Emergence of Civilizations / Anthro 341: Notes 10

Mesopotamia: Neolithic and early complex cultures

- So far, we have seen some examples of the social experimentation in the early Neolithic
  - Jericho and Göbekli Tepe were anomalous, early flashes of complex social action
  - Asikli Höyük and Çatal Hüyük were early, large Neolithic settlements, and not the only ones
  - But though these novel kinds of societies lasted for a very long time with only minor changes, they did not continue to grow into anything bigger or more complex
    - for example, Asikli Höyük did seem to be a smaller, albeit not necessarily simpler, predecessor to Çatal Hüyük
      - Çatal Hüyük was occupied for about 1200 years with minimal change
      - but rather than continue growing and becoming more economically and politically complex, Çatal Hüyük was abandoned around 6200 BC
  - why didn't these societies continue to change in the direction of "civilization"?
    - some necessary change just did not occur, so these societies just kept playing out the possibilities of simpler, more limited systems
  - changes in these Neolithic societies did not amount to much "progress" towards civilization
    - instead, they were scattered, diverse developments, some of which were very successful for many centuries, but which did not keep getting more complex
    - this was not failure; in fact, in a way it was success - but it was not change in the direction of what we now see as "civilization"

- Now let's fast-forward and shift eastwards a little
  - to look at what happened with some other societies that started off similar to those at Jericho and Çatal Hüyük,
  - but later in time, and located in or just outside the northern fringes of Mesopotamia
  - The chronological chart may help put these sites and cultures in perspective

- The setting
  - Mesopotamia is literally the area between ("meso") the Tigris and Euphrates rivers
    - Often broadened to include the foothills ("hilly flanks") of the Zagros mountains to the east, and the general area around the mouth of the rivers
    - note that Mesopotamia, where civilization first emerged, is mostly *not* within the "Fertile crescent", but instead is part of the desert area that the "Fertile crescent" arcs around
  - Environment of Mesopotamia
    - Climate
      - long, hot, dry summers
        - Babylon (near where the rivers pinch together) in August can be 50°C in the shade (122°F); 75°C in the sun (167°F!!!)
        - constant hot, dry wind, often full of sand and dust
        - "unbearably hot, with no rain, and clear skies" (Charles Redman 1978:31)
      - cold, wet winters
        - coldest in the north, warmer to south
        - January low from 0°C (32°F) (south; Basra) to -11ºC (12ºF) (north, Mosul)

- virtually all the rain falls in winter, especially January and February.
- Less than 150 mm (6 inches) annual rainfall (about one fifth of the 28 inches per year we get in Sonoma county)
- "clear balmy days, cool drizzly nights, brief violent rainstorms, and occasional dust storms" (Redman 1978:31)

- Water
  - river flow varies widely by season
    - highest flow and most floods in April and May
    - this is just when crops mature, and must be protected from flooding
  - rivers shift course, especially in the central and southern areas
    - big, shallow lakes sometimes form, then disappear

- A quick "tour" from the Persian gulf northwards
  - From the Persian gulf up to the "neck" of the plain where the rivers come closest together
    - This part of Mesopotamia is called the "delta" or "the alluvium"
      - where Sumerian civilization emerged: Sumer
      - note: Sumer is a *region*, not a particular city or site
    - overall, it is
      - flat, poorly drained, with a high water table
      - rivers split into streams that criss-cross the flood plain
      - natural levee formation by rivers
        - so irrigation and canal construction are easy
      - natural flooding
      - rivers sometimes change course
      - so maps tend to disagree on the courses of these rivers, and some show huge, shallow lakes, depending on when they were made
      - so little rainfall that irrigation is necessary for reliable agriculture
    - southern part of the "alluvium" was marshland; now mostly drained, dry desert except in bands along major waterways
  - further north are the Assyrian highlands (or "piedmont" = foothills)
    - historically called Akkad, in contrast to Sumer
    - slightly higher land with steeper rivers flowing in deeper, more stable courses
      - irrigation and canals are possible, but require more effort than in Sumer
    - enough rainfall to support grassland and marginal, but not dependable, agriculture without irrigation works
    - this area focused more on pastoralism than agriculture during the periods we look at
  - The coastline of the head of the Persian gulf has probably moved since the periods we look at, not stabilizing until around 5000 to 4000 BC
    - sea level was lower during the Pleistocene, so the coastline may have been as much as 180 kilometers (about 110 miles) further south
      - if so, some early sites may now be under water
    - but less silt had been deposited by the rivers, so the coast may have been further north
      - if so, early sites were closer to the sea, and in a marshier setting, than they are now
      - and small sites that did not form a tall mound may be buried under silt, and unknown

    - the growing consensus seems to be that the old coastline was north of the modern one
  - Resources: plenty of river water and mud
    - River water, soil, and sun: great for irrigated farming
    - rivers important for transportation and communication
      - also for fish
    - entire region is alluvial deposits; no bedrock
      - no locally available stone for building
        - so buildings mostly of sun-dried mud bricks, or reeds
      - no stone for tools, beads, etc.
      - no ores for metals
    - almost no timber
    - yet it was in this inauspicious environment that civilization first emerged
- We will start with a look at several archaeological "cultures" that surrounded this region, so let's straighten out this concept first
  - The concept of archaeological cultures
    - people within some geographic area that shared cultural traits like pottery style, house construction, subsistence practices, etc.
  - cultures are *spatial* units
    - the markers of the culture (pottery style, etc.) are found in some region, and not elsewhere
  - cultures are *chronological* units
    - the markers of the culture appeared at some time, and later disappeared or changed
    - these chronological boundaries are often arbitrary divisions in continuous trends of change
  - cultures are assumed to be *social* units of similar people
    - we assume that they reflected ethnic, linguistic, and/or social similarities among people
  - all the people of a given "culture" would not necessarily be united in a single political group
    - people of one culture might live in different settlements and go to war with each other
  - cultures are typically named after the pottery style made in that region, at that time
  - the pottery style is typically named after the site where it was first identified
    - so we can have the *site* of Tell Hassuna, where the Hassuna *style* of pottery was identified, which characterizes the Hassuna *culture*, which was the lifestyle of the Hassuna *people*, who lived during the Hassuna *period*
    - Of course, Hassuna people (people who made Hassuna style pottery) did not live only at the site of Hassuna; they also lived at other sites and left Hassuna style pottery there, too
    - and people continued living at Tell Hassuna long after Hassuna pottery went out of style, making other styles of pottery and leaving pieces of those other styles at Hassuna
    - Sorry! But you need to understand what the names mean in a given context
  - Terms: Tell, Tepe, and Höyük all mean simply "mound-shaped archaeological site"
    - Tell is an Arabic word; Tepe is Farsi (= Persian, spoken in Iran); Höyük is Turkish
- Early settlement
  - We will start by looking briefly at several Neolithic cultures that were the roots, background, neighbors, and context of the earliest societies that were to develop Sumerian civilization
    - refer to the readings: "Basic chronology…" and "Early Civilizations in Perspective"
    - Today we will look at three cultures: Hassuna, Halaf, and Samarra

    - The Hassuna style and culture appeared first, but overlapped with the other two in time
    - so these cultures were contemporaries for some 500 years
    - but they existed in different geographic areas, partially overlapping
      - around the periphery of the Mesopotamia proper
  - next time we will look at the ‘Ubaid culture, which began while people of the three other cultures were living around the margins of Mesopotamia
    - the 'Ubaid people were located further south yet, in the Mesopotamian alluvium proper
- Hassuna style and culture (6000 BC - 5250 BC)
  - by around 6000 BC, Neolithic farmers had settled in many villages throughout the foothills (piedmont) of northernmost Mesopotamia
    - the original walled PPNA settlement at Jericho had already been forgotten for 1500 years, and Çatal Hüyük had been abandoned for 200 years
    - here there was enough rainfall for “dry” agriculture (= no irrigation) in some places
    - these became the first farmers in northernmost Mesopotamia
  - subsistence:
    - earliest villagers may have been primarily intensive foragers, gradually shifting to more and more farming
    - may have only been semi-permanent, leaving in bad years
    - cultivated wheat (emmer and einkorn) and barley, but no evidence of irrigation
    - kept sheep, goats, pigs
    - but hunting was still very important, especially onager (wild ass), some gazelle
  - They made Hassuna style pottery
    - some pottery was decorated: cream slip, reddish paint in linear designs, also applied (modeled) eyes and ears, animal heads, etc.
    - also clay figurines
  - Hassuna people lived in small villages or hamlets
    - rectangular multi-roomed free-standing houses of packed mud (“tauf”)
      - walled yards with outdoor ovens
      - small rooms with plastered floors and wall niches for storage
      - wall paintings
      - indoor ovens with chimneys
    - villages ranged from under 1 ha to around 3 ha (hectares)
      - that is about 2 to 8 acres
    - Just for reference, here are some comparisons to help you visualize site areas
      - 1 ha = 100 X 100 m (10,000 m^2), or about 2.5 acres
      - a football field with endzones is about 0.75 ha
      - the main quad, from Salazar hall to the cafeteria and from Stevenson to the Athletics building, is about 2.0 ha
    - Hassuna sites ranged from the same ballpark of size as PPNA Jericho had been 1000 years before (some 0.8 - 1.6 ha) up to about twice as big
      - but still much smaller than Çatal Hüyük (13 ha)
    - probably few, if any, Hassuna villages exceeded 500 people

  - so in terms of settlement size, subsistence, architecture, etc., these were fairly ordinary early Neolithic farmers
- but unlike other Neolithic village traditions, some sites had a new kind of building in addition to the houses
  - at Um Dabaghiya at the very beginning of the Hassuna culture, about 6000 BC
  - later, at the site of Tell Hassuna ~5500 BC
  - located near the center of the settlement
  - with rows of small, square rooms
    - unplastered walls
    - plain dirt floors
    - no hearths or food garbage
  - obviously for some special, non-residential purpose
    - but without obvious respect or display, unlike the special clay-floored Natufian "shrine" at Jericho, the big buildings at Asikli Höyük, or the "shrines" at Çatal Hüyük
    - probably storage
    - presumably built and used by a group or the whole community (not just one family)
  - At Um Dabaghiya, the rooms contained onager (wild ass) bones and traces of hides
  - At Tell Hassuna, one room had 2,400 baked clay sling balls and 100 large baked clay balls: a hunting arsenal?
    - maybe these sites were specialized hunting centers, producing lots of hunted wild animal products to exchange for cultivated foods?
  - Point: this was something still fairly unusual; a group effort to build, presumably stocked or used by the group
    - but unlike the cases we have seen so far,
      - which were for ritual purposes (Göbekli Tepe, the big structure at Asikli Höyük)
      - or possibly defense (Jericho)
      - the purpose here looks economic, probably storage of something bulky like food or hides for consumption or exchange
    - implies some kind of group coordination, organization, leadership
      - a chief?
      - a governing body?
      - a temple institution or a priest?
    - who would have some control over the flow of goods?
    - is this evidence of a redistributive system?
- Hassuna people also started to make stamp seals out of stone
  - seals can have different uses
    - the clay ones at Çatal Hüyük were larger, with deep, rough grooves; probably for stamping pigment onto textiles, or for body painting
  - small stone seals at later sites in Mesopotamia were used to press an image on clay, as you do with sealing wax
    - a glob of clay pressed over a knot or the edge of a lid and then marked with a seal can be used to close tied-up bundles, covers on jars, or even doorways, so that they can't be tampered with

        - which is useful if you are storing valuable goods that someone or some institution owns or controls access to
    - so if these seals were used in the way that later ones were, they may suggest private property, exchange, or communal storage
        - which fits perfectly with the apparently shared storage buildings
    - that is, an increasingly complex economy
  - note how this communal construction and use of seals for storage is different from the group activities at PPNA Jericho, Asikli Höyük, or Çatal Hüyük
    - related to group or institutional economic activities
    - rather than economic activity being handled exclusively at the household level
- Halaf (5500 BC - 4700 BC)
  - After people had been making Hassuna style pottery for about 500 years, a new style called Halaf developed in the same region, spreading to a larger area
  - For several centuries, both the Hassuna and Halaf styles were used, maybe by different ethnic groups
  - But the Hassuna style faded from use as the Halaf style continued on
  - these Halaf pots were clearly made by specialists
    - formed on a “tournette” (“slow wheel”)
    - very elaborately painted
  - The lives of people who used Halaf style pottery were basically similar to that of those who used Hassuna pottery, concerning subsistence, houses, town size, etc.
    - settlements of 1.2-1.6 ha
  - All within area of possible dry farming (i.e. no irrigation needed)
    - wheat (emmer and einkorn) and barley
    - sheep, goats, cattle
  - Together with Samarran pottery to the south, the Halafian style was the first really widespread cultural “horizon”
    - Not just isolated fancy pieces, but 80-90% of the pottery assemblage at any site is virtually identical to that from any other site
      - house styles, other artifacts also very uniform
    - Ceramic paste studies (neutron activation) show pots from a single clay source are found as much as 600 miles (about 1000 kilometers) apart
      - that is, some pots moved at least 300 miles…
      - indicates long-distance trade in ceramics
      - not just the spread of a style that influenced local potters
      - although presumably most of the pottery was made locally, by local potters who learned to work in the regional style
    - Looks like a complex pattern of exchange
      - some argue that most of the pottery was probably made at a few specialized centers
        - it was then traded to other settlements both nearby and far away
      - people in larger towns conducted long-distance exchange between large settlements
        - mostly (or only?) for fancier, high-status goods
        - probably elites or trade specialists trading with each other

        - while simpler, "cheaper" versions would have been produced in the large towns and exchanged over shorter distances with smaller towns nearby
        - larger settlements may have controlled production of some craft goods
            - one possibility: elites in larger towns may have supported specialist potters ("attached specialists") who produced the fancy items that the elites used in their long-distance exchanges with other elites
    - implies increasing interaction between people in different towns, of which trading pots was probably only a part
        - probably most of the longer-distance interactions were between elites in large towns
        - leaving most people not very affected
        - leading to greater wealth, prestige, political networks for the elite vs. everyone else
- Samarra (5500 BC- 4800 BC)
    - Farmers gradually spread south towards the "neck" of Mesopotamia
        - Developing the Samarra ceramic style
        - this may have been some combination of people actually moving into the area…
        - and maybe some foragers who were already there and began to adopt agriculture
    - this area has less rainfall, so irrigation is necessary to consistently produce food
    - The Samarra style was contemporary with the later part of Hassuna style and with the Halaf style
        - but further out onto the alluvium
        - maybe made and used by a different social or ethnic group?
        - in some places, Samarra ceramics are found with Hassuna or Halaf pottery
        - the styles may have been used by different ethnic groups, or may have just been different fashions
    - Samarra style pottery
        - made with "tournette" ("slow wheel")
        - possibly by specialists?
    - subsistence
        - cultivated wheat (emmer and bread wheat) and barley
        - kept sheep, goats, pigs, cattle
        - some fishing and shellfish gathering from Tigris river
        - hunting and wild plant foods important, but agriculture had a bigger role
        - farming was based at least partially on irrigation
            - how do we know that? Evidence of irrigation:
                - 1. the region in general is too dry for reliable farming without it
                - 2. they cultivated at least one crop that would not have produced at all in this region without irrigation: flax (linseed)
                    - for fiber used in linen cloth
                - 3. sites are found in the areas where natural flooding could be most easily channeled and drained
                - 4. sites are lined up along contour lines, implying canals
            - irrigation suggests intensification
                - more investment in the land

- more permanence
- maybe land ownership
- greater vulnerability to attack and need for defense
- maybe greater need for coordinated work, conflict resolution, etc.
- but this can all still happen in pretty small-scale societies, without strong leadership or very complex social organization – true of many farming cultures around the world

- largest sites around 6 ha (site of Samarra)
  - about three times the size of the SSU main quad
  - estimated about 1000 people
- mud-brick rectangular houses
  - multiple rooms
  - external buttresses, apparently originally to support corners and roof beams
    - but also used for decorative effect
  - houses set around open courtyards
  - granaries, ovens, kilns
- the Samarra economy apparently had some complex features
  - stamp seals, like Halaf
  - possible maker's marks on pottery suggest craft specialization, exchange
    - makers' marks: limited range of marks that are not part of the decoration
    - may indicate who made the vessels, who commissioned them, etc.
    - only needed when there is risk of mixing them up -- shared kilns, large-scale transportation, markets...
  - limited amounts of copper suggest long-distance exchange
- Tell es-Sawwan (a Samarra style site)
  - population probably several hundred (comparable to Jericho)
  - in the earliest level (about 5500 BC)
    - houses were relatively uniform in size and elaboration
      - suggesting little variation in social status
    - several large buildings (up to 17 rooms) are interpreted as temples (maybe)
      - note the decorative buttressing on one of the buildings in the plan
        - this was later used extensively on public buildings
      - these buildings suggesting some kind of organization or leadership
      - some sort of group activity and coordination, for ritual, redistribution, trade, or… ?
    - at least 128 burials under several of the large buildings
      - including 55 infants, 16 adolescents, and 13 adults
        - this high proportion of sub-adults in burials is typical for pre-industrial populations, which normally have high infant mortality
      - most buried with at least one object
        - alabaster female figurines
        - alabaster bowls, trays, etc.
        - jewelry including copper and turquoise beads
        - ceramic pots
      - only minor variation in goods

        - slightly more with adolescents and adults than with infants
        - this agrees with the uniformity of houses (other than the "temples") to suggest relatively minor differences in wealth between individuals and families
      - but one adult male was buried with several items, under the floor of a room with no other burials
        - maybe a slightly wealthier, more important person
      - but all together, the burials are richer than burials from other contemporary sites
        - suggests that some settlements or groups within settlements already had access to more wealth than others
    - the site was surrounded by a ditch
    - many baked clay balls -- sling missiles?
      - suggests fear of raids?
  - by about 5400 BC (about 100 years after first settlement there)
    - a wall had been built just inside the ditch
    - with an L-shaped entrance path
      - usually interpreted as a defensive feature
      - makes intruders vulnerable to fire from on top of the walls
      - and forces them to fight through potentially a series of defenders blocking a narrow corridor
      - suggests fear of attack
    - also, a number of specialized "T-shaped" structures apparently for grain storage
      - possibly at the community level, rather than by individual families
      - suggesting certain people in charge of storage, with some economic power?
- Another example of a fairly large, walled Samarra site: Choga Mami
  - up to 6 ha (15 acres)
  - up to 1000 people
  - like the later levels at Tell es-Sawwan, Choga Mami was walled and had an L-shaped (that is, defensible) entrance
  - plus a tower guarding one entrance to the site
- Defense was clearly a concern for Samarran people, at least at some sites and times
  - and Samarra people at some sites were sufficiently organized to build sizable defenses
  - presumably indicating some sort of leadership, at least on a temporary basis

- These Neolithic societies, especially the Samarrans, were the source of the first people who settled in the Mesopotamian alluvium
  - they comprise the roots of the first civilization in the world
  - Next we will go out onto the alluvium proper, where we will see the beginnings of that first civilization: Sumer.

- Let's recap some of the features of the societies around and ancestral to Sumerian society (that is, Hassuna, Halaf, and Samarra)
  - these societies developed some features that were different from the small-scale Neolithic farmers in the Levant, central Asia, etc.
  - Fancy, decorated pottery (all three, but especially Halaf and Samarra)
    - made by specialists (most clear for Halaf and Samarra)

  - i.e. increasingly complex division of labor
  - the specialists may have been attached to elites who supported them
  - they imply increasingly complex social and economic organization
- exchanged over long distances (especially clear for Halaf; likely also for Samarra)
  - interactions among elites
- irrigated agriculture (Samarra)
  - investment in land, ownership, intensification, dispute resolution…
- centralized storage (Hassuna, probably Samarra)
  - redistribution? Institutions to collect, keep track of, and distribute surplus?
- stamp seals (Hassuna and Samarra)
  - possibly used for keeping track of goods: more complex economy, information flow
- possible makers' marks (Samarra)
  - possibly keeping track of goods
- burials with some wealth suggest rise of wealthy families (Samarra: Tell es-Sawwan)
- large central buildings (Samarra: Tell es-Sawwan) may be residences of wealthy people, or shared ritual buildings?
  - they imply more complex social stratification and/or religious institutions
- ditches, walls, L-shaped entrances, sling stones (especially Samarran sites): increasing fear of attack
  - and organized investment of labor for shared defense
- some or all of these features must have been involved with the emergence of more complex society in Sumer
  - so how and why did each come about?
  - and how and why did each contribute to the emergence of civilization?