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## A New Look at Vermont's Oldest Art: Understanding the Bellows Falls Petroglyphs

*It is evident that shamans came to  
Bellows Falls on numerous occasions  
to interact with the spirit world.*

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**I**n all of Vermont there is probably no work of art that is more unusual, and certainly none that is older, than one to be seen within the town of Bellows Falls. It consists of what appear to be heads or faces inscribed into two rock faces by the side of the Connecticut River, a short distance south of the Vilas bridge to Walpole, New Hampshire (Figure 1). Although we do not know when, precisely, these petroglyphs were carved, we do know that they were done by Native Americans before the late eighteenth century. That they used stone rather than steel tools suggests an even earlier date, perhaps as early as A.D. 1000. In Maine similar face or head forms with eyedots and occasionally a dot or line representing a mouth may go back 1,000 years but probably no more.<sup>1</sup>

Historic references to rock art on the Vermont side of the Connecticut River date to the late eighteenth century. The Reverend David McClure took note of petroglyphs as early as 1789, as did Samuel Williams in his 1794 *History of Vermont*.<sup>2</sup> Writing of his travels in 1807–1808, Edward Augustus Kendall spoke of them “as the work of idle hours spent among these rocks at a place so favorable for fishing as the foot of a cataract, and therefore so much a place of resort.”<sup>3</sup> In his *History of Eastern Vermont*, Benjamin Hall speculated that what he thought were “heads with rays”

portrayed Indian chiefs and that the inscriptions commemorated some event involving a chief and his followers.<sup>4</sup> At about the same time, Henry Rowe Schoolcraft, one of the pioneers in the development of American anthropology, suggested that the art represented a battle scene.<sup>5</sup> Since then, others have offered variations on the Kendall and Hall themes; for example, in 1961 a brochure put out by the local chamber of commerce suggested that native people “simply carved these symbols while visiting and gossiping much as we now doodle on a pad and . . . intended the carvings to indicate the meeting place of many people.”<sup>6</sup> Or perhaps “they were carved there to commemorate some great event or tragedy in the loves and lives of the tribe.”<sup>7</sup> Even more recent is Jerome P. Dunn’s assertion that “they obviously depict families of actual people.”<sup>8</sup> Rays pecked above the faces, he argues, represent feathers and symbolize male authority, whereas “connecting lines indicate close relationships such as mother-daughter or husband and wife.”<sup>9</sup>



FIGURE 1. *North panel of the Bellows Falls petroglyphs, photographed in 1993 from the top of a wall retaining fill for a branch rail line just west of the carvings. Photo by Anita de Laguna Haviland.*

Imaginative though these suggestions may be, they reveal far more about the cultural preconceptions of their European American authors than they do about the petroglyphs and what motivated their production. Certainly, there is nothing about the carvings to give credence to Schoolcraft’s battle hypothesis, and the huge amount of time and energy it would have taken to inscribe them into hard gneiss does not square well with idle doodling. Nor do any of the suggestions take account of a common association of rock art with shamanism, a system of beliefs associated with techniques

for interacting with and manipulating supernatural beings and powers.<sup>10</sup> Individuals especially skilled in these techniques are known as shamans, and they use their powers for such purposes as effecting cures, foretelling events, attracting game, and protecting themselves and their group from the hostile actions of others. Of course this connection between rock art and shamanism (which holds not just in North America but in other parts of the world as well) was not generally known in the nineteenth century, so commentators of that era may be excused for not being aware of it. Nevertheless, it is somewhat surprising in the case of Schoolcraft. For nineteen years he lived among the Ojibwa in the Great Lakes region, during which time he learned their language, married the granddaughter of a leading regional chief, was admitted to one medicine society, and began initiation procedures into others.<sup>11</sup> Be that as it may, features of the Bellows Falls petroglyphs themselves suggest that they depict visions seen by people with shamanistic abilities while in states of trance. To identify these features, however, we must examine the various illustrations of the rock art that have been published in order to determine which are most accurate.

#### PAST AND PRESENT RECORDS OF THE PETROGLYPHS

Since they were first noticed by European Americans, the appearance of the petroglyphs has changed considerably. For one thing, they have been subjected to a great deal of wear from the action of river waters, which frequently rise over them in the spring to give them a good scouring. Further damage has been caused by human action, some probably by blasting that was carried out to improve the river channel for passage of logs.<sup>12</sup> Around 1890 a wall to retain fill for a new branch rail line to serve paper mills downstream was built just west of the carvings, some of which were buried beneath boulder riprap placed against the wall's outer face.<sup>13</sup> Over the years cinders from mills have been dumped over this wall, as has (until fairly recently) snow with a heavy content of grit and salt picked up in plowing the streets of Bellows Falls. No doubt abrasion from these substances has contributed to deterioration of the art. In his 1907 *History of the Town of Rockingham*, Lyman Hayes reported that the figures were almost totally obliterated; Walter Crockett made the same observation in his 1921 history of Vermont. Nor could they be found six years later by E. B. Delabarre, a scholar interested in the rock art of southern New England.<sup>14</sup> In a well-meaning but misguided attempt to rectify this situation, the local chapter of the Daughters of the American Revolution (DAR) in 1930 or 1931 commissioned a stonemason to recarve the petroglyphs.<sup>15</sup> No doubt this is why Dunn arrived at the mistaken conclusion that some of the petroglyphs were originally made with metal tools.<sup>16</sup> In 1961 much debris that had accumulated over them was



FIGURE 2. *The north panel of the Bellows Falls petroglyphs, photographed in 1993. The panel measures approximately 5 feet long by 30 inches high. In the foreground is part of the boulder riprap placed at the base of the retaining wall west of the rock art. Behind the two boulders in the center may be seen a bit of a partially covered head. Photo by William A. Haviland.*

removed, and the recarved glyphs were outlined in yellow paint at the behest of the local chamber of commerce.<sup>17</sup> This is how the art appears today (Figures 2 and 3), though fortunately a few glyphs escaped both the paint and the stonecutter's chisel. At least three glyphs can be made out in Figure 3 (on the lower right), but consistent with Hayes's, Crockett's, and Delabarre's earlier observations, they are so heavily worn as to be very hard to see. Consequently, it must have been difficult for the DAR's stonecutter to make out many details when he set to work, and we cannot assume his to be an accurate copy of what was once there.



FIGURE 3. *The south panel of the Bellows Falls petroglyphs, photographed in 1993. Located about 20 feet from the north panel, it measures approximately 10 feet long by 3 feet high. At least two heads partially concealed by the riprap may be seen at the bottom, and at least three or four heavily weathered heads that were never recarved are faintly visible to the right. Photo by William A. Haviland.*



FIGURE 4. *Drawing of the petroglyphs published by Benjamin Hall in 1858. It is presumably the same panel shown here as Figure 3, as it has about the same number of heads, but otherwise the two pictures show little resemblance to one another.*

Considering all that has happened to them over the years, it is likely that some—perhaps even many—details of the original carvings have been lost. It is also likely that some features now present may not have been part of the original art. Thus, to get closer to the originals, we must go back to drawings made in the nineteenth century, before the petroglyphs were damaged by human actions and before weathering had taken as heavy a toll as it now has. We are lucky that such drawings exist, the best known being those that Hall published.<sup>18</sup> His major drawing, reproduced here as Figure 4, may be compared with a drawing (Figure 5) Schoolcraft published a year earlier.<sup>19</sup> The two are quite different, but unless Hall's



FIGURE 5. *A. C. Hamlin's drawing of the Bellows Falls petroglyphs, published at about the same time as Hall's (Figure 4). Although there are differences, the bulge on one of the uppermost heads can still be seen today (Figure 3, uppermost head), as can some of the dots (most clearly to the right of the third horned head from the right in Figure 3).*

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drawing is of a panel that was later destroyed in blasting the river channel, both illustrators seem to have been depicting the same panel of the art (we surmise this by the number of heads in both drawings—too many for the northernmost panel—and by details of the one in Schoolcraft that can be seen on the southernmost panel today). If so, the differences must reflect the illustrators' different perceptions of what they saw; they were, after all, recording a style of art with which they were completely unfamiliar and that they interpreted in the light of their own culture's preconceptions. Thus, for example, what Hall regarded as "rays or feathers," which are consistent with the stereotypical image of Native Americans derived from Plains Indian warriors with their elaborate feathered head-dresses, may have been horns or some other protuberances.<sup>20</sup>

The more interesting and, we suspect, less fanciful of the two drawings is the one in Schoolcraft's work. The artist, Augustus C. Hamlin, was an amateur archaeologist who is probably best known for his discovery of the so-called Red Paint burials (now known as the Moorehead Mortuary Complex) of Maine, which he had the good judgment to bring to the attention of Harvard University's Frederick Ward Putnam.<sup>21</sup> Hamlin, trained as a physician and geologist, was a member of the American Association for the Advancement of Science, all of which implies a commitment on his part to scientific observation. This quality must have appealed to Schoolcraft, who was also a devotee of scientific observation. And although his interpretations could be as farfetched as anyone else's, as exemplified by his previously noted interpretation of the Bellows Falls carvings as a battle scene, Schoolcraft's long association with the Ojibwa made him unusually sensitive to Native American ways and institutions.<sup>22</sup> Some have called him the first genuine field anthropologist; in the realm of factual observation, his ethnographic work remains an important source even today.<sup>23</sup>

That Schoolcraft's implicit confidence in Hamlin's drawing was warranted is confirmed by the work of James Swauger of Pittsburgh's Carnegie Museum, who has been studying all petroglyph sites east of the Mississippi River. Comparing Hamlin's drawing with a photo of the Bellows Falls carvings taken in 1866 and with his own on-site inspection, Swauger believes it is reasonably reliable.<sup>24</sup> In contrast, he does not consider it "possible to accept Hall's illustrations as being close to fact" (a conclusion we reached quite independently).<sup>25</sup> We can still see today some of the features Hamlin showed, such as the bulge on one of the upper heads (compare Figures 3 and 5) and some of the peripheral dots (in Figure 3, the clearest carving to the right of the third "horned" head from the right). Nor can anything resembling Hall's "rays" be seen. Although the correspondence between Figures 3 and 5 is not absolute, it is close

enough, considering that the art has been seriously altered since his time and also because Hamlin's drawing probably was not a precise copy but rather an approximation.

Noteworthy in Hamlin's drawing are the several dots around and apart from the apparent faces the ancient artists depicted. No such dots appear in Hall's drawing, but our confidence in Hamlin's powers of observation is sufficient for us to accept them as part of the original composition. Indeed, a few such dots can still be made out today, as noted. The few that remain visible are quite faint, suggesting that others have weathered away. We suspect that Hall omitted them from his drawing because they made no sense to him. They probably didn't to Hamlin either, but because they were there, as a scientific observer he felt obliged to show them. Had he not, we probably would not have noticed the few faint traces that remain today—as indeed the stonemason did not in the early 1930s—or we might have dismissed them as natural irregularities in the rock.

It is these dots that make the Hamlin drawing especially interesting. To appreciate their significance, however, we must have some background on the nature of the trance, the hallucinations experienced in altered states of consciousness, and their depiction in rock art known to represent visions seen in states of trance.

#### ALTERED STATES OF CONSCIOUSNESS AND PICTURES IN THE BRAIN

Neuropsychological research carried out over a number of years has shown that in trancelike states the human mind produces a wide range of hallucinations—some auditory, some physical, some olfactory—but those most studied are visual. In fact, such hallucinations do not appear to be restricted to people, for there is good evidence that chimpanzees, baboons, monkeys, cats, dogs, and other animals hallucinate and that the ability is a function of the mammalian, not just the human, nervous system. The capacity to enter altered states and experience visions, then, almost certainly predates the appearance of anatomically modern humans, and designs typical of the visual percepts people see when in a state of trance are known from periods before the late Stone Age (Figure 6).<sup>26</sup> Consequently, it is not surprising that the trance experience seems to be a human universal: in a sample of 488 historically known societies, as many as 437 (90 percent) had some form of institutionalized altered states of consciousness.<sup>27</sup> A study of native North American societies found reports of ritualized altered states for 97 percent; the lack of reports for the remaining 3 percent are almost certainly the result of incomplete or inadequate information.<sup>28</sup> We may assume, therefore, that institutional altered states were universal in native North America. One form this took (and still does in many instances) is the vision quest, wherein individuals—































































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	A	B	ENGRAVINGS			MOBILE ART				
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FIGURE 6. Six common entoptic phenomena, as depicted by subjects in laboratory experiments (Columns A and B), compared with representations in South African, Coso, and Stone Age European rock art. Redrawn by Geraldine Kochan from J. David Lewis-Williams and Thomas A. Dowson, "Signs of All Times," *Current Anthropology* 29 (1988), figs. 1 and 2, except for IV B and C, which are adapted from Lewis-Williams, *Reality and Non-reality in San Rock Art* (Johannesburg: Witwatersrand University Press, 1988), table 1.

usually men but sometimes women—went off by themselves to seek a guardian spirit. While in a state of trance, they would be visited by an animal or other supernatural being with whom they would establish a lifelong relationship and whose power the individuals could draw upon whenever necessary for their well-being or that of the group to which they belonged. Such vision quests were widely undertaken by Algonquian-speaking peoples, including Western Abenakis living in northwestern New England. They were particularly important for those who became shamans, individuals especially skilled at mediating between the natural and supernatural worlds. Not only could Western Abenaki shamans call upon their spirit helpers for assistance, but they were also potentially able to make contact, through trance, with any denizen of the spirit world.<sup>29</sup>

Whoever they may be and however they may enter a trance—whether through use of hallucinogenic substances or not—people's experiences are in many ways similar irrespective of cultural differences. All people have exactly the same nervous system, be they city dwellers in New York and Los Angeles, food foragers in southern Africa, or horticulturalists in the Amazon Basin. They progress through the same stages of trance

and see many of the same visions. In the first stage subjects experience what are known as entoptic phenomena, or entoptics (Figure 6): luminous visual percepts that take geometric forms such as grids, zigzags, dots or circles, undulating lines, nested curves, and spirals. All such images appear as incandescent, shimmering, moving, rotating, and sometimes enlarging patterns, and all are independent of light from any external source. One can see them whether the eyes are open or closed, normally at reading distance. (Sufferers of migraine will be familiar with at least some entoptics.) They are created, in ways not yet fully understood, by the actual physical, neurological structures of the eye, the optic nerve, or the cortex. Because of the rapidity with which the phenomena change, laboratory subjects new to the trance experience find it difficult to keep pace with the succession of images. Training and familiarity with the experience, however, increase their powers of observation and description.<sup>30</sup>

As entoptics are generated by the central nervous system in stage one of trance, several things may happen. Researchers have formulated seven general principles that govern perception. The first is *replication*, which happens when an entoptic is perceived in one of its fundamental forms. A second principle is *fragmentation*, a situation in which an entoptic is broken down into minimal components; examples include the fragmentation of a grid into ladderlike forms or a zigzag into chevrons. A third possibility is for images to blend, building up complex patterns by the principle of *integration*. *Superimposition* and *juxtaposition* occur when one form is projected over or next to another, whereas *polyopia* involves the duplication over and over of what began as a single image. Finally, *rotation* may occur as the images revolve in the field of vision.<sup>31</sup>

As the subject passes into deeper trance, entering stage two, the individual's brain attempts to recognize, or decode, the entoptic phenomena produced by the nervous system, just as it does with impressions the nervous system supplies in a normal state of consciousness. As one researcher put it, "Thus the same ambiguous round shape on initial perceptual representation can be illusioned into an orange (if the subject is hungry), a breast (if he is in a state of heightened sexual drive), a cup of water (if he is thirsty) or an anarchist's bomb (if he is hostile or fearful)."<sup>32</sup> The South African rock art specialist David Lewis-Williams has described how southern African rock artists made sense of nested catenary curves by "illusioning" them into honeycombs, of grids by seeing them as the markings on giraffes, and of dots as the potency (seen only by people in altered states) associated with places where trance dances are performed.<sup>33</sup> This process of making sense of entoptic phenomena is known as *construal*, and cultural considerations are obviously important for how

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this is done. After all, people can explain what they see only in terms of their own experience and what their culture tells them is important.

Further changes in imagery occur as individuals move into the third and deepest stage of trance. As this happens, subjects frequently perceive themselves to be surrounded by a vortex, or rotating tunnel. The sides of the vortex are marked by a lattice of squares that Lewis-Williams likens to television screens.<sup>34</sup> On these appear the first spontaneously produced hallucinations, which eventually overlies the vortex as entoptics give way to images of people, animals, and monsters. These *iconic images* seem to derive from memory and are often associated with powerful emotional experiences, unlike stage two construals (which are elaborated from the entoptic that triggered them).<sup>35</sup> Obviously, the iconic images seen in stage three will be specific to the culture of the person experiencing the altered state. In this stage of true hallucination, subjects cease to be observers of what they see and feel themselves to be a part of it all. If, for example, an animal appears in the vision, they may feel themselves to be that animal (a sensation that may account for the Western Abenaki belief that shamans are able to transform themselves into the bodies of their animal helpers for a variety of purposes).<sup>36</sup> In his or her own perception, the person experiencing the vision has left the mundane world and entered the realm of the supernatural. Nevertheless, as Lewis-Williams points out, "even in this essentially iconic stage, entoptics may still persist: Iconic imagery is 'often projected against a background of geometric forms.'<sup>37</sup> Sometimes these forms appear to surround the iconic imagery.

In depicting visions they have experienced in states of trance, people invariably make use of entoptic forms that conform to the transformational principles just discussed. They also depict construals and iconic images that follow the same transformational rules, as laboratory experiments predict that they should. Perhaps the clearest demonstration of this phenomenon occurs in the rock art of southern Africa that Lewis-Williams and his associate Thomas A. Dowson have so exhaustively studied. It has also been demonstrated in the art of other peoples as widely separated in space as the Coso, a Shoshonean people of the North American Great Basin (who depicted their visions on rocks); the Tukano of the Amazon Basin (who portrayed theirs on the walls of their houses as well as on pottery and other objects); and the Classic-period Maya of Central America (who recorded their visions as wall graffiti). Because all people, regardless of cultural differences, perceive the entoptics of stage one in essentially the same way, artists depict them similarly as well. Nevertheless, the similarities are sometimes difficult to detect, for they may be swamped by construals that are greatly elaborated or by iconic images into which they are often integrated.<sup>38</sup>

ENTOPTIC PHENOMENA AND ICONIC IMAGES  
IN THE BELLOWS FALLS ROCK ART

We have mentioned that a common entoptic form consists of dots and that iconic images commonly appear either against a background of entoptics or surrounded by them. Returning now to the Bellows Falls petroglyphs, this is exactly what we see in the rock art as depicted in Hamlin's drawing. Of course we cannot know for sure how the natives construed these dots, but an intriguing possibility comes to mind. As previously noted, rock artists of southern Africa sometimes construed dots as the potency or power (*n/um*) associated with places where trance dances are performed. A somewhat similar concept seems to have been present among the Maya, in whose art dots signified *ch'ul*, a sacred power of the cosmos possessed by humans and other sacred beings, sacred places, or sacred objects. That this similarity in meaning is found among people so far removed in space at least raises the possibility that dots were assigned a related meaning here in the Northeast. Thus, the dots *could* signify the special power, or *manitou*, that Algonquian-speaking peoples widely associated with special places as well as powerful spirit beings.<sup>39</sup>

The iconic images themselves most likely consist of heads with horns, as in Hamlin's drawing, rather than the "rays" or "feathers" that some others have imagined. The use of horned figures in rock art and other media is widespread in the Northeast. According to various sources on Ojibwa pictography, "a very special significance is attached to horns. Wherever they appear, they denote 'superior power' . . . and are not restricted to any one mythological or human personality. The majority of them indicate either shamans' spirits or figures of the shaman himself."<sup>40</sup> The figure most commonly portrayed is that of a human with two horns or projections extending from either the top or sides of the head (Figure 7). These projections or horns, of varying lengths and orientations, have been identified in the rock art of the Great Lakes, Pennsylvania, and New York as well as elsewhere in North America and even in Siberia. The historical context in which at least one of these horned figures occurs is obvious (Figure 8); the figure holding a rifle was recorded by Schoolcraft in the Hudson Valley at Esopus, New York.<sup>41</sup>

The variation in horns and figures seen in rock art is also found in other media such as birchbark scrolls and drumheads. Schoolcraft illustrated pictographs associated with a specialized group of Ojibwa shamans called *wabenos*.<sup>42</sup> Identified as "songs of the *wabenos*," these renderings (Figure 9) show horns and in some instances antlers on various figures. In a landmark study of Algonquian sacred art, Joan Vastokas and Romas Vastokas suggested that horned figures represent a single iconographic type; variations might be related to regional styles.<sup>43</sup> Viewed in this light,

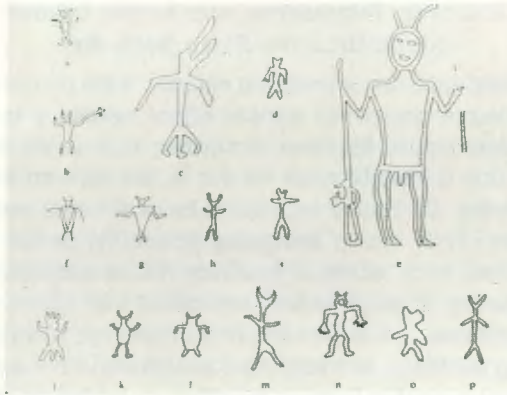


FIGURE 7. *Horned figures in cross-cultural perspective. A and B: pictographs, Lake of the Woods, Ontario; C: pictograph, Rainy Lake, Ontario; D: petroglyph, Pennsylvania; E: petroglyph, Hudson River Valley, New York; F to H: pictographs and petroglyphs, Utah; I to L: petroglyphs, Washington; M: pictograph, Mexico; N: petroglyph, Hawaii; O and P: petroglyphs, Siberia. From Joan M. Vastokas and Romas K. Vastokas, Sacred Art of the Algonkians, fig. 17.*



FIGURE 8. *Petroglyph on the west bank of the Hudson River at Esopus, New York, illustrated by Henry R. Schoolcraft, in Historical and Statistical Information Respecting the History, Condition and Prospects of the Indian Tribes of the United States, vol. 3, pl. 18.*



FIGURE 9. *Horned and other figures identified as “wabeno songs” and illustrated by Schoolcraft in Historical and Statistical Information, vol. 6, pl. 52. Note the many entoptics in the figures, including grids, parallel lines, zigzags, and nested curves.*

the horned heads in the Bellows Falls grouping, even though they lack bodies, conform to the Algonquian model—they may represent either shamans of unusual power or the guardian spirits of those shamans.

The places in which petroglyphs are found and where shamanistic visions were experienced and recorded are also imbued with sacred qualities. The concept of such “special places” is an important component of the generalized Algonquian worldview. In the Great Lakes region unusual features of the landscape or geological formations such as rock outcrops, cliffs, and waterfalls were perceived to be places where spirit beings could be contacted. The various Abenaki groups in northern New England, including Vermont, held corresponding beliefs. In a reconstruction of Algonquian “mythical realities,” G. R. Hammel identified rocky places, deep springs, whirlpools, waterfalls, and other locales as particularly significant thresholds to such ritually important underworld and underwater substances as red copper and white shells. Rituals involving reciprocal exchange between humans and “grandfathers” traditionally occurred at special places or thresholds to the underworld. Because of the sacred character of such locales, they were repeatedly visited and over time most likely became repositories for recording visionary experiences.<sup>44</sup>

That rocky places near water should have been favored sites to make contact with supernatural beings is not surprising in view of physical sen-

sations frequently experienced in trance. One set of sensations involves weightlessness, altered vision, distorted sounds, and shortness of breath, just as if the individual were underwater. Another is the sense of sliding down the rotating tunnel as one enters the third stage of trance; traditional shamans all around the world speak of this as actually entering the earth in some way.<sup>45</sup>

Evidence for repeated use of the Bellows Falls site for purposes of contacting the spirit world may be found in the art itself. The sheer number of heads alone seems too great for them to have been pecked into the rock all at one time; indeed, their location on two separate panels seems to imply at least two separate visions. There may have been more, however, for apparent cases of new heads superimposed on old ones may be seen in both panels. On the northernmost (Figure 10) a head in the top row seems to obscure all but the left edge of an older head, as well as a small bit of one below it (which may itself have covered the very bottom of the oldest head). On the south panel (Figure 11), near its left edge, one eye and the left side of a head seem to peek from behind another. We cannot be sure that these features were not unwittingly added by the DAR's stonemason, but Hamlin's drawing seems to depict similar instances of superpositioned heads.

This sort of superpositioning of new elements over old, as well as juxtapositioning, are precisely what we would expect to find if people returned to the same spot for subsequent trances. In fact one reason for revisiting a spot may have been to draw power from existing depictions of old visions, a common practice among shamans in other parts of the world. Because it is virtually impossible for individuals in trance to look at a surface



FIGURE 10. *Detail of northern panel of the Bellows Falls petroglyphs showing possible superpositioning of heads (see Figure 2 for location). Photo by Anita de Laguna Haviland.*



FIGURE 11. *Detail of southern panel of the Bellows Falls petroglyphs showing what appears to be one head superimposed on another (see Figure 3 for location). Photo by Anita de Laguna Haviland.*

without seeing their visions projected on it, new visions would appear as projections either over or next to ones already carved. The existing art and the new projected hallucination would be indistinguishable. This is why, for example, southern African rock artists frequently added new elements over and next to existing paintings and engravings. The same is true of Maya graffiti that recorded trance experiences. Since it is known that contemplation of depictions of old visions may induce or at least inform new ones, we may have an explanation for why the same basic motif was repeated over and over at Bellows Falls.<sup>46</sup>

#### CONCLUSION

Neuropsychological research into the hallucinations experienced in altered states of consciousness and studies of the beliefs of Algonquian Indians in general and Abenakis in particular are independent sources of evidence that complement each other to give a better understanding of the Bellows Falls rock carvings than previously existed. The spiritual experiences of shamans clearly lie at the heart of the art, and previous ideas about “idle doodling” and the like may be dismissed as having no merit. It is evident that shamans came to Bellows Falls on numerous occasions to interact with the spirit world. The rarity of rock art elsewhere in northern New England suggests that this must have been an exceptionally sacred place. So, too, does the presence just to the west of the petroglyph site of a major Indian burial ground.<sup>47</sup> That people took the trouble to record their visions in stone at this site bespeaks its special importance. Moreover, the large number of heads engraved, each of which could represent a separate trance experience, suggests the extraordinary nature of the place. Considering all the abuse the art has taken over the past 200 years, we are fortunate that, altered though it is today, it still conveys



a sense of what it was. Through it, we get a fascinating glimpse into the spirit world of the people living here before the European invasion of their land.

## NOTES

<sup>1</sup> Mark Hedden, personal communication to the authors, December 1993.

<sup>2</sup> W. W. Bowen, *A Pioneer Museum in the Wilderness* (Hanover, N.H.: Dartmouth College Museum, 1958), 5-8.

<sup>3</sup> Benjamin H. Hall, *History of Eastern Vermont from the Earliest Settlement to the Close of the Eighteenth Century* (New York: D. Appleton, 1858), 590.

<sup>4</sup> *Ibid.*, 587-588.

<sup>5</sup> Henry R. Schoolcraft, *Historical and Statistical Information Respecting the History, Condition and Prospects of the Indian Tribes of the United States*, vol. 6 (Philadelphia: Lippincott, Grambo, 1857), 606-607.

<sup>6</sup> "Indian Carvings on River Bank Made More Visible," *Brattleboro Daily Reformer*, 9 August 1961, 12.

<sup>7</sup> *Ibid.*

<sup>8</sup> Jerome P. Dunn, "Signatures in Stone," *Vermont Archaeological Society Newsletter* 71 (1993): 10.

<sup>9</sup> *Ibid.*

<sup>10</sup> Mark Hedden, "Cover Drawing and Comment (Machiasport Petroglyph)," *Maine Archaeological Society Bulletin* 23, 2 (1983): 1; J. David Lewis-Williams and Thomas A. Dowson, "Signs of All Times: Entoptic Phenomena in Upper Paleolithic Art," *Current Anthropology* 29 (1988): 201-245; J. David Lewis-Williams and Thomas A. Dowson, "On Vision and Power in the Neolithic: Evidence from the Decorated Monuments," *Current Anthropology* 34 (1993): 55-65; Dean R. Snow, "Rock Art and the Power of Shamans," *Natural History* 8, 2 (1977): 42-49; Joan M. Vastokas and Romas K. Vastokas, *Sacred Art of the Algonkians: A Study of the Peterborough Petroglyphs* (Peterborough, Ontario: Mansard Press, 1973).

<sup>11</sup> Vastokas and Vastokas, *Sacred Art of the Algonkians*.

<sup>12</sup> "Indian Carvings."

<sup>13</sup> *Ibid.*, and Giovanna Peebles, Archaeological Site Survey Form, VT-WD-8, 1981, on file at the Vermont Division for Historic Preservation, Montpelier. Our thanks to her and to the division for access to the site survey file.

<sup>14</sup> Walter H. Crockett, *Vermont, the Green Mountain State*, vol. 1 (New York: Century History, 1921), 46; E. B. Delabarre, *Dighton Rock: A Study of the Written Rocks of New England* (New York: Walter Neale, 1928); Lyman S. Hayes, *History of the Town of Rockingham, Vermont, Including the Villages of Bellows Falls, Saxtons River, Rockingham, Cambridgeport and Bartonville, 1753-1907 with Family Genealogies* (Bellows Falls, Vt.: Town of Bellows Falls, 1907), 30.

<sup>15</sup> F. Lilley, "Indian Sculpture," *Vermont* 35 (1931): 311.

<sup>16</sup> Dunn, "Signatures in Stone," 11.

<sup>17</sup> "Indian Carvings."

<sup>18</sup> Hall, *History of Eastern Vermont*, 587. Hall's drawings have also been reproduced in John C. Huden's *Archaeology in Vermont*, rev. ed. (Rutland, Vt.: Charles E. Tuttle, 1971), following p. 40, and on the back cover of Marjory W. Power and James B. Petersen, *Seasons of Prehistory: 4000 Years at the Winooski Site* (Montpelier, Vt.: Division for Historic Preservation, 1984).

<sup>19</sup> Schoolcraft, *Historical and Statistical Information*, vol. 6, plate 48; reproduced in Colin G. Calloway, *The Western Abenakis of Vermont, 1600-1800: War, Migration and the Survival of an Indian People* (Norman: University of Oklahoma Press, 1990), 13, and in Nancy Price Graff and William Hoseley, "Celebrating Vermont: Myths and Realities of the First Sixty Years of Statehood," in Nancy Price Graff, ed., *Celebrating Vermont: Myths and Realities* (Hanover, N.H.: University Press of New England, 1991), 22.

<sup>20</sup> Hall, *History of Eastern Vermont*, 587-588.

<sup>21</sup> Warren K. Moorehead, *A Report on the Archaeology of Maine* (Andover, Mass.: Andover Press, 1922), 125.

<sup>22</sup> Vastokas and Vastokas, *Sacred Art of the Algonkians*, 42.

<sup>23</sup> H. R. Hays, *From Ape to Angel: An Informal History of Social Anthropology* (New York: Capricorn Books, 1964), 5.

<sup>24</sup> Peebles, Archaeological Site Survey Form, VT-WD-8.

<sup>25</sup> James Swauger, "Bellows Falls Petroglyph Site," manuscript, Vermont Division for Historic Preservation, Montpelier, 1983.

- <sup>26</sup> Lewis-Williams and Dowson, "Signs of All Times," 202, 216.
- <sup>27</sup> Lewis-Williams and Dowson, "On Vision and Power in the Neolithic," 55.
- <sup>28</sup> Erika Bourguignon, *Psychological Anthropology: An Introduction to Human Nature and Cultural Differences* (New York: Holt, Rinehart and Winston, 1979), 245.
- <sup>29</sup> Vastokas and Vastokas, *Sacred Art of the Algonkians*, 34–36; William A. Haviland and Marjory W. Power, *The Original Vermonters: Native Inhabitants Past and Present*, rev. ed. (Hanover, N.H.: University Press of New England, 1994), 188–191.
- <sup>30</sup> J. David Lewis-Williams, *Reality and Non-reality in San Rock Art* (Johannesburg: Witwatersrand University Press, 1988), 3; Lewis-Williams and Dowson, "Signs of All Times," 201–245.
- <sup>31</sup> Lewis-Williams and Dowson, "Signs of All Times," 203; Lewis-Williams and Dowson, "On Vision and Power in the Neolithic," 56.
- <sup>32</sup> Lewis-Williams, *Reality and Non-reality*, 7.
- <sup>33</sup> *Ibid.*, figures 1 and 2; Lewis-Williams and Dowson, "Signs of All Times," 210; Thomas A. Dowson, "Dots and Dashes: Cracking the Entoptic Code in Bushman Rock Paintings," *South African Archaeological Society Goodwin Series* 6 (1989): 90–91.
- <sup>34</sup> Lewis-Williams, *Reality and Non-reality*, 13.
- <sup>35</sup> R. K. Siegel, "Hallucinations," *Scientific American* 236, 10 (1977): 132.
- <sup>36</sup> J. David Lewis-Williams, *Vision, Power, and Dance: The Genesis of a Southern African Rock Art Panel* (Amsterdam: Gehouden Voor de Stichting Nederlands Museum voor Anthropologie en Prehistorie te Amsterdam, 1992), 21.
- <sup>37</sup> Lewis-Williams, *Reality and Non-reality*, 13.
- <sup>38</sup> *Ibid.*, 11; Lewis-Williams and Dowson, "Signs of All Times," 201–245; William A. Haviland and Anita de L. Haviland, "Glimpses of the Supernatural: Altered States of Consciousness and the Graffiti of Tikal, Guatemala," *Latin American Antiquity*, forthcoming.
- <sup>39</sup> William A. Haviland and Marjory W. Power, "Visions in Stone: The Bellows Falls Petroglyphs Reconsidered," *Northeastern Anthropology*, forthcoming.
- <sup>40</sup> Vastokas and Vastokas, *Sacred Art of the Algonkians*, 74–75.
- <sup>41</sup> Schoolcraft, *Historical and Statistical Information*, vol. 3 (1853), plate 18.
- <sup>42</sup> *Ibid.*, vol. 6, plate 52.
- <sup>43</sup> Vastokas and Vastokas, *Sacred Art of the Algonkians*, 76.
- <sup>44</sup> *Ibid.*, 48 and 50; G. R. Hamell, "Strawberries, Floating Islands and Rabbit Captains: Mythical Realities and European Contact in the Northeast During the Sixteenth and Seventeenth Centuries," *Journal of Canadian Studies* 21, 4 (1987): 72–94; Haviland and Power, *Original Vermonters*, 189–190.
- <sup>45</sup> Thomas A. Dowson, *Rock Engravings of Southern Africa* (Johannesburg: Witwatersrand University Press, 1993), 29 and 67; Lewis-Williams, *Vision, Power, and Dance*, 12.
- <sup>46</sup> Haviland and Haviland, "Glimpses of the Supernatural"; J. David Lewis-Williams, *Discovering Southern African Rock Art* (Cape Town: David Philip, 1990), 15; Lewis-Williams, *Vision, Power, and Dance*, 25; Lewis-Williams and Dowson, "Signs of All Times," 214 and 215.
- <sup>47</sup> Hayes, *History of the Town of Rockingham, Vermont*, 29–30. Our thanks to Gerry Biron for bringing this to our attention.