INTRODUCTION

Chaco Canyon contains the largest concentration of rock art in the San Juan Basin. In contrast to the large amount of rock art in Chaco Canyon, relatively little rock art has been reported at Chacoan outliers and at small house sites on the floor of the San Juan Basin (that is, the Chuska Valley, Chaco Plateau, and South Chaco Slope). Major rock art sites are present along the San Juan River between Shiprock and Bloomfield, in the Dinétah (the ancient Navajo homeland on the plateau drained by Largo and Gobernador Canyons and their tributaries), and on the Dutton Plateau and headwaters of the Rio Puerco of the West. Beyond the San Juan Basin in areas incorporated into the Chaco system of outlying great houses, great kivas, and roads (e.g., the Zuni area, the Little Colorado River and lower Rio Puerco of the West, the Black Mesa Basin, and the lower San Juan River), rock art traditions that preceded the rise of the Chacoan system continued to develop and change during the period of Chacoan construction, circa AD 1025–1130, and later.

Most analyses of rock art in the Chacoan landscape have focused on classifying rock art by style to determine rock art date and cultural affiliation, but a few
studies have attempted to go beyond just classification and dating to illuminate the meanings of Chacoan rock art, the functions of Chacoan rock art in Chacoan society, and the insights that rock art offers into Chacoan society and culture. Furthering the understanding of Chacoan society and culture through the study of rock art will require expanded and more detailed recording of rock art in the region, development of more comprehensive databases on Chacoan rock art, more analysis of the chronological and geographical distributions of specific motifs and the combinations and associations of these motifs into broader styles, and additional study of the relationships between rock art and social function and meaning.

HISTORY OF RESEARCH

Nearly 150 years of scientific study of rock art in the Four Corners region has generally followed three approaches to research: (1) observation, (2) classification, and (3) analytical studies. Scientific documentation of rock art in the San Juan Basin began in 1875, when William Henry Holmes documented the Pictured Cliffs Site (now known as the Waterflow Site) along the San Juan River west of Farmington (Holmes 1878). Holmes’s designation of the site provided the name for the Pictured Cliffs Sandstone geological formation.

In the early 1900s, working in the Kayenta region to the west of the area penetrated by Chacoan architecture, Alfred Kidder and Samuel Guernsey (1919:192–199, figs. 96–102, pl. 89–97) recognized that rock art might be classified, and therefore they recorded it and presented the data. They generalized that the primary motifs in the Kayenta region were mountain sheep and human figures. They recognized that Basketmaker peoples depicted human figures with broad shoulders, and they also recognized Navajo rock art as distinct from ancient rock art in subject matter and technique. They stated that it was “idle to speculate on the purpose or meaning” of the rock art but suggested that clues to understanding rock art might come from “a study of the motives which have led other people in other regions to produce like inscriptions” (Kidder and Guernsey 1919:192–193).

The National Geographic Society investigations in Chaco Canyon from 1921 to 1927, which included the excavations of Pueblo Bonito and Pueblo del Arroyo, paid scant attention to rock art. In 1924, Frans Blom (with the National Geographic Society crew) “made some field sketches and notes on various petroglyph panels between Chetro Ketl and Kin Kletso” (Bane 2008:38). Neil Judd (1954:239) mentions axe-grinding grooves behind Pueblo
Bonito, and (Judd 1964:129, 135) describes painted and incised designs on architectural stone at Bonito.

In contrast, Frank Roberts (1932:149–152, pl. 61–63) discussed the rock art (which he called petroglyphs) at the Village of the Great Kivas in some detail. Roberts (1932:149–150) said that interpretations of rock art ranged from ancient writing to merely doodling, each of which had some measure of truth and fancy. Roberts interviewed Zunis about the rock art at the Village of the Great Kivas, and the Zunis told him that some motifs represented specific concepts, some motifs were pecked to achieve a specific outcome (specifically in war), and one panel was a narrative. “Whether their [the Zuni] meanings are the ones which the prehistoric people had in mind or whether they are entirely removed from the original conception no one can tell. The Zuñi interpretations are more in keeping with the Indian point of view [as opposed to non-Indian interpretations], however, and for that reason are presented as a suggestion of what the drawings may possibly have stood for” (Roberts 1932:150).

In 1934 Chaco Canyon National Park archaeologist Gordon Vivian used Public Works Administration funding to survey rock art on the north side of the lower 5 mi. of Chaco Canyon (Bane 2008:39; Hayes 1981:12). During Clyde Kluckhohn’s 1936 University of New Mexico field school, “students drew rock art panels on the south side of the canyon” (Bane 2008:39, citing Mulloy 1941). In 1942 Ted Sowers of the Wyoming Archaeological Survey published a three-page article (Sowers 1942) in *El Palacio*, one page of which is a figure, in what may be the first published attempt to characterize Chacoan rock art.

In 1963 Polly Schaafsma and Christy Turner reported on their inventories of the rock art of the Navajo Reservoir area (Schaafsma 1963) and the rock art of the Glen Canyon area (Turner 1963), respectively, which enabled them to define stages in the content and style of rock art in two regional traditions. The work by Schaafsma and Turner initiated a new interest in the rock art of the Southwest, reinvigorating the classificatory approach pioneered by Kidder and Guernsey nearly fifty years earlier.

In 1972 Schaafsma reported on her reconnaissance of rock art across the state of New Mexico, which allowed her to define regional traditions and changes in style across the state. Schaafsma (1972:fig. 1) examined four sites in the northern Chuska Valley; the Waterflow Site on the San Juan River (Holmes’s Pictured Cliffs Site); five sites in Largo, Gobernador, and Blanco Canyons; five sites in Chaco Canyon; and two sites in the Rio Puerco of the West near Gallup (including Cliff Dwellers Canyon). As anticipated by Kidder and Guernsey (1919:192–193), Schaafsma demonstrated that it was possible to define regional traditions and stages of development within regional
traditions, which in turn showed that rock art was not merely random doodling but instead was patterned in time and space and therefore could be classified in terms of content and style, providing insights about the function, meaning, and socially constructed manner of representation in rock art. Schaafsma’s bibliography contained only a handful of references to previous rock art studies in New Mexico, indicating both the limited effort expended on rock art study up to 1972 and the extent to which her book encouraged the subsequent florescence of rock art study in the Southwest.

In his 1974 MA thesis at Eastern New Mexico University, Howard Smith recorded rock art, 263 panels, along the San Juan River from the Waterflow Site to the Dinétah and tallied the presence or absence of 96 motifs at each of these panels. He then used cluster analysis and factor analysis to try to characterize each panel in terms of a style of rock art. He expected that the panels would factor out into two broad clusters, ancient Puebloan and early Navajo, and then break out into additional clusters, perhaps east versus west, by time period, or by some other variable. Instead, the clusters mixed ancient Puebloan and early Navajo panels and were uninterpretable to Smith. To some degree, Smith’s results were probably due to using panels, many with mixtures of Puebloan and Navajo elements, as his units of analysis. In addition, his classification of elements into motifs might have obscured significant variability.

The 1971–1972 survey of Chaco Canyon recorded rock art at 404 of the 2,220 archaeological sites recorded during the survey (Hayes 1981:38). Many of these 404 sites contained exclusively Navajo rock art, but the majority contained Chaco-era rock art. From 1975 to 1981 the New Mexico Archaeological Society Rock Art Recording Field School, under the direction of James Bain, conducted detailed recording of these 404 sites and at almost 100 previously unidentified rock art sites they found during their fieldwork. In 1977 Jay Crotty and Anna Sofaer of the New Mexico Archaeological Society Rock Art Recording Field School discovered the “Sun Dagger” (Crotty 2000:113), a pair of spiral petroglyphs on Fajada Butte that are struck by shafts of sunlight during the equinoxes and solstices (Schaafsma 1992:17). Anna Sofaer et al. (1978, 1979) published articles describing how this remarkable find might have functioned as a calendar, though Michael Zeilik (1985) contends that the Sun Dagger was less a calendar than a sun shrine (Schaafsma 1992:17). Paul Steed (1980) published a preliminary report on the Archaeological Society of New Mexico Rock Art Recording Field School, which was the most comprehensive report on Chaco Canyon rock art at the time. In 1982 Joan Mathien prepared a history of Chaco Canyon rock art studies (Bane 2008:39).
At a twenty-year reunion of the start of the field school, held in Chaco Canyon, return visits to rock art sites in the canyon convinced original members of the field school that even their earlier recording had not been detailed enough; on the return visits to sites they found previously unrecorded rock art and previously unrecorded rock art sites. After the reunion, in 1996, several of the original team members, led by Jane Kolber and Donna Yoder, initiated a new and continuing effort to upgrade the Chaco rock art records. As of July 2017, Kolber was working with a database of 233 ancient rock art sites with 3,051 panels and 18,950 elements. Even as their research has continued, Kolber and Yoder have published a number of articles on aspects of their work. Donna Yoder and Jane Kolber (2002) and Kolber (2003) provided general overviews and preliminary findings of the Reassessment Recording Project. Kolber and Yoder (2002) described the large, complex, and highly visible “Great Panels” of Chaco Canyon. Kolber and Yoder (2008) discussed the ubiquitous spirals in Chaco Canyon rock art.


People produce rock art for a wide range of purposes, including initiation, pilgrimage, hunting magic, fertility, rainmaking, making prayers and offerings, creating shrines, vision questing and the acquisition of spirit helpers, place making, demarcating travel routes, marking boundaries, commemoration, instruction, denoting identity (by representing ancestors, clans, sodalities, and such), symbolizing power, astronomical observation, and expressing cosmology. Since about 2000, researchers have increasingly analyzed Chacoan rock art to understand the social and political organization and ideology of the Chacoan era.

In 2006 Schaafsma used Chaco Canyon rock art to assess interpretations of complexity and hierarchy in Chacoan society, concluding that Chacoan rock art was typical of Pueblo II (AD 900–1100) rock art and did not support interpretations that Chaco Canyon housed a distinct culture with complex social hierarchy (Schaafsma 2006).

In a 2008 MA thesis at Northern Arizona University, Barbara Bane compiled data on rock art in the vicinity of four great houses in Chaco Canyon (Pueblo Bonito, Chetro Ketl, Casa Chiquita, and Wijiji) and two areas not associated with specific great houses in the canyon (the Petroglyph Trail between Casa Chiquita and Escavada Wash and a small site on Chaco Wash
between the Chaco Canyon visitor center and Wijiji). Bane classified each element at these sites in terms of broad categories (human figure, animal figure, reptile, vegetative, geometric, abstract, and other) and technique, and she ranked each panel by complexity. Spatial patterning, similarities in rock art, and the messages encoded in rock art indicated ritual integration between Pueblo Bonito and Chetro Ketl and shared community messages between Wijiji and the small houses in its vicinity, but not with other great houses, while rock art was not especially significant at Casa Chiquita. The Petroglyph Trail was a processional way, with great diversity in messages that were highly visible.

During the years after the completion of the original comprehensive archaeological survey of Chaco Canyon, researchers documented Chaco-era rock art in the San Juan Basin outside of Chaco Canyon. Prior to the improvement of US Highway 550, the Museum of New Mexico documented the Waterflow Site (Fallon 1979) and conducted excavations within the highway right-of-way (Farwell and Wening 1985). In 1981 D. J. Joyce of the Field Museum recorded rock art in the vicinity of Red Rock State Park east of Gallup (Joyce 1981, as cited by Nabahe 1993). Joyce’s field notes are on file at the Laboratory of Anthropology in Santa Fe (Joyce 1981). Most of the effort in recording rock art in the San Juan Basin after the 1970s, however, was conducted in conjunction with archaeological surveys performed to comply with Section 106 of the National Historic Preservation Act, which requires that federal agencies consider the effects of their actions on historic properties. Recording of rock art in the course of Section 106 compliance varied greatly in quality, with some archaeologists merely recording the presence of rock art; some tallying the numbers of different types of elements and almost none recording rock art at the level of detail of Kolber, Yoder, and their colleagues.

**ORIGINS OF CHACO ROCK ART**

Rock art researchers have documented relatively continuous production of rock art in the Four Corners region from Archaic times (circa 5,000–1,000 BC) to the present. Production of rock art in the San Juan Basin is documented from Basketmaker II times (ca. 1,000 BC–AD 500) to the present. Changes in rock art during these long histories reflect changing social organization (especially gender relations), political organization (especially leadership), and ideology (cosmology).

During the Archaic period, from about 5,500 to 2,000 BC, peoples of the Four Corners region practiced a hunting-and-gathering subsistence pattern
and were probably organized as patrilineal bands in which part-time ritual specialists received ritual knowledge, supernatural power, and spirit helpers through apprenticeship, vision quests, or both. Vision quests sought to induce trances in which the novitiate experienced entoptic (within the eyeball) phenomena such as auras, which might be depicted in rock art as abstract designs or watery imagery, including lines of dots, wavy lines, zigzags, herringbone, diamond chains, and rakes. Anthropomorphic figures have rakelike bodies and two-pronged headdresses and may represent shamans. Other figures may represent spirit helpers. From Archaic times through the Basketmaker III period, the centers of rock art production were southeastern Utah, the Little Colorado River, and the Defiance Plateau. Archaic rock art in the Four Corners region is perhaps best represented in the Palavayu region (Petrified Forest and the confluence of the Rio Puerco of the West and the Little Colorado River) as described by Patricia McCreery and Ekkehart Malotki (1994; see also Schaafsma and Young 2007).

People began to grow maize on the Colorado Plateau about 2,000 BC, initiating the Early Agricultural or Basketmaker II period (2,000 BC to AD 500). People probably continued to live in patrilineal bands ministered by part-time ritual specialists. Rock art seems to have “emphasized life-cycle rituals such as initiation rites” (Wilshusen et al. 2012:209, following Robins and Hays-Gilpin 2000). Michael Robins and Kelley Hays-Gilpin (2000:table 12.1) summarize Basketmaker II rock art (2000 BC–AD 200) and Basketmaker II–III rock art (AD 200–500) as being focused on the adorned human figure. The most striking images in the rock art of Basketmaker II times are broad-shouldered human figures with small heads, necklaces, sashes, and bags and carrying atlatls and spears. Other human figures of the Basketmaker II period have large, drooping hands and feet (Robins and Hays-Gilpin 2000; Schaafsma 1972:fig. 18, 1992:fig. 19). According to Grant (1978:168–170), the handprint is the second-most-common motif (after the human figure) in Basketmaker II rock art in Canyon de Chelly. McCreery and Malotki (1994:fig. 2.2a) also depict examples of quadrupeds with outlined rectangular or oval bodies sometimes partly filled in with crosshatching and often with antlers and curving horns, which they see as similar to the Basketmaker II Glen Canyon Linear Style. Other elements of Basketmaker II rock art include brushes, rakes, centipedes, wavy lines, rayed circles, rows of dots, spiral, and concentric circles. Solidly pecked quadrupeds with oval or crescent-shaped bodies are similar to the Basketmaker II San Juan Anthropomorphic Style (McCreery and Malotki 1994:fig. 2.2b). McCreery and Malotki (1994:fig. 2.3) depict examples of quadrupeds, birds,
and birdlike figures in the Palavayu Linear (similar to Glen Canyon Linear) and Majestic Basketmaker (similar to San Juan Anthropomorphic) styles, along with wavy lines, rakes, spirals, concentric circles, and rows of dots. Tabbed circles (or lobed circles) appear in Basketmaker II times (Robins and Hays-Gilpin 2000:237–238).

Basketmaker II rock art is widely distributed from Canyonlands to the Little Colorado River and from Glen Canyon to Navajo Reservoir. Schaafsma and Young (2007) see an expanse of Basketmaker III–II rock art running from Palavayu to the lower San Juan, but the core area is along the lower San Juan extending south as far as Canyon de Chelly and east into the Prayer Rock District of northeastern Arizona. Within the San Juan Basin, the centers of rock art production were the San Juan River and the Prayer Rock District. Basketmaker II rock art is not common in Chaco Canyon (figures 5.1 and 5.2) but is present on the San Juan Mine, north of the San Juan River west of Farmington (Seyfarth 1983, as cited by Schaafsma 1992:9), and in Stewart Canyon, south of the San Juan River south of Farmington, where

Figure 5.1. Large Basketmaker II human figure near Pueblo Bonito. Courtesy Kelley Hays-Gilpin.
Basketmaker II petroglyphs and pictographs are present (figure 5.3; Schaafsma 1980:fig. 80). An example of a Basketmaker II human figure with large, drooping hands and feet is present in Cliff Dwellers Canyon northeast of Gallup (Schaafsma 1972:fig. 18; Schaafsma 1992:fig. 19).

The Basketmaker III period (AD 500–700) marks the time when most farming peoples in the Four Corners region lived in semipermanent pit houses and produced plain pottery. Hays-Gilpin (1996) reasoned that Basketmaker III rock art in the Prayer Rock District of northeastern Arizona (and in the northwestern edge of the San Juan Basin) was gendered masculine. The geometric designs on basketry, textiles, sandals, aprons with menstrual blood stains, and pottery contrasted with the more representational and naturalistic rock art imagery. Basketmaker III peoples may have developed matrilocal postmarital residence patterns to allow matrilineages to retain control of farm fields, which would have dislocated men from their natal families (Hays-Gilpin 1996; see also Ware 2014). Men responded by developing communal rituals held in great kivas. The Basketmaker III settlement at Broken Flute Cave in
the Prayer Rock District of northeastern Arizona (and the northwestern edge of the San Juan Basin) was divided into a western, feminine-gendered residential area with pit houses, storage facilities, and no rock art, and an eastern, masculine-gendered ritual area with the great kiva and rock art (Hays-Gilpin 1996). Robins and Hays-Gilpin (2000:table 12.1) summarize Basketmaker III rock art (AD 500–700) as more variable than Basketmaker II rock art, depicting human figures, tools, ritual items, birds, mammals, and narratives. Other Basketmaker III rock art motifs include flute players (but not with humped backs), handprints, footprints, animal tracks, wavy lines, zigzags, rows of dots, and tabbed circles. Procession panels depicting processions of human figures converging on circular features, perhaps great kivas, are present on Butler Wash and Comb Ridge in southeastern Utah, and at Broken Flute Cave in the Prayer Rock District of northeastern Arizona (Robins and Hays-Gilpin 2000:241–243, figs. 12.7 and 12.8), and seem to document a Basketmaker III shift to communal rituals (Robins and Hays-Gilpin 2000:247; Wilshusen and Perry 2012; Wilshusen et al. 2012; L. Young and Gilpin 2012). Basketmaker III

Figure 5.3. Basketmaker II human figures in Stewart Canyon. Photograph by Dennis Gilpin.
rock art is common in southeastern Utah, the Prayer Rock District of northeastern Arizona, and the Defiance Plateau, but despite the presence of large Basketmaker III sites in Chaco Canyon (Shabik’eshee and 29SJ423, each with a great kiva), Basketmaker III rock art in Chaco Canyon is limited. One Basketmaker III petroglyph panel near Pueblo Bonito depicts an adult carrying a burden basket and a child with a seed beater (figure 5.4) as well as other Basketmaker III figures.

The most distinctive manifestation of Pueblo I rock art (AD 700–900) is the Rosa style of the upper San Juan River basin. The defining element of the Rosa style is the triangular-bodied human figure (figure 5.5), often portrayed in rows of figures, usually not gendered, holding hands. Several Pueblo I White Mound Black-on-white vessels depict alternating, hand-holding, feminine figures with butterfly hair whorls and masculine figures with a feather or horn as a sort of round dance as opposed to the procession panels of the Basketmaker III period (Cordell 1997:249, fig. 8.10; Cordell and

Figure 5.4. Basketmaker III human figures near Pueblo Bonito. Courtesy Kelley Hays-Gilpin.
McBrinn 2012:182–183, fig. 6.27; L. Young and Gilpin 2012:164–166, fig. 11.6). The White Mound Black-on-white vessels with hand-holding figures constitute one of the few examples in which rock art imagery also appears on pottery. Schaafsma (1992:9) dates the Rosa Style to AD 400–950. Other than the rows of triangular-bodied hand-holders, Pueblo I rock art is not well defined and is assumed to be transitional between Basketmaker III rock art and Pueblo II rock art. Grant (1978:171–193) discusses the rock art of the Modified Basketmaker–Developmental Pueblo period (AD 450–1100) as a single time period. Common motifs are birds (especially turkeys and commonly ducks), handprints, stick figures, flute players (but not yet humpbacked), hair whorls, headresses, zigzags, concentric circles, spirals, bird tracks, and bear tracks. Bighorn sheep are not extensively depicted in Canyon de Chelly rock art (Grant 1978:191–193). Pueblo I depictions of bighorn sheep show them with open mouths and clawlike hooves, as also depicted on a Kana’a Black-on-white jar found by Earl Morris at Mummy Cave (Grant 1978:182–183, fig. 4.32). A narrative panel in Canyon de Chelly appears to show a bighorn sheep drive (Grant 1978:fig. 4.33).

Figure 5.5. Rosa-style human figures in Stewart Canyon. Photograph by Dennis Gilpin.
Prior to the construction of great houses in Chaco Canyon beginning about AD 850, residents of the canyon produced only limited amounts of rock art. Atlatl Cave contains some Basketmaker II rock art (Schaafsma 1992:8–9). Another Basketmaker II pictograph near Pueblo Bonito consists of a large, painted, broad-shouldered human figure and a smaller, painted, broad-shouldered human figure, on the same panel with Basketmaker III petroglyphs. Once residents of the canyon began to construct great houses, Chaco Canyon became the center of rock art production in the San Juan Basin with more rock art than anywhere else in the basin.

Schaafsma (2006) contends that Pueblo II rock art has broad distribution and expresses common, widely accessible iconography, while lacking both regional differentiation and exclusive, veiled meanings. Because of the unspecialized nature of Chacoan rock art, Schaafsma questions whether Chacoan society could have been as complex and stratified as many have proposed.

In terms of expertise and subject matter, much of the rock art in Chaco Canyon could have been made by virtually any member of Chacoan society. Some differentiation in gender, quantity, complexity, and function is recognizable, however. The gendered patterns identified by Kelley Ann Hays-Gilpin (1996) for the Basketmaker III period persisted into the Pueblo II period, with geometric basketry, textile, and pottery designs rarely appearing in rock art, which instead more commonly depicted life-forms. Although Chaco Canyon has some powerful glyphs and panels, the concentration of glyphs makes the canyon unique in the San Juan Basin. Much of the rock art in Chaco Canyon is repetition of simple glyphs, with spirals the most common, but also abundant stick figures of humans and animals. Just the sheer quantity of rock art in Chaco Canyon is a testament to Chaco’s importance and conveys crowds, processions, power, wealth, and the participation of masses in Chacoan ideology.

Chaco Canyon rock art depicts a wide range of subjects, including nonrepresentational elements (figure 5.6), geometric elements (figure 5.7), life-forms (figure 5.8), and even astronomical phenomena (figure 5.9). Moreover, these subjects are represented by means of a wide range of techniques, including pecking, scratching (figure 5.10), incising, abrading (figure 5.11), drilling (figure 5.12), bas relief (figure 5.13), and painting (figure 5.14), and many elements incorporate combinations of techniques (figure 5.15). Life-forms may be represented naturalistically (figure 5.16) or more abstractly, with formal, rectilinear representations (figure 5.17). Although some elements and panels are secreted in private settings, most are highly visible behind great houses or along trails leading to great houses.
Figure 5.6. Connected spirals in Stewart Canyon. Photograph by Dennis Gilpin.

Figure 5.7. Textile in Chaco Canyon. Courtesy Kelley Hays-Gilpin.
Figure 5.8. Jerusalem Cricket petroglyph in Chaco Canyon. Courtesy Kelley Hays-Gilpin.

Figure 5.9. The “Supernova” pictograph in Chaco Canyon. Courtesy Kelley Hays-Gilpin.
Human figures are depicted in a variety of ways, as simple stick figures or with oval (or bulbous) or rectangular bodies, with arms and legs often upraised or downturned at right angles (figure 5.18), with hands and feet not usually emphasized, sometimes with headdresses, but usually without implements. Flute players (figure 5.19) became popular after the Basketmaker III period, and humpbacked flute players were present by the Pueblo II period. Florence Hawley (1937) reported a flute player on a Pueblo I sherd from Chaco Canyon, and flute players are a common element in Pueblo II–III rock art at Chaco Canyon, Canyon de Chelly and the Four Corners area, and Glen Canyon but
are not at all common on the Little Colorado River and the Rio Puerco of the West (McCreery and Malotki 1994:155–158).

Like human figures, animal figures may be depicted in a variety of ways in Pueblo II rock art, as stick figures or with oval (or bulbous) bodies, crescent-shaped bodies, or rectangular bodies. Curving horns designate mountain sheep, which are not as common at Chaco Canyon or Canyon de Chelly as they are on the lower San Juan River and the Little Colorado River. The branching antlers of deer and elk are not common in Chaco rock art. Short, backward-curving horns are ambiguous, perhaps representing mountain sheep or pronghorn antelope (figure 5.20). Animal tracks—especially tracks of deer, elk, and antelope—are often depicted. Images of bears are not common at Chaco
Figure 5.12. Drilled design in Chaco Canyon. Courtesy Kelley Hays-Gilpin.

Figure 5.13. Bas relief design in Chaco Canyon. Courtesy Kelley Hays-Gilpin.
Figure 5.14. Pictograph in Chaco Canyon. Courtesy Kelley Hays-Gilpin.

Figure 5.15. Pronghorn antelope depicted with combined techniques (pecked, incised) in Chaco Canyon. Courtesy Kelley Hays-Gilpin.
Figure 5.16. Naturalistic treatment of animals in Chaco Canyon. Courtesy Kelley Hays-Gilpin.

Figure 5.17. Rectilinear lizard man in Chaco Canyon. Photograph by Dennis Gilpin.
Figure 5.18. Pueblo II human figure in Chaco Canyon. Courtesy Kelley Hays-Gilpin.

Figure 5.19. Flute player and quadruped in Chaco Canyon. Courtesy Kelley Hays-Gilpin.
**Figure 5.20.** Quadruped in Chaco Canyon. Courtesy Kelley Hays-Gilpin.

**Figure 5.21.** Oversized human figure in Chaco Canyon. Courtesy Kelley Hays-Gilpin.
Canyon, but bear paws are present. Canines are depicted in the Pueblo II rock art of Chaco Canyon rock, as are mountain lions and mountain lion tracks. Ducks, wading birds, and turkeys are common in Pueblo II rock art west of the Chuska Mountains but not so much at Chaco. Reptiles—especially snakes, lizard men, and horned lizards—are commonly represented in Pueblo II rock art. Insects and arthropods are not commonly depicted in Pueblo II rock art, except for centipedes, which were depicted as early as the Archaic period. Flute players may actually represent robber flies, locusts, or both (McCreery and Malotki 1994:155–158).

A few elements and panels exhibit monumentality, both as large elements (figure 5.21) and as what Kolber and Yoder (2002) call “Great Panels,” highly visible, complex panels of large elements positioned high on the canyon walls (figure 5.22). Some elements and panels are dynamic, with visibility changing with changing conditions of light and shadow. Some panels are very complex, usually resulting from repeated additions to the initial image or images. Although there are some examples of superpositioning in Chaco rock art (suggesting that later artists felt that the older rock art was no longer powerful or meaningful), superpositioning is rare (suggesting that later artists thought the older rock art retained its power and meaning).
One of Bane’s conclusions was that rock art in Chaco had multiple functions and meanings, including procession along the trail between Peñasco Blanco and downtown Chaco, connecting Bonito and Chetro-Ketl, connecting Wijiji with the small houses in its community, and limited significance around Casa Chiquita. Other studies have explored various functions of rock art at Chaco.

The spiral is the most common element in Chaco Canyon rock art (figure 5.23); if a panel has only one element, it will probably be a spiral, and if a panel has more than one element, at least one of the elements will probably be a spiral. Wavy lines and zigzags are frequently appended to spirals. Spirals, wavy lines, and zigzags may represent emergence, movement, migration, the search for the central place, journeys, life’s journey, and the passage of time (Schaafsma 2006:156–157). The Sun Dagger chronicles the journey of the sun across the two spiral petroglyphs at the site. Footprints may also signify journeys of various types.

Many panels have repeated elements (figure 5.24), such as are found in other areas of the Southwest where pilgrims mark each time they make a pilgrimage by producing another example of their personal or clan symbol. At Tutuveni (Willow Springs) on the Hopi Salt Trail, people traveling from Hopi to the salt source in the Grand Canyon would carve their clan symbol each time they
made the salt pilgrimage (Bernardini 2005, 2007; Michaelis 1981). Repetition of elements, often apparently by the same person, occurs in Chaco Canyon rock art. Rows of quadrupeds are common. Flute players are repeated in some places (Fluteplayer Rock, for example). Carnivores are repeated at one site. Unlike Tutuveni, clan symbols have not been identified in Chaco Canyon rock art, according to Schaafsma (2006:150–151). Much of the rock art in Chaco Canyon (especially footprints and handprints) seems to be markers that an individual makes as an individual, not as a representative of a larger group, and human and animal stick-figures seem to be too generic to be totems.

Some Chacoan rock art could represent the spirit world and spirit helpers, but Chacoan rock art rarely depicts recognizable deities, which might indicate an animistic religion much like that of the Archaic period. Chacoan rock art appears to lack trance entoptics, however. Although wavy lines and zigzags are common, they are not arrayed as large numbers of parallel wavy lines and zigzags like Archaic rock art, but instead are a single element, and since they are often appended to spirals, they may represent journeys. One recognizable deity is the flute player.
Although some Chacoan rock art could be interpreted as prayer offerings to bring about fertility by populating the canyon with spirals, human figures, quadrupeds, bear tracks, artiodactyl tracks, footprints, handprints, and other imagery of abundance, Chacoan rock art does not seem to reference the “flower world,” a mythical, fertile world of abundant water, flowers, butterflies, dragonflies, and birds, which originated in Mesoamerican ideology and which appears in pottery and kiva murals in the Southwest about AD 1375 (Hays-Gilpin and Hill 2000; Hays-Gilpin and Sekaquaptewa 2006).

Pueblo II rock art almost never depicts quotidian activities such as planting, harvesting, corn grinding, or cooking, though it sometimes depicts hunting. It rarely depicts ceremonies, battles, or other specific events. In contrast, the Basketmaker III–Pueblo I procession panels show processions of people converging on great kivas, and Pueblo I hand-holding figures on rock art and pottery may depict dances, and eighteenth- and nineteenth-century Navajo rock art depicts both ceremonial gatherings (Brugge 1981:figs. 59 and 60) and battles (Brugge 1981:fig. 61; Gilpin 2001; Grant 1978).

Chacoan rock art rarely depicts artifacts (exceptions being sandals or sandal tablets) and even more rarely depicts artifacts isolated from the person wearing or holding them (as in the depiction of people wearing necklaces, earbobs, and headdresses and carrying bows and arrows).

ROCK ART IN THE SAN JUAN BASIN

In contrast to the high concentration of rock art in Chaco Canyon, Chacoan outliers in the San Juan Basin and other parts of the Chacoan landscape have limited amounts of rock art. Out of more than fifty Chacoan outliers on the floor of the San Juan Basin (the Chuska Valley, the Chaco Plateau, and the South Chaco Slope), only about six are reported to have rock art (table 5.1), and most of these sites have only a few pecked elements. In addition, at several of these great houses, the rock art is several hundred meters away from the great house. Perhaps the largest outlier-associated rock art site on the floor of the San Juan Basin is at Peach Springs, with twelve panels and ninety elements dating to the Chacoan occupation (Gilpin 2004).

Most Chacoan outliers beyond the San Juan Basin floor (i.e., beyond the Chaco Plateau, the Chuska Valley, and the South Chaco Slope) are not associated with rock art. Out of approximately forty-five great houses I have visited beyond the central San Juan Basin, I know of only about ten with associated rock art. Rock art at these outliers ranges from only a few elements to several hundred elements at Kiva Point.
<table>
<thead>
<tr>
<th>Site</th>
<th>Location</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kin Bineola</td>
<td>Basin floor</td>
<td></td>
</tr>
<tr>
<td>Crumbled House</td>
<td>Basin floor</td>
<td></td>
</tr>
<tr>
<td>Standing Rock</td>
<td>Basin floor</td>
<td>Nials et al. (1987)</td>
</tr>
<tr>
<td>Bee Burrow</td>
<td>Basin floor</td>
<td></td>
</tr>
<tr>
<td>Chimney Rock</td>
<td>Beyond basin floor</td>
<td></td>
</tr>
<tr>
<td>Kiva Point</td>
<td>Beyond basin floor</td>
<td>Smith (1974)</td>
</tr>
<tr>
<td>Morris 40</td>
<td>Beyond basin floor</td>
<td>Smith (1974)</td>
</tr>
<tr>
<td>Sterling</td>
<td>Beyond basin floor</td>
<td>Smith (1974)</td>
</tr>
<tr>
<td>Point Site</td>
<td>Beyond basin floor</td>
<td></td>
</tr>
<tr>
<td>Guadalupe</td>
<td>Beyond basin floor</td>
<td></td>
</tr>
<tr>
<td>Fenced-Up Horse Canyon</td>
<td>Beyond basin floor</td>
<td>Hopkins and Ferguson (2014)</td>
</tr>
<tr>
<td>Village of the Great Kivas</td>
<td>Beyond basin floor</td>
<td>Roberts (1932)</td>
</tr>
<tr>
<td>Kin Hocho’i</td>
<td>Beyond basin floor</td>
<td>Fowler et al. (1987)</td>
</tr>
<tr>
<td>MacStod</td>
<td>Beyond basin floor</td>
<td>Forton (2015)</td>
</tr>
<tr>
<td>Hunters Point</td>
<td>Beyond basin floor</td>
<td>Gilpin (1992)</td>
</tr>
<tr>
<td>White House</td>
<td>Beyond basin floor</td>
<td></td>
</tr>
<tr>
<td>Burnt Corn</td>
<td>Beyond basin floor</td>
<td>Miksa (1987)</td>
</tr>
</tbody>
</table>

Outside of Chaco Canyon, probably the next largest concentration of rock art in the San Juan Basin is the Waterflow Site (figures 5.25 and 5.26) on the north side of US Highway 550 between Farmington and the Hogback, with 421 panels and 3,275 elements (table 5.2). At the next level down are sites like LA 67369/NM-Q-29-62, on the east side of the Gallup Hogback; Cliff Dwellers Canyon, also on the east side of the Gallup Hogback; Stewart Canyon, just south of the San Juan River across from Farmington; and the Peach Springs outlier, which have from two to thirteen panels and 90–200 elements. Finally, a search of the literature and personal familiarity with the San Juan Basin disclosed a remarkably small number of sites (approximately a dozen) that contain from one to five panels and up to fifteen elements.

The function and meaning of Chaco-era rock art outside of Chaco Canyon have not received much attention, but it should not be assumed...
that its function and meaning were the same as in Chaco Canyon. Richard Wilshusen et al. (2012:212–215) analyzed the Waterflow site, and particularly the procession panel as depicted by William Henry Holmes (1878), which shows three parallel lines of quadrupeds intermixed with a few human figures moving from left to right to a quartered square with flaglike elements in each quarter and guarded by two mountain lions. Wilshusen et al. interpret two figures with torso, head, and arms, but bow wings and arrow tails as similar to hunt chiefs, bow priests, or war leaders of the modern pueblos. Whereas the human figures in Basketmaker III–Pueblo I procession panels are individual people, the quadrupeds in the Waterflow procession panel (which date to the tenth century) may be a totem of a larger social group. Square elements appear elsewhere at the Waterflow site (figure 5.27) and other sites, where they often form the heads of human figures. Wilshusen et al. propose that the squares represent the village and that the square-headed human figures represent community leaders concerned about village defense.

<table>
<thead>
<tr>
<th>Site</th>
<th>Panels</th>
<th>Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chaco (Kolber-Yoder Database)</td>
<td>3,051 (233 sites)</td>
<td>18,970</td>
</tr>
<tr>
<td>Waterflow</td>
<td>421</td>
<td>3,275</td>
</tr>
<tr>
<td>LA 67369/NM-Q-29-62</td>
<td>2</td>
<td>150–200</td>
</tr>
<tr>
<td>Cliff Dwellers Canyon</td>
<td>13</td>
<td>127</td>
</tr>
<tr>
<td>Stewart Canyon</td>
<td>10</td>
<td>110</td>
</tr>
<tr>
<td>Peach Springs</td>
<td>12</td>
<td>90</td>
</tr>
<tr>
<td>Newby</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Springstead</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Sterling</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Twin Lakes</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Red Willow</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Needle Rock</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Corn-burned Hill</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>LA 5832</td>
<td>1</td>
<td>Several</td>
</tr>
<tr>
<td>Shash Hááyahí (Sanostee)</td>
<td>1</td>
<td>2–3</td>
</tr>
<tr>
<td>Two Cranes</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Yellow Man Siphon</td>
<td>1</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Table 5.2. Frequencies of rock art panels and elements at selected San Juan Basin sites.
Figure 5.25. Waterflow Site. Courtesy Rupestrian CyberServices.

Figure 5.26. Waterflow Site rock art. Courtesy Rupestrian CyberServices.
CHACO ROCK ART BEYOND THE SAN JUAN BASIN

Surrounding the San Juan Basin with its Chacoan rock art are several regions relatively rich in rock art (table 5.3). Schaafsma (2006) sees Pueblo II rock art as basically similar across a broad area, but various authors have defined regional styles, based primarily on variable distributions of distinctive motifs. For example, flute players are not common in Little Colorado River–Rio Puerco of the West. Mountain lions and other quadrupeds with tails extending off the back of the animal (figure 5.28) may be more common in Little Colorado River–Rio Puerco of the West than elsewhere. Bighorn sheep are more common along the lower San Juan River than at Canyon de Chelly and Chaco. Schaafsma (1980:143–153) says that Kayenta is a well-studied regional style in which bighorn sheep are common (Schaafsma 1980:148). Researchers need to more systematically define regional styles by mapping distributions of motifs and assessing whether there are correlations and clustering of some motifs. Researchers also need to examine the nature of boundaries, which Schaafsma (2006) suggests are porous. Social network analysis (Mills et al. 2013) has developed ways of representing distributions and social connections that might be useful in illuminating regional interactions. Chacoan outliers are present in most of these regions, and researchers should be examining how

Figure 5.27. Square elements at the Waterflow Site. Courtesy Rupestrian CyberServices.
participation in Chaco might have affected rock art in these regions. Are there motifs that can be identified as Chacoan?

The upper San Juan River basin, including Navajo Reservoir and Largo and Gobernador Canyons and their tributaries, is mostly known for Navajo rock art (Young and Copeland 2018). Prehistoric rock art of this region is dominated by Rosa phase rock art, exemplified by rows of hand-holding human figures with triangular bodies, which was produced over a short time period, primarily during the Pueblo I period. The upper San Juan River basin is notable in that it contains no Chacoan outliers, so a comparison of Pueblo II rock art in the upper San Juan River basin and in the Chacoan interaction sphere would likely provide insights about the aspects of Chacoan rock art that were most significant.

### Table 5.3. Regional rock art traditions.

<table>
<thead>
<tr>
<th>Region</th>
<th>Periods</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zuni–Acoma</td>
<td>Basketmaker–Pueblo V</td>
<td>J. Young (1988)</td>
</tr>
<tr>
<td>Defiance Plateau</td>
<td>Basketmaker–Pueblo III</td>
<td>Grant (1978)</td>
</tr>
<tr>
<td>Lower San Juan</td>
<td>Basketmaker–Pueblo III</td>
<td>Cole (1990, 2009)</td>
</tr>
<tr>
<td>Middle San Juan</td>
<td>Basketmaker–Pueblo III</td>
<td>Smith (1974)</td>
</tr>
<tr>
<td>Mesa Verde</td>
<td>Basketmaker–Pueblo III</td>
<td>Hurst and Till (2006)</td>
</tr>
<tr>
<td>Dutton Plateau</td>
<td>Basketmaker–Pueblo III</td>
<td>Schaufsma (1972)</td>
</tr>
</tbody>
</table>

**Threats and Management**

Among the threats to rock art are erosion, vandalism, and construction. The soft sandstones that predominate in the Chaco world are easily eroded, and wind erosion and spalling have effaced many elements, prompting a sense of urgency to detailed recording of existing rock art. The remoteness of many rock art panels has limited vandalism to rock art, but accessible sites such as Waterflow and well-known sites such as those in the Dinétah have suffered (Young and Copeland 2018). Destruction of rock art by construction is perhaps also best documented at Waterflow, where improvement of US Highway 64 resulted in both relocation and destruction of some panels after careful recording (Farwell and Wening 1985). A few rock art sites have been recorded.
during archaeological surveys for coal mines (Seyfarth 1983; Whitten 1982) and presumably have been destroyed by subsequent mining.

Future studies of Chacoan rock art can further address the major issues in Chacoan research, such as the organization of Chacoan society, the nature of complexity in Chacoan society, the sources and uses of social power, the centrality and importance of Chaco Canyon in the Chacoan world, and the cosmology of Chacoan peoples. The investigation of these topics will require additional field survey and recording of rock art, the development of rock art databases, and increased analysis, facilitated by new recording and analysis techniques, such as photogrammetry, geographical information systems, and social network analysis.

Data on rock art in the Chacoan landscape are currently limited and difficult of access. There is no synthesis comparable to Campbell Grant (1978) for Canyon de Chelly, Sally Cole (1990, 2009) for southeastern Utah, Schaafsma (1963) for the Navajo Reservoir District, Jane Young (1988; Schaafsma and Young 2007) for Zuni, and McCreery and Malotki (1994) for the Rio Puerco of the West. Jane Kolber, Donna Yoder, and their colleagues are working on

*Figure 5.28. Mountain lion in Chaco Canyon. Courtesy Kelley Hays-Gilpin.*
a synthesis of the rock art at Chaco Canyon. The Museum of New Mexico recorded the Waterflow Site prior to the improvement of Highway 550 and the forms are at the Museum of New Mexico, but the survey and data recovery reports on the site are brief, and analysis is limited. Smith’s 1974 MA thesis at Eastern New Mexico University on the rock art along the San Juan River from the Waterflow Site to Dinétah has a wealth of information but has limited accessibility. Information on other sites is in site forms, but the level of detail in recording is highly variable. Detailed recording of rock art, such as that being conducted at Chaco Canyon by Kolber, Yoder, and their colleagues, is extremely time consuming and has rarely been accomplished in the San Juan Basin. More common is to present a tally of the number of various types of motifs (anthropomorphic figure, zoomorphic figure, geometric, etc.) and to suggest the cultural affiliation and approximate date (ancient Puebloan, early Navajo, recent Navajo, Euro-American). In some cases only the presence of rock art is mentioned.

Documentation over time can sometimes be critical. For example, Wilshusen et al. (2012) used Holmes’s (1878) drawing of the procession panel for their analysis. Comparison of Holmes’s drawing with more recent photographs shows that Holmes’s drawing is generally accurate, though two of the triangular-bodied Rosa phase human figures are substantially larger than shown in the Holmes drawing. On the other hand, more recent photographs show that the quartered square and two mountain lions so important to Wilshusen et al.’s analysis have been ritually obliterated.

Students of rock art can contribute to the understanding of both Chacoan culture and society and the role of rock art in creating Chacoan culture and society through continued classification and analysis. Detailed analyses of superpositioning and associations among motifs will better date rock art motifs and contribute to the understanding of the origins and sources of rock art motifs and the changing function and meaning of rock art in the Chacoan world and its antecedents. Researchers have also successfully studied meanings of rock art by tracing icons (e.g., flute players, hair whorls, mother of game animals, outlined crosses, tabbed circles and squares, dots in squares) back in time and by systematically documenting the most common associations of rock art motifs. Analyses of the major themes and subject matter of rock art will show how these relate to Chacoan social and political organization and cosmology, examining social and political organization through additional studies of how rock art reveals gender relations, leadership, social power, and ranking, and exploring cosmology through investigations about how rock art symbolizes the spirit world, migration, and central place.
Research into the social contexts of the production of rock art will elucidate the multivalent functions of rock art production, such as pilgrimage and initiation, symbolizing power, and forming social identities by demonstrating participation in shared iconography. Investigations will also require more detailed comparisons of Chaco Canyon rock art with rock art at outlying great houses and rock art not associated with great houses, as well as comparison of Chaco Canyon rock art with rock art in other regions, enhanced through new techniques of geographical information systems and social network analysis.

CONCLUSIONS

In summary and conclusion, rock art was presumably important in Chaco Canyon, because the people of Chaco Canyon produced so much of it, vastly more than at contemporaneous sites in the region. Rock art was apparently not so important in the functioning of great houses at Chacoan outliers, since the overwhelming majority of outlying great houses lack rock art. Rock art is also rare across the floor of the San Juan Basin, with only a few known sites, each consisting of only a few elements. Around the edges of the San Juan Basin and beyond, rock art resumes its importance, with notably long traditions and elaborate assemblages along the San Juan River, the Rio Puerco of the West, and the Defiance Plateau and Prayer Rock District. Advancing our understanding of the role of rock art in Chacoan culture and the significance of rock art in the Chacoan landscape will require identification and more detailed recording of Chacoan rock art, the development of a database on Chacoan rock art, and more sophisticated analysis.

ACKNOWLEDGMENTS

I would like to thank Carrie Heitman and Ruth Van Dyke for inviting me to participate in the conference and the volume. Jane Kolber and Donna Yoder have shared their knowledge of Chaco Canyon rock art with me over many years. Linda Wheelbarger showed me sites along the San Juan River. Evelyn Billo and Bob Mark of Rupe'starian Cyberservices provided essential information on the Waterflow Site, and Kellam Throgmorton directed me to additional discussion and interpretation of the site. Kelley Hays-Gilpin and Jim Copeland offered useful comments on the chapter. Shortcomings of the chapter are my own (un)doing.
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