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AnthSci 199
Bibliography
Dec. 15, 2006

Definitions of Battlefield Archaeology

In the guide to battlefield archaeology produced by the British Archaeological Jobs Resource (2005), battlefield archaeology is simply defined as the archaeological study of ancient or historical conflict. The term "battlefield archaeology" implies only a limited aspect of what is encompassed in the archaeological study of human conflict, seeming to focus only on the event of the battle, or more specifically, on the field where it took place. However, battlefield archaeology can include projects oriented towards the preparations for a battle, the quarters of the soldiers, the aftermath of the battle, mass graves of the dead, and other such topics related, but not directly so to a battle. Sutherland and Holst emphasize the need to study all periods that are in evidence at the site of the battle and not just the evidence of the battle itself. Another application of battlefield archaeology and its methodologies are periods of civil unrest in human history. Given the breadth of this sub-discipline of archaeology, Sutherland and Holst suggest a more fitting term for this study, "conflict archaeology." This term encompasses far more that what is implied by archaeological excavations of battlefields.

Definitions of War and Warfare

According to Vandkilde (2003), war is intimately associated with "power, dominance, and coercion" (126). These attributes of warfare mean that it can be and often is mode of social reproduction and change. The great prevalence of violence in the modern era means that remarkably few people in present times are untouched by war.

Thorpe (2003) provides a definition for war in his discussion of the origins of warfare. In his discussion, war is "organized aggression between autonomous political units" (Thorpe 2003: 146). This definition implies that warfare only occurs on a large scale, discounting small scale acts of violence and personal or family feuds. Thorpe also emphasizes the fact that "the majority of conflicts occur between closely related groups, with the warring parties frequently acting as exchange or marriage partners before and after" (2003: 146). The clear definition of warfare is required when determining the beginnings of war in human history.

Why Battlefield Archaeology was Ignored

Vencl (1984) was one of the first scholars to draw attention to the fact that archaeology largely ignored the study of war and warfare. This neglect resulted it a heavily biased view of the past, and especially of the early cultures and civilizations of the world. War was drastically underrepresented in the archaeological scholarship, while written sources probably overrepresented events of battles and violence. Thus, warfare was conceived of as merely as historic phenomenon, beginning only with the emergence of complex civilization and competition for power and resources. Vencl argues for a reintegration of war studies into archaeological studies of the distant past, utilizing the disciplines of physical anthropology, social anthropology, history and the natural sciences.

Three of the primary reasons that archaeological studies of warfare were few and far between before the 1990's are outlined by Vencl. One, "some important features do not enter archaeological contexts because of their nonmaterial character... or because of their perishable nature..., or, alternatively, for insufficient concentration and burial." Two, archaeology is distinguished by a "limited capacity to distinguish phenomena following one after another in a

short interval of time... and by the inability to synchronize spatially isolated phenomena." Three, interpretation is hindered by "the undoubtedly primitive and undifferentiated character of the earliest wars" (Vencl 1984: 121-122). Unfortunately, the notion of the battle, the primary unit of war, was thought to be entirely absent from the archaeological record, as most battles do not last long enough to leave behind material traces in the form of deposits.

From these preconceptions, Vencl argues that an image of the early human past emerged that was almost free of war and violence of all types. This notion of the peaceful early society severely biased the notions of the past held by many scholars and large segments of the general public. Vencl accepts the fact that many aspects of war and the past will remain invisible in archaeological studies, but he is firm in his conviction that some effort must be made to study the phenomenon, especially for the prehistoric past. (Note: "The identifications of causes and pretexts for fighting and wars is inaccessible through archaeology" Vencl 1984:119.)

Growth of Interest in the Archaeology of Warfare

The new found interest in the archaeology of warfare and battlefields since the 1990's has had several motivations, according to Gilchrist (2003). The rise of the battlefield archaeology was intimately tied to the growing fascination with twentieth century battles. Historical and archaeological studies of the First and Second World Wars, the Cold War, the Korean War and the Vietnam War are tied to an urgency felt to understand these conflicts before those who survived them are all dead. In fact Gilchrist argues that the primary proponents of this archaeology of 20th century military conflicts are those individuals whose fathers and grandfathers fought in the wars. The interests and methodologies used to study these historical

battles are then projected into the past to learn more of the prehistoric, unrecorded or poorly recorded battles of the past.

Vandkilde (2003) cites similar reasons for the emergence of battlefield and warfare archaeology, but expresses them in a very different manner. He believes that the new focus on warfare is "rooted in the myths, politics, and wars of contemporary society" (Vandkilde 2003: 127). The modern stereotypes of war leaders and peace leaders in studies of the past are social responses to the modern day experiences of war and genocide. He criticizes modern scholarship associated with war studies and the archaeology of warfare because they do not adequately deal with the realities of war, instead creating "soft metaphors for war" and ignoring the grimness of battle and death behind the veil of science. Another approach to the archaeology of battles in the distant past has been severely colored by pacifist attitudes. Left-wing politics have sought to paint a picture of the distant past as peaceful and free of massive violence. The scholarship of both revolution and migration in the past has been affected by these biases.

Overall as the study of war in archaeology became more popular in the mid and late 1990's, the language used to discuss such events remained quite celebratory and idealizing of the warrior and the war hero. According to Vandkilde, this echoed the idealizing tendency in discussions of survivors of modern conflicts, from the soldiers in the First and Second World Wars to the ethnic cleansing campaigns of Eastern Europe and the Near East. He specifically mentions the importance of Lawrence Keeley and his influential work, *War Before Civilization: The Myth of the Peaceful Savage*, in originating this bias in modern scholarship.

Methodologies of Battlefield Archaeology

In his argument for the archaeological community to place more of a focus on warfare, Vencl (1984) outlines several sources for information of past warfare that are very visible in the archaeological record. Previously, weaponry was believed to be one of the only indicators of war. The graves of warriors were taken as a sign of a society that encountered warfare and whose men were forced to fight. Iconography is another important evidence of warfare, not only indicating its existence, but often the form that warfare took and possibly even the enemy that was fought. Vencl returns to the concept of warriors graves, drawing more levels of interpretation from them than had been common prior to him (see his discussion for some of the biases that can emerge in studies of warrior graves, pages 126-127). The importance of studying the physical remains of warriors and their bodily wounds for evidence of war and its features is especially highlighted. Fortifications are another tell-tale sign of warfare, and constitute the primary form of military architecture visible in the archaeological record.

Sutherland and Holst (2005) describe the basic methodology of battlefield archaeology as very similar to that of modern forensic analysis. One of the only differences between the two contexts of a modern crime scene and the site of a known battle is the level of preservation, for the amount of time that passes before a battlefield might be excavated often ensures the decay of organic materials in most contexts. Their detailed analysis of the processes of studying a battlefield are some of the most useful and descriptive in current literature.

The various methods for analyzing and evaluating battlefields are outlined in the work of Sutherland and Holst. Their primary message in this section is that a multidisciplinary approach must be used in the study of a battlefield, including archaeologists, geologists, human remains specialists, weapons experts and many other individuals with specialized skills and knowledge. Surveys of visible earthworks and of the geophysical area are necessary. Geophysical tests

include metal detector surveys, magnetometer, resistance tests and ground penetrating radar. Intensive survey of the area is also an important pre-excavation practice. Of course, excavation is one of the primary tools used by battlefield archaeologists.

Each battle will display its own individual signature of artifacts, weapons, tactics and strategies, many of which can be visible in the archaeological record. These signatures are critical for the discovery and identification of battlefields. Sutherland and Holst have complied a table of the various weapon technologies used in Britain according to their historical time period (2005: 25). This information allows for the period of a battle site to be easily and quickly identified based on a small assemblage of artifacts.

As in all archaeology, the three dimensional location of artifacts is critical for the reconstruction of past events and life ways, and the provenience of artifacts on a battlefield is only more so. The location and direction of weapons can reveal a great deal about the battle and the movements of soldiers on the field. Sutherland and Holst mention the use of ballistics analysis at the Battle of Little Bighorn to reconstruct the organization, or lack thereof, of "Custer's last stand." This level of detail is not always available, however, especially given the round bullets used by the British in many of their earlier battles. However, much more information can be garnered from such analyses than previously thought.

Finally, Sutherland and Holst discuss the importance of human remains and the enormous amounts of information that can be gathered from the study of the physical remains of victims of war. Human remains must be examined by specialists who can read their bones for the wounds, diseases and traumas experienced by the individual in life. The remains of humans can be found in many different contexts associated with battlefields, including mass graves, exposure on the battlefield, bodies buried in pits, remains in ships, bodies interred in buildings, individual graves

on or near the battlefield and charnel houses. The context of mass graves can be especially difficult for interpretation because of the large numbers of individuals that might be buried together. The importance of having an osteologist or human remains specialist on hand during excavations is emphasized, as much valuable information can be lost if such finds are excavated haphazardly. The mass graves from the Battle of Towton are an important example mentioned

In their volume, *Two Men in a Trench*, Pollard and Oliver (2002) describe the many methodologies that they employed in their studies of English battlefield sites. One of the greatest difficulties in studying battlefields is the large expanse of the land that must be analyzed on a battlefield. Sometimes hundreds of acres saw action during a single battle and every inch of that area has the potential to reveal information. Many of the methodologies used by the authors were designed to focus energy on trying to decide where full-scale excavation should take place. Techniques such as metal detector surveys to pinpoint scattered artifacts and ground-penetrating radar to find underground features like mass graves and bunkers were an important part of their work. These features were then mapped onto the topography of the site to determine if any patterns were visible. Finally, actual excavation was carried out in only the areas with the highest potential.

Again the great similarities between battlefield archaeology and forensics archaeology are emphasized by Pollard and Oliver. This is most likely due to the fact that these two archaeologists have practiced both forms of archaeology and have experienced the similarities in methodology and interpretation shared by in both contexts. The comparison of mass graves from a Medieval battlefield with mass graves of modern genocide is a powerful one.

Theory Behind Battlefield Archaeology

Gilchrist (2003) mentions several aspects of theory and social belief that relate to the study of battlefields through archaeology. Very often battlefields are regarded as "sacrificial landscapes" (see Saunders 2003 in *World Archaeology*). The practice of burying the war dead in mass graves on or near the battlefield often leads to the reverence of the battlefield among contemporary peoples, and even in later times. She also draws attention to the dialogue of gender and warfare. Both Gilchrist and Schofield (1999) emphasize the ethical duties that fall to the archaeologists that study warfare and the war dead, especially the sites and dead of recent battles. These issues include "to remember the fallen, to avoid trivializing contributions to the war effort, and to ensure some emotional engagement with the subject" (Gilchrist 2003: 5).

The social climate in which modern archaeological studies of war are carried out and the inherent biases are the focus of Vandkilde (2003) in his article. The modern European identity in the post-colonial period, according to the author, is the origin of the stereotypes of the warrior and the peaceful savage. Modern society is thoroughly permeated with the veneration of warriors, and the image of the past is biased by this modern perspective.

In a similar manner to Gilchrist, Vandkilde also draws attention to the violence, hardship and death that are associated with war. He argues that the violent acts that are always associated with war should become the focus of archaeological and anthropological studies of warfare. The cultural meanings and the cultural landscape of such acts reveals a great deal about the cultural context of warfare and battles.

The Origins of Warfare

The origin of warfare is a hazy topic according to Vencl (1984), especially due to the seeming lack of interest in early warfare in archaeology, yet he draws a picture of the many

theories on the topic in his article. Interpersonal violence is often tied to the emergence of personal property and ownership rights to land in social theory. However, this is difficult to pinpoint. Some evidence of violence can be traced back to the Paleolithic, though this does not appear to be on a large scale. The Mesolithic period sees an increase in individuals who suffered violent deaths, especially from arrow wounds. Finally, during the Bronze Age the scale of the violence escalates, to the point where large scale violence is beyond doubt. The actual beginnings of true warfare have been dated anywhere from the Mesolithic to the Bronze Age, and the assignment largely depends on the definitions of warfare adopted by the scholars. Vencl's own opinion tends to favor the Mesolithic. "The fact is that the Mesolithic period, with its environmental and social transformation, can indeed represent the nascent period of intercommunity armed violence" (Vencl 1984: 121). He ties the emergence of this intercommunity violence with the "emergence of territorial cultural units" which gave rise to the "conditions for border disputes or disputes over food resources and over space." During the Mesolithic, there is even evidence for the "annihilation of competitive groups" in the form of "lethal wounds not only in men but in women and children" (Vencl 1984: 121).

Similarly, Vendkilde (2003) views the theories for the origins of war and argues that they are tied up in the myths of the peaceful savage and the primitive other. The early prehistory of mankind evokes two images from the public and scholars alike, first, the image of the early warrior and hunter armed with a club or other such weapon, and second, the image of the peaceful gatherers and early agriculturalists, tied to the earth and respectful of life. Both of these images are false, or at least once sided. The distant past is idealized with one-dimensional characters, and thus, typical archaeological studies of war only serve to perpetuate these beliefs.

For Vandkilde, only the understanding of war in its full social context is a viable route of archaeological studies of war.

In his article Thorpe (2003) turns his attention to the origins of warfare and the various theories that have been developed to explain the emergence of intercommunity violence. The primary theories regarding the beginnings of war in human history can be summarized in three categories: evolutionary psychology, materialism and historical contingency. Theories categorized under evolutionary psychology view the past landscapes of humans as shaping their existence and their behavior. Under this premise warfare could have risen in response to several different stimuli: territorial, reproductive and status competition. The first two stimuli are based on analogs with chimpanzees and apes. The territorial instinct in chimpanzees may be shared by early humans, as might be the competition over mating partners. On the other hand, warfare based on status competition is far more complex and limited to humans. In a materialist framework, the only motivations for warfare, for risking life and limb, would be an overwhelming need for food or land. Finally, the historical contingency school of thought argues that only the specific individual historical circumstances of each war can reveal the reasons for warfare. However, warfare is often thought to be a "consequence of settled agrarian communities" and the increased social and personal contact that occurs in such cultural circumstances (Thorpe 2003: 149).

Much of Thorpe's discussion traces the beginnings of true warfare to the Upper Paleolithic, based on evidence of the evolution of weapons, appearance of paintings in rock art, mass burials and skeletal pathologies. For various specific examples see Thorpe 2003: 151-158. Virtually all lines of evidence point to the origin of warfare sometime in the Stone Age, but whether during the Paleolithic, Mesolithic or Neolithic is still a matter of debate. When Thorpe

analyzed the available evidence for large scale violence, he determined that neither the

evolutionary psychology nor the materialist theories fully explained emergence of warfare as

evidenced in the archaeological record. Thus, the historical factors and circumstances must also

be examined. In essence, he determines that it is near impossible to determine the reasons for the

earliest warfare among humans.

Archaeology of Prehistoric Warfare

Gilchrist (2003) says that the study of prehistoric warfare is entirely dependent on

indirect evidence of war and violence. These types of evidence include "violent injuries detected

on human skeletons and weapons accompanying burials as grave goods" (Gilchrist 2003: 2). The

study of warrior burials is one of the oldest focuses in archaeology and continues to play an

important role, though now they play a more specific role in reconstructing warfare and battles.

Related to this topic, she mentions Thorpe's article in the journal of *World Archaeology*, a study

of evolutionary psychology and how it relates to various forms and motivations for warfare.

Studies of prehistoric warfare rely on three main sources of evidence according to Thorpe

(2003), the presence of weapons, iconographic depictions of battle and physical remains showing

signs of violent injuries or death. Such studies focus on human conflicts during the Paleolithic

and Mesolithic, and the origins of warfare. Thorpe mentions several examples of such evidence

including Levantine Spanish rock art, skeletal evidence from Neanderthal remains found in

France, South Africa and Spain, and possible cannibalism found at Atapuerca, Spain. During the

Upper Paleolithic several lines of evidence have been specifically traced: the evolution of

weapons, appearance of paintings in rock art, mass burials and skeletal pathologies.

Archaeology of Historic Warfare

The archaeology of historic warfare, on the other hand, often has the advantage of direct evidence, allowing for the location of individual battles or the remains of soldiers, according to Gilchrist (2003). The majority of such studies are aimed toward "reconstruct[ing] the military technologies and strategies employed in particular battles" (Gilchrist 2003: 3).

Importance of Battlefield Archaeology

According to Sutherland and Holst (2005), the archaeological study of battlefields and the sites of other conflict is extremely important for many reasons. The first of these reasons is that by studying such sites, it is possible to gain the fullest and most accurate understanding of the events that took place during the conflict. This is related to the hope of sometime knowing everything there is to know about the past and the events that occurred in the past. The authors suggest that by studying such remains the over-glorification of war might be prevented. The horrors of war are evident in the physical remains left after a battle in a way that is entirely missing from historical accounts of a battle.

The tendency for battles and conflicts to be used as propaganda and a rallying point for public support is not neglected by Sutherland and Holst. They argue that this tendency is another reason in support of archaeological excavations of battlefields. By gaining a better understanding of the happenings on a battlefield, propagandistic claims might be better evaluated based on the facts of the battle and not biased reports.

In modern society, battlefields are often viewed as memorials to the men and women who fought and to those who lost their lives. "A battlefield is... a tomb, holding the bodies of most of those who died there...; a perpetual shrine and memorial which should engage our thought and

our reverence" (Sutherland and Holst 2005: 5). The ethics of excavations of such a memorial are widely debated. Many argue that the war dead should not be disturbed, while others argue that knowing exactly what happened on the battlefield is the best memorial that can be provided for the dead.

Battlefields, of all periods, are increasingly becoming sites of interest for the public, and as such they must be maintained and presented in an appropriate manner. Today tourists flock to battlefields across the world to see the sites where history was made and changed. The battlefields must be both attractive and informative for such visitors. Sutherland and Holst argue that the presentation of the battle, especially in museums, must be accurate, revealing both sides of the outcome to the visitors. Once again, an effort not to over-glorify war and violence is the key for the authors, and they recommend emphasizing both points of view in the museum display and any reenactments. The excavation of battlefields contributes a great deal to the understanding of the events and can help provide the bigger picture of the battle and the world events that surrounded it.

In Britain, many historical organizations and departments are devoted to the study and preservation of battlefields, a nation-wide focus that is not matched in many other countries. One of the most influential groups is English Heritage, an organization that has produced lists of the historic battlefields on Britain and sponsored many excavations on such sites. According to English Heritage, battlefields themselves are important for many reasons in British history and in the reconstruction of that history.

- Battlefields have been the setting for crucial turning points in English history, for example the Norman Conquest which followed the Battle of Hastings 1066, or the

turmoil of the Civil Wars in the seventeenth century which changed the roles of the monarchy and parliament

- The reputations of great political and military leaders were frequently built on battlefield success.

- Tactics and skills of war still relevant to the defense of the country evolved on the medieval battlefield.

- Battlefields are the final resting place for thousands of unknown soldiers, nobles and commoners alike, whose lives where sacrificed in the making of the history of England.

English Heritage in Sutherland and Holst 2005: 9

While this view is expressed purely in regard to English history and to battlefields in Britain, it holds many values and lessons that are shared around the world.

Despite their casual attitude to battlefield archaeology, Pollard and Oliver (2002) offer some important thinking points on the subject in their book. The fact that the volume accompanied a widely popular TV show in Britain demonstrates the growing public fascination not only with wars and battles, but also with archaeology. The major attraction to battlefield archaeology for the two authors lies in the intimate nature of the discipline. The artifacts that they uncover were lost by men and women battling for their lives, and discovering the location of an arrowhead or a bullet on the field of a past battle is, for them, like discovering the last moments of that individual's life. They also argue that war is one of the "defining characteristics" of humans and its study is, thus, an important window onto the existence of humans in the past, their lives and their thoughts (Pollard and Oliver 2002: 8).

The primary argument in favor of battlefield archaeology, according to Pollard and Oliver, is that history cannot describe the choreography of a battle accurately enough, and

through its study of the artifacts left behind, archaeology can fill in many of the details and images that are neglected in traditional historical accounts. "Wellington himself went so far as to say that a historian may as well try to write the history of a dance as that of a battle" (Pollard and Oliver 2002: 8). In their eyes, only through the combination of archaeology and traditional history can the fullest picture of a battle be achieved. Perhaps battlefield archaeology is the solution to the synthesis of the many different versions of history that have been passed down through the ages. They are painfully aware of the damage that is done to battlefields in the modern world and the large amounts of archaeological and historical information that is lost nearly everyday. Through archaeological projects much of that information can be preserved. At the very least, many archaeological survey techniques can be used to outline the most important areas of a battlefield for national protection and preservation.

Case Studies: Prehistory

Case Studies: Historic Battles

Sutherland and Holst (2005) use one particular example of battlefield archaeology to help illustrate the possibilities of battlefield archaeology, the Battle of Towton of the War of the Roses in 1461. This was one of the most decisive battles of the war. In the 1990's a mass grave was discovered a short distance from the battlefield and excavated. Similar to the Battle of Visby, many of the skeletons retained elements of their armour and battle wounds were visible on many. This excavation included 3D modeling of the mass graves, allowing for much more precise measurements and information to be gathered. (For more information see Sutherland and Holst 2005 pages 33-36.)

The book by Pollard and Oliver (2002) provides many different examples of archaeological surveys and excavations conducted on historical battlefields. Often their excavations were only one instance of archaeology conducted on the individual battlefields, and they provide sources for other studies of the battle that are useful. Ideally, it would be very interesting to see the television series that sparked the publication of this book as the visualization of the site and their finds are invaluable. In general, their discussions of the archaeology are merely cursory, lacking the kind of detail necessary for intense scholarship. This is due primarily to the wide audience that was intended for the book. However, their efforts to provide the background and the significance of the battles that they study are succinct and informative.

The first battle they detail is the Battle of Shrewsbury, 1403, the battle that is the backdrop of the opening of Shakespeare's Henry IV, Part II. The survey conducted by Pollard, Oliver and their team was conducted using primarily metal detectors, for the only materials to survive the 600 years since the battle would be metal. Hundreds of metal artifacts were tagged on the battlefield, arrowheads, buttons, belt buckles and other such objects. Several of the graves near the battlefield were also excavated.

The Battle of Barnet in 1471 of the War of the Roses is another case study for battlefield archaeology. This battle between Lancaster and York clans was fought primarily by untrained nobles with only minimal weapons available. The site of the battle was turned into a golf course in modern times, but many of the original hedges built as defensive works did survive. Arial photography was used to find the remnants of these medieval hedges and they were further explored using metal detector surveying and excavation.

One of the battlefields of the war between James IV of Scotland and Henry VIII of England was also excavated, the Field of Flodden, 1513. Part of the Scottish camp was excavated by Pollard and Oliver (2002). The camp was identified as an anomaly using ground-penetrating radar, as were sites of mass graves. Several different forms of weapons were found, including cannonballs, musket balls and pikes.

The Newark was site of a siege of the English Civil War which lasted from 1642 to 1646. The two sides were named the Cavaliers and Roundheads and primarily fought with muskets and pikes. Unlike many other forms of battle, sieges often leave large amounts of material behind in the archaeological record, especially sieges that last for a year or more, like the siege of Newark. Areas of the Shelford Manor were excavated as were signs of the defensive ramparts at the site.

The Battle of Culloden in 1746 was one of the major turning points in Scottish history, and resulted in the destruction of many of the clans. The Scottish forces in support of James Stuart and Prince Charles met and were defeated by the English army of King George II. The exact location of the battle was unknown until the team led by Pollard and Oliver began their survey and excavations at the site. Period documents were used to concentrate their efforts and focus the surveys. Hundreds of Scottish clansmen were killed at the site, and the moor is dotted with monuments to the men and their clans. Understanding the events of that battle would be a great honor to their memories (note: both Pollard and Oliver are Scots and live in Glasgow:-).

The last battlefield studied during the first season of Two Men in a Trench was a battle from the Second World War, the Firth of Forth in 1939. The island was the site of Germany's first strike against the British mainland only weeks after war was declared between the two countries. The area was built up as a defensive site with large artillery and huge six-inch guns.

Pollard and Oliver focused their excavations in the sites of the observation posts and gun mountings.

Future of Battlefield Archaeology

Many of the activities of today that are carried out on the battlefields of the past destroy the integrity of the archaeological record and severely limit the archaeological interpretation that can be carried out from study of these sites. Activities such as farming and ploughing, metal detecting by non-professionals, building and even reenactments can destroy the evidence left behind by major battles. Sutherland and Holst (2005) recommend that future legislation should attempt to limit the types of activities that can be practiced on known and registered battlefields.

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