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The Prehistory of War and Peace in Europe and the Near East

R. BRIAN FERGUSON

This second of two companion chapters intends to demonstrate that prehistoric war was not ubiquitous, that it is in fact rare in very early archaeological records, and becomes common only over time. It makes that claim based on a proper method, of compiling and comparing the *total* record regarding war and peace, from across regions of Europe and the Near East.

This chapter challenges the repeated refrain of “absence of evidence is not evidence of absence.” War does leave behind recoverable evidence. True, in some cases, war could be present but for some reason not leave traces. However, comparison of many, many cases, from all different regions, shows some clear patterns. In the earliest remains, other than occasional cannibalism, there is no evidence of war, and barely any of interpersonal violence. In Europe’s Mesolithic, war is scattered and episodic, and in the comparable Epipaleolithic of the Near East, it is absent. Neolithic records vary, but all except one begin with at least a half a millennium of peace, then war appears in some places, and over time war becomes the norm. War does not extend forever backwards. It has identifiable beginnings.

Even in later periods, when war clearly is present, casualties rarely (though sometimes) reach levels that have been recorded among recent tribal peoples.¹ When considered against the total record, the idea that 15 percent of prehistoric populations died in war (see Ferguson, chapter 7) is not just false, it is absurd. Moving beyond that easily falsified point, and the *assumption* that war at some level was always present, opens up interesting questions about early war, how it relates to broader anthropological theory, and to the really broad question of whether it is human nature to make war.

The plan is simple: starting with Europe, then moving on to the Near East, in all cases, all available evidence of war and/or interpersonal violence will be considered, contextualized, and evaluated as to the presence or absence of war. Discussion of Europe begins

War, Peace, and Human Nature

*The Convergence of Evolutionary
and Cultural Views*

EDITED BY
Douglas P. Fry

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with the Paleolithic, then the Mesolithic, and for Neolithic times, becomes regionally specific, moving around the continental regions in a big circle: Greece, Italy, France, Iberia, England, Northern Europe, and Eastern Europe. With each region, I will begin with evidence from the earliest Neolithic, and move forward through the end of the Neolithic to the Chalcolithic and, sometimes, Early Bronze Age. The Near Eastern section, after a brief encounter with Neanderthals, starts with the Epipaleolithic Natufians. Three regions emerge as significant in the Near East—the Southern Levant, the Anatolian highlands, and an area I will call the northern Tigris. Each will be considered and compared following standard periodization: the Pre-Pottery Neolithic A, Pre-Pottery Neolithic B, Pottery Neolithic, Chalcolithic, and Early Bronze Age. In both Europe and the Near East, the literature reviews begin without signs of war, and end in periods when war is unambiguously established and often a dominant factor in social life.

Theory

My position is that human beings have no evolved predisposition to inflict deadly violence on people outside their own social group (Sussman, chapter 6; Fry & Szala, chapter 23). Human behavior is plastic, open equally to both altruistic cooperation and deadly conflict. I also subscribe to Marx's 8th thesis on Feuerbach, "all social life is essentially practical." As a broad generalization, war starts when those who start it believe that course is in their own, practical self-interest. Practicality is culturally and historically specific. Evaluations and decisions—*agency*—occurs and is structured by existing social relations and cultural psychology, within the context of concrete historical circumstances. The theoretical challenge is to elucidate in a cross-culturally consistent way the interrelationship between this enormous conjuncture of material, social, and symbolic variables (Ferguson, 1984; 1988; 1990; 1992; 1995; 2003a; 2006a; 2009). One particularly relevant point is that as war is woven through the fabric of social life, it becomes not only a cultural possibility, but even a cultural necessity (1999). But war is by no means inevitable. "Even at relatively advanced levels of sociocultural evolution, there is no reason, theoretically, to deny the possibility of peaceful societies. Indeed, there may be alternative peaceable and militaristic *trajectories* of evolution" (Ferguson, 1994, p. 103).

This general understanding of war, developed through ethnology, is applied to the archaeological record in earlier publications (Ferguson, 1997; 2001a; 2003b; 2006b; 2008). From study of the earliest evidence of violence from around the world, I (Ferguson, 2008, pp. 24–26) settle on several *preconditions*, which in varying combinations make the observed onset of warfare more likely: geographic concentration of critical resources, sedentism, high population density, food storage and/or livestock, social divisions creating separate collective identities,² social and political hierarchy or ranking, monopolizable long-distance trade in valuable prestige goods, and major ecological reversals affecting food production. Obviously, all these variables may be causally interrelated, and affect possibilities for war not singly but in systemic interaction.

Although there are some exceptions, developments in some or all of these areas regularly precede any evidence that can be construed as warfare. Yet there are other cases where some or all of these preconditions exist for extended periods, apparently without war. The preconditions may be necessary, but not sufficient to explain the onset of war in archaeological sequences. There is something lacking in these preconditions as an explanation of war.

Part of that is omitting the factors that lead to peace. One of the main developments in the anthropology of war in the past two decades is appreciation that peace is an active state, with its own preconditions, independent of those that lead to war (Dye, 2009; Fry, 2006; Gregor, 1996; Sponsel & Gregor, 1994; Ury, 2002). Fry (2007, pp. 207–229) boils down this wide-ranging, complex literature into a few general categories: social ties that cross-cut and connect different social groups, mutual interdependence and cooperative effort, attitudes and beliefs that valorize peace and stigmatize violence, authoritative institutions that can prevent resort to attack, and established processes to resolve conflicts for the common good. These may not be obvious within the accumulated knowledge of archaeology, but they are not impossible to investigate (see Dye, chapter 8). They will only be found if they are looked for. In this chapter, I argue that some evidence suggests that one region, the Near East's Southern Levant, does have "peace signs," that fit with an extraordinarily long existence without any persuasive evidence of war.

Evidence

Numerous excellent reviews of archaeological evidence and ambiguities concerning war are available (Chapman, 1999; Jackes, 2004; Jurmain, 1999; Knusel, 2005; Milner, 2005; Schulting, 2006; Smith, Brickley, & Leach, 2007; Walker, 2001). Here I will discuss mainly the issues relevant for assessing the presence of war in this chapter.

Evidence comes in four categories. One, artistic representation of combat or killing is the least common in earlier records discussed here, appearing only in later Neolithics or the Copper Age. Another, technology, is more useful, but often ambiguous. Chapman (1999, pp. 107–112) distinguishes tool-weapons, clearly used for work but also usable for killing people; weapon-tools, probably used for fighting but possibly for work; and weapons proper, such as swords. The presence of a great many tool-weapons is only a weak positive for war, but their absence is a strong negative. Maces are weapons-tools, and they merit special consideration.

Mace-heads are often the earliest weapon-tool in archaeological recovery. Yet mace-heads are often so small or lightly constructed that they appear to be symbolic. Symbolic of what? Of military prowess, or of legitimate *authority*—as used today by royalty, legislatures, and courts. Maces can be weapons of war, yet my university has a mace. Yes, there is an implication of power backed by force, but that can apply to mandatory decisions. Authority to settle conflicts is, as Hobbes illuminated, the very antithesis of war. In the Near East, there is a profusion of maces, but deaths possibly attributable to a mace-blow are exceedingly rare. Without other evidence, a mace-head, particularly lightly made, cannot be taken as diagnostic of war. What is needed is for scholars to indicate the

robustness of a mace head, how big and heavy is it, and particularly, would the shaft be large enough to withstand a blow. If the pattern in the artifact assembly is that they are all ceremonial and there are no combat mace-heads, the obvious inference is that they are symbols of authority. In this chapter, the presence of maces is often noted, but only a few times can their utility be ascertained.

Settlement data is a broader source of insight. It can range from conclusive to suggestive, though this kind of evidence is variable, usually non-existent, in earlier remains. Fortifications can be clear-cut, though village enclosures of simple walls, hummocks, or ditches are often ambiguous. The interpretive issue, militarily speaking, is that a ditch or mound around a village could be more advantageous for attackers than residents: if attackers got there first, which is likely with the element of surprise, either would provide cover for raining projectiles into the settlement. But erect a palisade on top of an encircling mound, especially with dogs to bark if anyone tries to scale it—then that is protection. Add multiple encirclements, elaborated gates, or bafflements, and the presence or potential of war is obvious. Yet even nondefensive enclosures may have military significance. A major contrast between Neolithic Europe and some areas of the Near East is that the former saw a widespread pattern of enclosures defining and separating local communities, which did not develop in the latter. That may have been a critical difference in their diverging trajectories of war and peace.

Skeletal remains can be conclusive indicators of interpersonal violence. Recovery is always an issue, especially when dealing with fragments. Embedded projectile points or their cuts are clear signs of deadly violence. As often noted, only about one in three or four projectiles will impact bone (Milner, 2005, pp. 150–151). That does not mean a general rule of multiplying the noted dead by three. Many war victims are hit by multiple projectiles, increasing the likelihood of being evident. Many are killed by blows to the head, which are hard to miss with a skull. Points in soft tissue may be extracted, but many still appear closely associated in graves. Whether these are grave offerings or are from wounds is a judgment call, but many do get counted. In the famous Jebel Sahaba remains (Ferguson, chapter 7), for instance, the great majority of inferred killings are from associated, not embedded, points.

Blunt force trauma is often difficult to interpret, especially if healed. Parry fractures of the forearm can be accidental (see Jurmain, 1999, pp. 215–223), as can be compression fractures of the skull.³ Even where a clear pattern of cranial injury is apparent, healed fractures may come from ritualized club fights, as among the Surma (Abbink, 1999) or Mursi (Turton 1979, pp. 197–201), domestic violence, as in the American southwest (Martin, 1997; also Novak, 2006), or sacrifice, as in ancient Peru (Verano, 2001). “The fact that—apart from mass grave contexts—a large proportion of cranial injuries are healed could suggest a more controlled form of violence in which the death of the participants was not seen as appropriate” (Schulting, 2006, pp. 228). To make the point more bluntly, there is no practice of tribal warfare I know of that would result in a high frequency of healed but few, or no, perimortem cranial fractures. If warriors get close enough to land such a blow, they kill.

A pattern of healed cranial fractures does indicate violence. It does not indicate war; indeed it may represent a way of dealing with conflict without killing.

A single case of traumatic death, from a projectile or a blow, by itself cannot be taken as evidence of war. Either could result from interpersonal violence, social execution, or even an accident. That is why the few but often-listed (Ferguson, 2006b, pp. 480–481; Roper, 1969, pp. 447–448; Thorpe, 2005, pp. 8–9) cases of single Paleolithic individuals with embedded points are destined to remain ambiguous. There is also a real danger of false positives of war. If within-group homicides were occurring in the ancient past as they do among the Gebusi and some other ethnographically known peoples (Knauff, 1987), that would be very difficult to distinguish from those caused by external enemies.

Dismemberment consistent with trophy-taking (see Chacon & Dye, 2007) can be good evidence of war, yet separation of the head or other body parts is often part of mortuary customs, quite common in the Near East. People killed in war may not appear in cemeteries, lying where they fell, which might be inferred by a notable absence of warrior-age men among remains. Then again, dead warriors may receive special attention in interment, as suspected at Jebel Sahaba (although I know of no other case of a “warriors’ cemetery”). Multiple burials may be used to infer war deaths, but only when signs of violence are known for the site. Otherwise, disease or some other catastrophe is just as likely, at least in the Neolithic (Schulting, 2006, pp. 231–232). The origin of domestication also appears to be the origin of several infectious diseases, although processes now appear more complex than the old idea of transmission from herd animals (Pearce-Duvet, 2006; Wolfe, Dunavan, & Diamond, 2007).

Cannibalism has its own problems. After a long history of seeing signs of cannibalism in every fractured prehistoric bone, criteria for diagnosis have become much more precise (Knusel & Outram, 2006). The enduring problem, however, is inferring whether the dead were enemies killed in war, or members of the group consumed in mortuary rites (see Conklin, 2001, pp. xiii–xxxi). Knusel and Outram’s (2006, p. 266) review concludes: “One of the enduring problems with records of cannibalism is that the mortuary type of cannibalism, endo-cannibalism, is confused with exo-cannibalism;” and suggests a key variable for identifying the latter is signs of violent death (p. 263). Without that, evidence of cannibalism just raises a big question, and especially so when found in hominins prior to modern *Homo sapiens*.

Evidence that can indicate war will vary by location and time. Sometimes only skeletons are available, sometimes few skeletons are found and settlement or other remains have to suffice. It is often the case that war may be deduced only by a pattern of inconclusive but suggestive clues, though a pattern of such clues can raise inferences from “war possible” to “likely.” As Pearson (2005, p. 24) puts it:

There is no standard “cook book” formula of middle range theory to provide a cut-and-dried clinical diagnosis of warfare, violence or slavery from archaeological remains: each case has to be built up as a closely argued and richly textured contextual regional study which draws on multiple strands of evidence which, when

analyzed in isolation, are often inconclusive and ambiguous. In many cases the evidence must be argued on a balance of probabilities.

The common refrain of "absence of evidence is not evidence of absence" is certainly true for any one or a few excavations. But if the absence of evidence is reported by scholars who have looked for it in many sites, without any persuasive indicators of war, than pleading scholarly "pacification of the past" amounts to "warrification of the past." That is especially so in an area sequence that goes from no evidence to clear evidence of war, without an abrupt increase in material recovery; or by comparison within one period where war-signs are overt in some situations, but entirely lacking in others.

The remainder of this chapter demonstrates an alternative to that used in Pinker's List (Ferguson, chapter 7), of selectively presenting cases with exceptionally high rates of violence as representative (Fry, chapter 1). The whole records of both Europe and the Near East will be surveyed, not only for evidence of war, but also to take seriously the absence of evidence. When this even-handed approach is employed, the development of war out of a warless background is shown again and again. Referring back to the two questions animating chapter 7 (Ferguson): does the presence of prehistoric warfare indicate a human tendency to kill outsiders? Does prehistoric war indicate a selective mechanism capable of shaping the evolution of human nature? The answer to both is a resounding no.

Europe

The earliest suggestions of war in Europe are quite old indeed. Remains of 11 young individuals from Gran Dolina, dated to around 780,000 BP, show good indications of a pattern of cannibalism (Fernandez-Jalvo, Y., Diez, J. C., Caceres, I., & Rossell, J., 1999). Carbonell, Caceres, Lozano, Saladie, Rosell, Lorenzo . . . & Bermudez de Castro (2010) speculate that because the bones were disposed like those of game animals, this indicates a pattern of one group hunting others, both for nutrition and to reduce competition. Otterbein (2011), whose theory of war says that it was normal among ancient game hunters, jumps in to "conclude that the earliest evidence of warfare has been found." But *Homo antecessor* is a different species, with a cranial capacity around 1000 cc, teeth like African *Homo erectus*, and of questionable placement in human ancestry, though they may be ancestral to Neanderthals (White & Folkens, 1999, p. 499). There is no indication of how these individuals died, and as noted, humans sometimes eat their own. This does not demonstrate war. There are also the enigmatic (though not cannibalized) findings from Sima de los Huesos, Spain (probably >300,000 BP), where all eight craniums have erosion depressions. There are no traumatic fractures in post-cranial remains from 33 individuals, and the depressions seem to be due to scalp inflammations, which might be due to blows, or maybe to infections (Perez, P.-J., Martinez, A., & Arsuaga, J. L., 1997, p. 417).

Middle and Upper Paleolithic

Whether Neanderthals at Krapina ate each other has been debated for years without resolution (Berger & Trinkaus, 1995; Estabrook & Frayer, 2012; Knusel & Outram, 2006, pp. 266–267; Trinkaus, 1985; Villa, 1992, pp. 96; White, 2001), though another case of Neanderthal cannibalism seems more secure (Defleur, White, Valensi, Slimak, & Cregut-Bonnoure, 1999). The same problem persists—cannibalism does not demonstrate war. One indication of some sort of violence among Neanderthals is the young adult from St. Cesaire who has a healed skull fracture, probably from a sharp object (Zollikofer, C. P. E., Ponce de Leon, M. S., Vandermeersch, B., & Leveque, F., 2002). Although some Neanderthal skeletons do show high levels of trauma, these do not fit the profile of war wounds. Berger and Trinkaus (1985) find them resembling those of modern rodeo riders, suggesting Neanderthals had more problems with mammals with four legs rather than those with two.

Turning to modern humans, Upper Paleolithic cave art is frequently cited as evidence of violence or war. But as discussed in Ferguson (2006, pp. 181–182), the bent or wavy lines that pass over, around, into, and through the human figures are starkly different from the straight, V-tipped lines portrayed as hitting large animals in another cave. What those non-spear-like lines depict is an open question (Haas & Piscitelli, chapter 10). In Gough's Cave, Somerset, England, from the very end of the Pleistocene 11,000–9500 BC, the remains of five individuals show signs of processing for consumption, suggesting cannibalism. The same problem persists here as always: cannibalism does not mean war, although in this case, one of the individuals may show signs of trauma (Andrews & Fernandez-Jalvo, 2003; Heath, 2009, pp. 16–18).

From the testimony of the bones, the European late Upper Paleolithic has two or three individuals with embedded points. At Grimaldi, Italy (Dastugue and de Lumley, 1976, p. 617), a child had a point embedded in the vertebra, probably lethal. At San Teodoro (Bachechi, Fabbri, & Mallegni, 1997), a (probable) female had a lithic point embedded in the hip, but with healing. A century ago at Montfort Saint-Lizier in France, a surface find produced a human vertebra with an embedded point (Guilaine & Zammit, 2005, p. 50), but this may be Mesolithic (Thorpe, 2003a p. 152).

In the Czech Republic, one area has been cited by Keeley (1996, p. 37) and LeBlanc with Register (2003, p. 124) as substantiating the claim of Paleolithic warfare, Predmosti and Dolni Vestonice (25,000–23,000 BC). LeBlanc with Register claim these sites have "almost every line of evidence for warfare" including large longhouses, a wall or fence of mammoth bones, mass burials of "fighting age men," head wounds, and location on a high point that was defensible against spear throwers. These claims are evaluated elsewhere (Ferguson, 2006, pp. 505–507). Not one is accurate. Instead, there were small huts, a long-term cemetery but no mass interment, no wall, cranial trauma only of a minor sort, and location partway up a slope with higher ground right behind it (and see Gamble, 1999, pp. 386–414; Svoboda, Lozek, & Vlcek, 1996). There is one triple burial with some unusual aspects (Alt, Pichler, Vach, Klima, Vlcek, & Sedlmeier, 1997; Formicola, 2001),

but nothing suggesting deadly violence. The only other possible contender for Paleolithic warfare (it is on the cusp of the Mesolithic) are the Dnieper rapids sites discussed in Pinker's List (Ferguson, chapter 7). I will revisit it below as Mesolithic.

Holt and Formicola's (2008, pp. 87–91) table of Upper Paleolithic skeletal remains tallies 103 from Europe, including Grimaldi and San Teodoro (but apparently not Montfort). Calculating on that basis, the only reported death from violence is the Grimaldi child, amounting to just under 1 percent. Brennan (1991) directly examined all available Middle and Upper Paleolithic remains (including Neanderthals) from southwestern France, a total of 209 though most very fragmentary, and found a total of five fractures of any sort, concluding "the absence of a single parry fracture or wound to the left side of the head in my sample seems to belie some of the previously held notions in the literature of bestial behavior and violence for this time period." Holt and Formicola's (2008, p. 80) review of Middle to Upper Paleolithic cases across Europe found numerous traumas, but "with the exception of the fracture affecting the ulna of CV 15 that could represent a parry fracture, there is no evidence of deliberate injury." In an overview of the eastern European Paleolithic, Dolukhanov (1999, p. 77) concludes that "in no case could one find any evidence of inter-group conflict." Surveying the total record Dastugue and de Lumley (1976, p. 612) conclude "the first *Homo sapiens* do not seem to have led the warrior's life so often attributed to them, for their pathology is not marked by a traumatology other than that caused by the accidents of everyday life."

The European Paleolithic is our best record of lifeways before the massive transformations of the Holocene. The commentators just quoted are not pacifiers of the past. They are scholars who have searched for signs of violence, and did not find it. Looked at every way the evidence allows, the entire Paleolithic record produces just one individual, a child, killed by other humans. "Absence of evidence is not evidence of absence," the proponents of war forever backwards claim. And given the relatively limited amount of evidence, it would be foolish to assert that there was *no* war in the Paleolithic. Yet the evidence from the European Paleolithic that could show signs of deadly violence, does not. Compare this to signs of trauma in cases selected for Pinker's List, or those to come in this chapter. There is no support here for war as an expression of innate human tendencies, or a selective force driving human psychological evolution, and certainly not for the claim of 15 percent war mortality.

Mesolithic

The start of the Mesolithic is associated with the transition from the Pleistocene to Holocene, conventionally dated to 8000 BC, but calibrated to 9,500 (Anderson, Maasch, Sandweiss, & Mayewski, 2007, pp. 3–4). This foraging epic ends at different times as agriculture develops or spreads across Europe. The European Mesolithic, generally, is a time of increasing complexity. The concept of complexity among hunter-gatherers is hotly debated, in its definition, in its variables, and in its causal connections, including climatic effects (Cohen, 1985; Hayden, 1995, pp. 15–86; Kelly, 1995, pp. 303–331; Price and

Brown, 1985; Sassaman, 2004). But in most formulations, some basic parameters appear: higher populations, more sedentism, foraging concentrated on spatially limited and highly productive sites, food storage, definition of more distinctive social groups, and sociopolitical hierarchy. These all apply, with local variations, to the European Mesolithic. They are also preconditions for the development of warfare, as with ethnographically known *complex* hunter-gatherers, which are widely known for making war (Kelly, 1995, pp. 303, 311–315).

Vencl (1999, pp. 59, 70; also Dolukhanov, 1999, p. 77; Thorpe, 2003a, p. 155; Vencl, 1983:121) sees the Mesolithic as "the formative period of warfare," though others caution against overgeneralizing the evidence of violence (Chapman, 1999, pp. 105–106; Roksandic, 2004a, 2004b; Thorpe, 2005, pp. 10–11). As noted above, preconditions are only necessary, not sufficient, conditions for war. The entire package of traits may be oriented to nonviolent coping with subsistence variability. In Europe, some Mesolithic societies made war, or may have, but others did not. The following survey, in rough chronological order, demonstrates that variation and the perils of averaging, while contradicting the idea that warfare was a general characteristic of prehistoric peoples.

Lethal wounds in 11 of 82 individuals from three cemeteries on the Dnieper rapids were noted in chapter 7 as the earliest evidence of war in Europe. From around 10,000 BC, these have been called both Epipaleolithic (Lillie, 2001, p. 55) and Mesolithic (Dolukhanov, 1999, p. 79). Whichever, it was a time of "deep ecological and sociocultural crisis" (1999, p. 78) for peoples in steppe environments, with decreasing resource productivity, a shift to plant gathering, disintegration of larger communities, migrations, and signs of hierarchy and tribal differentiation. War may have been waged to get access to favorable locations (Stanko, 1997, pp. 259–260). That seems likely along the rapids. Right at the end of the last Ice Age, "as soon as the glaciers melted, at least three skull-and-face types ... occupied different cemeteries and were buried in different poses" (Anthony, 2007, p. 157). On the middle Danube, the Iron Gates Gorge of Serbia-Romania is a comprehensively excavated record of the Mesolithic to Early Neolithic settlements (Radovanovic, 1996). Four-hundred-eighteen individuals, including 263 adults, were recovered from six cemeteries on the right bank of the river, 8200–5500 BC. Of the adults, six (2.3 percent) showed signs of violent injury, with two probable deaths, one from a cranial blow, and one from a projectile. There was no temporal clustering, but they all preceded the development of farming in the area (Roksandic, Djuric, Rakocevic, & Seguin, 2006, pp. 340–345). Roksandic (2006, p. 177) concludes that these are unrelated incidents that "could have as easily happened within the community as with members of other groups." In contrast, downstream from the Gorge, at Schela Cladovei (7303–7545 cal BC), of 57 individuals, 5 have fatal injuries, from skull fractures and projectiles, and 14 others have non-lethal trauma. Seven of the total are from Schela Cladovei III, and appear to be from the same time. Roksandic et al. (2006, pp. 345–347) infer that this represents a "localized and temporarily restricted" episode of warfare (2004, p. 72). Projectiles per individual are 0.0 percent at Lepenski Vir ($n = 103$) and .8 percent at Vlasac ($n = 118$) in the Gorge, and

10.7 percent at Schela Cladovei III ($n = 28$) (Roksandic et al., 2006, p. 117). (Roksandic et al. use these findings to argue against the idea that the Mesolithic was characterized by endemic warfare).

In Greece, Franchthi Cave has 3 of 6 adults (7600–7200 BC) with traumatic injuries (Angel 1969:380). The single lethality is later than the others, from a time when subsistence had undergone a marked shift to marine resources. More intriguingly, that time also sees a proliferation of obsidian from Melos, demonstrating sea-born trade (Jacobsen 1969:376; 1973:82–85). In the Near East, monopolization of trade in obsidian is associated with the development of war.

There is possible cannibalism of three infants and five adults at Perrats in France in the seventh millennium, with the usual question—how did they die (Boulestin, 1999)? The most famous instance of Mesolithic violence is Ofnet, Bavaria, where two “nests” of skulls and skull fragments of 33/34 individuals were found close to each other, dating to around 5700 BC (Frayer, 1997, p. 187). The demographic profile is unusual, with young people and females predominating. Fourteen have definite, and two more possible, perimortem fractures, most on the back of the head, possibly from polished stone axes known from the later Mesolithic. Frayer (1997, pp. 208–209) believes all in each pit were interred simultaneously, inferring a “massacre.” But Orschiedt (2005, pp. 68, 72) challenges that inference with evidence of sequential interments. This makes a difference—is it one big massacre, or a smaller one with later burials added? Going with the high number of 34 killings amounts to more deaths than from all other European Mesolithic sites combined (see below). Although clear evidence of multiple killings makes Ofnet strong evidence for war, what really happened there remains a mystery.

Three cases from Pinker’s List are next. The late Mesolithic Ertebolle period of northern Germany, Denmark, and southwest Sweden is conventionally dated to 4500–3200 BC, calibrated at 5400–3900 (Richards, Price, & Koch, 2003, p. 288). (By 5000 BC, war was already well established among *Linearbandkeramik* LBK agriculturalists not far away—discussed below). Ertebolle culture was characterized by most of the complex hunter-gatherer package: local population growth, more permanent settlement, exploitation of fish in estuarine environments, trade in exotic goods, general social complexity—though apparently not much hierarchy (Nash, 2003, p. 160; Price, 1985, pp. 350–355, 360). As noted in chapter 7, Ertebolle culture has the reputation of being especially violent. But besides the violent deaths at Bøgebakken (2 or 3 of 22) and Skateholm (2 of 53), other reported signs of violence (Bennike, 1985, pp. 98–115; Thorpe, 2003b, p. 172) involve healed skull fractures. Bennike (1985, p. 101) found these to be very common, but notes that most were found in the middle of the frontal bone. “If a large part of these injuries should have been the result of fighting, one would surely have expected to find a greater number on the left side, but strangely enough that is not the case here.” Subsequent unwounded finds lowered the average of trauma, but it “still remains high within the context of prehistoric Europe” (Schulting, 2006, p. 227). So how warlike was the Ertebolle, really? Outside Scandinavia, the Tévéc region in

Brittany presents evidence suggesting war, with 1 or 2 individuals out of 23–25. Tévéc too looks complex, with increasing sedentism, a focus of restricted aquatic resource, and social hierarchy (Bender, 1985, p. 23).

Iberia presents powerful negative evidence. From shell middens along the Muge and Sado Rivers in Portugal, 5500–3500 BC, examination of 308 individuals produced a total of 14 traumatic injuries. Post-cranial breaks seem accidental, but six healed depressions on the cranial frontal bone are likely due to blows (Cunha, Umbelino, & Cordasco 2004). Conflict, violence, yes, but no traumatic deaths are indicated.

A major cemetery at late Mesolithic (4000 BC) Olencostrovski mogilnik in northern Russia reveals a very large, complex forager center, in a particularly rich boreal zone, immersed in long-distance trade of lithic materials (O’Shea, 1984, 29, 35). Trauma is not described, or denied, among its 170 individuals, though O’Shea spends several pages discussing the burials and possible social relations between groups. Dolukhanov (1999, 80) characterizes the area as “comparatively harmonious.” Besides those cases, an “exhaustive catalogue” of Mesolithic remains (Newell, Constandse-Westermann, & Meiklejohn, 1979, pp. 39, 97) remains found two other probably lethal injuries: a pre-Ertebolle man from Gotland Sweden, c. 6000 BC, with a point embedded in the pelvis, and an unhealed skull fracture in a man of Cheddar, England, c. 7130 BC (Heath, 2009, p. 19–20). Vencl’s (1991, p. 220) review adds one more, a woman from Popova, Russia, during the Boreal phase (7000–6000 BC), with a point in her shoulder. Of course, single deaths do not demonstrate the presence of war.

Considering the standard claim discussed in Pinker’s List, of 15 percent average prehistoric war casualties, what does this amount to? Radovanic (1996, pp. 295–297) tabulates 1,107 individual remains from “formal disposal areas” for all of Europe. (This is not a complete list of all human remains.) His table includes all of the European cases in Pinker’s List (number of deaths = 16), the Danubian cases ($n = 7$, including two singletons), and Ofnet ($n = 14/34$). Totaling those deaths plus Franchthi in Greece and the three single individuals just noted allows the following calculations against the total figure of 1,073 Mesolithic individuals: 3.7 percent with the low estimate for Ofnet ($n = 41$), 5.5 percent with the high estimate for Ofnet ($n = 61$), and 2.4 percent for all skeletal remains excluding Ofnet ($n = 27$). These figures include six single lethalties, which may not represent war. This death rate is much greater than for the Paleolithic, but the “violent” Mesolithic is reputed to be the time when war began—not as a general trend, evidently, but in some times and places.

The Neolithic

A highly simplified European framework dates the Early Neolithic to 5500–4200 BC, the Middle Neolithic to 4200–2800 BC, and the Late Neolithic to 2800–2200 BC (Christensen, 2004, p. 129), but dates vary considerably, with agriculture in the Aegean beginning at least a thousand years earlier than in Northwestern Europe (Gkiasta, Russel, Shennan, & Steele, 2003, p. 57–58; Parkinson & Duffy, 2007, p. 99). At equally varying

dates starting in the later fifth millennium, most of Europe passes from the Neolithic to the Chalcolithic, or Copper Age, and from that to the Bronze Age. By those Ages, war had become a cultural obsession across Europe.

Before the Mesolithic got that reputation, the Neolithic was seen as the time of the origin of war. There is certainly a lot more evidence for it (Christensen, 2004; Guilaine & Zammit, 2005; Pearson, 2005). The Neolithic record is vastly more abundant than that of the Mesolithic, but with major gaps, regional and temporal variations, and causal complications. Many more skeletons are available, but numbers vary considerably along with changes in mortuary customs. Technology gives strong clues for war. A profusion of tool-weapons in the earlier Neolithics are joined over time by weapon-tools—daggers, axes, and maces. But the greatest source of information about the presence of war comes from settlements.

Villages are commonly enclosed by ditches and mounds, but whether these are fortifications or ritual centers without defensive design has been debated heatedly (Carman and Carman, 2005, p. 219; Christensen, 2004, p. 142–152; Golitko & Keeley, 2007, p. 336–338; Keeley, 1996, p. 18; Thorpe, 2005, p. 1–2; Whittle, 1985). Some are clearly geared for defense, others are not, and many are ambiguous. Building enclosures or mounds involve a great deal of coordinated, collective labor. When they appear across a landscape, its local groupings have become something more than ad hoc collections of families, probably lineages or clans. Ritual activity is to be expected. Parkinson and Duffy's (2007) conclusions, after surveying Europe and beyond, seem reasonable: European enclosures represent more segmental social organization. Heightened group identity can be the social basis of either cooperation or violent competition, "different faces of intergroup interaction, one peaceful, the other violent" (p. 127). I would add that they are evidence for war only when they incorporate clear defensive preparations.

What follows is a tour around Europe, assessing the total war record rather than listing the most violent cases. A few extraordinarily violent events are reported, most from the final Early Neolithic LBK culture of northern Europe. Those killings are often cited as evidence of the high casualties of prehistoric war. Put in context, they stand out as far from normal. The overall record will reveal—with gaps as encountered in the literature—very limited violence or killings in the earliest Neolithic, with more signs of institutionalized warfare developing through the Middle and Late Neolithic (with some exceptions), and being obvious in the elaborating weaponry of the Copper, Bronze, and Iron Ages. Coverage stops there, when war was firmly ensconced.

Southern Europe

In Greece, some Neolithic sites date to as early as the late tenth millennium, but more appear in the later ninth, probably representing diffusion/migration from Anatolia (Gkiasta et al., 2003, p. 57; Ozdogan, 2011). Although there are suggestions of defensive ditches in some Early Neolithic (6600–5700 BC) sites in Thessaly, trenches are more common in the Middle (5700–5350), and walls are more common in the Late and Final

Neolithic (5350–3200). Sesklos on Thessaly has an enclosure of debated purpose, but it was destroyed at the end of the Middle Neolithic. The sparse skeletal evidence of violent death, shifts in tools towards weapons, and settlement clustering with vacant spaces between, all became more common and pronounced through the Middle and into the Late and Final Neolithic (Andreou, Fotiadis, & Kotsakis, 1996, pp. 541–543, 547; Kokkinidou & Nikolaidou, 1999, pp. 92–97; Runnels, Payne, Rifkind, White, Wolf, & LeBlanc, 2009, pp. 172–189). Yet one skeletal collection from Late/Final Neolithic Alepotrypa Cave has 9 of 69 individuals with small, healed cranial depressions, but still no indications of violent death (Papathanasiou, 2005:225). In the Early Bronze Age (3250–2250), walls are larger and more obviously defensive, with bastions (Andreou et al., 1996, p. 547). By the late Bronze Age and into the Early Iron Age, warrior burials are major cultural statements, though carrying different meanings (Whitley, 2002).

One line of the spreading Neolithic package through Europe went from Greece across the northern Mediterranean rim (Rowley-Conway, 2011). In Italy, limited evidence of cultivation begins in the period 6500–6200 BC, but by 5700 it was thriving. Around then, in the Tavolieri plain (and in some but not all other eastern Mediterranean sites) ditches surround the earliest farming villages. This is a good illustration of ambiguous enclosures, with defensive purpose very questionable. In some sites, houses within a village have additional open-C ditches around them too (Robb, 2007 pp. 91–95, 261–265; Skeates, 2000, p. 162). At almost every excavation, there are indications that houses were burned upon abandonment, but the careful tending of fires required indicates deliberate acts by those moving on, rather than an attack (Robb, 2007 p. 89).

I am not aware of any data that indicates temporal trends in conflict over the entire Neolithic, and the advent of collective violence remains fundamentally ambiguous. "Evidence is sparse. There is no iconography or elaboration of material culture related to weaponry until the Late Neolithic" (Robb, 2007, p. 258). Analysis of the limited and fragmentary skeletal remains from Neolithic and later Italy indicates a substantial percentage of cranial and post-cranial trauma, though cause is unknown. Robb (1997, p. 134) notes cranial trauma is greater in the Neolithic taken as a whole than in the Bronze and Iron Ages, reputed to be very warlike—"actual violence, as far as cranial trauma reflects it, and the perceived threat of violence, as reflected in defensive architecture, appear to have declined precisely as the cultural celebration of violence increased" (p. 136).⁴ By the Copper Age, metal daggers and other weapons are prominent (Robb, 2007, p. 300). "Otzi," the famous "ice man" of the Tyrolean Alps, is dated to 3360–3100 BC, around the Neolithic/Copper Age transition (Rom, Golser, Kutshera, Priller, Steier, & Wild, 1999). He was killed by an arrow in the back (Nerlich, Peschel, & Egarter-Vigl, 2009).

In France, the local Neolithic develops in the seventh millennium (Gkiasta et al., 2003, p. 58), and is often pegged to around 6000 BC. In southern France, the cave of Fontbregoua contained remains of 8 to 14 individuals. Careful analysis indicates cannibalism, from what is stratigraphically indicated to be of one moment (Villa et al., 1986; Villa, 1992, pp. 99–100). While cannibalism does not necessarily indicate war,

it surely can be a result of it. War seems more likely in this case because new dating has moved this from around 3930 BC, to around 5000 (Le Bras-Goude et al., 2010, p. 174), which makes it roughly contemporary with massacres at Tallheim and Schletz-Asparn in Germany and Austria (see below). Yet human remains are not mixed with animal remains (mixing being an accepted indicator of cannibalism), and there is no evidence of violent death (Knusel & Outram, 2006, 263). Besides that extraordinary event, in a survey of all Neolithic human remains from France, some 2000–3000 individuals, 48 had projectile wounds, including healed ones. Taking the median for individuals, that amounts to 1.9 percent, with some unknown fraction of those were healed. The vast majority is post-3500, but since there are far fewer remains from before that date, it is impossible to divine a trend in that data.

In the Middle Neolithic, from the late fifth millennium, among the few skeletons available there seems to be a high frequency of trauma, and enclosures develop protective outerworks at gates (Christensen, 2004, pp. 137, 150). When skeletal remains increase, the most violence at any one site in France is from the third millennium Baumes-Chaudes cave, where of 300–400 individuals, 17 had arrow injuries, and a copper dagger was stuck in a thorax (Guilaine & Zammit, 2005, 125–143). Another late burial has six skeletons, two with embedded points, but all killed with cranial blows (Birocheau, Convertini, Cros, Duday, & Large 1999). Over the third millennium, locations associated with the sometimes similar Funnel Beaker and widely-flung Corded Ware Culture (also known as the Battle-Axe Culture), provide all sorts of war signs—wounds, weapons, fortifications, art—as war and warriors are glorified (Guilaine & Zammit, 2005, pp. 158 ff.). Champ Durand, 3300–3000 BC, has a massive system of defense in depth trenches, walls, and palisades (Christensen, 2004, p. 152).

In Iberia, the Neolithic package of cultivation, domesticated animals, and ceramics arrived, probably with colonizers from the sea, sometime around 5500 BC. Aspects were rapidly adopted by local foragers, and quickly spread outwards (McClure, Molina Balaguer, & Bernabeu Auban, 2008, pp. 326–327). Only in the Late Neolithic (c. 3400 BC), going into the early Chalcolithic (c. 2950 BC)—a time of population expansion, massive social transformation, and growing hierarchy—are there good indications of war. First, settlements move to defensible, but nonfortified locations. Arrowheads are mass-produced, and along with daggers are prominent as grave goods. In some areas, hillforts appear in the early third millennium—as they do at this time elsewhere in the Western Mediterranean (Oosterbeek, 1997)—including the spectacular construction of Los Millares (Aranda Jimenez, & Sanchez Romero 2005). But those developments are post-Neolithic.

Projectile wounds are rare. From Portugal, there are only two individuals, one of them from the LN/Chalcolithic transition, 3500–2500 BC. In Basque Spain, at San Juan Ante Portam Latinum, (Final Neolithic 3300–3000 BC), of 338 individuals, there are arrow wounds in 12 persons, with 7 or 8 surviving (Fernandez Crespo, 2007). Twenty km away at Longar, 4 of 112 individuals have embedded points, but at 2400 BC, that is well into the Chalcolithic (Armendariz et al., 1994). Silva and Marques (2010, pp.187–189) note three

additional Spanish sites with single arrow wounds, but conclude that overall, such trauma is less common in Iberia than in France.

In the gorges of Castallon on Spain's western Levant are famous rock paintings depicting both warfare and executions. These extensive portrayals cannot be directly dated, but a variety of considerations have practically ruled out any time prior to the earliest Neolithic (Christensen, 2004, p. 135; Fairen, 2004, pp. 4–7; Guilaine & Zammit, 2005, p. 121; Nash, 2005, pp.:75, 79).

More precise dating is not possible, and they could come from any time up to Copper Age, a span of some 3,000 years. Several features in some of the portrayals suggest Final Neolithic or early Chalcolithic social organization: large parties of warriors, signs of rank (headdresses), and expressions of authority (as in executions) (Nash, 2005). A dominant arrow form resembles those of the Chalcolithic (McClure et al., 2008). The prevalence of hunting scenes, which once was the basis of Mesolithic or even Paleolithic dates, is actually quite consistent with Chalcolithic/Bronze Age iconography elsewhere, which associates both warfare and hunting with male valor (Guilaine & Zammit, 2005, pp. 167–173). But as far as I know, there are no suggestions of hill forts in this art, and the fighting portrayed is open battle. For that reason, I would guess they are no later than the early Chalcolithic.

Northern Europe (Loosely Defined)

The Neolithic developed rather late in the British Isles, but war followed more quickly on its advent than elsewhere. Agriculture spread rapidly around 4000 BC (with significant local variations) (Thomas, 2007). Although it has been looked for, there is no evidence of war between farmers and foragers. There are tool-weapons of axes and arrows, but of course those can be used for work, and temporal distribution or any change from early to late Neolithic is not clear. The earliest farmers did not live free of violence, however. There are a few embedded projectile points, and others found loose in burials suggest wounding. Blunt instrument trauma is common. Systemic reexamination of cranial remains 4000–3200 cal BC, often putting together fragments, produced about 350 individuals, 31 of whom had identifiable trauma. The researchers estimated that in about 2 percent of the total sample, the fractures may have caused death, and 4–5 percent were healed (Heath, 2009, 34–42). That is a high proportion of deadly strikes compared to other patterns of cranial trauma discussed elsewhere in this chapter, and so more suggestive of war.

Although many early sites were enclosed, there is a consensus that they were not designed for defense (Schulting & Wysocki, 2005, pp. 108–109, 132). Around the middle fourth millennium, however, major hill fort defenses appear at different locations across southern England (Heath, 2009, pp.43–55; Schulting & Wysocki, 2005, p. 108). Two massive structures, Crickley Hill and Hambledon Hill, show clear signs of attack and destruction, the latter about 3400 cal BC (Mercer, 1999, p. 156), and among four bodies buried together at Fengate, one had an embedded point (Pryor, 1976). In an unusual development, after 3200 BC, almost all the major hillforts are abandoned, and signs of warfare

virtually disappear from the later Neolithic, returning only in the Middle Bronze Age after 1500 BC (Mercer, 2007, pp. 123–124, 148; c.f. Heath, 2009, pp. 65 ff.). Given that other preconditions of war are present throughout that hiatus, this period merits further investigation as possibly a time when forces of peace overcame those of war.

We now come to the most investigated Neolithic culture, and the most debated-on war, for all of Europe, the *Linearbandkeramik*, or LBK. Developed around 5700 BC in Hungary, this represents a distinct wave of Neolithization that rapidly spread across northern Europe—through some combination of migration and exchange, and absorption or displacement of local Mesolithic peoples (Rowley-Conway, 2011). Ultimately, by about 5000 BC, a remarkably uniform LBK tradition occupied most areas from Ukraine to the Paris basin (Gkiasta et al., 2003; Price, Wahl, & Bentley, 2006, pp. 260–261). Earlier LBK settlements in the east have few enclosures or skeletal indications of violence, and stayed that way later on. But in the western extensions, later LBK settlements are more often enclosed, and some are clearly fortified with stockpiles of arrowheads (Keeley, 1997, pp. 307–312; Golitko & Keeley, 2007, pp. 332, 338).

The most dramatic evidence of war in all of Neolithic Europe comes from three western LBK sites, Talheim, Schletz-Asparn, and (perhaps) Herxheim (Golitko & Keeley, 2007, pp. 333–335; Guilaine & Zammit, 2005, pp. 86–95). In each, large numbers of skeletons are found with obvious signs of violence. There is general agreement that Talheim and Schletz-Asparn were slaughters, and marks of the killing instruments show they were done by other LBK people. Herxheim is more complicated, at first interpreted as the biggest massacre of all; then reconsidered as a central burial place for a large surrounding population that did not die violently but whose bones were processed for burial; but also with interpretations of sacrifice and/or cannibalism (Boulestin, Jeunesse, Haack, Arbogast, & Dermaire, 2009; Orschiedt, Hauber, Haidle, Alt, & Buitrago-Tellez, 2003; Orschiedt & Haidle, 2007). The three sites are very close in time, just around 5000 BC (Wild et al., 2004, p. 384), roughly contemporary with the Fontbregoua cannibalism in southern France. This dramatic coincidence suggests some common factor, and climate change disruption of subsistence has been proposed (Gronenborn, 2007; Teschler-Nicola et al., 1999), though the connection is tenuous. On the other hand, late LBK settlements had grown to high density in favorable zones, so perhaps were sensitive to disruption; and within those areas, local communities had developed levels of alignment, clans and beyond (Bogaard, Krause, & Strien, 2011), well-suited for war.

Other Middle/Late LBK sites contain skeletal remains that might, or might not, reflect multiple killings. Interpretation is key, and some scholars are pushing back against current trends to argue that “violence and warfare are not interwoven with the late and terminal phases of LBK” (Gronenborn, 2007, p. 19). But there is a lot of evidence to argue against in the later, western LBK. Skeletal trauma (including non-lethal) for all LBK sites reaches 20 percent. For the western extensions alone, including the massacres, it hits an astonishing 32 percent. Taking out Talheim, Schletz-Asparn, and Herxheim, brings the overall total down to 6.2 percent. For the eastern areas alone, it

is only 2 percent (Golitko & Keeley, 2007, p. 335)—which is not that much, since this includes all kinds of trauma. On the point of nonlethal trauma, 4 out of 71 individuals (54 adults) from Neolithic northeast Hungary, 5860–4380 BC, including pre- and post-LBK, have skeletal trauma indicating violence, some with multiple fractures, but none of these traumas appears to be the cause of death (Ubelaker, Pap, & Graver, 2006, pp. 250–251). However, as bad as the western LBK ended up, the cultural tradition began peacefully.

The massacres coincided with the end of the Early Neolithic, as Northern Europe broke up into distinctive local traditions. Generalization is difficult, but different areas follow the expected long-term shift toward war. In Poland’s Lengyel Culture, 4700–4000 BC, one site is on a defensible location, ditched and palisaded, with burned houses, skeletal violence, and battle-axes. It is the only such site on the Polish plain (Lorkiewicz, 2011, p. 429). However, that pattern of defensible fortified sites is more common in late Lengyel sites, perhaps linked to major climatic change and/or developing social hierarchy. Elaboration of defenses progresses into the Copper Age (Pavuk, 1991). Lengyel sites in Austria and Slovakia show signs of violence and possibly massacres (Vencl, 1999, pp. 64, 69). Estergalyhorvati in Hungary had 25–30 haphazardly dumped bodies, at least two of which had perimortem injuries (Makkay, 2000; Schulting, 2006, p. 231). In the Netherlands, northwest of the old LBK area, a cemetery at Schipluiden from 3600–3400 BC has seven individuals. One double grave includes a person with a deadly skull fracture, and other remains show additional signs of violence (Smits & Van der Flucht, 2009). In Denmark, within the fourth millennium Funnel Beaker Neolithic, sites from 3500–3100 BC have many clearly fortified sites and battle-axes (Andersen, 1993, pp. 101–103).

In the Late Neolithic verging into the Chalcolithic, the Corded Ware/Battle-Ax Culture (2800–2200 BC) spread from Holland to Russia. Although fortifications cease to be built, battle-axes are found in the graves of roughly one in ten men. Actual levels of killing in Corded Ware times are still foggy, but one German site, c. 2800 cal BC, has 13 bodies in multiple graves, with multiple signs of deadly trauma (Meyer, Brandt, Haak, Ganslmeyer, Meller, & Alt, 2009). Somewhat later in the even more widespread Bell Beaker culture, axes are surpassed by daggers and spears. In Scandinavia, the Bell Beaker from 2350 BC up to the Early Bronze Age around 1700, the diagnostic of different sub-periods is changing styles of stone dagger and spear heads (Vandkilde, 2006). Christensen (2004, p. 154) interprets these seemingly contradictory trends in fortifications and weapons as signaling a shift to open battle, involving a military elite.

Eastern Europe

Closing the circle and moving from the northwestern to Eastern Europe, we return to the areas previously discussed for Mesolithic violence, around the Dnieper rapids. Skeletons from the final Mesolithic and early Neolithic have no signs of violence (Lillie, 2004, p. 92). Around the Iron Gates Gorge between Serbia and Romania, there is no trauma during the

time early farmers coexisted with foragers (Roksandic et al., 2006, p. 347). Referring to the Iron Gates, but commenting more broadly about Eastern Europe, Chapman (1999, pp. 140–141) emphasizes that some very early farming sites are surrounded by ditches of unknown purpose but that different indicators of war trend upward through the Neolithic into the Chalcolithic, when as usual, there appears an apparent cultural emphasis on martial values (Chapman, 1999, pp. 140–141).

Between the Danube and Dnieper, east of the LBK and later Lengyel areas, a non-LBK Neolithic tradition, the Cucuteni-Tripolye culture, developed from 5500 BC or sometime later. Earliest finds are associated with mountain passes that may have channeled trade. They expanded and replaced or absorbed the Bug-Dneister culture, into parts of Ukraine, Moldova, and Romania. No indications of war are reported. But the Middle Cucuteni-Tripolye, 4440–3810 BC, saw a shift to internal social hierarchy or even stratification, larger settlements, extensive fortifications, weapons, and skeletal trauma, with the most militaristic areas facing cultural boundaries with non-Cucuteni-Tripolye groups. By late Cucuteni-Tripolye, 3780–3320 BC, there were stone ramparts and population replacements. Cucuteni-Tripolye gave way to the Corded Ware/Battle-Ax culture that spread—although with surprisingly few signs of actual war—across northern Europe, and passed into the Copper Age, with its well-defined military elite (Anthony, 2007, pp. 162–174; Dolukhanov, 1999, pp. 81–87, cf. Gimbutas 1991).

Below the Cucuteni-Tripolye, in northeast Bulgaria, the Neolithic began in the earlier sixth millennium, and the Chalcolithic by around 4900 BC, considerably ahead of other areas previously discussed (Ivanova, 2007). There is no evidence for warfare in the later sixth millennium, and no fortifications. That changed abruptly in the early fifth millennium Chalcolithic, which is characterized by remarkable social complexity and clear hierarchy and wealth differences. Scattered settlements nucleated into dense networks in defensible locations, possibly as deliberate acts of colonization, stayed in place for centuries, and erected major fortifications. Yet initially, there are few signs of actual war, in killings or destruction. Those came later. After 4500 BC, new weapons appear or proliferate—heavy arrowheads, javelins, maces, axes of stones and metal. For 4350/4300 BC, numbers of skeletons with deadly wounds may be found in or around burned structures of subsequently abandoned tells (Anthony, 2007, pp. 225–227). Even though 4300 is an earlier end-point than most other time lines considered, in Bulgaria it was almost into the Bronze Age, and time to stop this tour.

Vencl (1999, p. 71) sums up the European record: by the Late Neolithic and Copper Age, “a complete and definitive set of archaeological war attributes developed, fully corresponding to the evidence from later periods when war and warfare are attested by written sources.” Then comes the Bronze Age, with its military aristocracy. In contrast to the ad hoc, locally variable fighting of the earlier Neolithic, war by then was a self-sustaining cultural system, adapting and evolving across all of Europe (Harding, 1999; Kristiansen, 1999; Kristiansen & Larsson, 2005; Osgood & Monks, with Toms, 2000). To get to written history, Europe still has to pass through the chaotic, violent end of the Bronze Age—with

climate change strongly implicated in its “collapse”—and then the Iron Age, with its disciplined infantries and new manifestations of warriorhood (Drews, 1993; Randsborg, 1995, 1999; Whitley, 2002). There are real questions about the lethality of the later wars of the metal ages—how much of the population fought, did they fight often, and how many were killed? Did a military elite maintain their dominance but also find ways to limit actual wars? While war was clearly a major presence across European cultures, it is not at all clear that a great many people died in combat. But war in the metal ages is beyond the scope of this chapter, except to note that it is, at once, the end product of millennia of war development, and a foundation of classical views of “the warlike barbarian,” and the idea that humans have “always” made war.

Considering prehistoric war in Europe, many authors confirm Keeley’s characterization of a prior “pacification of the past,” as scholars overlooked evidence of violence and war. But the tide is well-turned.⁵¹ More than a decade of studies has documented the existence of war (or stressed the military possibilities of ambiguous evidence, or imagined it almost everywhere based on dubious analogy with twentieth century ethnography). Conclusions are always subject to interpretation and debate, and complicated by many lacunae in data. But in my assessment, there are some clear regularities, which I will state here as generalizations.

The European Paleolithic has few signs of violent injury, including one killed child, but excepting the ambiguous cases of cannibalism, no evidence of war. The Mesolithic provides several instances of multiple deaths strongly suggesting war, but these are scattered across the continent and millennia. The earliest centuries of farming exhibit, in some places, some signs of individual violence, but no evidence that persuasively establishes the existence of war, although war in the initial Neolithic is a possibility in England. In all other regions, after 500–1000 years or more without it, clear evidence of war appears in skeletons and settlements, in some places but not others. As time goes on, more war signs are fixed in all potential lines of evidence—skeletons, settlements, weapons, and sometimes art. But there is no simple line of increase: the violence around 5000 BC in the western LBK was far worse than what followed, and other areas had ups and downs in active war. Even unmistakable evidence of the cultural presence of war does not indicate how much actual killing took place. Whatever the actual death toll, by the final Neolithic/Chalcolithic transition, a culture of war was in place across all of Europe, becoming more prominent in the Bronze and Iron Ages.

Because of space limitations, discussions of war evidence has made only limited references to what I argue as preconditions for war, which vary greatly by area, and are often debatable both in interpretation and dating. Yet I will hazard another set of generalizations for the European Neolithic, acknowledging that there are numerous exceptions and arguable points. By the time war signs appear, so do several sociodemographic changes, with settlements becoming bigger, denser, and more permanent. Livestock herds get larger, and harvests more likely to be stored and managed than consumed by individual households. Local social segmentation—often marked by enclosures—and/or migrations increase

definition of and distinction between local groups and even larger networks. Networks of long-distance trade in exotic valuables appear (though I did not find a single study suggesting trade control could be a source of warfare, as I will argue for the Near East). Local groups begin the Neolithic with virtually no discernible hierarchy, and end it with clear inequality, and an apparent military elite. The latter is reflected by the end of some Neolithics, in a culture of war, with veneration of weapons and warriors, as characterized the subsequent Copper and Bronze Ages. Finally, environmental perturbations are associated with several points of transition and conflict, though cases are too variable, and sometimes temporally fuzzy, to make much of a conclusion. The preconditions for war grow in tandem with the development of war.

Considering the significance of the war-forever-backwards image both for evolutionary theories of human nature and popular understanding of war in our own culture—it may be time for European archaeologists to move beyond refuting the pacified past, to address the question of whether European prehistory shows that war actually had a beginning, and to follow the trail as it spread and intensified. Of course, some will always assert, “absence of evidence is not evidence of absence.” But considering how many scholars have been diligently searching for signs of violence, and considering how multistranded and convincing is the later evidence of war, usually without any dramatic increases in recovery (with exceptions, such as pre/post 3500 skeletons in France), is such a stance justified? Or is it a presumptive “warrification” of the past?

It would be preposterous to imagine that Europe is representative of other places. European sequences are manifestly *inapplicable* to prehistoric North America (Ferguson, chapter 7), and assuredly will be elsewhere. The theory of unilineal evolution died a long time ago. All world areas will have their own characteristics. The following section turns to another region that has been equally investigated by archaeology, the Near East. The record is very different from Europe’s, and it provides even better proof of the absence or limitation of war in earlier prehistory.

The Near East

Discussion of the Near East focuses on the Levantine corridor, a rich belt running through Israel, Jordan, Lebanon, and Syria; or bordered by Sinai on the south, the Mediterranean on the west, the Taurus-Zagros Mountains on the north, and the Syro-Arabian desert to the east (Goring-Morris, Hovers, & Belfer-Cohen, 2009, p. 185). The mountains and plateaus of Turkish Anatolia are also covered here. Through these discussions focusing on war, three different areas emerge as significant: Anatolia, the northeastern Levant, which I will refer to as the northern Tigris area, and the Southern Levant. The three areas will be shown to have very distinctive war histories. Most important, the discussions that follow build a case that the Southern Levant developed an enduring “peace system,” ways of dealing with conflict without resorting to war, which only ended with Egyptian imperial expansion.

Paleolithic

The Near Eastern Middle Paleolithic is especially noteworthy for the long coexistence of Neanderthals and modern *Homo sapiens*. Humans were present from about 120,000 BP and disappeared around the onset of glacial conditions c. 80,000, at an apparent “dead end.” They reappeared in the Levant about 50,000. Neanderthals were present from 120/112,000 BP, and disappear around 47,000 BP (Churchill, Franciscus, & McKean-Peraza, 2009, pp. 163–169; Shea & Sisk, 2010, p. 116). Shea (2003, pp. 369–372) argues that in competition over the constricted resources, the reappeared *Homo sapiens* had an advantage in using projectiles instead of the thrusting spears of Neanderthals. But was that competition expressed just in an advantage in hunting, or did it involve interspecific violence?

The *Homo* individual Skhul IX, 130–100,000 BP, was claimed to have spear wounds, but these are more likely marks from pickaxes during excavation (Churchill et al., 2009, pp. 175–176). However, at Shanidar in northern Iraq, 51000–47000 BP or older, a partially healed injury in the rib of an old (41–42-year-old) Neanderthal male, is clearly from a weapon. This is “the oldest case of human interpersonal violence” (Trinkhaus & Zimmerman, 1982, pp. 62, 72). Experimental comparisons suggest it is from a throwing spear, not a thrusting spear (though it is possibly from a knife, and there is no evidence that modern humans were actually in northern Iraq at this time) (Churchill, Franciscus, & McKean-Peraza, 2009, pp. 63–165, 174–176). While far from conclusive, this provides some support for the old idea of interspecies violence.

Natufians

After that, there is no information relevant to this study until arriving at the late Epipaleolithic, 13,100–9600 cal BC, and the people we call Natufian. Mostly settled, complex hunter-gatherers exploiting an abundant range of resources, some Natufian settlements were small and temporary, but others reached 1000 m² with about 150 residents. Over time, settlements expanded into different areas, shaped by population growth, local ecology, and climatic perturbations. Trade in exotic stone such as obsidian developed, with some indication of regional cultural differentiation, but with no persuasive evidence of social ranking as found among some other complex hunter-gatherers (Bar-Yosef, 1998, pp. 162–167; Henry, 1985, pp. 374–378; Goring-Morris, Hovers, & Belfer-Cohen, 2009, pp. 198–207).

Skeletal remains have been recovered of more than 400 Natufians. One female of 35–40 years from Nahal Oren apparently died from a blow to the head (Ferembach, 1959, p. 67). Three small samples also indicate the presence of violence, sometimes deadly. One of seven individuals, an unsexed adult, from around 10000 BC, had two healed and one unhealed cranial fractures, possibly the cause of death (Webb & Edwards, 2002). A reexamination of 17 individuals, from around 9100 BC, found an embedded lunate point with no signs of healing in a vertebra of a mature adult male. Two others among the five adult

males had healed cranial trauma (Bocquentin & Bar Yosef, 2004). In another study, 5 of 30 adult male skulls (16.7 percent) and 3 of 15 adult females (20 percent) had healed trauma, though only 1 of 487 upper limbs had a fracture (Eshed, Gopher, Pinhasi, & Hershkovitz, 2010, pp. 125, 127). Conflict, violence? Yes. But Bar-Yosef, who has called for a deliberate effort to de-pacify the past (2010a), considering all that is known about Natufians, concludes that there is no evidence supporting the interpretation of war, just personal violence (2010b, p. 72). LeBlanc (2010, p. 41) posits three possible indicators of warfare among people such as the Natufian: settlements on defendable sites, deadly skeletal trauma, and specialized or stockpiled weapons, yet even this champion of de-pacification does not cite any instances. In contrast to the European Mesolithic, there is no evidence of war among Natufians.

Pre-Pottery Neolithic A

Bar-Yosef (2011) argues that climate change drove subsistence and settlement changes among the Natufians, and eventually a shift toward domestication (and later changes). Unlike all other farmers discussed in this chapter, the people of the Levant did not acquire domesticants from elsewhere. They did it themselves. Although the "Neolithic package" as it spread through Europe is usually marked by the presence of pottery, in the Near East ceramics appeared thousands of years after the domestication of plants and animals. The first phase, the Pre-Pottery Neolithic A (PPNA), can be roughly dated as 9600–8500 BC. There are different centers, the Northern Levant, Southern Levant (where Natufian continuity is very clear), Upper Tigris, and Middle Euphrates. Each has shared and distinctive characteristics, including experimentation in a variety of domesticants, while at the same time continuing with extensive hunting and gathering.

Compared to the Natufian, PPNA population is denser, and with larger settlements of commonly 150–300 people. Evenly spaced villages cluster in favorable lowland environments near rivers, and are abandoned after a few centuries. A hierarchy of settlement sizes is apparent, down to small seasonal sites, with storage and cultic constructions in the larger ones. They are not in defendable locations, and without any indication of surrounding ditches or walls. Except by distance between major centers, there are no major cultural breaks. All areas are marked by convergence in technologies, and are linked in trade of exotic materials such as salt, bitumen, sea shells, and above all, obsidian, coming from multiple sources (Bar-Yosef, 2011, pp. 181–182; Belfer-Cohen & Goring-Morris, 2011, p. 213; Goring-Morris et al., 2009, pp. 208–211; Goring-Morris & Belfer-Cohen, 2011, pp. 200–201). Nothing in the construction or distribution of settlements suggests the presence of war.

A few of the largest sites appear to be nodes in trade networks, and probably cultic centers (Belfer-Cohen & Goring-Morris, 2011, p. 213). Evidence for communal production and distribution, and for collective ceremonialism, is a persistent characteristic of the early Near East. My argument is that they are part of a peace system, resolving potential conflict and avoiding war. At the very start of the PPNA around 9650 BC, Wadi Faynan 16

in Jordan has a large public structure with a complex internal structure (Mithen, Finlayson, Smith, Jenkins, Najjar, and Maricevic, 2011). The purpose is not obvious, but a ritual center seems likely. A more clear-cut (and amazing) ritual center is Gobekli Tepe in southeastern Turkey, centrally located on high ground visible for miles around, from 9130–8650 BC (Mithen, Finlayson, Smith, Jenkins, Najjar, & Maricevic, 2011, p. 360). It seems to have been free-standing, without accompanying settlement. No settlement remains have been found, and its monumental construction suggests a massive work commitment from populations throughout the surrounding area, leading to the inference that it was a means of creating a shared identity and culture at the very transition to the Neolithic (Schmidt, 2010, 253–254).

Jericho in Jordan is the best known settlement of the PPNA, reaching 500 inhabitants. After some centuries, the people of Jericho constructed a wall and a central tower, which was often taken as the earliest evidence of warfare, unique for its milieu (Roper, 1975, pp. 304–306). Bar-Yosef (1986) reanalyzed those constructions, and found them unsuited for defense, and more likely for protection against flooding and mudflows, an interpretation that has been widely accepted. Over 500 burials at Jericho have been recovered from all periods (including PPNB), with some multiple burials. One burial that has 30 individuals lacks any sign of violence, which suggests that they died in an epidemic (Rollefson, 2010, p. 62). LeBlanc (2010, p. 45) mentions "a few . . . healed skull fractures" from Jericho and one other site, without elaboration.

Another huge, long-inhabited and very well-investigated PPNA site is Abu Hureyra in Syria. On a terrace above a flood plain, there are no signs of walls or towers. With up to 3,000 inhabitants in clearly planned structures, there must have been some form of authority. Yet there is no sign of social hierarchy—which suggests an alternative to standard evolutionary models that connect authority to chiefs. Authority may be vested in village councils of elders or lineage representatives, who live as others do. Recognized authority can be a precondition of peace. At Abu Hureyra, remains of approximately 162 individuals include multiple burials but they have no signs of violence. Disease seems likely. Points are found in a few burials, but their positioning suggests they are grave offerings, along with other objects (Molleson, 1994, p. 70; Moore, Hillman, & Legge, 2000, pp. 3–4, 279, 294, 494–495, 505). One young man, however, has an embedded point that was clearly lethal. "This is the only evidence that we have found for death by violence" (Moore et al., 2000, p. 288).

From the Southern Levant, several small sites spanning PPNA and PPNB yield 34 skulls for osteological analysis. One has a healed cranial fracture (Eshed, Gopher, Pinhasi, & Hershkovitz 2010, pp. 123, 127, 129). That is the paltry sum of evidence for war in the Levantine PPNA. The PPNA lasted for only 1,100 years, but that much time was more than enough in Europe for clear signs of war to emerge among Neolithic people.

This absence of evidence gains significance in contrast to the earliest Neolithic in the northern Tigris area, northern Iraq. The Late Round House Horizon seems to develop out of the local Epipaleolithic Zarzian. Considerable differences exist on dates. Goring-Morris

et al. (2009, pp. 210, 212) go for calibrated 9750–8750, making it contemporary with the PPNA of the Levant. Village sites are located on the ecotone between floodplains and the Taurus. Two sites are important for evidence of war, the smaller and earlier Qermez Dere, and the nearby and later but overlapping Nemrik 9.

Qermez Dere is on high ground, with panoramic views of all approaches, and is protected on three sides by a steep drop. There are a few mace-heads, which may or may not be weapons of war. More significantly, it has a “spectacular development of projectile points” without any evident changes in hunting. Many points have broken tips, and may have “impacted with the settlement” (Watkins, 1992, pp. 68–69; Watkins, Baird, & Betts, 1989, p. 19). Nemrik 9 is bounded by steep wadis. It has mace heads, but also has skeletons with associated points (and no other grave goods) (Kozłowski, 1989, pp. 25–28). One male skull contained two points, a second skeleton had a point in the pelvic area, and a third had a broken point next to a broken arm. These points are of a type that is unusual locally, suggesting that attackers had come from some distance (Rollefson, 2010, p. 63). This convergence of different kinds of evidence supports the inference of war, the earliest in the Near East. Why war first appeared here is anyone’s guess. Later firsts in the evolution of war from this same area are associated with the long-distance trade in Anatolian obsidian, as later routes went right through this area. But obsidian was rare at Qermez Dere (Watkins et al., 1989, p. 22) and not mentioned at Nemrik 9 (Kozłowski, 1989, pp. 27–28).

Pre-Pottery Neolithic B

The second phase of the Pre-Pottery Neolithic, PPNB, lasted longer, 8500–6400 cal BC. This was the early Holocene climatic optimum, especially favorable to cultivation—“a time of plenty as conditions improved from one year to the next” (Goring-Morris & Belfar-Cohen, 2011, p. 202). Cultivation shifted from earlier local experimentation to heavy reliance on cereals. Domesticated animal herds increased, use of wild resources declined, and the population exploded. Villages grew in size and stayed put for many centuries—still regularly spaced and with smaller settlements grading out from larger—and populations colonized formerly marginal areas. With northern and southern variations, some long-settled locations were abandoned, possibly due to changing water tables (Bar-Yosef, 2011, p. 182; Goring-Morris et al., 2009, pp. 212–214). Within this panorama, a new phenomenon of “mega-sites” approaching urban proportions developed and spread, transforming the social landscape, expanding “on an almost ‘unlimited’ scale in terms of food resources, due to the presence of various ungulates . . . and the availability of arable lands” (Gebel, 2004, p. 4).

Across a mosaic of locally specific adaptations, a deeply entwined interaction sphere of exchange and cultural convergence developed that extended past the old PPNA areas to include Anatolia and Cyprus (Asouti, 2006; Goring-Morris & Belfar-Cohen, 2011, p. 202). Still, no fortifications or territorial separations are noted, at least until (possibly) the end, even though the presence of war is sometimes assumed (e.g., Gebel, 2004, p. 9). In contrast, major ritual centers—consistent with the generally pronounced cultic

orientation of PPNB remains—developed *between* major population centers, especially in the Northern Levant and southern Anatolia, which imply social cooperation across large areas. Gobekli Tepe, which began in the late PPNA, continued on, but other centers such as Nevali Cori and Cayonu became more common in the PPNB, often between settlements, often on high ground visible for miles around (Belfar-Cohen & Goring-Morris, 2011, pp. 213–214; Bodet, 2011; Erdogru, 2009, pp. 130–131, Kuijt & Goring-Morris, 2002, p. 419).

Roper’s (1975, pp. 311–312) pioneering survey of signs of war in the Near East finds nothing for a millennium after the questionable early wall of Jericho, the original mega-site, but some possibilities from the late seventh millennium. Extensively quoting Kenyon’s report, the first ten PPNB occupation levels have no hint of a wall, but Phase XII and XIII trenches found massive stone slabs sloping up on top of fill, which Kenyon interpreted as defensive. Not likely. The structure was built in the midst of domestic units. The land behind it was filled in to its top, with house structures then built right up to the edge. Everything looks like a terrace, not a defensive wall. Besides that, for this key case, the extensive skeletal collection from PPNB Jericho does not display signs of violence, and multiple burials could be from epidemics.

Beidha (Southern Levant) level IV c. 6900–6600 BC is another candidate for war. Beidha was burned, with some culturally new elements found after, yet there are also continuities. With no clear signs of fortifications or of any violence in skeletal remains, war remains nothing more than a possibility (Roper, 1975, pp. 312–313). Ras Shamra (Northern Levant) c. 6436 BC, possibly an early seaport, has a surrounding glacis of stone slabs over dirt, but that could be to prevent inundations (Roper, 1975, pp. 313–314). In Turkey Mellaart (1975, pp. 90 ff) has interpreted Catalhuyuk joined structures with roof entrances as defensive—a point that seems destined to interminable debate—and a similar interpretation has been offered for aceramic Hacilar c. 7040 BC. Roper (1975, p. 316) notes the doubts, and considering all four sites, concludes that “there is no conclusive evidence . . . that warfare was feared or practiced, though it is likely.” These four sites are frequently noted as evidence of Near Eastern warfare. It is not much of a record.

Post-Roper’s survey, Ghwair I, a smaller site from southern Jordan (Southern Levant, as are other PPNB sites to follow), 6800–6300 BC, has one infant with elaborate grave goods, and an elderly female with a point embedded inside her jaw (Simmons & Najjar, 2006, p. 90). At late PPNB Basta in Jordan, of 29 skulls, five had healed minor cranial fractures (Schultz, Berner, & Schimdt-Schultz, 2004, p. 260). Another boy was killed by a blow to the head (Rollefson, 2010, p. 63). The violence at both those sites would be consistent with pronounced internal hierarchy. Late PPNB Ba’ja, a small site in mega-site times, is on a terrace in nearly vertical sandstone formations, approachable only through a steep and narrow passage. It certainly could be called defensible, and in that quality is noted as unique within its time. But from photographs, Ba’ja’s terrace seems to be the only habitable ground in the vicinity, at least with access to water. No traces of contemporary

settlements have been found anywhere around them (Bienert & Gebel, 2004, pp. 119, 121, 135; Gebel, & Bienert 1997, pp. 223, 229).

Ba'ja, Basta, and Beidha are not far apart, and this confluence of inconclusive clues makes it a promising area to look for concrete evidence of war. Yet as it stands, there is really nothing in any of those sites that even probably support the conclusion that war was present. The mega-sites should be able to raise a few hundred fighting men, and the effects of fighting at that scale most likely would be seen. On the contrary, in the north Jordan valley from the PPNB through the Pottery Neolithic, the countryside was spotted with small settlements in flat ground near water without any defensive characteristics (Roper, 1975, p. 31). In sum, there is no persuasive evidence of war in the PPNB from the Southern Levant to Anatolia. Kuijt and Goring-Morris (2002, p. 421) sum up the record for the entire Levant Pre-Pottery Neolithic, both A and B. They note the "near-total absence of evidence for interpersonal or intercommunity aggression in the PPN." Starting with the Natufian in 13100 BC, the close of the PPN around 6400 BC makes 6700 years in the Southern Levant without any good evidence of war.

Pottery Neolithic

The end of the PPNB, often called "collapse," included abandonment of many long-settled sites, and was close to and quite possibly related to the major climatic reversal and aridity in the eastern Mediterranean, known as the "8200 cal yr BP event" (Clare, 2010, pp. 15–17; Rollefson, Simmons, & Kafafi, 1992, p. 468; Weninger et al., 2006). The Pottery Neolithic, 6400–4500 cal BC (Goring-Morris et al. 2009:190), post-8.2 K cal BC, is marked most obviously by the development and immediate spread of pottery. It also saw a shift to smaller settlements, the digging of wells, more reliance on pastoralism, and sharp differentiation of local cultures. With climate-forced competition, invested labor in wells and livestock, and cultural differentiation, one might expect the emergence of warfare.

But war is not apparent in the record of the Southern Levant PN. Roper (1975, p. 317) notes settlements are small, on low, watered land. There is no sign of fortifications in the sixth millennium after the questionable wall at PPNB Jericho. Archaeological excavation in the Southern Levant has been intense in recent decades, as more real estate is developed (Rowan & Golden, 2009, p. 2). But 35 years after Roper, the evidence has not changed.

'Ain Ghazal was a central Jordan mega-site and major ritual center that was not abandoned with the PPNB "collapse." Occupied from 7250–5000 BC, no walls are indicated until Pottery Neolithic times (5500–5000 BC), when "stone enclosure walls abound . . . but just what these features enclosed is difficult to determine" (Rollefson et al., 1992, p. 450). As these walls are found throughout the settlement, it is hard to see anything that suggests a defensive purpose (Rollefson, 1997). Differential burial of 112 skeletons suggest two classes of people, perhaps "a two-tiered 'patron-client' population" (Rollefson et al., 1992, p. 463). One of the "trash burials" has a thin flint blade, snapped

at both sides, going through the skull (Rollefson, 2010, p. 63). It could be a killing, except it is not entirely clear if this was intentional or rather the result of post-depositional processes (Kuijt & Goring-Morris, 2002, p. 422). What 'Ain Ghazal may be indicating is some form of hierarchy in a ritual-oriented central place, and increasing control as an alternative to warfare even in tough times for subsistence.

Although Clare (2010, pp. 18–19, 20, 23) takes a generally hawkish position in interpreting evidence for war, and points out a few possible indicators which are "to say the least, ambiguous," he recognizes a total absence of any "obvious fortification structures," a general reduction (with local variations) of tool-weapons of knives and arrowheads without any increase in sling ammunition, and concludes "harmonious times for the southern Levant might even be suggested, at least during the PN; and this is indeed the picture that is beginning to emerge." Clare suggests that climatically driven hard times may have led to new forms of cooperation.

The issue of maces is fully joined in the Pottery Neolithic Southern Levant (Rosenberg, 2010, pp. 210–211, 214). Many maceheads are found, but they are small (most under 5 cm in diameter) and with very thin shaft holes (most 10–15 mm, some down to 6 mm). These maces could not "withstand a serious blow." He concludes, "most early maceheads were never used in combat." Rosenberg speculates on possible ritual uses. A reasonable interpretation is that they were symbols of authority. This does not necessarily imply social ranking or "chiefs." It could be the authority of a community, represented by elders and wise people, perhaps with cultic backing (Kuijt & Goring-Morris, 2002, pp. 420–423). As noted previously, recognized authority is a way of regulating conflict, and could be central to avoiding war. Maces may be part of a system of peace. Adding the PPN to what came before in the Southern Levant, that makes 8600 years without signs of war.

Yet across the northern Near East, evidence for war is substantial in the Pottery Neolithic. Around the northern Tigris, close to Qermez Dere at the border between mountains and plains, is seventh millennium Tell Maghzaliyah. Several centuries after it was first occupied, a major defensive wall was raised, possibly with one or more towers (Bader, 1993, pp. 64–66). This is the earliest known fortification in Mesopotamia (Munchaev, 1993, p. 250), and may be the earliest in the Near East. Maghzaliyah appears to be of different cultural tradition than Qermez Dere, with some Anatolian affinities, and its people had a thousand times more obsidian (Watkins et al., 1989, p. 22). This is the *debouchment* where Anatolian trade comes down to the plains. Maghzaliyah could be a node in what would become (if it was not already) an enduring system of long-distance trade routes in Anatolian obsidian (Healey, 2007, pp. 262–263), certainly the most important exotic good in the Neolithic (Yellin et al., 1996, p. 366). Cross-culturally, different aspects of trade control are often critical issues in practices of war (see Ferguson, 1999, pp. 414–415). A linkage is suggested in this case, since erection of the wall coincided with a dramatic shift from obsidian to flint, suggesting that somebody was cutting into the flow of trade from Anatolia (Bader, 1993, p. 66).

Turning to Anatolia itself, the origin of Neolithic ways is still poorly understood. In central Anatolia, clear indicators of a Neolithic way of life appear near the end of the Pre-Pottery Neolithic, between 7400–7100 cal BC. Settlements remain small and sporadic until about 6500, around the start of the PN, with level 6 at Catalhuyuk—which as noted early is perennially debated as an exemplar of war. A significant development for this chapter's interest in peace is that communal ritual centers disappear from Anatolia over the PN, with religious practices moving into domestic contexts (Ergogu, 2009, 129). If major ritual centers had unified scattered people, their decline could make war more likely. Yet the painted representations at Catalhuyuk do not suggest war. There are life scenes of hunting, of domesticated plants and animals, and of vultures picking flesh from headless bodies—but no portrayals of war (Erdogu, 2009, pp. 133–135). The vulture scenes could stand as a warning against it. They may have had reason to worry. War was on the way.

A case has been made (Ozdogan, 2011) and challenged (Asouti, 2009; Thissen, 2010) that climatic deterioration associated with the 8200 cal K BP event drove late Neolithic subsistence shifts within Anatolia, and the spread of domestication from there to the Balkans. Consistent with that line of thinking, Clare et al. (2008, pp. 71–77) discuss four Late Neolithic/Early Chalcolithic sites in the densely settled Lake District (Pisidia) of the south-western Anatolian plateau: Hacilar, Kurucay Hoyuk, Hoyucek Hoyuk, and Bademagaci Hoyuk. Between them are multiple indicators of war: major conflagrations, some with unburied bodies, some with a subsequent hiatus or replacement by another group, fortifications with walls and towers, and large numbers sling missiles. During (2011, pp. 72–73) questions the defensive interpretation of structures at Hacilar and Kurucay (and elsewhere) and argues that the postulated signs of war postdate 6000 BC, centuries too late to be linked to the 82 cal K event. These are valid points. The most compelling evidence from war at Hacilar (II) is dated to 5600 BC (Roper, 1975, p. 321).⁶

Signs of war in other Anatolian sites also date to the early sixth millennium. Domuztepe of the Halaf culture has a pit (5700–5600 BC) with 40 possible victims of violence (Erdal, 2012, p. 2). Guvercinkaya, 5210–4810 BC, was built on top of a steep rock outcropping. During (2011, p. 75) emphasizes that a nearby contemporary settlement was not fortified, but that would be consistent with fortifications on trade nodes. Down from the highlands on the coast, between Anatolia and Cyprus, the port settlement of Ras Shamra was destroyed by fire around 5234 BC. An apparent defensive wall went up somewhat later, possibly associated with arrival of Halafians, a people originating in Northern Mesopotamia (Akkermans 2000), who seem to have brought war along with them (Roper, 1975, p. 318). The Halafian culture is not well-understood, but they had an unusual immersion in obsidian commerce. “They apparently engaged in directionally controlled, nonreciprocal, extensive trade which seems to have been more structured and more intensive (e.g., imported obsidian comprising three-fourths or more of the chipped stone industry) than we might expect in a tribal society” (Watson & LeBlanc, 1990, pp. 137).

While climatic deterioration may be related to this widespread pattern of war, a much stronger causal connection appears to involve key nodes of the trans-Anatolian obsidian

trade. Obsidian from Anatolia was found all over the Near East. Pisidia was not a center of obsidian production, which came from Central Anatolia (Clare, Rohling, Wenginger, & Hilpert, 2008, p. 82). Sources of critical goods usually do not control trade, those at passage bottlenecks do. Ozdogan (2011, p. 55) notes final Neolithic “turmoil” in Anatolia, and that for the first time, there appears to be monopolization of trade patterns. Monopolization is the key link between war and trade.

On the Turkish coast, Mersin XX was destroyed and then reoccupied by Halafians. A similar sequence occurred at Chagar Bazar in northern Syria, and level 8 of Sakce Gozu. Below the mountains but close by, Ras Shamra Vb, also on the coast, and basal Tell Halaf (c. 5837 BC) appear to be “fortified Halafian settlements.” “It is significant that all the sites that exhibit destruction or have fortifications are located on the east-west overland trade route (or subsidiary connections to this route)” (from Nineveh in northern Iraq through the Northern Levant, to Mersin, and up through the Taurus). “One may hypothesize that the Halafians wanted and took control of a portion of this great trade route” (Roper, 1975, pp. 323–325). Sixth millennium Halaf may be the first cultural group to expand via war.

The Chalcolithic and Early Bronze Age

The Anatolian trade network and accompanying warfare continued during the Chalcolithic (4500–3300 BC), with (probable) fortifications at Cadir Hoyuk and Kurucay level 6 (During 2011, p. 75). The Early Bronze Age Anatolia trade network included a wide array of materials and products. It expanded to reach from the northern edge of Mesopotamia to the Aegean and Greece (including Troy), and was characterized by centralized urban centers with massive fortifications (Sahoglu, 2005, pp. 339–341). “Signs of systematic violence become ever more pervasive in Anatolia during the Bronze Age (ca. 3000–1200 BC), starting especially in the EBA (ca. 3000–2000)” (Erdal, 2012, p. 2).

Considering this record against all the other records examined here leads to a major conclusion: by the early sixth millennium, along the trade corridors of Anatolia, the Western world's first widespread, enduring social system of war had begun. The inclusion of Troy serves to extend that point: this is the start of a system of war that flows down in a river of blood to our present.

On the Turkish coast around 4300 BC, Mersin was a true fort or citadel, with firing ports, offsets covering turns in walls, a protected gateway and tower, and possible barracks for specialized soldiers (cf. During, 2011, pp. 74–75). After about a century, Mersin was destroyed, and the site occupied by Ubadian people (Roper, 1975, pp. 328–329). At the eastern end of the Northern Levant, even more dramatic developments ensued in the Late Chalcolithic.

In northeast Syria, close to the earlier Tell Maghzaliyah and Qermez Dere, Tell Brak and Hamoukar were emerging as urban centers by 4200 BC. Each was a major entrepôt for northern obsidian (Khalidi, Graute, & Boucetta, 2009; Oates, 1982, p. 62). Tell Brak was most probably situated to control trade, given its strategic location on a key river crossing between the Anatolian passes and the north, the Syrian route to the

Levant, and southward toward Mesopotamia. Hamoukar was on another choke point in the passage to Mesopotamia. At Brak were found not only masses of obsidian, but great caches of other prestige goods, fabulous items such as an obsidian and white marble chalice, seal impressions revealing two levels of control, "industrial" buildings, and a "feasting hall" that may have served travelers. Findings at Brak particularly (but the less excavated Hamoukar looks similar), have upended conventional notions of southern Mesopotamia as the heartland of cities, preceding known southern developments by several centuries. Monumental in every way, Brak at its peak around 3400 BC covered 55 hectares, including sprawling low-density "suburbs" around its center. The emerging question is: were they states (Oates, McMahan, Karsgaard, al-Quntar, & Ur, 2007; Gibson, Al-Azm, Reichel, Quntar, Franke, Khalidi, & Hartnell, 2002; Ur, Karsgaard, & Oates 2001)?

Surrounding Tell Brak were massive fortifications, with towers, gates, and guardhouses (Oates et al. 2007, p. 588–589). Four mass graves have been found from 3800 to 3600. The two best known suggest a simultaneous interment of hundreds, with demographic patterns and casual disposal suggesting purposeful killing rather than an epidemic. Based on several factors—such as the absence of peri-mortem skeletal trauma and the formidability of defenses—researchers speculate that this represents internal violence rather than attacks from the outside (McMahon, Soltysiak, & Weber, 2011). That is not far-fetched, given Gilgamesh's oppression of his own people to build his massive walls (Gardner & Maier, 1985, pp. 57, 67),⁷ and the possibility that local food production was stressed by cooling and increased aridity (McMahon et al., 2011, p. 217). Hamoukar, however, was attacked by outsiders. Recent excavations indicate that around 3500 BC, a massive bombardment by thousands of sling bullets weakened its 10-foot-high wall, which then collapsed in a conflagration. Subsequent levels were dominated by Uruk pottery, suggesting the south had conquered the northern trade portal to Mesopotamia (Bower, 2008; University of Chicago, 2005).

The northern Near East exhibits a long and clear trajectory to the sort of war known from the beginning of written history. But the last stop on this survey is extremely different. The record from Southern Levant in the Chalcolithic (4500–3500 BC) is best known from central Jordan. The period saw major population growth, development of transhumance and partial separation of pastoralist groups, and local cultural differentiation. Yet there were strong intra-regional similarities in ceramics, iconography, and mortuary custom. Craft specialization and mass-production grew, local and long-distance trade continued. Settlements had two tiers, and many were built according to set plans. Prestige goods and elaborate tombs suggest inequality, though its character, and whether there were "chiefs," is debated (Golden, 2010, pp. 9, 181, 190; Kerner, 1997, pp. 467–469; Levy, 1993, pp. 227–232; Rowan & Golden, 2009, pp. 69). This combination leads some to expect warfare (Golden, 2010, pp. 201). Yet the evidence of war is just not there, while evidence for a continuation of managed relations between local groups is.

The Jordan Valley was filled with unfortified settlements on the valley floor, near water. Cemeteries are often (not always) unassociated with settlements, suggesting people from different locales shared them. "Public sanctuaries," open air structures for ritual performances, were common, and some were also apart from any settlement, such as Tuleilat Ghassul, with its plastered walls "depict[ing] ceremonial processions, mythical figures and strange animals" (Levy, 1993, pp. 235–236). Tuleilat Ghassul and Tell 'Abu Hamid had major structures which could be "temples and/or administrative buildings," and "huge storage pits and large vessels." One interpretation is unification and joint administration of regional clusters (Ibrahim, 2010, pp. 82–83).

"[E]vidence for widespread site destruction, perimeter walls or other defensive features is currently lacking" (Rowan & Golden, 2009, p. 71). There is one "warrior burial," so-called because of the presence of a complex bow, but there is no reason to think it was used for anything but hunting (Golden, 2010, p. 66). Its presence does raise one important comparative point. In contrast to the European record, the Late Neolithic/Chalcolithic/Early Bronze Age "cult" of weapons and warriors is absent from the Near East (at least as far as this study goes, leaving out imperial Egypt). There are plenty of mace heads in the Chalcolithic (Rosenberg, 2010), but copper maces, once again, seem more associated with authority or ceremony than war (Tadmor, 2002, p. 241).

The sole evidence of deadly violence in the Southern Levant Chalcolithic comes from Shiqmim in the Negev, a site occupied from 4500–3200 cal BC. One adolescent has three unhealed cranial fractures, clearly the cause of death, which might have been caused by a mace (though the big hole seems rather large for that). The researchers conclude that this implies war. "Thus, the integration of simple autonomous village communities into larger more complex chiefdom organizations . . . was accompanied by warfare and violence" (Dawson, Levy, & Smith, 2003, p. 118). This is a good illustration of the current "warrification" of the past. One killing of a youth does not suggest war.

Why would war be endemic in the north, and absent in the south? Two factors may be involved in this striking contrast. One is the region's marginality to the massive currents of northern trade. In the later Neolithic, mid-fifth millennium (e.g., 5561–5317 cal BC), Hagoshrim in northern Israel was a major entrepôt for Anatolian materials, with more than 8000 items of obsidian recovered, continuing a pattern that went back to the Natufian (Rosenberg, 2010, pp. 283, 290). A thousand years later, Chalcolithic Gilat (4500–3500 cal BC), in the Negev had only rare pieces of obsidian, and those became more scarce over time. The Southern Levant had become a backwater to the great northern networks. During the Chalcolithic, worked Levantine copper began going to Egypt (Ibrahim, 2010, p. 83), and by the Early Bronze Age, Egypt would be the focus of its trade networks—with tragic consequences.

The second reason may be the persistence of a ritually reinforced system of maintaining peace between local communities. Besides Tell 'Abu Hamid and Tuleilat Ghassul and other open-air sites between settlements, Gilat, located at the border of the agricultural coastal plain and pastoralist hills, was a major ritual center (Levy, 1993, p. 236; 2006),

and a center of a local exchange in cultic objects (Yellin, Levy, & Rowan, 1996, pp. 361–366–367). As it was at the end of the line from Anatolia, there would be no reason to fight over trade control and no diffusion of war from violent neighbors; while locally, ceremony and exchange integrated communities.

This absence of war signs continues into the start of the Bronze Age, where major urban settlements arose in the midst of smaller and mobile groups. During the later Early Bronze Age Ia (3500–3300 BC, though dates vary⁸), Megiddo and Bet Shean—both in the center of Jordanian population and astride the main trade routes—developed into massive sites. Megiddo appears to have originated as a free-standing, extramural ritual center, but in the process of developing its huge structures, a sprawling settlement arose around it (Halpern, 2000, 536). At 50 hectares, Megiddo was nearly as large as its contemporaries Tell Brak and Hamoukar—but what a difference! Megiddo was a cultic center with a major, pillared temple, located at a transition between hilly pastoral areas and alluvial sites, where collective rituals “cement[ed] social relationships and promote[ed] solidarity between groups who did not come into contact on a day-to-day basis.” Bet Shean, in the center of agriculture, had major grain-storage facilities and served as a “redistribution facility” (Greenberg, 2003, pp. 18–19). Finkelstein and Ussishkin (2000, p. 584) interpret central Jordan as “a fully developed territorio-political entity, centered at Megiddo.” Seen in light of Southern Levant history, Megiddo and other centers may represent a culmination of an ancient system of resolving potential conflicts through peaceful means. That was about to end.

War in a Tribal Zone

Late in the EB1b (3300–3050 BC), Megiddo and other major sites (Tell Shalem, possibly Jericho and Tell-Erani) were fortified, as were many smaller settlements. Many settlements constructed walls in late EB1b. Subsequently, in EBII, Megiddo, Bet Shean, and other places were abandoned. Walled settlements became the rule in central Jordan, even around small sites, and some locales show signs of destruction. The defenses that archaeologists have sought in vain for thousands of previous years are suddenly evident all over the place. After local population had swelled in the EB1b, it crashed in EBII, falling by a third or more. Some indications suggest that groupings of local settlement were taking on new territorial definition (Eisenberg, 1996; Finkelstein & Ussishkin, 2000, p. 584; Greenberg, 2003, p. 20; Ibrahim, 2000; Paz, 2002, pp. 238–240, 245–251; de Miroshedji et al., 2001, p. 84).

It is often assumed that signs of war are absent in earlier remains because the type of evidence which could show war only comes in later times. My point has been that frequently, signs of war appear without any increase in physical recovery. The Southern Levant is the best possible illustration of that point. Fortifications go from none-detected to ubiquitous in only about a century, with no increase in archaeological discovery. Unmistakably, war had arrived, in a dramatic and abrupt transition. What happened? Comparative history

combined with the local chronology of events suggests one very likely answer: newly imperial Egypt turned central Jordan into a Tribal Zone.

A Tribal Zone is an area of non-state peoples affected by the proximity of a state. These are best known from the expansion of Europe, but tribal zones surround ancient states as well (Ferguson, 1993; Ferguson & Whitehead, 1999). Cross-culturally and pan-historically, a new state presence transforms war that is ongoing, frequently intensifies it, and sometimes generates war where none existed. The latter pertains here. War is affected via many interaction processes—demographic, economic, political, and ideological. The exogenous factors do not supplant local dynamics, but set them on new trajectories in a ‘multidimensional dialectic of social change. Thus, a study such as by Philip (2003, pp. 112–113), which situates the construction of walls in relation to changes in agriculture, and the emergence of social and symbolic identification with local communities, is complemented with a tribal zone approach, which asks: why now (and see Levy 1993)? Tribal zones across cultures and times exhibit remarkable similarities in process, and those regularities inform inferences in the following discussion.

In what would become known as Canaan, pre-dynastic Egypt had a long history of seemingly balanced, mutually beneficial trade, greatly facilitated by the use of donkeys by the late Chalcolithic (de Miroshedji, 2002, 40–44). The central Jordan valley was a land of “fantastic wealth” (Paz, 2002, p. 225), producing olive oil, wine, and metals, which its craftsmen were extremely skilled in working (Levy, 1993, pp. 242–243). Relations went through a “complex process” during the time of Egyptian consolidation, from sporadic contacts before 3500, to “entrepreneurs with royal affiliations” from 3500 to 3200, “to an extensive network of royal outposts [3200–3000] (complemented by the appearance of Southern Levantine traders and craftsmen at Maadi)” (Joffe 2000: 118). Maadi, near contemporary Cairo, rose to major scale based on its connections to the Southern Levant. Over time, the biggest traders in Egypt became emerging royal lines (Trigger, Kemp, O’Connor, & Lloyd, 1983, pp. 26, 59).

In Jordan, Egyptian goods proliferated in EB1a (de Miroshedji et al. 2001:98). Around 3500 BC, southwest of the central population area and along the land route from Egypt, an Egyptian village, Tell Ikhbeineh was established around 3500. Around 3300, the start of the EB1b, Tell es-Sakan was founded as what appears to be an administrative center. In the EB1b, Egyptian colonization was “so dense that it is as if the oriental frontier of Egypt had moved east to incorporate not only the northern Sinai, but also the south-west of Canaan.” By late EB1b, a hierarchy of settlements with administrative centers is apparent. Mixing, probably with intermarriage, was happening. By late EB1b some dozen sites, mostly north of es-Sakan and toward the center of population, had much imported Egyptian material along with local products—in contrast to more central Jordanian sites with few Egyptian goods, and those usually of the elite sort (de Miroshedji, 2002, pp. 42–44; and see Braun, 2002). The earlier signs point to a balanced, voluntary relationship, though, over time, tipping toward more Egyptian extractive control. One sign of increasing unilateralism is

that the major Canaanite production center in Maadi came to an end by the start of EB1b (Tadmor, 2002, p. 247).

Egypt itself was going through momentous transformation. The consolidation of Egypt and rise of dynastic power is a long process, starting around 3500 BC. There are many ambiguities, unknowns, and debates on who, how, and when. Given the ambiguities and local variations and complexities, no one can assign fractions to the role of cultural spread, mercantile consolidation, and military conquest or hegemony. It does seem to be generally accepted, however, that conquest warfare was important in the final stages of unification. The culmination of state building is associated with Egypt's Naqada III, just as colonization expanded in the EB1b of Jordan. The whole Nile was more or less unified by the time of Narmer in 3050 BC, although it may have been earlier, under his predecessor the Scorpion King. The time of the Pharaohs had begun (Joffe, 2000; Trigger et al. 1983, pp. 44–60; Watrin, 2002). Their ruling world view emphasized the duality of Egypt versus all outsiders, including Asiatics of Canaan, that order must be imposed, that interference with trade was to be severely punished, and that war against enemies would be total (Gnirs, 1999 pp. 72–75). By the start of the First Dynasty, Egyptian forces were conquering areas of Nubia, and in later Early Dynastic times, external punitive expeditions could reach genocidal proportions (Trigger et al., 1983, pp. 61–63).

Narmer's name appears in Levantine sites at the end of EB1b (Braun 2009:29). Clearly, relations with the locals had taken on a very new character. Around 3200, Ikhbeineh was abandoned. About that same time, epochal events occurred. A defensive wall went up around the Egyptian center at Tell es-Sakan, possibly with an outer bastion. Roughly a century later, a more substantial wall replaced it, this time with a glacis, making a total height of 5–6 meters, with a bastion and postern. Between 3000 and 2900, fortified es-Sakan was abandoned (de Miroschedji & Travaux, 2000, 31; de Miroschedji et al., 2001, pp. 80, 84, 90, 98–101). That and later events are beyond the scope of this chapter.

What was happening among the locals? At late EB1b Megiddo, Level XVIII has been radiocarbon dated to cal 3320–3097 BC (Finkelstein & Ussishkin, 2000, pp. 577, 579), or so close to the Egyptian fortification that sequencing the two is impossible. XVIII Megiddo raised a huge defensive wall, originally 4–5 meters thick, then increased to eight meters, with a minimum height (what is preserved) of over 4 meters. Urgency is apparent. The wall surrounded the central temple. It cut through the existing house structures that led down the slopes, destroying many of them. Excavators commented on how poorly built it was. On a slope so steep, it quickly needed reinforcement. It was made in vertical sections with seams in between. Its neat stone facade covered a weak fill of dirt and rubble (Finkelstein & Ussishkin, 2000, pp. 579–583; Loud, 1939, pp. 66, 70). What would one expect for the first fort they ever built?

Even more remarkable are two of the artifacts found in the cultic center: a very functional bronze spear head, and a ceremonial *sword* of pure copper, embellished with silver (Loud, 1948, plates 173, 283). These are the first clear weapons ever found in the Southern Levant, but they may not be unique. The "Kfar Monash Hoard" of bronze

tools includes axes, daggers, and spearheads, though whether this comes from EB1b or later is disputed (Tadmor, 2002). What is not disputable, is that just as Egypt was making its transition to Pharaohs and empire, at Megiddo, weapons of war were incorporated into the most important cultic center in the land indicating a major shift in their cognized world.

Of course, no one can know the politics and history leading to this radical shift in Jordanian orientation. But developments in Egypt, and some standard lessons of Tribal Zones, suggest an answer. As Egypt developed toward greater centralization, incorporation, and militarism, the centuries-old trading relationship with Canaan gave way to tribute (see Watrin, 2002). Such has happened in countless imperial situations. No more Mister Nice Guy. Colonizers declare they are now in charge, and the locals better pay up, or suffer killings, destructions of villages, and not improbably in this case, sending captives back to Egypt as slaves. The extractive products of olive oil, wine, and metals, the tributary focus of Egyptian expansion, could only be realized upon the mundane necessities of imperial operations: local manpower and food. Those are precisely what local settlement walls protected (Philip, 2003 p. 114). If it went as other tribal zones have gone, when Egyptian troops began exemplary punishments, local people were forced into war in defense. It is also expectable that Egyptians operated with local allies joined to them through a history of marriage and exchange, thus spreading war through the fabric of local social relations. Centers of local unity and resistance would be special targets (Levy, 1993, p. 243).

In the next phase, Early Bronze Age II, Megiddo and Bet Shean were completely abandoned, though no signs of destruction have been found thus far (Greenberg, 2003, p. 20). Population of the Jordan Valley plummeted, and every village in the central area was fortified; many villages were razed, many abandoned. The former settlement distribution suggesting areal unification around main ritual centers was replaced by spatial clustering and separation of local settlements (Finkelstein & Ussishkin, 2000, p. 584; Greenberg, 2003, pp. 21–24; Halpern, 2000, p. 537; Paz, 2002, pp. 248–251). "The Tribal Zone" is called that because colonial expansion typically leads to tribalization, the generation of new tribal entities. The Southern Levant is well known in history for its tribes. Perhaps this is where they began.

Yes, this is speculation, but it is closely tied to data and dates, and consistent with a body of theory derived from many colonial situations. It is able to explain the unprecedented turn to militarism in the Southern Levant, which is strangely un-noted in recent debates about prehistoric war in the Near East. The imposed hegemony of Egypt was "the end of independent social evolution in the country" (Levy, 1993 p. 243). "[T]he flourishing pattern of hundreds of unfortified settlements was never seen again" (Paz, 2002, p. 255). The Southern Levantine mechanisms, which I hypothesize avoided war for millennia, were destroyed in the cauldron of a Tribal Zone. Megiddo is the namesake of the prophesied war that ends the world. In the sense of a world free of war, Armageddon already happened, at the end of Early Bronze Age 1b.

Near East Conclusion

A recent issue of *Neo-Lithics*, stimulated by the writings of Keeley, LeBlanc, Otterbein and others, represents a collective effort to “de-pacify” the past by seeking out any possible evidence of war in the Near Eastern Neolithic. Although some authors remain skeptical, the enthusiasm of others raises the specter of “warrifying” prehistory. So Bar-Yosef (2010a, pp. 7–8) suggests that abandonment of long-established settlements in itself might reflect war; and Roscoe (2010, p.66) argues that the fact of settlement nucleation indicates the need to defend against attacks. Both, of course, have other explanations. On the other hand, Otterbein (2010, p. 56) finds that the evidence produced does nothing to contradict his theory that war was absent during the era when plants and animals were domesticated. LeBlanc, after reviewing possible signs of war from the entire Near East (almost all of which has been covered in this chapter), concludes: “Evidence does exist, it is just not particularly strong.” Keeley (1996, p. 38), in contrast, previously concluded there was little evidence of war in the Near East until “the later Neolithic and in the Bronze Age.” Many of the authors ringingly call for more systematic searching for any possible signs of war.

By all means, search. Look everywhere. But understand that findings, or lack thereof, are two-sided. LeBlanc (2010, p. 46) claims “We will never be able to show that there was absolutely no warfare even if there was none” (2010, p. 46). Yet dedicated searching that fails to produce evidence *does* support the theory that war was not present. Indeed, the hypothesis “war was not present” is eminently testable and easily falsified, like the “all swans are white” hypothesis. It is the opposite position, that “war was present even when we cannot provide evidence,” which is unfalsifiable, and so unscientific. If archaeologists would go beyond the mantra “absence of evidence is not evidence of absence,” and focus instead on regional and temporal variations in the evidence that *does* exist, some very interesting issues could be joined.

Seen in terms of war, the Near East has at least three significant regions. One is the northern Tigris. Four superlatives come from less than 90 miles apart. The first strong evidence for war in the Near East is from Qermez Dere and Nemrik 9 in the tenth into ninth millennium, contemporary with the PPNA. The earliest fortification in Mesopotamia, and possibly the Near East, is found at Tell Maghzaliyah from the seventh millennium. From 3800–3500 BC come the first mass burials, at Tell Brak, and the first conquest of a major urban center, at Hamoukar. The last two, and probably Maghzaliyah, were related to the trade routes that came down from Anatolia. That is not evident at Qermez Dere and Nemrik 9, but the tight geographic association is suggestive.

Anatolia is another region of war. Neolithic signs appear in the late eighth millennium, but a major transition dates to around 6500 BC. Regardless of the verdict on Catalhuyuk and war, by around the start of the sixth millennium in the Pottery Neolithic, clear signs of war appear in multiple sites, several suggesting military expansion by Halafians. These continue through subsequent periods, and spread out to encompass trading centers across the Northern Levant from the Mediterranean to Iraq, and northward to the Aegean and

Greece. The relatively short span (centuries not millennia) between the start of agriculture and war in Anatolia is similar to time-frames in Europe. This widespread, enduring pattern is the beginning of an unbroken lineage of war that comes down to the modern world. Yet even in the northern Tigris and Anatolia, to the stopping point of this research at least, there is no apparent development of a cult of war, weapons, and warriors, as appeared in Europe’s final Neolithic and continued through the Chalcolithic and Bronze Age. That is a major contrast.

It is the Southern Levant that presents the most intriguing findings. From the time of the Natufians, beginning around 13100 BC, up to the Early Bronze Age IIB around 3200 BC, there are only a handful of violent deaths indicated by skeletal remains: two Natufians (an unsexed adult and an older woman) with unhealed cranial fractures and one adult male with an embedded point; a lethal wound—maybe—at Ain Ghazal; an elderly woman with a point in her jaw at Ghwair; a boy killed by a blow to the head at Basta; and an adolescent male killed by multiple blows at Shiqmim. I may have missed some reports; other killings no doubt could be found by careful reexamination of museum skeletons, more will be unearthed in the future, and overall, skeletal remains are not all that common in the Near East. Nevertheless, seven instances from nearly 10,000 years, with only one or two adult males, is a remarkable record—against the presence of war.

As for fortifications or deliberate destructions in the Southern Levant, Roper (1975), culling earlier reports, found only Beidha and Jericho that rose to the level of “suspicious,” and nothing persuasive has been added to that since 1975, even considering Ba’ja and Basta. Compare that to the recent proliferation of findings of war from the northern Tigris, Anatolia and its environs, and tribal zone Jordan. Although population distributions and urban concentrations change greatly by period, at all times it seems that villages were distributed according to available resources, not in defensible locations, and were uniformly without fortifications. The only notable weapon-tools are maces, which generally seem too frail for combat, and which may symbolize authority and so the *prevention* of war. Even tool-weapons such as arrowheads are not especially prominent, particularly in later periods. One can repeat “absence of evidence is not evidence of absence,” but why are all lines of evidence for war consistently absent in the Southern Levant, when they are so abundant in other areas of the Near East and in Europe?

Evidence of war may yet turn up in the Southern Levant. No system is perfect. With all the times of population growth, climatic reverses, and anthropogenic resource degradation, there certainly was potential were great reasons for collective conflict. But even if a case or two does appear, that would not change the general finding of peace, and the striking contrast between the Southern Levant and other areas. As it stands today, the archaeological record supports a remarkable point, one worth not just recognizing, but heralding. For 10,000 years in the Southern Levant, *there is not one single instance where it can be said with confidence, “war was there.”* Am I wrong? Name the place.

Conclusion: Toward an Archaeology of Peace

The case has been forcefully made that archaeologists “pacified the past” by not looking for signs of war, or neglecting them when found. Sometimes that has been true. But also true is that in many places and periods, evidence simply does not appear, even when diligently sought—in striking contrast to plenty of other places where war signs are very clear. The weight of this negative evidence may be hard to bear for those who believe war flows out of human nature, or is an inescapable shadow of social existence. But as those who invoke biological predispositions for killing commonly intone, a scientific approach to human existence means facing up to facts, however unpleasant.

In many early times and places, an absence of war is theoretically consistent with the absence of preconditions for war. Yet early war is far less common than its preconditions. They are necessary but not sufficient to explain its presence. That is true for the ethnographic universe as well. A central question in the anthropology of war has been, why does war happen, when most people, most of the time, are at peace? One answer is that war is not chosen lightly. War is costly, risky in the extreme, and usually decided upon only after conflicted local politics. Archaeology brings in another kind of inhibition, not applicable to most ethnographically known cases. Non-state peoples of the past 5000 years have lived in a world long turned to war. They are not exemplars of our very distant past, nor our “contemporary ancestors” (Ferguson, 2006, pp. 477–480, 497–499, and see endnote 1). Going to war would be immeasurably more difficult in a prehistoric situation of social conflict which did not already have a history of collective attacks. If a people had never *heard of* going out and slaughtering neighbors, it would be a daunting task to convince them that it was a good idea. There would be no prisoners’ dilemmas. There would be no culture of war, no valorization of warriors.

But more than that, before war became “normal,” there may have been developed cultural systems to prevent conflict from turning into collective violence. Cross-cultural research tells us that there are factors and forces which promote peace, which are quite distinct from those that encourage war. The comparative record from Europe and the Near East suggests that these could be investigated, if archaeologists recognized the possibility, and chose to investigate them. There could be an *archaeology of peace* (Dye, chapter 8).

It might start with the formulation: if archaeological recovery is sufficient so there is a good chance of finding signs of war if war was present; if this absence of evidence extends over time and place to a number of sites; if the preconditions of war are markedly and in combination present; and if there are other comparable regions in which signs of war are repeatedly found; then it may be hypothesized that elements of the local culture combined in a system to maintain peace and prevent war. This might apply to much of pre-war Europe and the Near East (and to post-3200 BC England), but the best example comes from the Southern Levant.

Referring back to Fry’s (2006) broad categories of peace-promoting factors, many of them are apparent, or potentially recoverable, in the Southern Levant. Signs of

cross-cutting ties and interdependence are legion. Despite periods of cultural differentiation, common patterns from tool manufacture to mortuary customs are found spanning much of the Near East from the Epipaleolithic onward, and remain the rule in the Southern Levant. Inter-marriage and movement between areas are not demonstrated given current evidence, but are possibly approachable through DNA or tooth enamel studies. Trade connected all areas, without indications of monopolistic control.

In the later Southern Levant, local trade networks continued even as longer-distance trade shifted from Anatolia to Egypt, with cultic objects prominent. Communal storage and redistribution is associated with later central sites, which also seem intended to span the potential divide between farmers and herders. Perhaps the most striking contrast between European and Levantine Neolithics is that village enclosures—communal projects demarcating discrete local identities—are not found in the latter. Even though early unfortified European enclosures were not suitable for defense in war, they may have been critical in fixing local identification and separation—us, as opposed to them—in developing European cultures.

In many areas of the Near East, some form of social authority is clear in many pre-planned settlement constructions, and is strongly suggested by the widespread occurrence of maces unsuitable for actually hitting anybody. Yet the type of ostentatious chiefly lifestyle that in other parts of the world is often associated with war is rarely evident until the Chalcolithic, if then; and burials of warriors with weapons, common in Europe, are notably absent. Values promoting peace are not recoverable artifacts. But extramural public ritual spaces, built collectively and lacking anything of a martial flavor, suggest a value on harmony; and possibly served as locations where conflicts were authoritatively addressed. Collective burial sites also may have symbolically unified multiple communities.

My suggestion is that as archaeologists search for signs of war, they also consider the possibility that humans are capable of systematically dealing with conflict in peaceful ways. People of the Southern Levant domesticated nature. It is a pessimistic view indeed to presume they were not also capable of domesticating conflict. Pessimistic, but perhaps understandable. Across all of Europe and the Near East, war has been known from 3000 BC, or millennia earlier, present during all of written history. No wonder we think of it as “natural.” But the prevalent notion that war is “just human nature” is empirically unsupportable. The same types of evidence that document the antiquity of war refute the idea of war forever backwards. War sprang out of a warless world. Humankind has suffered infinite misery because systems of war conquered our social existence. Better understanding of what makes war, and what makes peace, is an important step toward bringing peace back.

Dedication

This chapter is dedicated to my brilliant friend, Neil Lancelot Whitehead.

Notes

1. If the earliest archaeological records contain little evidence of warfare, the question becomes: how did war become so common in later sequences, and in ethnographically observed peoples? First, because over time around the world, the preconditions of war (below) became more widespread in more places. Then, from the earlier areas of warfare, war spread outwards, due to interaction with war-making groups—making peaceful trajectories less viable—and/or spreading of the preconditions. A third long-term change is the impact of ancient states on non-state peoples in their peripheries, along their trade routes, or subject to their predation. The final factor is the intensively disruptive impact of European colonialism. For all these reasons, the common practice of inferring a high level of prehistoric warfare by invoking practices of tribal peoples in recent centuries is, to put it mildly, invalid. That is a central point of Ferguson (2006; see also Haas & Piscitelli, chapter 10).
2. Kelly's (2000) theoretical elaboration on group definition and the development of war is important: substitutability of intended victims, group liability for offenses, and responsibility for revenge are what distinguished war from other sorts of violence. But these conditions are not archaeologically recoverable.
3. One study of Iberian remains (Jimenez-Brobell, du Souich, & Al Oumaoui, 2009, pp. 467–469) from seven periods, ranging from Neolithic to the first half of the twentieth century, found 71 instance of cranial trauma in 677 individuals, every one of them healed. Interestingly, the early twentieth century had by far the highest rate of injury. Walker (1997, p. 158) presents a composite representation of skull fractures in modern Americans that in an archaeological context could casually be interpreted as evidence of war.
4. That is consistent with the profound ambiguity of actual combat deaths in the metal ages, even though by then war was clearly a cultural preoccupation.
5. A new volume (Schulting & Fibiger 2012) of European archaeological studies of war appeared after this chapter was completed.
6. In the Taurus Mountains of northwest Iran, sixth millennium Hajji Firuz Tepe is said by LeBlanc (2010, p. 45) to have "an extremely high incidence of violent deaths." Given the time and location, that would not be a surprise. But I could not find such a claim in his source. Voigt (1983, pp. 78–94, 342) just reports the sort of disarticulation sometimes found in ossuary reburials, while a discussion of pathology notes two forearm fractures, and a few other accidental breaks.
7. "Gilgamesh does not allow the son to go with his father; day and night he oppresses the weak... Gilgamesh does not allow the young girl to go with her mother, the girl to the warrior, the bride to the groom" (Gardner & Maier, 1985, p. 67). This sounds much like the compulsory incorporation of young men and women into fighting and production regiments as the Zulu passed from chiefdom to state (Guy, 1981, pp. 40–46).
8. Period and subperiod divisions vary by report by 50 to 250 years. This makes reconstruction at historical levels of resolution impossible. For most general dates concerning parallel developments in the Southern Levant and Egypt, I rely on de Miroscchedji (2002, p. 40) and de Miroscchedji et al. (2001, p. 80).

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PART THREE

Nomadic Foragers

INSIGHTS ABOUT HUMAN NATURE