

The 46th Annual Midwest Conference on Andean and Amazonian Archaeology and Ethnohistory



March 17-18, 2018

Hosted by

**The Field Museum
and
The University of Illinois at Chicago (UIC)**

Schedule for the 46th Annual Midwest Conference on Andean and Amazonian Archaeology and Ethnohistory

March 17-18, 2018

Saturday, March 17

Montgomery Ward Lecture Hall

8:00-8:30 am	Coffee, registration.
8:30-8:35 am	Welcome Sloan Williams (UIC) and Ryan Williams (Field)
Session 1	Moderated by David Reid
8:35-9:00 am	<i>Robert A. Benfer</i> : Buena Vista Chillón Valley, Peru: A Late Preceramic Peruvian site with sculptures and astronomical alignments.
9:00-9:25 am	<i>Steph Gruver and Kurt Rademaker</i> : Chronology and seasonality at Quebrada Jaguay: Implications for the early settlement of South America.
9:25-9:50 am	<i>Sarah I. Baitzel and Arturo F. Rivera Infante</i> : Prehispanic mobility and cultural encounters in the Andean foothills of the Sama Valley, southern Peru.
9:50-10:15 am	<i>Arwen Johns, Lisa Hodgetts and Jean-François Millaire</i> : Broad trends in faunal consumption at Huaca Gallinazo and Huaca Santa Clara, Virú Valley, north coast of Peru.
10:15-10:45 am	Break and Poster Presentations
Session 2	Moderated by David Reid
10:45-11:10 am	<i>Isabelle Druc and Michelle Young</i> : Communities of potters and the production of local and "Chavín international" styles at Atalla, Huancavelica, Peru.
11:10-11:35 am	<i>Nicholas E. Brown</i> : Chawin Punta: A new site of Chavín religion in highland Pasco, Peru.
11:35 am-12:00 pm	<i>Benjamin Vining</i> : Disaster's Reach: A remote sensing assessment of environmental changes caused by the 2017 El Niño and their implications for prehispanic agricultural production in Peru's Chicama Valley.
12:00-1:15 pm	Lunch break

Session 3**Moderated by Rachael Penfil**

- 1:15-1:40 pm *Maria Fernanda Boza Cuadros*: Small place, big histories: Quilca and the rise of the Republic, mid-nineteenth century Peru.
- 1:40-2:05 pm *Aleksa K. Alaica, Luis Manuel Gonzalez La Rosa, Willey Yopez Alvarez and Justin Jennings*: Music in the Middle Horizon: Worked bone whistles and flutes from La Real, Majes.
- 2:05-2:30 pm *Nicola Sharratt and Richard Sutter*: Late Intermediate Period ethnogenesis in the Moquegua Valley, Peru: A bio-archaeological perspective on the emergence of Estuquiña communities.
- 2:30-2:55 pm *Monica Barnes*: Peripheral data from Huánuco Pampa: The Collcas.

2:55-3:15 pm

Break and Poster Presentations**Session 4****Moderated by Rachael Penfil**

- 3:15-3:40 pm *Di Hu*: Making sacred space under the Inca in a mitmaquna settlement, Vilcashuamán Province, Peru.
- 3:40-4:05 pm *Shelley Burian*: Transforming Traditions: The development and significance of the ll'uqita chanka and ll'uque techniques in colonial Aymara textiles.
- 4:05-4:30 pm *Kasia Szremski*: Heterarchy, exchange, and cultural cohesion among the Chancay: The view from Cerro Blanco (Huanangue Valley, Peru).
- 4:30-4:55 pm *Nicole M. Slovak*: Thinking outside the bundle: Crafting a new narrative for the Field Museum's Ancón mummies.
- 4:55-5:00 pm Brian S. Bauer: Business Meeting (open to all):
- 5:00 -5:10 pm Ryan Williams: Mummies, The Exhibition
- 5:10-8:00 pm Reception at the Field Museum featuring *Mummies* (open to all)
- We expect our colleagues from the Midwest Meso-American meeting to be joining us.

8:45-9:00 am	Coffee
Session 5	Moderated by Corey Bowen
9:00-9:25 am	<i>John E. Staller</i> : Endemism, domestication and cultivation of high altitude maize (<i>Zea mays L.</i>) in the Lake Titicaca Basin, Bolivia.
9:25-9:50 am	<i>Bruce Mannheim</i> : Everything Andean archaeologists and ethnohistorians wanted to know about Quechua (but were ashamed to ask).
9:50-10:15 am	Daniela Maria Raillard: Embodied deathscapes: An investigation of ethnic identity through chullpas in the northeastern Andes.
10:15-10:45 am	Break and Poster Presentations
Session 6	Moderated by Corey Bowen
10:45-11:10 am	<i>David Reid</i> : Wari Roads in southern Peru? Recent investigations of Middle Horizon waystations in Arequipa.
11:10-11:35 am	<i>Emily A. Sharp and M. Elizabeth Grávalos</i> : Dwellings for the living and the dead: Tracing transformations in residential and mortuary architecture at Jecosh, Peru.
11:35 am	Closing remarks: Donna Nash (Field) and Brian Bauer (UIC)

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**UIC Department of Anthropology, Graduate College, and
The Offices of the Chancellor and the Provost,
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And to the conference organizing committee:

Corey Bowen, Beth Grávalos, John Hicks, Caitlin Monesmith, Rachael Penfil, David Reid, Ashley Vance

Posters for the 46th Annual Midwest Conference on Andean and Amazonian Archaeology and Ethnohistory.

The poster can be viewed at any time during the meeting. The authors will be stationed beside their posters during the breaks on Saturday.

Anna-Maria Begerock, Armando Rangel Rivero, Mercedes González, Carlos Arredondo Antúnez, Ailyn Delgado Pérez, María Isabel Guevara Fonseca, and Isabel Martínez Armijo: The Peruvian mummies in Cuba.

Michael Cook, Emily Milton, Peter Leach, and Kurt Rademaker: New explorations at Pampa Colorada: An early coastal site in Peru.

Curran M. Fitzgerald, Cyrus D. Banikazemi, and Donna J. Nash: Archaeoastronomical analysis of Wari ritual spaces in the Osmore Valley, Peru.

Danielle Shaw Kurin, Beatriz Marilin Lizarraga Rojas, and Ruben Garcia Diaz: Behind the footsteps of death: Findings of a funerary context at the archaeological site of Sondor, Apurimac, Peru.

Christopher Milan: Four views of the Lurín Valley from the Initial Period.

Riley Murrin: If these floors could talk: Examining ancient human activities in the Temple Annex on Cerro Baúl.

Pedro Navarro and Isabelle Druc: Sampling geological comparative materials: Going beyond maps. An example from San Pablo region, Cajamarca Department, Peru.

Jo Osborn, Rachael Penfil, and Jacob Bongers: From Inkawasi to Tambo Colorado: Macro-regional analysis of settlement patterns on the Peruvian South Coast (ca. 1000 - 1532 CE).

Mario A. Rivera, Amina Boutellis, Rezak Drali, Kosta Y. Mumcuoglu and Didier Raoult : Evidence of DNA head lice in a pre-Columbian mummy from Camarones, Chile.

Benjamin J. Schaefer, Sloan R. Williams, and Nicola O. Sharratt: Making a Mitmakuna: Investigating endogenous cortisol through archaeological hair in a Lupaqa colony.

Amedeo Sghinolfi: The Italian archaeological mission in Peru: Late Lima and Nievería pottery from Cajamarquilla, Peruvian Central Coast.

Dagnara Socha: Child mummies from San Francisco, Yauca.

**Abstracts for the 46th Annual Midwest Conference on Andean and Amazonian
Archaeology and Ethnohistory**

The Field Museum and University of Illinois at Chicago

March 18-19, 2018

Aleksa K. Alaica, Luis Manuel Gonzalez La Rosa, Willey Yopez Alvarez, and Justin Jennings: Music in the Middle Horizon: Worked Bone Whistles and Flutes from La Real, Majes Valley, Peru. (presentation)

La Real (AD700-1050) is a Middle Horizon site located in the Majes Valley of southern Peru. Previous work has suggested that the site saw the development of a regionally organized political economy by the late Middle Horizon (AD900-1050) that connected local and non-local groups of Arequipa. Bone instruments, whistles (n=36) and flutes (n=6), dating to the early Middle Horizon of La Real (AD700-850), indicates music and musical performance may have been a vital way to bring together people from many locales to engage with the deposition of 145 people along with textiles, artifacts and trophy heads. This paper posits that La Real was a strategic node in the Middle Horizon soundscape. Craft standardization of whistles and flutes, utilizing condor and camelid bone, attests to collective production, which formed an important practice to bring regional groups together.

Sarah I. Baitzel and Arturo F. Rivera Infante: Prehispanic mobility and cultural encounters in the Andean foothills of the Sama Valley, Southern Peru. (poster)

The Andean foothills form a place of encounter between the well-understood coastal and highland environments and cultures. Archaeological survey of the middle Sama Valley (400-700 masl), Tacna, Peru, indicates human occupation of the foothill region as early as the Middle Archaic period and lasting to the Colonial period. Changes in settlement and land-use patterns speak to the complex system of mobility and exchange situated amid the seasonally complementary valley and lomas ecologies of the Andean foothills, which enabled coastal and highland populations to diversify their resource bases in the hyper-arid environment of the Northern Atacama Desert.

Monica Barnes: Peripheral data from Huánuco Pampa: The Collcas (presentation)

In 1982 Donald Thompson expressed disquiet over an aspect of archaeological fieldwork. What troubled him was “. . . the peripheral archaeological and nonarchaeological data [gathered] in the course of our research . . . or, more precisely, how, or indeed if, such data should be recorded.” At the 37th NCAAAE I suggested that Thompson’s unpublished comments on mid-20th century burial practices provide an alternate interpretation of infant burials in the

Huánuco Pampa ushnu. Here I examine unpublished photographs by Thompson, Craig Morris, and a Peace Corps volunteer, and suggest that the Huánuco Pampa storehouses, although in ruins, remained in use at least until the last century.

Dr. Anna-Maria Begerock, Dr. Armando Rangel Rivero, Mercedes González, Dr. Carlos Arredondo Antúñez, MSc. Ailyn Delgado Pérez, María Isabel Guevara Fonseca, and Isabel Martínez Armijo: The Peruvian mummies in Cuba. (poster)

Cuba's tropical, humid, climate is an impediment to both natural mummification and preservation of previously mummified remains. Despite this there are intact mummies from pre-Columbian South America on the island. Each one bears an interesting story that the Cuban Mummy Project is aiming to reveal – e.g. the “Peruvian Miner” that never saw Peru –along with their cultural ascriptions to historical events, or their role as diplomatic cargo in political activities with Peru. Besides their individual stories the acquisition history of each mummy is also fascinating, shedding insight on how 19th c. collections were only complete, once they possessed a mummy.

Robert A. Benfer: Buena Vista Chillón Valley, Perú: a Late Preceramic Peruvian site with sculptures and astronomical alignments. (presentation)

The Late Preceramic site of Buena Vista is known for mud plaster statues of a deity flanked by foxes, for a life-size bust of a hunch-backed musician, and for stone sculptures. All of these have astronomical alignments. The temples contain four chambers and one plaza. The latter has a central hearth surrounded by four circular offering pits. All of these temples were ritually interred. I review astronomical alignments associated with these temples. Each alignment is less than 1° from values predicted for 4,000 years ago when adjusted for precession and obliquity. Combinatorial probability rules out chance as an explanation.

Maria Fernanda Boza Cuadros: Small place, big histories: Quilca and the rise of the Republic, mid-nineteenth century Peru. (presentation)

The cove of Quilca, in Arequipa, Peru, has served as a southern gateway to the world since Spanish colonial times. In this paper, I take a place-centric stance to see the first years of the Republic of Peru from the local perspective of the cove of Quilca. Between 1821 and 1880, the cove of Quilca went from being the primary port of the city of Arequipa to be decommissioned and mostly abandoned, and came to be a key element in heroic war-time feats. By looking at Quilca, glimpses of the ever-changing faces of nineteenth-century Peru emerge to show local dimensions of marginality, instability, and struggle.

Nicholas E. Brown: Chawin Punta: A new site of Chavín Religion in highland Pasco, Peru. (presentation)

This talk presents the results of survey and excavations carried out at Chawin Punta in the highlands of Pasco, Peru as an introduction to the site's archaeological remains and chronology. Monumental architecture, carved stone art, and decorated pottery have been found there that suggest Chawin Punta was a late Initial Period civic-ceremonial center with cultural and religious connections to sites like Chavín de Huántar, Kotosh, Pacopampa, and Pampa de las Llamas-Moxeke. The existence of Chawin Punta challenges long-held assumptions that Peruvian central highlands occupied a marginal position in the development early social complexity in the Central Andes.

Shelley Burian: Transforming traditions: The development and significance of the ll'uqita chanka and ll'uque techniques in colonial Aymara textiles. (presentation)

This paper examines the development of spinning techniques central to the design of garments worn by Aymara-speaking peoples during the 17th-early 19th centuries. Ll'uqita chanka is the combination of two single ply threads of contrasting colors into one double ply thread. Ll'uque refers to the alternative use of S and Z plied threads to create patterns. An important debate surrounding these techniques is their time period of origin. I will argue both originate from Pre-Columbian textile techniques, but design choices such as color and positioning within a garment were inspired by colors and reflective surfaces of silk fabrics.

Michael Cook, Emily Milton, Peter Leach, and Kurt Rademaker: New explorations at Pampa Colorada: An early coastal site in Peru. (poster)

The Pampa Colorada region of southern coastal Peru consists of over 80 known sites dating from the Early to Late Holocene. During the 2017 field season, our team re-visited site PC-343, first recorded by McInnis in 2006. The site, characterized by dense shell middens interlaced with lithic tools and human burials, is under imminent threat of destruction by highly erosive coastal winds and seasonal fogs. We applied emerging technologies to record and salvage artifacts and human remains. Here we present preliminary results of drone imagery analysis, photogrammetric model construction, and precise geospatial recording of surface artifact and human burial distributions.

Isabelle Druc and Michelle Young: Communities of potters and the production of local and "Chavín International" styles at Atalla, Huancavelica, Peru. (presentation)

Recent excavations at the Formative period ceremonial center of Atalla unearthed an unusually diverse ceramic assemblage, including a previously undocumented local style and a range of non-local styles, most notably the "Chavín international style". In order to understand the production of such stylistic diversity, a petrographic study of 73 ceramic thin sections and 24 samples of local sand and clay was undertaken. The results brought to light the coexistence of

groups of potters belonging to different technological traditions that engaged in both the production of the local style and imitations of non-local styles. The results suggest that multiple potters' groups provisioned the main center of Atalla and record a drastic technology shift between Formative and Early Intermediate period, patterns which have been observed at other Andean sites. This talk will present the results of the petrographic study and discuss parallels in the production patterns observed at Atalla and other coeval sites in the Andes.

Curran M. Fitzgerald, Cyrus D. Banikazemi, and Donna J. Nash: Archaeoastronomical analysis of Wari ritual spaces in the Osmore Valley, Peru. (poster)

Recent archaeoastronomical surveys of the administrative and ceremonial citadel on Cerro Baúl and elite contexts on neighboring Cerro Mejía have identified alignments of ceremonial architecture with recurrent astronomical phenomena at both sites, suggesting that observation of the heavens reinforced the ritual power structure of imperial Wari society. The celestial alignments of Cerro Baúl's Temple of Picchu Picchu and Temple of Arundane represent a hegemonic syncretism, subsuming the worship of local apu into the imperial orthodoxy of the Wari cosmos. Additionally, a newly identified solar calendrical complex on the summit of Cerro Mejía may have further served to expand the ideological authority of Wari elites.

Steph Gruver and Kurt Rademaker: Chronology and seasonality at Quebrada Jaguay: Implications for early settlement of South America. (presentation)

Quebrada Jaguay 280 (QJ-280) is one of the earliest maritime archaeological sites in the Americas. Our team's 2017 field investigations focused on refining chronology and determining occupation seasonality and paleoenvironmental conditions. High-precision AMS ages on short-lived botanical remains show that QJ-280 dates no earlier than 12.4-12.0 ka, the same age as Cuncaicha rockshelter in the high Andes. Stable isotope data obtained from *Mesodesma* clam shells at QJ-280 clearly indicate a seasonal occupation. Together, these new findings support coeval peopling of the coast and highlands, either by different groups or via inter-zonal movements by a single group to exploit seasonal resources.

Di Hu: Making sacred space under the Inca in a mitmaquna settlement, Province of Vilcashuamán, Peru. (presentation)

The Inca dramatically changed the social landscape of the peoples they conquered and ruled. One of the major ways they did so was through the mitmaq policy that resettled groups of people into new locales to serve the Incas. According to ethnohistoric sources, about a quarter to a third of the total subject population was resettled under the mitmaq policy. Despite the mitmaq policy's importance, we almost have no archaeological evidence to understand how the resettled subjects coped in their new landscapes. This paper presents the first archaeological evidence of an agricultural mitmaq settlement near the Inca provincial capital of Vilcashuaman and argues that although the Inca created dependent rural subjects through the

mitmaq, the subjects mostly autonomously created sacred space in their settlement, recreating home far from their original homes.

Arwen Johns, Lisa Hodgetts, and Jean-François Millaire: Broad trends in faunal consumption at Huaca Gallinazo and Huaca Santa Clara, Virú Valley, North Coast of Peru. (presentation)

This paper compares patterns of animal consumption at Huaca Gallinazo and Huaca Santa Clara within the emerging Virú State during the Early Intermediate Period. This study uses a social zooarchaeological approach to document the dietary contributions of the most common animal species from both sites, as well as their social and symbolic roles. There are notable differences in consumption patterns between Huaca Gallinazo and Huaca Santa Clara, as well as within the sites themselves, highlighting how variability in food systems can develop within the same state structure, in relation to social differentiation and environmental context.

Danielle Shaw Kurin, Beatriz Marilyn Lizarraga Rojas, and Ruben Garcia Diaz:

Behind the footsteps of death: Findings of a funerary context at the archaeological site of Sondor, Apurimac, Peru. (poster)

This work is product of the archaeological excavations carried out in 2017 at the Research Project "Proyecto Arqueológico Sándor, Pacucha ". The investigation is in its preliminary phase since the analysis is currently being conducted. For this reason, the focus will be on a Chanka funerary context found in the excavation unit 2 of the Muyu Muyu sector. The findings were located inside the rocky outcrop of a machay (rocky crevice) and southwest of the sculpted hill (Muyu Muyu). It comprises of a primary burial of two individuals, associated to a small vessel and rodent skeletal remains (possibly guinea pig).

Bruce Mannheim: Everything Andean archaeologists and ethnohistorians wanted to know about Quechua (but were ashamed to ask). (presentation)

While Quechua is often represented as unitary, partly because of academic folklore, Quechuas are many, differentiated in a two-millennium history, differentiated through contact with other indigenous languages, and differentiated socially. I discuss three axes of linguistic differentiation in the Quechua family: (1) the pre-Columbian differentiation of the Quechua family; (2) contact between Quechua languages and other indigenous South American languages; and (3) the emergence of elite, hispanized social registers of Quechua after the European invasion (1532), and their effect on what are, effectively, "interethnic" interactions. All three require substantial reconsideration of what we thought we knew about Quechua linguistic history, language contact, and ontological differentiation. There are substantial methodological issues, both for prehistory and ethnohistory that emerge from these considerations.

Christopher Milan: Four views of the Lurín Valley from the Initial Period. (poster)

The Manchay Culture is characterized by the construction of a number of large civic-ceremonial centers on the central coast of Peru during the Initial Period (1800 – 800 BC); within the Lurín Valley there are eight such temples. A spatial analysis of the Lurín Valley focusing on four temples (Huaca Candela, Manzano, Pampa Cabrerra, and Parka) will provide insight into the roles served by U-shaped temples and the relationship between one and other. The conservation of these sites also shows the challenges facing scholars working in the Lima Metropolitan Area and other urban areas in the Andes mountains.

Riley Murrin: If these floors could talk: Examining ancient human activities in the Temple Annex on Cerro Baúl. (poster)

Focusing only on what soil yields as an agricultural resource or raw material is to risk adopting deterministic forms of anthropological thought where people are controlled by their environment. Fortunately, the growth of literature on the topic of soil chemical analyses suggests archaeologists are advancing away from those outdated forms of theory. In this study, I employ X-ray Fluorescence Spectroscopy to conduct a multi-element chemical analysis on soil samples from floor contexts of the Temple Annex at the site of Cerro Baúl. Six elements were chosen for interpretation: Lead, Copper, Zinc, Potassium, Magnesium, and Strontium. The examination of these elemental signatures left behind by past human activities provide a new, less artifact-reliant way to reconstruct the everyday activities which took place at this Wari imperial center.

Pedro Navarro and Isabelle Druc: Sampling geological comparative materials: Going beyond maps. An example from San Pablo region, Cajamarca Department, Peru. (poster)

Geological samples of rocks, sediments, sands and clays are used in archeology as a comparative material in provenance studies of ancient ceramics. This is illustrated by the geological study carried out around the archaeological site of Kuntur Wasi in the San Pablo region. Geological study consisted in collection of samples of volcanic and intrusive rocks, sand and clay, besides a review of lava outcrops and subvolcanic deposits. In this way, we obtained information on the mineral composition of these deposits and sediments along the San Miguel River and its tributaries. In addition, the mineral composition of the samples studied was compared by petrography of thin sections with the aplastic components of the archaeological ceramics. As a result, the studies suggested the probable use of eluvial pyroclastic material from Cerro Cuscuden to produce many of the ancient ceramics found in Kuntur Wasi. Furthermore, we discard the use of San Miguel river sand to produce pottery with intrusive paste. Probably the intrusive fragments come from Jequetepeque River. Finally, our goal is that this methodology be used in researches of interest among geologists and archaeologists

Jo Osborn, Rachael Penfil, and Jacob Bongers: From Inkawasi to Tambo Colorado: Macro-regional analysis of settlement patterns on the Peruvian South Coast (ca. 1000 - 1532 CE). (poster)

Imperial expansions have significant effects on regional settlement patterns. While previous archaeological research on the Peruvian south coast has traditionally focused on a single site or valley, this analysis casts a wider net in order to explore macro-regional patterns by synthesizing decades of data focusing on the Cañete, Topará, Chíncha, and Pisco Valleys between the Late Intermediate Period (ca. 1000-1450 CE) and Late Horizon (ca. 1450-1532 CE). This initial exploration forms the foundation of a developing geospatial analysis that examines how and why settlement patterns on the south coast shifted after Inka expansion.

Daniela Maria Raillard: Embodied deathscapes: An investigation of ethnic identity through Chullpas in the Northeastern Andes. (presentation)

Along the Northeastern slopes of the Peruvian highlands, the Chachapoya are famed for their diversity in chullpa styles. From painted sarcophagi to mausoleum, previous studies suggest that chullpas maintained a distinct regional variation, acting as nodes of social memory for the veneration of ancestors (Nystrom, 2005; Crandall, 2012; Epstein and Toyne, 2016). In this paper, I explore preliminary evidence that the frequency and diversity of chullpas acted to structure the landscape of the living. I suggest that the mapping of chullpas in the Chachapoya region can 1) provide insight into questions of pre-Inka ethnic diversity and 2) develop understanding of how the dead in the Andes structured the landscape of the living. I introduce a preliminary model of a deathscape to explore how catchment analyses, settlement patterns and viewsheds demonstrate the embodiment of the dead.

David Reid: Wari roads in Southern Peru? Recent investigations of Middle Horizon waystations in Arequipa. (presentation)

This paper presents recent investigations of a pre-Inca road network in the Majes/Chuqibamba region of Arequipa, Peru. Excavations of targeted waystation sites indicate the development of road infrastructure was both a product of local communities and an intrusive Wari state during the Middle Horizon. Through the lens of road infrastructure, I take a multi-scalar perspective on the transmission of Wari material culture and practices on their southern frontier. The discovery of a new Wari enclave and D-shape temple along this road network indicates the intersection of political economy and ritual that would have embedded local communities into the Wari sphere.

Mario A. Rivera, Amina Boutellis, Rezak Drali, Kosta Y. Mumcuoglu and Didier Raoult: Evidence of DNA head lice in a pre-Columbian mummy from Camarones, Chile. (poster)

Three different lineages of head lice are known to parasitize humans. Clade A, which is currently worldwide in distribution, was previously demonstrated to be present in the Americas

before the time of Columbus. The two other types of head lice are geographically restricted to America and Australia for clade B and to Africa and Asia for clade C [1] . In this study, we tested two operculated nits from a 4,000-year-old Chilean mummy of Camarones for the presence of the partial Cytb mitochondrial gene (270bp). Our finding shows that clade B head lice were present in America before the arrival of the European colonists. One clue we are trying to follow up has to do with *Pediculus mjobergi* that parasite South American monkeys belonging to the Cebidae family. These lice present great morphological similarity with *Pediculus humanus* species. In 1983 J.W. Maunder suggested South American monkeys acquired lice from the first men who penetrated the New World across the Bering straits. At present time, and in order to follow up this line of research it is crucial to obtain samples from monkeys belonging to the Cebidae family.

Benjamin J. Schaefer, Sloan R. Williams, and Nicola O. Sharratt: Making a Mitmakuna: Investigating endogenous cortisol through archaeological hair in a Lupaqa colony (poster)

The site of Estuquiña was likely established as a Lupaqa colony settlement during the LIP (AD 1100-1476), a period characterized by regional socio-political decentralization and transition throughout much of Andean South America. Using enzyme-linked immunosorbent assay (ELISA) to obtain both total and segmented cortisol levels, this study aims to reconstruct periods of duress in a colony established during political fragmentation and decentralization of the Tiwanaku. This exploratory research suggests that the variation in cortisol levels at Estuquiña differs based on sex, pre- and post- pubertal development, and other confounding factors related to age at time of death.

Amedeo Sghinolfi: The Italian archaeological mission in Peru: Late Lima and Nievería pottery from Cajamarquilla, Peruvian Central Coast. (poster)

The Italian Archaeological Mission, directed by Claudio Pellegrino Sestieri, carried out investigations from 1962 and 1971 in three architectural compounds at the site of Cajamarquilla, on the Central Coast of Peru. Sestieri brought back to Italy many artifacts, especially Late Lima and Nievería (ca. 550-750 C.E.) ceramics. The vessels have been the object of preliminary technological, morphological and iconographic analyses that helped document the Late Lima occupation of the site, the involvement of Cajamarquilla residents in a network of long distance exchanges and the Wari influence on the Central Coast during the first half of the Middle Horizon.

Nicola Sharratt and Richard Sutter: Late Intermediate Period ethnogenesis in the Moquegua Valley, Peru: a bio-archaeological perspective on the emergence of Estuquiña communities. (presentation)

The Late Intermediate Period witnessed processes of population movement, displacement, and ethnogenesis. In the Moquegua Valley, circa AD 1250, Estuquiña materials replaced Tiwanaku derived styles. The origins of inhabitants of Estuquiña sites are central to understanding this

shift. We present biodistance analyses, based on scoring of highly heritable nonmetric tooth traits from skeletal samples at two Estuquiña affiliated sites. Comparison with previously reported results indicates that both Estuquiña samples were directly descended from previous local Middle Horizon populations and that the stark change in the archaeological record reveals shifting ethnic identities within the valley rather than the arrival of immigrants.

Emily A. Sharp and M. Elizabeth Grávalos: Dwellings for the living and the dead: Tracing transformations in residential and mortuary architecture at Jecosh, Peru. (presentation)

Significant transformations in mortuary practices occurred in highland Ancash at the onset of the Middle Horizon. Recuay groups began to inter the dead in above-ground, instead of subterranean, tombs. These constructions often echo residential architecture, yet such connections have remained unexplored. To investigate these issues, we present preliminary excavation results and architectural analyses of nine tombs and eight discrete residential areas from the site of Jecosh (1-1450 CE). Results reveal similarities in masonry style and construction materials, but more marked differences in scale and spatial layout. We contextualize our data within the broader region through brief comparisons to other sites.

Nicole M. Slovak: Thinking outside the bundle: Crafting a new narrative for the Field Museum's Ancón mummies. (presentation)

At the end of the nineteenth-century, George Dorsey excavated more than 170 mummies and thousands of associated artifacts from the site of Ancón, Peru for exhibition at the 1893 World's Columbian Exhibition. Since that time, mortuary contexts for many of these materials has been lost. This paper traces the fate of the Ancón mummies from excavation to exhibition to curation, and presents the results of recent efforts carried out at the Field Museum to reconstruct original funerary assemblages. For the first time in more than a century, the life stories of some of Ancón's ancient residents can now be written.

Dagnara Socha: Child mummies from San Francisco, Yauca. (poster)

The investigation of child remains can provide answers to many questions, including population health levels and cultural activities in which they could have participated. During excavations conducted in 1987/1988 by Francis Riddell and Lidio Valdez in the Yauca Valley, many well-preserved child mummies were found. In 2017, these mummies were the object of anthropological research for the first time. Studies were conducted including: radiography, anthropological analysis, and photography in different kinds of lights (UV, infrared). The results of this study show some pathologies causing high child mortality rates and permanent body decorations like: artificial cranial deformation and ear deformity caused by orejeras.

John E. Staller: Endemism, domestication and cultivation of high altitude Maize (*Zea mays L.*) in the Lake Titicaca Basin, Bolivia. (presentation)

Multidisciplinary evidence is presented on the existence of an endemic maize landrace in the Lake Titicaca Basin, Bolivia. This maize variety called tunqu by indigenous speaking populations and was domesticated and is cultivated on artificial terraces around the Copacabana Peninsula between 3810 to 4100 masl since c. 800 B.C. It is the only maize variety cultivated above 3600 masl. The phenotypic characteristics are unique and specifically adapted to the microenvironment around the lake. Colonial accounts emphasize it was considered sacred, central to rituals and primarily consumed as beer (chicha). Its botanical and biological characteristics cultivation, preparation and consumption are analyzed.

Kasia Szremski: Heterarchy, exchange, and cultural cohesion among the Chancay: The view from Cerro Blanco (Huanangue Valley, Peru). (presentation)

The Chancay culture on the north-central coast of Peru is best known for their distinctive black-on-white ceramics and adobe tapial structures. However, despite more than a century of study, little is known about their political and economic organization. This paper presents new data from the 2015 and 2017 field seasons at the Chancay administrative center Cerro Blanco (located in the Huanangue Valley) to argue that interzonal exchange was a key part of the Chancay economy and that this emphasis on developing interzonal trade networks was likely key to promoting cultural cohesion among far-flung Chancay settlements.

Benjamin Vining: Disaster's reach: A remote sensing assessment of environmental changes caused by the 2017 el Niño and their implications for prehispanic agricultural production in Peru's Chicama Valley. (presentation)

The el Niño Southern Oscillation (ENSO) has long been linked with disastrous environmental events and even social collapse in the Andes. The recent 2016 – 2017 ENSO provides the opportunity to track the spatial development of el Niños and their effects on modern and archaeological communities. Satellite remote sensing reveals that ENSOs have spatially-heterogeneous effects. Flash flooding and mass wasting occurred in the main portions of the Chicama Valley, affecting irrigation intakes, fields, and monumental sites. However, rainfall along the desert margins led to localized groundwater features. Currently more humid conditions provide a proxy for reconstructing environments during past wetter climatic phases. Sites in the Pampa Mocan and similar areas indicate they were cultivated in the past. Ephemeral groundwater in the past may have enabled opportunistic but small scale agriculture, buffering risk to larger, centralized systems. This has important implications for environmental disaster not being an all-or-nothing proposition, but affecting different elements of political economies variably.

NOW AT THE FIELD MUSEUM

Mummies

See mummies as you never have before in this rare, close-up look at mummies from the two places in the world with the longest and most interesting mummification traditions: ancient Egypt and ancient Peru. *Mummies* concludes its highly successful national tour to open at home in Chicago. Comprised entirely of objects from The Field's own collection, the exhibition includes 14 mummies, exquisitely painted coffins, stone sarcophagus fragments, ceramics, mummified animals, and mummy masks. Using non-invasive CT scanning, DNA analysis, and other cutting-edge technologies, Field Museum scientists pare back thousands of years and reveal the people behind gilded coffins and carefully wrapped bundles.

Ancient Mediterranean Cultures in Contact

What happens when cultures collide and people are able to trade, interact, and influence each other like never before? *Ancient Mediterranean Cultures in Contact* features an impressive array of Roman, Egyptian, Greek, and Etruscan objects and dives into a time when borders opened and civilizations began to interact. This unprecedented movement led to trade, travel, and the exchange of ideas across seas and continents, fueling innovation and adoption in the arts, religion, language, and writing. Each individual piece in the exhibition has a much larger story to tell: a Roman Period mummy from Egypt, an Etruscan vase made in the Greek style, and the crowning of Greek and Roman leaders as pharaohs challenge what we've come to believe about these ancient nations and the world we live in today.

Fieldiana Anthropology

The Field Museum of Natural History publishes *Fieldiana* a peer-reviewed series that focus on mid-length monographs pertaining to the Museum's collections and research. Here are some of the recent publications, many of interest to Andeanists.

No. 36. Curators, Collections, and Contexts: Anthropology at the Field Museum, 1893-2002. Stephen E. Nash and Gary M. Feinman, editors. 2003. 336 pages, 102 figures, 6 tables, 1 appendix.

No. 37. Hilltop Terrace Sites of Oaxaca, Mexico: Intensive Surface Survey at Guirún, El Palmillo, and the Mitla Fortress. Gary M. Feinman and Linda M. Nicholas. 2004. 240 pages, 109 figures, 35 tables, 1 appendix.

No. 38. Fashion Tradition: Maya Huipiles in The Field Museum Collections. J. Claire Odland. 2006. 67 pages, color illustrations, appendices.

No. 39. The Hospital of San Andres (Lima, Peru) and the search for the Royal Mummies. Brian S. Bauer and Antonio Coello Rodriguez. 2007. 31 pages, 20

No. 40. Archaeological Investigation of Late Archaic Sites (3000- 1800 BC) in the Pativilca Valley, Peru. Winifred Creamer, Alvaro Ruiz, Jonathan Haas. 2007. 79 pages, 41 figures, 14 tables.

No. 41. Continuity and Change in a Domestic Industry: Santa Maria Atzompa, a Pottery Making Town in Oaxaca, Mexico. Mary Stevenson Thieme. 2009. 80 pages, 40 figures, 28 tables.

No. 43. Settlement patterns of the Ejutla Valley, Oaxaca, Mexico: A diachronic macroscale perspective. Gary M. Feinman and Linda M. Nicholas. 2013. 330 pages, 190 figures, 73 tables. Appendices.

No. 44. The Fortaleza Valley, Peru: Archaeological investigation of Late Archaic Sites (3000-1800 BC). Winifred Creamer, Alvaro Ruiz Rubio, Manuel F. Perales Munguia and Jonathan Haas. 2013. 108 pages, 59 figures, 40 tables.

No. 45. The Shipibo-Conibo: Cultures and Collections in Context. Alaka Wali, J. Claire Odland, Luisa Elvira Belaunde, Nancy Gardner Feldman, Daniel Morales Chocano, Ana Mujica-Baquerizo, and Ronald L. Weber. Published 4 November 2016.

No. 46 Settlement Patterns in the Albarradas Area of Highland Oaxaca, Mexico: Frontiers, Boundaries, and Interaction. Gary Feinman and Linda Nicholas. 2018.