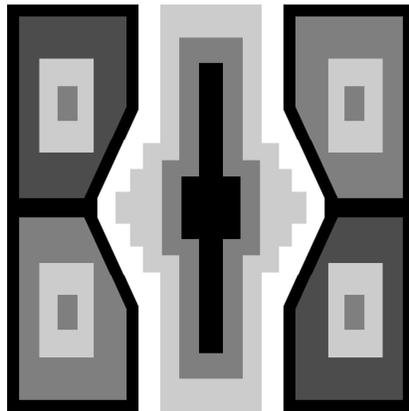


INSTITUTE
of
ANDEAN STUDIES

~ *Abstracts* ~



56th
Annual Meeting

JANUARY 8–9, 2016

BERKELEY, CALIFORNIA

Friday, January 8^b

DENNIS OGBURN, *University of North Carolina, Charlotte*

Strange brew: residue analysis of the contents of Paracas bottles

This paper presents results of analysis of residues from Paracas ceramics in the Mint Museum of Charlotte, including one spout and bridge and one necked bottle. Such vessels were central to political and religious activities, but their contents have been largely unexplored. Collected residues were analyzed using LC/MS, and results indicate that some vessels contained extracts from psychoactive plants. Analysis showed traces of alkaloids such as cocaine and possibly other hallucinogenic plants such as Angel's Trumpet. Based on morphology and ethnographic analogy, I argue that the double-spout and bridge vessels may have been used for nasal ingestion of psychoactive alkaloids.

KEVIN VAUGHN, *University of California, Los Angeles*; ALICIA GORMAN, *University of California, Santa Barbara*; M. ELIZABETH GRÁVALOS, *University of Illinois at Chicago*; MICHIEL ZEGARRA ZEGARRA, *Universidad Nacional Mayor de San Marcos*

Cerro Torolita: an Early Intermediate Period Nasca center in the Ica Valley

This paper presents results of recent fieldwork at the EIP Nasca site Cerro Tortolita, Upper Ica Valley, Peru. Excavations and analysis have recorded: (1) an extensive Nasca ceremonial sector including a U-shaped platform mound surrounding a large plaza, crafting workshops (with indirect evidence for pottery production), and elite residences; and (2) an extensive residential sector. While work continues, we hypothesize that Cerro Tortolita served as a secondary ceremonial/pilgrimage center in the Nasca region. Our work also provides some of the first data on the nature of residential and ceremonial Nasca sites in the Upper Ica Valley during this time period.

PAULINE CLAUWAERTS, *Université Libre de Bruxelles, Pontificia Universidad Católica del Perú, Peru*; LUIS JAIME CASTILLO, *Pontificia Universidad Católica del Perú, Peru*

Beyond the burial: new perspectives on San José de Moro's priestesses

San José de Moro was an important cemetery and ceremonial center located on the North coast of Peru. The site became known due to the discovery of a set of Late Moche (AD 600-850) funerary chamber tombs belonging to females identified as "Moche Priestesses". This identification was made by the correlation with very specific elements present in the ritual paraphernalia, while the rest of the objects were left out from the analysis. In this paper, we re-examine the priestesses' funerary mausoleums by considering them as real "biographical objects" in order to provide a more accurate portrait of their funerary identity.

CATHY LYNNE COSTIN, *California State University, Northridge*

Technology of, technology for: understanding technological choices and the use of ceramics as information technology on the North Coast

Although some have suggested that North Coast ceramics are characterized by a stable technological style over thousands of years, evidence indicates that several technological styles "coexisted" with one another, waxing and waning in popularity over the long duree. This paper considers how technical choices made in the production of decorated ceramics on the North Coast of Peru influenced and were influenced by the use of pottery as information technology, specifically to visually transmit narratives of identity, social group affiliation, elite legitimacy, supernatural sanctions and complex worldviews and ideologies. The analysis considers the interplay between iconography and technology and explores how different degrees of morphological complexity and different types of surface treatment and appearance attract and hold the viewers' attention, and how different modes of decoration serve to communicate different kinds of messages effectively in large or intimate settings.

GORDON AMBROSINO, *La Universidad de Los Andes, Bogotá*

Rock art, ancestors and water: the semiotic construction of landscapes in the pre-Hispanic Central Andes of Peru

Rock art is landscape art. Rather than simply representing abstract concepts or concrete beings, it is a semiotic mode and a mnemonic device, which played an active role in social emplacement. In the pre-Hispanic Andes rock art played a crucial role in the control of water in mortuary environments. This paper presents the results of a recent regional survey of an outstanding compliment of rock art at the headwaters of the Fortaleza and Santa Rivers and outlines plans for stratigraphic excavations and chronometric dating to determine exactly when and where rock art helped to achieve this objective in the region.

PATRICIA CHIRINOS, *University of California, Santa Barbara*

What were the Wari doing (or not) at Yamobamba?

When Wari reached Cajamarca during the Middle Horizon (AD 750-1000), planned centers were built, small local settlements were abandoned, and the prestigious Cajamarca pottery began to appear in Wari elite contexts. Recent research at Yamobamba, one of the Wari colonies, revealed typical Wari architecture, plus a unique point of access to the subdivided half of the enclosure. However, it would appear that while the site was built during the Middle Horizon, it was occupied only very briefly. This paper presents the results of two seasons of work at Yamobamba, and examines its place in the imperial network, considering its architecture, location, and evidence of activities (or lack thereof).

JOHN JANUSEK, ANNA GUENGERICH, *Vanderbilt University*

Demanding hosts: extended arm monoliths and Tiwanaku geopolitics

Stone monoliths were active participants in rituals that drove Tiwanaku's fame and political expansion. They embodied daunting personages that were in the business of introducing visitors, pilgrims, diplomats and others to Tiwanaku ritual and cosmology, meanwhile seeking to craft appropriate sorts of Tiwanaku subjects. Understanding the dynamic roles of Tiwanaku stone sculpture demands a more robust investigation of their total contexts than has been studied to date, including their full history, spatiality, materiality, and iconographic imagery. Published attention to Tiwanaku stone sculpture has focused on what we term Presentation Monoliths (after Bandy 2013), and specifically, to the imagery they present. Yet Tiwanaku sculpture consisted of at least two other classes of anthropomorphic sculpture, hybrid chachapuma personages and Extended Arm monoliths. We discuss Extended Arm Monoliths to investigate the extent to which sculptures were crafted and erected to construct specific relations with one another, with the monumental spaces they occupied, and with the persons who engaged them. We argue that the relationships of Extended Arm monoliths to Presentation Monoliths and chachapumas, especially as they map out spatially within Tiwanaku and between Tiwanaku and peripheral centers, indexed idealized hierarchical relations among various scales of communities.

SARA K. BECKER, *University of California, Riverside*; PAUL S. GOLDSTEIN, *University of California, San Diego*

A bioarchaeological perspective on Tiwanaku laborers from the Moquegua colony, Peru

Tiwanaku colonies in the Moquegua Valley were home to groups farming goods, such as corn and coca, and others transporting products between this region and the state's heartland. We test the idea that Omo-style (M16D, M70) burials were pastoralists, while Chen Chen-style (M1, M10, M43) burials comprised agrarian people. Our study evaluates skeletal evidence of activity (i.e. musculoskeletal stress markers, osteoarthritis) to address these labor differences, by both group comparisons and a life course approach by individual burial. We found workforce differences reflected in these labor practices by style-group, and within style-group disparities pertaining to chronological settlement of this valley.

KENT M. JOHNSON, *Arizona State University*; PAUL S. GOLDSTEIN, *University of California, San Diego*; SARAH I. BAITZEL, *University of California, San Diego*

Facial modification or habitual mask wearing? Osteological evidence from the Moquegua Valley Tiwanaku colony

"Facial deformer masks" have been recovered from archaeological contexts in the south central Andes, but evidence of mask wearing or facial-specific modification has not been documented in archaeological human skeletons. We present osteological evidence of habitual mask wearing from the multiethnic Tiwanaku colonial enclave in the Moquegua Valley of southern Peru. Notches and facets in the upper and lower orbital margins are prevalent in the study sample; these features are consistent with expectations for skeletal effects based on a mask exhumed at Rio Muerto M43. We consider additional skeletal indicators of habitual mask wearing and present site- and ethnic-based frequencies.

Saturday, January 9th

BRIEANNA S. LANGLEIE, *Washington University in St. Louis*

Constructing terraces, ensuring security: a temporal investigation into an agricultural terrace complex near Puno, Peru

While terraced fields are critical for agricultural production in the altiplano, they have rarely been the target of local archaeological investigations. I present research into a terrace complex west of Lake Titicaca in Peru. Through excavations and a combination of dating methods, including a novel application of optically stimulated luminescence, my research indicates these terraces were surprisingly built during the Late Intermediate period (A.D. 1100-1450). Analysis of the terraced landscape and recovered artifacts indicate household labor and evidence of an ancient battlefield. These findings demonstrate that farmers' motivations for agricultural landscape construction were anchored in complex sociopolitical and climatological considerations.

PEDRO ESPINOZA PAJUELO (IAS 2016 TRAVEL GRANTEE), *Complejo Arqueológico Mateo Salado, Ministerio de Cultura, Perú*

Más allá de Pachacamac: nuevas aproximaciones a la dinámica local Ychsma en el Valle del Rimac e innovaciones en la gestión del patrimonio en el complejo arqueológico Mateo Salado (Lima, Peru)

Ocho años de investigaciones en el complejo arqueológico Mateo Salado, ubicado en plena ciudad de Lima, han dado nuevas luces sobre los mecanismos locales de poder y competencia microrregional ychsma (ca. 1100-1450), superando las interpretaciones tradicionales focalizadas en Pachacamac como centro hegemónico. Tales investigaciones son parte de un modelo de gestión del patrimonio que busca que este sea un continuo cultural vivo en el imaginario de la comunidad actual.

HANS BARNARD, *Cotsen Institute of Archaeology, University of California, Los Angeles*; RAN BOYTNER, *Institute for Field Research*

The development of Andean textile dyeing technology

Textiles have always had great social significance in the Andes. They were used to express identity and power as well as position and function within society. Intensive investment in textile technologies yielded some of the best such artifacts of the ancient world. While spinning and weaving produced fine garments, it was colors—achieved primarily through the use of brilliant organic dyes—that constituted the major visual qualities of Andean textiles. A limited number of studies exist that investigate Andean dye technology, its development and the changes that resulted from the domestication of dye plants and insects, new trade networks and the subsequent exchange of designs and ideas. We present data from hundreds of textiles to cover a broad temporal and geographical range. Some of the data summarize published analytical work on Andean dyes, but most result from our work in the past two decades. We use the entire dataset to explore changes in dyeing preferences and technologies, and their relationships to general cultural and technological traits across the ancient Andes.

ALAN COLVILLE, JOSEPH FABISH, *California State University, Los Angeles*

Florencia de Mora, an Inca princess?

Attempting to understand the significance of wording *Martin de Murúa* used for weaving a *Chumbi*, we postulate that the Inca textile tradition refers to the diadem of the *coya*. The textile tradition survived and evolved on the *Hacienda Tulpo*, called *Andamarca* during Inca times, in large part due to the efforts of its owner, *Florencia de Mora* around the time of the writing of the *Murúa* document. Traditional Inca weaving flourished, producing striking weaving patterns that we can see in 20th-century weaving. They are identified by names and stories relating the early history of the textiles.

KENNETH WRIGHT, RUTH WRIGHT, *Wright Paleohydrological Institute*

The great Inca road system

The Great Inca Road System, with its 24,000 miles of engineered trail, tied together a vast empire. The road system was effective because of the planning and technology employed in its construction. The road system included drainage works, water supply fountains, *tambos*, road section markers, bridges, guard houses, security check points, soil stabilization terraces, retaining walls, uniform road widths, religious/ceremonial buildings, defensive walls and fortresses strategically incorporated into the road system.

MARCIO LUIS BAÚSO DE FIGUEIREDO, *Museu de Arqueologia e Etnologia da Universidade de São Paulo*

The representation of the Moon Animal in the Peruvian North Coast ritual pottery in the Late Horizon

The mythical Moon Animal was represented in many ways in the archaeological material culture of the Peruvian north coast in pre-Columbian period. In the Moche iconography, this figure was depicted as a hybrid beast related to the moon. In Chimú and Lambayeque iconographies, its depiction is intensified wearing a half-moon crest crown suggesting its high divine status. This communication seeks to present the results of our study on the changes of the Moon Animal iconographic representation under Inca rule. We argue that such changes in the symbolic patterns suggest the correlation of ritual practices and the imagery promoted by Chimú-Inca elites on its political context.

THOMAS HARDY, *University of Pennsylvania*

The Inca Conquest and Transformation of the Lucre Basin, Cuzco, Peru

This paper will present data from the author's dissertation research at the site of Minaspata, located in the Lucre Basin at the eastern end of the Cuzco Valley, Peru. Minaspata has a long history of occupation, dating to the Early Horizon to the end of the Late Horizon, but was conquered as the final component of the Inca heartland immediately prior to the early imperial excursions by the Inca. Here, I will discuss the results of excavations at Minaspata in 2013 and the different phases of occupation and material culture, as well as the implications for the cultural history of the Cuzco area and the Andean area more generally. I will focus primarily on various aspects of the Middle Horizon (AD 600-1000), Late Intermediate Period (AD 1000-1400) and Late Horizon (AD 1400-1532) occupations at the site, particularly the transformation of Minaspata and the surrounding Lucre Basin as well as changes in local material culture, and the appearance of Inca state-controlled material culture under Inca rule. I will close by attempting to explore the implications of these physical changes for social and cultural transformations both within the Lucre Basin and in Inca imperial practices.

LUIS FERNANDO BEJAR LUKSIC, *Instituto de Arqueología, Patrimonio y Cultura Cusco*; PETER KAULICKE ROERMAN, *Pontificia Universidad Católica del Perú*

The Saqsaywaman archaeological complex: discussions and proposals since the chronology, context and spatial analysis

The archaeological complex of Sacsayhuaman, with more than 3000 hectares of territory, and located in the heartland of the Inca capital of Cusco, is a major focus of scientific exploration since the early twentieth century to the present. In this regard, there are several proposals and positions applied to historical and archaeological study of their material features. Usually, the historical weight given the monument serve as the exclusive basis for interpretation of the evidence available; however, that situation has neglected critical approaches about the use of space and chronology put into context. In this sense, is necessary to make a critical assessment of the state of knowledge on the topics identified and draw new interpretative frames related with its territory and with the construction of one local history since the archaeological materials and the historical documents.

RYAN SCOTT HECHLER, *Tulane University*

Where the sun sets: a reconstruction of the northern frontier of Tawantinsuyu

Andean scholars have long debated the northern limits of Tawantinsuyu. Historic sources claimed a boundary marker was established at the Angasmayo River, a toponym that no longer exists although allegedly it was north of Pasto territory in modern Colombia. Archaeology in southern Colombia and along the northern Ecuadorian border has been sporadically conducted partially due to crime and political violence. Through a review of early Spanish colonial writings and proximal archaeological research, this paper examines the northern frontier to better understand the scope of the Inkas' impact on northern Andean groups such as the Pasto, the Quillacinga, and the Popayán.

FRANCES HAYASHIDA, *University of New Mexico*; CÉSAR PARCERO-OUBIÑA, *Instituto de Ciencias del Patrimonio, Consejo Superior de Investigaciones Científicas, Spain*; ANDRÉS TRONCOSO, *University of Chile*; DIEGO SALAZAR, *University of Chile*

Desert fields and empire in the high-altitude Atacama (Chile)

In the past as in the present, life in the high-altitude, hyperarid Atacama Desert of northern Chile revolves around two resources: abundant copper and scarce water. The Proyecto Topaín examines the technology and sociopolitics of late prehispanic water management and agriculture in the high-altitude, hyperarid Atacama of northern Chile, and the transformations that occurred after the Inka conquered this region to take control of its mineral wealth. We discuss our interdisciplinary research efforts to understand how farmers made a living in this extreme environment, and how their landscapes and lives changed under Inka rule.

SATURDAY EVENING 8:15 (Open to the public)

GARY URTON, *Harvard University*

Accounting in the King's storehouse: the Inkawasi khipu archive

Archaeological excavations in 2013-14 at the site of Inkawasi, in the Cañete Valley on the south coast of Peru, uncovered a trove of 32 khipus – Inka knotted-string recording devices – in a large state storage facility. Inkawasi was built by the Inkas for their military campaign to conquer populations on the south coast. Many khipus were found covered with agricultural produce (beans, chili peppers, and peanuts). The site shows evidence for a previously unknown method of creating standardized units for accounting for such products. Study of the khipus also brings to light evidence for a new body of accounting practices and procedures unknown from earlier discoveries of khipus. After detailing the newly discovered accounting procedures, comparisons are drawn to accounting practices in early Renaissance Western European accounting of the time.

Posters

Posters will be on display throughout the conference in the Wurster foyer. Poster authors will be available between 11:45 and 1:00 on Friday, and between 1:00 pm and 1:45 on Saturday.

DANA N. BARDOLPH, *University of California, Santa Barbara*

Reconsidering pre-Moche maize agriculture: new research directions and paleoethnobotanical evidence

This poster examines the role of maize agriculture in north coastal Peru during the Early Intermediate Period (EIP, 400 B.C. to A.D. 800), prior to the development of a regional Moche political economy. Andean scholars have broadly discussed prehistoric subsistence strategies on the Peruvian north coast in relation to competition over intensifiable agricultural resources, increases in social stratification, and the development of complex political organization preceding the consolidation of the Southern Moche polity. However, the majority of these discussions take place in the absence of systematically collected subsistence data. I present a comparative analysis of recently collected paleoethnobotanical data from the Moche and Jequetepeque Valleys, concluding that maize, a highly productive and storable crop, likely served as an important precursor to state development during the EIP.

SARAH L. DOST KERCHUSKY, *University of California, Santa Barbara*

Textiles from Zorropata, a Middle Horizon habitation site in the Southern Nasca Region

Textiles, cordage, and weaving tools have the potential to speak to ancient weaving practices as well as the productive and consumptive choices made by ancient peoples. This poster discusses observations about textiles and weaving tools from the site of Zorropata, a second tier center and habitation site located in the Las Trancas Valley, Nasca, Peru. During the 2014 excavations at Zorropata c. 100 fragments of textiles and cordage were recovered from habitation and ceremonial contexts. Preliminary observations indicate that the types of textiles and cordage used in ceremonial contexts were more varied than those from quotidian contexts.

GIACOMO GAGGIO, PAUL S. GOLDSTEIN, *University of California, San Diego*

Food plants and social meaning in the lowland Tiwanaku sites of Moquegua

During the Middle Horizon (AD 500-1000), the highland polity of Tiwanaku controlled lowland territories in order to acquire different food plants, an Andean strategy known as the "vertical archipelago". Ayllus or social groups were probably in charge of accessing and redistributing specific resources, as suggested by archaeobotanical research on highland Tiwanaku households. Two distinct Tiwanaku styles named Omo and Chen Chen were identified in the lowland sites of Moquegua. Our paleoethnobotanical analysis was conducted on Omo and Chen Chen household contexts and evaluates food access and consumption between these two groups.

DANIELA LA CHIOMA SILVESTRE VILLALVA, *Museu de Arqueologia e Etnologia, Universidade de São Paulo*

Music and authority in the Middle Moche Period: an analysis of musicians in iconographic and funerary records

The iconography of Middle Moche period holds a significant sample of musician's depictions. In the last few years, sound instruments have also been found with the remains of individuals, as unearthed in Moche tombs by Alva & Chero during Sipán's 2007 field campaign. By suggesting connections between iconographic narratives and excavated data, we intend to demonstrate the similarity of the musicians' attributes observed in Moche ceramic vessels and the funerary bundle of an individual found in Sipán's Tomb 14. Our analysis, based on a semiotic method, addresses a specific group of individuals of high political and religious status portrayed in Moche iconography. We propose that they had a central role producing sound for official collective ceremonies.

LIZETTE MUÑOZ, *University of Pittsburgh*; DAVID GOLDSTEIN, *National Park Services*; MARY VAN BUREN, *Colorado State University*

Foodways at Porco, an Early Colonial mining enclave in the Viceroyalty of Peru

Practices of food procurement, preparation, and discard, as seen through the analysis of soil samples, offer us a window to the culinary customs of the populations settled around the mines of Porco, Bolivia. Little is known about the day-to-day life of either miners, maestros huayradores, or the European overseers that inhabited this area, which was firmly entrenched in the globalized economic system of the Early Colonial Period (c. AD 1540-1570). Comparing archaeological data from residential spaces adjacent to sites with different functions in the mining chaîne opératoire, we assess the impact of European culinary practices, and market forces, in the indigenous larder.

JEANETTE NICEWINTER, *Virginia Commonwealth University*

Forming a symbolic function: Cajamarca spoons from the Middle Horizon

Spoons produced in a variety of media were utilized over the majority of the central Andean region during the Middle Horizon. Fineware ceramic spoons were manufactured by the Cajamarca culture, located in the north highlands of present-day Peru, with kaolin, a form of volcanic feldspar, and were intricately painted with anthropomorphic and zoomorphic images. By examining Cajamarca spoons through the lens of George Kubler's theory of form-classes, the symbolic value of ceramic spoons within the Cajamarca region is deduced. Prevalent during a period of economic prosperity, Cajamarca-style ceramic spoons were ideologically associated with elite foods ingested during large-scale feasting ceremonies.

HIDE NISHIZAWA, *Independent scholar*

Black beauty in the Late Nasca world: a hypothesis of the origin of Nasca black ware

Unlike world-famous Nasca ceramics having elaborate polychrome iconography and double-spout-and-bridge bottle shape, its black vessels are little known except that they appeared in Nasca Phase 8, a period of Wari expansion from Ayacucho onto the south coast. I conducted U.S. museum collections research and built a hypothesis which requires future testing: Nasca black ware using pre-fire slip is of Ayacucho origin and was employed as Wari's state emblem on the coast. Nasca black ware using post-fire pigments is of local Nasca origin and may have represented Nasca resistance to the encroaching Wari state through revitalizing their ancestral Paracas ceramic technology.

WILO VARGAS MORALES, *El Cultural: Centro Peruano Americano*

Muerte del sol

Todo grupo, tribu o cultura; desde sus ancestrales orígenes; tuvo como una de sus mayores preocupaciones el tema de la muerte y todo lo que este concepto implicaría, con esta inquietud surgieron muchas interrogantes y dada la necesidad de encontrar explicaciones satisfactorias se fueron estructurando variadas cosmovisiones que tendrían algo en común "la muerte no sería el fin". La presente investigación tiene como punto de partida al icono que identifica a la cultura Lambayeque, conocido como el personaje de ojos alados o almendrados, posteriormente se desarrollan otras variables como el uso del cinabrio, ofrendas funerarias y una nueva propuesta interpretativa del "Tumi", todo ello relacionado con el aparente tránsito solar.

CASTO E VOCAL JR, *Leicester School of Media, De Montfort University*; HELEN ANDRZEJOWSKA, ELEANOR BROWN, JAMES HIROSHI COLLEY, ALEXANDRINA MUNTEAN, *University of Huddersfield*

Public ceremonial spaces on the shores of Lake Titicaca, Bolivia: a real-time exploration of the platform mound of Chiripa

This poster explores the architecture and archaeology of the Chiripa platform mound on the shores of Lake Titicaca on the Taraco Peninsula, Bolivia. Real-time video game technology will be used to visualize the historical excavations as well as the built ceremonial mound characterized by the sunken court and surrounding thatched roofed structures. The poster will document and examine the technologies and methodologies used in the 3D visualization of the Chiripa site and explore how these visualization techniques can be exploited by archaeologists to engage with the general public. This research will focus on the Monticulo structure between 600 – 400 BC.

[NOT PRESENTED] CATHERINE WESTFALL, CRISTIAN VARGAS, *TaguaTagua Consultores*

[Not Presented] Aerophotogrammetry applications in archaeology: a case study of geoglyphs from the Tarapacá region of Chile

Understanding the geoglyphs as a “visual system” (sensu Sepúlveda 2013:2) where forms represented can be “...interpreted in terms of culture, in terms of material, economic and social implications...” (Ibid.), impelled the need to improve their archaeological registry and analysis by means of methodologies employing available technologies such as Aerophotogrammetry (combining Topographic Georeference and Drone Photography) and GIS. Our interest is not only for investigation purposes but is also related to conservation and administration requirements since the majority of the solitary figures or geoglyph panels in Tarapacá lack specific heritage programs or are not located in protected environments (eg. national park).