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Keywords

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Unearthing the Moche: The Bioarchaeology of San Jose de Moro, Peru, Summer 1995

James Huffman

ABSTRACT

During the summer of 1995, San José de Moro, located approximately 200 kilometres north of the coastal town of Trujillo, northern Peru, was the site of an archaeological project known as the Proyecto Arqueológico Complejo de Moro. The project involved the University of Western Ontario, California State University, Northridge and the Pontificia Universidad Católica del Perú. From mid-June until mid-August, under the direction of Luis-Jaime Castillo Butters (PUCP), Dr. Carol Mackey (CSUN) and Dr. Andrew Nelson (UWO), some 11 tombs were excavated yielding 15 bodies, all of which date to more than a thousand years ago. This report summarizes their findings.

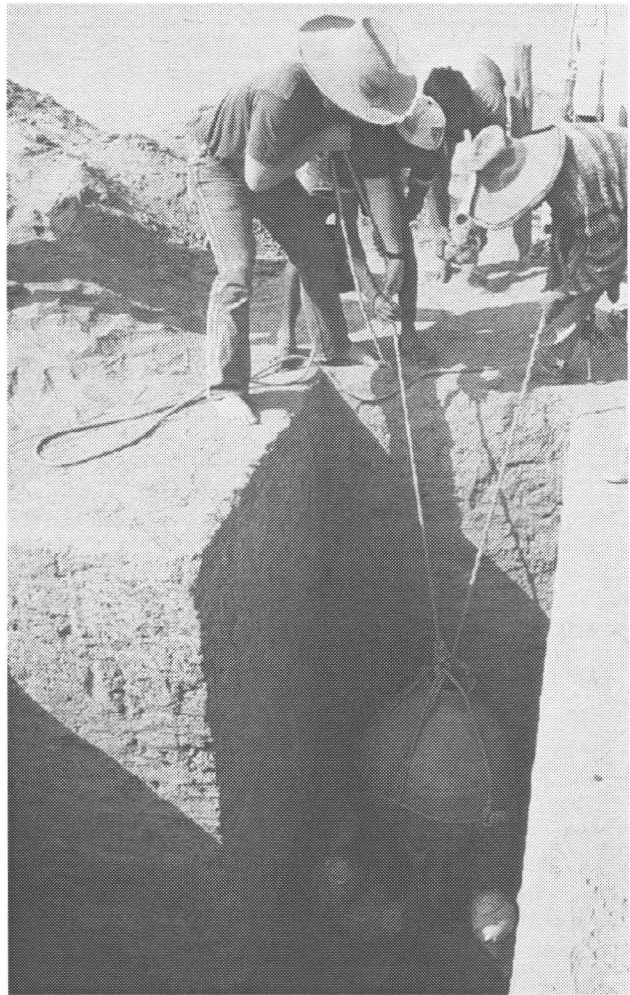
The modern village of San José de Moro sits atop a settlement and burial site used by several pre-Incaic cultures, the most prominent of which is the Moche. From just after the time of Christ until about AD 750, the Moche controlled a great deal of the North Coast. Those who lived in the lower part of the Jequetepeque Valley surrounding San José de Moro interred their dead at this site.



The excavation known as 'El Intersección' where the majority of tombs last were found. In the background is the modern village of San José de Moro and a truck travelling south on the Pan American Highway (towards the town of Chepen). (Courtesy J. Huffman).

THE PHYSICAL ENVIRONMENT

Most people associate Peru with the Amazon River Basin. Although a great deal of Peru is covered by tropical Amazonian rainforest, the balance consists of the Andean Cordillera with its vast stretches of Altiplano, and the coastal desert. Although quite narrow from east to west, desert runs the entire north-south length of the country, and beyond.



Dr. Andrew Nelson (at left) and workmen lifting a large (and heavy) Moche vessel from an excavation cut. (Courtesy J. Huffman).

This narrowness of the coastal desert places it in a different league than the great deserts of the world such as the Kalahari or the Gobi. It is, however, the driest desert on earth and brutally hot during the summer months (October to March). The only flowing fresh water to be found comes down from the Andes through a series of river valleys which punctuate the desert landscape at a half dozen points along the North Coast. It was in these valleys that the Moche, their predecessors, and their successors, founded their great cultures and erected their monumental architecture. One of these river valleys, the Jequetepeque, was the site of the excavations at San José de Moro (see Figure 1).

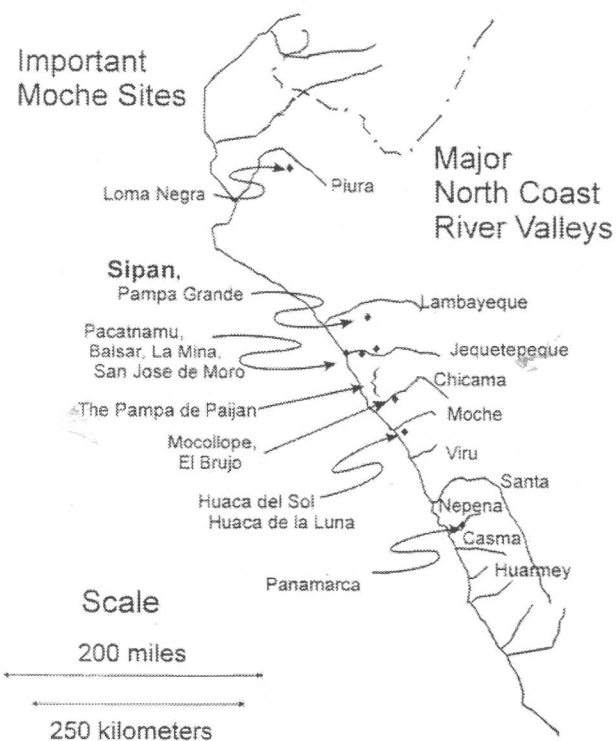


Figure 1: The North Coast of the Moche, Nelson 1995

The soil of the desert, although extremely dry for more than 4 metres below the surface, is quite rich. As a result, through a vast network of irrigation canals, the longest of which ran some 60 kilometres (Nelson 1995), the cultures of the North Coast were able to bring water to the desert and cultivate it. In this way, they spread out into the desert to exploit its rich resources. Over time, however, tectonic upheaval resulting from the ongoing subduction of the Nazca Oceanic Plate under the South American Continental Plate (Montgomery & Dathe 1991), tilted the entire region just enough so that the delicately engineered canal system broke down beyond repair. Water no longer flowed properly, the fields dried up and the Moche culture began to decline.

Added to this challenging set of environmental factors are the rare but devastating El Niño events. The El Niños are torrential storms caused by the interaction of the cold north-flowing Humboldt current and the warm tropical currents of the mid-Pacific. Every so often the conditions become such that this parched desert is hit with torrential rains which cut channels into the desert and wash away everything in their paths. These El Niños pose a dire threat to the prehistoric and modern cultures of the North Coast in that many of their structures are made of adobe mud brick. While adobe brick is an ideal building material in an area where it never rains, it literally melts when subjected to rain.

MOCHE SITES OF THE NORTH COAST

Sites like San José de Moro have yielded significant amounts of archaeological material since the Pizarros' conquest more than 350 years ago. All of the artifacts removed from these sites up until the last fifty or so years were plundered from the tombs by 'huaqueros', or grave robbers. The huaqueros were, for the most part, poor local villagers who, driven by high demand from wealthy art and antiquity collectors sought to supplement their family income by digging and selling artifacts. Over the years the huaqueros of the North Coast have become quite expert in their profession and are very knowledgeable about the artifacts left by their ancestors. It should be noted that huaqueros continue their work even today and in doing so destroy sites that yet to be worked in a systematic manner by trained professional archaeologists. In this way, they destroy vast amounts of irreplaceable information and render the artifacts scientifically valueless, their context having been lost.



An assortment of ceramic artifacts recovered from San José de Moro. A fragmentary cooking olla (top); crisoles (right); stirrup-spout bottle (bottom). (Courtesy Chris Nelson).

In more recent years, many professional archaeologists have focused their attention on northern Peru. With the discovery and subsequent excavation of the Royal Tombs of Sipan, located to the north of San José de Moro in the Lambayeque Valley, world attention turned from the Andean mountain cities of the Incas to the treasures buried beneath the desert of the North Coast. Dr. Walter Alva from the Bruhning Museum in Lambayeque and Dr. Christopher Donnan of the Fowler Museum, University of California Los Angeles, realized soon after excavation began that these tombs were far richer than anything previously believed to exist. Moreover, they determined that the tombs belonged to individuals portrayed in Moche art (Alva & Donnan 1993). This point is highly significant in light of the fact that it had always been believed that Moche iconography depicted supernatural figures and events. By 1987, however, it became quite clear that the figures were not fictitious, but active participants in Moche ceremonial life (Nelson 1995). The two tombs belonged to two of the three figures (the Warrior Priest and the Bird Priest) portrayed in the Moche sacrifice motif, as depicted on Moche fine line ceramics (see Figure 2).

1992). The tomb was as significant a find as the tombs at Sipan referred to above. All three of these discoveries served to ground Moche iconography in reality, by providing strong evidence that the depictions in Moche art were of real people, who lived, and presumably carried out, the functions they are depicted as performing.

OBJECTIVES - CULTURE CHANGE

In the extremely dry conditions of the desert, not only is fine pottery preserved, but also unfired pottery, bone, hair and textiles. These and other materials which would perish under different physical conditions such as those we have in the Great Lakes area, where moist acidic soil prevents good preservation over time, are preserved in the archaeological record. Even examples of natural mummification of human remains have been found. The resultant diversity of potential finds requires definite project goals before any excavation be undertaken.

The Proyecto Arqueológico Complejo de Moro had, in fact, several objectives for the 1995 field season. The first, directed by Professor Castillo, involved

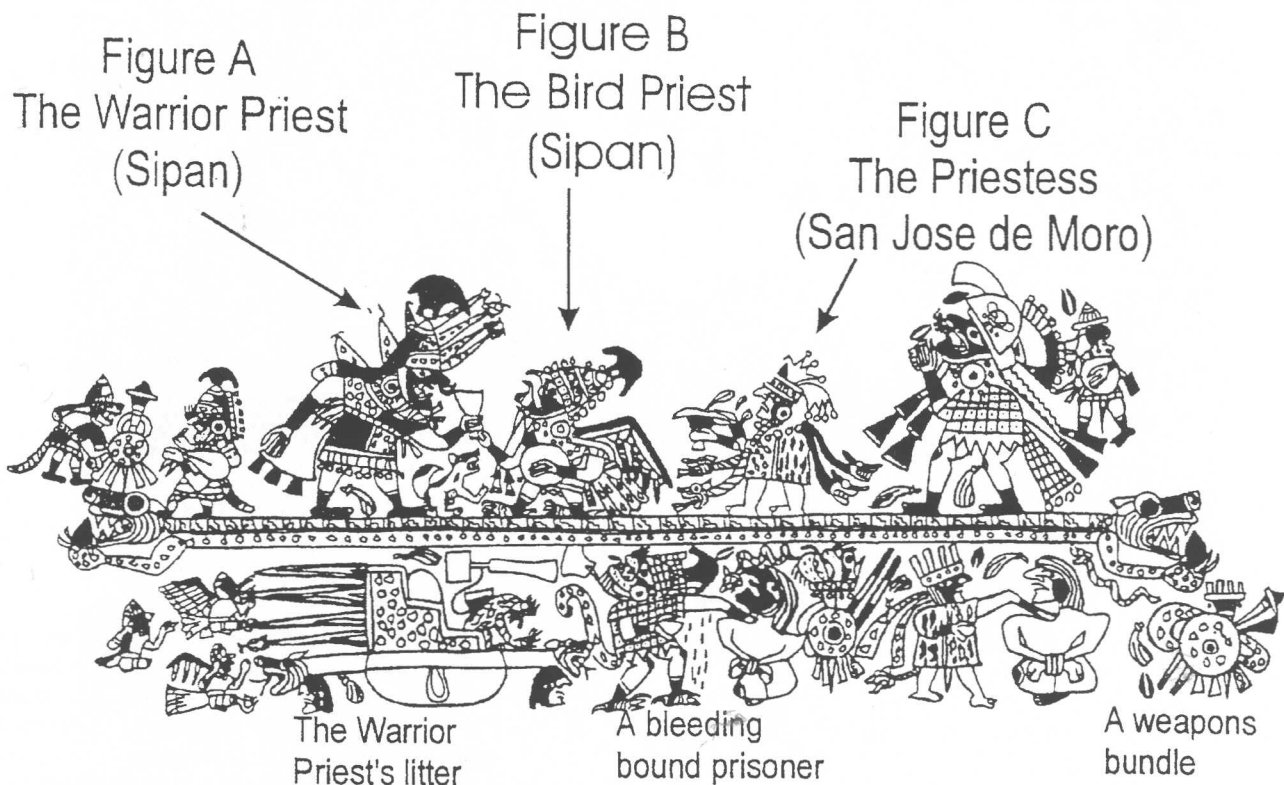


Figure 2: The Moche Presentation Theme and Sacrifice Ceremony
after Nelson 1995: Reproduction of original roll art by D. McClelland courtesy of C.B. Donnan

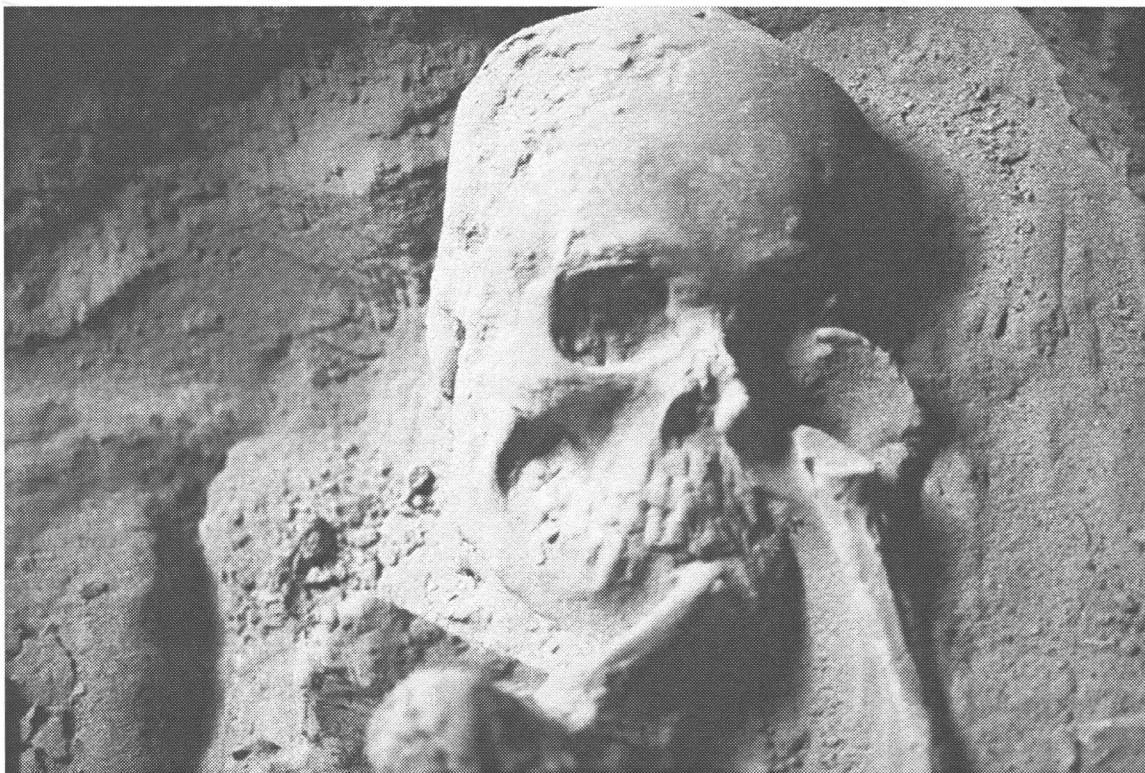
Moro itself became an important site in the region during the summer of 1991 when the project, then co-directed by Castillo and Donnan, discovered and excavated the tomb of the so-called Moche Priestess, the third figure of the sacrifice motif (Donnan & Castillo

correlation of common ceramics to fine line ceramics, especially in the Late or Transitional Period when the Moche culture was beginning to disintegrate and their successors were coming into prominence. The idea was to be able to develop a scheme whereby domestic

pottery could be dated on the basis of style. Dating fine line ceramics on the basis of style has been practiced for some years and can be done with a high degree of accuracy. The main problem involved in this is that fine line pots are relatively rare finds whereas common ceramics are found in all Moche sites. Additionally, although there is a wealth of Moche fine line ceramics in museums all over the world, they come largely from looted tombs, and thus have no context. By developing such a scheme, therefore, it would be possible to date tombs which do not belong to members of the elite ruling class, that is, those that do not contain fine line pots as well as facilitating the dating of domestic deposits of common ceramics.

years ago at San José de Moro, it was nonetheless an important discovery. In addition to the fine lines, there were over 700 small unfired dedicatory pots known as 'crisoles' in this tomb. They are believed to have been made shortly after the deaths of the individuals interred in M-U-314 (nicknamed the Crisole Tomb) as they are crude and those few that were ornamented were done so in a childlike manner.

Even more spectacular, were two small architectural models known as 'maquettas' placed on either side of the skeletal remains. They were made of unfired clay and, at the time of their manufacture, would have been painted. They depict simple Moche temples.



A close-up of the well-preserved skull of the individual interred in tomb M-U-320. (Courtesy of J. Huffman).

M-U-314: A LATE MOCHE TOMB¹

Only two of the thirteen tombs discovered date to the Late or Transitional Period. Both of these, however, contained common ceramics, and one contained some classically beautiful Moche fine lines. Of these two tombs, one was quite a spectacular find. Although of lesser status than the Priestess' tomb found several

This practice is reminiscent of the tombs of the Egyptian Pharaohs, where grave goods, such as boats, were placed in the tomb for the deceased's use in the after-life. Over the course of two weeks, Christine Nelson, of the Department of Anthropology, University of Western Ontario, excavated, conserved, removed and restored the delicate maquettas which measured only about thirty centimetres square. Maquettas are very rare among Moche tombs, and will therefore undoubtedly be the focus of future study.

The final marvel of this tomb was the skeletal material. Although badly decayed because of its location below past water tables (four and a half metres below the present day surface), three separate skeletons were identified by Dr. Andrew Nelson. After several days of

¹For record-keeping purposes all excavations were assigned a number. This tomb was designated M-U-314. 'M' stands for San Jose de Moro; 'U' stands for 'unidad' or unit; '3' indicates the third year of work at the site; '14' indicates that this is the fourteenth excavation made during the season, although it was only the fourth tomb excavated (cuts made to study the stratigraphy of the site were allotted the numbers 00-10).

excavation and analysis, it was determined that two of the skeletons were young adult females, while the third was an infant, whose sex was undeterminable. The females seem to have been placed one upon the other, with the child to one side. All three were wrapped in a single cane shroud. The wealth of material in the tomb suggests the high status of the group, but other than that, little solid information has been inferred from the tomb so far. It is possible to say, though, that contrary to common Moche practice, it is unlikely that two were sacrificed on the occasion of the third's death since they were all wrapped together in a single shroud. As no other tomb of this type has ever been found, other explanations for the presence of three bodies interred together in this manner will be an interesting problem for future analysis.

OBJECTIVES - CULTURE/BIOLOGY INTERACTION

The wealth of information derived from the skeletal material of the Crisole Tomb was a result of the second objective of the project. Dr. Andrew Nelson acted as the project osteologist and physical anthropologist, so as to examine the skeletal remains in each of the tombs to determine the pathology of each. His role included the determination of the sex of each skeleton, its age at death (by analysis of the amount of wear and tear on the bodies typical of the aging process), and to identify the presence of pathological diseases which manifest themselves on the bones. In most cases, sex and age were determined as closely as possible and a number

of pathological traits were identified, ranging from heavy wear of the articular surfaces in the spine to the presence of fractures incurred during life. In one case, a bone tumour was found in the lumbar region which had actually fused the lower back into a single mass. Samples of bone were also collected for the analysis of nutritional patterns and are presently at The University of Western Ontario awaiting isotopic analysis by Dr. Christine White of the Department of Anthropology, U.W.O. The degree of preservation ranged quite widely from tomb to tomb. The deepest ones tended to show the poorest preservation due to ground water movements in the past. Without the presence of an expert osteologist, most if not all information derived from the bones would have been lost.

With the discovery of 15 skeletons, an enormous mass of information was collected in the field. Over the 1995-1996 academic year, Dr. Nelson and others from the University of Western Ontario will set about the task of analysing all that was collected. The objective is to learn something of the population dynamics of the Moche, as well as how physical changes occurred over time. Through the study of these physical changes, it is possible to document cultural change. For example, the skeletal remains will aid in documenting the rise to affluence of the Moche elite, along with the marginalization of the lower classes.

In the same way, the general health of the population can be tracked over time, helping to document cultural succession, and allowing researchers to question whether such succession represented change in a single population or the incorporation of other



Dr. Andrew Nelson suspended over a tomb in order to photograph its contents. (Courtesy J. Huffman)



The principle mode of transportation (a moto-taxi) in the town of Chepen where the team lived for six weeks. (Courtesy Andrew Nelson)

populations (Nelson 1995b). Eventually, it is hoped that it will be possible to document the emigration and immigration of various populations, population movement which occurred as Moche culture spread across northern Peru and then disintegrated. Through exhaustive comparisons to other documented pre-Incaic populations, it may also be possible to trace some of the population history of prehistoric South America.

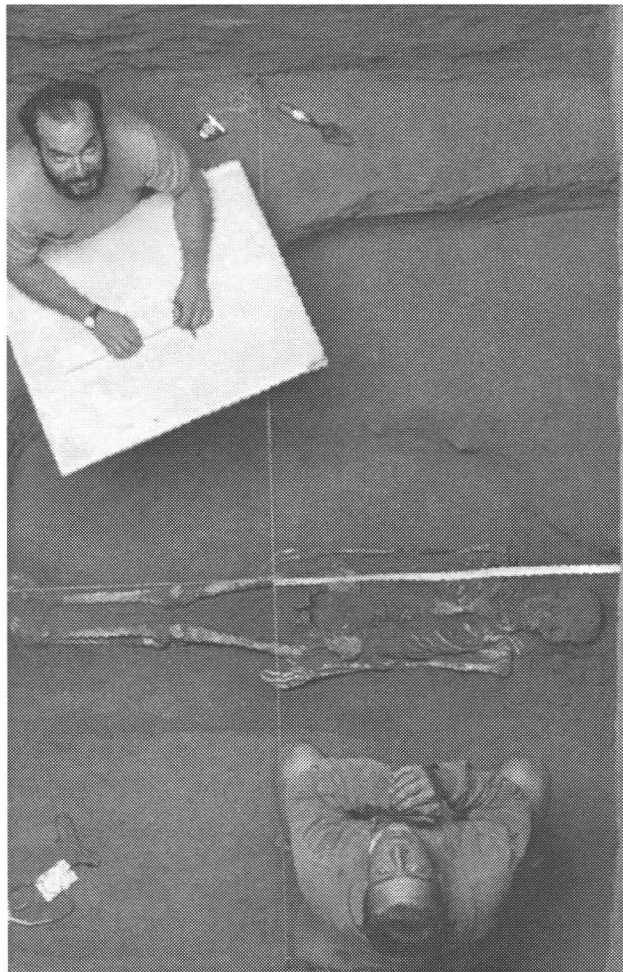
With another three years of field work planned, the University of Western Ontario's participation in the Proyecto Arqueologico Complejo de Moro should yield some invaluable data in this area. This project continues to be an important contribution to the field of Andean archaeology.

PERSONAL THOUGHTS ON THE 1995 SEASON

As a field assistant to Professor Castillo and Dr. Nelson, I can truly say that my participation in the Proyecto Arqueologico Complejo de Moro was an invaluable experience, both academically and personally. My role was quite varied from day to day. As a result, I actively participated in most facets of the excavation, cataloguing and recording process. I learned more this past season than I could have ever imagined. Having spent six weeks in the relative isolation of northern Peru, I feel that there is simply no substitute for field experience. Despite the fact that a great deal of an archaeologist's work must be done in the lab, or in front of a computer, learning the tools of archaeology in the field serves to give one a deeper understanding of the more theoretical aspects of archaeology as practiced in the university.

By the end of the six weeks, I was glad to get onto the aeroplane and leave Peru behind, but almost immediately afterward, I began looking forward to the next season. With only a few months remaining until the 1996 field season begins, preparations are already beginning, and I am anxiously anticipating returning to northern Peru and continuing the work begun last season. So profound is this sentiment, that I cannot

imagine spending my future career doing archaeology anywhere else.



Dr. Andrew Nelson (top) and James Huffman (bottom) in the process of measuring and drawing skeletal remains in tomb M-U-318. (Courtesy Chris Nelson).

REFERENCES

I would like to thank Dr. Andrew Nelson for having given me this opportunity. Most of the ambitions I am now pursuing in anthropology I owe to him. He has been a good teacher and good friend. I would also like to thank Chris Nelson, who taught me to love work in the field so much that I can't imagine not making it a continuing part of my life. Finally, I would like to thank my parents, whose financial assistance made this experience possible.

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The entire team of the Proyecto Arqueológico Complejo de Moro. Dr. Carol Mackey of CSUN (third from left, bottom); Prof. Luis-Jaime Castillo of PUCP (kneeling, far right); Dr. Andrew Nelson, Chris Nelson, and James Huffman of UWO, (on hood of truck, from right to left).