

Maya Collapse Board Notes – Oct. 18

Evidence for Climate Change Related to Maya Collapse

- Low titanium and iron in ocean sediment samples off coast of Venezuela shows cold and drought – Note: one must assume that the climate of the Yucatan was similar to that of Venezuela to accept this climate record data
- Sediment samples showed 4 droughts
 - 760 AD
 - 810 AD 3-9 years of drought with 40-50 years between
 - 860 AD
 - 910 AD
- Population peak at 750 AD, collapse during 800's
- Yucatan is a seasonal desert
- Most cities were in the north where less rain fell than in the south

How and why were the Maya vulnerable to climate change?

- Local circumstances –
 - trade winds caused dry winters and wet summers
 - Hard to reach aquifer, aquifer farther below ground level in south (south is wetter but collapse started there)
 - Droughts common
- Behavior/culture
 - Stationary and agricultural-dependent on climate
 - Water system (used cisterns, reservoirs, other to collect rain water to store for dry season)
 - Over farming (started in valley moved up hillside where erosion occurred)
 - Overpopulation (highest right before collapse and droughts)
- Diamond's 5 points
 - Increase in fighting
 - No long-term planning for environmental concerns
 - Kings focus on monument building and war instead of more important concerns like dealing with environmental problems