# The Ahau Chronicles

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Lima, Peru

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The Ninth Oxford International Symposium on Archaeoastronomy took place in Lima, Peru from January 5-9, 2011 followed by a regional conference beginning January 12. To quote the official website, the Oxford meetings are "the foremost international conferences in the interdisciplinary field of archaeoastronomy, attracting leading researchers in fields such as astronomy, anthropology, archaeology, history, museum studies, surveying, statistics, and the history of religions as well as the history of science and astronomy."

Lima is the capital of Peru and occupies a truly bizarre landscape overlooking the Pacific Ocean. Steep cliffs of unconsolidated gravels make it appear as if the city is built atop a giant sandcastle. Paragliders ride the incoming thermal drafts overhead in the affluent Miraflores area, whose name translates as "Look-at-flowers."

In his opening keynote address, Clive Ruggles discussed the evolution of "Interpretive Archaeoastronomy" over the thirty years since the first Oxford Conference which took place in Oxford, England in 1981. He went on to define archaeoastronomy as the "study of human perceptions and actions relating to the sky."

Stanislaw Iwaniszewski spoke more directly in his paper "The Sky as a Social Field." He talked of the concept of "Lifeworld" and how celestial lore can be embedded in habituated practices (***habitus***), taken-for-granted (***doxic***) attitudes, and relationships with other people. Celestial lore can also be incorporated in "fields" which are systems of internally structured positions based on power relationships or, following Bourdieu, "a social arena in which people struggle in pursuit of desirable goods." This was an especially useful introductory paper as it set the stage for many of the case studies to follow which dealt with the use of astronomy in the service of human culture.

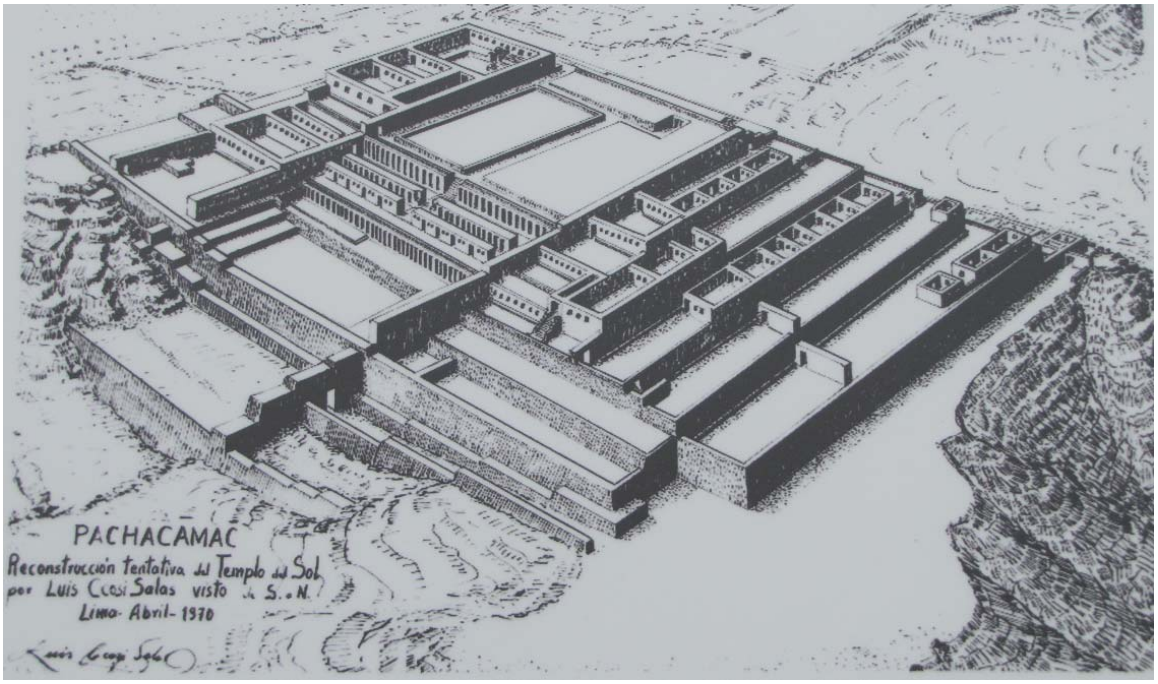
The second day opened with the sole invited student keynote address presented by my friend Ricardo Moyano Vasconcellos who spoke on Andean cultural astronomy related to his work in Socaire in the Atacama Region of northern Chile. The inhabitants of Socaire view their valley as sacred ground cradled within the "Hand of God" represented by five nearby volcanoes forming the fingers of God against which the villagers observe the annual movement of the sun.

I first met Ricardo in the summer of 2008 when he came to dig in New York. I hired him because his experience in archaeoastronomy in Chile was intriguing to me, so you can imagine my delight when he turned out to be one of the best field archaeologists I have ever had the good fortune to work with.

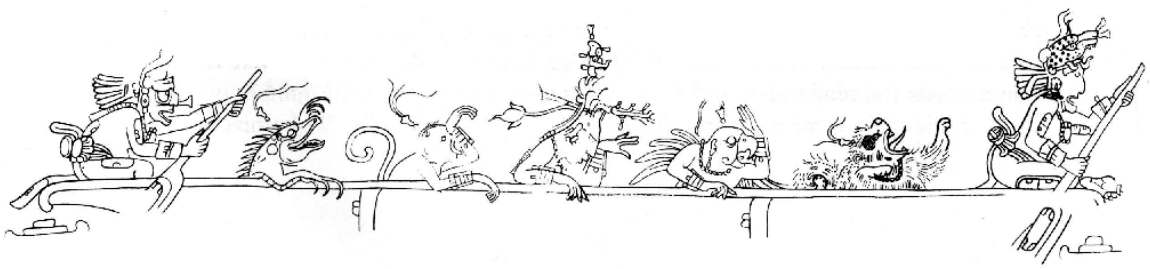
The photo above was taken in September 2008 just weeks before Ricardo left for the National School of Anthropology and History (INAH) in Mexico City. He completed his Masters Thesis in July, 2010 and began preparing for his presentation in Lima. In the intervening months I helped Ricardo edit his paper in English and in doing so became familiar with much of his work.

For me, two important concepts relating to the built environment emerged from this work: the ***huaca*** or sacred place and the ***ushnu***, a distant point against which the sky was viewed. *Huacas* can be as simple as a stone circle but were often large constructions that were likely temple-observatories as well as the locations of important festivals or feasts. *Ushnus* could be a variety of things, both natural and manmade, and can include mountain peaks, pillars, canals, walls, or volcanoes. The *ushnu* is viewed from the *huaca* and will usually provide alignments to the heavens above with relations to the sun, moon, Milky Way, and starry constellations. The *huaca* and *ushnu* work together to situate an observer within the world at large and to provide an orientation to the cosmos beyond. Often oral (or in the case of the Maya, written) tradition helps to elaborate a cultural framework which can foster social cohesion and a historic knowledge for a group.

One of the most important Inca centers, Pachakamaq, lies to the south of Lima. At the conference I spoke with Alfio Pinasco Carella who gave me a copy of his book "*With the Sun, the Moon and the Stars: Archaeoastronomy in Pachakamaq*." I visited the site January 11 and walked the long dusty road to the top of the Temple of the Sun, where it is said a great oracle once made prognostications. The geometry of the immense temple forcefully directs the viewers attention along axes aligned to nearby topographic features as well as the cosmos above.




The immensity of the construction can be seen by comparing the tour bus at left below for scale. This is just one temple complex within a vast ancient city blanketing the surrounding desert plains. The temple would have been an integral part of a ritual calendar that encompassed daily life as well as periodic celebrations. As Bernabé Cobo noted in 1653, "…they knew our solar year by the observance of the solstices and started by the Summer solstice from the Antarctic hemisphere that begins on December 23 and finishes at the same point where it had started…." As I have stated elsewhere, the Great Cycle of the Mayan calendar also ends on December 23 in 2012. But since the Summer solstice of Mesoamerica occurs in June, not December, could it be suggested that, in this respect, the Maya are using a calendar from the Southern Hemisphere? Back at the conference, Manuel Arturo Izquierdo detailed his work with the Muisca culture of Colombia which used a complex lunisolar system structured through a Base-20 numbering system that sounds suspiciously similar to that of the Maya. With this evidence, the cultural divide between North and South America begins to dissolve.



After the conference an excursion was planned to the ancient Inca capital at Cuzco and the sacred mountaintop citadel of Machu Picchu. I had visited both in 1997 in the months following my discovery of the island monument and even climbed to the top of Huayna Picchu, the tall peak shown below overlooking the city. The entire site is an otherworldly location located high in the Andean Cordillera at an elevation of 8,000 feet.

The view from Huayna Picchu below shows how the stunning Andes Mountains surround the site and provide countless possibilities for astronomical alignments. In a paper entitled “Machu Picchu and the Milky Way” James Farmer detailed research here revealing a complex and extensive system of visual alignments related to the nightly passage of the bright disk of our galaxy. But the proper play of light and shadow create an immense image of a face staring to the heavens as if to say simply: “Look-at-stars.”