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The Wateree Bug: Hellgrammites, Dobsonflies, and Mississippian Period Potters

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The Wateree Bug: Hellgrammites, Dobsonflies and Mississippian Period Potters

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Artifact collectors along the Wateree and Congaree rivers in central South Carolina have found many interesting artifacts over the last few centuries. Chief among these discoveries are fragments of broken clay vessels, and perhaps the most interesting of these pottery fragments are ones with an image of a bug appended to the exterior surface dubbed the "Wateree Bug" (Figures 1, 3, and 4).

We admit that we have not looked exhaustively for all occurrences of the Wateree Bug. However, so far it seems to appear on jars just below the rim in sets of four arranged opposite one another around the circumference of the vessel. As its name suggests, the Wateree Bug is found mainly in the Wateree River Valley on vessels dating to the Middle Mississippian period (1250-1350 CE). The Middle Mississippian was a time in the South Appalachian region when centralized polities dominated large parts of major river valleys like the Wateree, powerful leaders built earthen platform mounds, and meaning-laden imagery was placed on objects made from shell, pottery, mica, and copper.

Figure 1: Sherd with "Wateree Bug" image recovered in the Wateree Valley. (Photo by Chris Judge)

The Wateree Bug as Hellgrammite

Larry McCaskill of Camden, in a short unpublished paper, *The Wateree's: A Lost Mississippian Clan Mystery Revealed*, proposed that this symbol represented the Wateree Tribe. Further, assisted by his son-in-law Josh Arrants, a wildlife biologist, McCaskill identified the bug as a hellgrammite, the larval stage of the Dobsonfly (*Corydalus cornutus*) (Figure 2). Recently, entomologist Dr. Michael S. Caterino, Director of the Clemson University Arthropod Collection, independently verified this identification. The short-lived Dobsonfly is one of the largest of the winged insects at 100-140 millemeters in length, and it can be seen flying in the night sky during the summer months. Hellgrammites can range between 75 and 90 millemeters, have a mean set of mandibles (and are sometimes called toe-biters) and are well known to fishermen as bait. A well-executed version of the Wateree Bug that was recently discovered corresponds surprisingly well to the anatomy of living hellgrammites (Figure 1). In addition to what could be interpreted to be legs, our Wateree Bug has 13 incised lines. Living hellgrammites have a tail, segmented body, abdomen, and head. Counting from tail to head, there are exactly 13 divisions in their bodies, just like our Wateree Bug. While not explicitly represented, the number of segments on our Wateree Bug account for the tail, abdomen, and head of living hellgrammites.


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THE BELLGRAMMITE FLY.

Figure 2: Life Cycle of the Dobsonfly from hellgrammite (A) to Dobsonfly (C). (Walsh and Riley 1861: 61)

The Wateree Bug and Mississippian Period Imagery

We agree that the Wateree Bug resembles a hellgrammite. However, there is an important lesson that people studying ancient Indigenous imagery of the Southeast have learned. Just because it looks like a hellgrammite does not mean the makers were referring to actual hellgrammites when they made the image (Knight 2013). In fact, the majority of Mississippian period imagery refers to beings, places, and even events of other realms, not living people or the natural world (Knight et al. 2001). So, the Wateree Bug may look like a hellgrammite, but it is likely the people who made it were actually referring to some being or aspect of their larger cosmos.

Non-Indigenous scholars working with Native Americans and information collected by anthropologists have reconstructed a general model of how people of the Mississippian period understood the cosmos (Lankford 2007; Reilly 2004). That cosmos was likely made up of three realms, each with its own spirits and important associations. People, plants, and animals lived on a flat plane floating in the primordial sea. This realm of the cosmos was the earthly realm, and it was also inhabited by important spirit beings. Above the earthly plane was the above or sky realm, often thought of as dome attached to the earthly realm by ropes or snakes or some other means. Creatures with wings lived in the sky realm, as did important spirits, like the sun and weather spirits. The sky realm was a place of order and life. Under the ground and the water was a third realm that was inhabited by creatures and spirits that live in the water and under the ground. This beneath realm was the place where the dead went, so it was a place of chaos and death. However, it was also the source of water and regenerated life. When the sun set each night, the beneath realm and the sky realm switched places, such that the beneath realm became the night sky. The Milky Way was understood to be the path that souls traveled to the realm of the dead.

Plants, animals, natural phenomena, and celestial events all were connected in some way to their place in the cosmos and took meaning from that place. Birds were beings of the sky realm, and many sky realm spirits had avian characteristics and behaviors. Conversely, bats and hawkmoths, which fly in the night sky, were associated with the evening version of the beneath realm. Creatures that live in the water, under the ground, or even under rocks and logs were connected to the beneath realm. Snakes fall into this category, and to this day, for many Indigenous groups of the Southeast, one of the most important beings of the beneath realm has snake characteristics.

Back to our hellgrammite. There is another important principle to keep in mind when trying to understand ancient imagery. It is much easier to find the referent of an image than its meaning. The referent is what the image is intended to represent, and it is possible to reconstruct that from details of actual imagery. Meaning is tricky. Particular images can have many meanings, and those can change depending on the person and time. Most people know that an orange paw print is intended to represent

Figure 3: Sherd with "Wateree Bug" image, from the collection of Henry Shute. (Photo by Chris Judge)

Clemson University. However, it can mean something entirely different to a Gamecock football fan than it does to a Clemson fan. Here we think the referent of our Wateree Bug is somehow linked to the hellgrammite. Its meaning to those who saw it is much harder to discern.

Trying to find the referent of an ancient image is best done in a systematic fashion. It is easy to fall into the trap of thinking the referent of an image must be what the image looks like to you. It is important to remember that the Wateree Bug was made by Indigenous people hundreds of years ago who likely thought about the world and how to understand it much differently than we do today. The best way to avoid just looking at an image through your eyes is to follow a simple set of steps (Knight 2013).

The first step is to collect as many examples of the image (made by the same people during the same time period) as possible. Then compare all of the images to see what aspects are always there and which ones can come and go. Those that are always there can be assumed to be the most important for cluing the viewer into what the image is meant to represent. In our case, that set of features is pretty simple. First it always appears on four opposed locations just below the rim on a large ceramic jar. The image itself is composed of a raised, segmented bar with rounded ends that tapers on the end nearest the base of the vessel. This element is completely surrounded by short line segments that also point toward the base. There are other variations (many we would like to see more of), but those elements always appear as far as we know.

Once we have that basic image, then it is useful to turn to the natural world to see if there are creatures that have those same characteristics. This is where others have suggested that the hellgrammite may be the model for our Wateree Bug. Remember, instead of being an actual hellgrammite, it is likely an image of something that has the characteristics of a hellgrammite. Those characteristics can help situate the image in the Mississippian cosmos and also hint at some of its possible associations.

As noted earlier, hellgrammites are the larval stage of the Dobsonfly (Hall 2016). Adult Dobsonflies only live for a few days to a week, and their main goal is to reproduce. They lay their eggs at night on rocky walls just above creeks and rivers. When the eggs hatch, the larvae fall into the water where they live as hellgrammites for up to five years. You can find them under rocks in rivers and creeks. During their larval stage, hellgrammites periodically shed their skin similar to snakes.

When it is time, usually in the spring and summer, hellgrammites leave the water and create an underground chamber under a rock or log where they pupate. Often this happens *en masse*, so if you were watching, you might see dozens of hellgrammites crawling out of the water and burrowing into the ground. There are actual accounts of "hellgrammite crawlings," where large numbers of hellgrammites emerge from the water at the same time during thunderstorms (Voshell 2002: 442). After pupating for about two weeks, Dobsonflies emerge from their underground chambers and take to the sky. Like their emergence from the

Figure 4: Sherd with partial "Wateree Bug" image, from the collection of Henry Shute. (Photo by Chris Judge)

water, their emergence from the ground happens *en masse*, and it happens at night. Dobsonflies are nocturnal.

If we return to the Mississippian cosmos, the hellgrammite does some very meaningful things. They live under the water, shed their skin, emerge during thunderstorms, burrow into the ground, then transform into a flying being of the night sky. Their association with water, underground burrows, (and later the night sky), along with their general nocturnal nature, identifies them as beings of the beneath realm. That they shed their skin connects them to snakes—another important resident of the beneath realm. Like rattlesnakes (Hudson 1976), hellgrammites may be associated with thunderstorms and rain. The connection to rain and the growing season is reinforced by the fact that hellgrammites leave the water, pupate, and emerge as Dobsonflies during the spring and summer. While hellgrammites might represent some being of the beneath realm associated with storms and rain, their entire life cycle can be viewed as a metaphor for the path of a soul after death. After death, the body is placed in the ground, while the soul eventually alights to the path of souls and the realm of the dead.

The final piece of attempting to understand the referent of an image is to explore the existing historic narrative record of culturally related people. In this case, this is likely to be Cherokee, Catawba, and Creek people. Currently, we know of no ethnographic information from any of the three groups that reference hellgrammites or any supernatural with similar characteristics. This result should not be overly surprising. It is important to remember that identities like Cherokee, Catawba, and Creek grew out of the coalescence of formerly independent ethnic groups impacted by European disease, violence, slaving, and Colonial economics. The fact that the Wateree Bug appears to be limited to a single century in a limited area of central South Carolina suggests it may have been part of a local, short term tradition that did not survive the ravages of history.

If the referent is intended to be a beneath realm creature, as we suspect, why would it appear on pottery vessels? That is a question best explored by learning more about the vessels it was placed on and how those vessels were used in the past. We can learn a lot about how they were used by understanding where they were found on archaeological sites (houses, general garbage deposits, special contexts like mounds or mortuary deposits). We can also learn some important things about how the vessels were used by exploring what they once held. This can be done by chemically analyzing samples from vessels with the Wateree Bug. To do both of those things, we need to learn more about the Wateree Bug and the pottery vessels it was placed on. If you know of any examples of the Wateree Bug, please contact Chris Judge (judge@sc.edu) or Adam King (aking@sc.edu) to share additional examples of this unique phenomena.

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See a short film of a live Hellgrammite

https://www.youtube.com/watch?time_continue=40&v=zjLBd3oLOco&feature=emb_title

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discharged. They were entwined with flax, dipped in combustibles lighted…" The tip of our arrow point is curled from a heavy impact. Also in the Star Fort, we recovered two different examples of large, crudely forged spearheads that might have been at home in Iron Age Europe. These weapons are documented by the same British source, who reported "Spears… had been made by the direction of this excellent officer [Star Fort commander Major Green]; they were piled up against the parapet, and the men were ordered, on discharging their musquets, to use the spears." A final example is a broken iron pike point that we recovered from a distant American artillery position that fired on the Star Fort early in the siege; it is very similar in appearance to the sort employed during the 30 Years War. While the Revolutionary War occurred well into the era of gunpowder warfare, the participants were entirely prepared to kill one another with swords, sabres, spears, pikes, halberds, spontoons, tomahawks, and bayonets, as well as ordinary fire.

Figure 2: Spear head recovered from behind the parapet of Star Fort. This example had been driven deep into the subsoil, and the shaft was presumably snapped off. This deliberate destruction may have occurred when the fort was abandoned by the British. (Photo by James B. Legg)