The Archaic

9000 to 2000 years ago
Themes

• Hunter-Gatherer Theory
• Economic diversity
• Changes in mobility
• Beginning of farming
• Regionalization

• In the context of climate change
Hunter-Gatherer Theory

• A society that relies on edible wild plant and animal foods for subsistence

• **Food extractors**: get food from ongoing energy flows in the environment
  – As opposed to **food producers** that manipulate energy flows to grow food

• Up to 80% of food from plant gathering (analogy)
HG Theory

• Politically, tend to be egalitarian bands (analogy)
• Economics = generalized reciprocity (analogy)

• Residential to Logistical mobility continuum
  – Residential = whole group moves to follow resources
  – Logistical = movement of individuals/small task groups away from and back to residence

Based on work of L. Binford (1980)
HG Theory

• The Forager – Collector continuum
  
  – Foragers = high residential mobility w/ logistical mobility play a limited role
  
  – Collectors = high logistical mobility w/ very few residential moves
Foragers

• Residential mobility pattern
  – Many moves during the year to “map on” to resource locations

• Hunt and gather close to camp
  – Move when resources depleted
  – Foraging radius small

• Archaeological site diversity low w/ base camps and activity locations (e.g., kill sites)

• Paleoindian into the Archaic

Based on work of L. Binford (1980)
Hunter-Gatherer Foraging w/ High Residential Mobility

From Andrefsky (1998)
Collectors

• Logistical mobility pattern
  – Few residential moves
  – Task groups in and out
• Hunt and gather in much wider area
  – Foraging radius large
  – Adapted to simultaneous resource availability

• Archaeologically, high diversity in site types (Late Archaic)
  – Base camps, specialized camps, caches, food storage

Based on work of L. Binford (1980)
Hunter-Gatherer Collecting w/ High Logistical Mobility

From Andrefsky (1998)
Climate

• In general, more arid

• Altithermal: ~7500 to 3500 years ago
Altithermal

• Weather circulation changed
• Cool, dry summers out
• Hotter temperatures in
  – Winter precipitation lower
  – Summer precipitation higher
Vegetation

- Vegetation (food) varied locally
  - Piñon increased in north Rio Grande not in south
  - Agave, sotol, yucca important to south
Economic adaptation

• Generalist diet; locally variable
• Plant resources more heavily used
  – Groundstone tools
  – Snares

• Entailed new “scheduling decisions”
  – Affected mobility
  – Plan for when food available
  – Seasonal round

“In the Southwest different resources often mature at the same time in widely scattered locations…” (Plog, pg 47)
Housing

• People were mobile
  – “Highly scattered locations”
  – Especially early Archaic

• Left “ephemeral” sites

• Small structures early

• Small pithouse villages late
Material Culture
Archaic Trends

• Diet becomes more diverse through time
• Projectile points become more regionalized
• Mobility becomes more logistical
• Farming becomes established

• Folks become more sedentary
  – Burials
Summary

- Images of deer and other animals
- Diagram of a structure with a fire hearth
- Illustration of tools such as atlatl and spear
- Postholes showing where the structure wall was
Residential Forager

Logistical Collector

Time

Villagers

Foragers

Early Archaic

Late Archaic

Sedentism

Berries

Summer Camp

Winter Camp

Middle Elevation Game

High Elevation Game

Spring Camp

Root Resources

Early Spring Camp

Late Autumn Camp

Fish

Rapids

Bivouac
Early farming

• Was a supplement to hunting and gathering
  – Intense plant use w/increasing population
• Maize and squash, early 3000 to 4000 ya
• Both = tropical plants
  – Had to be tended in the arid Southwest

• This affects mobility and land use
Corn

Corn Farming Moved from South to North about 4,000 years ago
Initial utilization 4000 ya
Wide spread 3000 ya

Image Courtesy Ed Huber, SRI Inc.
Tularosa Cave

- Late in the Archaic – 2000 to 1000 ya
- 33,000 corn cobs
- 1700 pieces of string, netting, basketry
Tularosa Cave
The role of a farming surplus

• A surplus & food storage stabilize food availability

• This maintains a consistent level of *fecundity* in women in a population

• *Fecundity* = reproductive ability (viable ova & sperm)

• *Fertility* = the number of offspring per person (tends to follow fecundity)
Population growth

Intensification of resource use

Paleoindian  Archaic  Agricultural periods

Surplus
Population Increase
Consequences

- A surplus raises fecundity and fertility
- Population grows
- More food is needed, surplus must be maintained
- Specialization of labor increases...

- All of these occur as villages become established in the Southwest
Early Village Sites

• Cerra Juanaqeqa (northern Chihuahua)
• Cienega Creek (eastern Arizona)
• Milagro (southeastern Arizona)
• Bat Cave (western New Mexico)
• And many other sites ≈ 3000 ya

• Exhibit...
Late Archaic Village pattern

- Multiple hearths
- Pithouses
- Multiple storage pits
- Burial or cremations
- For example, Milagro (near Tucson)
  - Three pit houses, multiple storage pits, large midden (trash deposits), hearths
  - Corn seeds found in 85% of the hearths and storage pits
Cerra Juanaqeña

“The site's inhabitants ate jack rabbit, cottontail rabbit, mule deer, and pronghorn antelope along with maize, wild squash, and seeds of wild plants. None of this data would, on its own, upset the old view of the adoption of agriculture. But radiocarbon dates from charred maize and wild squash fragments from the site indicate that it was inhabited about 1000 B.C., a millennium or more earlier than other such large settlements. At this early date maize was only just being introduced over most of Arizona and New Mexico, and settlements were limited to a few small houses or rockshelters, although some larger settlements have been found in Tucson, Arizona” (Baker et al.).
“Burials, storage pits, and dwellings were the first components of a set of processes that had a significant long-term impact on subsequent generations of ancient Southwesterners, marking the first steps toward village life” (Plog, pg 55)