Lecture #1: Introduction

1. purposes of the course
   a. examination of the nature and development of societies in the Andes
      1. from the earliest occupations: perhaps 14,000 yrs ago
      2. to the Spanish conquest: A.D. 1532
   b. multiple perspectives
      1. anthropological archaeology
      2. culture history
   c. look at the sequence of development as we currently understand it
   d. class will also provide a forum for examining differing ideas concerning how and why complex society develops
      1. raise questions concerning the role of economic, politics, and ideology in social change
   e. data base for the region is inconsistent
      1. despite several decades of intense interest
      2. reasons: greater emphasis on Mesoamerica
         a. logistical difficulties: terrain and climate
         b. lack of funding within the countries
         c. political unrest

2. go over syllabus
   a. intent of course
   b. requirements: no incompletes
   c. text
      1. Moseley
      2. reading packet

3. instructor
   a. fieldwork in Missouri, California, Mexico, Peru, Argentina
   b. interested primarily in politics and economics of complex societies
   c. focus on Inkas
      1. imperial organization
      2. Upper Mantaro
      3. Valle Calchaquí

[Introduction]
Environment and Cultural Development in the Prehistoric Andes

1. western South America: region of striking environmental contrast
   a. long posited that environment was key element in formation of Andean civilization
      1. challenges
         a. desert, mts, forest
         b. rugged topography
         c. no navigable rivers
      2. opportunities
         a. irrigable valleys
         b. compact microenvironments

2. what are the Big Questions of environment and cultural development?
   a. initial human adaptation to varied and often hostile environment
   b. advent of domestication
      1. plants
      2. animals
   c. effects of interaction between environment and social formation in development of complex society
      1. e.g., maritime foraging vs. irrigation as basis of first complex social formations
   b. constraints of environment on formation of empires
      1. e.g., population limitations: restricted urbanism
      2. problems with transportation and communication

The Andean Environment

1. Andes
   a. dominant geographical feature
   b. two parallel ranges
      1. Cordilleras Oriental (east)
      2. Occidental (west)
   c. narrowest point in central Ecuador: ranges lie 130 km (81 mi) apart
      1. chain widens: 750 km (469 mi) in Bolivia and south
   d. mountains ascend rapidly
      1. continental divide near Lima: about 100 km (62 mi) inland
      2. transverse ranges (nudos): divide the landscape
          a. many small valleys
          b. occasional large drainages
   e. Bolivia and far NW Argentina

[Introduction]
1. main ranges are separated by the altiplano
2. windswept plain that encloses Lake Titicaca
   a. 3,800 m (12,467'): world's highest navigable lake
f. Andes' highest peaks in the south: border between Chile and Argentina
   1. Aconcagua: 22,835' [6,960 m]

2. causes of coastal climate
   a. atmosphere dominated by the Pacific anticyclone
   b. constant atmospheric pressure
   c. humid air
   d. uniform temperature
   e. cold or temperate ocean
   f. regular water runoff
   g. exceptional heavy rains and runoff

3. Andean climate
   a. gradients:
      1. dry and cool in the south; warm and wet in the north
      2. arid on the west to moister on the east
   b. coastal desert
      1. produced by
         a. Peruvian Current: frigid, north-flowing waters
         b. prevailing winds
         c. mountains
      2. from central Chile to Ecuador's Santa Elena Peninsula
      3. parts of the Atacama: centuries without measurable rainfall
      4. entire coast: punctuated by drainages
         a. narrow swaths of green
         b. lush croplands: esp. productive north Peruvian coast
   c. upper Amazonian jungles: east side of the Andes, from Bolivia north
      1. montaña: eastern Peruvian slopes
      2. ceja de la selva: upper edge of the Amazonian forest
         a. "eyebrow of the jungle"
   d. yunga (up to 2,300 m; 7,500'): warm valleys
      1. above the coastal plain and jungles
      2. produce coca and fruits: chirimoya, guayabo, avocado, lúcuma
   e. queshwa zone (to 3,500 m; 11,400')
      1. sharply cut zone in Peru: above the warm valleys
      2. supports varied crops
         a. indigenous: maize and beans

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b. European: wheat and barley
f. suni zone (up to 4,000 m; 13,100’)
   1. cold hills, ridges, and deep valleys
   2. rainfall and irrigation agriculture produce
      a. native grain: quinoa
      b. legume: talwi
      b. tubers: potato, mashwa, ulluco, oca
g. puna (up to 4,800 m; 15,748’)
   1. cold and damp rolling grassland
   2. volatile weather
   3. natural habitat of Andean camelids
      a. herding: llamas and alpacas
      b. hunting: guanacos, vicuñas
         1. also deer
h. janca
   1. jagged snowcaps and glacial lakes
   2. exploited for abundant mineral wealth

4. variations
   a. in the north
      1. low latitudes ameliorate the climatic effects of the high elevations
      2. reduces impact of frosts: which threaten crops farther south
   b. in Bolivia and south
      1. trend is reversed
      2. climatic zones found at lower altitudes

5. El Niño
   a. trade winds unpredictably slacken: every few years
      1. equatorial waters flow south
      2. surface waters reach tropical temperatures
      3. torrential rains fall on the coast
   b. marine and bird life: die or migrate
   c. croplands and canals: can be badly damaged
   d. some archaeologists propose: this phenomenon triggered past social upheavals, by
      disrupting food production
      1. other possible disruptions
         a. geologic uplift
         b. migration of wind-blown sand

[Introduction]
6. domestication: by 3000 BC, all the major cultigens and animals used to support human life in the Andes had been domesticated
   a. plants
      1. mostly domesticated in the varied environments of South America
      2. domesticated potatoes: 8,000 BC in northern Bolivia
      3. maize: in the north Andes 6-5,000 BC
      4. beans and peppers: highland Peruvian valleys 8,500 BC
      5. coastal and lowland cultivars: cotton, squash, and lúcuma
         a. appear in central sierra sites: 4,200 and 2,500 BC
   b. animals:
      1. llamas, alpacas, and the guinea pig: all domesticated in the Andes
         a. earliest known domesticated camelids: caves in central Peru dating to 4,500 BC
         b. guinea pigs: important in highland diet by 7,000 BC
            1. may not have become fully domesticated until 4,200-2,500 BC
      2. dog: arrived domesticated

7. Andean populations: concentrated in certain environments
   a. coastal valleys
   b. highland valleys: 3,000-3,900 m (11,155-12,795’)
   c. Bolivian altiplano

8. complementary strategies
   a. agricultural
   b. pastoral strategies were successful complementary adaptations to the variegated