LAST TIME

- Biophysical regions of Latin America
- Soils
You Should Have Read Clawson Chpts 1-5 and:

- **Crosby:**
  [http://muweb.millersville.edu/~columbus/data/spc/CROSBY02.SPK](http://muweb.millersville.edu/~columbus/data/spc/CROSBY02.SPK)

- **Diamond:**
  [http://muweb.millersville.edu/~columbus/data/art/DIAMOND1.ART](http://muweb.millersville.edu/~columbus/data/art/DIAMOND1.ART)

- **Mann:**
  [http://cogweb.ucla.edu/Chumash/Population.html](http://cogweb.ucla.edu/Chumash/Population.html)

- **Schwartz:**
  [http://muweb.millersville.edu/~columbus/data/art/SCHWART1.ART](http://muweb.millersville.edu/~columbus/data/art/SCHWART1.ART)
TODAY

• Peopling of the Americas
• Mesoamerican Cultures
• “Classic” period lowland Maya: ~ 300-900 CE
• Lower Central America
• Circum-Caribbean & Antilles
Peopling of the Americas

- Settled 14,500BP (before present) - or even earlier
- Proof of origin
  - Genetics - note that "races" is NOT a scientifically defensible concept
  - Mitochondrial DNA evidence => Amerindians most closely related to E Asians (Siberian especially)
  - Most closely related people
Peopling of the Americas

http://esp.cr.usgs.gov
Peopling of the Americas

http://esp.cr.usgs.gov
Maximum extent of glaciation

http://esp.cr.usgs.gov
Mesoamerican cultures (highland Mexico and Central America) I

- Distinctive cultural traits
  - Ball games
  - Urbanism and pyramids
  - Blood rituals
  - Markets
  - Key food crops: maize, squash, beans, chilies, etc.
  - Sophisticated ag techniques
Mesoamerican cultures II

- **Population** circa 1492: ~ 19 - 25 million
- **Settlement** - locally dense and urban
  - Basin of Mexico (current site of Mexico City)
    - Tenochtitlán ~ 250,000
    - Texcoco ~ 100,000
    - larger than most anything in Europe at the time
Mesoamerican cultures II

• Major and minor state-like civilizations
  Major - Aztec, Tarascan,
  Minor - Tlaxcalan, Zapotec, Mixtec, Huastec, etc.)
Mesoamerican cultures (highland Mexico and Central America) III

- Complex mix of local languages and polities
  - Nahua peoples (including Aztec) speaking Náhuatl dominate
  - Also: Tarascan, Tlaxcalan, Zapotec, Mixtec, Huastec, various Maya, etc.
  - Grand past (Olmec, Teotihuacán, Tula, and “classic” Maya)
Classic Maya

Olmec

Tenochtitlán & Texcoco

Teotihuacán & Tula

Highland Maya
Xalapa, Veracruz - Museum of Anthropology

http://www.mesoweb.com/olmec/

Olmec ~ 3700 - 1400 bp (1700 BCE – 600 CE)
Teotihuacán ~ 2100 – 1100 bp (100 BCE – 900 CE)
Teotihuacán

http://archaeology.la.asu.edu/teo/
Tula ~ 1100 – 1000 bp (900 – 1000 CE)

http://emuseum.mnsu.edu/prehistory/latinamerica/meso/sites/tula.html
Palenque (100 BCE – 900 CE)
Ball court at Xochicalco (600 – 900 CE)
Feathered serpent (Quetzalcoatl) frieze at Xochicalco
“Classic” period Maya I

- ca 1700 bp - 1100 bp (AD 300 - 900) i.e., ~ 600 - 1200 years before Columbus
- most advanced society in the Americas
  - large rural and urban populations in S and C Yucatan and in the Petén of Guatemala
Farming Maya Lands Today in Peten, Guatemala
“Classic” period Maya I

- most advanced society in the Americas
  - large ceremonial centers/cities (Tikal, Copán, Palenque, Caracol, Uaxactún, and many others)
  - advanced astrometry, mathematics, and very accurate calendar
  - superb arts and architecture
“Classic” period Maya III

- **Livelihood**: controversial
  - long-fallow swidden?
  - large rural densities
  - complex of sophisticated agricultures
“Classic” period Maya III

• Collapse ~ 900 CE why?
Classic Period
Maya

★ Major cities
Stella at Copán with glyphic writing
at Copán
Palenque
Tikal
Unexcavated mound at Copán
Lower Central America

• **Area**: coastal lowlands area NE Honduras, Nicaragua, Costa Rica, Panama

• **Population and settlement**: small scale polities total population probably not more than 3.5m
Societies -- Taíno (Arawak), Caribs, Ciboney – all present at time of Columbus; ethnography and history is not well known; linguistic relatives in Amazonia
Circum-Caribbean & Antilles I

• **Societies** – Taíno (Arawak), Caribs, Ciboney – all present at time of Columbus; ethnography and history is not well known; linguistic relatives in Amazonia
Carib

Ciboney

Taino or Arawak
Circum-Caribbean & Antilles II

• Population—uncertainty and controversy about pre-Columbian population—range is from 200,000 to 8-10 million! Best guess is about 3 million for all Caribbean
Livelihood - rich environment with multiple food sources including seas and shores (thus much from turtles, fish and shellfish)

Main agricultural system (especially for Taíno), conuco agriculture
• Advantages of root crop agriculture
  - Increased caloric volume
  - Less demand on soils
  - Roots stored in ground
  - Manioc – drought/pest resistance

**However, very low protein in root crops**
Chichimec (arid N. Mexico)

Mesoamerica
Classic Maya

Classic Maya

Olmec

Tenochtitlan, Texcoco, Teotihuacan, & Tula
Review

• Peopling of the Americas
• Mesoamerican Cultures
• "Classic" period lowland Maya: ~ 300-900 CE
• Lower Central America
• Circum-Caribbean & Antilles
Next Topic

- South American Lowland moist tropical
- Southern Cone societies
- Andean Societies
- Coastal Desert Societies
South American Lowland moist tropics (Amazonia)

- Population: ~ > 5-6 m but very uncertain
- Livelihood: Old (outdated) view is of semi-nomadic, small bands practicing long fallow swidden with a limited material culture
South American Lowland moist tropics (Amazonia)

• New more complex view posits at least 3 distinct livelihood systems in Amazonia
  ➢ semi-nomadic hunting-gathering in “inter-fluves”
  ➢ high density sedentary ag along rivers
  ➢ also terra mulato and terra prieta do indio along rivers (see web site)
  ➢ Raised/drained field agriculture
Ancient raised fields in the Llanos de Mojos (© C. Erickson)
New raised fields in Llanos de Mojos, Bolivia (© C. Erickson)
Southern Cone societies

- Low population ~ 2 million tops
- Livelihood: no evidence for agriculture in 1491
  - hunter-gatherer societies
  - like North American Plains Indians

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Andean Societies I

- Inca (or Inka) empire
- Ancient cultures, recent empire (at time of Spanish conquest)
- Quechua and Aymara languages (both still spoken by millions)
- C. Andes population ~ 11-15 m in 1490s
Andean Societies II

- Resource management problems
- Little land in any eco zone
- Different agriculture needed in different zones
- Altitude => frost a problem
- Extreme diurnal temp differences

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Andean Societies III

• Resource opportunities
  - The only large domesticated animals in the Americas (llamas & alpacas)
    - “Camelids”
Andean Societies III

- Andean solution
  - Exploit 4 major altitudinal eco-zones simultaneously
    - Used llamas and excellent roads
    - Food storage techniques
    - Inca planned colonization
Andean Societies III

- Andean solution
  - Murra’s “vertical archipelago”
    - High puna (>3500m)
    - Low puna (3000-3500m)
    - Quichua zone (2500-3000m)
    - Lowlands (<2500m)
Charki & chuña = freeze dried meat and tubers
Taclla = foot plow/hoe
Altiplano in C Peru
Women fertilizing potatoes in Peru. (from UN-FAO web site www.fao.org)
Terraces (still used) near Tarma, Peru
Inca era terraces near Pisac
Colca Valley
Near Ariquipa, Peru

© T. M. Whitmore
Colca Valley Near Arequipa, Peru
Potatoes in Arequipa market, Peru
Coca leaves in rural market, Montaro V, Peru
Potatoes in raised beds near Cusco, Peru
Coastal Desert Societies

• Seat of sophisticated high cultures long before the Inca
  ➢ Moche and Chimú
Moche and Chimú

Jugs and Gold

Whitmore
Coastal Desert Societies

• Resource opportunities and limitations
  - Coastal fishing excellent
  - No frost
  - No rain except in El Niño yerrs

• Water management problems are severe
Coastal Desert Societies

• **Agricultural** strategies
  - Canal irrigation
  - Sunken plots
  - Gathered foods such as...
1) **Aztecs**: Where was the Aztec Empire? When was it at the zenith of power? How big was Tenochtitlan? What was the population of Central Mexico?

2) **Maya**: Where was the Maya Empire? When did it collapse? Why did it collapse?

3) **Food**: What was the “holy trinity” of foods for the Aztecs? Why...
Inka core

Quest for empire began about 1438 under the indomitable Pachacuti, first Inca emperor. His son Tupá Inca continued expansion and became one of history’s farthest-ranging conquerors: he set the empire’s southern limits on the Maule River in Chile. Pachacuti’s grandson Huáyna Capac thrust north into Colombia, setting boundary markers on the Angasamayo River. He then settled in Quito, making it the northern capital of an empire which spanned 2,500 miles—similar to the extent of the Roman Empire that sprawled from present-day Great Britain to Iran. But plague, civil war, and European invasion doomed the Incas at the height of their power. In 1532, Francisco Pizarro captured the Inca, Atahualpa; this act shattered the empire, although conflict continued for 40 years.

© T. M. Whitmore
Inka walls
In Cusco

© T. M. Whitmore
Inka walls in Cusco
Site at Saqsaywaman (above Cusco)
Dr Barbara Williams at Saqsaywaman
Machu Pichu

Canal irrigation at Machu Pichu
© T. M. Whitmore
The Sacred Valley, outside Cuzco. © Andrys Basten
“tame” alpaca
Review

- South American Lowland moist tropical
- Southern Cone societies
- Andean Societies
- Coastal Desert Societies
Now

- Quiz II...Excelente!!...
- Columbian Encounter
  - Amerindian domesticated crops
  - Major impacts of Amerindian crops world-wide
- Amerindian population collapse
- Iberian Conquest
- Spanish colonial settlement patterns

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Quiz II

1) **Aztecs**: Where was the Aztec Empire? When was it at the zenith of power? What was the population of Central Mexico?

2) **Maya**: Where was the Maya Empire? When did it collapse? Why did it collapse?

3) **Food**: What was the “holy trinity” of foods for both cultures? Why these foods?

4) **Inca**: How did the Inca use altitudinal variation to their advantage?

5) **Desert societies**: Name 2 ways they adapted to their arid environment.
Columbian “Encounter” or “Exchange”

- Amerindian domesticated crops & animals
- Impacts of Amerindian crops
- Old World crops and animals to the Americas

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Amerindian Crops and Animals

• FOOD
  - Maize (corn)
  - Manioc
  - Beans
  - All squashes
  - Peanuts, cashews, brazil nut
  - Potatoes & other tubers
  - Sweet potatoes
  - Fruits (papaya, pineapple, guava, agave, avocado)
  - chocolate (‘food of the gods’)

• NON-FOODS
  - Cotton, sisal/hemp, rubber
  - Tobacco, coca
  - Indigo

• ANIMALS
  - Llama, alpaca (transport)
  - Guinea pig, turkey, dog, muscovy duck, bee (food)
Amerindian Population Collapse

• **Uncertainty in estimates** of pre-Colombian populations => more uncertainty about early colonial losses (best in C Mexico, Guatemala, and parts of Peru)

• **Scale of collapse** - in most places roughly a 90% loss!

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Amerindian Population Collapse II

• By the **Numbers**
  - Nadir populations (low point about 1650)
  - Current populations
  - Regional patterns
Amerindian Population Collapse III

• **Causes**
  - Introduced infectious diseases
  - Spanish/Portuguese cruelty: the mis-named “leyenda negra”
  - Miscegenation
Iberian Issues for Conquest II

- **Reconquista**
  - Begins in 900s => a 700 year-long holy war to re-conquer Iberia by Christian kings
  - 1492 marks last battle and expulsion of Moors
What do these things have in common?
Implications of the Reconquista for Latin America I

• Border war to expand the faith
• War to expand territorial control
  ➢ New towns
• Victors get “tribute” AND land
  ➢ Looting => value in “portable” wealth
• War = opportunity for glory and riches
• Secular and religious motives mixed
• Iberia misses our on initial stages of Renaissance

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Implications of the *Reconquista* for Latin America II

- More Impacts for Americas
  - Language
  - Agriculture
  - Racial mixing
  - Strong leader type of governance
  - Rigid (lower) class for women

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Activity

• **Menu-1492**
• List the ingredients used to make the dish.
• Make a rough world map and match ingredients to where the food originated. Mark on the map the route that a person would have had to take to create the same dish in 1492.
Santa Princina, Taxco, Mexico
Santa Pricina, Taxco, Mexico
Santa Pricina, Taxco, Mexico
Earthquake damaged church in Colca V, Peru
OCA
International Potato Institute
(Centro International de la Papa)
http://www.cipotato.org/index2.asp

OLLUCO

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© The Potato Research Program of the National Agrarian University
quinoa
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Basin of Mexico Indigenous Population collapse 1510 - 1625

Population trajectory

Epidemics

smallpox
The Caliphate of Córdoba, 912 - 1031

The Reconquest of Iberia, ca 1100

The Reconquest of Iberia, ca 1265

The End of the Middle Ages, ca 1480
N. Atlantic Gyre

Early Portuguese & Spanish Explorations