

## Gender and Body Deposition in Effigy Mounds

BY Diana D'Souza

### **Introduction**

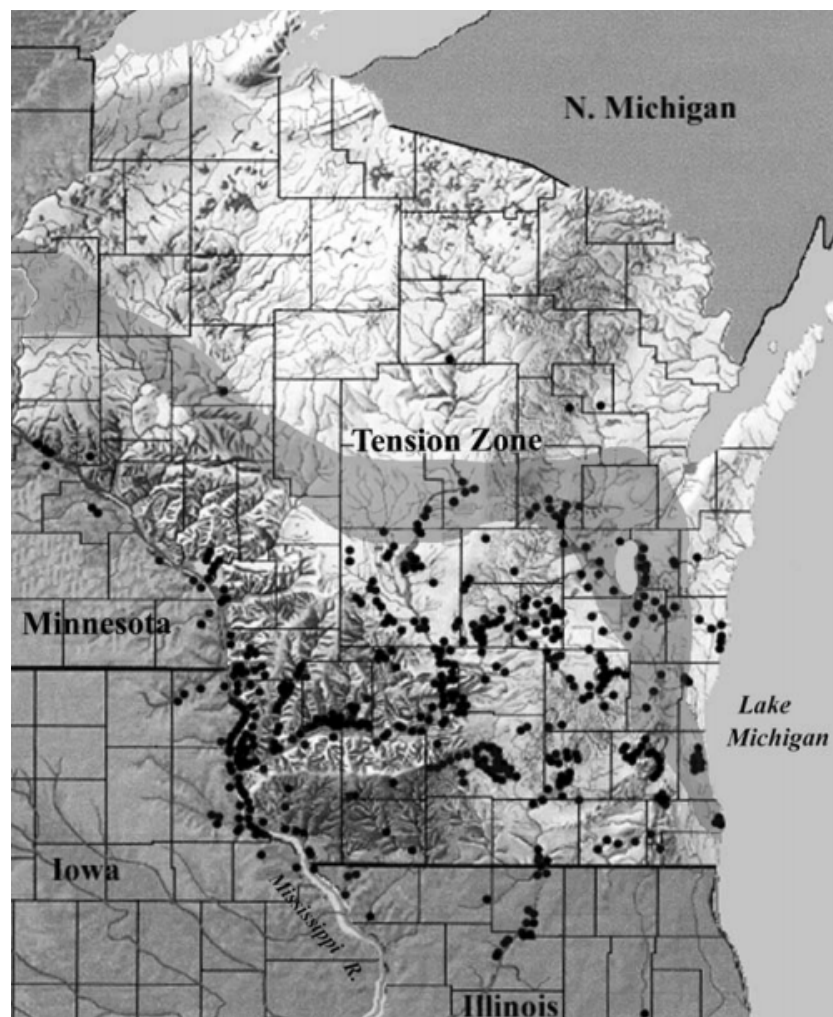
Every society has a unique way of positioning their dead. For example, in the western Christian tradition, corpses usually face upwards with extended legs. Neanderthals, however, tended to bury corpses in flexed positions (Mui 30, 31). The position of a corpse can tell us how individuals lived their lives and how they fit into larger society (Arden 70). Corpses arranged in unconventional positions could indicate special status or individual preferences (Mui 32). Corpses were also positioned for visual purposes (to better display grave goods) or practical purposes (for easy disposal and burial).

However, I am most fascinated by how corpse position can be used to explain gender roles and social relationships. In this research proposal, I will examine body deposition within effigy mounds during the Late Woodland period from 700 to 1100 A.D. I define "body deposition" as the placement or position of a buried body, and I have identified 6 primary positions in terms of placement of the torso: supine (lying on the back), prone (lying on the front), LS (left-sided), RS (right-sided), sitting, and unknown (Mui 71). My proposal will also analyze whether females show more variation in body deposition than males, and if males and females were more likely to be buried in a particular position.

Research about gender and effigy mounds is largely nonexistent. Burial data is considered one of the best sources of information about gender differences (Arden 69). This is because mortuary rituals reinforced the cultural and social differences of the living. Hence, exploring body deposition will shed light on the social relationships and gender roles of effigy mound builders.

## Background

Effigy mounds are low (0.5 to 1.8-m-high), large (up to 100-m-long) earthen mounds (Yerkes 330). They are shaped like birds, other animals, supernatural beings, or human beings (*Indian Mounds* 3). During the Woodland Period (700-1100 A.D.), thousands of effigy mounds were built in Wisconsin, Illinois, Iowa, and Minnesota; however, they are most abundant in southern Wisconsin (Green et al 70). The effigy mound builders were hunter-gatherers who lived in small seasonal camps and villages, moving according to the seasons (*Indian Mounds* 110). There was no significant trade in prestige goods with other regions, but the builders were linked together by a ceremonial complex that led to the creation of effigy mounds.



Distribution of effigy mounds. From Birmingham and Rosebrough (2018), *Indian Mounds of Wisconsin*.

Archaeologists suspect that effigy mounds served a number of purposes. They most likely acted as ceremonial centers, occasionally used for social, religious, and political events (*Indian Mounds* 8). Effigy mounds were also used to mark social territories, maintain balance and harmony with the natural world, and, of course, to bury the dead. Although there were several mass graves and mounds with no burials, most of the effigy mounds contained 1-4 individuals (*The End of Effigy Mound Culture* 292). The most prevalent burial types were primary<sup>1</sup> flexed<sup>2</sup> burials and secondary<sup>3</sup> bundle<sup>4</sup> reburials (Lackey-Cornelison 25). Other burial types included primary extended<sup>5</sup> burials, secondary flexed burials, cremations, and combinations of disposal types (Lackey-Cornelison 228).

The burial type provided insight into how frequently effigy mounds were constructed. Primary burials happened shortly after death. However, secondary burials indicate that death occurred sometime earlier and that the cleaned bones were buried or stored elsewhere until final burial in the effigy mound (*Spirits of Earth* 21). This is the case for flexed burials, where some bodies were bound so tightly that archaeologists concluded the corpses had undergone some decomposition before being brought to the site for burial. The combination of primary and secondary burials signals that effigy mounds were not necessarily built immediately after a death (*Indian Mounds* 147). If deaths occurred in the winter, the bodies may have been saved for internment (*Spirits of Earth* 21). Ceremonies and effigy mound construction commenced in the

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<sup>1</sup> The initial or direct burial of a corpse. The bones of the skeleton are located in the same relative position to each other as they were when the individual was alive. (*Archaeology Wordsmith*, n.d., <https://archaeologywordsmith.com/>)

<sup>2</sup> The body is buried in a fetal position with bent legs.

<sup>3</sup> The practice of removing the remains of a corpse (that was initially buried or placed in a certain area) to another grave.

<sup>4</sup> A secondary burial practice wherein the bones are collected after the flesh has decayed. The bones are then reburied out of their natural arrangement in a pile, bundle, or other grave.

<sup>5</sup> The body lies flat (either face up or face down) with straight arms and legs (Mui 71).

warmer months. Corpses, bone bundles, and cremated remains would *then* be brought from temporary resting places to be buried in effigy mounds (*Indian Mounds* 147).

There is existing literature about the frequency and type of Late Woodland burials, but there is a scarcity of research surrounding social inequality, gender roles, and body deposition of the effigy mound builders. Archaeologists typically rely on grave goods and artifacts to assess social inequality. The problem is that effigy mounds contain very few nonperishable objects (*Indian Mounds* 149). In fact, most burials lack identifiable grave offerings of any kind. Items that were discovered are relatively simple and not indicative of status—pottery containers, smoking pipes, bone and copper tools. The presence of relatively few grave goods and the general utilitarian nature of these objects has been used to argue that effigy mound social organization and mortuary ritual was largely egalitarian (Lackey-Cornelison 25). As Yerkes phrased it, effigy mound builders “lived an egalitarian lifestyle with an overpowering homogeneity in the types of sites and artifacts found throughout their area” (Yerkes 330). Yet, many fail to recognize that effigy mounds in themselves are the most elaborate of grave goods, requiring enormous amounts of labor and time (*Indian Mounds* 149). Furthermore, not everyone was entitled to an effigy mound burial (*Indian Mounds* 147). Some burials were placed outside the mounds, indicating that mound sites were used as cemeteries.

Gender has also been used to reinforce the perception that effigy mound culture was egalitarian. Archaeologists are unsure of the roles women played during the Late Woodland period. However, publications by Ruth (2000), Goldstein (1995), and Birmingham and Eisenberg (2000) propose that effigy mounds have an even sex distribution (Lackey-Cornelison 131). We cannot be entirely sure of the accuracy of this claim, since there is a regular and systemic bias in the sexing of adult skeletons, 12% in favor of males (Weiss 239).

In terms of body deposition in effigy mound burials, there is scholarship to suggest that mound builders intentionally arranged corpse positions. The burials were usually placed at significant anatomical positions—centrally within the head and heart, midway between the shoulder and hip, or in bird effigies, centrally between the head and the tail—signifying an intimate association between the dead and the effigy (Shetrone 296; *Indian Mounds* 125). While excavating Kratz Creek Mound Group at Lake Buffalo in Marquette County, Wisconsin, Barrett and Hawkes discovered that almost all the skeletons faced toward the south and away from the lake (Barrett and Hawkes 26). There were, however, no studies conducted on body deposition during the Late Woodland period.

For the second half of the background, I will put aside effigy mounds and Late Woodland burials, focusing instead on two groundbreaking studies about gender and body deposition. The largest study on body deposition I could locate was Sian Mui's analysis of early Anglo-Saxon England, wherein she surveyed 3,053 graves from 32 cemeteries. Her work, although unrelated to North American archaeology, shows why the study of body deposition is so valuable.

Mui discovered notable gender-related patterns in body positioning (Mui 119). At first glance, she discovered that of the burials with a known body deposition, 82% of the male burials and 80% of the female burials were deposited supine. However, when Mui looked at gender by grave goods, 84% of burials with weapons were buried supine, while 78% of burials with feminine artifacts were buried supine. Furthermore, Mui chose to examine the position of specific body parts (Mui 124), once again discerning a notable gender difference in arm positioning. Mui recognized that the extended arm position was most common among males, whereas the flexed arm position was more common among females. She hypothesized that the bent arm may have been associated with the feminine body, "timid, petite, and gracile." Mui's

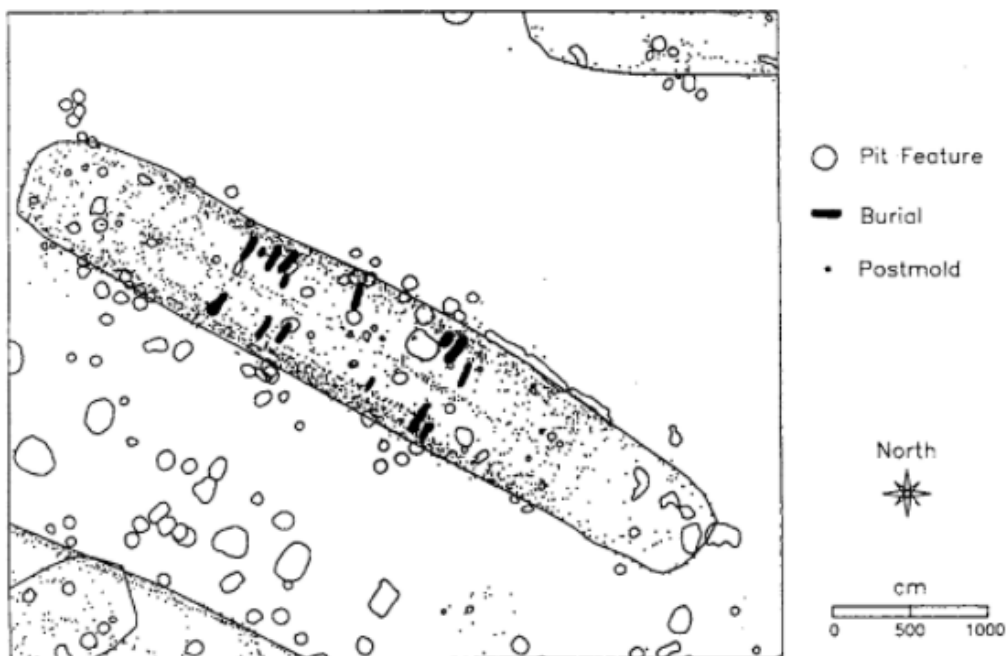
study ultimately reinforces and highlights that the mortuary system is a multidimensional system (Goldstein 57). Mui could not use body deposition alone to make conclusions about gender; she was only able to do so when considering a specific body part or surrounding artifacts.

Jodie O’Gorman’s study on gender and body deposition of the Upper Mississippian/Oneta also inspired the framework of this research proposal. Her work is particularly exciting because the Oneta culture replaced the Late Woodland culture by 1200 A.D. (*Spirits of Earth* 12; *Indian Mounds* 154). There are also striking similarities between the two cultures, both of which have been described as “egalitarian” (O’Gorman 24). For the purpose of this paper, I will use O’Gorman’s definition of egalitarian—equal access to social and subsistence resources.

O’Gorman explores the possibility that Oneota social organization is shaped by gender inequality. She presents the household as a context for facilitating social inequality. Although Oneota women fished and hunted small animals, they were primarily tasked with crop production—tending, harvesting, processing, and storing (26). Many of these activities took place in or near the house. Men hunted large game and participated in warfare, far from home.

O’Gorman excavated the Tremaine Complex, 4 Oneta sites covering 50+ hectares in southwestern Wisconsin. Corpses were documented in association with at least seven houses and a multitude of storage and processing pits. O’Gorman studied several variables: body deposition, the orientation of the body to the grave/house, and the position of legs/arms (31). She determined that the orientation of the individual to the house was an important factor in the Oneota mortuary program (33). Males were more restricted in relation to the house. Most were buried with their bodies perpendicular to the house side walls. A majority of females were also buried with their bodies perpendicular to the house side walls; however, a slightly higher percentage of females

were buried parallel to the side walls.



House 5 from the Tremaine Complex. Most burials were perpendicular to the house side walls. From O’Gorman (2001), “The Oneota Tradition: Context for the Study of the Emergence of Inequality.” *Gender and the Archaeology of Death*.

Even more fascinating, females exhibited more variation in body deposition compared to males. O’Gorman used four variations (as opposed to the 6 variations I will be using in my study): prone, on the left side, on the right side, and semi-reclining. She documented females in each category, and only one male was documented on the right side. O’Gorman concluded that the diversity of female body positions was linked to women’s greater diversity of social relationships.

Unfortunately, I will be unable to replicate O’Gorman’s study in its entirety. Oneota burials were in pits in or near houses. Late Woodland effigy mounds were varying distances from village sites, most of which have been destroyed. O’Gorman’s study, however, does capture many of the variables I seek to study in effigy mound burials: variation in body deposition, most common male and female burial types.

## Research Gap

We know little to nothing about gender roles and social relationships during the Late Woodland period. The effigy mound builders were largely written off as an egalitarian society because males and females were buried in equal numbers. It is possible that the mound builders were not as egalitarian as archaeologists believe, as there is a systemic bias, in favor of males, in sexing adult skeletons. Furthermore, some archaeologists that do record effigy mound burials fail to mention skeleton sexing in their studies (Hurley 1975; Barrett and Hawkes 1919). In other cases, gender is reported, but not further examined. For example, during the Myrick Park Mounds excavation in western Wisconsin, sex was not deemed “useful for the purposes of individuation” (Green et al 218). There are several challenges that deter archaeologists from studying gender: poor bone preservation, incomplete excavations, and excavation methods that miss highly fragmented or cremated bone (*Indian Mounds* 147). Using body deposition as an additional factor in exploring gender during the effigy mound period could help circumvent these challenges. Despite a poorly preserved population sample, O’Gorman was still able to draw conclusions about Oneota gender roles from corpse position.

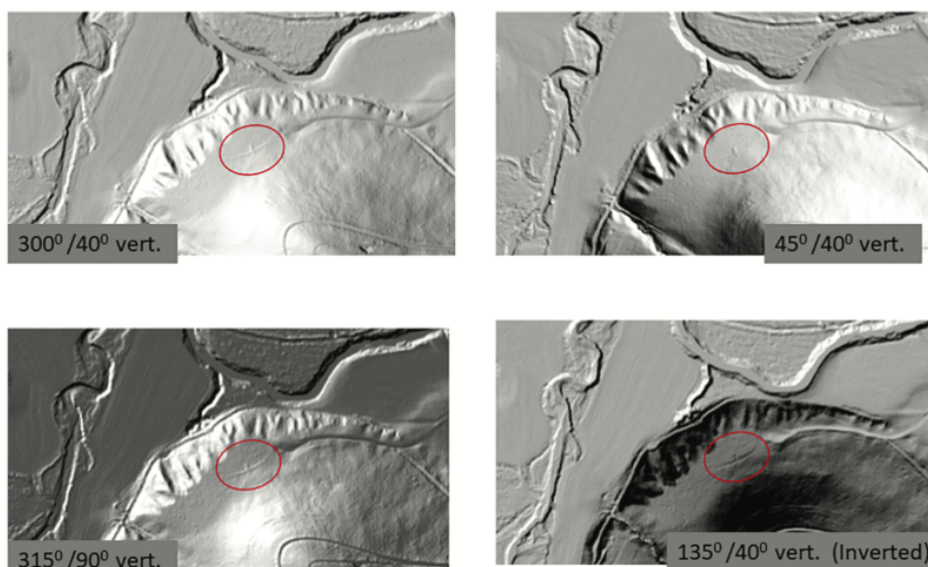
## Methods

The aim of this study is to review body deposition within effigy mounds during the Late Woodland period (700-1100 A.D.). I propose 6 categories of corpse positioning in terms of the placement of the torso: supine, prone, LS, RS, sitting, and unknown. I will assess if females show more variation in body deposition as compared to males. I will also determine if males and/or females are more likely to be buried in a certain position.

I plan to document 25 effigy mound sites in Wisconsin, excavating at least 100 identifiable buried individuals. Sites will be located using LIDAR, Light Detection and Ranging



(National Ocean Service). LIDAR is a remote sensing method that can penetrate forest canopy, allowing the user to visualize features on Earth such as effigy mounds (*A Lidar Survey* 5). After conducting a systematic lidar survey, the data will be processed into a Digital Elevation Model (DEM), a 5-foot image of the terrain without vegetation and buildings (*A Lidar Survey* 14). The DEM will then be downloaded into the Quantum Geographic Information System (QDIS), which allows the user to manipulate the azimuth angle<sup>6</sup> (angle of the sun) and vertical angle<sup>7</sup> (altitude). Adjusting these angles allows surface features to be detected. Even within a single effigy mound group, various angles may be required to see different mounds. Once all sites are located, my team and I will ask landowners for permission to excavate. However, we will first walk adjacent areas looking for mounds that were not visible through LIDAR and record GPS coordinates of all detected mounds.



All four images show the Brudos Bird Mound circled in red. The visibility of effigy mounds depends on the azimuth angle (to the left of the dash) and the vertical angle (to the right of the dash). From Boszhardt et al (2018), “A Lidar Survey of Effigy Mounds in the Bad Axe River Valley, Vernon County, WI.”

<sup>6</sup> The azimuth angle is measured clockwise from 0 to 360 degrees. The default angle is 315°, but there are also 90° intervals: 45°, 135°, 225° (*A Lidar Survey* 14).

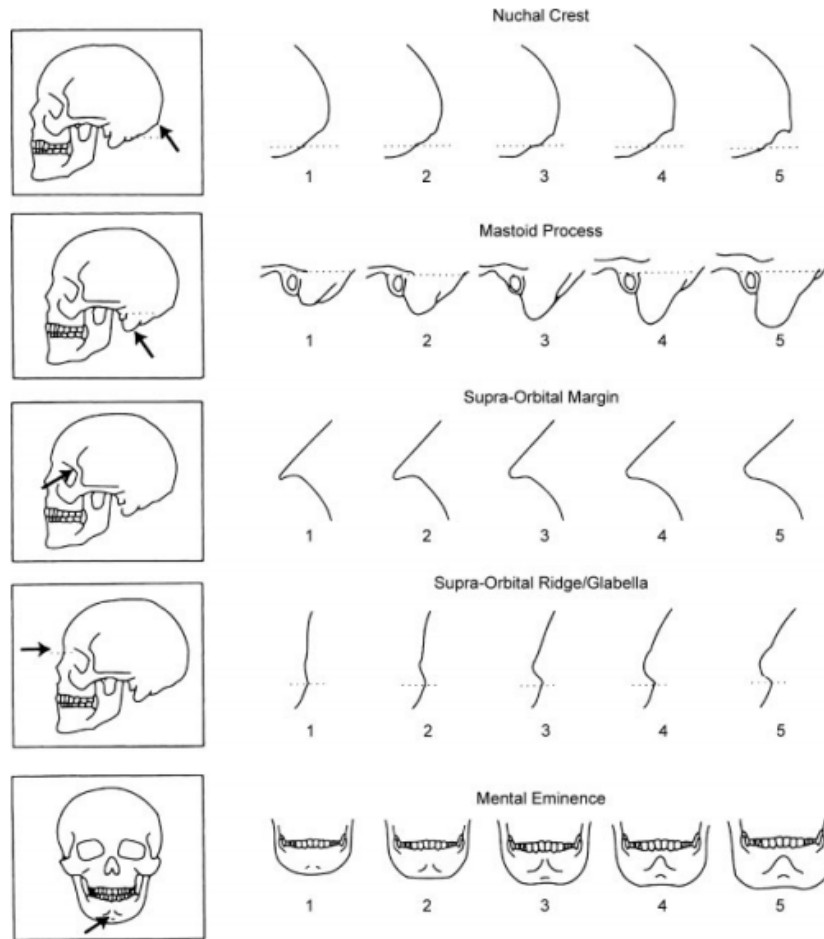
<sup>7</sup> The vertical angle is changed in 5° increments with up and down arrows. It is used to fine-tune for visibility.

To locate buried remains, I will visually assess each area, noting disturbed vegetation and soil, signs of secondary depression, and soil compaction (Murdo 6). Each site will be gridded before a shovel test is performed (Mundo 10). I will dig the expected area to a depth of 3-4 feet to determine if the stratigraphy of the soil is natural or reversed. If a burial is suspected, I will dig in 10 cm intervals.

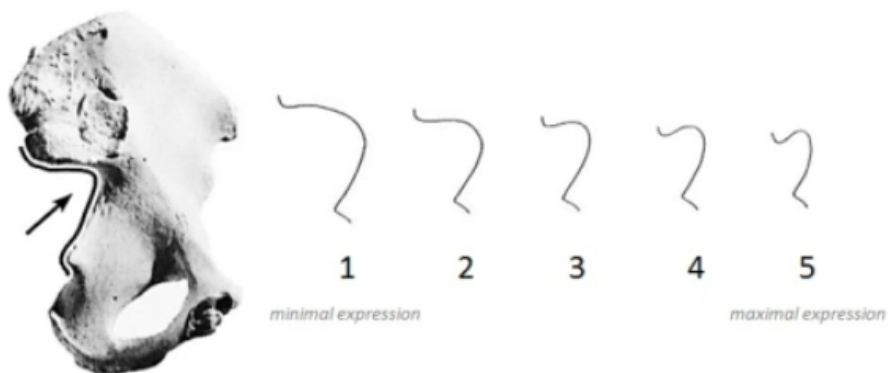
When selecting a method for sexing skeletons, I wanted to reduce bias by taking a more conservative approach with a larger sample size ( $N \geq 100$ ). Thus, I used the method employed by Green's team when they excavated and sexed skeletons from the Myrick Park Mound site (Green et al 219), using a combination<sup>8</sup> of morphological characteristics from the os coxae (hip bone) and cranium. For the os coxae, I will score the ventral arc, subpubic concavity, greater sciatic notch, and medial aspect of the ischio-pubic ramus on a graduation of male to female morphology. For the cranium, I will score robusticity at the nuchal crest, mastoid process, supraorbital margin, glabella, and mental eminence, with a score of 1 indicating extreme female morphology and 5 indicating extreme male morphology. Based on the composite os coxae and cranium scores, sex will be estimated on a final scale from 1 to 9 (1=definitely male, 5=sex uncertain, 9=definitely female). Besides gender, my team and I will also record the treatment of the body (number of individuals buried per mound, body deposition), preparation of the mound (soil fill, mound shape, mound depth), burial context (grave goods and artifacts), population profile and biological dimensions (age, sex, cause of death). Furthermore, each burial will be diagrammed, portraying the body in relation to other burials, surrounding artifacts, and the overall site (Goldman 59).

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<sup>8</sup> Cranial features are less reliable for sex estimation than pelvic features (Walker 39). However, pelvic bones are often not well preserved (Weiss 239). Therefore, many studies stress the increased accuracy in sexing skeletons when using a series of measurements from different bones.



Scale for scoring cranial traits. The numbers below the diagram represent scores assigned to specimens that most resemble each feature. From Walker (2008), “Sexing Skulls Using Discriminant Function Analysis of Visually Assessed Traits.”



Scale for scoring the greater sciatic notch, 1 out of 4 features of the os coxae. Female os coxae are more likely to have a lower level of expression than males. From All Things AAFS (2015), “Quick Tips: How to Estimate the Biological Sex of a Human Skeleton - Pelvic Dimorphism.” To learn more about the other 3 features, click [here](#).

## Results

I expect females to exhibit more variation in body deposition than males. I drew on O’Gorman’s Oneota site findings to make this conclusion, since the Oneota and Late Woodland people occupied similar areas and time periods. It must be acknowledged though, that the Oneota were village agriculturalists and the Late Woodland builders were hunter-gatherers, which could indicate different gender roles, and thus, different body depositions. The diverse positioning of female bodies could be attributed to, as O’Gorman suggests, women’s greater diversity of social relationships. However, we need to study body deposition alongside additional variables such as grave goods and mound size to be certain. I also suspect that female and male bodies were most likely buried in a supine position, once again, similar to O’Gorman’s findings. It will be interesting to see what the second most frequent body deposition is among female and male burials.

The study of body deposition and gender in effigy mound burials has two major implications. First, it raises the question of whether Late Woodland societies were truly egalitarian. Effigy mounds were of varying size, shape, and grandeur. Additionally, not everyone received an effigy mound burial. If we cannot even confirm that females and males were buried in equal proportion, can we readily accept that all men and women had equal access to resources? More importantly, this study emphasizes the lack of research not only about gender in mortuary contexts, but gender, in general. Archaeology has an androcentric nature, “focused on, and practiced by, men” (Arnold et al 2). Gender should not be a special area of focus, and skeletons should be sexed, if possible. By sparking a conversation about body deposition and gender, I hope to make these areas an essential part of archaeological research, from proposal to publication.

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