

Appendix B

Update on *Saharasia* New Findings Since the First Printing* by James DeMeo, Ph.D.

Introduction and Background

In 1992, I was invited to Vienna, Austria, to give lectures on my research, and while there visited the *Natural History Museum*, which at the time had a large collection of East European artifacts organized chronologically. The display cabinets lined a pathway, which allowed one to see recovered artifacts and scenes reconstructing daily life, starting with the most ancient down to modern times. I made my way through the earliest collections of primitive stone tools, through Neanderthal times, and into the epoch of early *Homo sapiens*. Simple villages were shown in the reconstructed scenes, along with agriculture and animal domestication, some early types of pottery, fabrics and copper implements formed into decorative shapes. Settlements slowly grew in size, naturalistic artwork developed along with what I call “mother-dolls” (clay figures of women, what some have interpreted — wrongly I believe — as a “mother-goddess”). Artifacts of simple clay, stone, ceramic, copper, and even woven fabrics appeared, along with simple, yet elegant architecture, and the technology associated with agriculture, animal herding and hunting progressively improved in sophistication. All in all, it basically recorded an ordinary, though certainly vital and exciting existence of hunting, farming, dancing, and peaceful human relationships.

When the collection arrived at the middle of the fourth millennium BC (c.3500 BCE, or Before the Current Era) a broad white stripe, interrupting the path, had been painted on the walls and floor of the Museum gallery, bearing bold dark letters “CIVILIZATION BEGINS”. Upon walking over that line, the display very dramatically included all kinds of war-weapons, battle axes, shields and helmets. Artifacts related to horse-riding warriors appeared, as did crowns, coins and tombs for kings and other big-man leaders. Fortifications, palaces and temples then appeared, with all the evidence for war-making, despotic, and murderous *Homo normalis*, as discussed in Wilhelm Reich’s monumental clinical discovery of human armoring,¹ the biophysical source of neurotic behavior and impulses towards sadism and brutality, and the wellspring for virtually every authoritarian social structure which exists, or

which has ever existed.

This example from the Museum depicts “civilization” in a manner quite unflattering as compared to the usual definitions, and implies that warfare and social violence is a relatively recent invention by our species, of only around 6000 years duration. It also implies that we have become so accustomed to warfare and violence as the “norm” that we have difficulty even conceptualizing there might be, or might have been in our most ancient past, another mode of social existence free of the horrors of warfare and all but the most uncommon examples of interpersonal violence. This point of view, however unrecognized or unpopular, has much evidence to support it.

In the decade before my visit to Vienna, from around 1980 through 1986, I undertook one of the most systematic global cross-cultural investigations on human behavior and the origins of violence that has ever been undertaken, as an effort to evaluate and test these ideas. My dissertation on the subject, presented to the Geography Department of the University of Kansas, created a controversy, but was accepted and eventually published as *Saharasia: The 4000 BCE Origins of Child Abuse, Sex-Repression, Warfare and Social Violence In the Deserts of the Old World*,² with various summary articles published in journals.³

This work demonstrated a previously-unknown global geographical pattern in the archaeological-historical literature, and in several large and widely-used anthropological data bases. The newly discovered geographical pattern demonstrated a strong spatial correlation between the world’s most harsh *patriarchal-authoritarian* modes of social structure (synonymous with Wilhelm Reich’s definition of *highly armored* character structures) to the most harsh global desert regions — in North Africa, the Middle East, and Central Asia — to which I gave the term *Saharasia*. Areas most distant from Saharasia, in Oceania and the New World, showed the softest and most fluid and flexible democratic and egalitarian social structures (synonymous with Reich’s lightly armored, or unarmored character structures). Figures 1 and 2 (on page 9) reproduce my World Behavior Map, and the correlated Dryness Ratio Map identifying the world’s harshest contemporary desert regions. Table 1 (on page 5) presents the dichotomous social-cultural factors which were mapped in the original study.^{2,3}

* Revised and expanded from a prior article: J. DeMeo, “Update on *Saharasia*: Ambiguities and Uncertainties about *War Before Civilization*”, in *Heretic’s Notebook (Pulse of the Planet #5)*, 2002, p.15-44.

Additionally, I developed a new archaeological-historical data base, which when mapped showed a very strong correlation between the first drying-up of Saharasia around 4000-3500 BCE, to the general origins of human social violence — the earliest regions to dry up within Saharasia, notably in Arabia and Central Asia and their immediate peripheries, showed some of the earliest clear and unambiguous signs of social violence apparent in the archaeological record. Figures 3 and 4 (on page 10) present cultural diffusion maps as derived from the archaeological and historical materials.^{2,3}

In *Saharasia*, I made the following argument: Human violence and warfare were the products of social institutions which inflicted great pain and trauma upon infants and children, as well as intensive repressive sex-frustration within the adult world, giving rise to sadistic impulses which were then channeled back into those same social institutions. Painful trauma and sex-repression experienced by children within such armored-patristic societies was adapted to and psychologically defended, and hence repetitively inflicted upon each new generation as “tradition” by the older generations. Drought and famine, extremely traumatic and deadly by themselves, were the triggers which drove previously peaceful unarmored-matristic human social groups towards increasingly disturbed and violent-sadistic behaviors, whereupon new social institutions appeared to guarantee their persistence, even under moist environmental conditions of food abundance.^{1,2}

At the time when I undertook the basic research for *Saharasia*, a review of available archaeological materials demonstrated only a few regions in the Middle East, ranging from Anatolia into the Levant, and as far south as Jericho, possessed “fleeting glimpses” of violence prior to my marker date of c.4000 BCE. These unclear traces of violence appeared to begin around 5000 BCE, but were also timed to sub-phases of drought, aridity and land-abandonment, suggesting a similar drought-desert causation for the genesis of violence as was presented and argued for the post-4000 BCE event. The drying up of Saharasia after c.4000 BCE was, I argued, *the most significant climatological change which occurred on planet Earth following the end of the last Ice Age* (which ended around 10-8,000 BCE). In any case, at the time, according to the knowledge at hand, it appeared that neither drought nor violent episodes starting at the earlier date of c.5000 BCE were widespread, continuous, or persistent in the archaeological record. Only after c.4000-3500 BCE did drought and violence grip entire regions across the whole of Saharasia, a situation which I argued has lasted over 6,000 years, to be expressed in the more recent anthropological data as seen in the World Behavior Map. Archaeology, history and anthropology all presented mutually agreeable and reinforcing patterns on the world maps.

The exacting details of my Saharasia discovery with full citations has already been peer-reviewed and pub-

lished.^{2,3} Aside from these introductory notes, I shall assume the reader has a general familiarity with the earlier findings and underlying theory.

New Evidence For Ancient Violence

By 1999, I was alerted to new archaeological findings and books which *claimed* evidence for very ancient human violence, dating to well before c.4000 BCE. The book *War Before Civilization*⁴ by Lawrence Keeley, is perhaps the most representative and widely-quoted example of this new genre of books, which basically argue for the innate, genetic or human evolutionary causation of war and violence, in opposition to the environmental-social-emotional causation argued in my *Saharasia*. Keeley's book laid down two basic arguments.

Argument One: *Intertribal warfare of an extreme and ruthless quality, as well as social-familial violence, existed among so-called “primitive” cultures of the New World long before the arrival of European colonials.* To this argument, I give a qualified agreement. In *Saharasia*, I cited some of the same evidence noted by Keeley, such as the butchery and despotism present among the Aztec, Inca, and Maya culture, long before the arrival of Columbus, Cortez or Pizarro. Likewise, the despotism and savagery of other “primitive” subsistence-level cultures in other world regions were detailed in *Saharasia*, well back into history and prior to any contacts with the sometimes equally despotic and savage Europeans. The findings on this point, in both my *Saharasia* and Keeley's *War Before Civilization* defeated many widespread myths about the supposed uniformly “peaceful” nature of “primitive man”, “living in harmony with nature” — certainly, there are many well-documented cases of violence and organized warfare among isolated “primitive” tribal groups. *This was never in question.* However, unlike my *Saharasia*, these examples are too-often presented in such a manner as to mischaracterize *all* primitive cultures as carrying the seeds of violence. And so *I do object to making any kind of widespread and global extrapolation of these signs of violence among some aboriginal cultures as “proof” of an assumed but unproven ubiquitous violence among all cultures, in all regions, at all times.* Also, the authors pushing this line of argument almost always fail to take a genuine cross-cultural approach, and rarely openly address the various *peaceful aboriginal societies* as documented in various anthropological studies from the late 1800s and early 1900s, as detailed in my *Saharasia*. As a consequence, this first argument articulated by Keeley did not undermine or challenge my work in any manner. In fact, some of the archaeological evidence cited by Keeley and others for violence among ancient peoples of the New World — and which *I did not know about or cite in the first printing of Saharasia* — were located almost precisely in those regions where my World Behavior Map pre-

dicted such evidence might be found. More on this last point is given below. With confidence, I can therefore report, archaeological evidence on the question of “primitive violence” in more recent times, but prior to the epoch of European colonialism, provides excellent additional supporting evidence for my Saharasia discovery.

Argument Two: *Archaeological evidence for warfare and massacres exist in some very old archaeological sites, as early as 12,000 BCE, well before my c.4000 BCE marker date.* Keeley and other authors on the subject specifically mention ancient fortifications and graveyards filled with victims of violent deaths, well before c.4000 BCE. These archaeological reports superficially appear to provide a serious challenge to Saharasian theory, mainly because of the early dates. However, a close look at the original citations from the archaeologists who did the field work, and from those who are intimately familiar with the details, resolves the question in favor of the environmental-social-emotional causation implicit in Saharasian theory. In short, archaeological findings are often misquoted and misrepresented in more “popularized” accounts on “ancient violence”.

To better understand the context and specific details of these newer archaeological findings for violence and warfare prior to c.4000 BCE, I shall explicitly address the major points of evidence.



Spanish Archers, rock art from Morella la Villa, Castellon, dated to “late Neolithic” (c.3000 BCE?)⁵ Hunters in a ceremonial dance, or warriors in a battle? None of the figures appear injured or dead, and archaeology of the region does not support the idea of warfare at this early period. Similar rock art in Australia, claimed as evidence of violence, is even more abstract and ambiguous.⁷

Spanish and Australian Rock Art: Dancing or Fighting?

The article “The Beginnings of Warfare” by Trevor Watkins⁵ is often cited to support the idea of a very ancient violent humanity. But Watkins does not provide such support. Watkins says: *“The origins of warfare are hidden in the mists of human prehistory, but by 1200 BC there was a long tradition of armies, campaigns, pitched battles and siege warfare”*.⁵ It is quite a leap from “prehistory” to 1200 BC, and the latter date would surely be in good agreement with the chronology for first-origins of violence published in *Saharasia*. Watkins also stated, after a long discussion of human hunting skills and tools:

*“The difficulty lies in recognizing whether a heavy arrowhead or a large spearhead, superbly and skillfully chipped from flint, was used for the hunt or as a weapon in fighting among humans. Only in one or two rare examples of later rock-art from south-east Spain are there pictorial references to the use of bows and arrows in conflicts between groups of people. Even then one is entitled to ask if what we are shown is a skirmish between rival bands or serious, organized warfare.”*⁵

I would amplify this qualification to seriously question if the rock art depicts a battle at all, as it can equally be interpreted as a scene of hunters engaged in a ceremonial dance of some sort, possibly in preparation for a hunt. Without some other evidence of violence in this same region, such as fortifications or skeletons with imbedded arrowheads, the Spanish rock art can only be viewed ambiguously.

Even so, if we give the benefit of the doubt to those who argue the Spanish rock art are battle scenes, it still would appear to be in agreement with the chronologies for first-origins of violence as given in *Saharasia*. There is only one undated rock-art reproduction in Watkins’ article, from Morella la Villa, Castellon; a wider selection of similar rock art of the period is found in the work by Beltran, *Rock Art of the Spanish Levant*,⁶ and it does contain a few scenes which are more supportive of the argument for group violence — as with the claimed “battle scene” at the Les Dogues site — but even here, the art may only record a village dance anticipating or celebrating a hunt. Whether violent, or not, it is reasonable to assume nearly all of this Spanish rock art is “late hunter-gatherer” period, approximating the “late Neolithic” identified in *Saharasia*, which would date the artwork no earlier than c.3000 BCE, well into the epoch of intense desertification which gripped North Africa.

Rock art depicting highly stylized and abstracted humans has been found in northern Australia,⁷ dated as far back as c.8000 BCE, but the Australian images are even more ambiguous. Rock art which is so intensively

stylized and abstract, such that even the simple form of a human being is difficult to make out from the drawings, where a specialist is required to point out what is a head or arm or torso, cannot be easily held up to conclude much of anything — especially when a simple line bisecting such a drawing is then interpreted as a “spear”. To my knowledge the Australian scenes have not been matched to evidence of violence in skeletal remains in the region at those early dates. Below, some discussion will be given to the issue of confirmed interpersonal violence among ancient Australians in more southerly regions, also at very early dates — but significantly, only in relationship to a period of intense aridity and probable episodic famine.

Jericho, Catal Huyuk and Anatolia: Occasional and Discontinuous Violence in a Region of Early Drought and Desertification

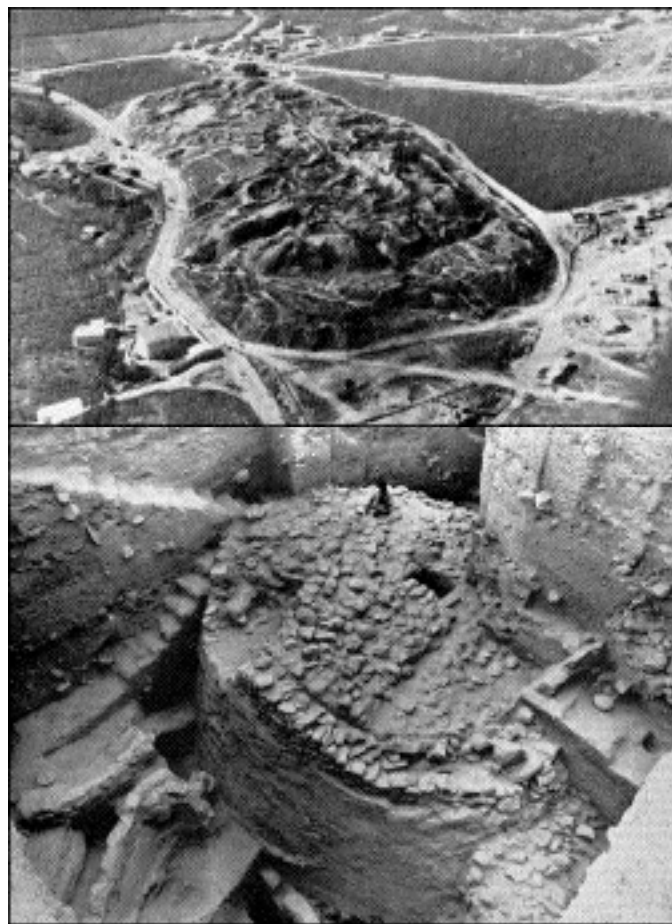
Two of the earliest cities, Jericho and Catal Huyuk, are often misrepresented as having been subject to episodes of warfare during their earliest occupation layers, which have been dated to c.8350 BCE and c.6500 BCE respectively. Both had early enclosure walls which have sometimes been argued as evidence for fortifications — but without other evidence to support the existence of warfare, this interpretation is not warranted: the walls could just as easily have been for corralling and protecting domestic animals from roaming lions, hyenas or other large deadly or nuisance predators which are known to have inhabited those regions.

As discussed in *Saharasia*, the earliest evidence for social violence appears in Catal Huyuk and other Anatolian sites only temporarily, during a period of drought and attendant social decline, at around c.5200 BCE.⁸ Drought and violence spread across Anatolia, Syria and the Levant *as a dominant and unrelenting social character only after c.5000-4300 BCE*, and Catal Huyuk was only finally destroyed after c.4800 BCE. This is close to the time of the world’s first documented fortress, at Mersin, which was destroyed around 4300 BCE.⁹

The successive settlements and abandonments of Jericho were also timed to episodes of drought and land-abandonment across the wider territory, and there are walls and towers apparent at the site very early in its history. However, the earliest walls could have been for containing or protecting domesticated animals from predators, or possibly to protect against water and mud flows during heavy rains. The large circular tower of Jericho is one widely-noted bit of archaeology which is claimed to be “proof” of warfare, given its obvious similarities to towers found on genuine defensive fortifications elsewhere at later dates. However, a tower by itself does not warfare make. It could just as easily have been a lookout for predatory animals, or for long distance signaling.^{10,11}

Jericho did eventually develop clearly defensive fortification walls, towers, and tombs for possible “kings”, constituting some of the earliest evidence anywhere for possible conflict and social stratification.¹¹ However, like Catal Huyuk, Jericho’s architecture does not prove itself to be the product of a social response to violent conditions, at least not until much later in the archaeological sequence, during periods of relatively harsh environmental conditions. Only then does the architecture take on a fortress-like quality, and unambiguously serve the purpose of protection against human attacks. Roper provided support for this viewpoint, stating that no signs of violence could be found at early Jericho, aside from the ambiguous walls and tower.⁹

Archaeologist Bar-Yosef made an extensive evaluation of early Jericho and came to basically the same conclusions,¹² additionally finding *an absence of evidence for warfare in the entire Near East region between 12,000 - 6,000 BCE*. While hunting technology was well developed, evidence for warfare could not be found.



Ancient ruin of Jericho (above top) and its Neolithic tower (bottom). Construction features such as towers and enclosure walls are not, by themselves, evidence of warfare or social violence. Large walls can be impoundments for domesticated cattle, or protections against water and mud flows during rainy periods, while observation towers have many civil purposes. (from Kenyon¹¹)

In *Saharasia* I acknowledge the early evidence at Jericho and surrounding regions, stating:

*"[Early] Jericho was deserted by c. 7500 BCE... [leaving] no traces of violence at the site... [and this was] connected with the increasing aridity of the area. ...the evidence at Jericho appears to reflect the unique geography of the city at a time when temporary local or regional desiccation was occurring... Only fleeting visions of military conflict, fortifications, social stratification or cranial deformation occur in the Near East before c. 5000 BCE, appearing here and there at isolated sites, and without any clear pattern or widespread distribution.... It is only after c. 4000 BCE when desiccation became more widespread and intense that these initial traces of disturbed human behavior begin to blossom in clear, unambiguous and often organized institutional forms."*¹⁰

Watkins also mentioned a clay sling-shot found at Catal Huyuk, and clustered buildings with rooftop entries and other factors which he interpreted as evidence for violence and warfare — but as discussed in *Saharasia*, James Mellaart, the man who excavated Catal Huyuk, viewed the same evidence firsthand and came to nearly opposite conclusions.¹³

It will be useful to review one of the original tables from *Saharasia* (Table 2, page 365), giving general dates for the onset of desert conditions, and the onset of first-evidence for patricism and violence. The Middle East, Anatolia, Iran, and Soviet Central Asia show their earliest signs of climatic degradation towards aridity at c. 5000 BCE. Jericho was affected by these oscillatory environmental pressures much earlier, perhaps as a chronic feature of its unique geography, close to the Dead Sea and Jordan Valley.^{10,11} The arguments presented in *Saharasia* therefore anticipate some discontinuous and episodic signs of social turmoil and conflict starting at approximately those same dates, but without persisting or widespread effects.

European Causewayed Encampments

There are now excavated a whole series of *causewayed encampments* which existed as central gathering places across Western and Central Europe. Regrettably, these are too often misrepresented in popular accounts as "fortifications", through the error of mixing the dates of *first habitation* with the dates for appearance of *first violence*, without careful reference. The error is, *extrapolating the violence backward in time*, without evidence for doing so. The field archaeologists who excavated these encampments were not convinced the earliest habitations had any clear warfar or defensive functions. The encampments were composed of concentric rings of shallow earth hills and trenches posing no significant obstacle to climb — with only about

one meter distance between hilltops and trench-bottoms — which were also repeatedly broken with wide openings or "causeways" to facilitate the free passage of people in and out of those encampments, from the periphery all the way into the core. They appeared more in the manner of an unusual village architecture with mounds for privacy screens or trenches for animal corrals, allowing for separate family encampments. They appear to have served the functions of a central place for trading and seasonal gatherings, and in some cases as cemeteries. Later in the archaeological sequences, many of these encampments were raided by warriors using bows and arrows, and the battle-axe. Only then were the encampments transformed into closed defensive fortifications which rapidly were destroyed and/or abandoned.

Keeley gives dates of "5000 BC" or "4000 BC" for the appearance of violence at these sites. My own review of his cited references could not confirm such early dates. As best as I have been able to determine, from various reports published in many different languages, the earliest violence is documented at those encampments farthest to the east, as in Bavaria (c. 3200 BC) followed by later conflicts in France and Denmark (c. 2800 BC), followed lastly by conflicts in England (c. 2600 BCE) — if true, this would be excellent *confirmation for Saharasia*, suggesting the arrival of violent invaders from Anatolia or Central Asia, moving on a Westerly migration route. Details on a few of these specific sites will follow.

The primary source for the "causewayed encampments" is: *Enclosures and Defences in the Neolithic of Western Europe*, edited by Colin Burgess, et al.¹⁴ The various contributing authors, all of whom were field archaeologists who excavated these sites, pointed to the general dates given above for the first onset of violent conditions. Evans has given a general overview of the causewayed enclosures:

*"Few monument forms have undergone such frequent radical re-assessment in their interpretation. Even now, after twenty-one examples have been excavated, they still stubbornly frustrate neat categorisation, and we are left with the impression of the blind men encountering the elephant... Unlike other major 'ritual' sites of the third and second millennia bc, the status of causewayed enclosures as 'monuments' has been somewhat ambiguous; their morphology would link them superficially with both henges and hillforts, yet their segmented ditches have led to doubts about their defensive capability..."*¹⁵

In speaking about "The Neolithic Höhensiedlungen (high settlements) of Central Germany", Starling states:

*"It is suggested that these sites were the communal foci of groups who used them for a variety of symbolic and practical activities, rather than centres of political and territorial control."*¹⁶

Hambleton Hill, Dorset England is considered to be the oldest causewayed enclosure in England dating to around 3500 BCE. It was located close to a river system connecting to the sea, suggestive of an optimal location for trading of regional agricultural and other goods by boat. Archaeologist Mercer stated:

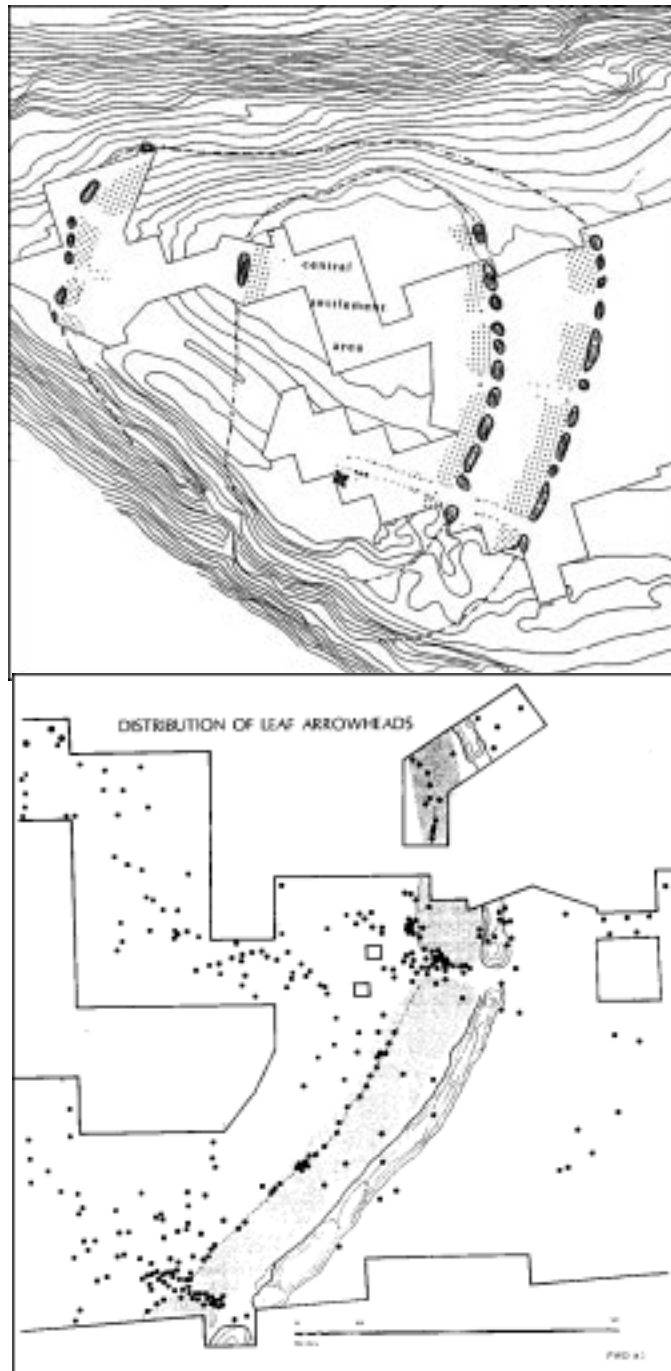
"About sixty [enclosures] are now known to exist within the southern half of England, and they range in size from about 1 - 60 hectares and in location from seasonally waterlogged valley bottom sites to sites set on hilltop and promontory positions... from single ditched enclosures to sites with up to five concentric rings of ditches with... a wide range of function. As a class of site, however, they are united by one idiosyncratic constructional feature - the ditches consistently appear to be 'causewayed' or interrupted at frequent and irregular intervals, in a manner that suggests that they were not conceived by their build-



Hambleton Hill Stepleton Enclosure, Dorset, England (Top) the earliest such enclosure in the British isles, dating to c.3500 BCE. Bottom: Skeleton of a man, shot in the back with an arrow, with child, preserved under a collapsed and burned wall dating to c.2680 BCE, the earliest evidence for social violence in the UK. (from Mercer ¹⁷)

*ers as barriers in their own right but simply as a linear quarry for the construction of an internal bank or rampart."*¹⁷

The Hambleton site was progressively transformed into a fortification, its ditches containing macabre evidence of corpse disposal, with human skulls set upright

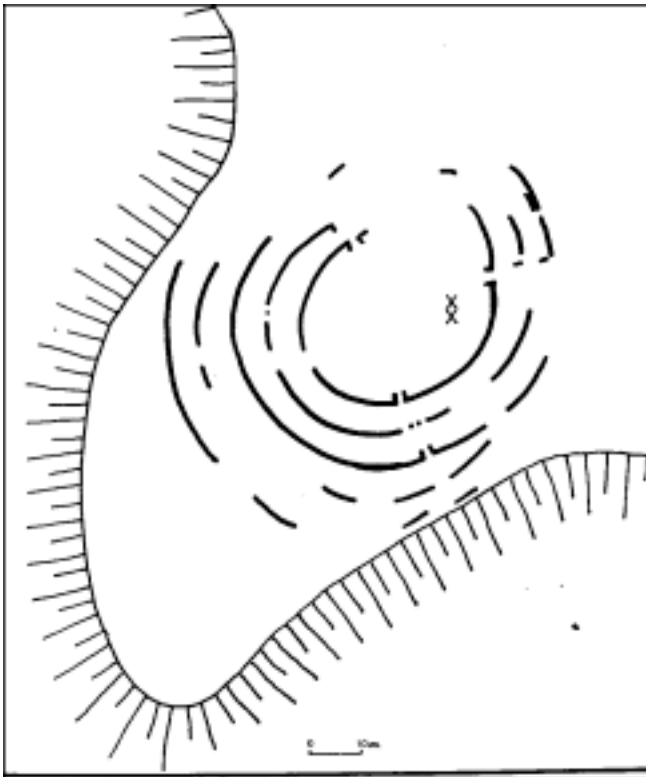


Crickley Hill, England (Top). Wide "causeways" allow free movement from the periphery to the core of the settlement. Constructed in the early Neolithic (c.3000 BCE?), it was attacked and eventually destroyed between c.2000-1000 BCE. Bottom: Distribution of arrowheads from an assault dated after c.2000 BCE. (from Andersen¹⁸)

along periphery.¹⁷ Also, many bones of young children were found in one section, giving the overall impression of slaughter and mayhem. The site was finally destroyed by fire during an attack by archers, with an arrowhead in one skeleton of a man carrying a child, found under a collapsed building wall. There is no question, this site showed violent events taking place. But at what dates? Carbon material found in trenches, which contained a vertical mixture of materials from different settlement periods, were dated by radiocarbon at 2610 BC, 2730 BC and 2890 BC, with errors of +/-150 years. Other radiocarbon dates were recorded at 2530 BC, 2650 BC and 2720 BC, with errors of +/- 130 years.¹⁷ This is a rough average of 2686 BC, which suggests Hambledon Hill experienced perhaps *a thousands years of peaceful habitation before the unambiguous appearance of warfare*.

Crickley Hill, Gloucester England was first occupied in the "early Neolithic". The archaeologist Dixon reported the earliest occupation had a series of mounds organized into rings, with shallow trenches and causeways leading into the interior. No artifacts of any kind were found in those earliest phases. At the final enclosure (phase 1d) there were larger ditches with fenced roads leading into the interior. Dixon reports:

"The fate of this final enclosure was clearly shown by



Causewayed Enclosure, Schalkenberg, Quenstedt, Germany, dated to c.3300 BCE. Sites in Bavaria have C14 dates of burning and abandonment ranging between c.3000 - 2000 BCE. (from Starling¹⁶)

*the thick spread of flint arrowheads, over 400 of which choked the eastern entrance passageways and fanned out along the roadways into the interior. The enclosure had quite obvious been defended against archery attack...*¹⁸

After this attack, there was erected

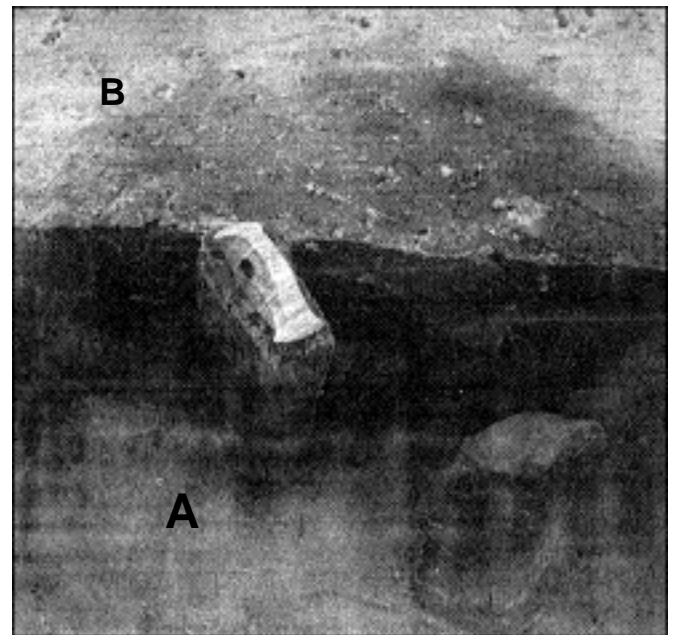
*"... a 70m long track leading up to a circular platform inside the enclosure, totally flat and clear of structures except at edges... we may consider it to have been the settlement's shrine" (p.84) and "Like the Danish examples, the Crickley shrine was burnt down."*¹⁸

Clearly, this is evidence of warfare and violence — but at what date? Dixon says:

*"The date of the end of the ritual phase 1e is still uncertain, though radiocarbon dates may eventually provide a guide. It occurred before the building of the hillfort, the latter perhaps early in the first millennium BC"*¹⁸

This is the only mention of a date in the entire excavation report, but clearly demonstrates a very long period of peaceful conditions, from the "early Neolithic" (c.3000 BCE?) until the appearance of violence sometime after c.2000 BCE, with its final destruction after c.1000 BCE.¹⁸

A large number of similar causewayed enclosures



Battle-Axe at Causewayed Enclosure Camp in Sarup, Funen, Denmark. The lower part of the excavation (labeled A) is dated to c.3500 BCE, suggesting a more recent date for the upper strata (B) containing the battle-axe. (from Andersen¹⁹)

are found scattered across continental Europe, as far east as Germany, all with generally similar architectures and probable social functions. As best as I can determine, all show peaceful conditions at their earliest dates of construction, with violence appearing only later on, in keeping with the generalized dates given in Saharasia for the onset of violence in Europe.

The biased “popularizers” of ancient human violence merely cite the approximate dates when these causewayed encampments were firstly constructed, and leave the reader with a clear impression those were the dates when violence first appeared. However, the dates for the onset of violence were in fact as I have given them above in these representative examples.

It should also be mentioned, that the Spanish rock-art depicting an apparent archery battle, mentioned above and identified with the “late Neolithic” or “late hunter-gatherer” period, may be chronologically connected to the same appearance of violence in the above causewayed encampments. Again, this is all support for the chronology and geography of violence as given in *Saharasia*.

Talheim, Schletz and Ofnet Cave, Germany: Massacres or Skull Burial Customs?

A collection of 50 human skeletons with evidence of trauma injuries was found at the Schletz site, dating to c.4000 BCE by radiocarbon determination. Another collection of 34 skeletons but with contradictory dates (of c.5500 to 4000 BCE depending upon dating method) was excavated at Talheim.^{20,21,22} It appears likely, these people were in fact massacred, as determined from many trauma blows and the haphazard manner in

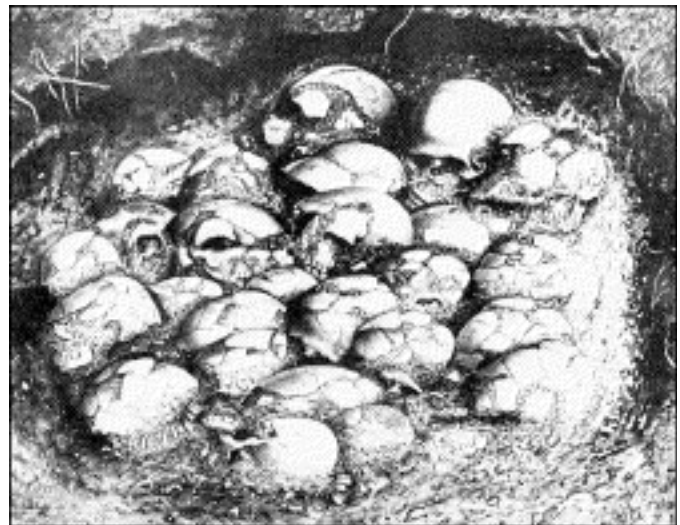


Massacre at Talheim, Germany, dated between c.5500-4000 BCE. (from Bahn²⁰)

which the bodies were heaped into a shallow ditch. The dates suggest a connection to the social disruptions which led to the destruction of the causewayed encampments across Germany and the rest of Europe. The ambiguity in dating on these sites appears as a consequence of different dates being estimated by different researchers, and by different results being obtained from different radiocarbon laboratories. This problem also appears to affect the Ofnet site.

The Ofnet Cave in Bavaria is one of the most widely-cited “proofs” of early evidence for social violence. Claims have been made the site is proof of a single massacre, with the possible taking of heads as trophies of war.^{4,21,23} From reading such accounts one would never know there were dissenting voices on the subject. The original excavation was undertaken in 1912 by Schmidt,²⁴ with all subsequent discussions on the finds focusing upon the remains of the skulls themselves. Grahame Clark described the site as follows:

“A more specialized form of collective burial is implied by nests of skulls found in caves and rock-



Ofnet Skull Nest, Germany, misrepresented as a group massacre, actually appears as a site for sequential skull burials which included grave offerings. (from Schmidt²⁴)



Neolithic Skull Burials from Jericho, evidence of a burial custom, not massacres. (from Clarke²⁵)

shelters in south Germany, notably at Ofnet and Kaufertsberg near Nördlingen and at Hohlestein, Lonetal, near Ulm. Signs of cutting on the upper neck vertebrae suggest that the skulls had been detached from their trunks shortly after death. Their numbers, one nest at Ofnet comprising twenty-seven and another six skulls suggest that they relate to social groups comprising in all probability a number of hunting bands. Again their condition, those in the middle showing signs of having been pushed together and those on the periphery relatively intact and undisturbed, argues that, as in the later chamber tombs, they had been buried over a period of time."²⁵

The Ofnet skulls — composed of four male, seven female, and 15 children — were coated with red ochre, and accompanied by personal ornaments and microliths. No mention of a violent massacre was made by Clark.²⁵ A more recent study of the skeletal materials by Jörg Orschiedt of the Archaeological Institute at the University of Hamburg confirms not only the *sequential* burial of the crania, but also refutes the theory of violence for all except a small sample of the skulls.

"A reexamination of the skulls from the Ofnet cave in southwest Germany showed that these and similar deposits should be understood as the expression of a special burial custom rather than head hunting practices from the late mesolithic. ... the reduction of group sizes in the late mesolithic as well as the demographic structure makes it unlikely that this deposit was a single event. The site was used several times as a burial place. As grave goods perforated canines of red deer and shells, probably necklaces, were placed on or around the heads. Red ochre was found around the heads and in the filling of the pits. The reexamination of the traumatic lesions on the Ofnet skulls showed that at least only six individuals had died from fatal blows. These heads were deposited on the northwestern rim of the larger skull pit and could possibly represent a single event. The injuries were caused by a blunt, axe-shaped object. Most of the injuries are located in the occipital area. The only exception are two male individuals with several traumatic lesions which occur also on the parietal and frontal areas."^{26,27}

These descriptions considerably tame down the descriptions of "massacre at Ofnet" from 32 individuals to a maximum of six.

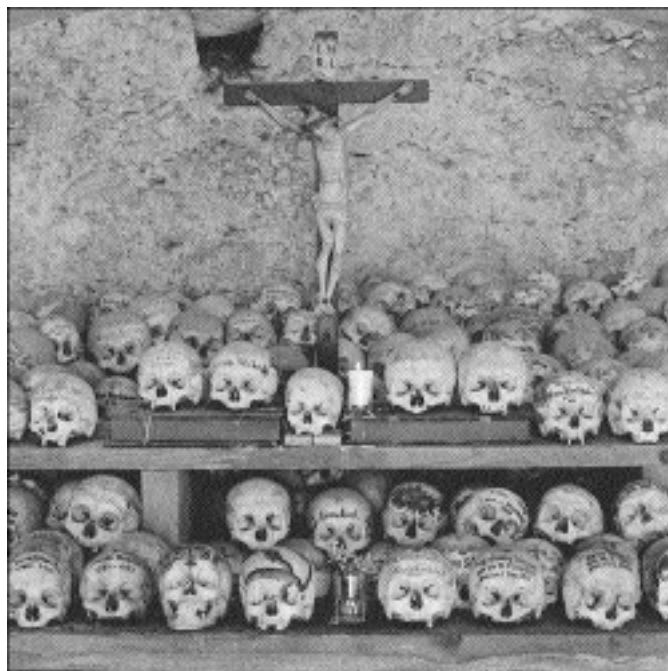
The concept of skull-burial as a funeral custom, it must be noted, has a long history extending to sites beyond only Ofnet. Skull burials were found in Jericho, unrelated to any kind of violent death.^{11,25} The city of Hallstatt, Austria, still has a display of hundreds of decorated skulls in a small church (now a museum)

which the author visited most recently, evidencing a burial custom which ended only in the 1960s.

The dates for the Ofnet cave further confuse their relevance to the larger origins-of-violence question. Several radiocarbon dates of c.11,000 BCE were obtained in the 1980s, but these are today rejected in favor of newer dates of around 5500 BCE, obtained with newer methods said to be more accurate.^{26,27} Assuming the six crania mentioned by Orschiedt were factually the consequence of deaths by violence, the date of c.5500 BCE would still place them too early to be explained by any invasion of warrior groups out of Central Asia at c.4000 BCE, when that region was being abandoned due to the pressures of desertification. However, we might postulate some kind of migratory invasion from Anatolia and the Levant, bringing social violence into Europe from that region at c.5500 BCE.

The geographical placement of the Ofnet site, in relative close proximity to the Talheim and Schletz sites, suggests a regional clustering of deadly events which, irrespective of chronology, are highly anomalous and isolated in character, occurring as they do against a larger background of peaceful conditions across the wider geography of Europe for the greater part of prehistory. Only punctuated examples of violence seem to have occurred.

At the time of my writing and publishing of the Saharasia findings between 1986 and 1998, and even for the first "Update on Saharasia" article as published in Spring of 2002,⁶² these findings at Talheim, Schletz and Ofnet, and a few other isolated examples across southern Europe dated from c.5500-4000 BCE remained a puzzlement. While it might have been possible to explain the violence seen at those sites as the consequence of the arrival of Central Asian, battle-axe and



Skulls on display in Hallstatt, Austria, in an old church.

Kurgan peoples, who entered Eastern Europe with much destruction after c.4000 BCE, violence dated to c.5500-4000 BCE could not be so readily explained. However, as mentioned in *Saharasia* (p.259), there always were “*fleeting glimpses*” of drought and aridity, coupled with military conflict, fortifications social stratification and cranial deformation in the Near East/Anatolia region “*before 5000 BCE, appearing here and there at isolated sites*”. This was the basis for my postulate, of some connection between Central European violence of c.5500 BCE, to the drought, land-abandonment and violence as seen in the Levant and Anatolia at around the same time.

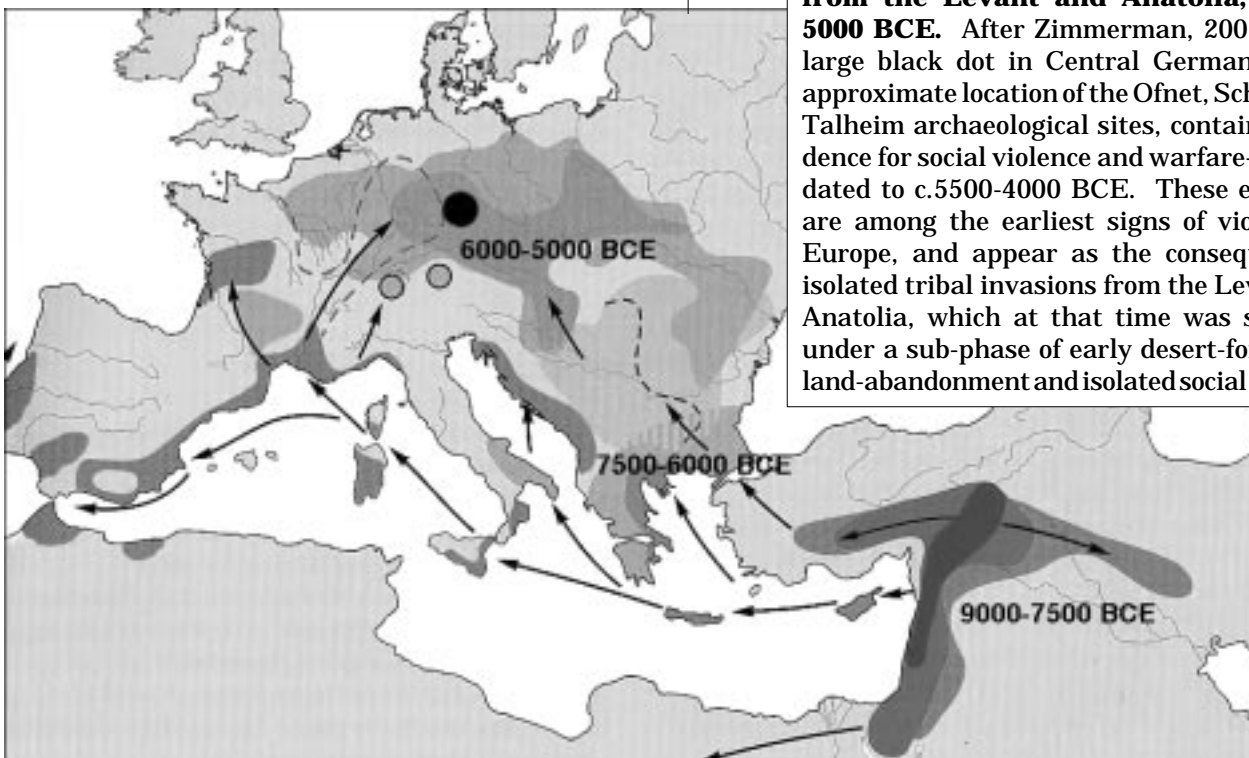
During a trip to Germany in December of 2002, at a visit to an archaeological exhibition at the Martin-Gropius-Bau Museum in Berlin, I was stunned to see a large wall map on display which solved the mystery and supported my hypothesis. The map, first published by Andreas Zimmerman of the Universität zu Köln,⁶³ identified the diffusion pathways of agricultural technological development into Europe, starting from a point of origins in Anatolia and the Levant at around 9000 BCE, and from there over several millennia developing northwest into Europe via Mediterranean and Balkan pathways. By 6600-5500 BCE, this diffusion network had reached deep into Central Europe and Germany. Figure 5, shown here for the first time in my research, reproduces the essentials of Zimmerman’s map. Viewing this map, one can easily imagine the development of desert-like conditions at c.5500 BCE (or earlier) across the Levant and Anatolia, being followed by dislocations of affected people northwest into Europe, following those same migratory pathways. In fact, we might speculate

that it was chronic drought and desertification which may have provided a major impetus for this particular migratory pathway, which late in the process came to be characterized by isolated bands of violent warrior-nomads. The consequence of their arrival, and clashes with local peoples of a more peaceful character, thereafter shows up in European archaeology, but only in a haphazard and isolated manner.

Ambiguous Evidence for Early Violence in China

Some skeletal remains found in China are also often cited as evidence for “very early violence”, but again, the original archaeological report in question tends to undermine this interpretation, and confirm *Saharasia*. Underhill has written on the subject of warfare in Neolithic China,²⁸ and was cited by Keeley for his “early China violence” assertion. Underhill did discuss the finding of a skeleton of a man with an arrowhead in his thigh, dated to around c.5000 BCE, and found buried in a *Yangshao* archaeological strata, which is generally acknowledged to hold no clear or unambiguous evidence for warfare or violence. This single skeleton is the only recorded case of a *Yangshao* skeleton with an imbedded projectile point, to my knowledge, and the site where it was found holds *no other evidence for war or violence*. Taken together, the evidence suggests a hunting accident. This idea was also considered by the field archaeologists and written into their report, but rarely gets mentioned.

Figure 5: Pathways for Agricultural Diffusion (and Violence?) into Europe from the Levant and Anatolia, c.9000-5000 BCE. After Zimmerman, 2002.⁶³ The large black dot in Central Germany is the approximate location of the Ofnet, Schletz and Talheim archaeological sites, containing evidence for social violence and warfare-murder, dated to c.5500-4000 BCE. These examples are among the earliest signs of violence in Europe, and appear as the consequence of isolated tribal invasions from the Levant and Anatolia, which at that time was suffering under a sub-phase of early desert-formation, land-abandonment and isolated social violence.



Underhill also presented a chart for “defensive structures” in Neolithic China, and specifically identified two in the Yangshao period (before c.2500 BCE). However, both were marked as having a “debatable defensive function” — both were mere ditches surrounding habitations, or segments of ditches “possibly” joined by palisade-style fences. These are not conclusive by any means, and are at best ambiguous evidence for warfare and violence. One must ask, if these people had permanent settlements and domesticated animals, where did they keep them if not inside such an enclosed compound?

Later evidence for warfare in China is unambiguous. In discussing the subsequent *Longshan* culture, Underhill describes “...evidence for a degree of violence not present during the pre-Longshan period.”²⁸ These include grave evidence for mass executions, amputations, scalping, hacking of the limbs, and battle deaths, along with various weaponry (including jade battle-axes) not found in earlier times. Also present during the Longshan were child-sacrifice under or near foundations of buildings. Underhill also gives a chart identifying weapons found in various archaeological sites, such as axes, knives, spearheads, and arrowheads.²⁸ The earliest of this evidence is dated to c.2700-2100 BCE, and comes from Anyang, home of the earliest totalitarian Chinese society (Shang Dynasty), which was formed by invaders from the western, desertified regions of Central Asia.

All of these findings are in good agreement with what has already been written in *Saharasia*,² on p.345-348. The transition time from generally peaceful conditions to intensive warfare in China of c.2500 BCE given by Underhill, is in approximate agreement with my own figures for the first-time arrival of violence in Western China.

Jebel Sahaba, Egypt: Unambiguous Evidence for Social Violence and Warfare/Murder During an Early Period of Intensive Aridity

The ancient cemetery at Jebel Sahaba, on the desert highland plateau overlooking the Nile River Valley in Egypt, contains over 50 persons who were victims of a massacre, shot up with projectile points and showing other signs of violent death. The violence is unquestionable, and in *Saharasia* I had relied upon the chronological discussion by Michael Hoffman in his *Egypt Before the Pharaohs*,²⁹ which in keeping with other signs of violence in the region I had gathered, allowed placing Jebel Sahaba at c.4500 BCE.

Fred Wendorf's *Prehistory of Nubia*³⁰ presented the original field archaeological reports, which ambiguously placed the site between 12,000 BCE all the way down to 5000 or even 4500 BCE, based upon similarities between the flint projectile points imbedded in the skeletons to Qadan-era stone tools found at nearby

Jebel Sahaba Cemetery, unambiguous evidence of social violence and murder or warfare on the village level, during an epoch of intense aridity. (reproduced courtesy of Fred Wendorf, from the *Prehistory of Nubia*)³⁰



sites. Wendorf originally openly expressed concerns about the ambiguous dates, but only in more recent years have radiocarbon evaluations been undertaken of the skeletons themselves. He discussed the newer findings, as follows:

*“The Jebel Sahaba skeletons have only one post 1968 C14 date of 13,700 bp [11,700 BCE] on collagen from a human femur. It is discussed in the Conclusions to our book on Wadi Kubbariya (1989) SMU Press. I wish we had more dates, but this agrees well with the Gadan artifacts imbedded in the skeletons. In 1968 the Gadan was not well dated, but subsequent work places that industry between 14,000 and 12,000 bp [12,000-10,000 BCE]. This was not the oldest evidence of violence in the Nile Valley. The Wadi Kubbariya skeleton had a healed parry fracture, a partially healed wound with point imbedded in right humerus, and two points in the lower abdomen that killed him. This is dated by geology and the artifacts at greater than 20,000 bp [18,000 BCE]. There was some violence in the Nile Valley. Competition for limited resources?”*³¹

This new information was somewhat eye-opening, as superficially it appeared to challenge the conclusions of *Saharasia* — in fact, upon deeper analysis, it provided a *confirmation* for the arguments given in *Saharasia*, for the environmental-social-emotional origins of violence. Jebel Sahaba could be dated to c.11,700 BCE, with yet other evidences for violence at c.18,000 BCE at

nearby Wadi Kubbaniya. These dates, I noted, were certainly before my identified Saharasian transition dates of c.4000-3500 BCE — in fact, the dates were well before the Neolithic Wet Phase of North Africa, occurring at a time I had not even subjected to evaluation or review, given the widespread evidence for peaceful conditions during that Wet Phase.

Further investigation eventually resolved the question as follows: New research from the study of ancient climates is presented in Figure 6, revealing North Africa was extremely dry and arid during that early period of c.21,000-8000 BCE, similar to the modern condition of the Sahara Desert, but *well before the Neolithic Wet Phase*. The maps are from a larger global climate-mapping project directed by Jonathan Adams of Oak Ridge Laboratories, who prepared sequential maps of climate throughout the Quaternary, as based upon all available scientific evidence.³² In fact, some of this evidence for a very early dry North Africa had been presented in *Saharasia*, though without discussion. Figures 50 and 51 in Chapter 8 of *Saharasia*,² p.221-222, depict this pre-8000 BCE dry period before the Neolithic Wet Phase.

These African maps of climate change show the transitions identified in graphs, but not discussed in my *Saharasia* research, regarding a very dry period in North Africa before c.8000 BCE, and prior to the wet and lush period which lasted from c.8000 BCE until at least c.4000 BCE. After c.4000-3500 BCE, dryness again gripped North Africa, and indeed all of Saharasia.

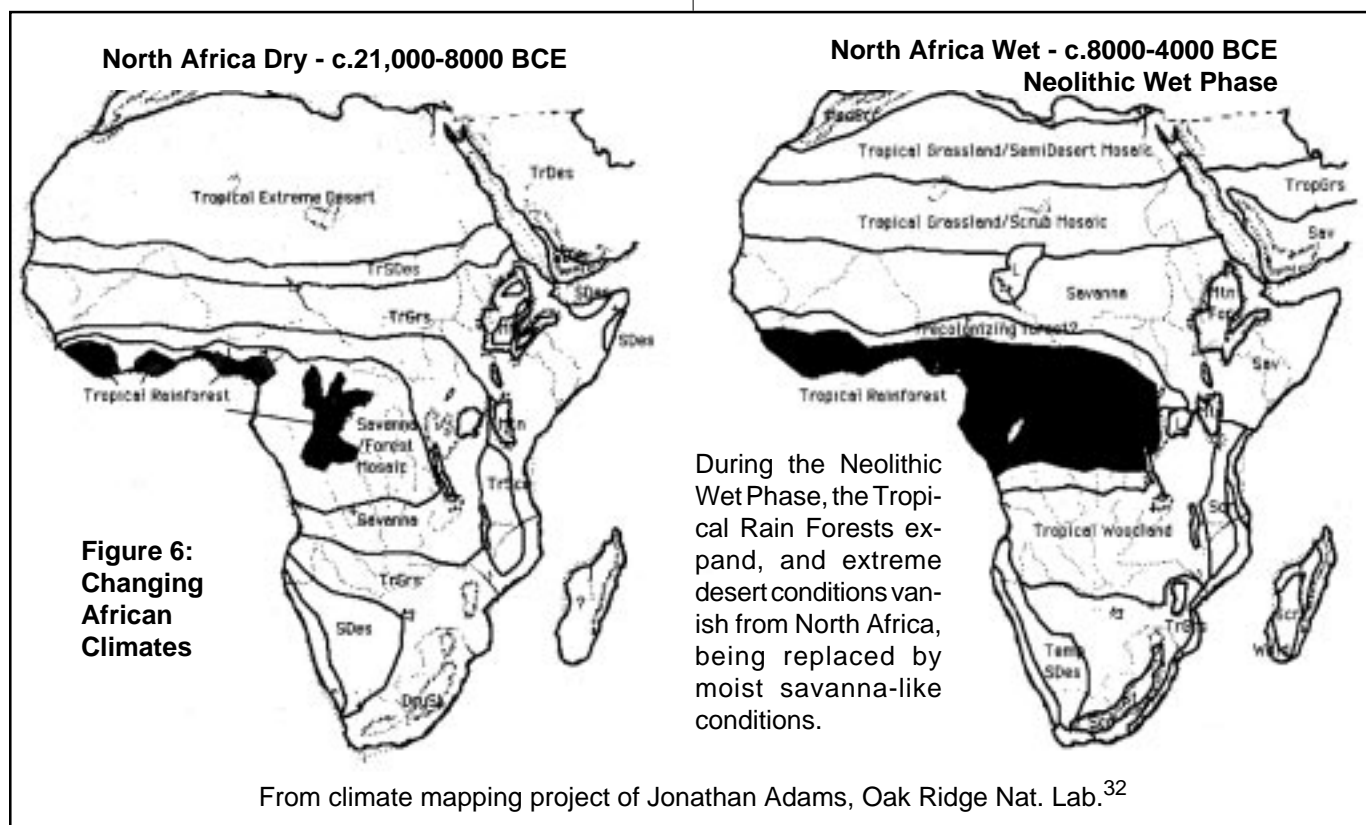
Taken together, these data demonstrate, *the vio-*

lence documented at Jebel Sahaba occurred during a very dry period in North African prehistory — a time of desert, low-vegetation and probable famine conditions — the violence did not occur during a time of plentiful food supplies. As such, the evidence from Jebel Sahaba and Wadi Kubbaniya supports the overall Saharasian discovery through validation of the environmental-social-emotional mechanism.

Another interesting factor which may be related here, is the existence of a few other skeletal remains suggestive of violent deaths in Sicily and southern Italy. Thorpe has reported:

*"Two late Paleolithic bodies from about 11,000 BC have been found in Italy with flint points lodged in the bones. One from San Teodoro cave in Sicily, was a woman with a flint point in her pelvis. The other was a child with a flint point in its backbone, found in the Grotta del Fanciulli on the Italian mainland. Whether the points were spear-tips or arrowheads is unclear."*²¹

While it is possible these were examples of hunting accidents, it is within the scope of the overall Saharasian theory that migrations from a more violence-prone desertified North Africa could have occurred, to bring social violence into the moister territory of Sicily and Italy — and perhaps even farther north into Europe — at that early period. However, if so, the patristic-violent influence must have withered away in both Europe and North Africa following the onset of the Neolithic Wet



Phase in North Africa after c.8000 BCE. After that date, when moist conditions and food abundance returned to North Africa, there is little or no clearly identifiable social violence or warfare over the next 4000 years.

Ancient Artificial Cranial Deformation and a Cluster of Early Violence in S. Australia

Another challenge to my findings in *Saharasia* came in the claims for artificial infant cranial deformation among very early human cultures in Australia and elsewhere, shortly after the close of the last Ice Age, at c.10,000-8,000 BCE. Artificial cranial deformation was described in *Saharasia* as originating accidentally among nomadic peoples who used various kinds of infant head-bindings and cradle-boards, to secure the child in some kind of harness which was carried by adult caretakers on a long trek. Very harsh desert conditions were theorized to be underlying the infant cranial-deforming practices, especially where they appeared among a higher percentage of the population, eventually to become an admired group-identification feature. Deforming head-bindings were subsequently applied to infants as a “social custom”, to continue the identifying marks even after the tribal group had settled down. Artificial cranial deformation therefore appeared as a trait which originally started by accident, but which spread with deliberation with the growth of nomadic lifestyles, and militant nomadism specifically. As discussed in a chapter in *Saharasia*, in Eastern Europe and Central Asia, at least, a deformed head often became a mark of the ruling class. The deformations were then undertaken more purposefully and with extreme measures indicative of a great deal of pain and agony for the infant. Mild forms of infant cranial deformation may therefore be associated with dry desert conditions and nomadic subsistence. More extreme forms as found in high-caste central-state societies surely were life-threatening ordeals for the infant, who also was swaddled tightly as an associated custom. Both of these practices, I argued in *Saharasia*, marked a *severe loss of emotional and nurturing contact between mothers and babies*, with generally low parenting skills combined with a buried anger towards the child (ie, a willingness to inflict painful trauma upon babies for the sake of “cultural tradition”).

The existence of this painful practice at such very early archaeological periods superficially appeared to challenge the findings of *Saharasia* as the source of human armoring and child-abusive practices. However, a close examination revealed this was not the case.

Firstly, the most ancient examples for artificial cranial deformation appear to have little in common, in terms of the severity of the deformations, as compared to the more intensive and deadly practices of more recent historical periods. The examples of artificial cranial deformation given in *Saharasia* demonstrated

adult skulls of frightening proportions, with foreheads towering upwards in a highly abnormal manner. The deformations were unmistakable, even to the non-specialist, based upon one’s general observational knowledge of what the normal human crania looks like. By comparison, the late Pleistocene examples of artificial cranial deformations from Eurasia and Australia were quite minor, and even difficult to identify by the non-specialist.

The more severe deformations from more recent historical times surely produced a far more extreme infant trauma, with a more extreme disruption of the maternal-infant bond, and with more profound psychosomatic consequences as compared to the prehistoric examples. One can simply look at the skulls side-by-side, to get a sense of the greater amounts of pressure (using boards, tourniquets, metal bands, etc.) which must have been applied to the historical infant crania, and for longer time periods, to create their crania of more distorted and gigantic proportions. By comparison, the *prehistorical* infant cranial deformations could have been produced by simple cloth bands or flexible straps, for much shorter period. Some of the most ancient examples are today reclassified as “questionable”, while others may be the consequence of adult activities, such as use of a forehead strap to carry heavy loads “Kikuyu style”. Even so, some of the prehistorical deformations were of apparently sufficient severity as to correlate with episodes of social violence.

A very ancient Neanderthal crania (Shanidar 1, below) from c.53,000-42,000 BCE was once considered an example of artificial cranial deformation, but today this is considered highly questionable. Other skulls have been found in Jericho, Cyprus, Iraq, Lebanon and Syria, dating between 7-4,000 BCE.³¹ As mentioned in *Saharasia* (and quoted above), these latter examples appear alongside correlated evidences of drought, land-abandonment and some isolated signs of social violence; a sub-phase of aridity existed, which spread across those same regions, strongly suggesting the genesis of this pain-inflicting ritual to the use of the nomadic backpack cradleboard.

A Chinese crania of early *Homo sapiens* (Shandong Upper Cave 102, below) was acknowledged as having suffered severe postmortem damage, but nevertheless is considered to represent an isolated early case of artificial deformation from adult use of the forehead strap. As such, it would represent a feature created not in infancy, but after the child was able to walk around and carry a heavy load. The location was near Beijing, dated somewhere between 30,000 to 8,000 BCE, a very uncertain time span.³³ In any case, this isolated example of *adolescent-adult* cranial deformation does not suggest infant trauma which might push an entire social group towards violent behavior. And as mentioned previously, no such violence has been found in the early Chinese archaeology.

As presented by archaeologist Peter Brown, the examples of cranial deformation from late-Pleistocene Australia appear better documented, with larger numbers of examples from sites such as Coobool Creek, Kow Swamp, Nacurrie and Cohuna. These sites are all found in SE Australia, dating from c.11,000-7000 BCE, where some additional evidence of tribal violence and conflict is also present:

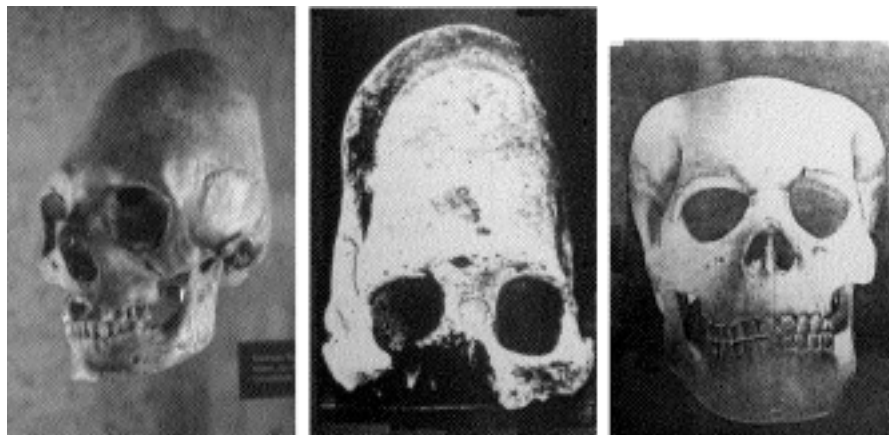
*"...well demarcated, single or multiple depressed fractures [exist] on the frontals or parietals of 59% of the females and 37% of the males. The majority of the fractures were located on the left side of the frontal and left parietal, which is consistent with a blow from a right-handed person, where the combatants are facing each other. In each instance there was bone regrowth associated with the fracture indicating that the people had survived what was often severe trauma."*³⁴

The above findings suggest a childrearing mode which tolerated a high degree of infant discomfort and trauma, in association with an adult culture infused with impulsive but generally non-lethal episodes of interpersonal violence. Given its non-lethal character, it is most probable that this violence was confined

within existing social groups rather than indicating tribal warfare per se, though tribal conflict of a non-lethal nature cannot be ruled out. The fact that more female skulls showed depressed fractures than male skulls (59% versus 37%) demonstrates a significant social rage directed towards females,³⁴ who probably were the ones to whom the responsibility of culturally-demanded artificial cranial deformations was entrusted. If so, these Australian skulls may be the earliest evidence to exist showing the relationship between a harsh and pain-inflicting ritual directed at infants, which later produced a social violence directed more often than not towards the maternal figure.

What of the climatic conditions in SE Australia at this early time period, of c.11,000-7000 BCE? According to Adams' climatic reconstruction,³² the period from c.16,000-10,000 BCE was extremely arid in most of SE and Central Australia, much drier than as seen in the modern times. After 10,000 BCE, conditions changed towards a slightly moister situation in those regions, more characteristic of the modern "outback" steppe or savanna-like climate, inland from the coastal zone. To quote from Brown again:

"Although there is an ethnographic account of cranial deformation from northern Victoria, there is no



Severe historical examples of Artificial Infant Cranial Deformation from the last several thousand years.

Left to Right: Russia, Peru, Mexico



Ancient examples of mild or uncertain Artificial Infant Cranial Deformation,

Late Pleistocene/early Holocene periods.³³

Left to Right: Shanidar 1 Neanderthal (Europe), Shandingdong Upper Cave 102 (China), Coobool Creek (Australia), Kow Swamp 5 (Australia), and Cohuna (Australia).

(Reproduced courtesy of Peter Brown,^{33,34} from <http://www-personal.une.edu.au/~pbrown3/Deform.html>)

*evidence of the morphological pattern associated with deformation in the several thousand 'recent' crania from Victoria, South Australia and New South Wales in Australian museum collections. There is also no evidence of cranial deformation in the prehistoric samples from Roonka (7000 BP)... the mid-Holocene Barham series... or the Murray Valley group... and dated to 6000-750 years BP. In Australia, artificially deformed crania have only been recovered from Kow Swamp, Nacurrie and Coobool Creek. These sites are in close geographical proximity... The presence of artificially deformed crania in these three sites, and their absence from mid-Holocene and recent sites in the same area, suggests that they share a common cultural and chronological association.*³⁴

To summarize: The Australian sites mentioned here are located in the same general region. Extreme desert conditions existed across this region at the time when cranial deformations first appeared and were adopted; this suggests they developed from environmental pressures known to demand an intensive nomadism and use of back-pack cradles or similar apparatus for securely carrying babies around, which also deformed their crania. Social violence of a limited nature also developed around the same time, from the full complex of human responses to aridity and famine as noted in my *Saharasia*. Cranial deformations later became a social institution, and were purposefully recreated in later generations. Finally, both cranial deformations and social violence gradually disappear from the archaeological record following centuries of somewhat better environmental conditions and food supplies, disappearing entirely after c.7000 BCE.

Post-Saharasian Violence Among Pre-Columbian Tribal Cultures

One of the more controversial assertions made in *Saharasia*, was that the earliest migrants into the Americas were of a uniformly peaceful character, not prone to social violence because they held a more matristic and unarmored form of social organization. They attended to the needs of infants and children, and did not sex-repress their adolescents and adults. This argument was supported by the ethnographical evidence presented in the World Behavior Map, but also by the geographical locations of those cultures in the Americas which were of a more violent characteristic. Violence in the Americas, before Columbus, was found only in certain locations, and was not widely or randomly distributed on the map. The reader is referred back to my *Saharasia*^{2,3} for full details on this question. Here, I am mainly interested in the following question: Do the locations of various archaeological sites recently dug up and showing clear evidence for violence among native

North American cultural groups, before the arrival of the Europeans, agree with the locations for violence in the Americas as determined by the World Behavior Map? Or not? This question can be directly answered by a locational comparison, as follows.

We can summarize some recent publications documenting either significant and ongoing interpersonal or intergroup social violence, as determined from skeletal remains, or even outright massacres suggestive of merciless and intensive tribal warfare, well before the arrival of Europeans into the Americas. The facts presented in the various papers are not in question. The point of interest for this paper, and for my *Saharasia* discovery, are the *locations* and *chronology* of the various archaeological sites, which are summarized in the following listing.

Major New World Sites of Violence and Warfare

1. SE Michigan, Riviere aux Vase, c.1000-1300 CE. Collection of several hundred skeletons showing signs of conflict and violence, predominantly against women.³⁵
2. Illinois, Norris Farms, pre-Columbian. Substantial intergroup violence.³⁵
3. South Dakota, Crow Creek, c.1300 CE. Site of a tribal massacre of around 500 individuals, men, women and children, but with a deficit of reproductive-age females.^{20,35}



Crow Creek Massacre, South Dakota, a collection of 500 individuals killed in inter-tribal violence, c.1300 CE, in a region identified on the World Behavior Map as possessing isolated armored patrilineal groups within a background majority of unarmored peaceful matrilineal cultures.(from Bahn²⁰)

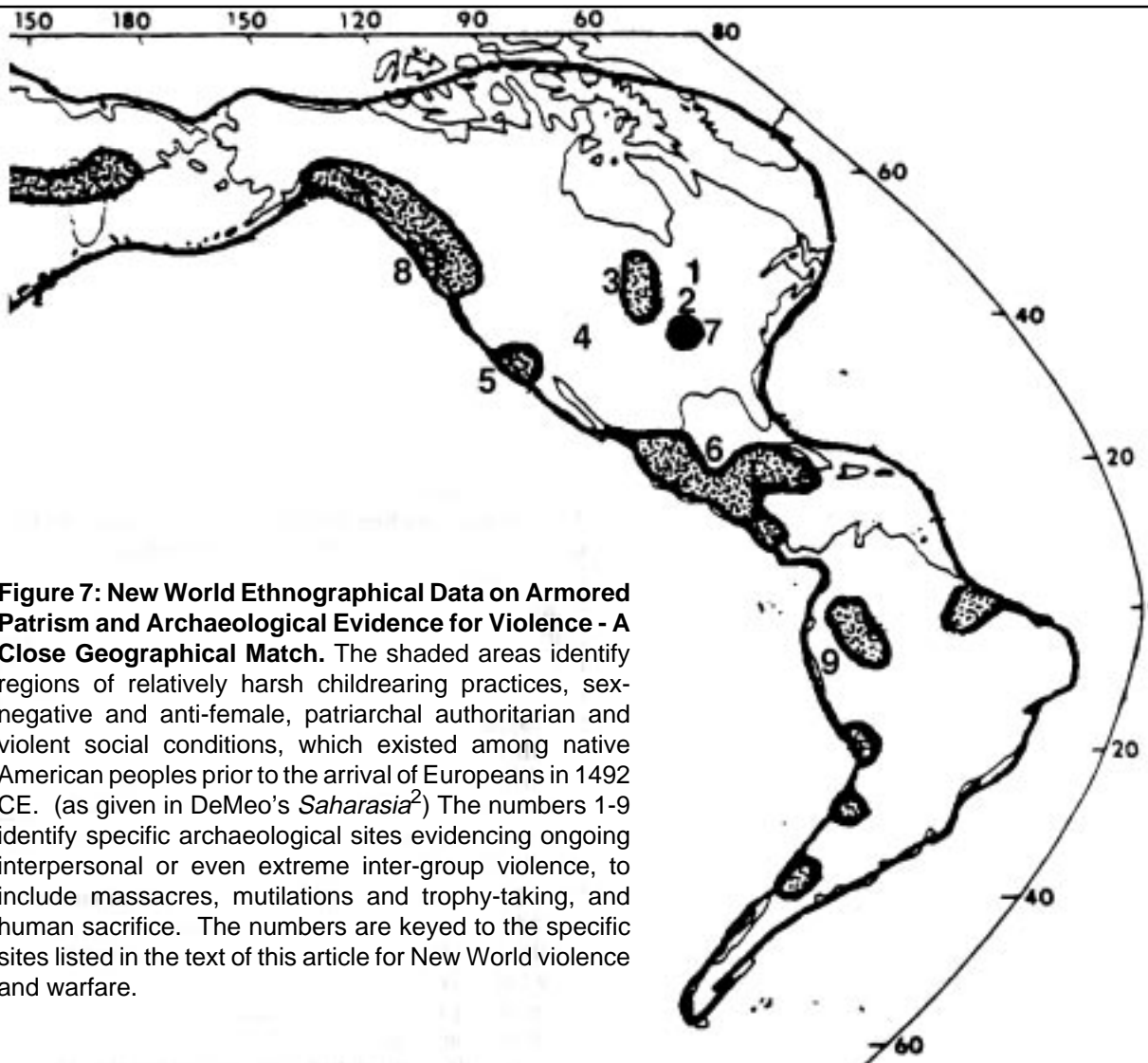


Figure 7: New World Ethnographical Data on Armored Patrim and Archaeological Evidence for Violence - A Close Geographical Match. The shaded areas identify regions of relatively harsh childrearing practices, sex-negative and anti-female, patriarchal authoritarian and violent social conditions, which existed among native American peoples prior to the arrival of Europeans in 1492 CE. (as given in DeMeo's *Saharasia*²) The numbers 1-9 identify specific archaeological sites evidencing ongoing interpersonal or even extreme inter-group violence, to include massacres, mutilations and trophy-taking, and human sacrifice. The numbers are keyed to the specific sites listed in the text of this article for New World violence and warfare.

4. La Plata River Valley, Four Corners, c.900-1300 CE. Substantial non-lethal interpersonal violence, especially against females.³⁶

5. Santa Barbara Channel, S. California, c.1490 BCE or earlier to 1804 CE. Collection of 753 remains, demonstrating healed non-lethal cranial vault fractures in 128, or 17%,^{37,38} with a similar high percentage of projectile point injuries and deaths. Males were more affected than females, children or the elderly, suggestive of combative roles.³⁸

6. Central Southern Mexico, sites at Tetelpan, San Luis Potosi, and Mexico City, c.500 BCE - 1521 CE. Substantial interpersonal and intergroup violence with organized warfare, human sacrifice and possible cannibalism.³⁹

7. W. Tennessee Valley, primarily late Archaic, c.2500-500 BCE, possibly earlier. Collection of several hundred skeletons showing signs of violent death and trophy-taking.⁴⁰

8. SE Alaska, British Columbia, NW USA - Pacific

NW Coast., c.3000 BCE - 900 AD. Substantial interpersonal violence with non-lethal skeletal injuries amplified eventually into organized warfare, defensive villages, especially after 1500 BCE.^{41,42}

9. Peru, Coastal zone, Nasca and Ostra sites, c.3000 -1500 BCE. Ostra Site: Early (c.3000 BCE) ambiguous evidence of stone-weapons which might as easily have been used for other purposes.⁴³ Later unambiguous Nasca Artwork and mortuary evidence (c.1500 BCE) of warfare and headhunting, including mummified heads in the manner similar to later Jivaro and other headhunting groups in adjacent regions.⁴⁴

The above list of archaeological sites, when viewed geographically (Figure 7), show a striking degree of correlation to those areas of the World Behavior Map identified from anthropological sources as containing high degrees of patriarchal authoritarian, violent culture. This suggests, *the social violence identified in those archaeological sites constitutes the historical un-*

derpinnings of the later social violence and patrism recorded in the ethnographical data. Likewise, there is a general absence of identified archaeological evidence for violence in most other regions of the Americas, with a similar absence of armored patrism in the ethnographical data for the unshaded parts of the map. While this could simply reflect a lack of sufficient archaeological data for other parts of the New World, as discussed below there is much evidence in the archaeological record for peaceful conditions in the unmarked areas of the maps.

The above points are additionally in agreement with the pre-Columbian contact theory advocated in *Saharasia*, specifically regarding coastal arrival points of relatively violent invaders from the Old World, some of whom came from pyramid-building regions, and reproduced the same at their new homes in the New World. All are dated to time periods well after the 4000-3500 BCE origins of violence in the Old World, and well into the period of massive shipbuilding among the Old World kingly empires, who very likely transmitted violence into the New World according to the patterns given on the World Behavior Map.

Having said the above, I feel it important to also remind the reader, that on average the New World, Pre-Columbian cultures were nevertheless far more peaceful and genuinely social than were Old World cultures of the same time period. This is proven from my original cross-cultural evaluations, from *Saharasia* (p.73). Using those data, Table 3 (below) gives the average percent patrism values for the different regions indicated in my original Murdock *Histograms of Regional Behaviors*, as well as the number of cultures which appear in the upper and lower third of the percent-patrism categories, respectively. These data indicate, the Old World regions of Africa, Circum-Mediterranean and Eurasia contain around 95% of all the world's "extreme patrism" cultures (n=354 out of 368). By contrast, Oceania and the Americas held around 88% of all the world's "extreme matrism" cultures (n=259 out of 293). Native Americans, as a generality, were more peaceful and socially cooperative, unarmored and matrismic, in spite of these terrible examples I have given above.⁶⁴

Conclusions

The information contained in the above sections can be organized both temporally and geographically, into four major regional categories of prehistorical violence:

1. As discussed in *Saharasia*, and revisited in this article, there are a scattering of sites across Anatolia and the Middle East which showed "fleeting glimpses" of social violence as early as c.5000 BCE, and possibly even earlier. These are timed with a temporary episode of drought and aridity coincidental to the abandonment of many villages and sites across the region. This early evidence for land-abandonment and probable mass-migrations, with possible social violence appearing here and there, along with a few cases of infant cranial deformation, did not become epidemic, widespread or persistent in character. Drought appeared, followed by scattered and isolated signs of social disturbance. When wetter conditions reappeared in the region, settlements thrived once again under peaceful conditions.

2. A cluster of sites in southern Germany document violent conditions at several sites between c.5500-4000 BCE. These massacre sites, at Talheim, Schletz and Ofnet, may factually fall into the younger end of this range of dates, which would place them well within the time-line of events described in *Saharasia*, when Europe was transformed by invasions from Central Asia. If the older dates eventually prove to be correct, then they would appear to be somewhat anomalistic within the framework of Saharasian theory, but nevertheless also appear to have some relationship to the isolated, scattered and non-persisting signs of violence which spread across Anatolia and the Middle East — coincidental to a documented sub-phase of aridity and land-abandonment, as described in point #1, above. Whatever their dates, these massacre sites are not located in a formerly dryland region, and no obvious mechanism related to environmental pressures such as famine and starvation can be invoked to explain their "spontaneous" genesis of isolated violence. It appears certain, these sites are the consequence of cultural diffusion of warlike groups out of the neighboring drylands, either from Central Asia at c.4000 BCE, or more likely from Anato-

TABLE 3. Oceania/New World Cultures Were Less Violent-Patrism Than Old World Cultures (Murdock data, see p.73 of *Saharasia*)

Region	Average % Patrism Values	Number of Cultures Falling Within:	
		Upper Third Extreme Patrism	Lower Third Extreme Matrism
Africa:	65%	219	5
Circum-Mediterranean	67%	109	12
East Eurasia	55%	26	17
Insular Pacific (Oceania)	41%	11	31
North America	29%	1	166
South America	30%	2	62

lia sometime before or around c.5500 BCE, following the migratory pathways for agricultural diffusion previously identified in Figure 5.⁶³ The geographical clustering of the German sites does not support the assertion of any widespread or ubiquitous violence, but rather, the opposite, of isolated violence within a larger ocean of peaceful social conditions.

3. The violence in the Nile Valley at Jebel Sahaba, Wadi Kubbiyana and a few other sites at c.12,000 BCE does not fit within the original Saharasia chronology of drought and famine starting at c.4000 or even 5000 BCE, but nevertheless does occur during an earlier period of intense aridity, prior to the Neolithic Wet Phase of North Africa. As such, this very early violence in North Africa confirms the basic drought-famine mechanism for the genesis of violence as given in *Saharasia*. Whatever violence did exist at this very early time, however, was so scattered and isolated in its distribution, that it died out once the Neolithic Wet Phase developed. Once North Africa became wet and lush, supporting grasslands and trees with large herbivores, and numerous large rivers and lakes, evidence for human violence vanishes, only to reappear after c. 3500 BCE, when North Africa dries out again. In this latter case, the violent conditions persist, along with the harsh arid conditions, from c.3500 BCE all the way down into the modern era as a global phenomenon, to be recorded by ethnographers and anthropologists, and documented in *Saharasia* on the World Behavior Map.

4. In SE Australia, we have what appears to be an episode of “Saharasian”-type genesis of small-scale inter-group social violence — to include artificial infant cranial deformation, and generally non-lethal familial and tribal fights directed mostly at women — during an episode of unusually dry and possibly episodic famine conditions. The violence appeared during hyper-arid conditions starting at c.11,000 BCE, but died out and vanished by c.7000 BCE, after wetter conditions returned. This suggests the strong influence of desertification and aridity on social conditions, as detailed in *Saharasia*.

Figure 8 identifies these four locations or regions of confirmed archaeological evidence for anomalous violence in the pre-Saharasian period, before c.4000 BCE.

After c.4000-3500 BCE, when all of Saharasia began declining into an intense and widespread aridity, the process of drought, famine, starvation and land-abandonment intensified, forcing the mass migratory events described in *Saharasia*. Violence then irrupted again, this time as a response to a more widespread and persisting drought-famine situation which forced the abandonment of entire regions. We have detailed here, the arrival of the new famine-affected and violent Central Asian migrants across the region of the European causewayed enclosures. They wreaked havoc among peaceful villages and trading centers, and ushered in the epoch of the battle-axe, Kurgan warrior nomads,

fortifications and warrior-kings, and were followed by subsequent waves of new immigrants who carried the seeds of violence in their desert-borne and desert-bred social institutions.

As argued in *Saharasia*, violence became anchored into human character structure, by virtue of the development of new social institutions for justifying and glorifying sadism and butchery, even when directed towards infants and children, and towards the opposite sex. The key for transmission of early famine-related violence outside of the dry regions is found in the development of new social institutions which re-create the violence generation after generation, irrespective of climate. The earliest episodes of human violence, specifically identified in the above four points, did not persist in such a manner, and this may be due to the fact that human social groups at these earlier dates had not yet developed either the size or the organizational complexity by which new social institutions could be readily preserved over the long term. One hypothesis which might explain the findings is, the conditions in Anatolia and the Middle-East generated some elements of social disturbance and violence within a small percentage of cultures, who then migrated into Southern Germany and committed massacres. A similar thing could have occurred in the region of the Nile, leading to the anomalous episode at Jebel Sahaba and Wadi Kubbiyana. At some point, these hypothesized violent cultural groups died off, or were assimilated into other peaceful cultures, or otherwise vanished. Peaceful social conditions then continued once rains and food supplies became abundant once again.

Much of the claims for violence in the archaeological record, described as “prehistoric” in the most general terms, really demands to be more critically reviewed and precisely reported in terms of both dates and locations. Human bones with cut-marks do not automatically constitute “evidence for cannibalism”, given the existence of funeral rituals where the bones of the dead are cleaned of their flesh. Hunting accidents — where an occasional projectile point is found in an isolated human skeleton — cannot, by themselves, stand as evidence for widespread social violence and warfare, especially where the injured individual shows signs of bone-healing and sympathetic burial. Abstracted rock-art which claims to depict a person killed with numerous spears, but which requires a specialist to make the interpretation and to point out the details, falls down into the realm of ambiguous speculation at best. If the eye of an ordinary person cannot detect violence in the rock art scenes, it is likely that the violence existed only within the specialist’s imagination. And in some cases, it surely is possible that later generations of violent people might have drawn spears on top of older rock-art of human subjects, just as people today add graffiti to “dress up” existing pictures of people — where archaeological digs fail to show violence in skeletons and struc-

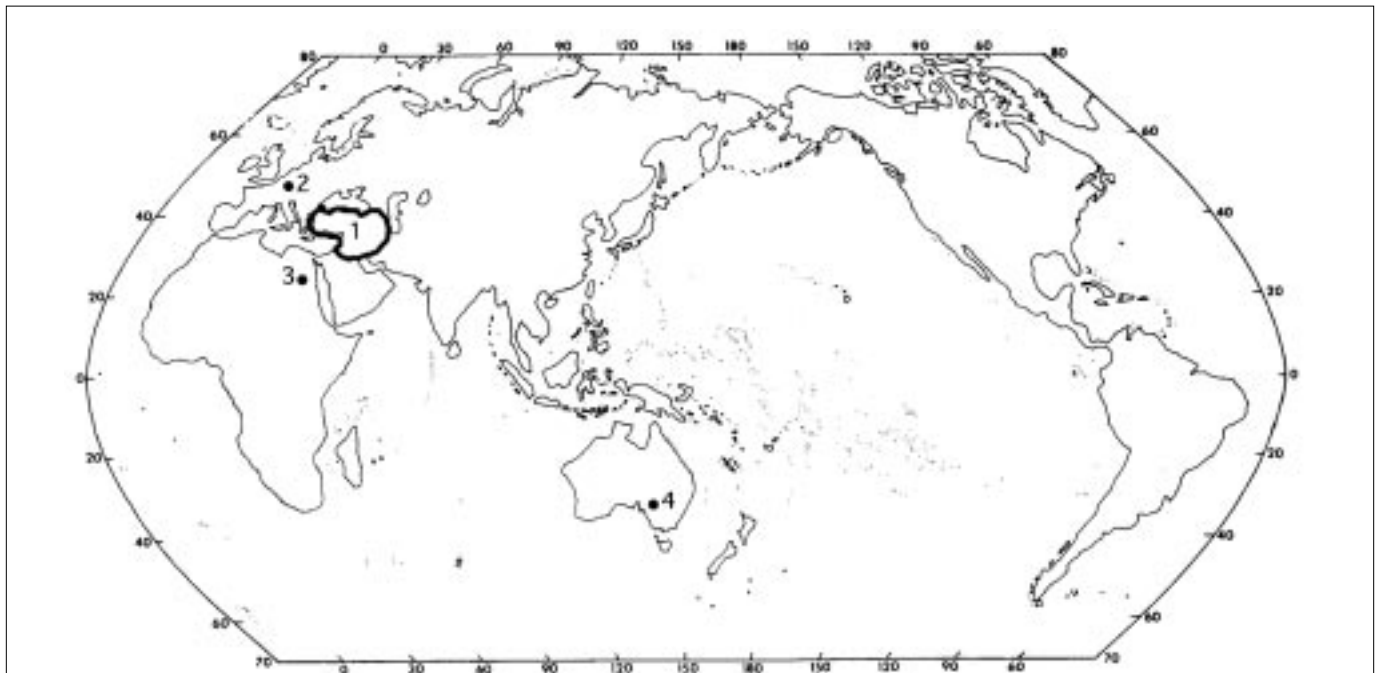


Figure 8: Confirmed Sites of Anomalous Violence in the Pre-Saharasia Period (Before c.4000 BCE)
1. Generalized region of isolated examples of violence and infant cranial deformation, Anatolia and Middle East, c.5000 BCE or possibly a bit earlier. **2.** Massacre sites at Ofnet, Talheim, Schletz, c.5500-4000 BCE. **3.** Massacre site at Jebel Sahaba, c.10,000 BCE. **4.** Region of early Australian infant cranial deformation and familial/intra-Group social violence, c.11,000 - 7,000 BCE. All of these regions, except for item #2 above, were characterized by harsh desert conditions at the time when social violence and warfare appeared. Widespread, massive and persisting social violence and warfare did not appear, however, until after c.4000-3500 BCE, when the larger part of Saharasia began to dry up, as discussed in the book *Saharasia*²

tures, evidence from rock art can only be suggestive, at best. And, the date for the first-settlement of a location should not be confused with the date for the first clear and unambiguous evidence for violence. A site can be occupied for hundreds or thousands of years before the first clear signs of violence appear.

I have shown here, the violence in early China, in the causewayed enclosures of Europe, in Neolithic Spanish rock art, and in massacres of New World cultures before Columbus, all fit well within the parameters given in *Saharasia*, and these examples provide additional compelling support for the overall Saharasia theory. This is especially so for the Americas, where *most* of the evidence for village-scale massacres fits within those regions identified on the World Behavior Map as clusters of armored patrism. The close geographical associations are, in fact, striking.

What is at issue is: how, where, and under what conditions does human social violence and warfare develop. Is it something that can occur anywhere, under any conditions, something which lurks below the surface of the human character just waiting to spring forth to wreak social havoc? Or does human violence conflict with and go against our basic biology, requiring only the most severe trauma to bring it forth; either trauma in the womb, in the crib, in the home and family, or the larger

trauma of severe drought, land degradation, the disruption of food and water supplies, and the attendant famine and starvation conditions which follow?

All of these considerations were given focused discussion in *Saharasia*, and so will not be repeated here — but the issue is, to what extent has Saharasia's ancient historical components been challenged by these newer archaeological findings? From the discussion in this paper, I have shown that the larger Saharasia discovery and theory are not so easily challenged, due to the specificity of its construct — since the early violence identified at the c.4000-3500 BCE marker date is connected to the existence of severe drought, desertification, social displacement and famine within human populations, one can expect to find *similar social responses under similar environmental conditions, even if those conditions occur earlier than c.4000 BCE*. But more to the point, archaeology simply does not support the fantasy that ancient humans were just as warlike and bloody as either the historical or contemporary “civilizations”. On the contrary, *the farther back one goes in time, before the c.4000-3500 BCE marker date, the more difficult it is to find clear and unambiguous evidence for human violence, and what does exist is observed to be regionally isolated and anomalous*.

Brian Ferguson, who has extensively reviewed the

archaeological record for evidence of human violence, has the following to say on the question, written as a conclusion for the book *Troubled Times: Violence and Warfare in the Past*.⁴⁵

What does this evidence tell us? Paradoxically, by documenting violence and warfare and showing variations over space and time, these chapters highlight their absence in much of human prehistory. And this research is gathered together specifically to demonstrate the existence of violence. Another wide-ranging collection on 'paleopathology at the dawn of agriculture' (Cohen & Armelagos, 198)⁴⁶ is striking for the relative absence of the sort of evidence presented here. Partly that may be neglect. But where trauma is specifically discussed, in many cases there is little or nothing to suggest any social pattern of violence. (Curiously, much of the evidence of trauma in Cohen and Armelagos comes from sites within the Mississippi drainage...

Other works similarly indicate a late emergence of violence and war. A survey of south Asian sites (Kennedy 1984: 178, 183)⁴⁷ finds limited skeletal evidence of trauma. Most of that appears in Harappan contexts, and even there earlier reports of massacres have been seriously questioned. In the Levant from the late Paleolithic well into the Neolithic, indications of violence and war are conspicuously absent from the abundant skeletal and settlement remains (Rathburn 1984; Roper 1974; Smith, Bar Yosef and Sillen 1984).^{9,48,49}

A dedicated search for archaeological signs of war in South America (Redmond 1994)⁵⁰ produces little that is convincing and early. On the pre-ceramic Peruvian coast, any indication of violent conflict is late and limited to a few locations (Quilter 1989:65, 78, 85),⁵¹ except for the highly problematic findings at Ostra (Topic 1989).⁴³ On the plains of western Venezuela, evidence of war only appears along with agricultural intensification and the rise of chiefdoms, post 500 AD (Spencer and Redmond 1992: 153).⁵²

Europe and the Mesolithic and early Neolithic does produce some indications of personal violence (Meiklejohn et al 1984; Whittle 1985)^{53,54} as discussed previously, but these are exceptional. The situation in China is similar: a very few signs of interpersonal violence (two skeletons with imbedded points) gives way to widespread evidence of war — fortifications, specialized weapons and multiple osteological signs — only in the final Neolithic, along with the development of economic inequality, not long before the rise of states (Underhill 1989).²⁸ A similar change occurred in prehistoric Japan, where evidence of violent death goes from about .002% of approximately 5000 skeletons from pre-agricultural Jomon times, to over 10% of all deaths in the subse-

quent, agricultural Yayoi epoch (Farris, n.d.).⁵⁵ In all these areas, war ultimately becomes entrenched and widespread, leaving unmistakable indicators. Again, it is difficult to understand how war could have been common earlier in each area and remain so invisible. ...

Roper (1969: 448)⁵⁶ calls into question some alleged instances of killing in the Paleolithic, but others remain convincing. The Australian rock art noted earlier (Tacon and Chippendale 1994)⁷ indicates an early pattern of lethal violence, individual and then collective, but it stands as an exception that highlights the rule: individual killings seem rare and organized killing nearly absent throughout most of our collective past.

...if our ancestors were killing each other..dying after being stabbed, clubbed, or shot, we would see it in their remains. ...

The evident absence of warfare during most of our evolutionary past sinks a boat load of theories.⁴⁵

Fuergeson is not alone in such an assessment. Consider the words also of Richard Gabriel, from *The Culture of War*.⁵⁷ Gabriel's statements are all the more illuminating given his basic belief in the roots of violence in our genetic-mental make-up:

"Using the Stone Age cultures of Homo sapiens and Neanderthal as a starting point, we find some remarkable data about the development of war. Man required thirty thousand years to learn how to use fire and another twenty thousand years to invent the fire-hardened, wooden-tipped spear; spear points would come much later. Sixty thousand years later, man invented the bow and arrow with transverse stone points. Ninety thousand years after the beginning of the Homo sapiens Stone Age, man learned to herd wild animals, and four thousand years later he learned to domesticate goats, sheep, cattle, and the dog. At about the same time there is evidence for the beginnings of systematic harvesting of wild grains, but it would take yet another two thousand years for man to learn how to transplant these wild grains to fixed campsites and another two thousand years to learn how to plant domesticated strains of cereal grain. It is only after this development, around 4000 BC, that warfare makes its appearance as a major human social institution. In sum, man has known war for only about 6 percent of the time since the Homo sapiens Stone Age began.

Once warfare had become established, it is difficult to find any other social institution that developed as quickly. In less than a thousand years, man brought forth the sword, sling, dagger, mace, bronze weapons, and large-scale fortifications. The next thousand years saw the emergence of iron weapons, the chariot, large standing professional armies, military acad-

emies, general staff structures, military training regimens, the first permanent arms industry, written texts on tactics, military procurement, logistics systems, conscription, and military pay. By 2000 BC, war had become the dominant social institution in almost all major cultures of the Middle East. ...

For the first ninety-five thousand years after the Homo sapiens Stone Age began, there is no evidence at all that man engaged in war on any level, let alone on a level requiring organized group violence. There is little evidence of any killing at all."⁵⁷

These statements, from scholars intimately familiar with archaeological evidence, suggest a strong confirmation for the basic ideas presented in my *Saharasia*. This being the case, what are we to make of the various books and articles which continue to claim — without solid evidence — a violent and blood-drenched ancient history for our species? There are many books on violence in prehistorical periods which take great care in presenting archaeological evidence,^{23,58,59,60,61} but none reviewed by this author was as bold in its unsupported claims and assertions of early violence as was Keeley's, which unfortunately tended to bias everything towards his own basic assumptions of the inevitability of war — that's not uncommon in today's world where "genetic determinism" dominates the sciences, and where the daily newspapers yield up plenty of evidence for the violent interpretation. Keeley and supporters are totally correct about violence among some "primitives" and their citations on warfare among Native American cultures has proven a treasure of additional evidence to support my Saharasian maps for the New World — and for much of the period of written human history, advocates for a deep rootedness of violence in the human species can draw from a wealth of evidence to support their viewpoints. However, this evidence becomes increasingly scarce the farther back into pre-history one digs, and it nearly vanishes entirely prior to c.4000 BCE. At a more basic level, in the assumption of the *innate* nature of violence, its "inevitability" and "genetic evolutionary roots" in our most ancient past, *the evidence simply does not support such a conclusion.*

The original conclusions given in my *Saharasia*,^{2,3} first presented and published in the 1980s, are almost totally supported by the more recent archaeological evidence, even as articulated by the most staunch supporters of early-violence theory: *Generally peaceful social conditions existed worldwide, prior to the drying up of Saharasia after c.4000-3500 BCE. During the Saharasian wet period of c.8000-4000 BCE, peaceful social conditions prevailed as a world-wide phenomenon, with only the most isolated and even questionable of exceptions.* Where social violence did occur prior to 4000 BCE, it was in almost every case in association with the episodic appearance of harsh drought and

famine conditions — *only after such conditions became widespread and persistent does human social violence become a sustained and ongoing characteristic of the human animal.* Only after enduring the horrific and ongoing trauma consequent to massive drought and famine conditions, do the original peaceful and social human societies succumb and fall to the glory of violent warrior kings and patriarchal blood-lusting gods. Without the desert, without Saharasia, both history and humanity would today be entirely different.

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