Rock art imagery is typically categorized and interpreted as a two-dimensional, strictly visual experience, whether painted or pecked. Yet a number of scenes in the archaic Barrier Canyon Style (BCS) clearly contain images of figures, usually animals, which employ artistic motifs apparently intended to indicate sounds produced by the figures. The presence of these motifs suggests that in their original state and context, BCS paintings originally functioned as multi-media experiences, and similar to other ancient American painted scenes, were intended to be experienced as both visual and auditory forms of expression. The addition of sound elements or “bites” adds a degree of naturalism, immediacy and temporal dimension to the otherwise visual experience.

BCS imagery is generally dated between c.2500 bce and 500 ce, though arguments have been made for dates as early as c.5500 bce and as late as c.1000 ce (Pedersen, et.al, 2014:12987). The style is widely recognized as one of the more significant rock art styles of the ancient American Southwest, for both its dramatic visual form and its compelling though enigmatic themes and subject matter, commonly associated with shamanic symbolism and spirituality. The most distinctive feature of the BCS, that which most commonly identifies the style, is the frequent appearance of abstract, tapering anthropomorphic figures, ranging in size from less than 1 inch to over 6 feet in height. These figures typically face the viewer in frontal static postures, frequently (though not always) lacking obvious appendages or specific facial features, with the exception of large prominent “Goggle-Eyes” (Farmer, 2001:130-131). In painted or pictographic form,
the predominant color is some variation of a deep red hue drawn from local red sandstone. Versions of this static frontal BCS figure are widely reproduced and exploited in popular and commercial form throughout the region, appearing on tourist shopping bags, campground trash receptacles, random building decorations, and even official National Park Service brochures (Figure 1). Perhaps the most famous example of these static BCS figures, the Holy Ghost Panel from the Great Gallery in Horseshoe Canyon in Canyonlands National Park, is the sole BCS representative contained in extensive surveys of global art used as textbooks in basic college introductory art history courses nationwide (Stokstad, 2014: 406).

But a second type of BCS imagery not dominated by the frontal static figures was also common throughout the region. Many BCS panels depict active frontal and profile figures, both human and animal, engaged in naturalistic scenes of a wide variety of activities, including numerous scenes of typical everyday life, such as dancing or hunting, seemingly devoid of overt shamanistic or spiritual references. Within this category, three clear examples are documented of figures with distinct linear motifs emanating or ejecting from their mouths. Because these linear motifs are not in direct contact with the figure, they do not appear to depict protruding tongues. While they represent a small percentage of the overall number of documented BCS figures, these figures nevertheless raise the obvious question of just exactly what is being depicted.

The first example is a panel in a relatively poor state of preservation from a shallow alcove near the San Rafael River in Emery County, Utah (Figure 2). Fragmentary remains of several red BCS figures are scattered across the wall of the alcove, including
a portion of a type of quadruped. Fragments depicting the rear legs and more importantly, the top of the head and ears, are missing making a positive identification of the animal uncertain. Based on the remaining imagery, it most closely resembles either a mountain lion or a bear, both of which are common subjects in BCS art. The figure’s head is clearly growling; the pronounced upper and lower canines are clearly visible. Approximately a dozen lines radiate forward from the creature’s mouth, clearly indicating something emanating out of the creature.

The second example is a relatively small panel perhaps six feet wide which also occurs in the general area near the San Rafael River (Figure 3). This scene depicts a series of 11 or 12 red BCS anthropomorphs apparently moving left to right in procession across the rock face. Stretching between two groups of the anthropomorphs is a line of some 12 or 13 bighorn sheep. These sheep are small, only about 1.5 inches long, and many are heavily faded, but at least three clearly display similar wavy lines projecting below their mouths.

The third example is from a high rock shelter in a tributary canyon of the Green River in Canyonlands National Park. The shelter wall displays at least sixteen BCS figures, human and animal, arranged in six discrete compositions of two or three figures each. The figures at this site were created using a more graphic, linear technique, rather than solid paint, so the figures are noticeably less distinguishable from the surrounding wall surface and details are therefore less clear. One composition however appears to depict a standing anthropomorph at left, about 12 inches tall, hovering over a shorter bent figure at right (Figure 4). The heads of the two figures appear to be connected by at
least two bands or lines of pigment, suggesting either something being transferred or emitted from one to the other (or perhaps both ways).

If one accepts the premise that the emanating lines in these panels depict something material, then the most obvious substances one would expect to see would be blood, saliva or regurgitation, all perhaps mixed with water. Humans and animals expel all three substances in quantity under a variety of normal conditions as well as through culturally-determined ritual activities. If the associated imagery is considered merely as purely documentary, that is, merely recording visual activity as witnessed, with no more esoteric symbolic or iconographic significance, then indeed these images may only reflect a bleeding or salivating mountain lion, or salivating, drinking sheep, or a purification ritual between a priest and a supplicant. However, ethnographic and archaeological data from across the ancient Americas suggests that images of humans and animals engaged in unified narrative scenes, including scenes with oral emanations, typically involves multiple layers of interpretation and symbolic messaging. In her studies of Lower Pecos River rock art styles of west Texas, more or less contemporary with BCS images, Carolyn Boyd argues that painted images of panthers with red lines emanating from their growling maws in fact depict shamans in powerful states of transformation, in the act of the “otherworld journey” (Boyd, 2003:61-62) (Figure 5). In such states it is common to bleed rather profusely from mouth, a side effect of ingesting conscious-altering substances. In this view, the radiating lines serve a symbolic role as signifiers of the transformational state. The depictions of Lower Pecos River panthers are remarkably similar in form to the San Rafael mountain lion.
Saliva (and/or mucus) might also serve a similar symbolic role. Richard Burger has identified a number of carved stone heads, from the great ceremonial center of Chavin de Huantar in Peru dating to c.500 BCE, as depicting shamans in varying stages of transformation (Burger, 1995:157). The stone heads originally adorned the exterior of a large stone building complex known as the Old Temple, dedicated to public shamanic ceremonies. Burger notes several examples of these stone heads that display faces of shamans apparently wearing nose plugs (Figure 6). Throughout the Andes, shamans in deep stages of altered consciousness and transformation, traditionally (and in fact proudly) expel large amounts of saliva and mucus through their mouth and nose from their nasal and sinus cavities (as well as blood), again as a side effect of the ingestion of chemical stimulants. They proudly display and wear prominent nose plugs to reference this power (Burger, 1995:157). Additionally, saliva-mucus mixtures are well known pigment binders, used in the earliest Paleolithic paintings and subsequent rock art traditions worldwide. As large predatory animals such as mountain lions and bears in the American Southwest are naturally prone to heavy salivation, the San Rafael image may indeed be another symbolic reference to a shaman in a powerful altered state.

The act of regurgitation also carried specific symbolic references in certain contexts. Mountain lions, like some other powerful predatory creatures such as eagles, regurgitate undigested food to feed their young; regurgitation is thus frequently associated symbolically with child rearing and fertility. Regurgitation is also frequently a component of purification rituals, and symbolically associated with spiritual cleansing after symbolically engaging in direct communication with the supernatural realm. Perhaps the best documented examples in the American Southwest are the widespread
and various forms of Native American Snake Dance rituals, the best known of which is the Hopi Snake Dance. During the ceremony, Snake Priests symbolically swallow, and then regurgitate sacred rattlesnakes. At the end of the ceremony, the Snake Priests ingest an emetic to induce regurgitation of evil charms associated with the handling of the snake (Frigout, 1979:573). The Green River BCS image (Figure 4) might easily be interpreted in this light.

I would suggest an alternative to reading these images as literal depictions of the expulsion of strictly material substances. It is possible that the emanating lines from these figure’s mouths are meant to indicate sound as well, perhaps in addition to actual substances. Though not wide-spread or generally common, related artistic conventions indicating sound or speech occur in other instances of ancient American painting styles from Mesoamerica and the Andes. Between c.1 and 650 ce, the great urban complex of Teotihuacan in central Mexico dominated the cultural landscape of Mesoamerica, extending its influence well into the American Southwest and the Eastern Woodlands. Renowned for large pyramidal temples, monumental stone sculpture, and extensive and elaborate ceramics, Teotihuacan was ruled by an elite class of royal kings, who employed elaborate public displays of human sacrifice and a standing military to manage the region under control of Teotihuacan. At its height around 500 ce, Teotihuacan held a resident population of c.150,000 people (Berrin and Pasztory, 1993:17-18). Virtually every square foot of Teotihuacan architecture was decorated in sophisticated polychrome frescos, depicting scenes of every aspect of Teotihuacan life. Humans and animals were common throughout, and a widespread motif throughout Teotihuacan art was the use of “sound scroll”, a curled element resembling a “?”
indicate sound. Sound scrolls were placed in front of the mouth of a person or animal to indicate speech or singing, in front of the beaks of birds to suggest chirping, or next to musical instruments to indicate music, any place where the indication of sound was desired. One section of a wall from a palace compound depicts a series of jaguars and coyotes marching along in profile (Figure 7). Each has a Teotihuacan sound scroll hanging prominently in front of its mouth, indicating the familiar growl or howl of each beast. The feline jaguar image again seems strikingly similar to both the San Rafael BCS and Lower Pecos River feline figures, though not in form so much as in subject.

Further south in Mesoamerica, contemporary with Teotihuacan, the Classic Maya flourished between c.1 and 800 ce. Like Teotihuacan, the Maya maintained a prodigious artistic tradition of pyramidal construction, painting, ceramics, and perhaps most distinctly, stone sculpture. Most notably, the Maya also developed and employed a sophisticated version of the Mesoamerican writing system, the only true writing system in the ancient Americas. The Maya typically adorned their architecture with sculpted relief panels presenting scenes of the lives of powerful Maya kings, their families and political allies. The carved limestone Panel 3 illustrated in (Figure 8) dates to the late 8th century ce and comes from the ancient Maya city of Piedras Negras, Guatemala. The panel depicts a banquet organized by Maya King Itzam Kan Ahkul to commemorate the founding of Piedras Negras by his grandfather some 40 year earlier (Brio, 2011:291). The king is seated in the center, leaning out towards us, the viewers, and gesturing to his seated guests below him. The scene includes several hieroglyphic texts describing the scene and indentifying the participants. One small hieroglyphic text
floats directly in front of the king’s head near the center of the panel; this small text is actually a direct quote of what the king is literally saying to his seated guests:

“This is your food, your commission; this was first made by my grandfather, your founding ancestor, King Yaxun Bahlam in 705 ce. This feast was prepared by me, Itzam Kan Ahkul on July 29, 749 ce, in honor of your ancestor King” (English translation by author, from Brio, 2011:309).

The feast took place in 749 ce; the panel was dedicated in 757 ce. This short text in fact functions much like the speech balloons commonly used in modern-day comic strips, to indicate the spoken word of a specific figure.

The Teotihuacan and Classic Maya examples cited above clearly indicate the Mesoamerican desire to incorporate sound effects into their otherwise purely visual forms of expression. Returning to Peru, the Moche culture arose along the northern Peruvian coast between c.100 and 700 ce, contemporary with Teotihuacan and the Maya, and after the decline of the earlier Chavin culture. Like their contemporaries, the Moche excelled in pyramidal construction (though in adobe brick rather than stone), extensive fresco wall painting, and sophisticated ceramics. The Moche are particularly renowned for their metallurgical skills in gold and silver jewelry and costume. Moche painted ceramic vessels, thousands of which have survived, carry intricately detailed scenes of Moche life and ceremonial activity. These scenes were created in a highly graphic, “fine-line” technique. Several scenes depict seated figures facing each, apparently engaged in conversation (Figure 9). The Moche took a rather unique artistic approach to the indication of speech, employing images of variously decorated beans floating in the space between the two seated figures to indicate oral sound and
associated meanings, a sort of combination of Maya hieroglyphic writing and Teotihuacan sound scrolls. Only one specifically trained in the “reading of the beans” would be able to interpret what was actually being spoken on a given vessel, but anyone would understand that a conversation was taking place. Margaret Jackson refers to this type style as notational writing or “semasiography” (Jackson, 2011:229).

All of the above examples indicate the widespread interest across ancient America in associating an aural component with visual forms of expression. Considered in this broad context, I suggest that this widespread interest was also shared by the BCS artists. The relationship of sonic properties to rock arts is not a new assertion here; rock art and sound have long been associated with each other in broad general ways. Steven Waller’s work on the acoustic properties of rock shelters and rock art sites worldwide has clearly demonstrated a rationalization for many rock art site locations, as well as suggesting possible functions of some sites (Waller, “Rock Art Acoustics”, 2016).

The dramatic canyons in which much of the BCS imagery occurs were also the source of rather dramatic natural sonic events. Flashfloods and waterfalls brought on by seasonal thunderstorms are not only visually powerful events, they are also noisy. It is probably no mere coincidence that many BCS panels occur along walls that reflect substantially thunderstorm activity, such as walls streaked with desert varnish, waterfalls, roaring creek beds in flood, and perhaps most notable, small boulders plummeting over mesa top pour offs (Figure 10). The sound of these events is in many ways more spectacular than the mere visual effect, in large part because of the acoustically reflective quality of the canyon walls. Sounds directly associated with and created from the imagery itself would have been no less effective.
Potential sonic properties of rock art imagery may also relate to another common feature of Ancient Southwestern rock art imagery, the frequent depiction of the iconic humpbacked flute player, the Hopi Kokopelli. This world-famous image is ubiquitous in rock art of the region, but is generally interpreted from a strictly visual perspective, that is as a visual sign or symbol of the presence or activity of the flute player, as a visual reference to its mythic origin (Wikipedia: “Kokopelli”, 2016). But perhaps the image of a flute player on a rock wall was also meant to indicate the actual sound of a flute as played at that specific site; perhaps the intention of the artist was to “listen” to the imagery as well as a view it.

The static, frontal, and perhaps silent anthropomorphs that often define the Barrier Canyon Style are but one variety of BCS figures that occupies the style. Smaller, more dynamic narrative scenes with more naturalistic images are just as common, yet create a distinctly different aura about the scenes. Images of figures not only frozen in the enactment of specific activities from daily life, but perhaps also emitting sounds of such activities, provide a dramatic counterpoint in theme, temperament and sense of time passage to the timeless, eternal nature of the frontal figures. This variety certainly extends and underscores the depth of expression that BCS artists were capable of producing.


Figure 1
Figure 2
San Rafael River Barrier Canyon Style mountain lion(?). Note the lines at left apparently emanating from the growling maw. Photo by J.Farmer, 2012.
Figure 3
Figure 4
Left: BCS scene near Green River in Canyonlands National Park
Right: drawing of Green River scene
Photo and drawing by J. Farmer, 2004
Figure 5
Drawing of wall painting from Mystic Shelter, Lower Pecos River, Texas. From Boyd, 2003, Fig. 4-9. Note the lines emanating from the upper panther.
Figure 6
Stone tenon head, Chavin de Huantar, Peru, c.500 BCE. Note the nose plug in the nostril. Photo by J. Farmer, 2000.
Figure 7
Wall fresco from Teotihuacan, Mexico, c.500 ce. From Miller, 1973: Fig. 43. Note sound scroll at left emanating from the mouth of the “netted” jaguar.
Figure 8
Piedras Negras Panel 3, drawing by Alexander Safronov, from Biro, 2011:292, Fig. 1. Note the "spoken" hieroglyphic text passage highlighted in red.
Figure 9
Roll-out drawing of a scene from a fine-line painted Moche vessel, c.600 ce. From Donnan, 1999: 116; Fig. 4.75; drawing by Donna McClelland. Note the beans “floating” between seated figures.
Figure 10
Waterfalls above the Holy Ghost Panel, Great Gallery, Horseshoe Canyon, Canyonlands National Park during thunderstorm. Note the accumulated pile of boulders below the falls. (photo by J. Farmer, 2005)