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**ABSTRACTS**

**Troy Belford**, *The Problems of Ritual on Film*

The use of ritual in ethnographic films can be problematic due to limitations in the medium being used. The methods for producing ethnographic films are tied to the media that is used to present them, as well as considerations of length for broadcasting purposes. As such, every aspect of the film will be approached with these limitations in mind. How ritual is presented in film depends on the nature of the film, the presuppositions for its distribution and the subject matter. Context, montage, editing techniques, and viewer opinion are aspects of the film viewing process that have a considerable impact on how a film is understood. This paper seeks to explore some of the problems with constructing ritual on film using the example of Jean Rouch's 1954's film *Les Maitres Fous (The Mad Masters)*. Context, montage, editing techniques, and viewer opinion are aspects of the film viewing process that have a considerable impact on how a film is understood.

**Kristen Bernard and Peer H. Moore-Jansen** *Morphology and Sexual Dimorphism in the Humerus at the Footprint Site*

Archaeological investigations of the Footprint site, 41PT25, have identified a total of thirty one individuals among the human skeletal remains of the archaeological assemblage from the feature referred to as Room 1. The individuals have been described in previous reports as ranging in age from infant to adult, however little information about a more specific biological profile of these individuals is available from prior analyses. While it is sometimes difficult to determine an accurate number of individuals and their biological profile in such assemblages, especially due to the highly fragmentary conditions of the remains, analysis of long bones may aid in determining the sex of an individual by metric as well as non-metric observations. The purpose of this paper is to examine the morphological variation and sexual dimorphism of the humerus from the Footprint site. Eight measurements representing maximum length, breadth, maximum and minimum diameters, and diaphyseal circumferences of the long bones of adult human remains were used to quantify morphological variation of the humerus. The measurements represent standard and nonstandard measures and are in accordance with an established protocol specific for this study. Qualitative observations of size and robusticity of the humerus were also recorded to complement the quantitative data. Minimum number of adult individuals and their biological sex is estimated using both types of data. The results are part of a more comprehensive analysis of the remains from the Footprint site seeking to identify and account for the skeletal remains and the population structure that they may represent from this Antelope Creek archaeological locus in West Texas.

**India Black, *Troubleshooting a Field Project***

A field project is in progress and some major set backs have been encountered. This presentation reports on the project and its development thus far. The field project considers taphonomy and sharp-force trauma. Taphonomy deals with what happens to biological remains after death. Sharp-force trauma is physical injury caused by a sharp object. Project research is a comparative analysis of cut and uncut pig ribs, both on the ground surface and buried, and their changes over time.

**Gretchen R. Dabbs, *A Preliminary Quantification of the Adage "Heads Roll Downhill!"***

The underlying interest in this topic stems from the adage that "Heads will roll downhill!" often espoused by instructors in Forensic Taphonomy and Forensic Anthropology courses, the author included. The current literature on human taphonomy is extensive; however, simple quantifications such as at what slope a head will begin to roll downhill have often been overlooked for flashier projects. Due to the difficulty inherent in obtaining complete cadavers, this initial phase has included only one individual, who was rolled several times. This paper presents the preliminary findings of 120 experimental rolls of a fleshed head with the first three cervical vertebrae attached, a condition frequently observed by the author in forensic casework. Specifically, two questions will be addressed; the variables observed to effect the mobility of the head, and a report on the initial results from a test run of this experiment. Future research protocol includes the inclusion of many more individuals. Additionally, investigation of the same condition for skeletonized elements of the body; in particular those necessary for construction of the biological profile, such as the cranium, os coxa and femur are planned.

**Jerry Elmore, *An Analysis of Ogallala Aquifer Depletion Using the Stress Model***

The Ogallala aquifer underlying and providing much of the water for eight states in the High Plains is being depleted at an alarming rate – so much so that it is possible whatever water remains at the end of the century will be inaccessible and unusable. Many models have been used to account for this phenomenon. The author attempts a new analysis of available literature using a variation of Boserup's population pressure model, also known as the stress model. Irrigation in the region above the Ogallala aquifer has steadily increased since the first well was dug in the early 20th century. Many populations elsewhere rely on the food produced in the High Plains using water from the aquifer.

This population pressure has placed increased stress on the region to produce more food; this extra food generally leads to larger populations. With increased food demands, more sophisticated water extraction technologies are needed and created, increasing costs. Cost increases force some irrigators out of farming altogether leading to greater consolidation of lands, a reorganization of society in those areas, and increased competition for available water. The stress model performs well in predicting the cyclical nature of these stressors. This stress model analysis indicates that the Ogallala aquifer will indeed be depleted unless preventative measures are taken and alternative means are found to produce the needed amounts of food.

**Cori Gale, *The Evolution of Altruistic Behavior***

Darwin's theory of natural selection is the process by which the genetic composition of a population is passed on from generation to generation. Those traits that will reproduce successfully are selected in favor of other traits in order to ensure that that population will continue to survive to the next generation. The environment has an affect on this process by keeping the population of a species in check so that the population doesn't overwhelm the natural resources. But what about behavior known as altruism? How does it play a role in natural selection? Darwin's theory of natural selection works on the individual level, but altruistic behavior sacrifices the individual for someone else's benefit. So how can altruism fit into the theory of natural selection? I will examine how altruistic behavior has evolved and what its role is in natural selection.

**Matthew Harms,  *Holding All the Cards? The Hand Wetland Archaeology Holds***

The paper's objective was to understand wetland archaeology and its role in the greater archaeological arena. It appears wetland archaeology, with its remarkable artifact preservation, would be a highly utilized method, however there are some who feel it and its contributions are being ignored and or not utilized fully to broaden our understanding of the past. It seems that much of the blame for this lies both in its practitioners focus on sites and artifacts more than interpretation and contextualization, and a lack of dialogue between wetland archaeology and the greater discipline as a whole. This study reviews the principles of this archaeological sub-field, its hands-on methodology, its latent potential, and discusses issues relating to its climb to become more relevant and connected to mainstream archaeology.

**Sandi Kana Harvey, "Keeping Pure Hearts" : Identity, Reminiscence, and Resistance**

Since the early 1990s, Okinawans have been creating music, which mixes traditional *min'yo* (folk songs) and *shima uta* (Island songs) with jazz, rock, reggae, folk, and other Western musical elements. The mixing of traditional and Western musical elements is referred to as "hybridization" or *champurū*. Okinawan popular music, also known as Uchinaa Pop, is unique in that it uses Okinawan indigenous language and the traditional instrument, *sanshin*. It will also be necessary to analyze the lyrical content, in which certain themes are embedded with Okinawa's cultural values and worldview.

I will analyze Okinawan popular music as a symbolic construct to define such concepts as identity, reminiscence, and resistance as it is locally situated within the context of the historical and political framework. These concepts are not mutually exclusive, rather they are interconnected in meaning and purpose when it comes to interpreting and explaining Uchinaa Pop.

**Julie Holt, Cranial Thickness in the Footprint Site**

Cranial thickness has been shown in previous studies to be a decent indicator of the sex and group affiliation based on cranial measurements. Different areas or the cranial bones have been shown to have a different thickness in males versus females. The Footprint site has a number of cranial fragments, along with nearly complete crania, and this study was done to see if there would be any way to attribute sex or group to the fragments present. A total of nineteen measurements can be taken on complete crania, however since there were no complete crania present, all the possible measurements that could be taken were used for each sample. If it was shown that it could be done it would aid greatly in grouping the skeletal elements into individuals, and likewise may also aid in piecing together the cranial fragments to produce a more complete element.

**Shannon Kraus, Jason Kirk, Peer H. Moore-Jansen, Being Guided by Fragments: A Study of the Potential Use of Vertebral Remains for the Estimation of Sex at the Footprint Site**

The identification of skeletal remains from archaeological sites can enable anthropologists to gain insights into the demographic structure and composition of past populations. In order to thoroughly examine and identify the population at a site, a thorough analysis of the materials is necessary. This study examines the potential of using fragmentary remains from an archaeological assemblage to estimate sex within a particular population. Using a protocol developed specifically for

the estimation of sex in human vertebral skeletal remains, evidence of sexual dimorphism in vertebral skeletal morphology among the remains from the Footprint Site 41PT25 is evaluated by looking at particular dimensions to determine which measurements are the most reliable when looking at sexual variations. Using known samples of vertebral materials from the WSU-BAL collection, the potential for reconciling elements and identified individuals using derived estimates of sex from fragments is evaluated.

**Jan E. Mead-Moehring and Peer H. Moore-Jansen, *The Role of Copulatory Behavior within the Social Structure in Bachelor Groups of Captive Western Lowland Gorillas***

Modern zoological parks that house western lowland gorilla populations prefer to accommodate single-male/multi-female groups which include their sexually immature young. The result is an excess of adolescent, sub-adult, and adult bachelor male gorillas that must be housed and displayed collectively. Due to the increase of gorilla bachelor groups in the zoological community, the social structures of these all-male groups are more accessible to research. This observational study focuses on copulatory behavior within these groups and its role in the current hierarchical relationships among the group's members. Observations were conducted at the Sedgwick County Zoo in Wichita, Kansas. The Sedgwick County Zoo has eight male gorillas in three separate groups; two groups of two silverback males, and one group of four sub-adult/adolescent males. Only the group of four was observed for this study. Observations occurred over fifteen non-consecutive days and were three hours in length. The observational method used was group-scan sampling every five minutes with all occurrence documentation of affiliative behavior within two meters or less. The social order within this group is complex and varies between dyads of individuals and the group of four. The rank of an individual was estimated by size, age, and displacement frequencies. This study suggests that sexual activity within this bachelor group may be integral to the greater social bonding dynamic.

**Ingrid Mendoza, *GIS in Archaeology***

Geographical Information Systems (GIS) are modeling systems of data that has a locational component. Most are in the form of computer programs that store and permit analysis of spatial data and the relationships among spatial features and the associated information. GIS is a tool currently being used by archaeologists to map site locations, environmental resources and minimize damage to archaeological sites. It is also used for spatial analysis of archaeological sites and analysis of artifact scatters across a specific site. In this paper I will introduce how GIS is used in the field of archaeology and its potential use in the field.

**David I Mixer and Kristen Bernard**, *Contributions to the Study of the Number of Individuals at the Footprint site and their Age Distributions Using Observations of Dental Remains*

The issue of determining the number of individuals in archaeological skeletal assemblages can be difficult, in part, because of its dependency on age determination of the sometimes highly fragmentary condition of the remains available for examination. Archaeological investigations of the Footprint site, 41PT25, have identified a total of thirty one individuals in the archaeological assemblage from Room 1. Due to the nature of the reported turbation at the site, this estimate is re-evaluated. The individuals identified range in age from infant to adult. This paper assesses the age estimations of the general population of the Footprint site with the future goal of applying the age estimations towards the identification of the total number of individuals present at the site using evidence of developmental and progressive change in the dental remains recovered from the site. Established protocols for recording tooth formation, eruption and attrition were implemented to collect information from the dental remains to establish an estimate of least number of individuals present at the site. These estimates are further identified by age group. The results are part of a more comprehensive analysis of the remains from the Footprint site seeking to document the inhabitants of the site and also address broader questions of the nature of the assemblage, past and present.

**Evan Muzzall**, *Estimating Sex From the Hands and Feet*

It is important to explore population specific measurements and quantitative standards for the hand and feet bones for constructing and sexing individuals due to the fragmentary nature of partial skeletons and the variation they exhibit. This paper reports on the ability of the hand and feet bones to construct human individuals, examines side variation within these individuals, and also determines the sex of the remains found at the Footprint Site, Antelope Creek Focus, Texas. Standard measures for estimating sex from skeletal remains include the cranium and the pelvis. Both crania and long bones are, however, commonly either lacking or are fragmentary among the skeletal material. The large number of hand and foot bones present in the human body may suggest a greater chance of being present among the remains of a skeleton. This study proposes a univariate quantitative analysis constructed to assess sex and is based on the measurements of the carpals, tarsals, metacarpals, metatarsals, and proximal, middle, and distal phalanges of the hands and feet. A combination of previously established measurements and standards were applied to this collection. The findings are reported and discussed.

**Angie Rabe**, *Assessing Sex from the Human Femur*

The present research was taken to determine sex estimation from the human femur found at the footprint site. The footprint site is a Plains village site located in the Antelope Creek region in the Texas Panhandle. The remains of at least 32 individuals were recovered and an attempt is being made to identify individuals. Sexual dimorphism of the femur is based on 13 measurements taken from 15 femurs. The analysis of the human skeletal remains will then be compared to other collections to base the standards for Native American sex identification based on the quantitative measurements of the human femur.

**Carol A. Shallue and Joy H. Vetter**, *Running to Stand Still: Addressing Ongoing Curation Issues in a NAGPRA World, as Illustrated in the Footprint Site (41PT25) Osteological Collection*

In the fall of 2005 the WSU Biological Anthropology Lab began a full inventory of the osteological remains from 41PT25. The present paper discusses issues and processes addressed during the cataloging and curation of materials from archaeological sites such as 41PT25, specifically concerning the curation of human osteological remains in the context of existing NAGPRA guidelines. The 1964 excavation of the Footprint site not only predates NAGPRA standards by almost 30 years, but also provides an interesting point of contrast illustrating changes in the general mindset towards bioarchaeological investigation and the curation and management of human remains over the past 40 years. Today, it is not only critical for special protocols to be exercised through the provision of properly trained specialists and adequate funding during both the excavation and recovery processes, it is essential to assure that such protocols are also applied through the ensuing documentation, curation, storage, and transfer stages. As shown with 41PT25, by following through with all obligations to artifacts and collections, the risk of leaving the next generation of scholars an inheritance of fragments and dust in forgotten boxes on a shelf can be avoided.

**Mark Shirley**, *Good Breeding: An Example of the Development and Transformations of Eugenic Theory and Application Over the Last One Hundred and Forty-Two Years*

The objective of improving the human species or human races and nations through selective breeding can be traced back at least as far as the Ancient Greeks. Beginning in the early 1860s, Francis Galton, inspired by his cousin, Charles Darwin's theory of descent with modification, and motivated by his own desire to eliminate the human suffering caused by socio-economic and political problems and by the inefficiency of the evolutionary mechanism, be-

gan his labor to develop a science dedicated to the improvement of the human race through controlled breeding, which he eventually named “eugenics”.

While many perceive eugenics as a single cohesive movement, this not so, different schools of eugenic thought, each with their own unique perspective on how best to achieve the objective of improving inherited human characteristics have emerged over the last century. These are most readily categorized as “classical” eugenics, “reform” eugenics, and the “new” eugenics often referred to as “neo eugenics”. Over the last century, eugenic thought has had an immense impact around the globe, not only in the fields of human biology and medicine, but also philosophy, religion, politics, and in the arts, and while some assert that eugenics is “dead” having suffered a fatal blow, as a result of the atrocities of the Nazis and other atrocities such as the forced sterilizations of those deemed mentally incompetent in the United States, Great Britain and elsewhere during the 20th century, it is clear that this assertion is unfounded, and that each of the schools of eugenic thought survive today. If we are to comprehend eugenics, the influence it has had, and continues to have on various aspects of the worldwide cultural milieu, we must be cognizant of the differences in the perspectives of each of the schools of eugenic thought.

**Tandi Smith**, *Biocultural Study of Human Remains from Southwestern Colorado*

The Ewing collection is a large collection of artifacts and skeletal remains originating from a number of archaeological sites in Colorado, all located near the Four Corners region. The sites comprising the Ewing Collection were excavated in the latter part of the 1960s and throughout the 1970s. Although some provenance information remains, a large amount of pertinent information and documentation of the materials were excluded during the curation, and are in the possession of the project manager. Subsequently, little investigative work has been conducted on the collection. Research was directed towards the current standards applied in biological anthropology for the purpose of skeletal analysis. The Anasazi are believed to have occupied the Four Corners area from around 700 BC up to the Spanish conquests and chronology of the area is discussed utilizing the Pecos Classification System. In addition to investigating the cultural affiliation of the skeletal material, a discussion of the importance of provenance information for archaeological collections will be included, and when unavailable, what information can be useful in the further understanding of such a collection.

**Joy Vetter and Peer H. Moore-Jansen, *Sacra Among the Footprint Site***

The Foot Print site is located in the Sanford Dam area in Hutchinson County, Texas. When first excavated in 1964, several human remains were recovered, including a large number of fragmentary elements lacking credible provenience. Despite the convoluted nature and origin of these remains, it has been estimated that there are twenty-one individuals, eleven adults, six juveniles, and four infants. The estimated sex of these individuals and unassociated elements are yet to be established, but it is suggested that a detailed analysis of the sacral elements can provide further insight to their identification. A study of sacral morphology, both quantitative and qualitative is carried out on five of forty-five otherwise highly fragmentary elements. The five sacra were chosen on the basis of their completeness and skeletal maturity, allowing for at least several quantitative and qualitative observations. Twenty measurements, including both standard and non-standard measurements, were recorded, using coordinate and sliding calipers. These measurements were using Plochocki and Moore-Jansen (1997) study of sacral morphology. Standard qualitative observations of the sacra and sometimes matching os coxae by Phenice (1969) and Acsadi and Nemeskeriu (1970) were also used for estimating sex. A comparison of the observed morphometric variation among the Foot Print site sacra with those of the Terry and Todd collection (Plochocki and Moore-Jansen 1997 and Plochocki 1999) is used to assess the potential for estimating the sex of the undocumented sacral fragments from the Foot Print archaeological assemblage. The completion of this analysis will help further the identification and restore the integrity of the Foot Print site remains.

**Kristina Wyatt, *A Closer Look at Gout***

This study addresses the manifestations of the disease gout in the human body; specifically bone tissue. Gout is caused by an accumulation of unmetabolized uric acid in the body's bloodstream. Urate crystals are usually deposited around the areas of articular cartilage and other tissues such as tendons. This crystal accretion causes a painful inflammatory reaction in the joints. Not only will archaeological and historical evidence of this disease be discussed in this presentation, but also information about a contemporary specimen afflicted with gout that's housed in the Wichita State University Biological Anthropology Lab (WSU-BAL). The WSU-BAL B110 specimen is that of the right and left of each: distal femora, patellae, tibiae, fibulae, and complete sets of feet bones. The radiographs of the specimen will be examined to locate the accumulation of the crystals, while visual inspection of the bones will then be completed in order to see if those crystals have caused damage to the bone tissue.

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