

# AMARANTH, CHIA, CHOCOLATE AND THE AZTEC

Vanderbilt Center for Latin  
American Studies Professional  
Development Workshop:  
September 7, 2017

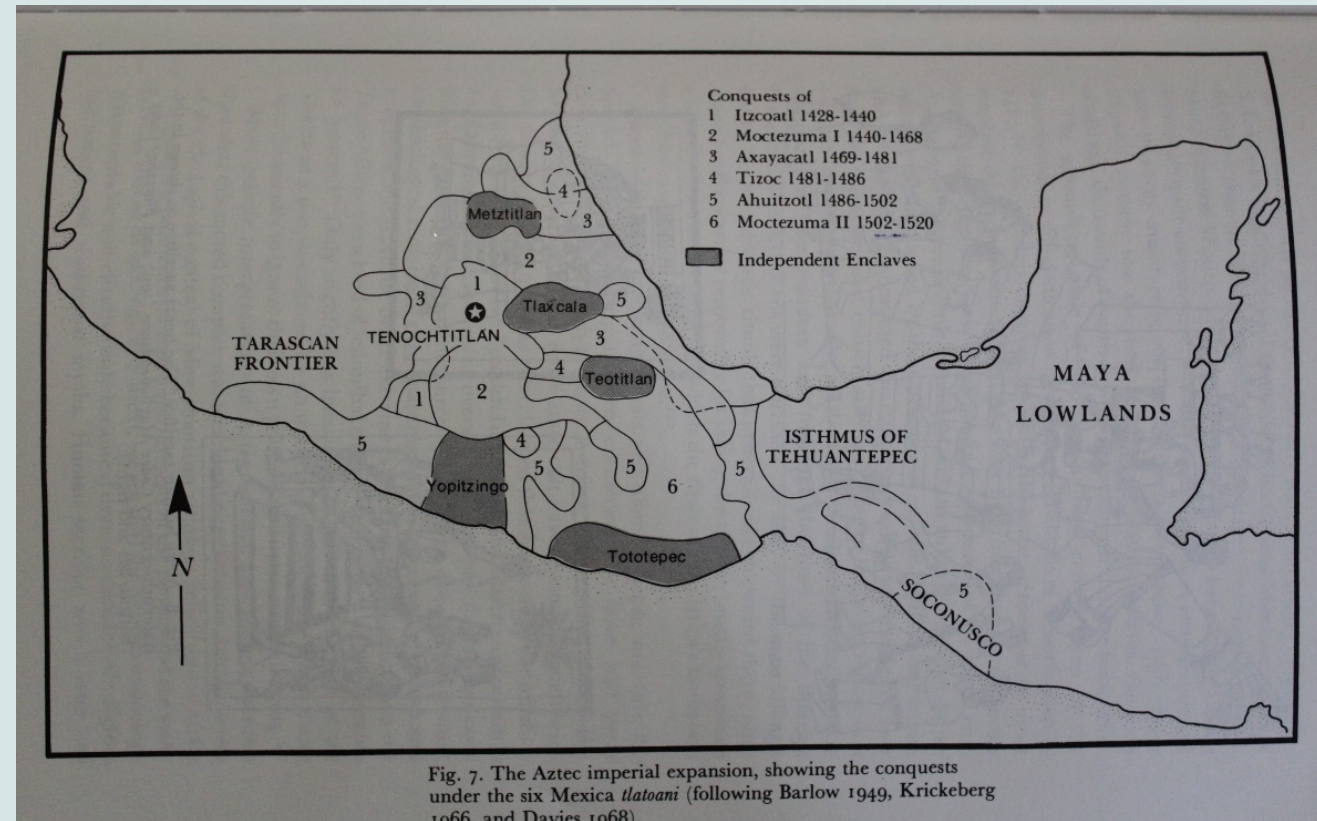
# THE AZTEC

Teotihuacan: 200-700 CE (Classic Period),  
extensive trade networks throughout  
Mesoamerica

Toltec (Tula): 900-1150 CE

1150: Nahuatl-speaking immigrants from  
northern Mexico arrive in Central Mexico,  
and population explosion by 1350

Triple Alliance: Mexica, Texcoco, Tlacopan  
(1428)



# AZTEC EMPIRE

Tenochtitlan and Mexica leadership

Agriculture: terraces, irrigation canals, chinampas (floating gardens of Lake Texcoco)

Well organized long-distance trade networks

Polytheistic religion

Healers

1519: Cortés arrives to Tenochtitlan

Export of flora and fauna, and loss of knowledge





# SOURCES

Accounts from conquistadors, priests, and others

Codices: Historical Accounts, Ritual Almanacs, and Tribute Records

Archeology and Paleoethnobotany



Historia general de las cosas de Nueva España (Bernardino de Sahagún)



Codex Mendoza: Founding of Tenochtitlan



# PRE-COLUMBIAN CROPS



Four sisters: corn, beans, amaranth, and squash

Maize domesticated: 7000 BCE

Amaranth domesticated: 5000-4000 BCE





# AMARANTH: HUAUTLI

*Amaranthus cruentus*:  
Important foodstuff,  
tribute, and component  
of religious rituals

Primary form of tribute,  
along with corn, beans,  
and chia





# CULINARY USES OF AMARANTH

Leaves: high in protein, rich in vitamins and iron

Seeds: contain all essential amino acids

## Culinary uses:

- Huahuquiltamalli (tamales)
- Cuahquilmolli (sauce)
- Tortillas
- Drinks made from popped and ground seeds





# RITUAL USES OF AMARANTH

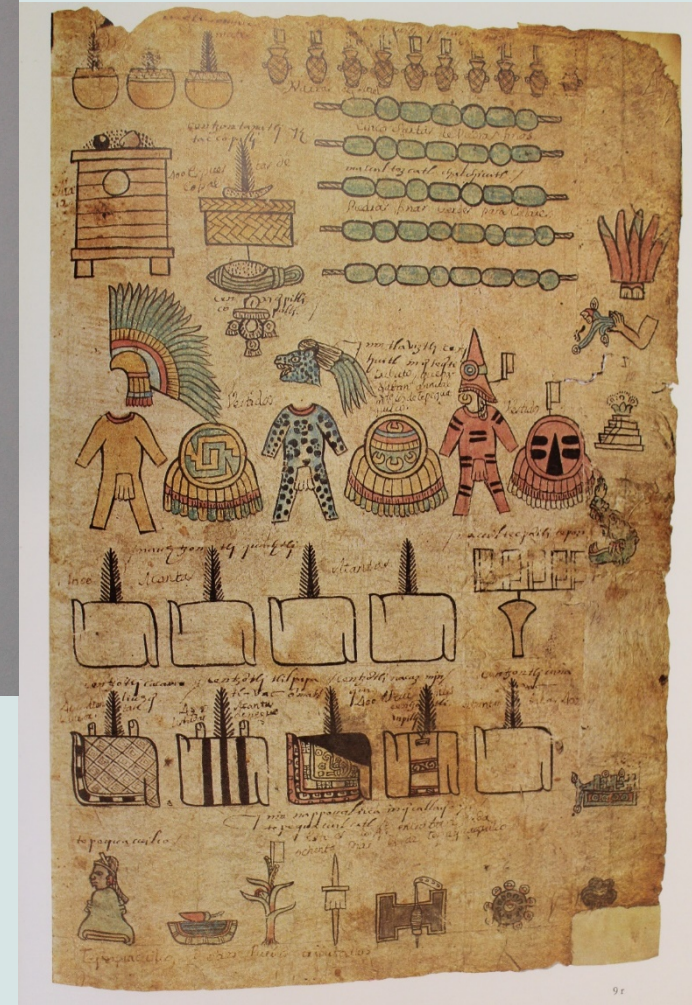
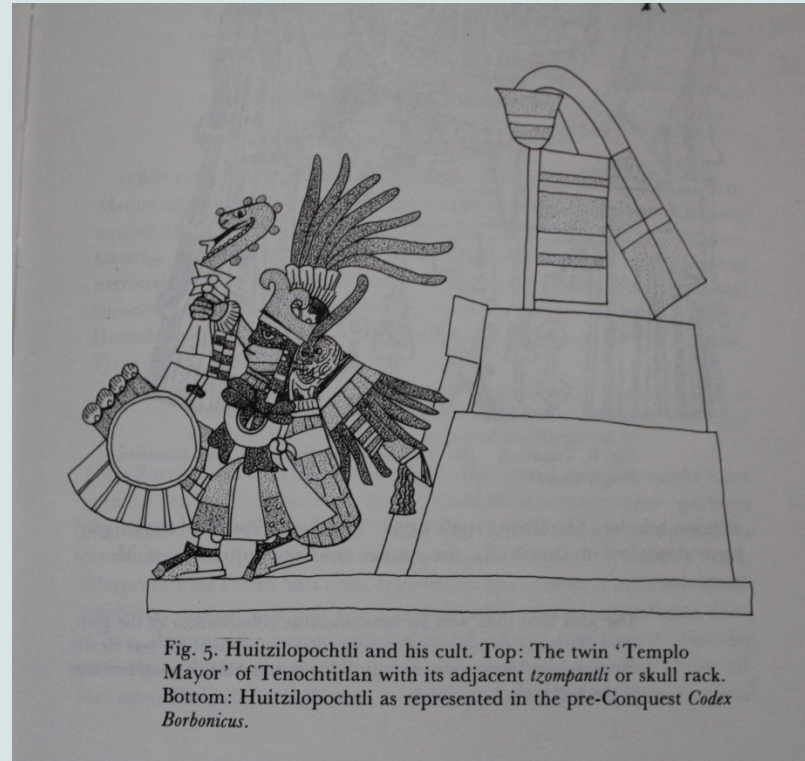
Amaranth Tamale Feast (Huahtamalqualitzli): popped amaranth tamales offered to god of fire

Tzoali: symbolizes flesh of gods

Spanish arrival and systematic destruction of native religious practices

Alegría, atoles, tamales

Contemporary movements to encourage amaranth cultivation and consumption





# CHIA: CHIAN

*Salvia hispanica*; member of the  
Lamiaceae family (mint and sage)

One of four major tribute crops

**Medicinal, culinary, and artistic uses**





# MEDICINAL USES OF CHIA SEEDS

- High in omega-3 fatty acids, fiber, antioxidants, manganese, phosphorous, and calcium
- Gastrointestinal
- Skin
- Fever
- Respiratory issues
- Urinary tract
- General malaise
- Obstetrics



Florentine Codex



# CULINARY AND RITUAL USES OF CHIA



Chianpinolli: seed flour used to make tortillas, tamales, and chianatoles

Whole seed chia beverages

Chia oil: lacquer and body paint

Chia as an offering



# CACAO

- Evidence of cacao residues dating to 1800
- 1500 BCE at Olmec sites
- Olmec (and Mayan): ka-ka-wa
- Aztec: xocoatl
- Theobroma: food of the gods; native to the northern Amazon
  - *T. cacao* ssp. *cacao*
  - *T. cacao* ssp. *sphaerocarpum* (Forastero)
- Consumption and processing of cacao:
  - fermented beverage made from fruit
  - bitter beverage made from beans





# XOCOATL CONSUMPTION AMONG THE AZTEC AND SPANISH

- Aztec: xocoatl was an elite beverage, important in feasts
- Cacao beans as money
- 16<sup>th</sup> century trade of cacao and import from lowland regions to Tenochtitlan
- Spanish control of cacao trade production in New Spain and export to Europe
- Cacao production today: Ivory Coast, Brazil
- High in antioxidants, lower LDL cholesterol and blood pressure, improve memory



# REFERENCES

Cahill, Joseph P. Ethnobotany of Chia, *Salvia hispanica* L. (Lamiaceae). *Economic Botany* 57(4) pp. 604-618 (2003).

Conrad, Geoffrey W. and Arthur A. Demarest. *Religion and Empire: The dynamics of Aztec and Inca expansionism*. Cambridge University Press (1984).

Coe, Sophie D. and Michael D. Coe. *The True History of Chocolate* (1996). Thames & Hudson.

Foster, Nelson and Linda S. Cordell, eds. *Chilies to Chocolate: Food the Americas Gave to the World*. The University of Arizona Press (1992).

Powis, Cyphers, Gaikwad, Grivetti, and Cheong, "Cacao use and the San Lorenzo Olmec." *Proceedings of the National Academy of Sciences* 108 (21), pp.8595-8600 (2011).

Sahagun, Fray Beranrdino de. 1950-1982. *Florentine Codex: General History of the things of New Spain*. (Originally written 1575-1577 or 1578-1580).

Berdan, Francis F. and Patricia Rieff Anwalt, eds. *The Codex Mendoza* (1992). University of California Press.



# CROPS NATIVE TO THE AMERICAS

