

**VIOLENCE IN THE MIDCONTINENT: A COMPARATIVE ANALYSIS OF ONEOTA
INTERACTIONS WITH MISSISSIPPIAN AND CENTRAL PLAINS POPULATIONS**

by

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VIOLENCE IN THE MIDCONTINENT: A COMPARATIVE ANALYSIS OF ONEOTA INTERACTIONS WITH MISSISSIPPIAN AND CENTRAL PLAINS POPULATIONS

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Oneota is a name given to groups of Native Americans with a shared material culture originating in the upper Midwest around AD 900. Within a few hundred years, objects representing Oneota culture extended from Indiana to Kansas and from Missouri to Canada. This expansion led Oneota peoples to come into contact with Mississippian groups in the Central Illinois River Valley, and up to a few centuries later, with Central Plains populations in Nebraska, an area with less evidence for prehistoric violence than in the Mississippi River valleys where the Oneota developed. This thesis examines direct and indirect evidence of prehistoric violence from archaeological sites in Illinois and Nebraska that show evidence of intergroup conflict and habitation by Oneota, Mississippian, or Central Plains populations, or some combination thereof. Differences in political systems as well as subsistence and settlement practices may have contributed to varying incidence of violence between cultural groups in these areas.

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INTRODUCTION

The Oneota, an archaeological culture classified primarily by its ceramics, (Blakeslee 1994:15), developed in the Midcontinent after the close of the Late Woodland around A.D. 900 (Hollinger 2005:28). Interactions with their southern neighbors, the Mississippian culture, contributed to Developmental Horizon Oneota expansion throughout the region between the eleventh and thirteenth centuries until Oneota material culture dominated an area from Indiana to Kansas and from Missouri to Canada (Hollinger 2005:29, 45). During the course of this movement, the Oneota came into contact with those already inhabiting the Central Plains (Hollinger 2005; Logan 2010; Pugh 2010).

Through analysis of direct and indirect evidence of prehistoric intergroup violence, I demonstrate that areas with potential for Oneota and Mississippian cultural contact (i.e. Morton Village/Norris Farms 36 cemetery and Orendorf sites in Illinois) show a higher rate of conflict than areas with potential for Oneota and Central Plains cultural contact (i.e. the Leary and Ashland sites in Nebraska). Whereas the sites in the Central Illinois River Valley (CIRV) show high rates of intergroup violence (Milner and Smith 1990; Milner et al. 1991; Steadman 2008), the sites on the Central Plains in Nebraska show the possibility of interactions lacking such conflict (Hill and Cooper 1937; Hill and Wedel 1936; Ritterbush 2002a). This is due in part to differences in Mississippian and Central Plains cultures, including political organization, and settlement and subsistence practices. .

Most direct evidence of conflict comes from the bones of the victims (Hollinger 2005:35; Milner et al. 1991:581). Skeletal wounds, especially on the head, torso, or forearms, can be

indicators of violence (Milner et al. 1991:583) , and finding a projectile point within a bone was more likely the result of violence than of an accident (Hollinger 2005:36). Cutmarks in certain areas can also suggest trophy-taking by the aggressors, further supporting violent conflict (Hollinger 2005:37; Milner et al. 1991:584-585). The processing of remains for burial can also result in cutmarks without the context of violence, so for this study I chose to focus on cutmarks pertaining to scalping, an activity more related to trophy-taking than burial preparations.

Indirect evidence for intergroup violence comes in more forms, including settlement fortification and burning patterns, as well as mortuary practices (Hollinger 2005:35-36; Milner et al. 1991:581). Sites with fortifications constructed around their perimeters indicate a threat or fear of violence, if not the act itself (Hollinger 2005:39). If large portions of a village are burned, especially when there are other signs of conflict, then it is possible the burning either occurred as the inhabitants fled or as the attackers came through the site (Hollinger 2005:39-40). Burial practices, such as mass or quick, shallow graves that have bodies indicating extra time spent on the surface or partial consumption by carnivores can indicate the aftermath of a fight or raid of some kind (Hollinger 2005:38).

Around the Midwestern river basins, where the Mississippian and Oneota cultures originated, these raids were likely fueled by competition over resources such as agricultural land and to increase the “prestige of high-spirited young men” (Hatch 2015; Hollinger 2005; Milner 1999:107). Food shortages due to insufficient crop yields (Hatch 2015:25) or even the fear of resource shortage, often led to raiding by prehistoric societies (Ember and Ember 1992).

The pattern of resource-induced violence is reflected at both the Orendorf and Morton Village/Norris Farms Cemetery sites in the CIRV. Both are located in defensible locations and are fortified with palisades, suggesting a recurring threat of violence. On the Central Plains,

however, the Leary and Ashland sites indicate the different cultures inhabiting the same site at different times, or potentially at the same time. The inhabitants of the sites practiced a more generalized subsistence practice where there was less competition over resources, and never chose to construct palisades around the sites as they had been in the CIRV. This research is important because it can help us understand differences between Oneota, Mississippian, and Central Plains sites, and it can also give us insight into causes of intergroup violence in the late prehistoric periods of the midcontinent.

BACKGROUND

Despite originating in separate areas, the Oneota interacted regularly with Mississippian and possibly Central Plains tradition populations. All three groups relied on the growing of crops to some degree; however the Mississippians and Oneota in the Central Illinois River Valley (CIRV) practiced a more intensive maize agriculture (Kelly 1990) than those living on the Central Plains. The Central Plains tradition practiced a more generalized subsistence pattern where they took advantage of resources in approximately the same proportions that they were available in the wild, along with some small-scale horticulture (Pugh 2010:92-94). Violence often resulted from competition over resources in small-scale societies (Ember and Ember 1992), so the lack of competition over land or other resources by the relatively small and isolated Central Plains populations could have contributed there being fewer instances of violence than in the CIRV.

Mississippian

There is considerable debate among archaeologists when it comes to the Mississippian culture, which both stems from and seeks to explain the wide range of cultural variation that is observed throughout the Mississippian temporal and geographic extents (Smith 1990; Hatch 2015). Dates for the development of Mississippian culture range from AD 750 to 1050, with the end point being somewhere around 1700 (Smith 1990:1; Hatch 2015). Throughout the various ways that researchers use to call something Mississippian, the common themes are cultural developments such as an adaptation to a river environment, intense reliance on maize agriculture, and a social hierarchy/political organization that is a result of increased populations (Kelly 1990:117; Hatch 2015:21). The discussion on the variation between societies called “Mississippian” has resulted in what Smith (1990:2-3) calls the “Analogy-Homology Dilemma,” following biological and taxonomic studies.

There are two opposite theories as to the origins and spread of Mississippian culture (Smith 1990). The Homology theory is essentially that the Mississippian adaptations developed in a core area, and was subsequently spread through either the migration of that area's inhabitants, or through the migration of the ideas and items produced in that area (Smith 1990:2). As either the physical or metaphorical representations of Mississippian culture expanded through "adaptive radiation" (Smith 1990:2), it was altered slightly as it came into contact with each group. In other terms, this could be compared to an organism developing a particular trait (such as a bird having a new style of wing) and that trait being passed down along evolutionary lines until other species with that common ancestor share the new style of wing (albeit changed slightly as time goes on). Continuing the biological metaphor, the initial 'cultural core' acts a common ancestor and the individual variations from one colonized society to the next act as the mechanisms that result in the differences among Mississippian sites and material culture seen in the archaeological record.

The opposite theory to this is the Analogy theory (Smith 1990:2). Again borrowing from biology, this theory states that the traits associated with Mississippian culture developed independently and fairly *in situ* as responses to the same environmental constraints and opportunities (Smith 1990:2). The Late Woodland societies that developed into Mississippian ones all were located in similar river valleys, with similar resources and organizations, and would have had to respond to similar challenges (Smith 1990:2). Like the evolution of the wings of bats and birds, these cultural traits look similar on the surface as they fulfill similar roles, but the details are different (Smith 1990:1), however, exactly how similar or different they are is still not fully understood. The truth most likely lies somewhere in between the two polar opposites, but the origins of Mississippian culture as a whole may not ever be fully understood (Smith

1990). The questions as to Mississippian genesis are summed up well by Smith's (1990:2) statement that "there is no single, simple, all encompassing... theoretical explanation for the Mississippian emergence."

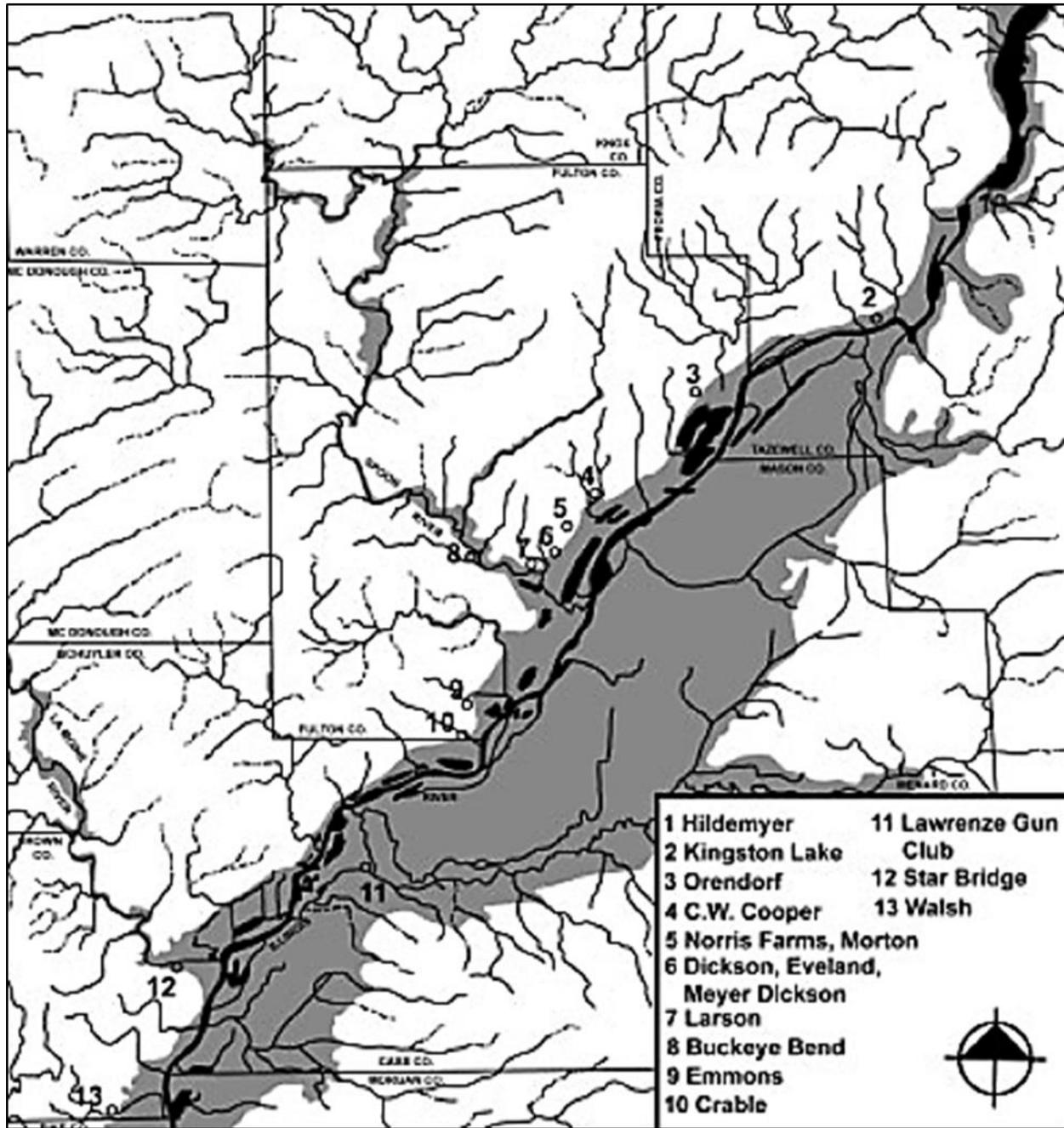


Figure 1: Map of Central Illinois River Valley showing Oneota and Mississippian Sites. Site 3 is Orendorf; Site 5 is Norris Farms and Morton Village. Adapted from Steadman 2008.

For the sake of this research, however, I will focus on Mississippian development in Central Illinois. In the Central Illinois River Valley (CIRV), along the Mississippi river, the end of the Patrick and Sponemann phases around AD 600-750 saw the development of Mississippian characteristics (Kelly 1990:117). As these Late Woodland phases ended, several changes were seen including an increase in size and social stratification, increased trade, and increased reliance on maize agriculture (Kelly 1990:117, 126). After the Patrick and Sponemann phases ended, there began what Kelly (1990:117) refers to as “Emergent Mississippian co-traditions” in the region.

Oneota

The name Oneota, like Mississippian and Central Plains, refers to archaeological groups with a shared material culture, rather than to distinct cultures or tribes. The primary shared material that is used to distinguish Oneota from other groups is their ceramics (Pugh 2010:103). There is still some debate as to the origin of these peoples, but both Pugh (2010) and Hollinger (2005) seem to agree that Oneota developed out of groups already present in the area, rather than through a migration event. Pugh (2010:103) argues that the Oneota developed out of local Woodland groups that aggregated into “larger centralized agricultural villages,” and Hollinger (2005:27) states that the earliest archaeological materials associated with the Oneota come from eastern Wisconsin and the area around Red Wing, Minnesota.

Hollinger (2005:23-28) and others divide the time of Oneota existence into four horizons; the Emergent, Developmental, Classic, and Historic. The Emergent Oneota Horizon (AD 900-1150) was not overly dissimilar to contemporary Late Woodland cultures in terms of patterns of subsistence and settlement. Sites were fairly small, and while the Emergent Oneota relied on maize agriculture, they also took advantage of wild resources around them (Hollinger 2005:28).

During the Developmental Horizon (AD 1150-1400), Oneota culture spread throughout the Midwest and ceramic decorations shifted to more linear designs (Hollinger 2005:29). This phase produced the materials that are typically thought of when the Oneota are being discussed, and there is enough heterogeneity throughout it that some researchers are trying to further divide the phase into “early” and “late” manifestations (Hollinger 2005:29).

The Classic Horizon (AD 1400-1650) is the first Oneota horizon to rely on more attributes than ceramics, such as ground stone pipes and other materials (Hollinger 2005:30). Some researchers also want to split the Classic Horizon into early and late around AD 1500, but for the most part there is an increased homogeneity in at least ceramic designs, if not in other parts of the Oneota culture as well (Hollinger 2005:30). Oneota sites also became more aggregated into larger and “specific localities” during this era (Hollinger 2005:30). Habitation sites shift to being occupied year round, substantial fields are used for maize and squash agriculture, and burials shift away from the limited mound use of previous horizons to include burials within houses or dedicated cemeteries near the village (Hollinger 2005:30). Oneota that had expanded westward by this point were also hunting bison in addition to their agricultural practices (Hollinger 2005:30-31; Ritterbush and Logan 2009).

Despite some variation in when historic contact actually took place, the Historic Horizon is dated to AD 1650-1800 (Hollinger 2005:31). These sites are typified by their containment of historical artifacts alongside Oneota ones, as well as other evidence for European influence (Hollinger 2005:31). Economic strategies changed as European demand for fur and other pressures resulted in a lessened demand on agriculture, and an increase in activities such as communal bison hunts (Hollinger 2005:31; Ritterbush and Logan 2009).

Central Plains Tradition

The Plains region of the United States is divided archaeologically into three areas, the Northern Plains above the Nebraska-South Dakota border, the Southern Plains below the Kansas River system, and the Central Plains between them (Figure 2) (Blakeslee 1994:12). For the purpose of this project, I will be focusing primarily on the Central Plains.

According to Pugh (2010:89-90), there are no true standard temporal divisions within the Central Plains tradition. However, since this distinction does not lend itself to a comparative, interregional study, I will be following Blakeslee (1994) and his system. According to Blakeslee (1994:11), the Northern and Central Plains are divided temporally into specific time periods. The Late Late Woodland period (AD 700-950) saw the rise of the Mississippian and Oneota cultures to the East, but it was not until the Plains Village (AD 950-1700) period directly after that their influences were felt (Blakeslee 1994:11). The Plains Village period is divided into two other subdivisions, Plains Village 1 (AD 950-1250) and Plains Village 2 (AD 1250-1700) (Blakeslee 1994:11).

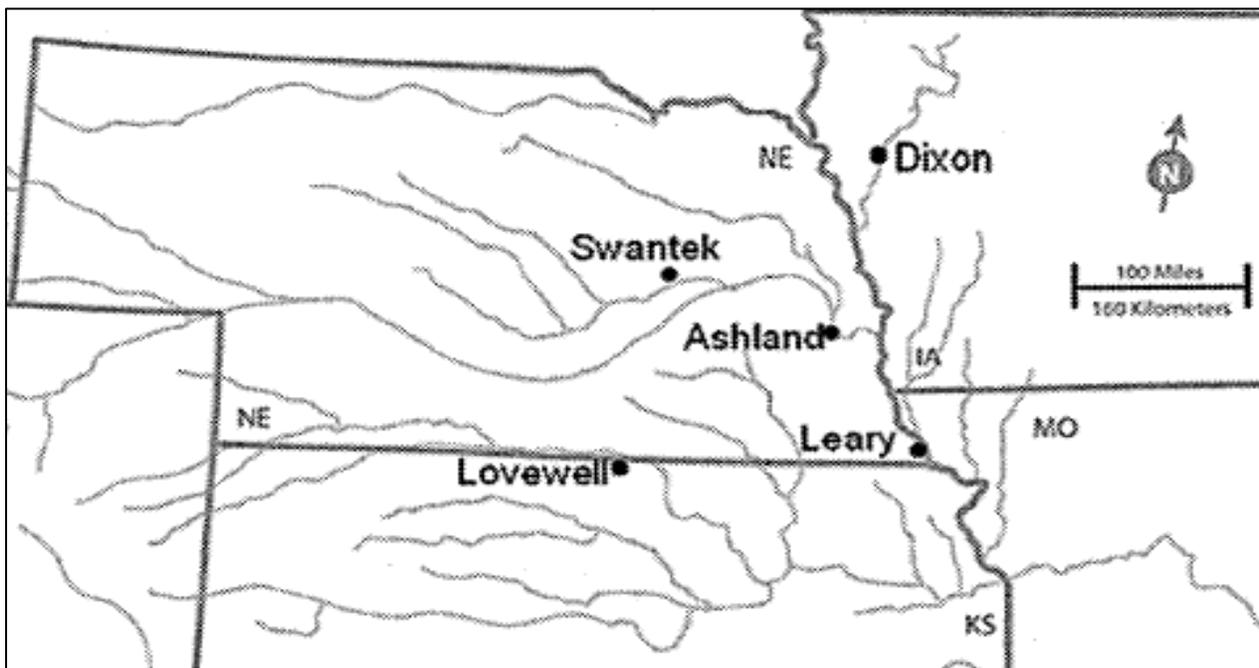


Figure 2: Map of Central Plains Showing Ashland and Leary, as well as other Western Oneota sites. Adapted from Logan 2010

Before Plains Village 1, there is little to no archaeological evidence for warfare (Blakeslee 1994:24). It is possible that there was small-scale raiding, but village sites were not fortified (Blakeslee 1994:24). Even during Plains Village 1, sites that are associated with the Central Plains tradition do not have defensive structures (Blakeslee 1994:24). Part of this is due to the fact that Central Plains tradition habitation sites are typically “isolated farmsteads or small hamlets,” often situated on bluff tops, and have plenty of distance between them and their neighbors (Blakeslee 1994:16; Pugh 2010). Cahokia and its influence were strongest during Plains Village 1, but its power had declined by Plains Village 2 and dynamics were changing due to westward expansion by Oneota peoples and northward movement into South Dakota by people representing to Coalescent tradition (Blakeslee 1994:15). These population movements, especially the ones going into South Dakota, appeared to involve more conflict as sites from this period tend to be more fortified (Blakeslee 1994:24). Violence before this period was limited, but this era produces sites that fly in the face of this pattern such as the Crow Creek Massacre site in South Dakota (Blakeslee 1994:25).

Unlike the Mississippians and Oneota that relied heavily on maize agriculture, Central Plains people practiced a more generalized economy (Pugh 2010). Cultivated maize was supplemented in Central Plains sites by other domesticates and wild foods, the latter of which seems to have influenced the locations of Central Plains settlements (Pugh 2010:92-93). Pugh (2010:93-94) states that a relatively small portion of the Central Plains dietary economy came from cultigens that would have been able to result from “opportunistic gardening” in lowland soils, with the rest of their diet coming from other local resources in approximately the same proportion as they were available.

Central Plains populations experienced several changes after approximately AD 1250, coinciding with Blakeslee's Plains Village 2 period (Blakeslee 1994:11; Pugh 2010). Settlement patterns changed and became more condensed as they moved to more defensive locations (Pugh 2010:98). Violence also seemed to have more of an impact in this period (Blakeslee 1994; Pugh 2010). In southern South Dakota, the Crow Creek massacre site is the best example. Nearly 500 burned and quickly buried bodies were found at this unusually large and fortified Central Plains site (Pugh 2010:98).

Sites

Four sites were chosen for comparison between the Central Illinois River Valley (Norris Farms and Orendorf) and the Central Plains (Ashland and Leary) (Table 1). The Norris Farms Cemetery at Morton Village is one of the largest and best preserved (Milner and Smith 1990) Oneota mortuary components excavated to date, and allows for invaluable insight into the lives and deaths of the inhabitants. Orendorf has comparable levels of violence as Norris Farms, and is possibly the first palisaded village in the Central Illinois River Valley (CIRV) (Steadman 2008). Leary and Ashland are some of the first Oneota sites on the Central Plains (Blakeslee 1994; Ritterbush 2002a) and offer an interesting view on some of the earliest interactions with those already inhabiting the region.

Table 1: Periods of Occupation for Sites Discussed. Plains Village 2 is the same temporal period as Developmental and Classic Oneota Horizons

	Location	Occupation	Years	Source
Norris Farms	Central Illinois River Valley	Bold Councilor Phase, Developmental Horizon	A.D. 1300	(Santure <i>et al.</i> 1990)
Orendorf	Central Illinois River Valley	Middle Mississippian	A.D. 1150-1250	(Steadman 2008)
Leary	Central Plains, SE Nebraska	Plains Village 2	A.D. 1250-1450	(Ritterbush 2002a; Ritterbush 2002b)
Ashland	Central Plains, E Nebraska	Plains Village 2	A.D. 1250-1450	(Blakeslee 1994; Ritterbush 2002b)

Norris Farms Cemetery (11F^o2167)

The Norris Farms #36 cemetery (11F^o2167) is a mortuary component of the Morton Village complex (11F^V19) (Santure et al. 1990). While the village associated with the cemetery has been occupied since the Woodland period, the remains of the Norris Farms cemetery belong to Bold Councilor phase Oneota (approximately A.D. 1300) (Milner et al. 1991:582; Santure et al. 1990; Stone 1996:165). More than 260 individuals were buried in the cemetery (Milner and Smith 1990) during the several decades it was in use (Milner et al. 1991:583). These remains are very well preserved (Milner and Smith 1990), and allow for more in-depth analyses such as those relating to prehistoric violence.

Stone's (1996) mortuary analysis of the cemetery and its remains has revealed some interesting patterns. Most of the burials in the Norris Farms cemetery were single inhumations with the individual in an extended position on their back. There are some deviances from this pattern in regards to the victims of violence, however. Those that died from intergroup violence tended to be buried around the periphery of the cemetery, sometimes in the grave of another individual who usually did not die violently. Thirteen graves had more than one individual, and eight of these graves had an inhabitant that died due to violence. Victims of violence tended to

be buried either in multi-graves with other victims, or added to already inhabited graves of potential relatives or other members of a work party. Violence had a large impact on this community. Adults, presumably those in working parties, tended to be the targets of violence (Stone 1996:170). Forty-one of the 43 victims were above the age of 15 (approximately 95%), and almost one out of every three adults show evidence of traumatic death (Steadman 2008:51; Stone 1996:170).

Orendorf

The Orendorf site was presumably one of the first of its size (at least 8 hectares)(Conrad 1991:132-133) in the Central Illinois River Valley (Figure 1) and was occupied for approximately a century (Steadman 2008:52). The site is especially relevant to this study due partially to the fact that it shows the presence of intergroup violence before the Oneota came into the region. The settlements that were built during the last several decades of the century that Orendorf was occupied were fortified with palisades (Steadman 2008) that show evidence of being expanded on over time as the threat of violence continued (Conrad 1991:133)

Located approximately 20 kilometers northeast of the Norris Farms cemetery, Orendorf sits on top of a bluff above the Illinois River (Steadman 2008:52). Several mounds are present at this defensibly-located site, and around 10% of one of these mounds was excavated by the Upper Mississippi Valley Archaeological Research Foundation and Western Illinois University field school (Steadman 2008). Over the few years of excavation from 1986 to 1990, 186 individuals were recovered for analysis including five sets of articulated remains from habitation areas at the site (Steadman 2008). As with the Norris Farms skeletal sample (Milner and Smith 1990), males and females were equally represented (Steadman 2008).

Leary (25RH1)

Located in the southeastern corner of Nebraska, Leary is one of several western Oneota sites (Figures 2, 3). The site has been attributed to the Oneota on the basis of material similarity to that group rather than peoples of the Central Plains (Ritterbush 2002b). As discussed previously, Central Plains tradition sites tend to be smaller and more isolated farmsteads (Blakeslee 1994:16). The Leary site, however, follows the Midwestern Oneota trend of agricultural villages or large base camps associated with Bison hunting (Logan 1998a; Ritterbush 2002b:262). Bison-related materials (i.e., bison scapula hoes) are present at many Oneota sites indicating reliance on the mammal for multiple resources and could have traveled as far away from the Plains as eastern Wisconsin through trade (Ritterbush 2002b:265). Leary, like some White Rock phase Oneota sites (Logan 1998a; 1998b), is evidence of the Oneota aggregating to perform group bison hunts, however. The bison elements at Leary are more varied than the limited bison remains found in more eastern Oneota sites, reflecting hunting activities rather than trade (Ritterbush 2002b). The shell-tempered ceramics from the site are also evident of Oneota occupation (Ritterbush 2002b:262).

It has been postulated by Hollinger (2005) and Ritterbush (2002b:264) that the Oneota were able to expand into the Central Plains through violence. Since the Oneota banded together in larger kin groups (Ritterbush 2002b:264; Stone 1996), the smaller Central Plains tradition settlements of either nuclear or extended families, or small bands, would not have been able to stop their advance. Despite this, or perhaps because of it, the Leary and Ashland sites both show evidence of the same site being occupied by both Oneota and Central Plains populations.

Radiocarbon dates put the Central Plains tradition and Oneota components of the Leary site in the Late Prehistoric period, but are not distinct enough to separate them (Ritterbush

2002b:265). This could either be due to the Oneota adopting the site not long after Central Plains populations left or cohabitation between the two groups (Ritterbush 2002b:265). Due to the inherent range of radiocarbon dates and the mixing of cultural materials at the site, Ritterbush

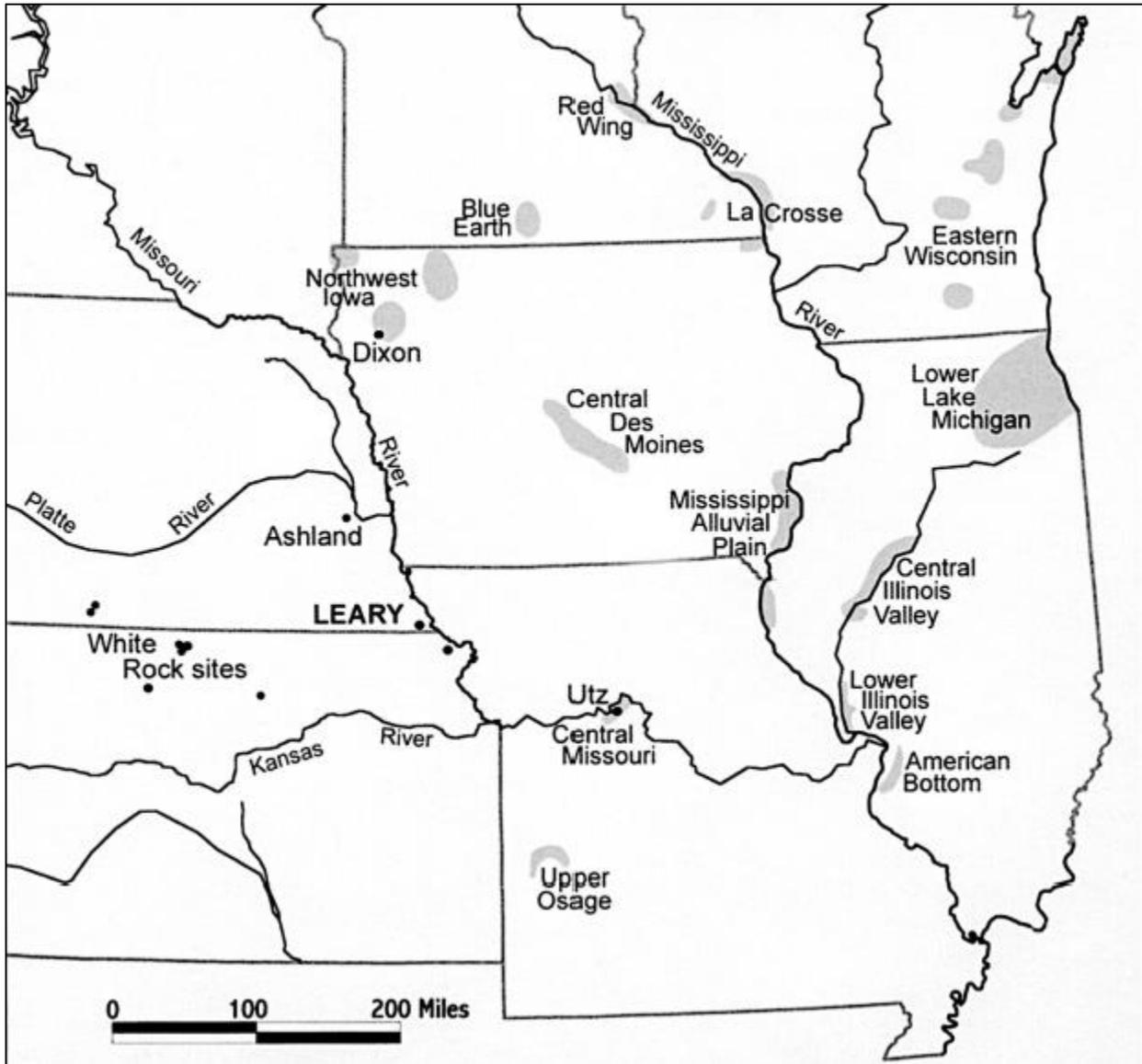


Figure 3: Map of Oneota Localities and Sites. Adapted from Ritterbush 2002b.

(2002b:265) states that “...it is impossible to evaluate the exact timing and form of interaction, if any, among [Central Plains tradition] populations and the western Oneota” present at the site.

Hill and Wedel (1936) found at least one house at the Leary site that was constructed in the

Central Plains style. This house overlaid other Oneota remains, suggesting that the house was in use either after or contemporaneous to the rest of the Oneota settlement (Ritterbush 2002a:257-258). Another house showing stylistic elements relating to the Central Plains tradition also supports the possibility that if the Oneota were not living alongside Central Plains populations, that they may have been adapting elements of their culture in order to survive on the Plains (Ritterbush 2002a).

Ashland (25CC1)

Like Leary, Ashland is a site that is morphologically more similar to Oneota than Central Plains style sites (Ritterbush 2002b:262). According to Ritterbush (2002b:264), Ashland follows the same pattern of Leary and other Oneota (i.e., White Rock phase) sites where they have settlement patterns and housing structures that are more common at sites in Illinois than Nebraska. Ashland is also appears to be one of the earliest Oneota sites in the region (Ritterbush 2002b:263), facilitating the Westward expansion.

The Ashland site consists of three occupations (Hill and Cooper 1937). Occupation A was likely an earlier Central Plains population, and is represented by the remains of three houses and a couple of cache pits on the lower terrace of the site (Hill and Cooper 1937:252). Occupation B, however, is located on the hill top and is represented by a house structure and a few cache pits, and belong to the Oneota (Hill and Cooper 1937:271). Occupation C only consists of a few cache pits from a group that came into the area post-European contact (Hill and Cooper 1937:272).

METHODOLOGY

In order to compare rates of prehistoric violence, it is first necessary to be able to identify evidence of these activities in the archaeological record. Archaeological data relating to warfare can be broadly divided into two categories: direct and indirect evidence for violence (Hollinger 2005:35-45). The sites in the CIRV (Norris Farms, Orendorf) include both strong direct and indirect evidence of intergroup violence. Those in the Central Plains (Leary, Ashland), however, can only be discussed using indirect evidence.

Direct Evidence

The majority of direct evidence for prehistoric intergroup violence is related to the skeletons of the victims (Hollinger 2005:35). Details about the conditions of the remains, and the way they are buried, can indicate activities such as raids (Hollinger 2005:36-38). More obvious signs of intergroup violence include wounds such as depression fractures on the cranium and defensive wounds on the forearms (Hollinger 2005:36). Weapons such as celts, clubs, or axes would be used to deliver crushing blows to the targets of raids or other warfare, with attackers often aiming for the head (Hollinger 2005:36). The tools used for hunting were often the same ones used for warfare (Milner 1999:109-110), so another sign of intergroup violence is the presence of projectile points within the body (Hollinger 2005:36; Hatch 2015:98-99; Steadman 2008:53). Since not all projectile points will get stuck in bone when they are fired at a person (Hollinger 2005:36), those found in burial contexts are used to infer lethal injuries if they are located in areas that would have contained vital soft tissues (Steadman 2008:55).

Trophy-taking was a part of many raids (Hatch 2015:38; Hollinger 2005:36; Milner 1999:111; Santure et al. 1990:73), especially when the raids were part of personal status achievement or for political control, as with the Mississippians (Hatch 2015:33; Milner

1999:107). Parts of victims' bodies would be removed and brought back as proof of conquest. Hands, feet, scalps, and even entire heads were taken as trophies of war (Hatch 2015:97-98, 133). Cutmarks can also result from the processing of bodies for burial, so for this study I omitted cutmarks that were not related to activities more related to intergroup violence such as scalping and decapitation. Postcranial trauma was also omitted from the study due to varying rates of preservation across sites. The superb preservation at Norris Farms (Milner and Smith 1990) allowed for the identification of healed and unhealed trauma to other parts of the skeleton such as the anterior and posterior aspects of the torso, as well as to the limbs. The preservation at Orendorf, however, was not as ideal (Steadman 2008). While the remains from Orendorf were complete enough to study other forms of trauma such as scalping, decapitation, and the presence of projectile points, it was not typically possible to distinguish between unhealed injuries and postmortem damage in the archaeological record (Steadman 2008). As a result, Steadman (2008) only recorded instances of healed trauma. The data regarding postcranial fractures is not directly comparable between Norris Farms and Orendorf, so I do not use this aspect of intergroup violence.

After collecting the data from site reports and other research related to Norris Farms (Appendix A) and Orendorf (Appendix B), I recorded the instances of violent trauma in Microsoft Excel. I kept track of data regarding Sex, Approximate Age-at-Death, Scalping, Decapitation, Cranial and Postcranial Trauma, the presence of Projectile Points either in bone or what would have been vital soft tissue, Cutmarks, and Scavenger Damage from being left on the ground surface for some time before burial, as well as other notes about the burial context.

Indirect Evidence

Indirect forms of evidence for prehistoric violence are more varied (Hollinger 2005:35-36). The most relied upon indirect evidence is the presence of walls (i.e. palisades) or other fortifications around a site (Hollinger 2005:36, 39; Hatch 2015; Milner 2016:110). These fortifications can include “ditches, moats, palisades, embankments, or combinations thereof” around the perimeter of a site (Hollinger 2005:39). I include fortifications around a site as indirect evidence of violence since it is more the result of the fear of attack, rather than of the attack itself (Hollinger 2005:39). If a site shows evidence of palisades being expanded upon over time (e.g., Orendorf), it further supports the sustained presence of tension in the region.

Burning activities at a site can also suggest violence (Hollinger 2005:39; Hatch 2015). Hollinger (2005:40) makes the argument that if whole settlements have been burned that it is more likely the result of “inhabitants...deny[ing] use of the village” to attackers, or the result of attackers successfully taking over a village.

The locations of sites, especially if they are in defensible areas such as bluff-tops or with larger buffer zones around them and their neighbors, can also be used to infer prehistoric warfare practices (Hatch 2015:72; Hollinger 2005:40).

Targets were also chosen “opportunistically” (Hatch 2015:40), so many victims were either adults working out in the agricultural fields isolated from the rest of the village, those with diseases or other conditions that would make escaping attackers more difficult, or younger inhabitants under the age of fifteen (Milner 1999:107; Santure et al. 1990:148; Stone 1996:165).

Data Limitations

Intergroup violence is likely underrepresented in the archaeological record, since victims were not always found and returned after being killed away from home (Milner 1999:110), and not all

lethal or non-lethal injuries would leave indicators on the skeleton (Hollinger 2005:36). At Orendorf, it was possible to infer traumatic death due to the presence of projectile points that were not part of burial caches, but likely were embedded in vital soft tissue (Steadman 2008). However, the same data was not available for Norris Farms or the sites in the Central Plains.

Due to the nature and timing of excavations at Ashland and Leary, it was not possible for me to compare burial data to the sites in the CIRV. Instead, indirect evidence for the relative peace in the region comes from settlement and subsistence practices, as well as the lack of fortifications or other evidence of sustained intergroup conflict.

RESULTS

Table 2: Proportions of Human Remains Excavated at Norris Farms and Orendorf Showing Evidence of Intergroup Conflict

	Individuals Excavated	Individuals with Evidence of Violent Trauma	Proportion	Source
Norris Farms	264	43	16.29%	(Milner and Smith 1990)
Orendorf	268	25	9.33%	(Steadman 2008)

Table 3: Rates of Scalping Among Adults

	Number of Adults Excavated	Number of Adults With Evidence of Scalping	Proportion	Source
Norris Farms	120	15	12.5%	(Milner <i>et al.</i> 1991)
Orendorf	85	13	15%	(Steadman 2008)

Table 4: Rates of Injuries due to Projectile Points

	Individuals Excavated	Individuals with Injuries from Projectile Points	Proportion	Source
Norris Farms	264	6	2.27%	(Milner and Smith 1990)
Orendorf	268	11	4%	(Steadman 2008)

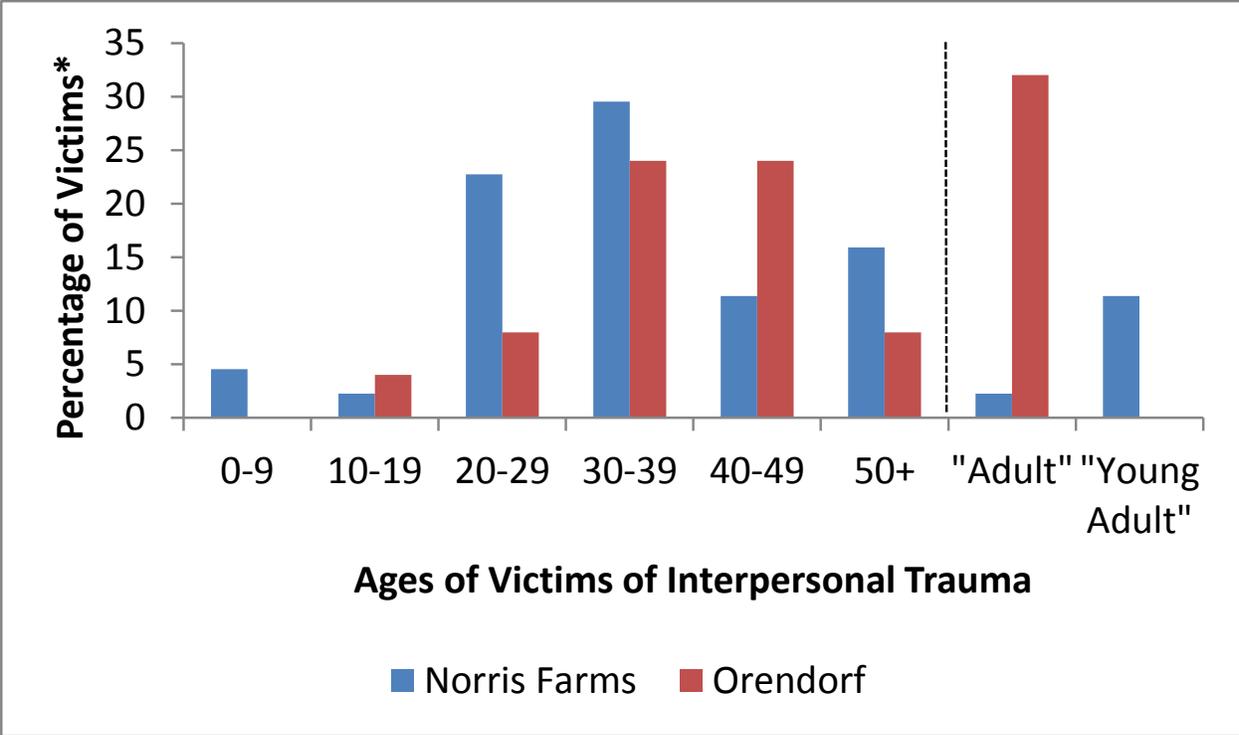


Figure 4: Age Distribution of CIRV Victims of Violence

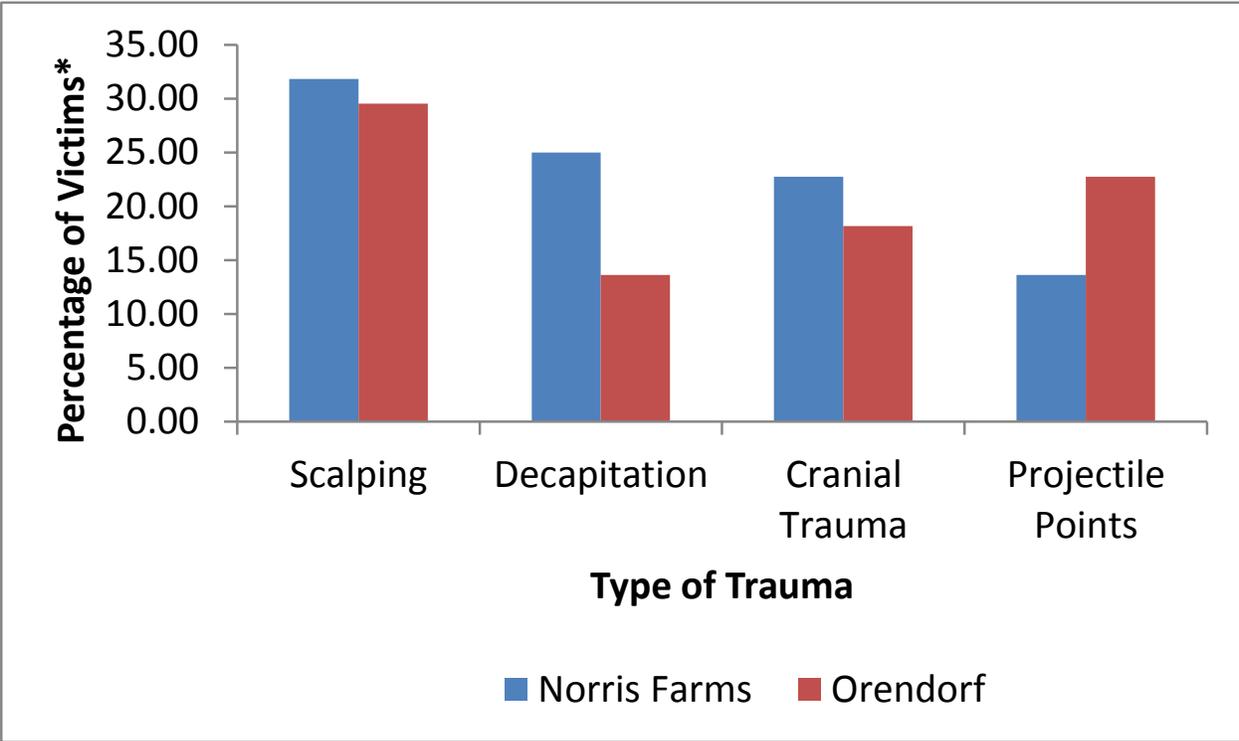


Figure 5: Forms of Intergroup Violence in the CIRV

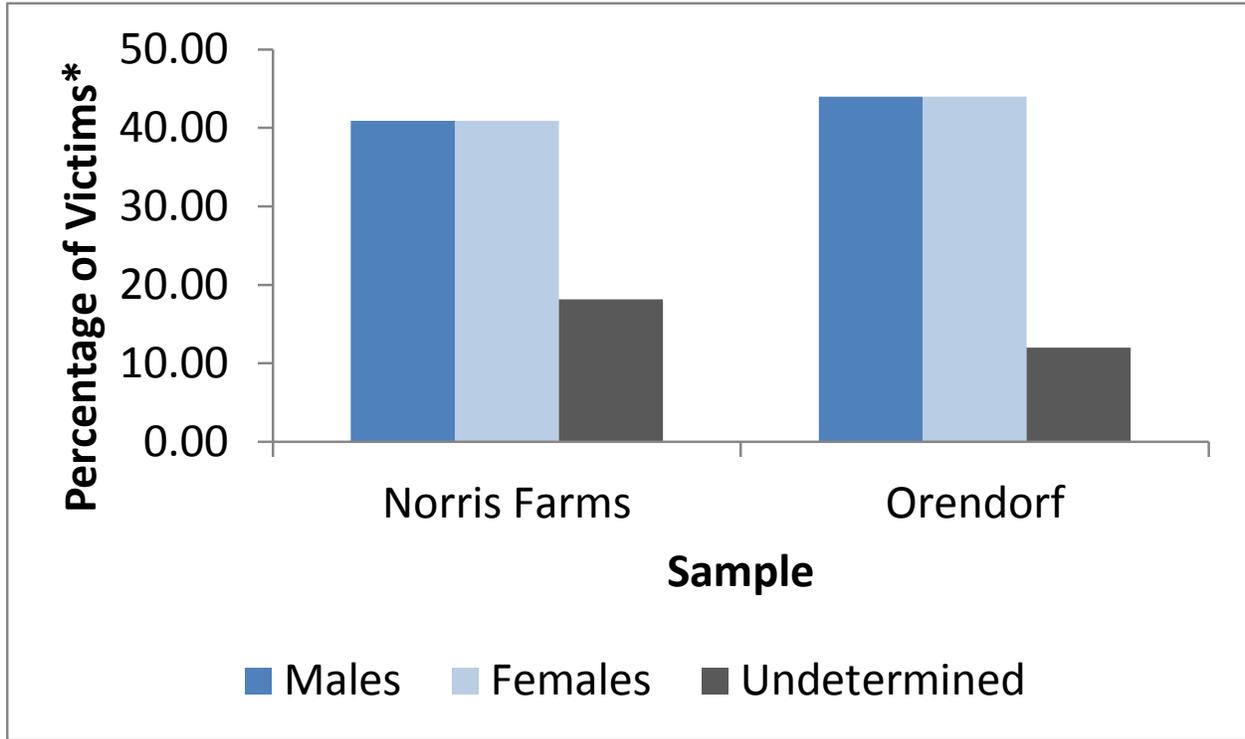


Figure 6: Sex Distribution of CIRV Victims of Violence

Norris Farms Cemetery

Of the 264 individuals that have been excavated, 43 (approximately 16%) reflected evidence of intergroup violent conflict (Milner and Smith 1990). The violence present at Norris Farms includes arrow wounds, blunt force trauma to the head, chest, back, or upper arms, and evidence of trophy taking through scalping or the removal/mutilation of limbs (Milner and Smith 1990; Milner et al. 1991). Thirty of the burials showed evidence of scavenger activity on the bones, indicating that they were left on the surface for some time before they were recovered for burial (Milner et al. 1991:585). Nearly one-third of all adults excavated at Norris Farms showed evidence of traumatic deaths (Stone 1996:170), and one in every eight displayed cutmarks suggesting scalping (Minler et al. 1991).

Orendorf

Orendorf has a slightly lower proportion of violent deaths than Norris Farms. Of the 268 individuals that have been excavated at the site, 25 (approximately 9%) showed signs of “interpersonal trauma” (Steadman 2008:54). This number is not perfectly comparable to the Norris Farms sample, as violent trauma was inferred in some cases from “archaeological context” including the presence of projectile points near bones in what would have been vital tissue (Steadman 2008:54-55). These eight inferred instances of projectile-caused trauma are included in the rates of injury for Table 4. Other evidence of violence in this sample includes both healed and unhealed cranial trauma, presence of projectile points in bone, and fractures to other bones (Steadman 2008:54-55). Five settlements at the Orendorf site are fortified with palisades (Steadman 2008:52). There are also two pipes that have been recovered from the site that displayed warfare-related iconography such as warriors and motifs related to thunderbirds (Steadman 2008:52).

Ashland

The Central Plains tradition remains (Occupation A) appear to have occurred before the Oneota (Occupation B) at the site (Hill and Cooper 1937:276). This suggests that the site was occupied by the different groups at different times, and raises questions as to the reason why it changed hands. It is possible that the Oneota pushed the Central Plains peoples out of the area during Westward expansion. This could be due to the Oneota having a larger population than the more isolated Central Plains hamlets, which would give the Oneota a competitive edge when it came to tasks that required group labor (Ritterbush 2002b:264). The Central Plains population also could have chosen to relocate rather than to try and fight off the much larger Oneota group that was entering the area (Ritterbush 2002b:264). Regardless, the site does not appear to have

Oneota cultural remains (Ritterbush 2002a:259). This suggests the possibility of either the Oneota taking over the use of a Central Plains house, or that the Oneota were picking up traits from their new neighbors as they adapted to the new region (Ritterbush 2002a). Adaptations to housing construction could be added to the list of other Central Plains traits that the Oneota expressed, such as a more generalized subsistence practice that included bison hunting.

DISCUSSION

Prior to Oneota arrival in the Central Illinois River Valley intergroup violence was already a concern for the Middle Mississippian inhabitants. Sites in the river valley were fortified with protective palisades, beginning with the latter habitations at Orendorf. They were also located in defensible locations such as the tops of bluffs overlooking the river. Evidence of intergroup conflict in the Central Illinois River Valley goes beyond the attempted protection of towns, however. Burials excavated from Orendorf and Norris Farms show high rates of traumatic injuries, including projectile point wounds (both in the skeleton and inferred from projectile point placement in what would have been vital tissue), blunt force trauma to the cranium, torso, and limbs, and trophy-taking activities such as scalping. Around one in three adults from the Norris Farms collection showed signs of interpersonal conflict.

In the Central Plains, the Leary and Ashland sites show Oneota and Central Plains populations occupying the same area at different times, as well as the possibility of the same site being occupied by members of both populations at the same time. The Leary and Ashland sites are not fortified in the same manner as Norris Farms, Orendorf, and other sites in the CIRV. However, analysis of intergroup violence is more difficult in the Central Plains for several reasons. First and foremost, excavations at Leary and Ashland began in the early twentieth century and the human remains have been repatriated without as detailed of analyses as from Norris Farms and Orendorf. Mixing of materials and the inherent ranges associated with radiocarbon dating also make it nearly impossible to evaluate Oneota and Central Plains interactions. However, since a lot of prehistoric violence was related to at least a perceived risk of not having enough resources (Ember and Ember 1992), some inferences can be made. Resources in the Central Illinois River Valley, especially land used for the intensive maize

agriculture that the Mississippians and Oneota relied upon, were more restricted and therefore led to competition and conflict. In the Central Plains, however, “land suitable for horticulture...was neither scarce nor defensible” (Blakeslee 1994:24) and both the Central Plains tradition and Oneota populations present relied on more generalized subsistence patterns. The Oneota also practiced more intensive bison hunting than the Central Plains populations were able to (Ritterbush 2002b), resulting in a dependence on different food sources and a potential lack of conflict over resources.

APPENDIX A

TRAUMA VICTIMS FROM NORRIS FARMS SAMPLE

Skeleton #	Sex	Age	Scalped	Decapitated	Cranial Trauma	Postcranial Trauma	Cutmarks	Scavenger Damage
3	M	25-28	+	-	-	-	-	+
6	M	45-50	-	-	-	+	-	-
14	F	18-21	-	-	-	-	-	+
19	M	50+	-	-	-	-	-	+
38	F	18-21	-	+	-	-	-	-
50	M	30-35	-	+	-	-	-	+
62	M	30-35	+	-	+	+	-	+
72	F	18-21	+	-	+	+	-	+
90	F	30-40	-	+	-	+	-	+
91	F	35-40	-	+	-	+	-	+
92	F	45-50	+	-	+	-	-	+
94	F	35-40	-	+	-	-	-	+
96	F	50+	-	-	-	-	-	+
105	M	25-28	-	-	-	+	-	-
139	F	50+	-	-	-	-	-	+
190	M?	16-18	+	-	+	+	-	-
194	M	45-50	+	-	-	+	-	-

APPENDIX A

TRAUMA VICTIMS FROM NORRIS FARMS SAMPLE, continued

Skeleton #	Sex	Age	Scalped	Decapitated	Cranial Trauma	Postcranial Trauma	Cutmarks	Scavenger Damage
200	F	35-40	+	-	+	+	-	+
229	F	25-35	+	-	-	+	-	-
230	?	24-32 mo. (2- 2.6 yrs)	+	-	+	-	-	+
231	F	18-21	-	+	-	+	+	-
235	F	35-40	-	+	-	+	+	-
236	M	35-40	-	+	-	+	-	-
239-242	?	Adult	+	-	+	-	-	+
239	?	Adult	-	-	-	-	+	+
240	?	Adult	-	-	-	-	-	+
241	?	Adult	-	-	-	-	+	+
242	?	Adult	-	-	-	-	+	+
244a	M	50+	-	-	-	-	-	+
244b	F?	20-30	+	-	+	-	-	+
249	F	50+	+	-	-	+	-	-
252	F	50+	-	+	-	-	-	+
255	F	30-35	-	-	+	+	-	-
261	M	40-45	-	-	-	-	-	+

APPENDIX A

TRAUMA VICTIMS FROM NORRIS FARMS SAMPLE, continued

Skeleton #	Sex	Age	Scalped	Decapitated	Cranial Trauma	Postcranial Trauma	Cutmarks	Scavenger Damage
265	M	35-40	-	-	-	-	+	+
266	M	27-30	-	-	-	+	-	+
267	M	25-30	-	-	-	-	-	+
268	M	35-40	-	+	-	-	+	+
269	?	Young Adult	-	-	-	-	-	+
272	F	35-40	+	-	+	-	-	+
278	?	6-7	+	-	-	-	-	-
281	M	50+	-	-	-	-	+	+
288	M	40-45	-	+	-	+	-	+
293	M?	25-30	-	-	-	-	-	+

(Milner and Smith 1990)

APPENDIX B

TRAUMA VICTIMS FROM ORENDOR

Burial #	Sex	Age	Scalped	Decapitated	Cranial Trauma	Postcranial Trauma	Projectile Point	Part of Group Burial
1	M	50+	-	-	-	+	-	-
2	F	40-50	-	-	-	+	-	-
9	M	30-40	+	-	-	+	+	-
17	F	40+	-	-	-	+	-	-
25	M	40-50	-	-	-	+	-	-
26	M	45-55	-	-	-	+	-	-
47	M	30-40	+	+	+	-	-	-
55	F	15-25	-	-	-	+	-	-
60	F	18-25	+	-	-	-	-	-
71	M	20-35	-	-	-	+	-	-
75	M	40-60	-	-	+	-	-	-
83	M	30-40	-	-	-	+	-	-
84	M	35-50	-	-	-	+	-	-
85	F	30-40	-	-	-	+	-	-
89	M	40-55	+	+	+	-	-	-
106	?	Adult	+	-	-	-	-	+
107	F	45+	-	-	-	+	-	-

APPENDIX B

TRAUMA VICTIMS FROM ORENDORF, continued

Burial #	Sex	Age	Scalped	Decapitated	Cranial Trauma	Postcranial Trauma	Projectile Point	Part of Group Burial
110a	F	35+	-	-	-	+	-	-
112	M	35-40	-	-	-	+	-	-
113	M	30-40	+	-	+	-	+	+
116	F	40-60	-	-	-	+	-	-
120	F	15-25	-	+	-	-	-	-
121	M	25-45	-	+	-	-	+	-
127	F	35-55	-	+	-	-	+	-
133	F	35-50	+	-	-	-	-	+
135	F	35-50	+	-	-	-	+	+
136	M	45+	-	-	-	+	-	-
141	?	12-18	+	-	-	-	-	-
146	F	35-50	-	-	-	-	+	-
148	M	Adult	-	-	-	-	+	-
149	?	Adult	-	-	-	-	+	+
153	M	45+	-	-	-	-	+	-
155, 158, 160	?	35-50	-	-	-	+	-	-
163a	F	25-45	-	-	+	-	-	-

APPENDIX B

TRAUMA VICTIMS FROM ORENDORF, continued

Burial #	Sex	Age	Scalped	Decapitated	Cranial Trauma	Postcranial Trauma	Projectile Point	Part of Group Burial
168	F	35-40	-	-	+	-	-	-
172	F	25-30	-	-	-	+	-	-
173	M	Adult	-	+	-	-	+	-
184	F	30-35	-	-	-	+	-	-
Ph. S. 1	F	Adult	+	-	+	-	-	-
Ph. S. 4	M	Adult	+	-	-	-	-	-
Ph. Pit	?	Adult	-	-	-	+	-	-
1975 Habitation Site, Lot 442	F?	Adult	+	-	-	-	-	-
1974 Habitation Site, Lot 1869	M	Adult	+	-	-	-	-	-
Burial "A"	F	40-60	-	-	+	+	-	-

PH. S.: Pot Hunter Skull

Ph. Pit: Pot Hunter Pit

(Steadman 2008)

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