11

Modeling Middle Missouri Warfare

Mark D. Mitchell

War—in contrast to interpersonal violence—depends on domains of cultural representation that define enemies and delimit the bounds of acceptable conduct. Organized, armed conflict between communities or societies requires social institutions to sanction combat and to marshal the resources necessary to sustain it. War's costs and benefits are tallied in social terms, not only for combatants but also for their families and communities. War, in short, has a cultural and social context (Ferguson 1984; Kelly 2000; Pauketat 2009).

Anthropologists and historians studying nineteenth-century warfare in the Plains understand this. Though they disagree on the factors that triggered conflict (Albers 1993; Biolsi 1984; Robarchek 1994), their most compelling accounts recognize that warfare was a collective enterprise requiring the consent, planning, and participation of noncombatants as well as combatants (Mishkin 1940). They also recognize that the cultural schemas and social institutions that made war possible were historical constructs (Robarchek 1994). For these scholars, accounting for collective violence is not only a matter of identifying causes but also of understanding war's place in the social fabric of particular times and places.

This chapter applies that sociohistorical insight to archaeological cases by considering the relationships among war, trade, and economic productivity in the Middle Missouri subarea of the Plains, a stretch of the Missouri River valley running from the mouth of the

DOI: 10.5876/9781607326700.c011

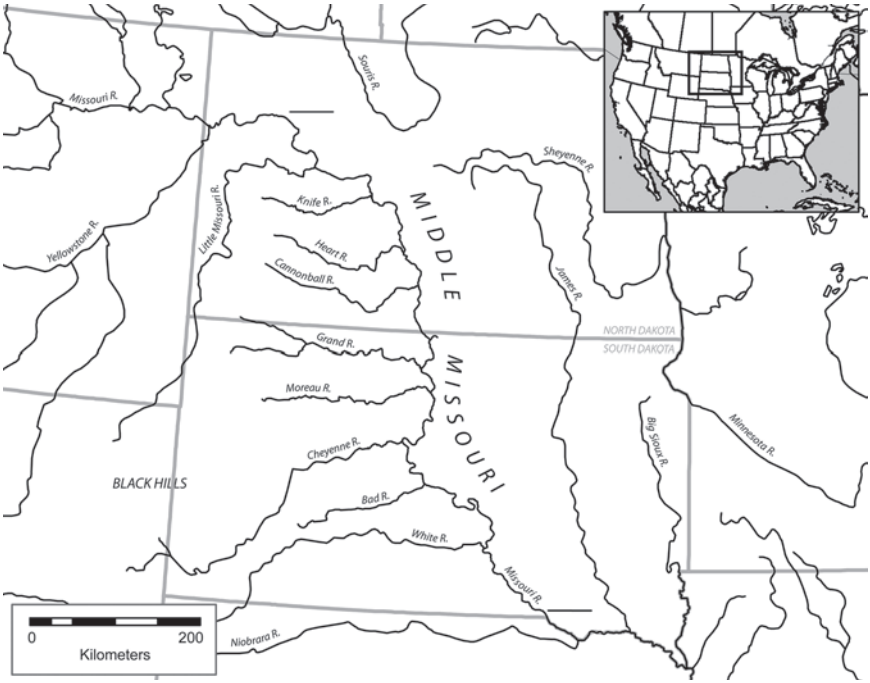

Figure 11.1. *Location of the Middle Missouri subarea.*

Yellowstone River in western North Dakota downstream nearly to the mouth of the Niobrara River in northern Nebraska (Johnson 2007a:3) (figure 11.1). The archaeology of the Middle Missouri is well suited to a sociohistorical analysis of war because the frequency and intensity of armed conflict varied there and because those variations can be linked to changes in settlement patterns and demographics, subsistence productivity, trade patterns, migration, and other economic, social, and cultural factors.

EVIDENCE FOR WARFARE

Signs of collective violence are conspicuous in the Middle Missouri. War has left its mark in the details of settlement design and location (Lippincott 2007); in occurrences of catastrophic structure fires (Wood 1976); in images painted or carved on stone or drawn in ledgers (Afton et al. 1997; Keyser 1987a); in trophies made from human body parts (Owsley et al. 2007); and in community demographic profiles (Bowers 1950; Owsley et al. 1977). Each

of these signs yields a unique perspective on war. Osteological evidence of traumatic injuries documents the intensity of particular conflicts as well as the nature of battle tactics (Willey 1990). Depictions of battles or of individual combatants in rock art illustrate weapons, troop configurations, and the cultural significance of warfare (Keyser 1977a, 1987a; chapter 3, this volume).

However, the predominant testaments to war in the Middle Missouri are ditch-and-palisade fortifications. Owing to their depth and extent, defensive ditches even today are the most prominent features of many villages and towns in the Middle Missouri (Ahler 2005; Lehmer 1971; Swenson 2007; Tiffany 1982; Wood 2001). In a few cases, the presence or specific form of a ditch has been revealed only through excavation or geophysical survey (Ahler 2005; Kvamme and Ahler 2007). However, fortifications are on the whole less affected by sampling or recovery biases than are other types of evidence.

The character of organized conflict can be described by multiple variables, such as the sizes of opposing forces; the types of combat formations or weapons used; the nature of the social or cultural relationships between contending groups; the aims of the conflict; or the frequency, duration, or predictability of attacks (Solometo 2006). Many of those variables can be measured by the ubiquity, distribution, or design of defensive works (Arkush 2011; Mitchell 2007). Fortifications are effective proxies because they are costly. A decision to invest in a fortification, as well as the selection of a particular design, reflects a community's assessment of risk based on their perceptions of the prevailing character of war, including its frequency and predictability, the relative sizes of warring groups or communities, the technology of combat, and the zeal with which it is pursued (Arkush 2011; Mitchell 2007; Solometo 2006). Building a fortification requires the coordinated labor of many people and consumes resources that could otherwise be conserved or put to other uses. Middle Missouri fortifications nearly always featured continuous, 1–2-m-deep ditches backed by wooden palisades. Those palisades used up hundreds or thousands of trees, which also were needed for building timber-frame houses. To maintain a fortification's effectiveness, ditches had to be cleaned periodically and palisade posts had to be replaced. Data from Middle Missouri sites with lengthy occupation histories show that fortifications were repeatedly reconstructed on new alignments, necessitating excavation of a new ditch and relocation and replacement of palisade posts (Ahler 2005; Mitchell 2008). The addition of specialized features, such as bastions, further increases costs (Keeley et al. 2007). Fortifications also can levy indirect costs. Excavation has revealed gates in some Middle Missouri defensive works, but a 1738 description of one fortified town indicates that access was

gained by what only can be considered a staggeringly inconvenient arrangement of retractable ladders (Smith 1980).

A community's decision about whether, and how, to build a fortification also reflects the prevailing technology of warfare. Fortifications are designed to defend against particular kinds of weapons deployed in particular ways. Thus, offensive and defensive strategies develop in tandem, with changes in offensive weapons and tactics generating cognate changes in the design of defensive works (Jones 2004). For example, the fortifications surrounding seventeenth-century villages in northeastern North America became more complex and more massive as the Iroquois adopted new weapons and battle tactics, and as the intensity of combat escalated (Keener 1999). Similarly, European and American military engineering manuals written in the late eighteenth and early nineteenth centuries testify to the close correspondence between the design of fortified positions and the battle tactics deployed against them. As Mahan (1968:7) observes, "the attack and defence of intrenchments, bear a necessary relation to each other; and it is upon a knowledge of the course pursued by the assailant, that the principles regulating the defence should be founded."

Thus, a fortification is a sensitive barometer of a community's expectations of war and of their understanding of how it was waged. Because defensive works took time to build and had to be designed and put up prior to the onset of active hostilities, they reflect medium- to long-term trends in community sentiment. For the Middle Missouri, data on settlement plans and construction sequences indicate that fortifications mostly were integral to the initial size and layout of towns and villages, rather than post facto responses to immediate or transient threats (Lehmer 1971; Mitchell 2013). However, a community's expectations about the likelihood or intensity of war cannot be considered unmediated: leaders have a stake in peoples' perceptions and may use a heightened sense of danger to further their own political purposes.

VARIATIONS IN THE FREQUENCY AND INTENSITY OF MIDDLE MISSOURI WARFARE

Warfare was endemic in the Middle Missouri: fortified settlements occur in every section of the river valley (Clark, chapter 12, this volume) and at any given moment from the 1000s through the late 1800s at least some of the region's farming communities anticipated war. But if collective violence was recurring and widespread, it was not ever-present. Fortified towns and villages are unevenly distributed, both spatially and temporally, indicating that the focus of combat shifted and that conflict waxed and waned. For instance, in the southern Middle

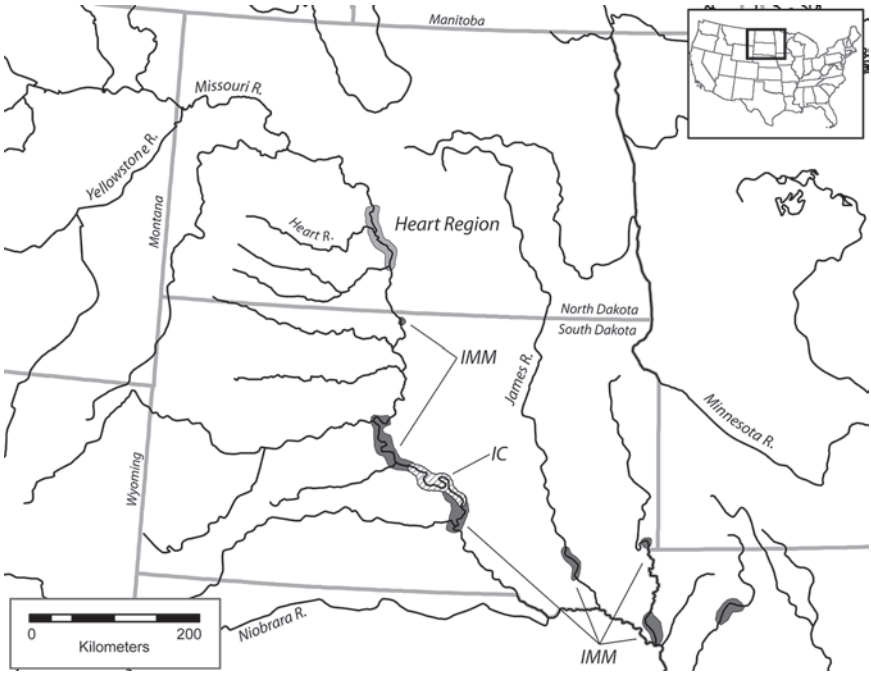

Figure 11.2. *Locations of three conflict zones marked by high frequencies of fortified settlements. IMM, Initial Middle Missouri; IC, Initial Coalescent.*

Missouri during the 1500s, many communities were sprawling and undefended (Krause 2001). There also were times and places, marked by frequent and complex fortifications, when people regularly anticipated large-scale attacks.

Warfare was especially prevalent in the Middle Missouri during three periods (figure 11.2). The earliest occurred on the Plains–Prairie border in eastern South Dakota and northwestern Iowa beginning in the 1000s. The communities involved, which are assigned to the Initial variant of the Middle Missouri tradition, were the first aggregated village settlements in the northern Plains (Johnson 2007a; Mitchell 2012; Toom 1992). The second case of prevalent warfare occurred along a short stretch of the Missouri in central South Dakota during the fourteenth and fifteenth centuries, coincident with the arrival and establishment of a distinct cultural group, called the Initial variant of the Coalescent tradition (Johnson 1998; Steinacher and Carlson 1998). The third period of frequent conflict occurred in the northern Middle Missouri, in central North Dakota above and below the mouth of the Heart River, beginning in the 1400s and continuing into the mid-1700s (Mitchell 2013; Wood 1967).

The model developed in this chapter omits the second of these three cases, the Initial Coalescent in central South Dakota, primarily because its origins and early development are not well understood. Initial Coalescent people were immigrants to the Middle Missouri, but debate continues on the nature of their interactions with contemporaneous groups both on the Missouri and in the central Plains to the south. It also seems likely that the political economic context of Initial Coalescent warfare differed from that of the other two cases, both of which were indigenous developments. Whether Initial Coalescent warfare was an internecine conflict, as Zimmerman and Bradley (1993) argue, or whether it was a conflict between different cultural groups, it may have been sparked by resource competition among adjacent farming communities (Bamforth 1994). Direct competition among clustered communities could have been a factor in earlier Initial Middle Missouri warfare (Lensink 2005), but was not a factor in Heart River warfare (Mitchell 2013).

Thus, the remainder of the chapter focuses on two Middle Missouri contexts where warfare was especially widespread and intense: Initial Middle Missouri villages on the Plains–Prairie border dating from the 1000s through the mid- to late 1200s, and towns and villages in the Heart River region dating from the early to mid-1400s through the mid-1700s.

THE SOCIAL AND ECONOMIC CONTEXT OF TWO CASES OF CHRONIC WARFARE IN THE MIDDLE MISSOURI

The conflicts that Initial Middle Missouri communities experienced differed in some respects from those experienced later by Heart River communities. One key difference was the overall prevalence of warfare. Only about half of the known Initial-variant villages are fortified (Tiffany 1982; Toom 1992), whereas virtually every post-1400 settlement in the Heart region was stoutly defended (Swenson 2007; Wood 2001). Another difference lies in the labor and resources expended on fortifications. Many western Initial-variant settlements are protected only by a short ditch-and-palisade system spanning the narrow neck of the bluff or terrace on which they were built, a type of fortification known as a "promontory fort" (Keeley et al. 2007) (figure 11.3). A number of eastern Initial-variant settlements did feature an encircling fortification (figure 11.4). However, only a few Initial Middle Missouri fortifications incorporate projecting strong points known as bastions, which allowed defenders to direct crossing fire at a massed attacking force (Keeley et al. 2007).

By comparison, Heart-region fortifications were far larger and far more elaborate. The best-documented Heart-region fortification surrounds the

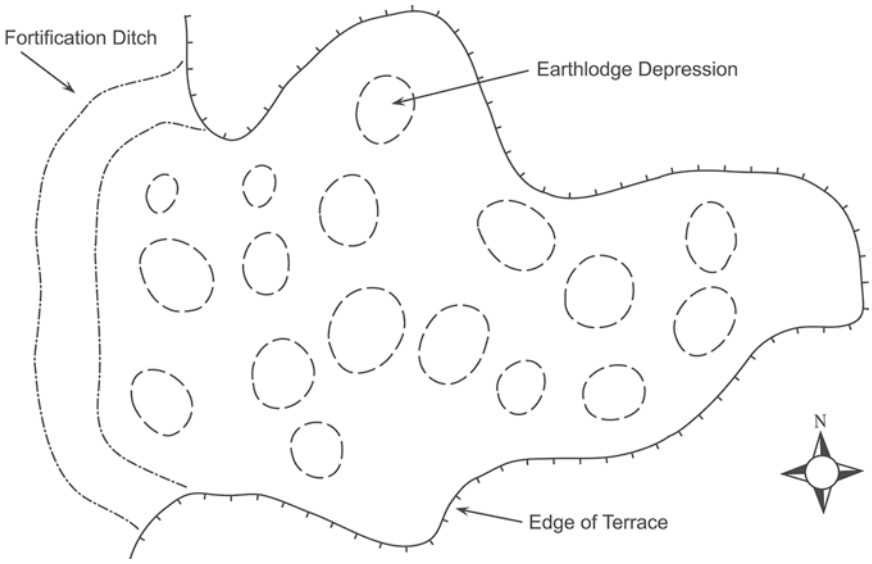

Figure 11.3. *The Initial Middle Missouri Jiggs Thompson site. Dashed ovals indicate the locations of houses. Redrawn from Caldwell and Jensen (1969:figure 18).*

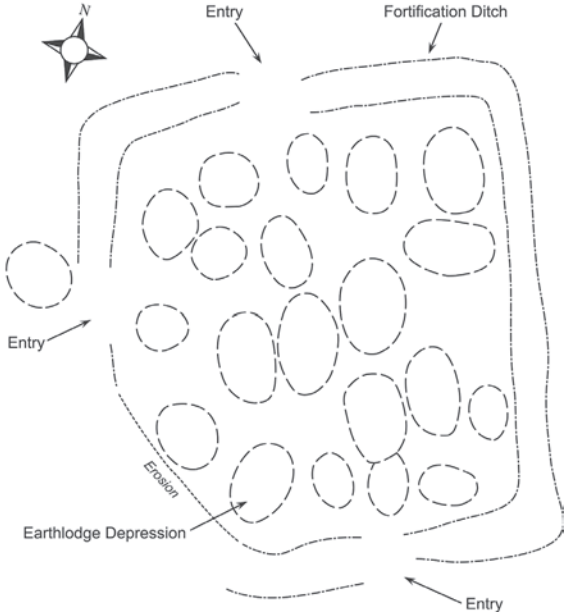

Figure 11.4. *The Initial Middle Missouri Wittrock site. Dashed ovals indicate the locations of houses. Redrawn from Anderson (1986).*

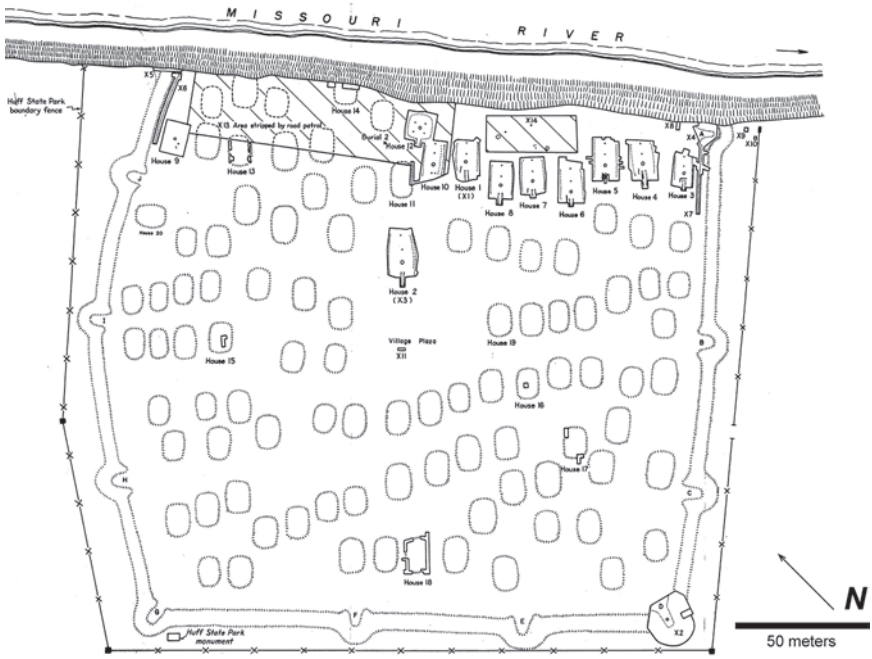

Figure 11.5. *The fifteenth-century Huff site. Reproduced from Wood (1967).*

mid-fifteenth-century Huff site (figure 11.5) (Ahler and Kvamme 2000; Kvamme et al. 2009; Wood 1967). At Huff, the community built a massive, carefully engineered system more than 600 m (2,000 ft) long that incorporated 10 prominent, regularly spaced bastions. The fortification also featured angled and presumably sharpened poles known as *chevaux-de-frise* that projected upward and outward from the base of the palisade. Later, in the 1600s, massive earthen ramparts that increased the height of defensive positions were incorporated into the fortifications encircling other Heart-region communities (Ahler 2005). Such costly and carefully designed defenses represent a clear response to direct, large-scale assaults mounted by well-organized infantry (Keener 1999; Mitchell 2007; Toy 1955).

These differences in the frequency and design of village fortifications indicate that war in the Heart region in the 1400s, 1500s, and 1600s was more frequent, and was waged on a larger scale, than it was during Initial Middle Missouri times (Mitchell 2007). In fact, the labor and material resources that Heart-region communities expended on defense likely were matched in North

America only by Mississippian communities in the Midwest and Southeast and by Iroquoian communities in the Northeast.

Despite these differences, though, Initial Middle Missouri and Heart River communities shared a remarkable number of social and economic characteristics, which also set them apart from other Middle Missouri village groups. Both experienced active population aggregation that made their settlements among the most prominent features of the regional cultural landscape (Mitchell 2012, 2013; Tiffany 2007). In both cases, aggregation occurred rapidly through an amalgamation of related but previously separate communities, rather than through an increase in total population, although the total population of the Heart region was much higher than that of the Plains–Prairie border region. Initial Middle Missouri communities each housed about 250 people and only a small number were occupied concurrently (Tiffany 2007; Toom 1992). The average Heart River town of the 1400s and 1500s housed about 900 people, a threefold increase over the mean size of the communities their direct ancestors built in the 1200s and 1300s (Mitchell 2013).

In both the Initial Middle Missouri and Heart River cases, the distances between contemporaneous communities decreased as population concentrated into a smaller number of larger settlements. For instance, in the Heart region at the turn of the sixteenth century, one well-studied settlement housed more than 2,000 people, while another 1,400 people lived in a second settlement just 3.5 km to the north (Mitchell 2008). The result was an unprecedented peak in population density.

Long-distance exchange was critical to both Initial Middle Missouri and Heart River economies. Trade was a crucial catalyst for the formation of aggregated Initial Middle Missouri settlements (Lensink 2005; Tiffany 2007). Initial-variant villagers living in the Prairie Peninsula in northwest Iowa have been called the "preeminent traders" of the day, owing to abundant evidence for their interactions with stratified Mississippian societies located to the south and east (Henning 2007:71). Trade likely included prosaic perishables, but the most conspicuous imports were symbols of Mississippian influence and ideology (Tiffany 2003, 2007). Local Initial Middle Missouri potters also produced ceramic containers inspired by distinctive Mississippian forms, additional evidence for the deep social significance of their trade relationships.

In the Plains to the west, Initial Middle Missouri communities imported copper and marine shell and produced local versions of Mississippian-inspired pottery. But they were more heavily involved in another trade network, one that ferried Knife River flint, a high-quality toolstone found mainly in west-central North Dakota, southward to their villages on the Missouri (Johnson

1984, 2007b). This network brought them into contact with Late Woodland bison hunters living near the quarries. Evidence for technological acculturation in pottery and other items among the bison hunters shows that the social contacts engendered by the Knife River flint trade were both sustained and intimate (Ahler 2007; Krause 2007).

As a share of the total economy, trade was even more important for the residents of the Heart River towns. The settlements at the Heart were the hub of a far-flung, multilateral trade network that incorporated downriver village communities occupied by Coalescent-tradition groups as well as mobile hunters living throughout the northern Plains, from the Red River valley westward to the Rocky Mountain Front and as far north as southwest Manitoba and southern Alberta (Mitchell 2013). Trade items included copper, marine shell, catlinite (red pipestone), Knife River flint, and pottery, almost certainly accompanied by maize and bison meat and hides. The widespread occurrence of technologically and morphologically hybrid ceramic assemblages throughout the Heart River interaction zone indicates that this system, like the earlier Initial Middle Missouri network, involved not only material exchange, but also the movement of people and the adoption of new cultural practices (Ahler 1984; Michlovic 2008; Nicholson 1991).

In both Initial Middle Missouri and Heart River contexts, long-distance trade was embedded in a broader process of economic intensification. On the Plains–Prairie border, Late Woodland groups had taken up maize horticulture before AD 1000, but Initial Middle Missouri communities were the first to successfully establish a subsistence economy combining intensive maize farming with frequent bison hunting, a dynamic strategy that Plains Village groups would continue to pursue for almost 900 years. Initial-variant settlements also represent the first true villages—aggregated settlements housing at least 100 people—in the northern Plains, the coalescence of which represents a crucial intensification of social relationships (Lensink 2005).

In the Heart region, fifteenth- and sixteenth-century economic intensification entailed major transformations in the organization of pottery and stone-tool production that featured the appearance of both individual and community craft specialization (Mitchell 2013). This was coupled with efforts to increase the productivity of agriculture, hunting, and other subsistence activities. In concert with community aggregation and settlement clustering, these changes reinforced the Heart River towns' role as ports of long-distance trade and stimulated the formation of local and regional markets. Both of these trends in turn provided additional incentives for the expansion of specialized craft production.

Thus, for both Initial Middle Missouri and Heart River communities, warfare accompanied a common set of demographic and economic changes. Those changes, although transformative and surely disruptive to prior practices, were not sources of societal stress. Rather, they stimulated economic expansion and material abundance. In both contexts, trade relationships afforded access to the produce of enormous regions. The abundance of storage features in both Initial Middle Missouri and Heart River contexts testifies to the strength of their economic systems. The positive effects of this abundance are visible in people's bodies: limited osteological data suggest that the both Initial-variant and Heart River groups enjoyed reasonably good health (Bass and Berryman 1976; Williams 2002).

These were also periods of social and political reorganization. For both Initial Middle Missouri and Heart River communities, intensified production and expanded participation in long-distance trade networks engendered a growing web of social relationships that offered leading citizens new opportunities to accumulate prestige and exercise power. The economic spiral driven by intensification and trade also boosted those communities' regional political influence (Mitchell 2013).

One could argue that these villages and towns were forced to defend themselves simply because they were wealthy. But at least three factors argue against the view that the fortifications surrounding them were designed merely to prevent raiding inspired by economic jealousy. First, many ditch-and-palisade systems clearly were engineered to defend against large-scale, organized assaults, the intent of which may well have been the annihilation of the settlement's inhabitants. The view that extreme enmity motivated at least some of the farmers' adversaries is confirmed by evidence of horrific violence from the Initial Middle Missouri Fay Tolton site (Wood 1976). Second, because their settlements were comparatively large, Initial Middle Missouri and Heart River groups were better able to field effective military forces than either scattered bands of bison hunters or residents of the smaller, often undefended settlements located in adjacent regions (Mitchell 2007). Third, the abundant evidence for hunter-gatherer acculturation during both periods suggests that regular, face-to-face interaction, rather than isolation, was the social norm of the times.

The recognition that trade and warfare sometimes went hand-in-hand in the Middle Missouri is by no means new. Wood (1967) drew attention to this seeming paradox for the Heart River towns more than 40 years ago. Just as Heart River farmers' contacts with hunter-gatherers and with downriver farmers intensified in the 1400s, the predictability of warfare also increased. The fact that a strikingly similar pattern characterizes Initial-variant communities

suggests that, in the Middle Missouri generally, widespread and often intense war was bound up with population aggregation, expanding long-distance trade, and economic intensification.

Neither cultural nor ecological factors in isolation adequately account for war in either of these two cases. Although both Initial Middle Missouri and Heart River communities represent elements of the long-lasting Middle Missouri tradition, which is defined by shared architectural styles, ceramic technology, and subsistence practices, the direct cultural connection between them is tenuous at best (Wood 2001). In addition, the direct ancestors of the Heart River communities of the 1400s, who are assigned to the Extended variant of the Middle Missouri tradition, enjoyed a two-century period of relative peace following the disappearance of Initial Middle Missouri communities. Thus, Middle Missouri–tradition warfare cannot be attributed directly to a deeply held martial philosophy.

Subsistence shortages triggered by drought may have been a factor in some cases of Middle Missouri conflict (Bamforth 1994, 2006), but they do not explain Initial Middle Missouri or Heart River warfare. Initial-variant communities first came together during a relatively warm, dry period but later fortified settlements were built and occupied during a wetter period (Fritz et al. 2000; Moberg et al. 2005). In the Heart region, major population reorganization began during a period of relatively favorable climatic conditions. Megadroughts hit the Middle Missouri in the mid-1400s and again in the mid-1500s, but the Heart River towns remained fortified before, during, and after these events (Stahle et al. 2007). Northern Hemisphere temperatures were declining during the Heart River coalescence of the fifteenth century, reaching their lowest point during the last 2,000 years around AD 1600 (Moberg et al. 2005). However, aggregate storage capacity appears to have increased during this period (Mitchell 2013).

MODELING MIDDLE MISSOURI WARFARE

One starting point for building a model of Initial Middle Missouri and Heart River warfare is the rich documentary and ethnographic records of the northern Plains. Narratives dating to the late 1700s and early 1800s note the pervasiveness and intensity of warfare, speculate on the causes, course, and consequences of particular conflicts, and even provide details of specific engagements. Many early-twentieth-century ethnographies include first-person narratives of battle, in which combatants spell out their motivations to war along with its social rewards and costs.

But there is ample reason to be skeptical about direct historical research. Too often archaeologists use specific historic analogies as "ready-made" interpretations of their data, rather than as sources of testable models or hypotheses (Roper 2007). Building workable models from ethnographic or historic data requires archaeologists to evaluate the goodness-of-fit between the details of the source and the archaeological subject of interest (Stahl 1993; Wylie 2002). This subject-side or comparative analysis inevitably exposes both similarities and differences between an analogy and an archaeological case. No analogy will make a perfect fit and so tracing points of commonality as well as divergence is crucial for identifying the domains over which a model does and does not function.

How, then, does the context of nineteenth-century warfare compare to the two archaeological cases from the Middle Missouri? One crucial difference is the dramatic effects horses and guns had on warfare in the eighteenth and nineteenth centuries. Both of those imports altered military tactics and technology (Secoy 1953), but their effects extended far beyond the battlefield. Horses increased people's mobility and transport capacity. Both horses and guns ignited a quest for military superiority that put a premium on the economic and political relationships through which those items were obtained. The changes horses and guns wrought occurred quickly: both of those things arrived in the northern Plains in the mid-1700s, but were ubiquitous within a half-century.

Another difference between the context of nineteenth-century war and that of the two Middle Missouri archaeological cases lies in the roster of societies living in the northern Plains during those periods. The eighteenth century witnessed migrations of many new groups into the region, migrations that prompted new alliances and as well as new enmities. Moreover, the political economies of many long-term residents, including the Mandans at the Heart River, were changing during this period. Those migrations and economic adjustments were accompanied by disease-induced population declines beginning in the 1600s (Fenn 2001; Ramenofsky 1987).

However, significant similarities also exist between the political economic context of Plains warfare in the late 1700s and 1800s and that of the two Middle Missouri cases. As was true for Initial-variant and Heart River communities, a massive, multilateral trade network stitched together the nineteenth-century Plains. Many groups depended on exchange and a few even made their living principally as traders, brokering European goods, native-made crafts, and subsistence products. That network produced a complex web of interdependencies among culturally and socially disparate tribal groups, interdependencies encouraged by differing modes of production and by spatial and temporal ecological variation across the Plains (Albers 1993). That intense connectivity

is rightly considered a basic feature of the northern Plains fur and robe trades of the 1700s and 1800s (Swagerty 1988), but Middle Missouri communities were no less connected in the 1100s or the 1500s.

The 1800s also was a period of economic expansion and, for some groups, of nearly unprecedented wealth. Increases in economic productivity began well before European traders entered the region (Mitchell 2013; Vehik 2002), but the availability of European trade goods, especially horses and guns after 1750, spurred many more groups to intensify production and to expand their participation in the trade network. This economic expansion conferred material benefits on individuals, lineages, and communities. Some Plains groups had long recognized hereditary class distinctions (Holder 1970), but colonial trade presented new opportunities for ambitious men of low station to control surpluses and thereby increase their status (Lewis 1942). Some groups used their unique access to critical items to amass tremendous capital in the form of horse herds.

Thus, the conduct of war on the battlefield—defined by the size and composition of military units and by the weapons used—was evolving rapidly during the nineteenth century. However, in both the Middle Missouri cases and in the nineteenth-century case, warfare was accompanied by demographic reorganization, large-scale multilateral trade, economic expansion, and material abundance. In view of these structural commonalities, it is reasonable to use patterns evident in the nineteenth-century record of intense warfare to develop models for exploring earlier episodes of similarly intense conflict in the Middle Missouri.

Warfare in the Nineteenth Century

No single factor or circumstance provoked combat in the nineteenth century. But a persistent theme in the historical and ethnographic records is the complex articulation between warfare and economic relationships, especially trade. Collective violence was woven into the material and cultural fabric of Plains exchange. The widespread calumet ceremony, which facilitated trade by establishing fictive kinships between trading partners, commonly began with mock skirmishes (Blakeslee 1975). The calumet may also have been used in some contexts to forge political alliances for military purposes (Blakeslee 1981). The intimate connections between war and exchange are also embodied in the architecture of nineteenth-century trading posts, which were at once hubs of commerce and stockaded enclosures, deservedly dubbed "forts." Both the form of the calumet and the architecture of the trading posts reminded buyers and sellers that conflict was never far away.

One particularly widespread connection between war and exchange was the use of violence—or the threat of violence—by nearly every group to restrict and channel the flow of trade. Control of trade routes enabled both mobile groups and farmers to set themselves up as profit-taking brokers. Jablow (1951:37) summarizes the abundant documentary evidence for what he calls "restraint of trade." In 1794, for instance, the Omaha waylaid Jean Baptiste Truteau on his way up the Missouri to prevent him from trading with the Ponca, even though the Omaha and the Ponca were allies at the time. Two years later, the Arikaras attempted to stop John T. Evans for similar reasons. In the north, the Assiniboines sought to interpose themselves between North West Company traders and the Mandans and Hidatsas. For their part, the Mandans opposed North West Company traders' attempts to directly contact groups living west of the Missouri.

The specific methods groups used to affect their blockades varied and guile frequently preceded violence. In some cases, the hosts of a trading event sought simply to prolong it by spreading rumors about their rival's treachery. But blockades were not merely based on bluster: for example, violence was only narrowly averted in the tense standoff between Lewis and Clark and the Tetons at the mouth of the Bad River in 1804, a conflict prompted by the Tetons' efforts to control trade on the Missouri (Ronda 2002).

Jablow (1951:52–56) also describes a rather different kind of connection between war and trade, one exemplified by what he calls the "peculiar" relationship between the Tetons and the Arikaras. The Tetons obtained horses, mules, and agricultural products from the Arikaras, for which they offered European trade goods, including guns, in return. But the Tetons attempted to dictate the terms of trade by simultaneously harassing the Arikaras, stealing what they could, and by abducting or killing Arikaras caught away from the protection of their villages. The Arikaras rightly feared the Tetons, but nevertheless were obliged to endure their abuse, depending as they did on the Tetons for the goods they supplied. Citing Lewis and Clark's view of the situation, Jablow argues that the Tetons were free to mistreat the Arikaras, and other village-dwelling groups, because they did not need the Missouri River trade to supply them with critical items. But this seems little more than an uncritically accepted boast: the Tetons clearly did need the Arikaras, or another similarly positioned group, to supply them with horses and agricultural products. A more realistic explanation is that the Tetons' Arikara policy reflected an attempt to maximize their profits by appropriating Arikara labor. This was a risky strategy that demanded a delicate balance between commerce and violence. Violence, and the threat of violence, discouraged competition

and effectively lowered the price they had to pay for horses. But destroying the Arikaras ran the risk of triggering a realignment that could cut off the flow of horses. Thus, Jablow (1951:53) appropriately describes the Teton–Arikara relationship as an example of "colonial exploitation."

Patricia Albers (1993) identifies two other processes linking war and trade in the eighteenth and nineteenth centuries. One was the competition between rivals occupying similar political economic positions in opposing "trade chains" (Albers 1993:122). For instance, allied groups obtaining goods from French traders came into conflict with similarly positioned groups obtaining goods from English traders. Europeans encouraged client relationships and promoted war between their clients and those of competing powers (Jablow 1951:51).

Albers's second process linking war and trade was regional political economic realignment. Europeans' efforts early in the nineteenth century to trade directly with Plains groups upset relations among native peoples who previously had been allies, prompting new conflicts as each sought to carve out a new position within the realigned trade network (Albers 1993:123). Groups who pursued similar economic strategies were most likely to come into conflict. In some cases, local economic changes fostered emerging hostilities among former allies. For instance, Missouri River farmers' increasing involvement in the horse trade in the mid-1700s put them at odds with mobile groups who previously had been their allies.

Albers also points to even smaller-scale tensions between war and trade. In addition to warfare between economic rivals, conflicts also arose between steadfast allies and trading partners, commonly to "adjust temporary imbalances in the flow of resources" (Albers 1993:125). Conversely, sporadic trade between staunch enemies—generally facilitated by intermediaries with kin in both of the warring groups—was a catalyst for the emergence of new strategic alliances. There was, Albers (1993:126) concludes, a fine "line between relationships built on symbiosis and those resting on war." Put another way, war was one component of "an ongoing relationship between peoples" (DeMallie and Parks 2003:75).

Apart from these strategic connections between war and trade, historic and ethnographic sources also point to a tactical or situational connection. Such situational connections are is well illustrated in a historical account provided to Gilbert L. Wilson, a Presbyterian minister and ethnographer, by a Hidatsa named Wolf Chief (Wilson 1918). Wolf Chief's account is set at Star Village, a settlement the Arikaras briefly occupied in 1862 (Metcalf 1963). In August of 1862 about 2,000 Sioux from one or more bands camped near the village for a trading visit. During the visit a Sioux man, hoping to make a trade for cotton cloth, brought a bison robe to an Ojibwa trader who had built a small post in

the village. When the Sioux objected to the terms of the exchange, the trader shot at two nearby Sioux women. In turn, the man offering the robe attacked the trader's cabin, at which point the trader's Arikara assistant returned fire. A general fight then broke out, with the Arikaras seizing Sioux women in the village and the Sioux seizing Arikara women in their camp. Men caught on both sides were killed.

However, Wolf Chief's account makes it clear that the action precipitated by this incident of failed reciprocity flowed directly from larger strategic relationships. As the battle developed, the Arikaras asked the Hidatsas, who were living across the Missouri at Like-A-Fishhook Village, for assistance. The Hidatsas at first refused, primarily because the Arikaras had previously rebuffed an attempt by a Hidatsa chief to establish a peace treaty with them. Instead, the Hidatsas came to the aid of the Sioux, with whom the Hidatsas had successfully arranged such a treaty. In the end the Hidatsas brokered a truce, in the process agreeing to admit the Arikaras into Like-A-Fishhook. But their initial reluctance to do so was guided by broader strategic relationships.

Documentary accounts illustrate the fluidity of these strategic relationships. Truteau, for instance, reports that in 1792 a confederated Sioux, Cheyenne, and Arikara force of some 2,000 attacked one of the Hidatsa towns on the Knife River (DeMallie and Parks 2003:69). The Hidatsas withstood a nine-day siege, during which the attackers suffered heavy casualties. But only a decade later, the trader Le Raye learned that the Sioux and Cheyenne were themselves at war (Jablow 1951:56), and in 1806 Charles Mackenzie encountered a delegation of Cheyenne peace ambassadors to the Hidatsas (Jablow 1951:38). Maximilian (Witte and Gallagher 2012:52) reported a similar realignment between the Mandans and the Yanktonais: in the summer of 1833 the farmers refused the Yanktonais' offer of a peace treaty but in September changed their minds and hosted a trade fair at Mitu'tahakto's (Fort Clark) attended by 200 Yanktonai households. Thus, despite combatants' claims of relentless enmity for their opponents, it is clear that patterns of alliance and conflict shifted rapidly, an indication that political economic relations were at least as important to patterns of warfare as were cultural differences.

DISCUSSION AND DIRECTIONS FOR FUTURE RESEARCH

Warfare during the 1800s was different than it had been during the 1400s and 1500s in the Heart region or during the 1100s and 1200s in the Plains–Prairie border. Nevertheless, the clear association in all three of these cases between frequent, intense fighting on the one hand and economic intensification and

large-scale, multilateral trade on the other suggests that warfare did not erupt over competition for scarce resources, but rather over control of the trade system. What was at stake was not the possession of specific resources but rather power over the principal engine of wealth, status, and political influence during periods of expansion and abundance.

Nineteenth-century historical data identify a variety of specific connections between war and trade, including appropriation of labor, restraint of trade, competition among trade-chain rivals, and political economic shifts. Determining which of these processes best explains Heart-region or Initial Middle Missouri warfare will require new archaeological analyses. However, it seems unlikely that some of the processes observed in the nineteenth-century also operated during earlier periods. The unusual character of the Teton–Arikara relationship was a function of the contrasting source areas for horses, in the northern Southwest and southern Rockies, and guns, in the upper Mississippi region and on Hudson's Bay. It is likely that key resources were more widely distributed in the past and so the kind of labor appropriation the Tetons practiced may have been uncommon during earlier periods. In addition, nineteenth-century trade-chain rivalries emerged primarily from competition among colonial powers. If such parallel alliances existed in the Middle Missouri they must have been organized rather differently than those documented in the nineteenth century.

Other documented connections between war and trade fit better with the archaeological data now in hand. Evidence for rapid demographic change and economic intensification among both Initial Middle Missouri and Heart River communities suggests that regional political economic shifts, coupled with consequently altered trade relationships and shifting alliances, was a principal cause of conflict. For example, the Heart-region farmer-hunters' documented efforts to increase the productivity of bison hunting may have altered their relationships with mobile groups who previously had supplied meat and hides (Mitchell 2013). Finally, the incentives that both farmers and hunters had to control the flow of goods and the terms of trade gave all parties equally good reasons to restrain selected vectors of trade, a major factor prompting conflict in the nineteenth century.

A sociohistorical approach to war highlights the fact that the causes and consequences of collective violence vary tremendously in different contexts (Allen and Arkush 2006; Arkush 2011). For example, Allen (2008) argues that, among the Maori, fortifications were a product of chiefly power but, once in place, were impediments to further political integration. Arkush (2011) makes a similar case for some Late Intermediate–period Andean groups. Little is

known about the political connections, if any, among Initial Middle Missouri communities, but at the Heart River regional economic and political integration clearly took place after nearly every settlement was fortified (Mitchell 2013). The evidence suggests that settlement clustering initially was prompted by a defensive alliance but that it was the subsequent expansion of household and community craft specialization and the development of local marketplaces that primarily led to the formation of a multicommunity confederacy.

The distribution of sixteenth-century settlements in the northern Middle Missouri is superficially similar to a simplified or idealized pattern that Arkush (2011:table 3.1, figure 3.1) presents for tribal confederations or weakly centralized chiefdoms, which consists of a cluster of fortified settlements separated by buffer zones from other clusters of settlements. However, closer inspection reveals a distinctive, and so far unexplained, feature of the Middle Missouri distribution (Mitchell 2007). The Heart region, at the center of the northern Middle Missouri, contained a cluster of a dozen or more settlements, virtually all of which were stoutly fortified and that ranged in population from around 200 to 2,000 people. To the northwest along the Missouri, an approximately 40-km-long buffer zone separated these settlements from a cluster of similarly sized but largely undefended communities. To the south, a 100-km buffer zone separated the Heart-region cluster from a cluster of mostly smaller, undefended or only weakly defended villages. Why the communities of the Heart region, the most densely settled cluster and therefore the one most able to field a large number of soldiers, would also be the most heavily fortified is not clear. Equally unclear are the reasons for the lack of parity in the frequency or design of fortifications across the northern Middle Missouri. If attacks by the residents of adjacent settlement clusters prompted the construction of defensive works in the Heart region, why would those adjacent settlements be undefended or weakly defended? Mobile bands—the only other groups living in the region—may have targeted the Heart-region towns owing to their control of the trade network. In any case, this asymmetrical settlement pattern was stable, persisting for roughly two centuries from the late 1400s to the late 1600s.

A sociohistorical approach also points up the fact that no single model is likely to account for all occurrences of warfare in a particular region or a particular cultural setting. For example, the model developed in this chapter likely does not account for the intense conflict that arose when Coalescent-tradition groups entered the southern Middle Missouri in the fourteenth century, which may instead have been a product of economic stress triggered by local subsistence shortfalls (Bamforth 1994, 2006). Nor does the model likely

apply to the sporadic and smaller-scale warfare that occurred in the northern Middle Missouri during the late 1200s and 1300s.

No analysis should forget that, like any other cultural practice, warfare has its own history. Nineteenth-century combatants frequently voiced a desire for revenge to redress acts of violence or theft perpetrated by their enemies. Because those desires commonly were expressed in terms of ethnic enmity, the antagonisms that carried conflict forward could linger, even as regional political economic relationships were shifting. Fortifications themselves also perpetuated the conditions for war (Allen 2008; Arkush 2011; Pauketat 2009). Regardless of how complete or well-maintained they may have been, ditches and palisades defined both literally and figuratively who was an insider and who was an outsider and reminded residents and visitors alike that war loomed over their transactions. Nevertheless, the fact that the context of conflict documented for the nineteenth century is foreshadowed in the archaeological record of the region demonstrates the power of putting war in sociohistorical context.