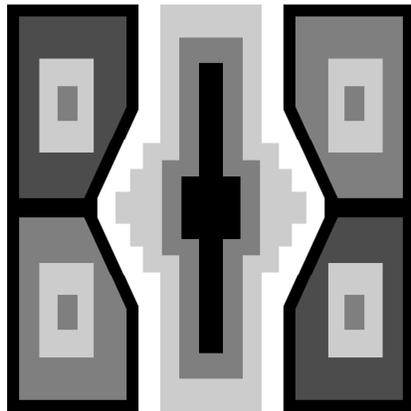


INSTITUTE
of
ANDEAN STUDIES

~ Abstracts ~
~ Preliminary ~



58th
Annual Meeting

JANUARY 5-6, 2018
BERKELEY, CALIFORNIA

Friday, January 5th

RANDALL HAAS, IOANA STEFENESCU, ALEX GARCIA-PUTNAM, *University of Wyoming*; MARK ALDENDERFER, *University Of California, Merced*; MARK CLEMENTZ, MELISSA MURPHY, *University of Wyoming*; CARLOS VIVIANO LLAVE, *Universidad Nacional Mayor de San Marcos*; JAMES WATSON, *University of Arizona*

Testing for verticality among Archaic foragers of the Titicaca Basin

The concept of vertical archipelagos has been a theoretical mainstay of Andean archaeology for nearly half a century. Yet, the origins of vertical complementarity in the Andes remains unclear due to relatively few and generally ambiguous empirical observations from hunter-gatherer and early agricultural contexts. We explore five expectations for vertical mobility. Isotopic, demographic, geographic, and lithic material evidence all converge to indicate that Titicaca Basin foragers 7000 years ago did not engage in vertical mobility to any appreciable degree. We discuss implications for the structure of forager mobility and evolution of verticality in the Andes.

ANDREW RODDICK, *McMaster University*; JOHN JANUSEK, *Vanderbilt University*

From Qeya Chico to Berlin: A Late Formative Lake Titicaca style 60 years later

Early in the 20th century, Adolph Bandelier (1910) excavated a large assemblage of vessels on the Island of the Sun, Bolivia. While he recognized their distinctive forms and evocative iconography as pre-Tiwanaku, it was years later that Wallace (1957) systematically analyzed them as an early regional style in the Lake Titicaca basin. Our paper summarizes results of our recent re-examination of Qeya vessels from museums in Bolivia, Germany and the United States. We re-consider their forms and iconography in light of a richer understanding of the Andean Late Formative, and outline a contextual understanding of their production and use.

RICHARD MARSHALL LUNNISS, *Universidad Técnica de Manabí, Portoviejo, Ecuador*

Infant ancestors at Salango: An extraordinary ancient burial practice of the Ecuadorian coast

At Salango, on the Ecuadorian coast, a very early phase (c100 B.C.) of the Regional Development funerary complex saw reuse of the Late Formative central platform along with the creation of two new small mounds on the northern periphery. Curated stone figurines were deployed in burials of both mounds and platform. More notably, infants dominate the mound populations, and three children each had the head encased in a larger human skull, or portion thereof. This paper considers the symbolic structure and religious values suggested by the burials and their context, including the possibility that the infants were remade as ancestors.

PEIYU CHEN, *University of Pittsburgh*

Marine-based subsistence and its social implications in the Late Preceramic and Initial Period: A different pattern from Huaca Negra, North Coast of Peru

Huaca Negra was a fishing village in the northwest Virú Valley occupied between 5,000 and 3,200 CalBP, and is important as the type site for the Guañape culture. Faunal analysis from recent excavations at the site reveals a significant shift in subsistence focus over time from fish exploitation to the intense shellfish utilization. This shift is associated with significant transitions in occupational history, including the beginning of sedentary life, the construction and usage of the mound, and the abandonment of the mound. The social implications of the changing marine subsistence open a new avenue for reconsidering Moseley's classic Maritime Hypothesis.

ANA CECILIA MAURICIO (IAS 2018 TRAVEL GRANTEE), *Pontificia Universidad Católica del Perú*

Los Morteros and Pampa de las Salinas: Early monumentality, environmental transformations, and the creation of a preceramic ceremonial landscape

Los Morteros is a preceramic archaeological site located on Pampa de las Salinas, in the lower Chao Valley, north coast of Peru. In 1976, Los Morteros identified as a "stabilized dune" whose top was used as a cemetery for pre-pottery people around cal. 5000 BP. However, excavations in 2012 and 2016 have uncovered a very long and complex history of occupation of Los Morteros which includes the presence of early adobe monumental architecture dating before 5500 cal. BP. Our research has also shown that the preceramic occupation of Pampa de las Salinas was closely related to constant environmental transformations of the local environment.

BRIAN R. BILLMAN, *UNC Chapel Hill and MOCHE, Inc.*; PATRICK MULLINS, *University of Pittsburgh and MOCHE, Inc.*

Big data, big challenges: The preliminary results of the Moche Valley Ancient Settlement Survey on the North Coast of Peru

We present the preliminary results of the Moche Valley Ancient Settlement Survey. MVASS involves systematic recording of all known prehistoric sites in the Moche Valley (2,708 km²) and creation of an open-access GIS environmental and archaeological database. The project involves archival research, drone mapping of key sites, and additional pedestrian survey. To date, we have created a GIS database with information on 1,200 sites. In addition, we completed two seasons of drone-mapping and extended pedestrian survey into the highlands. Our goal is to understand the social history of the Moche Valley across the long span of the prehistory era.

JEAN-FRANÇOIS MILLAIRE, KAYLA GOLAY LAUSANNE, EDWARD EASTAUGH, *Western University*

Drone survey at the Gallinazo Group site in the Virú Valley, Peru: Reconstructing an ancient urbanscape through aerial photogrammetry and thermography

This paper presents results from a drone survey carried out at the Gallinazo Group site in the Virú Valley, Peru. Visual and thermal imaging of Huaca Gallinazo revealed the presence of a vast number of structures buried under the site's surface. Besides methodological advances, this study vastly augmented our understanding of the Huaca Gallinazo's urbanscape, leading to the identification of a series of architectural compounds that we never suspected existed, organized within a complex network of streets, plazas, and platform mounds. This survey provides us with key information for conducting targeted archaeological fieldwork in the coming years.

BEBEL IBARRA, *Tulane University*

Recuay changes in ceremonial and mortuary architecture in the North Highlands of Peru and their implications for political organization ca. AD 200 – 900

Research in Huaritambo Valley (20 km north of Chavín de Huántar) has identified significant changes in ceremonial and mortuary architecture in Recuay settlements after AD 400. I interpreted those changes as an increase of power in Recuay elite, which allowed interactions with other societies such as Moche and Virú, and at same time reveal the presence of multiple Recuay polities interacting independently in the region until ca AD 900.

MEGHAN TIERNEY, *Carleton College*

Early Nasca sculptural effigy vessels in context

This paper addresses sculptural polychrome ceramic effigy vessels from the Early Nasca period (c. 1 – 450) as one part of an art-historical consideration seeking to better define Nasca visual culture. A visual analysis of a group of human effigies reveals consistent formal concerns in representations of the body, such as body position, an emphasis on the head, and the implication of suspension or flying. These elements are congruent with other Nasca practices, specifically the treatment of the bodies in burial contexts, the taking and modification of human heads, and the phenomenology of the elevated perspective necessary to view the Nasca Lines.

GO MATSUMOTO, *Yamagata University*; GABRIELA DE LOS RIOS, *Lambayeque Complex Archaeological Project*

Exploring the multiplicity of the Lambayeque society during the Middle Sicán period (AD 950-1100)

Previous studies have pointed to the possibility that the Lambayeque society on the Peruvian North Coast was pluralistic during the Middle Sicán period (AD 950-1100). It is inferred that the populations in the society were separated into different social tiers (i.e. higher and lower elites, commoners, and subalterns) and culturally distinct groups (i.e. the Lambayecanos and the Mochicas). This presentation will illustrate new findings from our recent excavations at Huacas de Sicán in the middle La Leche Valley, which support this inference.

PATRICIA J. NETHERLY, *Vanderbilt University*

Enigmatic Chimor: The expansion, governance, and defeat of an Andean state

New information on the ancient, expansionist Chimor state comes primarily from archaeological sources, early Spanish administrative records, and two mythic accounts of political succession. Detailed accounts by Spanish observers of the socio-political and religious organization and administration of Chimor similar to those for the Inka empire were never recorded. Reconstruction of the strengths and weaknesses of Chimor is made possible by using multiple sources including Andean ethnology, archaeology, art history, and comparisons of religious and ceremonial practice. As a result, the similarities and differences of Chimor compared to other Andean expansionist states can be identified and its successes and failure evaluated.

Saturday, January 6th

NICOLE M. SLOVAK, *Santa Rosa Junior College*

Rediscovering an ancient archaeological collection from Peru: The Field Museum of Natural History's Ancón collection

In 1891, more than 100 mummies and associated artifacts were excavated from Ancón, Peru, and brought to Chicago for the 1893 World's Columbian Exhibition. This remarkable collection has remained at the Field Museum of Natural History, where many skeletons and mummies have become dissociated from their grave lots. This paper reports on efforts made this summer at the Field Museum to remarry some of the skeletal materials with the contents of their graves, and initial attempts at situating these materials in space and time. As a result of this work, the partial life stories of Ancón's ancient inhabitants can finally be told.

PATRICIA J. KNOBLOCH, *Institute of Andean Studies*

Following their footsteps: Revealing agency among the Wari

The Middle Horizon (AD 700 – 1000) is subject to many compelling perspectives on complex social theory most of which focus on the pan-Andean state formation of the Wari Empire. In advancing such theories a new precedent is introduced for analyzing Wari artifacts: agent analysis. With a comprehensive database of human images, rendering agency involves reimagining these portraits into a dynamic interplay of cooperation and conflict. Results convey ethnic allegiances and religious based strategies. Thus, agent analysis translates the static depictions into narratives by means of artifact associations mapped across the cultural landscape. Furthermore, it enriches Andean ancestral heritage with restored ethnic identities.

KAREN OLSEN BRUHNS, *Fundación Nacional de Arqueología de El Salvador (FUNDAR)*

The Huari in Ecuador

The Huari expansion northwards is well documented in Peru, but research and maps always stop at the (modern) international boundary with Ecuador. Yet there are tantalizing hints that the Huari tried to take control of the main Spondylus trade routes. Huari artifacts have been found in Azuay and Loja and a series of peculiar sites, identical to those in Cajamarca but utterly unlike any indigenous architectural forms, are known in the same region, all at key points on known ancient roads.

WARREN B. CHURCH, *Columbus State University*; KEITH MUSCUTT, *University of California, Santa Cruz*

Inticancha: A Wari enclave in Chachapoyas? (Reopening a cold case in a cold place)

During the 1970s, Donald Thompson, Rogger Ravines, and students investigated archaeological sites east of the Marañon river in the Uchucmarca valley. Recently, we visited Thompson's site, Inticancha (3,900m) on a ridgetop above modern Uchucmarca. Among 150 constructions are two D-shaped buildings, orthogonal "patio compounds," corridors, subterranean chambers, and remains of a rectangular wall that once enclosed the site. Where the wall is missing, clusters of circular buildings extend southwest. Based upon current knowledge, we propose that Inticancha was a Wari enclave, later modified by local groups. Renewed study of Inticancha should reveal much about Wari, and local Chachapoya cultural development.

SKYLER J. KEITER, *University of Massachusetts Amherst*; DANIELLE S. KURIN, *University of California, Santa Barbara*

Neurological deficiencies due to antemortem cranial trauma in the Chanka polity of Andean Peru (1000-1400 CE)

This study examines the antemortem cranial trauma found on skeletal samples from seven Chanka period sites in the province of Andahuaylas, Peru. 124 crania were assessed for age, sex, and presence of trauma. Crania showing trauma were further assessed for type of trauma, lethality, location, and evidence of healing. Location of trauma was correspondingly mapped onto images of the brain to determine the possible impacts on neurological function present in the population. Results showed that blunt-force trauma to the frontal and parietal bones were the most common forms of injury corresponding to deficiencies in concentration, voluntary muscle movement, judgement, and language comprehension.

DOMINIKA SIECZKOWSKA, *University of Warsaw*; JOSÉ BASTANTE, *Ministry of Culture, Cusco*

Los resultados preliminares de las excavaciones en el sitio de Chachabamba en el Parque Arqueológico Nacional de Machupicchu

El sitio estudiado llamado Chachabamba se encuentra en el Parque Arqueológico Nacional de Machupicchu en el valle del río Vilcanota. Las excavaciones en el MA de Chachabamba durante las temporadas 2016 y 2017 han permitido obtener información valiosa con respecto a su uso y función. Las investigaciones se han dado en los sectores relacionados con: las fuentes rituales, la huaca: plazas y kanchas, entre otros, descubriendo varios etapas constructivos en el sitio y cambios de funcionalidad del sector. El objetivo es presentar los resultados de dos temporadas de excavaciones en el sitio, datos provenientes del estudio con el georadar y las prospectivas para las siguientes investigaciones.

DAVID O. BROWN, *The University of Texas at Austin*

Cochasquí and the late prehistory of the Northern Ecuadorian Highlands

Recent investigations at the monumental site of Cochasquí, one of the most important centers of the last half millennium in the late prehispanic northern highlands, have offered new insights, suggesting earlier antecedents than the oft-cited AD950 founding date, and a more substantial Inka presence after AD1500 than previously thought. A review of the co-evolution of Cochasquí and the surrounding region indicates a series of shifts in the expressions of power that imply growing societal complexity and the institutionalization of that power. Rather than gradual autochthonous transitions, however, these rapid transformations were often responses to catastrophic events, both natural and cultural.

RONALD D. LIPPI, *University of Wisconsin Colleges*; ALEJANDRA M. GUDIÑO, *University of Missouri-Columbia*; ESTANISLAO PAZMIÑO, *Instituto Nacional de Patrimonio Cultural del Ecuador, Quito*; ESTEBAN ACOSTA B., *Arqueólogo, Cuenca, Ecuador*

Palmitopamba: Yumbos and Incas near the northern fringe of Tawantinsuyu

From 2002 to 2016, members of the Palmitopamba Archaeology Project conducted fieldwork at the monumental Palmitopamba site and two nearby sites in northwestern Ecuador's cloud forest to learn about the native Yumbo adaptation to the western flank of the Andes and their interaction with invading Incas, who took control of the locality near the end of Tawantinsuyu. Evidence to be discussed includes an incomplete Inca building and other unfinished stone features, a Yumbo cemetery with Inca influence, a platform mound with a long multi-component sequence, and an emerging picture of Inca presence throughout the subtropical rainforest region.

MIGUEL AGUILAR DÍAZ, *Pontificia Universidad Católica del Perú*

Incas y ancestros en el orden social y la arqueología de Pueblo Viejo de Recuay, S. XV – XVII

La ocupación del Imperio Inca realizó un proceso de apropiación social de espacios productivos y sagrados mediante el control de rasgos del paisaje deificados (huacas), descritos en el Callejón de Huaylas por el Visitador Hernández Príncipe (1622) en la Doctrina de Recuay; contrastándolos con resultados de prospección arqueológica para fundamentar criterios andinos de organización social y categorías territoriales (*Ichaj y Allauca, Huari y Llacuaz*), reflejados en la organización espacial del sitio Inca Pueblo Viejo de Recuay, donde la presencia de un *Ushnu* y otros elementos arquitectónicos simbólicos inca configuran el paisaje social de la época Inca y Colonial Temprano.

MELISSA S. MURPHY, *University of Wyoming*; CATHERINE GAITHER, *Gaither Forensic Consulting, LLC*; JEFFREY QUILTER, *Peabody Museum, Harvard University*

Entangled identities and subjectivities at Magdalena de Cao Viejo, Chicama Valley, Peru

The separation of Spaniards, Africans, and Andeans was legally stipulated in early Colonial Peru as presented in historical documents. Recent scholarship suggests that the reality of life in the early colony was dramatically different, however. We investigate issues of identity and status in this paper through the integration of bioarchaeological, archaeological, and other lines of evidence. We find that these data evince more complex expressions, manipulations, and subversions of identities and interactions at Magdalena de Cao Viejo than those dictated by official rules.

SATURDAY EVENING 8:00 (Open to the public)

ANNA GUENGERICH, *Vanderbilt University*

Where mountain and forest meet: Toward a history of people and landscape in the Eastern Andes of Chachapoyas

The Eastern Andean cloud forest has long been seen as a place where humans and landscapes have an uneasy relationship. In the environmental sciences, any human presence was long seen as a potential risk to one of the most fragile ecosystems on earth, while archaeology held that the tropical forests and mountainous terrain of this area prevented the development of large and complex societies. Emerging research in areas such as Chachapoyas, however, challenges these environmentally determinist paradigms and demonstrates the need to re-evaluate the long-term relationships between humans and landscapes in the Eastern Andes. Initial results of survey, excavation, and digital modeling from the Proyecto Arqueológico Tambillo reveal a complex system of mountaintop towns, mortuary spaces, and agricultural terraces inhabited between the Early Intermediate Period and the early 16th century. At its largest, the site complex of Tambillo may have been home to some seven to ten thousand people. These data demonstrate that indigenous groups developed large, complex, and potentially sustainable patterns of settlement, and they invite further study of how a series of different political formations shaped local cloud forest landscapes over time.

Posters

Posters will be on display throughout the conference in the 120 Kroeber. Poster authors will be available between 1:00 and 1:45 on Friday and Saturday.

ADAM BIRGE, *The University of Texas at San Antonio*

Transformations of Ritual and Movement along the Sajama Lines, Bolivia

In the Sajama region in western Bolivia, a set of geoglyphs termed the Sajama lines stretches out over 16,000 kilometers and are used today for ritual processions. However, these geoglyphs may have been used in the past to connect communities with *pukaras*, *chullpas*, and other pre-Hispanic sites. In order to better assess the prehistoric components to these geoglyphs, this poster presents recently collected data on a set of Sajama lines to explore possible prehistoric geoglyphs and changing ritual associations.

MATTHEW E. BIWER, *University of California, Santa Barbara*

Recent paleoethnobotanical investigations at Cerro Baúl, Upper Moquegua Valley, Peru

Here I present recent paleoethnobotanical research from Cerro Baúl, a Middle Horizon (AD 600-1000) Wari site located in the Upper Moquegua Valley, Peru. Previous paleoethnobotanical research at Cerro Baúl has focused primarily on the remains of chicha de molle brewing (Moseley et al. 2005) and the role chicha de molle played in state-sponsored feasting and elite identity (Goldstein et al. 2009). Building on prior research, I present a comprehensive summary of plant remains from previously unanalyzed contexts with a focus on quotidian foodways. This research expands our interpretations of foodways and the use of space at the site.

CHRISTIANE CLADOS, *Philipps University, Marburg*

Borrowed from the ancestors: Inca tocapus and mechanisms of appropriation

Although there has been progress in the interpretation of Inca Tocabus, they remain a graphic system which is difficult to classify according to definitions of writing. This is added to the observation of some scholars that several Tocabus have a non-Inca origin. In this poster the origins of these signs will be explored and their meaning with the Inca Tocabus system approached. Also, the poster will discuss how “foreign” signs are visually integrated. The study is primarily based on Tiwanaku and Inca objects found from different museum’s collections, with a particular focus on objects of the Ethnological Museum Berlin.

KATHLEEN E. HUGGINS, *University of California, Berkeley*

Characterizing ceramic-surface topography from Chiripa, Bolivia, and beyond: A proposed technique, using RTI and image based automated quantitative analysis

This poster introduces a technique for quantitative analysis of ceramic surface topography, using false-color images generated through RTI (reflectance transformation imaging) and automated quantitative analysis using cell-counting software. A preliminary study of surface topography variation in Early Formative and Middle Formative ceramics from Chiripa, Bolivia, will be presented, along with an outline and live demonstration of how the technique was accomplished. The purpose of this study has been to expand the documentation and analysis of surfacing techniques beyond observational notation, and to investigate how image-based analysis can lead to novel research while also providing high-resolution documents for post-field analysis. Such high-resolution documents invite wider pools of participants in archaeological interpretation, while providing a middle-ground, equitable solution to increasing restrictions on sample exportation and collections access.

SKYLER J. KEITER, *University of Massachusetts Amherst*; DANIELLE S. KURIN, *University of California, Santa Barbara*

Neurological deficiencies due to antemortem cranial trauma in the Chanka polity of Andean Peru (1000-1400 CE)

This study examines the antemortem cranial trauma found on skeletal samples from seven Chanka period sites in the province of Andahuaylas, Peru. 124 crania were assessed for age, sex, and presence of trauma. Crania showing trauma were further assessed for type of trauma, lethality, location, and evidence of healing. Location of trauma was correspondingly mapped onto images of the brain to determine the possible impacts on neurological function present in the population. Results showed that blunt-force trauma to the frontal and parietal bones were the most common forms of injury corresponding to deficiencies in concentration, voluntary muscle movement, judgement, and language comprehension.

JACEK KOŚCIUK, *Wroclaw University of Science and Technology*; MARIUSZ ZIÓŁKOWSKI, *University of Warsaw*; BARTŁOMIEJ ĆMIELEWSKI, *Wroclaw University of Science and Technology*

Multidisciplinary documentation of Fuerte de Samaipata

El Fuerte de Samaipata is a prehispanic site in Bolivia since 1998 listed on UNESCO World Heritage List. The main part of the site is a natural rock (ca. 215 x 70 meters) covered with the complicated layout of petroglyphs. Due to the fast erosion of the rock, some of the petroglyphs become illegible. The main aim of our project is to document all that is still visible by 3D laser scanning, structured light scanning, digital photogrammetry, multispectral and infrared imaging. More than 30 new, unknown petroglyphs were detected and several illegible reinterpreted. All the data will be integrated on GIS platform including 'risk map' for restoration purposes. The project is sponsored by the National Science Centre Poland with the grant 014/15/B/HS2/01108.

JENNIFER LARIOS, *University of Michigan*; TERRAH JONES, RUDI VANZIN, BRITTANY JACKSON, JACOB BONGERS, *UCLA Cotsen Institute of Archaeology*

Socioeconomic variation between household terraces: A preliminary analysis of the pottery from Casa Grande (PV57-42) in Chincha, Peru

The upper valley of Chincha, Peru may have been occupied by farmers during the Late Intermediate Period and the Late Horizon, yet little is known about them from ethnohistoric sources. The Casa Grande site may be one of the keys to not only learning more about these farmers, but also to understand the socioeconomic dynamics of the upper valley of Chincha. Here, we present a preliminary analysis of the ceramics from the domestic terraces of Casa Grande in order to determine whether sites in the upper valley, specifically domestic sites, had differential access to pottery.

CHRISTIAN MESIA MONTENEGRO, *Universidad Científica del Sur*

Julio C. Tello's approach in assessing the antiquity of syphilis in ancient Peru

This paper dissects the method used by Tello in his dissertation "La Antigüedad de la Sífilis en el Antiguo Peru" which claimed that there is evidence of syphilis during prehispanic times. Tello's work on syphilis has been mentioned as passing reference by a number of scholars but, it was Pedro Weiss, who paid more serious attention to Tello's contributions, coining the term of cultural osteology to the cultural analysis of human bone, influenced by Tello's work. I argue that Tello's dissertation is a work on Medical Anthropology as it articulates linguistic, ethnohistorical, archaeological and osteological evidences in scrutinizing his main claim, revealing a new facet of his many academic skills.

RICHARD MIKSAD, *University of Virginia*; KENNETH WRIGHT, *Wright Paleohydrological Institute*

Saqsaywaman wall failure

The 2010 collapse of a section of the third wall at Saqsaywaman sent a strong and worrisome signal. The handsome ancient stonework lay in a heap along a 12-foot section of the wall. Field surveys and detailed analyses of the failure showed that errant drainage water flowed behind the wall creating new forces never anticipated by the original Inca builders. Technical teams from three universities operating under a permit from Peru's Ministry of Culture went to work to define the facts, map the site and prepare recommendations for a long-term drainage master plan. The plan is based upon using the ancient Inca drainage layout and careful placement of subsidiary terrace walls.

IVANNA ROBLEDO, *Universidad Nacional de San Cristóbal de Huamanga*; DANIELLE KURIN, *University of California, Santa Barbara*

Putting a face to the past: A reconstructive technique for Andean populations

This study demonstrates how cost-effective, replicable forensic anthropological methods can be used to reconstruct soft tissue facial morphology in archaeological skulls from pre-colombian Peru. Over two-dozen tissue-depth measures compiled from cadaver studies in historic and contemporary South America created the baseline depth values applicable to ancient Andean populations. This reconstruction consists of a combination of two anatomic techniques: The American Method, which emphasizes the splanchnocranium facial tissue-depth values, and the Russian Method, which prioritizes the craniofacial musculature. The work summarized herein may be utilized by non-experts in the context of research investigations, science education, and in cases of medico-legal significance

NATALEA SCHAGER, JORDAN KOBYLT, NICHOLAS PINGITORE, ALEXEI VRANICH, *University of California, Berkeley*

Using modern technologies to better understand the Inca past at Saqsayhuaman

Our team conducted surface surveys of architecture and hydraulic systems at the Inca site of Saqsayhuaman to better understand its original form and role in Inca ritual practice. However, in presenting our data, we encountered the problem of trying to present three-dimensional space in two-dimensional formats. We therefore combined our efforts with modern drone technology and used photogrammetry to present the information as 3D models in augmented reality. This project not only expands our understanding of an Inca ritual center but also demonstrates the developing role of 3D technology in modern archaeological practice.

M. A. DAGMARA SOCHA, *Center of Precolumbian Studies of University of Warsaw*

Children mummies from San Francisco, Yauca

The investigation of children's remains can give answer about many questions, about populations health level and cultural activities which they could have participated. During excavation conducted in 1987/1988 by Francis Riddell and Lidio Valdez in Yauca Valley, they found many well preserved children mummies. In 2017 this mummies were first time object of anthropological research. During this studies were conducted: radiography, anthropological analysis and photography in different kinds of lights (UV, infrared). The resultants of this studies show some pathologies causing high children mortality and permanent body decorations like: artificial cranial deformation and ears deformity caused by orejeras.

GEOFFREY L. TAYLOR, *University of California, Berkeley*; EMILY L. ROBERTS, *State University of New York at Binghamton*

A GIS spatial analysis of artifact distribution in domestic spaces from the city of Huari

This poster will demonstrate preliminary results from the first season of excavations carried out by the Programa Arqueológico Prehistoria Urbana de Huari at the domestic sector of Patipampa. Utilizing photogrammetry and Geographic Information Systems (GIS) within architectural spaces with multiple floors, we will be pursuing exploratory data analysis over the density and distribution of artifacts including ceramics, bone, shell, and metal. This project will give insight into daily practice through space and time at the site of Huari.

MEGHAN TIERNEY, *Carleton College*

Early Nasca sculptural effigy vessels in context

This paper addresses sculptural polychrome ceramic effigy vessels from the Early Nasca period (c. 1 – 450) as one part of an art-historical consideration seeking to better define Nasca visual culture. A visual analysis of a group of human effigies reveals consistent formal concerns in representations of the body, such as body position, an emphasis on the head, and the implication of suspension or flying. These elements are congruent with other Nasca practices, specifically the treatment of the bodies in burial contexts, the taking and modification of human heads, and the phenomenology of the elevated perspective necessary to view the Nasca Lines.

ADDITIONAL POSTER TBA