

Schedule for the 40th Annual Midwest Conference on Andean and Amazonian Archaeology and Ethnohistory

February 24-26, 2012

Friday, February 24

Informal Reception

For those of you who will be arriving early and would like a chance for informal conversation, there will be a reception at the home of Brian Bauer at 229 South Kenilworth Ave, Oak Park from 7-9pm. For those who do not have cars, take the GREEN LINE on the CTA to the Oak Park station, walk two block west to Kenilworth Ave and two blocks south to the house.

Saturday, February 25 **James Simpson Theater**

8:00-8:30 am Coffee, registration.

8:30-8:35 am Welcome. Nicola Sharratt (UIC/Field Museum) Benton Postdoctoral Fellow, Field Museum

Session 1 Moderated by Nicola Sharratt

8:35-9:00 am *Emily Stovel*: Ethnicity and Culture in Andean Archaeology

9:00-9:25 am *Bradford M. Jones*: Por Ser Todos Cañares: Being Cañari In Late 17th Century Cuzco, Peru

9:25-9:50 am medicinal *Brendan J. M. Weaver*: Mummies, Dragon's Blood, and Tapir Toes: Ethno-History of an 18th-Century Jesuit Pharmacy in Cuzco

9:50-10:15 am of Huánuco *Monica Barnes, Sumru Aricanli, and Nina Cummings*: Early Illustrations of Pampa

10:15-10:45 am **Break and Poster Presentations**

Session 2 Moderated by Matthew Piscitelli

10:45-11:10 am *Lidio M. Valdez*: The Earliest Fortified Settlements of the Acari Valley, Peru

11:10-11:35 am *John H. Walker*: Ring Ditches and Raised Fields in West-Central Mojos

11:35 am-12:00 pm Niño and the *Brian R. Billman, Gary Huckleberry, and Jesus Briceño Rosario*: El Niño and the Onset of Endemic Warfare on the North Coast of Peru in the Early Horizon

and Early Intermediate Period? Exploring Climatic Change and Social Stress

12:00-1:15 pm

Lunch break

Session 3 Moderated by Gabriel E. Cantarutti

1:15-1:40 pm
Interregional

Ryan Clasby: Connecting the Andes to the Amazon: Perspectives on

Exchange and the Eastern Slopes during the Formative Period (Preliminary Investigation Results from the Site of Huayurco)

1:40-2:05 pm
Peruvian

Isabelle Druc: What is Local? Looking at Early Ceramic Production in the

Highlands

2:05-2:30 pm
de

Victor M. Ponte: Marca Jirca Site: A Recuay Funerary Complex in the Callejón

Huaylas, Peru

2:30-2:55 pm
Valley: A New

Augusto Cardona Rosas, M. C. Lozada, and Hans Barnard: The Vitor

Window to the Prehistory of the South Central Andes

2:55-3:15 pm

Break and Poster Presentations

Session 4 Moderated by Matthew Schauer

3:15-3:40 pm
Historical

Andy Roddick, Maria Bruno, and Christine Hastorf: Space, Place, and

Process at Late Formative Kala Uyuni

3:40-4:05 pm
the

Benjamin Vining: Social Fissioning and the Development of Rural Societies in

Lake Suches Highlands of Southern Peru

4:05-4:30 pm
Lemuz Aguirre:

John W. Janusek, Patrick Ryan Williams, Mark Golitko, and Carlos

Telluric Urbanism: Lithic Transformations in the Production of Tiwanaku

4:30-4:55 pm
Ancient

Claudine Vallières: A Taste of Tiwanaku: Daily Culinary Practices in an

Andean Urban Neighborhood

4:55-5:00 pm

Business Meeting (open to all)

5:00-7:00 pm **Reception at the Field Museum (open to all)**

Sunday, February 26 **James Simpson Theater**

8:30-9:00 am Coffee

Session 5 Moderated by Emily Baca Marroquin

9:00-9:25 am *Christopher Milan*: When Chavín Came Around: The Initial Period and
Early Horizon

Occupation of Malpasó and its Implications for the Central Coast of Peru

9:25-9:50 am *Richard Burger and Lucy Salazar*: The Phenomenon of Ceremonial Trash in
the

Lurin Valley of Peru's Central Coast during the Initial Period

9:50-10:15 am *Richard C. Sutter*: Phenetic Relatedness among the Moche (AD 200-750) of
the

North Coast of Peru: A Comparison of the Skeletal Populations from San José
de Moro to Those from the Moche Valley

10:15-10:45 am **Break and Poster Presentations**

Session 6 Moderated by Douglas K Smit

10:45-11:10 am *Paul Szpak, Fred Longstaffe, Jean-François Millaire, and Christine*
White: Want

Not the Waste? Seabird Guano Use in the Prehispanic Andes

11:10-11:35 am *Ana Nieves and Gori Tumi Echevarría*: The Petroglyphs and Pictographs of
Site

X02, Nasca Valley (Río Grande de Nasca Drainage, Department of Ica, Peru):
Analysis and Context

11:35 am-12:00 pm *Go Matsumoto, Fukutaro Kudo, and Rie Maruyama*: A Patterned
Distribution of

Stamped Designs on Paletada Vessel Fragments in the Great Plaza of the
Middle Sicán Capital

12:00-12:25 pm *Stacy Dunn*: Architecture and Power in the Expansion of a Small Polity:
a Study of

Chancay Rural Elite Residences

12:25-12:30 pm **Closing remarks: Brian S. Bauer and Ryan Williams**

Posters for the 40th 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.

Hans Barnard, Ben T. Nigra and Kym F. Faull

The Development of a Chemical Analytical Method to Identify Molecular Residues of *Schinus molle*
Roberta Boczkiewicz, Jean Hudson, Rachel McTavish, Jesús Briceño Rosario and Brian Billman

Fish Utilization at Gramalote, Peru

Tanvi Chhatiawala and Shawna Follis

Deciduous Tooth Trait Data from San José de Moro: Preliminary Biodistance and Asymmetry Results

Allison R. Davis and Tim Horsley

Magnetometry mapping of a Formative period village in Cusco, Peru (400-100 BC)

Jordan Downey and Jean-François Millaire

Revisiting the Virú Valley Survey Project Using Digital Technology

Guy S. Duke

Flowing Through Time: The Canal System of San Andrés, Chimborazo, Ecuador

Jean Hudson, Roberta Boczkiewicz, Rachel McTavish, Jesús Briceño Rosario and Brian Billman

Faunal Remains from Gramalote, Peru: Contexts and Overview

Sally Lynch

Feasting Rituals of Huaca Colorada

Rachel McTavish, Jean Hudson, Roberta Boczkiewicz, Jesús Briceño Rosario and Brian Billman

Chronological Patterns in Vertebrate Taxa at Gramalote, Peru

Benjamin Nigra and Augusto Cardona Rosas

Directing Traffic: A Survey of Space and Movement in the Vitor Valley, Peru

William J. Pestle, Christina Torres-Rouff, Mark Hubbe, Francisca Santana S., Gonzalo Pimentel, Francisco Gallardo, and Kelly J. Knudson

Dietary Diversity in the Prehistoric Atacama Desert, an Initial Approximation of Regional Patterns

Mario A. Rivera, Justin P. Dodd and Daniel E. Shea

Water Availability during Prehispanic Human Settlement in the Atacama Desert

Evan B. Robinson, M. C. Lozada and Willeke Wendrich

An archaeological and ethnohistorical approach to the colonial wine industry in the valley of Vitor

Sarah M. Rowe

Late Valdivia Phase Ceramics: Chronological and Regional Clarifications

Allen M. Rutherford

Mapping the community: Initial results from the Proyecto Aqueológico Cerro Colorado de Huacho, Huaura Valley, Peru

Sloan R Williams, Ken Batai and Virginia Vitzthum

A mtDNA population genetic study of the Aymara

Abstracts for the 40th Annual Midwest Conference on Andean and Amazonian Archaeology and Ethnohistory

The Field Museum and University of Illinois at Chicago

25-26 February 2012

The Development of a Chemical Analytical Method to Identify Molecular Residues of *Schinus molle* (Poster)

Hans Barnard (Cotsen Institute of Archaeology, Department of Near Eastern Language and Cultures, UCLA), Ben T. Nigra (Cotsen Institute of Archaeology, UCLA), Kym F. Faull (Pasarow Mass Spectrometry Laboratory, Semel Institute, UCLA)

The Wari state is known for the production of chicha de molle, from the fruits of the *Schinus molle* tree, while the Tiwanaku state seems to have produced little, but may have received this by trade or as tribute. Our research aims to develop a chemical analytical method to test ceramic vessels for *Schinus molle* residues. Archaeological samples are obtained from the Millo Complex in the Vitor Valley. Excavations here revealed clear evidence of contacts with the Wari and possibly also the Tiwanaku states. Reference materials are fresh *Schinus molle* extracts and clean pottery spiked with this.

Early Illustrations of Huánuco Pampa (Presentation)

Monica Barnes (Andean Past and American Museum of Natural History), Sumru Aricanli (American Museum of Natural History), Nina Cummings (Field Museum)

The discovery that John Murra made substantial changes to the architecture of Huánuco Pampa motivates our search for illustrations created before his intervention. In addition to published illustrations by Rivera and Tschudi, Raimondi, Squire, Weiner, Chalon, Enock, Harth-terré, V. von Hagen and Murra's photographs, we have located photos by John Todd Zimmer (1922, Field Museum), and by Pedro Rojas Ponce (1958, AMNH). We have obtained a high quality image of the 1786 map (British Library) previously known from crude reproductions in black line. We are creating a virtual graphic archive to serve as a basis for studying post-Incaic changes in the site's architecture.

El Niño and the Onset of Endemic Warfare on the North Coast of Peru in the Early Horizon and Early Intermediate Period? Exploring Climatic Change and Social Stress (Presentation)

Brian R. Billman (MOCHE, Inc and UNC Chapel Hill), Gary Huckleberry (University of Arizona), Jesus Briceño Roasrio (Ministerio de Cultura del Peru)

We examine the relationship between increased frequency of severe El Niño events and dramatic sociopolitical change at the start of the EIP on the north coast of Peru. Paleoflood evidence from the middle Moche Valley suggests increased flood frequency due to severe El Niño events between 400 B.C. and A.D. 200. Increased frequency of El Niños is confirmed by changes in shellfish assemblages at Gramalote and other coastal archaeological sites in the Moche Valley. This change in El Niño frequency correlates with increased conflict marked by defensive land-use patterns.

However, we urge caution; a causal relationship between these phenomena cannot be assumed.

Fish Utilization at Gramalote, Peru (Poster)

Roberta Boczkiewicz (University of Wisconsin at Milwaukee), Jean Hudson (University of Wisconsin at Milwaukee), Rachel McTavish (University of Wisconsin at Milwaukee), Jesús Briceño Rosario (Instituto Nacional de Cultura–La Libertad, Peru), Brian Billman (University of North Carolina-Chapel Hill and MOCHE, Inc)

Stratigraphic excavations at Gramalote, Peru in 2005 (Briceño and Billman 2008) yielded a total fish NISP of roughly 10,000 from Unit 18A. A subsample of fish bone selected to represent upper, middle, and lower parts of the stratigraphic sequence were identified at a more detailed taxonomic level using otoliths and other diagnostic elements. Ranked ubiquity across the 13 sampled proveniences found Sciaenidae (drums and croakers), sharks and rays most common. Identified genera include Engraulis and Sardinops (anchovies and sardines), Labrisomus and Scartichthys (kelpfish and blennies), Anisotremus and Isacia (grunts), Cynoscion, Paralonchurus and Sciaena (croakers and drums), and Galeichthys (sea catfish).

The Phenomenon of Ceremonial Trash in the Lurin Valley of Peru's Central Coast during the Initial Period (Presentation)

Richard Burger (Yale University) and Lucy Salazar

The disposal of ceremonial items in sub-floor pits or on terraces covered with thick clay deposits appears to have been a characteristic of the Manchay culture, judging from its presence at both Garagay and Cardal. A well-documented example of one such pit filled with ceremonial paraphernalia was documented at Cardal in 2008. This late Initial Period pit contained with numerous items of ceremonial trash, including carved bone snuffing paraphernalia, a large hollow ceramic figurine and a decapitated head. The contents of this pit will be described and the implications of its materials and its iconography will be briefly explored.

The Vitor Valley: A new window to the prehistory of the South Central Andes (Presentation)

Augusto Cardona Rosas (Instituto Nacional de Cultura del Peru), M. C. Lozada (University of Chicago), Hans Barnard (Cotsen Institute of Archaeology, Department of Near Eastern Language and Cultures, UCLA)

For 3 years we have conducted archaeological research in the Vitor Valley of southern Peru, including surveys as well as excavations of residential, ceremonial and mortuary contexts throughout the valley. Our data suggests that Wari exerted direct control in Vitor through the establishment of Millo, an extensive administrative center outside Ayacucho. While our research provides compelling evidence of Wari intrusion, our survey, excavation and ceramic data also indicates the coexistence of both Wari and the local formative tradition known as Ramadas in the valley. We discuss the nature of Wari occupation in the region and its relationship to Ramadas.

Deciduous Tooth Trait Data from San José de Moro: Preliminary Biodistance and Asymmetry Results (Poster)

Tanvi Chhatiawala (Department of Anthropology, Indiana University – Purdue University Fort Wayne), Shawna Follis (Department of Anthropology, Indiana University – Purdue University Fort Wayne)

Deciduous nonmetric tooth trait analyses for 80 subadults from the Middle Moche (500 - 650), Late Moche (650 - 800), and Terminal (AD 800 - 1050) periods from San José de Moro are reported here. Biodistance results using subadult tooth traits corroborate those from adult tooth trait analyses. Namely, that extra-local gene flow occurred through time into the Jequetepeque Valley. Tooth trait asymmetry, however - often used as an indicator of stress - exhibited little variation through time, suggesting either that subadults were buffered from stress while in the womb or that the Jequetepeque populations suffered equivalent levels of stress.

Connecting the Andes to the Amazon: Perspectives on Interregional Exchange and the Eastern Slopes during the Formative Period (Preliminary Investigation Results from the site of Huayurco) (Presentation)

Ryan Clasby (Yale University)

Discovered by Pedro Rojas in 1961 near the city of Jaén, Huayurco was one of the earliest Formative sites in the northeastern Andean slopes of Peru to be excavated. The recovery of exotic items and a local stone bowl industry led Rojas and Donald Lathrap to suggest that Huayurco helped to facilitate exchange between coastal, highland and Amazonian populations during the Early Horizon. Recently, excavation and survey were undertaken to explore this idea and to better elucidate the type of site at Huayurco. Preliminary results show that Huayurco had a complex occupational history with clear evidence for interregional exchange beginning in the Late Initial Period and continuing through the Early Horizon.

Magnetometry mapping of a Formative period village in Cusco, Peru (400-100 BC) (Poster)

Allison R. Davis (Oberlin College) and Tim Horsley (University of Michigan)

Yuthu is Formative period village divided into two sectors located 20 km northwest of Cusco. No architecture is visible on the surface, but previous excavations have shown that the Southern Sector is an artificial platform containing ceremonial architecture and the Northern Sector contains houses and domestic activity areas. The underlying sedimentary geology holds great potential for creating a village map by identifying cultural features based on magnetic anomalies. This map will allow us to: (1) understand previously excavated features in relationship to other structures and activity areas and (2) plan targeted future excavations of ceremonial and domestic structures.

Revisiting the Virú Valley Survey Project Using Digital Technology (Poster)

Jordan Downey (The University of Western Ontario) and Jean-François Millaire (The University of Western Ontario)

Recent research has shown that an incipient state formed in the Virú Valley on the north coast of Peru during the Virú time period (ca. 150 B.C. to A.D. 450). We examine ways by which we can investigate the social organization of the Virú state and its development out of the earlier Puerto Morin period (ca. 500 – 150 B.C.) by revisiting and reinterpreting Gordon Willey's original study of the valley's settlement

patterns using satellite imagery, Geographical Information Systems (GIS), and field survey of the valley. These approaches offer valuable insights into the processes of statecraft in Virú.

What is local? Looking at early ceramic production in the Peruvian Highlands (Presentation)

Isabelle Druc (University of Wisconsin-Madison)

How do we define what is local and what is regional? What distance from a given site should the limit be? This issue is particularly important in production studies, as it is key to data interpretation and shaping our understanding of interaction systems, goods' movement, economics, and socio-cultural relationships. A broad review of the concept of local in the Peruvian highlands in regards to ceramic production will be presented, with concrete examples from the Formative centers of Kuntur Wasi and Chavin de Huantar.

Flowing Through Time: The Canal System of San Andrés, Chimborazo, Ecuador (Poster)

Guy S. Duke (University of Toronto)

The small town of San Andrés in the central highlands of Ecuador, at the base of Mt. Chimborazo in Chimborazo Province, utilizes a complex canal system that has been in use dating back to before the Spanish conquest. The system is still used today and is an important part of community identity. This poster traces the timeline for the use of this canal system, as it is currently understood, documenting the continued but dynamic importance of the canal system to the town of San Andrés since before the Spanish conquest to the present.

Architecture and Power in the Expansion of a Small Polity: A Study of Chancay Rural Elite Residences (Presentation)

Stacy Dunn (Tulane University)

This paper addresses community-level political and economic organization during the Late Intermediate Period (AD 1100-1435) at Quipico, Huaura Valley, north-central coast of Peru. This area was part of the Chancay, a little-known polity that offers the opportunity to examine the reconfiguration and coalescence of regional powers in the space created after the collapse of Huari and Tiwanaku empires and prior to Inca expansion. What form did Chancay organization take, and in particular, how was it manifested in the Huaura Valley? Excavation and architectural analysis suggest that these elite residences also served as storage and redistribution centers for the Chancay hinterland.

Faunal Remains from Gramalote, Peru: Contexts and Overview (Poster)

Jean Hudson (University of Wisconsin at Milwaukee), Roberta Boczkiewicz (University of Wisconsin at Milwaukee), Rachel McTavish (University of Wisconsin at Milwaukee), Jesús Briceño Rosario (Instituto Nacional de Cultura–La Libertad, Peru), Brian Billman (University of North Carolina-Chapel Hill and MOCHE, Inc)

Gramalote is a coastal site located near the mouth of the Moche valley in Peru. Early work by Pozorski provided Initial Period dates and suggested the development of subsistence trade between coastal fishers and interior farmers (Pozorski 1978,

1983). Excavations by Briceño in 2005 (Briceño and Billman 2008) produced a deep stratified sample. The UWM Zooarchaeology Lab completed its second season of lab work in Peru in 2011, resulting in identification of over 22,000 vertebrate remains. Preliminary results and new radiocarbon dates are reported here. Associated posters by Boczkiewicz and McTavish focus respectively on details of fish taxa and chronological shifts in the role of fish versus mammals.

Telluric Urbanism: Lithic Transformations in the Production of Tiwanaku (Presentation)

John W. Janusek (Vanderbilt University), Patrick Ryan Williams (Field Museum of Natural History), Mark Golitko (Field Museum of Natural History), Carlos Lemuz Aguirre (Sociedad de Arqueología de La Paz)

For centuries, Tiwanaku has been known for its lithic monumentality. Our recent research indicates that specific material elements of its monumentality helped propel it to urban and sociopolitical centrality during the Andean Middle Horizon. In this paper we present results of our ongoing research into Tiwanaku stone sourcing and lithic production. We focus on results of sourcing of sedimentary (primarily sandstone) and volcanic (primarily andesite) carved stones at Tiwanaku and surrounding sites, and on raw samples from geological outcrops surrounding the southern Lake Titicaca Basin. We suggest that stone quarrying and production were inherently political, and that key transformations in the materiality of monumental stone technologies- from primarily sandstone to volcanic stone integrated with sandstone- helped produce Tiwanaku as a primary urban center in the southern Andes.

Por Ser Todos Cañares: Being Cañari In Late 17th Century Cuzco, Peru (Presentation)

Bradford M. Jones (Texas Historical Commission)

In 1685, ayllus in the Parish of Santa Ana began litigation over agricultural fields located on the slopes of Carmenga in Cuzco, Peru. Though at one juncture the Corregidor and Justicia Mayor of Cuzco, Pedro de Balvin, identifies the litigants as “all Cañares”, the document reveals the involvement of ayllus composed of the descendants of Cañari, Chachapoya, Guanca and other non-Inka groups. Through an analysis of how identity is marked in the litigation, I will show how context, history, and local and colonial knowledge gave multiple meanings to being Cañari in late 17th century Cuzco.

Feasting Rituals of Huaca Colorada (Poster)

Sally Lynch (University of Toronto)

Cajamarca serving vessels at Huaca Colorada, a late Moche site in the Jequetepeque Valley, attests to contact between Moche elites and highland communities. Archaeologists have differently argued that the presence of Cajamarca ceramics point to either the selective incorporation of foreign status symbols or indicate instead the conquest of the Jequetepeque Valley by Highland polities. My analysis of the types and distribution of Cajamarca and fineline Moche ceramics at Huaca Colorada will show that local elites staged feasting rituals of different scales and political meaning, evidence which strongly suggest that Cajamarca pottery cannot be interpreted as diacritics of highland conquest.

A patterned distribution of stamped designs on paleteada vessel fragments in the Great Plaza of the Middle Sicán capital (Presentation)

Go Matsumoto (Southern Illinois University at Carbondale), Fukutaro Kudo (Katoh Construction Co., Ltd.), Rie Maruyama (Katoh Construction Co., Ltd.)

This paper reports the results of our recent stylistic and technological analyses of food vessels excavated from the Great Plaza of the multiethnic Middle Sicán capital. The analyses revealed that the vessels were significantly different in style (morphology and decorative feature) and production quality. The ritual space in the plaza seems to have been segmented and used by various people different in cultural ethnicity represented by different stamped designs on their vessels. Each group of shared cultural ethnicity is likely to have consisted of people different in social status represented by different styles and production qualities of the vessels.

Chronological Patterns in Vertebrate Taxa at Gramalote, Peru (Poster)

Rachel McTavish (University of Wisconsin at Milwaukee), Jean Hudson (University of Wisconsin at Milwaukee), Roberta Boczkiewicz (University of Wisconsin at Milwaukee), Jesús Briceño Rosario (Instituto Nacional de Cultura–La Libertad, Peru), Brian Billman (University of North Carolina-Chapel Hill and MOCHE, Inc)

Over 22,000 fragments of animal bone have been identified for the Initial Period coastal site of Gramalote, Peru. This sample is a result of the 2005 excavations at the site directed by Jesus Briceño Rosario (Briceño and Billman 2008). To better understand possible chronological shifts in the importance of fish versus mammals, we focused on a subsample of 7233 fragments for midden contexts spanning the stratigraphic sequence. Using bone weight as a proxy for dietary ranking our analysis shows increasing reliance on fish over time. Living surfaces show divergence from the midden pattern.

When Chavin Came Around: The Initial Period and Early Horizon Occupation of Malpaso and Its Implications for the Central Coast of Peru (Presentation)

Christopher Milan (Yale University)

Malpaso is a temple located in the middle Lurin valley associated with the Manchay culture, a group typified by large U-shaped ceremonial centers found around Lima. Over two field seasons, excavations have shown that Malpaso was occupied in the Initial Period and contemporary with nearby U-shaped temples and during the Early Horizon, after those temples had been abandoned. This paper will look at the transition from the Initial Period to Early Horizon through changes made to the temple and its relationship with nearby sites, showing a substantial shift in the organization of the central coast from numerous local temples to a few regional centers.

The Petroglyphs and Pictographs of Site X02, Nasca Valley (Río Grande de Nasca Drainage, Department of Ica, Peru): Analysis and Context (Presentation)

Ana Nieves (Northeastern Illinois University), Gori Tumi Echevarría (Universidad Nacional Mayor de San Marcos and Asociación Peruana de Arte Rupestre)

Nasca valley rock art site X02, first documented in Nieves' 2007 dissertation, includes examples of petroglyphs and pictographs of different types and styles. Although some of the petroglyphs can be dated to the Early Horizon, many

cannot be dated based simply on their iconography. In this paper, we propose an analysis of the site's rock art based on a formal study of the images and comparisons to other south coast rock art sites. We then use these figure types to propose a basic sequence and tentative chronology for site XO2, advancing a hypothesis for the site's cultural context.

Directing Traffic: A Survey of Space and Movement in the Vitor Valley, Peru (Poster)

Benjamin Nigra (UCLA) and Augusto Cardona Rosas (Instituto Nacional de Cultura del Peru)

As early as the Formative Period, the Vitor Valley served as an agricultural oasis and corridor for movement between the southern highlands and the Pacific. Survey in 2011 identified 29 pre-Columbian sites belonging to Wari, Inka, and La Ramada traditions. While Ramada remains are spread across the valley, Wari sites cluster around ancient roadways linking the valley bottom with the surrounding pampa. The strategic placement of sites allowed Wari to control movement into Vitor. This was accomplished via direct observation over thoroughways, placement of sites at bottlenecks, and construction of infrastructure to encourage use of certain paths over possible alternatives.

Dietary Diversity in the Prehistoric Atacama Desert, an Initial Approximation of Regional Patterns (Poster)

William J. Pestle, Christina Torres-Rouff, Mark Hubbe, Francisca Santana S., Gonzalo Pimentel, Francisco Gallardo, and Kelly J. Knudson

Recent archaeological and bioarchaeological research in northern Chile's Atacama Desert has provided the first glimpses into the region's prehistoric dietary variation. Here we present first interpretations of paleodietary information from the area based on stable isotope analyses of archaeological human skeletal remains from the Formative Period, Middle Horizon, and Late Intermediate Period. While one might imagine that the dramatic geographic boundaries of northern Chile's mountains and deserts would produce dramatic differences in diet between coastal populations and those of the interior, current understandings of the high levels of interregional interaction in the area suggest that the picture is more complex.

Marca Jirca Site: A Recuay Funerary Complex in the Callejón de Huaylas, Peru (Presentation)

Victor M Ponte (University of Wisconsin, Milwaukee)

Archaeological data collected from cultural resource management projects in the Callejón de Huaylas near the city of Huaraz, Perú, have provided important data for the understanding of Recuay burial patterns. Although most of the tombs have been disturbed or looted, some subterranean structures, especially at the Marca Jirca site remain undisturbed. In this area secondary burials with body parts were placed in an elaborate complex of stone boxes, which accompanied larger chambers as a part of a mortuary ritual. Finally, an interesting case of revisiting a Marca Jirca's tomb, and appropriation of grave goods carried out in a later event also will be discussed.

Space, Place and Historical Process at Late Formative Kala Uyuni (Presentation)

Andy Roddick (McMaster University), Maria Bruno (Dickinson College), Christine Hastorf (UC Berkeley)

Since 2003 the Taraco Archaeological Project (TAP) has investigated a number of Late Formative sites on the Taraco Peninsula, in the Lake Titicaca Basin (Bolivia). Kala Uyuni, one of the better preserved sites, exemplifies the complexity of village occupation during the important Late Formative Period. In this paper we present the results of three seasons of excavations, highlighting the traces of generations of local place-making practices, including the evidence for shifting architectural choices and the changing use of Late Formative space. We briefly discuss the implications of the project's findings to current regional debates of sociopolitical process.

Water Availability during Prehispanic Human Settlement in the Atacama Desert (Poster)

Mario A. Rivera (Beloit College, Beloit, Wisconsin), Justin P. Dodd (Northern Illinois University, DeKalb, Illinois), Daniel E. Shea (Beloit College, Beloit, Wisconsin)

The Atacama Desert is among the driest regions on Earth, and accessibility to water is critical to the settlement of humans. Drought resistant trees such as *Prosopis tamarugo* indicate fluctuations in regional moisture availability over the past 10ka. Oxygen isotope data from fragments of *P. tamarugo* wood record sub-seasonal variations in moisture availability/ water source at La Tirana Refresco (modern), Ramaditas (2615 Cal BP), and Llamara (9130 and 7910/7870 Cal BP). These data provide critical information about how water availability and land-use in Pampa del Tamarugal affected the development of fundamental aspects of Prehispanic economy, political organization, and power relations.

An archaeological and ethnohistorical approach to the colonial wine industry in the valley of Vitor (Poster)

Evan B. Robinson (University of Chicago), M. C. Lozada (University of Chicago), Willeke Wendrich (UCLA)

A critical part of the Vitor Archaeological Project has been the survey of colonial sites of wine production throughout this valley in southern Peru. At least 55 bodegas were recorded, varying in size and condition, some of which are still in use. These sites serve as a testimonial to the remarkable transformation of the local landscape, the indigenous identity and social dynamics within the Vitor Valley in response to the introduction of European viticulture traditions. Our ethnohistorical research sheds light on the Andean trade system of wine and examines the economic impact of this colonial industry throughout the region.

Late Valdivia Phase Ceramics: Chronological and Regional Clarifications (Poster)

Sarah M. Rowe (University of Illinois)

This poster presents the ceramic seriation results from Buen Suceso, a stratified Late Valdivia site in southern coastal Ecuador. My work builds on Betsy Hill's seriation which was limited in the Late and Terminal phases of Valdivia, as these periods were represented only by surface collections and arbitrarily divided into 150 year periods. Overlapping occupation at Buen Suceso extending from Middle to Terminal Valdivia has allowed for comparison with ceramic seriations from other sites and, most critically, directly addresses weaknesses in the current Valdivia ceramic chronology,

leading toward a refined understanding of the periodicity of ceramic change during this time.

Mapping the community: Initial results from the Proyecto Arqueológico Cerro Colorado de Huacho, Huaura Valley, Peru (Poster)

Allen M. Rutherford (Tulane University)

Researchers in the Peruvian Andes have long been interested in how Late Intermediate Period political, social, economic, and environmental instability was managed regionally. Andean communities adopted an array of strategies to manage risk including shifts in settlement patterns, diversification of subsistence, and in some cases political decentralization. The Proyecto Arqueológico Cerro Colorado de Huacho is designed to address how one coastal LIP community responded to instability with an emphasis on developing an understanding of regional economic and political structure. This poster presents the findings of initial surface and sub-surface mapping at Cerro Colorado and a discussion of future goals.

Ethnicity and Culture in Andean Archaeology (Presentation)

Emily Stovel (Instituto de Investigación Arqueológica y Museo Gustavo Le Paige, Universidad Católica del Norte & Ripon College)

New understandings of ethnicity inject less static, contextualized identity construction into our models of the past. Methodological approaches, however, do not always follow suit, favoring normative synchronic comparisons. This paper explores the study of ethnic groups and ethnicity in Andean Archaeology, examining best practices in the literature and making recommendations concerning the adoption of local, contextual, and diachronic methods in conjunction with multiple lines of evidence, all of which are more likely to identify the processes of identity construction by rendering explicit the relationships among culture, ethnicity, and the use of emblematic material culture.

Phenetic Relatedness Among the Moche (AD 200 – 750) of the North Coast of Perú: A Comparison of the Skeletal Populations from San José de Moro to those from the Moche Valley (Presentation)

Richard C. Sutter, Department of Anthropology (Indiana U – Purdue U Fort Wayne)

Biodistance comparisons of Middle (AD 500 – 650), Late (AD 650 – 750), and Transitional (AD 750 – 800) period skeletal samples from San José de Moro to previously reported Middle period sample from the nearby Lambayeque Valley site Pacatnamú and eight contemporaneous samples from the Moche Valley indicate that increased extra-local gene flow occurred into the Jequetepeque Valley during the collapse of the Moche. The broader implications of these results for our understanding of the collapse of the Moche are discussed.

Want Not the Waste? Seabird Guano Use in the Prehispanic Andes (Presentation)

Paul Szpak (The University of Western Ontario), Fred Longstaffe (The University of Western Ontario), Jean-François Millaire (The University of Western Ontario), Christine White (The University of Western Ontario)

This paper summarizes results from growth chamber and field studies examining the effects of seabird guano fertilization on the stable isotopic composition of maize. The

results are discussed in light of isotopic data obtained from human and animal remains from the Andes. In particular, isotopic data obtained thus far from Moche sites, suggest that seabird guano did not play a significant role as a fertilizer, even though guano-related imagery occurs regularly in Moche material culture, and numerous Moche offerings were recovered from the guano islands in the nineteenth century.

The earliest fortified settlements of the Acari Valley, Peru (Presentation)

Lidio M. Valdez (MacEwan University, Canada)

This paper explores the fortified aspect of the early Early Intermediate Period (ca. 50 BC – AD 350) sites of the Acari Valley, on the south coast of Peru, using as a starting point the site of Tambo Viejo. A map of Tambo Viejo originally prepared in 1954 is assessed in light of new archaeological evidence coming from the valley. A consideration of the location and the layout of the site, in addition to the walls that surround it, strongly indicate that Tambo Viejo was one of the earliest fortified sites of the entire Peruvian south coast region. The presence in the valley of several relatively large and fortified sites, each of them separated by buffer zones, suggests that at that time conflict had emerged in the region as the inhabitants of the various settlements fought each other for the scarce resources of an environmentally circumscribed valley.

A Taste of Tiwanaku: Daily Culinary Practices in an Ancient Andean Urban Neighborhood (Presentation)

Claudine Vallières (IPFW)

New research at Tiwanaku investigates how social identity was manifested through culinary practices at the household level. Using a social zooarchaeology approach that also incorporates results from ceramic, plant, and human remains from the residential neighborhood Mollo Kontu, this paper highlights the importance of daily ingestion of local staples, and the rejection of exotic fare, to the internalization of a firmly 'local' identity for its residents. This thesis challenges interpretations of Tiwanaku as a widely and wholeheartedly adopted common identity with data from within its capital, and emphasizes how people actively forged distinct identities as Tiwanaku grew in influence.

Social fissioning and the development of rural societies in the Lake Suches Highlands of Southern Peru (Presentation)

Benjamin Vining (Boston University)

Recent work in the Lake Suches highlands—between the Titicaca Basin and the Moquegua Valley—shows that rural communities in this region developed as a result of specific episodes of autochthonous reorganization. Two parameters are used to evaluate the nature of ruralism: population density (Smailes et al. 2002) and material “connectivity” to non-local networks (Smith 1994). Combined, these correlates show that more rural society developed as a result of social fissioning in the Late Formative Period. This significantly impeded the ability of rural populations to participate in extra-local dynamics and created an atomistic pastoral society that characterized highland settlement throughout the late Prehispanic period.

Ring ditches and raised fields in west-central Mojos (Presentation)

John H. Walker (University of Central Florida)

The scale and antiquity of anthropogenic landscapes in South America and the Amazon Basin are increasingly accepted in the archaeological literature. Ceramic chronologies can now be constructed in conjunction with studies of the landscape at several scales. Recent excavation at a ring ditch in a forest island along the Yacuma River in west-central Mojos suggests that such islands were occupied over several centuries, and that forests conceal several kinds of earthworks. Analysis of public domain satellite imagery confirms earlier predictions that Mojeños shaped the landscape over hundreds of square kilometers, with several distinct patterns of earthworks and settlement.

Mummies, Dragon's Blood, and Tapir Toes: Ethno-medicinal History of an 18th-Century Jesuit Pharmacy in Cuzco (Presentation)

Brendan J. M. Weaver (Vanderbilt University)

An as-of-yet unpublished inventory of the Jesuit pharmacy in Cuzco, Peru, produced in 1767 during the Jesuit expulsion from the Spanish Empire, offers a window into colonial Andean pharmaceutical practice. Together with a second inventory of the pharmacy, produced in 1771 under Crown management, and a 1618 inventory of a private pharmacy in Cuzco, it is possible to track the use of a variety of pharmaceutical items over the course of a century-and-a-half. From an ethno-medical perspective, this paper examines the development of pharmaceutical practice in Cuzco in the context of the early-modern world, with attention to the Columbian Exchange.

A mtDNA population genetic study of the Aymara (Poster)

Sloan R Williams (University of Illinois at Chicago), Ken Batai (University of Illinois at Chicago), Virginia Vitzthum (Indiana University)

The Hypervariable Region I of the mitochondrial genomes of 61 Aymara women from La Paz, Bolivia was sequenced and compared with Andean and other South American population samples, in order to study the demographic history of the Aymara comparing it with neighboring Quechua populations. Although we found that a demographic expansion model could explain the observed genetic variation, other analyses suggested that migration among Andean groups is also important. In fact, genetic and linguistic patterns are poorly correlated in the Andes, illustrating why using language group as a proxy for shared ancestry in genetic studies is dangerous.