

**ABSTRACTS of the 2nd Annual Meeting of the
Midwest Bioarcheology & Forensic Anthropology Association
Northern Illinois University, Dekalb, Illinois
September 30, 1995**

Abstracts are given in alphabetical order by senior author; all papers are podium presentations unless noted otherwise.

(1) ADE, Kori. "Hard Tissue Manifestations of AIDS."

The purpose of this paper is to explain ways in which AIDS leaves its mark on the skeletal system. The potential to use this information in forensic cases is also explored. It is concluded that a greater understanding of the hard tissue manifestations of AIDS may assist in the development of theories concerning the evolutionary path that AIDS has taken as well as its hopeful decline in the future. This project was completed under the supervision of Dr. Anne Grauer and was supported by her NSF Grant No. SBR-9350256.

(2) ALCALA, Stace. "Non-Human Skeletal Preparation and Rearticulation."

Impressive Skeletal displays as well as invaluable teaching aids and props are easily attainable for any instructional institution. An abundance of roadside specimens, large farm animals, and those happened upon during a leisurely nature hike can make exciting osteology projects, challenging comparative anatomy studies, and magnificent museum-quality displays. This discussion involves a thorough step-by-step processes concerning the rearticulation of an adult male ostrich, a fully articulated elephant, and the cleaning and preparation of a miniature horse.

(3) ATWELL, Karen "An Example of Violent Death in Prehistory from a Weaver/Whitehall Site Near Macomb, Illinois."

The Friendly Neighbor site is a small Weaver/Whitehall village site on a ridge overlooking Camp Creek in McDonough County. In what may be one of the last events occurring at the site three individuals were buried in two locations; a limestone capped pit and an oval limestone structure. These burials all contained multiple projectile points within the chest and pelvic area. Within a skeleton these points did not align with each other, but rather appear to have come from different trajectories. One of the skeletons was interred without skull, arms, or legs, in addition, a projectile point was lodged between two of the cervical vertebrae touching the bone but not embedded. Skeletal preservation was variable so that intact bone/point contact is inconclusive, but the presence of multiple projectile points of the same type in three different skeletons, as well as the dismemberment of one of the skeletons suggests that these individuals were the victims of hostilities between Weaver/Whitehall groups in the Macomb area.

(4) BAKER, G., & Robert MENSFORTH. "Evidence of Violent Injury, Dismemberment, and Trophy-Taking Behaviors Among Inhabitants of the Late Archaic Ward Site (McL-11) from Kentucky."

The Late Archaic Ward Site (McL-11) is one of two Cypress Creek village sites excavated by William S. Webb and WPA workers in 1938. This bluff top site yielded skeletal remains of 452 individuals. The findings reported here focus upon osteological evidence of violent injury, dismemberment, and trophy-taking behaviors that characterized the Ward Site Late Archaic people. This includes quantitative and qualitative data for violent trauma cranial depression injuries, projectile point injuries, stab wounds, parry fractures, and cut marks indicative of scalping, decapitation, and limb dismemberment. Examples of these injuries will be on display for conference participants to inspect.

(5) DEVOLIN, Karen. "Bear Paws and Human Hand and Feet Comparison." (poster presentation)

Bear paws and human hands and feet are examined to investigate the similarities and differences that exist between them. The size and general appearance of bear paws and human hands and feet are examined to substantiate why the two are often confused with their human counterparts.

(6) GRIFFIN, Mark. "Artificial Cranial Deformation and Nonmetric Cranial Variation Revisited: Evidence from a Southeastern U.S. Coastal Population Sample."

Nonmetric cranial traits have been suggested as a viable alternative to craniometry for estimating population distances for groups where widespread artificial cranial deformation occurs. Ossenberg (1970), however, provides evidence that nonmetric cranial variants exhibit a plastic response to artificial cranial deformation. Twenty-four nonmetric cranial traits were examined in bifronto-occipitally deformed and undeformed crania of a sample of 71 from a coastal Florida Spanish mission cemetery. No significant correlation could be made between presence of artificial cranial deformation and change in frequency of non metric cranial traits. Furthermore, not significant correlation could be found between the frequency of trait side asymmetry and change in frequency of nonmetric cranial traits. Trait side asymmetry has been demonstrated to be an accurate indicator of nonspecific biological stress. One would therefore expect to see a concomitant increase in the frequency of side asymmetry with artificial cranial deformation. The results of this study show no significant correlation in this population sample between the occurrence of artificial cranial deformation and a change in frequency of nonmetric cranial traits. These results suggest that either (1) nonmetric cranial traits do not reflect levels of biological stress as Ossenberg has shown, or (2) all members of the population sample used in this study were experiencing uniform levels of stress.

(7) GRIFFIN, Mark, & Anne NELSON. "Estimation of Population Affinity of Four Southeast U.S. Skeletal Populations Using Deciduous Dental Morphology."

This study was conducted in order to estimate population distances between a group of Native American skeletal samples from the southeastern United States using dental morphological traits of the deciduous dentition. Distances between these samples have been previously estimated using adult dental and cranial morphological traits (Griffin 1993). The population distance are estimated here in order to assess how the distances derived from the deciduous dental traits compare with those derived from similar adult dental traits. This study is important because (1) few studies have been conducted

using the deciduous dentition to assess population affinity and (2) comparison of distances derived from the deciduous dentition with those derived from other traits can provide an added dimension to the overall analysis of population distance. Deciduous dental trait frequencies from four samples were analyzed using two significance tests (Chi square and Tau-b) and three taxonomic statistics (cluster analysis, mean measures of divergence, and multidimensional scaling). The results were then compared with those obtained using adult dental morphological traits. All the analyses using the deciduous dentition indicated somewhat different relationships between the population samples than those obtained from analysis of adult dental morphological traits. The differences may be attributed to several factors including (1) the use of somewhat different deciduous and adult dental traits which might be expected to yield differing results, (2) adult and juvenile subsamples from the same population sample likely will have different gene frequencies due to various reproductive dynamics, and (3) independent development of the deciduous and permanent dentitions.

(8) HARN, Dawn. "Violent Trauma and Postmortem Processing at the Zimmerman Site (11-Lc-13), LaSalle County, Illinois."

Illinois State Museum archaeologists excavated the skeletal remains of six individuals exposed by wave action along the Illinois River at the Zimmerman site (11-Lc-39), or the Grand Village of the Illinois, in LaSalle County, Illinois. Evidence of violent trauma and postmortem processing were found on two individuals. Grave fill included blue glass seed beads which have often been found on sites dated to the late 17th and early 18th century.

(9) HUTCHINS, Laura, Gretchen NELSON, & Norman SULLIVAN. "Methods of Determining and Assessing Infant Bone Growth Standards from Skeletal Populations."

Standards of growth have been determined for long bones and cranial bones from infants interred in a late nineteenth and early twentieth century almshouse cemetery. Use of a new method for the determination of age from the temporal bone is demonstrated. The problems of establishing mortality profiles, using bone growth data, are illustrated with a technique of the temporal bone aging method. The critique is based on unexplained variance in growth patterns and likelihood ratio analysis.

(10) JOLLY, Theresa. "Dental Health of an Oneota Population."

This paper serves as a preliminary examination of dental health among an Oneota population from LaCrosse County, WI. The presence of caries and enamel hypoplasias are used as measures of dental health. According to Cohen and Armelagos (1984) caries can be used as indicators of diet when other archaeological evidence is lacking. Enamel hypoplasias, caused by various metabolic stressors or hereditary anomalies, serve as permanent records of the presence of non-specific stress (Buikstra, 1994:56). The skeletal population from Tremaine consisted of 86 individuals (Grauer, in press). These individuals were members of a 13th-century Oneota population from the Tremaine Site of Wisconsin (O'Gorman, in press). In many instances, both the skeletal and dental material recovered were in poor condition. Dentition was recovered for 63 individuals. Of these 63 individuals, 47.6% exhibited carious lesions; 92.9% of the caries appeared on the molars. Because of this overwhelming percentage, the presence of carious lesions on the molars became the focus of this paper. Of the total number of molars recovered from Tremaine, 19% were carious.

The demographic pattern of the presence of caries yielded notable patterns. Individuals between the ages of 20 - 35 displayed more caries than any other age group. The percentage of individuals with

caries out of the total number of individuals in an age group, however, shows a different pattern: 9.1% of the individuals with molars between 10 - 14.9 years of age exhibited caries; 100% of the individuals between 15 - 19.9 exhibited caries; 57.1% of the individuals between 20 - 34.9 exhibited caries; 46.2% of the individuals between 35 - 49.9 displayed caries; and neither any adult over the age of 50 nor any adult of undetermined age displayed caries. Thus, as age increases, the percentage of caries within the age group decreases. While this pattern might be an artifact of the increasing amount of antemortem molar loss in older individuals, it might also suggest that older individuals with surviving molars were less susceptible to caries. Of the individuals exhibiting carious molars, 41.4% were female; 24.1% were male; and 34.5% were of undetermined sex. Explanations for the high proportion of females with carious lesions include the possibility that women had a different diet than men or the possibility that women were dying at an earlier age and with more teeth than men.

The presence of enamel hypoplasias served as a second means of assessing health in the Tremaine population. Evidence of enamel hypoplasias was recovered for 26 (41.1%) of the 63 individuals found with dentition at Tremaine; 23 of these individuals displayed enamel hypoplasias on the "Best Teeth" (the permanent upper and lower canines and incisors) as described by Goodman (1993). The demographic patterns for the occurrence of enamel hypoplasias on the "Best Teeth" revealed that most of the individuals with enamel hypoplasias died between the ages of 20 - 35 years old. However, just as with caries, the highest percentage of enamel hypoplasias occurs in the 15 - 20 year old age group. The results indicate that enamel hypoplasias occurred in 44.4% of the individuals between the ages of 10 - 14.9 years old; 66.7% of the individuals between 15 - 19.9 years of age; 64.0% of the individuals between 20 - 34.9 years old; 18.2% of the individuals between 35 - 49.9 years of age. No adult over the age of 50 displayed enamel hypoplasias, and no adults of undetermined sex died displaying hypoplastic lesions. Of the 23 individuals exhibiting hypoplastic defects on the permanent upper and lower canines and incisors, 26.1% were female, 17.4% were male, and 56.5% were of undetermined sex. An explanation for these percentages includes the possibility that females are being subjected to more childhood stressors and surviving, only to die as a result of complications due to childbirth. The results, however, could also be reflective of a small sample.

In conclusion, the data collected indicates that antemortem tooth loss may account for the high incidence of caries among young adults in comparison to older individuals. The diet among the Oneota of Tremaine may have consisted of foods that promoted extensive tooth decay. Childhood incidents of stress also appear to have been common. This project was completed under the supervision of Dr. Anne Grauer and supported by her NSF Grant No. SBR-9350256. Our appreciation is extended to the Museum Archaeology Programs of the State Historical Society of Wisconsin for access to the skeletal material.

(11) KONDRAT, James. "An Analysis of the Discriminatory Value to Traditional Craniometrics and Frontal Sinus Morphology: A Potential New Tool for Bioarchaeologists."

The analysis of biologic affinity has traditionally relied on metric and discrete analysis of cranial traits. While these variables are often able to resolve questions of biological affinity, many times the results are inconclusive and vague. Nasal form has been demonstrated to correlate well with temperature and humidity. Similarly, though not as clearly established, the frontal sinus has been suggested to follow the same type of pattern. Two samples from the Field Museum of Natural History were compared as part of a larger project. The first is composed of modern Iraqis from the city of Baghdad. The second comes from an archaeological sample from the City-state of Kish (2800 - 539 B.C.) in roughly the same region. Utilizing both traditional craniometric and sinus data, several

statistical tests were performed. T-tests performed utilizing only craniometrics failed to reject the null hypothesis that both groups were from the same populations at the $\alpha = 0.05$ level. Tests involving both nasal shape and smaller frontal sinus size suggest either population movement/gene flow and/or climatic shifts within the region.

(12) KONIGSBERG, Lyle, & Susan FRANKENBERG. "Should We Care How Tall They Were?"

Long bone lengths are often used to estimate stature for both forensic cases and archaeological samples. We show that in the latter setting such an application is rarely necessary, and is almost always inappropriate. We describe three general ways in which the mean and standard error of the mean stature could be estimated. The first and most traditional method is to regress stature (x) from a reference sample on long bone length (y), and then use this equation to estimate stature from archaeological long bones. We refer to this as an inverse calibration problem, because x is regressed on y (even though our usage of x and y differs from how one usually talks about stature estimation, it is in agreement with allometry studies, where organ size is the y variable and body size is the x variable). The second method is to regress long bone length (ϕ) on stature (x) in the reference sample, solve the equation for stature (x), and then use this equation to predict statures from long bone length in an archeological sample. We refer to this as a classical calibration problem. The third method is to explicitly model the distribution of stature in an archaeological sample by writing the likelihood as a function of a bivariate density (stature and long bone length within the reference sample) and a univariate density (stature within the archaeological sample).

When we compare the three methods of stature estimation (inverse calibration, classical calibration, and maximum likelihood estimation) we find that in most settings inverse calibration will give a biased estimate of the mean stature. Classical calibration gives an unbiased estimate, but at the expense of reduced efficiency of the estimates (i.e., the standard error of stature is overestimated). Maximum likelihood gives unbiased estimates and does not adversely affect efficiency. On the other hand, the method of maximum likelihood is not easy to implement, and it can still give biased estimates if the allometry of the archaeological sample differs from that of the reference sample. When applied to two or more samples, both inverse calibration and classical calibration will lead to reduced power of tests for differences of means. This is because inverse calibration biases archaeological sample means towards the reference sample mean (i.e., "regression to the mean" occurs) so that differences between means are reduced, while classical calibration overestimates the standard error of the difference of means. Again, maximum likelihood does not suffer from these deficits.

Faced with a choice between the three methods when applied to archaeological material, we argue that it is better not to estimate stature for this context. There is rarely any inherent reason to want to estimate the average stature of a past population, unless these estimates are to be compared to historical data. A much more direct procedure is to compare the long bone lengths themselves between various archaeological samples. In order to make maximal use of the data, one can construct multivariate tests using measurements on a number of long bones. Missing data can be handled appropriately by an iterative technique that replaces missing data by regression on observed data (see Chapter 8 in RJA Little & DB Rubin's book, "Statistical Analysis with Missing Data," John Wiley & Sons, 1987). We demonstrate this technique by comparing long bone lengths from Middle Woodland Gibson Site males from "high status" and "low status" contexts. A likelihood ratio test shows that there is a highly significant difference in long bone lengths between these groups, with the "high status" group having significantly longer bones.

We can offer the following advice regarding stature estimation. For individual forensic cases, if there is an appropriate reference sample available, inverse calibration will provide minimum variance unbiased estimates. It would therefore be the method of choice. If an appropriate reference sample is not available, or it is unclear whether the case belongs to the sample population that generated the reference sample, then classical calibration should be used. This method will give broader confidence intervals for estimated stature, but will not suffer the bias that might be incurred using inverse calibration. The method of maximum likelihood cannot be used for individual cases, so it is not generally applicable in forensics. In the archaeological setting, if there is some over-riding reason to estimate stature, then either calibration method can be used. Both methods will lead to reduced power in tests of differences of means. Maximum likelihood circumvents this loss of power, though it still succumbs to the problem of assuming that the reference and archeological samples have the same allometry. The more direct method of comparing actual long bone lengths between archaeological samples removes this problem.

(13) LARKIN, Emily. "Prehistoric Human Remains in Johnson County, Missouri." (poster presentation)

An archaeological site located in the SW 1/4 of Section seven of Township 46 in Johnson County, Missouri, was excavated by the Archaeology Club of Central Missouri State College in the 1960's. The site is located south of the old Blackwater River Channel on limestone and shale beds deposited during the Pennsylvanian Period. The dig was directed by Peter Nichols, Ph.D. and Conan Castle. By examination of lithic and ceramic artifacts, the site is the furthest southern example of the Kansas City Phase of the Hopewell tradition in Missouri. A pathology of the teeth indicated a lack of maize (corn) agriculture for this prehistoric sedentary population. The site requires survey, sampling, and excavation.

(14) LESLEY, Brian. "Scalping and Trauma at Schroeder Mounds."

The crania of five individuals from the site of Schroeder Mounds (11-He-177) in Western Illinois, a Late Woodland mound group (800 - 1,100 A.D.), exhibit cut marks which indicate the presence or scalping and decapitation. Violent death is indicated for at least one of the individuals which retains a stone projectile point embedded in the left eye orbit. Several other individuals from the site possess evidence of violent trauma. These individual provide further insight into the antiquity of prehistoric warfare, scalping, and possible trophy taking in the Late Woodland period, in Illinois and the Midwest.

(15) LINN, Dolores. "Experimental Techniques in Casting Pathological Indicators on Skeletal Remains."

The need for reburial of Native American osteological remains requires a usable technique for recording examples of pathological conditions. These conditions can be easily preserved through casting. My project was to experimentally determine the most efficient ways of casting these conditions in minimally equipped lab conditions. The problems that I encountered and the resulting solutions of these problems are readily usable in field conditions as well as minimal labs.

(16) MATHER SAUL, Julie, & Frank SAUL. "'Biker's' Bones: An Avocational Syndrome?" (poster presentation; for this abstract, see the Program for the 43rd meeting of the American Academy of Forensic Sciences, Anaheim CA, 1991, Abstract # H2)

(17) MCNAMARA, Elizabeth. "Evidence of Inter-Personal Conflict in an Oneota Population."

In recent years discussion concerning the extent of inter-personal conflict among prehistoric and protohistoric midwestern Oneota groups has grown. This paper examines whether inter-personal violence was a feature in the lives of a protohistoric Oneota population from LaCrosse County, Wisconsin. This analysis uses macroscopic and radiographic techniques to determine the presence of trauma. A demographic profile of the skeletal population (n = 86) is constructed to determine a pattern of those affected. The results indicate that six individuals display cut marks on the crania, suggesting possible scalping. One individual exhibits an embedded projectile point providing definitive skeletal evidence of interpersonal conflict. These results are compared to other Oneota populations from the same time period and region. This project was completed under the supervision of Dr. Anne Grauer and supported by her NSF Grant No. SBR-9350256. Our appreciation is extended to the Museum Archaeology Programs of the State Historical Society of Wisconsin for access to the skeletal material.

(18) MENSFORTH, Robert. "Observations on the Antiquity, Geographic Distribution, and Theoretical Significance of Scalping and other Trophy-Taking Behaviors Among Archaic Hunter-Gatherers of the Northeastern United States."

This study first presents an overview of violent injuries and trophy-taking behaviors that characterize Late Archaic skeletal groups from Kentucky, Ohio, and Tennessee (i.e., data reported by Maria Smith for the Kentucky Lake Reservoir sites). The second part of this paper evaluates these data with respect to the theoretical paradigm proposed by Charles and Buikstra (1983). Their model relates shifts in resource location and utilization among certain foragers to a set of behavioral changes. The latter essentially reflect the emergence of incipient or proto-tribal level societies (i.e., changes in mortuary practices, sedentism, territoriality, inter-group aggression, etc.).

(19) MOORE-JANSEN, Peer, & Daniel WESCOTT. "Standard Procedures in Skeletal Biology Revisited."

The 1994 standard osteological data procedures (SOD), containing a variety of metric and nonmetric techniques for the investigation of bioarchaeological skeletal material, were applied to three recent investigations of bioarchaeological skeletal materials as part of the Federal compliance procedures with the Native American Graves Protection and Repatriation Act. During our investigations, a number of practical and theoretical questions arose as we attempted to institute the procedures prescribed in SOD. The "Standards" procedures and the associated software program is reviewed, especially in terms of their applicability to skeletal investigation such as those undertaken here. The question of standardization and minimal recording standards is discussed and the question of how professionals can or should engage more actively in the pursuit of standardization, if at all, is addressed. Reference is made to specific recording formats and recording materials, and to the broader concept of content.

(20) NAWROCKI, Stephen, James JONES, & James LESLIE. "Anatomical Specimens from Central State Hospital, Indianapolis."

In March of 1995, a backhoe operator fixing a water pipe encountered human remains immediately behind the 19th century Pathology Building on the grounds of the now-closed state psychiatric hospital in Indianapolis. Numerous bones, some with soft tissue still attached and smelling of formalin, had tumbled from a buried plastic bag. State and local police and the Marion County Coroner's Office

became involved on the possibility that the remains were a modern forensic case. In addition, the State Archaeologist was called in because the bones were recovered on state property. Eventually it became evident that someone had recently buried -- probably illegally -- old autopsy material from the building's extensive collections. It took 24 hours to straighten out the appropriate chain of custody and to assign responsibility for the remains to the State Archaeologist. Analysis at the University of Indianapolis indicates the presence of at least two individuals, represented primarily by vertebral and rib fragments. One specimen includes all elements from the occiput down to the sacrum and attached ilia. The sacrum and lower vertebrae are sagittally sectioned. The other specimen displays a standard spinal laminectomy and extensive deformative scoliosis with resulting pseudoarthroses between adjacent rib shafts. It may have been curated because of its pathology.

(21) PHILLIPS, Shawn. "From the Lab to the Archives: Merging Skeletal and Historical Research."

The Oneida County Almshouse and Asylum cemetery site (DOCS Oneida) is located in Rome, New York. A recent analysis of the skeletal sample (n= 81, circa 1880 to 1894) recovered during salvage excavations in 1988 suggests that the individuals were inmates from the insane portion of the Asylum. Hyperostosis frontalis interna (HFI) was found to be prevalent in both sexes (> 35%). Although it is not uncommon in postmenopausal women, HFI does not occur in most samples of men. The only group in which males have been reported with HFI are the insane. Historic documents indicate that the Oneida County Almshouse and Asylum was largely composed of insane paupers. Identifying males with HFI created an interpretive dilemma which could not have been clarified without consulting the historical record. I argue that late 19th century America was too stratified a society for a researcher to adequately interpret skeletal remains without the benefit of historical documents.

(22) SAUL, Frank, & Julie MATHER SAUL. "As Though it Were a Crime: 'Clues' From a Dissecting 'Room' Refuse Pit." (poster presentation; for this abstract, see the Program for the 38th meeting of the American Academy of Forensic Sciences, New Orleans LA, 1986, Abstract # H25)

(23) SCHMIDT, Christopher, Stephen NAWROCKI, Matthew WILLIAMSON, & William MANGOLD. "Excavation of Three Historic Family Cemeteries in Southwestern Indiana."

Coal mining companies in Indiana sometimes encounter cemeteries that lie in the path of their operations. Disinterment and reinterment must be performed by a licensed funeral home operation under a permit from the State Board of Health. During the past three years, the University of Indianapolis has assisted funeral homes in the disinterment of three 19th century family plots, involving a total of 10 graves. Our role has been primarily advisory and limited in scope, although on each occasion we have had the good fortune to salvage considerable archeological and osteological data that otherwise would have been lost. In this presentation we underscore the potential research value of these frequently neglected resources, which allow us to test specific hypotheses concerning taphonomic processes and mortuary activities. In addition, they require a unique extension of forensic anthropology into the past, where positive identification must be established on cases significantly older than are usually encountered in modern medicolegal contexts.

(24) SCHWEIKART, John. "Forensic Archaeology: Its Role in the Development of Forensic Anthropology and Its Potential Future in the Forensic Sciences."

Historically the focus of "forensic archaeology" has been upon the proper recovery and interpretation of unidentified human remains. Recent applications, however demonstrate the growing potential of Forensic archaeology in crime scene and international human rights investigations that goes beyond the proper recovery and subsequent identification of human remains. Novel applications of flotation, techniques, radiocarbon dating, and the recovery of human hair, promise to increase the contribution of forensic archaeology to forensic investigations, as well as further the objective of archaeology in its long-term goal of becoming a bona fide scientific discipline.

(25) SUNDICK, Robert. "American Eagle Flight 4184: Forensic Analysis."

On October 31, 1994 American Eagle Flight 4184 crashed in Roselawn, Indiana, while attempting to land in Chicago. There were 68 people aboard the ATR-72 commuter plane and everyone perished when it plunged 8,000 feet in 36 seconds into a farmers field. The very fragmentary remains were removed to a temporary morgue to be examined by dentists, anthropologists, pathologists, and finger print experts for identification purposes. In this presentation I will describe the role of the forensic anthropologists and the other specialists in the analysis of the remains. When the work was completed the coroner reported that everyone had been identified in one way or another.

(26) SWENSON, Diane. "Spinal Trauma and the Effects of Paralysis: A Case Study."

In 1986 a 20 year old white male was involved in a multi-vehicular accident. His injuries effected the spinal cord at thoracic vertebrae 9 and 12. The spinal trauma he received as well as the effects of paralysis will be discussed. Effects of paralysis (both direct and indirect) include: circulation problems, bladder diverticula, *Staphylococcus aureus* infections and bone and skin grafts. Fractures of the spinal cord will also be discussed in relation to this case.

(27) WALDRON, Patrick. "Pseudopathologies: Observations of Taphonomic processes in the Oneota."

This study compares the relation between pathological and taphonomic processes in human skeletal material. Material from the Tremaine site, an Oneota population dated 1200 - 1500 A.D. is examined. The presence of pseudopathologies mimicking periosteal remodeling, fracture healing, skull deformation, and lytic lesions are focused on. The goal of this paper is to formulate a protocol by which pathologies and pseudopathologies may be distinguished. This project was completed under the supervision of Dr. Anne Grauer and supported by her NSF Grant No. SBR-9350256.

(28) WILLIAMS, John. "A Cemetery and a Missing Person."

Two forensic cases illustrate the diversity of experience encountered in North Dakota. The Dumoulin Church (32PB100) is the oldest church in the Dakota Territory. The site is located in a cultivated field. In early June 1995 a survey identified human bone and historic artifacts substantiating the hypothesis that the cemetery contents are still in-situ. In late June 1993 an adolescent girl was reported missing from the city of Fargo, North Dakota. Two years later a suspect confessed of disposing her body in the Sheyenne River. On two occasions the area was searched for evidence of the missing girl's remains. Environmental conditions hampered discovery.

(29) WILLIAMSON, Matthew, Christopher SCHMIDT, Della COOK, Stephen NAWROCKI, & Ethan BRAUNSTEIN. "Preliminary Analysis of Skeletal Pathologies Exhibited by the Inhabitants of the Late Woodland Period Commissary Site (12-Hn-2) from East-Central Indiana."

Excavation of the Commissary Site (12-Hn-2) during the latter half of the 1960's resulted in the recovery of 104 individuals. In her study Glenn (1982) focused on the demographic profile, stature, and craniometric variation of the population. In the same report, only a brief description of isolated pathological specimens is presented by Metz. However, in order to better understand the significance of these condition, it is necessary to reexamine and evaluate them in terms of their populational distribution. While the analysis is currently in progress, there are adequate data regarding cribra orbitalia, porotic hyperostosis, and periostitis to facilitate a discussion of possible (probable?) trends. Also, a reconsideration of the presence of treponematosiis will be offered.

(30) YOST, Jennifer. "Skeletal Remains as an Artifact Class in the Study of Craft Specialization."

The typical focus of archaeologists studying craft specialization in prehistory is on the objects of material culture themselves, rather than on the human activities that produced them. This paper shifts that focus to those selected segments of past populations engaged in production activities that are more likely than others in the population to exhibit evidence for repetitive or habitual occupational (biomechanical) stresses and strains to their skeletons. That information, coupled with the artifactual data, holds an interpretive potential far richer than the study of the material culture alone and can be applied across cultures and through time.

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