

## Chapter 2

# War Before Civilization—15 Years On

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### Introduction

For the past 20 years, in my study of warfare, I have received many surprises. When I began my book (Keeley 1996) on recent tribal and ancient prehistoric war, I expected to find that, while warfare had existed in the deep human past, it had increased in deadliness and destructiveness with time and social evolution. Instead, what I found astounded me; I rechecked, and added as much as possible to my data. I found that the warfare of non-states was more deadly, as destructive and, frankly, as despicable as that conducted by any ancient or modern state. One particular comparison that epitomizes this fact is to consider the war deaths incurred at the 4-day Battle of Gettysburg and by the people of Central California between 500 B.C. and 500 A.D. (the “Middle Horizon” or Emeryville Focus). The Union and Rebel armies fighting at Gettysburg both incurred less than 4% killed, slightly more for the losers than the winners. More than 5% of Middle Horizon Native Californian buried human skeletons have stone projectile points embedded in their bones (as Milner 1999) argues from U.S. Indian Wars data, usually only one in three striking arrows becomes bone-embedded). These figures imply that, for a 1,000 years, the lives and deaths of the ancient Californians were at least as violent as the bloody four days at Gettysburg, if not more so. I found that war was hell, whether it was fought with wooden spears or with cannons.

When it was published, I thought my book would annoy everybody. Other than a few anthropologists whom I either ridiculed or found rather obvious mistakes in their analyses, the reception was instead surprisingly positive. This positive response was especially true of archaeologists. Archaeologists, like most scholars, tend to be intellectually parochial. For example, we argue vehemently over the timing and distribution of certain stone tool types or pottery styles; whether the spectacular mounds and other remains at Cahokia (IL) were produced by a state or

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some less complex sociopolitical organization; whether the Natufians (c. 14,000 to 11,000 years ago) of the southwestern Near East were cultivators or gatherers of plants; etc. However, if you convince archaeologists that other social scientists are speaking nonsense because the latter (also parochial) have paid little attention, if any, to archaeological data, and that archaeology can address a major social science issue, then stand back! Archaeologists will reconsider and look for relevant data, concentrate our ingenuity, and use every one of our considerable technical resources to address such questions.

## The Archaeology of War

Prehistoric and ancient warfare has become a major concern of archaeologists worldwide (we are a small but a widespread academic field and English has become our *lingua franca*). Many regional surveys of the archaeological evidence for warfare have been published recently or are in preparation (e.g., Arkush and Stanish 2005). This evidence comes in several forms. The most unequivocal are human remains bearing weapons traumas: cut marks from swords or scalping knives, bones (especially skulls) broken by axes or maces but, most commonly, projectile points embedded in bone. As noted above, it seems that only one in three or four arrowheads striking a body become embedded in bone (Milner 1999; Keeley 1996).

Fortifications are often obvious because they involve major human modifications of the earth. However, these only occur where and after their builders store considerable quantities of food and, therefore, settle for most of the year, if not permanently, in the location (i.e., groups become “sedentary”). Why expend the extraordinary efforts necessary to fortify a place or a nearby refuge that a group will occupy for only a few weeks and contains nothing of value? Certain features of enclosures are unequivocally defensive. These features include “defended” gates, especially the forms called “baffled,” V-cross-sectioned ditches deeper than a meter, and bastions projecting from an enclosure wall (Keeley et al. 2007). An enclosure with many or, better, all of these features was built to defend humans from other humans.

Weapons of war are commonly also used in hunting–fishing. Thus, distinguishing prehistoric hunting weapons from war weapons is not always easy, but it can be done. War weapons often have features that distinguish them from hunting weapons. For example, the arrowheads of war arrows sometimes have a different hafted portion from those used in hunting/fishing such that they more easily slip off the arrow shaft when extracted from a wound. This is so the arrowhead remains in the wound to cause infection and further tissue damage. Killing a prey animal days after it is wounded is useless; killing or permanently debilitating an enemy weeks or months later is, alas, desirable. When weapon heads are common but hunting (judging from food remains) is rare, the arrow/spear heads found were most probably used in war (Keeley 1997). Also, weapons that could have been used for hunting have been found clustered along and in front of clear fortifications, strongly implying that they were also used in warfare. Certain weapons have little or no use

in everyday life but are commonly used for war: maces, swords, broad-bladed axes, halberds, etc. When certain projectile point types are found almost exclusively with human remains or embedded in human bones, they are not “mortuary points” but are almost certainly weapons of war (e.g., Keeley 1974, 1996).

The most obvious and seemingly clear evidences of prehistoric and ancient warfare are iconographic. These consist of paintings and other representations of groups or weapon-wielding men facing another group of armed men. Such representations of combat are known from the late hunter-gatherers (Mesolithic) and early farmers (Neolithic) of Europe, the late prehistoric period (both hunter-gatherers and farmer-herders) of Southern Africa, and the late prehistoric (hunter-gatherers) of Australia. But these representations must be interpreted cautiously. In a few historical examples, it seems that depictions of warfare became less common rather than more common during prolonged periods of intense warfare as, for example, in Classical Greece during the Peloponnesian Wars (Keeley 2001). Nevertheless, depictions of combat, however uncommon or mythological, can have no meaning to either their creators or their audiences if they are not already familiar with war.

## Why and When War?

For the past 15 years, archaeologists’ renewed interest in warfare has led them to ask what environmental, demographic, and social conditions encourage widespread and vicious warfare and characterize the most violent times and places. The hypotheses, some of which are long-standing proposals, can be encapsulated as: (1) “Hard Times”; (2) political centralization and control; (3) rape and recruitment; (4) slaves and taxes; (5) trade disputes; and (6) frontiers.

Among archaeologists, the most popular hypotheses for periods of intensified warfare involve “hard times” created by droughts, environmental changes both terrestrial and aquatic, and demographic growth by humans or their livestock—in short, more mouths to feed on static or declining resources. This hypothesis (which was first stated, but only in demographic terms, by Malthus, 1798, 1999) is popular with archaeologists because it is testable and observable archaeologically, is rational and realistic, and, most important, has a great deal of evidential support in a number of times and places. Climatic and environmental changes are evident in preserved pollen, geological sedimentary and soil chemistry, fauna, and certain features on human remains caused by dietary deficiencies. The clearest, most thorough and most general exposition of this explanation is provided by Steven LeBlanc (2003) in his book, *Constant Battles*. He argues that it is theoretically improbable and, in reality, impossible for human populations to be in a long-term balance with the resources necessary to sustain them—that there were no “ecologically balanced” Edens. In fact, human populations often are adversely affected by immediate or obviously impending shortfalls of necessary resources, especially food and water. Such crises provoke rational human groups to war over what resources are available, since the alternatives were usually as ghastly as war.

Many examples support the “hard times” hypothesis. Some prehistoric examples mentioned several years ago include the American Southwest during the thirteenth century, the late prehistoric north central Plains and Middle Missouri, the Late Palaeolithic Nubia, and proto-historic southeast Africa (Keeley 1996; LeBlanc 2003). These examples have been bolstered, and several more have been exposed, by recent archaeological research. Two recent examples are documented by Arkush (2011), who found that drought and environmental change played an important role in impelling a period of increased warfare in the prehistoric Andes, as did Lambert (1997) on the prehistoric Santa Barbara coast of California. However, the climate and environment are always changing (a point made in LeBlanc’s arguments against past humans being able to live in “ecological balance” and, at least on a short-term basis, a fact to which any farmer or pastoralist can attest). The changeability of the climate means that it is, therefore, always possible to find some environmental change that correlates with some sociocultural change, including increased warfare. What is necessary is to link by logic, timing, and relevant data a particular environmental change to a particular social change. In many of the instances or references mentioned above, this has been done. For example, in the very periods that environmental deterioration (from the point of view of then contemporary human ecology) and increased warfare were especially evident on the prehistoric Southern California coast and in Egyptian Nubia 12,000 B.C., evidence of dietary deficiencies was especially common on human bones. Whether the evidence is weak or strong, I predict that claims by archaeologists of “hard times”-driven warfare will increase and encompass more regions and periods.

One cause of increased warfare that anthropologists have found reasonable and supported by some evidence is political consolidation, especially the emergence and expansion of states. Regarding the emergence of states, the principal anthropological proponent of the essential role of warfare in this process has been, for almost 50 years, Robert Carneiro (for his latest exposition, see Carneiro 2003). This hypothesis argues that chiefdoms and chiefs do not usually voluntarily yield their autonomy but must be forced to do so by warfare. Haas (2001) has expanded this concept to the formation of chiefdoms from tribes. One corollary of these ideas is that warfare should be more ferocious during periods of sociopolitical consolidation—tribes into chiefdoms and smaller, less organized societies into states. A popular but less logical presumption would be that warfare did not and has not occurred except in the emergence of and between competing states. This more tenuous supposition is contrary to ethnological and archaeological fact. Of course, the role of warfare in the creation of empires (i.e., collections of previously independent chiefdoms and states subject to centralized hegemony) in Europe and Asia is well documented and well known.<sup>1</sup> Arkush (2011) argues that in fact the collapse of the prehistoric large

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<sup>1</sup> Ironically, the philosopher Hobbes has been accused of advocating this state-formation hypothesis and of being an apologist for the violent expansion of European empires (Ferguson and Whitehead 1992). When, in fact, he argued (contrary to much prehistoric and historic data that we now possess) that states were created by covenants or agreements and that strong, centralized states that resulted from these covenants were the rational antidote to the violent anarchy of non-states or dissolved states.

state or empire of Tiwanaku in the Andes at least “set the stage” for a bellicose period of warring chiefdoms; and that the later Inka state began in relatively peaceful circumstances, even if its imperial expansion did involve warfare or the threat of warfare. Her work reminded me of the collapse of the Western Roman Empire and the contemporary Han Empire and their aftermaths of smaller “Warring States.” In any case, like historians, archaeologists have seen periods of more intense warfare occurring during periods of both political consolidation and dissolution.

It is clear from history and ethnology that, unlike people organized into bands or tribes, countless chiefdoms and states have gone to war not for mere territory or nubile women, but to increase the numbers of commoners who can become slaves or producers of tribute and taxes. Without written records or ethnohistorical observations, it is difficult, if not impossible, for archaeologists to distinguish slaves from members of the lowest class (Junkers 1998) or to determine whether an item (especially a foodstuff) was acquired by trade or taxation/tribute. When we find large settlements whose residents could not have been supported by the food resources available in their immediate vicinity, we can reasonably infer that those resources were extracted from other, smaller nearby communities under the control of the elites of the larger settlement. However, for many other items, whether “wealth” for elites (e.g., quetzal feathers, bronze tools or weapons, gold, and fine pottery) or essential to the daily life of commoners (e.g., staple foods and stone for cutting or grinding), archaeologists tend to interpret these as procured by trade. Much more thought and research are required regarding the archaeology of slavery, tribute, and taxes.

It will surprise some that a large number of violent conflicts arise from trade. Many think that trade obviates warfare and that warfare prevents trade. History is replete with instances of trade imbalances and disputes leading to warfare and trade taking place between active enemies; many similar cases are known from ethnography (Keeley 1996). These have included, depending on the relevant technologies and geography, the sources of such normally traded materials as salt, hard stone for tools, metals (or their ores), preservative spices, and, most recently, fossil fuels. The “trade raid” connection has not received much attention from archaeologists studying ancient warfare or has been subsumed as a corollary of “hard times” (for example, trade is hardly mentioned in LeBlanc’s 2003 book; see Golitko 2010 about this neglect). Golitko (2010) found that during the settlement of a region of northeast Belgium by the first farmers (c. 5200 B.C.), two important aspects of trade were related to warfare. While obtaining some of their axe material from sources from the areas occupied by indigenous hunter-gatherers, the farmers were fortifying their frontier villages against the former (see also Golitko and Keeley 2007). At the same time, trade in pottery, flint, and some other items between the farmers’ villages became more structured and more common, probably to maintain military alliances between themselves and against the hostile foragers.

One common context for warfare is frontiers, whether persistent or moving (Keeley 1996; especially see Anthony’s work 1990 and 2007). The topic of frontiers, especially moving frontiers of settlement (i.e., colonization), was widely neglected or dismissed by Western archaeologists between the early 1960s and the late 1980s.

When hypotheses attributing cultural changes to major population movements were disallowed or ignored, any warfare associated with such movements was similarly ignored (unless it arose from the expansion of European hegemony). Even many non-Western archaeologists outside the influence of the Western archaeological bias against prehistoric migrations, nationalists in other parts of the world, were inclined to see the present-day inhabitants of their countries as autochthonous. Both the inexorable archaeological record and the revival of anthropological interest in warfare (Wiessner 1998; Kelly 2000) have changed the intellectual climate such that the violence of non-Western and prehistoric frontiers is now considered a legitimate subject of archaeological study (Golitzko and Keeley 2007; Arkush 2011). For example, Anthony (2007) finds that the expansion and, in most affected regions, the colonization of Indo-European speakers from their central Eurasian homeland were certainly accompanied and, therefore, aided by, the use of domesticated horses, wheeled vehicles, and, relevant here, the war chariot. In any case, many archaeologists have begun to consider the warfare that they document on frontiers.

The major problem with most historical and archaeological explanations of major events and processes is that many plausible “causes” seem to happen at the same time. This contemporaneity of plausible causes is the source of many scholarly disagreements and, because of the statistical indeterminacy of our dates, a real problem for archaeologists. By definition, a cause should precede its effect, yet even in modern human affairs, causes and effects are so closely linked chronologically that we usually have great difficulty sorting one from the other. It seems that many of these “causes” are closely linked as parts of chains of efficient causes or even “feeding” one another as parts of feedback loops. It is common to find that periods of intensive warfare are also periods of political consolidation or dissolution, environmental change, moving frontiers of colonization or conquest, increasing population density, human nutritional deficiencies, and so on. At the moment, the best we can do is to investigate all of these possibilities and to propose multivariate explanations using the variables that best fit particular instances. Certainly, at the moment, one size does not fit all. However, note that genetic explanations do not figure in any of those proposed by archaeologists or historians.

The more biogenetic explanations of war emphasize the inferred genetic traits that promote human (especially male) aggressiveness and the evolutionary strategies that seem to impel male violence against competing males and capture/rape of fertile females. Many of the chapters in this volume promote this interpretation and adduce data from modern industrial societies to support it. This interpretation is more popular among nonanthropologist social scientists who do not study directly the remarkable varieties of human behavior that have been displayed over the globe and over great reaches of time, or the incredible plasticity of human behavior in the recent or distant human past. Both myself (Keeley 1996) and LeBlanc (2003) have argued against such propositions based on our broad anthropological surveys of warfare worldwide and into the depths of the human past. Our dismissal of genetic or “selection” arguments for warfare is based also on our personal research and the research of colleagues in our respective research foci—the American Southwest and prehistoric Europe. For my area of expertise, there is evidence that both the Late



Mesolithic hunter-gatherers and the invading farmers who replaced them in some areas were equally war torn (Keeley 1997; Golitko and Keeley 2007; Golitko 2010). LeBlanc and I both have noted, indeed emphasized, for example, that in the archaeological sequences of our respective regions, there have been very bellicose periods with settlements fortified and/or moved to more defensible locations, high proportions of human remains showing weapons traumas or “disrespectful” treatment of some (enemy?) dead, and great abundances of weapons yet no increases in hunting. Yet, there have also been periods in our respective foci when such evidences of warfare were less common. We both argue that for situations in which the more bellicose were the ancestors or descendants of much more peaceful people, it is difficult to see how genetics could play a role. Unless, of course, violent rapacious (males) were deleterious mutants whose genes were removed by selection before they could have many descendants or died before they reproduced, unlike the less violent and rapacious. Because the genetic “evolutionary” explanations of warfare are so contrary to archaeological data, archaeologists, by and large, ignore them.

Anthropologically, such “genetically selective” propositions imply that the capture of and impregnation of nubile women should be both the universal goal and the usual result of warfare. Indeed, the capture of women, especial young women, is a common but not universal feature of warfare among the non-state societies known to ethnography and has been documented among several prehistoric people (Keeley 1996). However, ethnology, history and archaeology document many instances in which nubile women were not kidnapped, either because they were killed along with everyone else or because they were left alive with all survivors (Keeley 1996).<sup>2</sup> It seems that the capture of primarily young women of breeding age is only common among societies organized as tribes or petty chiefdoms. Bands tend to take no captives of any sex or age, or, only on occasion, young women with girl and boy children. States commonly have taken everyone captive because they could become slaves or tax payers. Considering ethnological and archaeological facts, whatever the role of human genetics in inducing some individuals (in any social group of

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<sup>2</sup> Any anthropologist interested in warfare and violence is questioned about Chagnon’s description of the Yanomomo/i. The basic question should be and is: what are the facts, as far as we can know or reasonably infer them? Those are that the Yanomamo frequently resorted to deadly violence, including warfare, as did neighboring “tribal” groups. Instead, Chagnon’s critics seem to have been driven to the functional equivalent of idiocy by his sociobiological interpretations (which, as noted above, I do not find compelling) rather than the facts he recorded regarding Yanomomo life and society in the 1950s, 1960s, and 1970s. The critics have ignored or illogically (see below) dismissed many other observers, both anthropologists and laypeople (including a kidnapped Brazilian girl who lived with them for several years), who have clearly described the common resort to violence and warfare by the Yanomomi and its effects, or documented the same behaviors among many other neighboring non-Yanomomo “tribal” groups in the Amazon and Orinoco Basins. These critics have also resorted almost entirely to a logically and scientifically invalid form of argument—*ad hominem*—against not just Chagnon but any other ethnographers whose observations parallel his. The only reasonable conclusions about the traditional life of the Yanomamo are that they were a violent people, often kidnapped young women (Early and Peters 1990) and used nondeadly forms of physical violence (chest-pounding and club fights) as their principal method to prevent wars.

whatever size) to violence and rape, genetic selection for warfare and rape is a poor explanation for the actual occurrences of the collective violence of war.

One feature that makes war so terrible is not the human vice of violent aggression but the human virtue of courage. There would be no war if humans were cowards. They would be afraid to resort to violence because it might be returned and if attacked would run or acquiesce. Instead, humans refuse to “go gently into that good night”—they fight back. Furthermore, in both their aggression and their resistance to it, they will try to inflict injury for injury, death for death, horror for horror—in short, intensify and literally double the awfulness of war. It seems that among the humans known to anthropology, peace is more desirable to everyone everywhere than violence or war, including rape [both in the modern legal sense and the ancient meaning “theft of women” (e.g., “Rape of the Sabine Women”; Keeley 1996). Therefore, should not there be some human genetic-based preference for courage in the face of all adversities and for maintaining peace?

## Conclusions

In the past 20 years, there has been a resurgence of archaeological interest in prehistoric and ancient warfare. Whether warfare is seen as a cause or an effect of certain features of and changes in the archaeological, ethnohistorical, or ancient historical record, it is back “in play.” This change was the result of a number of archaeologists working in Europe and the New World who were confronted by the warfare obvious in archaeological records in their areas of research. They then all argued in the most widely read and stringently refereed publication venues, citing unequivocal evidence and using clear logic, that prehistoric and ethnohistoric warfare did occur and needs attention (i.e., Vencl, Milner, Haas, Keeley, Cahen, LeBlanc, and Guillaune, among others). Of course, much of the subsequent work has focused on the contentious and difficult but, therefore, academically attractive question of cause. However, this major change in archaeological attention has entailed an increased proportion of the ever-pitiful research monies given to archaeologists and publications in our major journals and books. One area that is still neglected by archaeologists (but not by Otterbein (2004) or Kelly (2000), although both are socio-cultural anthropologists) are the rare periods of relative peace—meaning periods during which evidences of both war and homicide were rare. Archaeologically, the three best-known examples are the Middle Woodland (Hopewell-Adena) of the eastern Midwest, the Natufian and Pre-Pottery Neolithic A of the Levantine Near East, and the early Jomon of Japan; but there are others less well known (Milner 1999; Goring-Morris 2009; Habu 2004). If archaeologists recently have shown limited interest in peace, they have at least now recognized that prehistoric war is not an oxymoron. While we vehemently disagree about the causes of war and when it began, all of those “pioneers” mentioned above agree that ancient and prehistoric warfare did exist and that it is a topic that we can and should investigate, and, as far as I know, are gratified by the attention given this subject by a new generation of scholars.



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