annual Report of the Bureau of American Ethnology to the Secretary of the Smithsonian Institution 1917–1918*. Chief, J. Walter Fewkes, pp. 31–630. Government Printing Office, Washington, D.C.
- Loubser, Johannes H. N.
2002 *Tripping on the Snake, or On a Quest for Visions Forgotten: An Assessment of Selected Rock Art Sites in the Hell's Canyon National Recreation Area*. New South Associates Technical Report 963. New South Associates, Stone Mountain, Georgia.
2010 Mental States Are Locations: A Cognitive Interpretation of Rock Art and Built Structures. Paper presented at the 75th Annual Meeting of the Society for American Archaeology, St. Louis, Missouri.
- McCafferty, Michael
2008 *Native American Place-Names of Indiana*. University of Illinois Press, Urbana and Chicago.
- Masthay, Carl
2002 *Kaskaskia Illinois-to-French Dictionary*. Published by the author.
- Mazrim, Robert, and Duane Esarey
2007 Rethinking the Dawn of History: The Schedule, Signature, and Agency of European Goods in Protohistoric Illinois. *Midcontinental Journal of Archaeology* 32(2):145–200.
- McDermott, John Francis, ed.
1940 *Tixier's Travels on the Osage Prairies*. University of Oklahoma Press, Norman.
- McGowan, Charlotte
1978 Female Fertility Themes in Rock Art. *Journal of New World Archaeology* 2(4):15–27.
- Mead, George Herbert
1934 *Mind, Self, and Society*. University of Chicago Press, Chicago and London.
- Muller, Jon
1996 The Lower Ohio Valley and Its Frontiers. Paper presented at the Southeastern Archaeological Conference, Birmingham, Alabama. Electronic document,

- <http://www.siu.edu/~anthro/muller/dispersion/dispersion.html>, accessed February 1, 2008.
- Munson, Marit
2008 Rock Art, Ritual, and Landscape in the 14th-century Galisteo Basin, New Mexico. Paper presented at the 73rd Annual Meeting of the Society for American Archaeology, Vancouver, Canada.
- Nevin, Paul
2004 Rock Art Sites on the Susquehanna River. In *The Rock-Art of Eastern North America*, edited by Carol Diaz-Granados and James R. Duncan, pp. 239–257. University of Alabama Press, Tuscaloosa.
- Packard, Sam, and Michelle N. Dunnagan
2007 *Il Parle Illinois*, “He Speaks in the Normal Way”: The Language of the Inoca. *Inoca (Ilimouec, Illinois, Illini, Peoria) Ethnohistory Project: Eye Witness Descriptions of the Contact Generation, 1667–1700*. Parkland College, Champaign, Illinois. Electronic document, http://virtual.parkland.edu/stelle1/len/center_for_social_research/inoca_ethnohistory_project/F_language.html, accessed May 15, 2011.
- Pollack, David
2004 *Carbon-Welborn: Constructing a New Society after the Angel Chiefdom Collapse*. University of Alabama Press, Tuscaloosa.
- Prentice, Guy
1986 An Analysis of the Symbolism Expressed by the Birger Figurine. *American Antiquity* 51(2):239–266.
- Reilly, F. Kent
2004 People of the Earth, People of the Sky. In *Hero, Hawk, and Open Hand American Indian Art of the Ancient Midwest and South*, edited by Richard F. Townsend, pp. 124–137. The Art Institute of Chicago, Yale University Press, New Haven.
- Rozwadowski, Andrzej
2009 Entering the Rock? Culture Specifics and Universals in Shamanistic Rock Art in Siberia. Paper presented at the 74th Annual Meeting of the Society for American Archaeology, Atlanta, Georgia.
- Sabo III, George, and Deborah Sabo (editors)
2005 *Rock Art in Arkansas*. Arkansas Archaeological Survey Popular Series 5. University of Arkansas Printing Service, Fayetteville, Arkansas.
- Sadler, Tonie E.
2006 The Blood of the Ancestors Rock Art Site: An Iconographic Interpretation. Paper submitted for the O’Brien Undergraduate Student Paper Award. Manuscript on file, Department of Anthropology, University of Illinois, Urbana-Champaign.

- Salzer, Robert J., and Grace Rajnovich
2001 *The Gottschall Rockshelter: An Archaeological Mystery*. Prairie Smoke Press, St. Paul, Minnesota.
- Sellers, George Escol
1877 Aboriginal Pottery of the Salt-Springs, Illinois. *The Popular Science Monthly* 11:573–585.
- Sharp, Robert, Kevin E. Smith, and David Dye
2010 The Classic Braden Style and Its Legacy in the Nashville Basin. Paper presented at the 75th Annual Meeting of the Society for American Archaeology, St. Louis, Missouri.
- Shimony, Annemarie
1994 *Conservatism among the Iroquois at the Six Nations Reserve*. Syracuse University Press, Syracuse, New York.
- Smith, Huron H.
1923 Ethnobotany of the Menomini. *Bulletin of the Public Museum of the City of Milwaukee*. 4:8–175.
1933 Ethnobotany of the Forest Potawatomi Indians. *Bulletin of the Public Museum of the City of Milwaukee* 7:1–230.
- Stanley, Lori A.
2004 Ratcliffe Sacred Rock and the Seven Sacred Stones. In *The Rock-Art of Eastern North America*, edited by Carol Diaz-Granados and James R. Duncan, pp. 145–158. University of Alabama Press, Tuscaloosa.
- St. Cosme, Jean F. B.
1861 Letter of J. F. St. Cosme, Missionary Priest, to the Bishop of Quebec, 1699. In *Early Voyages Up and Down the Mississippi*, edited by John Gilmary Shea, pp. 43–75. Joel Munsell, Albany, New York.
- Stelle, Lenville J.
2005 The Blood of the Ancestors Grotto. Paper presented November 15, 2005, for the Center for Excellence, Parkland College, Champaign, Illinois.
2006a The Rock Art of the Blood of the Ancestors Grotto 11SA556. Electronic document, http://virtual.parkland.edu/lstelle1/len/center_for_social_research/BAG/title_page.html.
2006b Blood of the Ancestors Grotto: Imaging the Pictographs. Paper presented at the 71st Annual Meeting of the Society for American Archaeology, San Juan, Puerto Rico.
2008 Blood of the Ancestors Grotto: Ritual Behavior. Paper presented at the 73rd Annual Meeting of the Society for American Archaeology, Vancouver, British Columbia.
2009 The Rock Art of the Blood of the Ancestors Grotto (11SA557): A Natural History of the Imaging Methodology. *Illinois Archaeology* 21:191–212.

- Stelle, Lenville J., and Tonie Sadler
2007 Blood of the Ancestors Grotto: Gender Related Iconography. Paper presented at the 72nd Annual Meeting of the Society for American Archaeology, Austin, Texas.
- Swanton, John R.
1943 Siouan Tribes and the Ohio Valley. *American Anthropologist*, New Series 45(1):49–66.
- Swauger, James L.
1984 *Petroglyphs of Ohio*. Ohio University Press, Athens.
- Thwaites, Reuben Gold (editor)
1899 *The Jesuit Relations and Allied Documents*. 73 Vols. Burrows Company, Imperial Press, Cleveland.
- Tucker, Sara Jones
1942 *Indian Villages of the Illinois Country*, Vol. II, Part 1, Atlas, Plate 5. Illinois State Museum, Springfield.
- Vecsey, Christopher
1983 *Traditional Ojibwa Religion and Its Historical Changes*. American Philosophical Society. Philadelphia.
- Vogel, Michelle Berg
2007 The Petit Jean Painted Rock Art Style. Electronic document, <http://arkarcheology.uark.edu/rockart/index.html?pageName=The%20Petit%20Jean%20Painted%20Rock%20Art%20Style>, accessed February 23, 2008.
- Wagner, Mark J.
1996 Written in Stone: An Overview of the Rock Art of Illinois. In *Rock Art of the Eastern Woodlands*, edited by Charles H. Faulkner, pp. 47–79. American Rock Art Research Association. San Miguel, California.
- Wagner, Mark J., Mary R. McCorvie, Brad Koldehof, and Charles R. Moffat
1990 *An Archaeological Survey of Fountain Bluff, Jackson County, Illinois*. American Resources Group, Ltd. Cultural Resources Management Report No. 143. Submitted to USDA Forest Service, Shawnee National Forest, Harrisburg, Illinois.
- Wagner, Mark J., Mary R. McCorvie, and Charles A. Swedlund
1999 The Korando Site (11J334): A Mississippian Ritual Cave and Rock Art Site in Southwestern Illinois. *Illinois Archaeology* 11(1 and 2):149–186.
- Wagner, Mark J., Bethany J. Myers, and Charles A. Swedlund
2000 The Power of Place and Rock Art in Southern Illinois: The Austin Hollow Rock Site. *Illinois Archaeology*. 12(1 and 2):161–198.
2004 Mississippian Cosmology and Rock-Art at the Millstone Bluff Site, Illinois. In *The Rock Art of Eastern North America*, edited by Carol Diaz-Granados and James R. Duncan, pp. 42–64. University of Alabama Press, Tuscaloosa.

- Wagner, Mark J., and Charles A. Swedlund
2009 The Occurrence of the Ceremonial Mace Motif at Southern Illinois Rock Art Sites. *Illinois Archaeology* 21:126–165.
- Walker, Renee
2008 Ceremonial Use of Dust Cave: A Late Paleoindian to Middle Archaic Period Site in Northwestern Alabama. Paper presented at the 73rd Annual Meeting of the Society for American Archaeology, Vancouver, Canada.
- Wallace, Anthony F. C., and Shelia K. Steen
1972 *The Death and Rebirth of the Seneca*. Vintage Books, New York.
- Waller, Steven
2011 Archaeoacoustic Techniques Lead to New Interpretations of the Thunderous Reverberation at Rock Art Sites. Paper presented at the 76th Annual Meeting of the Society for American Archaeology, Sacramento, California.
- Waugh, Frederick W.
1916 *Iroquois Foods and Food Preparation*. Government Printing Bureau, Ottawa, Canada.
- Wedel, Waldo R.
1946 The Kansa Indians. *Transactions of the Kansas Academy of Science* 49(1):1–35.
- Whiting, Frank M.
1978 *An Introduction to the Theatre*. 4th ed. Harper and Row, New York.
- Whitley, David S.
2000 *The Art of the Shaman: Rock Art of California*. University of Utah Press, Salt Lake City.
2005 *Introduction to Rock Art Research*. Left Coast Press, Walnut Creek, California.
2008 Remarks presented as Discussant for Rock Art Interest Group sponsored symposium at the 73rd Annual Meeting of the Society for American Archaeology, Vancouver, Canada.
- Williams, Stephen
1990 The Vacant Quarter and Other Late Events in the Lower Valley. In *Towns and Temples Along the Mississippi*, edited by D. H. Dye and C. A. Cox, pp. 170–180. University of Alabama Press, Tuscaloosa.
- Williams, Joel C., and Susan Jansen
2008 A Correlation of Prehistoric Earthen Mounds and Caves In and Around Saint Louis, Missouri. Paper presented at the 73rd Annual Meeting of the Society for American Archaeology, Vancouver, Canada.