

# Proving Communal Warfare Among Hunter-Gatherers: The Quasi-Rousseauan Error

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Was human fighting always there, as old as our species? Or is it a late cultural invention, emerging after the transition to agriculture and the rise of the state, which began, respectively, only around ten thousand and five thousand years ago? Viewed against the life span of our species, *Homo sapiens*, stretching back 150,000–200,000 years, let alone the roughly two million years of our genus *Homo*, this is the tip of the iceberg. We now have a temporal frame and plenty of empirical evidence for the “state of nature” that Thomas Hobbes and Jean-Jacque Rousseau discussed in the abstract and described in diametrically opposed terms. All human populations during the Pleistocene, until about 12,000 years ago, were hunter-gatherers, or foragers, of the simple, mobile sort that lacked accumulated resources. Studying such human populations that survived until recently or still survive in remote corners of the world, anthropology should have been uniquely positioned to answer the question of aboriginal human fighting or lack thereof. Yet access to, and the interpretation of, that information has been intrinsically problematic. The main problem has been the “contact paradox.” Prestate societies have no written records of their own. Therefore, documenting them requires contact with literate state societies that necessarily affects the former and potentially changes their behavior, including fighting.

Another difficulty was, paradoxically, anthropology's indispensable emphasis on field research. With hunter-gatherer societies fast disappearing into the fold of civilization, research since the 1950s has mainly focused on sparse surviving populations such as those in the savannahs and deserts of East and Southern Africa, as well as some other particularly isolated and marginal populations. Only a few within the discipline have called attention to the resulting

distortion of perspective.<sup>1</sup> The hunter-gatherers of East Africa and the Kalahari were unrepresentative in the sense that before the advent and spread of agriculture, hunter-gatherers inhabited not only marginal land that agricultural and pastoralist societies were unable to use and did not want, as they do today, but also mainly lived in the world's most fertile environments. In addition, the hunter-gatherers of East and Southern Africa interacted for more than a thousand years with their agricultural and pastoralist neighbors. Furthermore, during the twentieth century they were increasingly subjected to the pacifying intrusions of state authorities and police.

ern Africa coincided with the rise of Rousseauism in anthropology. The Kalahari bushmen, for example, were celebrated as the “harmless people.”<sup>2</sup> However, after the initial spate of enthusiasm for the peaceful children of the earth, their chief researcher, the Rousseauan Richard Lee,<sup>3,4</sup> discovered that before the imposition of state authority, these people had more than four times the 1990 homicide rate in the United States, which was by far the highest in the developed world. Similarly, in titles such as *Never in Anger*, the Inuit of mid-Arctic Canada, one of the sparsest populations on earth, were celebrated as being peaceful.<sup>5</sup> However, it was later revealed that their rate of violent mortality was ten times higher than the United States' 1990 rate.<sup>6,145,7</sup>

These findings constituted a potentially fatal challenge to what we call Classical Rousseauism, the view that human existence was fundamentally nonviolent before the adoption of sedentary and denser habitation, the transition to agriculture, and the development of more complex social and political structures. However, before the full significance of the challenge to Classical Rousseauism had sunk in, a more radical Rousseauan view, which we call Extended Rousseauism, came into vogue in the 1980s and early 1990s. According to this view, serious fighting began at an even later stage, really taking off only with the emergence of states.

Extended Rousseauism was associated with the so-called tribal-zone theory.<sup>8</sup> Proponents of this theory hypothesized that it was only after contact with intrusive states that

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## CLASSICAL ROUSSEAUISM AND EXTENDED ROUSSEAUISM: THEIR RISE AND FALL

By the 1960s, the focus on the hunter-gatherers of East and South-

tribal structures sprang up and competition and warfare between them rocketed, most notably in parts of the world affected by European exploration and expansion, but also earlier in history.<sup>9–13</sup> This argument was applied to the vast microcosms of complex hunter-gatherers that survived until recently, or still survive, in the American Northwest, Central America, Amazonia, and Highland New Guinea. In all of these areas, the natives fought ferociously among themselves during and after contact.

Proponents of the tribal-zone theory remained vague about whether contact with state civilizations actually introduced or “invented” warfare among previously nonbelligerent natives or, instead, merely intensified long-existing patterns of warfare. The former was strongly implied and was the undertone or subtext of their argument. At the same time, however, the majority of these scholars in fact recognized, in line with all other research, that warfare in all the above areas had been very old and had long predated contact with states.<sup>10,11,13</sup> Fortified settlements were known to have been archeologically recorded in the American Northwest, for example, for no less than four thousand years.<sup>9,14–20</sup> Body armor made of hide or wood, an unmistakably specialized fighting device, was known to have been extensively used by the natives before the European arrival. Indeed, its use actually declined after contact because it was useless under musket fire.<sup>18,20–26</sup> Thus, given that most of the tribal-zone proponents (with rare exceptions<sup>12</sup>) were well aware of the evidence of extensive and vicious warfare before contact with states or civilizations, their point was difficult to rationalize.

The tribal-zone theory’s brief moment ended in 1996 with the publication of Lawrence Keeley’s *War before Civilization: The Myth of the Peaceful Savage*.<sup>27</sup> Other wide-ranging studies of the evidence<sup>28–32</sup> arrived at remarkably similar conclusions. They all found that there was widespread violence and warfare among both hunter-gatherers and prestate horticulturalists, which resulted in rates of

violent death as high as 25% of adult males and 15% of the adult population. Pinker has drawn wide public attention to these finds.<sup>33</sup>

A similar reversal was almost simultaneously taking place with respect to animal violence. Konrad Lorenz’s claim in the 1960s<sup>34</sup> that fighting between animals of the same species is mostly “ritualistic” and mainly involves display has been refuted by field studies that have found high rates of intraspecific killing throughout nature. This is also true of our closest cousins, the chimpanzees, among which intragroup

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killing, as well as in intergroup fighting and killing to the point of group extermination have been documented.<sup>35–40</sup> Recent studies of several communities of chimpanzees<sup>41</sup> have found their violent mortality rates to be: in one community, 20% generally, 24% among males; in another one 36% (generally); and in a third one 16% (generally). Another comprehensive study of six chimpanzee populations has set the median number of violent deaths among them at 271 per 100,000 individuals per year, as compared with 164 per 100,000 per year, which the authors calculated as the average among human hunter-gatherers.<sup>42</sup> The suggestion that the factor that drove chimpanzees to violent killing is the expansion of human settlement (the chimpanzee equivalent of the tribal-zone theory) has been persuasively refuted.<sup>43</sup>

In contrast to the chimpanzee, pygmy chimpanzees or bonobos exhibit a semi-idyllic life of free sex and far less violence.<sup>40,44,45</sup> Notably, chimpanzees, with their dominant aggressive male coalitions, resemble the known patterns of aboriginal human social life far more than do bonobos, which are dominated by female alliances. Nonetheless, the bonobo has at least partly kept alive the question of what our human ancestors were like.

Archeology is beset by well-recognized problems in addressing the antiquity of human fighting. Weapons for fighting before the introduction of metals are practically indistinguishable from hunting implements: stone axes, spears, and arrows. Specialized fighting equipment, such as shields, are made of perishable material — wood and leather — and do not survive. In the wake of Keeley’s book, archeological studies of the subject increased substantially, above all with respect to the more sedentary communities of foragers and horticulturalists that proliferated during the Holocene. The prevalence of palisades around settlements has been extensively documented, as have other defensive indications in settlements’ nucleation, protected location, and spacing with “no-man’s-land” between them. Holocene human remains show widespread traces of violent trauma to crania and forearms (parrying fractures).

The skeletal evidence is particularly striking. While rates of violent trauma varied considerably from place to place, they were exceedingly high in some areas and very high on average. Among the prehistoric hunter-gatherers of coastal Southern California, traces of healed cranial vault fractures range from 15% to nearly 40% among males and around 10% to 20% among females.<sup>46</sup> These rates are even higher when children of both sexes are factored out. The percentage for males from the earliest period in the sample (6630–4050 BC) is close to 20% (again higher if only adults are counted). Traces of projectile injuries in the skeleton range from around 3% to over 20% in the males and up to 10% among

females. Broad surveys of the North American evidence<sup>47,48</sup> reveal great variation between sites, with some recording exceedingly high rates of violence from the earliest settlement. In British Columbia, as in some other sites of the American Northwest (a prime case of the tribal-zone theory<sup>9</sup>) violent skeletal trauma in the period 3500-1500 BC is evident in 21% of 57 observable individuals.<sup>49</sup> This is as high as the rate of violent trauma recorded for the subsequent period, between 1500 BC and 500 CE, when the region's population became denser and clustered into large villages.<sup>48,49</sup> It follows that increasing population density and social complexity were not the factors that inaugurated human fighting.

The evidence from a comprehensive study of the Andes<sup>50</sup> reveals a similar picture and similarly high rates of injuries. The cranial trauma frequencies studied varied significantly during the millennia from early human habitation to the rise of states and the Inca Empire. Nonetheless, the average rate for the Archaic, well before the coming of states, is around the average for the entire period and just under 15% for cranial trauma alone, and is skewed toward the adult male population. Note that signs of skeletal trauma remain undetected in many cases. Moreover, injuries to soft tissues, including fatal injuries, are not preserved.

This extensive archeological evidence has been particularly devastating for the Extended Rousseauan tribal-zone theory. As Ferguson, the theory's most active exponent, conceded in his contribution to the edited volume that incorporated the earlier finds in this wave of research,<sup>51:321</sup> "If there are people out there (sic!) who believe that violence and war did not exist until after the advent of Western colonialism, or of the state, or of agriculture, this volume proves them wrong." Ferguson attempted to redress the balance in his next sentence: "Equally, if there are people who believe that all human societies have been plagued by violence and war, that they were always present in

human evolutionary history, this volume proves *them* wrong." However, the various claims in the second proposition were anything but "proved." At best, they remained unproved and open to further investigation.

In time, Ferguson has attempted to salvage parts of his tribal-zone theory and adjust its meaning, claiming that in at least some areas and periods, warfare was either nonexistent or rare and seems to have flared up only under contact with states. He has constructed his argument around a supposed contrast between two major prehistoric cultural-geographical zones, which he posits as test cases.<sup>52</sup> He now, in effect, concedes that in Neolithic Europe, long before the existence of states, archeological signs of warfare are rife, albeit with considerable variation from place to place.<sup>27,53,54</sup> At the same time, he claims that the sparser and less clear-cut archeological evidence of warfare in the Neolithic Levant suggests that warfare in the region was uncommon or absent in many places. Ferguson actually cites much of the evidence of violence and war in the prehistoric Levant. However, in contrast to other broad reviews,<sup>55,56</sup> he consistently adopts a reductive interpretation of that evidence and drives the argument toward a mostly pacific conclusion. In an earlier paper,<sup>57:483</sup> Ferguson cited low levels of cranial injuries found in the skeletons of the pre-Neolithic Natufians of the southern Levant. The Natufians during the 14<sup>th</sup>-10<sup>th</sup> millennia BC were the world's first known semi-sedentary or sedentary hunters and collectors of wild wheat. Ferguson later learned that a recent study had put healed cranial injuries among the Natufians at 16.7% among the adult males and 20% among adult women<sup>58</sup> - high rates such as we have seen to be quite typical in other places. Ferguson then fell back on the argument that these high rates can be evidence of individual violence rather than group warfare.<sup>52:212</sup>

Moving forward in time, Ferguson mentions early Neolithic (PPNA) Jericho (after 8,000 BC), where a stone wall, stone tower, and ditch were

found to have existed millennia earlier than in any other place.<sup>59</sup> He approvingly cites Bar-Yosef's "alternative interpretation,"<sup>60</sup> which is that, rather than being defensive constructions, the wall and ditch were anti-flood devices and the tower a ritual construction (for a critique see LeBlanc<sup>56</sup>). Either way, circuit walls were not the only, or even the most typical means of early large settlement defense. For example, Çatal-Hüyük in Anatolia (second half of the seventh millennium BC), which had a pueblo-like layout of clustered, impregnable houses, was clearly designed for defense.<sup>61,62:82-3</sup> Other large and closely agglomerated early Neolithic settlements, some of them located on hilltops or otherwise in difficult to access locations — clearly for defense — have been found elsewhere in Anatolia, Mesopotamia, and the Southern Levant.<sup>63</sup> Ferguson also mentions several fortified sites of the fifth millennium BC that have been excavated in Anatolia and northern Syria.<sup>52</sup> At the same time, in other parts of the Levant, he sees the absence of clear signs of warfare, particularly fortifications around settlements, as strongly suggesting that the local cultures were unfamiliar with war. He gives short shrift to evidence from the nucleation and location of sites, and celebrates the fact that circuit city walls appeared only in the third millennium BC. Attributing this development to the rise of Egypt as a unified kingdom and great power, he suggests that state interference, in effect, inaugurated warfare in the area.

In reality, the picture that emerges wherever we have both archeological and ethnographic or historical evidence on prestate horticultural and agricultural societies is that some of the most warlike societies lacked fortifications. While fortifications are a sure positive sign of warfare, their absence is not an indication that ferocious warfare was not endemic. Settlement nucleation (and, where possible, protected location) were sufficient to counter the most common and most lethal form of prestate warfare, the surprise night raid.<sup>56,64,65</sup> The following are but a few examples.

As Polybius writes,<sup>66:2.17</sup> the ancient Celts “lived in unwalled villages... and were exclusively occupied with war and agriculture.” The Greek poleis, despite the endemic warfare among them during the Archaic period (eighth-sixth centuries BC), were not surrounded by walls until well into the fifth century BC. The same applies to the city-states of Mesoamerica. In particular, the Classic Maya, lacking city walls and famously celebrated by early researchers as having been peaceful, have been revealed to have been ferociously belligerent after the deciphering of their script.<sup>67</sup> The analogy with and lesson for the prehistoric Levant is all too obvious.

The ethnographic record from around the world reveals a similar picture. For example, the Mae Enga horticulturalists in highland New Guinea, whose violent death rate for adult males was nearly 35%, lived in clan farmsteads, “defended, literally, to the last yard”<sup>68:2</sup> and lacked fortified villages. More recently, the nineteenth century’s Montenegrins, one of Europe’s last tribal populations, who had an estimated violent death rate among adult males of about 25%, built houses with small windows and thick walls, but no specialized communal fortifications.<sup>69</sup> The societies of multi-island Polynesia, long the object of Rousseauan fantasies, have been shown to have been rife with violence and warfare. According to a major study of eighteen of them, from the largest to the smallest, not one lacked endemic warfare.<sup>70,71</sup> Nonetheless, fortifications, though existing in many places, were far from being evident everywhere or from correlating with the intensity of warfare. For example, “In striking contrast to New Zealand or Rapa, the Hawaiian Islands – despite the endemic warfare that characterized late prehistoric [that is, ethnographically known] Hawaiian culture – generally lack fortified sites.”<sup>70:213, 72</sup> In all these cases — the rates of killings among the African Bushmen and Canadian mid-Arctic hunter-gatherers, Polynesian and Maya warfare, the Natufians, and many others (including the cause of the death of Neolithic “Iceman” Ötzi,

an arrowhead discovered in his shoulder decades after he had been found) — the surprise discoveries always go in one direction.

These examples strikingly demonstrate the undisputed need to bring the archeological and comparative historical or ethnographic knowledge to bear on one another in order to overcome the problems that each of the disciplines faces. Indeed, archeology’s difficulties increase sharply as we go further back in time, to violence and warfare during the Paleolithic. Human skeleton remains from the Paleolithic are very few, fragmented, and badly preserved. Not only were human populations small and thinly dispersed, but they also moved around to subsist and lived in shifting campsites. Therefore, they did not leave substantive cemeteries adjacent to sedentary settlements, a treasure trove for archeologists. For the same reason, evidence of fortifications or violent destruction often found in sedentary settlements does not exist for mobile hunter-gatherers. There is evidence of violent skeletal trauma, including cannibalism, among both Neanderthals and *Homo sapiens* during the Paleolithic. However, the paucity and poor condition of that evidence make the scope and exact nature of the violence difficult to determine.<sup>73–75</sup>

Indeed, group violence among hunter-gatherers and, hence, during most of human prehistory, has become the new focus of debate. The very high killing rates that were documented, originally by Rousseauan anthropologists, among even the most thinly dispersed hunter-gatherers, have debunked Classical Rousseauism, which postulated a nonviolent human past. Archeology has then helped to refute the Extended Rousseauan claim that deadly violence and warfare were nonexistent, rare, or very low among the prestate populations of settled foragers, horticulturalists, and agriculturalists that emerged during the Holocene. However, in response to these developments, the Rousseauan position has been adjusted and reformulated, taking a form we here label Quasi-Rousseauism.

## QUASI-ROUSSEAUISM: CLAIMS AND CONCEPTS

Foreshadowed by Ferguson,<sup>51</sup> the Quasi-Rousseauan position has been the most distinctive in the recent Rousseauan literature. In his *Warless Societies and the Origin of War*, Raymond Kelly, explicitly breaking with the Classical Rousseauan tradition, fully accepts that, as the ethnographic record shows, hunter-gatherers experienced exceedingly high rates of killings, far higher than those common among modern state societies.<sup>76</sup> At the same time, analyzing the evidence, Kelly argues that the less organized, less clustered around clan and tribe, and less segmented a hunter-gatherer community was, the less it experienced collective, intergroup “warfare,” as distinguished from homicide and feuds that did not involve or target the entire community on either side. Kelly’s analysis suggests that the absence of segmentism largely correlates with, among other things, the low population density of mobile hunter-gatherers. Since our Paleolithic ancestors were overwhelmingly sparse and mobile hunter-gatherers, Kelly concludes that although homicide and feuds were probably rife among them, warfare as such seems to have developed only after that time. More or less the same view has been adopted by Douglas Fry.<sup>77,78</sup> Unlike Kelly, who straightforwardly embraces the statistics of violent death recorded among recent hunter-gatherers, Fry avoids specific mention of the evidence that killing rates among them were, on average, very high. Nonetheless, he tacitly accepts this, while claiming that they fell under the categories of homicide and feud rather than warfare.

The distinctions between homicide, feud, and warfare involve both semantic and substantive questions. Note that the framing of aboriginal human violence by Kelly and Fry is very different from either Hobbes’s or Rousseau’s. Hobbes’s “warre” encompasses all forms of deadly human violence, including homicide and feuds, which made the human “state of nature” so insecure and lethal. Similarly, Rousseau’s peaceful

aboriginal condition, presupposing minimal human sociability and interaction, was ostensibly free from all forms of human violence. Thus, both Hobbes's and Rousseau's understanding of belligerence and peacefulness are very close to that used in anthropological surveys and statistics of aboriginal deadly human violence<sup>79,80</sup> which Kelly and Fry criticize for conceptual fuzziness. This is why this article refers to claims such as those made by Kelly and Fry as Quasi-Rousseauism. These claims sound very significant with respect to aboriginal human violence. However, they actually hang on a thin thread of definitions for which the empirical basis, as we shall see, is very dubious, cf.<sup>81</sup> while turning the spotlight away from the question of hunter-gatherers' violent mortality rates. These rates are the fundamental question in the debate regarding the aboriginal human condition, whether it was violent or not. The centuries-old debate appears to have been discarded at a stroke, without anybody admitting or even realizing it.

Native linguistic usage also seems to have been different from the state-era dichotomy between homicide and feud or war. For example, the root of the English word war, *werra*, is Old Frankish-German, going back to their tribal, prestate past and meaning confusion, discord, or strife — in effect Hobbes's "warre" (<http://www.iep.utm.edu/war/>). Similarly, as Boas wrote, among the eastern, Great Plains, and Northwest American Indians (whom he studied at first-hand), "the term 'war' includes not only fights between tribes or clans, but also the deeds of individuals who set out to kill a member or members of another group."<sup>82:108</sup> Note that in addition to the native terminology he describes, Boas accepts, as a matter of course, the reality of large-scale intertribal fighting.

This brings us to the residual substantive question that Quasi-Rousseauans raise, which is whether or not group fighting existed among mobile hunter-gatherers and, by extension, throughout prehistory. We begin with some general comments.

The idea, first suggested by Margaret Mead,<sup>83</sup> that individual killing was a primordial feature of human societies while group fighting was not, makes no sense. People are a social species; they habitually practice many forms of cooperation among group members. A recent model<sup>84</sup> has demonstrated how conditions of small-group solidarity and intergroup fighting were likely to bring a strong evolutionary advantage during the Paleolithic. Moreover, Fry refers to hunter-gatherer groups as bands, which is a common anthropo-

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logical term that gives the impression of a random collection of people. In actuality, the hunter-gatherer band was a kin group, crisscrossed by kin ties and marriage alliances.<sup>31,81</sup> The people in these groups exhibited kin devotion and solidarity among themselves and against aliens. In acts of aggression, a man, while sometimes acting alone, as often called for help from his father, sons, brothers, uncles, cousins, and in-laws, as well as close friends. Occasionally, fighting took a wider form, engulfing much of the tribal manhood. Intergroup fighting occurred at all levels — individual, a small group of closely related men, and larger tribal groupings.

Kin solidarity in relatively small kin-based societies undermines the logic of another widespread Rousseauan claim, that while in-group killing may have occurred among hunter-gatherers, intergroup fighting

and killing were unknown or rare. Fry,<sup>77</sup> who did not share this position, now champions it, supposedly on the strength of his sample of hunter-gatherer societies.<sup>85</sup> However, Boehm's extensive survey of hunter-gatherer societies concluded that deadly fighting was more common, and conflict resolution less deeply embedded and less effective, between than within groups.<sup>86</sup> The simple and obvious reality was that violence within communities was more constrained and more regulated, whereas different communities were not only alien to each other, but less equipped with mechanisms of mediation and conflict resolution. To be sure, such mechanisms were often also used between groups to resolve individual or intercommunal grievances, including the agreed-on punishment of a member of one community who committed an offense against a member or members of the other community. In many cases, however, group members defended their own people or fought other groups over issues in dispute that were more collective in nature and unresolved. Notably, most killing among chimpanzees is also documented to take place between rather than within groups.<sup>43</sup>

This takes us again to the empirical, ethnographic evidence. Keeley,<sup>27</sup> dissecting the Extended Rousseauan claim, concentrated on horticulturalists as well as complex, more sedentary hunter-gatherers. He has been so effective that the battleground has shifted to the earlier, temporally much longer, and more fundamental domain of mobile hunter-gatherers. Kelly ostensibly grounds his argument about them in a carefully crafted analysis of the ethnographic record.<sup>76</sup> However, by far the best and clearest evidence we have, that from Aboriginal Australia, reveals communal as well as individual and familial violent conflicts, documented across the whole range of group densities and organization, and in every ecological niche, from the lushest to the most barren. Exchange and other forms of peaceful interaction were also common in Australia, as elsewhere. Both hostile and peaceful relations existed and

interchanged. All the same, the Aboriginal tribal groups generally suspected and feared their neighbors because violence was always a distinct possibility and occasionally erupted. Those who trespassed across territorial group boundaries risked death.

In earlier works, I singled out Australia as the indispensable key for overcoming the contact paradox and as being particularly significant for the study of mobile hunter-gatherers.<sup>28,29,31</sup> A recently published edited book<sup>81</sup> presents arguments similar to mine. This book focuses on mobile hunter-gatherers as the ultimate subject of contention. It draws on a rich variety of ethnographic and archeological studies of hunter-gatherer populations, most of them documenting group fighting. Critics may argue that the majority of these populations were contaminated by contact, as for centuries or even millennia they neighbored on horticultural or agricultural societies. However, the book includes two chapters on Aboriginal Australia, in which the general findings and conclusions are similar to mine.<sup>87,88</sup> What is still lacking in the scholarly discourse is a full realization of how crucial Australia is to our subject and how qualitatively incomparable it is to any other ethnographic case.

Australia was an entire continent of Aboriginal hunter-gatherers, with no agriculturalists, pastoralists, or states, whose isolation came to an end only as late as 1788, with the arrival of the British. People reached Australia some 50,000 years ago, shortly after our species first left Africa. The Australian Aborigines remained practically out of touch with other human populations and cultural developments elsewhere around the world. They did not even have the bow, invented some 20,000 years ago and assumed by some scholars to have enhanced, or even inaugurated, warfare. Thus, practically isolated both genetically and culturally and home to about 300 tribal groups when the Europeans arrived, Aboriginal Australia is the closest to a pure, uncontaminated laboratory of hunter-gatherer communities on a continental scale that we are ever going to

have. There is nothing even remotely equivalent in the whole world. Although the rich evidence assembled among the Aboriginal tribes during the nineteenth and early twentieth centuries was widely familiar to anthropologists throughout the world, they have been strangely forgotten and largely disappeared from anthropological discourse from the 1960s onward, as more recent field work, particularly in East and Southern Africa, drew the discipline's attention away. Unreflectively, the discipline simply moved on.

Fry is quite exceptional in devoting an entire chapter in his book<sup>77</sup> to

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Australia and in recognizing its unique significance for the study of hunter-gatherers. However, with the chapter titled "Aboriginal Australia: A Continent of Unwarlike Hunter-Gatherers," both the picture he portrays and his conclusions are the opposite of mine and those presented by other recent studies.<sup>87,88</sup> Thus, a reexamination of the evidence from Aboriginal Australia is called for. The following focuses specifically on the evidence of large-scale intercommunal fighting or warfare, the kind of violence that mobile, thinly dispersed, unorganized, unsegmented, egalitarian hunter-gatherers are alleged not to have engaged in.

### **BACK TO AUSTRALIA: THE EVIDENCE OF ABORIGINAL INTERGROUP FIGHTING**

In 1803, only fifteen years after the Europeans first arrived in Australia, a 23-year-old Englishman named William Buckley (1780–1856) was brought to the new continent on the first convict ship arriving at the pen-

alty settlement at Port Philip, now Melbourne. He escaped shortly after, and for 32 years, until 1835, lived with an Aboriginal tribe. During that time, he learned to speak their language and participated in their daily activities. No anthropologist has ever achieved a similar familiarity and at such an early date. After returning to civilization, Buckley, on several occasions, related his experiences.<sup>89</sup> Rousseauans either ignore his account or insinuate that it is unreliable. Yet it appears to be remarkably authentic with respect to everything that can be verified concerning the natives' lives. Indeed, it also tallies remarkably with everything we shall see regarding Aboriginal violence and warfare from other sources throughout Australia. Buckley recounts some dozen battle scenes, as well as many lethal feuds, raids, and ambushes, comprising a central element of the natives' traditional way of life. He describes their weapons of war in great detail: clubs, spears, "war boomerangs," throwing sticks, and shields.<sup>89:39,65–66</sup> Tribes typically consisted of 20–60 families each and were egalitarian, without chiefs.<sup>89:72</sup> There was fighting at all levels: individual, familial, and tribal. Some of the intertribal encounters that Buckley recorded involved large numbers: five different tribes collected for battle<sup>89:40–42</sup>; a battle and raid against an intruding enemy tribe, 300 strong<sup>89:49–51</sup>; several full-scale intertribal encounters, the last one a raid with many dead<sup>89:68–72</sup>; two other encounters, the second against a war party of 60 men.<sup>89:81–83</sup> Ceremonial cannibalism of the vanquished was customary.<sup>89:108,190</sup> Buckley reported that the large-scale raid was the deadliest form of violence and often involved indiscriminate massacre: "The contests between the Watouronga, of Geelong, and the Warrorongs, of the Yarra, were fierce and bloody. I have accompanied the former in their attacks on the latter. When coming suddenly upon them in the night, they have destroyed without mercy men, women and children."<sup>89:189</sup>

In the 1870s, Fison and Howitt studied the Kurnai tribe in southern Australia (Gippsland, Victoria). They

described both feuds and whole groups' fighting. In one episode,<sup>90:213-14</sup> fresh tracks indicating trespassing into the tribal territories were revealed and a spy was sent to reconnoiter. He found the intruders, with "lots of women and children." The Kurnai men "got their spears ready." After securing enough hunted food for the womenfolk they left behind and more reconnoitering, "in the middle of the night they all marched off well armed." After several marches, "when near morning ... they got close to them ... The spies whistled like bird, to tell when all was ready. Then all ran in; they speared away, and speared away! They only speared the men, and perhaps some children. Whoever caught a women kept her himself. Then they eat the skin of the Brajeraks [the trespassing tribe]." The native informants told of other episodes that ended in ceremonial cannibalism of the vanquished.<sup>90:214-15,223-24</sup> Fison and Howitt went on to describe how members of the families, divisions, and clans were connected by descent and kinship and "depended on each other for mutual aid and protection."<sup>90:215-216</sup> In addition to raids, many feuds also took place, as well as formal battles, which were often agreed on and stopped after the first injuries. According to the informants, the last great battles of the Gippsland clans' took place around 1856-1857. Escalating from a feud, much of the tribal group assembled on the strength of kin ties: "There could not have been less than two hundred of us — at least the white men counted and told us so."<sup>90:219</sup> There followed a protracted spate of hostilities against the rival tribe, with several encounters. Police intervention was the factor that put an end to the natives' fighting. Fison and Howitt conclude that whereas feuding within the tribe did not necessarily entail killing, killing was inseparable from the settling of accounts between tribes. Further, "the feuds attaches not only to the individual, but also to the whole group of which he is a member," and they were prosecuted not only by relatives, "but also by the whole division, or even by the whole clan."<sup>90:220-221</sup>

Wheeler is no less clear.<sup>91</sup> He describes at length the regulated fights used to fulfill demands for justice between individuals and whole local groups throughout Australia. In such fights, which mainly involved spear throwing at a distance, little blood was shed. However, Wheeler writes<sup>91:148-149</sup>: "Such is regulated war, by far the commonest form in Australia; but by its side exists what may be called war in the true meaning — that is, revenge or justice carried out by one group on another, under few, if any, restrictions or conditions, and carried out indiscriminately on the individuals of the group to which the offender belongs by that to which the injured person belongs." Wheeler cites different observers' reports from all over Australia. According to one such report, after "march by night in the most stealthy manner ... then follows a night attack and a wholesale extermination."<sup>91:151</sup> According to another report, "A common procedure in such warfare is to steal up to the enemy's camp in the dead of night, and encircle it in the earliest dawn. With a shout, the carnage then begins."<sup>91:152</sup> Wheeler concludes that tribal solidarity generally prevented internal warfare. "What seems clear is that war proper is marked off from other forms of justice by the fact that the vengeance is carried out indiscriminately on the members of another tribe."<sup>91:152-153</sup>

Europeans reached Australia's subtropical Northern Territory later than they did the temperate south, but the picture is barely distinguishable. Warner, studying the Murngin hunter-gatherers of Arnhem Land during the 1920s, wrote, "Warfare is one of the most important social activities of the Murngin people and surrounding tribes."<sup>92:155</sup> Warner described a whole spectrum of violent conflicts, ranging from individual feuds to small-group, clan, and tribal conflicts. Such conflicts could lead to face to face confrontations up to the scale of battles. However, the most lethal and common form of warfare among the Murngin was the surprise night raid. This could be carried out by individuals or small groups intending to kill a specific

enemy or members of a specific family. But raids were also conducted on a large scale by raiding parties coming from whole clans or tribes. In such cases, the camp of the attacked party was surrounded and its unprepared, sleeping dwellers were massacred. It was in these larger raids that by far the most killings were registered: 35 people were killed in large-scale raids, 27 in small-scale raids, 29 in large battles in which ambushes were used, 3 in ordinary battles, and 2 in individual face-to-face encounters.<sup>92:457-8</sup> Thus, the largest number of casualties occurred in large-scale tribal clashes.

Arnold Pilling wrote about armed conflict among the Tiwi of northern Australia: 'The night raids were effectively terminated, about 1912, when Sir Baldwin Spencer was inadvertently injured by a Tiwi during a spear-throwing demonstration.'<sup>93:158</sup>

"This Spencer incident, which was correlated with the end of night raiding and sneak attacks, appeared to have stopped pitched battles that produced death. In fact, however, death-causing battles with clubs occurred as late as 1948. Under the old pattern, sneak attack was sufficiently common that informants spoke of special ecological adjustments to it. The threatened group A was likely to move to the mangroves, a very specialized and unpleasant ecological niche with, among other things, crocodiles and a sloshy mud floor."

Demographically, "it is important to note the incidence of fatalities associated with the old pattern of attacks and the way of life with which that pattern was correlated. In one decade, 1893-1903, at least 16 males in the 25-to-45-year-old age group were killed in feuding, either during sneak attacks or in arranged pitch battles. Those killed represented over 105 of all males in that age group, which, of course, included young fathers."

One major action in Arnhem Land is described by Strehlow.<sup>94:124-125</sup>

"To punish Ltjabakuka and his men meant the wiping out of the whole camp of people normally resident at Irbmankara, so that no witness should be left alive who could

have revealed the names of the attackers. A large party of avengers drawn from the Matuntara area along the Palmer River, and from some Southern Aranda local groups, was accordingly assembled and led to Irbmankara by Tjinawariti, who was described to me as having been a Matuntara 'ceremonial chief' from the Palmer River whose prowess as a warrior had given him a great reputation. Tjinawariti and his men fell upon Irbmankara one evening, after all the local folk, as they believed, had returned to their camps from their day's quests for food. Men, women and children were massacred indiscriminately."

Chaseling, too, mentions the whole spectrum of violence, from frequent individual fights to regulated battles between clans to raids. "Raids are common, and as the men are killed the vendetta passes from one generation to another. Entire hordes have been exterminated."<sup>95:79</sup> If no such decisive result was reached, peace-making might eventually end the conflict.

R. G. Kimber, drawing on a variety of studies and sources, summarized:<sup>96:163</sup>

"One can infer from archaeological evidence that conflict has been an ancient problem, and many mythological accounts also suggest this. Small-scale conflict, with very occasional deaths, was no doubt the norm, but the 'payback law' could result in lengthy feuds. On other occasions major conflicts had dramatic demographic implications."

Kimber cites evidence of some such major conflicts, including the one described by Strehlow: "In about 1840, at a locality called Nariwalpa, in response to insults, the 'Jandruwontas and Piliatapas killed so many Diari men, that the ground was covered with their dead bodies'... Strehlow gives the most dramatic account of a major arid-country conflict. He estimates that 80–100 men, women, and children were killed in one attack in 1875 at Running Waters, on the Finke River. In retaliation, all but one of the attacking party of 'perhaps fifty to sixty warriors' were killed over the next three years, as were some of their family

members. This indicates that some 20% of two identifiable tribes were killed in this exchange."

Kimber adds, "The red ochre gathering expeditions ... involved travel from the eastern portion of the study area to the Flinders Ranges ... These expeditions took place on a regular basis, were normally all-male parties, and although cordial relationships between groups were sought, fighting appears to have been a common hazard faced by travelling parties. One entire party, with the exception of one man, is recorded as having been ambushed and killed in about

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1870, whilst in about 1874 all but one of a group of 30 men were 'entombed in the excavations'."

Kimber concludes, "The evidence suggests that major conflict could be expected in the well-watered areas, where population density was at its greatest, or during regular 'trespasser travel' for high-priced products. Although exact figures will never be known, a low death rate of possibly 5% every generation can be suggested for the regions of least conflict, and a high death-rate of perhaps 20% every three generations elsewhere."

Warfare was not confined to water-rich Northern and Southern Australia, but was evident in every

climatic zone throughout the continent. Meggitt studied the Walbiri tribe of the Central Australian Desert, in one of the most forbidding environments on earth. The population density of the Walbiri tribe was as low as one person per 35 square miles. Walbiri were friendly with some of their neighbors and hostile with others. In the latter case, raids and counter-raids were common.<sup>97:38</sup>

"The men's descriptions made it clear that the Warramunga (and Waringari) trespasses were not merely hunting forays impelled by food shortages in the invaders' own territory but rather were raids undertaken to combine hunting for sport and the abduction of women. Often, too, the raiders were simply spoiling for a fight. They were met with force, and deaths occurred on both sides. Walbiri war parties would then invade the Warramunga country in retaliation. If they were able to surprise the enemy camps and kill or drive off the men, they carried away any women they found."

On one recorded occasion around the beginning of the twentieth century, things came to a head on a wider scale and with a different motive.<sup>97:42</sup> "Until then, the Waringari had claimed the ownership of the few native wells at Tanami and the country surrounding them, but in a pitched battle for the possession of the water the Walbiri drove the Waringari from the area, which they incorporated into their own territory. By desert standards the engagement was spectacular, the dead on either side numbering a score or more."

Thus, the range of evidence from across Aboriginal Australia, the only continent of hunter-gatherers, strikingly demonstrates that deadly human violence, including group fighting, existed at all social levels, in all population densities, in the simplest of social organization, and in all types of environments. cf.<sup>87,88</sup> Contrary to Classical Rousseauism, Aboriginal fighting was highly lethal, with violent death rates far higher than those normally incurred by historical state societies. Contrary to Quasi-Rousseauism, fighting comprised intercommunal warfare as well as homicide and feuds, with the



evidence consistently suggesting that most casualties were incurred in large-scale raids and battles. Violence was sparked by competition over resources such as hunting and fishing territories and water holes, as well as over women, both of crucial fitness value. Cycles of retribution and mutual suspicion, which were conducive to accusations of sorcery, greatly intensified and escalated the scale of violence.<sup>29</sup>

Fry<sup>77</sup> is familiar with a great deal of the Australian evidence I have cited, though apparently not with some of the earliest sources. (At least he does not cite them, even though they are cited by his sources). Nonetheless, while Fry does not deny that aggression and violent death were common among the Aborigines, he avoids any reference to their overall prevalence and very high lethality rates as attested to in the records: Pilling's 10% of all males in the 25- to 45-year age group killed in one decade; and Kimber's 20% of two identifiable tribes in a single three-year conflict, a general death rate estimate of 5% every generation for the regions of least conflict, and death rate of perhaps 20% every three generations elsewhere. Obviously, such estimates are highly tentative. Nonetheless, they are remarkably similar, and are also in general agreement with those suggested by Warner. In a population of three thousand in the tribes in his study area, he recorded and calculated about two hundred deaths "caused by war" in the last twenty years.<sup>92:157-8</sup> All these are precisely the very high death rates that Fry (and Ferguson<sup>98</sup>) tend to dismiss with scorn.

The evidence of precontact violent skeletal trauma among the Aborigines, not cited by Fry, is as indicative. According to Knuckey,<sup>99</sup> 57.3% of the sample of 366 adult crania from all over Australia reveal human-inflicted injuries. Webb has shown somewhat lower figures and considerable variation between places,<sup>100</sup> but the range is still high and very similar to that we have seen elsewhere in the world. Moreover, unlike figures from other places, the Australian ones can be compared with the

ethnographic evidence of Aboriginal killing rates. They reinforce the conclusion that these were very high and suggest that two main adjustments are required in such comparisons. The first is that injuries to the crania were mostly suffered in nonlethal, mostly internal and regulated disputes (cf. Chagnon's seminal study of the Yanomamo<sup>101</sup>), including a particularly high percentage of blows to the head registered among Aboriginal women; the second is that killings in intertribal night raids are largely unrecorded in the skeletal evidence because the spearing of those taken by surprise and unable to defend themselves mostly resulted in fatal injuries to soft tissues.

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Fry employs a variety of other methods to cope with the Australian evidence. While he tacitly accepts that killing rates among the Aborigines were not insignificant, he consigns them all to the categories of murder and feud, again contrary to the evidence. On one page of his chapter "Aboriginal Australia: A Continent of Unwarlike Hunter-Gatherers,"<sup>77:149</sup> Fry deals with some cases that might contradict the chapter's title. Thus, while he cites the Murngin *gaingar*, or open battle, he passes in silence over the large-scale surprise raid, which students of primitive warfare know to be the main form of prestate warfare. Furthermore, he writes that the *gaingar* "resembles warfare" and again comments about the *gaingar*, "whether labeled war or

feud." Fry repeats the same method in his next paragraph, on the Tiwi, whose fights, he writes, "superficially resembling warfare." He again does not mention the Tiwi's extremely high killing rates. Remarkably, however, in his later *Science* article,<sup>85</sup> Fry cites the Tiwi's killing rates without any reservation and, indeed, singles out the Tiwi as the main world exception to his general claim that hunter-gatherers rarely engaged in group violence. At the same time, he includes the Aranda, his second Australian example in this article, among the unwarlike groups, despite the evidence to the contrary, such as that cited by Strehlow.

With respect to the Walbiri, Fry again offers no description of their frequent warfare, citing Birdsell's suggestion<sup>102:341</sup> that the conquest of wells "was unlikely to have been frequent in pre-contact times." He does not cite the view expressed by Meggitt,<sup>97:42</sup> whom he otherwise quotes extensively, that such conquest, while generally uncommon in Australia, may have "occurred more often than we realize in the desert regions where water is a precious commodity" and is, indeed, the difference between life and death in particularly arid times. More importantly, whereas in the Murngin case Fry associates warfare with battle, ignoring the large-scale raid, in this instance he creates the impression (without arguing so) that the concept of warfare is linked to the conquest of territory.

In the same spirit, Fry<sup>77:151</sup> quotes Berndt that "fights of conquest, attempts to impose the government of one group or tribe upon another, were virtually unknown," a generalization with which every student of primitive warfare probably would agree. Yet he fails to cite Berndt's overall summary of the situation in Aboriginal Australia:

"Warfare is armed conflict carried out by members of one social unit (a tribe or clan, for example), or in the name of that unit, against another. Feud, however, is armed conflict which concerns particular families or groups of kin, although it may have repercussions throughout the community and implicate a large

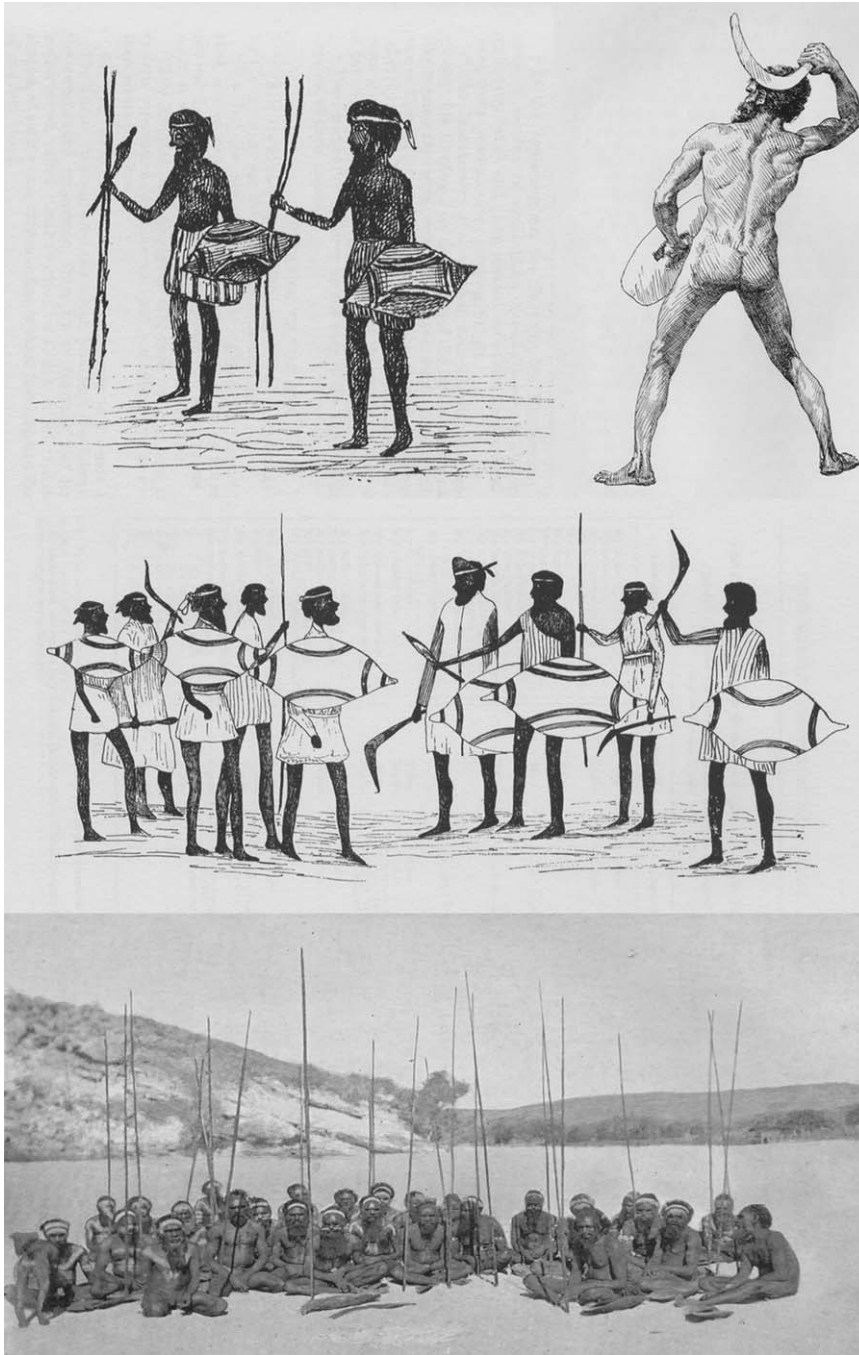


Figure 1. Warriors carrying shields and "war boomerangs".<sup>104,105,107</sup>

number of persons: feud can drift into warfare ... a blood feud can spread and involve the entire tribe."<sup>103:299</sup>

Berndt thought that such warfare was infrequent, and indeed it was much less frequent than the endemic feuding. However, as we have seen, it very much existed, both as escalated feuds and for collective aims.

Furthermore, the evidence consistently suggests that in contrast to small-scale feuding, larger scale group warfare accounted for much, if not the majority, of the violent death toll.

Finally, in Fry's Australian chapter, as throughout his book, one encounters only photos of smiling faces and peaceful activities. Pictures and pho-

tos of Aboriginal groups of warriors carrying shields — unmistakable fighting devices — as recorded throughout Australia in the nineteenth and early twentieth centuries are nowhere to be seen, nor are they mentioned. However, for what possible purpose would the Aborigines carry a cumbersome shield, so out of step with their nomadic light gear and alleged unwarlike life?

### DOUGLAS FRY'S CRUSADE FOR PEACE AND THE ISSUES IN QUESTION

Fry extensively writes about scholars on the other side of the debate, whom he criticizes for being strongly biased by cultural expectations, guilty of preconceived definitions, and making selective choice of examples, partial citations, and tendentious interpretations. He has been the most active and polemical representative of the Quasi-Rousseauian position. For this reason, and in view of the major issues that this position raises, further scrutiny of his arguments and methods is inescapable. cf.<sup>108</sup>

Fry argues that the vast majority of hunter-gatherer life is spent in peace, with violence, and especially deadly violence, erupting very rarely, usually as isolated incidents that last briefly and are separated by years. This is quite true, as long as a few crucial points are added. First and foremost, these violent occasions are sufficient to accumulate into rates of killing that are, on average, far higher than in any state society. Moreover, death in general is a hugely significant occurrence in the life of people, even if it takes only a brief moment compared to an entire lifetime. Indeed, the imminent potential of violence among hunter-gatherers is a social fact that hangs over their lives and dominates them even when violence is not activated.

Fry also argues correctly that levels of violence and killing among hunter-gatherer societies are not uniformly very high, and that some of these societies are even quite pacific. Clearly, there was some range of variation in the violence among hunter-gatherer groups, including, at the

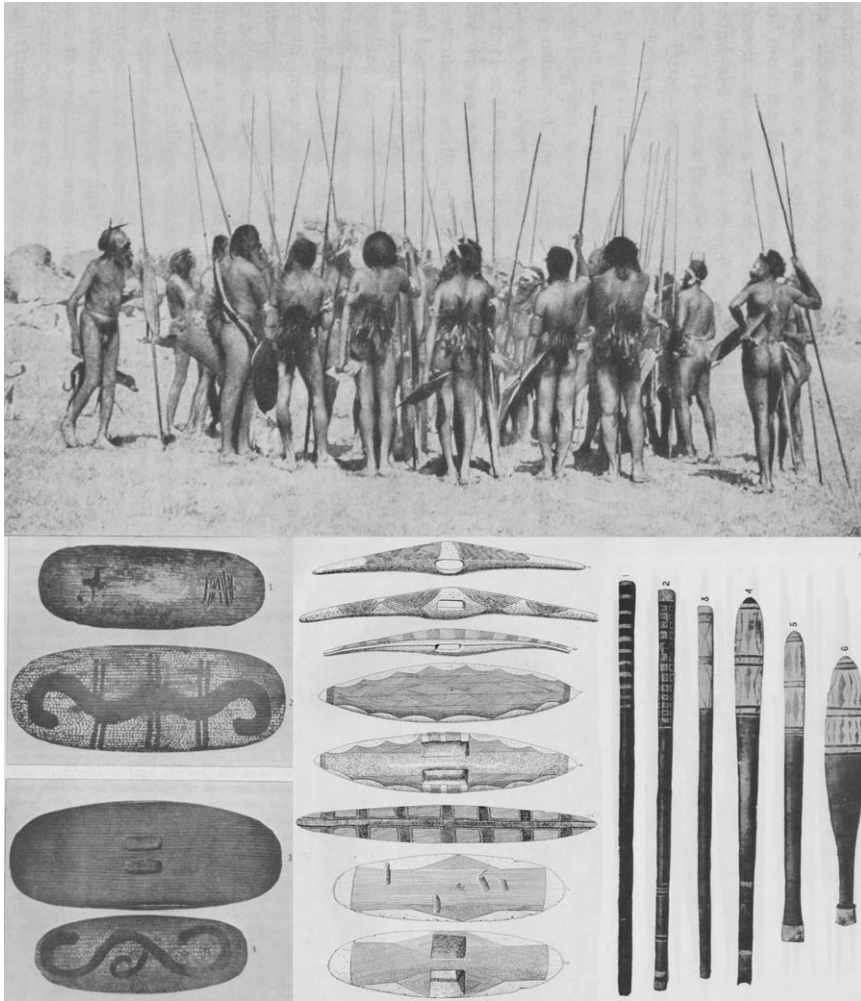


Figure 2. Shields and clubs.<sup>105-107</sup>

end of a bell curve, a few groups that exhibited little violence, withdrawing to isolated environments, often, reportedly, in response to earlier experiences of violence. Historical state societies are an apt analogy. In an “anarchic” international system, some states fought more than others; the large majority fought some of the time, and a few, such as Sweden and Switzerland, have remained largely outside the circle of war during the past two centuries because of their special circumstances. Does this mean that the last-mentioned states have never fought? Obviously not. On the contrary, both the Swiss and the Swedes had an exceptionally violent, warlike, and bloody past.

Much the same applies to hunter-gatherers and other prestate societies. Fry claims that the groups in the eth-

nographic record, about which we have no information on whether they were violent, may conceal additional cases of peaceful societies.<sup>77:87</sup> However, the opposite proposition is likely to be far more common: Since visits by anthropologists to remote and isolated societies are often rare or one-time events, there is greater probability for them to have occurred during periods of peace, so that they have missed the outbursts of violence that Fry himself insists are far and few between. Anthropological observations are snapshots taken at particular moments. Imagine an observer from another world arriving in Sweden or Switzerland today and having no inkling about their more distant warlike past. Or suppose that anthropologists’ visits to the Australian Aborigines took place for the first time in

the second half of the twentieth century, after their bloody fighting during the nineteenth and early twentieth centuries had already ceased because of state interference.<sup>109,110</sup> Probably the great majority, if not all of the few hunter-gatherer and horticulturalist societies that anthropologists have designated as peaceful have had a history of deadly fighting.

Fry does not agree with the widespread view<sup>76,111,112</sup> that the paucity and ambiguity of the archeological evidence makes it difficult to determine with certainty whether or not warfare existed during the Paleolithic. Rejecting the methodical rule that a lack of evidence is not evidence of a lack, he writes that<sup>77:139</sup> (cf., somewhat more cautiously, Ferguson<sup>57:479-480</sup>) “as archaeological data have accumulated from all corners of the world, it is now clear that warfare does leave archaeological marks. Unambiguous fortifications around settlements, specialized weapons such as clubs and daggers not used for hunting, depictions of martial scenes in artwork, a substantial number of burials with projectile points either embedded in the bones or else lying within the frame of the skeletons, evidence of massive fire followed by a change in cultural artefacts, a reduced number of male remains buried in cemeteries that suggests significant male death elsewhere . . .”

The contradictions here are difficult to rationalize. Fortified settlements, their destruction by fire, and cemeteries adjacent to them are all marks of sedentary habitation and did not exist among the mobile hunter-gatherers of the Paleolithic who are the subject of Fry’s argument. Furthermore, he ignores the extensive evidence of violent skeletal trauma among hunter-gatherer populations, including during the Paleolithic. At the same time, because Fry does not deny the prevalence of homicide and lethal feuds among hunter-gatherers, it is curious that he mentions skeletal evidence as a mark of warfare and implies that such evidence is rare. As for specialized weapons, clubs are made of perishable material. However, fighting

clubs, as well as daggers (and “war boomerangs”), are documented in great detail among the Australian Aborigines.<sup>89,104–106</sup> Notably, Fry does not mention shields, similarly made of perishable material and intended solely for warfare. They too are widely documented in “unwarlike” Aboriginal Australia. None of these arguments cohere.

Fry, like others, refers to the absence of clear archeological signs of warfare before about 10,000 years ago, before the Mesolithic, when dense, sedentary human settlement appeared in Europe, as in some other parts of the Old World, revealing all the previously cited marks of warfare. However, the issue at stake is the archeological evidence, irrespective of time, of warfare among mobile hunter-gatherers. After all, Fry and other Quasi-Rousseauans claim that latter-day mobile hunter-gatherers did not fight either. By limiting the argument to the period before 10,000 years ago, one excludes the archeological studies of the earliest skeletal evidence of hunter-gatherer violence in North America. People were late to arrive in the New World, and early human settlement was very thin and comprised precisely of the mobile hunter-gatherers that are the quasi-Rousseauans’ subject. Nonetheless, Fry is completely silent about the strong conclusions of Walker’s comprehensive survey<sup>47:584,591</sup>: “Bones bearing cutmarks inflicted by other humans are surprisingly common considering the paucity of early hominid remains.” The “earliest immigrants to the New World ... lived at low densities and had ample opportunity to avoid violence by moving away from it but apparently were unable to do so.”

Walker, summarizing the evidence from a number of studies, writes: “The 9000-year-old Kennewick find, one of the earliest Native American skeletons, has a large leaf-shaped projectile point, probably propelled by a spear thrower, healed into the bone of his pelvis as well as a small, well-healed cranial fracture. ... Similar injuries, including embedded points and cranial injuries, have been found in other early Native

American remains.”<sup>47:588–589</sup> Walker concludes: “The search for an earlier, less-violent way to organize our social affairs has been fruitless. All the evidence suggests that peaceful periods have always been punctuated by episodes of warfare and violence.”<sup>47:590</sup>

A recent study of the skeleton remains of the sparse populations of Paleoamericans between the earliest identifiable arrivals and approximately 9,000 years BP (calibrated), has identified violent injuries in 58% of the males and 18% of the females. This is about double the rates cited earlier for many parts of later and more densely populated periods of prehistoric North America.<sup>114</sup> As we have seen, Lambert also detected very high rates of cranial injuries in the earliest period of her California survey (6630-4050 BC).<sup>46</sup> Other studies of California and the West have found that such injuries, including marks of scalp trophies, have been highest during the earliest periods surveyed, from 3050 BC on, and actually decreased during later periods, when sedentism grew.<sup>115,116</sup>

Certainly, conflicting views remain, understandably given the scarcity and nature of the archeological evidence for nonsedentary populations. Lambert, while furnishing evidence of very high levels of violence in some of the earliest and sparsest North American populations, tended to believe that violence increased with denser and more settled habitation.<sup>48</sup> She was also inclined to the opinion that most of the early violence took the form of homicide and feuds rather than intergroup warfare, a view shared by Chatters.<sup>114:82</sup> This, however, is a theoretical presupposition rather than an empirical find. Dye,<sup>117</sup> for example, relying on Kelly and Fry, makes the same assumption, so what we have is a false theory guiding the empirical investigation. As we have seen, the archeological finds must be examined in conjunction with the ethnographic record. Most notably, the Australian evidence suggests differences in the circumstances of soft-tissue as compared to bone injuries. The closest analogy to early North America is the ethnographic record

from the sparse populations of hunter-gatherers on the Great Plains.

Bison herds’ migration routes on the Great Plains were changing and difficult to predict. Hunting in other tribes’ territories thus became necessary from time to time, often resulting in warfare.<sup>118,119</sup> Indeed, early Paleo-Indians may have exhibited behavior patterns similar to those of Upper Paleolithic hunters of large game in Europe, from France to the Ukraine. Fighting patterns on the Plains, both before and after adoption of the horse, are extensively documented and reveal a familiar picture, strikingly similar to that we have already seen throughout Australia at both the individual and group levels. According to Smith,<sup>120:431,436</sup> “Whether a war party consisted of one warrior or a man and one or two of his most intimate friends, or of one to four hundred warriors, or even of the whole tribe the purpose and general form of its procedure did not change.” A night raid and dawn attack was the norm. “The mortality in Plains fighting was highest when attack took the enemy unprepared. ... In such cases the weaker groups were often completely annihilated. The mortality of pitched battles, which was of more frequent occurrence than is generally supposed, was considerably lower.” According to Mishkin,<sup>121:2</sup> “the form of warfare preferred on the Plains [was] the surprise attack.” Ewers, specifically documenting the historical and archeological evidence of Plains Indian warfare before contact, writes,<sup>25:401</sup> “The greatest damage was done when a large war party surprised, attacked, and wiped out a small hunting camp. ... Casualties were few in pitched battles between relatively equal numbers of warriors.” Secoy describes the same pattern of prehorse, pregun fighting.<sup>24:34–35</sup> According to the testimony of the old Blackfoot Saukamappee, formal battles were conducted from a distance and resulted in few casualties: “The great mischief of war then, was as now, by attacking and destroying small camps of ten to thirty tents.”

Thus, wide dispersion and low-density populations did not

necessarily mean less resource stress and less competition. An extensive mode of subsistence required large territories, where large migrating herds were an invaluable, hotly contested group prize. As in Australia and everywhere else, women were another vital and inherently scarce resource under competition, irrespective of population density. Studies of other macro and micro cases of mobile hunter-gatherers who interacted almost exclusively with mobile hunter-gatherers come up with similar finds.<sup>81, 122</sup>

### WAR AND PEACE: BIOLOGICALLY EMBEDDED, ALTERNATIVE, AND COMPLEMENTARY BEHAVIORAL STRATEGIES

The evidence regarding violence and fighting among aboriginal people is not easy to isolate and interpret. More than objective difficulties are involved. Ideological outlooks and concerns have always played their part. For example, Rousseauism is often adopted by those who are concerned that the antiquity of human fighting may suggest that it is inseparable from human reality and seek to dispel this notion in support of the effort to reduce or eliminate war in today's world. This is Fry's openly and repeatedly stated mission. However, the antiquity of human fighting and the question of the future of war are not at all connected in the direct way that people tend to assume. Gat,<sup>31</sup> Pinker,<sup>33</sup> Goldstein,<sup>123</sup> and Morris<sup>124</sup> have all argued that while human fighting was ubiquitous and highly lethal in prehistory, its mortality rates actually decreased under the state, and that war in general has declined sharply during modern and recent times. Thus, there is no simple connection between the bloody human past and a potentially better present and future.

Fry does have an important contribution to make. He has stressed the point — not sufficiently coming out in the debate regarding human violence — that violence and war, perceived as natural to man, are not invariably all-pervasive. He eluci-

dates the other side of the human behavioral repertoire, which makes up what he rightly calls our “potential for peace.” This side consists of basic interpersonal and social techniques, which, in Fry's list, include avoidance, toleration, negotiation, and settlement, all enhanced by social norms, group pressure, and communal ceremonies intended to dissipate, deflect, and suppress the outbreak of violence.<sup>77</sup> Fry is correct in arguing that these most common practices of daily life have always been with us and are widely attested to in hunter-gatherer societies. He is also right to point out that different societies, including those of hunter-gatherers, have exhibited different levels of violence, largely depending on their conditions and norms. However, in pursuit of the cause of a future peaceful world, Fry errs in the other direction, underplaying the role of violence and suppressing evidence of communal fighting in the aboriginal human past. Like the various forms of conflict resolution and aversion, they, too, have always been with us. Indeed, the ever-present prospect of violent conflict is precisely the reason why conflict resolution has always been such a central social practice, proving more or less successful in both intragroup and intergroup settings.

The root of the misconception is this: People habitually assume that if widespread deadly violence has always been with us, it must be a primary, irresistible drive that is nearly impossible to suppress. Many find in this reason enough to object to the idea that human fighting is primordial; others regard it as compelling evidence that war is inevitable. Both sides are wrong. Contrary to fashionable 1960s notions, traced back to Freud's latter-day theorizing about a death drive or instinct, violence is not a primary drive that requires release, like hunger or sex. The Swiss or Swedes, for example, have not fought for two centuries, yet they show no special signs of deprivation on this account. But try to deny them food for more than a few hours, or sex for more than a few days, and their reaction would be quite predictable.

On the other hand, the fact that violence is not a primary drive does not mean that we are not hardwired for it. Studies on “warless” prestate societies usually intend to prove that warfare, neither primordial nor natural to humankind, probably was a late and, in any case, wholly contingent cultural phenomenon. Margaret Mead's framing of the problem,<sup>83</sup> “Warfare Is Only an Invention — Not a Biological Necessity” is the mother of all mistakes. It expresses the widespread assumption that violence must be either a primary drive or entirely learned, whereas, in fact, its potential is deeply ingrained in us as a means or tool, ever-ready to be employed. People can cooperate, peacefully compete, or use violence in order to achieve their objectives, depending on what they believe will serve them best in any given circumstance.

Cooperation, competition, and violent conflict are the three fundamental forms of social interaction (in addition to isolation or avoidance; that is, zero interaction). People have always had all three options to choose from, and have always assessed the situation to decide which option or combination of them seemed the most promising. Violent conflict as a behavioral strategy did not suddenly emerge sometime in later human history. People are biologically well equipped to pursue any of these social strategies, with conflict being only one tool, albeit a major one — the hammer — in our diverse behavioral toolkit. Furthermore, *Homo sapiens* is a social species, whose local and regional groups, universally and uniquely bound together by ties of both kinship and shared cultural codes, including language and customs, cooperate in a variety of group activities, including fighting. To be sure, extreme conditions of sparsity, as in the eastern Canadian Arctic, may make large group action less common.<sup>125</sup> But as the evidence from the central Australian desert demonstrates, even the most forbidding environments, with extremely low population densities, could see intense group fighting, sometimes for collective goods such as hunting

territories and water sources. Neither a late invention nor a compulsive inevitability independent of conditions, group fighting is part of our evolution-shaped behavioral menu. It is in this sense that both war and peace are “in our genes.”

Some of those who have dealt with the question in fact express the view that human societies have always been Janus-faced, interchangeably resorting to both peace and violent conflict.<sup>26,47,86,112</sup> Based on his survey of 49 hunter-gatherer societies, Boehm<sup>86:327</sup> put both sides of their behavioral repertoire in a proper and striking perspective: “59 percent of the LPA [Late Pleistocene Appropriate] forager sample has enough lethal intergroup conflict for this to be reported in an ethnography. “He added, “With human foragers, negotiations of some type (including truces and peacemaking) are found in more than half of the LPA societies surveyed (59 percent). However, Table 16.6 tells us that formal and effective peacemaking is reported only for a few of the 29 societies.”<sup>86:330</sup> This agrees remarkably with Ember’s<sup>79:443</sup> pioneering, somewhat cruder coding of the worldwide sample of hunter-gatherers: “64 percent had warfare occurring at least once every two years, 26 percent had warfare somewhat less often, and only 10 percent ... were rated as having no or rare warfare.” According to the same study, by stricter definitions, “warfare is rare for only 12 percent of ... hunter-gatherers. In sum, hunter-gatherers could hardly be described as peaceful.”

### CONCLUSION: HUNTER-GATHERERS AND THE HUMAN POTENTIAL FOR WAR AND PEACE

Quasi-Rousseauism, which has occupied center stage in the Rousseauian discourse since the turn of the twenty-first century, represents significant progress in the debate on the antiquity of human deadly fighting. Its proponents have accepted the documented evidence of very high rates of killing among hunter-gatherers, Raymond Kelly forthrightly, Douglas Fry more obliquely.

It has scarcely been recognized, or even noted, that this constitutes a major withdrawal from Classical Rousseauism and its claim of little or no violence among aboriginal humans before sedentism, agriculture, and the state. Furthermore, evidence from the pure continent-size Australian laboratory conclusively reveals that, contrary to the Quasi-Rousseauians’ remaining claim, fighting among hunter-gatherers took place at all levels, from the individual to the family to the larger group. It encompassed collective intergroup fighting, involving and targeting the wider communities on both sides; that is, warfare as well as homicide and feuds.

The potential for both war and peace is embedded in us. The diverse human behavioral toolkit comprises a variety of major tools, geared for violent conflict, peaceful competition, and cooperation, as well as avoidance. Although activated interchangeably and conjointly in response to overall environmental and socio-cultural conditions, these behavioral strategies are not purely learned cultural forms. This naïve nature-nurture dichotomy overlooks the heavy and complex biological machinery that is necessary for the working of each of these behavioral strategies and the interplay between them. Certainly, these deep evolution-shaped patterns are variably calibrated to particular conditions through social learning. However, the reason why they are there, very close under our skin and readily activated, is that they were all very handy during our long evolutionary past. They all proved highly advantageous, thereby becoming part and parcel of our biological equipment. Indeed, among hunter-gatherers, as later in history, all these behavioral strategies, both violent and peaceful, were interchangeably and variably employed.

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